



## Motoriduttori a vite senza fine

*Worm geared motors*

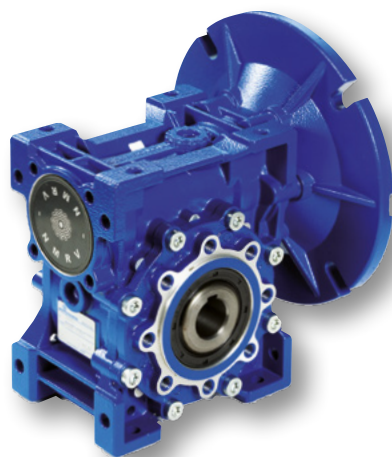
*Motoréducteurs à vis sans fin*

*Schneckengetriebemotoren*

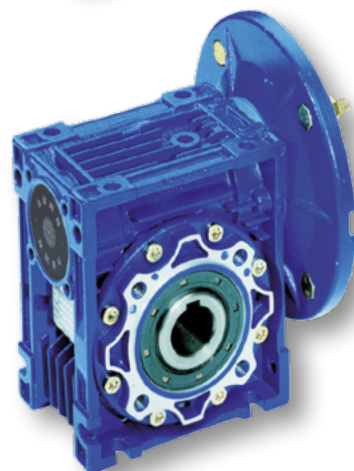
*Motorreductores de tornillo sinfin*

蜗轮蜗杆电机

**NMRV™**  
**POWER**



**NMRV®**



**MOTOVARIO®**

HEART OF MOTION

**50° 1965-2015**

## Indice

IT

|                                               |     |
|-----------------------------------------------|-----|
| Simbologia .....                              | 2   |
| Omologazione .....                            | 2   |
| Modularità .....                              | 3   |
| Fattore di servizio .....                     | 5   |
| Applicazioni critiche .....                   | 7   |
| Installazione .....                           | 9   |
| Carichi radiali .....                         | 11  |
| Momenti d'inerzia .....                       | 14  |
| Lubrificazione .....                          | 15  |
| Caratteristiche costruttive .....             | 19  |
| Designazione .....                            | 20  |
| Versioni .....                                | 23  |
| Predisposizione .....                         | 25  |
| Rendimento .....                              | 33  |
| Irreversibilità .....                         | 34  |
| Dati ingranamento .....                       | 35  |
| Giochi angolari .....                         | 36  |
| Caratteristiche costruttive HA31/HW .....     | 36  |
| Montaggio motore su flange PAM - NMRV .....   | 38  |
| Montaggio motore su flange PAM - NMRV-P ..... | 39  |
| Piazzamento .....                             | 40  |
| Prestazioni NMRV/NMRV-P .....                 | 45  |
| Prestazioni NRV/NRV-P .....                   | 103 |
| Dimensioni .....                              | 125 |
| Motori elettrici .....                        | 133 |
| Accessori .....                               | 135 |
| Accessori - NMRL .....                        | 139 |
| Condizioni di vendita .....                   | 147 |

## Contents

UK

|                                               |     |
|-----------------------------------------------|-----|
| Symbols .....                                 | 2   |
| Specification .....                           | 2   |
| Modularity .....                              | 3   |
| Service factor .....                          | 5   |
| Critical applications .....                   | 7   |
| Installation .....                            | 9   |
| Radial loads .....                            | 11  |
| Moments of inertia .....                      | 14  |
| Lubrication .....                             | 15  |
| Design features .....                         | 19  |
| Designation .....                             | 20  |
| Versions .....                                | 23  |
| Predisposition .....                          | 25  |
| Efficiency .....                              | 33  |
| Irreversibility .....                         | 34  |
| Mesh data .....                               | 35  |
| Angular backlash .....                        | 36  |
| Design features HA31/HW .....                 | 36  |
| Motor mounting with PAM flange - NMRV .....   | 38  |
| Motor mounting with PAM flange - NMRV-P ..... | 39  |
| Mounting positions .....                      | 40  |
| Performance NMRV/NMRV-P .....                 | 45  |
| Performance NRV/NRV-P .....                   | 103 |
| Dimensions .....                              | 125 |
| Electric motors .....                         | 133 |
| Accessories .....                             | 135 |
| Accessories - NMRL .....                      | 139 |
| Sales conditions .....                        | 147 |

## Index

FR

|                                                  |     |
|--------------------------------------------------|-----|
| Symboles .....                                   | 2   |
| Homologation .....                               | 2   |
| Modularité .....                                 | 3   |
| Facteur de service .....                         | 5   |
| Applications critiques .....                     | 7   |
| Installation .....                               | 9   |
| Charges radiales .....                           | 11  |
| Moments d'inertie .....                          | 14  |
| Lubrification .....                              | 15  |
| Caractéristiques de construction .....           | 19  |
| Désignation .....                                | 20  |
| Versions .....                                   | 23  |
| Prédisposition .....                             | 25  |
| Rendement .....                                  | 33  |
| Irréversibilité .....                            | 34  |
| Données des engranages .....                     | 35  |
| Jeu angulaire .....                              | 36  |
| Caractéristiques de construction HA31/HW .....   | 36  |
| Installation moteur sur bride PAM - NMRV .....   | 38  |
| Installation moteur sur bride PAM - NMRV-P ..... | 39  |
| Positions de montage .....                       | 40  |
| Performances NMRV/NMRV-P .....                   | 45  |
| Performances NRV/NRV-P .....                     | 103 |
| Encombrements .....                              | 125 |
| Moteurs électriques .....                        | 133 |
| Accessoires .....                                | 135 |
| Accessoires - NMRL .....                         | 139 |
| Conditions de vente .....                        | 147 |

## Inhalt

DE

|                                                        |     |
|--------------------------------------------------------|-----|
| Kurzbezeichnung .....                                  | 2   |
| Zertifikat .....                                       | 2   |
| Modulares Baukastensystem .....                        | 3   |
| Betriebsfaktor .....                                   | 5   |
| Kritische Anwendungen .....                            | 7   |
| Montage .....                                          | 9   |
| Querbelastungen .....                                  | 11  |
| Massenträgheitsmomente .....                           | 14  |
| Schmierung .....                                       | 15  |
| Baueigenschaften .....                                 | 19  |
| Bezeichnung .....                                      | 20  |
| Ausführungen .....                                     | 23  |
| Motoranbau .....                                       | 25  |
| Wirkungsgrad .....                                     | 33  |
| Selbsthemmung .....                                    | 34  |
| Verzahnungsdaten .....                                 | 35  |
| Verdrehspiel .....                                     | 36  |
| Baueigenschaften HA31/HW .....                         | 36  |
| Montage des Motors an den PAM - Flansch - NMRV .....   | 38  |
| Montage des Motors an den PAM - Flansch - NMRV-P ..... | 39  |
| Einbaulage .....                                       | 40  |
| Leistungen NMRV/NMRV-P .....                           | 45  |
| Leistungen NRV/NRV-P .....                             | 103 |
| Abmessungen .....                                      | 125 |
| Elektromotoren .....                                   | 133 |
| Zubehör .....                                          | 135 |
| Zubehör - NMRL .....                                   | 139 |
| Verkaufsbedingungen .....                              | 147 |

## Índice

ES

|                                               |     |
|-----------------------------------------------|-----|
| Simbologia .....                              | 2   |
| Homologación .....                            | 2   |
| Modularidad .....                             | 3   |
| Factor de servicio .....                      | 5   |
| Aplicaciones críticas .....                   | 7   |
| Instalación .....                             | 9   |
| Cargas radiales .....                         | 11  |
| Momentos de inercia .....                     | 14  |
| Lubricación .....                             | 15  |
| Características de construcción .....         | 19  |
| Designación .....                             | 20  |
| Versiones .....                               | 23  |
| Predisposición .....                          | 25  |
| Rendimiento .....                             | 33  |
| Irreversibilidad .....                        | 34  |
| Datos engrane .....                           | 35  |
| Juego angular .....                           | 36  |
| Características de construcción HA31/HW ..... | 36  |
| Montaje motor con brida PAM - NMRV .....      | 38  |
| Montaje motor con brida PAM - NMRV-P .....    | 39  |
| Posiciones de montaje .....                   | 40  |
| Prestaciones NMRV/NMRV-P .....                | 45  |
| Prestaciones NRV/NRV-P .....                  | 103 |
| Dimensiones .....                             | 125 |
| Motores electricos .....                      | 133 |
| Accesorios .....                              | 135 |
| Accesorios - NMRL .....                       | 139 |
| Condiciones de venta .....                    | 147 |

## 目录

CN

|                           |     |
|---------------------------|-----|
| 符号 .....                  | 2   |
| 指标 .....                  | 2   |
| 模块化 .....                 | 3   |
| 服务系数 .....                | 5   |
| 关键应用 .....                | 7   |
| 安装 .....                  | 9   |
| 径向速度 .....                | 11  |
| 转动惯量 .....                | 14  |
| 润滑 .....                  | 15  |
| 设计特性 .....                | 19  |
| 名称 .....                  | 20  |
| 版本 .....                  | 23  |
| 预配置 .....                 | 25  |
| 效率 .....                  | 33  |
| 不可逆性 .....                | 34  |
| 网孔数据 .....                | 35  |
| 角侧隙 .....                 | 36  |
| 设计特性 HA31/HW .....        | 36  |
| 电机安装用PAM法兰 - NMRV .....   | 38  |
| 电机安装用PAM法兰 - NMRV-P ..... | 39  |
| 安装位置 .....                | 40  |
| 性能 NMRV/NMRV-P .....      | 45  |
| 性能 NRV/NRV-P .....        | 103 |
| 尺寸 .....                  | 125 |
| 电机 .....                  | 133 |
| 附件 .....                  | 135 |
| 附件 - NMRL .....           | 139 |
| 销售条件 .....                | 147 |

## Simbologia

IT

|          |   |                         |
|----------|---|-------------------------|
| P        | = | Potenza ( kW )          |
| M        | = | Momento torcente ( Nm ) |
| n        | = | Numero giri ( giri/1' ) |
| i        | = | Rapporto di riduzione   |
| $\eta_d$ | = | Rendimento dinamico     |
| F        | = | Forza ( N )             |
| m        | = | Peso ( kg )             |
| f.s.     | = | Fattore di servizio     |
| 1        | = | Albero ingresso         |
| 2        | = | Albero uscita           |
| r        | = | Radiale                 |
| a        | = | Assiale                 |
| s        | = | Statico                 |
| d        | = | Dinamico                |
| max      | = | Massimo                 |
| min      | = | Minimo                  |

## Symbols

UK

|          |   |                    |
|----------|---|--------------------|
| P        | = | Power ( kW )       |
| M        | = | Torque ( Nm )      |
| n        | = | Speed ( RPM )      |
| i        | = | Reduction ratio    |
| $\eta_d$ | = | Dynamic efficiency |
| F        | = | Load ( N )         |
| m        | = | Weight ( kg )      |
| f.s.     | = | Service factor     |
| 1        | = | Input shaft        |
| 2        | = | Output shaft       |
| r        | = | Radial             |
| a        | = | Axial              |
| s        | = | Static             |
| d        | = | Dynamic            |
| max      | = | Maximum            |
| min      | = | Minimum            |

## Symboles

FR

|          |   |                               |
|----------|---|-------------------------------|
| P        | = | Puissance ( kW )              |
| M        | = | Moment de torsion ( Nm )      |
| n        | = | Nombre de tours ( tours/min ) |
| i        | = | Rapport de réduction          |
| $\eta_d$ | = | Rendement dynamique           |
| F        | = | Force ( N )                   |
| m        | = | Poids ( kg )                  |
| f.s.     | = | Facteur de service            |
| 1        | = | Arbre d'entrée                |
| 2        | = | Arbre de sortie               |
| r        | = | Radial                        |
| a        | = | Axial                         |
| s        | = | Statique                      |
| d        | = | Dynamique                     |
| max      | = | Maximum                       |
| min      | = | Minimum                       |

## Zeichen

DE

|          |   |                          |
|----------|---|--------------------------|
| P        | = | Leistung in ( kW )       |
| M        | = | Drehmoment in ( Nm )     |
| n        | = | Drehzahl in ( 1/min )    |
| i        | = | Übersetzung              |
| $\eta_d$ | = | Dynamischer Wirkungsgrad |
| F        | = | Kraft in ( N )           |
| m        | = | Masse in ( kg )          |
| f.s.     | = | Betriebsfaktor           |
| 1        | = | Antriebswelle            |
| 2        | = | Abtriebswelle            |
| r        | = | Radial                   |
| a        | = | Axial                    |
| s        | = | Statisch                 |
| d        | = | Dynamisch                |
| max      | = | Maximal                  |
| min      | = | Minimal                  |

## Simbología

ES

|          |   |                                |
|----------|---|--------------------------------|
| P        | = | Potencia ( kW )                |
| M        | = | Momento torsor ( Nm )          |
| n        | = | Número de revoluciones ( rpm ) |
| i        | = | Relación de reducción          |
| $\eta_d$ | = | Rendimiento dinámico           |
| F        | = | Fuerza ( N )                   |
| m        | = | Peso ( kg )                    |
| f.s.     | = | Factor de servicio             |
| 1        | = | Eje de entrada                 |
| 2        | = | Eje de salida                  |
| r        | = | Radial                         |
| a        | = | Axial                          |
| s        | = | Estático                       |
| d        | = | Dinámico                       |
| max      | = | Máximo                         |
| min      | = | Mínimo                         |

## 符号

CN

|          |   |            |
|----------|---|------------|
| P        | = | 功率 ( kW )  |
| M        | = | 扭矩 ( Nm )  |
| n        | = | 速度 ( RPM ) |
| i        | = | 减速比        |
| $\eta_d$ | = | 动态效率       |
| F        | = | 负荷 ( N )   |
| m        | = | 重量 ( kg )  |
| f.s.     | = | 利用系数       |
| 1        | = | 输入轴        |
| 2        | = | 输出轴        |
| r        | = | 径向         |
| a        | = | 轴向         |
| s        | = | 静态         |
| d        | = | 动态         |
| max      | = | 最大值        |
| min      | = | 最小值        |

## Omologazione

IT

A richiesta, i riduttori possono essere realizzati in conformità alla direttiva: ATEX 94/9/CE  
categorie: 2GD T=135 °C (T4)  
3GD T=135 °C (T4)  
con n1 max = 1500 rpm

## Specification

UK

On request, reducers can be manufactured in compliance with the directive: ATEX 94/9/CE  
categories: 2GD T=135 °C (T4)  
3GD T=135 °C (T4)  
with n1 max = 1500 rpm

## Homologation

FR

Sur demande les réducteurs peuvent-être fabriqués conforme à la directive ATEX 94/9/CE  
catégorie: 2GD T=135 °C (T4)  
3GD T=135 °C (T4)  
avec n1max = 1500tr/mn

## Zertifikat

DE

Bajo pedido, los reductores pueden ser fabricados conforme a la directiva: ATEX 94/9/CE  
categorias: 2GD T=135 °C (T4)  
3GD T=135 °C (T4)  
con n1 máx = 1500 rpm

## Homologación

ES

Auf Wunsch, fertigen wir unsere Getriebe entsprechend der Anforderungen der Richtlinie: ATEX 94/9/CE  
Kategorie 2GD T=135 °C (T4)  
3GD T=135 °C (T4)  
bei n1 max = 1.500 1/min

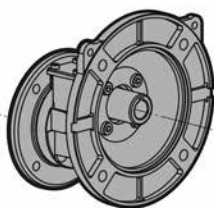
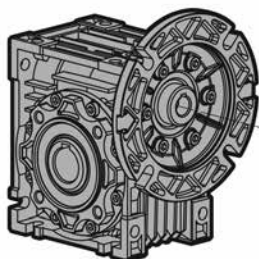
## 指标

CN

如有要求，可根据以下制造标准减速机：  
ATEX 94/9/CE  
类别：2级 温度 T=135 °C (T4)  
3级 温度 T=135 °C (T4)  
其中1台最大转速= 1500转/分钟

**NMRV - Modularità / Modularity / Modularité /  
Modulares Baukastensystem / Modularidad / 模块化**

**NMRV 025-050  
NMRV130-150**

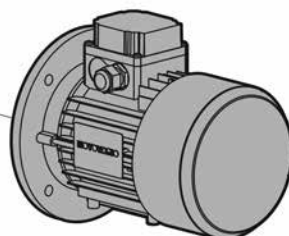


**HA31**

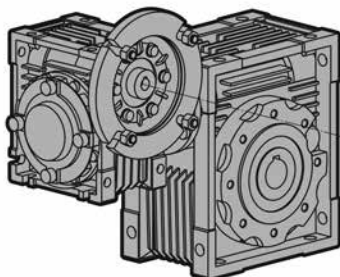
- HA31**
- Precoppia di riduzione (NMRV 040-050)
  - Pre-stage reduction unit (NMRV 040-050)
  - Précouple de réduction (NMRV 040-050)
  - Übersetzungsvorstufe (NMRV 040-050)
  - Pre-reducción (NMRV 040-050)
  - 前置级螺旋模块 (NMRV 040-050)

**NMRV 025-150**

- Motoriduttore a vite senza fine
- Worm geared motor
- Motoréducteur à vis sans fin
- Schneckengetriebemotor
- Motorreductor de tornillo sinfin.
- 蜗轮蜗杆电机



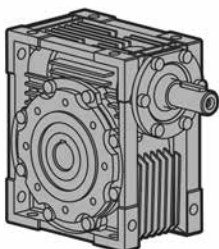
**NMRV-NMRV...**



**NMRV... - NMRV...**

- Motoriduttore a vite senza fine combinato
- Combined worm geared motor
- Motoréducteur à vis sans fin combiné
- Zweistufiger Schneckengetriebemotor
- Motorreductor de tornillo sinfin combinado
- 组合式蜗轮蜗杆电机

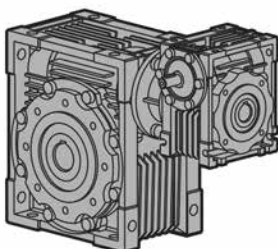
**NRV 030-050  
NRV 130-150**



**NRV 030-150**

- Riduttore a vite senza fine
- Worm gear reducer
- Réducteur à vis sans fin
- Schneckengetriebe (mit Eingangswelle)
- Reductor de tornillo sinfin
- 蜗轮蜗杆减速机

**NRV-NMRV...**



**NRV... - NMRV...**

- Riduttore a vite senza fine combinato
- Combined worm gear reducer
- Réducteur à vis sans fin combiné
- Zweistufiges Schneckengetriebe (mit Eingangswelle)
- Reductor de tornillo sinfin combinado
- 组合式蜗轮蜗杆减速机

**NMRVpower - Modularità / Modularity / Modularité /  
Modulares Baukastensystem / Modularidad / 模块化**

**NMRVpower063-110**

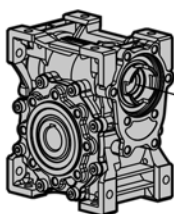
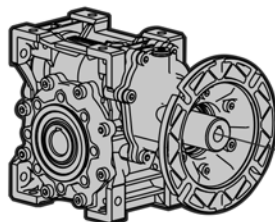
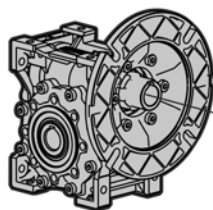
**NMRVpower063-075/HW30  
NMRVpower090-110/HW40**

**NMRVpower063-110 base  
(distribution network)**

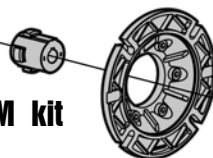
**NMRV-NMRVpower...  
NMRVpower-NMRV...  
NMRVpower-NMRVpower...**

**NRVpower 063-110**

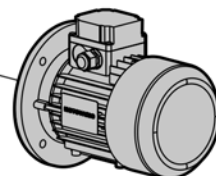
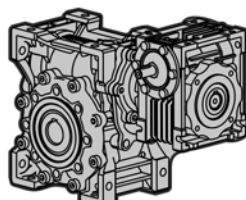
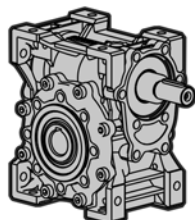
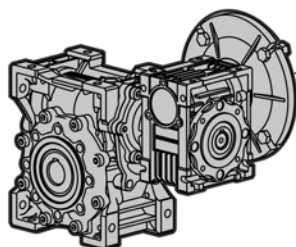
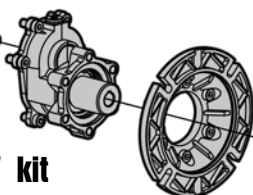
**NRV-NMRVpower...**



**PAM kit**



**HW kit**



**NMRVpower 063-110**

- Motoriduttore a vite senza fine
- Worm geared motor
- Motoréducteur à vis sans fin
- Schneckengetriebemotor
- Motorreductor de tornillo sinfin
- 蜗轮蜗杆电机

**NMRVpower/HW**

- Motoriduttore a vite senza fine con precoppia
- Worm geared motor with pre-stage
- Motoréducteur à vis sans fin avec précouple
- Schneckengetriebemotor mit Vorstufe
- Motorreductor de tornillo sinfin con pre-reducción
- 蜗轮蜗杆电机 预模块

**NMRV-NMRVpower...**

- Motoriduttore a vite senza fine combinato
- Combined worm geared motor
- Motoréducteur à vis sans fin combiné
- Zweistufiger Schneckengetriebemotor
- Motorreductor de tornillo sinfin combinado
- 组合式蜗轮蜗杆电机

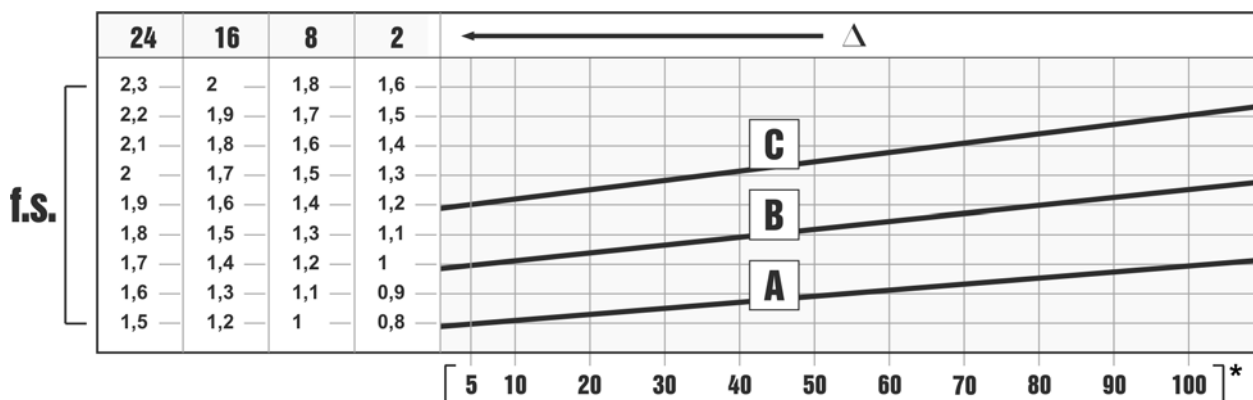
**NRVpower 063-110**

- Riduttore a vite senza fine
- Worm gear reducer
- Réducteur à vis sans fin
- Schneckengetriebe (mit Eingangswelle)
- Reductor de tornillo sinfin
- 蜗轮蜗杆减速机

**NRV-NMRVpower...**

- Riduttore a vite senza fine combinato
- Combined worm gear reducer
- Réducteur à vis sans fin combiné
- Zweistufiges Schneckengetriebe (mit Eingangswelle)
- Reductor de tornillo sinfin combinado
- 组合式蜗轮蜗杆减速机

**Fattore di servizio / Service factor / Facteur de service /  
Betriebsfaktor / Factor de servicio / 服务系数**



**Fattore di servizio**

IT

Il fattore di servizio f.s. dipende dalle condizioni di funzionamento alle quali il riduttore è sottoposto.

I parametri che occorre considerare per una corretta selezione del fattore di servizio più adeguato sono:

- tipo del carico della macchina azionata: A - B - C
- durata di funzionamento giornaliero: ore/giorno (Δ)
- frequenza di avviamento: avv/ora (\*)

**CARICO:** A - uniforme fa ≤ 0,3  
B - medio fa ≤ 3  
C - forte fa ≤ 10

fa = Je/Jm

- Je (kgm<sup>2</sup>) momento d'inerzia esterno ridotto all'albero motore
- Jm (kgm<sup>2</sup>) momento d'inerzia motore

Se fa > 10 interpellare il ns. Servizio Tecnico.

A - Cocolle per materiali leggeri, ventole, linee di montaggio, nastri trasportatori per materiali leggeri, piccoli agitatori, elevatori, macchine pulitrici, macchine riempitrici, macchine per il controllo, nastri trasportatori.

B - Dispositivi di avvolgimento, apparecchi per l'alimentazione delle macchine per il legno, montacarichi, equilibratrici, filettatrici, agitatori medi e mescolatori, nastri trasportatori per materiali pesanti, verricelli, porte scorrevoli, raschiatore di concime, macchine per l'imballaggio, betoniere, meccanismi per il movimento delle gru, frese, piegatrici, pompe a ingranaggi.

C - Agitatori per materiali pesanti, cesoie, presse, centrifughe, supporti rotanti, verricelli ed ascensori per materiali pesanti, torni per la rettifica, frantoi da pietre, elevatori a tazze, perforatrici, mulini a martello, presse ad eccentrico, piegatrici, tavole rotanti, barilatrici, vibratori, trinciatrici.

**Service factor**

UK

The service factor (f.s.) depends on the operating conditions the gear reducer is subjected to.

The parameters that need to be taken into consideration to select the most adequate service factor correctly comprise:

- type of load of the operated machine: A - B - C
- length of daily operating time: hours/day (Δ)
- start-up frequency: starts/hour (\*)

**LOAD:** A - uniform fa ≤ 0.3  
B - moderate shocks fa ≤ 3  
C - heavy shocks fa ≤ 10

fa = Je/Jm

- Je (kgm<sup>2</sup>) moment of reduced external inertia at the drive-shaft
- Jm (kgm<sup>2</sup>) moment of inertia of motor

If fa > 10 call our Technical Service.

A - Screw feeders for light materials, fans, assembly lines, conveyor belts for light materials, small mixers, lifts, cleaning machines, fillers, control machines.

B - Winding devices, woodworking machine feeders, goods lifts, balancers, threading machines, medium mixers, conveyor belts for heavy materials, winches, sliding doors, fertilizer scrapers, packing machines, concrete mixers, crane mechanisms, milling cutters, folding machines, gear pumps.

C - Mixers for heavy materials, shears, presses, centrifuges, rotating supports, winches and lifts for heavy materials, grinding lathes, stone mills, bucket elevators, drilling machines, hammer mills, cam presses, folding machines, turntables, tumbling barrels, vibrators, shredders.

**Facteur de service**

FR

Le facteur de service f.s. est subordonné aux conditions de fonctionnement auxquelles le réducteur est soumis.

Les paramètres qu'il faut considérer pour un choix correct du facteur de service adéquat sont les suivants:

- type de charge de la machine actionnée: A - B - C
- durée de fonctionnement journalière: heures/jour (Δ)
- fréquence de démarrage: dém/heure (\*)

**CHARGE:** A - uniforme fa ≤ 0,3  
B - surcharge moyenne fa ≤ 3  
C - surcharge forte fa ≤ 10

fa = Je/Jm

- Je (kgm<sup>2</sup>) moment d'inertie extérieur ramené à l'arbre-moteur
- Jm (kgm<sup>2</sup>) moment d'inertie moteur

En cas de fa > 10, contacter notre S.c.e Technique.

A - Vis d'Archimède pour matériaux légers, ventilateurs, lignes de montage, convoyeurs pour matériaux légers, petits agitateurs, élévateurs, machines à nettoyer, machines à remplir, machines pour le contrôle, convoyeurs.

B - Dispositifs d'enroulement, appareils pour l'alimentation des machines pour le bois, monte-charge, équilibreuses, taraudeuses, agitateurs moyens et mélangeurs, convoyeurs pour matériaux lourds, treuils, portes coulissantes, racleurs d'engrais, machines à emballer, bétonnières, mécanismes pour le mouvement des grues, fraises, plieuses, pompes à engrenages.

C - Agitateurs pour matériaux lourds, cisailles, presses, centrifugeuses, supports rotatifs, treuils et ascenseurs pour matériaux lourds, tours pour la rectification, concasseurs de pierres, élévateurs à godets, perceuses, moulins à marteaux, presses à excentrique, plieuses, tables tournantes, polisseuses, vibrateurs, machines à hacher.

## Betriebsfaktor

DE

Der Betriebsfaktor f.s. hängt von den Betriebsbedingungen ab, unter denen das Getriebe betrieben wird.

Die Parameter, die für eine korrekte Auswahl des Betriebsfaktors zu berücksichtigen sind, sind folgende:

- Belastungsart der angetriebenen Maschine: A - B - C
- tägliche Betriebsdauer: Std./Tag ( $\Delta$ )
- Anlaufrequenz: Anl./Std. (\*)

|              |                              |               |
|--------------|------------------------------|---------------|
| <b>LAST:</b> | <b>A - gleichförmig</b>      | $fa \leq 0,3$ |
|              | <b>B - mittlere Überlast</b> | $fa \leq 3$   |
|              | <b>C - hohe Überlast</b>     | $fa \leq 10$  |

**fa = Je/Jm**

- Je ( $\text{kgm}^2$ ) äußeres Trägheitsmoment reduziert auf die Motorwelle
- Jm ( $\text{kgm}^2$ ) Motor-Trägheitsmoment

Bei  $fa > 10$  bitte mit unserem Kundendienst Kontakt aufnehmen.

- A - Schneckenförderer für Leichtmaterial, Gebläse, Montagebänder, Bandförderer für Leichtmaterial, kleine Rührwerke, Kleinlastenaufzüge, Kreiselpumpen, Hebebühnen, Reinigungsmaschinen, Abfüllmaschinen, Prüfmaschinen, Bandförderer.
- B - Wickelmaschinen, Vorrichtungen zur Zuführung bei Holzbearbeitungsmaschinen, Lastaufzüge, Auswuchtmaschinen, Gewindeschneidmaschinen, mittlere Rührwerke und Mischer, Bandförderer für schwere Materialien, Winden, Schiebetore, Dünger-Abkratzer, Verpackungsmaschinen, Betonmischmaschinen, Kranfahr- und Kranhubwerke, Fräsmaschinen, Biegemaschinen, Zahnradpumpen, Hubstapler, Drehtische.
- C - Rührwerke für schwere Materialien, Scheren, Pressen, Schleudern, Winden und Aufzüge für schwere Materialien, Schleifmaschinen, Steinbrecher, Kettenbecherwerke, Bohmaschinen, Hammermühlen, Exzenterpressen, Biegemaschinen, Drehtische, Scheuertrommeln, Vibrationsrüttler, Schneidemaschinen, Stanzen, Walzwerke, Zementmühlen.

## Factor de servicio

ES

El factor de servicio f.s. depende de las condiciones de funcionamiento a las cuales está sometido el reductor.

Los parámetros que deben ser considerados para una correcta selección del factor de servicio son:

- tipo de carga de la máquina accionada: A - B - C
- duración de funcionamiento diario: horas/día ( $\Delta$ )
- frecuencia de arranques: arr/hora (\*)

|               |                              |               |
|---------------|------------------------------|---------------|
| <b>CARGA:</b> | <b>A - uniforme</b>          | $fa \leq 0,3$ |
|               | <b>B - sobrecarga media</b>  | $fa \leq 3$   |
|               | <b>C - sobrecarga fuerte</b> | $fa \leq 10$  |

**fa = Je/Jm**

- Je ( $\text{kgm}^2$ ) inercia externa reducida al eje motor
- Jm ( $\text{kgm}^2$ ) inercia motor

En caso de  $fa > 10$ , ponerse en contacto con nuestro Servicio Técnico.

- A - Tornillos de Arquímedes para materiales ligeros, ventiladores, líneas de montaje, cintas transportadoras para materiales ligeros, pequeños agitadores, elevadores, máquinas limpiadoras, máquinas llenadoras, máquinas comprobadoras, cintas transportadoras.
- B - Dispositivos de enrollado, alimentadores de las máquinas para la madera, montacargas, equilibradores, roscadoras, agitadores medios y mezcladores, cintas transportadoras para materiales pesados, cabrestantes, puertas corredizas, raspadores de abono, máquinas empaquetadoras, hormigoneras, mecanismos para el movimiento de las grúas, fresadoras, plegadoras, bombas de engranajes.
- C - Agitadores para materiales pesados, cizallas, prensas, centrifugadoras, soportes rotativos, cabrestantes y elevadores para materiales pesados, tornos para la rectificación, molinos de piedras, elevadores de cangilones, perforadoras, moledores a percusión, prensas de excéntrica, plegadoras, mesas giratorias, pulidoras, vibradores, cortadoras.

## 服务系数

CN

服务系数 (f.s.) 取决于减速装置遵从的运营状况。

正确选择最足够的使用系数时需要考虑的参数包含:

- 运转机器的负载类型: A-B-C
- 每日运转时长: 小时/天(A)
- 启动频率: 启动次数/小时(\*)

|                |               |
|----------------|---------------|
| 负载类型: A - 均匀一致 | $fa \leq 0,3$ |
| B - 中等冲击       | $fa \leq 3$   |
| C - 剧烈冲击       | $fa \leq 10$  |

**fa = Je/Jm**

- Je ( $\text{kgm}^2$ ) 驱动轴上减速外部惯性矩
- Jm ( $\text{kgm}^2$ ) 电机惯性矩

如果  $fa > 10$  请致电技术服务人员。

- A - 轻质材料的螺旋进料器、风机装配线、轻质材料的传送带、小型搅拌机、升降机、清洁机、罐装机、控制机。
- B - 卷扬机、木材加工进料机、物品升降机、平衡器、套丝机、介质搅拌机、重质材料传送带、绞盘、移门、刮肥机、打包机、混凝土搅拌机、吊车装置、铣刀、折叠机、齿轮泵。
- C - 重质材料搅拌机、剪床、冲压机、离心机、旋转式支架、重质材料磨床的绞盘和升降机、碎石机、斗式挖土机、钻床、锤式粉碎机、凸轮压力机、折叠机、转盘、清理滚筒、振动器、撕碎机。

**Applicazioni critiche / Critical applications / Applications critiques / Kritische Anwendungen / Aplicaciones críticas / 关键应用**

| NMRV                 | 025 | 030 | 040 | 050 | 130 | 150 |
|----------------------|-----|-----|-----|-----|-----|-----|
| V5: 1500 < n1 < 3000 | -   | -   | -   | -   | B   | B   |
| n1 > 3000            | B   | B   | B   | B   | A   | A   |
| V6                   | B   | B   | B   | B   | B   | B   |

| NMRV-P               | 063 | 075 | 090 | 110 |
|----------------------|-----|-----|-----|-----|
| V5: 1500 < n1 < 3000 | B   | B   | B   | B   |
| n1 > 3000            | B   | B   | A   | A   |
| V6                   | B   | B   | B   | B   |

| H                         | A31 |
|---------------------------|-----|
| V5 - V1: 1500 < n1 < 3000 | -   |
| n1 > 3000                 | B   |
| V3 - V6                   | B   |

| HW + NMRV-P      | 030 + 063 | 030 + 075 | 040 + 090 | 040 + 110 |
|------------------|-----------|-----------|-----------|-----------|
| 1500 < n1 < 3000 | B         | B         | B         | B         |
| n1 > 3000        | A         | A         | A         | A         |
| V5 - V6          | B         | B         | B         | B         |

**A** Applicazione sconsigliata / Application not recommended / Application non consigliée / Nicht empfohlene Anwendung / Aplicación desaconsejada / 不建议使用该应用程序

**B** Verificare l'applicazione e/o contattare il ns. servizio tecnico / Check the application and/or call our technical service / Vérifier l'application et/ou contacter notre s. ce technique / Anwendung überprüfen und/oder mit unserem Kundendienst Kontakt aufnehmen / Controlar la aplicación y/o ponerse en contacto con nuestro servicio técnico / 检查应用程序或者请联系我们技术服务

**Applicazioni critiche**

**IT**

Le prestazioni indicate a catalogo corrispondono alla posizione B3 o similari, quando cioè il primo stadio non è interamente immerso in olio. Per situazioni di piazzamento diverse e/o velocità di ingresso particolari attenersi alle tabelle che evidenziano situazioni critiche diverse per ciascuna taglia di riduttore. Occorre anche tenere nella giusta considerazione e valutare attentamente le seguenti applicazioni consultando il ns. Servizio Tecnico:

- Evitare l'utilizzo come moltiplicatore.
- Utilizzo in servizi che potrebbero risultare pericolosi per l'uomo in caso di rottura del riduttore.
- Applicazioni con inerzie particolarmente elevate.
- Utilizzo come argano di sollevamento.
- Applicazioni con elevate sollecitazioni dinamiche sulla cassa del riduttore.
- Utilizzo in ambiente con T° inferiore a -5°C o superiore a 40°C.
- Utilizzo in ambiente con presenza di aggressivi chimici.
- Utilizzo in ambiente salmastro.
- Posizioni di piazzamento non previste a catalogo.
- Utilizzo in ambiente radioattivo.
- Utilizzo in ambiente con pressione diversa da quella atmosferica.

Evitare applicazioni dove è prevista l'immersione, anche parziale, del riduttore.

La coppia massima (\*) sopportabile dal riduttore non deve superare il doppio della coppia nominale (f.s.=1) riportata nelle tabelle delle prestazioni.

In caso di servizio S3 può essere possibile aumentare la coppia trasmissibile in funzione del rapporto, della velocità di ingresso e dalla durata in ore effettive richieste dall'applicazione, in questo caso contattare il ns. Servizio tecnico.

(\*) intesa come sovraccarico istantaneo dovuto a avviamenti a pieno carico, frenature, urti ed altre cause soprattutto dinamiche.

**Critical applications**

**UK**

The performance given in the catalogue correspond to mounting position B3 or similar, ie. when the first stage is not entirely immersed in oil. For other mounting positions and/or particular input speeds, refer to the tables that highlight different critical situations for each size of gear reducer. It is also necessary to take due consideration of and carefully assess the following applications by calling our Technical Service:

- To avoid the use as multiplier.
- Use in services that could be hazardous for people if the gear reducer fails.
- Applications with especially high inertia.
- Use as a lifting winch.
- Applications with high dynamic strain on the case of the gear reducer.
- In places with T° under -5°C or over 40°C.
- Use in chemically aggressive environments.
- Use in a salty environment.
- Mounting positions not envisaged in the catalogue.
- Use in radioactive environments.
- Use in environments pressures other than atmospheric pressure.

Avoid applications where even partial immersion of the reducer is required.

The maximum torque (\*) that the reducer can support must not exceed two times the nominal torque (f.s.=1) stated in the performance tables.

With S3 service it is possible to increase transmitted torque according to ratio, input speed and application duration, in this case please contact our Technical service.

(\*) intended for momentary overloads due to starting at full load, braking, shocks or other causes, particularly those that are dynamic.

**Applications critiques**

**FR**

Les performances indiquées sur le catalogue correspondent à la position B3 ou similaires, lorsque le premier train d'engrenage n'est pas entièrement immergé dans l'huile. Pour les combinaisons d'assemblage différentes et/ou les vitesses d'entrée particulières, se conformer aux tableaux qui mettent en évidence les différentes situations critiques pour chaque taille de réducteur. Il faut aussi prendre en considération et évaluer attentivement les applications suivantes, en consultant notre S. ce Technique:

- Eviter l'utilisation comme multiplicateur.
- Emploi en services qui pourraient être dangereux pour l'homme en cas de rupture du réducteur.
- Applications avec inerties particulièrement élevées.
- Emploi comme treuil, en cas de soulèvement.
- Applications avec sollicitations dynamiques sur la carcasse du réducteur.
- Emploi en milieu avec température au-dessous de -5°C ou au-dessus de 40°C.
- Emploi en milieu en présence d'agents chimiques agressifs.
- Emploi en milieu saumâtre.
- Positions de montage non prévues sur le catalogue.
- Emploi en milieu radioactif.
- Emploi en milieu ayant une pression différente de celle atmosphérique.

Eviter les applications dans lesquelles l'immersion du réducteur, même si partielle, est prévue.

Le couple maximum (\*) supporté par le réducteur ne doit pas être supérieur au double du couple nominal (fs=1) suivant notre table de prestation.

Dans le cas d'un service S3 il est possible d'augmenter le couple transmissible, selon le rapport, la vitesse d'entrée et la durée de l'application, dans ce cas veuillez contacter notre service technique.

(\*) Entendu comme surcouple instantané dû à démarrages en pleine charge, freinages, chocs et autres causes surtout dynamiques.



## Kritische Anwendungen

DE

Die im Katalog aufgeführten Leistungsdaten gelten für die Einbaulage B3 oder gleichwertig, wenn das Ritzel nicht völlig mit Öl geschmiert wird. Für andere Einbaulagen und/oder besondere Antriebsdrehzahlen sind die Tabellen zu beachten, die verschiedene kritische Zustände für jede Getriebegröße darstellen. Darüber hinaus sind nachstehende Anwendungen zu beachten und eventuell sollte mit unserem Kundendienst Kontakt aufgenommen werden:

- Nicht verwendbar als Übersetzungsgetriebe
- Anwendungen, die bei Bruch des Getriebes für den Menschen gefährlich sein könnten.
- Anwendungen mit sehr hohen Trägheitsmomenten.
- Einsatz als Hebewinde.
- Anwendungen mit hohen dynamischen Beanspruchungen auf Getriebegehäuse.
- Einsatz bei Umgebungstemperaturen unter  $-5^{\circ}\text{C}$  oder über  $40^{\circ}\text{C}$ .
- Einsatz in Verbindung mit aggressiven chemischen Substanzen.
- Einsatz unter Salzwassereinwirkung.
- Nicht im Katalog vorgesehene Einbaulagen.
- Einsatz unter radioaktiver Strahlung.
- Einsatz unter einem Druck, der nicht dem normalen Luftdruck entspricht.

Anwendungen, bei denen das Eintauchen der Getriebe in Wasser vorgesehen ist (auch teilweise), sollen vermieden werden.

Das max. zulässige Drehmoment (\*) der Getriebe, darf nicht den zweifachen Wert des in der Leistungstabelle angegebenen nominalen Wert des Drehmomentes (f.s.=1) übersteigen.

Im S3-Betrieb ist es möglich das übertragbare Drehmoment in Abhängigkeit von Untersetzung, Eingangsdrehzahl und jeweiliger Anwendung, zu erhöhen. Hierzu kontaktieren Sie bitte unser technisches Büro.

(\*) Hierbei sind Überlasten gemeint, welche durch Anlaufen unter Vollast, Bremsungen, Stöße und weiter dynamische Ursachen, hervorgerufen werden.

## Aplicaciones críticas

ES

Las prestaciones indicadas en el catálogo corresponden a la posición B3 o similar, cuando el primer tren de engranajes no está completamente sumergido en el aceite. Para posiciones de montaje distintas y/o de velocidades particulares de entrada, atenderse a las tablas que ponen en evidencia las distintas situaciones críticas por cada tamaño de reductor. Además es necesario considerar y evaluar cuidadosamente las siguientes aplicaciones, poniéndose en contacto con nuestro Servicio Técnico:

- Evitar la utilización como multiplicador.
- Utilización en servicios que, en caso de ruptura del reductor, podrían resultar peligrosos para personas.
- Aplicaciones con inercias particularmente elevadas.
- Utilización como cabrestante de levantamiento.
- Aplicaciones con esfuerzos dinámicos elevados sobre la carcasa del reductor.
- Utilización en ambiente con  $T^{\circ}$  inferior a  $-5^{\circ}\text{C}$  o superior a  $40^{\circ}\text{C}$ .
- Utilización en ambiente con presencia de agentes químicos agresivos.
- Utilización en ambiente salino.
- Posiciones de montaje no previstas en el catálogo.
- Utilización en ambiente radioactivo.
- Utilización en ambiente con presión distinta de la atmosférica.

Evitar aplicaciones donde está prevista la inmersión, aún parcial, del reductor.

El par máximo (\*) soportable por el reductor no debe superar el doble del par nominal (f.s.=1) indicado en la tabla de prestaciones.

En caso de servicio S3 puede ser posible aumentar el par transmisible en función de la relación, la velocidad de entrada y la duración en horas efectivas requerida por la aplicación, en ese caso contactar con nuestro Servicio Técnico.

(\*) entendida como sobrecarga instantánea debida a puestas en marcha a plena carga, frenadas, impactos y otras causas sobretodo dinámicas.

## 关键应用

CN

对于其他安装位置/或特定输入速，请参阅突出每个减速机装置尺寸的不同关键情形的表格。  
还必须通过致电我们的技术服务人员，尽心考虑和仔细评估经下应用情形。

- 尽量避免将其用作一个多工器。
- 使用时如果减速机装置故障会带来人员危险
- 有极高惯性的应用场合
- 用作升降机械绞盘
- A在减速装置外壳上有高动态应变的应用场合
- 温度低于 $-5^{\circ}\text{C}$ 或高于 $40^{\circ}\text{C}$ 时。
- 在有过多化工物质的环境中
- 在含盐的环境中使用
- 未在商品目录中示出的安装位置
- 在放射性环境中使用
- 在压力高于大气压的环境中使用

避免在需要减速装置局部浸入的场合中使用  
齿轮减速机可以支持的最大扭矩 (\*)  
不得超过性能表中列出的名义扭矩 (f.s.=1) 的两倍。

在案件中三服务可以尽可能增加扭矩转交根据该报告，进入的速度和持续时间的小时的实际需求，在这种情况下，与我们的技术服务。

(\*) 指的是在满负荷启动、制动、振动或其他原因造成的瞬间过载，特别是瞬间动态过载。

## Installazione

IT

Per l'installazione del riduttore è consigliabile attenersi alle seguenti indicazioni:

- Il fissaggio sulla macchina deve essere stabile per evitare qualsiasi vibrazione.
- Verificare il corretto senso di rotazione dell'albero di uscita del riduttore prima del montaggio del gruppo sulla macchina.
- In caso di periodi particolarmente lunghi di stoccaggio (4/6 mesi) se l'anello di tenuta non è immerso nel lubrificante contenuto all'interno del gruppo si consiglia la sua sostituzione in quanto la gomma potrebbe essersi incollata all'albero o addirittura aver perso quelle caratteristiche di elasticità necessarie al corretto funzionamento.
- Quando possibile proteggere il riduttore dall'irraggiamento solare e dalle intemperie.
- Garantire un corretto raffreddamento del motore assicurando un buon passaggio d'aria dal lato ventola.
- Nel caso di temperature ambiente  $< -5^{\circ}\text{C}$  o  $> +40^{\circ}\text{C}$  contattare il servizio Assistenza Tecnica.
- Il montaggio dei vari organi (pulegge, ruote dentate, giunti, alberi, ecc.) sugli alberi pieni o cavi deve essere eseguito utilizzando appositi fori filettati o altri sistemi che comunque garantiscano una corretta operazione senza rischiare il danneggiamento dei cuscinetti o delle parti esterne dei gruppi.
- Lubrificare le superfici a contatto per evitare grippaggi o ossidazioni.
- La verniciatura non deve assolutamente interessare le parti in gomma e i fori esistenti sui tappi di sfianto, quando presenti.
- Per i gruppi provvisti di tappi per olio sostituire il tappo chiuso utilizzato per la spedizione con l'apposito tappo di sfianto.
- Controllare il corretto livello del lubrificante tramite, quando prevista, l'apposita spia.
- La messa in funzione deve avvenire in maniera graduale, evitando l'applicazione immediata del carico massimo.
- Quando sotto alla motorizzazione sono presenti organi, cose o materiali danneggiabili dall'eventuale fuoriuscita, anche limitata, di olio è opportuno prevedere un'apposita protezione.

N.B. in caso di etichetta adesiva su cappello, qualora questo venga sostituito, è necessario applicare una nuova etichetta, che dovrà essere richiesta dal cliente a MTV.

## Installation

UK

To install the gear reducer it is necessary to note the following recommendations:

- Check the correct direction of rotation of the gear reducer output shaft before fitting the unit to the machine.
- In the case of particularly lengthy periods of storage (4/6 months), if the oil seal is not immersed in the lubricant inside the unit, it is recommended to change it since the rubber could stick to the shaft or may even have lost the elasticity it needs to function properly.
- Whenever possible, protect the gear reducer against solar radiation and bad weather.
- Ensure the motor cools correctly by ensuring good passage of air from the fan side.
- In the case of ambient temperatures  $< -5^{\circ}\text{C}$  or  $> +40^{\circ}\text{C}$  call the Technical Service.
- The various parts (pulleys, gear wheels, couplings, shafts, etc.) must be mounted on the solid or hollow shafts using special threaded holes or other systems that anyhow ensure correct operation without risking damage to the bearings or external parts of the units. Lubricate the surfaces in contact to avoid seizure or oxidation.
- Painting must definitely not go over rubber parts and the holes on the breather plugs, if any.
- For units equipped with oil plugs, replace the closed plug used for shipping with the special breather plug.
- Check the correct level of the lubricant through the indicator, if there is one.
- Starting must take place gradually, without immediately applying the maximum load.
- When there are parts, objects or materials under the motor drive that can be damaged by even limited spillage of oil, special protection should be fitted.

Please note: in the event of a cover with adhesive label having to be replaced, you will have to stick a new label onto the new cover. Please contact Motovario and we can supply you with one.

## Installation

FR

Pour l'installation du réducteur, il faut se conformer aux indications suivantes:

- La fixation sur la machine doit être stable pour éviter toute vibration.
- Avant le montage du groupe sur la machine, vérifier que le sens de rotation de l'arbre de sortie du réducteur soit correct.
- En cas de périodes de stockage particulièrement longues (4/6 mois), si la bague d'étanchéité n'est pas immergée dans le lubrifiant contenu à l'intérieur du groupe, on conseille son remplacement, car le caoutchouc pourrait être collé à l'arbre ou avoir perdu les caractéristiques d'élasticité nécessaires à un fonctionnement correct.
- Si possible, protéger le réducteur des rayons du soleil et des intempéries.
- Vérifier que le refroidissement du moteur soit suffisant, en assurant un bon passage d'air du côté ventilateur.
- En cas de températures ambiante  $< -5^{\circ}\text{C}$  ou  $> +40^{\circ}\text{C}$ , contacter le Service techniques.
- Le montage de différents organes (poulies, roues dentées, accouplements, arbres, etc.) sur les arbres pleins ou creux doit être effectué en utilisant les trous filetés ou d'autres systèmes assurant de toute façon une opération correcte, sans risquer d'endommager les roulements ou les parties extérieures des groupes. Lubrifier les surfaces en contact, afin d'éviter le grippage ou l'oxydation.
- La peinture ne doit absolument pas toucher les parties en caoutchouc et, si présents, les trous sur les bouchons d'évent.
- Pour les groupes avec bouchons d'huile, remplacer le bouchon, utilisé lors de l'expédition, par le bouchon d'évent.
- Contrôler, grâce au voyant (si prévu), que le niveau du lubrifiant corresponde.
- La mise en marche doit s'effectuer d'une façon graduelle, en évitant l'application immédiate de la charge maximale.
- Si des organes, des choses ou des matériels pouvant être endommagés par l'éventuelle sortie d'huile, même si limitée, sont présents sous la motorisation, il faut prévoir une protection adéquate.

N.B. si le chapeau présente une étiquette adhésive et qu'il est remplacé, il faut appliquer une nouvelle étiquette que le client devra demander à Motovario.

## Montage

DE

Für die Montage des Getriebes sind nachstehende Anweisungen zu beachten:

- Die Befestigung an der Maschine muß absolut stabil sein, um jegliche Vibrationen zu vermeiden.
- Vor der Montage des Getriebes an der Maschine ist die Abtriebswelle des Getriebes auf die richtige Drehrichtung zu prüfen.
- Nach besonders langer Einlagerung (4/6 Monate) ist zu überprüfen, ob die Wellendichtringe vom Schmiermittel des Getriebes vollständig benetzt wurden; andernfalls ist ein Austausch anzuraten, da die Dichtlippe auf der Welle festkleben kann oder die zum einwandfreien Betrieb notwendige Elastizität nicht mehr vorhanden ist.
- Wenn möglich, sollte das Getriebe vor Sonneneinstrahlung u.a. Witterungseinflüssen geschützt werden.
- Die Motorkühlung muß durch eine gute Belüftung auf der Seite des Lüfters gewährleistet werden.
- Bei Umgebungstemperaturen  $< -5^{\circ}\text{C}$  oder  $> +40^{\circ}\text{C}$  setzen Sie sich bitte mit dem Kundendienst in Verbindung.
- Zur Montage der unterschiedlichen Anbauteile (Riemenscheiben, Zahnräder, Kupplungen, Wellen usw.) auf den Hohl- oder Vollwellen sind die vorgesehenen Gewindebohrungen oder Aufziehhilfen zu verwenden. Diese gewährleisten eine einwandfreie Montage, ohne die Lager oder die Außenteile des Getriebes zu beschädigen. Die in Berührung kommenden Passungen und Oberflächen der Wellen sind zu fetten/ölen, um ein Festfressen durch Passungsrost zu vermeiden.
- Bei Lackierung ist darauf zu achten, daß alle Gummiteile und fallweise die in den Entlüftungsdeckeln vorhandenen Bohrungen nicht überlackiert werden.
- Bei Getrieben mit Ölstopfen ist die zum Transport verwendete Verschlußschraube durch die beigelegte Entlüftungsschraube zu ersetzen.
- Der Schmierölstand ist an der Füllstandsanzeige zu überprüfen, sofern vorhanden.
- Der Antrieb ist stufenweise in Betrieb zu nehmen, wobei zunächst mit Teillast angefahren werden sollte.
- Sind unter dem Antrieb Geräteteile oder Materialien angeordnet, die durch geringe Mengen austretenden Öls beschädigt werden könnten, so ist eine geeignete Schutzvorrichtung vorzusehen.

N.B.: Falls das Schutzgehäuse ausgetauscht wird und sich ein Aufkleber darauf befindet, muss ein solcher auch auf dem neuen Gehäuse angebracht werden; er ist vom Kunden bei Motovario anzufordern.

## Instalación

ES

Para la instalación del reductor, atenerse a las siguientes indicaciones:

- Para evitar las vibraciones, la fijación sobre la máquina tiene que ser estable.
- Antes del montaje del grupo sobre la máquina, controlar que el sentido de rotación del eje de salida del reductor sea correcto.
- En caso de periodos de almacenamiento muy largos (4/6 meses), si el retén no está sumergido en el lubricante contenido en el grupo, se aconseja su reemplazo porque la goma podría estar pegada al eje o haber perdido las características de elasticidad necesarias para un funcionamiento correcto.
- Siempre que sea posible, proteger el reductor contra los rayos del sol y la intemperie.
- Controlar que la refrigeración del motor sea suficiente, asegurando una correcta transferencia de aire del lado ventilador.
- En caso de temperatura ambiente de  $< -5^{\circ}\text{C}$  o  $> +40^{\circ}\text{C}$ , ponerse en contacto con el Servicio técnico.
- El montaje de distintos órganos (poleas, ruedas dentadas, acoplamientos, ejes, etc.) sobre los ejes macho o huecos debe ser efectuado utilizando los agujeros roscados correspondientes u otros sistemas, asegurando una manipulación correcta sin correr el riesgo de dañar los cojinetes o las partes externas de los grupos.
- Lubricar las superficies en contacto para evitar gripajes u oxidaciones.
- La pintura no debe cubrir las partes de goma y los agujeros de los posibles tapones-respiraderos.
- Para los grupos equipados de tapones de aceite, reemplazar el tapón cerrado, utilizado durante el transporte, por el tapón respiradero.
- Controlar el correcto nivel de lubricante mediante la mirilla (si la hay).
- La puesta en marcha se debe producir de manera gradual evitando la aplicación súbita de la carga máxima.
- Si bajo el reductor hay mecanismos, cosas o materiales que puedan dañarse por una eventual pérdida de aceite, deberá preverse una protección adecuada.

Nota: si se debe sustituir la tapa y la misma contiene una etiqueta adhesiva, es necesario aplicar una nueva etiqueta que deberá ser solicitada por el cliente a Motovario.

## 安装

CN

在机器上安装时要确保稳定，避免任何振动。

- 将机组安装到机器上之前检查减速装置输出轴的正确旋转方向。
- 如果储存周期特别地长 (4/6 月), 如果密封圈没有浸没在润滑剂中, 则我们建议更换, 因为橡胶可能会粘住在轴上, 可甚至可能失去弹性而不能正常发挥功能。
- 只要有可能, 就不要在阳光不足和恶劣天气下, 保护好减速装置。
- 如果环境温度  $< -5^{\circ}\text{C}$  或  $> +40^{\circ}\text{C}$ , 则致电技术服务人员。
- 各个零件 (滑轮、齿轮、联轴器、轴等) 必须使用专用螺纹孔或其他系统安装到实心或空心轴上, 无论如何要确保运转正常且不会损坏到机组的轴承或外部零件。润滑接触面, 避免咬合或氧化。
- 润滑油绝对不能滴到橡胶零件上和通气塞孔 (如果有) 上。
- 对于配备油塞的装置, 将密闭的油塞更换为发货随附的专用通气塞。
- 通过指示器 (如果有) 检查润滑油油位是否正常。
- 启动时必须逐渐启动, 不要立即施加最大负载。
- 当电气驱动装置下有零件、物体或材料时, 即使是溢出很少的油也会造成损坏, 因此要进行特别的保护。

请注意: 在更换粘有不干胶标签的封面时, 您需要在封面粘上新标签。请联系摩多利 (Motovario), 我们可以为您提供此类标签。

## Carichi radiali

IT

Il valore del carico radiale (N) ammissibile viene riportato nelle tabelle relative alle prestazioni del riduttore in esame, ed è relativo al carico applicato sulla mezzeria dell'albero e nelle condizioni più sfavorevoli come angolo di applicazione e senso di rotazione.

I carichi assiali massimi ammissibili sono 1/5 del valore del carico radiale indicato quando sono applicati in combinazione col carico radiale stesso. Nelle tabelle relative agli alberi di uscita viene indicato il valore massimo ammissibile, questo valore non deve mai essere superato in quanto è relativo alla resistenza della cassa.

Nel caso di alberi bisporgenti e cavi in cui è previsto l'applicazione di carichi radiali su entrambe le estremità, i carichi massimi ammissibili sono da definire in funzione delle condizioni di esercizio specifiche, in questo caso contattare il ns. Servizio Tecnico.

Possono essere verificate condizioni particolari di carico radiale superiori ai limiti di catalogo, in questo caso contattare il ns. Servizio Tecnico e fornire tutti i dati applicativi: direzione del carico, senso di rotazione dell'albero, tipo di servizio.

Il carico radiale sull'albero si calcola con la seguente formula:

$$Fr_e = \frac{2000 \cdot M \cdot fz}{D} \leq Fr_1 \text{ o } Fr_2$$

|                           |                                                            |
|---------------------------|------------------------------------------------------------|
| <b>Fr<sub>e</sub> (N)</b> | Carico radiale risultante                                  |
| <b>M (Nm)</b>             | Momento torcente sull'albero                               |
| <b>D (mm)</b>             | Diametro dell'elemento di trasmissione montato sull'albero |
| <b>Fr (N)</b>             | Valore di carico radiale massimo ammesso                   |
| <b>Fr1-Fr2</b>            | (ved. tab. relative)                                       |
| <b>fz = 1,1</b>           | pignone dentato                                            |
| <b>1,4</b>                | ruota per catena                                           |
| <b>1,7</b>                | puleggia a gola                                            |
| <b>2,5</b>                | puleggia piana                                             |

Quando il carico radiale risultante non è applicato in mezzeria dell'albero occorre correggere il carico radiale ammissibile Fr1-2 con la seguente formula:

$$Fr_x = \frac{Fr_{1-2} \cdot a}{(b + x)}$$

**a, b** = valori riportati nelle tabelle pag. 14 - 13  
**x** = distanza del punto di applicazione del carico da spallamento albero

## Overhung load

UK

The value of the admissible radial load (N) is given in the tables relating to the performance of the gear reducer at issue. It is related to the load applied on the centre line of the shaft and in the most unfavourable conditions of angle of application and direction of rotation.

The maximum admissible axial loads are 1/5 of the value of the given radial load when they are applied in combination with the radial load.

The tables relating to the output shafts give the maximum admissible value. This value must never be exceeded since it relates to the strength of the case. **In case of double extension shafts with radial load applied on both ends, the max. admissible radial loads must be defined according to the specific running conditions, in this case call our Technical Service.**

Particular conditions of radial load higher than the limits of the catalogue may occur. In this case, call our Technical Service and provide details on the application: direction of the load, direction of rotation of the shaft, type of service.

The radial load on the shaft is calculated with the following formula:

$$Fr_e = \frac{2000 \cdot M \cdot fz}{D} \leq Fr_1 \text{ o } Fr_2$$

|                           |                                                          |
|---------------------------|----------------------------------------------------------|
| <b>Fr<sub>e</sub> (N)</b> | Resulting radial load                                    |
| <b>M (Nm)</b>             | Torque on the shaft                                      |
| <b>D (mm)</b>             | Diameter of the transmission member mounted on the shaft |
| <b>Fr (N)</b>             | Value of the maximum admitted radial load                |
| <b>Fr1-Fr2</b>            | (see relative tables)                                    |
| <b>fz = 1,1</b>           | gear pinion                                              |
| <b>1,4</b>                | chain wheel                                              |
| <b>1,7</b>                | v-pulley                                                 |
| <b>2,5</b>                | flat pulley                                              |

When the resulting radial load is not applied on the centre line of the shaft, it is necessary to adjust the admissible radial load Fr1-2 with the following formula:

$$Fr_x = \frac{Fr_{1-2} \cdot a}{(b + x)}$$

**a, b** = values given in the tables on page 14 - 13  
**x** = distance from the point of application of the load to the shaft shoulder

## Charges radiales

FR

La valeur de la charge radiale (N) admissible est indiquée dans les tableaux concernant les performances du réducteur examiné et correspond à la charge appliquée sur la ligne médiane de l'arbre, dans les conditions les plus défavorables au niveau de l'angle d'application et du sens de rotation.

Les charges axiales maximales admissibles sont 1/5 de la valeur de la charge radiale indiquée, au cas où elles seraient appliquées en combinaison avec la charge radiale même. Les tableaux concernant les arbres de sortie indiquent la valeur maximale admissible, valeur qui ne doit jamais être dépassée car elle correspond à la résistance de la carcasse.

**Dans le cas d'arbre double avec une charge radiale appliquée aux deux extrémités, la charge radiale maxi admissible doit être définie selon les conditions de fonctionnement spécifiques, dans ce cas contacter notre service technique.**

Des conditions particulières de charges radiales supérieures aux limites de catalogue peuvent être vérifiées; dans ce cas, contacter notre S.ce Technique en donnant toutes les données d'application: direction de la charge, sens de rotation de l'arbre, type de service.

La charge radiale sur l'arbre doit être calculée selon la formule suivante:

$$Fr_e = \frac{2000 \cdot M \cdot fz}{D} \leq Fr_1 \text{ o } Fr_2$$

|                           |                                                         |
|---------------------------|---------------------------------------------------------|
| <b>Fr<sub>e</sub> (N)</b> | Charge radiale résultante                               |
| <b>M (Nm)</b>             | Moment de torsion sur l'arbre                           |
| <b>D (mm)</b>             | Diamètre de l'élément de transmission monté sur l'arbre |
| <b>Fr (N)</b>             | Valeur de charge radiale maximum admise                 |
| <b>Fr1-Fr2</b>            | (voir tableaux correspondants)                          |
| <b>fz = 1,1</b>           | pignon denté                                            |
| <b>1,4</b>                | roue pour chaîne                                        |
| <b>1,7</b>                | poulie à gorge                                          |
| <b>2,5</b>                | poulie plate                                            |

Quand la charge radiale résultante n'est pas appliquée au milieu de l'arbre, il est nécessaire de corriger la charge radiale admissible Fr1-2 avec la formule suivante:

$$Fr_x = \frac{Fr_{1-2} \cdot a}{(b + x)}$$

**a, b** = valeurs indiquées dans les tableaux à page 14 - 13  
**x** = distance entre le point d'application de la charge et l'épaule de l'arbre

## Querbelastrungen

DE

Der Wert der zulässigen Querbelastrung (N) wird in den Tafeln über die Leistungen des betreffenden Getriebes aufgeführt und ist die Kraft, die auf die Mittellinie der Wellen unter ungünstigsten Bedingungen wie Anwendungswinkel und Drehrichtung einwirkt.

Die zulässigen Axialbelastrungen betragen 1/5 der aufgeführten Querbelastrungen, wenn diese gleichzeitig einwirken. Die Tafeln über die Abtriebswellen geben den für die Lager bzw. das Gehäuse zulässigen Höchstwert an; dieser Wert darf nie überschritten werden.

**Sofern die Anwendung mit einer beiseitigen Einleitung der Querkraft arbeitet, ist die Anwendung hinsichtlich der Einsatzbedingungen zu überprüfen. Hierzu kontaktieren Sie bitte unser technisches Büro.**

Falls die im Katalog aufgeführten Grenzwerte doch überschritten werden sollen, setzen Sie sich bitte mit unserem Kundendienst in Verbindung und nennen Sie ihm alle Anwendungsdaten wie Belastungsrichtung, Drehrichtung der Welle, Anwendungsart.

Die Querbelastrung (Querkraft) auf der Welle wird durch nachstehende Formel berechnet:

$$F_{re} = \frac{2000 \cdot M \cdot fz}{D} \leq F_{r1} \text{ o } F_{r2}$$

|                                      |                                                           |
|--------------------------------------|-----------------------------------------------------------|
| <b>F<sub>re</sub></b> (N)            | resultierende Querkraft                                   |
| <b>M</b> (Nm)                        | Wellendrehmoment                                          |
| <b>D</b> (mm)                        | Durchmesser des an der Welle montierten Antriebsselements |
| <b>F<sub>r</sub></b> (N)             | max. zul. Querkraft                                       |
| <b>F<sub>r1</sub>-F<sub>r2</sub></b> | (siehe entspr. Tafel)                                     |
| <b>fz</b> = 1,1                      | Zahnrad                                                   |
| 1,4                                  | Rad für Kette                                             |
| 1,7                                  | Flanschscheibe                                            |
| 2,5                                  | Flachriemenscheibe                                        |

Sofern die resultierende Querkraft nicht auf die Mitte der Welle bezogen ist, ist die effektive Kraft F<sub>r1-2</sub> durch Formel zu berechnen:

$$F_{rx} = \frac{F_{r1-2} \cdot a}{(b + x)}$$

**a, b** = siehe Tafeln auf Seite 14 - 13  
**x** = Abstand der Querkraft zur Wellenschulter

## Cargas radiales

ES

El valor de carga radial (N) admisible se indica en las tablas de prestaciones de los reductores y se refiere a la carga aplicada sobre la línea de centro del eje y en las condiciones más desfavorables como ángulo de aplicación y sentido de rotación.

Las cargas axiales máximas admisibles son 1/5 del valor de carga radial indicado, cuando están aplicadas en combinación con la carga radial misma. En las tablas relacionadas a los ejes de salida se indica el valor máximo admisible; nunca se debe superar este valor, porque se refiere a la resistencia de la carcasa.

**En caso de ejes dobles o huecos sobre los que se prevea la aplicación de cargas radiales sobre ambos extremos, las cargas máximas admisibles se deben definir en función de las características de la aplicación, en ese caso contactar a nuestro Servicio Técnico.**

**Podrían presentarse condiciones particulares de carga radial superiores a los límites de catálogo; en este caso, ponerse en contacto con nuestro Servicio técnico e indicar todos los datos de la aplicación: dirección de carga, sentido de rotación del eje, tipo de servicio.**

La carga radial sobre el eje se calcula con la siguiente fórmula:

$$F_{re} = \frac{2000 \cdot M \cdot fz}{D} \leq F_{r1} \text{ o } F_{r2}$$

|                                      |                                                           |
|--------------------------------------|-----------------------------------------------------------|
| <b>F<sub>re</sub></b> (N)            | Carga radial resultante                                   |
| <b>M</b> (Nm)                        | Par de torsión sobre el eje                               |
| <b>D</b> (mm)                        | Diámetro del elemento de transmisión montado sobre el eje |
| <b>F<sub>r</sub></b> (N)             | Valor de carga radial máximo admitido                     |
| <b>F<sub>r1</sub>-F<sub>r2</sub></b> | (ver tablas correspondientes)                             |
| <b>fz</b> = 1,1                      | piñón dentado                                             |
| 1,4                                  | piñón de cadena                                           |
| 1,7                                  | polea para correa trapezoidal                             |
| 2,5                                  | polea plana                                               |

Cuando la carga radial resultante no se aplica sobre el centro del eje de salida, se debe corregir la carga radial admisible F<sub>r1-2</sub> mediante la siguiente fórmula:

$$F_{rx} = \frac{F_{r1-2} \cdot a}{(b + x)}$$

**a, b** = valores indicados en las tablas pág. 14 - 13  
**x** = distancia desde el punto de aplicación de la carga hasta la base del eje

## 徑向速度

CN

許可的徑向負荷值 (N) 給出在差速器的相關性能表中。它在最不利的应用条件和旋轉方向的情況下施加在軸中心線上的負荷有關。

最大許可的徑向負荷值是給定的用於組合儀表徑向負荷時的徑向負荷值的 1/5。

與輸出軸有關的表給出了最大許可的數值。不得超過該數值，因為它關係到外殼的長度。

對於兩端有軸向負荷的雙加長軸的情況，最大的許可的徑向負荷值必須按照特定的運行條件來定義，此時應該聯繫我們的服務部門。

也可能出現高於產品目錄中所列的值特定徑向負荷條件。此時，應該聯繫我們的技术服務部門，並提供应用的細節：負荷的方向、旋轉的方向、工作的類型。

軸上的徑向負荷可以用以下的公式計算：

$$F_{re} = \frac{2000 \cdot M \cdot fz}{D} \leq F_{r1} \text{ o } F_{r2}$$

|                                      |               |
|--------------------------------------|---------------|
| <b>F<sub>re</sub></b> (N)            | 導致產生徑向負荷      |
| <b>M</b> (Nm)                        | 軸上扭矩          |
| <b>D</b> (mm)                        | 安裝在軸上的傳送單元的直徑 |
| <b>F<sub>r</sub></b> (N)             | 最大許可的徑向負荷值    |
| <b>F<sub>r1</sub>-F<sub>r2</sub></b> | (見相關的表格)      |
| <b>fz</b> = 1,1                      | 小齒輪           |
| 1,4                                  | 鏈輪            |
| 1,7                                  | 滑輪            |
| 2,5                                  | 扁平滑輪          |

當產生的負荷沒有施加在軸的中心線上時，必須用以下的公式調整許可的徑向負荷值 F<sub>r1-2</sub>：

$$F_{rx} = \frac{F_{r1-2} \cdot a}{(b + x)}$$

**a, b** = 第 14 - 13 頁表格中給出的數值  
**x** = 從施加負荷點至軸肩之間的距離

## Carichi radiali entrata

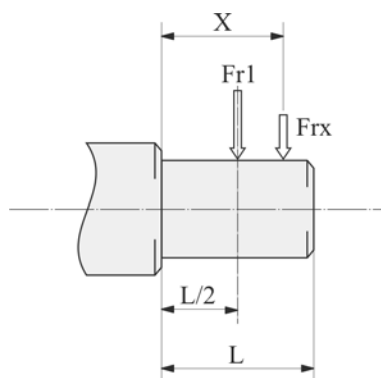
IT

Con carico radiale risultante non in mezzera dell'albero, correggere il carico radiale ammissibile Fr1 con la formula:

## Querbelastrungen

DE

Sofern die radiale Querkraft nicht auf die Mitte der Welle bezogen ist, ist die effektive zulässige Kraft Fr1 durch Formel zu berechnen:



## Input radial loads

UK

When the radial load is not on the centre line of the shaft, it is necessary to adjust the admissible radial load Fr1 with the following formula:

## Cargas radiales de entrada

ES

Si la carga radial resultante no se aplica sobre el centro del eje, corregir la carga radial admisible Fr1 mediante la siguiente fórmula:

$$Fr_x = \frac{Fr_1 \cdot a}{(b + x)}$$

- (\*\*Fr<sub>1</sub>) Valore massimo ammesso dal riduttore; verificare valore massimo ammesso su tabelle di prestazioni.  
 (\*\*Fr<sub>1</sub>) Max. admissible value of the reducer; verify max. admissible value on performances tables.  
 (\*\*Fr<sub>1</sub>) Valeur maximale admissible du réducteur; vérifier la valeur maxi admissible dans les tableaux de performances.  
 (\*\*Fr<sub>1</sub>) Entspricht dem max. zulässigen Wert; bitte beachten Sie den max. Wert der Tabelle.  
 (\*\*Fr<sub>1</sub>) Valor máximo admisible por el reductor; verificar el valor máximo admisible en las tablas de prestaciones.  
 (\*\*Fr<sub>1</sub>) 最大许可的差速器数值，查证性能表格中的最大许可值。

## Charges radiales d'entrée

FR

Quand la charge radiale n'est pas au milieu de l'arbre, il est nécessaire de corriger la charge radiale admissible Fr1 avec la formule suivante:

## 径向速度

CN

当产生的负荷没有施加在轴的中心线上时，必须用以下的公式调整许可的径向负荷值 Fr1 :

| NRV/NRV-P          | 030 | 040  | 050 | 063 | 075 | 090  | 110  | 130  | 150  |
|--------------------|-----|------|-----|-----|-----|------|------|------|------|
| <b>a</b>           | 86  | 106  | 129 | 159 | 192 | 227  | 266  | 314  | 350  |
| <b>b</b>           | 76  | 94,5 | 114 | 139 | 167 | 202  | 236  | 274  | 310  |
| <b>Fr1 max(**)</b> | 210 | 350  | 490 | 700 | 980 | 1270 | 1700 | 2100 | 2800 |

| IHW040             | 090 | 110 |
|--------------------|-----|-----|
| <b>a</b>           | 71  |     |
| <b>b</b>           | 51  |     |
| <b>Fr1 max(**)</b> | 400 | 500 |

## Carichi radiali uscita

IT

Con carico radiale risultante non in mezzzeria dell'albero, correggere il carico radiale ammissibile Fr2 con la formula:

## Output radial loads

UK

When the radial load is not on the centre line of the shaft, it is necessary to adjust the admissible radial load Fr2 with the following formula:

## Charges radiales de sortie

FR

Quand la charge radiale n'est pas au milieu de l'arbre, il est nécessaire de corriger la charge radiale admissible Fr2 avec la formule suivante:

## Querbelastrungen

DE

Sofern die radiale Querkraft nicht auf die Mitte der Welle bezogen ist, ist die effektive zulässige Kraft Fr2 durch Formel zu berechnen:

## Cargas radiales de salida

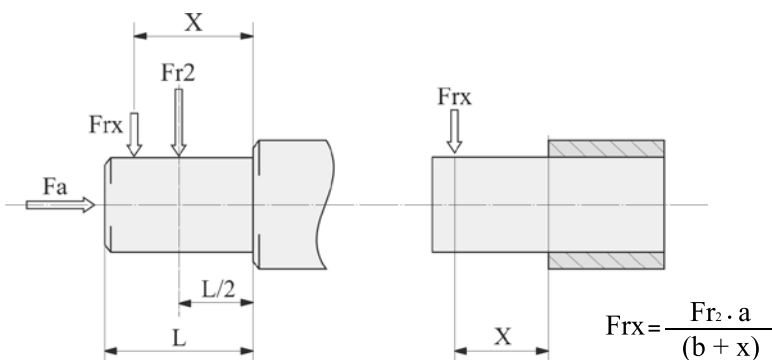
ES

Si la carga radial resultante no se aplica sobre el centro del eje, corregir la carga radial admisible Fr2 mediante la siguiente fórmula:

## 输出径向负荷

CN

当产生的负荷没有施加在轴的中心线上时，必须用以下的公式调整许可的径向负荷值 Fr2：



(\*\*Fr<sub>2</sub>) Valore massimo ammesso dal riduttore; verificare valore massimo ammesso su tabelle di prestazioni.

(\*\*Fr<sub>2</sub>) Max. admissible value of the reducer; verify max. admissible value on performances tables.

(\*\*Fr<sub>2</sub>) Valeur maximale admissible du réducteur; vérifier la valeur maxi admissible dans les tableaux de performances.

(\*\*Fr<sub>2</sub>) Entspricht dem max. zulässigem Wert; bitte beachten Sie den max. Wert der Tabelle.

(\*\*Fr<sub>2</sub>) Valor máximo admisible por el reductor; verificar el valor máximo admisible en las tablas de prestaciones.

(\*\*Fr<sub>2</sub>) 最大许可的差速器数值，查证性能表格中的最大许可值。

| NMRV/NMRV-P | 025  | 030  | 040  | 050  | 063  | 075  | 090  | 110   | 130   | 150   |
|-------------|------|------|------|------|------|------|------|-------|-------|-------|
| a           | 50   | 65   | 84   | 101  | 120  | 131  | 162  | 176   | 188   | 215   |
| b           | 38   | 50   | 64   | 76   | 95   | 101  | 122  | 136   | 148   | 174   |
| Fr2 max(**) | 1350 | 1830 | 3490 | 4840 | 6270 | 7380 | 8180 | 12000 | 13500 | 18000 |

## Momenti d'inerzia / Moments of inertia / Moments d'inertie / Trägheitsmomente / Momentos de inercia / 转动惯量

| NMRV | J *1E-4 [kg*m2] |
|------|-----------------|
| 025  | 0,03            |
| 030  | 0,10            |
| 040  | 0,3             |
| 050  | 0,8             |
| 130  | 22,5            |
| 150  | 52,9            |

| NMRV-P | J *1E-4 [kg*m2] |
|--------|-----------------|
| 063    | 2,2             |
| 075    | 4,4             |
| 090    | 8,2             |
| 110    | 19,9            |

| H   | J *1E-4 [kg*m2] |
|-----|-----------------|
| A31 | 1,0             |

## Momenti d'inerzia

IT

I seguenti valori sono solo indicativi. Sono riferiti a riduttori già predisposti con l'attacco motore PAM. I valori in tabella sono i momenti di inerzia massimi ammissibili.

## Moments of inertia

UK

Following values are indicative only and refer to gear reducers fitted with input PAM. These values refer to maximum moment of inertia.

## Moments d'inertie

FR

Les valeurs suivantes sont seulement indicatives et se rapportent à des réducteurs de vitesse équipés avec l'entrée PAM. Ces valeurs sont relatives au moment d'inertie maximum.

## Massenträgheitsmomente

DE

Die angegebenen Werte sind Richtwerte und beziehen sich auf Getriebe mit IEC Eingangsflansch. Die angegebenen Werte beziehen sich jeweils auf das max. Massenträgheitsmoment.

## Momentos de inercia

ES

Los valores siguientes son sólo indicativos y se refieren a los reductores con PAM de entrada. Estos valores están referidos al momento de inercia máximo.

## 转动惯量

CN

下述一些值仅供参考，并且是指带有输入 PAM 的齿轮减速器。根据不同的电机机架，可以有多个最小和最大转动惯量值。这些价值观念是指最高的转动惯量。

## Lubrificazione

IT

Nei casi con temperature ambiente non previste in tabella contattare il ns. Servizio Tecnico. In caso di temperature inferiori a -30°C o superiori a 60°C occorre utilizzare anelli di tenuta con mescole speciali. Per i campi di funzionamento con temperature inferiori a 0°C occorre considerare quanto segue:

- 1 I motori devono essere idonei al funzionamento con temperatura ambiente prevista.
- 2 La potenza del motore elettrico deve essere adeguata al superamento delle maggiori coppie di avviamento richieste.
- 3 Nel caso di riduttori con cassa in ghisa prestare attenzione ai carichi d'urto in quanto la ghisa può presentare problemi di fragilità a temperature inferiori ai -15°C.
- 4 Durante le prime fasi di servizio possono insorgere problemi di lubrificazione causa l'elevata viscosità che assume l'olio e quindi è opportuno procedere ad alcuni minuti di rotazione a "vuoto".

Il cambio olio deve essere eseguito dopo circa 10.000 ore, questo periodo è in funzione del tipo di servizio e dell'ambiente in cui opera il riduttore. Per i gruppi forniti senza tappi per l'olio la lubrificazione si intende permanente e quindi non hanno necessità di alcuna manutenzione.

## Lubrication

UK

In cases of ambient temperatures not envisaged in the table, call our Technical Service. In the case of temperatures under -30°C or over 60°C it is necessary to use oil seals with special properties. For operating ranges with temperatures under 0°C it is necessary to consider the following:

- 1 The motors need to be suitable for operation at the envisaged ambient temperature.
- 2 The power of the electric motor needs to be adequate for exceeding the higher starting torques required.
- 3 In case of cast-iron gear reducers, pay attention to impact loads since cast iron may have problems of fragility at temperatures under -15°C.
- 4 During the early stages of service, problems of lubrication may arise due to the high level of viscosity taken on by the oil and so it is wise to have a few minutes of rotation under no load.

The oil needs to be changed after approximately 10,000 hours. This period depends on the type of service and the environment where the gear reducer works. For units supplied without oil plugs, lubrication is permanent and so they need no servicing.

## Lubrification

FR

En cas de températures ambiantes non prévues dans le tableau, contacter notre S.c.e Technique. En cas de température au-dessous de -30°C ou au-dessus de 60°C, il faut utiliser des bagues d'étanchéité avec mélanges spéciaux. Pour les champs de fonctionnement avec température au-dessus de 0°C, il faut considérer ce qui suit :

- 1 Les moteurs doivent être aptes au fonctionnement à la température ambiante prévue.
- 2 La puissance du moteur électrique doit être apte au dépassement de la plupart des couples de démarrage demandés.
- 3 En cas de réducteurs avec carcasse en fonte, faire attention aux charges de choc, car la fonte peut présenter des problèmes de fragilité à températures au-dessous de -15°C.
- 4 Lors des premières phases de service, des problèmes de lubrification dus à la viscosité élevée, que l'huile assume, pourraient se vérifier; il faut donc procéder à une rotation "à vide" de quelques minutes.

Le changement d'huile doit être effectué après 10.000 heures environ; cette période est en fonction du type de service et du milieu dans lequel le réducteur travaille. Pour les groupes livrés sans bouchons d'huile, la lubrification est permanente et ils ne nécessitent donc aucun entretien.

## Schmierung

DE

Bei in der Tafel nicht vorgesehenen Umgebungstemperaturen setzen Sie sich bitte mit unserem Kundendienst in Verbindung. Bei Temperaturen unter -30°C oder über 60°C werden Dichtringe aus besonderen Elastomeren benötigt. Bei Betrieb mit Temperaturen unter 0°C ist folgendes zu berücksichtigen:

- 1 Die Motoren müssen für den Betrieb mit der vorgesehenen niedrigen Raumtemperatur geeignet sein.
- 2 Die Leistung des Elektromotors muß so ausgelegt werden, daß die höheren benötigten Anlaufdrehmomente aufgebracht werden können.
- 3 Bei Getriebegehäusen aus Guß sind die Stoßbelastungen zu beachten, weil der Guß bei Temperaturen unter -15°C verspröden könnte.
- 4 Bei Betriebsbeginn könnten Schmierungsprobleme infolge der hohen Ölviskosität auftreten, daher ist es sinnvoll, für einige Minuten einen Leerlauf auszuführen.

Je nach Umgebungsbedingungen und Betriebsart ist nach etwa 10.000 Betriebsstunden ein Ölwechsel durchzuführen.

Die Getriebe ohne Ölstopfen sind langzeitgeschmiert und benötigen daher keine weiteren Wartungsarbeiten.

## Lubricación

ES

En caso de temperaturas ambiente no previstas en la tabla, ponerse en contacto con nuestro Servicio técnico. En caso de temperaturas inferiores a -30°C o superiores a 60°C, es necesario utilizar anillos de retén con mezclas especiales. Para los campos de funcionamiento con temperaturas inferiores a 0°C, es necesario cumplir con lo que sigue:

- 1 - Los motores tienen que ser idóneos al funcionamiento con la temperatura ambiente prevista.
- 2 - La potencia del motor eléctrico debe adecuarse para superar los mayores pares de arranque solicitados.
- 3 - En caso de reductor con carcasa de fundición, cuidado con las cargas de choque porque la fundición puede presentar problemas de fragilidad con temperaturas inferiores a los -15°C.
- 4 - Durante las primeras fases de servicio podrían surgir problemas de lubricación debidos a la elevada viscosidad del aceite y es por lo tanto oportuno efectuar una rotación en "vacío" por algunos minutos.

Se debe de efectuar un cambio de aceite aproximadamente después de 10.000 horas, en función del ambiente en que trabaja el reductor. En los grupos entregados sin tapones, el lubricante es permanente y por lo tanto no necesitan ningún mantenimiento.

## 润滑

CN

对于表中未列出的环境温度，请联系我们的服务技术部门。温度低于 -30°C 或高于 60°C 时，必须使用特殊油封。对于零度以下的工作范围，必须考虑以下一些因素：

- 1 - 电机必须适合于预想中的环境温度操作条件。
- 2 - 需要足够的电机功率，以超过所需的启动扭矩。
- 3 - 如果是带有铸铁外壳的减速器，则应该注意冲击负荷的影响，因为 铸铁可能会在温度低于 -15°C 时，会有发脆的可能。
- 4 - 在工作之初期，可能产生润滑的问题，因为油具有高粘度特性，因此明智的做法是应该先空转几分钟。

大约 10,000 小时时需要换油。该时间取决于服务类型和减速器的工作环境。对于未提供油塞的减速器，润滑是永久性的且不需要维修。



**Lubrificazione / Lubrication / Lubrification /  
Schmierung / Lubricación / 润滑**

| NMRV         | 025  | 030  | 040  | 050  | 130 | 150 |
|--------------|------|------|------|------|-----|-----|
| <b>B3</b>    | 0,02 | 0,04 | 0,08 | 0,15 | 4,5 | 7   |
| <b>B8</b>    |      |      |      |      | 3,3 | 5,1 |
| <b>B6-B7</b> |      |      |      |      | 3,5 | 5,4 |
| <b>V5</b>    |      |      |      |      | 4,5 | 7   |
| <b>V6</b>    |      |      |      |      | 3,3 | 5,1 |

| H         | A31  |
|-----------|------|
| <b>B3</b> | 0,06 |

- Quantità olio in litri ~
- Quantity of oil in litres ~
- Quantité d'huile en litres ~
- Ölmenge (Liter) ~
- Cantidad de aceite en litros ~
- 材料的质 质材料

**Lubrificazione**

IT

Le quantità di olio in tabella sono solo indicative e per il corretto riempimento si dovrà fare riferimento al tappo o all'astina di livello, se presente. Eventuali scostamenti di livello possono dipendere da tolleranze costruttive ma anche dal piazzamento del riduttore o dal piano di montaggio presso cliente. Per tale motivo è opportuno che il cliente verifichi e, se necessario, ristabilisca il livello a riduttore installato. I riduttori delle gr. 025 - 030 - 040 - 050 - 063 - 075 - 090 - 110 - 130 - 150 vengono forniti completi di lubrificante a vita, olio a base sintetica, ENI TELIUM VSF. Possono essere montati in tutte le posizioni di piazzamento previste a catalogo, tranne le gr. NMRV 090 - 110 e NRV 075 - 090 - 110 per la quale occorre specificare la posizione di piazzamento prevista. Per le gr. 130 e 150 occorre sempre specificare la posizione di piazzamento, se questo non avviene i riduttori vengono forniti con le q.tà di olio relative alla pos. B3. Solo i riduttori gr. 130 e 150 sono provvisti dei tappi di carico/sfiato, livello e scarico olio; si raccomanda, effettuata l'installazione, di sostituire il tappo chiuso utilizzato per il trasporto, con il tappo di sfiato allegato al gruppo. Le precoppie vengono fornite complete di lubrificante a vita, olio a base sintetica, ENI TELIUM VSF. La lubrificazione della precoppia è separata da quella del riduttore a vite.

**Lubrication**

UK

Lubricant quantities are only indicative. For correct filling always refer to the sight glass or the dipstick, when this is supplied. Any oil level differences can be caused by constructive tolerances but also on the mounting position or the assembly scheme of the customer. Therefore it is very important for the customer to check oil level and if necessary to add the necessary quantity. The gear reducers size 025 - 030 - 040 - 050 - 063 - 075 - 090 - 110 - 130 - 150 are supplied complete with lubricant for life, synthetic oil, ENI TELIUM VSF. They can be mounted in any position envisaged in the catalogue, except for NMRV 090 - 110 and NRV 075-090-110 for which you must specify the mounting position. For sizes 130 and 150 it is necessary to specify the position, otherwise the gear reducers are supplied with the quantity of oil relating to pos. B3. Only reduction units 130 and 150 are fitted with breather, level and oil drainage plugs. It is necessary, after installation, to replace the closed plug used for transportation with the breather plug supplied with the unit. The pre-stage helical modules are supplied complete with life-long lubricant, synthetic oil, ENI TELIUM VSF. Lubrication is separated from that of the worm gear reducers.

**Lubrification**

FR

Les quantités d'huile indiquées en tableau sont seulement indicatives et pour un remplissage correct il faut faire référence au bouchon de niveau ou à la jauge à huile, si présents. Toutes les différences de niveau d'huile peuvent être causées par des tolérances de constructions, ou par la position de montage, ou le schéma d'assemblage du client. Par conséquent il est très important que le client vérifie le niveau d'huile et au besoin ajoute la quantité nécessaire. Les réducteurs de taille 025 - 030 - 040 - 050 - 063 - 075 - 090 - 110 - 130 - 150 sont livrés avec lubrifiant à vie, soit huile synthétique ENI TELIUM VSF. Ils peuvent être montés dans toutes les positions de montage prévues dans le catalogue, à l'exception de les tailles NMRV 090 - 110 et NRV 075 - 090 - 110 pour les quelles il faut toujours spécifier la position de montage. Pour les tailles 130 et 150, il faut toujours spécifier la position de montage; dans le cas contraire, les réducteurs seront livrés avec les quantités d'huile correspondant à la pos. B3. Seulement les réducteurs de taille 130 et 150 sont livrés avec des bouchons de remplissage/d'évent et de vidange d'huile; on recommande, une fois l'installation effectuée, de remplacer le bouchon, utilisé lors du transport, par le bouchon d'évent fourni avec le groupe. Les précouples sont livrés avec lubrifiant à vie, soit huile synthétique ENI TELIUM VSF. La lubrification du précouple est séparée de celle du réducteur à vis.

## Lubrificazione / Lubrication / Lubrification / Schmierung / Lubricación / 润滑

| NMRV-P | 063  | 075  | 090 | 110 |
|--------|------|------|-----|-----|
| B3     | 0,33 | 0,55 | 1   | 1,6 |
| B8     |      |      |     |     |
| B6-B7  |      |      |     |     |
| V5     |      |      |     |     |
| V6     |      |      |     |     |

| HW | 030  |      | 040  |      |
|----|------|------|------|------|
|    | 063  | 075  | 090  | 110  |
| B3 | 0,06 | 0,09 | 0,11 | 0,12 |

- Quantità olio in litri ~
- Quantity of oil in litres ~
- Quantité d'huile en litres ~
- Ölmenge (Liter) ~
- Cantidad de aceite en litros ~
- 材料的质 质材料

### Schmierung

DE

Die angegebenen Ölmengen sind Richtwerte. Diese müssen je nach Einbaulage, über Ölschaugläser, Ölstandsbohrungen oder Ölmesststäbe (je nach Type) regelmässig überprüft werden. Ölstandsunterschiede können aus verschiedenen Einbaulagen bei Applikationen resultieren. Nach jeder Montage, sind alle Ölstände sind zwingend zu prüfen und gegebenenfalls anzupassen. Die Getriebegrößen 025 - 030 - 040 - 050 - 063 - 075 - 090 - 110 - 130 - 150 werden mit Langzeitschmiermittel, und zwar Synthetiköl (Polyglykol-Öl) ENI TELIUM VSF, geliefert. Sie können daher in jeder im Katalog vorgesehenen Einbaulage montiert werden, mit Ausnahme der Größen NMRV090 - 110 und NRV075 - 110 für welche sie die Einbaulage angeben müssen. Für die Größen 130 und 150 ist eine von B3 abweichende Einbaulage immer genau anzugeben; andernfalls werden die Getriebe mit der für die Position B3 geeigneten Ölmenge geliefert. Nur die Getriebegrößen 130 und 150 sind mit Einfüll-, Entlüftungs-Ölstand- und Ölablaßschabe versehen; nach dem Einbau muß der als Transportschutz angebrachte Verschlußdeckel gegen die beiliegende Entlüftungsschraube ausgewechselt werden. Die Vorstufen werden mit Langzeitschmiermittel, und zwar Polyglykol-Synthetiköl ENI TELIUM VSF geliefert. Die Schmierung der Vorstufe ist von der des Schneckengetriebes getrennt.

### Lubricación

ES

Las cantidades de lubricante en la tabla son indicativas y para un correcto llenado hay que tomar de referencia el centro del visor o del asta de nivel, si están instaladas. Eventuales diferencias del nivel de aceite pueden depender de tolerancias constructivas pero también de la posición de montaje o del esquema de montaje del cliente. Por tanto es muy importante que el cliente compruebe el nivel de aceite y si es necesario agregue la cantidad adecuada. Los reductores de los tamaños 025 - 030 - 040 - 050 - 063 - 075 - 090 - 110 - 130 - 150 son entregados con lubricante a vida, es decir aceite sintético ENI TELIUM VSF. Pueden ser montados en todas las posiciones de montaje previstas en el catálogo, a l'excepción de los tamaños NMRV 090 - 110 y NRV075 - 090 - 110 para los cuales es necesario especificar siempre la posición de montaje. Para los tamaños 130 y 150 siempre es necesario detallar la posición de montaje; en caso contrario, los reductores serán entregados con las cantidades de aceite previstas para la pos. B3. Solo los reductores de tamaño 130 y 150 están equipados de tapones de carga/respiradero, de nivel y descarga aceite; recomendamos, una vez efectuada la instalación, de reemplazar el tapón cerrado, utilizado durante el transporte, por el tapón-respiradero entregado con el grupo. Los pre-reductores son entregados con lubricante a vida, es decir aceite sintético ENI TELIUM VSF. La lubricación del pre-reductor es separada de la del reductor de tornillo sin fin.

### 润滑

CN

润滑剂数量仅供参考。若要正确注油，请务必参考观察孔中心，或提供的量油尺。结构公差、安装位置或客户组装方式，均可能导致油位差。因此，客户务必检查油位；必要时，可以增加油量。变速器(尺寸 025 - 030 - 040 - 050 - 063 - 075 - 090 - 110 - 130 - 150)都是全套配供全寿命期使用的润滑油(合成油) ENI TELIUM VSF Travel sensor fail (行程传感器失效)，因此可以安装在产品目录中所示的任何位置。唯一的例外是 NMRV 090 - 110, NRV075 - 090 - 110 您必须指定安装位置。对于尺寸 130 - 150, 必须规定位置，否则减速器会配供一定量的与位置3 有关的油种。只有尺寸 130 - 150 的减速器会配气塞，油位塞 和排油塞。在安装以后，必须用我们配供的通气塞替换为了运输而塞住的油塞。前置级螺旋模块配套供应整个寿命周期内使用的润滑油、合成油、ENI TELIUM VSF。螺旋模块所用的润滑油与蜗轮蜗杆减速机所用的润滑油分开。

**Lubrificazione / Lubrication / Lubrification /  
Schmierung / Lubricación / 润滑**

|                                                             | *T°C<br>ISO/SAE            | ENI              | SHELL              | ESSO             | MOBIL                  | CASTROL           | BP                  |                                                                                                     |
|-------------------------------------------------------------|----------------------------|------------------|--------------------|------------------|------------------------|-------------------|---------------------|-----------------------------------------------------------------------------------------------------|
| <b>HA31</b>                                                 | (-5) ÷ (+40)<br>ISO VG220  | BLASIA<br>220    | OMALA<br>OIL220    | SPARTAN<br>EP220 | MOBILGEAR<br>600 XP220 | ALPHA MAX<br>220  | ENERGOL<br>GR-XP220 | Olio minerale<br>Mineral oil<br>Mineralöl<br>Huile minérale<br>Aceite mineral<br>料的质                |
| <b>NMRV 025 ÷ 150<br/>NMRV-P 063 ÷ 110<br/>HW 030 ÷ 040</b> | (-25) ÷ (+50)<br>ISO VG320 | TELIUM<br>VSF320 | TIVELA OIL<br>S320 | -                | SHC 632                | ALPHASYN<br>PG320 | ENERGOL<br>SG-XP320 | Olio sintetico<br>Synthetic oil<br>Synthetisches Öl<br>Huile synthétique<br>Aceite sintético<br>合成油 |



- fornitura standard
- standard supply
- fourniture standard
- Standard-Lieferumfang
- Suministro standard
- 标准投递
- Specifiche dei lubrificanti consigliati da Motovario S.p.A.
- Specifications of lubricants recommended by Motovario S.p.A.
- Spécification des lubrifiants suivant Motovario S.p.A.
- Spezifische Schmierstoffangabe erfragen Sie bei Motovario S.p.A.
- Especificaciones de lubricante aconsejados por Motovario S.p.A.
- 润滑油的指标由 Motovario S.p.A. 推荐。

- \* Temperatura ambiente di funzionamento
- \* Working ambient temperature
- \* Température ambiante de fonctionnement
- \* Betriebsumgebungstemperatur
- \* Temperatura ambiente de funcionamiento
- \* 工作环境温度

| <b>Lubrificanti speciali / Special lubricants / Lubrifiants spéciaux / Spezialschmierstoffe / Lubricantes especiales / 特种润滑油</b>                                                                                                                                                  |               |                   |                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------|------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                   |               | *T°C<br>ISO VG... | Olio sintetico / Synthetic oil /<br>Huile synthétique / Synthetisches Öl /<br>Aceite sintético / 合成油 |
| Oli per basse temperature / Oils for low temperature /<br>Huiles pour basse température / Öle für niedrige Tempera-<br>turen / Aceites para bajas temperaturas / 油低温                                                                                                              | <b>ENI</b>    | (-25) ÷ (+20)     | BLASIA 150 S<br>(ISO VG150)                                                                          |
|                                                                                                                                                                                                                                                                                   | <b>KLUBER</b> | (-35) ÷ (+10)     | KLUBERSYNTH GH 6-80<br>(ISO VG68)                                                                    |
|                                                                                                                                                                                                                                                                                   | <b>MOBIL</b>  | (-40) ÷ (+5)      | SCH 626<br>(ISO VG68)                                                                                |
|                                                                                                                                                                                                                                                                                   | <b>KLUBER</b> | (-40) ÷ (+5)      | KLUBERSYNTH GH 6-32<br>(ISO VG32)                                                                    |
| Oli per basse temperature - Settore alimentare / Oils for low<br>temperature - Food sector / Huiles pour basse température<br>- Secteur de l'alimentation / Öle für niedrige Temperaturen<br>- Food-Sektor / Aceites para bajas temperaturas - Sector<br>alimentario / 油低温 - 粮食部门 | <b>KLUBER</b> | (-30) ÷ (+10)     | KLUBERSYNTH UH1-6 100<br>(ISO VG100)                                                                 |
| Oli per alte temperature / Oils for high temperature / Huiles<br>pour haute température / Öle für hohe Temperaturen /<br>Aceites de alta temperatura / 高温油                                                                                                                        | <b>KLUBER</b> | (-10) ÷ (+50)     | KLUBERSYNTH GH 6-460<br>(ISO VG460)                                                                  |
|                                                                                                                                                                                                                                                                                   | <b>KLUBER</b> | (-10) ÷ (+70)     | KLUBERSYNTH GH 6-680<br>(ISO VG680)                                                                  |
| Oli per alte temperature - Settore alimentare / Oils for high<br>temperature - Food sector / Huiles pour haute température<br>- Secteur de l'alimentation / Öle für hohe Temperaturen -<br>Food-Sektor / Aceites de alta temperatura - Sector alimen-<br>tario / 高温油 - 粮食部门       | <b>KLUBER</b> | (-10) ÷ (+50)     | KLUBERSYNTH UH1-6 460<br>(ISO VG460)                                                                 |
| Settore alimentare / Food sector / Secteur de l'alimentation<br>/ Food-Sektor / Sector alimentario / 粮食部门                                                                                                                                                                         | <b>KLUBER</b> | (-15) ÷ (+40)     | KLUBERSYNTH UH1-6 320<br>(ISO VG320)                                                                 |

- Per l'utilizzo di lubrificanti speciali, contattare l'assistenza tecnica
- If 'special' lubricant is required please contact for Technical Assistance
- Si un Lubrifiant spécial est demandé, merci de contacter notre service technique.
- Falls spezielles Öl verwendet werden soll kontaktieren sie bitte unseren Kundendienst
- Para el uso de lubricantes especiales contactar con la asistencia técnica
- 如果需要“特种”润滑油，则请联系技术援助部门

## Caratteristiche costruttive

IT

I prodotti Motovario vengono forniti con il seguente stato di finitura superficiale.

### Gruppi con casse in lega di alluminio pressofuso

Le fusioni subiscono le seguenti operazioni di pulizia superficiale:

- Eliminazione delle bave di fonderia con sistemi meccanici di asportazione (trancianti)
- Accurata pallinatura
- Lavaggio e passivazione

### Gruppi con casse in ghisa grigia:

- Le fusioni vengono sempre verniciate.

### Specifiche verniciatura:

Epossipoliesteri Blu Bucciato RAL5010. Prodotto utilizzato: Polvere termoidurente a base di resine poliesteri, modificate con resina epossidica.

### Proprietà meccaniche

- Le prove eseguite su lamierini Unichim sgrassati con spessore del film di 60 microns hanno soddisfatto le seguenti caratteristiche: aderenza (ISO2409), imbutitura Erichsen (ISO1520), urto inverso (DIN53158), mandrino conico (DIN53151), durezza (ASTM D3363/74).

### Resistenza al calore:

- 24 ORE A 150°C.

### Resistenza alla corrosione:

- Nebbia salina ASTM B 117/97 da 100 a 500 ore in funzione del trattamento preliminare del supporto.

### Prestazioni:

Capacità di carico verificata secondo: ISO 14521, DIN 3996, BS 721, AGMA 6034, ISO 6336, DIN 3990, DIN 743, ISO 281

## Design features

UK

Motovario products are supplied with the following surface treatment features:

### Die-cast aluminium alloy cases for gears

Die-cast materials undergo the following surface cleaning operations:

- De-burring by means of a mechanically operated shearing system
- Accurate shot-peening
- Washing and passivation

### Grey-coloured cast-iron cases for gears

- Die-cast materials are always painted

### Painting specifications:

Orange-peel blue epoxy-polyester RAL 5010. Polyester resin based heat-hardening powders, altered with epoxy resins.

### Mechanical properties

- Tests carried out onto degreased Unichim white latters (film thickness: 60 microns) comply with the following specifications: adherence (ISO2409), Erichsen drawing (ISO152), inverted shock (DIN53158), cone-shaped mandrel (DIN53151), hardness (ASTM D3363/74).

### Heat resistance

- 24 HOURS AT 150°C.

### Corrosion strength

- ASTM B 117/97 salt fog from 100 to 500 hours depending on the support's preliminary treatment.

### Performance:

Loading capacity in accordance with: ISO 14521, DIN 3996, BS 721, AGMA 6034, ISO 6336, DIN 3990, DIN 743, ISO 281

## Caractéristiques de construction

FR

Les produits Motovario sont fournis suivant l'état de finition suivant:

### Carter en aluminium moulé sous pression

Les carters bruts subissent les opérations de finition suivantes:

- Elimination des bavures, dues à la coulée, par des moyens mécaniques (ébarbeuse)
- Grenaillage soigné
- Lavage et passivation

### Réducteurs avec carter en fonte gris:

- Les réducteurs sont toujours peints.

### Détails sur la peinture:

Epoxy-polyester bleu "peau d'orange" RAL 5010. Poudre thermodurcissable à base de résines polyester, modifiées avec des résines époxy.

### Propriétés mécaniques:

- Les essais réalisés sur des tôles minces Unichim dégraissées (épaisseur de la couche: 60 microns) sont conformes aux caractéristiques suivantes: adhérence (ISO2409), emboutissage Erichsen (ISO1520), choc inversé (DIN 53158), mandrin conique (DIN 53151), dureté (ASTM D3363/74).

### Résistance à la chaleur:

- 24 HEURES A 150°C.

### Résistance à la corrosion:

- Brouillard salin ASTM B 117/97 de 100 à 500 h., compte tenu du traitement préliminaire du support.

### Performances:

Capacité de charge vérifiée conformément à: ISO 14521, DIN 3996, BS 721, AGMA 6034, ISO 6336, DIN 3990, DIN 743, ISO 281

## Baueigenschaften

DE

Die Motovario-Produkte werden mit folgender Oberflächenbehandlung geliefert.

### Gehäuse aus druckgegossener Alulegierung

Die Gussteile werden folgender Oberflächenbehandlung unterzogen:

- Entgratung des Rohgusses
- Sorgfältige Kugelstrahlung
- Wäsche und Passivierung

### Baugruppen aus Grauguss:

- Die Gussteile werden immer lackiert.

### Spezifikation Lackierung:

Epoxypolyester-Pulverbesch. Blau RAL5010. Wärmehärt. Pulver auf Polyesterharze basierendes und mit Epoxydharz modifiz.

### Mechanische Eigenschaften:

- Die Tests, die auf entfetteten Unichim-Bleichen mit 60-Mikron-Filmdicke durchgeführt wurden, haben folgende Anforderungen erfüllt: Haftvermögen (ISO2409), Ziehen nach Erichsen (ISO1520), umgekehrter Stoss (DIN53158), konische Spindel (DIN53151), Härte (ASTM D3363/74).

### Wärmebeständigkeit:

- 24 STUNDEN BEI 150°C.

### Korrosionsbeständigkeit:

- Salznebel ASTM B 117/97 von 100 bis 500 Stunden, je nach Vorbehandlung des Untergrundes

### Leistungen:

Tragkraft überprüft gemäß: ISO 14521, DIN 3996, BS 721, AGMA 6034, ISO 6336, DIN 3990, DIN 743, ISO 281

## Características de construcción

ES

Los productos Motovario se entregan con el siguiente acabado superficial.

### Cajas aleación aluminio fund.a presión

Se realizan las siguientes operaciones de limpieza superficial en las cajas:

- Eliminación de las barbas de fundición
- Granallado de alta precisión
- Lavado y pasivación

### Unidades con cajas de fundición gris:

- Las cajas se pintan siempre.

### Especificaciones pintura:

Epoxipoliéster Azul Marino RAL5010. Polvo termoestable a base de resinas poliéster, modificadas con resina epoxidica.

### Propiedades mecánicas:

- Las pruebas realizadas con las chapas finas Unichim desengrasadas con grosor del film de 60 microns han satisfecho las siguientes exigencias: adherencia (ISO2409), embutición Erichsen (ISO1520), golpe inverso (DIN 53158), mandril cónico (DIN 53151), dureza (ASTM D3363/74).

### Resistencia al calor:

- 24 HORAS A 150°C.

### Resistencia a la corrosión:

- Niebla salina ASTM B 117/97 de 100 a 500 horas en función del tratamiento preliminar del soporte.

### Prestaciones:

Capacidad de carga verificada según: ISO 14521, DIN 3996, BS 721, AGMA 6034, ISO 6336, DIN 3990, DIN 743, ISO 281

## 设计特性

CN

Motovario 产品在供货时，具有以下一些表面处理特征：

### 压铸铝合金齿轮外壳

压铸材料经受以下一些表面清洁操作：

- 去毛刺，使用的是机械式剪力系统
- 精确喷丸加工
- 洗涤与钝化

### 灰色铸铁外壳：

- 压铸材料总是需要油漆

Motovario 减速器的油漆工作 (如果需要的话)

应该满足以下一些指标：

桔皮兰色环氧树脂聚脂RAL 5010. 使用的产品：聚脂树脂型热固式粉末，可以代用环氧树脂。

### 机械性能

- 已经对去油脂的 Unichim 白薄板进行了测试 (片材厚度: 60 μm)，符合以下一些指标：粘着力 (ISO2409), Erichsen 图纸 (ISO152), 反向振动 (DIN53158), 锥形心轴 (DIN53151), 硬度 (ASTM D3363/74)。

### 耐热

- 24 小时、150°C。

### 耐腐蚀强度

- ASTM B 117/97 盐雾，100 - 500 小时，取决于支架的初步处理情况。

### 性能

已按：ISO 14521, DIN 3996, BS 721, AGMA 6034, ISO 6336, DIN 3990, DIN 743, ISO 281 对载荷能力进行验证。

**Designazione / Designation / Désignation /  
Bezeichnung / Designación / 名称**

[illegible]

**Designazione / Designation / Désignation /  
Bezeichnung / Designación / 名称**

| NMRV-P | 063 | HW030  | FA | 30     | 160*14 | VS | 125 | 25 | B3 | ... |
|--------|-----|--------|----|--------|--------|----|-----|----|----|-----|
| NMRV-P | 063 | HW030  | FA | 22,08  | PAM    |    |     |    | B3 |     |
| NRV-P  | 075 | HW040  | FB | ...    | ECE    |    |     |    | B8 |     |
|        | 090 | IHW040 | FC | 1083,3 |        |    |     |    | B6 |     |
|        | 110 |        | FD | 7,5    |        |    |     |    | B7 |     |
|        |     |        | FE | 10     |        |    |     |    | V5 |     |

Tipo riduttore  
Gearbox type  
Type du réducteur  
Getriebetyp  
Tipo reductore  
齿轮箱类型

Grandezza  
Size  
Grandeur  
Baugröße  
Tamaño  
规格

Precoppia di riduzione  
Pre-stage helical module  
Précouple de réduction  
Übersetzungsvorstufe  
Pre-reducción  
前置级螺旋模块

Flangia uscita  
Output flange  
Bride de sortie  
Abtriebsflansch  
Brida de salida  
输出法兰

Rapporto di riduzione  
Reduction ratio  
Rapport de réduction  
Übersetzungsverhältnis  
Relación de reducción  
减速比

Dimensioni entrata  
Input dimensions  
Dimensions d'entrée  
Abmessungen antriebsseitig  
Dimensiones entrada  
输入尺寸

Predisposto per attacco motore  
Fitted for motor coupling  
Prédisposé pour montage moteur  
für Motoranbau vorbereitet  
Predispuesto para montaje motor  
供电机联轴器的装配用

Diametro albero d'entrata  
Input shaft diameter  
Diamètre de l'arbre d'entrée  
Durchmesser der Eingangswelle  
Diámetro eje de entrada  
输入轴直径

**P (PAM)**  
(160x14)

**E (ECE)**  
(28)

Accessori  
Accessories  
Accessoires  
Zubehör  
Accesorios  
附件

Posizione di piazzamento  
Mounting position  
Position de montage  
Einbaulage  
Posición de montaje  
安装位置

Ø Albero uscita  
Ø Output shaft  
Ø Arbre de sortie  
Ø Abtriebswelle  
Ø Eje de salida  
Ø 输出轴

Ø Flangia uscita  
Ø Output flange  
Ø Bride de sortie  
Ø Abtriebsflansch  
Ø Brida de salida  
Ø 输出法兰

Vite senza fine bisporgente  
Double input shaft  
Vis double sortie  
Schnecke mit doppeltem Wellenende  
Tornillo sinfin prolongado  
双输入轴

# Designazione / Designation / Désignation / Bezeichnung / Designación / 名称

| NMRV+NMRV-P   | 050+110 | FA | 900 | 160*14 | 40 | BS1 | B3 |
|---------------|---------|----|-----|--------|----|-----|----|
| NMRV+NMRV     | 025+030 | FA |     | PAM    |    | AS1 |    |
| NRV+NMRV      | 025+040 | FB |     | ECE    |    | AS2 |    |
| NMRV+NMRV-P   | 030+040 | FC |     |        |    | BS1 |    |
| NMRV-P+NMRV   | 030+050 | FD |     |        |    | BS2 |    |
| NMRV-P+NMRV-P | 030+063 | FE |     |        |    | VS1 |    |
| NRV+NMRV-P    | 040+050 |    |     |        |    | VS2 |    |
| NRV-P+NMRV    | 040+063 |    |     |        |    | PS1 |    |

Tipo riduttore  
 Gearbox type  
 Type du réducteur  
 Getriebetyp  
 Tipo reductore  
 齿轮箱类型

Motoriduttore combinato  
 Combined geared motor  
 Motorréducteur combiné  
 Zweistufiger getriebemotor  
 Motorreductor combinado  
 组合式蜗轮蜗杆电机

Riduttore combinato  
 Combined gear reducer  
 Réducteur combiné  
 Zweistufiges getriebe  
 Reductor combinado  
 组合式蜗轮蜗杆减速机

Grandezza  
 Size  
 Grandeur  
 Baugröße  
 Tamaño  
 规格

Flangia uscita  
 Output flange  
 Bride de sortie  
 Abtriebsflansch  
 Brida de salida  
 输出法兰

Rapporto di riduzione  
 Reduction ratio  
 Rapport de réduction  
 Übersetzungsverhältnis  
 Relación de reducción  
 减速比

Pos. di piazzamento  
 Mounting position  
 Position de montage  
 Einbaulage  
 Posición de montaje  
 安装位置

Esecuzione  
 Execution  
 Exécution  
 Montageform  
 Ejecución  
 执行

Ø Albero uscita  
 Ø Output shaft  
 Ø Arbre de sortie  
 Ø Abtriebswelle  
 Ø Eje de salida  
 Ø 输出轴

Dimensioni entrata  
 Input dimensions  
 Dimensions d'entrée  
 Abmessungen antriebsseitig  
 Dimensiones entrada  
 输入尺寸

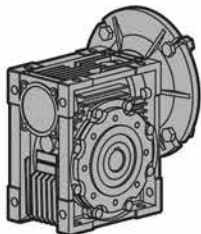
**P (PAM)**  
 (160x14)

Predisposto per attacco motore  
 Fitted for motor coupling  
 Prédisposé pour montage moteur  
 für Motoranbau vorbereitet  
 Predispuesto para montaje motor  
 供电机联轴器的装配用

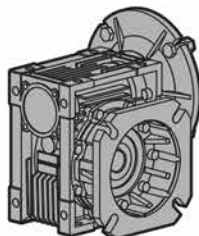
**E (ECE)**  
 (28)

Diametro albero d'entrata  
 Input shaft diameter  
 Diamètre de l'arbre d'entrée  
 Durchmesser der Eingangswelle  
 Diámetro eje de entrada  
 输入轴直径

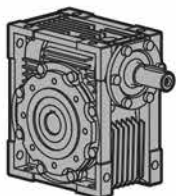
Versioni / Versions / Versions /  
Ausführungen / Versiones / 版本



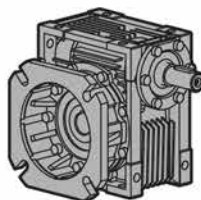
**NMRV 025-050**  
**NMRV 130-150**



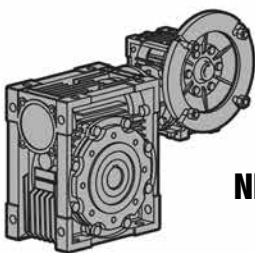
**NMRV 025-050 F**  
**NMRV 130-150 F**



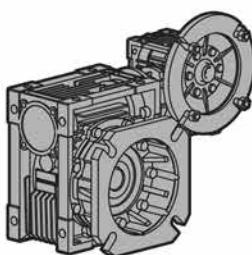
**NRV 030-050**  
**NRV 130-150**



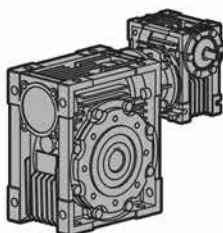
**NRV 030-050 F**  
**NRV 130-150 F**



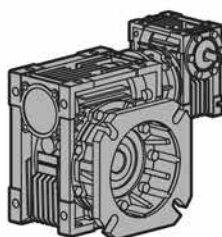
**NMRV-NMRV...**



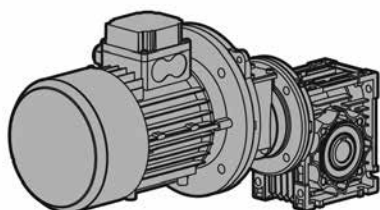
**NMRV-NMRV... F**



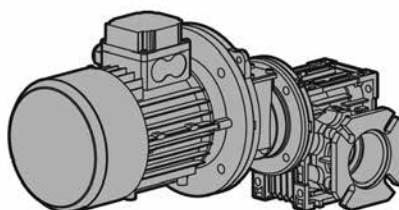
**NRV-NMRV...**



**NRV-NMRV... F**



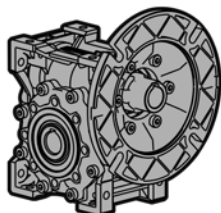
**HA31 + NMRV...**



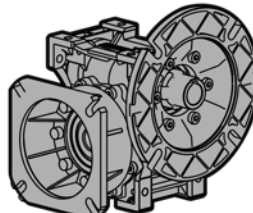
**HA31 + NMRV... F**



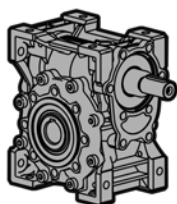
Versioni / Versions / Versions /  
Ausführungen / Versiones / 版本



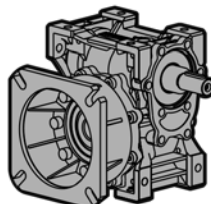
**NMRVpower 063-110**



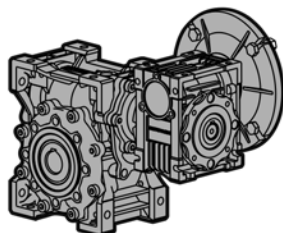
**NMRVpower 063-110 F**



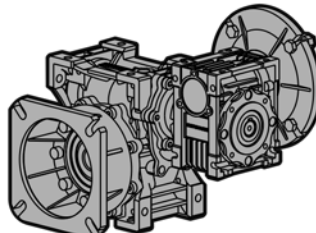
**NRVpower 063-110**



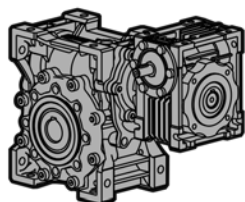
**NRVpower 063-110 F**



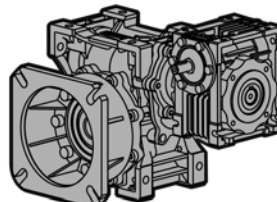
**NMRV-NMRVpower...  
NMRVpower-NMRV...  
NMRVpower-NMRVpower...**



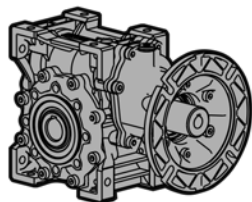
**NMRV-NMRVpower... F  
NMRVpower-NMRV... F  
NMRVpower-NMRVpower... F**



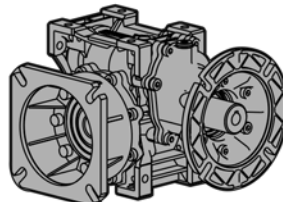
**NRV-NMRVpower...  
NRVpower-NMRV...  
NRVpower-NRVpower...**



**NRV-NMRVpower... F  
NRVpower-NRV... F  
NRVpower-NRVpower... F**

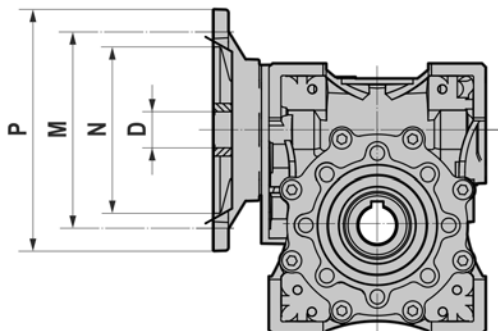


**NMRVpower/HW...**



**NMRVpower/HW... F**

**Predisposizione / Predisposition / Prédiposition /  
Motoranbau / Predisposición / 预配置**

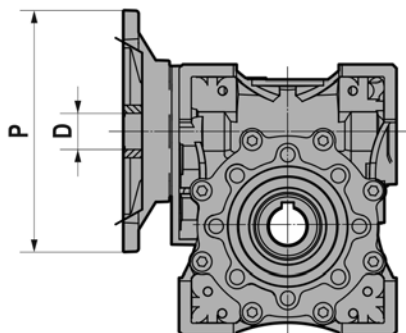


- (\*) Linguetta ribassata di nostra fornitura.  
(\*) Low profile key supplied by Motovario.  
(\*) Abgeflachte Paßfeder im Lieferumfang.  
(\*) Clavette surbaissée fournie.  
(\*) Chavetero rebajado de nuestro suministro.  
(\*) 由 Motovario 提供的小型键。
- (\*\*) Combinazioni motore-rapporto non fattibile.  
(\*\*) Motor-ratio combination not feasible.  
(\*\*) Combinaisons Moteur-rapport non réalisables.  
(\*\*) Kombination Motor/Übersetzung nicht möglich.  
(\*\*) Combinaciones motor-relación no factibles.  
(\*\*) 马达-比值组合不可行。

- (+) Combinazioni motore-rapporto da non utilizzare, non rientranti nelle condizioni di garanzia.  
(+) Motor-ratio combination not to be used, out of warranty terms.  
(+) Combinaisons moteur-rapport à ne pas utiliser, incompatible avec les conditions de garantie.  
(+) Kombination Motor/Übersetzung nicht verwendbar, ausserhalb der Gewährleistung.  
(+) Combinaciones motor-relación no utilizables, fuera de las condiciones de garantía.  
(+) 马达-比值组合不可采用，超出质保条款。

| NMRV<br>NMRV-P | PAM<br>IEC | N   | M   | P   | i  |     |     |     |     |     |     |     |    |    |    |     |
|----------------|------------|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|----|----|----|-----|
|                |            |     |     |     | 5  | 7,5 | 10  | 15  | 20  | 25  | 30  | 40  | 50 | 60 | 80 | 100 |
|                |            |     |     |     | D  |     |     |     |     |     |     |     |    |    |    |     |
| 025            | 56B14      | 50  | 65  | 80  | 9  | 9   | 9   | 9   | 9   |     | 9   | 9   | 9  | 9  |    |     |
|                | 63B5       | 95  | 115 | 140 | 11 | 11  | 11  | 11  | 11  | 11  | 11  | 11  | 11 | ** | ** | **  |
| 030            | 63B14      | 60  | 75  | 90  |    |     |     |     |     |     |     |     |    |    |    |     |
|                | 56B5       | 80  | 100 | 120 | 9  | 9   | 9   | 9   | 9   | 9   | 9   | 9   | 9  | 9  | 9  | **  |
|                | 56B14      | 50  | 65  | 80  |    |     |     |     |     |     |     |     |    |    |    |     |
|                | 71B5       | 110 | 130 | 160 | 14 | 14  | 14  | 14  | 14  | 14  | 14  | 14  | ** | ** | ** | **  |
| 040            | 71B14      | 70  | 85  | 105 |    |     |     |     |     |     |     |     |    |    |    |     |
|                | 63B5       | 95  | 115 | 140 | 11 | 11  | 11  | 11  | 11  | 11  | 11  | 11  | 11 | 11 | 11 | 11  |
|                | 63B14      | 60  | 75  | 90  | ** | **  | **  | **  | **  | **  | **  | **  | 9  | 9  | 9  | 9   |
|                | 56B5       | 80  | 100 | 120 | 19 | 19  | 19  | 19  | 19  | 19  | 19  | **  | ** | ** | ** | **  |
| 050            | 80B5       | 130 | 165 | 200 | 14 | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14 | 14 | 14 | **  |
|                | 80B14      | 80  | 100 | 120 | ** | **  | **  | **  | **  | **  | **  | 11  | 11 | 11 | 11 | 11  |
|                | 71B5       | 110 | 130 | 160 | ** | 24  | 24  | 24  | 24  | 24  | 24  | 24  | +  | +  | +  | +   |
|                | 71B14      | 70  | 85  | 105 | ** | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 19 | 19 | 19 | +   |
| 063            | 80B14      | 80  | 100 | 120 | ** | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14 | 14 | 14 | 14  |
|                | 71B5       | 110 | 130 | 160 | ** | 28  | 28  | 28  | 28  | 28  | 28  | +   | +  | +  | +  | +   |
|                | 71B14      | 70  | 85  | 105 | ** | 24  | 24  | 24  | 24  | 24  | 24  | 24  | 24 | 24 | +  | +   |
|                | 100/112B5  | 180 | 215 | 250 | ** | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 19 | 19 | 19 | 19  |
| 075            | 100/112B14 | 110 | 130 | 160 | ** | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14 | 14 | 14 | 14  |
|                | 90B5       | 130 | 165 | 200 | ** | 28  | 28  | 28  | 28  | 28  | 28  | +   | +  | +  | +  | +   |
|                | 90B14      | 95  | 115 | 140 | ** | 24  | 24  | 24  | 24  | 24  | 24  | 24  | 24 | 24 | +  | +   |
|                | 80B5       | 130 | 165 | 200 | ** | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 19 | 19 | 19 | 19  |
| 090            | 80B14      | 80  | 100 | 120 | ** | 28  | 28  | 28  | 28  | 28  | 28  | 28  | 28 | 28 | 28 | 28  |
|                | 71B5       | 110 | 130 | 160 | ** | 24  | 24  | 24  | 24  | 24  | 24  | 24  | 24 | 24 | 24 | +   |
|                | 71B14      | 70  | 85  | 105 | ** | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 19 | 19 | 19 | 19  |
|                | 100/112B5  | 180 | 215 | 250 | ** | 38  | 38  | 38  | 38  | 38  | 38  | 38  | 38 | 38 | 38 | 38  |
| 110            | 100/112B14 | 110 | 130 | 160 | ** | 38* | 38* | 38* | 38* | 38* | 38* | 38* | ** | ** | ** | **  |
|                | 90B5       | 130 | 165 | 200 | ** | 28  | 28  | 28  | 28  | 28  | 28  | 28  | 28 | 28 | 28 | 28  |
|                | 90B14      | 95  | 115 | 140 | ** | 24  | 24  | 24  | 24  | 24  | 24  | 24  | 24 | 24 | 24 | 24  |
|                | 80B5       | 130 | 165 | 200 | ** | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 19 | 19 | 19 | 19  |
| 130            | 80B14      | 80  | 100 | 120 | ** | 28  | 28  | 28  | 28  | 28  | 28  | 28  | 28 | 28 | 28 | 28  |
|                | 132B5      | 230 | 265 | 300 | ** | 38* | 38* | 38* | 38* | 38* | 38* | 38* | ** | ** | ** | **  |
|                | 100/112B5  | 180 | 215 | 250 | ** | 28  | 28  | 28  | 28  | 28  | 28  | 28  | 28 | 28 | 28 | 28  |
|                | 90B5       | 130 | 165 | 200 | ** | 24  | 24  | 24  | 24  | 24  | 24  | 24  | 24 | 24 | 24 | 24  |
| 150            | 160B5      | 250 | 300 | 350 | ** | 38  | 38  | 38  | 38  | 38  | 38  | 38  | 38 | 38 | 38 | 38  |
|                | 132B5      | 230 | 265 | 300 | ** | 42  | 42  | 42  | 42  | 42  | 42  | 42  | ** | ** | ** | **  |
|                | 100/112B5  | 180 | 215 | 250 | ** | 28  | 28  | 28  | 28  | 28  | 28  | 28  | 28 | 28 | 28 | 28  |
|                | 160B5      | 250 | 300 | 350 | ** | 38  | 38  | 38  | 38  | 38  | 38  | 38  | 38 | 38 | 38 | 38  |

## Predisposizione / Predisposition / Prédiposition / Motoranbau / Predisposición / 预配置



### PAM IBRIDI / HYBRID PAM / PAM HYBRIDE / HYBRID PAM / PAM DEL HÍBRIDO / 杂种PAM

- |                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (*) Linguetta ribassata di nostra fornitura.<br>(*) Low profile key supplied by Motovario.<br>(*) Abgeflachte Paßfeder im Lieferumfang.<br>(*) Clavette surbaissée fournie.<br>(*) Chavetero rebajado de nuestro suministro.<br>(*) 由 Motovario 提供的小型键。 | (**) Per NMRV-P 110 flangia Ø300 unica soluzione possibile boccola Ø38.<br>(**) For NMRV-P 110 flange Ø300 only possible solution bush Ø38.<br>(**) Pour NMRV-P 110 bride Ø300 seule solution possible bouche Ø38.<br>(**) Für NMRV-P 110 Flansch Ø300 einzige Lösung möglich Büchse Ø38.<br>(**) Para NMRV-P 110 acople Ø300 única solución posible arandela Ø38.<br>(**) 对 NMRV-P 110来说, 直径300的凸缘需要直径300的衬套。 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

- (+) Combinazioni motore-rapporto da non utilizzare, non rientranti nelle condizioni di garanzia.  
 (+) Motor-ratio combination not to be used, out of warranty terms.  
 (+) Combinaisons moteur-rapport à ne pas utiliser, incompatible avec les conditions de garantie.  
 (+) Kombination Motor/Übersetzung nicht verwendbar, außerhalb der Gewährleistung.  
 (+) Combinaciones motor-relación no utilizables, fuera de las condiciones de garantía.  
 (+) 马达-比值组合不可采用, 超出质保条款。

| NMRV<br>NMRV-P | P   | i  |      |      |      |      |      |      |      |    |    |    |     |
|----------------|-----|----|------|------|------|------|------|------|------|----|----|----|-----|
|                |     | 5  | 7,5  | 10   | 15   | 20   | 25   | 30   | 40   | 50 | 60 | 80 | 100 |
|                |     | D  |      |      |      |      |      |      |      |    |    |    |     |
| 030            | 140 |    |      |      |      |      |      |      |      |    |    |    |     |
|                | 120 | 11 | 11   | 11   | 11   | 11   | 11   | 11   | 11   | 11 | 9  | 9  |     |
|                | 90  | 9  | 9    | 9    | 9    | 9    | 9    | 9    | 9    | 9  |    |    |     |
|                | 80  |    |      |      |      |      |      |      |      |    |    |    |     |
| 040            | 160 |    |      |      |      |      |      |      |      |    |    |    |     |
|                | 140 |    |      |      |      |      |      |      |      |    |    |    |     |
|                | 120 | 14 | 14   | 14   | 14   | 14   | 14   | 14   | 14   | 11 | 11 | 11 | 11  |
|                | 105 | 11 | 11   | 11   | 11   | 11   | 11   | 11   | 11   | 9  | 9  | 9  | 9   |
|                | 90  |    |      |      |      |      |      |      |      |    |    |    |     |
| 050            | 200 |    |      |      |      |      |      |      |      |    |    |    |     |
|                | 160 |    |      |      |      |      |      |      |      |    |    |    |     |
|                | 140 | 19 | 19   | 19   | 19   | 19   | 19   | 19   | 14   | 14 | 14 | 14 | 11  |
|                | 120 | 14 | 14   | 14   | 14   | 14   | 14   | 14   | 11   | 11 | 11 | 11 |     |
|                | 105 |    |      |      |      |      |      |      |      |    |    |    |     |
| 063            | 200 |    |      |      |      |      |      |      |      |    |    |    |     |
|                | 160 |    |      |      |      |      |      |      |      |    |    |    |     |
|                | 140 |    | 24   | 24   | 24   | 24   | 24   | 24   | 24   | 19 | 19 | 19 | 14  |
|                | 120 |    | 19   | 19   | 19   | 19   | 19   | 19   | 19   | 14 | 14 | 14 |     |
|                | 105 |    | 14   | 14   | 14   | 14   | 14   | 14   | 14   |    |    |    |     |
| 075            | 250 |    |      |      |      |      |      |      |      |    |    |    |     |
|                | 200 |    |      |      |      |      |      |      |      |    |    |    |     |
|                | 160 |    | 28   | 28   | 28   | 28   | 28   | 28   | 24   | 24 | 24 | 19 | 19  |
|                | 140 |    | 24   | 24   | 24   | 24   | 24   | 24   | 19   | 19 | 19 | 14 | 14  |
|                | 120 |    | 19   | 19   | 19   | 19   | 19   | 19   | 14   | 14 | 14 |    |     |
|                | 105 |    | 14   | 14   | 14   | 14   | 14   | 14   |      |    |    |    |     |
| 090            | 250 |    |      |      |      |      |      |      |      |    |    |    |     |
|                | 200 |    |      |      |      |      |      |      |      |    |    |    |     |
|                | 160 |    | 28   | 28   | 28   | 28   | 28   | 28   | 28   | 24 | 24 | 24 | 19  |
|                | 140 |    | 24   | 24   | 24   | 24   | 24   | 24   | 19   | 19 | 19 |    |     |
|                | 120 |    | 19   | 19   | 19   | 19   | 19   | 19   |      |    |    |    |     |
| 110            | 300 |    | 38** | 38** | 38** | 38** | 38** | 38** | 38** | +  | +  | +  | +   |
|                | 250 |    |      |      |      |      |      |      |      |    |    |    |     |
|                | 200 |    |      |      |      |      |      |      |      |    |    |    |     |
|                | 160 |    | 28   | 28   | 28   | 28   | 28   | 28   | 28   | 28 | 28 | 24 | 24  |
|                | 140 |    | 24   | 24   | 24   | 24   | 24   | 24   | 24   | 24 | 24 | 19 | 19  |
|                | 120 |    | 19   | 19   | 19   | 19   | 19   | 19   | 19   | 19 | 19 |    |     |
| 130            | 300 |    |      |      |      |      |      |      |      |    |    |    |     |
|                | 250 |    |      |      |      |      |      |      |      |    |    |    |     |
|                | 200 |    | 38*  | 38*  | 38*  | 38*  | 38*  | 38*  | 38*  | 28 | 28 | 28 | 24  |
|                | 160 |    |      |      |      |      |      |      |      |    |    |    |     |
| 150            | 350 |    |      |      |      |      |      |      |      |    |    |    |     |
|                | 300 |    |      |      |      |      |      |      |      |    |    |    |     |
|                | 250 |    | 42   | 42   | 42   | 42   | 42   | 38   | 38   | 38 | 38 | 28 | 28  |

## Predisposizione

IT

Le configurazioni risultanti dalla tabella riportata nella pagina precedente sono da intendersi possibili esclusivamente per quanto riguarda la compatibilità geometrica. La compatibilità meccanica dell'insieme motore/riduttore dovrà essere necessariamente verificata mediante l'uso delle consuete tabelle delle prestazioni NRV/NRV-P

## Predisposition

UK

The table in the previous page report possible configurations strictly based on geometric criteria. To determine the compatibility of a motor-gear unit assembly in terms of mechanical factors, double check the selected configuration against the rating charts for NRV/NRV-P performances.

## Prédisposition

FR

Les configurations résultant des tableaux de la page précédente sont possibles exclusivement du point de vue de la compatibilité géométrique. La compatibilité mécanique de l'ensemble moteur-réducteur doit être nécessairement vérifiée en utilisant les tableaux habituels de sélection par NRV/NRV-P

## Motoranbau

DE

Die vorherige Tabelle gibt eine Übersicht der möglichen Kombinationen, basierend auf geometrische Kriterien.  
Um die gewünschte Kompatibilität abzugleichen, prüfen Sie bitte die entsprechende Motor/Getriebekom-  
bination in der Leistungsübersicht NRV / NRV-P

## Predisposición

ES

Las configuraciones mostradas en la tabla de la página anterior están basadas exclusivamente en criterios geométricos. La compatibilidad mecánica del conjunto motor/reductor deberá ser verificada mediante el uso de las habituales tablas de prestaciones NRV/NRV-P

## 预配置

CN

上表列出了严格符合尺寸标准的几种可能配置。为确保电机齿轮装置在机械系数方面的兼容性，应对照NRV/NRV-P额定值图表复核所选配置的合理性。

## HA31+NMRV - Predisposizione / Predisposition / Prédiposition / Motoranbau / Predisposición / 预配置

| HA31<br>i <sub>1</sub> | NMRV 040<br>i <sub>2</sub> | i <sub>1</sub> x i <sub>2</sub> | 63 | 71 | 80 |
|------------------------|----------------------------|---------------------------------|----|----|----|
| 2,94                   | 7,5                        | <b>22,08</b>                    | B5 | B5 | B5 |
| 4,75                   | 5                          | <b>23,75</b>                    | B5 | B5 | B5 |
| 5,10                   | 5                          | <b>25,50</b>                    | B5 | B5 |    |
| 2,94                   | 10                         | <b>29,44</b>                    | B5 | B5 |    |
| 6,30                   | 5                          | <b>31,50</b>                    | B5 | B5 |    |
| 4,75                   | 7,5                        | <b>35,63</b>                    | B5 | B5 |    |
| 5,45                   | 7,5                        | <b>40,91</b>                    | B5 | B5 |    |
| 2,94                   | 15                         | <b>44,17</b>                    | B5 | B5 |    |
| 4,75                   | 10                         | <b>47,50</b>                    | B5 | B5 |    |
| 5,45                   | 10                         | <b>54,55</b>                    | B5 | B5 |    |
| 2,94                   | 20                         | <b>58,89</b>                    | B5 | B5 |    |
| 6,30                   | 10                         | <b>63,00</b>                    | B5 | B5 |    |
| 4,75                   | 15                         | <b>71,25</b>                    | B5 | B5 |    |
| 7,88                   | 10                         | <b>78,75</b>                    | B5 |    |    |
| 2,94                   | 30                         | <b>88,33</b>                    | B5 |    |    |
| 6,30                   | 15                         | <b>94,50</b>                    | B5 |    |    |
| 5,10                   | 20                         | <b>102,00</b>                   | B5 |    |    |
| 5,45                   | 20                         | <b>109,09</b>                   | B5 |    |    |
| 7,88                   | 15                         | <b>118,13</b>                   | B5 |    |    |
| 5,10                   | 25                         | <b>127,50</b>                   | B5 |    |    |
| 4,75                   | 30                         | <b>142,50</b>                   | B5 |    |    |
| 3,87                   | 40                         | <b>154,67</b>                   | B5 |    |    |
| 5,45                   | 30                         | <b>163,64</b>                   | B5 |    |    |
| 6,30                   | 30                         | <b>189,00</b>                   | B5 |    |    |
| 5,10                   | 40                         | <b>204,00</b>                   | B5 |    |    |

| HA31<br>i <sub>1</sub> | NMRV 050<br>i <sub>2</sub> | i <sub>1</sub> x i <sub>2</sub> | 63 | 71 | 80 |
|------------------------|----------------------------|---------------------------------|----|----|----|
| 2,94                   | 7,5                        | <b>22,08</b>                    |    | B5 | B5 |
| 4,75                   | 5                          | <b>23,75</b>                    | B5 | B5 | B5 |
| 5,10                   | 5                          | <b>25,50</b>                    | B5 | B5 |    |
| 2,94                   | 10                         | <b>29,44</b>                    | B5 | B5 | B5 |
| 6,30                   | 5                          | <b>31,50</b>                    | B5 | B5 |    |
| 4,75                   | 7,5                        | <b>35,63</b>                    | B5 | B5 | B5 |
| 5,45                   | 7,5                        | <b>40,91</b>                    | B5 | B5 |    |
| 2,94                   | 15                         | <b>44,17</b>                    | B5 | B5 | B5 |
| 4,75                   | 10                         | <b>47,50</b>                    | B5 | B5 | B5 |
| 5,45                   | 10                         | <b>54,55</b>                    | B5 | B5 |    |
| 2,94                   | 20                         | <b>58,89</b>                    | B5 | B5 |    |
| 6,30                   | 10                         | <b>63,00</b>                    | B5 | B5 |    |
| 4,75                   | 15                         | <b>71,25</b>                    | B5 | B5 |    |
| 7,88                   | 10                         | <b>78,75</b>                    | B5 | B5 |    |
| 2,94                   | 30                         | <b>88,33</b>                    | B5 | B5 |    |
| 6,30                   | 15                         | <b>94,50</b>                    | B5 | B5 |    |
| 5,10                   | 20                         | <b>102,00</b>                   | B5 | B5 |    |
| 5,45                   | 20                         | <b>109,09</b>                   | B5 | B5 |    |
| 7,88                   | 15                         | <b>118,13</b>                   | B5 | B5 |    |
| 5,10                   | 25                         | <b>127,50</b>                   | B5 | B5 |    |
| 4,75                   | 30                         | <b>142,50</b>                   | B5 | B5 |    |
| 3,87                   | 40                         | <b>154,67</b>                   | B5 | B5 |    |
| 5,45                   | 30                         | <b>163,64</b>                   | B5 | B5 |    |
| 6,30                   | 30                         | <b>189,00</b>                   | B5 |    |    |
| 5,10                   | 40                         | <b>204,00</b>                   | B5 |    |    |
| 7,88                   | 30                         | <b>236,25</b>                   | B5 |    |    |
| 6,30                   | 40                         | <b>252,00</b>                   | B5 |    |    |
| 5,45                   | 50                         | <b>272,73</b>                   | B5 |    |    |
| 4,75                   | 60                         | <b>285,00</b>                   | B5 |    |    |
| 6,30                   | 50                         | <b>315,00</b>                   | B5 |    |    |

**NMRVpower/HW - Predisposizione / Predisposition / Prédiposition /  
Motoranbau / Predisposición / 预配置**

| NMRVpower 063 / HW030 |    |    |        |        |
|-----------------------|----|----|--------|--------|
| i                     | 56 | 63 | 71     | 80     |
| 22,08                 |    |    | B5-B14 | B5-B14 |
| 29,00                 |    |    | B5-B14 | B5-B14 |
| 38,67                 |    |    | B5-B14 | B5-B14 |
| 44,17                 |    |    | B5-B14 | B5-B14 |
| 47,50                 |    | B5 | B5-B14 | B5-B14 |
| 58,00                 |    | B5 | B5-B14 | B5-B14 |
| 71,25                 |    | B5 | B5-B14 | B5-B14 |
| 77,33                 |    | B5 | B5-B14 | B5-B14 |
| 81,82                 |    | B5 | B5-B14 | B5-B14 |
| 88,33                 |    | B5 | B5-B14 | B5-B14 |
| 95,00                 |    | B5 | B5-B14 | B5-B14 |
| 109,09                |    | B5 | B5-B14 | B5-B14 |
| 118,13                |    | B5 | B5-B14 | B5-B14 |
| 136,36                |    | B5 | B5-B14 | B5-B14 |
| 142,50                |    | B5 | B5-B14 | B5-B14 |
| 157,50                |    | B5 | B5-B14 | B5-B14 |
| 163,64                |    | B5 | B5-B14 | B5-B14 |
| 176,67                | B5 | B5 | B5-B14 |        |
| 196,88                | B5 | B5 | B5-B14 |        |
| 218,18                | B5 | B5 | B5-B14 |        |
| 236,25                | B5 | B5 | B5-B14 |        |
| 272,73                | B5 | B5 | B5-B14 |        |
| 315,00                | B5 | B5 | B5-B14 |        |
| 393,75                | B5 | B5 | B5-B14 |        |
| 433,33                | B5 | B5 |        |        |
| 472,50                | B5 | B5 |        |        |
| 541,67                | B5 | B5 |        |        |
| 650,00                | B5 | B5 |        |        |
| 787,50                | B5 |    |        |        |
| 866,67                | B5 |    |        |        |
| 1083,33               | B5 |    |        |        |

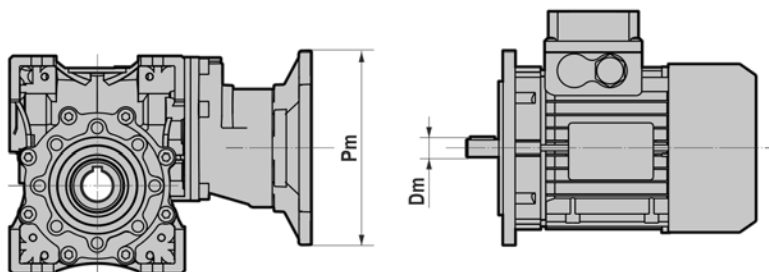
| NMRVpower 075 / HW030 |    |    |        |        |
|-----------------------|----|----|--------|--------|
| i                     | 56 | 63 | 71     | 80     |
| 22,08                 |    |    |        | B5-B14 |
| 29,00                 |    |    | B5-B14 | B5-B14 |
| 38,67                 |    |    | B5-B14 | B5-B14 |
| 44,17                 |    |    | B5-B14 | B5-B14 |
| 47,50                 |    |    | B5-B14 | B5-B14 |
| 58,00                 |    |    | B5-B14 | B5-B14 |
| 71,25                 |    |    | B5-B14 | B5-B14 |
| 77,33                 |    |    | B5-B14 | B5-B14 |
| 81,82                 |    | B5 | B5-B14 | B5-B14 |
| 88,33                 |    | B5 | B5-B14 | B5-B14 |
| 95,00                 |    | B5 | B5-B14 | B5-B14 |
| 109,09                |    | B5 | B5-B14 | B5-B14 |
| 116,00                |    | B5 | B5-B14 | B5-B14 |
| 136,36                |    | B5 | B5-B14 | B5-B14 |
| 142,50                |    | B5 | B5-B14 | B5-B14 |
| 154,67                |    | B5 | B5-B14 | B5-B14 |
| 163,64                |    | B5 | B5-B14 | B5-B14 |
| 176,67                |    | B5 | B5-B14 | B5-B14 |
| 196,88                |    | B5 | B5-B14 | B5-B14 |
| 218,18                |    | B5 | B5-B14 | B5-B14 |
| 236,25                |    | B5 | B5-B14 | B5-B14 |
| 272,73                |    | B5 | B5-B14 | B5-B14 |
| 315,00                |    | B5 | B5-B14 |        |
| 393,75                | B5 | B5 | B5-B14 |        |
| 472,50                | B5 | B5 | B5-B14 |        |
| 541,67                | B5 | B5 |        |        |
| 650,00                | B5 | B5 |        |        |
| 787,50                | B5 | B5 |        |        |
| 866,67                | B5 | B5 |        |        |
| 1083,33               | B5 |    |        |        |

## NMRVpower/HW - Predisposizione / Predisposition / Prédiposition / Motoranbau / Predisposición / 预配置

| NMRVpower090 / HW040 |    |        |        |        |
|----------------------|----|--------|--------|--------|
| i                    | 63 | 71     | 80     | 90     |
| 23,29                |    |        | B5-B14 | B5-B14 |
| 31,05                |    |        | B5-B14 | B5-B14 |
| 42,00                |    |        | B5-B14 | B5-B14 |
| 46,58                |    |        | B5-B14 | B5-B14 |
| 63,00                |    | B5-B14 | B5-B14 | B5-B14 |
| 77,63                |    | B5-B14 | B5-B14 | B5-B14 |
| 84,00                |    | B5-B14 | B5-B14 | B5-B14 |
| 93,16                |    | B5-B14 | B5-B14 | B5-B14 |
| 110,00               |    | B5-B14 | B5-B14 | B5-B14 |
| 126,00               |    | B5-B14 | B5-B14 | B5-B14 |
| 137,50               |    | B5-B14 | B5-B14 | B5-B14 |
| 155,26               | B5 | B5-B14 | B5-B14 | B5-B14 |
| 165,00               |    | B5-B14 | B5-B14 | B5-B14 |
| 186,32               | B5 | B5-B14 | B5-B14 |        |
| 220,00               | B5 | B5-B14 | B5-B14 | B5-B14 |
| 252,00               | B5 | B5-B14 | B5-B14 |        |
| 275,00               | B5 | B5-B14 | B5-B14 |        |
| 304,55               | B5 | B5-B14 | B5-B14 |        |
| 330,00               | B5 | B5-B14 | B5-B14 |        |
| 383,33               | B5 | B5-B14 | B5-B14 |        |
| 437,50               | B5 | B5-B14 |        |        |
| 460,00               | B5 | B5-B14 |        |        |
| 525,00               | B5 | B5-B14 |        |        |
| 613,33               | B5 | B5-B14 |        |        |
| 700,00               | B5 | B5-B14 |        |        |
| 766,67               | B5 |        |        |        |
| 875,00               | B5 |        |        |        |

| NMRVpower110 / HW040 |    |        |        |        |
|----------------------|----|--------|--------|--------|
| i                    | 63 | 71     | 80     | 90     |
| 23,29                |    |        | B5-B14 | B5-B14 |
| 31,05                |    |        | B5-B14 | B5-B14 |
| 42,00                |    |        | B5-B14 | B5-B14 |
| 46,58                |    |        | B5-B14 | B5-B14 |
| 62,11                |    |        | B5-B14 | B5-B14 |
| 77,63                |    |        | B5-B14 | B5-B14 |
| 84,00                |    |        | B5-B14 | B5-B14 |
| 93,16                |    |        | B5-B14 | B5-B14 |
| 105,00               |    |        | B5-B14 | B5-B14 |
| 126,00               |    |        | B5-B14 | B5-B14 |
| 137,50               |    | B5-B14 | B5-B14 | B5-B14 |
| 155,26               |    | B5-B14 | B5-B14 | B5-B14 |
| 168,00               |    | B5-B14 | B5-B14 | B5-B14 |
| 186,32               |    | B5-B14 | B5-B14 | B5-B14 |
| 220,00               |    | B5-B14 | B5-B14 | B5-B14 |
| 252,00               |    | B5-B14 | B5-B14 | B5-B14 |
| 275,00               |    | B5-B14 | B5-B14 | B5-B14 |
| 304,55               | B5 | B5-B14 | B5-B14 | B5-B14 |
| 330,00               | B5 | B5-B14 | B5-B14 |        |
| 383,33               | B5 | B5-B14 | B5-B14 |        |
| 440,00               | B5 | B5-B14 | B5-B14 |        |
| 460,00               | B5 | B5-B14 | B5-B14 |        |
| 525,00               | B5 | B5-B14 |        |        |
| 613,33               | B5 | B5-B14 | B5-B14 |        |
| 700,00               | B5 | B5-B14 |        |        |
| 766,67               | B5 | B5-B14 |        |        |
| 875,00               | B5 | B5-B14 |        |        |

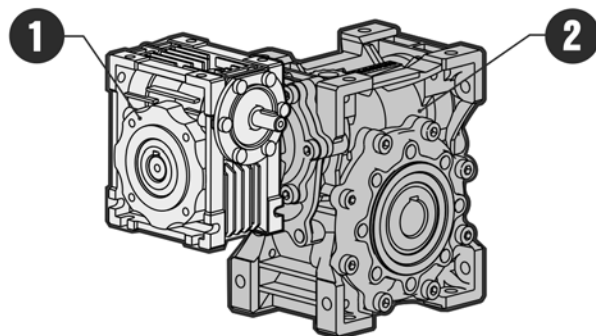
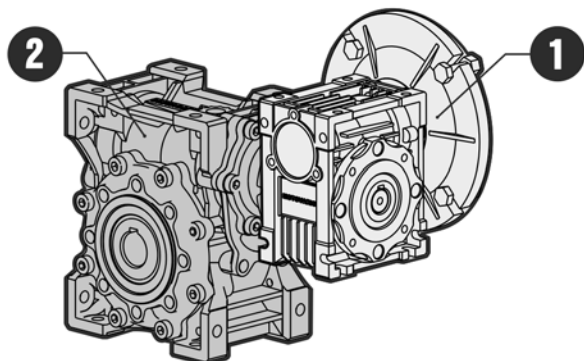
## NMRVpower/HW - Predisposizione / Predisposition / Prédiposition / Motoranbau / Predisposición / 预配置



| B5  |     |    |
|-----|-----|----|
|     | Pm  | Dm |
| 056 | 120 | 9  |
| 063 | 140 | 11 |
| 071 | 160 | 14 |
| 080 | 200 | 19 |
| 090 | 200 | 24 |

| B14 |     |    |
|-----|-----|----|
|     | Pm  | Dm |
| 071 | 105 | 14 |
| 080 | 120 | 19 |
| 090 | 140 | 24 |

**NMRV/NMRV - NRV/NMRV - NMRV/NMRVpower - NRV/NMRVpower - NMRVpower/NMRV  
NRVpower/NMRV - NMRVpower-NMRVpower - NRVpower-NMRVpower  
Rapporti / Ratios / Rapport / Übersetzung / Relación / 减速比**



| i    | NMRV/NMRV      | i1  | i2 |
|------|----------------|-----|----|
| 100  | <b>025/030</b> | 10  | 10 |
| 150  |                | 7,5 | 20 |
| 200  |                | 10  | 20 |
| 250  |                | 10  | 25 |
| 300  |                | 10  | 30 |
| 400  |                | 20  | 20 |
| 500  |                | 20  | 25 |
| 600  |                | 20  | 30 |
| 750  |                | 30  | 25 |
| 900  |                | 15  | 60 |
| 1200 |                | 30  | 40 |
| 1500 |                | 30  | 50 |
| 1800 |                | 60  | 30 |
| 2400 |                | 60  | 40 |
| 3000 |                | 60  | 50 |
| 4000 |                | 50  | 80 |

| i    | NMRV/NMRV      | i1  | i2  |
|------|----------------|-----|-----|
| 100  | <b>025/040</b> | 10  | 10  |
| 150  |                | 7,5 | 20  |
| 200  |                | 10  | 20  |
| 250  |                | 10  | 25  |
| 300  |                | 10  | 30  |
| 400  |                | 20  | 20  |
| 500  |                | 20  | 25  |
| 600  |                | 20  | 30  |
| 750  |                | 30  | 25  |
| 900  |                | 30  | 30  |
| 1200 |                | 30  | 40  |
| 1500 |                | 30  | 50  |
| 1800 |                | 60  | 30  |
| 2400 |                | 60  | 40  |
| 3000 |                | 60  | 50  |
| 4000 |                | 50  | 80  |
| 5000 |                | 50  | 100 |

| i    | NMRV/NMRV<br>NRV/NMRV | i1   | i2    |
|------|-----------------------|------|-------|
| 100  | <b>030/040</b>        | 10,0 | 10,0  |
| 150  |                       | 10,0 | 15,0  |
| 200  |                       | 10,0 | 20,0  |
| 250  |                       | 10,0 | 25,0  |
| 300  |                       | 10,0 | 30,0  |
| 400  |                       | 10,0 | 40,0  |
| 500  |                       | 20,0 | 25,0  |
| 600  |                       | 20,0 | 30,0  |
| 750  |                       | 25,0 | 30,0  |
| 900  |                       | 30,0 | 30,0  |
| 1200 |                       | 40,0 | 30,0  |
| 1500 |                       | 50,0 | 30,0  |
| 1800 |                       | 60,0 | 30,0  |
| 2400 |                       | 60,0 | 40,0  |
| 3000 |                       | 60,0 | 50,0  |
| 4000 |                       | 50,0 | 80,0  |
| 5000 |                       | 50,0 | 100,0 |

| i    | NMRV/NMRV<br>NRV/NMRV | i1   | i2    |
|------|-----------------------|------|-------|
| 100  | <b>030/050</b>        | 10,0 | 10,0  |
| 150  |                       | 10,0 | 15,0  |
| 200  |                       | 10,0 | 20,0  |
| 250  |                       | 10,0 | 25,0  |
| 300  |                       | 10,0 | 30,0  |
| 400  |                       | 10,0 | 40,0  |
| 500  |                       | 10,0 | 50,0  |
| 600  |                       | 20,0 | 30,0  |
| 750  |                       | 25,0 | 30,0  |
| 900  |                       | 30,0 | 30,0  |
| 1200 |                       | 40,0 | 30,0  |
| 1500 |                       | 50,0 | 30,0  |
| 1800 |                       | 60,0 | 30,0  |
| 2400 |                       | 60,0 | 40,0  |
| 3000 |                       | 60,0 | 50,0  |
| 4000 |                       | 50,0 | 80,0  |
| 5000 |                       | 50,0 | 100,0 |

| i    | NMRV/NMRVpower<br>NRV/NMRVpower | i1   | i2    |
|------|---------------------------------|------|-------|
| 100  | <b>030/063</b>                  | 10,0 | 10,0  |
| 150  |                                 | 10,0 | 15,0  |
| 200  |                                 | 10,0 | 20,0  |
| 250  |                                 | 10,0 | 25,0  |
| 300  |                                 | 7,5  | 40,0  |
| 400  |                                 | 10,0 | 40,0  |
| 500  |                                 | 10,0 | 50,0  |
| 600  |                                 | 20,0 | 30,0  |
| 750  |                                 | 25,0 | 30,0  |
| 900  |                                 | 30,0 | 30,0  |
| 1200 |                                 | 40,0 | 30,0  |
| 1500 |                                 | 50,0 | 30,0  |
| 1800 |                                 | 60,0 | 30,0  |
| 2400 |                                 | 60,0 | 40,0  |
| 3000 |                                 | 60,0 | 50,0  |
| 4000 |                                 | 80,0 | 50,0  |
| 5000 |                                 | 50,0 | 100,0 |



**NMRV/NMRV - NRV/NMRV - NMRV/NMRVpower - NRV/NMRVpower - NMRVpower/NMRV**  
**NRVpower/NMRV - NMRVpower-NMRVpower - NRVpower-NMRVpower**  
**Rapporti / Ratios / Rapport / Übersetzung / Relación / 減速比**

| i | NMRV/NMRV<br>NRV/NMRV<br>NMRV/NMRVpower<br>NRV/NMRVpower | i1 | i2 |
|---|----------------------------------------------------------|----|----|
|---|----------------------------------------------------------|----|----|

|      |         |       |      |
|------|---------|-------|------|
| 100  | 040/050 | 10,0  | 10,0 |
| 150  |         | 10,0  | 15,0 |
| 200  |         | 10,0  | 20,0 |
| 250  |         | 10,0  | 25,0 |
| 300  |         | 10,0  | 30,0 |
| 400  |         | 10,0  | 40,0 |
| 500  |         | 50,0  | 10,0 |
| 600  |         | 20,0  | 30,0 |
| 750  |         | 25,0  | 30,0 |
| 900  |         | 60,0  | 15,0 |
| 1200 |         | 40,0  | 30,0 |
| 1500 |         | 50,0  | 30,0 |
| 1800 |         | 60,0  | 30,0 |
| 2400 |         | 60,0  | 40,0 |
| 3000 |         | 60,0  | 50,0 |
| 4000 |         | 80,0  | 50,0 |
| 5000 |         | 100,0 | 50,0 |
| 100  | 040/063 | 10,0  | 10,0 |
| 150  |         | 10,0  | 15,0 |
| 200  |         | 10,0  | 20,0 |
| 250  |         | 10,0  | 25,0 |
| 300  |         | 10,0  | 30,0 |
| 400  |         | 10,0  | 40,0 |
| 500  |         | 20,0  | 25,0 |
| 600  |         | 20,0  | 30,0 |
| 750  |         | 25,0  | 30,0 |
| 900  |         | 30,0  | 30,0 |
| 1200 |         | 40,0  | 30,0 |
| 1500 |         | 50,0  | 30,0 |
| 1800 |         | 60,0  | 30,0 |
| 2400 |         | 60,0  | 40,0 |
| 3000 |         | 60,0  | 50,0 |
| 4000 |         | 80,0  | 50,0 |
| 5000 |         | 100,0 | 50,0 |
| 100  | 040/075 | 10,0  | 10,0 |
| 150  |         | 10,0  | 15,0 |
| 200  |         | 10,0  | 20,0 |
| 250  |         | 10,0  | 25,0 |
| 300  |         | 10,0  | 30,0 |
| 400  |         | 10,0  | 40,0 |
| 500  |         | 10,0  | 50,0 |
| 600  |         | 20,0  | 30,0 |
| 750  |         | 25,0  | 30,0 |
| 900  |         | 30,0  | 30,0 |
| 1200 |         | 40,0  | 30,0 |
| 1500 |         | 50,0  | 30,0 |
| 1800 |         | 60,0  | 30,0 |
| 2400 |         | 60,0  | 40,0 |
| 3000 |         | 60,0  | 50,0 |
| 4000 |         | 80,0  | 50,0 |
| 5000 |         | 100,0 | 50,0 |

| i | NMRV/NMRVpower<br>NRV/NMRVpower | i1 | i2 |
|---|---------------------------------|----|----|
|---|---------------------------------|----|----|

|      |         |       |      |
|------|---------|-------|------|
| 100  | 040/090 | 10,0  | 10,0 |
| 150  |         | 10,0  | 15,0 |
| 200  |         | 10,0  | 20,0 |
| 250  |         | 10,0  | 25,0 |
| 300  |         | 10,0  | 30,0 |
| 400  |         | 10,0  | 40,0 |
| 500  |         | 10,0  | 50,0 |
| 600  |         | 20,0  | 30,0 |
| 750  |         | 25,0  | 30,0 |
| 900  |         | 30,0  | 30,0 |
| 1200 |         | 40,0  | 30,0 |
| 1500 |         | 50,0  | 30,0 |
| 1800 |         | 60,0  | 30,0 |
| 2400 |         | 60,0  | 40,0 |
| 3000 |         | 60,0  | 50,0 |
| 4000 |         | 80,0  | 50,0 |
| 5000 |         | 100,0 | 50,0 |
| 100  | 050/090 | 10,0  | 10,0 |
| 150  |         | 10,0  | 15,0 |
| 200  |         | 10,0  | 20,0 |
| 250  |         | 10,0  | 25,0 |
| 300  |         | 10,0  | 30,0 |
| 400  |         | 10,0  | 40,0 |
| 500  |         | 20,0  | 25,0 |
| 600  |         | 20,0  | 30,0 |
| 750  |         | 25,0  | 30,0 |
| 900  |         | 30,0  | 30,0 |
| 1200 |         | 40,0  | 30,0 |
| 1500 |         | 50,0  | 30,0 |
| 1800 |         | 60,0  | 30,0 |
| 2400 |         | 60,0  | 40,0 |
| 3000 |         | 60,0  | 50,0 |
| 4000 |         | 80,0  | 50,0 |
| 5000 |         | 100,0 | 50,0 |
| 100  | 050/110 | 10,0  | 10,0 |
| 150  |         | 10,0  | 15,0 |
| 200  |         | 10,0  | 20,0 |
| 250  |         | 10,0  | 25,0 |
| 300  |         | 10,0  | 30,0 |
| 400  |         | 10,0  | 40,0 |
| 500  |         | 20,0  | 25,0 |
| 600  |         | 20,0  | 30,0 |
| 750  |         | 25,0  | 30,0 |
| 900  |         | 30,0  | 30,0 |
| 1200 |         | 40,0  | 30,0 |
| 1500 |         | 50,0  | 30,0 |
| 1800 |         | 60,0  | 30,0 |
| 2400 |         | 60,0  | 40,0 |
| 3000 |         | 60,0  | 50,0 |
| 4000 |         | 80,0  | 50,0 |
| 5000 |         | 100,0 | 50,0 |

| i | NMRVpower/NMRVpower<br>NRVpower/NMRVpower<br>NMRVpower/NMRV<br>NRVpower/NMRV | i1 | i2 |
|---|------------------------------------------------------------------------------|----|----|
|---|------------------------------------------------------------------------------|----|----|

|      |         |       |      |
|------|---------|-------|------|
| 100  | 063/110 | 10,0  | 10,0 |
| 150  |         | 10,0  | 15,0 |
| 200  |         | 10,0  | 20,0 |
| 250  |         | 10,0  | 25,0 |
| 300  |         | 10,0  | 30,0 |
| 400  |         | 10,0  | 40,0 |
| 500  |         | 20,0  | 25,0 |
| 600  |         | 20,0  | 30,0 |
| 750  |         | 25,0  | 30,0 |
| 900  |         | 30,0  | 30,0 |
| 1200 |         | 40,0  | 30,0 |
| 1500 |         | 50,0  | 30,0 |
| 1800 |         | 60,0  | 30,0 |
| 2400 |         | 60,0  | 40,0 |
| 3000 |         | 60,0  | 50,0 |
| 4000 |         | 80,0  | 50,0 |
| 5000 |         | 100,0 | 50,0 |
| 100  | 063/130 | 10,0  | 10,0 |
| 150  |         | 10,0  | 15,0 |
| 200  |         | 10,0  | 20,0 |
| 250  |         | 10,0  | 25,0 |
| 300  |         | 10,0  | 30,0 |
| 400  |         | 10,0  | 40,0 |
| 500  |         | 10,0  | 50,0 |
| 600  |         | 20,0  | 30,0 |
| 750  |         | 25,0  | 30,0 |
| 900  |         | 30,0  | 30,0 |
| 1200 |         | 40,0  | 30,0 |
| 1500 |         | 50,0  | 30,0 |
| 1800 |         | 60,0  | 30,0 |
| 2400 |         | 60,0  | 40,0 |
| 3000 |         | 60,0  | 50,0 |
| 4000 |         | 80,0  | 50,0 |
| 5000 |         | 100,0 | 50,0 |
| 150  | 063/150 | 7,5   | 20,0 |
| 200  |         | 10,0  | 20,0 |
| 250  |         | 10,0  | 25,0 |
| 300  |         | 15,0  | 20,0 |
| 400  |         | 10,0  | 40,0 |
| 500  |         | 10,0  | 50,0 |
| 600  |         | 15,0  | 40,0 |
| 750  |         | 15,0  | 50,0 |
| 900  |         | 30,0  | 30,0 |
| 1200 |         | 30,0  | 40,0 |
| 1500 |         | 30,0  | 50,0 |
| 1800 |         | 60,0  | 30,0 |
| 2400 |         | 60,0  | 40,0 |
| 3000 |         | 60,0  | 50,0 |
| 4000 |         | 80,0  | 50,0 |
| 5000 |         | 100,0 | 50,0 |

## Rendimento

IT

Un parametro che influisce in maniera determinante nella definizione di talune applicazioni è il rendimento. Il rendimento dipende essenzialmente da elementi definiti dal progettista all'atto del progetto della coppia. La tabella dei dati di dentatura (pag.35) riporta i valori di rendimento dinamico ( $n_1=1400$ ) e rendimento statico. I valori indicati vengono raggiunti solo dopo la fase di rodaggio, a temperatura ambiente  $25^\circ\text{C}$ , a fattore di servizio 1 e olio di fornitura standard.

### Irreversibilità dinamica

L'irreversibilità dinamica si realizza quando al venir meno del moto sull'asse della vite, si ha un arresto istantaneo del moto sull'asse dell'albero lento. Questa condizione si realizza quando il rendimento dinamico è  $\eta_d < 0.5$  (tab. pag.35).

### Irreversibilità statica

L'irreversibilità statica si realizza quando, a riduttore fermo, l'applicazione di un carico all'albero lento non mette in movimento l'asse della vite. Questa condizione si realizza quando il rendimento statico è  $\eta_s < 0.5$  (tab. pag.35).

**N.B.:** La presenza di vibrazioni o urti può modificare le condizioni sopra descritte.

## Efficiency

UK

Efficiency is a parameter which has a major influence on the sizing of certain applications, and basically depends on gear pair design elements. The mesh data table on page 35 shows dynamic efficiency ( $n_1=1400$ ) and static efficiency values. These values are only valid after the unit has been run in, is being used at ambient temperatures of  $25^\circ\text{C}$ , where service factor is 1 and with standard lubricant.

### Dynamic irreversibility

Dynamic irreversibility is achieved when the output shaft stops instantly when drive is no longer transmitted through the worm shaft. This condition requires a dynamic efficiency of  $\eta_d < 0.5$  (see table on page 35).

### Static irreversibility

Static irreversibility is achieved when, with the gear reducer at a standstill, the application of a load to the output shaft does not set in motion the worm shaft. This condition requires a static efficiency of  $\eta_s < 0.5$  (see table on page 35).

**N.B.:** Vibrations and shocks can affect a gear reducer's irreversibility.

## Rendement

FR

Le rendement est un facteur qui influe considérablement sur la définition de certaines applications. Le rendement dépend principalement d'éléments définis par le concepteur au moment de la réalisation du projet du couple. Le tableau des données de denture (page 35) montre les valeurs de rendement dynamique ( $n_1=1400$ ) et de rendement statique. Noter que Les valeurs indiquées ne sont atteintes qu'après la phase de rodage à une température ambiante de  $25^\circ\text{C}$ , un facteur de service 1 et un lubrifiant standard.

### Irreversibilité dynamique

L'irreversibilité dynamique s'obtient lorsqu'à l'interruption du mouvement sur l'axe de la vis correspond un arrêt instantané du mouvement sur l'arbre PV. Cette condition se réalise lorsque le rendement dynamique est  $\eta_d < 0.5$  (tabl. page 35).

### Irréversibilité statique

L'irreversibilité statique s'obtient lorsque, réducteur arrêté, l'application d'une charge sur l'arbre PV ne met pas l'axe de la vis. Cette condition se réalise lorsque le rendement statique est  $\eta_s < 0.5$  (tabl. page 35).

**N.B.:** La présence de vibrations ou de chocs peut modifier les conditions susmentionnées.

## Wirkungsgrad

DE

Der Wirkungsgrad ist für die Art der Anwendung wichtig. Er wird entscheidend von den Verzahnungsdaten beeinflusst. In der Übersicht der Verzahnungsdaten (S. 35) finden Sie die Werte des dynamischen ( $n_1 = 1400$ ) und statischen Wirkungsgrades. Zu berücksichtigen ist, dass diese Werte nur Bestand haben, bei der Verwendung der Standard Öle, einer Umgebungstemperatur von  $25^\circ\text{C}$  und  $F_s=1$ .

### Dynamische Selbsthemmung

Im Zustand dynamischer Selbsthemmung tritt sofortiger Stillstand der Abtriebswelle ein, wenn die Schneckenwelle nicht mehr angetrieben wird. Die theoretische Voraussetzung für dynamische Selbsthemmung ist ein dynamischer Wirkungsgrad  $\eta_d < 0.5$  (Tab. Seite 35).

### Statische Selbsthemmung

Bei statischer Selbsthemmung ist ein Anlauf aus dem Stillstand bei treibendem Schneckenrad nicht möglich. Statische Selbsthemmung liegt bei einem statischen Wirkungsgrad  $\eta_s < 0.5$  vor (Tab. Seite 35).  
**N.B.:** Die oben genannten Bedingungen können durch Vibrationen oder Stöße beeinträchtigt werden.

## Rendimiento

ES

Un parámetro que reviste importancia fundamental en la definición de algunas aplicaciones es el rendimiento. El rendimiento depende esencialmente de variables definidas por el proyectista al momento de definir el par. La tabla de los datos del dentado (pág. 35) indica los valores de rendimiento dinámico ( $n_1=1400$ ) y rendimiento estático. Los valores indicados son alcanzados sólo una vez concluida la fase de rodaje, a temperatura ambiente  $25^\circ\text{C}$ ,  $F_s=1$  y aceite estándar de suministro.

### Irreversibilidad dinámica

La irreversibilidad dinámica se produce cuando, al faltar el movimiento en el eje del tornillo, se produce una detención instantánea en el eje del árbol lento. Esta situación se produce cuando el rendimiento dinámico es  $\eta_d < 0.5$  (tab. pág. 35).

### Irreversibilidad estática

La irreversibilidad estática se produce cuando, con el reductor detenido, la aplicación de una carga al árbol lento no pone en movimiento el eje del tornillo. Esta situación se produce cuando el rendimiento estático es  $\eta_s < 0.5$  (tab. pág. 35).

**N.B.:** La presencia de vibraciones o choques podría modificar estos valores.

## 效率

CN

效率对确定某些应用的规模具有很大影响，且基本上取决于齿轮对的设计要素。第35页上的网孔数据列出了动态效率 ( $n_1=1400$ ) 以及静态效率值。这些值只有在这个单元正常运行时，并且保证环境温度为  $25^\circ\text{C}$ ，服务因素 = 1，用标准的润滑剂时才是有效的。

### 动态不可逆性

动态不可逆性是在驱动器不再通过蜗轮轴传输，导致输出轴立即停止时获取的。该条件要求动态效率  $\eta_d < 0.5$  (参阅第35页上的表)。

### 静态不可逆性

静态不可逆性是在齿轮减速器静止时向输出轴施加负载但不能使蜗轮轴运转时获取的。该条件要求静态效率  $\eta_s < 0.5$  (参阅第35页上的表)。

注：振动和冲击可以影响齿轮减速器的不可逆性。

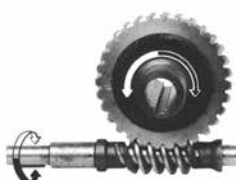
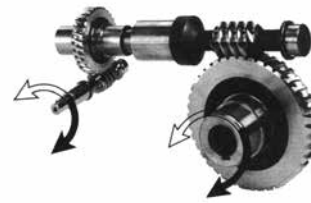
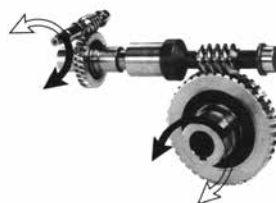
**Irreversibilità / Irreversibility / Irréversibilité /  
Selbsthemmung / Irreversibilidad / 不可逆性**

| $\eta_d$         | IRREVERSIBILITA' DINAMICA      | DYNAMIC IRREVERSIBILITY      | IRREVERSIBILITE DYNAMIQUE          | DYNAMISCHE SELBSTHEMMUNG          | IRREVERSIBILIDAD DINAMICA          | 动态不可逆性   |
|------------------|--------------------------------|------------------------------|------------------------------------|-----------------------------------|------------------------------------|----------|
| <b>&gt; 0.6</b>  | reversibilità dinamica         | dynamic reversibility        | réversibilité dynamique            | dynamische Reversierbarkeit       | reversibilidad dinámica            | 动态可逆性    |
| <b>0.5 ÷ 0.6</b> | reversibilità dinamica incerta | low dynamic reversibility    | réversibilité dynamique incertaine | kaum dynamische Reversierbarkeit  | reversibilidad dinámica incierta   | 动态不可逆性低  |
| <b>0.4 ÷ 0.5</b> | buona irreversibilità dinamica | good dynamic irreversibility | bonne irréversibilité dynamique    | schwache dynamische Selbsthemmung | adecuada irreversibilidad dinámica | 动态不可逆性良好 |
| <b>&lt; 0.4</b>  | irreversibilità dinamica       | dynamic irreversibility      | irréversibilité dynamique          | dynamische Selbsthemmung          | irreversibilidad dinámica          | 动态不可逆性   |

| $\eta_s$          | IRREVERSIBILITA' STATICA      | STATIC IRREVERSIBILITY   | IRREVERSIBILITE STATIQUE          | STATISCHE SELBSTHEMMUNG         | IRREVERSIBILIDAD ESTATICA        | 静态不可逆性  |
|-------------------|-------------------------------|--------------------------|-----------------------------------|---------------------------------|----------------------------------|---------|
| <b>&gt; 0.55</b>  | reversibilità statica         | static reversibility     | réversibilité statique            | statische Reversierbarkeit      | reversibilidad estática          | 静态可逆性   |
| <b>0.5 ÷ 0.55</b> | reversibilità statica incerta | low static reversibility | réversibilité statique incertaine | kaum statische Reversierbarkeit | reversibilidad estática incierta | 静态不可逆性低 |
| <b>&lt; 0.5</b>   | irreversibilità statica       | static irreversibility   | irréversibilité statique          | statische Selbsthemmung         | irreversibilidad estática        | 静态不可逆性  |

- La tabella riporta classificazioni indicative sul grado di irreversibilità.
- The table shows approximate irreversibility classes.
- Le tableau montre la classification indicative sur le degré d'irréversibilité.
- In der Übersicht sind die Angaben zur Selbsthemmung nur als Richtwerte wiedergegeben.
- La tabla indica clasificaciones genéricas sobre el grado de irreversibilidad.
- 该表显示了近似的不可逆性级别。

- Per i riduttori combinati verificare la condizione di irreversibilità sul gruppo con rendimento più basso.
- The irreversibility condition of combined gear reducers is given by the units with the lowest efficiency.
- La condition d'irréversibilité des réducteurs combinés est donnée par le groupe avec rendement plus faible.
- Auf die zweistufige Schneckengetriebemotoren ist die Selbsthemmungsbedingung durch das Getriebe mit dem kleinst Wirkungsgrad gegeben.
- En caso de reductores combinados verifiquen la irreversibilidad sobre el grupo con rendimiento más bajo.
- 组合式齿轮减速器的不可逆性 由具有最小效率的机组给出

**Senso di rotazione / Direction of rotation / Sens de rotation /  
Dreh Sinn / Sentido de rotacion / 旋转方向**

**NMRV-NRV**

**NMRV + NMRV - NRV + NMRV**

- Il senso dell'elica è destro.
- The helix is right-handed.
- Die Schnecke ist rechtsgängig.
- Le sens d'hélice est à droite.
- El sentido de la hélice es hacia la derecha
- 螺旋是右手螺旋。

**Dati ingranamento / Mesh data / Données des engranages /  
Verzahnungsdaten / Datos engrane / 网孔数据**

| NRV        | i        | 5      | 7,5    | 10     | 15     | 20     | 25     | 30    | 40    | 50    | 60    | 80    | 100   |
|------------|----------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|
| <b>025</b> | Z1       | 6      | 4      | 3      | 2      | 2      |        | 1     | 1     | 1     | 1     |       |       |
|            | γ        | 35°02' | 25°03' | 19°19' | 13°09' | 10°41' |        | 6°40' | 5°23' | 4°31' | 3°53' |       |       |
|            | Mx       | 1,3    | 1,3    | 1,3    | 1,3    | 0,995  |        | 1,3   | 0,995 | 0,8   | 0,67  |       |       |
|            | ηδ(1400) | 0,87   | 0,85   | 0,83   | 0,79   | 0,75   |        | 0,67  | 0,62  | 0,58  | 0,55  |       |       |
|            | ηs       | 0,72   | 0,71   | 0,68   | 0,61   | 0,56   |        | 0,46  | 0,41  | 0,36  | 0,34  |       |       |
| <b>030</b> | Z1       | 6      | 4      | 3      | 2      | 2      | 1      | 1     | 1     | 1     | 1     | 1     |       |
|            | γ        | 27°04' | 18°49' | 14°20' | 9°40'  | 7°42'  | 5°35'  | 4°52' | 3°52' | 3°12' | 2°45' | 2°07' |       |
|            | Mx       | 1,44   | 1,44   | 1,44   | 1,44   | 1,09   | 1,7    | 1,44  | 1,09  | 0,89  | 0,74  | 0,56  |       |
|            | ηδ(1400) | 0,87   | 0,85   | 0,83   | 0,78   | 0,74   | 0,69   | 0,66  | 0,6   | 0,56  | 0,52  | 0,45  |       |
|            | ηs       | 0,72   | 0,67   | 0,63   | 0,55   | 0,5    | 0,43   | 0,39  | 0,35  | 0,31  | 0,27  | 0,23  |       |
| <b>040</b> | Z1       | 6      | 4      | 3      | 2      | 2      | 2      | 1     | 1     | 1     | 1     | 1     | 1     |
|            | γ        | 34°19' | 24°28' | 18°51' | 12°49' | 10°23' | 8°43'  | 6°29' | 5°14' | 4°23' | 3°47' | 2°57' | 2°25' |
|            | Mx       | 2,06   | 2,06   | 2,06   | 2,06   | 1,57   | 1,27   | 2,06  | 1,57  | 1,27  | 1,06  | 0,81  | 0,65  |
|            | ηδ(1400) | 0,89   | 0,87   | 0,85   | 0,83   | 0,79   | 0,76   | 0,71  | 0,66  | 0,63  | 0,59  | 0,53  | 0,48  |
|            | ηs       | 0,74   | 0,71   | 0,67   | 0,6    | 0,55   | 0,51   | 0,45  | 0,4   | 0,36  | 0,32  | 0,28  | 0,24  |
| <b>050</b> | Z1       | 6      | 4      | 3      | 2      | 2      | 2      | 1     | 1     | 1     | 1     | 1     | 1     |
|            | γ        | 33°37' | 23°54' | 18°23' | 12°30' | 10°06' | 8°29'  | 6°19' | 5°06' | 4°16' | 3°40' | 2°52' | 2°21' |
|            | Mx       | 2,56   | 2,56   | 2,56   | 2,56   | 1,95   | 1,58   | 2,56  | 1,95  | 1,58  | 1,32  | 1     | 0,8   |
|            | ηδ(1400) | 0,89   | 0,88   | 0,87   | 0,83   | 0,8    | 0,77   | 0,73  | 0,68  | 0,64  | 0,6   | 0,54  | 0,5   |
|            | ηs       | 0,74   | 0,7    | 0,66   | 0,59   | 0,55   | 0,51   | 0,44  | 0,39  | 0,35  | 0,32  | 0,27  | 0,23  |
| <b>063</b> | Z1       |        | 4      | 3      | 2      | 2      | 2      | 1     | 1     | 1     | 1     | 1     | 1     |
|            | g        |        | 24°31' | 18°53' | 12°51' | 10°25' | 8°45'  | 6°30' | 5°15' | 4°24' | 3°47' | 2°58' | 2°26' |
|            | Mx       |        | 3,25   | 3,25   | 3,25   | 2,48   | 2      | 3,25  | 2,48  | 2     | 1,68  | 1,27  | 1,02  |
|            | ηδ(1400) |        | 0,89   | 0,87   | 0,84   | 0,82   | 0,79   | 0,75  | 0,71  | 0,67  | 0,63  | 0,58  | 0,52  |
|            | ηs       |        | 0,71   | 0,67   | 0,6    | 0,55   | 0,51   | 0,45  | 0,4   | 0,36  | 0,33  | 0,28  | 0,24  |
| <b>075</b> | Z1       |        | 4      | 3      | 2      | 2      | 2      | 1     | 1     | 1     | 1     | 1     | 1     |
|            | γ        |        | 26°17' | 20°20' | 13°52' | 11°18' | 9°32'  | 7°02' | 5°42' | 4°48' | 4°08' | 3°14' | 2°40' |
|            | Mx       |        | 3,94   | 3,94   | 3,94   | 3      | 2,42   | 3,94  | 3     | 2,42  | 2,03  | 1,54  | 1,24  |
|            | ηδ(1400) |        | 0,89   | 0,88   | 0,86   | 0,83   | 0,81   | 0,77  | 0,73  | 0,7   | 0,66  | 0,61  | 0,56  |
|            | ηs       |        | 0,71   | 0,68   | 0,61   | 0,57   | 0,53   | 0,46  | 0,42  | 0,38  | 0,35  | 0,29  | 0,26  |
| <b>090</b> | Z1       |        | 4      | 3      | 2      | 2      | 2      | 1     | 1     | 1     | 1     | 1     | 1     |
|            | γ        |        | 29°11' | 22°44' | 15°36' | 12°50' | 10°54' | 7°57' | 6°30' | 5°30' | 4°46' | 3°45' | 3°06' |
|            | Mx       |        | 4,84   | 4,84   | 4,84   | 3,69   | 2,98   | 4,84  | 3,69  | 2,98  | 2,5   | 1,89  | 1,52  |
|            | ηδ(1400) |        | 0,9    | 0,89   | 0,87   | 0,85   | 0,83   | 0,79  | 0,76  | 0,73  | 0,7   | 0,64  | 0,6   |
|            | ηs       |        | 0,73   | 0,7    | 0,64   | 0,6    | 0,56   | 0,49  | 0,45  | 0,41  | 0,38  | 0,32  | 0,28  |
| <b>110</b> | Z1       |        | 4      | 3      | 2      | 2      | 2      | 1     | 1     | 1     | 1     | 1     | 1     |
|            | γ        |        | 28°15' | 21°57' | 15°02' | 14°41' | 12°34' | 7°39' | 7°28' | 6°22' | 5°32' | 4°24' | 3°39' |
|            | Mx       |        | 5,875  | 5,875  | 5,875  | 4,62   | 3,73   | 5,875 | 4,62  | 3,73  | 3,13  | 2,37  | 1,91  |
|            | ηδ(1400) |        | 0,9    | 0,89   | 0,87   | 0,86   | 0,85   | 0,8   | 0,79  | 0,76  | 0,73  | 0,68  | 0,64  |
|            | ηs       |        | 0,72   | 0,69   | 0,63   | 0,62   | 0,59   | 0,48  | 0,48  | 0,44  | 0,41  | 0,36  | 0,32  |
| <b>130</b> | Z1       |        | 4      | 3      | 2      | 2      | 2      | 1     | 1     | 1     | 1     | 1     | 1     |
|            | γ        |        | 28°41' | 22°19' | 15°18' | 13°52' | 11°49' | 7°47' | 7°02' | 5°58' | 5°11' | 4°07' | 3°24' |
|            | Mx       |        | 6,97   | 6,97   | 6,97   | 5,4    | 4,37   | 6,97  | 5,4   | 4,37  | 3,67  | 2,77  | 2,23  |
|            | ηδ(1400) |        | 0,91   | 0,89   | 0,87   | 0,87   | 0,85   | 0,81  | 0,79  | 0,76  | 0,73  | 0,69  | 0,65  |
|            | ηs       |        | 0,72   | 0,69   | 0,63   | 0,61   | 0,58   | 0,49  | 0,46  | 0,43  | 0,39  | 0,34  | 0,3   |
| <b>150</b> | Z1       |        | 6      | 4      | 3      | 2      | 2      | 2     | 1     | 1     | 1     | 1     | 1     |
|            | γ        |        | 32°09' | 24°35' | 17°27' | 12°53' | 11°19' | 9°50' | 6°32' | 5°43' | 4°57' | 3°55' | 3°14' |
|            | Mx       |        | 5,5    | 6,155  | 5,5    | 6,155  | 5      | 4,193 | 6,155 | 5     | 4,193 | 3,17  | 2,55  |
|            | ηδ(1400) |        | 0,91   | 0,9    | 0,88   | 0,87   | 0,85   | 0,84  | 0,79  | 0,77  | 0,74  | 0,69  | 0,65  |
|            | ηs       |        | 0,73   | 0,71   | 0,66   | 0,6    | 0,57   | 0,54  | 0,45  | 0,42  | 0,39  | 0,33  | 0,29  |

## NMRV - NMRVpower - Giochi angolari / Angular backlash / Jeu angulaire / Verdrehspiel / Juego angular / 角侧隙

| NMRV 030  | NMRV 040  | NMRV 050  | NMRV-P 063 | NMRV-P 075 | NMRV-P 090 | NMRV-P 110 | NMRV 130 | NMRV 150 |
|-----------|-----------|-----------|------------|------------|------------|------------|----------|----------|
| 20' - 44' | 18' - 34' | 18' - 32' | 18' - 28'  | 18' - 24'  | 6' - 18'   | 6' - 14'   | 6' - 12' | 6' - 12' |

- La tabella riporta il range medio dei valori del gioco angolare rilevabili all'albero lento, con albero veloce bloccato. Per applicazioni che richiedano giochi angolari controllati o limitati contattare il ns. servizio tecnico.
- These values can be detected on the output shaft, with the input shaft locked. For applications requiring controlled or reduced backlash, please contact our technical department.
- Le tableau indique les plages de valeurs de jeu angulaires relevés sur l'arbre lent, avec l'arbre rapide bloqué. Pour les applications nécessitant un jeu contrôlé ou limité, contactez nos services techniques.
- Die angegebenen Werte wurden bei blockierter Antriebswelle an der Abtriebswelle ermittelt. Für Anwendungen die ein reduziertes Verdrehspiel benötigen wenden Sie sich bitte an unser Vertriebsbüro.
- La tabla indica el rango medio de valores del juego angular medidos en el eje lento, con el eje veloz bloqueado. Para aplicaciones que requieran juego angular controlado o limitado contactar con nuestro servicio técnico.
- 输入轴锁定时，输出轴可测出这些数值。关于要求可控或更小侧隙的应用，请联系技术服务部门。

### Caratteristiche costruttive HA31

**IT**

Il riduttore HA31 può essere fornito come gruppo pre-stadio di riduzione e può essere montato sui riduttori NMRV040 e NMRV050, accoppiati tramite flangia Ø140.

#### Materiali

Cassa in lega di alluminio. Ingranaggi in acciaio 20MnCr5 (UNI7846) cementati, temprati, rinvenuti e accuratamente sbarbati.

### Design features HA31

**UK**

HA31 is the single stage helical gear reducer available as pre-stage for the worm gear boxes NMRV040 and NMRV050 coupled with Ø140 flange.

#### Materials

Gears 20MnCr5 (UNI7846) hardened and tempered with shaved profile.

### Caractéristiques de construction HA31

**FR**

Le réducteur HA31 a un seul train d'engrenage hélicoïdal est disponible en pré-couple pour les réducteurs à vis sans fin NMRV040 et NMRV050, montage par bride Ø140.

#### Matière

Encrenages en acier 20MnCr5 (UNI7846) trempé et rectifié.

### Baueigenschaften HA31

**DE**

Die HA31 kann als Übersetzungsvorstufe geliefert werden; die kann mit Getriebe NMRV 040 und NMRV050 durch die Flansche Ø14 gekoppelt werden.

#### Werkstoffe

Gehäuse aus Alulegierung. Zahnräder aus Stahl 20MnCr5 (UNI7846) einsatzgehärtet und sorgfältig rasiert.

### Características de construcción HA31

**ES**

El reductor HA31 se puede suministrar como grupo pre-etapa de reducción y puede ser montado en reductores NMRV040 y NMRV050, acoplados mediante brida Ø140.

#### Materiales

Carcasa en aleación de aluminio. Engranajes de acero 20MnCr5 (UNI7846) cementados, templados, revenidos y cuidadosamente desbarbados.

### 设计特性 HA31

**CN**

HA31是一个一级斜齿轮减速机，可以通过蜗轮蜗杆减速机NMRV040或者NMRV050与Ø140的法兰连接后成为前置减速机。

#### 材料

齿轮20MnCr5 ( UNI7846 ) 的剃剖面进行淬火与回火。

## Caratteristiche costruttive HW

IT

I gruppi precoppia denominati HW sono due. HW030 che può essere montato sui riduttori NMRVpower 063-075 ed HW040 che può essere montato sui riduttori NMRVpower 090-110.

La costruzione della precoppia è modulare, pertanto può essere fornita predisposta per vari attacchi motore (PAM), con flangia in B5-B14.

La precoppia è sempre accoppiata al riduttore NMRVpower.

### Materiali

Carcassa in lega di alluminio. Ingranaggi in acciaio 20MnCr5 (UNI7846) cementati, temprati, rinvenuti e accuratamente sbarbati.

## Design features HW

UK

There are two pre-stage units called HW. HW030 which can be mounted on gearboxes NMRVpower 063-075 and HW040 which can be fitted with gearboxes NMRVpower 090-110.

The pre-stage construction is modular and therefore it can be supplied for various motor (PAM) with B5 and B14 flange.

The pre-stage is always coupled to the reducer NMRVpower.

### Materials

Casing in aluminium alloy. Steel gears 20MnCr5 (UNI7846), hardened, tempered and carefully scraped.

## Caractéristiques de construction HW

FR

Les groupes précouple dénommés HW sont deux. HW030 qui peuvent être montés sur les réducteurs NMRVpower 063-075 et HW040 qui peuvent être montés sur les réducteurs NMRVpower 090-110.

La construction du précouple est modulaire et il peut donc être fourni pour divers moteur (PAM) avec bride B5 et B14. (PAM).

Le précouple est toujours couplé au réducteur NMRVpower.

### Matériaux

Carcasse en alliage d'aluminium. Engrenages en acier 20MnCr5 (UNI7846) cimentés, trempés, et attentivement ébarbé.

## Baueigenschaften HW

DE

Die Übersetzungsvorstufe genannt HW sind zwei. HW030 die mit Getriebe NMRVpower 063-075 und HW040 die mit Getriebe NMRVpower 090-110 montiert werden kann.

Die Bauweise der Übersetzungsvorstufe ist modular und kann daher für verschiedene Motor (PAM) mit B5 und B14 Flansch geliefert werden.

Die Übersetzungsvorstufe wird immer auf die Reducer NMRVpower gekoppelt.

### Werkstoffe

Gehäuse aus Alulegierung. Zahnräder aus Stahl 20MnCr5 (UNI7846), einsatzgehärtet und sorgfältig rasiert.

## Características de construcción HW

ES

Los grupos llamados precoppia HW son dos. HW030 que pueden ser montados con los reductores NMRVpower 063-075 y HW040 que pueden ser montados con los reductores NMRVpower 090-110.

La construcción de la pre-reducción es modular y por lo tanto puede ser suministrada para cualquier tipo de motor (PAM) con brida B5 y B14.

La pre-reducción siempre junto a la NMRVpower reductor.

### Materiales

Caja de aleación de aluminio. Engranajes de acero 20MnCr5 (UNI7846) cementados, templados, revenidos y cuidadosamente afeitado.

## 设计特性 HW

CN

称为HW的前置设备实际上包括两种：即可安装于NMRVpower 063-075齿轮箱上的HW030，以及可与NMRVpower 090-110齿轮箱一同安装的HW040。

前置装置为模块化设计，因此可供各种带B5和B14法兰的马达（PAM）使用。

前置设备与减速器的NMRVpower连接。

### 材料

铝合金外壳。硬化过的齿轮(回火钢 20MnCr5 (UNI7846))，精确地接地以渐开线为基础和刮得干干净净。

## Montaggio motore su flange PAM - NMRV

**IT**

Quando il gruppo viene fornito senza motore occorre osservare le seguenti raccomandazioni per garantire un corretto montaggio del motore elettrico. Controllare che le tolleranze dell'albero e della flangia motore siano corrispondenti almeno a una classe di qualità "normale".

Pulire accuratamente l'albero, il centraggio ed il piano della flangia da sporco o tracce di vernice. Procedere al montaggio del manicotto sull'albero del motore elettrico che deve avvenire senza eccessiva forzatura, in caso diverso controllare la corretta posizione e la tolleranza della linguetta motore; utilizzare comunque opportuni sistemi che garantiscano un corretto montaggio senza rischiare il danneggiamento dei cuscinetti motore. Non è previsto nessun adattamento della linguetta motore.

## Motor mounting with PAM flange - NMRV

**UK**

When the unit is supplied without motor, to ensure the correct assembly of the electric motor, it is necessary to follow recommendations below. Check that the tolerances for the motor shaft and flange correspond to the latest IEC standard.

Carefully clean the motor shaft, spigot and surfaces of the flange removing any traces of paint and dirt. Proceed to the sleeve mounting to the motor shaft taking care to ensure the motor shaft and bearings are not damaged by avoiding excessive force and where necessary using assembly equipment. Always use good procedures and practises that ensure correct operation without risking damage to the motor or unit bearings. Motor key adjustment is not provided.

## Installation moteur sur bride PAM - NMRV

**FR**

Quand le réducteur est livré sans moteur, pour un montage correcte, suivre les recommandations ci-dessous: contrôler les tolérances de l'arbre moteur et de la bride en conformité à l'IEC (dernière version). Nettoyer l'arbre moteur et les surfaces usinées de la bride afin d'enlever toutes traces de peinture et de saleté. Monter la douille sur l'arbre moteur sans effort excessif pour ne pas endommager l'arbre et les paliers. Respecter les procédures et pratiques de montage pour assurer un bon fonctionnement du groupe moto réducteur sans risque d'endommagement des paliers. Clavette moteur non fournie.

## Montage des Motors an den PAM - Flansch - NMRV

**DE**

Um eine korrekte Montage des Elektromotors zu gewährleisten sind bei Getrieben, die ohne Motor geliefert werden, folgende Vorsichtsmaßnahmen zu beachten. Übereinstimmungen der Toleranzen von Welle und Motorflansch überprüfen. Welle, Passung und Flanschfläche sind sorgfältig von Schmutz, Späne oder Lackresten zu säubern. Danach die Halbkupplung auf die Motorwelle aufsetzen; bei der Montage darauf achten, dass diese Bearbeitung spannungsfrei eingreift. Um eine Beschädigung des Motors und der Kugellager auszuschließen ist auf eine sorgfältige und vorsichtige Montage zu achten. Eine Anpassung der Motorpaßfeder ist nicht notwendig.

## Montaje motor con brida PAM - NMRV

**ES**

Cuando el grupo se suministra sin motor se deben seguir las siguientes recomendaciones para garantizar un correcto montaje del motor eléctrico. Verificar que la tolerancia del eje y de la brida del motor correspondan al menos a una clase de calidad "normal".

Pulir cuidadosamente el eje, el centrado y el plano de la brida de suciedad o restos de pintura. Proceder al montaje del buje sobre el eje del motor eléctrico que debe entrar sin excesiva fuerza, de lo contrario verificar la correcta posición y la tolerancia de la claveta del motor; utilizar en todo caso sistemas que garanticen un correcto montaje sin riesgo de dañar los rodamientos del motor. No está prevista ninguna adaptación de la claveta del motor.

## 电机安装用PAM法兰 - NMRV

**CN**

当齿轮箱不提供电机时,必须要遵循以下建议确保电机的正确组装。  
检查电机轴和法兰的公差是否符合最新的IEC标准。  
仔细清洗电机轴、套管和法兰面,去除任何残留的油漆和污垢。  
继续把轴衬套入电机轴上,确保电机轴和轴承不得因过度用力而受损,必要时使用装配设备。  
选用正确的流程和方法,无论如何都必须确保正确操作,不得对电机和减速箱轴承造成损坏。  
键槽公差应严格按照要求。

## Montaggio motore su flange PAM - NMRV-P

IT

Quando il gruppo viene fornito senza motore occorre osservare le seguenti raccomandazioni per garantire un corretto montaggio del motore elettrico. Controllare che le tolleranze dell'albero e della flangia motore siano corrispondenti almeno a una classe di qualità "normale".

Pulire accuratamente l'albero, il centraggio ed il piano della flangia da sporco o tracce di vernice. Procedere preventivamente alla verifica di montaggio della boccola (vedi figura) sull'albero del motore elettrico che deve avvenire senza eccessiva forzatura, in caso diverso controllare la corretta posizione e la tolleranza della linguetta motore.

Procedere quindi al montaggio della boccola sul riduttore facendo i denti della boccola con quelli della vite. Successivamente collegare il motore con il riduttore.

Utilizzare opportuni sistemi che garantiscano un corretto montaggio senza rischiare il danneggiamento dei cuscinetti motore. Non è previsto nessun adattamento della linguetta motore.

## Motor mounting with PAM flange - NMRV-P

UK

When the unit is supplied without motor, to ensure the correct assembly of the electric motor, it is necessary to follow recommendations below.

Check that the tolerances for the motor shaft and flange correspond to the latest IEC standard. Carefully clean the motor shaft, spigot and surfaces of the flange removing any traces of paint and dirt. Verify the correct key fitment and tolerances and then proceed fitting the bushing to the motor shaft (see picture) taking care to ensure the motor shaft and bearings are not damaged by avoiding excessive force and where necessary using assembly equipment. Finally assembly the motor to the unit ensuring its bushin teeth are in perfect alignment with the teeth of the unit bushing. Always use good procedures and practises that ensure correct operation without risking damage to the motor or unit bearings. Motor key adjustment is not provided.

## Installation moteur sur bride PAM - NMRV-P

FR

Quand le groupe est fourni sans moteur, observez les recommandations suivantes pour garantir un montage correct du moteur électrique.

Contrôler que les tolérances de l'arbre et de la bride du moteur correspondent au moins à une classe de qualité "normale".

Nettoyer soigneusement l'arbre, le centrage et le plan de la bride des traces de saleté et de peinture. Veuillez vérifier et procéder au montage de la douille sur l'arbre moteur électrique sans forcer (voir image), dans le cas contraire, vérifier la position correcte et la tolérance de la clavette du moteur.

Procéder ensuite au montage du moteur avec la douille-accouplement sur le réducteur en alignant les dents de la douille avec celles de la vis sans fin. Utiliser, si nécessaire, des systèmes appropriés qui garantissent un montage correct sans risquer de détériorer les roulements du moteur. Rainure de clavette moteur avec tolérances réduites.

## Montage des Motors an den PAM - Flansch - NMRV-P

DE

Um eine korrekte Montage des Elektromotors zu gewährleisten sind bei Getrieben, die ohne Motor geliefert werden, folgende Vorsichtsmaßnahmen zu beachten:

Übereinstimmung der Toleranzen von Welle und Motorflansch überprüfen, diese sollten mindestens DIN 42955 N entsprechen. Welle, Passung und Flanschfläche sind sorgfältig von Schmutz, Späne oder Lackresten zu säubern.

Nach der Überprüfung der korrekten Toleranzen, die Kupplungsbuchse auf den Motor aufsetzen (siehe Bild). Bei der Montage darauf achten, dass Motorwelle und Kugellager nicht beschädigt werden. Anschließend den Motor aufsetzen, dabei auf die Ausrichtung der Kupplungsverzahnung zur Verzahnung der Schneckenwelle achten, damit die Verbindung in der Verzahnung sauber und spannungsfrei eingreift. Um eine Beschädigung des Motors und der Kugellager auszuschließen ist auf eine sorgfältige und vorsichtige Montage zu achten. Eine Anpassung der Motorpaßfeder ist nicht notwendig.

## Montaje motor con brida PAM - NMRV-P

ES

Cuando el grupo se suministra sin motor se deben seguir las siguientes recomendaciones para garantizar un correcto montaje del motor eléctrico.

Verificar que la tolerancia del eje y la brida del motor corresponden al menos a una clase de calidad "normal". Limpiar cuidadosamente el eje, el centrage y el plano de la brida de suciedad o restos de pintura. Comprobar que el montaje del casquillo (ver figura) sobre el eje motor puede efectuarse sin forzar, en caso contrario verificar la colocación y tolerancia de la chaveta del motor.

Proceder al montaje del casquillo en el reductor alineando sus dientes con los del tornillo. A continuación acoplar el motor al reductor. Utilizar sistemas que garanticen un correcto montaje sin riesgo de dañar los rodamientos del motor. No está prevista ninguna adaptación de la chaveta del motor.

## 电机安装用 PAM 法兰 - NMRV-P

CN

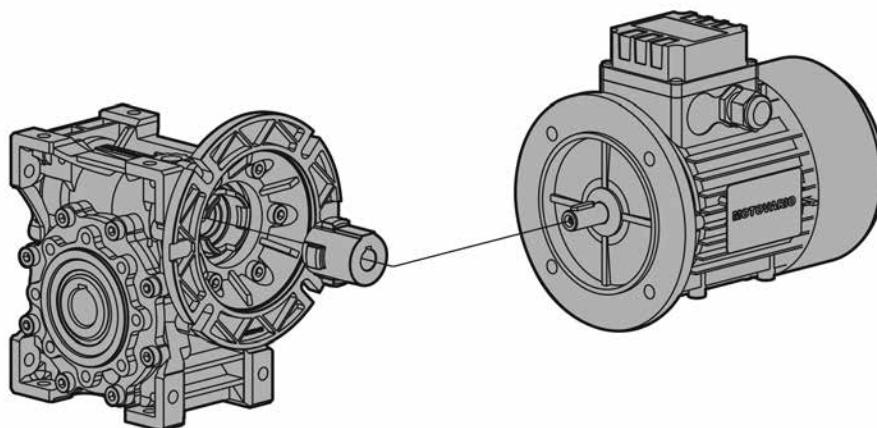
当齿轮箱不提供电机时，必须遵循以下建议确保电机正确组装。

检查电机轴与法兰公差是否符合标准。

仔细清洗轴、套管和法兰面，去除微量油漆和污垢。

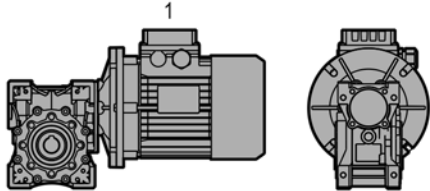
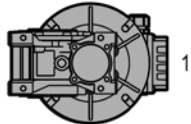
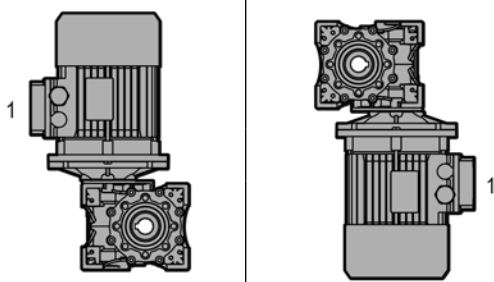
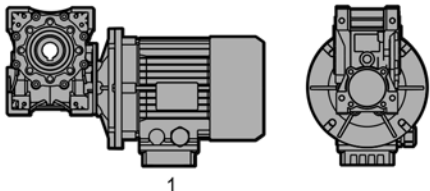
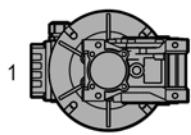
请确认，然后继续将轴衬套入电机轴上（参见图示），务请确保电机轴和轴承不得因过度作用力而受损；有需要时，应使用装配设备。接着，将衬套装入齿轮箱，衬套齿应与涡轮齿对齐。

因此，将电机与减速机连接。选用正确的系统，无论如何都必须确保正确操作，不得对电机轴承造成损害危险。键槽公差应严格按照要求。





**NMRV - NMRVpower - Piazzamento / Mounting positions / Pos. de montage /  
Einbaulage / Pos. de montaje / 安装位置**

| <b>NMRV-NMRVpower - NRV- NRVpower</b>                                             |                                                                                   |                                                                                     |           |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| <b>NMRVpower...U - B3</b>                                                         | <b>B6</b>                                                                         | <b>V5</b>                                                                           | <b>V6</b> |
|  |  |  |           |
|  |  |                                                                                     |           |

- La versione "U" è relativa alle gr. NMRV/NMRV-P 025-075 e NRV/NRV-P 030-063. Per queste grandezze non è necessario specificare la posizione di piazzamento.
- "U" version is related to sizes from NMRV/NMRV-P 025-075 and NRV/NRV-P 030-063. For these sizes it is not necessary to specify mounting position.
- La version "U" se réfère aux tailles de NMRV/NMRV-P 025-075 et NRV/NRV-P 030-063. Pour ces tailles il n'est pas nécessaire d'indiquer la position de montage.
- Die Ausführung "U" bezieht sich auf die Baugröße von NMRV/NMRV-P 025-075 und NRV/NRV-P 030-063. Für diesen Baugrößen ist die Angabe der Einbaulage nicht erforderlich zu spezifizieren.
- La version "U" se refiere a los tamaños de NMRV/NMRV-P 025-075 y NRV/NRV-P 030-063. Para estos tamaños no es necesario especificar la posición de montaje.
- "U" 安装方式只适用于 NMRV/NMRV-P 025-075 和 NRV/NRV-P 030-063 的型号。在此型号范围内，不用注明安装位置。

- Per le posizioni di piazzamento verticali verificare quanto detto a pag. 7.
- For vertical positions, check with pages 7.
- Pour les positions de montage verticales, voir pages 7.
- Für die vertikalen Einbaulagen siehe Seite 7.
- Para las posiciones de montaje verticales, ver las páginas 7.
- 如要垂直安装，请参考第 7 页。

- Per le posizioni di piazzamento non previste occorre rivolgersi al ns. Servizio tecnico.
- For positions not envisaged, it is necessary to call our Technical Service.
- Pour les positions de montage non prévues, contacter notre S.c.e technique.
- Für nicht angegebene Einbaulagen setzen Sie sich bitte mit unserem Kundendienst in Verbindung.
- Para las posiciones de montaje no previstas, es necesario ponerse en contacto con nuestro Servicio técnico.
- 对于未列出的安装位置，必须联系我们的服务技术部门。

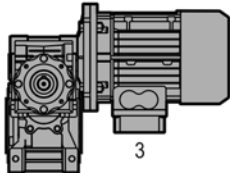
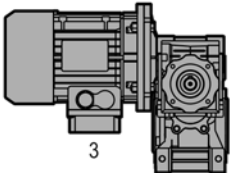
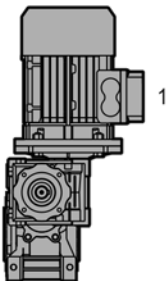
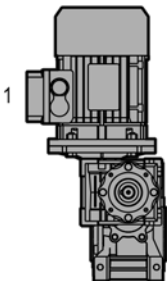
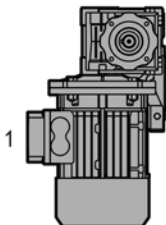
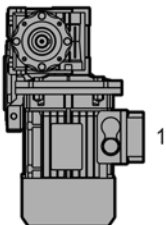
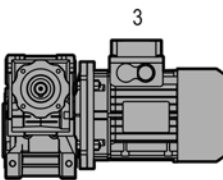
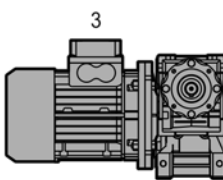
- Se non diversamente specificato le posizioni standard sono B3.
- Unless specified otherwise, the standard positions are B3.
- Si non spécifié, les positions standard sont B3.
- Falls nicht anders angegeben, sind B3 die Standardeinbaulagen.
- Si no se especifica el contrario, las posiciones estándar son B3.
- 除非另有其它规定 B3 是标准位置。

- Montare il gruppo nella posizione di piazzamento per la quale è stata prevista. In caso contrario contattare il nostro Servizio Tecnico.
- Mount the unit in the expected mounting position. Otherwise contact our Technical Service.
- Monter le groupe dans la position de placement pour laquelle il a été prévu. Dans le cas contraire, contacter notre Service Technique.
- Die Einheit in die vorgesehene Einbaulage einsetzen. Ansonsten setzen Sie sich bitte mit unserem Kundendienst in Verbindung.
- Montar el grupo en la posición de colocado para la cual ha sido prevista. En caso contrario contactar nuestro Servicio Técnico
- 机组的安装位置应符合已经选定的位置，否则请直接联系我们技术服务。

- Se non diversamente specificato, il gruppo viene fornito con morsettiera in pos.1.
- Unless otherwise specified, the gear reducer is supplied with terminal box in position 1.
- Sauf indications contraires, le réducteur est fourni avec boîte à borne en position 1.
- Sofern nichts gegenteiliges angegeben, wird der Schneckengetriebemotor mit Klemmkastenlage 1 geliefert.
- De no especificarse lo contrario el motorreductor se monta con caja de bornes en posición 1.
- 接线盒位置，除非另有规定，齿轮变速器都配有 1 号位接线盒。

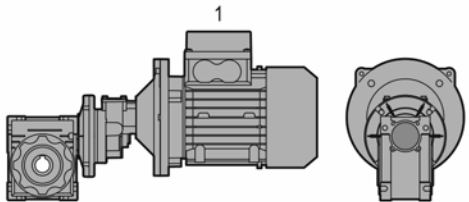
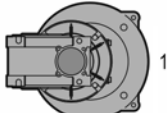
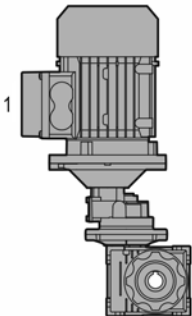
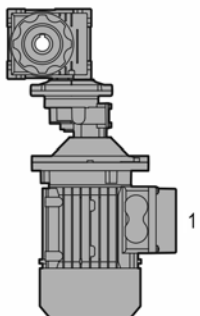
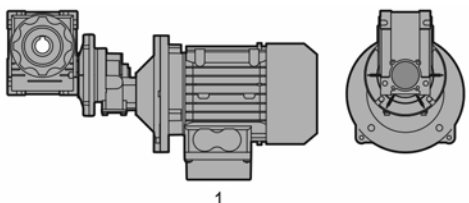
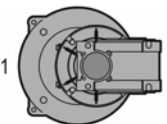
**NMRV+NMRV - NMRV+NMRVpower - Esecuzione / Execution / Exécution /  
Montageform / Ejecución / 执行**

**NMRV-NMRVpower / NRV-NMRVpower**

| AS1                                                                                | AS2                                                                                | VS1                                                                                 | VS2                                                                                  |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|   |   |   |   |
| PS1                                                                                | PS2                                                                                | BS1                                                                                 | BS2                                                                                  |
|  |  |  |  |

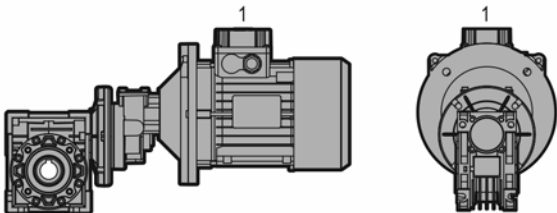
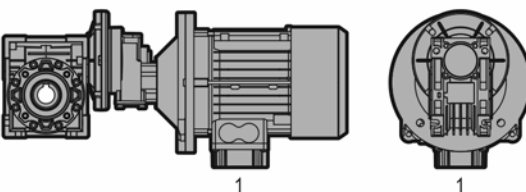
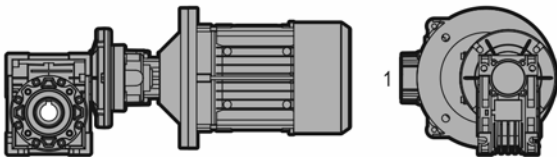
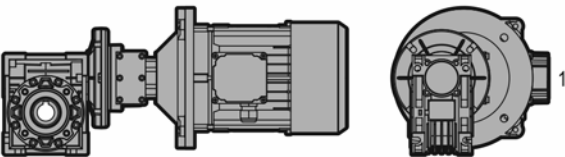
- L'esecuzione determina la posizione di montaggio del 1° riduttore rispetto al 2° riduttore.
- The position of the 1st reducer with respect to the 2nd gear reducer depend on the version.
- L'exécution détermine la position de montage du premier réducteur par rapport au second.
- Die Montageform legt die Einbauanordnung des 1.
- La ejecución determina la posición de montaje del premier reductor respecto del segundo.
- 第一个减速器相对于第二个齿轮减速器的位置取决于安装方式。
- La posizione di piazzamento va riferita al 2° riduttore, per le posizioni previste vedere a pag. 40.
- The specified mounting position refers to the 2nd gear reducer. See page 40 for the possible mounting positions.
- La position de montage se rapporte au deuxième réducteur; pour les positions prévues, voir page 40.
- Die Bauform bezieht sich auf das 2. Getriebe, siehe Seite 40 die verschiedenen Möglichkeiten.
- La posición de instalación se refiere al segundo reductor; en relación a las posiciones previstas ver pág. 40.
- 规定的安装位置，是指第二个齿轮减速器。有关可能的安装位置详情，请参阅第40页。
- Se non diversamente specificato in fase d'ordine il gruppo viene fornito in esecuzione BS2.
- Unless otherwise specified at the time of order, combination groups are supplied in version BS2.
- Sauf indication contraire à la commande, l'ensemble est livré ex exécution BS2.
- Getriebe fest. Sofern nicht speziell in der Bestellbezeichnung angeführt, wird das Getriebe in BS2 Form geliefert.
- Salvo diversas especificaciones requeridas en el pedido, el grupo es suministrado en ejecución BS2.
- 除非在订货时另有说明，否则组合件都将以BS2版本方式提供。
- Montare il gruppo nella posizione di piazzamento per la quale è stata prevista. In caso contrario contattare il nostro Servizio Tecnico.
- Mount the unit in the expected mounting position. Otherwise contact our Technical Service.
- Monter le groupe dans la position de placement pour laquelle il a été prévu. Dans le cas contraire, contacter notre Service Technique.
- Die Einheit in die vorgesehene Einbaulage einsetzen. Ansonsten setzen Sie sich bitte mit unserem Kundendienst in Verbindung.
- Montar el grupo en la posición de colocado para la cual ha sido prevista. En caso contrario contactar nuestro Servicio Técnico
- 机组的安装位置应符合已经选定的位置，否则请直接联系我们技术服务。
- Se non diversamente specificato, il gruppo viene fornito con morsetti in pos. 1.
- Unless otherwise specified, the gear reducer is supplied with terminal box in position 1.
- Sauf indications contraires, le réducteur est fourni avec boîte à borne en position 1.
- Sofern nichts Gegenteiliges angegeben, wird der Schneckengetriebemotor mit Klemmkastenlage 1 geliefert.
- De no especificarse lo contrario el motorreductor se monta con caja de bornes en posición 1.
- 接线盒位置，除非另有规定，齿轮变速器都配有 1 号位接线盒。

## HA31+NMRV - Piazzamento / Mounting positions / Pos. de montage / Einbaulage / Pos. de montaje / 安装位置

| HA31 - NMRV                                                                       |                                                                                   |                                                                                     |                                                                                     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| B3                                                                                | B6                                                                                | V5                                                                                  | V6                                                                                  |
|  |  |  |  |
| B8                                                                                | B7                                                                                |                                                                                     |                                                                                     |
|  |  |                                                                                     |                                                                                     |

- Il piazzamento è U e vale per tutte le posizioni.
- The mounting position is U and it is valid for all mounting positions.
- La position de montage: U est valable pour toutes les positions.
- Die Einbaulage ist U und gilt für alle Einbaulage.
- La posición de montaje es U y vale para todas las posiciones.
- 安装位置是U型安装,且对所有的安装位置都有效。
  
- Montare il gruppo nella posizione di piazzamento per la quale è stata prevista. In caso contrario contattare il nostro Servizio Tecnico.
- Mount the unit in the expected mounting position. Otherwise contact our Technical Service.
- Monter le groupe dans la position de placement pour laquelle il a été prévu. Dans le cas contraire, contacter notre Service Technique.
- Die Einheit in die vorgesehene Einbaulage einsetzen. Ansonsten setzen Sie sich bitte mit unserem Kundendienst in Verbindung.
- Montar el grupo en la posición de colocado para la cual ha sido prevista. En caso contrario contactar nuestro Servicio Técnico
- 机组的安装位置应符合已经选定的位置, 否则请直接联系我们技术服务。
  
- Se non diversamente specificato, il gruppo viene fornito con morsettiera in pos.1.
- Unless otherwise specified, the gear reducer is supplied with terminal box in position 1.
- Sauf indications contraires, le réducteur est fourni avec boîte à borne en position 1.
- Sofern nichts Gegenteiliges angegeben, wird der Schneckengetriebemotor mit Klemmkastenlage 1 geliefert.
- De no especificarse lo contrario el motorreductor se monta con caja de bornes en posición 1.
- 接线盒位置, 除非另有规定, 齿轮变速器都配供有 1 号位接线盒。

**HA31+NMRV - Esecuzione / Execution / Exécution /  
Montageform / Ejecución / 执行**

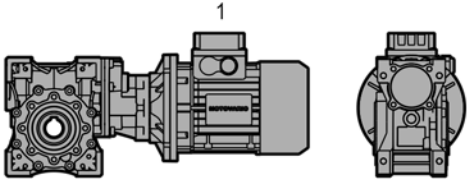
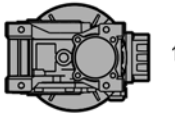
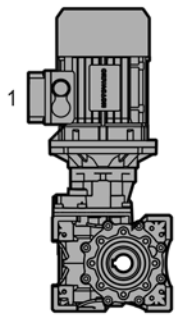
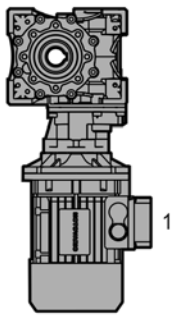
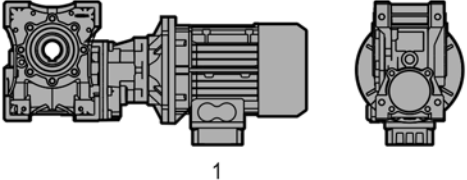
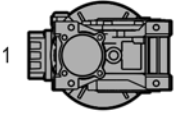
| <b>HA31 - NMRV</b>                                                                |  |                                                                                    |  |
|-----------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------|--|
| <b>BS</b>                                                                         |  | <b>AS</b>                                                                          |  |
|  |  |  |  |
| <b>VS</b>                                                                         |  | <b>PS</b>                                                                          |  |
|  |  |  |  |

- Se non diversamente specificato le posizioni standard sono BS/B3.
- Unless specified otherwise, the standard positions are BS/B3.
- Si non spécifié, les positions standard sont BS/B3.
- Falls nicht anders angegeben, sind BS/B3 die Standardeinbaulagen.
- Si no se especifica el contrario, las posiciones estándar son BS/B3.
- 除非另有其它规定，BS/B3 是标准位置。

- Se non diversamente specificato, il gruppo viene fornito con morsettiera in pos.1.
- Unless otherwise specified, the gear reducer is supplied with terminal box in position 1.
- Sauf indications contraires, le réducteur est fourni avec boîte à borne en position 1.
- Sofern nichts Gegenteiliges angegeben, wird der Schneckengetriebemotor mit Klemmkastenlage 1 geliefert.
- De no especificarse lo contrario el motorreductor se monta con caja de bornes en posición 1.
- 接线盒位置，除非另有规定，齿轮变速器都配供有 1 号位接线盒。

- N.B.: In fase d'ordine occorre sempre specificare l'esecuzione ed il piazzamento.
- N.B.: When ordering, please always specify execution and mounting position.
- N.B.: Nous vous prions de toujours spécifier sur vos commandes, l'exécution et la position de montage.
- N.B.: Bei Auftragserteilung bitten wir um die Paarrungsform und Einbaulage immer genau anzugeben.
- N.B.: En cada pedido especificar siempre la versión y la posición de montaje.
- 注：订货时，务必指明执行位置和安装位置。

## NMRVpower/HW - Piazzamento / Mounting positions / Pos. de montage / Einbaulage / Pos. de montaje / 安装位置

| NMRVpower/HW                                                                      |                                                                                   |                                                                                     |                                                                                     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| B3                                                                                | B6                                                                                | V5                                                                                  | V6                                                                                  |
|  |  |  |  |
| B8                                                                                | B7                                                                                |                                                                                     |                                                                                     |
|  |  |                                                                                     |                                                                                     |

**Esecuzione unica in BS / Execution only in BS / Exécution seulement en BS / Montageform nur in BS / Ejecución sólo en BS / 执行 仅仅 BS**

- Per NMRVpower/HW 063-075 il piazzamento B3 vale anche per B6-B7-B8-V6. Piazzamento V5 è singolo.
- For NMRVpower/HW 063-075 mounting position B3 is valid also for B6-B7-B8-V6. Mounting position V5 must be specified.
- Pour NMRVpower/HW 063-075 la position de montage B3 est valable aussi pour les positions B6-B7-B8-V6. La position de montage V5 doit être spécifiée.
- Auf NMRVpower/HW 063-075 ist die Einbaulage B3 gültig auch für B6-B7-B8-V6. Einbaulage V5 muss genau angegeben sein.
- Para NMRVpower/HW 063-075 la posición de montaje B3 es válida también para las posiciones B6-B7-B8-V6. La posición de montaje V5 tiene que ser especificada.
- 对于NMRVpower/HW 063-075，安装位置B3同样适用于B6-B7-B8-V6。如安装位置V5必须注明”

- Per NMRV 090-110 il piazzamento B3 vale anche per B6-B7-B8. Piazzamenti V5 e V6 sono singoli.
- For NMRV 090-110 mounting position B3 is valid also for B6-B7-B8. Mounting positions V5 and V6 must be specified.
- Pour NMRV 090-110 la position de montage B3 est valable aussi pour les positions B6-B7-B8. Les positions de montage V5 et V6 doivent être spécifiées.
- Auf NMRV 090-110 ist die Einbaulage B3 gültig auch für B6-B7-B8. Einbaulagen V5 und V6 müssen genau angegeben sein.
- Para NMRV090-110 la posición de montaje B3 es válida también para las posiciones B6-B7-B8. Las posiciones de montaje V5-V6 tienen que ser especificadas.
- 对于 NMRV090-110，安装位置是B3 也对 B6-B7-B8 有效。 必须规定安装位置 V5 和V6。

- Per NMRV 130-150 i piazzamenti B3-B6-B7-B8-V5-V6 sono singoli.
- For NMRV 130-150 mounting positions B3-B6-B7-B8-V5-V6 must be specified.
- Pour NMRV 130-150 les positions de montage B3-B6-B7-B8-V5-V6 doivent être spécifiées.
- Auf NMRV 130-150 müssen die Einbaulagen B3-B6-B7-B8-V5-V6 genau angegeben sein.
- Para NMRV130-150 las posiciones de montaje B3-B6-B7-B8-V5-V6 tienen que ser especificadas.
- 对于 NMRV130-150, 必须规定 B3-B6-B7-B8-V5-V6 等安装位置。

- Se non diversamente specificato le posizioni standard sono BS/B3.
- Unless specified otherwise, the standard positions are BS/B3.
- Si non spécifié, les positions standard sont BS/B3.
- Falls nicht anders angegeben, sind BS/B3 die Standardeinbaulagen.
- Si no se especifica el contrario, las posiciones estándar son BS/B3.
- 除非另有其它规定，BS/B3 是标准位置。

- Se non diversamente specificato, il gruppo viene fornito con morsettiera in pos.1.
- Unless otherwise specified, the gear reducer is supplied with terminal box in position 1.
- Sauf indications contraires, le réducteur est fourni avec boîte à borne en position 1.
- Sofern nichts gegenteiliges angegeben, wird der Schneckengetriebemotor mit Klemmkastenlage 1 geliefert.
- De no especificarse lo contrario el motorreductor se monta con caja de bornes en posición 1.
- 接线盒位置，除非另有规定，齿轮变速器都配供有 1 号位接线盒。

- Montare il gruppo nella posizione di piazzamento per la quale è stata prevista. In caso contrario contattare il nostro Servizio Tecnico.
- Mount the unit in the expected mounting position. Otherwise contact our Technical Service.
- Monter le groupe dans la position de placement pour laquelle il a été prévu. Dans le cas contraire, contacter notre Service Technique.
- Die Einheit in die vorgesehene Einbaulage einsetzen. Ansonsten setzen Sie sich bitte mit unserem Kundendienst in Verbindung.
- Montar el grupo en la posición de colocado para la cual ha sido prevista. En caso contrario contactar nuestro Servicio Técnico
- 机组的安装位置应符合已经选定的位置，否则请直接联系我们技术服务。

**NMRV - Prestazioni / Performance / Performances /  
Leistungen / Prestaciones / 性能**

**0,06 kW**

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i       |  |  | Fr<br>[N] |
|---------------|------------|------|---------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 280,0         | 1,8        | 6,2  | 5,00    | NMRV025                                                                           | 56A4                                                                                | 439       |
| 187,0         | 2,6        | 4,2  | 7,50    | NMRV025                                                                           | 56A4                                                                                | 503       |
| 140,0         | 3,4        | 3,5  | 10,00   | NMRV025                                                                           | 56A4                                                                                | 553       |
| 93,0          | 4,9        | 2,5  | 15,00   | NMRV025                                                                           | 56A4                                                                                | 633       |
| 70,0          | 6,0        | 2,0  | 20,00   | NMRV025                                                                           | 56A4                                                                                | 697       |
| 47,0          | 8,0        | 1,6  | 30,00   | NMRV025                                                                           | 56A4                                                                                | 798       |
| 35,0          | 10,0       | 1,3  | 40,00   | NMRV025                                                                           | 56A4                                                                                | 878       |
| 28,0          | 12,0       | 0,9  | 50,00   | NMRV025                                                                           | 56A4                                                                                | 946       |
| 23,0          | 14,0       | 0,7  | 60,00   | NMRV025                                                                           | 56A4                                                                                | 1006      |
| 280,0         | 1,8        | 10,7 | 5,00    | NMRV030                                                                           | 56A4                                                                                | 597       |
| 187,0         | 2,6        | 7,3  | 7,50    | NMRV030                                                                           | 56A4                                                                                | 683       |
| 140,0         | 3,4        | 5,6  | 10,00   | NMRV030                                                                           | 56A4                                                                                | 752       |
| 93,0          | 4,8        | 4,0  | 15,00   | NMRV030                                                                           | 56A4                                                                                | 861       |
| 70,0          | 6,0        | 3,0  | 20,00   | NMRV030                                                                           | 56A4                                                                                | 948       |
| 56,0          | 7,0        | 3,1  | 25,00   | NMRV030                                                                           | 56A4                                                                                | 1021      |
| 47,0          | 8,0        | 2,6  | 30,00   | NMRV030                                                                           | 56A4                                                                                | 1085      |
| 35,0          | 10,0       | 1,9  | 40,00   | NMRV030                                                                           | 56A4                                                                                | 1194      |
| 28,0          | 11,0       | 1,6  | 50,00   | NMRV030                                                                           | 56A4                                                                                | 1286      |
| 23,0          | 13,0       | 1,3  | 60,00   | NMRV030                                                                           | 56A4                                                                                | 1367      |
| 18,0          | 15,0       | 0,9  | 80,00   | NMRV030                                                                           | 56A4                                                                                | 1504      |
| 28,0          | 13,0       | 3,3  | 50,00   | NMRV040                                                                           | 56A4                                                                                | 2475      |
| 23,0          | 14,0       | 2,6  | 60,00   | NMRV040                                                                           | 56A4                                                                                | 2630      |
| 18,0          | 17,0       | 1,9  | 80,00   | NMRV040                                                                           | 56A4                                                                                | 2895      |
| 14,0          | 20,0       | 1,5  | 100,00  | NMRV040                                                                           | 56A4                                                                                | 3118      |
| 3,6           | 81,0       | 3,0  | 393,80  | HW030+NMRV-P063                                                                   | 56A4                                                                                | 6270      |
| 3,2           | 94,0       | 3,0  | 433,30  | HW030+NMRV-P063                                                                   | 56A4                                                                                | 6270      |
| 3,0           | 89,0       | 2,5  | 472,50  | HW030+NMRV-P063                                                                   | 56A4                                                                                | 6270      |
| 2,6           | 109,0      | 2,3  | 541,70  | HW030+NMRV-P063                                                                   | 56A4                                                                                | 6270      |
| 2,2           | 120,0      | 1,9  | 650,00  | HW030+NMRV-P063                                                                   | 56A4                                                                                | 6270      |
| 1,8           | 114,0      | 1,2  | 787,50  | HW030+NMRV-P063                                                                   | 56A4                                                                                | 6270      |
| 1,6           | 140,0      | 1,2  | 866,70  | HW030+NMRV-P063                                                                   | 56A4                                                                                | 6270      |
| 1,3           | 153,0      | 0,9  | 1083,30 | HW030+NMRV-P063                                                                   | 56A4                                                                                | 6270      |
| 2,6           | 113,0      | 3,3  | 541,70  | HW030+NMRV-P075                                                                   | 56A4                                                                                | 7380      |
| 2,2           | 128,0      | 3,0  | 650,00  | HW030+NMRV-P075                                                                   | 56A4                                                                                | 7380      |
| 1,8           | 124,0      | 1,8  | 787,50  | HW030+NMRV-P075                                                                   | 56A4                                                                                | 7380      |
| 1,6           | 151,0      | 1,9  | 866,70  | HW030+NMRV-P075                                                                   | 56A4                                                                                | 7380      |
| 1,3           | 166,0      | 1,4  | 1083,30 | HW030+NMRV-P075                                                                   | 56A4                                                                                | 7380      |
| 14,0          | 25,0       | 1,3  | 100,00  | NMRV025/030                                                                       | 56A4                                                                                | 1439      |
| 9,0           | 33,0       | 0,9  | 150,00  | NMRV025/030                                                                       | 56A4                                                                                | 1813      |
| 6,0           | 47,0       | 0,7  | 250,00  | NMRV025/030                                                                       | 56A4                                                                                | 1830      |
| 14,0          | 26,0       | 2,7  | 100,00  | NMRV025/040                                                                       | 56A4                                                                                | 2769      |
| 9,0           | 36,0       | 1,8  | 150,00  | NMRV025/040                                                                       | 56A4                                                                                | 3488      |
| 7,0           | 47,0       | 1,4  | 200,00  | NMRV025/040                                                                       | 56A4                                                                                | 3488      |
| 6,0           | 55,0       | 1,1  | 250,00  | NMRV025/040                                                                       | 56A4                                                                                | 3490      |
| 4,7           | 60,0       | 1,2  | 300,00  | NMRV025/040                                                                       | 56A4                                                                                | 3490      |
| 3,5           | 85,0       | 0,8  | 400,00  | NMRV025/040                                                                       | 56A4                                                                                | 3488      |
| 14,0          | 26,0       | 2,7  | 100,00  | NMRV030/040                                                                       | 56A4                                                                                | 2769      |
| 9,0           | 37,0       | 1,9  | 150,00  | NMRV030/040                                                                       | 56A4                                                                                | 3169      |
| 7,0           | 47,0       | 1,4  | 200,00  | NMRV030/040                                                                       | 56A4                                                                                | 3488      |
| 6,0           | 55,0       | 1,1  | 250,00  | NMRV030/040                                                                       | 56A4                                                                                | 3490      |
| 4,7           | 60,0       | 1,2  | 300,00  | NMRV030/040                                                                       | 56A4                                                                                | 3490      |
| 3,5           | 72,0       | 0,9  | 400,00  | NMRV030/040                                                                       | 56A4                                                                                | 3490      |
| 7,0           | 47,0       | 2,6  | 200,00  | NMRV030/050                                                                       | 56A4                                                                                | 4788      |
| 6,0           | 55,0       | 2,0  | 250,00  | NMRV030/050                                                                       | 56A4                                                                                | 4840      |

## 0,06 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i       |  |  | Fr<br>[N] |
|---------------|------------|------|---------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 4,7           | 61,0       | 2,4  | 300,00  | NMRV030/050                                                                        | 56A4                                                                                | 4840      |
| 3,5           | 73,0       | 1,7  | 400,00  | NMRV030/050                                                                        | 56A4                                                                                | 4840      |
| 2,8           | 85,0       | 1,4  | 500,00  | NMRV030/050                                                                        | 56A4                                                                                | 4840      |
| 2,3           | 109,0      | 1,3  | 600,00  | NMRV030/050                                                                        | 56A4                                                                                | 4840      |
| 1,9           | 127,0      | 1,1  | 750,00  | NMRV030/050                                                                        | 56A4                                                                                | 4840      |
| 1,6           | 146,0      | 1,0  | 900,00  | NMRV030/050                                                                        | 56A4                                                                                | 4840      |
| 1,2           | 177,0      | 0,8  | 1200,00 | NMRV030/050                                                                        | 56A4                                                                                | 4840      |
| 0,9           | 206,0      | 0,7  | 1500,00 | NMRV030/050                                                                        | 56A4                                                                                | 4840      |
| 3,5           | 76,0       | 3,4  | 400,00  | NMRV-P030/063                                                                      | 56A4                                                                                | 6270      |
| 2,8           | 88,0       | 2,7  | 500,00  | NMRV-P030/063                                                                      | 56A4                                                                                | 6270      |
| 2,3           | 111,0      | 2,4  | 600,00  | NMRV-P030/063                                                                      | 56A4                                                                                | 6270      |
| 1,9           | 129,0      | 2,1  | 750,00  | NMRV-P030/063                                                                      | 56A4                                                                                | 6270      |
| 1,6           | 148,0      | 1,8  | 900,00  | NMRV-P030/063                                                                      | 56A4                                                                                | 6270      |
| 1,2           | 180,0      | 1,5  | 1200,00 | NMRV-P030/063                                                                      | 56A4                                                                                | 6270      |
| 0,9           | 210,0      | 1,3  | 1500,00 | NMRV-P030/063                                                                      | 56A4                                                                                | 6270      |
| 0,8           | 234,0      | 1,2  | 1800,00 | NMRV-P030/063                                                                      | 56A4                                                                                | 6270      |
| 0,6           | 286,0      | 0,9  | 2400,00 | NMRV-P030/063                                                                      | 56A4                                                                                | 6270      |
| 0,5           | 332,0      | 0,7  | 3000,00 | NMRV-P030/063                                                                      | 56A4                                                                                | 6270      |
| 2,8           | 102,0      | 1,3  | 500,00  | NMRV040/050                                                                        | 56A4                                                                                | 3800      |
| 1,6           | 159,0      | 0,9  | 900,00  | NMRV040/050                                                                        | 56A4                                                                                | 4350      |
| 0,9           | 236,0      | 1,1  | 1500,00 | NMRV-P040/063                                                                      | 56A4                                                                                | 6270      |
| 0,8           | 265,0      | 1,0  | 1800,00 | NMRV-P040/063                                                                      | 56A4                                                                                | 6270      |
| 0,6           | 325,0      | 0,8  | 2400,00 | NMRV-P040/063                                                                      | 56A4                                                                                | 6270      |
| 0,9           | 248,0      | 1,8  | 1500,00 | NMRV-P040/075                                                                      | 56A4                                                                                | 7380      |
| 0,8           | 278,0      | 1,6  | 1800,00 | NMRV-P040/075                                                                      | 56A4                                                                                | 7380      |
| 0,6           | 342,0      | 1,2  | 2400,00 | NMRV-P040/075                                                                      | 56A4                                                                                | 7380      |
| 0,5           | 391,0      | 0,9  | 3000,00 | NMRV-P040/075                                                                      | 56A4                                                                                | 7380      |
| 0,4           | 469,0      | 0,8  | 4000,00 | NMRV-P040/075                                                                      | 56A4                                                                                | 7380      |
| 0,9           | 259,0      | 2,7  | 1500,00 | NMRV-P040/090                                                                      | 56A4                                                                                | 8180      |
| 0,8           | 291,0      | 2,4  | 1800,00 | NMRV-P040/090                                                                      | 56A4                                                                                | 8180      |
| 0,6           | 359,0      | 1,7  | 2400,00 | NMRV-P040/090                                                                      | 56A4                                                                                | 8180      |
| 0,5           | 420,0      | 1,3  | 3000,00 | NMRV-P040/090                                                                      | 56A4                                                                                | 8180      |
| 0,4           | 503,0      | 1,1  | 4000,00 | NMRV-P040/090                                                                      | 56A4                                                                                | 8180      |
| 0,3           | 570,0      | 1,0  | 5000,00 | NMRV-P040/090                                                                      | 56A4                                                                                | 8180      |

## 0,09 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i     |  |  | Fr<br>[N] |
|---------------|------------|------|-------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------|
| 560,0         | 1,4        | 5,9  | 5,00  | NMRV025                                                                              | 56A2                                                                                  | 349       |
| 373,0         | 2,0        | 3,9  | 7,50  | NMRV025                                                                              | 56A2                                                                                  | 399       |
| 280,0         | 2,6        | 3,4  | 10,00 | NMRV025                                                                              | 56A2                                                                                  | 439       |
| 187,0         | 3,8        | 2,4  | 15,00 | NMRV025                                                                              | 56A2                                                                                  | 503       |
| 140,0         | 4,9        | 1,9  | 20,00 | NMRV025                                                                              | 56A2                                                                                  | 553       |
| 93,0          | 7,0        | 1,3  | 30,00 | NMRV025                                                                              | 56A2                                                                                  | 633       |
| 70,0          | 8,0        | 1,1  | 40,00 | NMRV025                                                                              | 56A2                                                                                  | 697       |
| 56,0          | 10,0       | 0,9  | 50,00 | NMRV025                                                                              | 56A2                                                                                  | 751       |
| 47,0          | 11,0       | 0,7  | 60,00 | NMRV025                                                                              | 56A2                                                                                  | 798       |
| 280,0         | 2,7        | 4,1  | 5,00  | NMRV025                                                                              | 56B4                                                                                  | 439       |
| 187,0         | 3,9        | 2,8  | 7,50  | NMRV025                                                                              | 56B4                                                                                  | 503       |
| 140,0         | 5,0        | 2,4  | 10,00 | NMRV025                                                                              | 56B4                                                                                  | 553       |
| 93,0          | 7,0        | 1,6  | 15,00 | NMRV025                                                                              | 56B4                                                                                  | 633       |
| 70,0          | 9,0        | 1,3  | 20,00 | NMRV025                                                                              | 56B4                                                                                  | 697       |
| 47,0          | 12,0       | 1,1  | 30,00 | NMRV025                                                                              | 56B4                                                                                  | 798       |
| 35,0          | 15,0       | 0,9  | 40,00 | NMRV025                                                                              | 56B4                                                                                  | 878       |
| 560,0         | 1,4        | 8,8  | 5,00  | NMRV030                                                                              | 56A2                                                                                  | 474       |
| 373,0         | 2,0        | 6,5  | 7,50  | NMRV030                                                                              | 56A2                                                                                  | 542       |

# 0,09 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 280,0         | 2,6        | 4,9  | 10,00  | NMRV030                                                                           | 56A2                                                                                | 597       |
| 187,0         | 3,8        | 3,4  | 15,00  | NMRV030                                                                           | 56A2                                                                                | 683       |
| 140,0         | 4,9        | 2,5  | 20,00  | NMRV030                                                                           | 56A2                                                                                | 752       |
| 112,0         | 6,0        | 2,8  | 25,00  | NMRV030                                                                           | 56A2                                                                                | 810       |
| 93,0          | 7,0        | 2,3  | 30,00  | NMRV030                                                                           | 56A2                                                                                | 861       |
| 70,0          | 8,0        | 1,7  | 40,00  | NMRV030                                                                           | 56A2                                                                                | 948       |
| 56,0          | 10,0       | 1,3  | 50,00  | NMRV030                                                                           | 56A2                                                                                | 1021      |
| 47,0          | 11,0       | 1,1  | 60,00  | NMRV030                                                                           | 56A2                                                                                | 1085      |
| 35,0          | 13,0       | 0,8  | 80,00  | NMRV030                                                                           | 56A2                                                                                | 1194      |
| 280,0         | 2,7        | 7,1  | 5,00   | NMRV030                                                                           | 56B4                                                                                | 597       |
| 187,0         | 3,9        | 4,9  | 7,50   | NMRV030                                                                           | 56B4                                                                                | 683       |
| 140,0         | 5,0        | 3,7  | 10,00  | NMRV030                                                                           | 56B4                                                                                | 752       |
| 93,0          | 7,0        | 2,6  | 15,00  | NMRV030                                                                           | 56B4                                                                                | 861       |
| 70,0          | 9,0        | 2,0  | 20,00  | NMRV030                                                                           | 56B4                                                                                | 948       |
| 56,0          | 11,0       | 2,1  | 25,00  | NMRV030                                                                           | 56B4                                                                                | 1021      |
| 47,0          | 12,0       | 1,7  | 30,00  | NMRV030                                                                           | 56B4                                                                                | 1085      |
| 35,0          | 15,0       | 1,3  | 40,00  | NMRV030                                                                           | 56B4                                                                                | 1194      |
| 28,0          | 17,0       | 1,0  | 50,00  | NMRV030                                                                           | 56B4                                                                                | 1286      |
| 23,0          | 19,0       | 0,8  | 60,00  | NMRV030                                                                           | 56B4                                                                                | 1367      |
| 180,0         | 4,1        | 5,2  | 5,00   | NMRV030                                                                           | 63A6                                                                                | 692       |
| 120,0         | 6,0        | 3,5  | 7,50   | NMRV030                                                                           | 63A6                                                                                | 792       |
| 90,0          | 8,0        | 2,7  | 10,00  | NMRV030                                                                           | 63A6                                                                                | 871       |
| 60,0          | 11,0       | 2,0  | 15,00  | NMRV030                                                                           | 63A6                                                                                | 997       |
| 45,0          | 14,0       | 1,5  | 20,00  | NMRV030                                                                           | 63A6                                                                                | 1098      |
| 36,0          | 16,0       | 1,5  | 25,00  | NMRV030                                                                           | 63A6                                                                                | 1183      |
| 30,0          | 18,0       | 1,2  | 30,00  | NMRV030                                                                           | 63A6                                                                                | 1257      |
| 23,0          | 21,0       | 1,0  | 40,00  | NMRV030                                                                           | 63A6                                                                                | 1383      |
| 18,0          | 25,0       | 0,8  | 50,00  | NMRV030                                                                           | 63A6                                                                                | 1490      |
| 56,0          | 11,0       | 2,8  | 50,00  | NMRV040                                                                           | 56A2                                                                                | 1964      |
| 47,0          | 12,0       | 2,3  | 60,00  | NMRV040                                                                           | 56A2                                                                                | 2087      |
| 35,0          | 15,0       | 1,7  | 80,00  | NMRV040                                                                           | 56A2                                                                                | 2298      |
| 28,0          | 17,0       | 1,4  | 100,00 | NMRV040                                                                           | 56A2                                                                                | 2475      |
| 28,0          | 19,0       | 2,2  | 50,00  | NMRV040                                                                           | 56B4                                                                                | 2475      |
| 23,0          | 22,0       | 1,7  | 60,00  | NMRV040                                                                           | 56B4                                                                                | 2630      |
| 18,0          | 26,0       | 1,3  | 80,00  | NMRV040                                                                           | 56B4                                                                                | 2895      |
| 14,0          | 29,0       | 1,0  | 100,00 | NMRV040                                                                           | 56B4                                                                                | 3118      |
| 45,0          | 15,0       | 3,3  | 20,00  | NMRV040                                                                           | 63A6                                                                                | 2113      |
| 36,0          | 17,0       | 2,6  | 25,00  | NMRV040                                                                           | 63A6                                                                                | 2276      |
| 30,0          | 19,0       | 2,8  | 30,00  | NMRV040                                                                           | 63A6                                                                                | 2419      |
| 23,0          | 24,0       | 2,1  | 40,00  | NMRV040                                                                           | 63A6                                                                                | 2662      |
| 18,0          | 28,0       | 1,7  | 50,00  | NMRV040                                                                           | 63A6                                                                                | 2868      |
| 15,0          | 32,0       | 1,3  | 60,00  | NMRV040                                                                           | 63A6                                                                                | 3047      |
| 11,0          | 37,0       | 0,9  | 80,00  | NMRV040                                                                           | 63A6                                                                                | 3354      |
| 9,0           | 42,0       | 0,8  | 100,00 | NMRV040                                                                           | 63A6                                                                                | 3490      |
| 18,0          | 29,0       | 2,8  | 50,00  | NMRV050                                                                           | 63A6                                                                                | 3936      |
| 15,0          | 32,0       | 2,4  | 60,00  | NMRV050                                                                           | 63A6                                                                                | 4183      |
| 11,0          | 38,0       | 1,8  | 80,00  | NMRV050                                                                           | 63A6                                                                                | 4604      |
| 9,0           | 43,0       | 1,3  | 100,00 | NMRV050                                                                           | 63A6                                                                                | 4840      |
| 35,0          | 20,0       | 3,5  | 25,50  | HA31+NMRV040                                                                      | 63A6                                                                                | 2291      |
| 31,0          | 21,0       | 3,1  | 29,40  | HA31+NMRV040                                                                      | 63A6                                                                                | 2404      |
| 29,0          | 24,0       | 2,8  | 31,50  | HA31+NMRV040                                                                      | 63A6                                                                                | 2458      |
| 25,0          | 26,0       | 2,7  | 35,60  | HA31+NMRV040                                                                      | 63A6                                                                                | 2561      |
| 22,0          | 30,0       | 2,4  | 40,90  | HA31+NMRV040                                                                      | 63A6                                                                                | 2682      |
| 20,0          | 30,0       | 2,2  | 44,20  | HA31+NMRV040                                                                      | 63A6                                                                                | 2752      |
| 19,0          | 34,0       | 2,1  | 47,50  | HA31+NMRV040                                                                      | 63A6                                                                                | 2819      |
| 17,0          | 39,0       | 1,8  | 54,50  | HA31+NMRV040                                                                      | 63A6                                                                                | 2952      |
| 15,0          | 38,0       | 1,6  | 58,90  | HA31+NMRV040                                                                      | 63A6                                                                                | 3028      |
| 14,0          | 45,0       | 1,6  | 63,00  | HA31+NMRV040                                                                      | 63A6                                                                                | 3097      |



# 0,09 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 13,0          | 48,0       | 1,5  | 71,30  | HA31+NMRV040                                                                       | 63A6                                                                                | 3227      |
| 11,0          | 56,0       | 1,3  | 78,80  | HA31+NMRV040                                                                       | 63A6                                                                                | 3336      |
| 10,0          | 50,0       | 1,4  | 88,30  | HA31+NMRV040                                                                       | 63A6                                                                                | 3467      |
| 10,0          | 64,0       | 1,1  | 94,50  | HA31+NMRV040                                                                       | 63A6                                                                                | 3490      |
| 9,0           | 65,0       | 1,0  | 102,00 | HA31+NMRV040                                                                       | 63A6                                                                                | 3490      |
| 8,0           | 70,0       | 0,9  | 109,10 | HA31+NMRV040                                                                       | 63A6                                                                                | 3490      |
| 8,0           | 80,0       | 0,9  | 118,10 | HA31+NMRV040                                                                       | 63A6                                                                                | 3490      |
| 7,0           | 77,0       | 0,8  | 127,50 | HA31+NMRV040                                                                       | 63A6                                                                                | 3490      |
| 6,0           | 78,0       | 0,9  | 142,50 | HA31+NMRV040                                                                       | 63A6                                                                                | 3490      |
| 6,0           | 77,0       | 0,8  | 154,70 | HA31+NMRV040                                                                       | 63A6                                                                                | 3490      |
| 6,0           | 89,0       | 0,8  | 163,60 | HA31+NMRV040                                                                       | 63A6                                                                                | 3490      |
| 4,8           | 103,0      | 0,7  | 189,00 | HA31+NMRV040                                                                       | 63A6                                                                                | 3490      |
| 29,0          | 24,0       | 3,4  | 31,50  | HA31+NMRV050                                                                       | 63A6                                                                                | 3374      |
| 17,0          | 40,0       | 3,4  | 54,50  | HA31+NMRV050                                                                       | 63A6                                                                                | 4052      |
| 15,0          | 39,0       | 2,9  | 58,90  | HA31+NMRV050                                                                       | 63A6                                                                                | 4157      |
| 14,0          | 46,0       | 3,0  | 63,00  | HA31+NMRV050                                                                       | 63A6                                                                                | 4251      |
| 13,0          | 48,0       | 2,8  | 71,30  | HA31+NMRV050                                                                       | 63A6                                                                                | 4429      |
| 11,0          | 58,0       | 2,4  | 78,80  | HA31+NMRV050                                                                       | 63A6                                                                                | 4579      |
| 10,0          | 51,0       | 2,6  | 88,30  | HA31+NMRV050                                                                       | 63A6                                                                                | 4758      |
| 10,0          | 64,0       | 2,1  | 94,50  | HA31+NMRV050                                                                       | 63A6                                                                                | 4840      |
| 9,0           | 65,0       | 1,8  | 102,00 | HA31+NMRV050                                                                       | 63A6                                                                                | 4840      |
| 8,0           | 70,0       | 1,7  | 109,10 | HA31+NMRV050                                                                       | 63A6                                                                                | 4840      |
| 8,0           | 80,0       | 1,7  | 118,10 | HA31+NMRV050                                                                       | 63A6                                                                                | 4840      |
| 7,0           | 77,0       | 1,4  | 127,50 | HA31+NMRV050                                                                       | 63A6                                                                                | 4840      |
| 6,0           | 79,0       | 1,8  | 142,50 | HA31+NMRV050                                                                       | 63A6                                                                                | 4840      |
| 6,0           | 78,0       | 1,6  | 154,70 | HA31+NMRV050                                                                       | 63A6                                                                                | 4840      |
| 6,0           | 91,0       | 1,6  | 163,60 | HA31+NMRV050                                                                       | 63A6                                                                                | 4840      |
| 4,8           | 105,0      | 1,4  | 189,00 | HA31+NMRV050                                                                       | 63A6                                                                                | 4840      |
| 4,4           | 102,0      | 1,2  | 204,00 | HA31+NMRV050                                                                       | 63A6                                                                                | 4840      |
| 3,8           | 131,0      | 1,1  | 236,30 | HA31+NMRV050                                                                       | 63A6                                                                                | 4840      |
| 3,6           | 126,0      | 1,0  | 252,00 | HA31+NMRV050                                                                       | 63A6                                                                                | 4840      |
| 3,3           | 126,0      | 0,9  | 272,70 | HA31+NMRV050                                                                       | 63A6                                                                                | 4840      |
| 3,2           | 121,0      | 0,9  | 285,00 | HA31+NMRV050                                                                       | 63A6                                                                                | 4840      |
| 2,9           | 146,0      | 0,8  | 315,00 | HA31+NMRV050                                                                       | 63A6                                                                                | 4840      |
| 8,0           | 56,0       | 3,2  | 176,70 | HW030+NMRV-P063                                                                    | 56B4                                                                                | 6270      |
| 7,0           | 78,0       | 3,2  | 196,90 | HW030+NMRV-P063                                                                    | 56B4                                                                                | 6270      |
| 6,0           | 74,0       | 3,4  | 218,20 | HW030+NMRV-P063                                                                    | 56B4                                                                                | 6270      |
| 6,0           | 85,0       | 3,3  | 236,30 | HW030+NMRV-P063                                                                    | 56B4                                                                                | 6270      |
| 5,0           | 86,0       | 2,7  | 272,70 | HW030+NMRV-P063                                                                    | 56B4                                                                                | 6270      |
| 4,4           | 104,0      | 2,6  | 315,00 | HW030+NMRV-P063                                                                    | 56B4                                                                                | 6270      |
| 3,6           | 121,0      | 2,0  | 393,80 | HW030+NMRV-P063                                                                    | 56B4                                                                                | 6270      |
| 3,2           | 141,0      | 2,0  | 433,30 | HW030+NMRV-P063                                                                    | 56B4                                                                                | 6270      |
| 3,0           | 134,0      | 1,6  | 472,50 | HW030+NMRV-P063                                                                    | 56B4                                                                                | 6270      |
| 2,6           | 164,0      | 1,5  | 541,70 | HW030+NMRV-P063                                                                    | 56B4                                                                                | 6270      |
| 2,2           | 180,0      | 1,3  | 650,00 | HW030+NMRV-P063                                                                    | 56B4                                                                                | 6270      |
| 1,8           | 172,0      | 0,8  | 787,50 | HW030+NMRV-P063                                                                    | 56B4                                                                                | 6270      |
| 1,6           | 210,0      | 0,8  | 866,70 | HW030+NMRV-P063                                                                    | 56B4                                                                                | 6270      |
| 8,0           | 80,0       | 3,3  | 118,10 | HW030+NMRV-P063                                                                    | 63A6                                                                                | 6270      |
| 7,0           | 84,0       | 3,0  | 136,40 | HW030+NMRV-P063                                                                    | 63A6                                                                                | 6270      |
| 6,0           | 100,0      | 2,9  | 157,50 | HW030+NMRV-P063                                                                    | 63A6                                                                                | 6270      |
| 6,0           | 92,0       | 3,3  | 163,60 | HW030+NMRV-P063                                                                    | 63A6                                                                                | 6270      |
| 5,0           | 82,0       | 2,5  | 176,70 | HW030+NMRV-P063                                                                    | 63A6                                                                                | 6270      |
| 4,6           | 120,0      | 2,2  | 196,90 | HW030+NMRV-P063                                                                    | 63A6                                                                                | 6270      |
| 4,1           | 112,0      | 2,4  | 218,20 | HW030+NMRV-P063                                                                    | 63A6                                                                                | 6270      |
| 3,8           | 130,0      | 2,7  | 236,30 | HW030+NMRV-P063                                                                    | 63A6                                                                                | 6270      |
| 3,3           | 130,0      | 1,9  | 272,70 | HW030+NMRV-P063                                                                    | 63A6                                                                                | 6270      |
| 2,9           | 158,0      | 1,8  | 315,00 | HW030+NMRV-P063                                                                    | 63A6                                                                                | 6270      |
| 2,3           | 185,0      | 1,4  | 393,80 | HW030+NMRV-P063                                                                    | 63A6                                                                                | 6270      |

## 0,09 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i       |  |  | Fr<br>[N] |
|---------------|------------|------|---------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 2,1           | 216,0      | 1,2  | 433,30  | HW030+NMRV-P063                                                                   | 63A6                                                                                | 6270      |
| 1,9           | 203,0      | 1,1  | 472,50  | HW030+NMRV-P063                                                                   | 63A6                                                                                | 6270      |
| 1,7           | 251,0      | 1,0  | 541,70  | HW030+NMRV-P063                                                                   | 63A6                                                                                | 6270      |
| 1,4           | 275,0      | 0,8  | 650,00  | HW030+NMRV-P063                                                                   | 63A6                                                                                | 6270      |
| 3,6           | 126,0      | 3,2  | 393,80  | HW030+NMRV-P075                                                                   | 56B4                                                                                | 7380      |
| 3,0           | 142,0      | 2,6  | 472,50  | HW030+NMRV-P075                                                                   | 56B4                                                                                | 7380      |
| 2,6           | 170,0      | 2,2  | 541,70  | HW030+NMRV-P075                                                                   | 56B4                                                                                | 7380      |
| 2,2           | 192,0      | 2,0  | 650,00  | HW030+NMRV-P075                                                                   | 56B4                                                                                | 7380      |
| 1,8           | 186,0      | 1,2  | 787,50  | HW030+NMRV-P075                                                                   | 56B4                                                                                | 7380      |
| 1,6           | 226,0      | 1,3  | 866,70  | HW030+NMRV-P075                                                                   | 56B4                                                                                | 7380      |
| 1,3           | 249,0      | 0,9  | 1083,30 | HW030+NMRV-P075                                                                   | 56B4                                                                                | 7380      |
| 4,6           | 123,0      | 3,3  | 196,90  | HW030+NMRV-P075                                                                   | 63A6                                                                                | 7380      |
| 3,8           | 137,0      | 3,3  | 236,30  | HW030+NMRV-P075                                                                   | 63A6                                                                                | 7380      |
| 3,3           | 135,0      | 3,0  | 272,70  | HW030+NMRV-P075                                                                   | 63A6                                                                                | 7380      |
| 2,9           | 168,0      | 2,8  | 315,00  | HW030+NMRV-P075                                                                   | 63A6                                                                                | 7380      |
| 2,3           | 191,0      | 2,2  | 393,80  | HW030+NMRV-P075                                                                   | 63A6                                                                                | 7380      |
| 1,9           | 216,0      | 1,8  | 472,50  | HW030+NMRV-P075                                                                   | 63A6                                                                                | 7380      |
| 1,7           | 259,0      | 1,2  | 541,70  | HW030+NMRV-P075                                                                   | 63A6                                                                                | 7380      |
| 1,4           | 293,0      | 1,2  | 650,00  | HW030+NMRV-P075                                                                   | 63A6                                                                                | 7380      |
| 1,1           | 279,0      | 0,8  | 787,50  | HW030+NMRV-P075                                                                   | 63A6                                                                                | 7380      |
| 1,0           | 346,0      | 0,9  | 866,70  | HW030+NMRV-P075                                                                   | 63A6                                                                                | 7380      |
| 2,7           | 163,0      | 3,4  | 330,00  | HW040+NMRV-P090                                                                   | 63A6                                                                                | 8180      |
| 2,3           | 200,0      | 3,3  | 383,30  | HW040+NMRV-P090                                                                   | 63A6                                                                                | 8180      |
| 2,1           | 227,0      | 2,9  | 437,50  | HW040+NMRV-P090                                                                   | 63A6                                                                                | 8180      |
| 2,0           | 223,0      | 2,6  | 460,00  | HW040+NMRV-P090                                                                   | 63A6                                                                                | 8180      |
| 1,7           | 253,0      | 2,3  | 525,00  | HW040+NMRV-P090                                                                   | 63A6                                                                                | 8180      |
| 1,5           | 271,0      | 1,7  | 613,30  | HW040+NMRV-P090                                                                   | 63A6                                                                                | 8180      |
| 1,3           | 307,0      | 1,5  | 700,00  | HW040+NMRV-P090                                                                   | 63A6                                                                                | 8180      |
| 1,2           | 301,0      | 1,2  | 766,70  | HW040+NMRV-P090                                                                   | 63A6                                                                                | 8180      |
| 1,0           | 341,0      | 1,1  | 875,00  | HW040+NMRV-P090                                                                   | 63A6                                                                                | 8180      |
| 1,7           | 273,0      | 3,4  | 525,00  | HW040+NMRV-P110                                                                   | 63A6                                                                                | 10320     |
| 1,5           | 293,0      | 2,9  | 613,30  | HW040+NMRV-P110                                                                   | 63A6                                                                                | 10320     |
| 1,3           | 333,0      | 2,6  | 700,00  | HW040+NMRV-P110                                                                   | 63A6                                                                                | 10320     |
| 1,2           | 329,0      | 2,0  | 766,70  | HW040+NMRV-P110                                                                   | 63A6                                                                                | 10320     |
| 1,0           | 373,0      | 1,8  | 875,00  | HW040+NMRV-P110                                                                   | 63A6                                                                                | 10320     |
| 14,0          | 38,0       | 0,8  | 100,00  | NMRV025/030                                                                       | 56B4                                                                                | 1439      |
| 14,0          | 39,0       | 1,8  | 100,00  | NMRV025/040                                                                       | 56B4                                                                                | 2769      |
| 9,0           | 54,0       | 1,2  | 150,00  | NMRV025/040                                                                       | 56B4                                                                                | 3488      |
| 7,0           | 70,0       | 0,9  | 200,00  | NMRV025/040                                                                       | 56B4                                                                                | 3488      |
| 6,0           | 83,0       | 0,7  | 250,00  | NMRV025/040                                                                       | 56B4                                                                                | 3490      |
| 4,7           | 90,0       | 0,8  | 300,00  | NMRV025/040                                                                       | 56B4                                                                                | 3490      |
| 14,0          | 39,0       | 1,8  | 100,00  | NMRV030/040                                                                       | 56B4                                                                                | 2769      |
| 9,0           | 56,0       | 1,3  | 150,00  | NMRV030/040                                                                       | 56B4                                                                                | 3169      |
| 7,0           | 70,0       | 0,9  | 200,00  | NMRV030/040                                                                       | 56B4                                                                                | 3488      |
| 6,0           | 83,0       | 0,7  | 250,00  | NMRV030/040                                                                       | 56B4                                                                                | 3490      |
| 4,7           | 90,0       | 0,8  | 300,00  | NMRV030/040                                                                       | 56B4                                                                                | 3490      |
| 14,0          | 40,0       | 3,4  | 100,00  | NMRV030/050                                                                       | 56B4                                                                                | 3800      |
| 9,0           | 56,0       | 2,4  | 150,00  | NMRV030/050                                                                       | 56B4                                                                                | 4350      |
| 7,0           | 70,0       | 1,7  | 200,00  | NMRV030/050                                                                       | 56B4                                                                                | 4788      |
| 6,0           | 83,0       | 1,3  | 250,00  | NMRV030/050                                                                       | 56B4                                                                                | 4840      |
| 4,7           | 92,0       | 1,6  | 300,00  | NMRV030/050                                                                       | 56B4                                                                                | 4840      |
| 3,5           | 110,0      | 1,1  | 400,00  | NMRV030/050                                                                       | 56B4                                                                                | 4840      |
| 2,8           | 127,0      | 0,9  | 500,00  | NMRV030/050                                                                       | 56B4                                                                                | 4840      |
| 2,3           | 164,0      | 0,9  | 600,00  | NMRV030/050                                                                       | 56B4                                                                                | 4840      |
| 1,9           | 191,0      | 0,8  | 750,00  | NMRV030/050                                                                       | 56B4                                                                                | 4840      |
| 6,0           | 85,0       | 2,7  | 250,00  | NMRV-P030/063                                                                     | 56B4                                                                                | 6270      |
| 4,7           | 88,0       | 2,9  | 300,00  | NMRV-P030/063                                                                     | 56B4                                                                                | 6270      |
| 3,5           | 114,0      | 2,2  | 400,00  | NMRV-P030/063                                                                     | 56B4                                                                                | 6270      |

## 0,09 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i       |  |  | Fr<br>[N] |
|---------------|------------|------|---------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 2,8           | 132,0      | 1,8  | 500,00  | NMRV-P030/063                                                                      | 56B4                                                                                | 6270      |
| 2,3           | 166,0      | 1,6  | 600,00  | NMRV-P030/063                                                                      | 56B4                                                                                | 6270      |
| 1,9           | 194,0      | 1,4  | 750,00  | NMRV-P030/063                                                                      | 56B4                                                                                | 6270      |
| 1,6           | 222,0      | 1,2  | 900,00  | NMRV-P030/063                                                                      | 56B4                                                                                | 6270      |
| 1,2           | 270,0      | 1,0  | 1200,00 | NMRV-P030/063                                                                      | 56B4                                                                                | 6270      |
| 0,9           | 315,0      | 0,9  | 1500,00 | NMRV-P030/063                                                                      | 56B4                                                                                | 6270      |
| 0,8           | 351,0      | 0,8  | 1800,00 | NMRV-P030/063                                                                      | 56B4                                                                                | 6270      |
| 2,8           | 153,0      | 0,9  | 500,00  | NMRV040/050                                                                        | 56B4                                                                                | 3800      |
| 0,9           | 354,0      | 0,8  | 1500,00 | NMRV-P040/063                                                                      | 56B4                                                                                | 6270      |
| 0,9           | 371,0      | 1,2  | 1500,00 | NMRV-P040/075                                                                      | 56B4                                                                                | 7380      |
| 0,8           | 417,0      | 1,1  | 1800,00 | NMRV-P040/075                                                                      | 56B4                                                                                | 7380      |
| 0,6           | 513,0      | 0,8  | 2400,00 | NMRV-P040/075                                                                      | 56B4                                                                                | 7380      |
| 0,9           | 389,0      | 1,8  | 1500,00 | NMRV-P040/090                                                                      | 56B4                                                                                | 8180      |
| 0,8           | 437,0      | 1,6  | 1800,00 | NMRV-P040/090                                                                      | 56B4                                                                                | 8180      |
| 0,6           | 539,0      | 1,1  | 2400,00 | NMRV-P040/090                                                                      | 56B4                                                                                | 8180      |
| 0,5           | 630,0      | 0,9  | 3000,00 | NMRV-P040/090                                                                      | 56B4                                                                                | 8180      |
| 0,4           | 755,0      | 0,7  | 4000,00 | NMRV-P040/090                                                                      | 56B4                                                                                | 8180      |

## 0,12 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------|
| 373,0         | 2,7        | 3,0  | 7,50   | NMRV025                                                                              | 56B2                                                                                  | 399       |
| 280,0         | 3,5        | 2,6  | 10,00  | NMRV025                                                                              | 56B2                                                                                  | 439       |
| 187,0         | 5,0        | 1,8  | 15,00  | NMRV025                                                                              | 56B2                                                                                  | 503       |
| 140,0         | 6,0        | 1,4  | 20,00  | NMRV025                                                                              | 56B2                                                                                  | 553       |
| 93,0          | 9,0        | 1,0  | 30,00  | NMRV025                                                                              | 56B2                                                                                  | 633       |
| 70,0          | 11,0       | 0,8  | 40,00  | NMRV025                                                                              | 56B2                                                                                  | 697       |
| 187,0         | 5,0        | 2,6  | 15,00  | NMRV030                                                                              | 56B2                                                                                  | 683       |
| 140,0         | 6,0        | 1,9  | 20,00  | NMRV030                                                                              | 56B2                                                                                  | 752       |
| 112,0         | 8,0        | 2,1  | 25,00  | NMRV030                                                                              | 56B2                                                                                  | 810       |
| 93,0          | 9,0        | 1,7  | 30,00  | NMRV030                                                                              | 56B2                                                                                  | 861       |
| 70,0          | 11,0       | 1,3  | 40,00  | NMRV030                                                                              | 56B2                                                                                  | 948       |
| 56,0          | 13,0       | 1,0  | 50,00  | NMRV030                                                                              | 56B2                                                                                  | 1021      |
| 47,0          | 14,0       | 0,8  | 60,00  | NMRV030                                                                              | 56B2                                                                                  | 1085      |
| 140,0         | 7,0        | 2,8  | 10,00  | NMRV030                                                                              | 63A4                                                                                  | 752       |
| 93,0          | 10,0       | 2,0  | 15,00  | NMRV030                                                                              | 63A4                                                                                  | 861       |
| 70,0          | 12,0       | 1,5  | 20,00  | NMRV030                                                                              | 63A4                                                                                  | 948       |
| 56,0          | 14,0       | 1,6  | 25,00  | NMRV030                                                                              | 63A4                                                                                  | 1021      |
| 47,0          | 16,0       | 1,3  | 30,00  | NMRV030                                                                              | 63A4                                                                                  | 1085      |
| 35,0          | 20,0       | 1,0  | 40,00  | NMRV030                                                                              | 63A4                                                                                  | 1194      |
| 28,0          | 23,0       | 0,8  | 50,00  | NMRV030                                                                              | 63A4                                                                                  | 1286      |
| 120,0         | 8,0        | 2,6  | 7,50   | NMRV030                                                                              | 63B6                                                                                  | 792       |
| 90,0          | 10,0       | 2,0  | 10,00  | NMRV030                                                                              | 63B6                                                                                  | 871       |
| 60,0          | 14,0       | 1,5  | 15,00  | NMRV030                                                                              | 63B6                                                                                  | 997       |
| 45,0          | 18,0       | 1,1  | 20,00  | NMRV030                                                                              | 63B6                                                                                  | 1098      |
| 36,0          | 21,0       | 1,2  | 25,00  | NMRV030                                                                              | 63B6                                                                                  | 1183      |
| 30,0          | 24,0       | 0,9  | 30,00  | NMRV030                                                                              | 63B6                                                                                  | 1257      |
| 23,0          | 29,0       | 0,7  | 40,00  | NMRV030                                                                              | 63B6                                                                                  | 1383      |
| 56,0          | 14,0       | 2,1  | 50,00  | NMRV040                                                                              | 56B2                                                                                  | 1964      |
| 47,0          | 16,0       | 1,7  | 60,00  | NMRV040                                                                              | 56B2                                                                                  | 2087      |
| 35,0          | 20,0       | 1,3  | 80,00  | NMRV040                                                                              | 56B2                                                                                  | 2298      |
| 28,0          | 23,0       | 1,0  | 100,00 | NMRV040                                                                              | 56B2                                                                                  | 2475      |
| 70,0          | 13,0       | 3,3  | 20,00  | NMRV040                                                                              | 63A4                                                                                  | 1824      |
| 56,0          | 16,0       | 2,5  | 25,00  | NMRV040                                                                              | 63A4                                                                                  | 1964      |
| 47,0          | 17,0       | 2,8  | 30,00  | NMRV040                                                                              | 63A4                                                                                  | 2087      |
| 35,0          | 22,0       | 2,1  | 40,00  | NMRV040                                                                              | 63A4                                                                                  | 2298      |

## 0,12 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 28,0          | 26,0       | 1,6  | 50,00  | NMRV040                                                                           | 63A4                                                                                | 2475      |
| 23,0          | 29,0       | 1,3  | 60,00  | NMRV040                                                                           | 63A4                                                                                | 2630      |
| 18,0          | 35,0       | 1,0  | 80,00  | NMRV040                                                                           | 63A4                                                                                | 2895      |
| 14,0          | 39,0       | 0,7  | 100,00 | NMRV040                                                                           | 63A4                                                                                | 3118      |
| 60,0          | 15,0       | 3,3  | 15,00  | NMRV040                                                                           | 63B6                                                                                | 1920      |
| 45,0          | 19,0       | 2,5  | 20,00  | NMRV040                                                                           | 63B6                                                                                | 2113      |
| 36,0          | 23,0       | 1,9  | 25,00  | NMRV040                                                                           | 63B6                                                                                | 2276      |
| 30,0          | 26,0       | 2,1  | 30,00  | NMRV040                                                                           | 63B6                                                                                | 2419      |
| 23,0          | 32,0       | 1,6  | 40,00  | NMRV040                                                                           | 63B6                                                                                | 2662      |
| 18,0          | 37,0       | 1,2  | 50,00  | NMRV040                                                                           | 63B6                                                                                | 2868      |
| 15,0          | 42,0       | 1,0  | 60,00  | NMRV040                                                                           | 63B6                                                                                | 3047      |
| 11,0          | 50,0       | 0,7  | 80,00  | NMRV040                                                                           | 63B6                                                                                | 3354      |
| 28,0          | 26,0       | 2,9  | 50,00  | NMRV050                                                                           | 63A4                                                                                | 3397      |
| 23,0          | 29,0       | 2,4  | 60,00  | NMRV050                                                                           | 63A4                                                                                | 3610      |
| 18,0          | 35,0       | 1,8  | 80,00  | NMRV050                                                                           | 63A4                                                                                | 3973      |
| 14,0          | 41,0       | 1,3  | 100,00 | NMRV050                                                                           | 63A4                                                                                | 4280      |
| 23,0          | 33,0       | 2,7  | 40,00  | NMRV050                                                                           | 63B6                                                                                | 3654      |
| 18,0          | 38,0       | 2,1  | 50,00  | NMRV050                                                                           | 63B6                                                                                | 3936      |
| 15,0          | 43,0       | 1,8  | 60,00  | NMRV050                                                                           | 63B6                                                                                | 4183      |
| 11,0          | 51,0       | 1,3  | 80,00  | NMRV050                                                                           | 63B6                                                                                | 4604      |
| 9,0           | 57,0       | 1,0  | 100,00 | NMRV050                                                                           | 63B6                                                                                | 4840      |
| 48,0          | 19,0       | 3,2  | 29,40  | HA31+NMRV040                                                                      | 63A4                                                                                | 2074      |
| 44,0          | 21,0       | 3,2  | 31,50  | HA31+NMRV040                                                                      | 63A4                                                                                | 2122      |
| 39,0          | 23,0       | 2,9  | 35,60  | HA31+NMRV040                                                                      | 63A4                                                                                | 2211      |
| 34,0          | 26,0       | 2,6  | 40,90  | HA31+NMRV040                                                                      | 63A4                                                                                | 2315      |
| 32,0          | 27,0       | 2,3  | 44,20  | HA31+NMRV040                                                                      | 63A4                                                                                | 2375      |
| 29,0          | 30,0       | 2,3  | 47,50  | HA31+NMRV040                                                                      | 63A4                                                                                | 2433      |
| 26,0          | 34,0       | 2,0  | 54,50  | HA31+NMRV040                                                                      | 63A4                                                                                | 2548      |
| 24,0          | 34,0       | 1,7  | 58,90  | HA31+NMRV040                                                                      | 63A4                                                                                | 2614      |
| 22,0          | 39,0       | 1,8  | 63,00  | HA31+NMRV040                                                                      | 63A4                                                                                | 2673      |
| 20,0          | 42,0       | 1,6  | 71,30  | HA31+NMRV040                                                                      | 63A4                                                                                | 2785      |
| 18,0          | 48,0       | 1,5  | 78,80  | HA31+NMRV040                                                                      | 63A4                                                                                | 2880      |
| 16,0          | 45,0       | 1,4  | 88,30  | HA31+NMRV040                                                                      | 63A4                                                                                | 2992      |
| 15,0          | 55,0       | 1,3  | 94,50  | HA31+NMRV040                                                                      | 63A4                                                                                | 3060      |
| 14,0          | 57,0       | 1,1  | 102,00 | HA31+NMRV040                                                                      | 63A4                                                                                | 3139      |
| 13,0          | 60,0       | 1,1  | 109,10 | HA31+NMRV040                                                                      | 63A4                                                                                | 3210      |
| 12,0          | 68,0       | 1,1  | 118,10 | HA31+NMRV040                                                                      | 63A4                                                                                | 3296      |
| 11,0          | 67,0       | 0,9  | 127,50 | HA31+NMRV040                                                                      | 63A4                                                                                | 3381      |
| 10,0          | 69,0       | 1,0  | 142,50 | HA31+NMRV040                                                                      | 63A4                                                                                | 3490      |
| 9,0           | 69,0       | 0,9  | 154,70 | HA31+NMRV040                                                                      | 63A4                                                                                | 3490      |
| 9,0           | 78,0       | 0,9  | 163,60 | HA31+NMRV040                                                                      | 63A4                                                                                | 3490      |
| 7,0           | 89,0       | 0,8  | 189,00 | HA31+NMRV040                                                                      | 63A4                                                                                | 3490      |
| 7,0           | 88,0       | 0,7  | 204,00 | HA31+NMRV040                                                                      | 63A4                                                                                | 3490      |
| 41,0          | 22,0       | 3,0  | 22,10  | HA31+NMRV040                                                                      | 63B6                                                                                | 2184      |
| 38,0          | 24,0       | 2,8  | 23,80  | HA31+NMRV040                                                                      | 63B6                                                                                | 2237      |
| 35,0          | 26,0       | 2,6  | 25,50  | HA31+NMRV040                                                                      | 63B6                                                                                | 2291      |
| 31,0          | 29,0       | 2,3  | 29,40  | HA31+NMRV040                                                                      | 63B6                                                                                | 2404      |
| 29,0          | 32,0       | 2,1  | 31,50  | HA31+NMRV040                                                                      | 63B6                                                                                | 2458      |
| 25,0          | 35,0       | 2,0  | 35,60  | HA31+NMRV040                                                                      | 63B6                                                                                | 2561      |
| 22,0          | 40,0       | 1,8  | 40,90  | HA31+NMRV040                                                                      | 63B6                                                                                | 2682      |
| 20,0          | 40,0       | 1,7  | 44,20  | HA31+NMRV040                                                                      | 63B6                                                                                | 2752      |
| 19,0          | 45,0       | 1,6  | 47,50  | HA31+NMRV040                                                                      | 63B6                                                                                | 2819      |
| 17,0          | 52,0       | 1,4  | 54,50  | HA31+NMRV040                                                                      | 63B6                                                                                | 2952      |
| 15,0          | 51,0       | 1,2  | 58,90  | HA31+NMRV040                                                                      | 63B6                                                                                | 3028      |
| 14,0          | 60,0       | 1,2  | 63,00  | HA31+NMRV040                                                                      | 63B6                                                                                | 3097      |
| 13,0          | 64,0       | 1,1  | 71,30  | HA31+NMRV040                                                                      | 63B6                                                                                | 3227      |
| 11,0          | 75,0       | 0,9  | 78,80  | HA31+NMRV040                                                                      | 63B6                                                                                | 3336      |
| 10,0          | 66,0       | 1,0  | 88,30  | HA31+NMRV040                                                                      | 63B6                                                                                | 3467      |

# 0,12 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 10,0          | 85,0       | 0,8  | 94,50  | HA31+NMRV040                                                                       | 63B6                                                                                | 3490      |
| 9,0           | 87,0       | 0,7  | 102,00 | HA31+NMRV040                                                                       | 63B6                                                                                | 3490      |
| 6,0           | 104,0      | 0,7  | 142,50 | HA31+NMRV040                                                                       | 63B6                                                                                | 3490      |
| 24,0          | 34,0       | 3,0  | 58,90  | HA31+NMRV050                                                                       | 63A4                                                                                | 3587      |
| 22,0          | 40,0       | 3,4  | 63,00  | HA31+NMRV050                                                                       | 63A4                                                                                | 3669      |
| 20,0          | 42,0       | 3,0  | 71,30  | HA31+NMRV050                                                                       | 63A4                                                                                | 3823      |
| 18,0          | 49,0       | 2,7  | 78,80  | HA31+NMRV050                                                                       | 63A4                                                                                | 3952      |
| 16,0          | 45,0       | 2,6  | 88,30  | HA31+NMRV050                                                                       | 63A4                                                                                | 4107      |
| 15,0          | 55,0       | 2,4  | 94,50  | HA31+NMRV050                                                                       | 63A4                                                                                | 4200      |
| 14,0          | 57,0       | 2,0  | 102,00 | HA31+NMRV050                                                                       | 63A4                                                                                | 4308      |
| 13,0          | 61,0       | 1,9  | 109,10 | HA31+NMRV050                                                                       | 63A4                                                                                | 4406      |
| 12,0          | 68,0       | 2,0  | 118,10 | HA31+NMRV050                                                                       | 63A4                                                                                | 4524      |
| 11,0          | 67,0       | 1,6  | 127,50 | HA31+NMRV050                                                                       | 63A4                                                                                | 4641      |
| 10,0          | 70,0       | 1,9  | 142,50 | HA31+NMRV050                                                                       | 63A4                                                                                | 4816      |
| 9,0           | 70,0       | 1,6  | 154,70 | HA31+NMRV050                                                                       | 63A4                                                                                | 4840      |
| 9,0           | 79,0       | 1,8  | 163,60 | HA31+NMRV050                                                                       | 63A4                                                                                | 4840      |
| 7,0           | 91,0       | 1,6  | 189,00 | HA31+NMRV050                                                                       | 63A4                                                                                | 4840      |
| 7,0           | 90,0       | 1,3  | 204,00 | HA31+NMRV050                                                                       | 63A4                                                                                | 4840      |
| 6,0           | 113,0      | 1,3  | 236,30 | HA31+NMRV050                                                                       | 63A4                                                                                | 4840      |
| 6,0           | 109,0      | 1,1  | 252,00 | HA31+NMRV050                                                                       | 63A4                                                                                | 4840      |
| 5,0           | 111,0      | 1,0  | 272,70 | HA31+NMRV050                                                                       | 63A4                                                                                | 4840      |
| 4,9           | 108,0      | 0,9  | 285,00 | HA31+NMRV050                                                                       | 63A4                                                                                | 4840      |
| 4,4           | 126,0      | 0,9  | 315,00 | HA31+NMRV050                                                                       | 63A4                                                                                | 4840      |
| 38,0          | 24,0       | 3,2  | 23,80  | HA31+NMRV050                                                                       | 63B6                                                                                | 3071      |
| 35,0          | 26,0       | 3,1  | 25,50  | HA31+NMRV050                                                                       | 63B6                                                                                | 3145      |
| 29,0          | 32,0       | 2,5  | 31,50  | HA31+NMRV050                                                                       | 63B6                                                                                | 3374      |
| 25,0          | 36,0       | 3,2  | 35,60  | HA31+NMRV050                                                                       | 63B6                                                                                | 3515      |
| 22,0          | 41,0       | 2,9  | 40,90  | HA31+NMRV050                                                                       | 63B6                                                                                | 3681      |
| 20,0          | 41,0       | 3,1  | 44,20  | HA31+NMRV050                                                                       | 63B6                                                                                | 3777      |
| 19,0          | 46,0       | 3,0  | 47,50  | HA31+NMRV050                                                                       | 63B6                                                                                | 3869      |
| 17,0          | 53,0       | 2,6  | 54,50  | HA31+NMRV050                                                                       | 63B6                                                                                | 4052      |
| 15,0          | 51,0       | 2,2  | 58,90  | HA31+NMRV050                                                                       | 63B6                                                                                | 4157      |
| 14,0          | 61,0       | 2,2  | 63,00  | HA31+NMRV050                                                                       | 63B6                                                                                | 4251      |
| 13,0          | 64,0       | 2,1  | 71,30  | HA31+NMRV050                                                                       | 63B6                                                                                | 4429      |
| 11,0          | 77,0       | 1,8  | 78,80  | HA31+NMRV050                                                                       | 63B6                                                                                | 4579      |
| 10,0          | 67,0       | 2,0  | 88,30  | HA31+NMRV050                                                                       | 63B6                                                                                | 4758      |
| 10,0          | 85,0       | 1,6  | 94,50  | HA31+NMRV050                                                                       | 63B6                                                                                | 4840      |
| 9,0           | 87,0       | 1,4  | 102,00 | HA31+NMRV050                                                                       | 63B6                                                                                | 4840      |
| 8,0           | 93,0       | 1,3  | 109,10 | HA31+NMRV050                                                                       | 63B6                                                                                | 4840      |
| 8,0           | 107,0      | 1,3  | 118,10 | HA31+NMRV050                                                                       | 63B6                                                                                | 4840      |
| 7,0           | 102,0      | 1,1  | 127,50 | HA31+NMRV050                                                                       | 63B6                                                                                | 4840      |
| 6,0           | 106,0      | 1,4  | 142,50 | HA31+NMRV050                                                                       | 63B6                                                                                | 4840      |
| 6,0           | 104,0      | 1,2  | 154,70 | HA31+NMRV050                                                                       | 63B6                                                                                | 4840      |
| 6,0           | 121,0      | 1,2  | 163,60 | HA31+NMRV050                                                                       | 63B6                                                                                | 4840      |
| 4,8           | 140,0      | 1,0  | 189,00 | HA31+NMRV050                                                                       | 63B6                                                                                | 4840      |
| 4,4           | 136,0      | 0,9  | 204,00 | HA31+NMRV050                                                                       | 63B6                                                                                | 4840      |
| 3,8           | 175,0      | 0,8  | 236,30 | HA31+NMRV050                                                                       | 63B6                                                                                | 4840      |
| 3,6           | 168,0      | 0,7  | 252,00 | HA31+NMRV050                                                                       | 63B6                                                                                | 4840      |
| 3,3           | 169,0      | 0,7  | 272,70 | HA31+NMRV050                                                                       | 63B6                                                                                | 4840      |
| 10,0          | 74,0       | 3,1  | 136,40 | HW030+NMRV-P063                                                                    | 63A4                                                                                | 6204      |
| 9,0           | 87,0       | 3,1  | 157,50 | HW030+NMRV-P063                                                                    | 63A4                                                                                | 6270      |
| 9,0           | 81,0       | 3,3  | 163,60 | HW030+NMRV-P063                                                                    | 63A4                                                                                | 6270      |
| 8,0           | 75,0       | 2,4  | 176,70 | HW030+NMRV-P063                                                                    | 63A4                                                                                | 6270      |
| 7,0           | 104,0      | 2,4  | 196,90 | HW030+NMRV-P063                                                                    | 63A4                                                                                | 6270      |
| 6,0           | 99,0       | 2,6  | 218,20 | HW030+NMRV-P063                                                                    | 63A4                                                                                | 6270      |
| 6,0           | 114,0      | 2,5  | 236,30 | HW030+NMRV-P063                                                                    | 63A4                                                                                | 6270      |
| 5,0           | 115,0      | 2,0  | 272,70 | HW030+NMRV-P063                                                                    | 63A4                                                                                | 6270      |
| 4,4           | 139,0      | 1,9  | 315,00 | HW030+NMRV-P063                                                                    | 63A4                                                                                | 6270      |

## 0,12 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 3,6           | 161,0      | 1,5  | 393,80 | HW030+NMRV-P063                                                                   | 63A4                                                                                | 6270      |
| 3,2           | 188,0      | 1,5  | 433,30 | HW030+NMRV-P063                                                                   | 63A4                                                                                | 6270      |
| 3,0           | 178,0      | 1,2  | 472,50 | HW030+NMRV-P063                                                                   | 63A4                                                                                | 6270      |
| 2,6           | 219,0      | 1,1  | 541,70 | HW030+NMRV-P063                                                                   | 63A4                                                                                | 6270      |
| 2,2           | 241,0      | 0,9  | 650,00 | HW030+NMRV-P063                                                                   | 63A4                                                                                | 6270      |
| 9,0           | 82,0       | 3,3  | 95,00  | HW030+NMRV-P063                                                                   | 63B6                                                                                | 6270      |
| 8,0           | 94,0       | 3,0  | 109,10 | HW030+NMRV-P063                                                                   | 63B6                                                                                | 6270      |
| 8,0           | 106,0      | 2,5  | 118,10 | HW030+NMRV-P063                                                                   | 63B6                                                                                | 6270      |
| 7,0           | 112,0      | 2,2  | 136,40 | HW030+NMRV-P063                                                                   | 63B6                                                                                | 6270      |
| 6,0           | 107,0      | 2,7  | 142,50 | HW030+NMRV-P063                                                                   | 63B6                                                                                | 6270      |
| 6,0           | 133,0      | 2,2  | 157,50 | HW030+NMRV-P063                                                                   | 63B6                                                                                | 6270      |
| 6,0           | 122,0      | 2,5  | 163,60 | HW030+NMRV-P063                                                                   | 63B6                                                                                | 6270      |
| 5,0           | 109,0      | 1,9  | 176,70 | HW030+NMRV-P063                                                                   | 63B6                                                                                | 6270      |
| 4,6           | 160,0      | 1,6  | 196,90 | HW030+NMRV-P063                                                                   | 63B6                                                                                | 6270      |
| 4,1           | 149,0      | 1,8  | 218,20 | HW030+NMRV-P063                                                                   | 63B6                                                                                | 6270      |
| 3,8           | 174,0      | 2,0  | 236,30 | HW030+NMRV-P063                                                                   | 63B6                                                                                | 6270      |
| 3,3           | 173,0      | 1,4  | 272,70 | HW030+NMRV-P063                                                                   | 63B6                                                                                | 6270      |
| 2,9           | 211,0      | 1,3  | 315,00 | HW030+NMRV-P063                                                                   | 63B6                                                                                | 6270      |
| 2,3           | 246,0      | 1,0  | 393,80 | HW030+NMRV-P063                                                                   | 63B6                                                                                | 6270      |
| 2,1           | 287,0      | 0,9  | 433,30 | HW030+NMRV-P063                                                                   | 63B6                                                                                | 6270      |
| 1,9           | 270,0      | 0,8  | 472,50 | HW030+NMRV-P063                                                                   | 63B6                                                                                | 6270      |
| 1,7           | 335,0      | 0,8  | 541,70 | HW030+NMRV-P063                                                                   | 63B6                                                                                | 6270      |
| 5,0           | 119,0      | 3,1  | 272,70 | HW030+NMRV-P075                                                                   | 63A4                                                                                | 7380      |
| 4,4           | 147,0      | 3,0  | 315,00 | HW030+NMRV-P075                                                                   | 63A4                                                                                | 7380      |
| 3,6           | 168,0      | 2,4  | 393,80 | HW030+NMRV-P075                                                                   | 63A4                                                                                | 7380      |
| 3,0           | 190,0      | 2,0  | 472,50 | HW030+NMRV-P075                                                                   | 63A4                                                                                | 7380      |
| 2,6           | 226,0      | 1,6  | 541,70 | HW030+NMRV-P075                                                                   | 63A4                                                                                | 7380      |
| 2,2           | 256,0      | 1,5  | 650,00 | HW030+NMRV-P075                                                                   | 63A4                                                                                | 7380      |
| 1,8           | 247,0      | 0,9  | 787,50 | HW030+NMRV-P075                                                                   | 63A4                                                                                | 7380      |
| 1,6           | 302,0      | 1,0  | 866,70 | HW030+NMRV-P075                                                                   | 63A4                                                                                | 7380      |
| 5,0           | 116,0      | 3,0  | 176,70 | HW030+NMRV-P075                                                                   | 63B6                                                                                | 7380      |
| 4,6           | 164,0      | 2,5  | 196,90 | HW030+NMRV-P075                                                                   | 63B6                                                                                | 7380      |
| 4,1           | 157,0      | 2,8  | 218,20 | HW030+NMRV-P075                                                                   | 63B6                                                                                | 7380      |
| 3,8           | 183,0      | 2,5  | 236,30 | HW030+NMRV-P075                                                                   | 63B6                                                                                | 7380      |
| 3,3           | 180,0      | 2,2  | 272,70 | HW030+NMRV-P075                                                                   | 63B6                                                                                | 7380      |
| 2,9           | 224,0      | 2,1  | 315,00 | HW030+NMRV-P075                                                                   | 63B6                                                                                | 7380      |
| 2,3           | 254,0      | 1,6  | 393,80 | HW030+NMRV-P075                                                                   | 63B6                                                                                | 7380      |
| 1,9           | 288,0      | 1,4  | 472,50 | HW030+NMRV-P075                                                                   | 63B6                                                                                | 7380      |
| 1,7           | 346,0      | 0,9  | 541,70 | HW030+NMRV-P075                                                                   | 63B6                                                                                | 7380      |
| 1,4           | 391,0      | 0,9  | 650,00 | HW030+NMRV-P075                                                                   | 63B6                                                                                | 7380      |
| 3,2           | 199,0      | 3,2  | 437,50 | HW040+NMRV-P090                                                                   | 63A4                                                                                | 8180      |
| 3,0           | 196,0      | 2,8  | 460,00 | HW040+NMRV-P090                                                                   | 63A4                                                                                | 8180      |
| 2,7           | 222,0      | 2,5  | 525,00 | HW040+NMRV-P090                                                                   | 63A4                                                                                | 8180      |
| 2,3           | 237,0      | 1,8  | 613,30 | HW040+NMRV-P090                                                                   | 63A4                                                                                | 8180      |
| 2,0           | 269,0      | 1,6  | 700,00 | HW040+NMRV-P090                                                                   | 63A4                                                                                | 8180      |
| 1,8           | 266,0      | 1,3  | 766,70 | HW040+NMRV-P090                                                                   | 63A4                                                                                | 8180      |
| 1,6           | 300,0      | 1,2  | 875,00 | HW040+NMRV-P090                                                                   | 63A4                                                                                | 8180      |
| 3,6           | 169,0      | 3,2  | 252,00 | HW040+NMRV-P090                                                                   | 63B6                                                                                | 8180      |
| 3,3           | 195,0      | 3,3  | 275,00 | HW040+NMRV-P090                                                                   | 63B6                                                                                | 8180      |
| 3,0           | 214,0      | 3,0  | 304,50 | HW040+NMRV-P090                                                                   | 63B6                                                                                | 8180      |
| 2,7           | 217,0      | 2,6  | 330,00 | HW040+NMRV-P090                                                                   | 63B6                                                                                | 8180      |
| 2,3           | 267,0      | 2,5  | 383,30 | HW040+NMRV-P090                                                                   | 63B6                                                                                | 8180      |
| 2,1           | 303,0      | 2,2  | 437,50 | HW040+NMRV-P090                                                                   | 63B6                                                                                | 8180      |
| 2,0           | 298,0      | 1,9  | 460,00 | HW040+NMRV-P090                                                                   | 63B6                                                                                | 8180      |
| 1,7           | 338,0      | 1,7  | 525,00 | HW040+NMRV-P090                                                                   | 63B6                                                                                | 8180      |
| 1,5           | 361,0      | 1,3  | 613,30 | HW040+NMRV-P090                                                                   | 63B6                                                                                | 8180      |
| 1,3           | 410,0      | 1,1  | 700,00 | HW040+NMRV-P090                                                                   | 63B6                                                                                | 8180      |
| 1,2           | 401,0      | 0,9  | 766,70 | HW040+NMRV-P090                                                                   | 63B6                                                                                | 8180      |

# 0,12 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i       |  |  | Fr<br>[N] |
|---------------|------------|------|---------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 1,0           | 455,0      | 0,8  | 875,00  | HW040+NMRV-P090                                                                    | 63B6                                                                                | 8180      |
| 2,3           | 257,0      | 3,2  | 613,30  | HW040+NMRV-P110                                                                    | 63A4                                                                                | 10320     |
| 2,0           | 291,0      | 2,8  | 700,00  | HW040+NMRV-P110                                                                    | 63A4                                                                                | 10320     |
| 1,8           | 290,0      | 2,2  | 766,70  | HW040+NMRV-P110                                                                    | 63A4                                                                                | 10320     |
| 1,6           | 328,0      | 2,0  | 875,00  | HW040+NMRV-P110                                                                    | 63A4                                                                                | 10320     |
| 2,0           | 285,0      | 2,9  | 440,00  | HW040+NMRV-P110                                                                    | 63B6                                                                                | 10320     |
| 2,0           | 320,0      | 3,2  | 460,00  | HW040+NMRV-P110                                                                    | 63B6                                                                                | 10320     |
| 1,7           | 364,0      | 2,6  | 525,00  | HW040+NMRV-P110                                                                    | 63B6                                                                                | 10320     |
| 1,5           | 391,0      | 2,2  | 613,30  | HW040+NMRV-P110                                                                    | 63B6                                                                                | 10320     |
| 1,3           | 444,0      | 1,9  | 700,00  | HW040+NMRV-P110                                                                    | 63B6                                                                                | 10320     |
| 1,2           | 439,0      | 1,5  | 766,70  | HW040+NMRV-P110                                                                    | 63B6                                                                                | 10320     |
| 1,0           | 498,0      | 1,3  | 875,00  | HW040+NMRV-P110                                                                    | 63B6                                                                                | 10320     |
| 14,0          | 52,0       | 1,4  | 100,00  | NMRV030/040                                                                        | 63A4                                                                                | 2769      |
| 9,0           | 74,0       | 1,0  | 150,00  | NMRV030/040                                                                        | 63A4                                                                                | 3169      |
| 14,0          | 54,0       | 2,6  | 100,00  | NMRV030/050                                                                        | 63A4                                                                                | 3800      |
| 9,0           | 74,0       | 1,8  | 150,00  | NMRV030/050                                                                        | 63A4                                                                                | 4350      |
| 7,0           | 94,0       | 1,3  | 200,00  | NMRV030/050                                                                        | 63A4                                                                                | 4788      |
| 6,0           | 110,0      | 1,0  | 250,00  | NMRV030/050                                                                        | 63A4                                                                                | 4840      |
| 4,7           | 122,0      | 1,2  | 300,00  | NMRV030/050                                                                        | 63A4                                                                                | 4840      |
| 3,5           | 147,0      | 0,8  | 400,00  | NMRV030/050                                                                        | 63A4                                                                                | 4840      |
| 2,8           | 170,0      | 0,7  | 500,00  | NMRV030/050                                                                        | 63A4                                                                                | 4840      |
| 14,0          | 54,0       | 2,8  | 100,00  | NMRV-P030/063                                                                      | 63A4                                                                                | 4967      |
| 9,0           | 75,0       | 2,8  | 150,00  | NMRV-P030/063                                                                      | 63A4                                                                                | 5686      |
| 7,0           | 95,0       | 2,7  | 200,00  | NMRV-P030/063                                                                      | 63A4                                                                                | 6259      |
| 6,0           | 114,0      | 2,0  | 250,00  | NMRV-P030/063                                                                      | 63A4                                                                                | 6270      |
| 4,7           | 117,0      | 2,2  | 300,00  | NMRV-P030/063                                                                      | 63A4                                                                                | 6270      |
| 3,5           | 152,0      | 1,7  | 400,00  | NMRV-P030/063                                                                      | 63A4                                                                                | 6270      |
| 2,8           | 177,0      | 1,3  | 500,00  | NMRV-P030/063                                                                      | 63A4                                                                                | 6270      |
| 2,3           | 222,0      | 1,2  | 600,00  | NMRV-P030/063                                                                      | 63A4                                                                                | 6270      |
| 1,9           | 258,0      | 1,0  | 750,00  | NMRV-P030/063                                                                      | 63A4                                                                                | 6270      |
| 1,6           | 297,0      | 0,9  | 900,00  | NMRV-P030/063                                                                      | 63A4                                                                                | 6270      |
| 1,2           | 360,0      | 0,8  | 1200,00 | NMRV-P030/063                                                                      | 63A4                                                                                | 6270      |
| 14,0          | 55,0       | 2,5  | 100,00  | NMRV040/050                                                                        | 63A4                                                                                | 3800      |
| 9,0           | 76,0       | 1,8  | 150,00  | NMRV040/050                                                                        | 63A4                                                                                | 4350      |
| 7,0           | 96,0       | 1,2  | 200,00  | NMRV040/050                                                                        | 63A4                                                                                | 4788      |
| 6,0           | 113,0      | 1,0  | 250,00  | NMRV040/050                                                                        | 63A4                                                                                | 4840      |
| 4,7           | 125,0      | 1,2  | 300,00  | NMRV040/050                                                                        | 63A4                                                                                | 4840      |
| 3,5           | 150,0      | 0,8  | 400,00  | NMRV040/050                                                                        | 63A4                                                                                | 4840      |
| 9,0           | 77,0       | 3,4  | 150,00  | NMRV-P040/063                                                                      | 63A4                                                                                | 5686      |
| 7,0           | 97,0       | 2,6  | 200,00  | NMRV-P040/063                                                                      | 63A4                                                                                | 6259      |
| 6,0           | 117,0      | 2,0  | 250,00  | NMRV-P040/063                                                                      | 63A4                                                                                | 6270      |
| 4,7           | 127,0      | 2,1  | 300,00  | NMRV-P040/063                                                                      | 63A4                                                                                | 6270      |
| 3,5           | 156,0      | 1,6  | 400,00  | NMRV-P040/063                                                                      | 63A4                                                                                | 6270      |
| 2,8           | 217,0      | 1,1  | 500,00  | NMRV-P040/063                                                                      | 63A4                                                                                | 6270      |
| 2,3           | 237,0      | 1,1  | 600,00  | NMRV-P040/063                                                                      | 63A4                                                                                | 6270      |
| 1,9           | 285,0      | 1,0  | 750,00  | NMRV-P040/063                                                                      | 63A4                                                                                | 6270      |
| 1,6           | 319,0      | 0,8  | 900,00  | NMRV-P040/063                                                                      | 63A4                                                                                | 6270      |
| 6,0           | 120,0      | 3,2  | 250,00  | NMRV-P040/075                                                                      | 63A4                                                                                | 7380      |
| 4,7           | 134,0      | 3,3  | 300,00  | NMRV-P040/075                                                                      | 63A4                                                                                | 7380      |
| 3,5           | 164,0      | 2,5  | 400,00  | NMRV-P040/075                                                                      | 63A4                                                                                | 7380      |
| 2,8           | 188,0      | 2,0  | 500,00  | NMRV-P040/075                                                                      | 63A4                                                                                | 7380      |
| 2,3           | 248,0      | 1,8  | 600,00  | NMRV-P040/075                                                                      | 63A4                                                                                | 7380      |
| 1,9           | 299,0      | 1,5  | 750,00  | NMRV-P040/075                                                                      | 63A4                                                                                | 7380      |
| 1,6           | 335,0      | 1,3  | 900,00  | NMRV-P040/075                                                                      | 63A4                                                                                | 7380      |
| 1,2           | 415,0      | 1,1  | 1200,00 | NMRV-P040/075                                                                      | 63A4                                                                                | 7380      |
| 0,9           | 495,0      | 0,9  | 1500,00 | NMRV-P040/075                                                                      | 63A4                                                                                | 7380      |
| 0,8           | 556,0      | 0,8  | 1800,00 | NMRV-P040/075                                                                      | 63A4                                                                                | 7380      |
| 2,8           | 202,0      | 2,8  | 500,00  | NMRV-P040/090                                                                      | 63A4                                                                                | 8180      |

## 0,12 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i       |  |  | Fr<br>[N] |
|---------------|------------|------|---------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 2,3           | 260,0      | 2,7  | 600,00  | NMRV-P040/090                                                                     | 63A4                                                                                | 8180      |
| 1,9           | 313,0      | 2,2  | 750,00  | NMRV-P040/090                                                                     | 63A4                                                                                | 8180      |
| 1,6           | 350,0      | 2,0  | 900,00  | NMRV-P040/090                                                                     | 63A4                                                                                | 8180      |
| 1,2           | 434,0      | 1,6  | 1200,00 | NMRV-P040/090                                                                     | 63A4                                                                                | 8180      |
| 0,9           | 518,0      | 1,4  | 1500,00 | NMRV-P040/090                                                                     | 63A4                                                                                | 8180      |
| 0,8           | 582,0      | 1,2  | 1800,00 | NMRV-P040/090                                                                     | 63A4                                                                                | 8180      |
| 0,6           | 719,0      | 0,8  | 2400,00 | NMRV-P040/090                                                                     | 63A4                                                                                | 8180      |
| 1,2           | 448,0      | 1,6  | 1200,00 | NMRV-P050/090                                                                     | 63A4                                                                                | 8180      |
| 0,9           | 527,0      | 1,3  | 1500,00 | NMRV-P050/090                                                                     | 63A4                                                                                | 8180      |
| 0,8           | 592,0      | 1,2  | 1800,00 | NMRV-P050/090                                                                     | 63A4                                                                                | 8180      |
| 0,6           | 731,0      | 0,8  | 2400,00 | NMRV-P050/090                                                                     | 63A4                                                                                | 8180      |
| 1,2           | 448,0      | 2,8  | 1200,00 | NMRV-P050/110                                                                     | 63A4                                                                                | 10320     |
| 0,9           | 527,0      | 2,4  | 1500,00 | NMRV-P050/110                                                                     | 63A4                                                                                | 10320     |
| 0,8           | 592,0      | 2,1  | 1800,00 | NMRV-P050/110                                                                     | 63A4                                                                                | 10320     |
| 0,6           | 766,0      | 1,5  | 2400,00 | NMRV-P050/110                                                                     | 63A4                                                                                | 10320     |
| 0,5           | 914,0      | 1,2  | 3000,00 | NMRV-P050/110                                                                     | 63A4                                                                                | 10320     |
| 0,4           | 1096,0     | 1,0  | 4000,00 | NMRV-P050/110                                                                     | 63A4                                                                                | 10320     |
| 0,3           | 1269,0     | 0,9  | 5000,00 | NMRV-P050/110                                                                     | 63A4                                                                                | 10320     |

## 0,15 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------|
| 180,0         | 7,0        | 3,1  | 5,00   | NMRV030                                                                             | 63C6                                                                                  | 692       |
| 120,0         | 10,0       | 2,1  | 7,50   | NMRV030                                                                             | 63C6                                                                                  | 792       |
| 90,0          | 13,0       | 1,6  | 10,00  | NMRV030                                                                             | 63C6                                                                                  | 871       |
| 60,0          | 18,0       | 1,2  | 15,00  | NMRV030                                                                             | 63C6                                                                                  | 997       |
| 45,0          | 23,0       | 0,9  | 20,00  | NMRV030                                                                             | 63C6                                                                                  | 1098      |
| 36,0          | 26,0       | 0,9  | 25,00  | NMRV030                                                                             | 63C6                                                                                  | 1183      |
| 30,0          | 30,0       | 0,7  | 30,00  | NMRV030                                                                             | 63C6                                                                                  | 1257      |
| 60,0          | 19,0       | 2,6  | 15,00  | NMRV040                                                                             | 63C6                                                                                  | 1920      |
| 45,0          | 24,0       | 2,0  | 20,00  | NMRV040                                                                             | 63C6                                                                                  | 2113      |
| 36,0          | 29,0       | 1,5  | 25,00  | NMRV040                                                                             | 63C6                                                                                  | 2276      |
| 30,0          | 32,0       | 1,7  | 30,00  | NMRV040                                                                             | 63C6                                                                                  | 2419      |
| 23,0          | 40,0       | 1,2  | 40,00  | NMRV040                                                                             | 63C6                                                                                  | 2662      |
| 18,0          | 46,0       | 1,0  | 50,00  | NMRV040                                                                             | 63C6                                                                                  | 2868      |
| 15,0          | 53,0       | 0,8  | 60,00  | NMRV040                                                                             | 63C6                                                                                  | 3047      |
| 23,0          | 41,0       | 2,2  | 40,00  | NMRV050                                                                             | 63C6                                                                                  | 3654      |
| 18,0          | 48,0       | 1,7  | 50,00  | NMRV050                                                                             | 63C6                                                                                  | 3936      |
| 15,0          | 54,0       | 1,4  | 60,00  | NMRV050                                                                             | 63C6                                                                                  | 4183      |
| 11,0          | 64,0       | 1,1  | 80,00  | NMRV050                                                                             | 63C6                                                                                  | 4604      |
| 9,0           | 72,0       | 0,8  | 100,00 | NMRV050                                                                             | 63C6                                                                                  | 4840      |
| 41,0          | 28,0       | 2,4  | 22,10  | HA31+NMRV040                                                                        | 63C6                                                                                  | 2184      |
| 38,0          | 30,0       | 2,2  | 23,80  | HA31+NMRV040                                                                        | 63C6                                                                                  | 2237      |
| 35,0          | 33,0       | 2,1  | 25,50  | HA31+NMRV040                                                                        | 63C6                                                                                  | 2291      |
| 31,0          | 36,0       | 1,9  | 29,40  | HA31+NMRV040                                                                        | 63C6                                                                                  | 2404      |
| 29,0          | 40,0       | 1,7  | 31,50  | HA31+NMRV040                                                                        | 63C6                                                                                  | 2458      |
| 25,0          | 44,0       | 1,6  | 35,60  | HA31+NMRV040                                                                        | 63C6                                                                                  | 2561      |
| 22,0          | 51,0       | 1,4  | 40,90  | HA31+NMRV040                                                                        | 63C6                                                                                  | 2682      |
| 20,0          | 51,0       | 1,3  | 44,20  | HA31+NMRV040                                                                        | 63C6                                                                                  | 2752      |
| 19,0          | 56,0       | 1,3  | 47,50  | HA31+NMRV040                                                                        | 63C6                                                                                  | 2819      |
| 17,0          | 65,0       | 1,1  | 54,50  | HA31+NMRV040                                                                        | 63C6                                                                                  | 2952      |
| 15,0          | 64,0       | 1,0  | 58,90  | HA31+NMRV040                                                                        | 63C6                                                                                  | 3028      |
| 14,0          | 75,0       | 0,9  | 63,00  | HA31+NMRV040                                                                        | 63C6                                                                                  | 3097      |
| 13,0          | 80,0       | 0,9  | 71,30  | HA31+NMRV040                                                                        | 63C6                                                                                  | 3227      |
| 11,0          | 94,0       | 0,8  | 78,80  | HA31+NMRV040                                                                        | 63C6                                                                                  | 3336      |
| 10,0          | 83,0       | 0,8  | 88,30  | HA31+NMRV040                                                                        | 63C6                                                                                  | 3467      |



# 0,15 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 38,0          | 30,0       | 2,6  | 23,80  | HA31+NMRV050                                                                       | 63C6                                                                                | 3071      |
| 35,0          | 33,0       | 2,5  | 25,50  | HA31+NMRV050                                                                       | 63C6                                                                                | 3145      |
| 29,0          | 40,0       | 2,0  | 31,50  | HA31+NMRV050                                                                       | 63C6                                                                                | 3374      |
| 25,0          | 45,0       | 2,6  | 35,60  | HA31+NMRV050                                                                       | 63C6                                                                                | 3515      |
| 22,0          | 51,0       | 2,3  | 40,90  | HA31+NMRV050                                                                       | 63C6                                                                                | 3681      |
| 20,0          | 51,0       | 2,5  | 44,20  | HA31+NMRV050                                                                       | 63C6                                                                                | 3777      |
| 19,0          | 58,0       | 2,4  | 47,50  | HA31+NMRV050                                                                       | 63C6                                                                                | 3869      |
| 17,0          | 67,0       | 2,1  | 54,50  | HA31+NMRV050                                                                       | 63C6                                                                                | 4052      |
| 15,0          | 64,0       | 1,8  | 58,90  | HA31+NMRV050                                                                       | 63C6                                                                                | 4157      |
| 14,0          | 77,0       | 1,8  | 63,00  | HA31+NMRV050                                                                       | 63C6                                                                                | 4251      |
| 13,0          | 80,0       | 1,7  | 71,30  | HA31+NMRV050                                                                       | 63C6                                                                                | 4429      |
| 11,0          | 96,0       | 1,4  | 78,80  | HA31+NMRV050                                                                       | 63C6                                                                                | 4579      |
| 10,0          | 84,0       | 1,6  | 88,30  | HA31+NMRV050                                                                       | 63C6                                                                                | 4758      |
| 10,0          | 107,0      | 1,3  | 94,50  | HA31+NMRV050                                                                       | 63C6                                                                                | 4840      |
| 9,0           | 109,0      | 1,1  | 102,00 | HA31+NMRV050                                                                       | 63C6                                                                                | 4840      |
| 8,0           | 116,0      | 1,0  | 109,10 | HA31+NMRV050                                                                       | 63C6                                                                                | 4840      |
| 8,0           | 133,0      | 1,0  | 118,10 | HA31+NMRV050                                                                       | 63C6                                                                                | 4840      |
| 7,0           | 128,0      | 0,9  | 127,50 | HA31+NMRV050                                                                       | 63C6                                                                                | 4840      |
| 6,0           | 132,0      | 1,1  | 142,50 | HA31+NMRV050                                                                       | 63C6                                                                                | 4840      |
| 6,0           | 131,0      | 0,9  | 154,70 | HA31+NMRV050                                                                       | 63C6                                                                                | 4840      |
| 6,0           | 152,0      | 1,0  | 163,60 | HA31+NMRV050                                                                       | 63C6                                                                                | 4840      |
| 4,8           | 175,0      | 0,8  | 189,00 | HA31+NMRV050                                                                       | 63C6                                                                                | 4840      |
| 4,4           | 170,0      | 0,7  | 204,00 | HA31+NMRV050                                                                       | 63C6                                                                                | 4840      |
| 13,0          | 81,0       | 3,4  | 71,30  | HW030+NMRV-P063                                                                    | 63C6                                                                                | 5790      |
| 12,0          | 84,0       | 3,0  | 77,30  | HW030+NMRV-P063                                                                    | 63C6                                                                                | 5950      |
| 11,0          | 93,0       | 3,1  | 81,80  | HW030+NMRV-P063                                                                    | 63C6                                                                                | 6063      |
| 10,0          | 86,0       | 2,9  | 88,30  | HW030+NMRV-P063                                                                    | 63C6                                                                                | 6220      |
| 9,0           | 102,0      | 2,6  | 95,00  | HW030+NMRV-P063                                                                    | 63C6                                                                                | 6270      |
| 8,0           | 117,0      | 2,4  | 109,10 | HW030+NMRV-P063                                                                    | 63C6                                                                                | 6270      |
| 8,0           | 133,0      | 2,0  | 118,10 | HW030+NMRV-P063                                                                    | 63C6                                                                                | 6270      |
| 7,0           | 140,0      | 1,8  | 136,40 | HW030+NMRV-P063                                                                    | 63C6                                                                                | 6270      |
| 6,0           | 134,0      | 2,2  | 142,50 | HW030+NMRV-P063                                                                    | 63C6                                                                                | 6270      |
| 6,0           | 167,0      | 1,7  | 157,50 | HW030+NMRV-P063                                                                    | 63C6                                                                                | 6270      |
| 6,0           | 153,0      | 2,0  | 163,60 | HW030+NMRV-P063                                                                    | 63C6                                                                                | 6270      |
| 5,0           | 137,0      | 1,5  | 176,70 | HW030+NMRV-P063                                                                    | 63C6                                                                                | 6270      |
| 4,6           | 199,0      | 1,3  | 196,90 | HW030+NMRV-P063                                                                    | 63C6                                                                                | 6270      |
| 4,1           | 186,0      | 1,5  | 218,20 | HW030+NMRV-P063                                                                    | 63C6                                                                                | 6270      |
| 3,8           | 217,0      | 1,6  | 236,30 | HW030+NMRV-P063                                                                    | 63C6                                                                                | 6270      |
| 3,3           | 217,0      | 1,1  | 272,70 | HW030+NMRV-P063                                                                    | 63C6                                                                                | 6270      |
| 2,9           | 264,0      | 1,1  | 315,00 | HW030+NMRV-P063                                                                    | 63C6                                                                                | 6270      |
| 2,3           | 308,0      | 0,8  | 393,80 | HW030+NMRV-P063                                                                    | 63C6                                                                                | 6270      |
| 2,1           | 359,0      | 0,7  | 433,30 | HW030+NMRV-P063                                                                    | 63C6                                                                                | 6270      |
| 11,0          | 95,0       | 3,4  | 81,80  | HW030+NMRV-P075                                                                    | 63C6                                                                                | 7156      |
| 7,0           | 144,0      | 2,9  | 136,40 | HW030+NMRV-P075                                                                    | 63C6                                                                                | 7380      |
| 6,0           | 140,0      | 3,3  | 142,50 | HW030+NMRV-P075                                                                    | 63C6                                                                                | 7380      |
| 6,0           | 142,0      | 3,0  | 154,70 | HW030+NMRV-P075                                                                    | 63C6                                                                                | 7380      |
| 6,0           | 160,0      | 3,1  | 163,60 | HW030+NMRV-P075                                                                    | 63C6                                                                                | 7380      |
| 5,0           | 145,0      | 2,4  | 176,70 | HW030+NMRV-P075                                                                    | 63C6                                                                                | 7380      |
| 4,6           | 205,0      | 2,0  | 196,90 | HW030+NMRV-P075                                                                    | 63C6                                                                                | 7380      |
| 4,1           | 197,0      | 2,3  | 218,20 | HW030+NMRV-P075                                                                    | 63C6                                                                                | 7380      |
| 3,8           | 228,0      | 2,0  | 236,30 | HW030+NMRV-P075                                                                    | 63C6                                                                                | 7380      |
| 3,3           | 225,0      | 1,8  | 272,70 | HW030+NMRV-P075                                                                    | 63C6                                                                                | 7380      |
| 2,9           | 280,0      | 1,7  | 315,00 | HW030+NMRV-P075                                                                    | 63C6                                                                                | 7380      |
| 2,3           | 318,0      | 1,3  | 393,80 | HW030+NMRV-P075                                                                    | 63C6                                                                                | 7380      |
| 1,9           | 360,0      | 1,1  | 472,50 | HW030+NMRV-P075                                                                    | 63C6                                                                                | 7380      |
| 1,7           | 432,0      | 0,7  | 541,70 | HW030+NMRV-P075                                                                    | 63C6                                                                                | 7380      |
| 1,4           | 489,0      | 0,7  | 650,00 | HW030+NMRV-P075                                                                    | 63C6                                                                                | 7380      |
| 4,8           | 161,0      | 3,2  | 186,30 | HW040+NMRV-P090                                                                    | 63C6                                                                                | 8180      |

## 0,15 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 3,6           | 211,0      | 2,5  | 252,00 | HW040+NMRV-P090                                                                   | 63C6                                                                                | 8180      |
| 3,3           | 243,0      | 2,6  | 275,00 | HW040+NMRV-P090                                                                   | 63C6                                                                                | 8180      |
| 3,0           | 268,0      | 2,4  | 304,50 | HW040+NMRV-P090                                                                   | 63C6                                                                                | 8180      |
| 2,7           | 272,0      | 2,1  | 330,00 | HW040+NMRV-P090                                                                   | 63C6                                                                                | 8180      |
| 2,3           | 334,0      | 2,0  | 383,30 | HW040+NMRV-P090                                                                   | 63C6                                                                                | 8180      |
| 2,1           | 379,0      | 1,8  | 437,50 | HW040+NMRV-P090                                                                   | 63C6                                                                                | 8180      |
| 2,0           | 372,0      | 1,5  | 460,00 | HW040+NMRV-P090                                                                   | 63C6                                                                                | 8180      |
| 1,7           | 422,0      | 1,4  | 525,00 | HW040+NMRV-P090                                                                   | 63C6                                                                                | 8180      |
| 1,5           | 451,0      | 1,0  | 613,30 | HW040+NMRV-P090                                                                   | 63C6                                                                                | 8180      |
| 1,3           | 512,0      | 0,9  | 700,00 | HW040+NMRV-P090                                                                   | 63C6                                                                                | 8180      |
| 1,2           | 501,0      | 0,7  | 766,70 | HW040+NMRV-P090                                                                   | 63C6                                                                                | 8180      |
| 2,7           | 292,0      | 3,4  | 330,00 | HW040+NMRV-P110                                                                   | 63C6                                                                                | 10320     |
| 2,3           | 359,0      | 2,8  | 383,30 | HW040+NMRV-P110                                                                   | 63C6                                                                                | 10320     |
| 2,0           | 356,0      | 2,3  | 440,00 | HW040+NMRV-P110                                                                   | 63C6                                                                                | 10320     |
| 2,0           | 400,0      | 2,6  | 460,00 | HW040+NMRV-P110                                                                   | 63C6                                                                                | 10320     |
| 1,7           | 455,0      | 2,0  | 525,00 | HW040+NMRV-P110                                                                   | 63C6                                                                                | 10320     |
| 1,5           | 489,0      | 1,7  | 613,30 | HW040+NMRV-P110                                                                   | 63C6                                                                                | 10320     |
| 1,3           | 556,0      | 1,5  | 700,00 | HW040+NMRV-P110                                                                   | 63C6                                                                                | 10320     |
| 1,2           | 549,0      | 1,2  | 766,70 | HW040+NMRV-P110                                                                   | 63C6                                                                                | 10320     |
| 1,0           | 622,0      | 1,1  | 875,00 | HW040+NMRV-P110                                                                   | 63C6                                                                                | 10320     |

## 0,18 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i     |  |  | Fr<br>[N] |
|---------------|------------|------|-------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------|
| 373,0         | 4,0        | 3,2  | 7,50  | NMRV030                                                                             | 63A2                                                                                  | 542       |
| 280,0         | 5,0        | 2,5  | 10,00 | NMRV030                                                                             | 63A2                                                                                  | 597       |
| 187,0         | 8,0        | 1,7  | 15,00 | NMRV030                                                                             | 63A2                                                                                  | 683       |
| 140,0         | 10,0       | 1,2  | 20,00 | NMRV030                                                                             | 63A2                                                                                  | 752       |
| 112,0         | 12,0       | 1,4  | 25,00 | NMRV030                                                                             | 63A2                                                                                  | 810       |
| 93,0          | 13,0       | 1,1  | 30,00 | NMRV030                                                                             | 63A2                                                                                  | 861       |
| 70,0          | 16,0       | 0,9  | 40,00 | NMRV030                                                                             | 63A2                                                                                  | 948       |
| 187,0         | 8,0        | 2,4  | 7,50  | NMRV030                                                                             | 63B4                                                                                  | 683       |
| 140,0         | 10,0       | 1,9  | 10,00 | NMRV030                                                                             | 63B4                                                                                  | 752       |
| 93,0          | 14,0       | 1,3  | 15,00 | NMRV030                                                                             | 63B4                                                                                  | 861       |
| 70,0          | 18,0       | 1,0  | 20,00 | NMRV030                                                                             | 63B4                                                                                  | 948       |
| 56,0          | 21,0       | 1,0  | 25,00 | NMRV030                                                                             | 63B4                                                                                  | 1021      |
| 47,0          | 24,0       | 0,9  | 30,00 | NMRV030                                                                             | 63B4                                                                                  | 1085      |
| 140,0         | 10,0       | 2,8  | 20,00 | NMRV040                                                                             | 63A2                                                                                  | 1447      |
| 112,0         | 12,0       | 2,3  | 25,00 | NMRV040                                                                             | 63A2                                                                                  | 1559      |
| 93,0          | 14,0       | 2,4  | 30,00 | NMRV040                                                                             | 63A2                                                                                  | 1657      |
| 70,0          | 18,0       | 1,7  | 40,00 | NMRV040                                                                             | 63A2                                                                                  | 1824      |
| 56,0          | 21,0       | 1,4  | 50,00 | NMRV040                                                                             | 63A2                                                                                  | 1964      |
| 47,0          | 24,0       | 1,2  | 60,00 | NMRV040                                                                             | 63A2                                                                                  | 2087      |
| 35,0          | 29,0       | 0,8  | 80,00 | NMRV040                                                                             | 63A2                                                                                  | 2298      |
| 93,0          | 15,0       | 2,9  | 15,00 | NMRV040                                                                             | 63B4                                                                                  | 1657      |
| 70,0          | 19,0       | 2,2  | 20,00 | NMRV040                                                                             | 63B4                                                                                  | 1824      |
| 56,0          | 23,0       | 1,7  | 25,00 | NMRV040                                                                             | 63B4                                                                                  | 1964      |
| 47,0          | 26,0       | 1,8  | 30,00 | NMRV040                                                                             | 63B4                                                                                  | 2087      |
| 35,0          | 32,0       | 1,4  | 40,00 | NMRV040                                                                             | 63B4                                                                                  | 2298      |
| 28,0          | 39,0       | 1,1  | 50,00 | NMRV040                                                                             | 63B4                                                                                  | 2475      |
| 23,0          | 43,0       | 0,9  | 60,00 | NMRV040                                                                             | 63B4                                                                                  | 2630      |
| 90,0          | 16,0       | 3,0  | 10,00 | NMRV040                                                                             | 71A6                                                                                  | 1677      |
| 60,0          | 23,0       | 2,2  | 15,00 | NMRV040                                                                             | 71A6                                                                                  | 1920      |
| 45,0          | 29,0       | 1,7  | 20,00 | NMRV040                                                                             | 71A6                                                                                  | 2113      |
| 36,0          | 35,0       | 1,3  | 25,00 | NMRV040                                                                             | 71A6                                                                                  | 2276      |
| 30,0          | 38,0       | 1,4  | 30,00 | NMRV040                                                                             | 71A6                                                                                  | 2419      |

# 0,18 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 23,0          | 48,0       | 1,0  | 40,00  | NMRV040                                                                            | 71A6                                                                                | 2662      |
| 70,0          | 18,0       | 3,2  | 40,00  | NMRV050                                                                            | 63A2                                                                                | 2503      |
| 56,0          | 21,0       | 2,5  | 50,00  | NMRV050                                                                            | 63A2                                                                                | 2696      |
| 47,0          | 25,0       | 2,0  | 60,00  | NMRV050                                                                            | 63A2                                                                                | 2865      |
| 35,0          | 30,0       | 1,5  | 80,00  | NMRV050                                                                            | 63A2                                                                                | 3153      |
| 28,0          | 35,0       | 1,1  | 100,00 | NMRV050                                                                            | 63A2                                                                                | 3397      |
| 35,0          | 33,0       | 2,5  | 40,00  | NMRV050                                                                            | 63B4                                                                                | 3153      |
| 28,0          | 39,0       | 2,0  | 50,00  | NMRV050                                                                            | 63B4                                                                                | 3397      |
| 23,0          | 44,0       | 1,6  | 60,00  | NMRV050                                                                            | 63B4                                                                                | 3610      |
| 18,0          | 53,0       | 1,2  | 80,00  | NMRV050                                                                            | 63B4                                                                                | 3973      |
| 14,0          | 61,0       | 0,9  | 100,00 | NMRV050                                                                            | 63B4                                                                                | 4280      |
| 45,0          | 29,0       | 2,8  | 20,00  | NMRV050                                                                            | 71A6                                                                                | 2900      |
| 36,0          | 35,0       | 2,1  | 25,00  | NMRV050                                                                            | 71A6                                                                                | 3124      |
| 30,0          | 40,0       | 2,4  | 30,00  | NMRV050                                                                            | 71A6                                                                                | 3320      |
| 23,0          | 49,0       | 1,8  | 40,00  | NMRV050                                                                            | 71A6                                                                                | 3654      |
| 18,0          | 57,0       | 1,4  | 50,00  | NMRV050                                                                            | 71A6                                                                                | 3936      |
| 15,0          | 64,0       | 1,2  | 60,00  | NMRV050                                                                            | 71A6                                                                                | 4183      |
| 11,0          | 76,0       | 0,9  | 80,00  | NMRV050                                                                            | 71A6                                                                                | 4604      |
| 23,0          | 50,0       | 3,4  | 40,00  | NMRV-P063                                                                          | 71A6                                                                                | 4776      |
| 18,0          | 59,0       | 2,7  | 50,00  | NMRV-P063                                                                          | 71A6                                                                                | 5145      |
| 15,0          | 68,0       | 2,3  | 60,00  | NMRV-P063                                                                          | 71A6                                                                                | 5467      |
| 11,0          | 81,0       | 1,7  | 80,00  | NMRV-P063                                                                          | 71A6                                                                                | 6018      |
| 9,0           | 92,0       | 1,4  | 100,00 | NMRV-P063                                                                          | 71A6                                                                                | 6270      |
| 15,0          | 71,0       | 3,5  | 60,00  | NMRV-P075                                                                          | 71A6                                                                                | 6453      |
| 11,0          | 86,0       | 2,6  | 80,00  | NMRV-P075                                                                          | 71A6                                                                                | 7103      |
| 9,0           | 97,0       | 2,0  | 100,00 | NMRV-P075                                                                          | 71A6                                                                                | 7380      |
| 63,0          | 22,0       | 2,6  | 22,10  | HA31+NMRV040                                                                       | 63B4                                                                                | 1885      |
| 59,0          | 24,0       | 2,6  | 23,80  | HA31+NMRV040                                                                       | 63B4                                                                                | 1931      |
| 55,0          | 25,0       | 2,5  | 25,50  | HA31+NMRV040                                                                       | 63B4                                                                                | 1977      |
| 48,0          | 28,0       | 2,1  | 29,40  | HA31+NMRV040                                                                       | 63B4                                                                                | 2074      |
| 44,0          | 31,0       | 2,1  | 31,50  | HA31+NMRV040                                                                       | 63B4                                                                                | 2122      |
| 39,0          | 34,0       | 1,9  | 35,60  | HA31+NMRV040                                                                       | 63B4                                                                                | 2211      |
| 34,0          | 39,0       | 1,8  | 40,90  | HA31+NMRV040                                                                       | 63B4                                                                                | 2315      |
| 32,0          | 40,0       | 1,6  | 44,20  | HA31+NMRV040                                                                       | 63B4                                                                                | 2375      |
| 29,0          | 44,0       | 1,5  | 47,50  | HA31+NMRV040                                                                       | 63B4                                                                                | 2433      |
| 26,0          | 51,0       | 1,4  | 54,50  | HA31+NMRV040                                                                       | 63B4                                                                                | 2548      |
| 24,0          | 51,0       | 1,1  | 58,90  | HA31+NMRV040                                                                       | 63B4                                                                                | 2614      |
| 22,0          | 58,0       | 1,2  | 63,00  | HA31+NMRV040                                                                       | 63B4                                                                                | 2673      |
| 20,0          | 63,0       | 1,1  | 71,30  | HA31+NMRV040                                                                       | 63B4                                                                                | 2785      |
| 18,0          | 72,0       | 1,0  | 78,80  | HA31+NMRV040                                                                       | 63B4                                                                                | 2880      |
| 16,0          | 67,0       | 0,9  | 88,30  | HA31+NMRV040                                                                       | 63B4                                                                                | 2992      |
| 15,0          | 82,0       | 0,9  | 94,50  | HA31+NMRV040                                                                       | 63B4                                                                                | 3060      |
| 14,0          | 85,0       | 0,7  | 102,00 | HA31+NMRV040                                                                       | 63B4                                                                                | 3139      |
| 13,0          | 91,0       | 0,7  | 109,10 | HA31+NMRV040                                                                       | 63B4                                                                                | 3210      |
| 12,0          | 103,0      | 0,7  | 118,10 | HA31+NMRV040                                                                       | 63B4                                                                                | 3296      |
| 41,0          | 33,0       | 2,0  | 22,10  | HA31+NMRV040                                                                       | 71A6                                                                                | 2184      |
| 38,0          | 37,0       | 1,9  | 23,80  | HA31+NMRV040                                                                       | 71A6                                                                                | 2237      |
| 35,0          | 39,0       | 1,7  | 25,50  | HA31+NMRV040                                                                       | 71A6                                                                                | 2291      |
| 31,0          | 43,0       | 1,6  | 29,40  | HA31+NMRV040                                                                       | 71A6                                                                                | 2404      |
| 29,0          | 48,0       | 1,4  | 31,50  | HA31+NMRV040                                                                       | 71A6                                                                                | 2458      |
| 25,0          | 53,0       | 1,4  | 35,60  | HA31+NMRV040                                                                       | 71A6                                                                                | 2561      |
| 22,0          | 61,0       | 1,2  | 40,90  | HA31+NMRV040                                                                       | 71A6                                                                                | 2682      |
| 20,0          | 61,0       | 1,1  | 44,20  | HA31+NMRV040                                                                       | 71A6                                                                                | 2752      |
| 19,0          | 68,0       | 1,0  | 47,50  | HA31+NMRV040                                                                       | 71A6                                                                                | 2819      |
| 17,0          | 78,0       | 0,9  | 54,50  | HA31+NMRV040                                                                       | 71A6                                                                                | 2952      |
| 15,0          | 77,0       | 0,8  | 58,90  | HA31+NMRV040                                                                       | 71A6                                                                                | 3028      |
| 14,0          | 90,0       | 0,8  | 63,00  | HA31+NMRV040                                                                       | 71A6                                                                                | 3097      |
| 13,0          | 96,0       | 0,7  | 71,30  | HA31+NMRV040                                                                       | 71A6                                                                                | 3227      |

## 0,18 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 59,0          | 24,0       | 3,0  | 23,80  | HA31+NMRV050                                                                      | 63B4                                                                                | 2650      |
| 55,0          | 25,0       | 2,9  | 25,50  | HA31+NMRV050                                                                      | 63B4                                                                                | 2714      |
| 44,0          | 31,0       | 2,4  | 31,50  | HA31+NMRV050                                                                      | 63B4                                                                                | 2912      |
| 39,0          | 35,0       | 3,0  | 35,60  | HA31+NMRV050                                                                      | 63B4                                                                                | 3034      |
| 34,0          | 40,0       | 2,8  | 40,90  | HA31+NMRV050                                                                      | 63B4                                                                                | 3177      |
| 32,0          | 40,0       | 2,8  | 44,20  | HA31+NMRV050                                                                      | 63B4                                                                                | 3259      |
| 29,0          | 45,0       | 2,9  | 47,50  | HA31+NMRV050                                                                      | 63B4                                                                                | 3339      |
| 26,0          | 52,0       | 2,6  | 54,50  | HA31+NMRV050                                                                      | 63B4                                                                                | 3497      |
| 24,0          | 52,0       | 2,0  | 58,90  | HA31+NMRV050                                                                      | 63B4                                                                                | 3587      |
| 22,0          | 59,0       | 2,3  | 63,00  | HA31+NMRV050                                                                      | 63B4                                                                                | 3669      |
| 20,0          | 63,0       | 2,0  | 71,30  | HA31+NMRV050                                                                      | 63B4                                                                                | 3823      |
| 18,0          | 74,0       | 1,8  | 78,80  | HA31+NMRV050                                                                      | 63B4                                                                                | 3952      |
| 16,0          | 68,0       | 1,7  | 88,30  | HA31+NMRV050                                                                      | 63B4                                                                                | 4107      |
| 15,0          | 83,0       | 1,6  | 94,50  | HA31+NMRV050                                                                      | 63B4                                                                                | 4200      |
| 14,0          | 85,0       | 1,3  | 102,00 | HA31+NMRV050                                                                      | 63B4                                                                                | 4308      |
| 13,0          | 91,0       | 1,3  | 109,10 | HA31+NMRV050                                                                      | 63B4                                                                                | 4406      |
| 12,0          | 103,0      | 1,3  | 118,10 | HA31+NMRV050                                                                      | 63B4                                                                                | 4524      |
| 11,0          | 101,0      | 1,0  | 127,50 | HA31+NMRV050                                                                      | 63B4                                                                                | 4641      |
| 10,0          | 105,0      | 1,3  | 142,50 | HA31+NMRV050                                                                      | 63B4                                                                                | 4816      |
| 9,0           | 105,0      | 1,1  | 154,70 | HA31+NMRV050                                                                      | 63B4                                                                                | 4840      |
| 9,0           | 119,0      | 1,2  | 163,60 | HA31+NMRV050                                                                      | 63B4                                                                                | 4840      |
| 7,0           | 136,0      | 1,0  | 189,00 | HA31+NMRV050                                                                      | 63B4                                                                                | 4840      |
| 7,0           | 135,0      | 0,9  | 204,00 | HA31+NMRV050                                                                      | 63B4                                                                                | 4840      |
| 6,0           | 169,0      | 0,9  | 236,30 | HA31+NMRV050                                                                      | 63B4                                                                                | 4840      |
| 6,0           | 163,0      | 0,7  | 252,00 | HA31+NMRV050                                                                      | 63B4                                                                                | 4840      |
| 41,0          | 34,0       | 3,1  | 22,10  | HA31+NMRV050                                                                      | 71A6                                                                                | 2997      |
| 38,0          | 37,0       | 2,1  | 23,80  | HA31+NMRV050                                                                      | 71A6                                                                                | 3071      |
| 35,0          | 39,0       | 2,1  | 25,50  | HA31+NMRV050                                                                      | 71A6                                                                                | 3145      |
| 31,0          | 44,0       | 2,9  | 29,40  | HA31+NMRV050                                                                      | 71A6                                                                                | 3299      |
| 29,0          | 48,0       | 1,7  | 31,50  | HA31+NMRV050                                                                      | 71A6                                                                                | 3374      |
| 25,0          | 53,0       | 2,1  | 35,60  | HA31+NMRV050                                                                      | 71A6                                                                                | 3515      |
| 22,0          | 61,0       | 1,9  | 40,90  | HA31+NMRV050                                                                      | 71A6                                                                                | 3681      |
| 20,0          | 61,0       | 2,1  | 44,20  | HA31+NMRV050                                                                      | 71A6                                                                                | 3777      |
| 19,0          | 70,0       | 2,0  | 47,50  | HA31+NMRV050                                                                      | 71A6                                                                                | 3869      |
| 17,0          | 80,0       | 1,7  | 54,50  | HA31+NMRV050                                                                      | 71A6                                                                                | 4052      |
| 15,0          | 77,0       | 1,5  | 58,90  | HA31+NMRV050                                                                      | 71A6                                                                                | 4157      |
| 14,0          | 92,0       | 1,5  | 63,00  | HA31+NMRV050                                                                      | 71A6                                                                                | 4251      |
| 13,0          | 96,0       | 1,4  | 71,30  | HA31+NMRV050                                                                      | 71A6                                                                                | 4429      |
| 11,0          | 115,0      | 1,2  | 78,80  | HA31+NMRV050                                                                      | 71A6                                                                                | 4579      |
| 10,0          | 101,0      | 1,3  | 88,30  | HA31+NMRV050                                                                      | 71A6                                                                                | 4758      |
| 10,0          | 128,0      | 1,1  | 94,50  | HA31+NMRV050                                                                      | 71A6                                                                                | 4840      |
| 9,0           | 130,0      | 0,9  | 102,00 | HA31+NMRV050                                                                      | 71A6                                                                                | 4840      |
| 8,0           | 140,0      | 0,9  | 109,10 | HA31+NMRV050                                                                      | 71A6                                                                                | 4840      |
| 8,0           | 160,0      | 0,8  | 118,10 | HA31+NMRV050                                                                      | 71A6                                                                                | 4840      |
| 7,0           | 154,0      | 0,7  | 127,50 | HA31+NMRV050                                                                      | 71A6                                                                                | 4840      |
| 6,0           | 158,0      | 0,9  | 142,50 | HA31+NMRV050                                                                      | 71A6                                                                                | 4840      |
| 6,0           | 157,0      | 0,8  | 154,70 | HA31+NMRV050                                                                      | 71A6                                                                                | 4840      |
| 6,0           | 182,0      | 0,8  | 163,60 | HA31+NMRV050                                                                      | 71A6                                                                                | 4840      |
| 18,0          | 67,0       | 3,3  | 77,30  | HW030+NMRV-P063                                                                   | 63B4                                                                                | 5135      |
| 17,0          | 73,0       | 3,3  | 81,80  | HW030+NMRV-P063                                                                   | 63B4                                                                                | 5233      |
| 16,0          | 69,0       | 3,1  | 88,30  | HW030+NMRV-P063                                                                   | 63B4                                                                                | 5368      |
| 15,0          | 81,0       | 2,9  | 95,00  | HW030+NMRV-P063                                                                   | 63B4                                                                                | 5500      |
| 13,0          | 92,0       | 2,7  | 109,10 | HW030+NMRV-P063                                                                   | 63B4                                                                                | 5759      |
| 12,0          | 104,0      | 2,5  | 118,10 | HW030+NMRV-P063                                                                   | 63B4                                                                                | 5914      |
| 10,0          | 110,0      | 2,1  | 136,40 | HW030+NMRV-P063                                                                   | 63B4                                                                                | 6204      |
| 10,0          | 106,0      | 2,4  | 142,50 | HW030+NMRV-P063                                                                   | 63B4                                                                                | 6270      |
| 9,0           | 131,0      | 2,1  | 157,50 | HW030+NMRV-P063                                                                   | 63B4                                                                                | 6270      |
| 9,0           | 121,0      | 2,2  | 163,60 | HW030+NMRV-P063                                                                   | 63B4                                                                                | 6270      |

# 0,18 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 8,0           | 113,0      | 1,6  | 176,70 | HW030+NMRV-P063                                                                    | 63B4                                                                                | 6270      |
| 7,0           | 156,0      | 1,6  | 196,90 | HW030+NMRV-P063                                                                    | 63B4                                                                                | 6270      |
| 6,0           | 149,0      | 1,7  | 218,20 | HW030+NMRV-P063                                                                    | 63B4                                                                                | 6270      |
| 6,0           | 171,0      | 1,7  | 236,30 | HW030+NMRV-P063                                                                    | 63B4                                                                                | 6270      |
| 5,0           | 172,0      | 1,3  | 272,70 | HW030+NMRV-P063                                                                    | 63B4                                                                                | 6270      |
| 4,4           | 209,0      | 1,3  | 315,00 | HW030+NMRV-P063                                                                    | 63B4                                                                                | 6270      |
| 3,6           | 242,0      | 1,0  | 393,80 | HW030+NMRV-P063                                                                    | 63B4                                                                                | 6270      |
| 3,2           | 282,0      | 1,0  | 433,30 | HW030+NMRV-P063                                                                    | 63B4                                                                                | 6270      |
| 3,0           | 268,0      | 0,8  | 472,50 | HW030+NMRV-P063                                                                    | 63B4                                                                                | 6270      |
| 2,6           | 328,0      | 0,8  | 541,70 | HW030+NMRV-P063                                                                    | 63B4                                                                                | 6270      |
| 16,0          | 80,0       | 3,2  | 58,00  | HW030+NMRV-P063                                                                    | 71A6                                                                                | 5406      |
| 13,0          | 98,0       | 2,8  | 71,30  | HW030+NMRV-P063                                                                    | 71A6                                                                                | 5790      |
| 12,0          | 101,0      | 2,5  | 77,30  | HW030+NMRV-P063                                                                    | 71A6                                                                                | 5950      |
| 11,0          | 112,0      | 2,6  | 81,80  | HW030+NMRV-P063                                                                    | 71A6                                                                                | 6063      |
| 10,0          | 103,0      | 2,4  | 88,30  | HW030+NMRV-P063                                                                    | 71A6                                                                                | 6220      |
| 9,0           | 123,0      | 2,2  | 95,00  | HW030+NMRV-P063                                                                    | 71A6                                                                                | 6270      |
| 8,0           | 140,0      | 2,0  | 109,10 | HW030+NMRV-P063                                                                    | 71A6                                                                                | 6270      |
| 8,0           | 160,0      | 1,6  | 118,10 | HW030+NMRV-P063                                                                    | 71A6                                                                                | 6270      |
| 7,0           | 168,0      | 1,5  | 136,40 | HW030+NMRV-P063                                                                    | 71A6                                                                                | 6270      |
| 6,0           | 161,0      | 1,8  | 142,50 | HW030+NMRV-P063                                                                    | 71A6                                                                                | 6270      |
| 6,0           | 200,0      | 1,5  | 157,50 | HW030+NMRV-P063                                                                    | 71A6                                                                                | 6270      |
| 6,0           | 183,0      | 1,7  | 163,60 | HW030+NMRV-P063                                                                    | 71A6                                                                                | 6270      |
| 5,0           | 164,0      | 1,2  | 176,70 | HW030+NMRV-P063                                                                    | 71A6                                                                                | 6270      |
| 4,6           | 239,0      | 1,1  | 196,90 | HW030+NMRV-P063                                                                    | 71A6                                                                                | 6270      |
| 4,1           | 224,0      | 1,2  | 218,20 | HW030+NMRV-P063                                                                    | 71A6                                                                                | 6270      |
| 3,8           | 261,0      | 1,3  | 236,30 | HW030+NMRV-P063                                                                    | 71A6                                                                                | 6270      |
| 3,3           | 260,0      | 0,9  | 272,70 | HW030+NMRV-P063                                                                    | 71A6                                                                                | 6270      |
| 2,9           | 317,0      | 0,9  | 315,00 | HW030+NMRV-P063                                                                    | 71A6                                                                                | 6270      |
| 10,0          | 114,0      | 3,0  | 136,40 | HW030+NMRV-P075                                                                    | 63B4                                                                                | 7323      |
| 9,0           | 114,0      | 3,2  | 154,70 | HW030+NMRV-P075                                                                    | 63B4                                                                                | 7380      |
| 9,0           | 127,0      | 3,3  | 163,60 | HW030+NMRV-P075                                                                    | 63B4                                                                                | 7380      |
| 8,0           | 119,0      | 2,6  | 176,70 | HW030+NMRV-P075                                                                    | 63B4                                                                                | 7380      |
| 7,0           | 161,0      | 2,4  | 196,90 | HW030+NMRV-P075                                                                    | 63B4                                                                                | 7380      |
| 6,0           | 156,0      | 2,6  | 218,20 | HW030+NMRV-P075                                                                    | 63B4                                                                                | 7380      |
| 6,0           | 179,0      | 2,7  | 236,30 | HW030+NMRV-P075                                                                    | 63B4                                                                                | 7380      |
| 5,0           | 179,0      | 2,1  | 272,70 | HW030+NMRV-P075                                                                    | 63B4                                                                                | 7380      |
| 4,4           | 220,0      | 2,0  | 315,00 | HW030+NMRV-P075                                                                    | 63B4                                                                                | 7380      |
| 3,6           | 251,0      | 1,6  | 393,80 | HW030+NMRV-P075                                                                    | 63B4                                                                                | 7380      |
| 3,0           | 285,0      | 1,3  | 472,50 | HW030+NMRV-P075                                                                    | 63B4                                                                                | 7380      |
| 2,6           | 339,0      | 1,1  | 541,70 | HW030+NMRV-P075                                                                    | 63B4                                                                                | 7380      |
| 2,2           | 384,0      | 1,0  | 650,00 | HW030+NMRV-P075                                                                    | 63B4                                                                                | 7380      |
| 13,0          | 100,0      | 3,1  | 71,30  | HW030+NMRV-P075                                                                    | 71A6                                                                                | 6834      |
| 11,0          | 115,0      | 2,8  | 81,80  | HW030+NMRV-P075                                                                    | 71A6                                                                                | 7156      |
| 8,0           | 144,0      | 3,3  | 109,10 | HW030+NMRV-P075                                                                    | 71A6                                                                                | 7380      |
| 8,0           | 139,0      | 3,2  | 116,00 | HW030+NMRV-P075                                                                    | 71A6                                                                                | 7380      |
| 7,0           | 173,0      | 2,4  | 136,40 | HW030+NMRV-P075                                                                    | 71A6                                                                                | 7380      |
| 6,0           | 169,0      | 2,8  | 142,50 | HW030+NMRV-P075                                                                    | 71A6                                                                                | 7380      |
| 6,0           | 171,0      | 2,5  | 154,70 | HW030+NMRV-P075                                                                    | 71A6                                                                                | 7380      |
| 6,0           | 192,0      | 2,6  | 163,60 | HW030+NMRV-P075                                                                    | 71A6                                                                                | 7380      |
| 5,0           | 174,0      | 2,0  | 176,70 | HW030+NMRV-P075                                                                    | 71A6                                                                                | 7380      |
| 4,6           | 247,0      | 1,6  | 196,90 | HW030+NMRV-P075                                                                    | 71A6                                                                                | 7380      |
| 4,1           | 236,0      | 1,9  | 218,20 | HW030+NMRV-P075                                                                    | 71A6                                                                                | 7380      |
| 3,8           | 274,0      | 1,6  | 236,30 | HW030+NMRV-P075                                                                    | 71A6                                                                                | 7380      |
| 3,3           | 269,0      | 1,5  | 272,70 | HW030+NMRV-P075                                                                    | 71A6                                                                                | 7380      |
| 2,9           | 336,0      | 1,4  | 315,00 | HW030+NMRV-P075                                                                    | 71A6                                                                                | 7380      |
| 2,3           | 382,0      | 1,1  | 393,80 | HW030+NMRV-P075                                                                    | 71A6                                                                                | 7380      |
| 1,9           | 432,0      | 0,9  | 472,50 | HW030+NMRV-P075                                                                    | 71A6                                                                                | 7380      |
| 8,0           | 131,0      | 3,5  | 186,30 | HW040+NMRV-P090                                                                    | 63B4                                                                                | 8180      |

## 0,18 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 6,0           | 170,0      | 2,9  | 252,00 | HW040+NMRV-P090                                                                   | 63B4                                                                                | 8180      |
| 5,0           | 194,0      | 3,1  | 275,00 | HW040+NMRV-P090                                                                   | 63B4                                                                                | 8180      |
| 4,6           | 213,0      | 2,6  | 304,50 | HW040+NMRV-P090                                                                   | 63B4                                                                                | 8180      |
| 4,2           | 217,0      | 2,4  | 330,00 | HW040+NMRV-P090                                                                   | 63B4                                                                                | 8180      |
| 3,7           | 263,0      | 2,4  | 383,30 | HW040+NMRV-P090                                                                   | 63B4                                                                                | 8180      |
| 3,2           | 298,0      | 2,2  | 437,50 | HW040+NMRV-P090                                                                   | 63B4                                                                                | 8180      |
| 3,0           | 294,0      | 1,9  | 460,00 | HW040+NMRV-P090                                                                   | 63B4                                                                                | 8180      |
| 2,7           | 333,0      | 1,7  | 525,00 | HW040+NMRV-P090                                                                   | 63B4                                                                                | 8180      |
| 2,3           | 356,0      | 1,2  | 613,30 | HW040+NMRV-P090                                                                   | 63B4                                                                                | 8180      |
| 2,0           | 403,0      | 1,1  | 700,00 | HW040+NMRV-P090                                                                   | 63B4                                                                                | 8180      |
| 1,8           | 399,0      | 0,9  | 766,70 | HW040+NMRV-P090                                                                   | 63B4                                                                                | 8180      |
| 1,6           | 450,0      | 0,8  | 875,00 | HW040+NMRV-P090                                                                   | 63B4                                                                                | 8180      |
| 6,0           | 172,0      | 3,4  | 155,30 | HW040+NMRV-P090                                                                   | 71A6                                                                                | 8180      |
| 4,8           | 193,0      | 2,7  | 186,30 | HW040+NMRV-P090                                                                   | 71A6                                                                                | 8180      |
| 4,1           | 250,0      | 3,1  | 220,00 | HW040+NMRV-P090                                                                   | 71A6                                                                                | 8180      |
| 3,6           | 254,0      | 2,1  | 252,00 | HW040+NMRV-P090                                                                   | 71A6                                                                                | 8180      |
| 3,3           | 292,0      | 2,2  | 275,00 | HW040+NMRV-P090                                                                   | 71A6                                                                                | 8180      |
| 3,0           | 321,0      | 2,0  | 304,50 | HW040+NMRV-P090                                                                   | 71A6                                                                                | 8180      |
| 2,7           | 326,0      | 1,7  | 330,00 | HW040+NMRV-P090                                                                   | 71A6                                                                                | 8180      |
| 2,3           | 400,0      | 1,7  | 383,30 | HW040+NMRV-P090                                                                   | 71A6                                                                                | 8180      |
| 2,1           | 455,0      | 1,5  | 437,50 | HW040+NMRV-P090                                                                   | 71A6                                                                                | 8180      |
| 2,0           | 446,0      | 1,3  | 460,00 | HW040+NMRV-P090                                                                   | 71A6                                                                                | 8180      |
| 1,7           | 507,0      | 1,1  | 525,00 | HW040+NMRV-P090                                                                   | 71A6                                                                                | 8180      |
| 1,5           | 541,0      | 0,9  | 613,30 | HW040+NMRV-P090                                                                   | 71A6                                                                                | 8180      |
| 1,3           | 615,0      | 0,8  | 700,00 | HW040+NMRV-P090                                                                   | 71A6                                                                                | 8180      |
| 3,7           | 282,0      | 3,4  | 383,30 | HW040+NMRV-P110                                                                   | 63B4                                                                                | 10320     |
| 3,2           | 283,0      | 2,8  | 440,00 | HW040+NMRV-P110                                                                   | 63B4                                                                                | 10320     |
| 3,0           | 316,0      | 3,1  | 460,00 | HW040+NMRV-P110                                                                   | 63B4                                                                                | 10320     |
| 2,7           | 358,0      | 2,6  | 525,00 | HW040+NMRV-P110                                                                   | 63B4                                                                                | 10320     |
| 2,3           | 385,0      | 2,1  | 613,30 | HW040+NMRV-P110                                                                   | 63B4                                                                                | 10320     |
| 2,0           | 437,0      | 1,9  | 700,00 | HW040+NMRV-P110                                                                   | 63B4                                                                                | 10320     |
| 1,8           | 435,0      | 1,5  | 766,70 | HW040+NMRV-P110                                                                   | 63B4                                                                                | 10320     |
| 1,6           | 492,0      | 1,3  | 875,00 | HW040+NMRV-P110                                                                   | 63B4                                                                                | 10320     |
| 3,0           | 345,0      | 3,4  | 304,50 | HW040+NMRV-P110                                                                   | 71A6                                                                                | 10320     |
| 2,7           | 350,0      | 2,9  | 330,00 | HW040+NMRV-P110                                                                   | 71A6                                                                                | 10320     |
| 2,3           | 431,0      | 2,3  | 383,30 | HW040+NMRV-P110                                                                   | 71A6                                                                                | 10320     |
| 2,0           | 427,0      | 1,9  | 440,00 | HW040+NMRV-P110                                                                   | 71A6                                                                                | 10320     |
| 2,0           | 480,0      | 2,2  | 460,00 | HW040+NMRV-P110                                                                   | 71A6                                                                                | 10320     |
| 1,7           | 545,0      | 1,7  | 525,00 | HW040+NMRV-P110                                                                   | 71A6                                                                                | 10320     |
| 1,5           | 587,0      | 1,4  | 613,30 | HW040+NMRV-P110                                                                   | 71A6                                                                                | 10320     |
| 1,3           | 667,0      | 1,3  | 700,00 | HW040+NMRV-P110                                                                   | 71A6                                                                                | 10320     |
| 1,2           | 659,0      | 1,0  | 766,70 | HW040+NMRV-P110                                                                   | 71A6                                                                                | 10320     |
| 1,0           | 747,0      | 0,9  | 875,00 | HW040+NMRV-P110                                                                   | 71A6                                                                                | 10320     |
| 14,0          | 78,0       | 0,9  | 100,00 | NMRV030/040                                                                       | 63B4                                                                                | 2769      |
| 14,0          | 81,0       | 1,7  | 100,00 | NMRV030/050                                                                       | 63B4                                                                                | 3800      |
| 9,0           | 112,0      | 1,2  | 150,00 | NMRV030/050                                                                       | 63B4                                                                                | 4350      |
| 7,0           | 141,0      | 0,9  | 200,00 | NMRV030/050                                                                       | 63B4                                                                                | 4788      |
| 4,7           | 183,0      | 0,8  | 300,00 | NMRV030/050                                                                       | 63B4                                                                                | 4840      |
| 14,0          | 81,0       | 1,9  | 100,00 | NMRV-P030/063                                                                     | 63B4                                                                                | 4967      |
| 9,0           | 113,0      | 1,9  | 150,00 | NMRV-P030/063                                                                     | 63B4                                                                                | 5686      |
| 7,0           | 143,0      | 1,8  | 200,00 | NMRV-P030/063                                                                     | 63B4                                                                                | 6259      |
| 6,0           | 171,0      | 1,4  | 250,00 | NMRV-P030/063                                                                     | 63B4                                                                                | 6270      |
| 4,7           | 175,0      | 1,5  | 300,00 | NMRV-P030/063                                                                     | 63B4                                                                                | 6270      |
| 3,5           | 228,0      | 1,1  | 400,00 | NMRV-P030/063                                                                     | 63B4                                                                                | 6270      |
| 2,8           | 265,0      | 0,9  | 500,00 | NMRV-P030/063                                                                     | 63B4                                                                                | 6270      |
| 2,3           | 333,0      | 0,8  | 600,00 | NMRV-P030/063                                                                     | 63B4                                                                                | 6270      |
| 14,0          | 82,0       | 1,7  | 100,00 | NMRV040/050                                                                       | 63B4                                                                                | 3800      |
| 9,0           | 114,0      | 1,2  | 150,00 | NMRV040/050                                                                       | 63B4                                                                                | 4350      |

## 0,18 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i       |  |  | Fr<br>[N] |
|---------------|------------|------|---------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 7,0           | 144,0      | 0,8  | 200,00  | NMRV040/050                                                                        | 63B4                                                                                | 4788      |
| 4,7           | 188,0      | 0,8  | 300,00  | NMRV040/050                                                                        | 63B4                                                                                | 4840      |
| 14,0          | 82,0       | 3,1  | 100,00  | NMRV-P040/063                                                                      | 63B4                                                                                | 4967      |
| 9,0           | 116,0      | 2,2  | 150,00  | NMRV-P040/063                                                                      | 63B4                                                                                | 5686      |
| 7,0           | 146,0      | 1,7  | 200,00  | NMRV-P040/063                                                                      | 63B4                                                                                | 6259      |
| 6,0           | 175,0      | 1,3  | 250,00  | NMRV-P040/063                                                                      | 63B4                                                                                | 6270      |
| 4,7           | 191,0      | 1,4  | 300,00  | NMRV-P040/063                                                                      | 63B4                                                                                | 6270      |
| 3,5           | 234,0      | 1,1  | 400,00  | NMRV-P040/063                                                                      | 63B4                                                                                | 6270      |
| 2,8           | 325,0      | 0,7  | 500,00  | NMRV-P040/063                                                                      | 63B4                                                                                | 6270      |
| 2,3           | 355,0      | 0,8  | 600,00  | NMRV-P040/063                                                                      | 63B4                                                                                | 6270      |
| 7,0           | 150,0      | 2,8  | 200,00  | NMRV-P040/075                                                                      | 63B4                                                                                | 7380      |
| 6,0           | 180,0      | 2,1  | 250,00  | NMRV-P040/075                                                                      | 63B4                                                                                | 7380      |
| 4,7           | 200,0      | 2,2  | 300,00  | NMRV-P040/075                                                                      | 63B4                                                                                | 7380      |
| 3,5           | 246,0      | 1,7  | 400,00  | NMRV-P040/075                                                                      | 63B4                                                                                | 7380      |
| 2,8           | 282,0      | 1,3  | 500,00  | NMRV-P040/075                                                                      | 63B4                                                                                | 7380      |
| 2,3           | 372,0      | 1,2  | 600,00  | NMRV-P040/075                                                                      | 63B4                                                                                | 7380      |
| 1,9           | 448,0      | 1,0  | 750,00  | NMRV-P040/075                                                                      | 63B4                                                                                | 7380      |
| 1,6           | 502,0      | 0,9  | 900,00  | NMRV-P040/075                                                                      | 63B4                                                                                | 7380      |
| 1,2           | 622,0      | 0,7  | 1200,00 | NMRV-P040/075                                                                      | 63B4                                                                                | 7380      |
| 6,0           | 188,0      | 3,0  | 250,00  | NMRV-P040/090                                                                      | 63B4                                                                                | 8180      |
| 4,7           | 210,0      | 3,3  | 300,00  | NMRV-P040/090                                                                      | 63B4                                                                                | 8180      |
| 3,5           | 259,0      | 2,4  | 400,00  | NMRV-P040/090                                                                      | 63B4                                                                                | 8180      |
| 2,8           | 303,0      | 1,9  | 500,00  | NMRV-P040/090                                                                      | 63B4                                                                                | 8180      |
| 2,3           | 390,0      | 1,8  | 600,00  | NMRV-P040/090                                                                      | 63B4                                                                                | 8180      |
| 1,9           | 469,0      | 1,5  | 750,00  | NMRV-P040/090                                                                      | 63B4                                                                                | 8180      |
| 1,6           | 526,0      | 1,3  | 900,00  | NMRV-P040/090                                                                      | 63B4                                                                                | 8180      |
| 1,2           | 652,0      | 1,1  | 1200,00 | NMRV-P040/090                                                                      | 63B4                                                                                | 8180      |
| 0,9           | 777,0      | 0,9  | 1500,00 | NMRV-P040/090                                                                      | 63B4                                                                                | 8180      |
| 0,8           | 874,0      | 0,8  | 1800,00 | NMRV-P040/090                                                                      | 63B4                                                                                | 8180      |
| 1,2           | 671,0      | 1,0  | 1200,00 | NMRV-P050/090                                                                      | 63B4                                                                                | 8180      |
| 0,9           | 790,0      | 0,9  | 1500,00 | NMRV-P050/090                                                                      | 63B4                                                                                | 8180      |
| 0,8           | 888,0      | 0,8  | 1800,00 | NMRV-P050/090                                                                      | 63B4                                                                                | 8180      |
| 1,2           | 671,0      | 1,9  | 1200,00 | NMRV-P050/110                                                                      | 63B4                                                                                | 10320     |
| 0,9           | 790,0      | 1,6  | 1500,00 | NMRV-P050/110                                                                      | 63B4                                                                                | 10320     |
| 0,8           | 888,0      | 1,4  | 1800,00 | NMRV-P050/110                                                                      | 63B4                                                                                | 10320     |
| 0,6           | 1149,0     | 1,0  | 2400,00 | NMRV-P050/110                                                                      | 63B4                                                                                | 10320     |
| 0,5           | 1370,0     | 0,8  | 3000,00 | NMRV-P050/110                                                                      | 63B4                                                                                | 10320     |

## 0,22 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i     |  |  | Fr<br>[N] |
|---------------|------------|------|-------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------|
| 280,0         | 7,0        | 2,9  | 5,00  | NMRV030                                                                              | 63C4                                                                                  | 597       |
| 187,0         | 10,0       | 2,0  | 7,50  | NMRV030                                                                              | 63C4                                                                                  | 683       |
| 140,0         | 12,0       | 1,5  | 10,00 | NMRV030                                                                              | 63C4                                                                                  | 752       |
| 93,0          | 18,0       | 1,1  | 15,00 | NMRV030                                                                              | 63C4                                                                                  | 861       |
| 70,0          | 22,0       | 0,8  | 20,00 | NMRV030                                                                              | 63C4                                                                                  | 948       |
| 56,0          | 26,0       | 0,8  | 25,00 | NMRV030                                                                              | 63C4                                                                                  | 1021      |
| 47,0          | 30,0       | 0,7  | 30,00 | NMRV030                                                                              | 63C4                                                                                  | 1085      |
| 140,0         | 13,0       | 3,4  | 10,00 | NMRV040                                                                              | 63C4                                                                                  | 1447      |
| 93,0          | 19,0       | 2,4  | 15,00 | NMRV040                                                                              | 63C4                                                                                  | 1657      |
| 70,0          | 24,0       | 1,8  | 20,00 | NMRV040                                                                              | 63C4                                                                                  | 1824      |
| 56,0          | 29,0       | 1,4  | 25,00 | NMRV040                                                                              | 63C4                                                                                  | 1964      |
| 47,0          | 32,0       | 1,5  | 30,00 | NMRV040                                                                              | 63C4                                                                                  | 2087      |
| 35,0          | 40,0       | 1,1  | 40,00 | NMRV040                                                                              | 63C4                                                                                  | 2298      |
| 28,0          | 47,0       | 0,9  | 50,00 | NMRV040                                                                              | 63C4                                                                                  | 2475      |
| 23,0          | 53,0       | 0,7  | 60,00 | NMRV040                                                                              | 63C4                                                                                  | 2630      |

## 0,22 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 35,0          | 41,0       | 2,0  | 40,00  | NMRV050                                                                           | 63C4                                                                                | 3153      |
| 28,0          | 48,0       | 1,6  | 50,00  | NMRV050                                                                           | 63C4                                                                                | 3397      |
| 23,0          | 54,0       | 1,3  | 60,00  | NMRV050                                                                           | 63C4                                                                                | 3610      |
| 18,0          | 65,0       | 1,0  | 80,00  | NMRV050                                                                           | 63C4                                                                                | 3973      |
| 14,0          | 75,0       | 0,7  | 100,00 | NMRV050                                                                           | 63C4                                                                                | 4280      |
| 63,0          | 27,0       | 2,2  | 22,10  | HA31+NMRV040                                                                      | 63C4                                                                                | 1885      |
| 59,0          | 29,0       | 2,2  | 23,80  | HA31+NMRV040                                                                      | 63C4                                                                                | 1931      |
| 55,0          | 31,0       | 2,1  | 25,50  | HA31+NMRV040                                                                      | 63C4                                                                                | 1977      |
| 48,0          | 35,0       | 1,7  | 29,40  | HA31+NMRV040                                                                      | 63C4                                                                                | 2074      |
| 44,0          | 38,0       | 1,8  | 31,50  | HA31+NMRV040                                                                      | 63C4                                                                                | 2122      |
| 39,0          | 42,0       | 1,6  | 35,60  | HA31+NMRV040                                                                      | 63C4                                                                                | 2211      |
| 34,0          | 48,0       | 1,4  | 40,90  | HA31+NMRV040                                                                      | 63C4                                                                                | 2315      |
| 32,0          | 49,0       | 1,3  | 44,20  | HA31+NMRV040                                                                      | 63C4                                                                                | 2375      |
| 29,0          | 54,0       | 1,2  | 47,50  | HA31+NMRV040                                                                      | 63C4                                                                                | 2433      |
| 26,0          | 62,0       | 1,1  | 54,50  | HA31+NMRV040                                                                      | 63C4                                                                                | 2548      |
| 24,0          | 62,0       | 0,9  | 58,90  | HA31+NMRV040                                                                      | 63C4                                                                                | 2614      |
| 22,0          | 71,0       | 1,0  | 63,00  | HA31+NMRV040                                                                      | 63C4                                                                                | 2673      |
| 20,0          | 77,0       | 0,9  | 71,30  | HA31+NMRV040                                                                      | 63C4                                                                                | 2785      |
| 18,0          | 88,0       | 0,8  | 78,80  | HA31+NMRV040                                                                      | 63C4                                                                                | 2880      |
| 16,0          | 82,0       | 0,8  | 88,30  | HA31+NMRV040                                                                      | 63C4                                                                                | 2992      |
| 15,0          | 101,0      | 0,7  | 94,50  | HA31+NMRV040                                                                      | 63C4                                                                                | 3060      |
| 59,0          | 29,0       | 2,5  | 23,80  | HA31+NMRV050                                                                      | 63C4                                                                                | 2650      |
| 55,0          | 31,0       | 2,4  | 25,50  | HA31+NMRV050                                                                      | 63C4                                                                                | 2714      |
| 48,0          | 35,0       | 3,3  | 29,40  | HA31+NMRV050                                                                      | 63C4                                                                                | 2847      |
| 44,0          | 38,0       | 1,9  | 31,50  | HA31+NMRV050                                                                      | 63C4                                                                                | 2912      |
| 39,0          | 43,0       | 2,5  | 35,60  | HA31+NMRV050                                                                      | 63C4                                                                                | 3034      |
| 34,0          | 49,0       | 2,3  | 40,90  | HA31+NMRV050                                                                      | 63C4                                                                                | 3177      |
| 32,0          | 49,0       | 2,3  | 44,20  | HA31+NMRV050                                                                      | 63C4                                                                                | 3259      |
| 29,0          | 55,0       | 2,3  | 47,50  | HA31+NMRV050                                                                      | 63C4                                                                                | 3339      |
| 26,0          | 63,0       | 2,1  | 54,50  | HA31+NMRV050                                                                      | 63C4                                                                                | 3497      |
| 24,0          | 63,0       | 1,6  | 58,90  | HA31+NMRV050                                                                      | 63C4                                                                                | 3587      |
| 22,0          | 73,0       | 1,9  | 63,00  | HA31+NMRV050                                                                      | 63C4                                                                                | 3669      |
| 20,0          | 77,0       | 1,7  | 71,30  | HA31+NMRV050                                                                      | 63C4                                                                                | 3823      |
| 18,0          | 91,0       | 1,5  | 78,80  | HA31+NMRV050                                                                      | 63C4                                                                                | 3952      |
| 16,0          | 83,0       | 1,4  | 88,30  | HA31+NMRV050                                                                      | 63C4                                                                                | 4107      |
| 15,0          | 101,0      | 1,3  | 94,50  | HA31+NMRV050                                                                      | 63C4                                                                                | 4200      |
| 14,0          | 104,0      | 1,1  | 102,00 | HA31+NMRV050                                                                      | 63C4                                                                                | 4308      |
| 13,0          | 111,0      | 1,0  | 109,10 | HA31+NMRV050                                                                      | 63C4                                                                                | 4406      |
| 12,0          | 126,0      | 1,1  | 118,10 | HA31+NMRV050                                                                      | 63C4                                                                                | 4524      |
| 11,0          | 123,0      | 0,9  | 127,50 | HA31+NMRV050                                                                      | 63C4                                                                                | 4641      |
| 10,0          | 128,0      | 1,1  | 142,50 | HA31+NMRV050                                                                      | 63C4                                                                                | 4816      |
| 9,0           | 129,0      | 0,9  | 154,70 | HA31+NMRV050                                                                      | 63C4                                                                                | 4840      |
| 9,0           | 145,0      | 1,0  | 163,60 | HA31+NMRV050                                                                      | 63C4                                                                                | 4840      |
| 7,0           | 166,0      | 0,9  | 189,00 | HA31+NMRV050                                                                      | 63C4                                                                                | 4840      |
| 7,0           | 165,0      | 0,7  | 204,00 | HA31+NMRV050                                                                      | 63C4                                                                                | 4840      |
| 6,0           | 206,0      | 0,7  | 236,30 | HA31+NMRV050                                                                      | 63C4                                                                                | 4840      |
| 24,0          | 64,0       | 3,4  | 58,00  | HW030+NMRV-P063                                                                   | 63C4                                                                                | 4666      |
| 20,0          | 78,0       | 3,0  | 71,30  | HW030+NMRV-P063                                                                   | 63C4                                                                                | 4997      |
| 18,0          | 82,0       | 2,7  | 77,30  | HW030+NMRV-P063                                                                   | 63C4                                                                                | 5135      |
| 17,0          | 89,0       | 2,7  | 81,80  | HW030+NMRV-P063                                                                   | 63C4                                                                                | 5233      |
| 16,0          | 84,0       | 2,6  | 88,30  | HW030+NMRV-P063                                                                   | 63C4                                                                                | 5368      |
| 15,0          | 99,0       | 2,4  | 95,00  | HW030+NMRV-P063                                                                   | 63C4                                                                                | 5500      |
| 13,0          | 113,0      | 2,2  | 109,10 | HW030+NMRV-P063                                                                   | 63C4                                                                                | 5759      |
| 12,0          | 127,0      | 2,1  | 118,10 | HW030+NMRV-P063                                                                   | 63C4                                                                                | 5914      |
| 10,0          | 135,0      | 1,7  | 136,40 | HW030+NMRV-P063                                                                   | 63C4                                                                                | 6204      |
| 10,0          | 130,0      | 2,0  | 142,50 | HW030+NMRV-P063                                                                   | 63C4                                                                                | 6270      |
| 9,0           | 160,0      | 1,7  | 157,50 | HW030+NMRV-P063                                                                   | 63C4                                                                                | 6270      |
| 9,0           | 148,0      | 1,8  | 163,60 | HW030+NMRV-P063                                                                   | 63C4                                                                                | 6270      |



# 0,22 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 8,0           | 138,0      | 1,3  | 176,70 | HW030+NMRV-P063                                                                    | 63C4                                                                                | 6270      |
| 7,0           | 191,0      | 1,3  | 196,90 | HW030+NMRV-P063                                                                    | 63C4                                                                                | 6270      |
| 6,0           | 182,0      | 1,4  | 218,20 | HW030+NMRV-P063                                                                    | 63C4                                                                                | 6270      |
| 6,0           | 209,0      | 1,4  | 236,30 | HW030+NMRV-P063                                                                    | 63C4                                                                                | 6270      |
| 5,0           | 210,0      | 1,1  | 272,70 | HW030+NMRV-P063                                                                    | 63C4                                                                                | 6270      |
| 4,4           | 255,0      | 1,0  | 315,00 | HW030+NMRV-P063                                                                    | 63C4                                                                                | 6270      |
| 3,6           | 296,0      | 0,8  | 393,80 | HW030+NMRV-P063                                                                    | 63C4                                                                                | 6270      |
| 3,2           | 344,0      | 0,8  | 433,30 | HW030+NMRV-P063                                                                    | 63C4                                                                                | 6270      |
| 12,0          | 113,0      | 3,3  | 116,00 | HW030+NMRV-P075                                                                    | 63C4                                                                                | 6938      |
| 10,0          | 139,0      | 2,5  | 136,40 | HW030+NMRV-P075                                                                    | 63C4                                                                                | 7323      |
| 10,0          | 136,0      | 3,0  | 142,50 | HW030+NMRV-P075                                                                    | 63C4                                                                                | 7380      |
| 9,0           | 139,0      | 2,6  | 154,70 | HW030+NMRV-P075                                                                    | 63C4                                                                                | 7380      |
| 9,0           | 155,0      | 2,7  | 163,60 | HW030+NMRV-P075                                                                    | 63C4                                                                                | 7380      |
| 8,0           | 145,0      | 2,1  | 176,70 | HW030+NMRV-P075                                                                    | 63C4                                                                                | 7380      |
| 7,0           | 197,0      | 2,0  | 196,90 | HW030+NMRV-P075                                                                    | 63C4                                                                                | 7380      |
| 6,0           | 190,0      | 2,2  | 218,20 | HW030+NMRV-P075                                                                    | 63C4                                                                                | 7380      |
| 6,0           | 219,0      | 2,2  | 236,30 | HW030+NMRV-P075                                                                    | 63C4                                                                                | 7380      |
| 5,0           | 219,0      | 1,7  | 272,70 | HW030+NMRV-P075                                                                    | 63C4                                                                                | 7380      |
| 4,4           | 269,0      | 1,6  | 315,00 | HW030+NMRV-P075                                                                    | 63C4                                                                                | 7380      |
| 3,6           | 307,0      | 1,3  | 393,80 | HW030+NMRV-P075                                                                    | 63C4                                                                                | 7380      |
| 3,0           | 348,0      | 1,1  | 472,50 | HW030+NMRV-P075                                                                    | 63C4                                                                                | 7380      |
| 2,6           | 415,0      | 0,9  | 541,70 | HW030+NMRV-P075                                                                    | 63C4                                                                                | 7380      |
| 2,2           | 469,0      | 0,8  | 650,00 | HW030+NMRV-P075                                                                    | 63C4                                                                                | 7380      |
| 8,0           | 160,0      | 2,9  | 186,30 | HW040+NMRV-P090                                                                    | 63C4                                                                                | 8180      |
| 6,0           | 202,0      | 3,3  | 220,00 | HW040+NMRV-P090                                                                    | 63C4                                                                                | 8180      |
| 6,0           | 208,0      | 2,4  | 252,00 | HW040+NMRV-P090                                                                    | 63C4                                                                                | 8180      |
| 5,0           | 237,0      | 2,5  | 275,00 | HW040+NMRV-P090                                                                    | 63C4                                                                                | 8180      |
| 4,6           | 260,0      | 2,1  | 304,50 | HW040+NMRV-P090                                                                    | 63C4                                                                                | 8180      |
| 4,2           | 265,0      | 2,0  | 330,00 | HW040+NMRV-P090                                                                    | 63C4                                                                                | 8180      |
| 3,7           | 322,0      | 2,0  | 383,30 | HW040+NMRV-P090                                                                    | 63C4                                                                                | 8180      |
| 3,2           | 364,0      | 1,8  | 437,50 | HW040+NMRV-P090                                                                    | 63C4                                                                                | 8180      |
| 3,0           | 359,0      | 1,5  | 460,00 | HW040+NMRV-P090                                                                    | 63C4                                                                                | 8180      |
| 2,7           | 407,0      | 1,4  | 525,00 | HW040+NMRV-P090                                                                    | 63C4                                                                                | 8180      |
| 2,3           | 435,0      | 1,0  | 613,30 | HW040+NMRV-P090                                                                    | 63C4                                                                                | 8180      |
| 2,0           | 493,0      | 0,9  | 700,00 | HW040+NMRV-P090                                                                    | 63C4                                                                                | 8180      |
| 1,8           | 487,0      | 0,7  | 766,70 | HW040+NMRV-P090                                                                    | 63C4                                                                                | 8180      |
| 4,2           | 284,0      | 3,3  | 330,00 | HW040+NMRV-P110                                                                    | 63C4                                                                                | 10320     |
| 3,7           | 345,0      | 2,8  | 383,30 | HW040+NMRV-P110                                                                    | 63C4                                                                                | 10320     |
| 3,2           | 345,0      | 2,3  | 440,00 | HW040+NMRV-P110                                                                    | 63C4                                                                                | 10320     |
| 3,0           | 386,0      | 2,6  | 460,00 | HW040+NMRV-P110                                                                    | 63C4                                                                                | 10320     |
| 2,7           | 437,0      | 2,1  | 525,00 | HW040+NMRV-P110                                                                    | 63C4                                                                                | 10320     |
| 2,3           | 471,0      | 1,7  | 613,30 | HW040+NMRV-P110                                                                    | 63C4                                                                                | 10320     |
| 2,0           | 534,0      | 1,6  | 700,00 | HW040+NMRV-P110                                                                    | 63C4                                                                                | 10320     |
| 1,8           | 532,0      | 1,2  | 766,70 | HW040+NMRV-P110                                                                    | 63C4                                                                                | 10320     |
| 1,6           | 601,0      | 1,1  | 875,00 | HW040+NMRV-P110                                                                    | 63C4                                                                                | 10320     |
| 14,0          | 96,0       | 0,7  | 100,00 | NMRV030/040                                                                        | 63C4                                                                                | 2769      |
| 14,0          | 98,0       | 1,4  | 100,00 | NMRV030/050                                                                        | 63C4                                                                                | 3800      |
| 9,0           | 136,0      | 1,0  | 150,00 | NMRV030/050                                                                        | 63C4                                                                                | 4350      |
| 14,0          | 98,0       | 1,5  | 100,00 | NMRV-P030/063                                                                      | 63C4                                                                                | 4967      |
| 9,0           | 138,0      | 1,5  | 150,00 | NMRV-P030/063                                                                      | 63C4                                                                                | 5686      |
| 7,0           | 174,0      | 1,5  | 200,00 | NMRV-P030/063                                                                      | 63C4                                                                                | 6259      |
| 6,0           | 209,0      | 1,1  | 250,00 | NMRV-P030/063                                                                      | 63C4                                                                                | 6270      |
| 4,7           | 214,0      | 1,2  | 300,00 | NMRV-P030/063                                                                      | 63C4                                                                                | 6270      |
| 3,5           | 279,0      | 0,9  | 400,00 | NMRV-P030/063                                                                      | 63C4                                                                                | 6270      |
| 2,8           | 324,0      | 0,7  | 500,00 | NMRV-P030/063                                                                      | 63C4                                                                                | 6270      |
| 14,0          | 101,0      | 1,4  | 100,00 | NMRV040/050                                                                        | 63C4                                                                                | 3800      |
| 9,0           | 140,0      | 1,0  | 150,00 | NMRV040/050                                                                        | 63C4                                                                                | 4350      |
| 14,0          | 101,0      | 2,6  | 100,00 | NMRV-P040/063                                                                      | 63C4                                                                                | 4967      |

## 0,22 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i       |  |  | Fr<br>[N] |
|---------------|------------|------|---------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 9,0           | 142,0      | 1,8  | 150,00  | NMRV-P040/063                                                                     | 63C4                                                                                | 5686      |
| 7,0           | 179,0      | 1,4  | 200,00  | NMRV-P040/063                                                                     | 63C4                                                                                | 6259      |
| 6,0           | 214,0      | 1,1  | 250,00  | NMRV-P040/063                                                                     | 63C4                                                                                | 6270      |
| 4,7           | 233,0      | 1,2  | 300,00  | NMRV-P040/063                                                                     | 63C4                                                                                | 6270      |
| 3,5           | 286,0      | 0,9  | 400,00  | NMRV-P040/063                                                                     | 63C4                                                                                | 6270      |
| 14,0          | 102,0      | 3,4  | 100,00  | NMRV-P040/075                                                                     | 63C4                                                                                | 5863      |
| 9,0           | 145,0      | 2,9  | 150,00  | NMRV-P040/075                                                                     | 63C4                                                                                | 6712      |
| 7,0           | 184,0      | 2,3  | 200,00  | NMRV-P040/075                                                                     | 63C4                                                                                | 7380      |
| 6,0           | 220,0      | 1,7  | 250,00  | NMRV-P040/075                                                                     | 63C4                                                                                | 7380      |
| 4,7           | 245,0      | 1,8  | 300,00  | NMRV-P040/075                                                                     | 63C4                                                                                | 7380      |
| 3,5           | 301,0      | 1,4  | 400,00  | NMRV-P040/075                                                                     | 63C4                                                                                | 7380      |
| 2,8           | 344,0      | 1,1  | 500,00  | NMRV-P040/075                                                                     | 63C4                                                                                | 7380      |
| 2,3           | 455,0      | 1,0  | 600,00  | NMRV-P040/075                                                                     | 63C4                                                                                | 7380      |
| 1,9           | 547,0      | 0,8  | 750,00  | NMRV-P040/075                                                                     | 63C4                                                                                | 7380      |
| 1,6           | 614,0      | 0,7  | 900,00  | NMRV-P040/075                                                                     | 63C4                                                                                | 7380      |
| 14,0          | 105,0      | 3,4  | 100,00  | NMRV-P040/090                                                                     | 63C4                                                                                | 6487      |
| 9,0           | 149,0      | 3,4  | 150,00  | NMRV-P040/090                                                                     | 63C4                                                                                | 7426      |
| 7,0           | 191,0      | 3,2  | 200,00  | NMRV-P040/090                                                                     | 63C4                                                                                | 8174      |
| 6,0           | 230,0      | 2,5  | 250,00  | NMRV-P040/090                                                                     | 63C4                                                                                | 8180      |
| 4,7           | 256,0      | 2,7  | 300,00  | NMRV-P040/090                                                                     | 63C4                                                                                | 8180      |
| 3,5           | 316,0      | 1,9  | 400,00  | NMRV-P040/090                                                                     | 63C4                                                                                | 8180      |
| 2,8           | 370,0      | 1,5  | 500,00  | NMRV-P040/090                                                                     | 63C4                                                                                | 8180      |
| 2,3           | 477,0      | 1,5  | 600,00  | NMRV-P040/090                                                                     | 63C4                                                                                | 8180      |
| 1,9           | 573,0      | 1,2  | 750,00  | NMRV-P040/090                                                                     | 63C4                                                                                | 8180      |
| 1,6           | 643,0      | 1,1  | 900,00  | NMRV-P040/090                                                                     | 63C4                                                                                | 8180      |
| 1,2           | 796,0      | 0,9  | 1200,00 | NMRV-P040/090                                                                     | 63C4                                                                                | 8180      |
| 0,9           | 950,0      | 0,7  | 1500,00 | NMRV-P040/090                                                                     | 63C4                                                                                | 8180      |
| 1,2           | 820,0      | 0,9  | 1200,00 | NMRV-P050/090                                                                     | 63C4                                                                                | 8180      |
| 0,9           | 965,0      | 0,7  | 1500,00 | NMRV-P050/090                                                                     | 63C4                                                                                | 8180      |
| 1,2           | 820,0      | 1,5  | 1200,00 | NMRV-P050/110                                                                     | 63C4                                                                                | 10320     |
| 0,9           | 965,0      | 1,3  | 1500,00 | NMRV-P050/110                                                                     | 63C4                                                                                | 10320     |
| 0,8           | 1086,0     | 1,2  | 1800,00 | NMRV-P050/110                                                                     | 63C4                                                                                | 10320     |
| 0,6           | 1405,0     | 0,8  | 2400,00 | NMRV-P050/110                                                                     | 63C4                                                                                | 10320     |

## 0,25 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i     |  |  | Fr<br>[N] |
|---------------|------------|------|-------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------|
| 560,0         | 3,8        | 3,2  | 5,00  | NMRV030                                                                             | 63B2                                                                                  | 474       |
| 373,0         | 6,0        | 2,3  | 7,50  | NMRV030                                                                             | 63B2                                                                                  | 542       |
| 280,0         | 7,0        | 1,8  | 10,00 | NMRV030                                                                             | 63B2                                                                                  | 597       |
| 187,0         | 10,0       | 1,2  | 15,00 | NMRV030                                                                             | 63B2                                                                                  | 683       |
| 140,0         | 13,0       | 0,9  | 20,00 | NMRV030                                                                             | 63B2                                                                                  | 752       |
| 112,0         | 16,0       | 1,0  | 25,00 | NMRV030                                                                             | 63B2                                                                                  | 810       |
| 93,0          | 18,0       | 0,8  | 30,00 | NMRV030                                                                             | 63B2                                                                                  | 861       |
| 280,0         | 7,0        | 2,6  | 5,00  | NMRV030                                                                             | 63D4                                                                                  | 597       |
| 187,0         | 11,0       | 1,7  | 7,50  | NMRV030                                                                             | 63D4                                                                                  | 683       |
| 140,0         | 14,0       | 1,3  | 10,00 | NMRV030                                                                             | 63D4                                                                                  | 752       |
| 93,0          | 20,0       | 1,0  | 15,00 | NMRV030                                                                             | 63D4                                                                                  | 861       |
| 70,0          | 25,0       | 0,7  | 20,00 | NMRV030                                                                             | 63D4                                                                                  | 948       |
| 56,0          | 29,0       | 0,7  | 25,00 | NMRV030                                                                             | 63D4                                                                                  | 1021      |
| 187,0         | 11,0       | 2,9  | 15,00 | NMRV040                                                                             | 63B2                                                                                  | 1315      |
| 140,0         | 14,0       | 2,0  | 20,00 | NMRV040                                                                             | 63B2                                                                                  | 1447      |
| 112,0         | 17,0       | 1,6  | 25,00 | NMRV040                                                                             | 63B2                                                                                  | 1559      |
| 93,0          | 20,0       | 1,7  | 30,00 | NMRV040                                                                             | 63B2                                                                                  | 1657      |
| 70,0          | 25,0       | 1,2  | 40,00 | NMRV040                                                                             | 63B2                                                                                  | 1824      |
| 56,0          | 29,0       | 1,0  | 50,00 | NMRV040                                                                             | 63B2                                                                                  | 1964      |

# 0,25 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 47,0          | 34,0       | 0,8  | 60,00  | NMRV040                                                                            | 63B2                                                                                | 2087      |
| 28,0          | 54,0       | 0,8  | 50,00  | NMRV040                                                                            | 63D4                                                                                | 2475      |
| 140,0         | 15,0       | 3,0  | 10,00  | NMRV040                                                                            | 63D4/71A4                                                                           | 1447      |
| 93,0          | 21,0       | 2,1  | 15,00  | NMRV040                                                                            | 63D4/71A4                                                                           | 1657      |
| 70,0          | 27,0       | 1,6  | 20,00  | NMRV040                                                                            | 63D4/71A4                                                                           | 1824      |
| 56,0          | 32,0       | 1,2  | 25,00  | NMRV040                                                                            | 63D4/71A4                                                                           | 1964      |
| 47,0          | 36,0       | 1,3  | 30,00  | NMRV040                                                                            | 63D4/71A4                                                                           | 2087      |
| 35,0          | 45,0       | 1,0  | 40,00  | NMRV040                                                                            | 63D4/71A4                                                                           | 2298      |
| 120,0         | 17,0       | 2,7  | 7,50   | NMRV040                                                                            | 71B6                                                                                | 1524      |
| 90,0          | 22,0       | 2,2  | 10,00  | NMRV040                                                                            | 71B6                                                                                | 1677      |
| 60,0          | 31,0       | 1,6  | 15,00  | NMRV040                                                                            | 71B6                                                                                | 1920      |
| 45,0          | 40,0       | 1,2  | 20,00  | NMRV040                                                                            | 71B6                                                                                | 2113      |
| 36,0          | 48,0       | 0,9  | 25,00  | NMRV040                                                                            | 71B6                                                                                | 2276      |
| 30,0          | 53,0       | 1,0  | 30,00  | NMRV040                                                                            | 71B6                                                                                | 2419      |
| 23,0          | 67,0       | 0,7  | 40,00  | NMRV040                                                                            | 71B6                                                                                | 2662      |
| 70,0          | 25,0       | 2,3  | 40,00  | NMRV050                                                                            | 63B2                                                                                | 2503      |
| 56,0          | 30,0       | 1,8  | 50,00  | NMRV050                                                                            | 63B2                                                                                | 2696      |
| 47,0          | 34,0       | 1,5  | 60,00  | NMRV050                                                                            | 63B2                                                                                | 2865      |
| 35,0          | 42,0       | 1,1  | 80,00  | NMRV050                                                                            | 63B2                                                                                | 3153      |
| 28,0          | 49,0       | 0,8  | 100,00 | NMRV050                                                                            | 63B2                                                                                | 3397      |
| 35,0          | 46,0       | 1,8  | 40,00  | NMRV050                                                                            | 63D4/71A4                                                                           | 3153      |
| 28,0          | 55,0       | 1,4  | 50,00  | NMRV050                                                                            | 63D4/71A4                                                                           | 3397      |
| 23,0          | 61,0       | 1,2  | 60,00  | NMRV050                                                                            | 63D4/71A4                                                                           | 3610      |
| 18,0          | 74,0       | 0,9  | 80,00  | NMRV050                                                                            | 63D4/71A4                                                                           | 3973      |
| 70,0          | 27,0       | 2,9  | 20,00  | NMRV050                                                                            | 71A4                                                                                | 2503      |
| 56,0          | 33,0       | 2,2  | 25,00  | NMRV050                                                                            | 71A4                                                                                | 2696      |
| 47,0          | 37,0       | 2,4  | 30,00  | NMRV050                                                                            | 71A4                                                                                | 2865      |
| 60,0          | 32,0       | 2,9  | 15,00  | NMRV050                                                                            | 71B6                                                                                | 2635      |
| 45,0          | 41,0       | 2,0  | 20,00  | NMRV050                                                                            | 71B6                                                                                | 2900      |
| 36,0          | 49,0       | 1,5  | 25,00  | NMRV050                                                                            | 71B6                                                                                | 3124      |
| 30,0          | 55,0       | 1,7  | 30,00  | NMRV050                                                                            | 71B6                                                                                | 3320      |
| 23,0          | 68,0       | 1,3  | 40,00  | NMRV050                                                                            | 71B6                                                                                | 3654      |
| 18,0          | 80,0       | 1,0  | 50,00  | NMRV050                                                                            | 71B6                                                                                | 3936      |
| 15,0          | 89,0       | 0,9  | 60,00  | NMRV050                                                                            | 71B6                                                                                | 4183      |
| 35,0          | 48,0       | 3,1  | 40,00  | NMRV-P063                                                                          | 71A4                                                                                | 4122      |
| 28,0          | 57,0       | 2,5  | 50,00  | NMRV-P063                                                                          | 71A4                                                                                | 4440      |
| 23,0          | 64,0       | 2,1  | 60,00  | NMRV-P063                                                                          | 71A4                                                                                | 4719      |
| 18,0          | 79,0       | 1,5  | 80,00  | NMRV-P063                                                                          | 71A4                                                                                | 5193      |
| 14,0          | 89,0       | 1,3  | 100,00 | NMRV-P063                                                                          | 71A4                                                                                | 5595      |
| 36,0          | 50,0       | 3,0  | 25,00  | NMRV-P063                                                                          | 71B6                                                                                | 4084      |
| 30,0          | 57,0       | 3,1  | 30,00  | NMRV-P063                                                                          | 71B6                                                                                | 4339      |
| 23,0          | 70,0       | 2,4  | 40,00  | NMRV-P063                                                                          | 71B6                                                                                | 4776      |
| 18,0          | 82,0       | 2,0  | 50,00  | NMRV-P063                                                                          | 71B6                                                                                | 5145      |
| 15,0          | 94,0       | 1,6  | 60,00  | NMRV-P063                                                                          | 71B6                                                                                | 5467      |
| 11,0          | 113,0      | 1,2  | 80,00  | NMRV-P063                                                                          | 71B6                                                                                | 6018      |
| 9,0           | 127,0      | 1,0  | 100,00 | NMRV-P063                                                                          | 71B6                                                                                | 6270      |
| 23,0          | 68,0       | 3,2  | 60,00  | NMRV-P075                                                                          | 71A4                                                                                | 5569      |
| 18,0          | 83,0       | 2,3  | 80,00  | NMRV-P075                                                                          | 71A4                                                                                | 6130      |
| 14,0          | 96,0       | 1,9  | 100,00 | NMRV-P075                                                                          | 71A4                                                                                | 6603      |
| 18,0          | 85,0       | 3,0  | 50,00  | NMRV-P075                                                                          | 71B6                                                                                | 6073      |
| 15,0          | 99,0       | 2,5  | 60,00  | NMRV-P075                                                                          | 71B6                                                                                | 6453      |
| 11,0          | 119,0      | 1,9  | 80,00  | NMRV-P075                                                                          | 71B6                                                                                | 7103      |
| 9,0           | 135,0      | 1,4  | 100,00 | NMRV-P075                                                                          | 71B6                                                                                | 7380      |
| 18,0          | 100,0      | 0,7  | 78,80  | HA31+NMRV040                                                                       | 63D4                                                                                | 2880      |
| 63,0          | 30,0       | 1,9  | 22,10  | HA31+NMRV040                                                                       | 63D4/71A4                                                                           | 1885      |
| 59,0          | 33,0       | 1,9  | 23,80  | HA31+NMRV040                                                                       | 63D4/71A4                                                                           | 1931      |
| 55,0          | 35,0       | 1,8  | 25,50  | HA31+NMRV040                                                                       | 63D4/71A4                                                                           | 1977      |
| 48,0          | 39,0       | 1,5  | 29,40  | HA31+NMRV040                                                                       | 63D4/71A4                                                                           | 2074      |

## 0,25 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 44,0          | 43,0       | 1,5  | 31,50  | HA31+NMRV040                                                                      | 63D4/71A4                                                                           | 2122      |
| 39,0          | 48,0       | 1,4  | 35,60  | HA31+NMRV040                                                                      | 63D4/71A4                                                                           | 2211      |
| 34,0          | 55,0       | 1,3  | 40,90  | HA31+NMRV040                                                                      | 63D4/71A4                                                                           | 2315      |
| 32,0          | 55,0       | 1,1  | 44,20  | HA31+NMRV040                                                                      | 63D4/71A4                                                                           | 2375      |
| 29,0          | 62,0       | 1,1  | 47,50  | HA31+NMRV040                                                                      | 63D4/71A4                                                                           | 2433      |
| 26,0          | 70,0       | 1,0  | 54,50  | HA31+NMRV040                                                                      | 63D4/71A4                                                                           | 2548      |
| 24,0          | 71,0       | 0,8  | 58,90  | HA31+NMRV040                                                                      | 63D4/71A4                                                                           | 2614      |
| 22,0          | 81,0       | 0,9  | 63,00  | HA31+NMRV040                                                                      | 63D4/71A4                                                                           | 2673      |
| 20,0          | 87,0       | 0,8  | 71,30  | HA31+NMRV040                                                                      | 63D4/71A4                                                                           | 2785      |
| 41,0          | 46,0       | 1,4  | 22,10  | HA31+NMRV040                                                                      | 71B6                                                                                | 2184      |
| 38,0          | 51,0       | 1,3  | 23,80  | HA31+NMRV040                                                                      | 71B6                                                                                | 2237      |
| 35,0          | 54,0       | 1,2  | 25,50  | HA31+NMRV040                                                                      | 71B6                                                                                | 2291      |
| 31,0          | 59,0       | 1,1  | 29,40  | HA31+NMRV040                                                                      | 71B6                                                                                | 2404      |
| 29,0          | 67,0       | 1,0  | 31,50  | HA31+NMRV040                                                                      | 71B6                                                                                | 2458      |
| 25,0          | 73,0       | 1,0  | 35,60  | HA31+NMRV040                                                                      | 71B6                                                                                | 2561      |
| 22,0          | 84,0       | 0,9  | 40,90  | HA31+NMRV040                                                                      | 71B6                                                                                | 2682      |
| 20,0          | 84,0       | 0,8  | 44,20  | HA31+NMRV040                                                                      | 71B6                                                                                | 2752      |
| 19,0          | 94,0       | 0,8  | 47,50  | HA31+NMRV040                                                                      | 71B6                                                                                | 2819      |
| 7,0           | 189,0      | 0,8  | 189,00 | HA31+NMRV050                                                                      | 63D4                                                                                | 4840      |
| 59,0          | 33,0       | 2,2  | 23,80  | HA31+NMRV050                                                                      | 63D4/71A4                                                                           | 2650      |
| 55,0          | 35,0       | 2,1  | 25,50  | HA31+NMRV050                                                                      | 63D4/71A4                                                                           | 2714      |
| 48,0          | 40,0       | 2,9  | 29,40  | HA31+NMRV050                                                                      | 63D4/71A4                                                                           | 2847      |
| 44,0          | 43,0       | 1,7  | 31,50  | HA31+NMRV050                                                                      | 63D4/71A4                                                                           | 2912      |
| 39,0          | 48,0       | 2,2  | 35,60  | HA31+NMRV050                                                                      | 63D4/71A4                                                                           | 3034      |
| 34,0          | 55,0       | 2,0  | 40,90  | HA31+NMRV050                                                                      | 63D4/71A4                                                                           | 3177      |
| 32,0          | 56,0       | 2,0  | 44,20  | HA31+NMRV050                                                                      | 63D4/71A4                                                                           | 3259      |
| 29,0          | 63,0       | 2,1  | 47,50  | HA31+NMRV050                                                                      | 63D4/71A4                                                                           | 3339      |
| 26,0          | 72,0       | 1,8  | 54,50  | HA31+NMRV050                                                                      | 63D4/71A4                                                                           | 3497      |
| 24,0          | 72,0       | 1,4  | 58,90  | HA31+NMRV050                                                                      | 63D4/71A4                                                                           | 3587      |
| 22,0          | 83,0       | 1,6  | 63,00  | HA31+NMRV050                                                                      | 63D4/71A4                                                                           | 3669      |
| 20,0          | 88,0       | 1,5  | 71,30  | HA31+NMRV050                                                                      | 63D4/71A4                                                                           | 3823      |
| 18,0          | 103,0      | 1,3  | 78,80  | HA31+NMRV050                                                                      | 63D4/71A4                                                                           | 3952      |
| 16,0          | 94,0       | 1,2  | 88,30  | HA31+NMRV050                                                                      | 63D4/71A4                                                                           | 4107      |
| 15,0          | 115,0      | 1,2  | 94,50  | HA31+NMRV050                                                                      | 63D4/71A4                                                                           | 4200      |
| 14,0          | 119,0      | 1,0  | 102,00 | HA31+NMRV050                                                                      | 63D4/71A4                                                                           | 4308      |
| 13,0          | 126,0      | 0,9  | 109,10 | HA31+NMRV050                                                                      | 63D4/71A4                                                                           | 4406      |
| 12,0          | 143,0      | 0,9  | 118,10 | HA31+NMRV050                                                                      | 63D4/71A4                                                                           | 4524      |
| 11,0          | 140,0      | 0,8  | 127,50 | HA31+NMRV050                                                                      | 63D4/71A4                                                                           | 4641      |
| 10,0          | 145,0      | 0,9  | 142,50 | HA31+NMRV050                                                                      | 63D4/71A4                                                                           | 4816      |
| 9,0           | 147,0      | 0,8  | 154,70 | HA31+NMRV050                                                                      | 63D4/71A4                                                                           | 4840      |
| 9,0           | 165,0      | 0,8  | 163,60 | HA31+NMRV050                                                                      | 63D4/71A4                                                                           | 4840      |
| 63,0          | 31,0       | 3,2  | 22,10  | HA31+NMRV050                                                                      | 71A4                                                                                | 2587      |
| 41,0          | 47,0       | 2,3  | 22,10  | HA31+NMRV050                                                                      | 71B6                                                                                | 2997      |
| 38,0          | 51,0       | 1,5  | 23,80  | HA31+NMRV050                                                                      | 71B6                                                                                | 3071      |
| 35,0          | 54,0       | 1,5  | 25,50  | HA31+NMRV050                                                                      | 71B6                                                                                | 3145      |
| 31,0          | 61,0       | 2,1  | 29,40  | HA31+NMRV050                                                                      | 71B6                                                                                | 3299      |
| 29,0          | 67,0       | 1,2  | 31,50  | HA31+NMRV050                                                                      | 71B6                                                                                | 3374      |
| 25,0          | 74,0       | 1,5  | 35,60  | HA31+NMRV050                                                                      | 71B6                                                                                | 3515      |
| 22,0          | 85,0       | 1,4  | 40,90  | HA31+NMRV050                                                                      | 71B6                                                                                | 3681      |
| 20,0          | 85,0       | 1,5  | 44,20  | HA31+NMRV050                                                                      | 71B6                                                                                | 3777      |
| 19,0          | 97,0       | 1,4  | 47,50  | HA31+NMRV050                                                                      | 71B6                                                                                | 3869      |
| 17,0          | 111,0      | 1,2  | 54,50  | HA31+NMRV050                                                                      | 71B6                                                                                | 4052      |
| 15,0          | 107,0      | 1,1  | 58,90  | HA31+NMRV050                                                                      | 71B6                                                                                | 4157      |
| 14,0          | 128,0      | 1,1  | 63,00  | HA31+NMRV050                                                                      | 71B6                                                                                | 4251      |
| 13,0          | 134,0      | 1,0  | 71,30  | HA31+NMRV050                                                                      | 71B6                                                                                | 4429      |
| 11,0          | 160,0      | 0,9  | 78,80  | HA31+NMRV050                                                                      | 71B6                                                                                | 4579      |
| 10,0          | 140,0      | 1,0  | 88,30  | HA31+NMRV050                                                                      | 71B6                                                                                | 4758      |
| 10,0          | 178,0      | 0,8  | 94,50  | HA31+NMRV050                                                                      | 71B6                                                                                | 4840      |

# 0,25 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 3,2           | 391,0      | 0,7  | 433,30 | HW030+NMRV-P063                                                                    | 63D4                                                                                | 6270      |
| 29,0          | 63,0       | 3,4  | 47,50  | HW030+NMRV-P063                                                                    | 63D4/71A4                                                                           | 4365      |
| 24,0          | 73,0       | 3,0  | 58,00  | HW030+NMRV-P063                                                                    | 63D4/71A4                                                                           | 4666      |
| 20,0          | 89,0       | 2,6  | 71,30  | HW030+NMRV-P063                                                                    | 63D4/71A4                                                                           | 4997      |
| 18,0          | 93,0       | 2,4  | 77,30  | HW030+NMRV-P063                                                                    | 63D4/71A4                                                                           | 5135      |
| 17,0          | 101,0      | 2,4  | 81,80  | HW030+NMRV-P063                                                                    | 63D4/71A4                                                                           | 5233      |
| 16,0          | 96,0       | 2,3  | 88,30  | HW030+NMRV-P063                                                                    | 63D4/71A4                                                                           | 5368      |
| 15,0          | 113,0      | 2,1  | 95,00  | HW030+NMRV-P063                                                                    | 63D4/71A4                                                                           | 5500      |
| 13,0          | 128,0      | 1,9  | 109,10 | HW030+NMRV-P063                                                                    | 63D4/71A4                                                                           | 5759      |
| 12,0          | 144,0      | 1,8  | 118,10 | HW030+NMRV-P063                                                                    | 63D4/71A4                                                                           | 5914      |
| 10,0          | 153,0      | 1,5  | 136,40 | HW030+NMRV-P063                                                                    | 63D4/71A4                                                                           | 6204      |
| 10,0          | 148,0      | 1,7  | 142,50 | HW030+NMRV-P063                                                                    | 63D4/71A4                                                                           | 6270      |
| 9,0           | 181,0      | 1,5  | 157,50 | HW030+NMRV-P063                                                                    | 63D4/71A4                                                                           | 6270      |
| 9,0           | 168,0      | 1,6  | 163,60 | HW030+NMRV-P063                                                                    | 63D4/71A4                                                                           | 6270      |
| 8,0           | 156,0      | 1,2  | 176,70 | HW030+NMRV-P063                                                                    | 63D4/71A4                                                                           | 6270      |
| 7,0           | 217,0      | 1,1  | 196,90 | HW030+NMRV-P063                                                                    | 63D4/71A4                                                                           | 6270      |
| 6,0           | 206,0      | 1,2  | 218,20 | HW030+NMRV-P063                                                                    | 63D4/71A4                                                                           | 6270      |
| 6,0           | 237,0      | 1,2  | 236,30 | HW030+NMRV-P063                                                                    | 63D4/71A4                                                                           | 6270      |
| 5,0           | 239,0      | 1,0  | 272,70 | HW030+NMRV-P063                                                                    | 63D4/71A4                                                                           | 6270      |
| 4,4           | 290,0      | 0,9  | 315,00 | HW030+NMRV-P063                                                                    | 63D4/71A4                                                                           | 6270      |
| 3,6           | 336,0      | 0,7  | 393,80 | HW030+NMRV-P063                                                                    | 63D4/71A4                                                                           | 6270      |
| 23,0          | 79,0       | 3,0  | 38,70  | HW030+NMRV-P063                                                                    | 71B6                                                                                | 4722      |
| 20,0          | 86,0       | 2,7  | 44,20  | HW030+NMRV-P063                                                                    | 71B6                                                                                | 4937      |
| 19,0          | 96,0       | 2,6  | 47,50  | HW030+NMRV-P063                                                                    | 71B6                                                                                | 5058      |
| 16,0          | 111,0      | 2,3  | 58,00  | HW030+NMRV-P063                                                                    | 71B6                                                                                | 5406      |
| 13,0          | 135,0      | 2,0  | 71,30  | HW030+NMRV-P063                                                                    | 71B6                                                                                | 5790      |
| 12,0          | 140,0      | 1,8  | 77,30  | HW030+NMRV-P063                                                                    | 71B6                                                                                | 5950      |
| 11,0          | 155,0      | 1,8  | 81,80  | HW030+NMRV-P063                                                                    | 71B6                                                                                | 6063      |
| 10,0          | 143,0      | 1,8  | 88,30  | HW030+NMRV-P063                                                                    | 71B6                                                                                | 6220      |
| 9,0           | 171,0      | 1,6  | 95,00  | HW030+NMRV-P063                                                                    | 71B6                                                                                | 6270      |
| 8,0           | 195,0      | 1,4  | 109,10 | HW030+NMRV-P063                                                                    | 71B6                                                                                | 6270      |
| 8,0           | 222,0      | 1,2  | 118,10 | HW030+NMRV-P063                                                                    | 71B6                                                                                | 6270      |
| 7,0           | 233,0      | 1,1  | 136,40 | HW030+NMRV-P063                                                                    | 71B6                                                                                | 6270      |
| 6,0           | 223,0      | 1,3  | 142,50 | HW030+NMRV-P063                                                                    | 71B6                                                                                | 6270      |
| 6,0           | 278,0      | 1,0  | 157,50 | HW030+NMRV-P063                                                                    | 71B6                                                                                | 6270      |
| 6,0           | 255,0      | 1,2  | 163,60 | HW030+NMRV-P063                                                                    | 71B6                                                                                | 6270      |
| 5,0           | 228,0      | 0,9  | 176,70 | HW030+NMRV-P063                                                                    | 71B6                                                                                | 6270      |
| 4,6           | 332,0      | 0,8  | 196,90 | HW030+NMRV-P063                                                                    | 71B6                                                                                | 6270      |
| 4,1           | 311,0      | 0,9  | 218,20 | HW030+NMRV-P063                                                                    | 71B6                                                                                | 6270      |
| 3,8           | 362,0      | 1,0  | 236,30 | HW030+NMRV-P063                                                                    | 71B6                                                                                | 6270      |
| 2,6           | 471,0      | 0,8  | 541,70 | HW030+NMRV-P075                                                                    | 63D4                                                                                | 7380      |
| 2,2           | 533,0      | 0,7  | 650,00 | HW030+NMRV-P075                                                                    | 63D4                                                                                | 7380      |
| 16,0          | 100,0      | 3,4  | 88,30  | HW030+NMRV-P075                                                                    | 63D4/71A4                                                                           | 6336      |
| 15,0          | 116,0      | 3,5  | 95,00  | HW030+NMRV-P075                                                                    | 63D4/71A4                                                                           | 6491      |
| 13,0          | 132,0      | 3,2  | 109,10 | HW030+NMRV-P075                                                                    | 63D4/71A4                                                                           | 6798      |
| 12,0          | 128,0      | 2,9  | 116,00 | HW030+NMRV-P075                                                                    | 63D4/71A4                                                                           | 6938      |
| 10,0          | 158,0      | 2,2  | 136,40 | HW030+NMRV-P075                                                                    | 63D4/71A4                                                                           | 7323      |
| 10,0          | 155,0      | 2,6  | 142,50 | HW030+NMRV-P075                                                                    | 63D4/71A4                                                                           | 7380      |
| 9,0           | 158,0      | 2,3  | 154,70 | HW030+NMRV-P075                                                                    | 63D4/71A4                                                                           | 7380      |
| 9,0           | 176,0      | 2,4  | 163,60 | HW030+NMRV-P075                                                                    | 63D4/71A4                                                                           | 7380      |
| 8,0           | 165,0      | 1,9  | 176,70 | HW030+NMRV-P075                                                                    | 63D4/71A4                                                                           | 7380      |
| 7,0           | 224,0      | 1,7  | 196,90 | HW030+NMRV-P075                                                                    | 63D4/71A4                                                                           | 7380      |
| 6,0           | 216,0      | 1,9  | 218,20 | HW030+NMRV-P075                                                                    | 63D4/71A4                                                                           | 7380      |
| 6,0           | 249,0      | 1,9  | 236,30 | HW030+NMRV-P075                                                                    | 63D4/71A4                                                                           | 7380      |
| 5,0           | 249,0      | 1,5  | 272,70 | HW030+NMRV-P075                                                                    | 63D4/71A4                                                                           | 7380      |
| 4,4           | 306,0      | 1,4  | 315,00 | HW030+NMRV-P075                                                                    | 63D4/71A4                                                                           | 7380      |
| 3,6           | 349,0      | 1,1  | 393,80 | HW030+NMRV-P075                                                                    | 63D4/71A4                                                                           | 7380      |
| 3,0           | 395,0      | 0,9  | 472,50 | HW030+NMRV-P075                                                                    | 63D4/71A4                                                                           | 7380      |

## 0,25 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 20,0          | 88,0       | 3,0  | 44,20  | HW030+NMRV-P075                                                                   | 71B6                                                                                | 5827      |
| 16,0          | 114,0      | 2,5  | 58,00  | HW030+NMRV-P075                                                                   | 71B6                                                                                | 6381      |
| 13,0          | 139,0      | 2,2  | 71,30  | HW030+NMRV-P075                                                                   | 71B6                                                                                | 6834      |
| 12,0          | 144,0      | 3,0  | 77,30  | HW030+NMRV-P075                                                                   | 71B6                                                                                | 7023      |
| 11,0          | 159,0      | 2,0  | 81,80  | HW030+NMRV-P075                                                                   | 71B6                                                                                | 7156      |
| 10,0          | 150,0      | 2,7  | 88,30  | HW030+NMRV-P075                                                                   | 71B6                                                                                | 7341      |
| 9,0           | 176,0      | 2,6  | 95,00  | HW030+NMRV-P075                                                                   | 71B6                                                                                | 7380      |
| 8,0           | 201,0      | 2,4  | 109,10 | HW030+NMRV-P075                                                                   | 71B6                                                                                | 7380      |
| 8,0           | 193,0      | 2,3  | 116,00 | HW030+NMRV-P075                                                                   | 71B6                                                                                | 7380      |
| 7,0           | 240,0      | 1,7  | 136,40 | HW030+NMRV-P075                                                                   | 71B6                                                                                | 7380      |
| 6,0           | 234,0      | 2,0  | 142,50 | HW030+NMRV-P075                                                                   | 71B6                                                                                | 7380      |
| 6,0           | 237,0      | 1,8  | 154,70 | HW030+NMRV-P075                                                                   | 71B6                                                                                | 7380      |
| 6,0           | 267,0      | 1,8  | 163,60 | HW030+NMRV-P075                                                                   | 71B6                                                                                | 7380      |
| 5,0           | 242,0      | 1,4  | 176,70 | HW030+NMRV-P075                                                                   | 71B6                                                                                | 7380      |
| 4,6           | 342,0      | 1,2  | 196,90 | HW030+NMRV-P075                                                                   | 71B6                                                                                | 7380      |
| 4,1           | 328,0      | 1,4  | 218,20 | HW030+NMRV-P075                                                                   | 71B6                                                                                | 7380      |
| 3,8           | 381,0      | 1,2  | 236,30 | HW030+NMRV-P075                                                                   | 71B6                                                                                | 7380      |
| 3,3           | 374,0      | 1,1  | 272,70 | HW030+NMRV-P075                                                                   | 71B6                                                                                | 7380      |
| 2,9           | 467,0      | 1,0  | 315,00 | HW030+NMRV-P075                                                                   | 71B6                                                                                | 7380      |
| 2,3           | 530,0      | 0,8  | 393,80 | HW030+NMRV-P075                                                                   | 71B6                                                                                | 7380      |
| 9,0           | 162,0      | 3,2  | 155,30 | HW040+NMRV-P090                                                                   | 63D4/71A4                                                                           | 8180      |
| 8,0           | 182,0      | 2,5  | 186,30 | HW040+NMRV-P090                                                                   | 63D4/71A4                                                                           | 8180      |
| 6,0           | 229,0      | 2,9  | 220,00 | HW040+NMRV-P090                                                                   | 63D4/71A4                                                                           | 8180      |
| 6,0           | 236,0      | 2,1  | 252,00 | HW040+NMRV-P090                                                                   | 63D4/71A4                                                                           | 8180      |
| 5,0           | 269,0      | 2,2  | 275,00 | HW040+NMRV-P090                                                                   | 63D4/71A4                                                                           | 8180      |
| 4,6           | 295,0      | 1,9  | 304,50 | HW040+NMRV-P090                                                                   | 63D4/71A4                                                                           | 8180      |
| 4,2           | 301,0      | 1,7  | 330,00 | HW040+NMRV-P090                                                                   | 63D4/71A4                                                                           | 8180      |
| 3,7           | 366,0      | 1,7  | 383,30 | HW040+NMRV-P090                                                                   | 63D4/71A4                                                                           | 8180      |
| 3,2           | 414,0      | 1,6  | 437,50 | HW040+NMRV-P090                                                                   | 63D4/71A4                                                                           | 8180      |
| 3,0           | 408,0      | 1,3  | 460,00 | HW040+NMRV-P090                                                                   | 63D4/71A4                                                                           | 8180      |
| 2,7           | 462,0      | 1,2  | 525,00 | HW040+NMRV-P090                                                                   | 63D4/71A4                                                                           | 8180      |
| 2,3           | 494,0      | 0,9  | 613,30 | HW040+NMRV-P090                                                                   | 63D4/71A4                                                                           | 8180      |
| 2,0           | 560,0      | 0,8  | 700,00 | HW040+NMRV-P090                                                                   | 63D4/71A4                                                                           | 8180      |
| 7,0           | 253,0      | 2,8  | 137,50 | HW040+NMRV-P090                                                                   | 71B6                                                                                | 8180      |
| 6,0           | 239,0      | 2,4  | 155,30 | HW040+NMRV-P090                                                                   | 71B6                                                                                | 8180      |
| 5,0           | 282,0      | 3,0  | 165,00 | HW040+NMRV-P090                                                                   | 71B6                                                                                | 8180      |
| 4,8           | 268,0      | 1,9  | 186,30 | HW040+NMRV-P090                                                                   | 71B6                                                                                | 8180      |
| 4,1           | 348,0      | 2,2  | 220,00 | HW040+NMRV-P090                                                                   | 71B6                                                                                | 8180      |
| 3,6           | 352,0      | 1,5  | 252,00 | HW040+NMRV-P090                                                                   | 71B6                                                                                | 8180      |
| 3,3           | 405,0      | 1,6  | 275,00 | HW040+NMRV-P090                                                                   | 71B6                                                                                | 8180      |
| 3,0           | 447,0      | 1,4  | 304,50 | HW040+NMRV-P090                                                                   | 71B6                                                                                | 8180      |
| 2,7           | 453,0      | 1,2  | 330,00 | HW040+NMRV-P090                                                                   | 71B6                                                                                | 8180      |
| 2,3           | 556,0      | 1,2  | 383,30 | HW040+NMRV-P090                                                                   | 71B6                                                                                | 8180      |
| 2,1           | 631,0      | 1,1  | 437,50 | HW040+NMRV-P090                                                                   | 71B6                                                                                | 8180      |
| 2,0           | 620,0      | 0,9  | 460,00 | HW040+NMRV-P090                                                                   | 71B6                                                                                | 8180      |
| 1,7           | 704,0      | 0,8  | 525,00 | HW040+NMRV-P090                                                                   | 71B6                                                                                | 8180      |
| 4,6           | 315,0      | 3,1  | 304,50 | HW040+NMRV-P110                                                                   | 63D4/71A4                                                                           | 10320     |
| 4,2           | 323,0      | 2,9  | 330,00 | HW040+NMRV-P110                                                                   | 63D4/71A4                                                                           | 10320     |
| 3,7           | 391,0      | 2,4  | 383,30 | HW040+NMRV-P110                                                                   | 63D4/71A4                                                                           | 10320     |
| 3,2           | 393,0      | 2,0  | 440,00 | HW040+NMRV-P110                                                                   | 63D4/71A4                                                                           | 10320     |
| 3,0           | 439,0      | 2,3  | 460,00 | HW040+NMRV-P110                                                                   | 63D4/71A4                                                                           | 10320     |
| 2,7           | 497,0      | 1,9  | 525,00 | HW040+NMRV-P110                                                                   | 63D4/71A4                                                                           | 10320     |
| 2,3           | 535,0      | 1,5  | 613,30 | HW040+NMRV-P110                                                                   | 63D4/71A4                                                                           | 10320     |
| 2,0           | 606,0      | 1,4  | 700,00 | HW040+NMRV-P110                                                                   | 63D4/71A4                                                                           | 10320     |
| 1,8           | 605,0      | 1,1  | 766,70 | HW040+NMRV-P110                                                                   | 63D4/71A4                                                                           | 10320     |
| 1,6           | 683,0      | 1,0  | 875,00 | HW040+NMRV-P110                                                                   | 63D4/71A4                                                                           | 10320     |
| 4,8           | 287,0      | 3,2  | 186,30 | HW040+NMRV-P110                                                                   | 71B6                                                                                | 10320     |
| 4,1           | 364,0      | 3,5  | 220,00 | HW040+NMRV-P110                                                                   | 71B6                                                                                | 10320     |

# 0,25 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i       |  |  | Fr<br>[N] |
|---------------|------------|------|---------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 3,6           | 378,0      | 2,6  | 252,00  | HW040+NMRV-P110                                                                    | 71B6                                                                                | 10320     |
| 3,3           | 435,0      | 2,7  | 275,00  | HW040+NMRV-P110                                                                    | 71B6                                                                                | 10320     |
| 3,0           | 479,0      | 2,4  | 304,50  | HW040+NMRV-P110                                                                    | 71B6                                                                                | 10320     |
| 2,7           | 487,0      | 2,1  | 330,00  | HW040+NMRV-P110                                                                    | 71B6                                                                                | 10320     |
| 2,3           | 598,0      | 1,7  | 383,30  | HW040+NMRV-P110                                                                    | 71B6                                                                                | 10320     |
| 2,0           | 593,0      | 1,4  | 440,00  | HW040+NMRV-P110                                                                    | 71B6                                                                                | 10320     |
| 2,0           | 667,0      | 1,6  | 460,00  | HW040+NMRV-P110                                                                    | 71B6                                                                                | 10320     |
| 1,7           | 758,0      | 1,2  | 525,00  | HW040+NMRV-P110                                                                    | 71B6                                                                                | 10320     |
| 1,5           | 815,0      | 1,0  | 613,30  | HW040+NMRV-P110                                                                    | 71B6                                                                                | 10320     |
| 1,3           | 926,0      | 0,9  | 700,00  | HW040+NMRV-P110                                                                    | 71B6                                                                                | 10320     |
| 1,2           | 915,0      | 0,7  | 766,70  | HW040+NMRV-P110                                                                    | 71B6                                                                                | 10320     |
| 14,0          | 112,0      | 1,2  | 100,00  | NMRV030/050                                                                        | 63D4                                                                                | 3800      |
| 9,0           | 155,0      | 0,9  | 150,00  | NMRV030/050                                                                        | 63D4                                                                                | 4350      |
| 14,0          | 112,0      | 1,3  | 100,00  | NMRV-P030/063                                                                      | 63D4                                                                                | 4967      |
| 9,0           | 157,0      | 1,3  | 150,00  | NMRV-P030/063                                                                      | 63D4                                                                                | 5686      |
| 7,0           | 198,0      | 1,3  | 200,00  | NMRV-P030/063                                                                      | 63D4                                                                                | 6259      |
| 6,0           | 237,0      | 1,0  | 250,00  | NMRV-P030/063                                                                      | 63D4                                                                                | 6270      |
| 4,7           | 244,0      | 1,0  | 300,00  | NMRV-P030/063                                                                      | 63D4                                                                                | 6270      |
| 3,5           | 317,0      | 0,8  | 400,00  | NMRV-P030/063                                                                      | 63D4                                                                                | 6270      |
| 14,0          | 115,0      | 1,2  | 100,00  | NMRV040/050                                                                        | 63D4/71A4                                                                           | 3800      |
| 9,0           | 159,0      | 0,9  | 150,00  | NMRV040/050                                                                        | 63D4/71A4                                                                           | 4350      |
| 14,0          | 115,0      | 2,2  | 100,00  | NMRV-P040/063                                                                      | 63D4/71A4                                                                           | 4967      |
| 9,0           | 161,0      | 1,6  | 150,00  | NMRV-P040/063                                                                      | 63D4/71A4                                                                           | 5686      |
| 7,0           | 203,0      | 1,2  | 200,00  | NMRV-P040/063                                                                      | 63D4/71A4                                                                           | 6259      |
| 6,0           | 243,0      | 1,0  | 250,00  | NMRV-P040/063                                                                      | 63D4/71A4                                                                           | 6270      |
| 4,7           | 265,0      | 1,0  | 300,00  | NMRV-P040/063                                                                      | 63D4/71A4                                                                           | 6270      |
| 3,5           | 325,0      | 0,8  | 400,00  | NMRV-P040/063                                                                      | 63D4/71A4                                                                           | 6270      |
| 14,0          | 116,0      | 3,0  | 100,00  | NMRV-P040/075                                                                      | 63D4/71A4                                                                           | 5863      |
| 9,0           | 165,0      | 2,6  | 150,00  | NMRV-P040/075                                                                      | 63D4/71A4                                                                           | 6712      |
| 7,0           | 209,0      | 2,0  | 200,00  | NMRV-P040/075                                                                      | 63D4/71A4                                                                           | 7380      |
| 6,0           | 250,0      | 1,5  | 250,00  | NMRV-P040/075                                                                      | 63D4/71A4                                                                           | 7380      |
| 4,7           | 278,0      | 1,6  | 300,00  | NMRV-P040/075                                                                      | 63D4/71A4                                                                           | 7380      |
| 3,5           | 342,0      | 1,2  | 400,00  | NMRV-P040/075                                                                      | 63D4/71A4                                                                           | 7380      |
| 2,8           | 391,0      | 0,9  | 500,00  | NMRV-P040/075                                                                      | 63D4/71A4                                                                           | 7380      |
| 2,3           | 517,0      | 0,9  | 600,00  | NMRV-P040/075                                                                      | 63D4/71A4                                                                           | 7380      |
| 1,9           | 622,0      | 0,7  | 750,00  | NMRV-P040/075                                                                      | 63D4/71A4                                                                           | 7380      |
| 14,0          | 119,0      | 3,0  | 100,00  | NMRV-P040/090                                                                      | 63D4/71A4                                                                           | 6487      |
| 9,0           | 170,0      | 3,0  | 150,00  | NMRV-P040/090                                                                      | 63D4/71A4                                                                           | 7426      |
| 7,0           | 217,0      | 2,8  | 200,00  | NMRV-P040/090                                                                      | 63D4/71A4                                                                           | 8174      |
| 6,0           | 261,0      | 2,2  | 250,00  | NMRV-P040/090                                                                      | 63D4/71A4                                                                           | 8180      |
| 4,7           | 291,0      | 2,4  | 300,00  | NMRV-P040/090                                                                      | 63D4/71A4                                                                           | 8180      |
| 3,5           | 359,0      | 1,7  | 400,00  | NMRV-P040/090                                                                      | 63D4/71A4                                                                           | 8180      |
| 2,8           | 420,0      | 1,3  | 500,00  | NMRV-P040/090                                                                      | 63D4/71A4                                                                           | 8180      |
| 2,3           | 542,0      | 1,3  | 600,00  | NMRV-P040/090                                                                      | 63D4/71A4                                                                           | 8180      |
| 1,9           | 651,0      | 1,1  | 750,00  | NMRV-P040/090                                                                      | 63D4/71A4                                                                           | 8180      |
| 1,6           | 730,0      | 1,0  | 900,00  | NMRV-P040/090                                                                      | 63D4/71A4                                                                           | 8180      |
| 1,2           | 905,0      | 0,8  | 1200,00 | NMRV-P040/090                                                                      | 63D4/71A4                                                                           | 8180      |
| 1,2           | 932,0      | 0,8  | 1200,00 | NMRV-P050/090                                                                      | 63D4/71A4                                                                           | 8180      |
| 7,0           | 223,0      | 2,7  | 200,00  | NMRV-P050/090                                                                      | 71A4                                                                                | 8174      |
| 6,0           | 267,0      | 2,1  | 250,00  | NMRV-P050/090                                                                      | 71A4                                                                                | 8180      |
| 4,7           | 298,0      | 2,3  | 300,00  | NMRV-P050/090                                                                      | 71A4                                                                                | 8180      |
| 3,5           | 368,0      | 1,7  | 400,00  | NMRV-P050/090                                                                      | 71A4                                                                                | 8180      |
| 2,8           | 491,0      | 1,2  | 500,00  | NMRV-P050/090                                                                      | 71A4                                                                                | 8180      |
| 2,3           | 548,0      | 1,3  | 600,00  | NMRV-P050/090                                                                      | 71A4                                                                                | 8180      |
| 1,9           | 660,0      | 1,1  | 750,00  | NMRV-P050/090                                                                      | 71A4                                                                                | 8180      |
| 1,6           | 751,0      | 0,9  | 900,00  | NMRV-P050/090                                                                      | 71A4                                                                                | 8180      |
| 1,2           | 932,0      | 1,4  | 1200,00 | NMRV-P050/110                                                                      | 63D4/71A4                                                                           | 10320     |
| 0,9           | 1097,0     | 1,2  | 1500,00 | NMRV-P050/110                                                                      | 63D4/71A4                                                                           | 10320     |

## 0,25 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i       |  |  | Fr<br>[N] |
|---------------|------------|------|---------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 0,8           | 1234,0     | 1,0  | 1800,00 | NMRV-P050/110                                                                     | 63D4/71A4                                                                           | 10320     |
| 0,6           | 1596,0     | 0,7  | 2400,00 | NMRV-P050/110                                                                     | 63D4/71A4                                                                           | 10320     |
| 3,5           | 386,0      | 3,1  | 400,00  | NMRV-P050/110                                                                     | 71A4                                                                                | 10320     |
| 2,8           | 512,0      | 2,3  | 500,00  | NMRV-P050/110                                                                     | 71A4                                                                                | 10320     |
| 2,3           | 548,0      | 2,3  | 600,00  | NMRV-P050/110                                                                     | 71A4                                                                                | 10320     |
| 1,9           | 660,0      | 1,9  | 750,00  | NMRV-P050/110                                                                     | 71A4                                                                                | 10320     |
| 1,6           | 751,0      | 1,7  | 900,00  | NMRV-P050/110                                                                     | 71A4                                                                                | 10320     |
| 3,5           | 386,0      | 3,1  | 400,00  | NMRV-P063/110                                                                     | 71A4                                                                                | 10320     |
| 2,8           | 524,0      | 2,2  | 500,00  | NMRV-P063/110                                                                     | 71A4                                                                                | 10320     |
| 2,3           | 562,0      | 2,3  | 600,00  | NMRV-P063/110                                                                     | 71A4                                                                                | 10320     |
| 1,9           | 677,0      | 1,9  | 750,00  | NMRV-P063/110                                                                     | 71A4                                                                                | 10320     |
| 1,6           | 771,0      | 1,6  | 900,00  | NMRV-P063/110                                                                     | 71A4                                                                                | 10320     |
| 1,2           | 973,0      | 1,3  | 1200,00 | NMRV-P063/110                                                                     | 71A4                                                                                | 10320     |
| 0,9           | 1148,0     | 1,1  | 1500,00 | NMRV-P063/110                                                                     | 71A4                                                                                | 10320     |
| 0,8           | 1296,0     | 1,0  | 1800,00 | NMRV-P063/110                                                                     | 71A4                                                                                | 10320     |
| 0,6           | 1676,0     | 0,7  | 2400,00 | NMRV-P063/110                                                                     | 71A4                                                                                | 10320     |
| 2,8           | 460,0      | 3,4  | 500,00  | NMRV-P063/130                                                                     | 71A4                                                                                | 13500     |
| 2,3           | 571,0      | 3,1  | 600,00  | NMRV-P063/130                                                                     | 71A4                                                                                | 13500     |
| 1,9           | 687,0      | 2,6  | 750,00  | NMRV-P063/130                                                                     | 71A4                                                                                | 13500     |
| 1,6           | 783,0      | 2,2  | 900,00  | NMRV-P063/130                                                                     | 71A4                                                                                | 13500     |
| 1,2           | 988,0      | 1,8  | 1200,00 | NMRV-P063/130                                                                     | 71A4                                                                                | 13500     |
| 0,9           | 1165,0     | 1,5  | 1500,00 | NMRV-P063/130                                                                     | 71A4                                                                                | 13500     |
| 0,8           | 1315,0     | 1,3  | 1800,00 | NMRV-P063/130                                                                     | 71A4                                                                                | 13500     |
| 0,6           | 1676,0     | 1,0  | 2400,00 | NMRV-P063/130                                                                     | 71A4                                                                                | 13500     |
| 0,5           | 1998,0     | 0,8  | 3000,00 | NMRV-P063/130                                                                     | 71A4                                                                                | 13500     |
| 1,9           | 666,0      | 3,5  | 750,00  | NMRV-P063/150                                                                     | 71A4                                                                                | 18000     |
| 1,6           | 840,0      | 2,5  | 900,00  | NMRV-P063/150                                                                     | 71A4                                                                                | 18000     |
| 1,2           | 1013,0     | 2,6  | 1200,00 | NMRV-P063/150                                                                     | 71A4                                                                                | 18000     |
| 0,9           | 1189,0     | 2,0  | 1500,00 | NMRV-P063/150                                                                     | 71A4                                                                                | 18000     |
| 0,8           | 1412,0     | 1,5  | 1800,00 | NMRV-P063/150                                                                     | 71A4                                                                                | 18000     |
| 0,6           | 1702,0     | 1,6  | 2400,00 | NMRV-P063/150                                                                     | 71A4                                                                                | 18000     |
| 0,5           | 1998,0     | 1,2  | 3000,00 | NMRV-P063/150                                                                     | 71A4                                                                                | 18000     |
| 0,4           | 2453,0     | 0,9  | 4000,00 | NMRV-P063/150                                                                     | 71A4                                                                                | 18000     |
| 0,3           | 2749,0     | 0,8  | 5000,00 | NMRV-P063/150                                                                     | 71A4                                                                                | 18000     |

## 0,37 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i     |  |  | Fr<br>[N] |
|---------------|------------|------|-------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------|
| 560,0         | 6,0        | 2,1  | 5,00  | NMRV030                                                                             | 63C2                                                                                  | 474       |
| 373,0         | 8,0        | 1,6  | 7,50  | NMRV030                                                                             | 63C2                                                                                  | 542       |
| 280,0         | 11,0       | 1,2  | 10,00 | NMRV030                                                                             | 63C2                                                                                  | 597       |
| 187,0         | 16,0       | 0,8  | 15,00 | NMRV030                                                                             | 63C2                                                                                  | 683       |
| 373,0         | 8,0        | 3,3  | 7,50  | NMRV040                                                                             | 63C2/71A2                                                                             | 1044      |
| 280,0         | 11,0       | 2,6  | 10,00 | NMRV040                                                                             | 63C2/71A2                                                                             | 1149      |
| 187,0         | 16,0       | 1,9  | 15,00 | NMRV040                                                                             | 63C2/71A2                                                                             | 1315      |
| 140,0         | 21,0       | 1,4  | 20,00 | NMRV040                                                                             | 63C2/71A2                                                                             | 1447      |
| 112,0         | 25,0       | 1,1  | 25,00 | NMRV040                                                                             | 63C2/71A2                                                                             | 1559      |
| 93,0          | 29,0       | 1,2  | 30,00 | NMRV040                                                                             | 63C2/71A2                                                                             | 1657      |
| 70,0          | 37,0       | 0,8  | 40,00 | NMRV040                                                                             | 63C2/71A2                                                                             | 1824      |
| 280,0         | 11,0       | 3,2  | 5,00  | NMRV040                                                                             | 71B4                                                                                  | 1149      |
| 187,0         | 16,0       | 2,5  | 7,50  | NMRV040                                                                             | 71B4                                                                                  | 1315      |
| 140,0         | 21,0       | 2,1  | 10,00 | NMRV040                                                                             | 71B4                                                                                  | 1447      |
| 93,0          | 31,0       | 1,4  | 15,00 | NMRV040                                                                             | 71B4                                                                                  | 1657      |
| 70,0          | 40,0       | 1,1  | 20,00 | NMRV040                                                                             | 71B4                                                                                  | 1824      |
| 56,0          | 48,0       | 0,8  | 25,00 | NMRV040                                                                             | 71B4                                                                                  | 1964      |
| 47,0          | 54,0       | 0,9  | 30,00 | NMRV040                                                                             | 71B4                                                                                  | 2087      |



# 0,37 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 180,0         | 17,0       | 2,5  | 5,00   | NMRV040                                                                            | 71C6                                                                                | 1331      |
| 120,0         | 25,0       | 1,8  | 7,50   | NMRV040                                                                            | 71C6                                                                                | 1524      |
| 90,0          | 33,0       | 1,5  | 10,00  | NMRV040                                                                            | 71C6                                                                                | 1677      |
| 60,0          | 47,0       | 1,1  | 15,00  | NMRV040                                                                            | 71C6                                                                                | 1920      |
| 45,0          | 60,0       | 0,8  | 20,00  | NMRV040                                                                            | 71C6                                                                                | 2113      |
| 70,0          | 37,0       | 1,6  | 40,00  | NMRV050                                                                            | 63C2/71A2                                                                           | 2503      |
| 56,0          | 44,0       | 1,2  | 50,00  | NMRV050                                                                            | 63C2/71A2                                                                           | 2696      |
| 47,0          | 51,0       | 1,0  | 60,00  | NMRV050                                                                            | 63C2/71A2                                                                           | 2865      |
| 35,0          | 63,0       | 0,7  | 80,00  | NMRV050                                                                            | 63C2/71A2                                                                           | 3153      |
| 187,0         | 16,0       | 3,5  | 15,00  | NMRV050                                                                            | 71A2                                                                                | 1805      |
| 140,0         | 21,0       | 2,5  | 20,00  | NMRV050                                                                            | 71A2                                                                                | 1987      |
| 112,0         | 26,0       | 2,0  | 25,00  | NMRV050                                                                            | 71A2                                                                                | 2140      |
| 93,0          | 29,0       | 2,2  | 30,00  | NMRV050                                                                            | 71A2                                                                                | 2274      |
| 93,0          | 31,0       | 2,6  | 15,00  | NMRV050                                                                            | 71B4                                                                                | 2274      |
| 70,0          | 40,0       | 1,9  | 20,00  | NMRV050                                                                            | 71B4                                                                                | 2503      |
| 56,0          | 49,0       | 1,5  | 25,00  | NMRV050                                                                            | 71B4                                                                                | 2696      |
| 47,0          | 55,0       | 1,6  | 30,00  | NMRV050                                                                            | 71B4                                                                                | 2865      |
| 35,0          | 69,0       | 1,2  | 40,00  | NMRV050                                                                            | 71B4                                                                                | 3153      |
| 28,0          | 81,0       | 1,0  | 50,00  | NMRV050                                                                            | 71B4                                                                                | 3397      |
| 23,0          | 91,0       | 0,8  | 60,00  | NMRV050                                                                            | 71B4                                                                                | 3610      |
| 23,0          | 101,0      | 0,9  | 40,00  | NMRV050                                                                            | 71C6                                                                                | 3654      |
| 90,0          | 33,0       | 2,8  | 10,00  | NMRV050                                                                            | 71C6/80A6                                                                           | 2302      |
| 60,0          | 47,0       | 2,0  | 15,00  | NMRV050                                                                            | 71C6/80A6                                                                           | 2635      |
| 45,0          | 60,0       | 1,4  | 20,00  | NMRV050                                                                            | 71C6/80A6                                                                           | 2900      |
| 36,0          | 73,0       | 1,0  | 25,00  | NMRV050                                                                            | 71C6/80A6                                                                           | 3124      |
| 30,0          | 81,0       | 1,2  | 30,00  | NMRV050                                                                            | 71C6/80A6                                                                           | 3320      |
| 70,0          | 38,0       | 2,9  | 40,00  | NMRV-P063                                                                          | 71A2                                                                                | 3272      |
| 56,0          | 45,0       | 2,3  | 50,00  | NMRV-P063                                                                          | 71A2                                                                                | 3524      |
| 47,0          | 52,0       | 1,9  | 60,00  | NMRV-P063                                                                          | 71A2                                                                                | 3745      |
| 35,0          | 65,0       | 1,4  | 80,00  | NMRV-P063                                                                          | 71A2                                                                                | 4122      |
| 28,0          | 74,0       | 1,1  | 100,00 | NMRV-P063                                                                          | 71A2                                                                                | 4440      |
| 56,0          | 50,0       | 2,7  | 25,00  | NMRV-P063                                                                          | 71B4                                                                                | 3524      |
| 47,0          | 57,0       | 2,8  | 30,00  | NMRV-P063                                                                          | 71B4                                                                                | 3745      |
| 35,0          | 72,0       | 2,1  | 40,00  | NMRV-P063                                                                          | 71B4                                                                                | 4122      |
| 28,0          | 85,0       | 1,7  | 50,00  | NMRV-P063                                                                          | 71B4                                                                                | 4440      |
| 23,0          | 95,0       | 1,4  | 60,00  | NMRV-P063                                                                          | 71B4                                                                                | 4719      |
| 18,0          | 117,0      | 1,0  | 80,00  | NMRV-P063                                                                          | 71B4                                                                                | 5193      |
| 14,0          | 131,0      | 0,9  | 100,00 | NMRV-P063                                                                          | 71B4                                                                                | 5595      |
| 45,0          | 61,0       | 2,7  | 20,00  | NMRV-P063                                                                          | 71C6/80A6                                                                           | 3791      |
| 36,0          | 75,0       | 2,0  | 25,00  | NMRV-P063                                                                          | 71C6/80A6                                                                           | 4084      |
| 30,0          | 84,0       | 2,1  | 30,00  | NMRV-P063                                                                          | 71C6/80A6                                                                           | 4339      |
| 23,0          | 104,0      | 1,7  | 40,00  | NMRV-P063                                                                          | 71C6/80A6                                                                           | 4776      |
| 18,0          | 122,0      | 1,3  | 50,00  | NMRV-P063                                                                          | 71C6/80A6                                                                           | 5145      |
| 15,0          | 139,0      | 1,1  | 60,00  | NMRV-P063                                                                          | 71C6/80A6                                                                           | 5467      |
| 11,0          | 167,0      | 0,8  | 80,00  | NMRV-P063                                                                          | 71C6/80A6                                                                           | 6018      |
| 56,0          | 47,0       | 3,5  | 50,00  | NMRV-P075                                                                          | 71A2                                                                                | 4160      |
| 47,0          | 55,0       | 2,9  | 60,00  | NMRV-P075                                                                          | 71A2                                                                                | 4421      |
| 35,0          | 68,0       | 2,1  | 80,00  | NMRV-P075                                                                          | 71A2                                                                                | 4865      |
| 28,0          | 78,0       | 1,7  | 100,00 | NMRV-P075                                                                          | 71A2                                                                                | 5241      |
| 35,0          | 74,0       | 3,3  | 40,00  | NMRV-P075                                                                          | 71B4                                                                                | 4865      |
| 28,0          | 88,0       | 2,5  | 50,00  | NMRV-P075                                                                          | 71B4                                                                                | 5241      |
| 23,0          | 100,0      | 2,1  | 60,00  | NMRV-P075                                                                          | 71B4                                                                                | 5569      |
| 18,0          | 123,0      | 1,6  | 80,00  | NMRV-P075                                                                          | 71B4                                                                                | 6130      |
| 14,0          | 141,0      | 1,3  | 100,00 | NMRV-P075                                                                          | 71B4                                                                                | 6603      |
| 36,0          | 77,0       | 3,1  | 25,00  | NMRV-P075                                                                          | 71C6/80A6                                                                           | 4820      |
| 30,0          | 87,0       | 3,3  | 30,00  | NMRV-P075                                                                          | 71C6/80A6                                                                           | 5122      |
| 23,0          | 108,0      | 2,6  | 40,00  | NMRV-P075                                                                          | 71C6/80A6                                                                           | 5637      |
| 18,0          | 126,0      | 2,0  | 50,00  | NMRV-P075                                                                          | 71C6/80A6                                                                           | 6073      |

## 0,37 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 15,0          | 146,0      | 1,7  | 60,00  | NMRV-P075                                                                         | 71C6/80A6                                                                           | 6453      |
| 11,0          | 176,0      | 1,3  | 80,00  | NMRV-P075                                                                         | 71C6/80A6                                                                           | 7103      |
| 9,0           | 200,0      | 1,0  | 100,00 | NMRV-P075                                                                         | 71C6/80A6                                                                           | 7380      |
| 18,0          | 136,0      | 3,2  | 50,00  | NMRV-P090                                                                         | 80A6                                                                                | 6719      |
| 15,0          | 153,0      | 2,5  | 60,00  | NMRV-P090                                                                         | 80A6                                                                                | 7140      |
| 11,0          | 189,0      | 1,7  | 80,00  | NMRV-P090                                                                         | 80A6                                                                                | 7859      |
| 9,0           | 216,0      | 1,3  | 100,00 | NMRV-P090                                                                         | 80A6                                                                                | 8180      |
| 11,0          | 201,0      | 2,8  | 80,00  | NMRV-P110                                                                         | 80A6                                                                                | 9931      |
| 9,0           | 232,0      | 2,2  | 100,00 | NMRV-P110                                                                         | 80A6                                                                                | 10320     |
| 63,0          | 45,0       | 1,3  | 22,10  | HA31+NMRV040                                                                      | 71B4                                                                                | 1885      |
| 59,0          | 49,0       | 1,3  | 23,80  | HA31+NMRV040                                                                      | 71B4                                                                                | 1931      |
| 55,0          | 52,0       | 1,2  | 25,50  | HA31+NMRV040                                                                      | 71B4                                                                                | 1977      |
| 48,0          | 58,0       | 1,0  | 29,40  | HA31+NMRV040                                                                      | 71B4                                                                                | 2074      |
| 44,0          | 64,0       | 1,0  | 31,50  | HA31+NMRV040                                                                      | 71B4                                                                                | 2122      |
| 39,0          | 71,0       | 0,9  | 35,60  | HA31+NMRV040                                                                      | 71B4                                                                                | 2211      |
| 34,0          | 81,0       | 0,9  | 40,90  | HA31+NMRV040                                                                      | 71B4                                                                                | 2315      |
| 32,0          | 82,0       | 0,8  | 44,20  | HA31+NMRV040                                                                      | 71B4                                                                                | 2375      |
| 29,0          | 91,0       | 0,7  | 47,50  | HA31+NMRV040                                                                      | 71B4                                                                                | 2433      |
| 35,0          | 81,0       | 0,8  | 25,50  | HA31+NMRV040                                                                      | 71C6                                                                                | 2291      |
| 31,0          | 88,0       | 0,8  | 29,40  | HA31+NMRV040                                                                      | 71C6                                                                                | 2404      |
| 41,0          | 68,0       | 1,0  | 22,10  | HA31+NMRV040                                                                      | 71C6/80A6                                                                           | 2184      |
| 38,0          | 75,0       | 0,9  | 23,80  | HA31+NMRV040                                                                      | 71C6/80A6                                                                           | 2237      |
| 63,0          | 45,0       | 2,2  | 22,10  | HA31+NMRV050                                                                      | 71B4                                                                                | 2587      |
| 59,0          | 49,0       | 1,5  | 23,80  | HA31+NMRV050                                                                      | 71B4                                                                                | 2650      |
| 55,0          | 52,0       | 1,4  | 25,50  | HA31+NMRV050                                                                      | 71B4                                                                                | 2714      |
| 48,0          | 59,0       | 1,9  | 29,40  | HA31+NMRV050                                                                      | 71B4                                                                                | 2847      |
| 44,0          | 64,0       | 1,2  | 31,50  | HA31+NMRV050                                                                      | 71B4                                                                                | 2912      |
| 39,0          | 72,0       | 1,5  | 35,60  | HA31+NMRV050                                                                      | 71B4                                                                                | 3034      |
| 34,0          | 82,0       | 1,3  | 40,90  | HA31+NMRV050                                                                      | 71B4                                                                                | 3177      |
| 32,0          | 83,0       | 1,4  | 44,20  | HA31+NMRV050                                                                      | 71B4                                                                                | 3259      |
| 29,0          | 93,0       | 1,4  | 47,50  | HA31+NMRV050                                                                      | 71B4                                                                                | 3339      |
| 26,0          | 106,0      | 1,2  | 54,50  | HA31+NMRV050                                                                      | 71B4                                                                                | 3497      |
| 24,0          | 106,0      | 1,0  | 58,90  | HA31+NMRV050                                                                      | 71B4                                                                                | 3587      |
| 22,0          | 122,0      | 1,1  | 63,00  | HA31+NMRV050                                                                      | 71B4                                                                                | 3669      |
| 20,0          | 130,0      | 1,0  | 71,30  | HA31+NMRV050                                                                      | 71B4                                                                                | 3823      |
| 18,0          | 152,0      | 0,9  | 78,80  | HA31+NMRV050                                                                      | 71B4                                                                                | 3952      |
| 16,0          | 140,0      | 0,8  | 88,30  | HA31+NMRV050                                                                      | 71B4                                                                                | 4107      |
| 15,0          | 170,0      | 0,8  | 94,50  | HA31+NMRV050                                                                      | 71B4                                                                                | 4200      |
| 35,0          | 81,0       | 1,0  | 25,50  | HA31+NMRV050                                                                      | 71C6                                                                                | 3145      |
| 29,0          | 100,0      | 0,8  | 31,50  | HA31+NMRV050                                                                      | 71C6                                                                                | 3374      |
| 22,0          | 126,0      | 0,9  | 40,90  | HA31+NMRV050                                                                      | 71C6                                                                                | 3681      |
| 17,0          | 164,0      | 0,8  | 54,50  | HA31+NMRV050                                                                      | 71C6                                                                                | 4052      |
| 15,0          | 159,0      | 0,7  | 58,90  | HA31+NMRV050                                                                      | 71C6                                                                                | 4157      |
| 14,0          | 190,0      | 0,7  | 63,00  | HA31+NMRV050                                                                      | 71C6                                                                                | 4251      |
| 41,0          | 69,0       | 1,5  | 22,10  | HA31+NMRV050                                                                      | 71C6/80A6                                                                           | 2997      |
| 38,0          | 75,0       | 1,0  | 23,80  | HA31+NMRV050                                                                      | 71C6/80A6                                                                           | 3071      |
| 31,0          | 90,0       | 1,4  | 29,40  | HA31+NMRV050                                                                      | 71C6/80A6                                                                           | 3299      |
| 25,0          | 110,0      | 1,0  | 35,60  | HA31+NMRV050                                                                      | 71C6/80A6                                                                           | 3515      |
| 20,0          | 125,0      | 1,0  | 44,20  | HA31+NMRV050                                                                      | 71C6/80A6                                                                           | 3777      |
| 19,0          | 143,0      | 1,0  | 47,50  | HA31+NMRV050                                                                      | 71C6/80A6                                                                           | 3869      |
| 48,0          | 60,0       | 3,4  | 29,00  | HW030+NMRV-P063                                                                   | 71B4                                                                                | 3703      |
| 36,0          | 76,0       | 2,7  | 38,70  | HW030+NMRV-P063                                                                   | 71B4                                                                                | 4076      |
| 32,0          | 84,0       | 2,4  | 44,20  | HW030+NMRV-P063                                                                   | 71B4                                                                                | 4260      |
| 29,0          | 93,0       | 2,3  | 47,50  | HW030+NMRV-P063                                                                   | 71B4                                                                                | 4365      |
| 24,0          | 108,0      | 2,0  | 58,00  | HW030+NMRV-P063                                                                   | 71B4                                                                                | 4666      |
| 20,0          | 131,0      | 1,8  | 71,30  | HW030+NMRV-P063                                                                   | 71B4                                                                                | 4997      |
| 18,0          | 138,0      | 1,6  | 77,30  | HW030+NMRV-P063                                                                   | 71B4                                                                                | 5135      |
| 17,0          | 150,0      | 1,6  | 81,80  | HW030+NMRV-P063                                                                   | 71B4                                                                                | 5233      |

# 0,37 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 16,0          | 142,0      | 1,5  | 88,30  | HW030+NMRV-P063                                                                    | 71B4                                                                                | 5368      |
| 15,0          | 167,0      | 1,4  | 95,00  | HW030+NMRV-P063                                                                    | 71B4                                                                                | 5500      |
| 13,0          | 190,0      | 1,3  | 109,10 | HW030+NMRV-P063                                                                    | 71B4                                                                                | 5759      |
| 12,0          | 213,0      | 1,2  | 118,10 | HW030+NMRV-P063                                                                    | 71B4                                                                                | 5914      |
| 10,0          | 227,0      | 1,0  | 136,40 | HW030+NMRV-P063                                                                    | 71B4                                                                                | 6204      |
| 10,0          | 218,0      | 1,2  | 142,50 | HW030+NMRV-P063                                                                    | 71B4                                                                                | 6270      |
| 9,0           | 269,0      | 1,0  | 157,50 | HW030+NMRV-P063                                                                    | 71B4                                                                                | 6270      |
| 9,0           | 248,0      | 1,1  | 163,60 | HW030+NMRV-P063                                                                    | 71B4                                                                                | 6270      |
| 8,0           | 232,0      | 0,8  | 176,70 | HW030+NMRV-P063                                                                    | 71B4                                                                                | 6270      |
| 7,0           | 321,0      | 0,8  | 196,90 | HW030+NMRV-P063                                                                    | 71B4                                                                                | 6270      |
| 6,0           | 305,0      | 0,8  | 218,20 | HW030+NMRV-P063                                                                    | 71B4                                                                                | 6270      |
| 6,0           | 351,0      | 0,8  | 236,30 | HW030+NMRV-P063                                                                    | 71B4                                                                                | 6270      |
| 41,0          | 71,0       | 3,0  | 22,10  | HW030+NMRV-P063                                                                    | 71C6/80A6                                                                           | 3918      |
| 31,0          | 92,0       | 2,5  | 29,00  | HW030+NMRV-P063                                                                    | 71C6/80A6                                                                           | 4291      |
| 23,0          | 117,0      | 2,0  | 38,70  | HW030+NMRV-P063                                                                    | 71C6/80A6                                                                           | 4722      |
| 20,0          | 127,0      | 1,8  | 44,20  | HW030+NMRV-P063                                                                    | 71C6/80A6                                                                           | 4937      |
| 19,0          | 143,0      | 1,7  | 47,50  | HW030+NMRV-P063                                                                    | 71C6/80A6                                                                           | 5058      |
| 16,0          | 164,0      | 1,6  | 58,00  | HW030+NMRV-P063                                                                    | 71C6/80A6                                                                           | 5406      |
| 13,0          | 201,0      | 1,4  | 71,30  | HW030+NMRV-P063                                                                    | 71C6/80A6                                                                           | 5790      |
| 12,0          | 208,0      | 1,2  | 77,30  | HW030+NMRV-P063                                                                    | 71C6/80A6                                                                           | 5950      |
| 11,0          | 229,0      | 1,2  | 81,80  | HW030+NMRV-P063                                                                    | 71C6/80A6                                                                           | 6063      |
| 10,0          | 211,0      | 1,2  | 88,30  | HW030+NMRV-P063                                                                    | 71C6/80A6                                                                           | 6220      |
| 9,0           | 253,0      | 1,1  | 95,00  | HW030+NMRV-P063                                                                    | 71C6/80A6                                                                           | 6270      |
| 8,0           | 289,0      | 1,0  | 109,10 | HW030+NMRV-P063                                                                    | 71C6/80A6                                                                           | 6270      |
| 8,0           | 328,0      | 0,8  | 118,10 | HW030+NMRV-P063                                                                    | 71C6/80A6                                                                           | 6270      |
| 7,0           | 345,0      | 0,7  | 136,40 | HW030+NMRV-P063                                                                    | 71C6/80A6                                                                           | 6270      |
| 6,0           | 330,0      | 0,9  | 142,50 | HW030+NMRV-P063                                                                    | 71C6/80A6                                                                           | 6270      |
| 6,0           | 411,0      | 0,7  | 157,50 | HW030+NMRV-P063                                                                    | 71C6/80A6                                                                           | 6270      |
| 6,0           | 377,0      | 0,8  | 163,60 | HW030+NMRV-P063                                                                    | 71C6/80A6                                                                           | 6270      |
| 29,0          | 94,0       | 3,4  | 47,50  | HW030+NMRV-P075                                                                    | 71B4                                                                                | 5152      |
| 24,0          | 111,0      | 3,1  | 58,00  | HW030+NMRV-P075                                                                    | 71B4                                                                                | 5507      |
| 20,0          | 135,0      | 2,8  | 71,30  | HW030+NMRV-P075                                                                    | 71B4                                                                                | 5898      |
| 18,0          | 141,0      | 2,6  | 77,30  | HW030+NMRV-P075                                                                    | 71B4                                                                                | 6061      |
| 17,0          | 154,0      | 2,5  | 81,80  | HW030+NMRV-P075                                                                    | 71B4                                                                                | 6176      |
| 16,0          | 148,0      | 2,3  | 88,30  | HW030+NMRV-P075                                                                    | 71B4                                                                                | 6336      |
| 15,0          | 171,0      | 2,4  | 95,00  | HW030+NMRV-P075                                                                    | 71B4                                                                                | 6491      |
| 13,0          | 195,0      | 2,2  | 109,10 | HW030+NMRV-P075                                                                    | 71B4                                                                                | 6798      |
| 12,0          | 190,0      | 2,0  | 116,00 | HW030+NMRV-P075                                                                    | 71B4                                                                                | 6938      |
| 10,0          | 234,0      | 1,5  | 136,40 | HW030+NMRV-P075                                                                    | 71B4                                                                                | 7323      |
| 10,0          | 229,0      | 1,8  | 142,50 | HW030+NMRV-P075                                                                    | 71B4                                                                                | 7380      |
| 9,0           | 234,0      | 1,6  | 154,70 | HW030+NMRV-P075                                                                    | 71B4                                                                                | 7380      |
| 9,0           | 260,0      | 1,6  | 163,60 | HW030+NMRV-P075                                                                    | 71B4                                                                                | 7380      |
| 8,0           | 245,0      | 1,3  | 176,70 | HW030+NMRV-P075                                                                    | 71B4                                                                                | 7380      |
| 7,0           | 331,0      | 1,2  | 196,90 | HW030+NMRV-P075                                                                    | 71B4                                                                                | 7380      |
| 6,0           | 320,0      | 1,3  | 218,20 | HW030+NMRV-P075                                                                    | 71B4                                                                                | 7380      |
| 6,0           | 368,0      | 1,3  | 236,30 | HW030+NMRV-P075                                                                    | 71B4                                                                                | 7380      |
| 5,0           | 368,0      | 1,0  | 272,70 | HW030+NMRV-P075                                                                    | 71B4                                                                                | 7380      |
| 4,4           | 452,0      | 1,0  | 315,00 | HW030+NMRV-P075                                                                    | 71B4                                                                                | 7380      |
| 3,6           | 516,0      | 0,8  | 393,80 | HW030+NMRV-P075                                                                    | 71B4                                                                                | 7380      |
| 31,0          | 92,0       | 3,1  | 29,00  | HW030+NMRV-P075                                                                    | 71C6/80A6                                                                           | 5064      |
| 23,0          | 118,0      | 2,8  | 38,70  | HW030+NMRV-P075                                                                    | 71C6/80A6                                                                           | 5574      |
| 20,0          | 130,0      | 2,0  | 44,20  | HW030+NMRV-P075                                                                    | 71C6/80A6                                                                           | 5827      |
| 19,0          | 145,0      | 2,4  | 47,50  | HW030+NMRV-P075                                                                    | 71C6/80A6                                                                           | 5970      |
| 16,0          | 169,0      | 1,7  | 58,00  | HW030+NMRV-P075                                                                    | 71C6/80A6                                                                           | 6381      |
| 13,0          | 206,0      | 1,5  | 71,30  | HW030+NMRV-P075                                                                    | 71C6/80A6                                                                           | 6834      |
| 12,0          | 214,0      | 2,0  | 77,30  | HW030+NMRV-P075                                                                    | 71C6/80A6                                                                           | 7023      |
| 11,0          | 235,0      | 1,4  | 81,80  | HW030+NMRV-P075                                                                    | 71C6/80A6                                                                           | 7156      |
| 10,0          | 221,0      | 1,8  | 88,30  | HW030+NMRV-P075                                                                    | 71C6/80A6                                                                           | 7341      |

## 0,37 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 9,0           | 260,0      | 1,8  | 95,00  | HW030+NMRV-P075                                                                   | 71C6/80A6                                                                           | 7380      |
| 8,0           | 297,0      | 1,6  | 109,10 | HW030+NMRV-P075                                                                   | 71C6/80A6                                                                           | 7380      |
| 8,0           | 285,0      | 1,5  | 116,00 | HW030+NMRV-P075                                                                   | 71C6/80A6                                                                           | 7380      |
| 7,0           | 355,0      | 1,2  | 136,40 | HW030+NMRV-P075                                                                   | 71C6/80A6                                                                           | 7380      |
| 6,0           | 347,0      | 1,4  | 142,50 | HW030+NMRV-P075                                                                   | 71C6/80A6                                                                           | 7380      |
| 6,0           | 351,0      | 1,2  | 154,70 | HW030+NMRV-P075                                                                   | 71C6/80A6                                                                           | 7380      |
| 6,0           | 395,0      | 1,2  | 163,60 | HW030+NMRV-P075                                                                   | 71C6/80A6                                                                           | 7380      |
| 5,0           | 358,0      | 1,0  | 176,70 | HW030+NMRV-P075                                                                   | 71C6/80A6                                                                           | 7380      |
| 4,6           | 507,0      | 0,8  | 196,90 | HW030+NMRV-P075                                                                   | 71C6/80A6                                                                           | 7380      |
| 4,1           | 486,0      | 0,9  | 218,20 | HW030+NMRV-P075                                                                   | 71C6/80A6                                                                           | 7380      |
| 3,8           | 563,0      | 0,8  | 236,30 | HW030+NMRV-P075                                                                   | 71C6/80A6                                                                           | 7380      |
| 3,3           | 554,0      | 0,7  | 272,70 | HW030+NMRV-P075                                                                   | 71C6/80A6                                                                           | 7380      |
| 13,0          | 204,0      | 3,2  | 110,00 | HW040+NMRV-P090                                                                   | 71B4                                                                                | 7542      |
| 11,0          | 214,0      | 3,1  | 126,00 | HW040+NMRV-P090                                                                   | 71B4                                                                                | 7892      |
| 10,0          | 245,0      | 2,6  | 137,50 | HW040+NMRV-P090                                                                   | 71B4                                                                                | 8125      |
| 9,0           | 240,0      | 2,1  | 155,30 | HW040+NMRV-P090                                                                   | 71B4                                                                                | 8180      |
| 8,0           | 274,0      | 2,6  | 165,00 | HW040+NMRV-P090                                                                   | 71B4                                                                                | 8180      |
| 8,0           | 269,0      | 1,7  | 186,30 | HW040+NMRV-P090                                                                   | 71B4                                                                                | 8180      |
| 6,0           | 339,0      | 2,0  | 220,00 | HW040+NMRV-P090                                                                   | 71B4                                                                                | 8180      |
| 6,0           | 350,0      | 1,4  | 252,00 | HW040+NMRV-P090                                                                   | 71B4                                                                                | 8180      |
| 5,0           | 398,0      | 1,5  | 275,00 | HW040+NMRV-P090                                                                   | 71B4                                                                                | 8180      |
| 4,6           | 437,0      | 1,3  | 304,50 | HW040+NMRV-P090                                                                   | 71B4                                                                                | 8180      |
| 4,2           | 445,0      | 1,2  | 330,00 | HW040+NMRV-P090                                                                   | 71B4                                                                                | 8180      |
| 3,7           | 541,0      | 1,2  | 383,30 | HW040+NMRV-P090                                                                   | 71B4                                                                                | 8180      |
| 3,2           | 613,0      | 1,0  | 437,50 | HW040+NMRV-P090                                                                   | 71B4                                                                                | 8180      |
| 3,0           | 604,0      | 0,9  | 460,00 | HW040+NMRV-P090                                                                   | 71B4                                                                                | 8180      |
| 2,7           | 684,0      | 0,8  | 525,00 | HW040+NMRV-P090                                                                   | 71B4                                                                                | 8180      |
| 2,1           | 934,0      | 0,7  | 437,50 | HW040+NMRV-P090                                                                   | 71C6                                                                                | 8180      |
| 12,0          | 217,0      | 2,8  | 77,60  | HW040+NMRV-P090                                                                   | 71C6/80A6                                                                           | 7781      |
| 11,0          | 241,0      | 2,8  | 84,00  | HW040+NMRV-P090                                                                   | 71C6/80A6                                                                           | 7988      |
| 10,0          | 243,0      | 2,9  | 93,20  | HW040+NMRV-P090                                                                   | 71C6/80A6                                                                           | 8180      |
| 8,0           | 312,0      | 2,4  | 110,00 | HW040+NMRV-P090                                                                   | 71C6/80A6                                                                           | 8180      |
| 7,0           | 323,0      | 2,4  | 126,00 | HW040+NMRV-P090                                                                   | 71C6/80A6                                                                           | 8180      |
| 7,0           | 375,0      | 1,9  | 137,50 | HW040+NMRV-P090                                                                   | 71C6/80A6                                                                           | 8180      |
| 6,0           | 354,0      | 1,7  | 155,30 | HW040+NMRV-P090                                                                   | 71C6/80A6                                                                           | 8180      |
| 5,0           | 417,0      | 2,0  | 165,00 | HW040+NMRV-P090                                                                   | 71C6/80A6                                                                           | 8180      |
| 4,8           | 396,0      | 1,3  | 186,30 | HW040+NMRV-P090                                                                   | 71C6/80A6                                                                           | 8180      |
| 4,1           | 515,0      | 1,5  | 220,00 | HW040+NMRV-P090                                                                   | 71C6/80A6                                                                           | 8180      |
| 3,6           | 521,0      | 1,0  | 252,00 | HW040+NMRV-P090                                                                   | 71C6/80A6                                                                           | 8180      |
| 3,3           | 600,0      | 1,1  | 275,00 | HW040+NMRV-P090                                                                   | 71C6/80A6                                                                           | 8180      |
| 3,0           | 661,0      | 1,0  | 304,50 | HW040+NMRV-P090                                                                   | 71C6/80A6                                                                           | 8180      |
| 2,7           | 670,0      | 0,8  | 330,00 | HW040+NMRV-P090                                                                   | 71C6/80A6                                                                           | 8180      |
| 2,3           | 823,0      | 0,8  | 383,30 | HW040+NMRV-P090                                                                   | 71C6/80A6                                                                           | 8180      |
| 8,0           | 288,0      | 2,8  | 186,30 | HW040+NMRV-P110                                                                   | 71B4                                                                                | 10320     |
| 6,0           | 356,0      | 3,3  | 220,00 | HW040+NMRV-P110                                                                   | 71B4                                                                                | 10320     |
| 6,0           | 374,0      | 2,4  | 252,00 | HW040+NMRV-P110                                                                   | 71B4                                                                                | 10320     |
| 5,0           | 424,0      | 2,5  | 275,00 | HW040+NMRV-P110                                                                   | 71B4                                                                                | 10320     |
| 4,6           | 466,0      | 2,1  | 304,50 | HW040+NMRV-P110                                                                   | 71B4                                                                                | 10320     |
| 4,2           | 478,0      | 2,0  | 330,00 | HW040+NMRV-P110                                                                   | 71B4                                                                                | 10320     |
| 3,7           | 579,0      | 1,7  | 383,30 | HW040+NMRV-P110                                                                   | 71B4                                                                                | 10320     |
| 3,2           | 581,0      | 1,3  | 440,00 | HW040+NMRV-P110                                                                   | 71B4                                                                                | 10320     |
| 3,0           | 650,0      | 1,5  | 460,00 | HW040+NMRV-P110                                                                   | 71B4                                                                                | 10320     |
| 2,7           | 736,0      | 1,3  | 525,00 | HW040+NMRV-P110                                                                   | 71B4                                                                                | 10320     |
| 2,3           | 792,0      | 1,0  | 613,30 | HW040+NMRV-P110                                                                   | 71B4                                                                                | 10320     |
| 2,0           | 897,0      | 0,9  | 700,00 | HW040+NMRV-P110                                                                   | 71B4                                                                                | 10320     |
| 1,8           | 895,0      | 0,7  | 766,70 | HW040+NMRV-P110                                                                   | 71B4                                                                                | 10320     |
| 1,7           | 1121,0     | 0,8  | 525,00 | HW040+NMRV-P110                                                                   | 71C6                                                                                | 10320     |
| 7,0           | 390,0      | 2,5  | 137,50 | HW040+NMRV-P110                                                                   | 71C6/80A6                                                                           | 10320     |

# 0,37 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i       |  |  | Fr<br>[N] |
|---------------|------------|------|---------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 6,0           | 376,0      | 2,8  | 155,30  | HW040+NMRV-P110                                                                    | 71C6/80A6                                                                           | 10320     |
| 5,0           | 418,0      | 2,9  | 168,00  | HW040+NMRV-P110                                                                    | 71C6/80A6                                                                           | 10320     |
| 4,8           | 424,0      | 2,2  | 186,30  | HW040+NMRV-P110                                                                    | 71C6/80A6                                                                           | 10320     |
| 4,1           | 539,0      | 2,4  | 220,00  | HW040+NMRV-P110                                                                    | 71C6/80A6                                                                           | 10320     |
| 3,6           | 560,0      | 1,7  | 252,00  | HW040+NMRV-P110                                                                    | 71C6/80A6                                                                           | 10320     |
| 3,3           | 643,0      | 1,8  | 275,00  | HW040+NMRV-P110                                                                    | 71C6/80A6                                                                           | 10320     |
| 3,0           | 709,0      | 1,6  | 304,50  | HW040+NMRV-P110                                                                    | 71C6/80A6                                                                           | 10320     |
| 2,7           | 720,0      | 1,4  | 330,00  | HW040+NMRV-P110                                                                    | 71C6/80A6                                                                           | 10320     |
| 2,3           | 885,0      | 1,1  | 383,30  | HW040+NMRV-P110                                                                    | 71C6/80A6                                                                           | 10320     |
| 2,0           | 878,0      | 0,9  | 440,00  | HW040+NMRV-P110                                                                    | 71C6/80A6                                                                           | 10320     |
| 2,0           | 988,0      | 1,0  | 460,00  | HW040+NMRV-P110                                                                    | 71C6/80A6                                                                           | 10320     |
| 1,5           | 1206,0     | 0,7  | 613,30  | HW040+NMRV-P110                                                                    | 71C6/80A6                                                                           | 10320     |
| 14,0          | 169,0      | 0,8  | 100,00  | NMRV040/050                                                                        | 71B4                                                                                | 3800      |
| 14,0          | 169,0      | 1,5  | 100,00  | NMRV-P040/063                                                                      | 71B4                                                                                | 4967      |
| 9,0           | 238,0      | 1,1  | 150,00  | NMRV-P040/063                                                                      | 71B4                                                                                | 5686      |
| 7,0           | 300,0      | 0,8  | 200,00  | NMRV-P040/063                                                                      | 71B4                                                                                | 6259      |
| 14,0          | 172,0      | 2,1  | 100,00  | NMRV-P040/075                                                                      | 71B4                                                                                | 5863      |
| 9,0           | 245,0      | 1,7  | 150,00  | NMRV-P040/075                                                                      | 71B4                                                                                | 6712      |
| 7,0           | 309,0      | 1,4  | 200,00  | NMRV-P040/075                                                                      | 71B4                                                                                | 7380      |
| 6,0           | 370,0      | 1,0  | 250,00  | NMRV-P040/075                                                                      | 71B4                                                                                | 7380      |
| 4,7           | 412,0      | 1,1  | 300,00  | NMRV-P040/075                                                                      | 71B4                                                                                | 7380      |
| 3,5           | 506,0      | 0,8  | 400,00  | NMRV-P040/075                                                                      | 71B4                                                                                | 7380      |
| 14,0          | 176,0      | 2,1  | 100,00  | NMRV-P040/090                                                                      | 71B4                                                                                | 6487      |
| 9,0           | 251,0      | 2,1  | 150,00  | NMRV-P040/090                                                                      | 71B4                                                                                | 7426      |
| 7,0           | 322,0      | 1,9  | 200,00  | NMRV-P040/090                                                                      | 71B4                                                                                | 8174      |
| 6,0           | 386,0      | 1,5  | 250,00  | NMRV-P040/090                                                                      | 71B4                                                                                | 8180      |
| 4,7           | 431,0      | 1,6  | 300,00  | NMRV-P040/090                                                                      | 71B4                                                                                | 8180      |
| 3,5           | 532,0      | 1,1  | 400,00  | NMRV-P040/090                                                                      | 71B4                                                                                | 8180      |
| 2,8           | 622,0      | 0,9  | 500,00  | NMRV-P040/090                                                                      | 71B4                                                                                | 8180      |
| 2,3           | 802,0      | 0,9  | 600,00  | NMRV-P040/090                                                                      | 71B4                                                                                | 8180      |
| 1,9           | 964,0      | 0,7  | 750,00  | NMRV-P040/090                                                                      | 71B4                                                                                | 8180      |
| 14,0          | 180,0      | 3,3  | 100,00  | NMRV-P050/090                                                                      | 71B4                                                                                | 6487      |
| 9,0           | 257,0      | 2,6  | 150,00  | NMRV-P050/090                                                                      | 71B4                                                                                | 7426      |
| 7,0           | 329,0      | 1,9  | 200,00  | NMRV-P050/090                                                                      | 71B4                                                                                | 8174      |
| 6,0           | 395,0      | 1,4  | 250,00  | NMRV-P050/090                                                                      | 71B4                                                                                | 8180      |
| 4,7           | 441,0      | 1,6  | 300,00  | NMRV-P050/090                                                                      | 71B4                                                                                | 8180      |
| 3,5           | 545,0      | 1,1  | 400,00  | NMRV-P050/090                                                                      | 71B4                                                                                | 8180      |
| 2,8           | 727,0      | 0,8  | 500,00  | NMRV-P050/090                                                                      | 71B4                                                                                | 8180      |
| 2,3           | 812,0      | 0,9  | 600,00  | NMRV-P050/090                                                                      | 71B4                                                                                | 8180      |
| 1,9           | 977,0      | 0,7  | 750,00  | NMRV-P050/090                                                                      | 71B4                                                                                | 8180      |
| 7,0           | 338,0      | 3,4  | 200,00  | NMRV-P050/110                                                                      | 71B4                                                                                | 10320     |
| 6,0           | 412,0      | 2,8  | 250,00  | NMRV-P050/110                                                                      | 71B4                                                                                | 10320     |
| 4,7           | 441,0      | 2,9  | 300,00  | NMRV-P050/110                                                                      | 71B4                                                                                | 10320     |
| 3,5           | 571,0      | 2,1  | 400,00  | NMRV-P050/110                                                                      | 71B4                                                                                | 10320     |
| 2,8           | 757,0      | 1,5  | 500,00  | NMRV-P050/110                                                                      | 71B4                                                                                | 10320     |
| 2,3           | 812,0      | 1,6  | 600,00  | NMRV-P050/110                                                                      | 71B4                                                                                | 10320     |
| 1,9           | 977,0      | 1,3  | 750,00  | NMRV-P050/110                                                                      | 71B4                                                                                | 10320     |
| 1,6           | 1111,0     | 1,1  | 900,00  | NMRV-P050/110                                                                      | 71B4                                                                                | 10320     |
| 1,2           | 1380,0     | 0,9  | 1200,00 | NMRV-P050/110                                                                      | 71B4                                                                                | 10320     |
| 0,9           | 1623,0     | 0,8  | 1500,00 | NMRV-P050/110                                                                      | 71B4                                                                                | 10320     |
| 7,0           | 338,0      | 3,4  | 200,00  | NMRV-P063/110                                                                      | 71B4                                                                                | 10320     |
| 6,0           | 412,0      | 2,8  | 250,00  | NMRV-P063/110                                                                      | 71B4                                                                                | 10320     |
| 4,7           | 441,0      | 2,9  | 300,00  | NMRV-P063/110                                                                      | 71B4                                                                                | 10320     |
| 3,5           | 571,0      | 2,1  | 400,00  | NMRV-P063/110                                                                      | 71B4                                                                                | 10320     |
| 2,8           | 776,0      | 1,5  | 500,00  | NMRV-P063/110                                                                      | 71B4                                                                                | 10320     |
| 2,3           | 832,0      | 1,5  | 600,00  | NMRV-P063/110                                                                      | 71B4                                                                                | 10320     |
| 1,9           | 1002,0     | 1,3  | 750,00  | NMRV-P063/110                                                                      | 71B4                                                                                | 10320     |
| 1,6           | 1141,0     | 1,1  | 900,00  | NMRV-P063/110                                                                      | 71B4                                                                                | 10320     |

## 0,37 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i       |  |  | Fr<br>[N] |
|---------------|------------|------|---------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 1,2           | 1441,0     | 0,9  | 1200,00 | NMRV-P063/110                                                                     | 71B4                                                                                | 10320     |
| 0,9           | 1699,0     | 0,7  | 1500,00 | NMRV-P063/110                                                                     | 71B4                                                                                | 10320     |
| 3,5           | 571,0      | 2,9  | 400,00  | NMRV-P063/130                                                                     | 71B4                                                                                | 13500     |
| 2,8           | 681,0      | 2,3  | 500,00  | NMRV-P063/130                                                                     | 71B4                                                                                | 13500     |
| 2,3           | 844,0      | 2,1  | 600,00  | NMRV-P063/130                                                                     | 71B4                                                                                | 13500     |
| 1,9           | 1017,0     | 1,7  | 750,00  | NMRV-P063/130                                                                     | 71B4                                                                                | 13500     |
| 1,6           | 1158,0     | 1,5  | 900,00  | NMRV-P063/130                                                                     | 71B4                                                                                | 13500     |
| 1,2           | 1462,0     | 1,2  | 1200,00 | NMRV-P063/130                                                                     | 71B4                                                                                | 13500     |
| 0,9           | 1725,0     | 1,0  | 1500,00 | NMRV-P063/130                                                                     | 71B4                                                                                | 13500     |
| 0,8           | 1946,0     | 0,9  | 1800,00 | NMRV-P063/130                                                                     | 71B4                                                                                | 13500     |
| 2,8           | 681,0      | 3,4  | 500,00  | NMRV-P063/150                                                                     | 71B4                                                                                | 18000     |
| 2,3           | 840,0      | 3,2  | 600,00  | NMRV-P063/150                                                                     | 71B4                                                                                | 18000     |
| 1,9           | 986,0      | 2,4  | 750,00  | NMRV-P063/150                                                                     | 71B4                                                                                | 18000     |
| 1,6           | 1244,0     | 1,7  | 900,00  | NMRV-P063/150                                                                     | 71B4                                                                                | 18000     |
| 1,2           | 1499,0     | 1,8  | 1200,00 | NMRV-P063/150                                                                     | 71B4                                                                                | 18000     |
| 0,9           | 1760,0     | 1,3  | 1500,00 | NMRV-P063/150                                                                     | 71B4                                                                                | 18000     |
| 0,8           | 2089,0     | 1,0  | 1800,00 | NMRV-P063/150                                                                     | 71B4                                                                                | 18000     |
| 0,6           | 2519,0     | 1,1  | 2400,00 | NMRV-P063/150                                                                     | 71B4                                                                                | 18000     |
| 0,5           | 2958,0     | 0,8  | 3000,00 | NMRV-P063/150                                                                     | 71B4                                                                                | 18000     |

## 0,55 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i     |  |  | Fr<br>[N] |
|---------------|------------|------|-------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------|
| 560,0         | 8,0        | 2,8  | 5,00  | NMRV040                                                                             | 71B2                                                                                  | 912       |
| 373,0         | 13,0       | 2,2  | 7,50  | NMRV040                                                                             | 71B2                                                                                  | 1044      |
| 280,0         | 17,0       | 1,8  | 10,00 | NMRV040                                                                             | 71B2                                                                                  | 1149      |
| 187,0         | 24,0       | 1,3  | 15,00 | NMRV040                                                                             | 71B2                                                                                  | 1315      |
| 140,0         | 31,0       | 0,9  | 20,00 | NMRV040                                                                             | 71B2                                                                                  | 1447      |
| 112,0         | 38,0       | 0,7  | 25,00 | NMRV040                                                                             | 71B2                                                                                  | 1559      |
| 93,0          | 43,0       | 0,8  | 30,00 | NMRV040                                                                             | 71B2                                                                                  | 1657      |
| 280,0         | 17,0       | 2,2  | 5,00  | NMRV040                                                                             | 71C4                                                                                  | 1149      |
| 187,0         | 24,0       | 1,7  | 7,50  | NMRV040                                                                             | 71C4                                                                                  | 1315      |
| 140,0         | 32,0       | 1,4  | 10,00 | NMRV040                                                                             | 71C4                                                                                  | 1447      |
| 93,0          | 47,0       | 0,9  | 15,00 | NMRV040                                                                             | 71C4                                                                                  | 1657      |
| 70,0          | 59,0       | 0,7  | 20,00 | NMRV040                                                                             | 71C4                                                                                  | 1824      |
| 280,0         | 17,0       | 3,2  | 10,00 | NMRV050                                                                             | 71B2                                                                                  | 1577      |
| 187,0         | 24,0       | 2,4  | 15,00 | NMRV050                                                                             | 71B2                                                                                  | 1805      |
| 140,0         | 31,0       | 1,7  | 20,00 | NMRV050                                                                             | 71B2                                                                                  | 1987      |
| 112,0         | 38,0       | 1,3  | 25,00 | NMRV050                                                                             | 71B2                                                                                  | 2140      |
| 93,0          | 43,0       | 1,5  | 30,00 | NMRV050                                                                             | 71B2                                                                                  | 2274      |
| 70,0          | 56,0       | 1,1  | 40,00 | NMRV050                                                                             | 71B2                                                                                  | 2503      |
| 56,0          | 66,0       | 0,8  | 50,00 | NMRV050                                                                             | 71B2                                                                                  | 2696      |
| 35,0          | 102,0      | 0,8  | 40,00 | NMRV050                                                                             | 71C4                                                                                  | 3153      |
| 187,0         | 25,0       | 3,1  | 7,50  | NMRV050                                                                             | 71C4/80A4                                                                             | 1805      |
| 140,0         | 33,0       | 2,4  | 10,00 | NMRV050                                                                             | 71C4/80A4                                                                             | 1987      |
| 93,0          | 47,0       | 1,7  | 15,00 | NMRV050                                                                             | 71C4/80A4                                                                             | 2274      |
| 70,0          | 60,0       | 1,3  | 20,00 | NMRV050                                                                             | 71C4/80A4                                                                             | 2503      |
| 56,0          | 72,0       | 1,0  | 25,00 | NMRV050                                                                             | 71C4/80A4                                                                             | 2696      |
| 47,0          | 82,0       | 1,1  | 30,00 | NMRV050                                                                             | 71C4/80A4                                                                             | 2865      |
| 180,0         | 26,0       | 3,2  | 5,00  | NMRV050                                                                             | 80B6                                                                                  | 1827      |
| 120,0         | 38,0       | 2,4  | 7,50  | NMRV050                                                                             | 80B6                                                                                  | 2091      |
| 90,0          | 50,0       | 1,9  | 10,00 | NMRV050                                                                             | 80B6                                                                                  | 2302      |
| 60,0          | 70,0       | 1,3  | 15,00 | NMRV050                                                                             | 80B6                                                                                  | 2635      |
| 45,0          | 90,0       | 0,9  | 20,00 | NMRV050                                                                             | 80B6                                                                                  | 2900      |
| 36,0          | 108,0      | 0,7  | 25,00 | NMRV050                                                                             | 80B6                                                                                  | 3124      |
| 30,0          | 121,0      | 0,8  | 30,00 | NMRV050                                                                             | 80B6                                                                                  | 3320      |

# 0,55 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 140,0         | 32,0       | 3,3  | 20,00  | NMRV-P063                                                                          | 71B2                                                                                | 2597      |
| 112,0         | 39,0       | 2,5  | 25,00  | NMRV-P063                                                                          | 71B2                                                                                | 2797      |
| 93,0          | 44,0       | 2,7  | 30,00  | NMRV-P063                                                                          | 71B2                                                                                | 2973      |
| 70,0          | 57,0       | 2,0  | 40,00  | NMRV-P063                                                                          | 71B2                                                                                | 3272      |
| 56,0          | 68,0       | 1,5  | 50,00  | NMRV-P063                                                                          | 71B2                                                                                | 3524      |
| 47,0          | 78,0       | 1,3  | 60,00  | NMRV-P063                                                                          | 71B2                                                                                | 3745      |
| 35,0          | 97,0       | 0,9  | 80,00  | NMRV-P063                                                                          | 71B2                                                                                | 4122      |
| 28,0          | 111,0      | 0,7  | 100,00 | NMRV-P063                                                                          | 71B2                                                                                | 4440      |
| 93,0          | 47,0       | 3,2  | 15,00  | NMRV-P063                                                                          | 71C4/80A4                                                                           | 2973      |
| 70,0          | 62,0       | 2,4  | 20,00  | NMRV-P063                                                                          | 71C4/80A4                                                                           | 3272      |
| 56,0          | 74,0       | 1,8  | 25,00  | NMRV-P063                                                                          | 71C4/80A4                                                                           | 3524      |
| 47,0          | 84,0       | 1,9  | 30,00  | NMRV-P063                                                                          | 71C4/80A4                                                                           | 3745      |
| 35,0          | 107,0      | 1,4  | 40,00  | NMRV-P063                                                                          | 71C4/80A4                                                                           | 4122      |
| 28,0          | 126,0      | 1,1  | 50,00  | NMRV-P063                                                                          | 71C4/80A4                                                                           | 4440      |
| 23,0          | 142,0      | 0,9  | 60,00  | NMRV-P063                                                                          | 71C4/80A4                                                                           | 4719      |
| 18,0          | 174,0      | 0,7  | 80,00  | NMRV-P063                                                                          | 71C4/80A4                                                                           | 5193      |
| 90,0          | 50,0       | 3,1  | 10,00  | NMRV-P063                                                                          | 80B6                                                                                | 3009      |
| 60,0          | 72,0       | 2,4  | 15,00  | NMRV-P063                                                                          | 80B6                                                                                | 3444      |
| 45,0          | 91,0       | 1,8  | 20,00  | NMRV-P063                                                                          | 80B6                                                                                | 3791      |
| 36,0          | 111,0      | 1,3  | 25,00  | NMRV-P063                                                                          | 80B6                                                                                | 4084      |
| 30,0          | 124,0      | 1,4  | 30,00  | NMRV-P063                                                                          | 80B6                                                                                | 4339      |
| 23,0          | 154,0      | 1,1  | 40,00  | NMRV-P063                                                                          | 80B6                                                                                | 4776      |
| 18,0          | 181,0      | 0,9  | 50,00  | NMRV-P063                                                                          | 80B6                                                                                | 5145      |
| 15,0          | 207,0      | 0,7  | 60,00  | NMRV-P063                                                                          | 80B6                                                                                | 5467      |
| 70,0          | 59,0       | 3,1  | 40,00  | NMRV-P075                                                                          | 71B2                                                                                | 3862      |
| 56,0          | 70,0       | 2,3  | 50,00  | NMRV-P075                                                                          | 71B2                                                                                | 4160      |
| 47,0          | 81,0       | 2,0  | 60,00  | NMRV-P075                                                                          | 71B2                                                                                | 4421      |
| 35,0          | 101,0      | 1,4  | 80,00  | NMRV-P075                                                                          | 71B2                                                                                | 4865      |
| 28,0          | 116,0      | 1,1  | 100,00 | NMRV-P075                                                                          | 71B2                                                                                | 5241      |
| 56,0          | 76,0       | 2,8  | 25,00  | NMRV-P075                                                                          | 71C4/80A4                                                                           | 4160      |
| 47,0          | 87,0       | 2,9  | 30,00  | NMRV-P075                                                                          | 71C4/80A4                                                                           | 4421      |
| 35,0          | 110,0      | 2,2  | 40,00  | NMRV-P075                                                                          | 71C4/80A4                                                                           | 4865      |
| 28,0          | 131,0      | 1,7  | 50,00  | NMRV-P075                                                                          | 71C4/80A4                                                                           | 5241      |
| 23,0          | 149,0      | 1,4  | 60,00  | NMRV-P075                                                                          | 71C4/80A4                                                                           | 5569      |
| 18,0          | 183,0      | 1,1  | 80,00  | NMRV-P075                                                                          | 71C4/80A4                                                                           | 6130      |
| 14,0          | 210,0      | 0,9  | 100,00 | NMRV-P075                                                                          | 71C4/80A4                                                                           | 6603      |
| 45,0          | 93,0       | 2,9  | 20,00  | NMRV-P075                                                                          | 80B6                                                                                | 4474      |
| 36,0          | 114,0      | 2,1  | 25,00  | NMRV-P075                                                                          | 80B6                                                                                | 4820      |
| 30,0          | 130,0      | 2,2  | 30,00  | NMRV-P075                                                                          | 80B6                                                                                | 5122      |
| 23,0          | 161,0      | 1,7  | 40,00  | NMRV-P075                                                                          | 80B6                                                                                | 5637      |
| 18,0          | 187,0      | 1,4  | 50,00  | NMRV-P075                                                                          | 80B6                                                                                | 6073      |
| 15,0          | 217,0      | 1,1  | 60,00  | NMRV-P075                                                                          | 80B6                                                                                | 6453      |
| 11,0          | 262,0      | 0,8  | 80,00  | NMRV-P075                                                                          | 80B6                                                                                | 7103      |
| 35,0          | 114,0      | 3,5  | 40,00  | NMRV-P090                                                                          | 80A4                                                                                | 5383      |
| 28,0          | 137,0      | 2,7  | 50,00  | NMRV-P090                                                                          | 80A4                                                                                | 5799      |
| 23,0          | 158,0      | 2,2  | 60,00  | NMRV-P090                                                                          | 80A4                                                                                | 6163      |
| 18,0          | 192,0      | 1,5  | 80,00  | NMRV-P090                                                                          | 80A4                                                                                | 6783      |
| 14,0          | 225,0      | 1,2  | 100,00 | NMRV-P090                                                                          | 80A4                                                                                | 7306      |
| 36,0          | 117,0      | 3,5  | 25,00  | NMRV-P090                                                                          | 80B6                                                                                | 5333      |
| 23,0          | 168,0      | 2,7  | 40,00  | NMRV-P090                                                                          | 80B6                                                                                | 6238      |
| 18,0          | 201,0      | 2,1  | 50,00  | NMRV-P090                                                                          | 80B6                                                                                | 6719      |
| 15,0          | 228,0      | 1,7  | 60,00  | NMRV-P090                                                                          | 80B6                                                                                | 7140      |
| 11,0          | 280,0      | 1,1  | 80,00  | NMRV-P090                                                                          | 80B6                                                                                | 7859      |
| 9,0           | 321,0      | 0,9  | 100,00 | NMRV-P090                                                                          | 80B6                                                                                | 8180      |
| 18,0          | 204,0      | 2,5  | 80,00  | NMRV-P110                                                                          | 80A4                                                                                | 8571      |
| 14,0          | 240,0      | 2,0  | 100,00 | NMRV-P110                                                                          | 80A4                                                                                | 9232      |
| 15,0          | 242,0      | 2,8  | 60,00  | NMRV-P110                                                                          | 80B6                                                                                | 9023      |
| 11,0          | 299,0      | 1,9  | 80,00  | NMRV-P110                                                                          | 80B6                                                                                | 9931      |

## 0,55 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 9,0           | 344,0      | 1,5  | 100,00 | NMRV-P110                                                                         | 80B6                                                                                | 10320     |
| 55,0          | 78,0       | 0,8  | 25,50  | HA31+NMRV040                                                                      | 71C4                                                                                | 1977      |
| 44,0          | 95,0       | 0,7  | 31,50  | HA31+NMRV040                                                                      | 71C4                                                                                | 2122      |
| 63,0          | 67,0       | 0,9  | 22,10  | HA31+NMRV040                                                                      | 71C4/80A4                                                                           | 1885      |
| 59,0          | 73,0       | 0,9  | 23,80  | HA31+NMRV040                                                                      | 71C4/80A4                                                                           | 1931      |
| 55,0          | 78,0       | 1,0  | 25,50  | HA31+NMRV050                                                                      | 71C4                                                                                | 2714      |
| 44,0          | 95,0       | 0,8  | 31,50  | HA31+NMRV050                                                                      | 71C4                                                                                | 2912      |
| 34,0          | 121,0      | 0,9  | 40,90  | HA31+NMRV050                                                                      | 71C4                                                                                | 3177      |
| 26,0          | 158,0      | 0,8  | 54,50  | HA31+NMRV050                                                                      | 71C4                                                                                | 3497      |
| 22,0          | 182,0      | 0,7  | 63,00  | HA31+NMRV050                                                                      | 71C4                                                                                | 3669      |
| 63,0          | 67,0       | 1,5  | 22,10  | HA31+NMRV050                                                                      | 71C4/80A4                                                                           | 2587      |
| 59,0          | 73,0       | 1,0  | 23,80  | HA31+NMRV050                                                                      | 71C4/80A4                                                                           | 2650      |
| 48,0          | 88,0       | 1,3  | 29,40  | HA31+NMRV050                                                                      | 71C4/80A4                                                                           | 2847      |
| 39,0          | 106,0      | 1,0  | 35,60  | HA31+NMRV050                                                                      | 71C4/80A4                                                                           | 3034      |
| 32,0          | 123,0      | 0,9  | 44,20  | HA31+NMRV050                                                                      | 71C4/80A4                                                                           | 3259      |
| 29,0          | 138,0      | 0,9  | 47,50  | HA31+NMRV050                                                                      | 71C4/80A4                                                                           | 3339      |
| 41,0          | 103,0      | 1,0  | 22,10  | HA31+NMRV050                                                                      | 80B6                                                                                | 2997      |
| 31,0          | 134,0      | 1,0  | 29,40  | HA31+NMRV050                                                                      | 80B6                                                                                | 3299      |
| 63,0          | 69,0       | 2,7  | 22,10  | HW030+NMRV-P063                                                                   | 71C4/80A4                                                                           | 3382      |
| 48,0          | 89,0       | 2,3  | 29,00  | HW030+NMRV-P063                                                                   | 71C4/80A4                                                                           | 3703      |
| 36,0          | 113,0      | 1,8  | 38,70  | HW030+NMRV-P063                                                                   | 71C4/80A4                                                                           | 4076      |
| 32,0          | 125,0      | 1,6  | 44,20  | HW030+NMRV-P063                                                                   | 71C4/80A4                                                                           | 4260      |
| 29,0          | 138,0      | 1,5  | 47,50  | HW030+NMRV-P063                                                                   | 71C4/80A4                                                                           | 4365      |
| 24,0          | 161,0      | 1,4  | 58,00  | HW030+NMRV-P063                                                                   | 71C4/80A4                                                                           | 4666      |
| 20,0          | 195,0      | 1,2  | 71,30  | HW030+NMRV-P063                                                                   | 71C4/80A4                                                                           | 4997      |
| 18,0          | 205,0      | 1,1  | 77,30  | HW030+NMRV-P063                                                                   | 71C4/80A4                                                                           | 5135      |
| 17,0          | 223,0      | 1,1  | 81,80  | HW030+NMRV-P063                                                                   | 71C4/80A4                                                                           | 5233      |
| 16,0          | 211,0      | 1,0  | 88,30  | HW030+NMRV-P063                                                                   | 71C4/80A4                                                                           | 5368      |
| 15,0          | 248,0      | 1,0  | 95,00  | HW030+NMRV-P063                                                                   | 71C4/80A4                                                                           | 5500      |
| 13,0          | 282,0      | 0,9  | 109,10 | HW030+NMRV-P063                                                                   | 71C4/80A4                                                                           | 5759      |
| 12,0          | 317,0      | 0,8  | 118,10 | HW030+NMRV-P063                                                                   | 71C4/80A4                                                                           | 5914      |
| 10,0          | 325,0      | 0,8  | 142,50 | HW030+NMRV-P063                                                                   | 71C4/80A4                                                                           | 6270      |
| 9,0           | 369,0      | 0,7  | 163,60 | HW030+NMRV-P063                                                                   | 71C4/80A4                                                                           | 6270      |
| 41,0          | 105,0      | 2,0  | 22,10  | HW030+NMRV-P063                                                                   | 80B6                                                                                | 3918      |
| 31,0          | 137,0      | 1,7  | 29,00  | HW030+NMRV-P063                                                                   | 80B6                                                                                | 4291      |
| 23,0          | 174,0      | 1,3  | 38,70  | HW030+NMRV-P063                                                                   | 80B6                                                                                | 4722      |
| 20,0          | 189,0      | 1,2  | 44,20  | HW030+NMRV-P063                                                                   | 80B6                                                                                | 4937      |
| 19,0          | 212,0      | 1,2  | 47,50  | HW030+NMRV-P063                                                                   | 80B6                                                                                | 5058      |
| 16,0          | 245,0      | 1,0  | 58,00  | HW030+NMRV-P063                                                                   | 80B6                                                                                | 5406      |
| 13,0          | 298,0      | 0,9  | 71,30  | HW030+NMRV-P063                                                                   | 80B6                                                                                | 5790      |
| 12,0          | 309,0      | 0,8  | 77,30  | HW030+NMRV-P063                                                                   | 80B6                                                                                | 5950      |
| 11,0          | 341,0      | 0,8  | 81,80  | HW030+NMRV-P063                                                                   | 80B6                                                                                | 6063      |
| 10,0          | 314,0      | 0,8  | 88,30  | HW030+NMRV-P063                                                                   | 80B6                                                                                | 6220      |
| 9,0           | 376,0      | 0,7  | 95,00  | HW030+NMRV-P063                                                                   | 80B6                                                                                | 6270      |
| 48,0          | 89,0       | 3,2  | 29,00  | HW030+NMRV-P075                                                                   | 71C4/80A4                                                                           | 4371      |
| 36,0          | 115,0      | 2,6  | 38,70  | HW030+NMRV-P075                                                                   | 71C4/80A4                                                                           | 4811      |
| 32,0          | 128,0      | 2,5  | 44,20  | HW030+NMRV-P075                                                                   | 71C4/80A4                                                                           | 5029      |
| 29,0          | 140,0      | 2,3  | 47,50  | HW030+NMRV-P075                                                                   | 71C4/80A4                                                                           | 5152      |
| 24,0          | 165,0      | 2,1  | 58,00  | HW030+NMRV-P075                                                                   | 71C4/80A4                                                                           | 5507      |
| 20,0          | 200,0      | 1,9  | 71,30  | HW030+NMRV-P075                                                                   | 71C4/80A4                                                                           | 5898      |
| 18,0          | 210,0      | 1,8  | 77,30  | HW030+NMRV-P075                                                                   | 71C4/80A4                                                                           | 6061      |
| 17,0          | 229,0      | 1,7  | 81,80  | HW030+NMRV-P075                                                                   | 71C4/80A4                                                                           | 6176      |
| 16,0          | 221,0      | 1,6  | 88,30  | HW030+NMRV-P075                                                                   | 71C4/80A4                                                                           | 6336      |
| 15,0          | 254,0      | 1,6  | 95,00  | HW030+NMRV-P075                                                                   | 71C4/80A4                                                                           | 6491      |
| 13,0          | 290,0      | 1,5  | 109,10 | HW030+NMRV-P075                                                                   | 71C4/80A4                                                                           | 6798      |
| 12,0          | 282,0      | 1,3  | 116,00 | HW030+NMRV-P075                                                                   | 71C4/80A4                                                                           | 6938      |
| 10,0          | 347,0      | 1,0  | 136,40 | HW030+NMRV-P075                                                                   | 71C4/80A4                                                                           | 7323      |
| 10,0          | 340,0      | 1,2  | 142,50 | HW030+NMRV-P075                                                                   | 71C4/80A4                                                                           | 7380      |



## 0,55 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 9,0           | 347,0      | 1,1  | 154,70 | HW030+NMRV-P075                                                                    | 71C4/80A4                                                                           | 7380      |
| 9,0           | 387,0      | 1,1  | 163,60 | HW030+NMRV-P075                                                                    | 71C4/80A4                                                                           | 7380      |
| 8,0           | 363,0      | 0,8  | 176,70 | HW030+NMRV-P075                                                                    | 71C4/80A4                                                                           | 7380      |
| 7,0           | 492,0      | 0,8  | 196,90 | HW030+NMRV-P075                                                                    | 71C4/80A4                                                                           | 7380      |
| 6,0           | 476,0      | 0,9  | 218,20 | HW030+NMRV-P075                                                                    | 71C4/80A4                                                                           | 7380      |
| 6,0           | 547,0      | 0,9  | 236,30 | HW030+NMRV-P075                                                                    | 71C4/80A4                                                                           | 7380      |
| 41,0          | 105,0      | 2,7  | 22,10  | HW030+NMRV-P075                                                                    | 80B6                                                                                | 4625      |
| 31,0          | 137,0      | 2,1  | 29,00  | HW030+NMRV-P075                                                                    | 80B6                                                                                | 5064      |
| 23,0          | 176,0      | 1,9  | 38,70  | HW030+NMRV-P075                                                                    | 80B6                                                                                | 5574      |
| 20,0          | 194,0      | 1,4  | 44,20  | HW030+NMRV-P075                                                                    | 80B6                                                                                | 5827      |
| 19,0          | 215,0      | 1,6  | 47,50  | HW030+NMRV-P075                                                                    | 80B6                                                                                | 5970      |
| 16,0          | 251,0      | 1,1  | 58,00  | HW030+NMRV-P075                                                                    | 80B6                                                                                | 6381      |
| 13,0          | 306,0      | 1,0  | 71,30  | HW030+NMRV-P075                                                                    | 80B6                                                                                | 6834      |
| 12,0          | 318,0      | 1,4  | 77,30  | HW030+NMRV-P075                                                                    | 80B6                                                                                | 7023      |
| 11,0          | 350,0      | 0,9  | 81,80  | HW030+NMRV-P075                                                                    | 80B6                                                                                | 7156      |
| 10,0          | 329,0      | 1,2  | 88,30  | HW030+NMRV-P075                                                                    | 80B6                                                                                | 7341      |
| 9,0           | 386,0      | 1,2  | 95,00  | HW030+NMRV-P075                                                                    | 80B6                                                                                | 7380      |
| 8,0           | 441,0      | 1,1  | 109,10 | HW030+NMRV-P075                                                                    | 80B6                                                                                | 7380      |
| 8,0           | 424,0      | 1,0  | 116,00 | HW030+NMRV-P075                                                                    | 80B6                                                                                | 7380      |
| 7,0           | 528,0      | 0,8  | 136,40 | HW030+NMRV-P075                                                                    | 80B6                                                                                | 7380      |
| 6,0           | 515,0      | 0,9  | 142,50 | HW030+NMRV-P075                                                                    | 80B6                                                                                | 7380      |
| 6,0           | 522,0      | 0,8  | 154,70 | HW030+NMRV-P075                                                                    | 80B6                                                                                | 7380      |
| 6,0           | 588,0      | 0,8  | 163,60 | HW030+NMRV-P075                                                                    | 80B6                                                                                | 7380      |
| 3,2           | 911,0      | 0,7  | 437,50 | HW040+NMRV-P090                                                                    | 71C4                                                                                | 8180      |
| 22,0          | 183,0      | 3,4  | 63,00  | HW040+NMRV-P090                                                                    | 71C4/80A4                                                                           | 6264      |
| 18,0          | 213,0      | 2,4  | 77,60  | HW040+NMRV-P090                                                                    | 71C4/80A4                                                                           | 6715      |
| 17,0          | 235,0      | 2,5  | 84,00  | HW040+NMRV-P090                                                                    | 71C4/80A4                                                                           | 6894      |
| 15,0          | 241,0      | 2,5  | 93,20  | HW040+NMRV-P090                                                                    | 71C4/80A4                                                                           | 7136      |
| 13,0          | 303,0      | 2,1  | 110,00 | HW040+NMRV-P090                                                                    | 71C4/80A4                                                                           | 7542      |
| 11,0          | 318,0      | 2,1  | 126,00 | HW040+NMRV-P090                                                                    | 71C4/80A4                                                                           | 7892      |
| 10,0          | 364,0      | 1,7  | 137,50 | HW040+NMRV-P090                                                                    | 71C4/80A4                                                                           | 8125      |
| 9,0           | 356,0      | 1,4  | 155,30 | HW040+NMRV-P090                                                                    | 71C4/80A4                                                                           | 8180      |
| 8,0           | 408,0      | 1,8  | 165,00 | HW040+NMRV-P090                                                                    | 71C4/80A4                                                                           | 8180      |
| 8,0           | 400,0      | 1,1  | 186,30 | HW040+NMRV-P090                                                                    | 71C4/80A4                                                                           | 8180      |
| 6,0           | 504,0      | 1,3  | 220,00 | HW040+NMRV-P090                                                                    | 71C4/80A4                                                                           | 8180      |
| 6,0           | 520,0      | 1,0  | 252,00 | HW040+NMRV-P090                                                                    | 71C4/80A4                                                                           | 8180      |
| 5,0           | 592,0      | 1,0  | 275,00 | HW040+NMRV-P090                                                                    | 71C4/80A4                                                                           | 8180      |
| 4,6           | 650,0      | 0,8  | 304,50 | HW040+NMRV-P090                                                                    | 71C4/80A4                                                                           | 8180      |
| 4,2           | 662,0      | 0,8  | 330,00 | HW040+NMRV-P090                                                                    | 71C4/80A4                                                                           | 8180      |
| 3,7           | 805,0      | 0,8  | 383,30 | HW040+NMRV-P090                                                                    | 71C4/80A4                                                                           | 8180      |
| 21,0          | 195,0      | 2,6  | 42,00  | HW040+NMRV-P090                                                                    | 80B6                                                                                | 6340      |
| 19,0          | 209,0      | 3,1  | 46,60  | HW040+NMRV-P090                                                                    | 80B6                                                                                | 6562      |
| 14,0          | 279,0      | 2,6  | 63,00  | HW040+NMRV-P090                                                                    | 80B6                                                                                | 7257      |
| 12,0          | 322,0      | 1,9  | 77,60  | HW040+NMRV-P090                                                                    | 80B6                                                                                | 7781      |
| 11,0          | 358,0      | 1,9  | 84,00  | HW040+NMRV-P090                                                                    | 80B6                                                                                | 7988      |
| 10,0          | 361,0      | 1,9  | 93,20  | HW040+NMRV-P090                                                                    | 80B6                                                                                | 8180      |
| 8,0           | 464,0      | 1,6  | 110,00 | HW040+NMRV-P090                                                                    | 80B6                                                                                | 8180      |
| 7,0           | 480,0      | 1,6  | 126,00 | HW040+NMRV-P090                                                                    | 80B6                                                                                | 8180      |
| 7,0           | 557,0      | 1,3  | 137,50 | HW040+NMRV-P090                                                                    | 80B6                                                                                | 8180      |
| 6,0           | 526,0      | 1,1  | 155,30 | HW040+NMRV-P090                                                                    | 80B6                                                                                | 8180      |
| 5,0           | 620,0      | 1,4  | 165,00 | HW040+NMRV-P090                                                                    | 80B6                                                                                | 8180      |
| 4,8           | 589,0      | 0,9  | 186,30 | HW040+NMRV-P090                                                                    | 80B6                                                                                | 8180      |
| 4,1           | 765,0      | 1,0  | 220,00 | HW040+NMRV-P090                                                                    | 80B6                                                                                | 8180      |
| 3,3           | 892,0      | 0,7  | 275,00 | HW040+NMRV-P090                                                                    | 80B6                                                                                | 8180      |
| 2,7           | 1093,0     | 0,8  | 525,00 | HW040+NMRV-P110                                                                    | 71C4                                                                                | 10320     |
| 10,0          | 379,0      | 2,5  | 137,50 | HW040+NMRV-P110                                                                    | 71C4/80A4                                                                           | 10266     |
| 9,0           | 374,0      | 2,5  | 155,30 | HW040+NMRV-P110                                                                    | 71C4/80A4                                                                           | 10320     |
| 8,0           | 414,0      | 2,6  | 168,00 | HW040+NMRV-P110                                                                    | 71C4/80A4                                                                           | 10320     |

## 0,55 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 8,0           | 427,0      | 1,9  | 186,30 | HW040+NMRV-P110                                                                   | 71C4/80A4                                                                           | 10320     |
| 6,0           | 529,0      | 2,2  | 220,00 | HW040+NMRV-P110                                                                   | 71C4/80A4                                                                           | 10320     |
| 6,0           | 557,0      | 1,6  | 252,00 | HW040+NMRV-P110                                                                   | 71C4/80A4                                                                           | 10320     |
| 5,0           | 630,0      | 1,7  | 275,00 | HW040+NMRV-P110                                                                   | 71C4/80A4                                                                           | 10320     |
| 4,6           | 693,0      | 1,4  | 304,50 | HW040+NMRV-P110                                                                   | 71C4/80A4                                                                           | 10320     |
| 4,2           | 710,0      | 1,3  | 330,00 | HW040+NMRV-P110                                                                   | 71C4/80A4                                                                           | 10320     |
| 3,7           | 861,0      | 1,1  | 383,30 | HW040+NMRV-P110                                                                   | 71C4/80A4                                                                           | 10320     |
| 3,2           | 864,0      | 0,9  | 440,00 | HW040+NMRV-P110                                                                   | 71C4/80A4                                                                           | 10320     |
| 3,0           | 966,0      | 1,0  | 460,00 | HW040+NMRV-P110                                                                   | 71C4/80A4                                                                           | 10320     |
| 21,0          | 195,0      | 2,6  | 42,00  | HW040+NMRV-P110                                                                   | 80B6                                                                                | 8011      |
| 12,0          | 335,0      | 3,5  | 77,60  | HW040+NMRV-P110                                                                   | 80B6                                                                                | 9832      |
| 11,0          | 367,0      | 2,6  | 84,00  | HW040+NMRV-P110                                                                   | 80B6                                                                                | 10093     |
| 10,0          | 363,0      | 3,4  | 93,20  | HW040+NMRV-P110                                                                   | 80B6                                                                                | 10320     |
| 9,0           | 447,0      | 2,6  | 105,00 | HW040+NMRV-P110                                                                   | 80B6                                                                                | 10320     |
| 7,0           | 480,0      | 2,6  | 126,00 | HW040+NMRV-P110                                                                   | 80B6                                                                                | 10320     |
| 7,0           | 580,0      | 1,7  | 137,50 | HW040+NMRV-P110                                                                   | 80B6                                                                                | 10320     |
| 6,0           | 558,0      | 1,9  | 155,30 | HW040+NMRV-P110                                                                   | 80B6                                                                                | 10320     |
| 5,0           | 621,0      | 2,0  | 168,00 | HW040+NMRV-P110                                                                   | 80B6                                                                                | 10320     |
| 4,8           | 631,0      | 1,5  | 186,30 | HW040+NMRV-P110                                                                   | 80B6                                                                                | 10320     |
| 4,1           | 801,0      | 1,6  | 220,00 | HW040+NMRV-P110                                                                   | 80B6                                                                                | 10320     |
| 3,6           | 832,0      | 1,2  | 252,00 | HW040+NMRV-P110                                                                   | 80B6                                                                                | 10320     |
| 3,3           | 956,0      | 1,2  | 275,00 | HW040+NMRV-P110                                                                   | 80B6                                                                                | 10320     |
| 3,0           | 1054,0     | 1,1  | 304,50 | HW040+NMRV-P110                                                                   | 80B6                                                                                | 10320     |
| 2,7           | 1070,0     | 0,9  | 330,00 | HW040+NMRV-P110                                                                   | 80B6                                                                                | 10320     |
| 2,3           | 1316,0     | 0,8  | 383,30 | HW040+NMRV-P110                                                                   | 80B6                                                                                | 10320     |
| 2,0           | 1468,0     | 0,7  | 460,00 | HW040+NMRV-P110                                                                   | 80B6                                                                                | 10320     |
| 14,0          | 252,0      | 1,0  | 100,00 | NMRV-P040/063                                                                     | 71C4                                                                                | 4967      |
| 9,0           | 354,0      | 0,7  | 150,00 | NMRV-P040/063                                                                     | 71C4                                                                                | 5686      |
| 14,0          | 255,0      | 1,4  | 100,00 | NMRV-P040/075                                                                     | 71C4                                                                                | 5863      |
| 9,0           | 364,0      | 1,2  | 150,00 | NMRV-P040/075                                                                     | 71C4                                                                                | 6712      |
| 7,0           | 459,0      | 0,9  | 200,00 | NMRV-P040/075                                                                     | 71C4                                                                                | 7380      |
| 4,7           | 612,0      | 0,7  | 300,00 | NMRV-P040/075                                                                     | 71C4                                                                                | 7380      |
| 14,0          | 261,0      | 1,4  | 100,00 | NMRV-P040/090                                                                     | 71C4                                                                                | 6487      |
| 9,0           | 373,0      | 1,4  | 150,00 | NMRV-P040/090                                                                     | 71C4                                                                                | 7426      |
| 7,0           | 478,0      | 1,3  | 200,00 | NMRV-P040/090                                                                     | 71C4                                                                                | 8174      |
| 6,0           | 574,0      | 1,0  | 250,00 | NMRV-P040/090                                                                     | 71C4                                                                                | 8180      |
| 4,7           | 641,0      | 1,1  | 300,00 | NMRV-P040/090                                                                     | 71C4                                                                                | 8180      |
| 3,5           | 791,0      | 0,8  | 400,00 | NMRV-P040/090                                                                     | 71C4                                                                                | 8180      |
| 14,0          | 268,0      | 2,2  | 100,00 | NMRV-P050/090                                                                     | 71C4/80A4                                                                           | 6487      |
| 9,0           | 382,0      | 1,7  | 150,00 | NMRV-P050/090                                                                     | 71C4/80A4                                                                           | 7426      |
| 7,0           | 490,0      | 1,2  | 200,00 | NMRV-P050/090                                                                     | 71C4/80A4                                                                           | 8174      |
| 6,0           | 588,0      | 1,0  | 250,00 | NMRV-P050/090                                                                     | 71C4/80A4                                                                           | 8180      |
| 4,7           | 656,0      | 1,1  | 300,00 | NMRV-P050/090                                                                     | 71C4/80A4                                                                           | 8180      |
| 3,5           | 809,0      | 0,8  | 400,00 | NMRV-P050/090                                                                     | 71C4/80A4                                                                           | 8180      |
| 14,0          | 268,0      | 2,4  | 100,00 | NMRV-P050/110                                                                     | 71C4/80A4                                                                           | 8198      |
| 9,0           | 387,0      | 2,4  | 150,00 | NMRV-P050/110                                                                     | 71C4/80A4                                                                           | 9384      |
| 7,0           | 503,0      | 2,3  | 200,00 | NMRV-P050/110                                                                     | 71C4/80A4                                                                           | 10320     |
| 6,0           | 612,0      | 1,9  | 250,00 | NMRV-P050/110                                                                     | 71C4/80A4                                                                           | 10320     |
| 4,7           | 656,0      | 1,9  | 300,00 | NMRV-P050/110                                                                     | 71C4/80A4                                                                           | 10320     |
| 3,5           | 849,0      | 1,4  | 400,00 | NMRV-P050/110                                                                     | 71C4/80A4                                                                           | 10320     |
| 2,8           | 1126,0     | 1,0  | 500,00 | NMRV-P050/110                                                                     | 71C4/80A4                                                                           | 10320     |
| 2,3           | 1207,0     | 1,0  | 600,00 | NMRV-P050/110                                                                     | 71C4/80A4                                                                           | 10320     |
| 1,9           | 1452,0     | 0,9  | 750,00 | NMRV-P050/110                                                                     | 71C4/80A4                                                                           | 10320     |
| 1,6           | 1651,0     | 0,8  | 900,00 | NMRV-P050/110                                                                     | 71C4/80A4                                                                           | 10320     |
| 9,0           | 387,0      | 3,1  | 150,00 | NMRV-P063/110                                                                     | 71C4/80A4                                                                           | 9384      |
| 7,0           | 503,0      | 2,3  | 200,00 | NMRV-P063/110                                                                     | 71C4/80A4                                                                           | 10320     |
| 6,0           | 612,0      | 1,9  | 250,00 | NMRV-P063/110                                                                     | 71C4/80A4                                                                           | 10320     |
| 4,7           | 656,0      | 1,9  | 300,00 | NMRV-P063/110                                                                     | 71C4/80A4                                                                           | 10320     |

## 0,55 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i       |  |  | Fr<br>[N] |
|---------------|------------|------|---------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 3,5           | 849,0      | 1,4  | 400,00  | NMRV-P063/110                                                                      | 71C4/80A4                                                                           | 10320     |
| 2,8           | 1154,0     | 1,0  | 500,00  | NMRV-P063/110                                                                      | 71C4/80A4                                                                           | 10320     |
| 2,3           | 1237,0     | 1,0  | 600,00  | NMRV-P063/110                                                                      | 71C4/80A4                                                                           | 10320     |
| 1,9           | 1489,0     | 0,8  | 750,00  | NMRV-P063/110                                                                      | 71C4/80A4                                                                           | 10320     |
| 1,6           | 1697,0     | 0,7  | 900,00  | NMRV-P063/110                                                                      | 71C4/80A4                                                                           | 10320     |
| 7,0           | 503,0      | 3,2  | 200,00  | NMRV-P063/130                                                                      | 71C4/80A4                                                                           | 13500     |
| 6,0           | 612,0      | 2,5  | 250,00  | NMRV-P063/130                                                                      | 71C4/80A4                                                                           | 13500     |
| 4,7           | 666,0      | 2,6  | 300,00  | NMRV-P063/130                                                                      | 71C4/80A4                                                                           | 13500     |
| 3,5           | 849,0      | 1,9  | 400,00  | NMRV-P063/130                                                                      | 71C4/80A4                                                                           | 13500     |
| 2,8           | 1012,0     | 1,5  | 500,00  | NMRV-P063/130                                                                      | 71C4/80A4                                                                           | 13500     |
| 2,3           | 1255,0     | 1,4  | 600,00  | NMRV-P063/130                                                                      | 71C4/80A4                                                                           | 13500     |
| 1,9           | 1512,0     | 1,2  | 750,00  | NMRV-P063/130                                                                      | 71C4/80A4                                                                           | 13500     |
| 1,6           | 1722,0     | 1,0  | 900,00  | NMRV-P063/130                                                                      | 71C4/80A4                                                                           | 13500     |
| 1,2           | 2174,0     | 0,8  | 1200,00 | NMRV-P063/130                                                                      | 71C4/80A4                                                                           | 13500     |
| 6,0           | 612,0      | 3,3  | 250,00  | NMRV-P063/150                                                                      | 71C4/80A4                                                                           | 18000     |
| 4,7           | 728,0      | 3,2  | 300,00  | NMRV-P063/150                                                                      | 71C4/80A4                                                                           | 18000     |
| 3,5           | 862,0      | 3,1  | 400,00  | NMRV-P063/150                                                                      | 71C4/80A4                                                                           | 18000     |
| 2,8           | 1012,0     | 2,3  | 500,00  | NMRV-P063/150                                                                      | 71C4/80A4                                                                           | 18000     |
| 2,3           | 1248,0     | 2,1  | 600,00  | NMRV-P063/150                                                                      | 71C4/80A4                                                                           | 18000     |
| 1,9           | 1465,0     | 1,6  | 750,00  | NMRV-P063/150                                                                      | 71C4/80A4                                                                           | 18000     |
| 1,6           | 1849,0     | 1,1  | 900,00  | NMRV-P063/150                                                                      | 71C4/80A4                                                                           | 18000     |
| 1,2           | 2229,0     | 1,2  | 1200,00 | NMRV-P063/150                                                                      | 71C4/80A4                                                                           | 18000     |
| 0,9           | 2617,0     | 0,9  | 1500,00 | NMRV-P063/150                                                                      | 71C4/80A4                                                                           | 18000     |
| 0,6           | 3744,0     | 0,7  | 2400,00 | NMRV-P063/150                                                                      | 71C4/80A4                                                                           | 18000     |

## 0,75 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i     |  |  | Fr<br>[N] |
|---------------|------------|------|-------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------|
| 560,0         | 12,0       | 2,1  | 5,00  | NMRV040                                                                              | 71C2                                                                                  | 912       |
| 373,0         | 17,0       | 1,6  | 7,50  | NMRV040                                                                              | 71C2                                                                                  | 1044      |
| 280,0         | 23,0       | 1,3  | 10,00 | NMRV040                                                                              | 71C2                                                                                  | 1149      |
| 187,0         | 33,0       | 1,0  | 15,00 | NMRV040                                                                              | 71C2                                                                                  | 1315      |
| 70,0          | 76,0       | 0,8  | 40,00 | NMRV050                                                                              | 71C2                                                                                  | 2503      |
| 373,0         | 17,0       | 3,0  | 7,50  | NMRV050                                                                              | 71C2/80A2                                                                             | 1433      |
| 280,0         | 23,0       | 2,4  | 10,00 | NMRV050                                                                              | 71C2/80A2                                                                             | 1577      |
| 187,0         | 33,0       | 1,7  | 15,00 | NMRV050                                                                              | 71C2/80A2                                                                             | 1805      |
| 140,0         | 42,0       | 1,2  | 20,00 | NMRV050                                                                              | 71C2/80A2                                                                             | 1987      |
| 112,0         | 52,0       | 1,0  | 25,00 | NMRV050                                                                              | 71C2/80A2                                                                             | 2140      |
| 93,0          | 59,0       | 1,1  | 30,00 | NMRV050                                                                              | 71C2/80A2                                                                             | 2274      |
| 280,0         | 23,0       | 3,0  | 5,00  | NMRV050                                                                              | 80B4                                                                                  | 1577      |
| 187,0         | 34,0       | 2,3  | 7,50  | NMRV050                                                                              | 80B4                                                                                  | 1805      |
| 140,0         | 45,0       | 1,8  | 10,00 | NMRV050                                                                              | 80B4                                                                                  | 1987      |
| 93,0          | 64,0       | 1,3  | 15,00 | NMRV050                                                                              | 80B4                                                                                  | 2274      |
| 70,0          | 82,0       | 1,0  | 20,00 | NMRV050                                                                              | 80B4                                                                                  | 2503      |
| 56,0          | 99,0       | 0,7  | 25,00 | NMRV050                                                                              | 80B4                                                                                  | 2696      |
| 47,0          | 112,0      | 0,8  | 30,00 | NMRV050                                                                              | 80B4                                                                                  | 2865      |
| 180,0         | 35,0       | 2,3  | 5,00  | NMRV050                                                                              | 80C6                                                                                  | 1827      |
| 120,0         | 51,0       | 1,8  | 7,50  | NMRV050                                                                              | 80C6                                                                                  | 2091      |
| 90,0          | 68,0       | 1,4  | 10,00 | NMRV050                                                                              | 80C6                                                                                  | 2302      |
| 60,0          | 96,0       | 1,0  | 15,00 | NMRV050                                                                              | 80C6                                                                                  | 2635      |
| 187,0         | 33,0       | 3,3  | 15,00 | NMRV-P063                                                                            | 71C2/80A2                                                                             | 2359      |
| 140,0         | 44,0       | 2,4  | 20,00 | NMRV-P063                                                                            | 71C2/80A2                                                                             | 2597      |
| 112,0         | 53,0       | 1,8  | 25,00 | NMRV-P063                                                                            | 71C2/80A2                                                                             | 2797      |
| 93,0          | 61,0       | 2,0  | 30,00 | NMRV-P063                                                                            | 71C2/80A2                                                                             | 2973      |
| 70,0          | 78,0       | 1,4  | 40,00 | NMRV-P063                                                                            | 71C2/80A2                                                                             | 3272      |
| 56,0          | 92,0       | 1,1  | 50,00 | NMRV-P063                                                                            | 71C2/80A2                                                                             | 3524      |

## 0,75 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 47,0          | 106,0      | 0,9  | 60,00  | NMRV-P063                                                                         | 71C2/80A2                                                                           | 3745      |
| 140,0         | 45,0       | 3,0  | 10,00  | NMRV-P063                                                                         | 80B4                                                                                | 2597      |
| 93,0          | 64,0       | 2,3  | 15,00  | NMRV-P063                                                                         | 80B4                                                                                | 2973      |
| 70,0          | 84,0       | 1,7  | 20,00  | NMRV-P063                                                                         | 80B4                                                                                | 3272      |
| 56,0          | 101,0      | 1,3  | 25,00  | NMRV-P063                                                                         | 80B4                                                                                | 3524      |
| 47,0          | 115,0      | 1,4  | 30,00  | NMRV-P063                                                                         | 80B4                                                                                | 3745      |
| 35,0          | 145,0      | 1,0  | 40,00  | NMRV-P063                                                                         | 80B4                                                                                | 4122      |
| 28,0          | 171,0      | 0,8  | 50,00  | NMRV-P063                                                                         | 80B4                                                                                | 4440      |
| 120,0         | 53,0       | 2,9  | 7,50   | NMRV-P063                                                                         | 80C6/90S6                                                                           | 2734      |
| 90,0          | 68,0       | 2,3  | 10,00  | NMRV-P063                                                                         | 80C6/90S6                                                                           | 3009      |
| 60,0          | 98,0       | 1,7  | 15,00  | NMRV-P063                                                                         | 80C6/90S6                                                                           | 3444      |
| 45,0          | 124,0      | 1,3  | 20,00  | NMRV-P063                                                                         | 80C6/90S6                                                                           | 3791      |
| 36,0          | 151,0      | 1,0  | 25,00  | NMRV-P063                                                                         | 80C6/90S6                                                                           | 4084      |
| 30,0          | 170,0      | 1,0  | 30,00  | NMRV-P063                                                                         | 80C6/90S6                                                                           | 4339      |
| 23,0          | 210,0      | 0,8  | 40,00  | NMRV-P063                                                                         | 80C6/90S6                                                                           | 4776      |
| 112,0         | 54,0       | 2,9  | 25,00  | NMRV-P075                                                                         | 71C2/80A2                                                                           | 3302      |
| 93,0          | 62,0       | 3,0  | 30,00  | NMRV-P075                                                                         | 71C2/80A2                                                                           | 3509      |
| 70,0          | 80,0       | 2,3  | 40,00  | NMRV-P075                                                                         | 71C2/80A2                                                                           | 3862      |
| 56,0          | 96,0       | 1,7  | 50,00  | NMRV-P075                                                                         | 71C2/80A2                                                                           | 4160      |
| 47,0          | 111,0      | 1,4  | 60,00  | NMRV-P075                                                                         | 71C2/80A2                                                                           | 4421      |
| 35,0          | 137,0      | 1,0  | 80,00  | NMRV-P075                                                                         | 71C2/80A2                                                                           | 4865      |
| 28,0          | 159,0      | 0,8  | 100,00 | NMRV-P075                                                                         | 71C2/80A2                                                                           | 5241      |
| 93,0          | 66,0       | 3,5  | 15,00  | NMRV-P075                                                                         | 80B4                                                                                | 3509      |
| 70,0          | 85,0       | 2,8  | 20,00  | NMRV-P075                                                                         | 80B4                                                                                | 3862      |
| 56,0          | 104,0      | 2,1  | 25,00  | NMRV-P075                                                                         | 80B4                                                                                | 4160      |
| 47,0          | 118,0      | 2,1  | 30,00  | NMRV-P075                                                                         | 80B4                                                                                | 4421      |
| 35,0          | 149,0      | 1,6  | 40,00  | NMRV-P075                                                                         | 80B4                                                                                | 4865      |
| 28,0          | 179,0      | 1,3  | 50,00  | NMRV-P075                                                                         | 80B4                                                                                | 5241      |
| 23,0          | 203,0      | 1,1  | 60,00  | NMRV-P075                                                                         | 80B4                                                                                | 5569      |
| 18,0          | 250,0      | 0,8  | 80,00  | NMRV-P075                                                                         | 80B4                                                                                | 6130      |
| 90,0          | 68,0       | 3,4  | 10,00  | NMRV-P075                                                                         | 80C6/90S6                                                                           | 3551      |
| 60,0          | 99,0       | 2,7  | 15,00  | NMRV-P075                                                                         | 80C6/90S6                                                                           | 4065      |
| 45,0          | 127,0      | 2,1  | 20,00  | NMRV-P075                                                                         | 80C6/90S6                                                                           | 4474      |
| 36,0          | 155,0      | 1,6  | 25,00  | NMRV-P075                                                                         | 80C6/90S6                                                                           | 4820      |
| 30,0          | 177,0      | 1,6  | 30,00  | NMRV-P075                                                                         | 80C6/90S6                                                                           | 5122      |
| 23,0          | 220,0      | 1,3  | 40,00  | NMRV-P075                                                                         | 80C6/90S6                                                                           | 5637      |
| 18,0          | 255,0      | 1,0  | 50,00  | NMRV-P075                                                                         | 80C6/90S6                                                                           | 6073      |
| 15,0          | 296,0      | 0,8  | 60,00  | NMRV-P075                                                                         | 80C6/90S6                                                                           | 6453      |
| 70,0          | 82,0       | 3,4  | 40,00  | NMRV-P090                                                                         | 80A2                                                                                | 4273      |
| 56,0          | 99,0       | 2,7  | 50,00  | NMRV-P090                                                                         | 80A2                                                                                | 4603      |
| 47,0          | 115,0      | 2,1  | 60,00  | NMRV-P090                                                                         | 80A2                                                                                | 4891      |
| 35,0          | 143,0      | 1,6  | 80,00  | NMRV-P090                                                                         | 80A2                                                                                | 5383      |
| 28,0          | 169,0      | 1,2  | 100,00 | NMRV-P090                                                                         | 80A2                                                                                | 5799      |
| 35,0          | 156,0      | 2,5  | 40,00  | NMRV-P090                                                                         | 80B4                                                                                | 5383      |
| 28,0          | 187,0      | 2,0  | 50,00  | NMRV-P090                                                                         | 80B4                                                                                | 5799      |
| 23,0          | 215,0      | 1,6  | 60,00  | NMRV-P090                                                                         | 80B4                                                                                | 6163      |
| 18,0          | 262,0      | 1,1  | 80,00  | NMRV-P090                                                                         | 80B4                                                                                | 6783      |
| 14,0          | 307,0      | 0,9  | 100,00 | NMRV-P090                                                                         | 80B4                                                                                | 7306      |
| 45,0          | 131,0      | 3,3  | 20,00  | NMRV-P090                                                                         | 80C6/90S6                                                                           | 4951      |
| 36,0          | 159,0      | 2,6  | 25,00  | NMRV-P090                                                                         | 80C6/90S6                                                                           | 5333      |
| 30,0          | 182,0      | 2,7  | 30,00  | NMRV-P090                                                                         | 80C6/90S6                                                                           | 5667      |
| 23,0          | 229,0      | 2,0  | 40,00  | NMRV-P090                                                                         | 80C6/90S6                                                                           | 6238      |
| 18,0          | 275,0      | 1,6  | 50,00  | NMRV-P090                                                                         | 80C6/90S6                                                                           | 6719      |
| 15,0          | 311,0      | 1,2  | 60,00  | NMRV-P090                                                                         | 80C6/90S6                                                                           | 7140      |
| 11,0          | 382,0      | 0,8  | 80,00  | NMRV-P090                                                                         | 80C6/90S6                                                                           | 7859      |
| 35,0          | 152,0      | 2,6  | 80,00  | NMRV-P110                                                                         | 80A2                                                                                | 6803      |
| 28,0          | 179,0      | 2,1  | 100,00 | NMRV-P110                                                                         | 80A2                                                                                | 7328      |
| 28,0          | 194,0      | 3,4  | 50,00  | NMRV-P110                                                                         | 80B4                                                                                | 7328      |

# 0,75 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 23,0          | 227,0      | 2,7  | 60,00  | NMRV-P110                                                                          | 80B4                                                                                | 7787      |
| 18,0          | 278,0      | 1,8  | 80,00  | NMRV-P110                                                                          | 80B4                                                                                | 8571      |
| 14,0          | 328,0      | 1,5  | 100,00 | NMRV-P110                                                                          | 80B4                                                                                | 9232      |
| 23,0          | 239,0      | 3,3  | 40,00  | NMRV-P110                                                                          | 80C6/90S6                                                                           | 7882      |
| 18,0          | 287,0      | 2,6  | 50,00  | NMRV-P110                                                                          | 80C6/90S6                                                                           | 8491      |
| 15,0          | 330,0      | 2,1  | 60,00  | NMRV-P110                                                                          | 80C6/90S6                                                                           | 9023      |
| 11,0          | 408,0      | 1,4  | 80,00  | NMRV-P110                                                                          | 80C6/90S6                                                                           | 9931      |
| 9,0           | 470,0      | 1,1  | 100,00 | NMRV-P110                                                                          | 80C6/90S6                                                                           | 10320     |
| 11,0          | 414,0      | 2,1  | 80,00  | NMRV130                                                                            | 90S6                                                                                | 12989     |
| 9,0           | 478,0      | 1,6  | 100,00 | NMRV130                                                                            | 90S6                                                                                | 13500     |
| 63,0          | 92,0       | 1,1  | 22,10  | HA31+NMRV050                                                                       | 80B4                                                                                | 2587      |
| 59,0          | 99,0       | 0,7  | 23,80  | HA31+NMRV050                                                                       | 80B4                                                                                | 2650      |
| 48,0          | 120,0      | 1,0  | 29,40  | HA31+NMRV050                                                                       | 80B4                                                                                | 2847      |
| 39,0          | 145,0      | 0,7  | 35,60  | HA31+NMRV050                                                                       | 80B4                                                                                | 3034      |
| 41,0          | 140,0      | 0,8  | 22,10  | HA31+NMRV050                                                                       | 80C6                                                                                | 2997      |
| 31,0          | 182,0      | 0,7  | 29,40  | HA31+NMRV050                                                                       | 80C6                                                                                | 3299      |
| 63,0          | 94,0       | 2,0  | 22,10  | HW030+NMRV-P063                                                                    | 80B4                                                                                | 3382      |
| 48,0          | 122,0      | 1,7  | 29,00  | HW030+NMRV-P063                                                                    | 80B4                                                                                | 3703      |
| 36,0          | 155,0      | 1,3  | 38,70  | HW030+NMRV-P063                                                                    | 80B4                                                                                | 4076      |
| 32,0          | 170,0      | 1,2  | 44,20  | HW030+NMRV-P063                                                                    | 80B4                                                                                | 4260      |
| 29,0          | 189,0      | 1,1  | 47,50  | HW030+NMRV-P063                                                                    | 80B4                                                                                | 4365      |
| 24,0          | 219,0      | 1,0  | 58,00  | HW030+NMRV-P063                                                                    | 80B4                                                                                | 4666      |
| 20,0          | 266,0      | 0,9  | 71,30  | HW030+NMRV-P063                                                                    | 80B4                                                                                | 4997      |
| 18,0          | 279,0      | 0,8  | 77,30  | HW030+NMRV-P063                                                                    | 80B4                                                                                | 5135      |
| 17,0          | 304,0      | 0,8  | 81,80  | HW030+NMRV-P063                                                                    | 80B4                                                                                | 5233      |
| 16,0          | 288,0      | 0,8  | 88,30  | HW030+NMRV-P063                                                                    | 80B4                                                                                | 5368      |
| 15,0          | 338,0      | 0,7  | 95,00  | HW030+NMRV-P063                                                                    | 80B4                                                                                | 5500      |
| 41,0          | 143,0      | 1,5  | 22,10  | HW030+NMRV-P063                                                                    | 80C6                                                                                | 3918      |
| 31,0          | 187,0      | 1,2  | 29,00  | HW030+NMRV-P063                                                                    | 80C6                                                                                | 4291      |
| 23,0          | 237,0      | 1,0  | 38,70  | HW030+NMRV-P063                                                                    | 80C6                                                                                | 4722      |
| 20,0          | 257,0      | 0,9  | 44,20  | HW030+NMRV-P063                                                                    | 80C6                                                                                | 4937      |
| 19,0          | 289,0      | 0,9  | 47,50  | HW030+NMRV-P063                                                                    | 80C6                                                                                | 5058      |
| 16,0          | 333,0      | 0,8  | 58,00  | HW030+NMRV-P063                                                                    | 80C6                                                                                | 5406      |
| 63,0          | 93,0       | 2,8  | 22,10  | HW030+NMRV-P075                                                                    | 80B4                                                                                | 3991      |
| 48,0          | 121,0      | 2,3  | 29,00  | HW030+NMRV-P075                                                                    | 80B4                                                                                | 4371      |
| 36,0          | 157,0      | 1,9  | 38,70  | HW030+NMRV-P075                                                                    | 80B4                                                                                | 4811      |
| 32,0          | 175,0      | 1,8  | 44,20  | HW030+NMRV-P075                                                                    | 80B4                                                                                | 5029      |
| 29,0          | 191,0      | 1,7  | 47,50  | HW030+NMRV-P075                                                                    | 80B4                                                                                | 5152      |
| 24,0          | 225,0      | 1,5  | 58,00  | HW030+NMRV-P075                                                                    | 80B4                                                                                | 5507      |
| 20,0          | 273,0      | 1,4  | 71,30  | HW030+NMRV-P075                                                                    | 80B4                                                                                | 5898      |
| 18,0          | 287,0      | 1,3  | 77,30  | HW030+NMRV-P075                                                                    | 80B4                                                                                | 6061      |
| 17,0          | 312,0      | 1,3  | 81,80  | HW030+NMRV-P075                                                                    | 80B4                                                                                | 6176      |
| 16,0          | 301,0      | 1,1  | 88,30  | HW030+NMRV-P075                                                                    | 80B4                                                                                | 6336      |
| 15,0          | 347,0      | 1,2  | 95,00  | HW030+NMRV-P075                                                                    | 80B4                                                                                | 6491      |
| 13,0          | 395,0      | 1,1  | 109,10 | HW030+NMRV-P075                                                                    | 80B4                                                                                | 6798      |
| 12,0          | 384,0      | 1,0  | 116,00 | HW030+NMRV-P075                                                                    | 80B4                                                                                | 6938      |
| 10,0          | 474,0      | 0,7  | 136,40 | HW030+NMRV-P075                                                                    | 80B4                                                                                | 7323      |
| 10,0          | 464,0      | 0,9  | 142,50 | HW030+NMRV-P075                                                                    | 80B4                                                                                | 7380      |
| 9,0           | 474,0      | 0,8  | 154,70 | HW030+NMRV-P075                                                                    | 80B4                                                                                | 7380      |
| 9,0           | 528,0      | 0,8  | 163,60 | HW030+NMRV-P075                                                                    | 80B4                                                                                | 7380      |
| 41,0          | 143,0      | 2,0  | 22,10  | HW030+NMRV-P075                                                                    | 80C6                                                                                | 4625      |
| 31,0          | 186,0      | 1,5  | 29,00  | HW030+NMRV-P075                                                                    | 80C6                                                                                | 5064      |
| 23,0          | 240,0      | 1,4  | 38,70  | HW030+NMRV-P075                                                                    | 80C6                                                                                | 5574      |
| 20,0          | 264,0      | 1,0  | 44,20  | HW030+NMRV-P075                                                                    | 80C6                                                                                | 5827      |
| 19,0          | 293,0      | 1,2  | 47,50  | HW030+NMRV-P075                                                                    | 80C6                                                                                | 5970      |
| 16,0          | 342,0      | 0,8  | 58,00  | HW030+NMRV-P075                                                                    | 80C6                                                                                | 6381      |
| 13,0          | 417,0      | 0,7  | 71,30  | HW030+NMRV-P075                                                                    | 80C6                                                                                | 6834      |
| 12,0          | 433,0      | 1,0  | 77,30  | HW030+NMRV-P075                                                                    | 80C6                                                                                | 7023      |

## 0,75 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 10,0          | 449,0      | 0,9  | 88,30  | HW030+NMRV-P075                                                                   | 80C6                                                                                | 7341      |
| 9,0           | 527,0      | 0,9  | 95,00  | HW030+NMRV-P075                                                                   | 80C6                                                                                | 7380      |
| 8,0           | 602,0      | 0,8  | 109,10 | HW030+NMRV-P075                                                                   | 80C6                                                                                | 7380      |
| 8,0           | 578,0      | 0,8  | 116,00 | HW030+NMRV-P075                                                                   | 80C6                                                                                | 7380      |
| 33,0          | 174,0      | 2,8  | 42,00  | HW040+NMRV-P090                                                                   | 80B4                                                                                | 5472      |
| 30,0          | 188,0      | 3,0  | 46,60  | HW040+NMRV-P090                                                                   | 80B4                                                                                | 5664      |
| 22,0          | 250,0      | 2,5  | 63,00  | HW040+NMRV-P090                                                                   | 80B4                                                                                | 6264      |
| 18,0          | 290,0      | 1,8  | 77,60  | HW040+NMRV-P090                                                                   | 80B4                                                                                | 6715      |
| 17,0          | 320,0      | 1,8  | 84,00  | HW040+NMRV-P090                                                                   | 80B4                                                                                | 6894      |
| 15,0          | 329,0      | 1,8  | 93,20  | HW040+NMRV-P090                                                                   | 80B4                                                                                | 7136      |
| 13,0          | 414,0      | 1,6  | 110,00 | HW040+NMRV-P090                                                                   | 80B4                                                                                | 7542      |
| 11,0          | 433,0      | 1,5  | 126,00 | HW040+NMRV-P090                                                                   | 80B4                                                                                | 7892      |
| 10,0          | 496,0      | 1,3  | 137,50 | HW040+NMRV-P090                                                                   | 80B4                                                                                | 8125      |
| 9,0           | 486,0      | 1,1  | 155,30 | HW040+NMRV-P090                                                                   | 80B4                                                                                | 8180      |
| 8,0           | 556,0      | 1,3  | 165,00 | HW040+NMRV-P090                                                                   | 80B4                                                                                | 8180      |
| 8,0           | 546,0      | 0,8  | 186,30 | HW040+NMRV-P090                                                                   | 80B4                                                                                | 8180      |
| 6,0           | 687,0      | 1,0  | 220,00 | HW040+NMRV-P090                                                                   | 80B4                                                                                | 8180      |
| 6,0           | 709,0      | 0,7  | 252,00 | HW040+NMRV-P090                                                                   | 80B4                                                                                | 8180      |
| 5,0           | 807,0      | 0,7  | 275,00 | HW040+NMRV-P090                                                                   | 80B4                                                                                | 8180      |
| 39,0          | 152,0      | 2,8  | 23,30  | HW040+NMRV-P090                                                                   | 80C6/90S6                                                                           | 5209      |
| 29,0          | 199,0      | 2,8  | 31,10  | HW040+NMRV-P090                                                                   | 80C6/90S6                                                                           | 5733      |
| 21,0          | 266,0      | 1,9  | 42,00  | HW040+NMRV-P090                                                                   | 80C6/90S6                                                                           | 6340      |
| 19,0          | 285,0      | 2,3  | 46,60  | HW040+NMRV-P090                                                                   | 80C6/90S6                                                                           | 6562      |
| 14,0          | 380,0      | 1,9  | 63,00  | HW040+NMRV-P090                                                                   | 80C6/90S6                                                                           | 7257      |
| 12,0          | 439,0      | 1,4  | 77,60  | HW040+NMRV-P090                                                                   | 80C6/90S6                                                                           | 7781      |
| 11,0          | 488,0      | 1,4  | 84,00  | HW040+NMRV-P090                                                                   | 80C6/90S6                                                                           | 7988      |
| 10,0          | 493,0      | 1,4  | 93,20  | HW040+NMRV-P090                                                                   | 80C6/90S6                                                                           | 8180      |
| 8,0           | 633,0      | 1,2  | 110,00 | HW040+NMRV-P090                                                                   | 80C6/90S6                                                                           | 8180      |
| 7,0           | 654,0      | 1,2  | 126,00 | HW040+NMRV-P090                                                                   | 80C6/90S6                                                                           | 8180      |
| 7,0           | 759,0      | 0,9  | 137,50 | HW040+NMRV-P090                                                                   | 80C6/90S6                                                                           | 8180      |
| 6,0           | 717,0      | 0,8  | 155,30 | HW040+NMRV-P090                                                                   | 80C6/90S6                                                                           | 8180      |
| 5,0           | 846,0      | 1,0  | 165,00 | HW040+NMRV-P090                                                                   | 80C6/90S6                                                                           | 8180      |
| 4,1           | 1043,0     | 0,7  | 220,00 | HW040+NMRV-P090                                                                   | 80C6/90S6                                                                           | 8180      |
| 33,0          | 174,0      | 2,8  | 42,00  | HW040+NMRV-P110                                                                   | 80B4                                                                                | 6914      |
| 18,0          | 302,0      | 3,2  | 77,60  | HW040+NMRV-P110                                                                   | 80B4                                                                                | 8485      |
| 17,0          | 329,0      | 2,8  | 84,00  | HW040+NMRV-P110                                                                   | 80B4                                                                                | 8711      |
| 15,0          | 333,0      | 3,1  | 93,20  | HW040+NMRV-P110                                                                   | 80B4                                                                                | 9017      |
| 13,0          | 400,0      | 2,8  | 105,00 | HW040+NMRV-P110                                                                   | 80B4                                                                                | 9384      |
| 11,0          | 436,0      | 2,7  | 126,00 | HW040+NMRV-P110                                                                   | 80B4                                                                                | 9972      |
| 10,0          | 517,0      | 1,8  | 137,50 | HW040+NMRV-P110                                                                   | 80B4                                                                                | 10266     |
| 9,0           | 510,0      | 1,8  | 155,30 | HW040+NMRV-P110                                                                   | 80B4                                                                                | 10320     |
| 8,0           | 564,0      | 1,9  | 168,00 | HW040+NMRV-P110                                                                   | 80B4                                                                                | 10320     |
| 8,0           | 583,0      | 1,4  | 186,30 | HW040+NMRV-P110                                                                   | 80B4                                                                                | 10320     |
| 6,0           | 722,0      | 1,6  | 220,00 | HW040+NMRV-P110                                                                   | 80B4                                                                                | 10320     |
| 6,0           | 759,0      | 1,2  | 252,00 | HW040+NMRV-P110                                                                   | 80B4                                                                                | 10320     |
| 5,0           | 859,0      | 1,3  | 275,00 | HW040+NMRV-P110                                                                   | 80B4                                                                                | 10320     |
| 4,6           | 945,0      | 1,0  | 304,50 | HW040+NMRV-P110                                                                   | 80B4                                                                                | 10320     |
| 4,2           | 968,0      | 1,0  | 330,00 | HW040+NMRV-P110                                                                   | 80B4                                                                                | 10320     |
| 3,7           | 1174,0     | 0,8  | 383,30 | HW040+NMRV-P110                                                                   | 80B4                                                                                | 10320     |
| 3,0           | 1317,0     | 0,8  | 460,00 | HW040+NMRV-P110                                                                   | 80B4                                                                                | 10320     |
| 39,0          | 153,0      | 2,8  | 23,30  | HW040+NMRV-P110                                                                   | 80C6/90S6                                                                           | 6582      |
| 29,0          | 199,0      | 2,8  | 31,10  | HW040+NMRV-P110                                                                   | 80C6/90S6                                                                           | 7244      |
| 21,0          | 266,0      | 1,9  | 42,00  | HW040+NMRV-P110                                                                   | 80C6/90S6                                                                           | 8011      |
| 19,0          | 288,0      | 2,8  | 46,60  | HW040+NMRV-P110                                                                   | 80C6/90S6                                                                           | 8292      |
| 14,0          | 375,0      | 2,8  | 62,10  | HW040+NMRV-P110                                                                   | 80C6/90S6                                                                           | 9127      |
| 12,0          | 457,0      | 2,6  | 77,60  | HW040+NMRV-P110                                                                   | 80C6/90S6                                                                           | 9832      |
| 11,0          | 501,0      | 1,9  | 84,00  | HW040+NMRV-P110                                                                   | 80C6/90S6                                                                           | 10093     |
| 10,0          | 495,0      | 2,5  | 93,20  | HW040+NMRV-P110                                                                   | 80C6/90S6                                                                           | 10320     |

## 0,75 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i       |  |  | Fr<br>[N] |
|---------------|------------|------|---------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 9,0           | 610,0      | 1,9  | 105,00  | HW040+NMRV-P110                                                                    | 80C6/90S6                                                                           | 10320     |
| 7,0           | 655,0      | 1,9  | 126,00  | HW040+NMRV-P110                                                                    | 80C6/90S6                                                                           | 10320     |
| 7,0           | 791,0      | 1,2  | 137,50  | HW040+NMRV-P110                                                                    | 80C6/90S6                                                                           | 10320     |
| 6,0           | 761,0      | 1,4  | 155,30  | HW040+NMRV-P110                                                                    | 80C6/90S6                                                                           | 10320     |
| 5,0           | 847,0      | 1,4  | 168,00  | HW040+NMRV-P110                                                                    | 80C6/90S6                                                                           | 10320     |
| 4,8           | 860,0      | 1,1  | 186,30  | HW040+NMRV-P110                                                                    | 80C6/90S6                                                                           | 10320     |
| 4,1           | 1092,0     | 1,2  | 220,00  | HW040+NMRV-P110                                                                    | 80C6/90S6                                                                           | 10320     |
| 3,6           | 1134,0     | 0,9  | 252,00  | HW040+NMRV-P110                                                                    | 80C6/90S6                                                                           | 10320     |
| 3,3           | 1304,0     | 0,9  | 275,00  | HW040+NMRV-P110                                                                    | 80C6/90S6                                                                           | 10320     |
| 3,0           | 1438,0     | 0,8  | 304,50  | HW040+NMRV-P110                                                                    | 80C6/90S6                                                                           | 10320     |
| 14,0          | 365,0      | 1,6  | 100,00  | NMRV-P050/090                                                                      | 80B4                                                                                | 6487      |
| 9,0           | 521,0      | 1,3  | 150,00  | NMRV-P050/090                                                                      | 80B4                                                                                | 7426      |
| 7,0           | 668,0      | 0,9  | 200,00  | NMRV-P050/090                                                                      | 80B4                                                                                | 8174      |
| 6,0           | 801,0      | 0,7  | 250,00  | NMRV-P050/090                                                                      | 80B4                                                                                | 8180      |
| 4,7           | 895,0      | 0,8  | 300,00  | NMRV-P050/090                                                                      | 80B4                                                                                | 8180      |
| 14,0          | 365,0      | 1,8  | 100,00  | NMRV-P050/110                                                                      | 80B4                                                                                | 8198      |
| 9,0           | 527,0      | 1,8  | 150,00  | NMRV-P050/110                                                                      | 80B4                                                                                | 9384      |
| 7,0           | 685,0      | 1,7  | 200,00  | NMRV-P050/110                                                                      | 80B4                                                                                | 10320     |
| 6,0           | 835,0      | 1,4  | 250,00  | NMRV-P050/110                                                                      | 80B4                                                                                | 10320     |
| 4,7           | 895,0      | 1,4  | 300,00  | NMRV-P050/110                                                                      | 80B4                                                                                | 10320     |
| 3,5           | 1157,0     | 1,0  | 400,00  | NMRV-P050/110                                                                      | 80B4                                                                                | 10320     |
| 2,8           | 1535,0     | 0,8  | 500,00  | NMRV-P050/110                                                                      | 80B4                                                                                | 10320     |
| 2,3           | 1645,0     | 0,8  | 600,00  | NMRV-P050/110                                                                      | 80B4                                                                                | 10320     |
| 14,0          | 365,0      | 3,0  | 100,00  | NMRV-P063/110                                                                      | 80B4                                                                                | 8198      |
| 9,0           | 527,0      | 2,3  | 150,00  | NMRV-P063/110                                                                      | 80B4                                                                                | 9384      |
| 7,0           | 685,0      | 1,7  | 200,00  | NMRV-P063/110                                                                      | 80B4                                                                                | 10320     |
| 6,0           | 835,0      | 1,4  | 250,00  | NMRV-P063/110                                                                      | 80B4                                                                                | 10320     |
| 4,7           | 895,0      | 1,4  | 300,00  | NMRV-P063/110                                                                      | 80B4                                                                                | 10320     |
| 3,5           | 1157,0     | 1,0  | 400,00  | NMRV-P063/110                                                                      | 80B4                                                                                | 10320     |
| 2,8           | 1573,0     | 0,7  | 500,00  | NMRV-P063/110                                                                      | 80B4                                                                                | 10320     |
| 2,3           | 1686,0     | 0,8  | 600,00  | NMRV-P063/110                                                                      | 80B4                                                                                | 10320     |
| 14,0          | 369,0      | 3,0  | 100,00  | NMRV-P063/130                                                                      | 80B4                                                                                | 10722     |
| 9,0           | 521,0      | 3,0  | 150,00  | NMRV-P063/130                                                                      | 80B4                                                                                | 12274     |
| 7,0           | 685,0      | 2,3  | 200,00  | NMRV-P063/130                                                                      | 80B4                                                                                | 13500     |
| 6,0           | 835,0      | 1,8  | 250,00  | NMRV-P063/130                                                                      | 80B4                                                                                | 13500     |
| 4,7           | 908,0      | 1,9  | 300,00  | NMRV-P063/130                                                                      | 80B4                                                                                | 13500     |
| 3,5           | 1157,0     | 1,4  | 400,00  | NMRV-P063/130                                                                      | 80B4                                                                                | 13500     |
| 2,8           | 1380,0     | 1,1  | 500,00  | NMRV-P063/130                                                                      | 80B4                                                                                | 13500     |
| 2,3           | 1712,0     | 1,0  | 600,00  | NMRV-P063/130                                                                      | 80B4                                                                                | 13500     |
| 1,9           | 2061,0     | 0,9  | 750,00  | NMRV-P063/130                                                                      | 80B4                                                                                | 13500     |
| 1,6           | 2348,0     | 0,7  | 900,00  | NMRV-P063/130                                                                      | 80B4                                                                                | 13500     |
| 7,0           | 685,0      | 3,0  | 200,00  | NMRV-P063/150                                                                      | 80B4                                                                                | 18000     |
| 6,0           | 835,0      | 2,5  | 250,00  | NMRV-P063/150                                                                      | 80B4                                                                                | 18000     |
| 4,7           | 993,0      | 2,3  | 300,00  | NMRV-P063/150                                                                      | 80B4                                                                                | 18000     |
| 3,5           | 1175,0     | 2,3  | 400,00  | NMRV-P063/150                                                                      | 80B4                                                                                | 18000     |
| 2,8           | 1380,0     | 1,7  | 500,00  | NMRV-P063/150                                                                      | 80B4                                                                                | 18000     |
| 2,3           | 1702,0     | 1,6  | 600,00  | NMRV-P063/150                                                                      | 80B4                                                                                | 18000     |
| 1,9           | 1998,0     | 1,2  | 750,00  | NMRV-P063/150                                                                      | 80B4                                                                                | 18000     |
| 1,6           | 2521,0     | 0,8  | 900,00  | NMRV-P063/150                                                                      | 80B4                                                                                | 18000     |
| 1,2           | 3039,0     | 0,9  | 1200,00 | NMRV-P063/150                                                                      | 80B4                                                                                | 18000     |

## 0,92 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i    |  |  | Fr<br>[N] |
|---------------|------------|------|------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------|
| 280,0         | 28,0       | 2,4  | 5,00 | NMRV050                                                                              | 80C4                                                                                  | 1577      |
| 187,0         | 41,0       | 1,9  | 7,50 | NMRV050                                                                              | 80C4                                                                                  | 1805      |

## 0,92 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 140,0         | 55,0       | 1,4  | 10,00  | NMRV050                                                                           | 80C4                                                                                | 1987      |
| 93,0          | 78,0       | 1,0  | 15,00  | NMRV050                                                                           | 80C4                                                                                | 2274      |
| 70,0          | 100,0      | 0,8  | 20,00  | NMRV050                                                                           | 80C4                                                                                | 2503      |
| 187,0         | 42,0       | 3,1  | 7,50   | NMRV-P063                                                                         | 80C4                                                                                | 2359      |
| 140,0         | 55,0       | 2,5  | 10,00  | NMRV-P063                                                                         | 80C4                                                                                | 2597      |
| 93,0          | 79,0       | 1,9  | 15,00  | NMRV-P063                                                                         | 80C4                                                                                | 2973      |
| 70,0          | 103,0      | 1,4  | 20,00  | NMRV-P063                                                                         | 80C4                                                                                | 3272      |
| 56,0          | 124,0      | 1,1  | 25,00  | NMRV-P063                                                                         | 80C4                                                                                | 3524      |
| 47,0          | 141,0      | 1,1  | 30,00  | NMRV-P063                                                                         | 80C4                                                                                | 3745      |
| 35,0          | 178,0      | 0,8  | 40,00  | NMRV-P063                                                                         | 80C4                                                                                | 4122      |
| 93,0          | 81,0       | 2,8  | 15,00  | NMRV-P075                                                                         | 80C4                                                                                | 3509      |
| 70,0          | 104,0      | 2,3  | 20,00  | NMRV-P075                                                                         | 80C4                                                                                | 3862      |
| 56,0          | 127,0      | 1,7  | 25,00  | NMRV-P075                                                                         | 80C4                                                                                | 4160      |
| 47,0          | 145,0      | 1,7  | 30,00  | NMRV-P075                                                                         | 80C4                                                                                | 4421      |
| 35,0          | 183,0      | 1,3  | 40,00  | NMRV-P075                                                                         | 80C4                                                                                | 4865      |
| 28,0          | 220,0      | 1,0  | 50,00  | NMRV-P075                                                                         | 80C4                                                                                | 5241      |
| 23,0          | 249,0      | 0,9  | 60,00  | NMRV-P075                                                                         | 80C4                                                                                | 5569      |
| 56,0          | 130,0      | 2,9  | 25,00  | NMRV-P090                                                                         | 80C4                                                                                | 4603      |
| 47,0          | 149,0      | 2,9  | 30,00  | NMRV-P090                                                                         | 80C4                                                                                | 4891      |
| 35,0          | 191,0      | 2,1  | 40,00  | NMRV-P090                                                                         | 80C4                                                                                | 5383      |
| 28,0          | 229,0      | 1,6  | 50,00  | NMRV-P090                                                                         | 80C4                                                                                | 5799      |
| 23,0          | 264,0      | 1,3  | 60,00  | NMRV-P090                                                                         | 80C4                                                                                | 6163      |
| 18,0          | 321,0      | 0,9  | 80,00  | NMRV-P090                                                                         | 80C4                                                                                | 6783      |
| 14,0          | 377,0      | 0,7  | 100,00 | NMRV-P090                                                                         | 80C4                                                                                | 7306      |
| 28,0          | 239,0      | 2,8  | 50,00  | NMRV-P110                                                                         | 80C4                                                                                | 7328      |
| 23,0          | 279,0      | 2,2  | 60,00  | NMRV-P110                                                                         | 80C4                                                                                | 7787      |
| 18,0          | 342,0      | 1,5  | 80,00  | NMRV-P110                                                                         | 80C4                                                                                | 8571      |
| 14,0          | 402,0      | 1,2  | 100,00 | NMRV-P110                                                                         | 80C4                                                                                | 9232      |
| 63,0          | 113,0      | 0,9  | 22,10  | HA31+NMRV050                                                                      | 80C4                                                                                | 2587      |
| 48,0          | 147,0      | 0,8  | 29,40  | HA31+NMRV050                                                                      | 80C4                                                                                | 2847      |
| 63,0          | 115,0      | 1,6  | 22,10  | HW030+NMRV-P063                                                                   | 80C4                                                                                | 3382      |
| 48,0          | 149,0      | 1,4  | 29,00  | HW030+NMRV-P063                                                                   | 80C4                                                                                | 3703      |
| 36,0          | 190,0      | 1,1  | 38,70  | HW030+NMRV-P063                                                                   | 80C4                                                                                | 4076      |
| 32,0          | 209,0      | 1,0  | 44,20  | HW030+NMRV-P063                                                                   | 80C4                                                                                | 4260      |
| 29,0          | 231,0      | 0,9  | 47,50  | HW030+NMRV-P063                                                                   | 80C4                                                                                | 4365      |
| 24,0          | 269,0      | 0,8  | 58,00  | HW030+NMRV-P063                                                                   | 80C4                                                                                | 4666      |
| 20,0          | 327,0      | 0,7  | 71,30  | HW030+NMRV-P063                                                                   | 80C4                                                                                | 4997      |
| 63,0          | 114,0      | 2,3  | 22,10  | HW030+NMRV-P075                                                                   | 80C4                                                                                | 3991      |
| 48,0          | 148,0      | 1,9  | 29,00  | HW030+NMRV-P075                                                                   | 80C4                                                                                | 4371      |
| 36,0          | 192,0      | 1,5  | 38,70  | HW030+NMRV-P075                                                                   | 80C4                                                                                | 4811      |
| 32,0          | 214,0      | 1,5  | 44,20  | HW030+NMRV-P075                                                                   | 80C4                                                                                | 5029      |
| 29,0          | 234,0      | 1,4  | 47,50  | HW030+NMRV-P075                                                                   | 80C4                                                                                | 5152      |
| 24,0          | 276,0      | 1,3  | 58,00  | HW030+NMRV-P075                                                                   | 80C4                                                                                | 5507      |
| 20,0          | 335,0      | 1,1  | 71,30  | HW030+NMRV-P075                                                                   | 80C4                                                                                | 5898      |
| 18,0          | 352,0      | 1,1  | 77,30  | HW030+NMRV-P075                                                                   | 80C4                                                                                | 6061      |
| 17,0          | 382,0      | 1,0  | 81,80  | HW030+NMRV-P075                                                                   | 80C4                                                                                | 6176      |
| 16,0          | 369,0      | 0,9  | 88,30  | HW030+NMRV-P075                                                                   | 80C4                                                                                | 6336      |
| 15,0          | 426,0      | 0,9  | 95,00  | HW030+NMRV-P075                                                                   | 80C4                                                                                | 6491      |
| 13,0          | 485,0      | 0,9  | 109,10 | HW030+NMRV-P075                                                                   | 80C4                                                                                | 6798      |
| 12,0          | 471,0      | 0,8  | 116,00 | HW030+NMRV-P075                                                                   | 80C4                                                                                | 6938      |
| 10,0          | 569,0      | 0,7  | 142,50 | HW030+NMRV-P075                                                                   | 80C4                                                                                | 7380      |
| 60,0          | 122,0      | 3,4  | 23,30  | HW040+NMRV-P090                                                                   | 80C4                                                                                | 4495      |
| 45,0          | 160,0      | 3,1  | 31,10  | HW040+NMRV-P090                                                                   | 80C4                                                                                | 4948      |
| 33,0          | 213,0      | 2,3  | 42,00  | HW040+NMRV-P090                                                                   | 80C4                                                                                | 5472      |
| 30,0          | 231,0      | 2,4  | 46,60  | HW040+NMRV-P090                                                                   | 80C4                                                                                | 5664      |
| 22,0          | 306,0      | 2,0  | 63,00  | HW040+NMRV-P090                                                                   | 80C4                                                                                | 6264      |
| 18,0          | 356,0      | 1,4  | 77,60  | HW040+NMRV-P090                                                                   | 80C4                                                                                | 6715      |
| 17,0          | 393,0      | 1,5  | 84,00  | HW040+NMRV-P090                                                                   | 80C4                                                                                | 6894      |



# 0,92 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i       |  |  | Fr<br>[N] |
|---------------|------------|------|---------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 15,0          | 404,0      | 1,5  | 93,20   | HW040+NMRV-P090                                                                    | 80C4                                                                                | 7136      |
| 13,0          | 507,0      | 1,3  | 110,00  | HW040+NMRV-P090                                                                    | 80C4                                                                                | 7542      |
| 11,0          | 531,0      | 1,2  | 126,00  | HW040+NMRV-P090                                                                    | 80C4                                                                                | 7892      |
| 10,0          | 609,0      | 1,0  | 137,50  | HW040+NMRV-P090                                                                    | 80C4                                                                                | 8125      |
| 9,0           | 596,0      | 0,9  | 155,30  | HW040+NMRV-P090                                                                    | 80C4                                                                                | 8180      |
| 8,0           | 682,0      | 1,1  | 165,00  | HW040+NMRV-P090                                                                    | 80C4                                                                                | 8180      |
| 6,0           | 843,0      | 0,8  | 220,00  | HW040+NMRV-P090                                                                    | 80C4                                                                                | 8180      |
| 60,0          | 123,0      | 3,4  | 23,30   | HW040+NMRV-P110                                                                    | 80C4                                                                                | 5680      |
| 45,0          | 160,0      | 3,4  | 31,10   | HW040+NMRV-P110                                                                    | 80C4                                                                                | 6252      |
| 33,0          | 213,0      | 2,3  | 42,00   | HW040+NMRV-P110                                                                    | 80C4                                                                                | 6914      |
| 30,0          | 234,0      | 3,4  | 46,60   | HW040+NMRV-P110                                                                    | 80C4                                                                                | 7157      |
| 23,0          | 304,0      | 3,0  | 62,10   | HW040+NMRV-P110                                                                    | 80C4                                                                                | 7877      |
| 18,0          | 370,0      | 2,6  | 77,60   | HW040+NMRV-P110                                                                    | 80C4                                                                                | 8485      |
| 17,0          | 403,0      | 2,3  | 84,00   | HW040+NMRV-P110                                                                    | 80C4                                                                                | 8711      |
| 15,0          | 409,0      | 2,5  | 93,20   | HW040+NMRV-P110                                                                    | 80C4                                                                                | 9017      |
| 13,0          | 491,0      | 2,3  | 105,00  | HW040+NMRV-P110                                                                    | 80C4                                                                                | 9384      |
| 11,0          | 535,0      | 2,2  | 126,00  | HW040+NMRV-P110                                                                    | 80C4                                                                                | 9972      |
| 10,0          | 634,0      | 1,5  | 137,50  | HW040+NMRV-P110                                                                    | 80C4                                                                                | 10266     |
| 9,0           | 626,0      | 1,5  | 155,30  | HW040+NMRV-P110                                                                    | 80C4                                                                                | 10320     |
| 8,0           | 692,0      | 1,6  | 168,00  | HW040+NMRV-P110                                                                    | 80C4                                                                                | 10320     |
| 8,0           | 715,0      | 1,1  | 186,30  | HW040+NMRV-P110                                                                    | 80C4                                                                                | 10320     |
| 6,0           | 885,0      | 1,3  | 220,00  | HW040+NMRV-P110                                                                    | 80C4                                                                                | 10320     |
| 6,0           | 931,0      | 1,0  | 252,00  | HW040+NMRV-P110                                                                    | 80C4                                                                                | 10320     |
| 5,0           | 1054,0     | 1,0  | 275,00  | HW040+NMRV-P110                                                                    | 80C4                                                                                | 10320     |
| 4,6           | 1159,0     | 0,8  | 304,50  | HW040+NMRV-P110                                                                    | 80C4                                                                                | 10320     |
| 4,2           | 1188,0     | 0,8  | 330,00  | HW040+NMRV-P110                                                                    | 80C4                                                                                | 10320     |
| 14,0          | 448,0      | 1,3  | 100,00  | NMRV-P050/090                                                                      | 80C4                                                                                | 6487      |
| 9,0           | 639,0      | 1,0  | 150,00  | NMRV-P050/090                                                                      | 80C4                                                                                | 7426      |
| 7,0           | 819,0      | 0,7  | 200,00  | NMRV-P050/090                                                                      | 80C4                                                                                | 8174      |
| 14,0          | 448,0      | 1,4  | 100,00  | NMRV-P050/110                                                                      | 80C4                                                                                | 8198      |
| 9,0           | 647,0      | 1,4  | 150,00  | NMRV-P050/110                                                                      | 80C4                                                                                | 9384      |
| 7,0           | 841,0      | 1,4  | 200,00  | NMRV-P050/110                                                                      | 80C4                                                                                | 10320     |
| 6,0           | 1024,0     | 1,1  | 250,00  | NMRV-P050/110                                                                      | 80C4                                                                                | 10320     |
| 4,7           | 1097,0     | 1,2  | 300,00  | NMRV-P050/110                                                                      | 80C4                                                                                | 10320     |
| 3,5           | 1420,0     | 0,8  | 400,00  | NMRV-P050/110                                                                      | 80C4                                                                                | 10320     |
| 14,0          | 448,0      | 2,5  | 100,00  | NMRV-P063/110                                                                      | 80C4                                                                                | 8198      |
| 9,0           | 647,0      | 1,8  | 150,00  | NMRV-P063/110                                                                      | 80C4                                                                                | 9384      |
| 7,0           | 841,0      | 1,4  | 200,00  | NMRV-P063/110                                                                      | 80C4                                                                                | 10320     |
| 6,0           | 1024,0     | 1,1  | 250,00  | NMRV-P063/110                                                                      | 80C4                                                                                | 10320     |
| 4,7           | 1097,0     | 1,2  | 300,00  | NMRV-P063/110                                                                      | 80C4                                                                                | 10320     |
| 3,5           | 1420,0     | 0,8  | 400,00  | NMRV-P063/110                                                                      | 80C4                                                                                | 10320     |
| 14,0          | 453,0      | 2,5  | 100,00  | NMRV-P063/130                                                                      | 80C4                                                                                | 10722     |
| 9,0           | 639,0      | 2,5  | 150,00  | NMRV-P063/130                                                                      | 80C4                                                                                | 12274     |
| 7,0           | 841,0      | 1,9  | 200,00  | NMRV-P063/130                                                                      | 80C4                                                                                | 13500     |
| 6,0           | 1024,0     | 1,5  | 250,00  | NMRV-P063/130                                                                      | 80C4                                                                                | 13500     |
| 4,7           | 1114,0     | 1,6  | 300,00  | NMRV-P063/130                                                                      | 80C4                                                                                | 13500     |
| 3,5           | 1420,0     | 1,2  | 400,00  | NMRV-P063/130                                                                      | 80C4                                                                                | 13500     |
| 2,8           | 1693,0     | 0,9  | 500,00  | NMRV-P063/130                                                                      | 80C4                                                                                | 13500     |
| 2,3           | 2100,0     | 0,8  | 600,00  | NMRV-P063/130                                                                      | 80C4                                                                                | 13500     |
| 9,0           | 645,0      | 3,1  | 150,00  | NMRV-P063/150                                                                      | 80C4                                                                                | 18000     |
| 7,0           | 841,0      | 2,5  | 200,00  | NMRV-P063/150                                                                      | 80C4                                                                                | 18000     |
| 6,0           | 1024,0     | 2,0  | 250,00  | NMRV-P063/150                                                                      | 80C4                                                                                | 18000     |
| 4,7           | 1218,0     | 1,9  | 300,00  | NMRV-P063/150                                                                      | 80C4                                                                                | 18000     |
| 3,5           | 1441,0     | 1,9  | 400,00  | NMRV-P063/150                                                                      | 80C4                                                                                | 18000     |
| 2,8           | 1693,0     | 1,4  | 500,00  | NMRV-P063/150                                                                      | 80C4                                                                                | 18000     |
| 2,3           | 2088,0     | 1,3  | 600,00  | NMRV-P063/150                                                                      | 80C4                                                                                | 18000     |
| 1,9           | 2451,0     | 1,0  | 750,00  | NMRV-P063/150                                                                      | 80C4                                                                                | 18000     |
| 1,2           | 3728,0     | 0,7  | 1200,00 | NMRV-P063/150                                                                      | 80C4                                                                                | 18000     |

# 1,10 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 560,0         | 17,0       | 2,6  | 5,00   | NMRV050                                                                           | 80B2                                                                                | 1251      |
| 373,0         | 25,0       | 2,1  | 7,50   | NMRV050                                                                           | 80B2                                                                                | 1433      |
| 280,0         | 33,0       | 1,6  | 10,00  | NMRV050                                                                           | 80B2                                                                                | 1577      |
| 187,0         | 48,0       | 1,2  | 15,00  | NMRV050                                                                           | 80B2                                                                                | 1805      |
| 140,0         | 62,0       | 0,9  | 20,00  | NMRV050                                                                           | 80B2                                                                                | 1987      |
| 93,0          | 87,0       | 0,7  | 30,00  | NMRV050                                                                           | 80B2                                                                                | 2274      |
| 280,0         | 33,0       | 2,0  | 5,00   | NMRV050                                                                           | 80D4                                                                                | 1577      |
| 187,0         | 50,0       | 1,6  | 7,50   | NMRV050                                                                           | 80D4                                                                                | 1805      |
| 140,0         | 65,0       | 1,2  | 10,00  | NMRV050                                                                           | 80D4                                                                                | 1987      |
| 93,0          | 93,0       | 0,9  | 15,00  | NMRV050                                                                           | 80D4                                                                                | 2274      |
| 280,0         | 33,0       | 3,0  | 10,00  | NMRV-P063                                                                         | 80B2                                                                                | 2061      |
| 187,0         | 49,0       | 2,2  | 15,00  | NMRV-P063                                                                         | 80B2                                                                                | 2359      |
| 140,0         | 64,0       | 1,6  | 20,00  | NMRV-P063                                                                         | 80B2                                                                                | 2597      |
| 112,0         | 78,0       | 1,2  | 25,00  | NMRV-P063                                                                         | 80B2                                                                                | 2797      |
| 93,0          | 89,0       | 1,4  | 30,00  | NMRV-P063                                                                         | 80B2                                                                                | 2973      |
| 70,0          | 114,0      | 1,0  | 40,00  | NMRV-P063                                                                         | 80B2                                                                                | 3272      |
| 56,0          | 135,0      | 0,8  | 50,00  | NMRV-P063                                                                         | 80B2                                                                                | 3524      |
| 187,0         | 50,0       | 2,6  | 7,50   | NMRV-P063                                                                         | 80D4/90S4                                                                           | 2359      |
| 140,0         | 65,0       | 2,1  | 10,00  | NMRV-P063                                                                         | 80D4/90S4                                                                           | 2597      |
| 93,0          | 95,0       | 1,6  | 15,00  | NMRV-P063                                                                         | 80D4/90S4                                                                           | 2973      |
| 70,0          | 123,0      | 1,2  | 20,00  | NMRV-P063                                                                         | 80D4/90S4                                                                           | 3272      |
| 56,0          | 148,0      | 0,9  | 25,00  | NMRV-P063                                                                         | 80D4/90S4                                                                           | 3524      |
| 47,0          | 169,0      | 0,9  | 30,00  | NMRV-P063                                                                         | 80D4/90S4                                                                           | 3745      |
| 120,0         | 77,0       | 2,0  | 7,50   | NMRV-P063                                                                         | 90L6                                                                                | 2734      |
| 90,0          | 99,0       | 1,5  | 10,00  | NMRV-P063                                                                         | 90L6                                                                                | 3009      |
| 60,0          | 144,0      | 1,2  | 15,00  | NMRV-P063                                                                         | 90L6                                                                                | 3444      |
| 45,0          | 182,0      | 0,9  | 20,00  | NMRV-P063                                                                         | 90L6                                                                                | 3791      |
| 30,0          | 249,0      | 0,7  | 30,00  | NMRV-P063                                                                         | 90L6                                                                                | 4339      |
| 187,0         | 50,0       | 3,3  | 15,00  | NMRV-P075                                                                         | 80B2                                                                                | 2785      |
| 140,0         | 65,0       | 2,7  | 20,00  | NMRV-P075                                                                         | 80B2                                                                                | 3065      |
| 112,0         | 79,0       | 2,0  | 25,00  | NMRV-P075                                                                         | 80B2                                                                                | 3302      |
| 93,0          | 91,0       | 2,0  | 30,00  | NMRV-P075                                                                         | 80B2                                                                                | 3509      |
| 70,0          | 117,0      | 1,5  | 40,00  | NMRV-P075                                                                         | 80B2                                                                                | 3862      |
| 56,0          | 141,0      | 1,2  | 50,00  | NMRV-P075                                                                         | 80B2                                                                                | 4160      |
| 47,0          | 162,0      | 1,0  | 60,00  | NMRV-P075                                                                         | 80B2                                                                                | 4421      |
| 35,0          | 201,0      | 0,7  | 80,00  | NMRV-P075                                                                         | 80B2                                                                                | 4865      |
| 140,0         | 66,0       | 3,0  | 10,00  | NMRV-P075                                                                         | 80D4/90S4                                                                           | 3065      |
| 93,0          | 97,0       | 2,4  | 15,00  | NMRV-P075                                                                         | 80D4/90S4                                                                           | 3509      |
| 70,0          | 125,0      | 1,9  | 20,00  | NMRV-P075                                                                         | 80D4/90S4                                                                           | 3862      |
| 56,0          | 152,0      | 1,4  | 25,00  | NMRV-P075                                                                         | 80D4/90S4                                                                           | 4160      |
| 47,0          | 173,0      | 1,4  | 30,00  | NMRV-P075                                                                         | 80D4/90S4                                                                           | 4421      |
| 35,0          | 219,0      | 1,1  | 40,00  | NMRV-P075                                                                         | 80D4/90S4                                                                           | 4865      |
| 28,0          | 263,0      | 0,9  | 50,00  | NMRV-P075                                                                         | 80D4/90S4                                                                           | 5241      |
| 23,0          | 297,0      | 0,7  | 60,00  | NMRV-P075                                                                         | 80D4/90S4                                                                           | 5569      |
| 120,0         | 77,0       | 2,8  | 7,50   | NMRV-P075                                                                         | 90L6                                                                                | 3227      |
| 90,0          | 100,0      | 2,3  | 10,00  | NMRV-P075                                                                         | 90L6                                                                                | 3551      |
| 60,0          | 145,0      | 1,8  | 15,00  | NMRV-P075                                                                         | 90L6                                                                                | 4065      |
| 45,0          | 187,0      | 1,4  | 20,00  | NMRV-P075                                                                         | 90L6                                                                                | 4474      |
| 36,0          | 228,0      | 1,1  | 25,00  | NMRV-P075                                                                         | 90L6                                                                                | 4820      |
| 30,0          | 259,0      | 1,1  | 30,00  | NMRV-P075                                                                         | 90L6                                                                                | 5122      |
| 23,0          | 322,0      | 0,9  | 40,00  | NMRV-P075                                                                         | 90L6                                                                                | 5637      |
| 112,0         | 81,0       | 3,1  | 25,00  | NMRV-P090                                                                         | 80B2                                                                                | 3653      |
| 93,0          | 93,0       | 3,3  | 30,00  | NMRV-P090                                                                         | 80B2                                                                                | 3882      |
| 70,0          | 120,0      | 2,3  | 40,00  | NMRV-P090                                                                         | 80B2                                                                                | 4273      |
| 56,0          | 145,0      | 1,8  | 50,00  | NMRV-P090                                                                         | 80B2                                                                                | 4603      |
| 47,0          | 169,0      | 1,5  | 60,00  | NMRV-P090                                                                         | 80B2                                                                                | 4891      |
| 35,0          | 210,0      | 1,1  | 80,00  | NMRV-P090                                                                         | 80B2                                                                                | 5383      |
| 28,0          | 248,0      | 0,8  | 100,00 | NMRV-P090                                                                         | 80B2                                                                                | 5799      |

## 1,10 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 70,0          | 128,0      | 3,1  | 20,00  | NMRV-P090                                                                          | 80D4/90S4                                                                           | 4273      |
| 56,0          | 156,0      | 2,4  | 25,00  | NMRV-P090                                                                          | 80D4/90S4                                                                           | 4603      |
| 47,0          | 178,0      | 2,4  | 30,00  | NMRV-P090                                                                          | 80D4/90S4                                                                           | 4891      |
| 35,0          | 228,0      | 1,7  | 40,00  | NMRV-P090                                                                          | 80D4/90S4                                                                           | 5383      |
| 28,0          | 274,0      | 1,4  | 50,00  | NMRV-P090                                                                          | 80D4/90S4                                                                           | 5799      |
| 23,0          | 315,0      | 1,1  | 60,00  | NMRV-P090                                                                          | 80D4/90S4                                                                           | 6163      |
| 18,0          | 384,0      | 0,7  | 80,00  | NMRV-P090                                                                          | 80D4/90S4                                                                           | 6783      |
| 60,0          | 149,0      | 3,1  | 15,00  | NMRV-P090                                                                          | 90L6                                                                                | 4498      |
| 45,0          | 192,0      | 2,2  | 20,00  | NMRV-P090                                                                          | 90L6                                                                                | 4951      |
| 36,0          | 234,0      | 1,7  | 25,00  | NMRV-P090                                                                          | 90L6                                                                                | 5333      |
| 30,0          | 266,0      | 1,8  | 30,00  | NMRV-P090                                                                          | 90L6                                                                                | 5667      |
| 23,0          | 336,0      | 1,3  | 40,00  | NMRV-P090                                                                          | 90L6                                                                                | 6238      |
| 18,0          | 403,0      | 1,1  | 50,00  | NMRV-P090                                                                          | 90L6                                                                                | 6719      |
| 15,0          | 455,0      | 0,8  | 60,00  | NMRV-P090                                                                          | 90L6                                                                                | 7140      |
| 56,0          | 150,0      | 3,3  | 50,00  | NMRV-P110                                                                          | 80B2                                                                                | 5816      |
| 47,0          | 176,0      | 2,7  | 60,00  | NMRV-P110                                                                          | 80B2                                                                                | 6181      |
| 35,0          | 222,0      | 1,8  | 80,00  | NMRV-P110                                                                          | 80B2                                                                                | 6803      |
| 28,0          | 263,0      | 1,4  | 100,00 | NMRV-P110                                                                          | 80B2                                                                                | 7328      |
| 35,0          | 237,0      | 3,0  | 40,00  | NMRV-P110                                                                          | 80D4/90S4                                                                           | 6803      |
| 28,0          | 285,0      | 2,3  | 50,00  | NMRV-P110                                                                          | 80D4/90S4                                                                           | 7328      |
| 23,0          | 333,0      | 1,8  | 60,00  | NMRV-P110                                                                          | 80D4/90S4                                                                           | 7787      |
| 18,0          | 408,0      | 1,3  | 80,00  | NMRV-P110                                                                          | 80D4/90S4                                                                           | 8571      |
| 14,0          | 480,0      | 1,0  | 100,00 | NMRV-P110                                                                          | 80D4/90S4                                                                           | 9232      |
| 36,0          | 239,0      | 3,2  | 25,00  | NMRV-P110                                                                          | 90L6                                                                                | 6739      |
| 30,0          | 270,0      | 3,1  | 30,00  | NMRV-P110                                                                          | 90L6                                                                                | 7161      |
| 23,0          | 350,0      | 2,3  | 40,00  | NMRV-P110                                                                          | 90L6                                                                                | 7882      |
| 18,0          | 420,0      | 1,8  | 50,00  | NMRV-P110                                                                          | 90L6                                                                                | 8491      |
| 15,0          | 483,0      | 1,4  | 60,00  | NMRV-P110                                                                          | 90L6                                                                                | 9023      |
| 11,0          | 598,0      | 0,9  | 80,00  | NMRV-P110                                                                          | 90L6                                                                                | 9931      |
| 9,0           | 689,0      | 0,7  | 100,00 | NMRV-P110                                                                          | 90L6                                                                                | 10320     |
| 11,0          | 607,0      | 1,4  | 80,00  | NMRV130                                                                            | 90L6                                                                                | 12989     |
| 9,0           | 701,0      | 1,1  | 100,00 | NMRV130                                                                            | 90L6                                                                                | 13500     |
| 18,0          | 414,0      | 2,0  | 80,00  | NMRV130                                                                            | 90S4                                                                                | 11210     |
| 14,0          | 488,0      | 1,5  | 100,00 | NMRV130                                                                            | 90S4                                                                                | 12076     |
| 63,0          | 135,0      | 0,7  | 22,10  | HA31+NMRV050                                                                       | 80D4                                                                                | 2587      |
| 63,0          | 138,0      | 1,4  | 22,10  | HW030+NMRV-P063                                                                    | 80D4                                                                                | 3382      |
| 48,0          | 179,0      | 1,1  | 29,00  | HW030+NMRV-P063                                                                    | 80D4                                                                                | 3703      |
| 36,0          | 227,0      | 0,9  | 38,70  | HW030+NMRV-P063                                                                    | 80D4                                                                                | 4076      |
| 32,0          | 250,0      | 0,8  | 44,20  | HW030+NMRV-P063                                                                    | 80D4                                                                                | 4260      |
| 29,0          | 277,0      | 0,8  | 47,50  | HW030+NMRV-P063                                                                    | 80D4                                                                                | 4365      |
| 63,0          | 136,0      | 1,9  | 22,10  | HW030+NMRV-P075                                                                    | 80D4                                                                                | 3991      |
| 48,0          | 178,0      | 1,6  | 29,00  | HW030+NMRV-P075                                                                    | 80D4                                                                                | 4371      |
| 36,0          | 230,0      | 1,3  | 38,70  | HW030+NMRV-P075                                                                    | 80D4                                                                                | 4811      |
| 32,0          | 256,0      | 1,2  | 44,20  | HW030+NMRV-P075                                                                    | 80D4                                                                                | 5029      |
| 29,0          | 280,0      | 1,1  | 47,50  | HW030+NMRV-P075                                                                    | 80D4                                                                                | 5152      |
| 24,0          | 330,0      | 1,1  | 58,00  | HW030+NMRV-P075                                                                    | 80D4                                                                                | 5507      |
| 20,0          | 401,0      | 0,9  | 71,30  | HW030+NMRV-P075                                                                    | 80D4                                                                                | 5898      |
| 18,0          | 421,0      | 0,9  | 77,30  | HW030+NMRV-P075                                                                    | 80D4                                                                                | 6061      |
| 17,0          | 457,0      | 0,9  | 81,80  | HW030+NMRV-P075                                                                    | 80D4                                                                                | 6176      |
| 16,0          | 441,0      | 0,8  | 88,30  | HW030+NMRV-P075                                                                    | 80D4                                                                                | 6336      |
| 15,0          | 509,0      | 0,8  | 95,00  | HW030+NMRV-P075                                                                    | 80D4                                                                                | 6491      |
| 13,0          | 579,0      | 0,7  | 109,10 | HW030+NMRV-P075                                                                    | 80D4                                                                                | 6798      |
| 60,0          | 145,0      | 2,8  | 23,30  | HW040+NMRV-P090                                                                    | 80D4/90S4                                                                           | 4495      |
| 45,0          | 191,0      | 2,6  | 31,10  | HW040+NMRV-P090                                                                    | 80D4/90S4                                                                           | 4948      |
| 33,0          | 255,0      | 1,9  | 42,00  | HW040+NMRV-P090                                                                    | 80D4/90S4                                                                           | 5472      |
| 30,0          | 276,0      | 2,0  | 46,60  | HW040+NMRV-P090                                                                    | 80D4/90S4                                                                           | 5664      |
| 22,0          | 366,0      | 1,7  | 63,00  | HW040+NMRV-P090                                                                    | 80D4/90S4                                                                           | 6264      |
| 18,0          | 426,0      | 1,2  | 77,60  | HW040+NMRV-P090                                                                    | 80D4/90S4                                                                           | 6715      |

## 1,10 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 17,0          | 470,0      | 1,3  | 84,00  | HW040+NMRV-P090                                                                   | 80D4/90S4                                                                           | 6894      |
| 15,0          | 483,0      | 1,2  | 93,20  | HW040+NMRV-P090                                                                   | 80D4/90S4                                                                           | 7136      |
| 13,0          | 607,0      | 1,1  | 110,00 | HW040+NMRV-P090                                                                   | 80D4/90S4                                                                           | 7542      |
| 11,0          | 635,0      | 1,0  | 126,00 | HW040+NMRV-P090                                                                   | 80D4/90S4                                                                           | 7892      |
| 10,0          | 728,0      | 0,9  | 137,50 | HW040+NMRV-P090                                                                   | 80D4/90S4                                                                           | 8125      |
| 9,0           | 712,0      | 0,7  | 155,30 | HW040+NMRV-P090                                                                   | 80D4/90S4                                                                           | 8180      |
| 8,0           | 816,0      | 0,9  | 165,00 | HW040+NMRV-P090                                                                   | 80D4/90S4                                                                           | 8180      |
| 39,0          | 223,0      | 1,9  | 23,30  | HW040+NMRV-P090                                                                   | 90L6                                                                                | 5209      |
| 29,0          | 292,0      | 1,9  | 31,10  | HW040+NMRV-P090                                                                   | 90L6                                                                                | 5733      |
| 21,0          | 391,0      | 1,3  | 42,00  | HW040+NMRV-P090                                                                   | 90L6                                                                                | 6340      |
| 19,0          | 418,0      | 1,5  | 46,60  | HW040+NMRV-P090                                                                   | 90L6                                                                                | 6562      |
| 14,0          | 558,0      | 1,3  | 63,00  | HW040+NMRV-P090                                                                   | 90L6                                                                                | 7257      |
| 12,0          | 644,0      | 0,9  | 77,60  | HW040+NMRV-P090                                                                   | 90L6                                                                                | 7781      |
| 11,0          | 715,0      | 1,0  | 84,00  | HW040+NMRV-P090                                                                   | 90L6                                                                                | 7988      |
| 10,0          | 723,0      | 1,0  | 93,20  | HW040+NMRV-P090                                                                   | 90L6                                                                                | 8180      |
| 8,0           | 928,0      | 0,8  | 110,00 | HW040+NMRV-P090                                                                   | 90L6                                                                                | 8180      |
| 7,0           | 960,0      | 0,8  | 126,00 | HW040+NMRV-P090                                                                   | 90L6                                                                                | 8180      |
| 60,0          | 147,0      | 2,8  | 23,30  | HW040+NMRV-P110                                                                   | 80D4/90S4                                                                           | 5680      |
| 45,0          | 191,0      | 2,8  | 31,10  | HW040+NMRV-P110                                                                   | 80D4/90S4                                                                           | 6252      |
| 33,0          | 255,0      | 1,9  | 42,00  | HW040+NMRV-P110                                                                   | 80D4/90S4                                                                           | 6914      |
| 30,0          | 279,0      | 2,8  | 46,60  | HW040+NMRV-P110                                                                   | 80D4/90S4                                                                           | 7157      |
| 23,0          | 363,0      | 2,5  | 62,10  | HW040+NMRV-P110                                                                   | 80D4/90S4                                                                           | 7877      |
| 18,0          | 443,0      | 2,2  | 77,60  | HW040+NMRV-P110                                                                   | 80D4/90S4                                                                           | 8485      |
| 17,0          | 482,0      | 1,9  | 84,00  | HW040+NMRV-P110                                                                   | 80D4/90S4                                                                           | 8711      |
| 15,0          | 489,0      | 2,1  | 93,20  | HW040+NMRV-P110                                                                   | 80D4/90S4                                                                           | 9017      |
| 13,0          | 587,0      | 1,9  | 105,00 | HW040+NMRV-P110                                                                   | 80D4/90S4                                                                           | 9384      |
| 11,0          | 639,0      | 1,9  | 126,00 | HW040+NMRV-P110                                                                   | 80D4/90S4                                                                           | 9972      |
| 10,0          | 758,0      | 1,2  | 137,50 | HW040+NMRV-P110                                                                   | 80D4/90S4                                                                           | 10266     |
| 9,0           | 748,0      | 1,2  | 155,30 | HW040+NMRV-P110                                                                   | 80D4/90S4                                                                           | 10320     |
| 8,0           | 828,0      | 1,3  | 168,00 | HW040+NMRV-P110                                                                   | 80D4/90S4                                                                           | 10320     |
| 8,0           | 855,0      | 1,0  | 186,30 | HW040+NMRV-P110                                                                   | 80D4/90S4                                                                           | 10320     |
| 6,0           | 1059,0     | 1,1  | 220,00 | HW040+NMRV-P110                                                                   | 80D4/90S4                                                                           | 10320     |
| 6,0           | 1113,0     | 0,8  | 252,00 | HW040+NMRV-P110                                                                   | 80D4/90S4                                                                           | 10320     |
| 5,0           | 1260,0     | 0,9  | 275,00 | HW040+NMRV-P110                                                                   | 80D4/90S4                                                                           | 10320     |
| 4,6           | 1386,0     | 0,7  | 304,50 | HW040+NMRV-P110                                                                   | 80D4/90S4                                                                           | 10320     |
| 39,0          | 224,0      | 1,9  | 23,30  | HW040+NMRV-P110                                                                   | 90L6                                                                                | 6582      |
| 29,0          | 292,0      | 1,9  | 31,10  | HW040+NMRV-P110                                                                   | 90L6                                                                                | 7244      |
| 21,0          | 391,0      | 1,3  | 42,00  | HW040+NMRV-P110                                                                   | 90L6                                                                                | 8011      |
| 19,0          | 423,0      | 1,9  | 46,60  | HW040+NMRV-P110                                                                   | 90L6                                                                                | 8292      |
| 14,0          | 550,0      | 1,9  | 62,10  | HW040+NMRV-P110                                                                   | 90L6                                                                                | 9127      |
| 12,0          | 670,0      | 1,7  | 77,60  | HW040+NMRV-P110                                                                   | 90L6                                                                                | 9832      |
| 11,0          | 734,0      | 1,3  | 84,00  | HW040+NMRV-P110                                                                   | 90L6                                                                                | 10093     |
| 10,0          | 726,0      | 1,7  | 93,20  | HW040+NMRV-P110                                                                   | 90L6                                                                                | 10320     |
| 9,0           | 894,0      | 1,3  | 105,00 | HW040+NMRV-P110                                                                   | 90L6                                                                                | 10320     |
| 7,0           | 960,0      | 1,3  | 126,00 | HW040+NMRV-P110                                                                   | 90L6                                                                                | 10320     |
| 7,0           | 1161,0     | 0,8  | 137,50 | HW040+NMRV-P110                                                                   | 90L6                                                                                | 10320     |
| 6,0           | 1117,0     | 0,9  | 155,30 | HW040+NMRV-P110                                                                   | 90L6                                                                                | 10320     |
| 5,0           | 1242,0     | 1,0  | 168,00 | HW040+NMRV-P110                                                                   | 90L6                                                                                | 10320     |
| 4,8           | 1262,0     | 0,7  | 186,30 | HW040+NMRV-P110                                                                   | 90L6                                                                                | 10320     |
| 4,1           | 1602,0     | 0,8  | 220,00 | HW040+NMRV-P110                                                                   | 90L6                                                                                | 10320     |
| 14,0          | 535,0      | 1,1  | 100,00 | NMRV-P050/090                                                                     | 80D4                                                                                | 6487      |
| 9,0           | 764,0      | 0,9  | 150,00 | NMRV-P050/090                                                                     | 80D4                                                                                | 7426      |
| 14,0          | 535,0      | 1,2  | 100,00 | NMRV-P050/110                                                                     | 80D4                                                                                | 8198      |
| 9,0           | 774,0      | 1,2  | 150,00 | NMRV-P050/110                                                                     | 80D4                                                                                | 9384      |
| 7,0           | 1005,0     | 1,1  | 200,00 | NMRV-P050/110                                                                     | 80D4                                                                                | 10320     |
| 6,0           | 1224,0     | 1,0  | 250,00 | NMRV-P050/110                                                                     | 80D4                                                                                | 10320     |
| 4,7           | 1312,0     | 1,0  | 300,00 | NMRV-P050/110                                                                     | 80D4                                                                                | 10320     |
| 14,0          | 535,0      | 2,1  | 100,00 | NMRV-P063/110                                                                     | 80D4/90S4                                                                           | 8198      |

## 1,10 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 9,0           | 774,0      | 1,5  | 150,00 | NMRV-P063/110                                                                      | 80D4/90S4                                                                           | 9384      |
| 7,0           | 1005,0     | 1,1  | 200,00 | NMRV-P063/110                                                                      | 80D4/90S4                                                                           | 10320     |
| 6,0           | 1224,0     | 1,0  | 250,00 | NMRV-P063/110                                                                      | 80D4/90S4                                                                           | 10320     |
| 4,7           | 1312,0     | 1,0  | 300,00 | NMRV-P063/110                                                                      | 80D4/90S4                                                                           | 10320     |
| 14,0          | 542,0      | 2,1  | 100,00 | NMRV-P063/130                                                                      | 80D4/90S4                                                                           | 10722     |
| 9,0           | 764,0      | 2,1  | 150,00 | NMRV-P063/130                                                                      | 80D4/90S4                                                                           | 12274     |
| 7,0           | 1005,0     | 1,6  | 200,00 | NMRV-P063/130                                                                      | 80D4/90S4                                                                           | 13500     |
| 6,0           | 1224,0     | 1,2  | 250,00 | NMRV-P063/130                                                                      | 80D4/90S4                                                                           | 13500     |
| 4,7           | 1332,0     | 1,3  | 300,00 | NMRV-P063/130                                                                      | 80D4/90S4                                                                           | 13500     |
| 3,5           | 1697,0     | 1,0  | 400,00 | NMRV-P063/130                                                                      | 80D4/90S4                                                                           | 13500     |
| 2,8           | 2024,0     | 0,8  | 500,00 | NMRV-P063/130                                                                      | 80D4/90S4                                                                           | 13500     |
| 2,3           | 2510,0     | 0,7  | 600,00 | NMRV-P063/130                                                                      | 80D4/90S4                                                                           | 13500     |
| 9,0           | 771,0      | 2,6  | 150,00 | NMRV-P063/150                                                                      | 80D4/90S4                                                                           | 18000     |
| 7,0           | 1005,0     | 2,1  | 200,00 | NMRV-P063/150                                                                      | 80D4/90S4                                                                           | 18000     |
| 6,0           | 1224,0     | 1,7  | 250,00 | NMRV-P063/150                                                                      | 80D4/90S4                                                                           | 18000     |
| 4,7           | 1456,0     | 1,6  | 300,00 | NMRV-P063/150                                                                      | 80D4/90S4                                                                           | 18000     |
| 3,5           | 1723,0     | 1,5  | 400,00 | NMRV-P063/150                                                                      | 80D4/90S4                                                                           | 18000     |
| 2,8           | 2024,0     | 1,2  | 500,00 | NMRV-P063/150                                                                      | 80D4/90S4                                                                           | 18000     |
| 2,3           | 2496,0     | 1,1  | 600,00 | NMRV-P063/150                                                                      | 80D4/90S4                                                                           | 18000     |
| 1,9           | 2931,0     | 0,8  | 750,00 | NMRV-P063/150                                                                      | 80D4/90S4                                                                           | 18000     |

## 1,50 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i     |  |  | Fr<br>[N] |
|---------------|------------|------|-------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------|
| 560,0         | 23,0       | 1,9  | 5,00  | NMRV050                                                                              | 80C2                                                                                  | 1251      |
| 373,0         | 35,0       | 1,5  | 7,50  | NMRV050                                                                              | 80C2                                                                                  | 1433      |
| 280,0         | 46,0       | 1,2  | 10,00 | NMRV050                                                                              | 80C2                                                                                  | 1577      |
| 187,0         | 66,0       | 0,9  | 15,00 | NMRV050                                                                              | 80C2                                                                                  | 1805      |
| 373,0         | 35,0       | 2,7  | 7,50  | NMRV-P063                                                                            | 80C2/90S2                                                                             | 1873      |
| 280,0         | 46,0       | 2,2  | 10,00 | NMRV-P063                                                                            | 80C2/90S2                                                                             | 2061      |
| 187,0         | 67,0       | 1,6  | 15,00 | NMRV-P063                                                                            | 80C2/90S2                                                                             | 2359      |
| 140,0         | 87,0       | 1,2  | 20,00 | NMRV-P063                                                                            | 80C2/90S2                                                                             | 2597      |
| 112,0         | 106,0      | 0,9  | 25,00 | NMRV-P063                                                                            | 80C2/90S2                                                                             | 2797      |
| 93,0          | 121,0      | 1,0  | 30,00 | NMRV-P063                                                                            | 80C2/90S2                                                                             | 2973      |
| 70,0          | 156,0      | 0,7  | 40,00 | NMRV-P063                                                                            | 80C2/90S2                                                                             | 3272      |
| 187,0         | 68,0       | 1,9  | 7,50  | NMRV-P063                                                                            | 90LA4                                                                                 | 2359      |
| 140,0         | 89,0       | 1,5  | 10,00 | NMRV-P063                                                                            | 90LA4                                                                                 | 2597      |
| 93,0          | 129,0      | 1,2  | 15,00 | NMRV-P063                                                                            | 90LA4                                                                                 | 2973      |
| 70,0          | 168,0      | 0,9  | 20,00 | NMRV-P063                                                                            | 90LA4                                                                                 | 3272      |
| 120,0         | 105,0      | 2,0  | 7,50  | NMRV-P075                                                                            | 100LA6                                                                                | 3227      |
| 90,0          | 137,0      | 1,7  | 10,00 | NMRV-P075                                                                            | 100LA6                                                                                | 3551      |
| 60,0          | 198,0      | 1,3  | 15,00 | NMRV-P075                                                                            | 100LA6                                                                                | 4065      |
| 45,0          | 255,0      | 1,1  | 20,00 | NMRV-P075                                                                            | 100LA6                                                                                | 4474      |
| 36,0          | 311,0      | 0,8  | 25,00 | NMRV-P075                                                                            | 100LA6                                                                                | 4820      |
| 30,0          | 354,0      | 0,8  | 30,00 | NMRV-P075                                                                            | 100LA6                                                                                | 5122      |
| 280,0         | 46,0       | 3,3  | 10,00 | NMRV-P075                                                                            | 80C2/90S2                                                                             | 2433      |
| 187,0         | 68,0       | 2,4  | 15,00 | NMRV-P075                                                                            | 80C2/90S2                                                                             | 2785      |
| 140,0         | 88,0       | 2,0  | 20,00 | NMRV-P075                                                                            | 80C2/90S2                                                                             | 3065      |
| 112,0         | 107,0      | 1,5  | 25,00 | NMRV-P075                                                                            | 80C2/90S2                                                                             | 3302      |
| 93,0          | 124,0      | 1,5  | 30,00 | NMRV-P075                                                                            | 80C2/90S2                                                                             | 3509      |
| 70,0          | 160,0      | 1,1  | 40,00 | NMRV-P075                                                                            | 80C2/90S2                                                                             | 3862      |
| 56,0          | 192,0      | 0,9  | 50,00 | NMRV-P075                                                                            | 80C2/90S2                                                                             | 4160      |
| 47,0          | 221,0      | 0,7  | 60,00 | NMRV-P075                                                                            | 80C2/90S2                                                                             | 4421      |
| 187,0         | 68,0       | 2,7  | 7,50  | NMRV-P075                                                                            | 90LA4                                                                                 | 2785      |
| 140,0         | 90,0       | 2,2  | 10,00 | NMRV-P075                                                                            | 90LA4                                                                                 | 3065      |
| 93,0          | 132,0      | 1,7  | 15,00 | NMRV-P075                                                                            | 90LA4                                                                                 | 3509      |

# 1,50 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 70,0          | 170,0      | 1,4  | 20,00  | NMRV-P075                                                                         | 90LA4                                                                               | 3862      |
| 56,0          | 207,0      | 1,0  | 25,00  | NMRV-P075                                                                         | 90LA4                                                                               | 4160      |
| 47,0          | 236,0      | 1,0  | 30,00  | NMRV-P075                                                                         | 90LA4                                                                               | 4421      |
| 35,0          | 299,0      | 0,8  | 40,00  | NMRV-P075                                                                         | 90LA4                                                                               | 4865      |
| 90,0          | 139,0      | 2,9  | 10,00  | NMRV-P090                                                                         | 100LA6                                                                              | 3929      |
| 60,0          | 203,0      | 2,3  | 15,00  | NMRV-P090                                                                         | 100LA6                                                                              | 4498      |
| 45,0          | 261,0      | 1,6  | 20,00  | NMRV-P090                                                                         | 100LA6                                                                              | 4951      |
| 36,0          | 318,0      | 1,3  | 25,00  | NMRV-P090                                                                         | 100LA6                                                                              | 5333      |
| 30,0          | 363,0      | 1,3  | 30,00  | NMRV-P090                                                                         | 100LA6                                                                              | 5667      |
| 23,0          | 459,0      | 1,0  | 40,00  | NMRV-P090                                                                         | 100LA6                                                                              | 6238      |
| 140,0         | 90,0       | 2,9  | 20,00  | NMRV-P090                                                                         | 80C2/90S2                                                                           | 3391      |
| 112,0         | 110,0      | 2,3  | 25,00  | NMRV-P090                                                                         | 80C2/90S2                                                                           | 3653      |
| 93,0          | 127,0      | 2,4  | 30,00  | NMRV-P090                                                                         | 80C2/90S2                                                                           | 3882      |
| 70,0          | 164,0      | 1,7  | 40,00  | NMRV-P090                                                                         | 80C2/90S2                                                                           | 4273      |
| 56,0          | 197,0      | 1,3  | 50,00  | NMRV-P090                                                                         | 80C2/90S2                                                                           | 4603      |
| 47,0          | 230,0      | 1,1  | 60,00  | NMRV-P090                                                                         | 80C2/90S2                                                                           | 4891      |
| 35,0          | 287,0      | 0,8  | 80,00  | NMRV-P090                                                                         | 80C2/90S2                                                                           | 5383      |
| 93,0          | 134,0      | 3,0  | 15,00  | NMRV-P090                                                                         | 90LA4                                                                               | 3882      |
| 70,0          | 174,0      | 2,2  | 20,00  | NMRV-P090                                                                         | 90LA4                                                                               | 4273      |
| 56,0          | 212,0      | 1,8  | 25,00  | NMRV-P090                                                                         | 90LA4                                                                               | 4603      |
| 47,0          | 243,0      | 1,8  | 30,00  | NMRV-P090                                                                         | 90LA4                                                                               | 4891      |
| 35,0          | 311,0      | 1,3  | 40,00  | NMRV-P090                                                                         | 90LA4                                                                               | 5383      |
| 28,0          | 374,0      | 1,0  | 50,00  | NMRV-P090                                                                         | 90LA4                                                                               | 5799      |
| 23,0          | 430,0      | 0,8  | 60,00  | NMRV-P090                                                                         | 90LA4                                                                               | 6163      |
| 45,0          | 268,0      | 2,7  | 20,00  | NMRV-P110                                                                         | 100LA6                                                                              | 6256      |
| 36,0          | 326,0      | 2,3  | 25,00  | NMRV-P110                                                                         | 100LA6                                                                              | 6739      |
| 30,0          | 368,0      | 2,3  | 30,00  | NMRV-P110                                                                         | 100LA6                                                                              | 7161      |
| 23,0          | 478,0      | 1,7  | 40,00  | NMRV-P110                                                                         | 100LA6                                                                              | 7882      |
| 18,0          | 573,0      | 1,3  | 50,00  | NMRV-P110                                                                         | 100LA6                                                                              | 8491      |
| 15,0          | 659,0      | 1,0  | 60,00  | NMRV-P110                                                                         | 100LA6                                                                              | 9023      |
| 70,0          | 170,0      | 3,1  | 40,00  | NMRV-P110                                                                         | 80C2/90S2                                                                           | 5399      |
| 56,0          | 205,0      | 2,4  | 50,00  | NMRV-P110                                                                         | 80C2/90S2                                                                           | 5816      |
| 47,0          | 240,0      | 2,0  | 60,00  | NMRV-P110                                                                         | 80C2/90S2                                                                           | 6181      |
| 35,0          | 303,0      | 1,3  | 80,00  | NMRV-P110                                                                         | 80C2/90S2                                                                           | 6803      |
| 28,0          | 358,0      | 1,0  | 100,00 | NMRV-P110                                                                         | 80C2/90S2                                                                           | 7328      |
| 56,0          | 218,0      | 3,1  | 25,00  | NMRV-P110                                                                         | 90LA4                                                                               | 5816      |
| 47,0          | 246,0      | 3,0  | 30,00  | NMRV-P110                                                                         | 90LA4                                                                               | 6181      |
| 35,0          | 323,0      | 2,2  | 40,00  | NMRV-P110                                                                         | 90LA4                                                                               | 6803      |
| 28,0          | 389,0      | 1,7  | 50,00  | NMRV-P110                                                                         | 90LA4                                                                               | 7328      |
| 23,0          | 455,0      | 1,4  | 60,00  | NMRV-P110                                                                         | 90LA4                                                                               | 7787      |
| 18,0          | 557,0      | 0,9  | 80,00  | NMRV-P110                                                                         | 90LA4                                                                               | 8571      |
| 14,0          | 655,0      | 0,7  | 100,00 | NMRV-P110                                                                         | 90LA4                                                                               | 9232      |
| 36,0          | 330,0      | 3,2  | 25,00  | NMRV130                                                                           | 100LA6                                                                              | 8814      |
| 30,0          | 377,0      | 3,1  | 30,00  | NMRV130                                                                           | 100LA6                                                                              | 9366      |
| 23,0          | 484,0      | 2,3  | 40,00  | NMRV130                                                                           | 100LA6                                                                              | 10309     |
| 18,0          | 581,0      | 1,8  | 50,00  | NMRV130                                                                           | 100LA6                                                                              | 11105     |
| 15,0          | 669,0      | 1,4  | 60,00  | NMRV130                                                                           | 100LA6                                                                              | 11801     |
| 11,0          | 828,0      | 1,0  | 80,00  | NMRV130                                                                           | 100LA6                                                                              | 12989     |
| 9,0           | 955,0      | 0,8  | 100,00 | NMRV130                                                                           | 100LA6                                                                              | 13500     |
| 18,0          | 565,0      | 1,5  | 80,00  | NMRV130                                                                           | 90LA4                                                                               | 11210     |
| 14,0          | 665,0      | 1,1  | 100,00 | NMRV130                                                                           | 90LA4                                                                               | 12076     |
| 18,0          | 589,0      | 2,7  | 50,00  | NMRV150                                                                           | 100LA6                                                                              | 15182     |
| 15,0          | 678,0      | 2,1  | 60,00  | NMRV150                                                                           | 100LA6                                                                              | 16133     |
| 11,0          | 841,0      | 1,5  | 80,00  | NMRV150                                                                           | 100LA6                                                                              | 17757     |
| 9,0           | 971,0      | 1,2  | 100,00 | NMRV150                                                                           | 100LA6                                                                              | 18000     |
| 60,0          | 198,0      | 2,1  | 23,30  | HW040+NMRV-P090                                                                   | 90LA4                                                                               | 4495      |
| 45,0          | 261,0      | 1,9  | 31,10  | HW040+NMRV-P090                                                                   | 90LA4                                                                               | 4948      |
| 33,0          | 348,0      | 1,4  | 42,00  | HW040+NMRV-P090                                                                   | 90LA4                                                                               | 5472      |

## 1,50 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 30,0          | 376,0      | 1,5  | 46,60  | HW040+NMRV-P090                                                                    | 90LA4                                                                               | 5664      |
| 22,0          | 499,0      | 1,2  | 63,00  | HW040+NMRV-P090                                                                    | 90LA4                                                                               | 6264      |
| 18,0          | 581,0      | 0,9  | 77,60  | HW040+NMRV-P090                                                                    | 90LA4                                                                               | 6715      |
| 17,0          | 640,0      | 0,9  | 84,00  | HW040+NMRV-P090                                                                    | 90LA4                                                                               | 6894      |
| 15,0          | 658,0      | 0,9  | 93,20  | HW040+NMRV-P090                                                                    | 90LA4                                                                               | 7136      |
| 13,0          | 827,0      | 0,8  | 110,00 | HW040+NMRV-P090                                                                    | 90LA4                                                                               | 7542      |
| 11,0          | 866,0      | 0,8  | 126,00 | HW040+NMRV-P090                                                                    | 90LA4                                                                               | 7892      |
| 60,0          | 200,0      | 2,1  | 23,30  | HW040+NMRV-P110                                                                    | 90LA4                                                                               | 5680      |
| 45,0          | 261,0      | 2,1  | 31,10  | HW040+NMRV-P110                                                                    | 90LA4                                                                               | 6252      |
| 33,0          | 348,0      | 1,4  | 42,00  | HW040+NMRV-P110                                                                    | 90LA4                                                                               | 6914      |
| 30,0          | 381,0      | 2,1  | 46,60  | HW040+NMRV-P110                                                                    | 90LA4                                                                               | 7157      |
| 23,0          | 495,0      | 1,8  | 62,10  | HW040+NMRV-P110                                                                    | 90LA4                                                                               | 7877      |
| 18,0          | 604,0      | 1,6  | 77,60  | HW040+NMRV-P110                                                                    | 90LA4                                                                               | 8485      |
| 17,0          | 657,0      | 1,4  | 84,00  | HW040+NMRV-P110                                                                    | 90LA4                                                                               | 8711      |
| 15,0          | 666,0      | 1,6  | 93,20  | HW040+NMRV-P110                                                                    | 90LA4                                                                               | 9017      |
| 13,0          | 800,0      | 1,4  | 105,00 | HW040+NMRV-P110                                                                    | 90LA4                                                                               | 9384      |
| 11,0          | 872,0      | 1,4  | 126,00 | HW040+NMRV-P110                                                                    | 90LA4                                                                               | 9972      |
| 10,0          | 1034,0     | 0,9  | 137,50 | HW040+NMRV-P110                                                                    | 90LA4                                                                               | 10266     |
| 9,0           | 1020,0     | 0,9  | 155,30 | HW040+NMRV-P110                                                                    | 90LA4                                                                               | 10320     |
| 8,0           | 1129,0     | 1,0  | 168,00 | HW040+NMRV-P110                                                                    | 90LA4                                                                               | 10320     |
| 6,0           | 1444,0     | 0,8  | 220,00 | HW040+NMRV-P110                                                                    | 90LA4                                                                               | 10320     |
| 14,0          | 730,0      | 1,5  | 100,00 | NMRV-P063/110                                                                      | 90LA4                                                                               | 8198      |
| 9,0           | 1055,0     | 1,1  | 150,00 | NMRV-P063/110                                                                      | 90LA4                                                                               | 9384      |
| 7,0           | 1371,0     | 0,8  | 200,00 | NMRV-P063/110                                                                      | 90LA4                                                                               | 10320     |
| 6,0           | 1669,0     | 0,7  | 250,00 | NMRV-P063/110                                                                      | 90LA4                                                                               | 10320     |
| 4,7           | 1789,0     | 0,7  | 300,00 | NMRV-P063/110                                                                      | 90LA4                                                                               | 10320     |
| 14,0          | 739,0      | 1,5  | 100,00 | NMRV-P063/130                                                                      | 90LA4                                                                               | 10722     |
| 9,0           | 1042,0     | 1,5  | 150,00 | NMRV-P063/130                                                                      | 90LA4                                                                               | 12274     |
| 7,0           | 1371,0     | 1,2  | 200,00 | NMRV-P063/130                                                                      | 90LA4                                                                               | 13500     |
| 6,0           | 1669,0     | 0,9  | 250,00 | NMRV-P063/130                                                                      | 90LA4                                                                               | 13500     |
| 4,7           | 1816,0     | 1,0  | 300,00 | NMRV-P063/130                                                                      | 90LA4                                                                               | 13500     |
| 3,5           | 2315,0     | 0,7  | 400,00 | NMRV-P063/130                                                                      | 90LA4                                                                               | 13500     |
| 9,0           | 1052,0     | 1,9  | 150,00 | NMRV-P063/150                                                                      | 90LA4                                                                               | 18000     |
| 7,0           | 1371,0     | 1,5  | 200,00 | NMRV-P063/150                                                                      | 90LA4                                                                               | 18000     |
| 6,0           | 1669,0     | 1,2  | 250,00 | NMRV-P063/150                                                                      | 90LA4                                                                               | 18000     |
| 4,7           | 1985,0     | 1,2  | 300,00 | NMRV-P063/150                                                                      | 90LA4                                                                               | 18000     |
| 3,5           | 2350,0     | 1,1  | 400,00 | NMRV-P063/150                                                                      | 90LA4                                                                               | 18000     |
| 2,8           | 2760,0     | 0,8  | 500,00 | NMRV-P063/150                                                                      | 90LA4                                                                               | 18000     |
| 2,3           | 3404,0     | 0,8  | 600,00 | NMRV-P063/150                                                                      | 90LA4                                                                               | 18000     |

## 1,85 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i     |  |  | Fr<br>[N] |
|---------------|------------|------|-------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------|
| 187,0         | 84,0       | 1,5  | 7,50  | NMRV-P063                                                                            | 90LB4                                                                                 | 2359      |
| 140,0         | 110,0      | 1,2  | 10,00 | NMRV-P063                                                                            | 90LB4                                                                                 | 2597      |
| 93,0          | 159,0      | 0,9  | 15,00 | NMRV-P063                                                                            | 90LB4                                                                                 | 2973      |
| 70,0          | 207,0      | 0,7  | 20,00 | NMRV-P063                                                                            | 90LB4                                                                                 | 3272      |
| 120,0         | 130,0      | 1,7  | 7,50  | NMRV-P075                                                                            | 100LB6                                                                                | 3227      |
| 90,0          | 169,0      | 1,4  | 10,00 | NMRV-P075                                                                            | 100LB6                                                                                | 3551      |
| 60,0          | 245,0      | 1,1  | 15,00 | NMRV-P075                                                                            | 100LB6                                                                                | 4065      |
| 45,0          | 314,0      | 0,9  | 20,00 | NMRV-P075                                                                            | 100LB6                                                                                | 4474      |
| 187,0         | 84,0       | 2,2  | 7,50  | NMRV-P075                                                                            | 90LB4                                                                                 | 2785      |
| 140,0         | 111,0      | 1,8  | 10,00 | NMRV-P075                                                                            | 90LB4                                                                                 | 3065      |
| 93,0          | 163,0      | 1,4  | 15,00 | NMRV-P075                                                                            | 90LB4                                                                                 | 3509      |
| 70,0          | 210,0      | 1,1  | 20,00 | NMRV-P075                                                                            | 90LB4                                                                                 | 3862      |
| 56,0          | 256,0      | 0,8  | 25,00 | NMRV-P075                                                                            | 90LB4                                                                                 | 4160      |

# 1,85 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 47,0          | 292,0      | 0,8  | 30,00  | NMRV-P075                                                                         | 90LB4                                                                               | 4421      |
| 120,0         | 131,0      | 2,9  | 7,50   | NMRV-P090                                                                         | 100LB6                                                                              | 3570      |
| 90,0          | 171,0      | 2,4  | 10,00  | NMRV-P090                                                                         | 100LB6                                                                              | 3929      |
| 60,0          | 250,0      | 1,8  | 15,00  | NMRV-P090                                                                         | 100LB6                                                                              | 4498      |
| 45,0          | 322,0      | 1,3  | 20,00  | NMRV-P090                                                                         | 100LB6                                                                              | 4951      |
| 36,0          | 393,0      | 1,0  | 25,00  | NMRV-P090                                                                         | 100LB6                                                                              | 5333      |
| 30,0          | 448,0      | 1,1  | 30,00  | NMRV-P090                                                                         | 100LB6                                                                              | 5667      |
| 23,0          | 566,0      | 0,8  | 40,00  | NMRV-P090                                                                         | 100LB6                                                                              | 6238      |
| 140,0         | 112,0      | 3,0  | 10,00  | NMRV-P090                                                                         | 90LB4                                                                               | 3391      |
| 93,0          | 165,0      | 2,4  | 15,00  | NMRV-P090                                                                         | 90LB4                                                                               | 3882      |
| 70,0          | 215,0      | 1,8  | 20,00  | NMRV-P090                                                                         | 90LB4                                                                               | 4273      |
| 56,0          | 262,0      | 1,4  | 25,00  | NMRV-P090                                                                         | 90LB4                                                                               | 4603      |
| 47,0          | 299,0      | 1,4  | 30,00  | NMRV-P090                                                                         | 90LB4                                                                               | 4891      |
| 35,0          | 384,0      | 1,0  | 40,00  | NMRV-P090                                                                         | 90LB4                                                                               | 5383      |
| 28,0          | 461,0      | 0,8  | 50,00  | NMRV-P090                                                                         | 90LB4                                                                               | 5799      |
| 60,0          | 253,0      | 3,0  | 15,00  | NMRV-P110                                                                         | 100LB6                                                                              | 5684      |
| 45,0          | 330,0      | 2,2  | 20,00  | NMRV-P110                                                                         | 100LB6                                                                              | 6256      |
| 36,0          | 403,0      | 1,9  | 25,00  | NMRV-P110                                                                         | 100LB6                                                                              | 6739      |
| 30,0          | 454,0      | 1,9  | 30,00  | NMRV-P110                                                                         | 100LB6                                                                              | 7161      |
| 23,0          | 589,0      | 1,3  | 40,00  | NMRV-P110                                                                         | 100LB6                                                                              | 7882      |
| 18,0          | 707,0      | 1,1  | 50,00  | NMRV-P110                                                                         | 100LB6                                                                              | 8491      |
| 15,0          | 813,0      | 0,8  | 60,00  | NMRV-P110                                                                         | 100LB6                                                                              | 9023      |
| 70,0          | 217,0      | 3,0  | 20,00  | NMRV-P110                                                                         | 90LB4                                                                               | 5399      |
| 56,0          | 268,0      | 2,5  | 25,00  | NMRV-P110                                                                         | 90LB4                                                                               | 5816      |
| 47,0          | 303,0      | 2,4  | 30,00  | NMRV-P110                                                                         | 90LB4                                                                               | 6181      |
| 35,0          | 399,0      | 1,8  | 40,00  | NMRV-P110                                                                         | 90LB4                                                                               | 6803      |
| 28,0          | 480,0      | 1,4  | 50,00  | NMRV-P110                                                                         | 90LB4                                                                               | 7328      |
| 23,0          | 561,0      | 1,1  | 60,00  | NMRV-P110                                                                         | 90LB4                                                                               | 7787      |
| 18,0          | 687,0      | 0,7  | 80,00  | NMRV-P110                                                                         | 90LB4                                                                               | 8571      |
| 36,0          | 408,0      | 2,6  | 25,00  | NMRV130                                                                           | 100LB6                                                                              | 8814      |
| 30,0          | 465,0      | 2,5  | 30,00  | NMRV130                                                                           | 100LB6                                                                              | 9366      |
| 23,0          | 597,0      | 1,8  | 40,00  | NMRV130                                                                           | 100LB6                                                                              | 10309     |
| 18,0          | 717,0      | 1,5  | 50,00  | NMRV130                                                                           | 100LB6                                                                              | 11105     |
| 15,0          | 825,0      | 1,1  | 60,00  | NMRV130                                                                           | 100LB6                                                                              | 11801     |
| 11,0          | 1021,0     | 0,8  | 80,00  | NMRV130                                                                           | 100LB6                                                                              | 12989     |
| 18,0          | 697,0      | 1,2  | 80,00  | NMRV130                                                                           | 90LB4                                                                               | 11210     |
| 14,0          | 821,0      | 0,9  | 100,00 | NMRV130                                                                           | 90LB4                                                                               | 12076     |
| 18,0          | 727,0      | 2,2  | 50,00  | NMRV150                                                                           | 100LB6                                                                              | 15182     |
| 15,0          | 837,0      | 1,7  | 60,00  | NMRV150                                                                           | 100LB6                                                                              | 16133     |
| 11,0          | 1037,0     | 1,3  | 80,00  | NMRV150                                                                           | 100LB6                                                                              | 17757     |
| 9,0           | 1198,0     | 1,0  | 100,00 | NMRV150                                                                           | 100LB6                                                                              | 18000     |
| 60,0          | 244,0      | 1,7  | 23,30  | HW040+NMRV-P090                                                                   | 90LB4                                                                               | 4495      |
| 45,0          | 321,0      | 1,5  | 31,10  | HW040+NMRV-P090                                                                   | 90LB4                                                                               | 4948      |
| 33,0          | 429,0      | 1,1  | 42,00  | HW040+NMRV-P090                                                                   | 90LB4                                                                               | 5472      |
| 30,0          | 464,0      | 1,2  | 46,60  | HW040+NMRV-P090                                                                   | 90LB4                                                                               | 5664      |
| 22,0          | 616,0      | 1,0  | 63,00  | HW040+NMRV-P090                                                                   | 90LB4                                                                               | 6264      |
| 18,0          | 716,0      | 0,7  | 77,60  | HW040+NMRV-P090                                                                   | 90LB4                                                                               | 6715      |
| 17,0          | 790,0      | 0,7  | 84,00  | HW040+NMRV-P090                                                                   | 90LB4                                                                               | 6894      |
| 15,0          | 812,0      | 0,7  | 93,20  | HW040+NMRV-P090                                                                   | 90LB4                                                                               | 7136      |
| 60,0          | 247,0      | 1,7  | 23,30  | HW040+NMRV-P110                                                                   | 90LB4                                                                               | 5680      |
| 45,0          | 321,0      | 1,7  | 31,10  | HW040+NMRV-P110                                                                   | 90LB4                                                                               | 6252      |
| 33,0          | 429,0      | 1,1  | 42,00  | HW040+NMRV-P110                                                                   | 90LB4                                                                               | 6914      |
| 30,0          | 470,0      | 1,7  | 46,60  | HW040+NMRV-P110                                                                   | 90LB4                                                                               | 7157      |
| 23,0          | 611,0      | 1,5  | 62,10  | HW040+NMRV-P110                                                                   | 90LB4                                                                               | 7877      |
| 18,0          | 745,0      | 1,3  | 77,60  | HW040+NMRV-P110                                                                   | 90LB4                                                                               | 8485      |
| 17,0          | 810,0      | 1,1  | 84,00  | HW040+NMRV-P110                                                                   | 90LB4                                                                               | 8711      |
| 15,0          | 822,0      | 1,3  | 93,20  | HW040+NMRV-P110                                                                   | 90LB4                                                                               | 9017      |
| 13,0          | 987,0      | 1,1  | 105,00 | HW040+NMRV-P110                                                                   | 90LB4                                                                               | 9384      |



## 1,85 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 11,0          | 1075,0     | 1,1  | 126,00 | HW040+NMRV-P110                                                                    | 90LB4                                                                               | 9972      |
| 10,0          | 1275,0     | 0,7  | 137,50 | HW040+NMRV-P110                                                                    | 90LB4                                                                               | 10266     |
| 9,0           | 1258,0     | 0,7  | 155,30 | HW040+NMRV-P110                                                                    | 90LB4                                                                               | 10320     |
| 8,0           | 1392,0     | 0,8  | 168,00 | HW040+NMRV-P110                                                                    | 90LB4                                                                               | 10320     |
| 14,0          | 900,0      | 1,2  | 100,00 | NMRV-P063/110                                                                      | 90LB4                                                                               | 8198      |
| 9,0           | 1301,0     | 0,9  | 150,00 | NMRV-P063/110                                                                      | 90LB4                                                                               | 9384      |
| 14,0          | 911,0      | 1,2  | 100,00 | NMRV-P063/130                                                                      | 90LB4                                                                               | 10722     |
| 9,0           | 1285,0     | 1,2  | 150,00 | NMRV-P063/130                                                                      | 90LB4                                                                               | 12274     |
| 7,0           | 1691,0     | 0,9  | 200,00 | NMRV-P063/130                                                                      | 90LB4                                                                               | 13500     |
| 6,0           | 2059,0     | 0,7  | 250,00 | NMRV-P063/130                                                                      | 90LB4                                                                               | 13500     |
| 4,7           | 2240,0     | 0,8  | 300,00 | NMRV-P063/130                                                                      | 90LB4                                                                               | 13500     |
| 9,0           | 1297,0     | 1,5  | 150,00 | NMRV-P063/150                                                                      | 90LB4                                                                               | 18000     |
| 7,0           | 1691,0     | 1,2  | 200,00 | NMRV-P063/150                                                                      | 90LB4                                                                               | 18000     |
| 6,0           | 2059,0     | 1,0  | 250,00 | NMRV-P063/150                                                                      | 90LB4                                                                               | 18000     |
| 4,7           | 2449,0     | 0,9  | 300,00 | NMRV-P063/150                                                                      | 90LB4                                                                               | 18000     |
| 3,5           | 2898,0     | 0,9  | 400,00 | NMRV-P063/150                                                                      | 90LB4                                                                               | 18000     |

## 2,20 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i     |  |  | Fr<br>[N] |
|---------------|------------|------|-------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------|
| 373,0         | 51,0       | 1,8  | 7,50  | NMRV-P063                                                                           | 90L2                                                                                 | 1873      |
| 280,0         | 67,0       | 1,5  | 10,00 | NMRV-P063                                                                           | 90L2                                                                                 | 2061      |
| 187,0         | 98,0       | 1,1  | 15,00 | NMRV-P063                                                                           | 90L2                                                                                 | 2359      |
| 140,0         | 128,0      | 0,8  | 20,00 | NMRV-P063                                                                           | 90L2                                                                                 | 2597      |
| 187,0         | 100,0      | 1,8  | 7,50  | NMRV-P075                                                                           | 100LA4                                                                               | 2785      |
| 140,0         | 132,0      | 1,5  | 10,00 | NMRV-P075                                                                           | 100LA4                                                                               | 3065      |
| 93,0          | 194,0      | 1,2  | 15,00 | NMRV-P075                                                                           | 100LA4                                                                               | 3509      |
| 70,0          | 249,0      | 0,9  | 20,00 | NMRV-P075                                                                           | 100LA4                                                                               | 3862      |
| 56,0          | 304,0      | 0,7  | 25,00 | NMRV-P075                                                                           | 100LA4                                                                               | 4160      |
| 47,0          | 347,0      | 0,7  | 30,00 | NMRV-P075                                                                           | 100LA4                                                                               | 4421      |
| 120,0         | 154,0      | 1,4  | 7,50  | NMRV-P075                                                                           | 112MA6                                                                               | 3227      |
| 90,0          | 201,0      | 1,1  | 10,00 | NMRV-P075                                                                           | 112MA6                                                                               | 3551      |
| 60,0          | 291,0      | 0,9  | 15,00 | NMRV-P075                                                                           | 112MA6                                                                               | 4065      |
| 45,0          | 374,0      | 0,7  | 20,00 | NMRV-P075                                                                           | 112MA6                                                                               | 4474      |
| 373,0         | 51,0       | 2,6  | 7,50  | NMRV-P075                                                                           | 90L2                                                                                 | 2210      |
| 280,0         | 68,0       | 2,2  | 10,00 | NMRV-P075                                                                           | 90L2                                                                                 | 2433      |
| 187,0         | 99,0       | 1,7  | 15,00 | NMRV-P075                                                                           | 90L2                                                                                 | 2785      |
| 140,0         | 129,0      | 1,3  | 20,00 | NMRV-P075                                                                           | 90L2                                                                                 | 3065      |
| 112,0         | 158,0      | 1,0  | 25,00 | NMRV-P075                                                                           | 90L2                                                                                 | 3302      |
| 93,0          | 182,0      | 1,0  | 30,00 | NMRV-P075                                                                           | 90L2                                                                                 | 3509      |
| 70,0          | 234,0      | 0,8  | 40,00 | NMRV-P075                                                                           | 90L2                                                                                 | 3862      |
| 187,0         | 101,0      | 3,1  | 7,50  | NMRV-P090                                                                           | 100LA4                                                                               | 3081      |
| 140,0         | 134,0      | 2,6  | 10,00 | NMRV-P090                                                                           | 100LA4                                                                               | 3391      |
| 93,0          | 196,0      | 2,0  | 15,00 | NMRV-P090                                                                           | 100LA4                                                                               | 3882      |
| 70,0          | 255,0      | 1,5  | 20,00 | NMRV-P090                                                                           | 100LA4                                                                               | 4273      |
| 56,0          | 312,0      | 1,2  | 25,00 | NMRV-P090                                                                           | 100LA4                                                                               | 4603      |
| 47,0          | 356,0      | 1,2  | 30,00 | NMRV-P090                                                                           | 100LA4                                                                               | 4891      |
| 35,0          | 456,0      | 0,9  | 40,00 | NMRV-P090                                                                           | 100LA4                                                                               | 5383      |
| 120,0         | 156,0      | 2,4  | 7,50  | NMRV-P090                                                                           | 112MA6                                                                               | 3570      |
| 90,0          | 203,0      | 2,0  | 10,00 | NMRV-P090                                                                           | 112MA6                                                                               | 3929      |
| 60,0          | 298,0      | 1,6  | 15,00 | NMRV-P090                                                                           | 112MA6                                                                               | 4498      |
| 45,0          | 383,0      | 1,1  | 20,00 | NMRV-P090                                                                           | 112MA6                                                                               | 4951      |
| 36,0          | 467,0      | 0,9  | 25,00 | NMRV-P090                                                                           | 112MA6                                                                               | 5333      |
| 30,0          | 532,0      | 0,9  | 30,00 | NMRV-P090                                                                           | 112MA6                                                                               | 5667      |
| 280,0         | 68,0       | 3,5  | 10,00 | NMRV-P090                                                                           | 90L2                                                                                 | 2692      |
| 187,0         | 100,0      | 2,7  | 15,00 | NMRV-P090                                                                           | 90L2                                                                                 | 3081      |

## 2,20 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i      |  |  | Fr<br>[N] |
|---------------|------------|------|--------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 140,0         | 132,0      | 2,0  | 20,00  | NMRV-P090                                                                         | 90L2                                                                                | 3391      |
| 112,0         | 161,0      | 1,5  | 25,00  | NMRV-P090                                                                         | 90L2                                                                                | 3653      |
| 93,0          | 187,0      | 1,7  | 30,00  | NMRV-P090                                                                         | 90L2                                                                                | 3882      |
| 70,0          | 240,0      | 1,1  | 40,00  | NMRV-P090                                                                         | 90L2                                                                                | 4273      |
| 56,0          | 289,0      | 0,9  | 50,00  | NMRV-P090                                                                         | 90L2                                                                                | 4603      |
| 47,0          | 338,0      | 0,7  | 60,00  | NMRV-P090                                                                         | 90L2                                                                                | 4891      |
| 93,0          | 196,0      | 3,3  | 15,00  | NMRV-P110                                                                         | 100LA4                                                                              | 4905      |
| 70,0          | 258,0      | 2,5  | 20,00  | NMRV-P110                                                                         | 100LA4                                                                              | 5399      |
| 56,0          | 319,0      | 2,1  | 25,00  | NMRV-P110                                                                         | 100LA4                                                                              | 5816      |
| 47,0          | 360,0      | 2,0  | 30,00  | NMRV-P110                                                                         | 100LA4                                                                              | 6181      |
| 35,0          | 474,0      | 1,5  | 40,00  | NMRV-P110                                                                         | 100LA4                                                                              | 6803      |
| 28,0          | 571,0      | 1,2  | 50,00  | NMRV-P110                                                                         | 100LA4                                                                              | 7328      |
| 23,0          | 667,0      | 0,9  | 60,00  | NMRV-P110                                                                         | 100LA4                                                                              | 7787      |
| 90,0          | 206,0      | 3,5  | 10,00  | NMRV-P110                                                                         | 112MA6                                                                              | 4965      |
| 60,0          | 301,0      | 2,5  | 15,00  | NMRV-P110                                                                         | 112MA6                                                                              | 5684      |
| 45,0          | 392,0      | 1,8  | 20,00  | NMRV-P110                                                                         | 112MA6                                                                              | 6256      |
| 36,0          | 479,0      | 1,6  | 25,00  | NMRV-P110                                                                         | 112MA6                                                                              | 6739      |
| 30,0          | 539,0      | 1,6  | 30,00  | NMRV-P110                                                                         | 112MA6                                                                              | 7161      |
| 23,0          | 701,0      | 1,1  | 40,00  | NMRV-P110                                                                         | 112MA6                                                                              | 7882      |
| 18,0          | 841,0      | 0,9  | 50,00  | NMRV-P110                                                                         | 112MA6                                                                              | 8491      |
| 15,0          | 967,0      | 0,7  | 60,00  | NMRV-P110                                                                         | 112MA6                                                                              | 9023      |
| 112,0         | 165,0      | 3,1  | 25,00  | NMRV-P110                                                                         | 90L2                                                                                | 4616      |
| 93,0          | 189,0      | 2,9  | 30,00  | NMRV-P110                                                                         | 90L2                                                                                | 4905      |
| 70,0          | 249,0      | 2,1  | 40,00  | NMRV-P110                                                                         | 90L2                                                                                | 5399      |
| 56,0          | 300,0      | 1,6  | 50,00  | NMRV-P110                                                                         | 90L2                                                                                | 5816      |
| 47,0          | 351,0      | 1,3  | 60,00  | NMRV-P110                                                                         | 90L2                                                                                | 6181      |
| 35,0          | 444,0      | 0,9  | 80,00  | NMRV-P110                                                                         | 90L2                                                                                | 6803      |
| 28,0          | 525,0      | 0,7  | 100,00 | NMRV-P110                                                                         | 90L2                                                                                | 7328      |
| 56,0          | 319,0      | 2,9  | 25,00  | NMRV130                                                                           | 100LA4                                                                              | 7607      |
| 47,0          | 365,0      | 2,9  | 30,00  | NMRV130                                                                           | 100LA4                                                                              | 8084      |
| 35,0          | 474,0      | 2,2  | 40,00  | NMRV130                                                                           | 100LA4                                                                              | 8897      |
| 28,0          | 571,0      | 1,7  | 50,00  | NMRV130                                                                           | 100LA4                                                                              | 9584      |
| 23,0          | 658,0      | 1,4  | 60,00  | NMRV130                                                                           | 100LA4                                                                              | 10185     |
| 18,0          | 829,0      | 1,0  | 80,00  | NMRV130                                                                           | 100LA4                                                                              | 11210     |
| 14,0          | 976,0      | 0,8  | 100,00 | NMRV130                                                                           | 100LA4                                                                              | 12076     |
| 36,0          | 485,0      | 2,2  | 25,00  | NMRV130                                                                           | 112MA6                                                                              | 8814      |
| 30,0          | 554,0      | 2,1  | 30,00  | NMRV130                                                                           | 112MA6                                                                              | 9366      |
| 23,0          | 710,0      | 1,5  | 40,00  | NMRV130                                                                           | 112MA6                                                                              | 10309     |
| 18,0          | 852,0      | 1,2  | 50,00  | NMRV130                                                                           | 112MA6                                                                              | 11105     |
| 15,0          | 981,0      | 1,0  | 60,00  | NMRV130                                                                           | 112MA6                                                                              | 11801     |
| 11,0          | 1214,0     | 0,7  | 80,00  | NMRV130                                                                           | 112MA6                                                                              | 12989     |
| 28,0          | 578,0      | 2,4  | 50,00  | NMRV150                                                                           | 100LA4                                                                              | 13103     |
| 23,0          | 667,0      | 1,9  | 60,00  | NMRV150                                                                           | 100LA4                                                                              | 13924     |
| 18,0          | 829,0      | 1,4  | 80,00  | NMRV150                                                                           | 100LA4                                                                              | 15325     |
| 14,0          | 976,0      | 1,0  | 100,00 | NMRV150                                                                           | 100LA4                                                                              | 16508     |
| 18,0          | 864,0      | 1,9  | 50,00  | NMRV150                                                                           | 112MA6                                                                              | 15182     |
| 15,0          | 995,0      | 1,4  | 60,00  | NMRV150                                                                           | 112MA6                                                                              | 16133     |
| 11,0          | 1233,0     | 1,1  | 80,00  | NMRV150                                                                           | 112MA6                                                                              | 17757     |
| 9,0           | 1425,0     | 0,8  | 100,00 | NMRV150                                                                           | 112MA6                                                                              | 18000     |

## 3,00 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i     |  |  | Fr<br>[N] |
|---------------|------------|------|-------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------|
| 373,0         | 70,0       | 1,9  | 7,50  | NMRV-P075                                                                           | 100LA2                                                                                | 2210      |
| 280,0         | 92,0       | 1,6  | 10,00 | NMRV-P075                                                                           | 100LA2                                                                                | 2433      |
| 187,0         | 135,0      | 1,2  | 15,00 | NMRV-P075                                                                           | 100LA2                                                                                | 2785      |

# 3,00 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i     |  |  | Fr<br>[N] |
|---------------|------------|------|-------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 140,0         | 176,0      | 1,0  | 20,00 | NMRV-P075                                                                          | 100LA2                                                                              | 3065      |
| 112,0         | 215,0      | 0,7  | 25,00 | NMRV-P075                                                                          | 100LA2                                                                              | 3302      |
| 93,0          | 249,0      | 0,7  | 30,00 | NMRV-P075                                                                          | 100LA2                                                                              | 3509      |
| 187,0         | 137,0      | 1,4  | 7,50  | NMRV-P075                                                                          | 100LB4                                                                              | 2785      |
| 140,0         | 180,0      | 1,1  | 10,00 | NMRV-P075                                                                          | 100LB4                                                                              | 3065      |
| 93,0          | 264,0      | 0,9  | 15,00 | NMRV-P075                                                                          | 100LB4                                                                              | 3509      |
| 120,0         | 210,0      | 1,0  | 7,50  | NMRV-P075                                                                          | 112MB6                                                                              | 3227      |
| 90,0          | 274,0      | 0,8  | 10,00 | NMRV-P075                                                                          | 112MB6                                                                              | 3551      |
| 373,0         | 71,0       | 3,0  | 7,50  | NMRV-P090                                                                          | 100LA2                                                                              | 2446      |
| 280,0         | 92,0       | 2,6  | 10,00 | NMRV-P090                                                                          | 100LA2                                                                              | 2692      |
| 187,0         | 137,0      | 2,0  | 15,00 | NMRV-P090                                                                          | 100LA2                                                                              | 3081      |
| 140,0         | 180,0      | 1,4  | 20,00 | NMRV-P090                                                                          | 100LA2                                                                              | 3391      |
| 112,0         | 220,0      | 1,1  | 25,00 | NMRV-P090                                                                          | 100LA2                                                                              | 3653      |
| 93,0          | 255,0      | 1,2  | 30,00 | NMRV-P090                                                                          | 100LA2                                                                              | 3882      |
| 70,0          | 328,0      | 0,8  | 40,00 | NMRV-P090                                                                          | 100LA2                                                                              | 4273      |
| 187,0         | 138,0      | 2,3  | 7,50  | NMRV-P090                                                                          | 100LB4                                                                              | 3081      |
| 140,0         | 182,0      | 1,9  | 10,00 | NMRV-P090                                                                          | 100LB4                                                                              | 3391      |
| 93,0          | 267,0      | 1,5  | 15,00 | NMRV-P090                                                                          | 100LB4                                                                              | 3882      |
| 70,0          | 348,0      | 1,1  | 20,00 | NMRV-P090                                                                          | 100LB4                                                                              | 4273      |
| 56,0          | 425,0      | 0,9  | 25,00 | NMRV-P090                                                                          | 100LB4                                                                              | 4603      |
| 47,0          | 485,0      | 0,9  | 30,00 | NMRV-P090                                                                          | 100LB4                                                                              | 4891      |
| 120,0         | 213,0      | 1,8  | 7,50  | NMRV-P090                                                                          | 112MB6                                                                              | 3570      |
| 90,0          | 277,0      | 1,5  | 10,00 | NMRV-P090                                                                          | 112MB6                                                                              | 3929      |
| 60,0          | 406,0      | 1,1  | 15,00 | NMRV-P090                                                                          | 112MB6                                                                              | 4498      |
| 45,0          | 522,0      | 0,8  | 20,00 | NMRV-P090                                                                          | 112MB6                                                                              | 4951      |
| 140,0         | 182,0      | 2,7  | 20,00 | NMRV-P110                                                                          | 100LA2                                                                              | 4285      |
| 112,0         | 225,0      | 2,2  | 25,00 | NMRV-P110                                                                          | 100LA2                                                                              | 4616      |
| 93,0          | 258,0      | 2,1  | 30,00 | NMRV-P110                                                                          | 100LA2                                                                              | 4905      |
| 70,0          | 340,0      | 1,6  | 40,00 | NMRV-P110                                                                          | 100LA2                                                                              | 5399      |
| 56,0          | 409,0      | 1,2  | 50,00 | NMRV-P110                                                                          | 100LA2                                                                              | 5816      |
| 47,0          | 479,0      | 1,0  | 60,00 | NMRV-P110                                                                          | 100LA2                                                                              | 6181      |
| 140,0         | 182,0      | 3,3  | 10,00 | NMRV-P110                                                                          | 100LB4                                                                              | 4285      |
| 93,0          | 267,0      | 2,5  | 15,00 | NMRV-P110                                                                          | 100LB4                                                                              | 4905      |
| 70,0          | 352,0      | 1,8  | 20,00 | NMRV-P110                                                                          | 100LB4                                                                              | 5399      |
| 56,0          | 435,0      | 1,6  | 25,00 | NMRV-P110                                                                          | 100LB4                                                                              | 5816      |
| 47,0          | 491,0      | 1,5  | 30,00 | NMRV-P110                                                                          | 100LB4                                                                              | 6181      |
| 35,0          | 647,0      | 1,1  | 40,00 | NMRV-P110                                                                          | 100LB4                                                                              | 6803      |
| 28,0          | 778,0      | 0,8  | 50,00 | NMRV-P110                                                                          | 100LB4                                                                              | 7328      |
| 120,0         | 213,0      | 3,1  | 7,50  | NMRV-P110                                                                          | 112MB6/132S6                                                                        | 4511      |
| 90,0          | 280,0      | 2,5  | 10,00 | NMRV-P110                                                                          | 112MB6/132S6                                                                        | 4965      |
| 60,0          | 411,0      | 1,8  | 15,00 | NMRV-P110                                                                          | 112MB6/132S6                                                                        | 5684      |
| 45,0          | 535,0      | 1,4  | 20,00 | NMRV-P110                                                                          | 112MB6/132S6                                                                        | 6256      |
| 36,0          | 653,0      | 1,2  | 25,00 | NMRV-P110                                                                          | 112MB6/132S6                                                                        | 6739      |
| 30,0          | 736,0      | 1,1  | 30,00 | NMRV-P110                                                                          | 112MB6/132S6                                                                        | 7161      |
| 23,0          | 955,0      | 0,8  | 40,00 | NMRV-P110                                                                          | 112MB6/132S6                                                                        | 7882      |
| 56,0          | 435,0      | 2,1  | 25,00 | NMRV130                                                                            | 100LB4                                                                              | 7607      |
| 47,0          | 497,0      | 2,1  | 30,00 | NMRV130                                                                            | 100LB4                                                                              | 8084      |
| 35,0          | 647,0      | 1,6  | 40,00 | NMRV130                                                                            | 100LB4                                                                              | 8897      |
| 28,0          | 778,0      | 1,3  | 50,00 | NMRV130                                                                            | 100LB4                                                                              | 9584      |
| 23,0          | 897,0      | 1,0  | 60,00 | NMRV130                                                                            | 100LB4                                                                              | 10185     |
| 18,0          | 1130,0     | 0,7  | 80,00 | NMRV130                                                                            | 100LB4                                                                              | 11210     |
| 18,0          | 1162,0     | 0,9  | 50,00 | NMRV130                                                                            | 112MB6                                                                              | 11105     |
| 15,0          | 1338,0     | 0,7  | 60,00 | NMRV130                                                                            | 112MB6                                                                              | 11801     |
| 36,0          | 661,0      | 1,6  | 25,00 | NMRV130                                                                            | 112MB6/132S6                                                                        | 8814      |
| 30,0          | 755,0      | 1,6  | 30,00 | NMRV130                                                                            | 112MB6/132S6                                                                        | 9366      |
| 23,0          | 968,0      | 1,1  | 40,00 | NMRV130                                                                            | 112MB6/132S6                                                                        | 10309     |
| 90,0          | 280,0      | 3,4  | 10,00 | NMRV130                                                                            | 132S6                                                                               | 6494      |
| 60,0          | 406,0      | 2,6  | 15,00 | NMRV130                                                                            | 132S6                                                                               | 7434      |

## 3,00 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i     |  |  | Fr<br>[N] |
|---------------|------------|------|-------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 45,0          | 541,0      | 1,9  | 20,00 | NMRV130                                                                           | 132S6                                                                               | 8182      |
| 28,0          | 788,0      | 1,8  | 50,00 | NMRV150                                                                           | 100LB4                                                                              | 13103     |
| 23,0          | 909,0      | 1,4  | 60,00 | NMRV150                                                                           | 100LB4                                                                              | 13924     |
| 18,0          | 1130,0     | 1,0  | 80,00 | NMRV150                                                                           | 100LB4                                                                              | 15325     |
| 11,0          | 1682,0     | 0,8  | 80,00 | NMRV150                                                                           | 112MB6                                                                              | 17757     |
| 18,0          | 1178,0     | 1,4  | 50,00 | NMRV150                                                                           | 112MB6/132S6                                                                        | 15182     |
| 15,0          | 1357,0     | 1,1  | 60,00 | NMRV150                                                                           | 112MB6/132S6                                                                        | 16133     |
| 45,0          | 541,0      | 2,8  | 20,00 | NMRV150                                                                           | 132S6                                                                               | 11186     |
| 36,0          | 669,0      | 2,1  | 25,00 | NMRV150                                                                           | 132S6                                                                               | 12050     |
| 30,0          | 783,0      | 1,8  | 30,00 | NMRV150                                                                           | 132S6                                                                               | 12805     |
| 23,0          | 968,0      | 1,9  | 40,00 | NMRV150                                                                           | 132S6                                                                               | 14094     |

## 4,00 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i     |  |  | Fr<br>[N] |
|---------------|------------|------|-------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 373,0         | 93,0       | 1,4  | 7,50  | NMRV-P075                                                                         | 100LB2/112MA2                                                                       | 2210      |
| 280,0         | 123,0      | 1,2  | 10,00 | NMRV-P075                                                                         | 100LB2/112MA2                                                                       | 2433      |
| 187,0         | 180,0      | 0,9  | 15,00 | NMRV-P075                                                                         | 100LB2/112MA2                                                                       | 2785      |
| 140,0         | 235,0      | 0,7  | 20,00 | NMRV-P075                                                                         | 100LB2/112MA2                                                                       | 3065      |
| 187,0         | 182,0      | 1,0  | 7,50  | NMRV-P075                                                                         | 112MA4                                                                              | 2785      |
| 140,0         | 240,0      | 0,8  | 10,00 | NMRV-P075                                                                         | 112MA4                                                                              | 3065      |
| 373,0         | 94,0       | 2,2  | 7,50  | NMRV-P090                                                                         | 100LB2/112MA2                                                                       | 2446      |
| 280,0         | 123,0      | 1,9  | 10,00 | NMRV-P090                                                                         | 100LB2/112MA2                                                                       | 2692      |
| 187,0         | 182,0      | 1,5  | 15,00 | NMRV-P090                                                                         | 100LB2/112MA2                                                                       | 3081      |
| 140,0         | 240,0      | 1,1  | 20,00 | NMRV-P090                                                                         | 100LB2/112MA2                                                                       | 3391      |
| 112,0         | 293,0      | 0,9  | 25,00 | NMRV-P090                                                                         | 100LB2/112MA2                                                                       | 3653      |
| 93,0          | 340,0      | 0,9  | 30,00 | NMRV-P090                                                                         | 100LB2/112MA2                                                                       | 3882      |
| 187,0         | 184,0      | 1,7  | 7,50  | NMRV-P090                                                                         | 112MA4                                                                              | 3081      |
| 140,0         | 243,0      | 1,4  | 10,00 | NMRV-P090                                                                         | 112MA4                                                                              | 3391      |
| 93,0          | 356,0      | 1,1  | 15,00 | NMRV-P090                                                                         | 112MA4                                                                              | 3882      |
| 70,0          | 464,0      | 0,8  | 20,00 | NMRV-P090                                                                         | 112MA4                                                                              | 4273      |
| 187,0         | 184,0      | 2,7  | 15,00 | NMRV-P110                                                                         | 100LB2/112MA2                                                                       | 3893      |
| 140,0         | 243,0      | 2,0  | 20,00 | NMRV-P110                                                                         | 100LB2/112MA2                                                                       | 4285      |
| 112,0         | 300,0      | 1,7  | 25,00 | NMRV-P110                                                                         | 100LB2/112MA2                                                                       | 4616      |
| 93,0          | 344,0      | 1,6  | 30,00 | NMRV-P110                                                                         | 100LB2/112MA2                                                                       | 4905      |
| 70,0          | 453,0      | 1,2  | 40,00 | NMRV-P110                                                                         | 100LB2/112MA2                                                                       | 5399      |
| 56,0          | 546,0      | 0,9  | 50,00 | NMRV-P110                                                                         | 100LB2/112MA2                                                                       | 5816      |
| 47,0          | 639,0      | 0,7  | 60,00 | NMRV-P110                                                                         | 100LB2/112MA2                                                                       | 6181      |
| 187,0         | 184,0      | 3,0  | 7,50  | NMRV-P110                                                                         | 112MA4                                                                              | 3893      |
| 140,0         | 243,0      | 2,5  | 10,00 | NMRV-P110                                                                         | 112MA4                                                                              | 4285      |
| 93,0          | 356,0      | 1,8  | 15,00 | NMRV-P110                                                                         | 112MA4                                                                              | 4905      |
| 70,0          | 470,0      | 1,4  | 20,00 | NMRV-P110                                                                         | 112MA4                                                                              | 5399      |
| 56,0          | 580,0      | 1,2  | 25,00 | NMRV-P110                                                                         | 112MA4                                                                              | 5816      |
| 47,0          | 655,0      | 1,1  | 30,00 | NMRV-P110                                                                         | 112MA4                                                                              | 6181      |
| 35,0          | 863,0      | 0,8  | 40,00 | NMRV-P110                                                                         | 112MA4                                                                              | 6803      |
| 120,0         | 283,0      | 2,3  | 7,50  | NMRV-P110                                                                         | 132MA6                                                                              | 4511      |
| 90,0          | 374,0      | 1,9  | 10,00 | NMRV-P110                                                                         | 132MA6                                                                              | 4965      |
| 60,0          | 548,0      | 1,4  | 15,00 | NMRV-P110                                                                         | 132MA6                                                                              | 5684      |
| 45,0          | 713,0      | 1,0  | 20,00 | NMRV-P110                                                                         | 132MA6                                                                              | 6256      |
| 36,0          | 870,0      | 0,9  | 25,00 | NMRV-P110                                                                         | 132MA6                                                                              | 6739      |
| 30,0          | 981,0      | 0,9  | 30,00 | NMRV-P110                                                                         | 132MA6                                                                              | 7161      |
| 56,0          | 580,0      | 1,6  | 25,00 | NMRV130                                                                           | 112MA4                                                                              | 7607      |
| 47,0          | 663,0      | 1,6  | 30,00 | NMRV130                                                                           | 112MA4                                                                              | 8084      |
| 35,0          | 863,0      | 1,2  | 40,00 | NMRV130                                                                           | 112MA4                                                                              | 8897      |
| 28,0          | 1037,0     | 0,9  | 50,00 | NMRV130                                                                           | 112MA4                                                                              | 9584      |
| 23,0          | 1196,0     | 0,8  | 60,00 | NMRV130                                                                           | 112MA4                                                                              | 10185     |

## 4,00 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i     |  |  | Fr<br>[N] |
|---------------|------------|------|-------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 120,0         | 287,0      | 3,1  | 7,50  | NMRV130                                                                            | 132MA6                                                                              | 5901      |
| 90,0          | 374,0      | 2,6  | 10,00 | NMRV130                                                                            | 132MA6                                                                              | 6494      |
| 60,0          | 541,0      | 2,0  | 15,00 | NMRV130                                                                            | 132MA6                                                                              | 7434      |
| 45,0          | 722,0      | 1,4  | 20,00 | NMRV130                                                                            | 132MA6                                                                              | 8182      |
| 36,0          | 881,0      | 1,2  | 25,00 | NMRV130                                                                            | 132MA6                                                                              | 8814      |
| 30,0          | 1006,0     | 1,2  | 30,00 | NMRV130                                                                            | 132MA6                                                                              | 9366      |
| 23,0          | 1291,0     | 0,9  | 40,00 | NMRV130                                                                            | 132MA6                                                                              | 10309     |
| 28,0          | 1051,0     | 1,3  | 50,00 | NMRV150                                                                            | 112MA4                                                                              | 13103     |
| 23,0          | 1212,0     | 1,0  | 60,00 | NMRV150                                                                            | 112MA4                                                                              | 13924     |
| 45,0          | 722,0      | 2,1  | 20,00 | NMRV150                                                                            | 132MA6                                                                              | 11186     |
| 36,0          | 892,0      | 1,5  | 25,00 | NMRV150                                                                            | 132MA6                                                                              | 12050     |
| 30,0          | 1045,0     | 1,3  | 30,00 | NMRV150                                                                            | 132MA6                                                                              | 12805     |
| 23,0          | 1291,0     | 1,4  | 40,00 | NMRV150                                                                            | 132MA6                                                                              | 14094     |
| 18,0          | 1571,0     | 1,0  | 50,00 | NMRV150                                                                            | 132MA6                                                                              | 15182     |
| 15,0          | 1809,0     | 0,8  | 60,00 | NMRV150                                                                            | 132MA6                                                                              | 16133     |

## 4,80 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i     |  |  | Fr<br>[N] |
|---------------|------------|------|-------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------|
| 187,0         | 219,0      | 0,8  | 7,50  | NMRV-P075                                                                           | 112MB4                                                                               | 2785      |
| 187,0         | 221,0      | 1,4  | 7,50  | NMRV-P090                                                                           | 112MB4                                                                               | 3081      |
| 140,0         | 292,0      | 1,2  | 10,00 | NMRV-P090                                                                           | 112MB4                                                                               | 3391      |
| 93,0          | 427,0      | 0,9  | 15,00 | NMRV-P090                                                                           | 112MB4                                                                               | 3882      |
| 70,0          | 557,0      | 0,7  | 20,00 | NMRV-P090                                                                           | 112MB4                                                                               | 4273      |
| 187,0         | 221,0      | 2,5  | 7,50  | NMRV-P110                                                                           | 112MB4                                                                               | 3893      |
| 140,0         | 292,0      | 2,1  | 10,00 | NMRV-P110                                                                           | 112MB4                                                                               | 4285      |
| 93,0          | 427,0      | 1,5  | 15,00 | NMRV-P110                                                                           | 112MB4                                                                               | 4905      |
| 70,0          | 563,0      | 1,1  | 20,00 | NMRV-P110                                                                           | 112MB4                                                                               | 5399      |
| 56,0          | 696,0      | 1,0  | 25,00 | NMRV-P110                                                                           | 112MB4                                                                               | 5816      |
| 47,0          | 786,0      | 0,9  | 30,00 | NMRV-P110                                                                           | 112MB4                                                                               | 6181      |
| 56,0          | 696,0      | 1,3  | 25,00 | NMRV130                                                                             | 112MB4                                                                               | 7607      |
| 47,0          | 796,0      | 1,3  | 30,00 | NMRV130                                                                             | 112MB4                                                                               | 8084      |
| 35,0          | 1035,0     | 1,0  | 40,00 | NMRV130                                                                             | 112MB4                                                                               | 8897      |
| 28,0          | 1245,0     | 0,8  | 50,00 | NMRV130                                                                             | 112MB4                                                                               | 9584      |
| 28,0          | 1261,0     | 1,1  | 50,00 | NMRV150                                                                             | 112MB4                                                                               | 13103     |
| 23,0          | 1454,0     | 0,9  | 60,00 | NMRV150                                                                             | 112MB4                                                                               | 13924     |

## 5,50 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i     |  |  | Fr<br>[N] |
|---------------|------------|------|-------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------|
| 373,0         | 128,0      | 1,0  | 7,50  | NMRV-P075                                                                            | 112MB2                                                                                | 2210      |
| 280,0         | 169,0      | 0,9  | 10,00 | NMRV-P075                                                                            | 112MB2                                                                                | 2433      |
| 373,0         | 129,0      | 1,6  | 7,50  | NMRV-P090                                                                            | 112MB2                                                                                | 2446      |
| 280,0         | 169,0      | 1,4  | 10,00 | NMRV-P090                                                                            | 112MB2                                                                                | 2692      |
| 187,0         | 251,0      | 1,1  | 15,00 | NMRV-P090                                                                            | 112MB2                                                                                | 3081      |
| 140,0         | 330,0      | 0,8  | 20,00 | NMRV-P090                                                                            | 112MB2                                                                                | 3391      |
| 373,0         | 129,0      | 3,0  | 7,50  | NMRV-P110                                                                            | 112MB2/132SA2                                                                         | 3090      |
| 280,0         | 171,0      | 2,6  | 10,00 | NMRV-P110                                                                            | 112MB2/132SA2                                                                         | 3401      |
| 187,0         | 253,0      | 1,9  | 15,00 | NMRV-P110                                                                            | 112MB2/132SA2                                                                         | 3893      |
| 140,0         | 334,0      | 1,4  | 20,00 | NMRV-P110                                                                            | 112MB2/132SA2                                                                         | 4285      |
| 112,0         | 413,0      | 1,2  | 25,00 | NMRV-P110                                                                            | 112MB2/132SA2                                                                         | 4616      |
| 93,0          | 473,0      | 1,2  | 30,00 | NMRV-P110                                                                            | 112MB2/132SA2                                                                         | 4905      |
| 70,0          | 623,0      | 0,8  | 40,00 | NMRV-P110                                                                            | 112MB2/132SA2                                                                         | 5399      |

## 5,50 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i     |  |  | Fr<br>[N] |
|---------------|------------|------|-------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 120,0         | 390,0      | 1,7  | 7,50  | NMRV-P110                                                                         | 132MB6                                                                              | 4511      |
| 90,0          | 514,0      | 1,4  | 10,00 | NMRV-P110                                                                         | 132MB6                                                                              | 4965      |
| 60,0          | 753,0      | 1,0  | 15,00 | NMRV-P110                                                                         | 132MB6                                                                              | 5684      |
| 45,0          | 981,0      | 0,7  | 20,00 | NMRV-P110                                                                         | 132MB6                                                                              | 6256      |
| 187,0         | 253,0      | 2,2  | 7,50  | NMRV-P110                                                                         | 132S4                                                                               | 3893      |
| 140,0         | 334,0      | 1,8  | 10,00 | NMRV-P110                                                                         | 132S4                                                                               | 4285      |
| 93,0          | 490,0      | 1,3  | 15,00 | NMRV-P110                                                                         | 132S4                                                                               | 4905      |
| 70,0          | 646,0      | 1,0  | 20,00 | NMRV-P110                                                                         | 132S4                                                                               | 5399      |
| 56,0          | 798,0      | 0,9  | 25,00 | NMRV-P110                                                                         | 132S4                                                                               | 5816      |
| 47,0          | 901,0      | 0,8  | 30,00 | NMRV-P110                                                                         | 132S4                                                                               | 6181      |
| 120,0         | 394,0      | 2,2  | 7,50  | NMRV130                                                                           | 132MB6                                                                              | 5901      |
| 90,0          | 514,0      | 1,9  | 10,00 | NMRV130                                                                           | 132MB6                                                                              | 6494      |
| 60,0          | 744,0      | 1,4  | 15,00 | NMRV130                                                                           | 132MB6                                                                              | 7434      |
| 45,0          | 993,0      | 1,0  | 20,00 | NMRV130                                                                           | 132MB6                                                                              | 8182      |
| 36,0          | 1212,0     | 0,9  | 25,00 | NMRV130                                                                           | 132MB6                                                                              | 8814      |
| 30,0          | 1384,0     | 0,8  | 30,00 | NMRV130                                                                           | 132MB6                                                                              | 9366      |
| 187,0         | 256,0      | 2,9  | 7,50  | NMRV130                                                                           | 132S4                                                                               | 5092      |
| 140,0         | 334,0      | 2,5  | 10,00 | NMRV130                                                                           | 132S4                                                                               | 5605      |
| 93,0          | 490,0      | 1,9  | 15,00 | NMRV130                                                                           | 132S4                                                                               | 6416      |
| 70,0          | 653,0      | 1,4  | 20,00 | NMRV130                                                                           | 132S4                                                                               | 7062      |
| 56,0          | 798,0      | 1,2  | 25,00 | NMRV130                                                                           | 132S4                                                                               | 7607      |
| 47,0          | 912,0      | 1,1  | 30,00 | NMRV130                                                                           | 132S4                                                                               | 8084      |
| 35,0          | 1186,0     | 0,9  | 40,00 | NMRV130                                                                           | 132S4                                                                               | 8897      |
| 45,0          | 993,0      | 1,5  | 20,00 | NMRV150                                                                           | 132MB6                                                                              | 11186     |
| 36,0          | 1226,0     | 1,1  | 25,00 | NMRV150                                                                           | 132MB6                                                                              | 12050     |
| 30,0          | 1436,0     | 1,0  | 30,00 | NMRV150                                                                           | 132MB6                                                                              | 12805     |
| 23,0          | 1775,0     | 1,0  | 40,00 | NMRV150                                                                           | 132MB6                                                                              | 14094     |
| 18,0          | 2160,0     | 0,7  | 50,00 | NMRV150                                                                           | 132MB6                                                                              | 15182     |
| 70,0          | 653,0      | 2,0  | 20,00 | NMRV150                                                                           | 132S4                                                                               | 9654      |
| 56,0          | 798,0      | 1,5  | 25,00 | NMRV150                                                                           | 132S4                                                                               | 10400     |
| 47,0          | 946,0      | 1,3  | 30,00 | NMRV150                                                                           | 132S4                                                                               | 11051     |
| 35,0          | 1186,0     | 1,3  | 40,00 | NMRV150                                                                           | 132S4                                                                               | 12163     |
| 28,0          | 1445,0     | 1,0  | 50,00 | NMRV150                                                                           | 132S4                                                                               | 13103     |

## 7,50 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i     |  |  | Fr<br>[N] |
|---------------|------------|------|-------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------|
| 187,0         | 345,0      | 1,6  | 7,50  | NMRV-P110                                                                           | 132MA4                                                                                | 3893      |
| 140,0         | 456,0      | 1,3  | 10,00 | NMRV-P110                                                                           | 132MA4                                                                                | 4285      |
| 93,0          | 668,0      | 1,0  | 15,00 | NMRV-P110                                                                           | 132MA4                                                                                | 4905      |
| 70,0          | 880,0      | 0,7  | 20,00 | NMRV-P110                                                                           | 132MA4                                                                                | 5399      |
| 373,0         | 177,0      | 2,2  | 7,50  | NMRV-P110                                                                           | 132SB2                                                                                | 3090      |
| 280,0         | 233,0      | 1,9  | 10,00 | NMRV-P110                                                                           | 132SB2                                                                                | 3401      |
| 187,0         | 345,0      | 1,4  | 15,00 | NMRV-P110                                                                           | 132SB2                                                                                | 3893      |
| 140,0         | 456,0      | 1,1  | 20,00 | NMRV-P110                                                                           | 132SB2                                                                                | 4285      |
| 187,0         | 349,0      | 2,1  | 7,50  | NMRV130                                                                             | 132MA4                                                                                | 5092      |
| 140,0         | 456,0      | 1,8  | 10,00 | NMRV130                                                                             | 132MA4                                                                                | 5605      |
| 93,0          | 668,0      | 1,4  | 15,00 | NMRV130                                                                             | 132MA4                                                                                | 6416      |
| 70,0          | 891,0      | 1,0  | 20,00 | NMRV130                                                                             | 132MA4                                                                                | 7062      |
| 56,0          | 1088,0     | 0,9  | 25,00 | NMRV130                                                                             | 132MA4                                                                                | 7607      |
| 47,0          | 1244,0     | 0,8  | 30,00 | NMRV130                                                                             | 132MA4                                                                                | 8084      |
| 70,0          | 891,0      | 1,5  | 20,00 | NMRV150                                                                             | 132MA4                                                                                | 9654      |
| 56,0          | 1088,0     | 1,1  | 25,00 | NMRV150                                                                             | 132MA4                                                                                | 10400     |
| 47,0          | 1290,0     | 0,9  | 30,00 | NMRV150                                                                             | 132MA4                                                                                | 11051     |
| 35,0          | 1617,0     | 1,0  | 40,00 | NMRV150                                                                             | 132MA4                                                                                | 12163     |
| 120,0         | 537,0      | 2,6  | 7,50  | NMRV150                                                                             | 160M6                                                                                 | 8067      |

## 7,50 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i     |  |  | Fr<br>[N] |
|---------------|------------|------|-------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 90,0          | 709,0      | 2,1  | 10,00 | NMRV150                                                                            | 160M6                                                                               | 8878      |
| 60,0          | 1039,0     | 1,4  | 15,00 | NMRV150                                                                            | 160M6                                                                               | 10163     |
| 45,0          | 1354,0     | 1,1  | 20,00 | NMRV150                                                                            | 160M6                                                                               | 11186     |
| 36,0          | 1672,0     | 0,8  | 25,00 | NMRV150                                                                            | 160M6                                                                               | 12050     |

## 9,20 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i     |  |  | Fr<br>[N] |
|---------------|------------|------|-------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| 373,0         | 217,0      | 1,8  | 7,50  | NMRV-P110                                                                          | 132MA2                                                                              | 3090      |
| 280,0         | 286,0      | 1,5  | 10,00 | NMRV-P110                                                                          | 132MA2                                                                              | 3401      |
| 187,0         | 424,0      | 1,2  | 15,00 | NMRV-P110                                                                          | 132MA2                                                                              | 3893      |
| 187,0         | 424,0      | 1,3  | 7,50  | NMRV-P110                                                                          | 132MB4                                                                              | 3893      |
| 140,0         | 559,0      | 1,1  | 10,00 | NMRV-P110                                                                          | 132MB4                                                                              | 4285      |
| 93,0          | 819,0      | 0,8  | 15,00 | NMRV-P110                                                                          | 132MB4                                                                              | 4905      |
| 187,0         | 429,0      | 1,8  | 7,50  | NMRV130                                                                            | 132MB4                                                                              | 5092      |
| 140,0         | 559,0      | 1,5  | 10,00 | NMRV130                                                                            | 132MB4                                                                              | 5605      |
| 93,0          | 819,0      | 1,1  | 15,00 | NMRV130                                                                            | 132MB4                                                                              | 6416      |
| 70,0          | 1092,0     | 0,8  | 20,00 | NMRV130                                                                            | 132MB4                                                                              | 7062      |
| 70,0          | 1092,0     | 1,2  | 20,00 | NMRV150                                                                            | 132MB4                                                                              | 9654      |
| 56,0          | 1334,0     | 0,9  | 25,00 | NMRV150                                                                            | 132MB4                                                                              | 10400     |

## 11,00 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i     |  |  | Fr<br>[N] |
|---------------|------------|------|-------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------|
| 373,0         | 259,0      | 1,5  | 7,50  | NMRV-P110                                                                            | 132MB2                                                                                | 3090      |
| 280,0         | 342,0      | 1,3  | 10,00 | NMRV-P110                                                                            | 132MB2                                                                                | 3401      |
| 187,0         | 507,0      | 1,1  | 7,50  | NMRV-P110                                                                            | 132MC4                                                                                | 3893      |
| 140,0         | 668,0      | 0,9  | 10,00 | NMRV-P110                                                                            | 132MC4                                                                                | 4285      |
| 187,0         | 512,0      | 1,5  | 7,50  | NMRV130                                                                              | 132MC4                                                                                | 5092      |
| 140,0         | 668,0      | 1,2  | 10,00 | NMRV130                                                                              | 132MC4                                                                                | 5605      |
| 93,0          | 980,0      | 0,9  | 15,00 | NMRV130                                                                              | 132MC4                                                                                | 6416      |
| 70,0          | 1306,0     | 1,0  | 20,00 | NMRV150                                                                              | 132MC4/160S4                                                                          | 9654      |
| 120,0         | 788,0      | 1,8  | 7,50  | NMRV150                                                                              | 160L6                                                                                 | 8067      |
| 90,0          | 1039,0     | 1,4  | 10,00 | NMRV150                                                                              | 160L6                                                                                 | 8878      |
| 60,0          | 1524,0     | 1,0  | 15,00 | NMRV150                                                                              | 160L6                                                                                 | 10163     |
| 45,0          | 1985,0     | 0,8  | 20,00 | NMRV150                                                                              | 160L6                                                                                 | 11186     |
| 187,0         | 512,0      | 2,3  | 7,50  | NMRV150                                                                              | 160S4                                                                                 | 6962      |
| 140,0         | 676,0      | 1,8  | 10,00 | NMRV150                                                                              | 160S4                                                                                 | 7663      |
| 93,0          | 991,0      | 1,3  | 15,00 | NMRV150                                                                              | 160S4                                                                                 | 8771      |

## 15,00 kW

| n2<br>[1/min] | M2<br>[Nm] | f.s. | i     |  |  | Fr<br>[N] |
|---------------|------------|------|-------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------|
| 187,0         | 699,0      | 1,7  | 7,50  | NMRV150                                                                              | 160L4                                                                                 | 6962      |
| 140,0         | 921,0      | 1,3  | 10,00 | NMRV150                                                                              | 160L4                                                                                 | 7663      |
| 93,0          | 1351,0     | 0,9  | 15,00 | NMRV150                                                                              | 160L4                                                                                 | 8771      |

**NRV - Prestazioni / Performance / Performances /  
Leistungen / Prestaciones / 性能 (n1=2800 rpm, Fs=1)**

**NRV030**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 12         | 5   | 0,79       | 560           | 474        | 115        |
| 13         | 7,5 | 0,58       | 373,3         | 542        | 125        |
| 13         | 10  | 0,44       | 280           | 597        | 140        |
| 13         | 15  | 0,31       | 186,7         | 683        | 140        |
| 12         | 20  | 0,22       | 140           | 752        | 146        |
| 16         | 25  | 0,25       | 112           | 810        | 210        |
| 15         | 30  | 0,2        | 93,3          | 861        | 210        |
| 14         | 40  | 0,15       | 70            | 948        | 127        |
| 13         | 50  | 0,12       | 56            | 1021       | 128        |
| 12         | 60  | 0,1        | 46,7          | 1085       | 126        |
| 11         | 80  | 0,08       | 35            | 1194       | 130        |

**NRV040**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 24         | 5   | 1,56       | 560           | 912        | 200        |
| 28         | 7,5 | 1,23       | 373,3         | 1044       | 233        |
| 29         | 10  | 0,97       | 280           | 1149       | 272        |
| 31         | 15  | 0,71       | 186,7         | 1315       | 291        |
| 29         | 20  | 0,51       | 140           | 1447       | 204        |
| 28         | 25  | 0,41       | 112           | 1559       | 236        |
| 34         | 30  | 0,43       | 93,3          | 1657       | 350        |
| 31         | 40  | 0,31       | 70            | 1824       | 350        |
| 30         | 50  | 0,25       | 56            | 1964       | 350        |
| 28         | 60  | 0,21       | 46,7          | 2087       | 350        |
| 25         | 80  | 0,15       | 35            | 2298       | 350        |
| 23         | 100 | 0,12       | 28            | 2475       | 350        |

**NRV050**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 45         | 5   | 2,9        | 560           | 1251       | 280        |
| 52         | 7,5 | 2,26       | 373,3         | 1433       | 324        |
| 54         | 10  | 1,78       | 280           | 1577       | 378        |
| 57         | 15  | 1,3        | 186,7         | 1805       | 399        |
| 53         | 20  | 0,94       | 140           | 1987       | 417        |
| 51         | 25  | 0,74       | 112           | 2140       | 482        |
| 64         | 30  | 0,81       | 93,3          | 2274       | 490        |
| 59         | 40  | 0,58       | 70            | 2503       | 490        |
| 53         | 50  | 0,44       | 56            | 2696       | 490        |
| 50         | 60  | 0,36       | 46,7          | 2865       | 490        |
| 45         | 80  | 0,27       | 35            | 3153       | 490        |
| 40         | 100 | 0,21       | 28            | 3397       | 490        |

**NRV-P063**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 94         | 7,5 | 4,03       | 373,3         | 1873       | 395        |
| 99         | 10  | 3,27       | 280           | 2061       | 471        |
| 109        | 15  | 2,45       | 186,7         | 2359       | 516        |
| 104        | 20  | 1,8        | 140           | 2597       | 556        |
| 96         | 25  | 1,35       | 112           | 2797       | 613        |
| 121        | 30  | 1,49       | 93,3          | 2973       | 700        |
| 113        | 40  | 1,09       | 70            | 3272       | 700        |
| 105        | 50  | 0,85       | 56            | 3524       | 700        |
| 99         | 60  | 0,7        | 46,7          | 3745       | 700        |
| 88         | 80  | 0,5        | 35            | 4122       | 700        |
| 79         | 100 | 0,39       | 28            | 4440       | 700        |

**NRV-P075**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 131        | 7,5 | 5,61       | 373,3         | 2210       | 560        |
| 151        | 10  | 4,93       | 280           | 2433       | 729        |
| 165        | 15  | 3,66       | 186,7         | 2785       | 795        |
| 173        | 20  | 2,94       | 140           | 3065       | 935        |
| 159        | 25  | 2,21       | 112           | 3302       | 980        |
| 185        | 30  | 2,24       | 93,3          | 3509       | 980        |
| 182        | 40  | 1,71       | 70            | 3862       | 980        |
| 165        | 50  | 1,29       | 56            | 4160       | 980        |
| 159        | 60  | 1,08       | 46,7          | 4421       | 980        |
| 141        | 80  | 0,77       | 35            | 4865       | 980        |
| 131        | 100 | 0,62       | 28            | 5241       | 980        |

**NRV-P090**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 210        | 7,5 | 8,92       | 373,3         | 2446       | 715        |
| 235        | 10  | 7,66       | 280           | 2692       | 900        |
| 270        | 15  | 5,93       | 186,7         | 3081       | 1034       |
| 260        | 20  | 4,33       | 140           | 3391       | 1120       |
| 250        | 25  | 3,41       | 112           | 3653       | 1270       |
| 310        | 30  | 3,65       | 93,3          | 3882       | 1270       |
| 275        | 40  | 2,52       | 70            | 4273       | 1270       |
| 265        | 50  | 2,02       | 56            | 4603       | 1270       |
| 245        | 60  | 1,6        | 46,7          | 4891       | 1270       |
| 225        | 80  | 1,18       | 35            | 5383       | 1270       |
| 200        | 100 | 0,89       | 28            | 5799       | 1270       |



## NMRV / NMRVpower

Motoriduttori a vite senza fine / Worm geared motors / Motorréducteurs à vis sans fin / Schneckengetriebemotoren / Motorreductores de tornillo sinfin / 蜗轮蜗杆电机

### NRV-P110

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 391        | 7,5 | 16,61      | 373,3         | 3090       | 950        |
| 437        | 10  | 14,08      | 280           | 3401       | 1194       |
| 489        | 15  | 10,62      | 186,7         | 3893       | 1337       |
| 483        | 20  | 7,96       | 140           | 4285       | 1485       |
| 506        | 25  | 6,74       | 112           | 4616       | 1700       |
| 552        | 30  | 6,42       | 93,3          | 4905       | 1700       |
| 529        | 40  | 4,67       | 70            | 5399       | 1700       |
| 495        | 50  | 3,63       | 56            | 5816       | 1700       |
| 473        | 60  | 2,96       | 46,7          | 6181       | 1700       |
| 399        | 80  | 1,98       | 35            | 6803       | 1700       |
| 368        | 100 | 1,54       | 28            | 7328       | 1700       |

### NRV130

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 520        | 7,5 | 22,1       | 373,3         | 4042       | 1190       |
| 580        | 10  | 18,69      | 280           | 4449       | 1493       |
| 670        | 15  | 14,71      | 186,7         | 5092       | 1725       |
| 660        | 20  | 10,87      | 140           | 5605       | 1912       |
| 670        | 25  | 8,93       | 112           | 6038       | 2100       |
| 770        | 30  | 8,85       | 93,3          | 6416       | 2100       |
| 730        | 40  | 6,45       | 70            | 7062       | 2100       |
| 700        | 50  | 5,07       | 56            | 7607       | 2100       |
| 640        | 60  | 3,96       | 46,7          | 8084       | 2100       |
| 590        | 80  | 2,92       | 35            | 8897       | 2100       |
| 520        | 100 | 2,15       | 28            | 9584       | 2100       |

### NRV150

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 840        | 7,5 | 35,69      | 373,3         | 5526       | 1550       |
| 890        | 10  | 28,36      | 280           | 6082       | 1848       |
| 910        | 15  | 19,76      | 186,7         | 6962       | 1889       |
| 980        | 20  | 15,96      | 140           | 7663       | 2289       |
| 890        | 25  | 11,86      | 112           | 8254       | 2494       |
| 920        | 30  | 10,33      | 93,3          | 8771       | 2800       |
| 1200       | 40  | 10,47      | 70            | 9654       | 2800       |
| 1100       | 50  | 7,96       | 56            | 10400      | 2800       |
| 990        | 60  | 6,12       | 46,7          | 11051      | 2800       |
| 920        | 80  | 4,5        | 35            | 12163      | 2800       |
| 810        | 100 | 3,3        | 28            | 13103      | 2800       |

**NRV - Prestazioni / Performance / Performances /  
Leistungen / Prestaciones / 性能 (n1=1400 rpm, Fs=1)**

**NRV030**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 19         | 5   | 0,64       | 280           | 597        | 150        |
| 19         | 7,5 | 0,44       | 186,7         | 683        | 150        |
| 19         | 10  | 0,34       | 140           | 752        | 169        |
| 19         | 15  | 0,24       | 93,3          | 861        | 169        |
| 18         | 20  | 0,18       | 70            | 948        | 180        |
| 22         | 25  | 0,19       | 56            | 1021       | 210        |
| 21         | 30  | 0,16       | 46,7          | 1085       | 210        |
| 19         | 40  | 0,12       | 35            | 1194       | 210        |
| 18         | 50  | 0,09       | 28            | 1286       | 210        |
| 16         | 60  | 0,08       | 23,3          | 1367       | 210        |
| 13         | 80  | 0,05       | 17,5          | 1504       | 210        |

**NRV040**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 36         | 5   | 1,19       | 280           | 1149       | 250        |
| 42         | 7,5 | 0,94       | 186,7         | 1315       | 292        |
| 44         | 10  | 0,76       | 140           | 1447       | 344        |
| 44         | 15  | 0,52       | 93,3          | 1657       | 344        |
| 43         | 20  | 0,4        | 70            | 1824       | 350        |
| 39         | 25  | 0,3        | 56            | 1964       | 350        |
| 48         | 30  | 0,33       | 46,7          | 2087       | 350        |
| 45         | 40  | 0,25       | 35            | 2298       | 350        |
| 42         | 50  | 0,2        | 28            | 2475       | 350        |
| 38         | 60  | 0,16       | 23,3          | 2630       | 350        |
| 33         | 80  | 0,11       | 17,5          | 2895       | 350        |
| 29         | 100 | 0,09       | 14            | 3118       | 350        |

**NRV050**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 68         | 5   | 2,24       | 280           | 1577       | 350        |
| 77         | 7,5 | 1,71       | 186,7         | 1805       | 396        |
| 79         | 10  | 1,33       | 140           | 1987       | 490        |
| 81         | 15  | 0,95       | 93,3          | 2274       | 490        |
| 78         | 20  | 0,71       | 70            | 2503       | 490        |
| 71         | 25  | 0,54       | 56            | 2696       | 490        |
| 88         | 30  | 0,59       | 46,7          | 2865       | 490        |
| 82         | 40  | 0,44       | 35            | 3153       | 490        |
| 77         | 50  | 0,35       | 28            | 3397       | 490        |
| 72         | 60  | 0,29       | 23,3          | 3610       | 490        |
| 65         | 80  | 0,22       | 17,5          | 3973       | 490        |
| 55         | 100 | 0,16       | 14            | 4280       | 490        |

**NRV-P063**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 128        | 7,5 | 2,81       | 186,7         | 2359       | 500        |
| 135        | 10  | 2,28       | 140           | 2597       | 595        |
| 150        | 15  | 1,75       | 93,3          | 2973       | 660        |
| 146        | 20  | 1,3        | 70            | 3272       | 700        |
| 134        | 25  | 0,99       | 56            | 3524       | 700        |
| 160        | 30  | 1,04       | 46,7          | 3745       | 700        |
| 149        | 40  | 0,77       | 35            | 4122       | 700        |
| 143        | 50  | 0,63       | 28            | 4440       | 700        |
| 135        | 60  | 0,52       | 23,3          | 4719       | 700        |
| 122        | 80  | 0,39       | 17,5          | 5193       | 700        |
| 118        | 100 | 0,33       | 14            | 5595       | 700        |

**NRV-P075**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 185        | 7,5 | 4,06       | 186,7         | 2785       | 700        |
| 201        | 10  | 3,35       | 140           | 3065       | 857        |
| 230        | 15  | 2,61       | 93,3          | 3509       | 979        |
| 236        | 20  | 2,09       | 70            | 3862       | 980        |
| 214        | 25  | 1,55       | 56            | 4160       | 980        |
| 247        | 30  | 1,57       | 46,7          | 4421       | 980        |
| 245        | 40  | 1,23       | 35            | 4865       | 980        |
| 225        | 50  | 0,94       | 28            | 5241       | 980        |
| 214        | 60  | 0,79       | 23,3          | 5569       | 980        |
| 195        | 80  | 0,58       | 17,5          | 6130       | 980        |
| 180        | 100 | 0,47       | 14            | 6603       | 980        |

**NRV-P090**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 319        | 7,5 | 6,93       | 186,7         | 3081       | 900        |
| 341        | 10  | 5,62       | 140           | 3391       | 1082       |
| 396        | 15  | 4,45       | 93,3          | 3882       | 1257       |
| 391        | 20  | 3,37       | 70            | 4273       | 1270       |
| 374        | 25  | 2,64       | 56            | 4603       | 1270       |
| 432        | 30  | 2,67       | 46,7          | 4891       | 1270       |
| 396        | 40  | 1,91       | 35            | 5383       | 1270       |
| 374        | 50  | 1,5        | 28            | 5799       | 1270       |
| 352        | 60  | 1,23       | 23,3          | 6163       | 1270       |
| 285        | 80  | 0,82       | 17,5          | 6783       | 1270       |
| 270        | 100 | 0,66       | 14            | 7306       | 1270       |

## NMRV / NMRVpower

Motoriduttori a vite senza fine / Worm geared motors / Motorréducteurs à vis sans fin / Schneckengetriebemotoren / Motorreductores de tornillo sinfin / 蜗轮蜗杆电机

### NRV-P110

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 552        | 7,5 | 11,99      | 186,7         | 3893       | 1200       |
| 598        | 10  | 9,85       | 140           | 4285       | 1463       |
| 656        | 15  | 7,37       | 93,3          | 4905       | 1604       |
| 644        | 20  | 5,49       | 70            | 5399       | 1700       |
| 679        | 25  | 4,68       | 56            | 5816       | 1700       |
| 725        | 30  | 4,43       | 46,7          | 6181       | 1700       |
| 702        | 40  | 3,26       | 35            | 6803       | 1700       |
| 660        | 50  | 2,55       | 28            | 7328       | 1700       |
| 616        | 60  | 2,03       | 23,3          | 7787       | 1700       |
| 515        | 80  | 1,39       | 17,5          | 8571       | 1700       |
| 483        | 100 | 1,11       | 14            | 9232       | 1700       |

### NRV130

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 750        | 7,5 | 16,11      | 186,7         | 5092       | 1500       |
| 820        | 10  | 13,51      | 140           | 5605       | 1845       |
| 920        | 15  | 10,33      | 93,3          | 6416       | 2070       |
| 910        | 20  | 7,67       | 70            | 7062       | 2100       |
| 930        | 25  | 6,42       | 56            | 7607       | 2100       |
| 1040       | 30  | 6,27       | 46,7          | 8084       | 2100       |
| 1050       | 40  | 4,87       | 35            | 8897       | 2100       |
| 980        | 50  | 3,78       | 28            | 9584       | 2100       |
| 900        | 60  | 3,01       | 23,3          | 10185      | 2100       |
| 840        | 80  | 2,23       | 17,5          | 11210      | 2100       |
| 740        | 100 | 1,67       | 14            | 12076      | 2100       |

### NRV150

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 1200       | 7,5 | 25,78      | 186,7         | 6962       | 1950       |
| 1240       | 10  | 20,2       | 140           | 7663       | 2267       |
| 1250       | 15  | 13,88      | 93,3          | 8771       | 2285       |
| 1300       | 20  | 10,95      | 70            | 9654       | 2674       |
| 1200       | 25  | 8,28       | 56            | 10400      | 2800       |
| 1200       | 30  | 6,98       | 46,7          | 11051      | 2800       |
| 1550       | 40  | 7,19       | 35            | 12163      | 2800       |
| 1400       | 50  | 5,33       | 28            | 13103      | 2800       |
| 1260       | 60  | 4,16       | 23,3          | 13924      | 2800       |
| 1150       | 80  | 3,05       | 17,5          | 15325      | 2800       |
| 1000       | 100 | 2,26       | 14            | 16508      | 2800       |

**NRV - Prestazioni / Performance / Performances /  
Leistungen / Prestaciones / 性能 (n1=900 rpm, Fs=1)**

**NRV030**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 21         | 5   | 0,47       | 180           | 692        | 175        |
| 21         | 7,5 | 0,32       | 120           | 792        | 175        |
| 21         | 10  | 0,24       | 90            | 871        | 197        |
| 21         | 15  | 0,18       | 60            | 997        | 197        |
| 20         | 20  | 0,13       | 45            | 1098       | 210        |
| 24         | 25  | 0,14       | 36            | 1183       | 210        |
| 22         | 30  | 0,11       | 30            | 1257       | 210        |
| 21         | 40  | 0,09       | 22,5          | 1383       | 210        |
| 19         | 50  | 0,07       | 18            | 1490       | 210        |
| 17         | 60  | 0,06       | 15            | 1583       | 210        |
| 15         | 80  | 0,04       | 11,3          | 1743       | 210        |

**NRV040**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 42         | 5   | 0,91       | 180           | 1331       | 290        |
| 46         | 7,5 | 0,68       | 120           | 1524       | 318        |
| 48         | 10  | 0,55       | 90            | 1677       | 350        |
| 50         | 15  | 0,4        | 60            | 1920       | 350        |
| 48         | 20  | 0,3        | 45            | 2113       | 350        |
| 45         | 25  | 0,23       | 36            | 2276       | 350        |
| 53         | 30  | 0,25       | 30            | 2419       | 350        |
| 50         | 40  | 0,19       | 22,5          | 2662       | 350        |
| 46         | 50  | 0,15       | 18            | 2868       | 350        |
| 41         | 60  | 0,12       | 15            | 3047       | 350        |
| 35         | 80  | 0,08       | 11,3          | 3354       | 350        |
| 32         | 100 | 0,07       | 9             | 3490       | 350        |

**NRV050**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 82         | 5   | 1,76       | 180           | 1827       | 400        |
| 91         | 7,5 | 1,33       | 120           | 2091       | 444        |
| 92         | 10  | 1,02       | 90            | 2302       | 490        |
| 92         | 15  | 0,72       | 60            | 2635       | 490        |
| 83         | 20  | 0,51       | 45            | 2900       | 490        |
| 76         | 25  | 0,39       | 36            | 3124       | 490        |
| 94         | 30  | 0,43       | 30            | 3320       | 490        |
| 88         | 40  | 0,32       | 22,5          | 3654       | 490        |
| 81         | 50  | 0,25       | 18            | 3936       | 490        |
| 76         | 60  | 0,21       | 15            | 4183       | 490        |
| 68         | 80  | 0,16       | 11,3          | 4604       | 490        |
| 56         | 100 | 0,12       | 9             | 4840       | 490        |

**NRV-P063**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 151        | 7,5 | 2,16       | 120           | 2734       | 580        |
| 153        | 10  | 1,7        | 90            | 3009       | 661        |
| 171        | 15  | 1,31       | 60            | 3444       | 700        |
| 163        | 20  | 0,99       | 45            | 3791       | 700        |
| 149        | 25  | 0,74       | 36            | 4084       | 700        |
| 177        | 30  | 0,78       | 30            | 4339       | 700        |
| 171        | 40  | 0,61       | 22,5          | 4776       | 700        |
| 161        | 50  | 0,49       | 18            | 5145       | 700        |
| 153        | 60  | 0,41       | 15            | 5467       | 700        |
| 137        | 80  | 0,3        | 11,3          | 6018       | 700        |
| 124        | 100 | 0,24       | 9             | 6270       | 700        |

**NRV-P075**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 215        | 7,5 | 3,07       | 120           | 3227       | 810        |
| 230        | 10  | 2,52       | 90            | 3551       | 975        |
| 264        | 15  | 2          | 60            | 4065       | 980        |
| 268        | 20  | 1,58       | 45            | 4474       | 980        |
| 241        | 25  | 1,16       | 36            | 4820       | 980        |
| 285        | 30  | 1,21       | 30            | 5122       | 980        |
| 277        | 40  | 0,95       | 22,5          | 5637       | 980        |
| 255        | 50  | 0,75       | 18            | 6073       | 980        |
| 247        | 60  | 0,63       | 15            | 6453       | 980        |
| 220        | 80  | 0,46       | 11,3          | 7103       | 980        |
| 196        | 100 | 0,36       | 9             | 7380       | 980        |

**NRV-P090**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 374        | 7,5 | 5,28       | 120           | 3570       | 1040       |
| 407        | 10  | 4,41       | 90            | 3929       | 1270       |
| 462        | 15  | 3,41       | 60            | 4498       | 1270       |
| 429        | 20  | 2,47       | 45            | 4951       | 1270       |
| 407        | 25  | 1,92       | 36            | 5333       | 1270       |
| 485        | 30  | 2          | 30            | 5667       | 1270       |
| 451        | 40  | 1,48       | 22,5          | 6238       | 1270       |
| 429        | 50  | 1,17       | 18            | 6719       | 1270       |
| 385        | 60  | 0,93       | 15            | 7140       | 1270       |
| 315        | 80  | 0,62       | 11,3          | 7859       | 1270       |
| 280        | 100 | 0,48       | 9             | 8180       | 1270       |

## NMRV / NMRVpower

Motoriduttori a vite senza fine / Worm geared motors / Motorréducteurs à vis sans fin / Schneckengetriebemotoren / Motorreductores de tornillo sinfin / 蜗轮蜗杆电机

### NRV-P110

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 650        | 7,5 | 9,18       | 120           | 4511       | 1390       |
| 713        | 10  | 7,64       | 90            | 4965       | 1700       |
| 759        | 15  | 5,54       | 60            | 5684       | 1700       |
| 725        | 20  | 4,07       | 45            | 6256       | 1700       |
| 759        | 25  | 3,49       | 36            | 6739       | 1700       |
| 840        | 30  | 3,43       | 30            | 7161       | 1700       |
| 794        | 40  | 2,49       | 22,5          | 7882       | 1700       |
| 748        | 50  | 1,96       | 18            | 8491       | 1700       |
| 682        | 60  | 1,55       | 15            | 9023       | 1700       |
| 567        | 80  | 1,04       | 11,3          | 9931       | 1700       |
| 515        | 100 | 0,82       | 9             | 10320      | 1700       |

### NRV130

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 880        | 7,5 | 12,29      | 120           | 5901       | 1740       |
| 960        | 10  | 10,28      | 90            | 6494       | 2100       |
| 1060       | 15  | 7,83       | 60            | 7434       | 2100       |
| 1040       | 20  | 5,77       | 45            | 8182       | 2100       |
| 1050       | 25  | 4,77       | 36            | 8814       | 2100       |
| 1170       | 30  | 4,65       | 30            | 9366       | 2100       |
| 1100       | 40  | 3,41       | 22,5          | 10309      | 2100       |
| 1050       | 50  | 2,71       | 18            | 11105      | 2100       |
| 940        | 60  | 2,11       | 15            | 11801      | 2100       |
| 860        | 80  | 1,56       | 11,3          | 12989      | 2100       |
| 780        | 100 | 1,23       | 9             | 13500      | 2100       |

### NRV150

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 1400       | 7,5 | 19,55      | 120           | 8067       | 2270       |
| 1480       | 10  | 15,67      | 90            | 8878       | 2700       |
| 1450       | 15  | 10,47      | 60            | 10163      | 2645       |
| 1500       | 20  | 8,32       | 45            | 11186      | 2800       |
| 1380       | 25  | 6,19       | 36            | 12050      | 2800       |
| 1400       | 30  | 5,36       | 30            | 12805      | 2800       |
| 1800       | 40  | 5,58       | 22,5          | 14094      | 2800       |
| 1600       | 50  | 4,08       | 18            | 15182      | 2800       |
| 1440       | 60  | 3,19       | 15            | 16133      | 2800       |
| 1300       | 80  | 2,32       | 11,3          | 17757      | 2800       |
| 1150       | 100 | 1,78       | 9             | 18000      | 2800       |

**NRV - Prestazioni / Performance / Performances /  
Leistungen / Prestaciones / 性能 (n1=500 rpm, Fs=1)**

**NRV030**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 25         | 5   | 0,31       | 100           | 841        | 210        |
| 25         | 7,5 | 0,22       | 66,7          | 963        | 210        |
| 25         | 10  | 0,17       | 50            | 1060       | 210        |
| 25         | 15  | 0,12       | 33,3          | 1213       | 210        |
| 23         | 20  | 0,09       | 25            | 1336       | 210        |
| 30         | 25  | 0,1        | 20            | 1439       | 210        |
| 27         | 30  | 0,08       | 16,7          | 1529       | 210        |
| 24         | 40  | 0,06       | 12,5          | 1683       | 210        |
| 22         | 50  | 0,05       | 10            | 1813       | 210        |
| 19         | 60  | 0,04       | 8,3           | 1830       | 210        |
| 17         | 80  | 0,03       | 6,3           | 1830       | 210        |

**NRV040**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 52         | 5   | 0,63       | 100           | 1619       | 350        |
| 56         | 7,5 | 0,47       | 66,7          | 1853       | 350        |
| 59         | 10  | 0,38       | 50            | 2040       | 350        |
| 61         | 15  | 0,28       | 33,3          | 2335       | 350        |
| 57         | 20  | 0,2        | 25            | 2570       | 350        |
| 51         | 25  | 0,15       | 20            | 2769       | 350        |
| 62         | 30  | 0,17       | 16,7          | 2942       | 350        |
| 58         | 40  | 0,13       | 12,5          | 3238       | 350        |
| 53         | 50  | 0,1        | 10            | 3488       | 350        |
| 48         | 60  | 0,08       | 8,3           | 3490       | 350        |
| 40         | 80  | 0,06       | 6,3           | 3490       | 350        |
| 36         | 100 | 0,05       | 5             | 3490       | 350        |

**NRV050**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 101        | 5   | 1,23       | 100           | 2222       | 490        |
| 112        | 7,5 | 0,93       | 66,7          | 2544       | 490        |
| 113        | 10  | 0,72       | 50            | 2800       | 490        |
| 113        | 15  | 0,51       | 33,3          | 3205       | 490        |
| 100        | 20  | 0,35       | 25            | 3528       | 490        |
| 92         | 25  | 0,28       | 20            | 3800       | 490        |
| 113        | 30  | 0,3        | 16,7          | 4038       | 490        |
| 105        | 40  | 0,23       | 12,5          | 4445       | 490        |
| 96         | 50  | 0,18       | 10            | 4788       | 490        |
| 87         | 60  | 0,15       | 8,3           | 4840       | 490        |
| 75         | 80  | 0,11       | 6,3           | 4840       | 490        |
| 65         | 100 | 0,08       | 5             | 4840       | 490        |

**NRV-P063**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 184        | 7,5 | 1,49       | 66,7          | 3325       | 700        |
| 185        | 10  | 1,18       | 50            | 3660       | 700        |
| 200        | 15  | 0,9        | 33,3          | 4190       | 700        |
| 194        | 20  | 0,68       | 25            | 4611       | 700        |
| 178        | 25  | 0,52       | 20            | 4967       | 700        |
| 213        | 30  | 0,56       | 16,7          | 5279       | 700        |
| 206        | 40  | 0,44       | 12,5          | 5810       | 700        |
| 195        | 50  | 0,36       | 10            | 6259       | 700        |
| 180        | 60  | 0,29       | 8,3           | 6270       | 700        |
| 151        | 80  | 0,21       | 6,3           | 6270       | 700        |
| 128        | 100 | 0,16       | 5             | 6270       | 700        |

**NRV-P075**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 260        | 7,5 | 2,14       | 66,7          | 3925       | 980        |
| 270        | 10  | 1,7        | 50            | 4320       | 980        |
| 318        | 15  | 1,39       | 33,3          | 4945       | 980        |
| 326        | 20  | 1,11       | 25            | 5443       | 980        |
| 293        | 25  | 0,83       | 20            | 5863       | 980        |
| 344        | 30  | 0,87       | 16,7          | 6231       | 980        |
| 337        | 40  | 0,69       | 12,5          | 6858       | 980        |
| 314        | 50  | 0,55       | 10            | 7380       | 980        |
| 301        | 60  | 0,46       | 8,3           | 7380       | 980        |
| 247        | 80  | 0,32       | 6,3           | 7380       | 980        |
| 210        | 100 | 0,24       | 5             | 7380       | 980        |

**NRV-P090**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 451        | 7,5 | 3,66       | 66,7          | 4343       | 1270       |
| 479        | 10  | 2,95       | 50            | 4780       | 1270       |
| 539        | 15  | 2,29       | 33,3          | 5472       | 1270       |
| 517        | 20  | 1,71       | 25            | 6022       | 1270       |
| 484        | 25  | 1,33       | 20            | 6487       | 1270       |
| 579        | 30  | 1,4        | 16,7          | 6894       | 1270       |
| 528        | 40  | 1,03       | 12,5          | 7588       | 1270       |
| 495        | 50  | 0,81       | 10            | 8174       | 1270       |
| 440        | 60  | 0,64       | 8,3           | 8180       | 1270       |
| 365        | 80  | 0,44       | 6,3           | 8180       | 1270       |
| 330        | 100 | 0,35       | 5             | 8180       | 1270       |

## NMRV / NMRVpower

Motoriduttori a vite senza fine / Worm geared motors / Motorréducteurs à vis sans fin / Schneckengetriebemotoren / Motorreductores de tornillo sinfin / 蜗轮蜗杆电机

### NRV-P110

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 794        | 7,5 | 6,37       | 66,7          | 5488       | 1700       |
| 851        | 10  | 5,24       | 50            | 6040       | 1700       |
| 909        | 15  | 3,82       | 33,3          | 6914       | 1700       |
| 863        | 20  | 2,79       | 25            | 7610       | 1700       |
| 909        | 25  | 2,41       | 20            | 8198       | 1700       |
| 1000       | 30  | 2,39       | 16,7          | 8711       | 1700       |
| 932        | 40  | 1,72       | 12,5          | 9588       | 1700       |
| 880        | 50  | 1,38       | 10            | 10320      | 1700       |
| 781        | 60  | 1,06       | 8,3           | 10320      | 1700       |
| 662        | 80  | 0,75       | 6,3           | 10320      | 1700       |
| 599        | 100 | 0,58       | 5             | 10320      | 1700       |

### NRV130

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 1080       | 7,5 | 8,57       | 66,7          | 7178       | 2100       |
| 1160       | 10  | 7,06       | 50            | 7900       | 2100       |
| 1300       | 15  | 5,47       | 33,3          | 9043       | 2100       |
| 1230       | 20  | 3,93       | 25            | 9953       | 2100       |
| 1200       | 25  | 3,18       | 20            | 10722      | 2100       |
| 1400       | 30  | 3,3        | 16,7          | 11394      | 2100       |
| 1300       | 40  | 2,4        | 12,5          | 12540      | 2100       |
| 1220       | 50  | 1,88       | 10            | 13500      | 2100       |
| 1070       | 60  | 1,46       | 8,3           | 13500      | 2100       |
| 970        | 80  | 1,08       | 6,3           | 13500      | 2100       |
| 860        | 100 | 0,83       | 5             | 13500      | 2100       |

### NRV150

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 1700       | 7,5 | 13,49      | 66,7          | 9812       | 2800       |
| 1780       | 10  | 10,71      | 50            | 10800      | 2800       |
| 1730       | 15  | 7,19       | 33,3          | 12363      | 2800       |
| 1820       | 20  | 5,81       | 25            | 13607      | 2800       |
| 1630       | 25  | 4,27       | 20            | 14658      | 2800       |
| 1670       | 30  | 3,74       | 16,7          | 15576      | 2800       |
| 2120       | 40  | 3,38       | 12,5          | 17144      | 2800       |
| 1870       | 50  | 2,84       | 10            | 18000      | 2800       |
| 1680       | 60  | 2,26       | 8,3           | 18000      | 2800       |
| 1530       | 80  | 1,67       | 6,3           | 18000      | 2800       |
| 1350       | 100 | 1,29       | 5             | 18000      | 2800       |

**IHW+NMRVpower - Prestazioni / Performance / Performances /  
Leistungen / Prestaciones / 性能 (n1=1400 rpm, Fs=1)**

**IHW040 + NMRV-P090**

| M2<br>[Nm] | i      | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|--------|------------|---------------|------------|------------|
| 411        | 23,29  | 3,11       | 60,11         | 4343       | 300        |
| 496        | 31,05  | 2,86       | 45,08         | 4780       | 400        |
| 558        | 46,58  | 2,23       | 30,06         | 5472       | 400        |
| 513        | 77,63  | 1,33       | 18,03         | 6487       | 400        |
| 599        | 93,16  | 1,37       | 15,03         | 6894       | 400        |
| 514        | 155,26 | 0,79       | 9,02          | 8174       | 400        |
| 457        | 186,32 | 0,63       | 7,51          | 8180       | 400        |
| 492        | 42,00  | 2,12       | 33,33         | 4780       | 400        |
| 617        | 63,00  | 1,86       | 22,22         | 5472       | 400        |
| 592        | 84,00  | 1,39       | 16,67         | 6022       | 400        |
| 663        | 126,00 | 1,15       | 11,11         | 6894       | 400        |
| 496        | 252,00 | 0,53       | 5,56          | 8180       | 400        |
| 647        | 110,00 | 1,17       | 12,73         | 6022       | 400        |
| 637        | 137,50 | 0,96       | 10,18         | 6487       | 400        |
| 725        | 165,00 | 0,98       | 8,48          | 6894       | 400        |
| 661        | 220,00 | 0,72       | 6,36          | 7588       | 400        |
| 599        | 275,00 | 0,56       | 5,09          | 8174       | 400        |
| 524        | 330,00 | 0,44       | 4,24          | 8180       | 400        |
| 552        | 304,55 | 0,47       | 4,60          | 8174       | 400        |
| 632        | 383,33 | 0,43       | 3,65          | 8174       | 400        |
| 550        | 460,00 | 0,34       | 3,04          | 8180       | 400        |
| 435        | 613,33 | 0,22       | 2,28          | 8180       | 400        |
| 356        | 766,67 | 0,16       | 1,83          | 8180       | 400        |
| 642        | 437,50 | 0,39       | 3,20          | 8174       | 400        |
| 558        | 525,00 | 0,30       | 2,67          | 8180       | 400        |
| 439        | 700,00 | 0,20       | 2,00          | 8180       | 400        |
| 359        | 875,00 | 0,14       | 1,60          | 8180       | 400        |

**IHW040 + NMRV-P110**

| M2<br>[Nm] | i      | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|--------|------------|---------------|------------|------------|
| 415        | 23,29  | 3,11       | 60,11         | 5488       | 300        |
| 541        | 31,05  | 3,11       | 45,08         | 6040       | 300        |
| 791        | 46,58  | 3,11       | 30,06         | 6914       | 300        |
| 904        | 62,11  | 2,74       | 22,54         | 7610       | 500        |
| 968        | 77,63  | 2,40       | 18,03         | 8198       | 500        |
| 1035       | 93,16  | 2,33       | 15,03         | 8711       | 500        |
| 920        | 155,26 | 1,35       | 9,02          | 10320      | 500        |
| 813        | 186,32 | 1,05       | 7,51          | 10320      | 500        |
| 492        | 42,00  | 2,12       | 33,33         | 6040       | 500        |
| 930        | 84,00  | 2,12       | 16,67         | 7610       | 500        |
| 1112       | 105,00 | 2,08       | 13,33         | 8198       | 500        |
| 1189       | 126,00 | 2,05       | 11,11         | 8711       | 500        |
| 1095       | 168,00 | 1,46       | 8,33          | 9588       | 500        |
| 888        | 252,00 | 0,88       | 5,56          | 10320      | 500        |
| 947        | 137,50 | 1,37       | 10,18         | 8198       | 500        |
| 1175       | 220,00 | 1,22       | 6,36          | 9588       | 500        |
| 1079       | 275,00 | 0,94       | 5,09          | 10320      | 500        |
| 941        | 330,00 | 0,73       | 4,24          | 10320      | 500        |
| 780        | 440,00 | 0,50       | 3,18          | 10320      | 500        |
| 978        | 304,55 | 0,78       | 4,60          | 10320      | 500        |
| 957        | 383,33 | 0,61       | 3,65          | 10320      | 500        |
| 990        | 460,00 | 0,56       | 3,04          | 10320      | 500        |
| 816        | 613,33 | 0,38       | 2,28          | 10320      | 500        |
| 646        | 766,67 | 0,27       | 1,83          | 10320      | 500        |
| 927        | 525,00 | 0,47       | 2,67          | 10320      | 500        |
| 827        | 700,00 | 0,34       | 2,00          | 10320      | 500        |
| 652        | 875,00 | 0,24       | 1,60          | 10320      | 500        |



**IHW+NMRVpower - Prestazioni / Performance / Performances / Leistungen / Prestaciones / 性能 (n1=900 rpm, Fs=1)**
**IHW040 + NMRV-P090**

| M2<br>[Nm] | i      | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|--------|------------|---------------|------------|------------|
| 425        | 23,29  | 2,10       | 38,64         | 4343       | 300        |
| 555        | 31,05  | 2,10       | 28,98         | 4780       | 400        |
| 646        | 46,58  | 1,70       | 19,32         | 5472       | 400        |
| 610        | 77,63  | 1,04       | 11,59         | 6487       | 400        |
| 694        | 93,16  | 1,06       | 9,66          | 6894       | 400        |
| 584        | 155,26 | 0,61       | 5,80          | 8174       | 400        |
| 511        | 186,32 | 0,48       | 4,83          | 8180       | 400        |
| 505        | 42,00  | 1,42       | 21,43         | 4780       | 400        |
| 715        | 63,00  | 1,41       | 14,29         | 5472       | 400        |
| 686        | 84,00  | 1,05       | 10,71         | 6022       | 400        |
| 768        | 126,00 | 0,88       | 7,14          | 6894       | 400        |
| 538        | 252,00 | 0,38       | 3,57          | 8180       | 400        |
| 750        | 110,00 | 0,89       | 8,18          | 6022       | 400        |
| 699        | 137,50 | 0,69       | 6,55          | 6487       | 400        |
| 840        | 165,00 | 0,74       | 5,45          | 6894       | 400        |
| 766        | 220,00 | 0,55       | 4,09          | 7588       | 400        |
| 641        | 275,00 | 0,40       | 3,27          | 8174       | 400        |
| 557        | 330,00 | 0,31       | 2,73          | 8180       | 400        |
| 639        | 304,55 | 0,36       | 2,96          | 8174       | 400        |
| 662        | 383,33 | 0,30       | 2,35          | 8174       | 400        |
| 574        | 460,00 | 0,23       | 1,96          | 8180       | 400        |
| 461        | 613,33 | 0,15       | 1,47          | 8180       | 400        |
| 366        | 766,67 | 0,11       | 1,17          | 8180       | 400        |
| 669        | 437,50 | 0,26       | 2,06          | 8174       | 400        |
| 579        | 525,00 | 0,21       | 1,71          | 8180       | 400        |
| 466        | 700,00 | 0,14       | 1,29          | 8180       | 400        |
| 369        | 875,00 | 0,10       | 1,03          | 8180       | 400        |

**IHW040 + NMRV-P110**

| M2<br>[Nm] | i      | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|--------|------------|---------------|------------|------------|
| 427        | 23,29  | 2,10       | 38,64         | 5488       | 300        |
| 555        | 31,05  | 2,10       | 28,98         | 6040       | 300        |
| 806        | 46,58  | 2,10       | 19,32         | 6914       | 300        |
| 1048       | 62,11  | 2,10       | 14,49         | 7610       | 500        |
| 1167       | 77,63  | 1,92       | 11,59         | 8198       | 500        |
| 1252       | 93,16  | 1,90       | 9,66          | 8711       | 500        |
| 1050       | 155,26 | 1,03       | 5,80          | 10320      | 500        |
| 917        | 186,32 | 0,80       | 4,83          | 10320      | 500        |
| 505        | 42,00  | 1,42       | 21,43         | 6040       | 500        |
| 949        | 84,00  | 1,42       | 10,71         | 7610       | 500        |
| 1156       | 105,00 | 1,42       | 8,57          | 8198       | 500        |
| 1241       | 126,00 | 1,42       | 7,14          | 8711       | 500        |
| 1219       | 168,00 | 1,08       | 5,36          | 9588       | 500        |
| 969        | 252,00 | 0,64       | 3,57          | 10320      | 500        |
| 969        | 137,50 | 0,92       | 6,55          | 8198       | 500        |
| 1272       | 220,00 | 0,87       | 4,09          | 9588       | 500        |
| 1158       | 275,00 | 0,67       | 3,27          | 10320      | 500        |
| 1003       | 330,00 | 0,52       | 2,73          | 10320      | 500        |
| 825        | 440,00 | 0,35       | 2,05          | 10320      | 500        |
| 1158       | 304,55 | 0,60       | 2,96          | 10320      | 500        |
| 1009       | 383,33 | 0,42       | 2,35          | 10320      | 500        |
| 1035       | 460,00 | 0,39       | 1,96          | 10320      | 500        |
| 848        | 613,33 | 0,26       | 1,47          | 10320      | 500        |
| 663        | 766,67 | 0,18       | 1,17          | 10320      | 500        |
| 932        | 525,00 | 0,31       | 1,71          | 10320      | 500        |
| 857        | 700,00 | 0,23       | 1,29          | 10320      | 500        |
| 670        | 875,00 | 0,16       | 1,03          | 10320      | 500        |

**NRV/NMRV - Prestazioni / Performance / Performances /  
Leistungen / Prestaciones / 性能 (n1=2800 rpm, Fs=1)**

**NRV030/040**

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 71         | 100  | 0,31       | 28            | 2769       | 140        |
| 72         | 150  | 0,22       | 18,7          | 3169       | 140        |
| 65         | 200  | 0,16       | 14            | 3488       | 140        |
| 61         | 250  | 0,13       | 11,2          | 3490       | 140        |
| 73         | 300  | 0,14       | 9,3           | 3490       | 140        |
| 65         | 400  | 0,1        | 7             | 3490       | 140        |
| 61         | 500  | 0,07       | 5,6           | 3490       | 146        |
| 73         | 600  | 0,08       | 4,7           | 3490       | 146        |
| 73         | 750  | 0,06       | 3,7           | 3490       | 210        |
| 73         | 900  | 0,06       | 3,1           | 3490       | 210        |
| 73         | 1200 | 0,05       | 2,3           | 3490       | 127        |
| 73         | 1500 | 0,04       | 1,9           | 3490       | 128        |
| 73         | 1800 | 0,03       | 1,6           | 3490       | 126        |
| 65         | 2400 | 0,03       | 1,2           | 3490       | 126        |
| 60         | 3000 | 0,02       | 0,9           | 3490       | 126        |
| 48         | 4000 | 0,01       | 0,7           | 3490       | 128        |
| 43         | 5000 | 0,01       | 0,6           | 3490       | 128        |

**NRV030/050**

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 103        | 100  | 0,44       | 28            | 3800       | 140        |
| 135        | 150  | 0,42       | 18,7          | 4350       | 140        |
| 120        | 200  | 0,3        | 14            | 4788       | 140        |
| 110        | 250  | 0,23       | 11,2          | 4840       | 140        |
| 145        | 300  | 0,27       | 9,3           | 4840       | 140        |
| 124        | 400  | 0,2        | 7             | 4840       | 140        |
| 120        | 500  | 0,16       | 5,6           | 4840       | 140        |
| 145        | 600  | 0,15       | 4,7           | 4840       | 146        |
| 145        | 750  | 0,13       | 3,7           | 4840       | 210        |
| 145        | 900  | 0,11       | 3,1           | 4840       | 210        |
| 145        | 1200 | 0,09       | 2,3           | 4840       | 127        |
| 145        | 1500 | 0,07       | 1,9           | 4840       | 128        |
| 145        | 1800 | 0,07       | 1,6           | 4840       | 126        |
| 124        | 2400 | 0,05       | 1,2           | 4840       | 126        |
| 120        | 3000 | 0,04       | 0,9           | 4840       | 126        |
| 82         | 4000 | 0,02       | 0,7           | 4840       | 128        |
| 79         | 5000 | 0,02       | 0,6           | 4840       | 128        |

**NRV040/050**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 137        | 100 | 0,58       | 28            | 3800       | 272        |
| 135        | 150 | 0,41       | 18,7          | 4350       | 272        |
| 120        | 200 | 0,29       | 14            | 4788       | 272        |
| 110        | 250 | 0,23       | 11,2          | 4840       | 272        |
| 145        | 300 | 0,27       | 9,3           | 4840       | 272        |
| 124        | 400 | 0,19       | 7             | 4840       | 272        |
| 137        | 500 | 0,15       | 5,6           | 3800       | 350        |
| 145        | 600 | 0,14       | 4,7           | 4840       | 204        |

**NRV040/050**

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 145        | 750  | 0,12       | 3,7           | 4840       | 236        |
| 135        | 900  | 0,09       | 3,1           | 4350       | 350        |
| 145        | 1200 | 0,08       | 2,3           | 4840       | 350        |
| 145        | 1500 | 0,07       | 1,9           | 4840       | 350        |
| 145        | 1800 | 0,06       | 1,6           | 4840       | 350        |
| 124        | 2400 | 0,04       | 1,2           | 4840       | 350        |
| 120        | 3000 | 0,04       | 0,9           | 4840       | 350        |
| 120        | 4000 | 0,03       | 0,7           | 4840       | 350        |
| 120        | 5000 | 0,03       | 0,6           | 4840       | 350        |

**NRV-P030/063**

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 103        | 100  | 0,44       | 28            | 4967       | 140        |
| 144        | 150  | 0,44       | 18,7          | 5686       | 140        |
| 182        | 200  | 0,44       | 14            | 6259       | 140        |
| 218        | 250  | 0,44       | 11,2          | 6270       | 140        |
| 255        | 300  | 0,51       | 9,3           | 6270       | 125        |
| 255        | 400  | 0,39       | 7             | 6270       | 140        |
| 236        | 500  | 0,31       | 5,6           | 6270       | 140        |
| 220        | 600  | 0,22       | 4,7           | 6270       | 146        |
| 271        | 750  | 0,23       | 3,7           | 6270       | 210        |
| 271        | 900  | 0,2        | 3,1           | 6270       | 210        |
| 256        | 1200 | 0,15       | 2,3           | 6270       | 127        |
| 238        | 1500 | 0,12       | 1,9           | 6270       | 128        |
| 220        | 1800 | 0,1        | 1,6           | 6270       | 126        |
| 255        | 2400 | 0,09       | 1,2           | 6270       | 126        |
| 236        | 3000 | 0,08       | 0,9           | 6270       | 126        |
| 236        | 4000 | 0,06       | 0,7           | 6270       | 130        |
| 150        | 5000 | 0,04       | 0,6           | 6270       | 128        |

**NRV-P040/063**

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 229        | 100  | 0,97       | 28            | 4967       | 272        |
| 260        | 150  | 0,78       | 18,7          | 5686       | 272        |
| 253        | 200  | 0,6        | 14            | 6259       | 272        |
| 231        | 250  | 0,46       | 11,2          | 6270       | 272        |
| 271        | 300  | 0,49       | 9,3           | 6270       | 272        |
| 255        | 400  | 0,38       | 7             | 6270       | 272        |
| 231        | 500  | 0,24       | 5,6           | 6270       | 204        |
| 271        | 600  | 0,26       | 4,7           | 6270       | 204        |
| 271        | 750  | 0,22       | 3,7           | 6270       | 236        |
| 271        | 900  | 0,19       | 3,1           | 6270       | 350        |
| 271        | 1200 | 0,15       | 2,3           | 6270       | 350        |
| 271        | 1500 | 0,13       | 1,9           | 6270       | 350        |
| 271        | 1800 | 0,11       | 1,6           | 6270       | 350        |
| 255        | 2400 | 0,08       | 1,2           | 6270       | 350        |
| 236        | 3000 | 0,07       | 0,9           | 6270       | 350        |
| 236        | 4000 | 0,06       | 0,7           | 6270       | 350        |

**NRV-P040/063**

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 236        | 5000 | 0,05       | 0,6           | 6270       | 350        |

**NRV-P040/075**

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 232        | 100  | 0,97       | 28            | 5863       | 272        |
| 331        | 150  | 0,97       | 18,7          | 6712       | 272        |
| 418        | 200  | 0,97       | 14            | 7380       | 272        |
| 380        | 250  | 0,73       | 11,2          | 7380       | 272        |
| 444        | 300  | 0,77       | 9,3           | 7380       | 272        |
| 414        | 400  | 0,58       | 7             | 7380       | 272        |
| 368        | 500  | 0,45       | 5,6           | 7380       | 272        |
| 444        | 600  | 0,41       | 4,7           | 7380       | 204        |
| 444        | 750  | 0,34       | 3,7           | 7380       | 236        |
| 444        | 900  | 0,29       | 3,1           | 7380       | 350        |
| 444        | 1200 | 0,23       | 2,3           | 7380       | 350        |
| 444        | 1500 | 0,2        | 1,9           | 7380       | 350        |
| 444        | 1800 | 0,17       | 1,6           | 7380       | 350        |
| 414        | 2400 | 0,13       | 1,2           | 7380       | 350        |
| 368        | 3000 | 0,1        | 0,9           | 7380       | 350        |
| 368        | 4000 | 0,08       | 0,7           | 7380       | 350        |
| 368        | 5000 | 0,07       | 0,6           | 7380       | 350        |

**NRV-P040/090**

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 238        | 100  | 0,97       | 28            | 6487       | 272        |
| 339        | 150  | 0,97       | 18,7          | 7426       | 272        |
| 435        | 200  | 0,97       | 14            | 8174       | 272        |
| 522        | 250  | 0,97       | 11,2          | 8180       | 272        |
| 583        | 300  | 0,97       | 9,3           | 8180       | 272        |
| 610        | 400  | 0,82       | 7             | 8180       | 272        |
| 560        | 500  | 0,64       | 5,6           | 8180       | 272        |
| 583        | 600  | 0,51       | 4,7           | 8180       | 204        |
| 563        | 750  | 0,41       | 3,7           | 8180       | 236        |
| 683        | 900  | 0,43       | 3,1           | 8180       | 350        |
| 623        | 1200 | 0,31       | 2,3           | 8180       | 350        |
| 603        | 1500 | 0,25       | 1,9           | 8180       | 350        |
| 563        | 1800 | 0,21       | 1,6           | 8180       | 350        |
| 610        | 2400 | 0,18       | 1,2           | 8180       | 350        |
| 560        | 3000 | 0,14       | 0,9           | 8180       | 350        |
| 560        | 4000 | 0,12       | 0,7           | 8180       | 350        |
| 560        | 5000 | 0,1        | 0,6           | 8180       | 350        |

**NRV-P050/090**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 443        | 100 | 1,78       | 28            | 6487       | 378        |
| 632        | 150 | 1,78       | 18,7          | 7426       | 378        |
| 610        | 200 | 1,34       | 14            | 8174       | 378        |
| 570        | 250 | 1,04       | 11,2          | 8180       | 378        |

**NRV-P050/090**

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 700        | 300  | 1,15       | 9,3           | 8180       | 378        |
| 610        | 400  | 0,81       | 7             | 8180       | 378        |
| 570        | 500  | 0,56       | 5,6           | 8180       | 417        |
| 700        | 600  | 0,62       | 4,7           | 8180       | 417        |
| 700        | 750  | 0,5        | 3,7           | 8180       | 482        |
| 700        | 900  | 0,44       | 3,1           | 8180       | 490        |
| 700        | 1200 | 0,34       | 2,3           | 8180       | 490        |
| 700        | 1500 | 0,29       | 1,9           | 8180       | 490        |
| 700        | 1800 | 0,25       | 1,6           | 8180       | 490        |
| 610        | 2400 | 0,18       | 1,2           | 8180       | 490        |
| 560        | 3000 | 0,14       | 0,9           | 8180       | 490        |
| 560        | 4000 | 0,11       | 0,7           | 8180       | 490        |
| 560        | 5000 | 0,1        | 0,6           | 8180       | 490        |

**NRV-P050/110**

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 443        | 100  | 1,78       | 28            | 8198       | 378        |
| 640        | 150  | 1,78       | 18,7          | 9384       | 378        |
| 832        | 200  | 1,78       | 14            | 10320      | 378        |
| 1013       | 250  | 1,78       | 11,2          | 10320      | 378        |
| 1085       | 300  | 1,78       | 9,3           | 10320      | 378        |
| 1185       | 400  | 1,5        | 7             | 10320      | 378        |
| 994        | 500  | 0,94       | 5,6           | 10320      | 417        |
| 1065       | 600  | 0,94       | 4,7           | 10320      | 417        |
| 1025       | 750  | 0,74       | 3,7           | 10320      | 482        |
| 1265       | 900  | 0,8        | 3,1           | 10320      | 490        |
| 1186       | 1200 | 0,58       | 2,3           | 10320      | 490        |
| 1065       | 1500 | 0,44       | 1,9           | 10320      | 490        |
| 1005       | 1800 | 0,36       | 1,6           | 10320      | 490        |
| 1185       | 2400 | 0,33       | 1,2           | 10320      | 490        |
| 1100       | 3000 | 0,26       | 0,9           | 10320      | 490        |
| 1100       | 4000 | 0,21       | 0,7           | 10320      | 490        |
| 1100       | 5000 | 0,18       | 0,6           | 10320      | 490        |

**NRV-P063/110**

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 815        | 100  | 3,27       | 28            | 8198       | 471        |
| 1178       | 150  | 3,27       | 18,7          | 9384       | 471        |
| 1139       | 200  | 2,44       | 14            | 10320      | 471        |
| 1173       | 250  | 2,06       | 11,2          | 10320      | 471        |
| 1265       | 300  | 2,07       | 9,3           | 10320      | 471        |
| 1185       | 400  | 1,5        | 7             | 10320      | 471        |
| 1173       | 500  | 1,08       | 5,6           | 10320      | 556        |
| 1265       | 600  | 1,09       | 4,7           | 10320      | 556        |
| 1265       | 750  | 0,89       | 3,7           | 10320      | 613        |
| 1265       | 900  | 0,78       | 3,1           | 10320      | 700        |
| 1265       | 1200 | 0,61       | 2,3           | 10320      | 700        |
| 1265       | 1500 | 0,51       | 1,9           | 10320      | 700        |

## NRV-P063/110

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 1265       | 1800 | 0,45       | 1,6           | 10320      | 700        |
| 1185       | 2400 | 0,32       | 1,2           | 10320      | 700        |
| 1100       | 3000 | 0,25       | 0,9           | 10320      | 700        |
| 1100       | 4000 | 0,2        | 0,7           | 10320      | 700        |
| 1100       | 5000 | 0,18       | 0,6           | 10320      | 700        |

## NRV-P063/130

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 825        | 100  | 3,27       | 28            | 10722      | 471        |
| 1163       | 150  | 3,27       | 18,7          | 12274      | 471        |
| 1531       | 200  | 3,27       | 14            | 13500      | 471        |
| 1530       | 250  | 2,69       | 11,2          | 13500      | 471        |
| 1760       | 300  | 2,84       | 9,3           | 13500      | 471        |
| 1650       | 400  | 2,09       | 7             | 13500      | 471        |
| 1550       | 500  | 1,65       | 5,6           | 13500      | 471        |
| 1760       | 600  | 1,49       | 4,7           | 13500      | 556        |
| 1760       | 750  | 1,22       | 3,7           | 13500      | 613        |
| 1760       | 900  | 1,07       | 3,1           | 13500      | 700        |
| 1760       | 1200 | 0,83       | 2,3           | 13500      | 700        |
| 1760       | 1500 | 0,7        | 1,9           | 13500      | 700        |
| 1760       | 1800 | 0,61       | 1,6           | 13500      | 700        |
| 1650       | 2400 | 0,45       | 1,2           | 13500      | 700        |
| 1550       | 3000 | 0,35       | 0,9           | 13500      | 700        |
| 1550       | 4000 | 0,28       | 0,7           | 13500      | 700        |
| 1550       | 5000 | 0,25       | 0,6           | 13500      | 700        |

## NRV-P063/150

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 1444       | 150  | 4,03       | 18,7          | 18000      | 395        |
| 1531       | 200  | 3,27       | 14            | 18000      | 471        |
| 1864       | 250  | 3,27       | 11,2          | 18000      | 471        |
| 1678       | 300  | 2,45       | 9,3           | 18000      | 516        |
| 2624       | 400  | 3,27       | 7             | 18000      | 471        |
| 2330       | 500  | 2,48       | 5,6           | 18000      | 471        |
| 2670       | 600  | 2,27       | 4,7           | 18000      | 516        |
| 2330       | 750  | 1,69       | 3,7           | 18000      | 516        |
| 2100       | 900  | 1,19       | 3,1           | 18000      | 700        |
| 2670       | 1200 | 1,25       | 2,3           | 18000      | 700        |
| 2330       | 1500 | 0,93       | 1,9           | 18000      | 700        |
| 2100       | 1800 | 0,68       | 1,6           | 18000      | 700        |
| 2610       | 2400 | 0,7        | 1,2           | 18000      | 700        |
| 2330       | 3000 | 0,53       | 0,9           | 18000      | 700        |
| 2330       | 4000 | 0,43       | 0,7           | 18000      | 700        |
| 2330       | 5000 | 0,37       | 0,6           | 18000      | 700        |

**NRV/NMRV - Prestazioni / Performance / Performances / Leistungen / Prestaciones / 性能 (n1=1400 rpm, Fs=1)**
**NRV030/040**

| M2 [Nm] | i    | P1 [kW] | n2 [1/min] | Fr2 [N] | Fr1 [N] |
|---------|------|---------|------------|---------|---------|
| 71      | 100  | 0,16    | 14         | 2769    | 169     |
| 72      | 150  | 0,12    | 9,3        | 3169    | 169     |
| 65      | 200  | 0,08    | 7          | 3488    | 169     |
| 61      | 250  | 0,07    | 5,6        | 3490    | 169     |
| 73      | 300  | 0,07    | 4,7        | 3490    | 169     |
| 65      | 400  | 0,05    | 3,5        | 3490    | 169     |
| 61      | 500  | 0,04    | 2,8        | 3490    | 180     |
| 73      | 600  | 0,04    | 2,3        | 3490    | 180     |
| 73      | 750  | 0,04    | 1,9        | 3490    | 210     |
| 73      | 900  | 0,03    | 1,6        | 3490    | 210     |
| 73      | 1200 | 0,03    | 1,2        | 3490    | 210     |
| 73      | 1500 | 0,02    | 0,9        | 3490    | 210     |
| 73      | 1800 | 0,02    | 0,8        | 3490    | 210     |
| 65      | 2400 | 0,01    | 0,6        | 3490    | 210     |
| 60      | 3000 | 0,01    | 0,5        | 3490    | 210     |
| 48      | 4000 | 0,01    | 0,4        | 3490    | 210     |
| 43      | 5000 | 0,01    | 0,3        | 3490    | 210     |

**NRV030/050**

| M2 [Nm] | i    | P1 [kW] | n2 [1/min] | Fr2 [N] | Fr1 [N] |
|---------|------|---------|------------|---------|---------|
| 137     | 100  | 0,31    | 14         | 3800    | 169     |
| 135     | 150  | 0,22    | 9,3        | 4350    | 169     |
| 120     | 200  | 0,15    | 7          | 4788    | 169     |
| 110     | 250  | 0,12    | 5,6        | 4840    | 169     |
| 145     | 300  | 0,14    | 4,7        | 4840    | 169     |
| 124     | 400  | 0,1     | 3,5        | 4840    | 169     |
| 120     | 500  | 0,08    | 2,8        | 4840    | 169     |
| 145     | 600  | 0,08    | 2,3        | 4840    | 180     |
| 145     | 750  | 0,07    | 1,9        | 4840    | 210     |
| 145     | 900  | 0,06    | 1,6        | 4840    | 210     |
| 145     | 1200 | 0,05    | 1,2        | 4840    | 210     |
| 145     | 1500 | 0,04    | 0,9        | 4840    | 210     |
| 145     | 1800 | 0,04    | 0,8        | 4840    | 210     |
| 124     | 2400 | 0,03    | 0,6        | 4840    | 210     |
| 120     | 3000 | 0,02    | 0,5        | 4840    | 210     |
| 82      | 4000 | 0,01    | 0,4        | 4840    | 210     |
| 79      | 5000 | 0,01    | 0,3        | 4840    | 210     |

**NRV040/050**

| M2 [Nm] | i   | P1 [kW] | n2 [1/min] | Fr2 [N] | Fr1 [N] |
|---------|-----|---------|------------|---------|---------|
| 137     | 100 | 0,3     | 14         | 3800    | 344     |
| 135     | 150 | 0,21    | 9,3        | 4350    | 344     |
| 120     | 200 | 0,15    | 7          | 4788    | 344     |
| 110     | 250 | 0,12    | 5,6        | 4840    | 344     |
| 145     | 300 | 0,14    | 4,7        | 4840    | 344     |
| 124     | 400 | 0,1     | 3,5        | 4840    | 344     |
| 137     | 500 | 0,08    | 2,8        | 3800    | 350     |
| 145     | 600 | 0,07    | 2,3        | 4840    | 350     |

**NRV040/050**

| M2 [Nm] | i    | P1 [kW] | n2 [1/min] | Fr2 [N] | Fr1 [N] |
|---------|------|---------|------------|---------|---------|
| 145     | 750  | 0,06    | 1,9        | 4840    | 350     |
| 135     | 900  | 0,05    | 1,6        | 4350    | 350     |
| 145     | 1200 | 0,04    | 1,2        | 4840    | 350     |
| 145     | 1500 | 0,04    | 0,9        | 4840    | 350     |
| 145     | 1800 | 0,03    | 0,8        | 4840    | 350     |
| 124     | 2400 | 0,02    | 0,6        | 4840    | 350     |
| 120     | 3000 | 0,02    | 0,5        | 4840    | 350     |
| 120     | 4000 | 0,02    | 0,4        | 4840    | 350     |
| 120     | 5000 | 0,01    | 0,3        | 4840    | 350     |

**NRV-P030/063**

| M2 [Nm] | i    | P1 [kW] | n2 [1/min] | Fr2 [N] | Fr1 [N] |
|---------|------|---------|------------|---------|---------|
| 150     | 100  | 0,34    | 14         | 4967    | 169     |
| 211     | 150  | 0,34    | 9,3        | 5686    | 169     |
| 253     | 200  | 0,32    | 7          | 6259    | 169     |
| 231     | 250  | 0,24    | 5,6        | 6270    | 169     |
| 255     | 300  | 0,26    | 4,7        | 6270    | 150     |
| 255     | 400  | 0,2     | 3,5        | 6270    | 169     |
| 236     | 500  | 0,16    | 2,8        | 6270    | 169     |
| 271     | 600  | 0,15    | 2,3        | 6270    | 180     |
| 271     | 750  | 0,13    | 1,9        | 6270    | 210     |
| 271     | 900  | 0,11    | 1,6        | 6270    | 210     |
| 271     | 1200 | 0,09    | 1,2        | 6270    | 210     |
| 271     | 1500 | 0,08    | 0,9        | 6270    | 210     |
| 271     | 1800 | 0,07    | 0,8        | 6270    | 210     |
| 255     | 2400 | 0,05    | 0,6        | 6270    | 210     |
| 236     | 3000 | 0,04    | 0,5        | 6270    | 210     |
| 236     | 4000 | 0,04    | 0,4        | 6270    | 210     |
| 150     | 5000 | 0,02    | 0,3        | 6270    | 210     |

**NRV-P040/063**

| M2 [Nm] | i    | P1 [kW] | n2 [1/min] | Fr2 [N] | Fr1 [N] |
|---------|------|---------|------------|---------|---------|
| 257     | 100  | 0,56    | 14         | 4967    | 344     |
| 260     | 150  | 0,4     | 9,3        | 5686    | 344     |
| 253     | 200  | 0,31    | 7          | 6259    | 344     |
| 231     | 250  | 0,24    | 5,6        | 6270    | 344     |
| 271     | 300  | 0,26    | 4,7        | 6270    | 344     |
| 255     | 400  | 0,2     | 3,5        | 6270    | 344     |
| 231     | 500  | 0,13    | 2,8        | 6270    | 350     |
| 271     | 600  | 0,14    | 2,3        | 6270    | 350     |
| 271     | 750  | 0,11    | 1,9        | 6270    | 350     |
| 271     | 900  | 0,1     | 1,6        | 6270    | 350     |
| 271     | 1200 | 0,08    | 1,2        | 6270    | 350     |
| 271     | 1500 | 0,07    | 0,9        | 6270    | 350     |
| 271     | 1800 | 0,06    | 0,8        | 6270    | 350     |
| 255     | 2400 | 0,05    | 0,6        | 6270    | 350     |
| 236     | 3000 | 0,04    | 0,5        | 6270    | 350     |
| 236     | 4000 | 0,03    | 0,4        | 6270    | 350     |

## NRV-P040/063

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 236        | 5000 | 0,03       | 0,3           | 6270       | 350        |

## NRV-P040/075

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 352        | 100  | 0,76       | 14            | 5863       | 344        |
| 425        | 150  | 0,64       | 9,3           | 6712       | 344        |
| 420        | 200  | 0,5        | 7             | 7380       | 344        |
| 380        | 250  | 0,38       | 5,6           | 7380       | 344        |
| 444        | 300  | 0,4        | 4,7           | 7380       | 344        |
| 414        | 400  | 0,3        | 3,5           | 7380       | 344        |
| 368        | 500  | 0,24       | 2,8           | 7380       | 344        |
| 444        | 600  | 0,21       | 2,3           | 7380       | 350        |
| 444        | 750  | 0,18       | 1,9           | 7380       | 350        |
| 444        | 900  | 0,16       | 1,6           | 7380       | 350        |
| 444        | 1200 | 0,13       | 1,2           | 7380       | 350        |
| 444        | 1500 | 0,11       | 0,9           | 7380       | 350        |
| 444        | 1800 | 0,1        | 0,8           | 7380       | 350        |
| 414        | 2400 | 0,07       | 0,6           | 7380       | 350        |
| 368        | 3000 | 0,06       | 0,5           | 7380       | 350        |
| 368        | 4000 | 0,05       | 0,4           | 7380       | 350        |
| 368        | 5000 | 0,04       | 0,3           | 7380       | 350        |

## NRV-P040/090

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 361        | 100  | 0,76       | 14            | 6487       | 344        |
| 515        | 150  | 0,76       | 9,3           | 7426       | 344        |
| 610        | 200  | 0,7        | 7             | 8174       | 344        |
| 570        | 250  | 0,55       | 5,6           | 8180       | 344        |
| 700        | 300  | 0,6        | 4,7           | 8180       | 344        |
| 610        | 400  | 0,42       | 3,5           | 8180       | 344        |
| 560        | 500  | 0,33       | 2,8           | 8180       | 344        |
| 700        | 600  | 0,32       | 2,3           | 8180       | 350        |
| 700        | 750  | 0,27       | 1,9           | 8180       | 350        |
| 700        | 900  | 0,24       | 1,6           | 8180       | 350        |
| 700        | 1200 | 0,19       | 1,2           | 8180       | 350        |
| 700        | 1500 | 0,16       | 0,9           | 8180       | 350        |
| 700        | 1800 | 0,14       | 0,8           | 8180       | 350        |
| 610        | 2400 | 0,1        | 0,6           | 8180       | 350        |
| 560        | 3000 | 0,08       | 0,5           | 8180       | 350        |
| 560        | 4000 | 0,07       | 0,4           | 8180       | 350        |
| 560        | 5000 | 0,06       | 0,3           | 8180       | 350        |

## NRV-P050/090

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 590        | 100 | 1,21       | 14            | 6487       | 490        |
| 660        | 150 | 0,95       | 9,3           | 7426       | 490        |
| 610        | 200 | 0,69       | 7             | 8174       | 490        |
| 570        | 250 | 0,53       | 5,6           | 8180       | 490        |

## NRV-P050/090

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 700        | 300  | 0,59       | 4,7           | 8180       | 490        |
| 610        | 400  | 0,41       | 3,5           | 8180       | 490        |
| 570        | 500  | 0,29       | 2,8           | 8180       | 490        |
| 700        | 600  | 0,32       | 2,3           | 8180       | 490        |
| 700        | 750  | 0,27       | 1,9           | 8180       | 490        |
| 700        | 900  | 0,23       | 1,6           | 8180       | 490        |
| 700        | 1200 | 0,19       | 1,2           | 8180       | 490        |
| 700        | 1500 | 0,16       | 0,9           | 8180       | 490        |
| 700        | 1800 | 0,14       | 0,8           | 8180       | 490        |
| 610        | 2400 | 0,1        | 0,6           | 8180       | 490        |
| 560        | 3000 | 0,08       | 0,5           | 8180       | 490        |
| 560        | 4000 | 0,07       | 0,4           | 8180       | 490        |
| 560        | 5000 | 0,06       | 0,3           | 8180       | 490        |

## NRV-P050/110

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 648        | 100  | 1,33       | 14            | 8198       | 490        |
| 936        | 150  | 1,33       | 9,3           | 9384       | 490        |
| 1139       | 200  | 1,25       | 7             | 10320      | 490        |
| 1173       | 250  | 1,05       | 5,6           | 10320      | 490        |
| 1265       | 300  | 1,06       | 4,7           | 10320      | 490        |
| 1185       | 400  | 0,77       | 3,5           | 10320      | 490        |
| 1173       | 500  | 0,57       | 2,8           | 10320      | 490        |
| 1265       | 600  | 0,58       | 2,3           | 10320      | 490        |
| 1265       | 750  | 0,48       | 1,9           | 10320      | 490        |
| 1265       | 900  | 0,42       | 1,6           | 10320      | 490        |
| 1265       | 1200 | 0,34       | 1,2           | 10320      | 490        |
| 1265       | 1500 | 0,29       | 0,9           | 10320      | 490        |
| 1265       | 1800 | 0,26       | 0,8           | 10320      | 490        |
| 1185       | 2400 | 0,19       | 0,6           | 10320      | 490        |
| 1100       | 3000 | 0,14       | 0,5           | 10320      | 490        |
| 1100       | 4000 | 0,12       | 0,4           | 10320      | 490        |
| 1100       | 5000 | 0,1        | 0,3           | 10320      | 490        |

## NRV-P063/110

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 1110       | 100  | 2,28       | 14            | 8198       | 595        |
| 1196       | 150  | 1,7        | 9,3           | 9384       | 595        |
| 1139       | 200  | 1,25       | 7             | 10320      | 595        |
| 1173       | 250  | 1,05       | 5,6           | 10320      | 595        |
| 1265       | 300  | 1,06       | 4,7           | 10320      | 595        |
| 1185       | 400  | 0,77       | 3,5           | 10320      | 595        |
| 1173       | 500  | 0,56       | 2,8           | 10320      | 700        |
| 1265       | 600  | 0,56       | 2,3           | 10320      | 700        |
| 1265       | 750  | 0,47       | 1,9           | 10320      | 700        |
| 1265       | 900  | 0,41       | 1,6           | 10320      | 700        |
| 1265       | 1200 | 0,32       | 1,2           | 10320      | 700        |
| 1265       | 1500 | 0,28       | 0,9           | 10320      | 700        |

## NRV-P063/110

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 1265       | 1800 | 0,24       | 0,8           | 10320      | 700        |
| 1185       | 2400 | 0,18       | 0,6           | 10320      | 700        |
| 1100       | 3000 | 0,14       | 0,5           | 10320      | 700        |
| 1100       | 4000 | 0,11       | 0,4           | 10320      | 700        |
| 1100       | 5000 | 0,1        | 0,3           | 10320      | 700        |

## NRV-P063/130

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 1123       | 100  | 2,28       | 14            | 10722      | 595        |
| 1584       | 150  | 2,28       | 9,3           | 12274      | 595        |
| 1600       | 200  | 1,75       | 7             | 13500      | 595        |
| 1530       | 250  | 1,37       | 5,6           | 13500      | 595        |
| 1760       | 300  | 1,45       | 4,7           | 13500      | 595        |
| 1650       | 400  | 1,07       | 3,5           | 13500      | 595        |
| 1550       | 500  | 0,84       | 2,8           | 13500      | 595        |
| 1760       | 600  | 0,77       | 2,3           | 13500      | 700        |
| 1760       | 750  | 0,64       | 1,9           | 13500      | 700        |
| 1760       | 900  | 0,56       | 1,6           | 13500      | 700        |
| 1760       | 1200 | 0,45       | 1,2           | 13500      | 700        |
| 1760       | 1500 | 0,38       | 0,9           | 13500      | 700        |
| 1760       | 1800 | 0,33       | 0,8           | 13500      | 700        |
| 1650       | 2400 | 0,25       | 0,6           | 13500      | 700        |
| 1550       | 3000 | 0,19       | 0,5           | 13500      | 700        |
| 1550       | 4000 | 0,16       | 0,4           | 13500      | 700        |
| 1550       | 5000 | 0,14       | 0,3           | 13500      | 700        |

## NRV-P063/150

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 1971       | 150  | 2,81       | 9,3           | 18000      | 500        |
| 2084       | 200  | 2,28       | 7             | 18000      | 595        |
| 2050       | 250  | 1,84       | 5,6           | 18000      | 595        |
| 2312       | 300  | 1,75       | 4,7           | 18000      | 660        |
| 2670       | 400  | 1,7        | 3,5           | 18000      | 595        |
| 2330       | 500  | 1,27       | 2,8           | 18000      | 595        |
| 2670       | 600  | 1,18       | 2,3           | 18000      | 660        |
| 2330       | 750  | 0,87       | 1,9           | 18000      | 660        |
| 2100       | 900  | 0,62       | 1,6           | 18000      | 700        |
| 2670       | 1200 | 0,66       | 1,2           | 18000      | 700        |
| 2330       | 1500 | 0,49       | 0,9           | 18000      | 700        |
| 2100       | 1800 | 0,37       | 0,8           | 18000      | 700        |
| 2670       | 2400 | 0,39       | 0,6           | 18000      | 700        |
| 2330       | 3000 | 0,29       | 0,5           | 18000      | 700        |
| 2330       | 4000 | 0,24       | 0,4           | 18000      | 700        |
| 2330       | 5000 | 0,21       | 0,3           | 18000      | 700        |



**NRV/NMRV - Prestazioni / Performance / Performances /  
Leistungen / Prestaciones / 性能 (n1=900 rpm, Fs=1)**

**NRV030/040**

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 71         | 100  | 0,11       | 9             | 2769       | 197        |
| 72         | 150  | 0,08       | 6             | 3169       | 197        |
| 65         | 200  | 0,05       | 4,5           | 3488       | 197        |
| 61         | 250  | 0,04       | 3,6           | 3490       | 197        |
| 73         | 300  | 0,05       | 3             | 3490       | 197        |
| 65         | 400  | 0,04       | 2,3           | 3490       | 197        |
| 61         | 500  | 0,02       | 1,8           | 3490       | 210        |
| 73         | 600  | 0,03       | 1,5           | 3490       | 210        |
| 73         | 750  | 0,02       | 1,2           | 3490       | 210        |
| 73         | 900  | 0,02       | 1             | 3490       | 210        |
| 73         | 1200 | 0,02       | 0,8           | 3490       | 210        |
| 73         | 1500 | 0,01       | 0,6           | 3490       | 210        |
| 73         | 1800 | 0,01       | 0,5           | 3490       | 210        |
| 65         | 2400 | 0,01       | 0,4           | 3490       | 210        |
| 60         | 3000 | 0,01       | 0,3           | 3490       | 210        |
| 48         | 4000 | 0,01       | 0,2           | 3490       | 210        |
| 43         | 5000 | 0,004      | 0,2           | 3490       | 210        |

**NRV030/050**

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 137        | 100  | 0,2        | 9             | 3800       | 197        |
| 135        | 150  | 0,14       | 6             | 4350       | 197        |
| 120        | 200  | 0,1        | 4,5           | 4788       | 197        |
| 110        | 250  | 0,08       | 3,6           | 4840       | 197        |
| 145        | 300  | 0,09       | 3             | 4840       | 197        |
| 124        | 400  | 0,07       | 2,3           | 4840       | 197        |
| 120        | 500  | 0,06       | 1,8           | 4840       | 197        |
| 145        | 600  | 0,05       | 1,5           | 4840       | 210        |
| 145        | 750  | 0,05       | 1,2           | 4840       | 210        |
| 145        | 900  | 0,04       | 1             | 4840       | 210        |
| 145        | 1200 | 0,03       | 0,8           | 4840       | 210        |
| 145        | 1500 | 0,03       | 0,6           | 4840       | 210        |
| 145        | 1800 | 0,03       | 0,5           | 4840       | 210        |
| 124        | 2400 | 0,02       | 0,4           | 4840       | 210        |
| 120        | 3000 | 0,02       | 0,3           | 4840       | 210        |
| 82         | 4000 | 0,01       | 0,2           | 4840       | 210        |
| 79         | 5000 | 0,01       | 0,2           | 4840       | 210        |

**NRV040/050**

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 137        | 100 | 0,2        | 9             | 3800       | 350        |
| 135        | 150 | 0,14       | 6             | 4350       | 350        |
| 120        | 200 | 0,1        | 4,5           | 4788       | 350        |
| 110        | 250 | 0,08       | 3,6           | 4840       | 350        |
| 145        | 300 | 0,09       | 3             | 4840       | 350        |
| 124        | 400 | 0,07       | 2,3           | 4840       | 350        |
| 137        | 500 | 0,06       | 1,8           | 3800       | 350        |
| 145        | 600 | 0,05       | 1,5           | 4840       | 350        |

**NRV040/050**

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 145        | 750  | 0,04       | 1,2           | 4840       | 350        |
| 135        | 900  | 0,04       | 1             | 4350       | 350        |
| 145        | 1200 | 0,03       | 0,8           | 4840       | 350        |
| 145        | 1500 | 0,03       | 0,6           | 4840       | 350        |
| 145        | 1800 | 0,02       | 0,5           | 4840       | 350        |
| 124        | 2400 | 0,02       | 0,4           | 4840       | 350        |
| 120        | 3000 | 0,01       | 0,3           | 4840       | 350        |
| 120        | 4000 | 0,01       | 0,2           | 4840       | 350        |
| 120        | 5000 | 0,01       | 0,2           | 4840       | 350        |

**NRV-P030/063**

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 166        | 100  | 0,24       | 9             | 4967       | 197        |
| 233        | 150  | 0,24       | 6             | 5686       | 197        |
| 253        | 200  | 0,21       | 4,5           | 6259       | 197        |
| 231        | 250  | 0,16       | 3,6           | 6270       | 197        |
| 255        | 300  | 0,17       | 3             | 6270       | 175        |
| 255        | 400  | 0,13       | 2,3           | 6270       | 197        |
| 236        | 500  | 0,11       | 1,8           | 6270       | 197        |
| 271        | 600  | 0,1        | 1,5           | 6270       | 210        |
| 271        | 750  | 0,09       | 1,2           | 6270       | 210        |
| 271        | 900  | 0,08       | 1             | 6270       | 210        |
| 271        | 1200 | 0,06       | 0,8           | 6270       | 210        |
| 271        | 1500 | 0,05       | 0,6           | 6270       | 210        |
| 271        | 1800 | 0,05       | 0,5           | 6270       | 210        |
| 255        | 2400 | 0,04       | 0,4           | 6270       | 210        |
| 236        | 3000 | 0,03       | 0,3           | 6270       | 210        |
| 236        | 4000 | 0,03       | 0,2           | 6270       | 210        |
| 150        | 5000 | 0,01       | 0,2           | 6270       | 210        |

**NRV-P040/063**

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 257        | 100  | 0,37       | 9             | 4967       | 350        |
| 260        | 150  | 0,27       | 6             | 5686       | 350        |
| 253        | 200  | 0,21       | 4,5           | 6259       | 350        |
| 231        | 250  | 0,16       | 3,6           | 6270       | 350        |
| 271        | 300  | 0,17       | 3             | 6270       | 350        |
| 255        | 400  | 0,13       | 2,3           | 6270       | 350        |
| 231        | 500  | 0,09       | 1,8           | 6270       | 350        |
| 271        | 600  | 0,09       | 1,5           | 6270       | 350        |
| 271        | 750  | 0,08       | 1,2           | 6270       | 350        |
| 271        | 900  | 0,07       | 1             | 6270       | 350        |
| 271        | 1200 | 0,06       | 0,8           | 6270       | 350        |
| 271        | 1500 | 0,05       | 0,6           | 6270       | 350        |
| 271        | 1800 | 0,04       | 0,5           | 6270       | 350        |
| 255        | 2400 | 0,03       | 0,4           | 6270       | 350        |
| 236        | 3000 | 0,03       | 0,3           | 6270       | 350        |
| 236        | 4000 | 0,02       | 0,2           | 6270       | 350        |



## NRV-P040/063

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 236        | 5000 | 0,02       | 0,2           | 6270       | 350        |

## NRV-P040/075

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 384        | 100  | 0,55       | 9             | 5863       | 350        |
| 425        | 150  | 0,42       | 6             | 6712       | 350        |
| 420        | 200  | 0,33       | 4,5           | 7380       | 350        |
| 380        | 250  | 0,25       | 3,6           | 7380       | 350        |
| 444        | 300  | 0,26       | 3             | 7380       | 350        |
| 414        | 400  | 0,2        | 2,3           | 7380       | 350        |
| 368        | 500  | 0,15       | 1,8           | 7380       | 350        |
| 444        | 600  | 0,14       | 1,5           | 7380       | 350        |
| 444        | 750  | 0,12       | 1,2           | 7380       | 350        |
| 444        | 900  | 0,11       | 1             | 7380       | 350        |
| 444        | 1200 | 0,09       | 0,8           | 7380       | 350        |
| 444        | 1500 | 0,08       | 0,6           | 7380       | 350        |
| 444        | 1800 | 0,07       | 0,5           | 7380       | 350        |
| 414        | 2400 | 0,05       | 0,4           | 7380       | 350        |
| 368        | 3000 | 0,04       | 0,3           | 7380       | 350        |
| 368        | 4000 | 0,03       | 0,2           | 7380       | 350        |
| 368        | 5000 | 0,03       | 0,2           | 7380       | 350        |

## NRV-P040/090

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 394        | 100  | 0,55       | 9             | 6487       | 350        |
| 562        | 150  | 0,55       | 6             | 7426       | 350        |
| 610        | 200  | 0,46       | 4,5           | 8174       | 350        |
| 570        | 250  | 0,36       | 3,6           | 8180       | 350        |
| 700        | 300  | 0,4        | 3             | 8180       | 350        |
| 610        | 400  | 0,28       | 2,3           | 8180       | 350        |
| 560        | 500  | 0,22       | 1,8           | 8180       | 350        |
| 700        | 600  | 0,22       | 1,5           | 8180       | 350        |
| 700        | 750  | 0,18       | 1,2           | 8180       | 350        |
| 700        | 900  | 0,16       | 1             | 8180       | 350        |
| 700        | 1200 | 0,13       | 0,8           | 8180       | 350        |
| 700        | 1500 | 0,11       | 0,6           | 8180       | 350        |
| 700        | 1800 | 0,1        | 0,5           | 8180       | 350        |
| 610        | 2400 | 0,07       | 0,4           | 8180       | 350        |
| 560        | 3000 | 0,06       | 0,3           | 8180       | 350        |
| 560        | 4000 | 0,05       | 0,2           | 8180       | 350        |
| 560        | 5000 | 0,04       | 0,2           | 8180       | 350        |

## NRV-P050/090

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 590        | 100 | 0,8        | 9             | 6487       | 490        |
| 660        | 150 | 0,63       | 6             | 7426       | 490        |
| 610        | 200 | 0,45       | 4,5           | 8174       | 490        |
| 570        | 250 | 0,35       | 3,6           | 8180       | 490        |

## NRV-P050/090

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 700        | 300  | 0,39       | 3             | 8180       | 490        |
| 610        | 400  | 0,27       | 2,3           | 8180       | 490        |
| 570        | 500  | 0,19       | 1,8           | 8180       | 490        |
| 700        | 600  | 0,21       | 1,5           | 8180       | 490        |
| 700        | 750  | 0,18       | 1,2           | 8180       | 490        |
| 700        | 900  | 0,16       | 1             | 8180       | 490        |
| 700        | 1200 | 0,13       | 0,8           | 8180       | 490        |
| 700        | 1500 | 0,11       | 0,6           | 8180       | 490        |
| 700        | 1800 | 0,1        | 0,5           | 8180       | 490        |
| 610        | 2400 | 0,07       | 0,4           | 8180       | 490        |
| 560        | 3000 | 0,05       | 0,3           | 8180       | 490        |
| 560        | 4000 | 0,05       | 0,2           | 8180       | 490        |
| 560        | 5000 | 0,04       | 0,2           | 8180       | 490        |

## NRV-P050/110

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 754        | 100  | 1,02       | 9             | 8198       | 490        |
| 1090       | 150  | 1,02       | 6             | 9384       | 490        |
| 1139       | 200  | 0,82       | 4,5           | 10320      | 490        |
| 1173       | 250  | 0,69       | 3,6           | 10320      | 490        |
| 1265       | 300  | 0,7        | 3             | 10320      | 490        |
| 1185       | 400  | 0,51       | 2,3           | 10320      | 490        |
| 1173       | 500  | 0,38       | 1,8           | 10320      | 490        |
| 1265       | 600  | 0,39       | 1,5           | 10320      | 490        |
| 1265       | 750  | 0,32       | 1,2           | 10320      | 490        |
| 1265       | 900  | 0,29       | 1             | 10320      | 490        |
| 1265       | 1200 | 0,23       | 0,8           | 10320      | 490        |
| 1265       | 1500 | 0,2        | 0,6           | 10320      | 490        |
| 1265       | 1800 | 0,18       | 0,5           | 10320      | 490        |
| 1185       | 2400 | 0,13       | 0,4           | 10320      | 490        |
| 1100       | 3000 | 0,1        | 0,3           | 10320      | 490        |
| 1100       | 4000 | 0,08       | 0,2           | 10320      | 490        |
| 1100       | 5000 | 0,07       | 0,2           | 10320      | 490        |

## NRV-P063/110

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 1127       | 100  | 1,52       | 9             | 8198       | 661        |
| 1196       | 150  | 1,12       | 6             | 9384       | 661        |
| 1139       | 200  | 0,82       | 4,5           | 10320      | 661        |
| 1173       | 250  | 0,69       | 3,6           | 10320      | 661        |
| 1265       | 300  | 0,7        | 3             | 10320      | 661        |
| 1185       | 400  | 0,51       | 2,3           | 10320      | 661        |
| 1173       | 500  | 0,38       | 1,8           | 10320      | 700        |
| 1265       | 600  | 0,38       | 1,5           | 10320      | 700        |
| 1265       | 750  | 0,31       | 1,2           | 10320      | 700        |
| 1265       | 900  | 0,28       | 1             | 10320      | 700        |
| 1265       | 1200 | 0,22       | 0,8           | 10320      | 700        |
| 1265       | 1500 | 0,19       | 0,6           | 10320      | 700        |

## NRV-P063/110

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 1265       | 1800 | 0,17       | 0,5           | 10320      | 700        |
| 1185       | 2400 | 0,12       | 0,4           | 10320      | 700        |
| 1100       | 3000 | 0,09       | 0,3           | 10320      | 700        |
| 1100       | 4000 | 0,08       | 0,2           | 10320      | 700        |
| 1100       | 5000 | 0,07       | 0,2           | 10320      | 700        |

## NRV-P063/130

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 1270       | 100  | 1,7        | 9             | 10722      | 661        |
| 1700       | 150  | 1,61       | 6             | 12274      | 661        |
| 1600       | 200  | 1,15       | 4,5           | 13500      | 661        |
| 1530       | 250  | 0,9        | 3,6           | 13500      | 661        |
| 1760       | 300  | 0,96       | 3             | 13500      | 661        |
| 1650       | 400  | 0,7        | 2,3           | 13500      | 661        |
| 1550       | 500  | 0,55       | 1,8           | 13500      | 661        |
| 1760       | 600  | 0,52       | 1,5           | 13500      | 700        |
| 1760       | 750  | 0,43       | 1,2           | 13500      | 700        |
| 1760       | 900  | 0,38       | 1             | 13500      | 700        |
| 1760       | 1200 | 0,31       | 0,8           | 13500      | 700        |
| 1760       | 1500 | 0,26       | 0,6           | 13500      | 700        |
| 1760       | 1800 | 0,23       | 0,5           | 13500      | 700        |
| 1650       | 2400 | 0,17       | 0,4           | 13500      | 700        |
| 1550       | 3000 | 0,13       | 0,3           | 13500      | 700        |
| 1550       | 4000 | 0,11       | 0,2           | 13500      | 700        |
| 1550       | 5000 | 0,1        | 0,2           | 13500      | 700        |

## NRV-P063/150

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 2325       | 150  | 2,16       | 6             | 18000      | 580        |
| 2340       | 200  | 1,68       | 4,5           | 18000      | 661        |
| 2050       | 250  | 1,21       | 3,6           | 18000      | 661        |
| 2340       | 300  | 1,16       | 3             | 18000      | 700        |
| 2670       | 400  | 1,12       | 2,3           | 18000      | 661        |
| 2330       | 500  | 0,83       | 1,8           | 18000      | 661        |
| 2670       | 600  | 0,77       | 1,5           | 18000      | 700        |
| 2330       | 750  | 0,58       | 1,2           | 18000      | 700        |
| 2100       | 900  | 0,42       | 1             | 18000      | 700        |
| 2670       | 1200 | 0,45       | 0,8           | 18000      | 700        |
| 2330       | 1500 | 0,33       | 0,6           | 18000      | 700        |
| 2100       | 1800 | 0,26       | 0,5           | 18000      | 700        |
| 2670       | 2400 | 0,27       | 0,4           | 18000      | 700        |
| 2330       | 3000 | 0,2        | 0,3           | 18000      | 700        |
| 2330       | 4000 | 0,17       | 0,2           | 18000      | 700        |
| 2330       | 5000 | 0,15       | 0,2           | 18000      | 700        |

**NRV/NMRV - Prestazioni / Performance / Performances / Leistungen / Prestaciones / 性能 (n1=500 rpm, Fs=1)**
**NRV030/040**

| M2 [Nm] | i    | P1 [kW] | n2 [1/min] | Fr2 [N] | Fr1 [N] |
|---------|------|---------|------------|---------|---------|
| 71      | 100  | 0,06    | 5          | 2769    | 210     |
| 72      | 150  | 0,04    | 3,3        | 3169    | 210     |
| 65      | 200  | 0,03    | 2,5        | 3488    | 210     |
| 61      | 250  | 0,03    | 2          | 3490    | 210     |
| 73      | 300  | 0,03    | 1,7        | 3490    | 210     |
| 65      | 400  | 0,02    | 1,3        | 3490    | 210     |
| 61      | 500  | 0,01    | 1          | 3490    | 210     |
| 73      | 600  | 0,02    | 0,8        | 3490    | 210     |
| 73      | 750  | 0,01    | 0,7        | 3490    | 210     |
| 73      | 900  | 0,01    | 0,6        | 3490    | 210     |
| 73      | 1200 | 0,01    | 0,4        | 3490    | 210     |
| 73      | 1500 | 0,01    | 0,3        | 3490    | 210     |
| 73      | 1800 | 0,01    | 0,3        | 3490    | 210     |
| 65      | 2400 | 0,01    | 0,2        | 3490    | 210     |
| 60      | 3000 | 0,005   | 0,2        | 3490    | 210     |
| 48      | 4000 | 0,003   | 0,1        | 3490    | 210     |
| 43      | 5000 | 0,003   | 0,1        | 3490    | 210     |

**NRV030/050**

| M2 [Nm] | i    | P1 [kW] | n2 [1/min] | Fr2 [N] | Fr1 [N] |
|---------|------|---------|------------|---------|---------|
| 137     | 100  | 0,12    | 5          | 3800    | 210     |
| 135     | 150  | 0,08    | 3,3        | 4350    | 210     |
| 120     | 200  | 0,06    | 2,5        | 4788    | 210     |
| 110     | 250  | 0,05    | 2          | 4840    | 210     |
| 145     | 300  | 0,05    | 1,7        | 4840    | 210     |
| 124     | 400  | 0,04    | 1,3        | 4840    | 210     |
| 120     | 500  | 0,03    | 1          | 4840    | 210     |
| 145     | 600  | 0,03    | 0,8        | 4840    | 210     |
| 145     | 750  | 0,03    | 0,7        | 4840    | 210     |
| 145     | 900  | 0,02    | 0,6        | 4840    | 210     |
| 145     | 1200 | 0,02    | 0,4        | 4840    | 210     |
| 145     | 1500 | 0,02    | 0,3        | 4840    | 210     |
| 145     | 1800 | 0,02    | 0,3        | 4840    | 210     |
| 124     | 2400 | 0,01    | 0,2        | 4840    | 210     |
| 120     | 3000 | 0,01    | 0,2        | 4840    | 210     |
| 82      | 4000 | 0,01    | 0,1        | 4840    | 210     |
| 79      | 5000 | 0,005   | 0,1        | 4840    | 210     |

**NRV040/050**

| M2 [Nm] | i   | P1 [kW] | n2 [1/min] | Fr2 [N] | Fr1 [N] |
|---------|-----|---------|------------|---------|---------|
| 137     | 100 | 0,11    | 5          | 3800    | 350     |
| 135     | 150 | 0,08    | 3,3        | 4350    | 350     |
| 120     | 200 | 0,06    | 2,5        | 4788    | 350     |
| 110     | 250 | 0,04    | 2          | 4840    | 350     |
| 145     | 300 | 0,05    | 1,7        | 4840    | 350     |
| 124     | 400 | 0,04    | 1,3        | 4840    | 350     |
| 137     | 500 | 0,03    | 1          | 3800    | 350     |
| 145     | 600 | 0,03    | 0,8        | 4840    | 350     |

**NRV040/050**

| M2 [Nm] | i    | P1 [kW] | n2 [1/min] | Fr2 [N] | Fr1 [N] |
|---------|------|---------|------------|---------|---------|
| 145     | 750  | 0,02    | 0,7        | 4840    | 350     |
| 135     | 900  | 0,02    | 0,6        | 4350    | 350     |
| 145     | 1200 | 0,02    | 0,4        | 4840    | 350     |
| 145     | 1500 | 0,02    | 0,3        | 4840    | 350     |
| 145     | 1800 | 0,01    | 0,3        | 4840    | 350     |
| 124     | 2400 | 0,01    | 0,2        | 4840    | 350     |
| 120     | 3000 | 0,01    | 0,2        | 4840    | 350     |
| 120     | 4000 | 0,01    | 0,1        | 4840    | 350     |
| 120     | 5000 | 0,01    | 0,1        | 4840    | 350     |

**NRV-P030/063**

| M2 [Nm] | i    | P1 [kW] | n2 [1/min] | Fr2 [N] | Fr1 [N] |
|---------|------|---------|------------|---------|---------|
| 198     | 100  | 0,17    | 5          | 4967    | 210     |
| 260     | 150  | 0,16    | 3,3        | 5686    | 210     |
| 253     | 200  | 0,12    | 2,5        | 6259    | 210     |
| 231     | 250  | 0,09    | 2          | 6270    | 210     |
| 255     | 300  | 0,1     | 1,7        | 6270    | 210     |
| 255     | 400  | 0,08    | 1,3        | 6270    | 210     |
| 236     | 500  | 0,06    | 1          | 6270    | 210     |
| 271     | 600  | 0,06    | 0,8        | 6270    | 210     |
| 271     | 750  | 0,05    | 0,7        | 6270    | 210     |
| 271     | 900  | 0,04    | 0,6        | 6270    | 210     |
| 271     | 1200 | 0,04    | 0,4        | 6270    | 210     |
| 271     | 1500 | 0,03    | 0,3        | 6270    | 210     |
| 271     | 1800 | 0,03    | 0,3        | 6270    | 210     |
| 255     | 2400 | 0,02    | 0,2        | 6270    | 210     |
| 236     | 3000 | 0,02    | 0,2        | 6270    | 210     |
| 236     | 4000 | 0,02    | 0,1        | 6270    | 210     |
| 150     | 5000 | 0,01    | 0,1        | 6270    | 210     |

**NRV-P040/063**

| M2 [Nm] | i    | P1 [kW] | n2 [1/min] | Fr2 [N] | Fr1 [N] |
|---------|------|---------|------------|---------|---------|
| 257     | 100  | 0,21    | 5          | 4967    | 350     |
| 260     | 150  | 0,15    | 3,3        | 5686    | 350     |
| 253     | 200  | 0,12    | 2,5        | 6259    | 350     |
| 231     | 250  | 0,09    | 2          | 6270    | 350     |
| 271     | 300  | 0,1     | 1,7        | 6270    | 350     |
| 255     | 400  | 0,07    | 1,3        | 6270    | 350     |
| 231     | 500  | 0,05    | 1          | 6270    | 350     |
| 271     | 600  | 0,05    | 0,8        | 6270    | 350     |
| 271     | 750  | 0,04    | 0,7        | 6270    | 350     |
| 271     | 900  | 0,04    | 0,6        | 6270    | 350     |
| 271     | 1200 | 0,03    | 0,4        | 6270    | 350     |
| 271     | 1500 | 0,03    | 0,3        | 6270    | 350     |
| 271     | 1800 | 0,03    | 0,3        | 6270    | 350     |
| 255     | 2400 | 0,02    | 0,2        | 6270    | 350     |
| 236     | 3000 | 0,02    | 0,2        | 6270    | 350     |
| 236     | 4000 | 0,01    | 0,1        | 6270    | 350     |

## NRV-P040/063

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 236        | 5000 | 0,01       | 0,1           | 6270       | 350        |

## NRV-P040/075

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 405        | 100  | 0,33       | 5             | 5863       | 350        |
| 425        | 150  | 0,24       | 3,3           | 6712       | 350        |
| 420        | 200  | 0,19       | 2,5           | 7380       | 350        |
| 380        | 250  | 0,14       | 2             | 7380       | 350        |
| 444        | 300  | 0,15       | 1,7           | 7380       | 350        |
| 414        | 400  | 0,11       | 1,3           | 7380       | 350        |
| 368        | 500  | 0,09       | 1             | 7380       | 350        |
| 444        | 600  | 0,08       | 0,8           | 7380       | 350        |
| 444        | 750  | 0,07       | 0,7           | 7380       | 350        |
| 444        | 900  | 0,06       | 0,6           | 7380       | 350        |
| 444        | 1200 | 0,05       | 0,4           | 7380       | 350        |
| 444        | 1500 | 0,04       | 0,3           | 7380       | 350        |
| 444        | 1800 | 0,04       | 0,3           | 7380       | 350        |
| 414        | 2400 | 0,03       | 0,2           | 7380       | 350        |
| 368        | 3000 | 0,02       | 0,2           | 7380       | 350        |
| 368        | 4000 | 0,02       | 0,1           | 7380       | 350        |
| 368        | 5000 | 0,02       | 0,1           | 7380       | 350        |

## NRV-P040/090

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 484        | 100  | 0,38       | 5             | 6487       | 350        |
| 660        | 150  | 0,36       | 3,3           | 7426       | 350        |
| 610        | 200  | 0,26       | 2,5           | 8174       | 350        |
| 570        | 250  | 0,2        | 2             | 8180       | 350        |
| 700        | 300  | 0,23       | 1,7           | 8180       | 350        |
| 610        | 400  | 0,16       | 1,3           | 8180       | 350        |
| 560        | 500  | 0,12       | 1             | 8180       | 350        |
| 700        | 600  | 0,12       | 0,8           | 8180       | 350        |
| 700        | 750  | 0,1        | 0,7           | 8180       | 350        |
| 700        | 900  | 0,09       | 0,6           | 8180       | 350        |
| 700        | 1200 | 0,08       | 0,4           | 8180       | 350        |
| 700        | 1500 | 0,07       | 0,3           | 8180       | 350        |
| 700        | 1800 | 0,06       | 0,3           | 8180       | 350        |
| 610        | 2400 | 0,04       | 0,2           | 8180       | 350        |
| 560        | 3000 | 0,03       | 0,2           | 8180       | 350        |
| 560        | 4000 | 0,03       | 0,1           | 8180       | 350        |
| 560        | 5000 | 0,03       | 0,1           | 8180       | 350        |

## NRV-P050/090

| M2<br>[Nm] | i   | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|-----|------------|---------------|------------|------------|
| 590        | 100 | 0,46       | 5             | 6487       | 490        |
| 660        | 150 | 0,36       | 3,3           | 7426       | 490        |
| 610        | 200 | 0,26       | 2,5           | 8174       | 490        |
| 570        | 250 | 0,2        | 2             | 8180       | 490        |

## NRV-P050/090

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 700        | 300  | 0,22       | 1,7           | 8180       | 490        |
| 610        | 400  | 0,16       | 1,3           | 8180       | 490        |
| 570        | 500  | 0,11       | 1             | 8180       | 490        |
| 700        | 600  | 0,12       | 0,8           | 8180       | 490        |
| 700        | 750  | 0,1        | 0,7           | 8180       | 490        |
| 700        | 900  | 0,09       | 0,6           | 8180       | 490        |
| 700        | 1200 | 0,08       | 0,4           | 8180       | 490        |
| 700        | 1500 | 0,07       | 0,3           | 8180       | 490        |
| 700        | 1800 | 0,06       | 0,3           | 8180       | 490        |
| 610        | 2400 | 0,04       | 0,2           | 8180       | 490        |
| 560        | 3000 | 0,03       | 0,2           | 8180       | 490        |
| 560        | 4000 | 0,03       | 0,1           | 8180       | 490        |
| 560        | 5000 | 0,02       | 0,1           | 8180       | 490        |

## NRV-P050/110

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 927        | 100  | 0,72       | 5             | 8198       | 490        |
| 1196       | 150  | 0,64       | 3,3           | 9384       | 490        |
| 1139       | 200  | 0,47       | 2,5           | 10320      | 490        |
| 1173       | 250  | 0,4        | 2             | 10320      | 490        |
| 1265       | 300  | 0,4        | 1,7           | 10320      | 490        |
| 1185       | 400  | 0,29       | 1,3           | 10320      | 490        |
| 1173       | 500  | 0,22       | 1             | 10320      | 490        |
| 1265       | 600  | 0,22       | 0,8           | 10320      | 490        |
| 1265       | 750  | 0,19       | 0,7           | 10320      | 490        |
| 1265       | 900  | 0,17       | 0,6           | 10320      | 490        |
| 1265       | 1200 | 0,14       | 0,4           | 10320      | 490        |
| 1265       | 1500 | 0,12       | 0,3           | 10320      | 490        |
| 1265       | 1800 | 0,11       | 0,3           | 10320      | 490        |
| 1185       | 2400 | 0,08       | 0,2           | 10320      | 490        |
| 1100       | 3000 | 0,06       | 0,2           | 10320      | 490        |
| 1100       | 4000 | 0,05       | 0,1           | 10320      | 490        |
| 1100       | 5000 | 0,05       | 0,1           | 10320      | 490        |

## NRV-P063/110

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 1127       | 100  | 0,88       | 5             | 8198       | 700        |
| 1196       | 150  | 0,64       | 3,3           | 9384       | 700        |
| 1139       | 200  | 0,47       | 2,5           | 10320      | 700        |
| 1173       | 250  | 0,4        | 2             | 10320      | 700        |
| 1265       | 300  | 0,4        | 1,7           | 10320      | 700        |
| 1185       | 400  | 0,29       | 1,3           | 10320      | 700        |
| 1173       | 500  | 0,22       | 1             | 10320      | 700        |
| 1265       | 600  | 0,22       | 0,8           | 10320      | 700        |
| 1265       | 750  | 0,18       | 0,7           | 10320      | 700        |
| 1265       | 900  | 0,17       | 0,6           | 10320      | 700        |
| 1265       | 1200 | 0,13       | 0,4           | 10320      | 700        |
| 1265       | 1500 | 0,12       | 0,3           | 10320      | 700        |

## NMRV / NMRVpower

Motoriduttori a vite senza fine / Worm geared motors / Motorréducteurs à vis sans fin / Schneckengetriebemotoren / Motorreductores de tornillo sinfin / 蜗轮蜗杆电机

### NRV-P063/110

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 1265       | 1800 | 0,1        | 0,3           | 10320      | 700        |
| 1185       | 2400 | 0,07       | 0,2           | 10320      | 700        |
| 1100       | 3000 | 0,06       | 0,2           | 10320      | 700        |
| 1100       | 4000 | 0,05       | 0,1           | 10320      | 700        |
| 1100       | 5000 | 0,04       | 0,1           | 10320      | 700        |

### NRV-P063/130

| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 1530       | 100  | 1,18       | 5             | 10722      | 700        |
| 1700       | 150  | 0,93       | 3,3           | 12274      | 700        |
| 1600       | 200  | 0,66       | 2,5           | 13500      | 700        |
| 1530       | 250  | 0,52       | 2             | 13500      | 700        |
| 1760       | 300  | 0,55       | 1,7           | 13500      | 700        |
| 1650       | 400  | 0,41       | 1,3           | 13500      | 700        |
| 1550       | 500  | 0,32       | 1             | 13500      | 700        |
| 1760       | 600  | 0,3        | 0,8           | 13500      | 700        |
| 1760       | 750  | 0,25       | 0,7           | 13500      | 700        |
| 1760       | 900  | 0,23       | 0,6           | 13500      | 700        |
| 1760       | 1200 | 0,18       | 0,4           | 13500      | 700        |
| 1760       | 1500 | 0,16       | 0,3           | 13500      | 700        |
| 1760       | 1800 | 0,14       | 0,3           | 13500      | 700        |
| 1650       | 2400 | 0,1        | 0,2           | 13500      | 700        |
| 1550       | 3000 | 0,08       | 0,2           | 13500      | 700        |
| 1550       | 4000 | 0,07       | 0,1           | 13500      | 700        |
| 1550       | 5000 | 0,06       | 0,1           | 13500      | 700        |

### NRV-P063/150

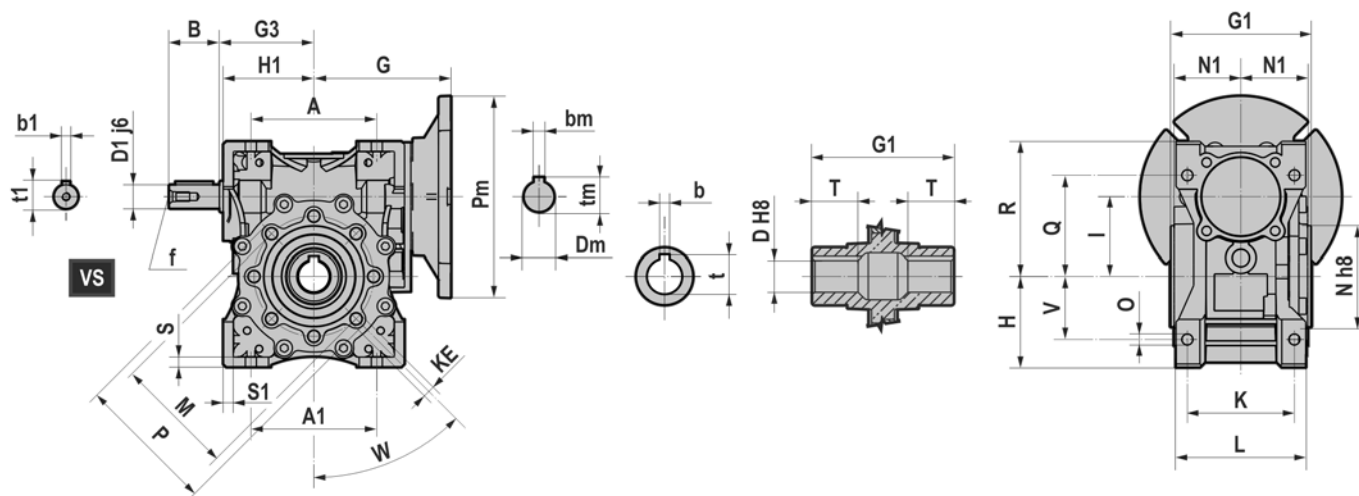
| M2<br>[Nm] | i    | P1<br>[kW] | n2<br>[1/min] | Fr2<br>[N] | Fr1<br>[N] |
|------------|------|------------|---------------|------------|------------|
| 2340       | 150  | 1,23       | 3,3           | 18000      | 700        |
| 2340       | 200  | 0,97       | 2,5           | 18000      | 700        |
| 2050       | 250  | 0,7        | 2             | 18000      | 700        |
| 2340       | 300  | 0,68       | 1,7           | 18000      | 700        |
| 2670       | 400  | 0,65       | 1,3           | 18000      | 700        |
| 2330       | 500  | 0,48       | 1             | 18000      | 700        |
| 2670       | 600  | 0,45       | 0,8           | 18000      | 700        |
| 2330       | 750  | 0,34       | 0,7           | 18000      | 700        |
| 2100       | 900  | 0,25       | 0,6           | 18000      | 700        |
| 2670       | 1200 | 0,27       | 0,4           | 18000      | 700        |
| 2330       | 1500 | 0,2        | 0,3           | 18000      | 700        |
| 2100       | 1800 | 0,15       | 0,3           | 18000      | 700        |
| 2670       | 2400 | 0,16       | 0,2           | 18000      | 700        |
| 2330       | 3000 | 0,12       | 0,2           | 18000      | 700        |
| 2330       | 4000 | 0,1        | 0,1           | 18000      | 700        |
| 2330       | 5000 | 0,09       | 0,1           | 18000      | 700        |

**Abmessungen / Dimensiones / 尺寸**



- NMRV / NMRVpower**

## NMRV/NMRV-P030-150 - Dimensioni / Dimensions / Encombresments / Abmessungen / Dimensiones / 尺寸



|            | 030       | 040         | 050         | 063         | 075                       | 090                | 110                                 | 130        | 150        |
|------------|-----------|-------------|-------------|-------------|---------------------------|--------------------|-------------------------------------|------------|------------|
| <b>A</b>   | 54        | 70          | 80          | 100         | 120                       | 140                | 170                                 | 200        | 240        |
| <b>A1</b>  | 54        | 70          | 80          | 100         | 120                       | 140                | 164 - 170                           | 200        | 240        |
| <b>B</b>   | 20        | 23          | 30          | 40          | 50                        | 50                 | 60                                  | 80         | 80         |
| <b>D</b>   | 14        | 18 (19)     | 25 (24)     | 25 (28)     | 28 (30) (32) (35)         | 35 (38) (40)       | 42                                  | 45         | 50         |
| <b>D1</b>  | 9         | 11          | 14          | 19          | 24                        | 24                 | 28                                  | 30         | 35         |
| <b>G</b>   | 55        | 70          | 80          | 109         | 126,5                     | 145                | 185,5 (PAM 132)<br>168 (PAM 80+112) | 180        | 210        |
| <b>G1</b>  | 63        | 78          | 92          | 112         | 120                       | 140                | 155                                 | 170        | 200        |
| <b>G3</b>  | 45        | 53          | 64          | 75          | 90                        | 108                | 135                                 | 155        | 175        |
| <b>H</b>   | 40        | 50          | 60          | 72          | 86                        | 103                | 127,5                               | 147,5      | 170        |
| <b>H1</b>  | 40        | 50          | 60          | 72          | 89                        | 103                | 127,5                               | 147,5      | 170        |
| <b>I</b>   | 30        | 40          | 50          | 63          | 75                        | 90                 | 110                                 | 130        | 150        |
| <b>K</b>   | 44        | 60          | 70          | 85          | 90 - 95                   | 100                | 115                                 | 120        | 145        |
| <b>KE</b>  | M6*11 n°4 | M6*11 n°4   | M8*10 n°4   | M8*14 n°8   | M8*14 n°8                 | M10*18 n°8         | M10*18 n°8                          | M12*21 n°8 | M12*21 n°8 |
| <b>L</b>   | 56        | 71          | 85          | 103         | 112                       | 130                | 144                                 | 155        | 185        |
| <b>M</b>   | 65        | 75          | 85          | 95          | 115                       | 130                | 165                                 | 215        | 215        |
| <b>N</b>   | 55        | 60          | 70          | 80          | 95                        | 110                | 130                                 | 180        | 180        |
| <b>N1</b>  | 29        | 36,5        | 43,5        | 53          | 57                        | 67                 | 74                                  | 81         | 96         |
| <b>O</b>   | 6,5       | 6,5         | 8,5         | 8,5         | 11                        | 13                 | 14                                  | 16         | 18         |
| <b>P</b>   | 75        | 87          | 100         | 110         | 131                       | 160                | 200                                 | 250        | 250        |
| <b>Q</b>   | 44        | 55          | 64          | 80          | 93                        | 102                | 125                                 | 140        | 180        |
| <b>R</b>   | 57        | 71,5        | 84          | 107         | 123                       | 144                | 167,5                               | 187,5      | 230        |
| <b>S</b>   | 5,5       | 6,5         | 7           | 8           | 10                        | 11                 | 14,5                                | 15,5       | 18         |
| <b>S1</b>  | 5,5       | 6,5         | 7           | 8           | 13                        | 11                 | 14,5                                | 15,5       | 18         |
| <b>T</b>   | 21        | 26          | 30          | 36          | 40                        | 45                 | 50                                  | 60         | 72,5       |
| <b>V</b>   | 27        | 35          | 40          | 50          | 60                        | 70                 | 82 - 85                             | 100        | 120        |
| <b>W</b>   | 0°        | 45°         | 45°         | 45°         | 45°                       | 45°                | 45°                                 | 45°        | 45°        |
| <b>b</b>   | 5         | 6 (6)       | 8 (8)       | 8 (8)       | 8 (8) (10) (10)           | 10 (10) (12)       | 12                                  | 14         | 14         |
| <b>t</b>   | 16,3      | 20,8 (21,8) | 28,3 (27,3) | 28,3 (31,3) | 31,3 (33,3) (35,3) (38,3) | 38,3 (41,3) (43,3) | 45,3                                | 48,8       | 53,8       |
| <b>b1</b>  | 3         | 4           | 5           | 6           | 8                         | 8                  | 8                                   | 8          | 10         |
| <b>t1</b>  | 10,2      | 12,5        | 16          | 21,5        | 27                        | 27                 | 31                                  | 33         | 38         |
| <b>f</b>   | -         | -           | M6          | M6          | M8                        | M8                 | M10                                 | M10        | M12        |
| <b>~kg</b> | 1,2       | 2,3         | 3,5         | 6,2         | 9                         | 13                 | 21                                  | 43,5       | 77         |

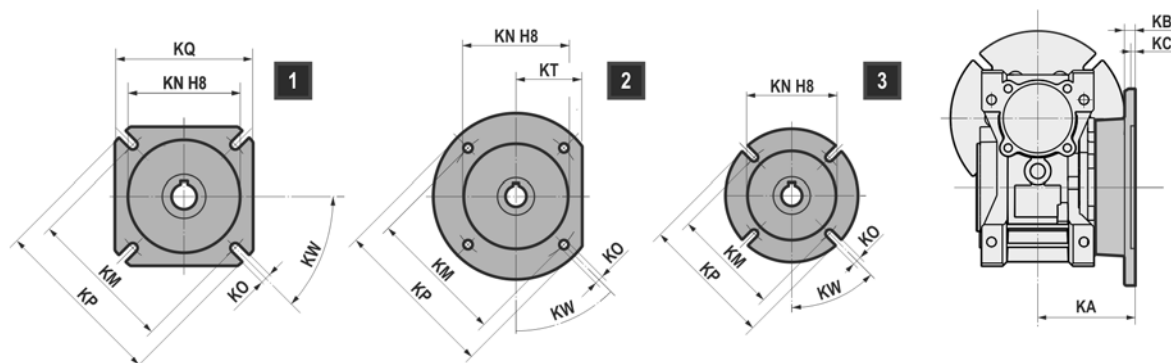
 Con olio / With lubricant / Avec huile / mit Öfüllung / Con lubricante / 带润滑油

 Senza olio / Without lubricant / Sans huile / ohne Öfüllung / Sin lubricante / 不带润滑油

- Per le dimensioni relative alla zona attacco motore (Pm, Dm, bm, tm) fare riferimento alla tabella di pag. 134.
- For the dimensions concerning the motor connection area (Pm, Dm, bm, tm) please refer to the table shown at page 134.
- Pour les dimensions concernant la zone de montage du moteur (Pm, Dm, bm, tm) lire SVP le tableau à la page 134.
- Zu den Abmessungen des Motoranschlußflansches (Pm, Dm, bm, tm) siehe Tabelle auf Seite 134.
- Para las dimensiones correspondientes a la zona del motor (Pm, Dm, bm, tm) consulte la tabla de la página 134.
- 由于输出范围关系到电机的接线范围 (Pm, Dm, bm, tm), 请参考第 134 页上的表格

- (..) Solo su richiesta
- (..) Only on request
- (..) Seulement sur demande
- (..) Auf Wunsch
- (..) Sólo bajo pedido
- (..) 仅仅根据需要提供

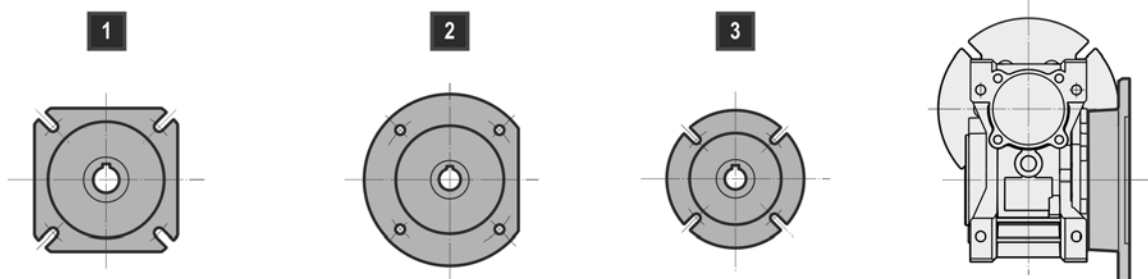
**NMRV/NMRV-P030-150F - Dimensioni / Dimensions / Encombrements /  
Abmessungen / Dimensiones / 尺寸**



- 1 - Versione, vedi pag. 128
- 2 - Version, see pag. 128
- 3 - Version, voir page 128
- Bauform, siehe Seite 128
- Versión, ver la pág. 128
- 版本 参流 128

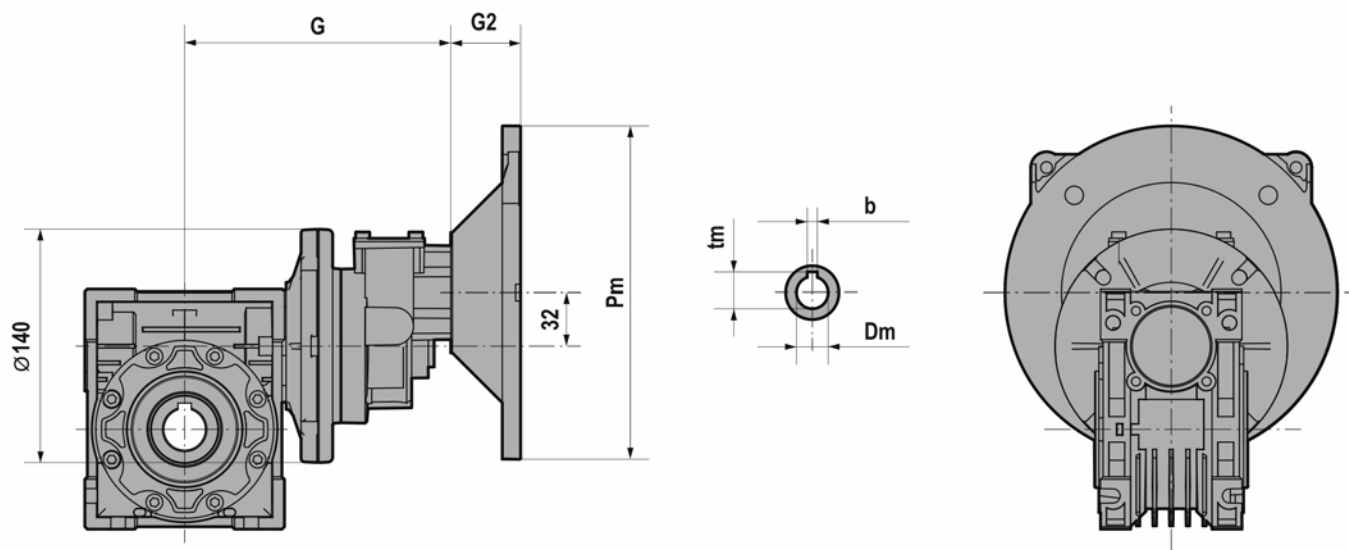
|           |    | 030       | 040       | 050       | 063      | 075      | 090      | 110      | 130      | 150      |
|-----------|----|-----------|-----------|-----------|----------|----------|----------|----------|----------|----------|
| <b>FA</b> | KA | 54,5      | 67        | 90        | 82       | 111      | 111      | 131      | 140      | 155      |
|           | KB | 6         | 7         | 9         | 10       | 13       | 13       | 15       | 15       | 15       |
|           | KC | 4         | 4         | 5         | 6        | 6        | 6        | 6        | 6        | 6        |
|           | KN | 50        | 60        | 70        | 115      | 130      | 152      | 170      | 180      | 180      |
|           | KM | 68        | 80 min    | 90 min    | 150      | 165      | 175      | 230      | 255      | 255      |
|           | KO | 6.5 (n°4) | 9 (n°4)   | 11 (n°4)  | 11 (n°4) | 14 (n°4) | 14 (n°4) | 14 (n°8) | 16 (n°8) | 16 (n°8) |
|           | KP | 80        | 110       | 125       | 180      | 200      | 210      | 280      | 320      | 320      |
|           | KQ | 70        | 95        | 110       | 142      | 170      | 200      | 260      | 290      | 290      |
| <b>FB</b> | KW | 45°       | 45°       | 45°       | 45°      | 45°      | 45°      | 45°      | 22.5°    | 22.5°    |
|           | KA | -         | 97        | 120       | 112      | 90       | 122      | 180      | -        | -        |
|           | KB | -         | 7         | 9         | 10       | 13       | 18       | 15       | -        | -        |
|           | KC | -         | 4         | 5         | 6        | 6        | 6        | 6        | -        | -        |
|           | KN | -         | 60        | 70        | 115      | 110      | 180      | 170      | -        | -        |
|           | KM | -         | 80 min    | 90 min    | 150      | 130      | 215      | 230      | -        | -        |
|           | KO | -         | 9 (n°4)   | 11 (n°4)  | 11 (n°4) | 11 (n°4) | 14 (n°4) | 14 (n°8) | -        | -        |
|           | KP | -         | 110       | 125       | 180      | 160      | 250      | 280      | -        | -        |
| <b>FC</b> | KQ | -         | 95        | 110       | 142      | -        | -        | 260      | -        | -        |
|           | KT | -         | -         | -         | -        | -        | 105      | -        | -        | -        |
|           | KW | -         | 45°       | 45°       | 45°      | 45°      | 45°      | 45°      | -        | -        |
|           | KA | -         | 80        | 89        | 98       | -        | 110      | -        | -        | -        |
|           | KB | -         | 9         | 10        | 10       | -        | 17       | -        | -        | -        |
|           | KC | -         | 5         | 5         | 5        | -        | 6        | -        | -        | -        |
|           | KN | -         | 95        | 110       | 130      | -        | 130      | -        | -        | -        |
|           | KM | -         | 115       | 130       | 165      | -        | 165      | -        | -        | -        |
| <b>FD</b> | KO | -         | 9.5 (n°4) | 9.5 (n°4) | 11 (n°4) | -        | 11 (n°4) | -        | -        | -        |
|           | KP | -         | 140       | 160       | 200      | -        | 200      | -        | -        | -        |
|           | KT | -         | 56        | 66        | 80       | -        | -        | -        | -        | -        |
|           | KW | -         | 45°       | 45°       | 45°      | -        | 45°      | -        | -        | -        |
|           | KA | -         | 58        | 72        | 107      | -        | 151      | -        | -        | -        |
|           | KB | -         | 12        | 14,5      | 10       | -        | 13       | -        | -        | -        |
|           | KC | -         | 5         | 5         | 5        | -        | 6        | -        | -        | -        |
|           | KN | -         | 80        | 95        | 130      | -        | 152      | -        | -        | -        |
| <b>FE</b> | KM | -         | 100       | 115       | 165      | -        | 175      | -        | -        | -        |
|           | KO | -         | 9 (n°4)   | 11 (n°4)  | 11 (n°4) | -        | 14 (n°4) | -        | -        | -        |
|           | KP | -         | 120       | 140       | 200      | -        | 210      | -        | -        | -        |
|           | KQ | -         | -         | -         | -        | -        | 200      | -        | -        | -        |
|           | KT | -         | 50        | 60        | -        | -        | -        | -        | -        | -        |
|           | KW | -         | 45°       | 45°       | 45°      | -        | 45°      | -        | -        | -        |
|           | KA | -         | -         | -         | 80,5     | -        | -        | -        | -        | -        |
|           | KB | -         | -         | -         | 16,5     | -        | -        | -        | -        | -        |
| <b>FE</b> | KC | -         | -         | -         | 5        | -        | -        | -        | -        | -        |
|           | KN | -         | -         | -         | 110      | -        | -        | -        | -        | -        |
|           | KM | -         | -         | -         | 130      | -        | -        | -        | -        | -        |
|           | KO | -         | -         | -         | 11 (n°4) | -        | -        | -        | -        | -        |
|           | KP | -         | -         | -         | 160      | -        | -        | -        | -        | -        |
|           | KQ | -         | -         | -         | -        | -        | -        | -        | -        | -        |
|           | KT | -         | -         | -         | -        | -        | -        | -        | -        | -        |
|           | KW | -         | -         | -         | 45°      | -        | -        | -        | -        | -        |



**NMRV/NMRV-P030-150F - Dimensioni / Dimensions / Encombremments /  
 Abmessungen / Dimensiones / 尺寸**


|           | 030 | 040 | 050 | 063 | 075 | 090 | 110 | 130 | 150 |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <b>FA</b> | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |
| <b>FB</b> | -   | 1   | 1   | 1   | 3   | 2   | 1   | -   | -   |
| <b>FC</b> | -   | 2   | 2   | 2   | -   | 3   | -   | -   | -   |
| <b>FD</b> | -   | 2   | 2   | 2   | -   | 1   | -   | -   | -   |
| <b>FE</b> | -   | -   | -   | 3   | -   | -   | -   | -   | -   |

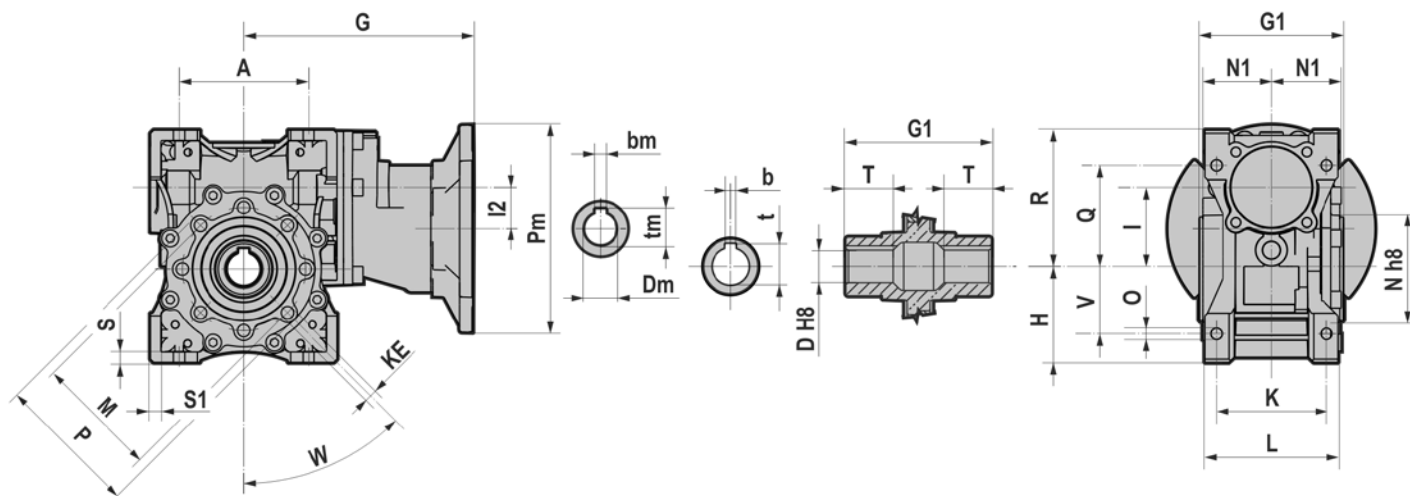
**HA31+NMRV - Dimensioni / Dimensions / Encombrements /  
Abmessungen / Dimensiones / 尺寸**



|            | 040 |    |      | 050 |    |      |
|------------|-----|----|------|-----|----|------|
|            | G   | G2 | ~ kg | G   | G2 | ~ kg |
| <b>063</b> | 150 | 25 | 4,2  | 160 | 25 | 5,4  |
| <b>071</b> | 150 | 32 | 4,3  | 160 | 32 | 5,5  |
| <b>080</b> | 150 | 42 | 4,5  | 160 | 42 | 5,7  |

- Per le dimensioni relative alla zona attacco motore (Pm, Dm, bm, tm) fare riferimento alla tabella di pag. 134.  
Per tutte le altre dimensioni, fare riferimento al dimensionale NMRV della grandezza relativa.
- For the dimensions concerning the motor connection area (Pm, Dm, bm, tm) please refer to the table shown at page 134.  
For all other dimensions, please consider the drawing of relevant NMRV size.
- Pour les dimensions concernant la zone de montage du moteur (Pm, Dm, bm, tm) lire SVP le tableau à la page 134.  
Pour toutes les autres dimensions, prions référer au dessin NMRV dans la taille désirée.
- Zu den Abmessungen des Motoranschlußflansches (Pm, Dm, bm, tm) siehe Tabelle auf Seite 134.  
Für alle anderen Maße, sind der Maßzeichnung des NMRV der entsprechenden Größe zu entnehmen.
- Para las dimensiones correspondientes a la zona del motor (Pm, Dm, bm, tm) consulte la tabla de la página 134.  
Para todas las otras cotas, hacer referencia a las dimensiones NMRV del tamaño correspondiente.
- 由于输出范围关系到电机的接线范围(Dm, bm, tm), 请参考第 134 页上的表格。  
对于所有其他方面, 请考虑制定相关的 NMRV 大小。

~kg Peso con olio e senza motore  
~kg Weight with oil and without motor  
~kg Poids avec huile et sans moteur  
~kg Gewicht inkl. Öl ohne Motor  
~kg Peso con aceite y sin motor  
~kg 重量包括油(不含电机)

**NMRVpower/HW - Dimensioni / Dimensions / Encombres /  
 Abmessungen / Dimensiones / 尺寸**


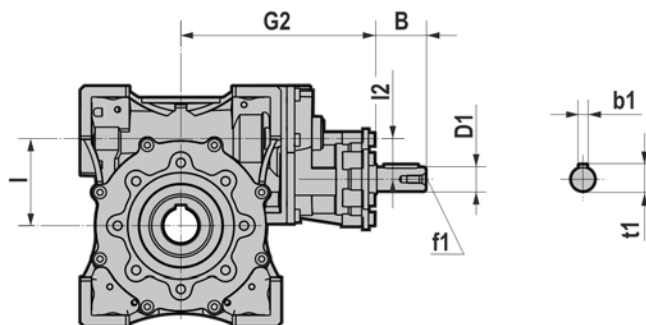
|            | HW030           |                           | HW040              |               |
|------------|-----------------|---------------------------|--------------------|---------------|
|            | 056/063/071/080 |                           | 063/071/080/090    |               |
|            | NMRVpower 063   | NMRVpower 075             | NMRVpower 090      | NMRVpower 110 |
| <b>A</b>   | 100             | 120                       | 140                | 170           |
| <b>G</b>   | 176,5           | 194                       | 218                | 241           |
| <b>G1</b>  | 112             | 120                       | 140                | 155           |
| <b>H</b>   | 72              | 86                        | 103                | 127,5         |
| <b>I</b>   | 63              | 75                        | 90                 | 110           |
| <b>I2</b>  | 32              | 32                        | 42                 | 42            |
| <b>L</b>   | 103             | 112                       | 130                | 144           |
| <b>K</b>   | 85              | 90 - 95                   | 100                | 115           |
| <b>KE</b>  | M8*14(8)        | M8*14(8)                  | M10*18(8)          | M10*18(8)     |
| <b>M</b>   | 95              | 115                       | 130                | 165           |
| <b>N</b>   | 80              | 95                        | 110                | 130           |
| <b>N1</b>  | 53              | 56                        | 67                 | 74            |
| <b>O</b>   | 8,5             | 11                        | 13                 | 14            |
| <b>P</b>   | 110             | 131                       | 152                | 188           |
| <b>Q</b>   | 80              | 93                        | 102                | 125           |
| <b>R</b>   | 107             | 123                       | 144                | 167,5         |
| <b>S</b>   | 8               | 10                        | 11                 | 16            |
| <b>S1</b>  | 8               | 13                        | 11                 | 16            |
| <b>T</b>   | 36              | 40                        | 45                 | 50            |
| <b>V</b>   | 50              | 60                        | 70                 | 85            |
| <b>W</b>   | 45°             | 45°                       | 45°                | 45°           |
| <b>D</b>   | 25 (28)         | 28 (30) (32) (35)         | 35 (38) (40)       | 42            |
| <b>b</b>   | 8 (8)           | 8 (8) (10) (10)           | 10 (10) (12)       | 12            |
| <b>t</b>   | 28,3 (31,3)     | 31,3 (33,3) (35,3) (38,3) | 38,3 (41,3) (43,3) | 45,3          |
| <b>~kg</b> | 7,1             | 10                        | 14,6               | 24,4          |

- Per le dimensioni relative alla zona attacco motore (Pm, Dm, bm, tm) fare riferimento alla tabella di pag. 134.
- For the dimensions concerning the motor connection area (Pm, Dm, bm, tm) please refer to the table shown at page 134.
- Pour les dimensions concernant la zone de montage du moteur (Pm, Dm, bm, tm) lire SVP le tableau à la page 134.
- Zu den Abmessungen des Motoranschlußflansches (Pm, Dm, bm, tm) siehe Tabelle auf Seite 134.
- Para las dimensiones correspondientes a la zona del motor (Pm, Dm, bm, tm) consulte la tabla de la página 134.
- 由于输出范围关系到电机的接线范围 (Pm, Dm, bm, tm), 请参考第 134 页上的表格

- Per tutte le altre dimensioni, fare riferimento al dimensionale NMRV della grandezza relativa.
- For all other dimensions, please consider the drawing of relevant NMRV size.
- Pour toutes les autres dimensions, priions référer au dessin NMRV dans la taille désirée.
- Für alle anderen Maße, sind der Maßzeichnung des NMRV der entsprechenden Größe zu entnehmen.
- Paras todas las otras cotas, hacer referencia a las dimensiones NMRV del tamaño correspondiente.
- 对于所有其他方面, 请参考制定相关的 NMRV 大小。

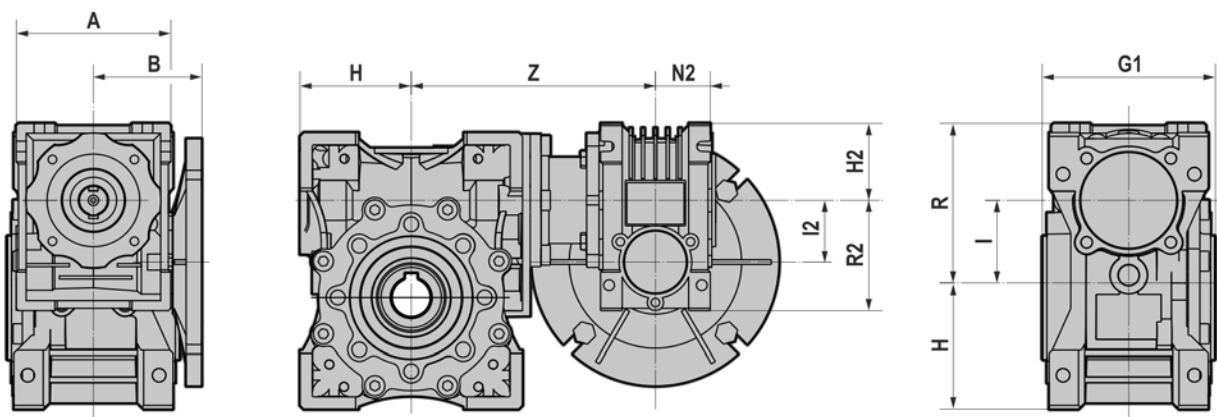
- ~kg Peso senza motore
- ~kg Weight without motor
- ~kg Gewicht ohne Motor
- ~kg Poids sans moteur
- ~kg Peso sin motor
- ~kg 重量(不含电机)

**NMRVpower/IHW - Dimensioni / Dimensions / Encombremments /  
Abmessungen / Dimensiones / 尺寸**



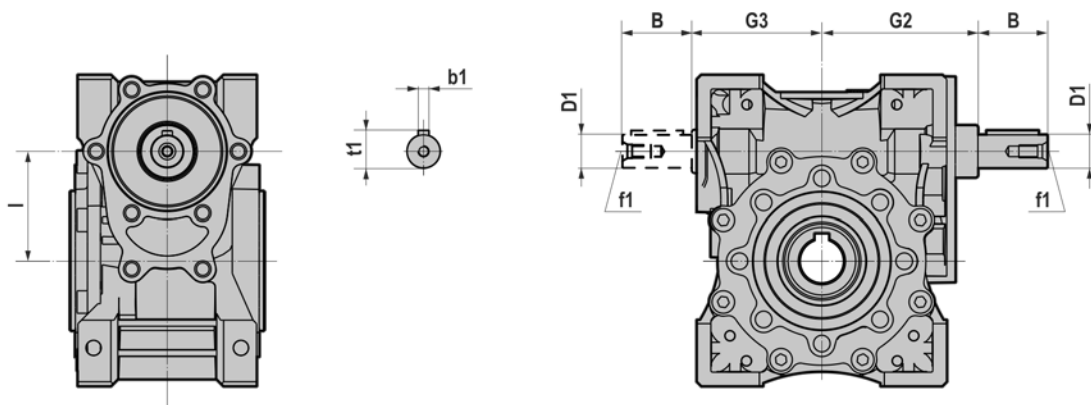
| IHW040               | B  | G2    | I   | I2 | D1    | b1 | t1   | f1 | ~kg  |
|----------------------|----|-------|-----|----|-------|----|------|----|------|
| <b>NMRVpower 090</b> | 40 | 204,5 | 90  | 42 | 19 j6 | 6  | 21,5 | M6 | 14,6 |
| <b>NMRVpower 110</b> | 50 | 227,5 | 110 | 42 | 24 j6 | 8  | 27   | M8 | 24,4 |

**NMRV+NMRV - NMRV+NMRVpower - Dimensioni / Dimensions / Encombremments /  
Abmessungen / Dimensiones / 尺寸**

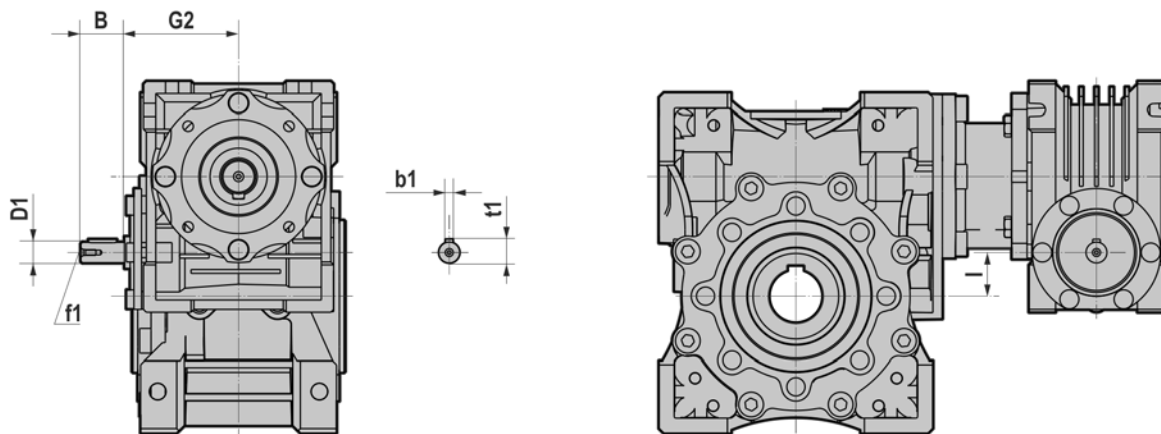


|                | A   | B   | G1  | H     | I   | R     | H2 | I2 | N2   | R2   | Z     | ~kg  |
|----------------|-----|-----|-----|-------|-----|-------|----|----|------|------|-------|------|
| <b>025-030</b> | 70  | 45  | 63  | 40    | 30  | 57    | 35 | 25 | 22,5 | 48   | 100   | 1,9  |
| <b>025-040</b> | 70  | 45  | 78  | 50    | 40  | 71,5  | 35 | 25 | 22,5 | 48   | 115   | 3    |
| <b>030-040</b> | 80  | 55  | 78  | 50    | 40  | 71,5  | 40 | 30 | 29   | 57   | 122   | 3,5  |
| <b>030-050</b> | 80  | 55  | 92  | 60    | 50  | 84    | 40 | 30 | 29   | 57   | 132   | 4,7  |
| <b>030-063</b> | 80  | 55  | 112 | 72    | 63  | 107   | 40 | 30 | 29   | 57   | 150   | 7,4  |
| <b>040-050</b> | 100 | 70  | 92  | 60    | 50  | 84    | 50 | 40 | 36,5 | 71,5 | 140,5 | 5,8  |
| <b>040-063</b> | 100 | 70  | 112 | 72    | 63  | 107   | 50 | 40 | 36,5 | 71,5 | 161   | 8,5  |
| <b>040-075</b> | 100 | 70  | 120 | 89    | 75  | 123   | 50 | 40 | 36,5 | 71,5 | 178,5 | 11,3 |
| <b>040-090</b> | 100 | 70  | 140 | 103   | 90  | 144   | 50 | 40 | 36,5 | 71,5 | 197   | 15,3 |
| <b>050-090</b> | 120 | 80  | 140 | 103   | 90  | 144   | 60 | 50 | 43,5 | 84   | 214   | 16,5 |
| <b>050-110</b> | 120 | 80  | 155 | 127,5 | 110 | 167,5 | 60 | 50 | 43,5 | 84   | 237   | 24,5 |
| <b>063-110</b> | 144 | 109 | 155 | 127,5 | 110 | 167,5 | 72 | 63 | 53   | 107  | 237   | 27,2 |
| <b>063-130</b> | 144 | 109 | 170 | 147,5 | 130 | 187,5 | 72 | 63 | 53   | 107  | 245   | 54,2 |
| <b>063-150</b> | 144 | 109 | 200 | 170   | 150 | 230   | 72 | 63 | 53   | 107  | 275   | 90,2 |

~kg Peso senza motore / ~kg Weight without motor / ~kg Poids sans moteur / ~kg Gewicht ohne Motor / ~kg Peso sin motor / ~kg 重量(不含电机)

**NRV - NRVpower - Dimensioni / Dimensions / Encombremments / Abmessungen / Dimensiones / 尺寸**


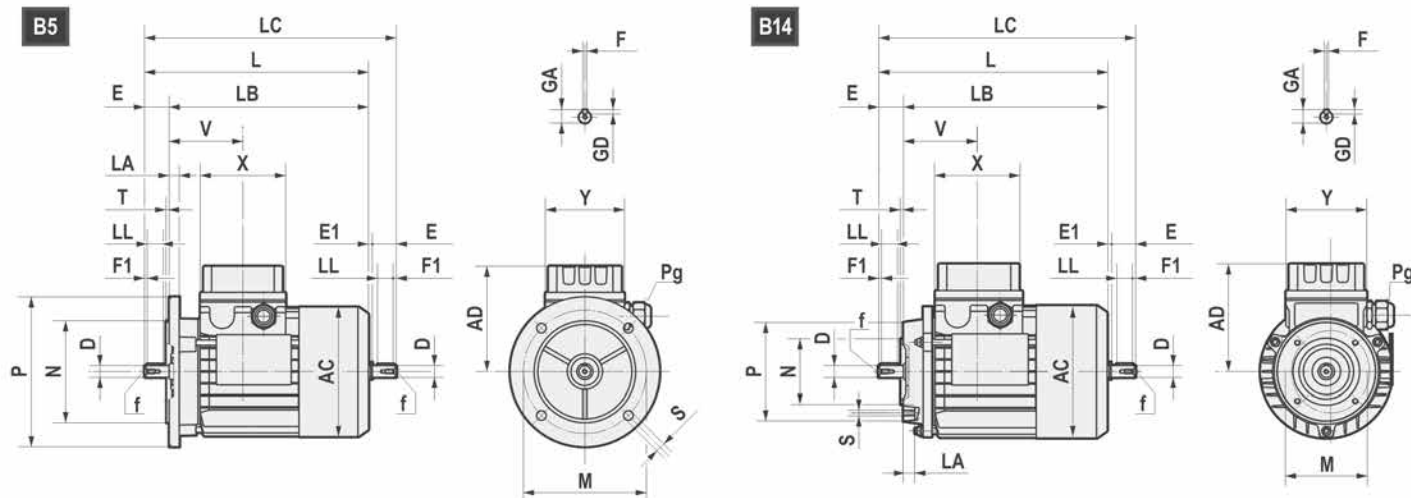
|            | 030  | 040   | 050   | 063   | 075   | 090   | 110   | 130   | 150   |
|------------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>B</b>   | 20   | 23    | 30    | 40    | 50    | 50    | 60    | 80    | 80    |
| <b>D1</b>  | 9 j6 | 11 j6 | 14 j6 | 19 j6 | 24 j6 | 24 j6 | 28 j6 | 30 j6 | 35 j6 |
| <b>G2</b>  | 51   | 60    | 74    | 90    | 105   | 125   | 142   | 162   | 195   |
| <b>G3</b>  | 45   | 53    | 64    | 75    | 90    | 108   | 135   | 155   | 175   |
| <b>I</b>   | 30   | 40    | 50    | 63    | 75    | 90    | 110   | 130   | 150   |
| <b>b1</b>  | 3    | 4     | 5     | 6     | 8     | 8     | 8     | 8     | 10    |
| <b>t1</b>  | -    | -     | M6    | 21,5  | 27    | 27    | 31    | M10   | M12   |
| <b>f1</b>  | 10,2 | 12,5  | 16    | M6    | M8    | M8    | M10   | 33    | 38    |
| <b>~kg</b> | -    | -     | -     | 5,8   | 8,8   | 13    | 21    | -     | -     |

**NRV+NMRV - NRV+NMRVpower - Dimensioni / Dimensions / Encombremments / Abmessungen / Dimensiones / 尺寸**


|           | 030-040 | 030-050 | 030-063 | 040-050 | 040-063 | 040-075 | 040-090 | 050-090 | 050-110 | 063-110 | 063-130 | 063-150 |
|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>B</b>  | 20      | 20      | 20      | 23      | 23      | 23      | 23      | 30      | 30      | 40      | 40      | 40      |
| <b>D1</b> | 9 j6    | 9 j6    | 9 j6    | 11 j6   | 11 j6   | 11 j6   | 11 j6   | 14 j6   | 14 j6   | 19 j6   | 19 j6   | 19 j6   |
| <b>G2</b> | 51      | 51      | 51      | 60      | 60      | 60      | 60      | 74      | 74      | 90      | 90      | 90      |
| <b>I</b>  | 10      | 20      | 33      | 10      | 23      | 35      | 50      | 40      | 60      | 47      | 67      | 87      |
| <b>b1</b> | 3       | 3       | 3       | 4       | 4       | 4       | 4       | 5       | 5       | 6       | 6       | 6       |
| <b>f1</b> | -       | -       | -       | -       | -       | -       | -       | M6      | M6      | M6      | M6      | M6      |
| <b>t1</b> | 10,2    | 10,2    | 10,2    | 12,5    | 12,5    | 12,5    | 12,5    | 16      | 16      | 21,5    | 21,5    | 21,5    |

- Per le dimensioni non contemplate fare riferimento al dimensionale NMRV della grandezza relativa.
- For the missing dimensions, please consider the drawing of relevant NMRV size.
- Pour les dimensions non spécifiées, nous vous prions de vous référer au dessin NMRV dans la taille désirée.
- Die nicht angegebenen Maße sind der Maßzeichnung des NMRV der entsprechenden Größe zu entnehmen.
- Para las cotas no contempladas hacer referencia a las dimensiones NMRV de los tamaños correspondientes.
- 有关未列尺寸详情，请参阅相关 NMRV 规格的图纸。

**Motori elettrici / Electric motors / Moteurs électriques / Elektromotoren / Motores eléctricos / 电机**



|             | AC    | AD    | L             | LB            | LC                | X   | Y   | V     | D     | E   | E1  | f       | F1  | GA   | F  | GD | LL | Pg      |       |       |
|-------------|-------|-------|---------------|---------------|-------------------|-----|-----|-------|-------|-----|-----|---------|-----|------|----|----|----|---------|-------|-------|
|             |       |       |               |               |                   |     |     |       |       |     |     |         |     |      |    |    |    |         | ø min | ø max |
| <b>63</b>   | 121   | 103,5 | 211           | 188           | 235,5             | 80  | 74  | 69    | 11 j6 | 23  | 1,5 | M4x10   | 2,5 | 12,5 | 4  | 4  | 15 | M16x1,5 | 5     | 10    |
| <b>71</b>   | 139   | 112   | 238,5         | 208,5         | 271               | 80  | 74  | 74,5  | 14 j6 | 30  | 2,5 | M5x12,5 | 3   | 16   | 5  | 5  | 20 | M20x1,5 | 6     | 12    |
| <b>80</b>   | 158   | 121,5 | 272,5         | 232,5         | 314               | 80  | 74  | 78    | 19 j6 | 40  | 1,5 | M6x16   | 5   | 21,5 | 6  | 6  | 30 | M20x1,5 | 6     | 12    |
| <b>90S</b>  | 173   | 129,5 | 298<br>(323)* | 248<br>(273)* | 349,5<br>(374,5)* | 98  | 98  | 89,5  | 24 j6 | 50  | 1,5 | M8x19   | 5   | 27   | 8  | 7  | 35 | M25x1,5 | 13    | 18    |
| <b>90L</b>  | 173   | 129,5 | 323           | 273           | 374,5             | 98  | 98  | 89,5  | 24 j6 | 50  | 1,5 | M8x19   | 5   | 27   | 8  | 7  | 35 | M25x1,5 | 13    | 18    |
| <b>100</b>  | 191   | 138,5 | 368           | 308           | 431,5             | 98  | 98  | 97,5  | 28 j6 | 60  | 3,5 | M10x22  | 7,5 | 31   | 8  | 7  | 45 | M25x1,5 | 13    | 18    |
| <b>112</b>  | 210,5 | 153,5 | 382,5         | 322,5         | 447               | 98  | 98  | 100   | 28 j6 | 60  | 3,5 | M10x22  | 7,5 | 31   | 8  | 7  | 45 | M25x1,5 | 13    | 18    |
| <b>132S</b> | 248,5 | 195   | 452           | 372           | 536,5             | 118 | 118 | 115,5 | 38 k6 | 80  | 4   | M12x28  | 10  | 41   | 10 | 8  | 60 | M32x1,5 | 18    | 25    |
| <b>132L</b> | 248,5 | 195   | 490           | 410           | 574,5             | 118 | 118 | 115,5 | 38 k6 | 80  | 4   | M12x28  | 10  | 41   | 10 | 8  | 60 | M32x1,5 | 18    | 25    |
| <b>160S</b> | 248,5 | 195   | 520           | 410           |                   | 118 | 118 | 115,5 | 42 k6 | 100 |     | M16x36  | 10  | 45   | 12 | 8  | 90 | M32x1,5 | 18    | 25    |

(\*) Serie TH 4 Poli / TH series 4 Pole / Série TH 4 Pôles / Serie TH 4 Pole/ Serie TH 4 Polos / TH 系列 4 极

| <b>B5</b>  | <b>M</b> | <b>N</b> | <b>P</b> | <b>LA</b> | <b>S</b> | <b>T</b> |
|------------|----------|----------|----------|-----------|----------|----------|
| <b>63</b>  | 115      | 95       | 140      | 10        | 9        | 3        |
| <b>71</b>  | 130      | 110      | 160      | 10        | 9,5      | 3,5      |
| <b>80</b>  | 165      | 130      | 200      | 12        | 11       | 3,5      |
| <b>90</b>  | 165      | 130      | 200      | 12        | 11       | 3,5      |
| <b>100</b> | 215      | 180      | 250      | 15        | 14       | 4        |
| <b>112</b> | 215      | 180      | 250      | 14,5      | 14       | 4        |
| <b>132</b> | 265      | 230      | 300      | 20        | 14       | 3,5      |
| <b>160</b> | 300      | 250      | 350      | 13        | 18,5     | 3,5      |

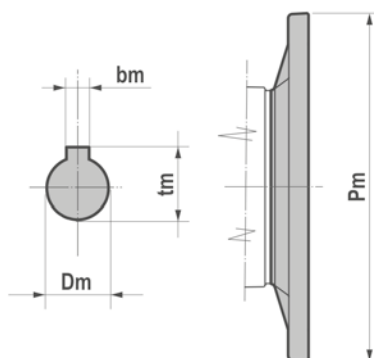
| <b>B14</b> | <b>M</b> | <b>N</b> | <b>P</b> | <b>LA</b> | <b>S</b> | <b>T</b> |
|------------|----------|----------|----------|-----------|----------|----------|
| <b>63</b>  | 75       | 60       | 90       | 10        | M5       | 2,5      |
| <b>71</b>  | 85       | 70       | 105      | 10,5      | M6       | 2,5      |
| <b>80</b>  | 100      | 80       | 120      | 10,5      | M6       | 3        |
| <b>90</b>  | 115      | 95       | 140      | 11,5      | M8       | 3        |
| <b>100</b> | 130      | 110      | 160      | 15        | M8       | 3,5      |
| <b>112</b> | 130      | 110      | 160      | 11,5      | M8       | 3,5      |
| <b>132</b> | 165      | 130      | 200      | 20,5      | M10      | 3,5      |

**Potenza nominale (kW) / Nominal power (kW) / Puissance nominale (kW) / Nennleistung (kW) / Potencia nominal (kW) / 标称功率 (kW)**

|              | <b>63A</b>  |    | <b>63B</b>   |     | <b>63C</b>   |     | <b>71A</b>   |     | <b>71B</b>   |    | <b>71C</b>   |     | <b>80A</b>   |      | <b>80B</b>   |      | <b>80C</b>   |     | <b>80D</b>   |    | <b>90S</b>   |     | <b>90L</b> |      |
|--------------|-------------|----|--------------|-----|--------------|-----|--------------|-----|--------------|----|--------------|-----|--------------|------|--------------|------|--------------|-----|--------------|----|--------------|-----|------------|------|
|              | TS          | TH | TS           | TH  | TS           | TH  | TS           | TH  | TS           | TH | TS           | TH  | TS           | TH   | TS           | TH   | TS           | TH  | TS           | TH | TS           | TH  | TS         | TH   |
| <b>2 (*)</b> | 0,18        |    | 0,25         |     | 0,37         |     | 0,37         |     | 0,55         |    | 0,75         |     | 0,75         | 0,75 | 1,1          | 1,1  | 1,5          |     |              |    | 1,5          | 1,5 | 2,2        | 2,2  |
| <b>4 (*)</b> | 0,12        |    | 0,18         |     | 0,22         |     | 0,25         |     | 0,37         |    | 0,55         |     | 0,55         |      | 0,75         | 0,75 | 0,92         |     | 1,1          |    | 1,1          | 1,1 | 1,5        | 1,5  |
| <b>6 (*)</b> | 0,09        |    | 0,12         |     | 0,15         |     | 0,18         |     | 0,25         |    | 0,37         |     | 0,37         |      | 0,55         |      | 0,75         |     |              |    | 0,75         |     | 1,1        | 0,75 |
| <b>8 (*)</b> |             |    |              |     | 0,07         |     | 0,09         |     | 0,12         |    | 0,18         |     | 0,18         |      | 0,25         |      | 0,37         |     |              |    | 0,37         |     | 0,55       |      |
|              | <b>90LB</b> |    | <b>100LA</b> |     | <b>100LB</b> |     | <b>112MA</b> |     | <b>112MB</b> |    | <b>132SA</b> |     | <b>132SB</b> |      | <b>132MA</b> |      | <b>132MB</b> |     | <b>132MC</b> |    | <b>160SA</b> |     |            |      |
|              | TS          | TH | TS           | TH  | TS           | TH  | TS           | TH  | TS           | TH | TS           | TH  | TS           | TH   | TS           | TH   | TS           | TH  | TS           | TH | TS           | TH  |            |      |
| <b>2 (*)</b> |             |    | 3            | 3   | 4            |     | 4            | 4   | 5,5          |    | 5,5          | 5,5 | 7,5          | 7,5  | 9,2          | 9,2  | 11           |     |              |    | 11           |     |            |      |
| <b>4 (*)</b> | 1,85        |    | 2,2          | 2,2 | 3            | 3   | 4            | 4   | 4,8          |    | 5,5          | 5,5 |              |      | 7,5          | 7,5  | 9,2          |     | 11           |    | 11           |     |            |      |
| <b>6 (*)</b> |             |    | 1,5          | 1,1 | 1,85         | 1,5 | 2,2          | 2,2 | 3            |    | 3            | 3   |              |      | 4            | 4    | 5,5          | 5,5 |              |    |              |     |            |      |
| <b>8 (*)</b> |             |    | 0,75         |     | 1,1          |     | 1,5          |     |              |    | 2,2          |     |              |      | 3            |      |              |     |              |    |              |     |            |      |

(\*) Poli / Poles / Pôles / Pole / Polos / 极性

# PAM - Dimensioni / Dimensions / Encombres / Abmessungen / Dimensiones / 尺寸

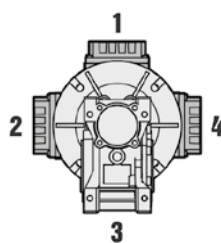
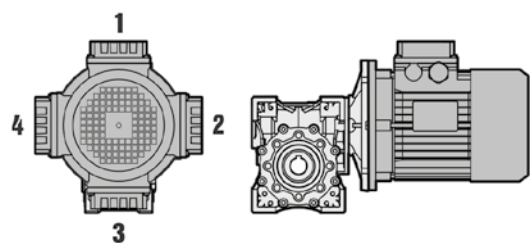


| B5 | IEC  |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
|    | 056  | 063  | 071  | 080  | 090  | 100  | 112  | 132  | 160  |
| Pm | 120  | 140  | 160  | 200  | 200  | 250  | 250  | 300  | 350  |
| Dm | 9    | 11   | 14   | 19   | 24   | 28   | 28   | 38   | 42   |
| bm | 3    | 4    | 5    | 6    | 8    | 8    | 8    | 10   | 12   |
| tm | 10,4 | 12,8 | 16,3 | 21,8 | 27,3 | 31,3 | 31,3 | 41,3 | 45,3 |

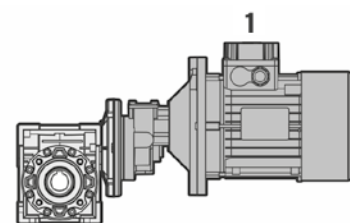
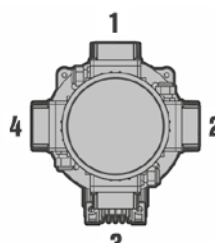
| B14 | IEC  |      |      |      |      |      |      |
|-----|------|------|------|------|------|------|------|
|     | 056  | 063  | 071  | 080  | 090  | 100  | 112  |
| Pm  | 80   | 90   | 105  | 120  | 140  | 160  | 160  |
| Dm  | 9    | 11   | 14   | 19   | 24   | 28   | 28   |
| bm  | 3    | 4    | 5    | 6    | 8    | 8    | 8    |
| tm  | 10,4 | 12,8 | 16,3 | 21,8 | 27,3 | 31,3 | 31,3 |

## Posizione morsettiera / Position of terminal box / Position du bornier / Klemmenkastenlage / Posición caja de bornes / 接线盒位置

### NMRV - NMRVpower

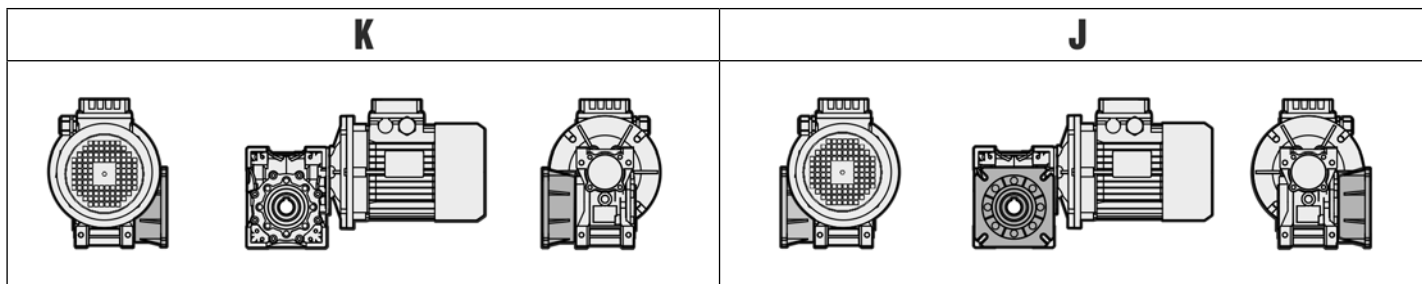


### HA31



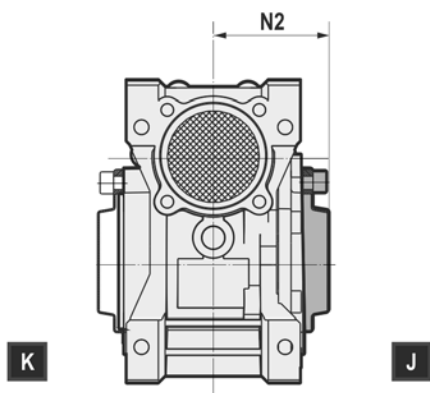
- Nel caso di particolari esigenze specificare in fase di ordine la posizione della morsettiera come da schema.
- In the case of specific requirements, when ordering, specify the position of the terminal box as shown in the diagram.
- En cas d'exigences particulières, spécifier, lors de la commande, la position du bornier comme d'après le schéma.
- Im Falle von Sonderanforderungen ist bei Auftragserteilung die Lage des Klemmenkastens gemäß dem Schema genau anzugeben.
- En caso de exigencias particulares, detallar en el pedido la posición de la caja de bornes según el esquema.
- 在特殊要求情况下，应规定如图所示的接线盒位置。
- Posizione morsettiera sempre riferita alla posizione HA31.
- Terminal box position always refers to HA31 position.
- La position de la boîte à bornes se réfère toujours à la position du HA31.
- Die Lage des Klemmenkastens bezieht sich immer auf HA31 Stellung.
- La posición caja de bornes siempre se refiere a la posición HA31.
- 接线盒位置永远是指 HA31 位置。

**Flangia uscita / Output flange / Bride de sortie /  
Abtriebsflansch / Brida de salida / 法兰**



- Se non diversamente specificato il riduttore viene fornito con flangia in pos. J riferito alla posizione di piazzamento B3.
- Unless specified otherwise, the gear reducer is supplied with the flange in pos. J referred to position B3.
- Si non différemment spécifié, le réducteur est livré avec bride en pos. J correspondant à la position de montage B3.
- Falls nicht anders vereinbart, wird das Getriebe mit Flansch in Position J, auf die B3-Einbaulage bezogen, geliefert.
- Si no se especifica lo contrario el reductor se entrega con brida en pos. J, referida a la posición de montaje B3.
- 除非另有其它规定，减速器都配供是指 B3位置的J 位法兰。

**Coperchio di protezione / Protection cover / Couvercle de protection /  
Wellenabdeckung / Tapa de protección / 保护盖**

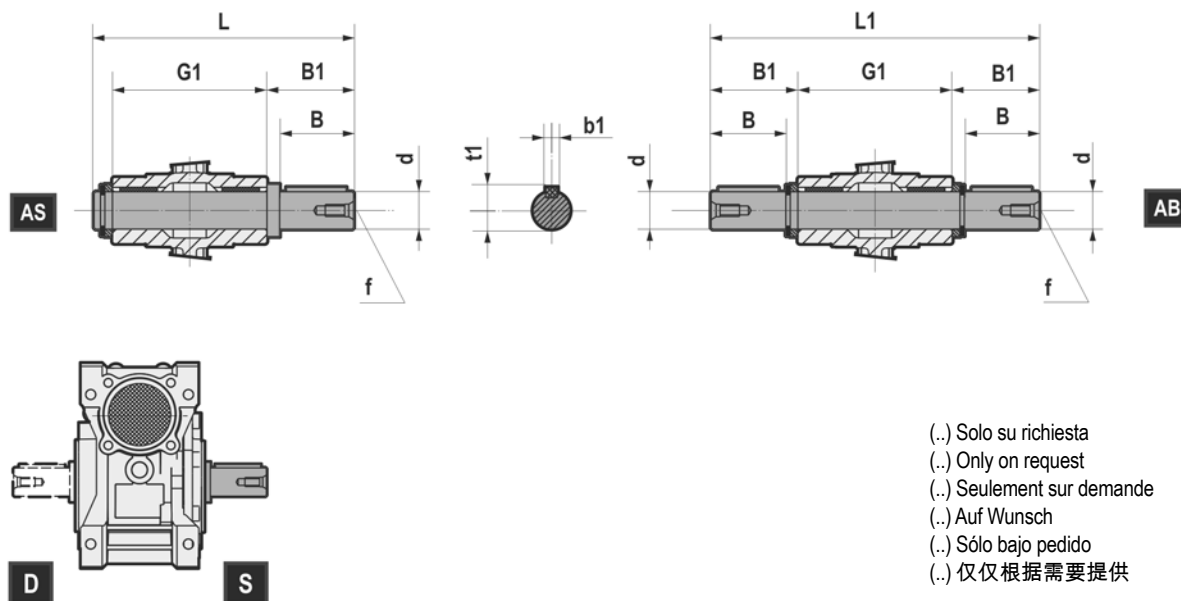


|     | N2   |
|-----|------|
| 030 | 42   |
| 040 | 50   |
| 050 | 57,5 |
| 063 | 68,5 |
| 075 | 73,5 |
| 090 | 85,5 |
| 110 | 94   |
| 130 | 102  |
| 150 | 117  |

- Accessorio non certificato ATEX 2GD/3GD.
- Accessory not certified ATEX 2GD/3GD
- Accessoire non certifié ATEX 2GD/3GD.
- Zubehörteil nicht ATEX 2GD/3GD zertifiziert.
- Accessorio no certificado ATEX 2GD/3GD.
- 该部件未认证ATEX 2GD/3GD。

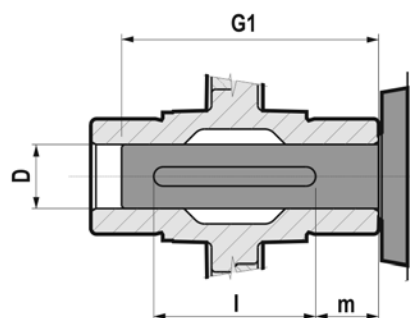


**Alberi lenti / Low speed shafts / Arbres pv /  
Abtriebswellen / Ejes lentos / 低速轴**



|           | 025         | 030   | 040   | 050   | 063   | 075   | 090   | 110   | 130   | 150   |
|-----------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>d</b>  | 11g6 (9)    | 14 h6 | 18 h6 | 25 h6 | 25 h6 | 28 h6 | 35 h6 | 42 h6 | 45 h6 | 50 h6 |
| <b>B</b>  | 23 (25)     | 30    | 40    | 50    | 50    | 60    | 80    | 80    | 80    | 82    |
| <b>B1</b> | 25,5 (30)   | 32,5  | 43    | 53,5  | 53,5  | 63,5  | 84,5  | 84,5  | 85    | 87    |
| <b>G1</b> | 50          | 63    | 78    | 92    | 112   | 120   | 140   | 155   | 170   | 200   |
| <b>L</b>  | 81 (85,5)   | 102   | 128   | 153   | 173   | 192   | 234   | 249   | 265   | 297   |
| <b>L1</b> | 101         | 128   | 164   | 199   | 219   | 247   | 309   | 324   | 340   | 374   |
| <b>f</b>  | -           | M6    | M6    | M10   | M10   | M10   | M12   | M16   | M16   | M16   |
| <b>b1</b> | 4 (3)       | 5     | 6     | 8     | 8     | 8     | 10    | 12    | 14    | 14    |
| <b>t1</b> | 12,5 (10,2) | 16    | 20,5  | 28    | 28    | 31    | 38    | 45    | 48,5  | 53,5  |

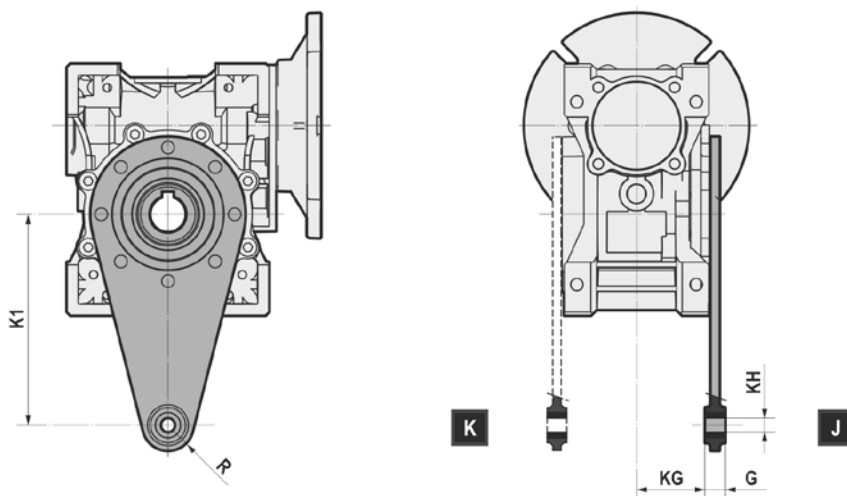
**Perno Macchina / Machine axis / Axe machine /  
Maschinenwelle / Perno máquina / 轴机**



(\*) Valori Consigliati  
(\*) Suggested Values  
(\*) Valeurs suggérées  
(\*) Empfohlene Werte  
(\*) Valores recomendados  
(\*) 建议值

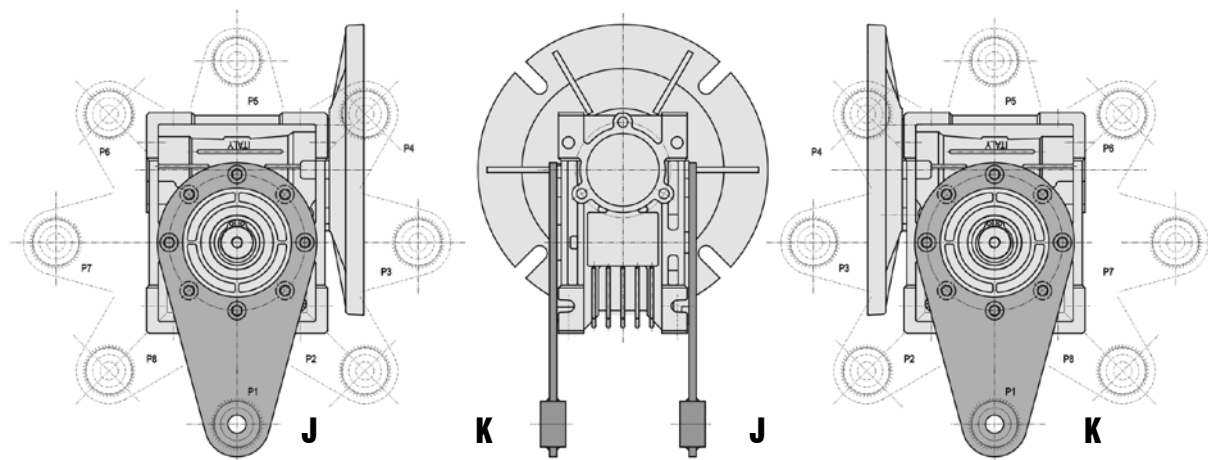
|            | <b>D</b>           |       | <b>G1 *</b> | <b>I *</b> | <b>m *</b> |
|------------|--------------------|-------|-------------|------------|------------|
| <b>025</b> | Ø11                | H8/g6 | 45          | 30         | 7,5        |
| <b>030</b> | Ø14                | H8/h6 | 55          | 40         | 7,5        |
| <b>040</b> | Ø18 (19)           | H8/h6 | 70          | 50         | 10         |
| <b>050</b> | Ø25 (24)           | H8/h6 | 80          | 55         | 12,5       |
| <b>063</b> | Ø25 (28)           | H8/h6 | 100         | 70         | 15         |
| <b>075</b> | Ø28 (30) (32) (35) | H8/h6 | 105         | 75         | 15         |
| <b>090</b> | Ø35 (38) (40)      | H8/h6 | 120         | 80         | 20         |
| <b>105</b> | Ø42                | H8/h6 | 135         | 95         | 20         |
| <b>110</b> | Ø42                | H8/h6 | 135         | 95         | 20         |
| <b>130</b> | Ø45                | H8/h6 | 145         | 100        | 22,5       |
| <b>150</b> | Ø50                | H8/h6 | 175         | 130        | 22,5       |

**Braccio di reazione / Torque arm / Bras de réaction /  
Drehmomentstütze / Brazo de reacción / 扭矩臂**

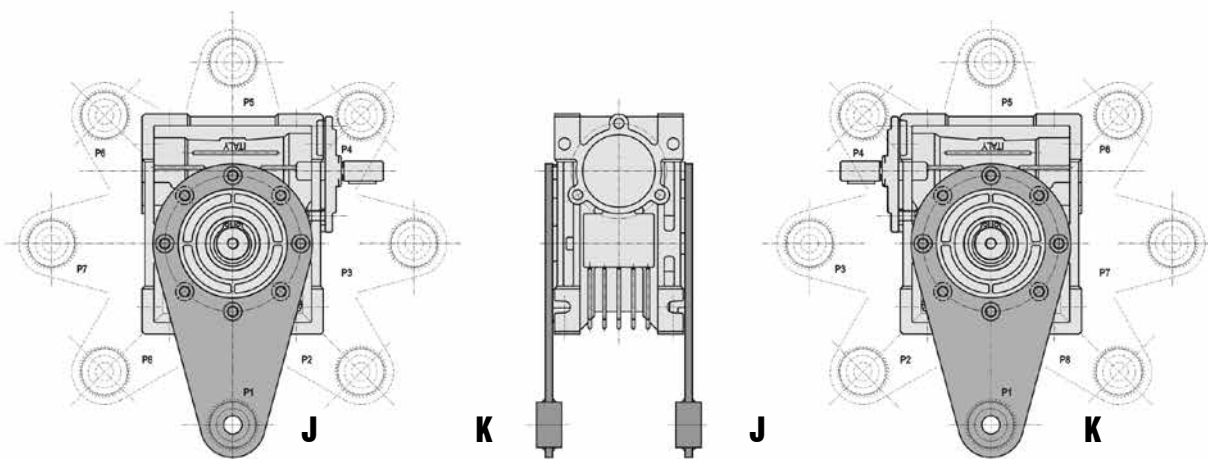


|           | 025  | 030 | 040  | 050  | 063 | 075  | 090  | 110 | 130 | 150 |
|-----------|------|-----|------|------|-----|------|------|-----|-----|-----|
| <b>K1</b> | 70   | 85  | 100  | 100  | 150 | 200  | 200  | 250 | 250 | 250 |
| <b>G</b>  | 14   | 14  | 14   | 14   | 14  | 25   | 25   | 30  | 30  | 30  |
| <b>KG</b> | 17,5 | 24  | 31,5 | 38,5 | 49  | 47,5 | 57,5 | 62  | 69  | 84  |
| <b>KH</b> | 8    | 8   | 10   | 10   | 10  | 20   | 20   | 25  | 25  | 25  |
| <b>R</b>  | 15   | 15  | 18   | 18   | 18  | 30   | 30   | 35  | 35  | 35  |

**Braccio di reazione / Torque arm / Bras de réaction /  
Drehmomentstütze / Brazo de reacción / 扭矩臂**



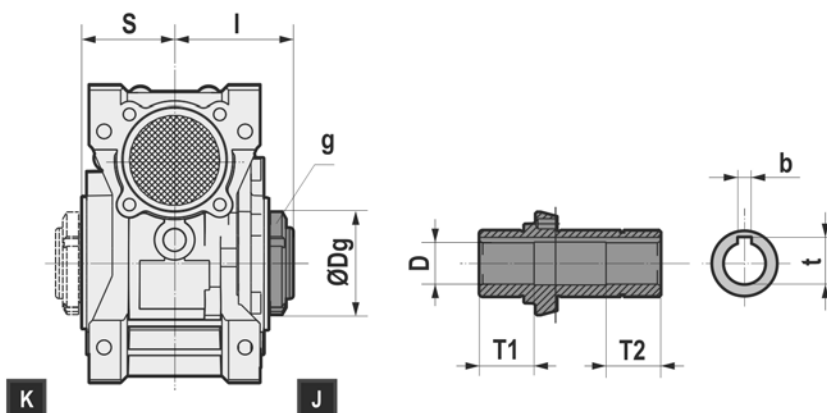
| NMRV-NMRVP<br>NMRL     | P1      |   | P2 |    | P3 |    | P4 |    | P5      |    | P6      |    | P7      |   | P8      |    |
|------------------------|---------|---|----|----|----|----|----|----|---------|----|---------|----|---------|---|---------|----|
|                        | J       | K | J  | K  | J  | K  | J  | K  | J       | K  | J       | K  | J       | K | J       | K  |
| <b>025</b>             |         |   | /  | /  | NO | NO | /  | /  |         |    | /       | /  |         |   | /       | /  |
| <b>030</b>             |         |   | NO | NO | NO | NO | NO | NO |         |    |         |    |         |   |         |    |
| <b>040</b>             | NO NMRL |   | NO | NO | NO | NO | NO | NO | NO NMRL |    | NO NMRL |    | NO NMRL |   | NO NMRL |    |
| <b>050</b>             |         |   | NO | NO | NO | NO | NO | NO |         |    | NO      | NO |         |   |         |    |
| <b>063</b>             |         |   |    |    | NO | NO | NO | NO |         |    |         |    |         |   |         |    |
| <b>075</b>             |         |   | NO | NO | NO | NO | NO | NO |         |    |         |    |         |   |         |    |
| <b>090 - 110 - 130</b> |         |   |    |    | NO | NO | NO | NO |         |    |         |    |         |   |         |    |
| <b>150</b>             |         |   | NO | NO | NO | NO | NO | NO | NO      | NO | NO      | NO |         |   | NO      | NO |



| NRV-NRVP<br>NRL                    | P1     |   | P2     |    | P3     |    | P4 |    | P5     |    | P6     |    | P7     |   | P8     |    |
|------------------------------------|--------|---|--------|----|--------|----|----|----|--------|----|--------|----|--------|---|--------|----|
|                                    | J      | K | J      | K  | J      | K  | J  | K  | J      | K  | J      | K  | J      | K | J      | K  |
| <b>030</b>                         |        |   | NO     | NO |        |    | NO | NO |        |    |        |    |        |   |        |    |
| <b>040</b>                         | NO NRL |   | NO NRL | NO | NO NRL | NO | NO | NO | NO NRL |    | NO NRL |    | NO NRL |   | NO NRL |    |
| <b>050</b>                         |        |   | NO     | NO |        |    | NO | NO |        |    | NO     | NO |        |   |        |    |
| <b>063 - 075 - 090 - 110 - 130</b> |        |   |        |    |        |    | NO | NO |        |    |        |    |        |   |        |    |
| <b>150</b>                         |        |   | NO     | NO |        |    | NO | NO | NO     | NO | NO     | NO |        |   | NO     | NO |

- Per le posizioni dei bracci su vite senza fine combinato e vite senza fine con precoppia contattare ASSISTENZA TECNICA.
- For information on torque arm mounting positions on combined worm gear reducers and worm gear reducers with pre-stage units, please contact TECHNICAL SERVICE.
- Pour les positions des bras sur vis sans fin combinés et vis sans fin avec précouple, contacter le service d'ASSISTANCE TECHNIQUE.
- Für Auskünfte über die Position der Drehmomentstützen am zweistufigen Schneckengetriebe und dem Schneckengetriebe mit Vorstufe kontaktieren Sie bitte den KUNDENDIENST.
- Para las posiciones de los brazos sobre el tornillo sinfin combinado y del tornillo sinfin con pre-reducción, contacte el SERVICIO DE ASISTENCIA TÉCNICA
- 欲获取有关联合蜗杆减速器上的扭力臂安装位置和包含前期元件的蜗杆减速器的更多信息，请联系技术服务部门。

**NMRL - NMRL-P - Dimensioni / Dimensions / Encombrements / Abmessungen / Dimensiones / 尺寸**



|           | <b>050</b> | <b>063</b> | <b>075</b> | <b>090</b> |
|-----------|------------|------------|------------|------------|
| <b>I</b>  | 63,5       | 74         | 78,5       | 89,5       |
| <b>S</b>  | 46         | 56         | 60         | 70         |
| <b>Dg</b> | 56         | 62         | 68         | 80         |
| <b>g</b>  | M40x1,5    | M45x1,5    | M50x1,5    | M60x2      |
| <b>b</b>  | 8          | 8          | 8          | 10         |
| <b>t</b>  | 28,3       | 28,3       | 31,3       | 38,3       |
| <b>D</b>  | Ø25        | Ø25        | Ø28        | Ø35        |
| <b>T1</b> | 33         | 37         | 40         | 45         |
| <b>T2</b> | 33         | 37         | 40         | 45         |

- Nella versione NMRL 050 l'installazione del limitatore di coppia è possibile solo in posizione J.
- The torque limiter is available for worm gearbox type NMRL 050 in J position only.
- Dans la version NMRL 050, l'installation du limiteur de couple est possible uniquement dans la position J.
- In der Baugröße NMRL 050 kann der Drehmomentbegrenzer nur in der Position J installiert werden.
- En la versión NMRL 050 la instalación del limitador de par solamente es posible en la posición J.
- 用于蜗轮减速箱NMRL050型号的力矩限制器只能安装在J位置
- Il limitatore di coppia MTV è fornito univocamente, per ogni taglia di riduttore, con il diametro dell'albero cavo in uscita (D) mostrato in tabella. Diametri differenti possono essere forniti a richiesta, previa verifica tecnica e produttiva.
- The MTV torque limiter is univocally supplied for every gear unit with the hollow output shaft diameter equal to dimension D shown in the table. Different diameters could be provided upon request, after technical and manufacturing control.
- Le limiteur de couple MTV est fourni explicitement, pour chaque taille de réducteur, avec le diamètre de l'arbre creux en sortie (D) indiqué dans le tableau. Des diamètres différents peuvent être fournis sur demande, après vérification technique et productive.
- Der Motovario Drehmomentbegrenzer ist nur für die obigen Schneckengetriebegrößen mit den, in der Tabelle, aufgeführten Abtriebs-hohlwellendurchmessern (D) verfügbar. Abweichende Durchmesser können auf Anfrage geliefert werden, nach vorheriger technischer
- El limitador de par MTV se distribuye unívocamente, para cada tamaño de reductor, con el diámetro del eje hueco de salida (D) mostrado en la tabla. A petición se pueden distribuir diámetros diferentes, previa verificación técnica y productiva.
- 所有安装MTV力矩限制器齿轮箱的输出空心轴的轴径见上表中的D尺寸，提供客户要求的非标轴径，需得到公司技术部门和工厂的确认
- Su richiesta è disponibile il montaggio del limitatore di coppia in combinazione con un kit albero lento diverso da quello presente a catalogo.
- Upon request it's possible to assemble an output solid shaft kit, different from the standard one available in the Catalogue.
- Le montage du limiteur de couple en association avec un kit arbre lent différent de celui présent dans le catalogue est disponible sur demande.
- Überprüfung. Auf Anfrage ist die Montage einer Abtriebsvollwelle, abweichend vom Katalogstandard, möglich. des Drehmomentbegrenzers in Kombination mit einem anderen Satz der langsamlaufenden Welle als im Katalog möglich.
- A petición, está disponible el montaje del limitador de par junto con un kit eje lento diferente del que está en el catálogo.
- 根据客户要求可以组装与样本中标准不同的实心轴输出套件

**NMRL / NMRL-P****IT****Descrizione**

Il limitatore di coppia è un dispositivo meccanico atto a preservare la trasmissione da sovraccarichi accidentali o irregolarità della coppia assorbita. Viene applicato in uscita al riduttore e agisce come una frizione interna applicata sull'albero di uscita, che può essere tarata manualmente dall'esterno per mezzo di una ghiera autobloccante di registrazione.

Rispetto ai dispositivi elettronici o ai dispositivi meccanici esterni presenta i seguenti vantaggi:

- limitato ingombro aggiuntivo rispetto alla versione priva di limitatore di coppia;
- albero cavo in uscita senza variazioni di diametro rispetto alla versione standard;
- intervento rapido direttamente lungo la trasmissione che bisogna proteggere;
- lavorando **a bagno d'olio** non richiede manutenzione e garantisce affidabilità nel tempo;
- taratura della coppia di slittamento regolabile manualmente;
- con valori più elevati di quello di soglia, il gruppo resta comunque in presa, garantendo alla macchina azionata di ripartire automaticamente senza alcun intervento esterno;
- tramite il limitatore di coppia è possibile inoltre ruotare l'albero del riduttore, allentando opportunamente la ghiera di registrazione, ad esempio nel caso di blocchi meccanici dovuti all'irreversibilità della vite.

**Un uso corretto del limitatore di coppia prevede che venga installato come dispositivo di prevenzione per eventi accidentali e non per sopperire ad una scelta errata del riduttore**

(ad esempio dopo aver scelto un riduttore con un fattore di servizio basso rispetto alle reali necessità dell'applicazione).

Il limitatore di coppia è disponibile nelle versioni NMRL 050 / NMRL-P 063-075-090 ed è applicabile in tutte le configurazioni di riduttori combinati previste a catalogo, di norma sull'ultimo riduttore.

In base alle necessità è possibile applicare il limitatore di coppia sull'albero di uscita del riduttore nelle posizioni J o K.

**NMRL / NMRL-P****UK****Description**

The torque limiter is a mechanical device designed to protect the transmission from movement caused by accidental overloads or irregularities. It is applied to the output of the worm gear reducers and it works as an internal friction applied on the output shaft, which can be adjusted manually through an external locking ring nut.

Compared to electronic or external mechanical devices, this solution presents the following advantages:

- limited additional dimensions compared to the version without the torque limiter;
- hollow output shaft without changes in terms of diameter compared to the standard version;
- quick action directly on the transmission that must be protected;
- it has been designed for oil-bath operation, therefore wear-free and reliable;
- manual adjustment of the slip torque;
- over the slip torque, the torque limiter is still "on hold", ensuring the automatic machine restart without external intervention;
- using the torque limiter, it's possible also to rotate the gearbox shaft by loosening the external locking ring nut, for example in case of mechanical locks due to worm irreversibility.

**The torque limiter device must be installed as a protection system for accidental events and not as protection of wrong gearbox selection**

(for example after selecting a gearbox with a low service factor compared with the real needs of the application).

The torque limiter is available for worm gear reducers type NMRL 050 / NMRL-P 063-075-090 and it is applicable in all combined unit configurations provided in the catalogue, usually on the last gearbox. The torque limiter is supplied on the gearbox output shaft in J or K position.

**NMRL / NMRL-P****FR****Description**

Le limiteur de couple est un dispositif mécanique capable de préserver la transmission de surcharges accidentelles ou d'irrégularités du couple absorbé. Il est appliqué à la sortie du réducteur et agit comme une friction interne appliquée sur l'arbre de sortie, qui peut être calibrée manuellement depuis l'extérieur à l'aide d'un écrou de serrage de réglage.

Comparé aux dispositifs électroniques ou aux dispositifs mécaniques externes, il présente les avantages suivants :

- encombrement supplémentaire limité par rapport à la version sans limiteur de couple ;
- arbre creux en sortie sans variations de diamètre par rapport à la version standard ;
- intervention rapide directement le long de la transmission qu'il faut protéger ;
- travaillant à bain d'huile, il n'a pas besoin d'entretien et il garantit la fiabilité dans le temps ;
- calibrage du couple de glissement réglable manuellement ;
- avec des valeurs supérieures à celle de seuil, le groupe reste quoi qu'il en soit en prise, garantissant le redémarrage automatique de la machine actionnée sans aucune intervention extérieure ;
- avec le limiteur de couple, il est en outre possible de faire pivoter l'arbre du réducteur, en desserrant convenablement l'écrou de réglage, par exemple en cas de blocages mécaniques dus à l'irréversibilité de la vis.

**Une utilisation correcte du limiteur de couple prévoit qu'il soit installé comme dispositif de prévention pour des événements accidentels et non en vue de pourvoir à un choix erroné du réducteur** (par exemple après avoir choisi un réducteur avec un facteur de service bas par rapport aux nécessités réelles de l'application).

Le limiteur de couple est disponible dans les versions NMRL 050 / NMRL-P 063-075-090 et est applicable dans toutes les configurations de réducteurs combinés prévues dans le catalogue, normalement sur le dernier réducteur.

Suivant les nécessités, il est possible d'appliquer le limiteur de couple sur l'arbre de sortie du réducteur dans les positions J ou K.

## NMRL / NMRL-P

DE

### Beschreibung

Der Drehmomentbegrenzer ist eine mechanische Vorrichtung, die Übertragungselemente vor Überlastungen oder Unregelmäßigkeiten des aufgenommenen Drehmomentes schützt. Er ist an der Abtriebswelle des Schneckengetriebes angebracht und agiert wie eine interne Kupplung. Der Drehmomentenbetrenzer kann von außen durch eine selbstsperrende Stellmutter eingestellt werden.

Gegenüber den elektronischen oder externen mechanischen Vorrichtungen hat er folgende Vorteile:

- Begrenzer zusätzlicher Raumbedarf gegenüber der Version ohne Drehmomentbegrenzer;
- Hohlwelle am Ausgang ohne Änderungen des Durchmessers gegenüber der Standardversion;
- Schneller Eingriff direkt auf die Übertragungselemente, die geschützt werden müssen;
- Im Ölbad arbeitend benötigt er keine Wartung und garantiert eine langfristige Zuverlässigkeit;
- Manuelle Einstellung des Rutschmomentes;
- Bei höherer Last als des Schwellwertes bleibt die Gruppe im Eingriff und garantiert so der Maschine, automatisch wieder zu starten, ohne jeglichen Eingriff von außen;
- Durch den Drehmomentbegrenzer kann man außerdem die Abtriebswelle des Schneckengetriebes drehen, wenn man die Stellmutter entsprechend lockert, z.B. bei mechanischer Blockade des Schneckengetriebes.

**Eine korrekte Verwendung des Drehmomentbegrenzers sieht vor, dass er als Schutzvorrichtung für zufällige Vorkommnisse installiert wird und nicht eine fehlerhafte Auswahl des Schneckengetriebes kompensiert (zum Beispiel nachdem man ein Schneckengetriebe mit einem niedrigen Betriebsfaktor gegenüber den wirklichen Anforderungen der Anwendung ausgewählt hat).**

Der Drehmomentbegrenzer ist in den Versionen NMRL 050 bis NMRL-P 063-075-090 erhältlich. Er ist auch verfügbar bei allen Konfigurationen von Doppelschneckengetrieben aus dem Katalog, hierbei üblicherweise in dem zweiten Schneckengetriebe. Je nach Bedarf ist es möglich, den Drehmomentbegrenzer auf der Ausgangswelle des Schneckengetriebes in den Positionen J oder K anzubringen.

## NMRL / NMRL-P

ES

### Descripción

El limitador de par es un dispositivo mecánico apto para preservar la transmisión de sobrecargas accidentales o irregularidades del par absorbido. Se aplica en la salida del reductor y actúa como una fricción interna aplicada en el eje de salida, que se puede calibrar manualmente desde el exterior mediante una tuerca autoblocante de ajuste.

Respecto a los dispositivos electrónicos o dispositivos mecánicos externos presenta las siguientes ventajas:

- reducido aumento de dimensiones respecto a la versión sin limitador de par;
- eje hueco de salida sin variaciones de diámetro respecto a la versión estándar;
- rápida intervención directamente a lo largo de la transmisión que hay que proteger;
- operando en baño de aceite no requiere de un mantenimiento y garantiza fiabilidad con el tiempo;
- calibrado del par torsor del limitador regulable manualmente;
- con valores más elevados que el del umbral, el grupo permanece de todas maneras sujeto, garantizando que la máquina accionada volverá a arrancar automáticamente sin ninguna intervención externa;
- además, mediante el limitador de par es posible rotar el eje del reductor, aflojando convenientemente la tuerca de ajuste, por ejemplo, en el caso de topes mecánicos debidos a la irreversibilidad del tornillo.

**Un uso correcto del limitador de par prevé que se instale como dispositivo de prevención para eventos accidentales y no para remediar una elección errónea del reductor (por ejemplo, después de haber elegido un reductor con un factor de servicio bajo respecto a las necesidades reales de la aplicación).**

El limitador de par está disponible en las versiones NMRL 050 / NMRL-P 063-075-090 y se puede aplicar en todas las configuraciones de reductores combinados previstas en el catálogo, generalmente sobre el último reductor.

En base a las necesidades es posible aplicar el limitador de par en el eje de salida del reductor en las posiciones J o K.

## NMRL / NMRL-P

CN

### 描述

力矩限制器是一个防止传输过程中发生额外负载或不规则运动时的机械保护装置。应用于蜗轮减速机的输出，作为一个内摩擦装置安装在输出轴上，并通过外置环形锁紧螺母手动调整摩擦力。

与电子式或者外置机械式相比较，这个设计方案具有以下优点：

相对于标准产品，很有限的增加外形尺寸

相对于标准产品，不需改变空心输出轴的直径

快速而直接作用在被保护的传动设备上

设计为油浴润滑，无磨损，运行可靠

手动调整摩擦片的力矩

超出摩擦片力矩时，力矩限制器始终保持相连状态，保证无需外力作用机构自动恢复运行

使用力矩限制器，在蜗轮不可逆转的机械锁定的情况下，松开外部环形锁紧螺母，可以实现旋转齿轮箱的输出轴，

力矩限制器是为意外事件发生时起保护作用而安装的，而不是保护错误选型的齿轮箱（例如：相比实际应用的要求，选择一个使用系数很小的齿轮箱）

力矩限制器适用的蜗轮减速机型号有NMRL 050 / NMRL-P 063-075-090，并可提供样本中所有的配置组合，尤其是在最大型号的减速机上。力矩限制器可安装在齿轮箱输出轴的J或者K位置（如下图所示）

## NMRL / NMRL-P

IT

### Modalità di funzionamento

la trasmissione del moto nel riduttore con limitatore di coppia avviene attraverso l'attrito tra la superficie motrice (vite senza fine (10)) e la superficie condotta (corona dentata (9)) che vengono sottoposte ad una determinata pressione superficiale esercitata dal piattello (7), la cui spinta è determinata dalle due molle a tazza (6) disposte in serie. L'azione delle molle è generata dalla pressione di una boccia di pressione (3) azionata da una ghiera autobloccante di registrazione (1) che viene avvitata sull'albero d'uscita. Lo slittamento è garantito dall'accoppiamento tra i due elementi semiconici del mozzo (2) e della corona dentata (9). La trasmissione ha un funzionamento standard fino ad un determinato valore di coppia massimo ammissibile (coppia di slittamento), oltre cui entra in funzione il limitatore che genera uno slittamento tra la corona che continua a girare a vuoto, essendo condotta dalla vite senza fine, e il mozzo che rimane fermo. Al superamento del valore di coppia massimo ammissibile previsto dalla taratura, il limitatore resta comunque "in presa", ovvero pur non trasmettendo valori più elevati di quello di soglia, trasmette comunque il valore di taratura; ciò garantisce alla macchina azionata di ripartire automaticamente senza alcun intervento esterno.

## NMRL / NMRL-P

UK

### Operating principle

In this mechanical device the transmission of movement takes place by means of friction between the driving surface (input shaft (10)) and the driven surface (wormwheel (9)). These are subject of a determined compression created by the plate (7) which is generated by two Belleville washers (6), arranged in series. The Belleville washers action is generated by the bushing (3), driven by the external locking ring nut (1) which is screwed on the output shaft. The shift is guaranteed by the connection between the two conical elements of the hub (2) and the worm wheel. The transmission of movement has a standard operation up to a maximum admissible torque value (slip torque); over this value the torque limiter starts to work generating a slip between the worm wheel, which continues to spin conducted by the input shaft, and the hub which remains still. Over the slip torque expected from the regulation, the torque limiter is still "on hold": it transmits the set value and it doesn't transmit higher values. This ensures to the machine to restart automatically without external action.

## NMRL / NMRL-P

FR

### Modalités de fonctionnement

La transmission du mouvement dans le réducteur avec limiteur de couple se fait à travers le frottement entre la surface motrice (vis sans fin (10)) et la surface conduite (couronne dentée (9)) qui sont soumises à une pression superficielle déterminée exercée par le plateau (7), dont la poussée est déterminée par les deux ressorts Belleville (6) disposés en série. L'action des ressorts est engendrée par la pression d'une douille à sertir (3) actionnée par un écrou de serrage de réglage (1) qui est vissé sur l'arbre de sortie. Le glissement est garanti par l'accouplement entre les deux éléments semi-coniques du moyeu (2) et la couronne dentée (9). La transmission a un fonctionnement standard jusqu'à une valeur de couple maximale admissible déterminée (couple de glissement), au-delà de laquelle le limiteur entre en fonction. Celui-ci génère un glissement entre la couronne qui continue à tourner à vide, étant conduite par la vis sans fin, et le moyeu qui reste immobile. Lorsque la valeur de couple maximale admissible prévue du calibrage est dépassée, le limiteur reste quoi qu'il en soit "en prise", c'est-à-dire que même s'il ne transmet pas de valeurs supérieures à celle de seuil, il transmet quoi qu'il en soit la valeur de calibrage; cela garantit le redémarrage automatique de la machine actionnée sans aucune intervention extérieure.

## NMRL / NMRL-P

DE

### Funktionsweise

Die Kraftübertragung im Schneckengetriebe mit Drehmomentbegrenzer erfolgt durch Reibung zwischen der treibenden Antriebswelle (Schnecke (10)) und der getriebenen Abtriebswelle (Schneckenrad (9)). Mittels der Scheibe (7) sowie der zwei Tellerfedern (6) wird der entsprechende Oberflächendruck auf den Drehmomentenbegrenzer ausgeübt. Die Druckkraft der Tellerfedern wird durch den Druckbolzen (3), erzeugt. Der Druckbolzen wird hierbei durch die selbstsperrende Nutmutter (1) eingestellt. Der Schlupf wird von den zwei halbkreisförmigen Elementen der Abtriebswelle (2) und des Schneckenrades (9) gewährleistet. Die Kraftübertragung arbeitet bis zum Erreichen des eingestellten zulässigen Drehmomentes (Rutschmoment).

Über diesem Rutschmoment hinaus tritt der Drehmomentbegrenzer ein und gewährleistet das Durchrutschen zwischen dem Schneckenrad, das weiterhin rotiert, da es von der Schneckenwelle angetrieben wird und der Abtriebswelle, die stehen bleibt. Bei Überschreiten des maximal zulässigen Drehmomentes, gemäß der vorgenommenen Einstellung, bleibt der Drehmomentbegrenzer trotzdem „im Eingriff“, das heißt, er überträgt das das maximal zulässige Drehmoment, jedoch kein höheres Drehmoment. So wird das erneute automatische Starten der Maschine garantiert, ohne jeglichen Eingriff von außen.

## NMRL / NMRL-P

ES

### Modo de funcionamiento

La transmisión del movimiento en el reductor con limitador de par se realiza mediante el rozamiento entre la superficie motriz (tornillo sin fin (10)) y la superficie de conducción (corona dentada (9)) que se someten a una determinada presión superficial ejercida por el platillo (7), cuyo empuje está determinado por los dos muelles Belleville (6) colocados en serie. La acción de los muelles se genera por la presión de una arandela de presión (3) accionada por una tuerca autobloqueante de ajuste (1) que se atornilla al eje de salida. El deslizamiento está garantizado por el acoplamiento entre los dos elementos semicónicos del cubo (2) y por la corona dentada (9). La transmisión tiene un funcionamiento estándar hasta un determinado valor de par máximo admisible (par de deslizamiento), superado el cual entra en funcionamiento el limitador que genera un deslizamiento entre la corona que continúa girando en vacío, siendo conducida por el tornillo sin fin, y el cubo que permanece parado. Al superar el valor de par máximo admisible previsto por el calibrado, el limitador permanece de todos modos "sujeto", es decir, a pesar de no transmitir valores más elevados que el del umbral, transmite el valor del calibrado; esto garantiza que la máquina accionada volverá a arrancar automáticamente sin ninguna intervención externa.

## NMRL / NMRL-P

CN

### 工作原理

在这个机械装置中的动力传输是靠主传动面（下图中10所示的输入轴）和被驱动面（下图中9所示的蜗轮）之间的摩擦力来实现。该部件是由两个串联排列的碟型圈（下图中6所示）组合而成一个弹簧压力板（下图中7所示）。转动锁紧在输出轴上的外置环形锁紧螺母（下图中1所示），并通过相连的轴套（下图中2所示）调整碟型圈的松紧。通过两个锥形衬套（下图中2所示）与蜗轮相连接实现运动传递。在最大扭矩值下动力传递处于正常工作状态（打滑扭矩以下）；超过最大扭矩时力矩限制器开始工作，和蜗轮发生打滑，此时蜗轮在输入轴的带动下继续运转，而锥形轴套保持静止状态。在超过预定的打滑扭矩后，力矩限制器始终处于“相连状态”：它在设定值以下传输扭矩，超过设定值打滑。确保无需外力作用机构自动恢复运行。

**NMRL / NMRL-P**

**IT**

Per motivi di sicurezza è sconsigliato il suo utilizzo nei meccanismi di sollevamento poiché, qualora per sovraccarichi o irregolarità si verifici lo slittamento tra albero d'uscita e la corona dentata, il peso potrebbe non essere più mantenuto in sospensione.

**NMRL / NMRL-P**

**UK**

For safety reasons it isn't recommended to install this device in lifting equipment: in case of overloads or irregularities, during the shift, the weight could not be maintained in suspension.

**NMRL / NMRL-P**

**FR**

Pour des raisons de sécurité, son utilisation est déconseillée dans les mécanismes de levage puisque, si en raison de surcharges ou d'irrégularités, le glissement entre l'arbre de sortie et la couronne dentée devait se vérifier, le poids pourrait ne pas être maintenu en suspension.

**NMRL / NMRL-P**

**DE**

Aus Sicherheitsgründen kann der Drehmomentenbegrenzer nicht in Hebemechanismen verwendet werden, da der Mechanismus bei Überlast oder Vibrationen zwischen Abtriebswelle und Schneckenrad durchrutschen kann. Folglich kann das Gewicht nicht mehr schwebend gehalten werden.

**NMRL / NMRL-P**

**ES**

Por motivos de seguridad se desaconseja su utilización en mecanismos de elevación ya que, en el caso en que se verificara, por sobrecargas o irregularidades, el deslizamiento entre el eje de salida y la corona dentada, podría darse el caso de que no se pudiera mantener más el peso en suspensión.

**NMRL / NMRL-P**

**CN**

出于安全因素不推荐本装置用于起重设备：传输中万一过载或出现违章行为，无法维持处于悬挂状态下的重物

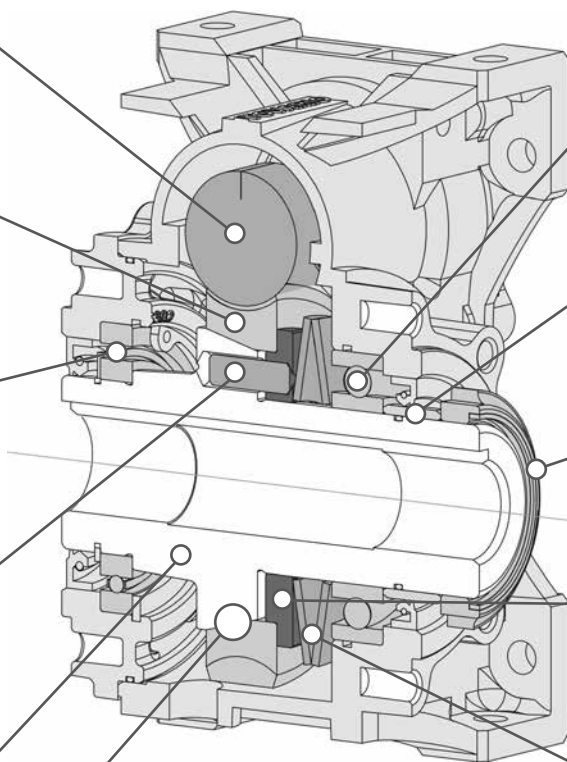
- 10. Vite senza fine
- 10. Input shaft
- 10. Vis sans fin
- 10. Schneckenwelle
- 10. Tornillo sin fin
- 10. 输入轴

- 9. Corona dentata
- 9. Worm wheel
- 9. Couronne dentée
- 9. Schneckenrad
- 9. Corona dentada
- 9. 蜗轮

- 5. Cuscinetto a sfere
- 5. Ball bearings
- 5. Roulement à bille
- 5. Kugellager
- 5. Cojinete de esfera
- 5. 小于标准轴向尺寸的球轴承和固定密封环

- 8. Rullino
- 8. Roll
- 8. Rouleau
- 8. Rolle
- 8. Rodillo
- 8. 滚轴

- 2. Mozzo
- 2. Hub
- 2. Moyeu
- 2. Abtriebswelle
- 2. Cubo
- 2. 外壳与轴之间的锁紧套



- 4. Cuscinetto standard
- 4. Standard bearings
- 4. Roulement standard
- 4. Standardlager
- 4. Cojinete estándar
- 4. 标准轴承

- 3. Boccola di pressione
- 3. Bushing
- 3. Douille à sertir
- 3. Druckbolzen
- 3. Arandela de presión
- 3. 压力轴套, 锁紧套, 弹簧垫圈

- 1. Ghiera di registrazione
- 1. External locking Ring Nut
- 1. Ecrou de réglage
- 1. Stellmutter
- 1. Tuerca de ajuste
- 1. 外置环形锁紧螺母

- 7. Piattello
- 7. Plate
- 7. Plateau
- 7. Scheibe
- 7. Platillo
- 7. 压力板

- 6. Due Molle a tazza
- 6. Two belleville washers
- 6. Deux ressorts Belleville
- 6. Zwei Tellerfedern
- 6. Dos muelles Belleville
- 6. 两个串联排列的碟型圈 (弹簧圈的大小规格取决于蜗轮的尺寸)

- Accoppiamento tra i due elementi semiconici della corona dentata e del mozzo che garantisce lo slittamento
- The shift is guaranteed by the connection between the two conical elements of the hub and the wormwheel.
- Accouplement entre les deux éléments semi-coniques de la couronne dentée et du moyeu qui garantit le glissement
- Das Durchrutschen wird von der Passung zwischen den zwei halbkonischen Elementen des Schneckenrades und der Abtriebswelle gewährleistet
- Acoplamiento entre los dos elementos semicónicos de la corona dentada y del cubo que garantiza el deslizamiento
- 通过两个锥形轴套 (下图中2所示) 与蜗轮相连接实现运动传输



## NMRL / NMRL-P

IT

## Registrazione della coppia di slittamento

La taratura è facilmente regolabile dall'esterno attraverso la rotazione della ghiera autobloccante, caratterizzata da 4 tacche per definire il numero di giri effettuato (ogni tacca è equivalente ad 1/4 di giro). Il gruppo viene tarato in fase di montaggio.

## NMRL / NMRL-P

UK

## Slip torque setting

A slip torque setting is easily adjustable from the outside through the rotation of the locking ring nut, characterized by 4 marks to define the number of turns (each mark is equivalent to 1/4 of a turn). The device is preliminary set during the assembly phase.

## NMRL / NMRL-P

FR

## Réglage du couple de glissement

Le calibrage est facilement réglable depuis l'extérieur avec la rotation de l'écrou de serrage, caractérisé par 4 encoches pour définir le nombre de tours effectué (chaque encoche équivaut à 1/4 de tour). Le groupe est calibré en phase de montage.

|            | Rotazione ghiera / Ring nut rotation / Rotation écrou |
|------------|-------------------------------------------------------|
| <b>050</b> | 1/2 (*)                                               |
| <b>063</b> | 3/4 (*)                                               |
| <b>075</b> | 1 (*)                                                 |
| <b>090</b> | 1 (*)                                                 |

(\*) di giro / turn / de tour

I fattori che possono influenzare il valore di taratura sono: temperatura, rodaggio, presenza di vibrazioni. È pertanto consigliato, all'atto dell'installazione della macchina, tarare il limite di coppia in base alle reali esigenze dell'applicazione.

Il senso di rotazione standard per la ghiera di registrazione è il senso orario, definito guardando frontalmente, dal lato della ghiera di registrazione, l'asse lento del riduttore con il motore a destra nel caso di montaggio della ghiera in posizione J oppure con il motore a sinistra nel caso di montaggio della ghiera in posizione K.

**IMP:** anche se il limitatore di coppia garantisce alla macchina azionata di ripartire automaticamente dopo uno slittamento (superamento della coppia nominale di taratura), è buona norma, per slittamenti prolungati, riportare la ghiera in posizione iniziale ed effettuare nuovamente la taratura.

Per ogni grandezza dei riduttori (050-063-075-090) il range di coppia nominale ammissibile varia, come precedentemente detto, in funzione del rapporto di riduzione e del senso di rotazione del riduttore, che influisce sulle tolleranze tra i due componenti semiconici che generano lo slittamento (vi è infatti una componente assiale che tende ad avvicinarli o allontanarli).

Nei grafici di taratura vengono pertanto riportate due rette che raffigurano i limiti entro cui varia il valore della coppia di slittamento garantita dal riduttore con limitatore di coppia.

La taratura deve essere comunque sempre verificata a posteriori per stabilire se il numero di giri imposti alla ghiera dia il valore di coppia desiderato.

The following factors may affect the setting: temperature and period of adjustment. It is therefore recommended, during the installation, to actually verify the slip torque limit, in according to the real needs of the application.

The standard direction of rotation for the registration of the ring nut is clockwise. Looking frontally from the ring nut side, the torque limiter is in J position when the motor position is on the right side; with the motor on left side the torque limiter is in K position.

**IMP:** It's recommended for long stops, even if the machine restarts automatically, to return the ring nut to its original position and to set it again.

As previously mentioned, for each reducers size (050-063-075-090) the slip torque range depends by the ratio and the direction of rotation of the gearbox, which affects the tolerances between the two conical components that generate the slip (there is an axial component which tends to approach or move their away).

Therefore in the setting diagrams are shown two lines which represent the approximate limits within the provided slip torque could change.

The slip torque setting must be always checked afterward to determine if the number of turns of the ring nut guarantees the desired slip torque value.

Les facteurs qui peuvent influencer la valeur de calibrage sont: température, rodage, présence de vibrations. Il est donc conseillé, au moment de l'installation de la machine, de calibrer la limite de couple en fonction des exigences réelles de l'application.

Le sens de rotation standard pour l'écrou de réglage est le sens des aiguilles d'une montre, défini en regardant depuis le devant, du côté de l'écrou de réglage, l'axe lent du réducteur avec le moteur à droite dans le cas de montage de l'écrou en position J ou bien avec le moteur à gauche dans le cas de montage de l'écrou en position K.

**IMP :** même si le limiteur de couple garantit le redémarrage automatique de la machine actionnée après un glissement (dépassement du couple nominal de calibrage), il convient, pour des glissements prolongés, de ramener l'écrou en position initiale et d'effectuer à nouveau le calibrage.

Pour chaque taille des réducteurs (050-063-075-090), la portée de couple nominale admissible varie, comme nous l'avons dit auparavant, en fonction du rapport de réduction et du sens de rotation du réducteur qui influe sur les tolérances entre les deux composants semi-coniques qui génèrent le glissement (il y a en effet un composant axial qui tend à les rapprocher ou à les éloigner).

Dans les graphiques de calibrage, on reporte donc deux droites qui représentent les limites entre lesquelles la valeur du couple de glissement garanti du réducteur avec limiteur de couple varie. Le calibrage doit quoi qu'il en soit toujours être vérifié a posteriori afin d'établir si le nombre de tours programmé à l'écrou donne la valeur de couple désirée.

## NMRL / NMRL-P

DE

### Einstellung des Rutschmomentes

Die Einstellung ist von außen durch Drehen der selbstsperrenden Stellmutter durchzuführen. Die 4 Kerben auf der Stellmutter bedeuten je ¼ Umdrehung. Die Gruppe wird bei der Auslieferung eingestellt.

## NMRL / NMRL-P

ES

### Ajuste del par de deslizamiento

El calibrado se regula fácilmente desde el exterior mediante la rotación de la tuerca autoblocante, caracterizada por 4 muescas para definir el número de revoluciones efectuado (cada muesca equivale a ¼ de revolución). El grupo se calibra en la fase de montaje.

## NMRL / NMRL-P

CN

### 扭矩设置

打滑扭矩可以简单地通过外部旋转环型锁紧螺母来调整，每一圈为4等分标记(每个标记相当于1/4圈)。設備設置在裝配階段。

|            | Drehung der Stellmutter / Rotación casquillo / 轉數 |
|------------|---------------------------------------------------|
| <b>050</b> | 1/2 (*)                                           |
| <b>063</b> | 3/4 (*)                                           |
| <b>075</b> | 1 (*)                                             |
| <b>090</b> | 1 (*)                                             |

(\*) Umdrehung / de revolución / 匝数

Die Faktoren, die die Einstellung beeinflussen können, sind: Temperatur, Einlaufen, und Vibrationen. Daher ist es bei der Installation der Maschine ratsam, den Schwellenwert des Drehmomentbegrenzers anhand der wirklichen Anforderung der Anwendung zu justieren.

Die Standard-Drehrichtung für die Stellmutter ist im Uhrzeigersinn, betrachtet von der Stellmutterseite. Die Abtriebswelle des Schneckengetriebes mit dem Motor rechts, wenn die Stellmutter in der Position J montiert wurde oder mit dem Motor links, wenn die Stellmutter in Position K montiert wurde.

**Achtung:** Für längere Betriebsunterbrechungen sollte die Stellmutter des Drehmomentbegrenzers in die Ausgangslage gestellt werden und erst bei Anlauf wieder in die notwendige Position verstellt werden.

Für jede Größe der Schneckengetriebe (050-063-075-090) ist das Rutschmoment unterschiedlich, und abhängig vom Untersetzungsverhältnis sowie der Drehrichtung des Schneckengetriebes. Diese wirken auf die Toleranzen zwischen den zwei halbkreisförmigen Bauteilen die das Rutschen erzeugen (bedingt durch die Bauart es gibt eine axiale Bewegung die auf die Rutschkupplung wirkt). In den Grafiken werden zwei Geraden abgebildet, die die Grenzen darstellen innerhalb derer der Wert des Rutschmomentes variiert, der vom Schneckengetriebe des Drehmomentbegrenzers garantiert wird. Die Einstellung muss aber immer überprüft werden, um festzulegen, ob die durchgeführte Drehung an der Stellmutter das gewünschte Drehmoment ergibt.

Los factores que pueden influir en el valor de calibrado son: temperatura, rodaje y presencia de vibraciones. Por lo tanto, se aconseja, una vez instalada la máquina, que se calibre el límite de par en base a las exigencias reales de la aplicación.

El sentido de rotación estándar para la tuerca de ajuste es el sentido horario, definido mirando frontalmente, desde el lado de la tuerca de ajuste, el eje lento del reductor con el motor a la derecha en el caso de montaje de la tuerca en posición J o con el motor a la izquierda en caso de montaje de la tuerca en posición K.

**IMP:** si bien el limitador de par garantiza que la máquina accionada volverá a partir automáticamente después de un deslizamiento (superación del par normal de calibrado), es habitual, para deslizamientos prolongados, llevar la tuerca a su posición inicial y efectuar nuevamente el calibrado.

Para cada tamaño de los reductores (050-063-075-090) varía el rango de par nominal admisible, como se ha dicho previamente, en función de la relación de reducción y del sentido de rotación del reductor, que influye en la tolerancia entre los dos componentes semicónicos que generan el deslizamiento (de hecho hay una componente axial que tiende a acercarlos o alejarlos). Por lo tanto, en las curvas de calibrado se muestran dos rectas que representan los límites dentro de los cuales varía el valor del par de deslizamiento garantizado por el reductor con limitador de par. De todas formas, el calibrado siempre se debe verificar a posteriori para determinar si el número de revoluciones impuesto a la tuerca da el valor de par deseado.

以下因素可能会影响到设定值：温度和调节周期。因此建议，在设置过程中，应按照应用的真实需求来确认实际的打滑扭矩的临界值。

环型锁紧螺母的标准旋转方向为顺时针方向。从环型锁紧螺母端看过去，电机位置处于右侧时，力矩限制器在J的位置；电机位置处于左侧时，力矩限制器在K的位置。注意：机器长期停用，或每次自动重新启动时，将环型锁紧螺母回归原位并重新设定。

按前面所提到的，每个型号（050-063-075-090）的打滑扭矩值取决于齿轮箱的速比和旋转方向，它关系到两个锥形套件发生打滑的许用值（它可以是轴向的合拢，也可能轴向分离）。

因此，在设置图表中显示的两条线代表了可调打滑扭矩的临界值。

打滑扭矩设定以后，须经常检查核实，以确定环形螺母的圈数值是否与所需的打滑扭矩值相同。

**NMRL - NMRL-P / NMRL - NMRL-P / NMRL - NMRL-P /  
NMRL - NMRL-P / NMRL - NMRL-P / 尺寸**

Grafici di taratura / Adjustment graphs / Graphiques de calibrage / Grafiken der Eichung / Curvas de calibrado / 调节曲线图表

NB: i valori (1/4, 1/2, 3/4, 1, 1 1/4...) corrispondono alla mezziera della colonna.

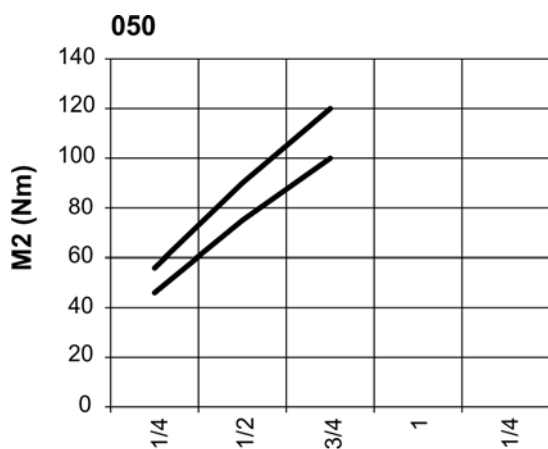
IMP: the values (1/4, 1/2, 3/4, 1, 1 1/4 ...) correspond to the center of the column.

NB: les valeurs (1/4, 1/2, 3/4, 1, 1 1/4 ...) correspondent au centre de la colonne.

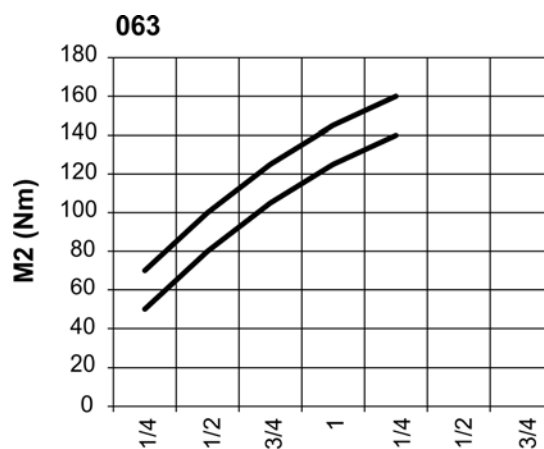
Anm.: die Werte (1/4, 1/2, 3/4, 1, 1 1/4 ...) entsprechen circa der Mitte des Einstellungskorridors.

NB: los valores (1/4, 1/2, 3/4, 1, 1 1/4 ...) corresponden a la línea media de la columna.

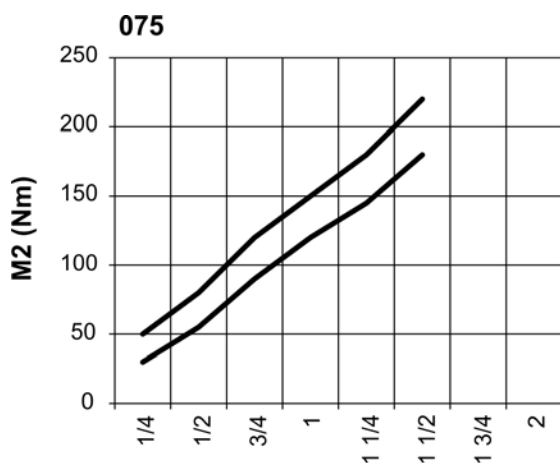
注意: 测试值(1/4, 1/2, 3/4, 1, 1 1/4 ...)对应数列的中心点



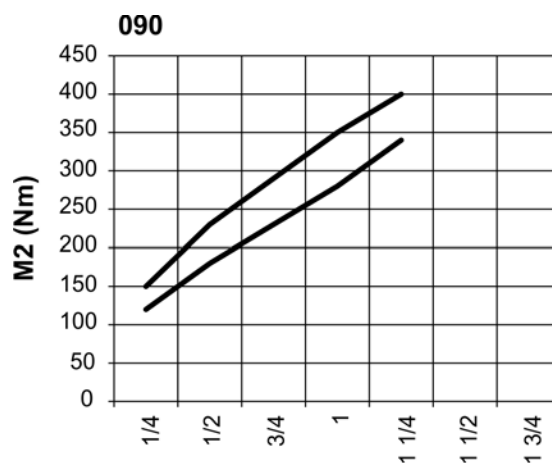
Rotazione ghiera  
Rotation lock nut  
Rotation écrou  
Drehung der Stellmutter  
Rotación casquillo  
外部旋转环型锁紧螺母来



Rotazione ghiera  
Rotation lock nut  
Rotation écrou  
Drehung der Stellmutter  
Rotación casquillo  
外部旋转环型锁紧螺母来



Rotazione ghiera  
Rotation lock nut  
Rotation écrou  
Drehung der Stellmutter  
Rotación casquillo  
外部旋转环型锁紧螺母来



Rotazione ghiera  
Rotation lock nut  
Rotation écrou  
Drehung der Stellmutter  
Rotación casquillo  
外部旋转环型锁紧螺母来

## Condizioni di vendita

IT

Tutte le forniture effettuate da Motovario Group si intendono regolate esclusivamente dalle condizioni generali di vendita disponibili sul nostro sito:

<http://www.motovario.com/ita/corporate/condizioni-di-vendita>

## Sales conditions

UK

All supplies effected by Motovario Group are governed exclusively by the general terms of sale that you can find on our website:

<http://www.motovario.com/eng/corporate/sales-conditions>

## Conditions de vente

FR

Toutes les livraisons effectuées par Motovario Group sont exclusivement réglées par les conditions générales de vente que vous pouvez trouver sur notre site Web:

<http://www.motovario.com/fra/d-entreprise/conditions-de-vente>

## Verkaufsbedingungen

DE

Alle Lieferungen und Leistungen durch die Motovario Group erfolgen unter den Allgemeinen Geschäftsbedingungen, diese sind verfügbar auf unserer Internetseite:

<http://www.motovario.com/deu/unternehmen/verkaufsbedingungen>

## Condiciones de venta

ES

Todos los suministros efectuados por Motovario Group se rigen exclusivamente por las condiciones generales de venta que se pueden encontrar en nuestra página web:

<http://www.motovario.com/spa/empresa/condiciones-de-venta>

## 销售条件

CN

摩铎利所有的供应商都受网站上的销售条例所约束:

<http://www.motovario.com/zhs/公司/销售条件>

[illegible]

