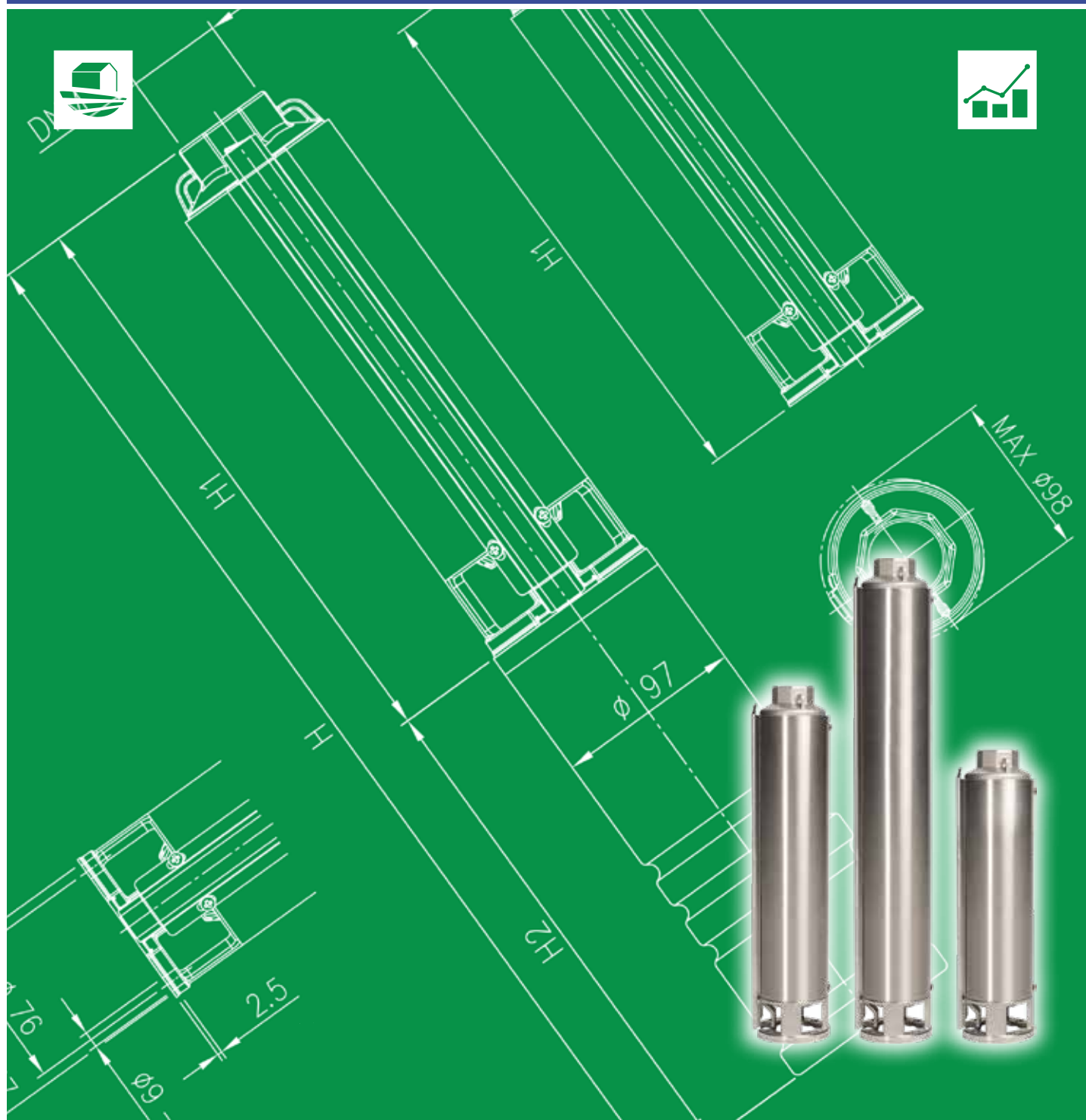


## 4WN

Data Book 50Hz



|                                             | Pag.           |
|---------------------------------------------|----------------|
| <b>- SPECIFICATIONS</b>                     | <b>200</b>     |
| PUMP SPECIFICATION                          | 200            |
| MOTOR SPECIFICATION                         | 201            |
| SELECTION CHART                             | 202            |
| TYPE KEY AND CURVES SPECIFICATIONS          | 205            |
| PERFORMANCE CURVE 4WN1                      | 207            |
| PERFORMANCE CURVE 4WN2                      | 208            |
| PERFORMANCE CURVE 4WN3                      | 209            |
| PERFORMANCE CURVE 4WN4                      | 210            |
| PERFORMANCE CURVE 4WN5                      | 211            |
| PERFORMANCE CURVE 4WN6                      | 212            |
| PERFORMANCE CURVE 4WN8                      | 213            |
| PERFORMANCE CURVE 4WN12                     | 214            |
| PERFORMANCE CURVE 4WN15                     | 215            |
| <br><b>- CONSTRUCTIONS</b>                  | <br><b>300</b> |
| SECTIONAL VIEW                              | 300            |
| <br><b>- DIMENSIONS AND WEIGHT</b>          | <br><b>400</b> |
| PUMP DRAWING                                | 400            |
| DIMENSIONS TABLE 4WN1 TO 4WN5               | 401            |
| DIMENSIONS TABLE 4WN6 TO 4WN15              | 402            |
| WEIGHT TABLE 4WN1 TO 4WN5                   | 403            |
| WEIGHT TABLE 4WN6 TO 4WN15                  | 404            |
| PACKAGING DIMENSIONS                        | 405            |
| <br><b>- TECHNICAL DATA</b>                 | <br><b>500</b> |
| ELECTRICAL DATA                             | 500            |
| OIL FILLED MOTORS - CABLE SELECTION TABLE   | 501            |
| WATER FILLED MOTORS – CABLE SELECTION TABLE | 502            |

## SPECIFICATION

50Hz

Rev.D

| PUMP                        |                      |                                                     |
|-----------------------------|----------------------|-----------------------------------------------------|
| Liquid Handled              | Type of liquid       | Clean water                                         |
|                             | Temperature [°C]     | Maximum : 35 (depends on maximum motor temperature) |
|                             | Sand content         | Maximum : 150 g/mc                                  |
|                             | Chlorine ion density | Maximum : 500 parts per million                     |
| Construction                | Impeller             | Closed centrifugal - Floating type                  |
|                             | Bearing              | Sleeve type - Polyacetal                            |
| Pipe Connection             | Discharge            | Rp 1"1/4 (models 4WN1 to 4WN4)                      |
|                             |                      | Rp 1"1/2 (model 4WN5)                               |
|                             |                      | Rp 2" (models 4WN6 to 4WN15)                        |
| Material                    | Impeller             | Noryl                                               |
|                             | Diffuser             | PC + Glass Fiber Reinforced                         |
|                             | Diffuser casing      | Stainless steel (AISI 304)                          |
|                             | Shaft                | Stainless steel (AISI 304)                          |
|                             | Coupling             | Stainless steel (AISI 304)                          |
|                             | Suction Flange       | Casted stainless steel (AISI 304)                   |
|                             | Discharge Head       | Casted stainless steel (AISI 304)                   |
|                             | Pump Sleeve          | Stainless steel (AISI 304)                          |
|                             | Non-Return Valve     | Stainless steel (AISI 304)                          |
| Motor Connection            |                      | NEMA standard - 4"                                  |
| Applicable standard of test |                      | ISO 9906 - Annex A                                  |

## SPECIFICATION

50Hz

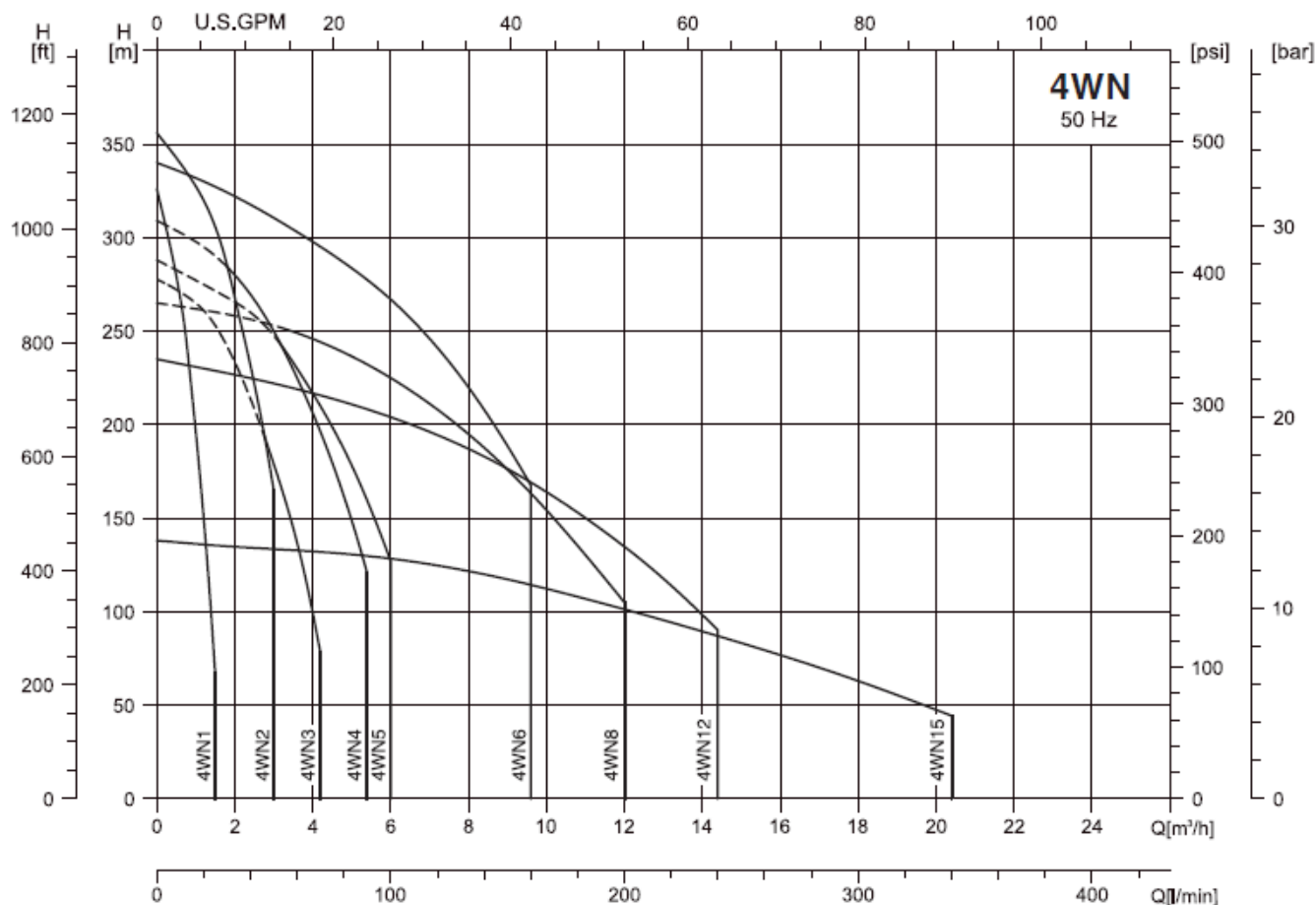
Rev.D

| MOTOR                       |                         |                                                                         |                         |                                                                |                         |
|-----------------------------|-------------------------|-------------------------------------------------------------------------|-------------------------|----------------------------------------------------------------|-------------------------|
| Type                        |                         | Rewindable oil filled (type 4"OY)                                       |                         | Encapsulated (resin filled stator)<br>water filled (type 4"WY) |                         |
| Manufacturer                |                         | Sumoto                                                                  |                         |                                                                |                         |
|                             |                         | Single phase                                                            | Three phase             | Single phase                                                   | Three phase             |
| Power rating                | [kW]                    | 0,37÷2,2                                                                | 0,37÷7,5                | 0,37÷2,2                                                       | 0,37÷7,5                |
|                             | [HP]                    | 0,5÷3                                                                   | 0,5÷10                  | 0,5÷3                                                          | 0,5÷10                  |
| No. of Poles                |                         | 2                                                                       |                         |                                                                |                         |
| Rated speed                 |                         | Refer to performance data of the relevant motor size                    |                         |                                                                |                         |
| Insulation class            |                         | F                                                                       |                         | B                                                              |                         |
| Protection degree           |                         | IP 68                                                                   |                         |                                                                |                         |
| Maximum temperature         | [°C ]                   | 35<br>(cooling water flow min. 0,08 m/s)                                |                         |                                                                |                         |
| Maximum immersion           | [m]                     | 150                                                                     |                         |                                                                |                         |
| Starts / hours              |                         | 30                                                                      |                         |                                                                |                         |
| Start type                  |                         | Direct on line                                                          |                         |                                                                |                         |
| Frequency                   | [Hz]                    | 50 Hz                                                                   |                         |                                                                |                         |
| Voltage                     | [V]                     | 230 ±10%                                                                | 400 ±10%                | 230 -10%,+6%                                                   | 400 -10%,+6%            |
| Capacitor for start and run |                         | Fitted<br>in starter box                                                | -                       | Fitted<br>in starter box                                       | -                       |
| Over load protection        |                         | Fitted<br>in starter box                                                | Provided by<br>the user | Fitted<br>in starter box                                       | Provided by<br>the user |
| Sealing liquid              |                         | Oil type: Marcol 82 (Esso)                                              |                         | Water + Propylene Glycol<br>(30% solution)                     |                         |
| Upper bracket               |                         | Cast iron nickel plated                                                 |                         | Cataphoresis treated cast iron +<br>AISI 304 cover cap         |                         |
| Casing material             |                         | EN 1.4301 (AISI 304)                                                    |                         |                                                                |                         |
| Mechanical Seal             |                         | SiC / Al                                                                |                         | Lip Seal                                                       |                         |
| Thrust Bearings             |                         | Ball type (radial and thrust)                                           |                         | Kingsbury type                                                 |                         |
| material                    |                         | EPDM / Cross Sealed Polyethylene                                        |                         |                                                                |                         |
| Power cable                 | size [mm <sup>2</sup> ] | 4x 1,5 (up to 2,2 kW)<br>4x 2 (from 3 up to 7,5 kW)                     |                         | 4x 1,5                                                         |                         |
|                             | length [m]              | 1,75 (up to 1,5 kW) / 2,5 (from 2,2 up to 5,5 kW) / 4 (only for 7,5 kW) |                         |                                                                |                         |
| Flange mount                |                         | NEMA standard                                                           |                         |                                                                |                         |

## SELECTION CHART

50Hz

Rev. D



## SELECTION CHART

50Hz

Rev. D

### 4WN1 – 4WN2 – 4WN3 – 4WN4 – 4WN5

| Pump type  | Power |      | Q=Capacity       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|------------|-------|------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|            |       |      | l/min            | 0   | 5   | 10  | 15  | 20  | 25  | 30  | 35  | 40  | 45  | 50  | 60  | 70  | 80  | 90  | 100 | 120 |
|            | m³/h  | 0    | 0,3              | 0,6 | 0,9 | 1,2 | 1,5 | 1,8 | 2,1 | 2,4 | 2,7 | 3,0 | 3,6 | 4,2 | 4,8 | 5,4 | 6,0 | 7,2 |     |     |
|            | [kW]  | [HP] | H=Total Head [m] |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 4WN 1 - 13 | 0,37  | 0,5  | 86               | 78  | 70  | 56  | 42  | 23  |     |     |     |     |     |     |     |     |     |     |     |     |
| 4WN 1 - 19 | 0,55  | 0,75 | 126              | 118 | 105 | 86  | 60  | 30  |     |     |     |     |     |     |     |     |     |     |     |     |
| 4WN 1 - 26 | 0,75  | 1    | 173              | 160 | 141 | 117 | 81  | 39  |     |     |     |     |     |     |     |     |     |     |     |     |
| 4WN 1 - 38 | 1,1   | 1,5  | 253              | 234 | 208 | 169 | 117 | 52  |     |     |     |     |     |     |     |     |     |     |     |     |
| 4WN 1 - 49 | 2,2   | 3    | 326              | 301 | 268 | 219 | 151 | 67  |     |     |     |     |     |     |     |     |     |     |     |     |
| 4WN 2 - 7  | 0,37  | 0,5  | 46               |     |     | 43  | 42  | 39  | 36  | 33  | 29  | 26  | 22  |     |     |     |     |     |     |     |
| 4WN 2 - 10 | 0,55  | 0,75 | 67               |     |     | 64  | 61  | 58  | 54  | 49  | 43  | 36  | 28  |     |     |     |     |     |     |     |
| 4WN 2 - 14 | 0,75  | 1    | 92               |     |     | 86  | 83  | 79  | 74  | 67  | 60  | 52  | 42  |     |     |     |     |     |     |     |
| 4WN 2 - 20 | 1,1   | 1,5  | 139              |     |     | 131 | 127 | 120 | 111 | 101 | 90  | 75  | 60  |     |     |     |     |     |     |     |
| 4WN 2 - 28 | 1,5   | 2    | 190              |     |     | 178 | 172 | 163 | 153 | 141 | 126 | 108 | 89  |     |     |     |     |     |     |     |
| 4WN 2 - 40 | 2,2   | 3    | 273              |     |     | 256 | 246 | 234 | 218 | 199 | 177 | 151 | 123 |     |     |     |     |     |     |     |
| 4WN 2 - 52 | 3     | 4    | 356              |     |     | 334 | 320 | 304 | 283 | 259 | 232 | 201 | 165 |     |     |     |     |     |     |     |
| 4WN 3 - 5  | 0,37  | 0,5  | 34               |     |     |     |     | 31  | 30  | 29  | 27  | 25  | 23  | 18  | 11  |     |     |     |     |     |
| 4WN 3 - 8  | 0,55  | 0,75 | 54               |     |     |     |     | 50  | 49  | 46  | 43  | 41  | 38  | 30  | 19  |     |     |     |     |     |
| 4WN 3 - 11 | 0,75  | 1    | 72               |     |     |     |     | 66  | 64  | 61  | 58  | 54  | 49  | 38  | 26  |     |     |     |     |     |
| 4WN 3 - 16 | 1,1   | 1,5  | 106              |     |     |     |     | 98  | 95  | 89  | 83  | 77  | 70  | 54  | 33  |     |     |     |     |     |
| 4WN 3 - 21 | 1,5   | 2    | 142              |     |     |     |     | 132 | 127 | 122 | 115 | 108 | 100 | 79  | 49  |     |     |     |     |     |
| 4WN 3 - 32 | 2,2   | 3    | 208              |     |     |     |     | 194 | 187 | 177 | 165 | 152 | 138 | 104 | 62  |     |     |     |     |     |
| 4WN 3 - 42 | 3     | 4    | 278              |     |     |     |     | 253 | 242 | 229 | 214 | 197 | 179 | 137 | 78  |     |     |     |     |     |
| 4WN 4 - 5  | 0,37  | 0,5  | 33               |     |     |     |     |     |     | 27  | 26  | 25  | 24  | 21  | 18  | 13  | 8   |     |     |     |
| 4WN 4 - 7  | 0,55  | 0,75 | 46               |     |     |     |     |     |     | 41  | 39  | 38  | 36  | 33  | 28  | 22  | 15  |     |     |     |
| 4WN 4 - 9  | 0,75  | 1    | 59               |     |     |     |     |     |     | 52  | 51  | 49  | 47  | 43  | 37  | 28  | 20  |     |     |     |
| 4WN 4 - 14 | 1,1   | 1,5  | 93               |     |     |     |     |     |     | 83  | 81  | 79  | 76  | 68  | 58  | 47  | 33  |     |     |     |
| 4WN 4 - 18 | 1,5   | 2    | 120              |     |     |     |     |     |     | 108 | 105 | 102 | 98  | 88  | 75  | 60  | 42  |     |     |     |
| 4WN 4 - 27 | 2,2   | 3    | 175              |     |     |     |     |     |     | 157 | 152 | 147 | 141 | 127 | 109 | 87  | 61  |     |     |     |
| 4WN 4 - 35 | 3     | 4    | 228              |     |     |     |     |     |     | 203 | 197 | 191 | 184 | 166 | 145 | 119 | 85  |     |     |     |
| 4WN 4 - 48 | 4     | 5,5  | 309              |     |     |     |     |     |     | 276 | 267 | 258 | 248 | 225 | 197 | 162 | 120 |     |     |     |
| 4WN 5 - 4  | 0,37  | 0,5  | 26               |     |     |     |     |     |     |     | 22  | 22  | 21  | 19  | 17  | 14  | 11  | 7   |     |     |
| 4WN 5 - 6  | 0,55  | 0,75 | 38               |     |     |     |     |     |     |     | 35  | 33  | 32  | 30  | 26  | 22  | 18  | 12  |     |     |
| 4WN 5 - 8  | 0,75  | 1    | 51               |     |     |     |     |     |     |     | 46  | 44  | 43  | 39  | 35  | 30  | 24  | 18  |     |     |
| 4WN 5 - 12 | 1,1   | 1,5  | 77               |     |     |     |     |     |     |     | 71  | 69  | 68  | 63  | 57  | 49  | 41  | 31  |     |     |
| 4WN 5 - 16 | 1,5   | 2    | 102              |     |     |     |     |     |     |     | 96  | 94  | 92  | 86  | 77  | 68  | 57  | 46  |     |     |
| 4WN 5 - 24 | 2,2   | 3    | 151              |     |     |     |     |     |     |     | 139 | 136 | 132 | 122 | 111 | 97  | 80  | 62  |     |     |
| 4WN 5 - 32 | 3     | 4    | 203              |     |     |     |     |     |     |     | 185 | 180 | 175 | 162 | 146 | 127 | 105 | 80  |     |     |
| 4WN 5 - 44 | 4     | 5,5  | 278              |     |     |     |     |     |     |     | 260 | 254 | 247 | 230 | 210 | 187 | 159 | 127 |     |     |

## SELECTION CHART

50Hz

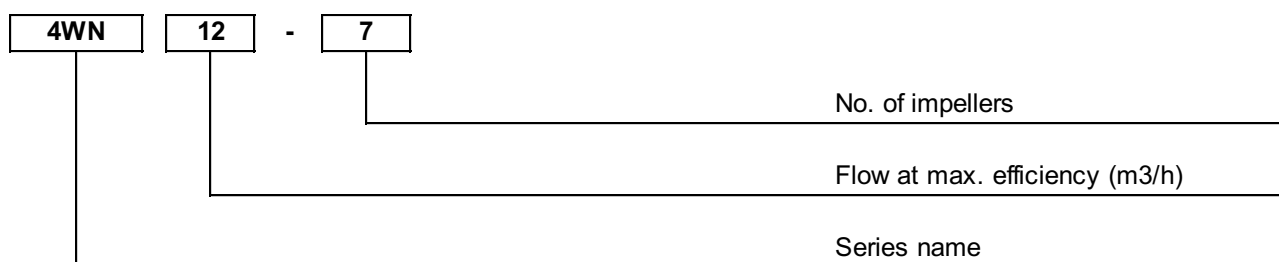
Rev. D

### 4WN6 – 4WN8 – 4WN12 – 4WN15

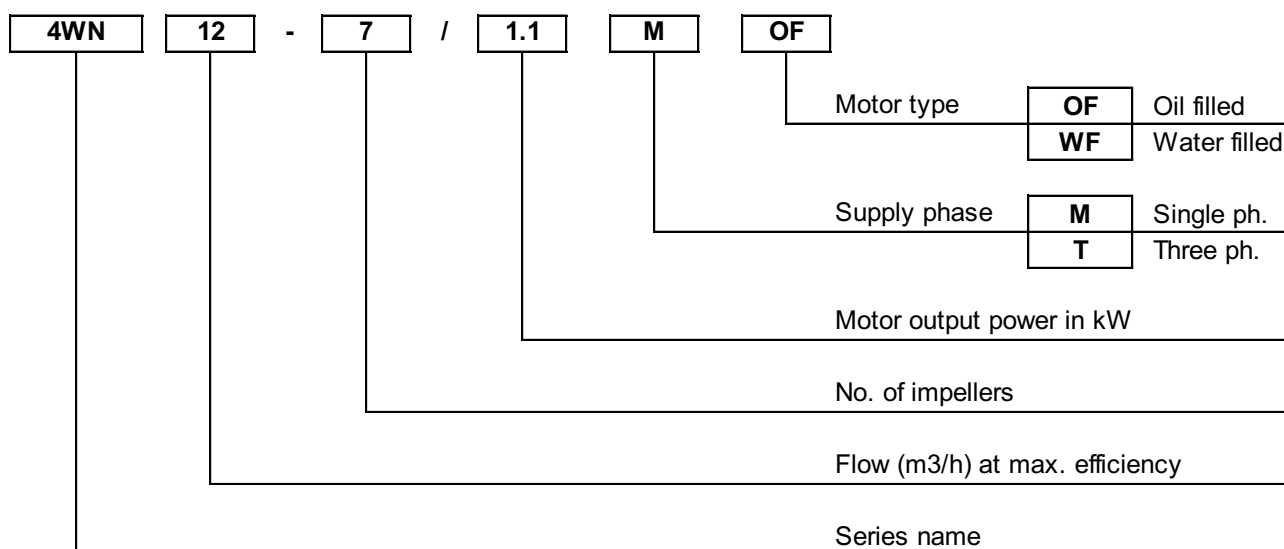
| Pump type   | Power |      | Q=Capacity       |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |     |
|-------------|-------|------|------------------|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|-----|
|             |       |      | l/min<br>m³/h    | 0   | 70  | 80  | 90  | 100 | 120 | 140 | 160  | 180  | 200  | 220  | 240  | 260  | 280  | 300  | 320  | 340 |
|             | [kW]  | [HP] | 0                | 4,2 | 4,8 | 5,4 | 6,0 | 7,2 | 8,4 | 9,6 | 10,8 | 12,0 | 13,2 | 14,4 | 15,6 | 16,8 | 18,0 | 19,2 | 20,4 |     |
|             |       |      | H=Total Head [m] |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |     |
| 4WN 6 - 5   | 0,75  | 1    | 33               | 28  | 27  | 26  | 25  | 22  | 19  | 14  |      |      |      |      |      |      |      |      |      |     |
| 4WN 6 - 7   | 1,1   | 1,5  | 47               | 40  | 39  | 38  | 37  | 33  | 28  | 21  |      |      |      |      |      |      |      |      |      |     |
| 4WN 6 - 10  | 1,5   | 2    | 67               | 59  | 57  | 55  | 53  | 47  | 39  | 31  |      |      |      |      |      |      |      |      |      |     |
| 4WN 6 - 15  | 2,2   | 3    | 100              | 85  | 83  | 81  | 78  | 70  | 59  | 46  |      |      |      |      |      |      |      |      |      |     |
| 4WN 6 - 21  | 3     | 4    | 140              | 120 | 118 | 115 | 110 | 99  | 83  | 64  |      |      |      |      |      |      |      |      |      |     |
| 4WN 6 - 29  | 4     | 5,5  | 194              | 168 | 163 | 158 | 152 | 137 | 118 | 93  |      |      |      |      |      |      |      |      |      |     |
| 4WN 6 - 39  | 5,5   | 7,5  | 262              | 224 | 217 | 210 | 202 | 184 | 161 | 128 |      |      |      |      |      |      |      |      |      |     |
| 4WN 6 - 51  | 7,5   | 10   | 340              | 295 | 286 | 277 | 267 | 240 | 208 | 169 |      |      |      |      |      |      |      |      |      |     |
| 4WN 8 - 4   | 0,75  | 1    | 26               |     |     | 22  | 21  | 20  | 18  | 16  | 12   | 9    |      |      |      |      |      |      |      |     |
| 4WN 8 - 6   | 1,1   | 1,5  | 38               |     |     | 34  | 33  | 31  | 28  | 24  | 19   | 14   |      |      |      |      |      |      |      |     |
| 4WN 8 - 8   | 1,5   | 2    | 52               |     |     | 45  | 44  | 41  | 37  | 31  | 25   | 18   |      |      |      |      |      |      |      |     |
| 4WN 8 - 13  | 2,2   | 3    | 82               |     |     | 73  | 71  | 66  | 59  | 50  | 40   | 30   |      |      |      |      |      |      |      |     |
| 4WN 8 - 17  | 3     | 4    | 108              |     |     | 96  | 94  | 87  | 79  | 70  | 58   | 46   |      |      |      |      |      |      |      |     |
| 4WN 8 - 23  | 4     | 5,5  | 148              |     |     | 131 | 127 | 118 | 108 | 95  | 79   | 60   |      |      |      |      |      |      |      |     |
| 4WN 8 - 32  | 5,5   | 7,5  | 202              |     |     | 178 | 172 | 160 | 143 | 125 | 105  | 80   |      |      |      |      |      |      |      |     |
| 4WN 8 - 42  | 7,5   | 10   | 265              |     |     | 232 | 225 | 208 | 188 | 163 | 135  | 105  |      |      |      |      |      |      |      |     |
| 4WN 12 - 7  | 1,1   | 1,5  | 36               |     |     |     |     | 29  | 27  | 24  | 21   | 18   | 15   | 11   |      |      |      |      |      |     |
| 4WN 12 - 10 | 1,5   | 2    | 55               |     |     |     |     | 44  | 41  | 38  | 34   | 29   | 24   | 18   |      |      |      |      |      |     |
| 4WN 12 - 14 | 2,2   | 3    | 74               |     |     |     |     | 60  | 56  | 51  | 46   | 39   | 32   | 24   |      |      |      |      |      |     |
| 4WN 12 - 19 | 3     | 4    | 102              |     |     |     |     | 83  | 78  | 72  | 65   | 57   | 48   | 37   |      |      |      |      |      |     |
| 4WN 12 - 25 | 4     | 5,5  | 135              |     |     |     |     | 111 | 104 | 96  | 86   | 75   | 62   | 48   |      |      |      |      |      |     |
| 4WN 12 - 35 | 5,5   | 7,5  | 190              |     |     |     |     | 155 | 145 | 134 | 122  | 107  | 90   | 71   |      |      |      |      |      |     |
| 4WN 12 - 43 | 7,5   | 10   | 235              |     |     |     |     | 194 | 183 | 169 | 153  | 135  | 114  | 90   |      |      |      |      |      |     |
| 4WN 15 - 12 | 2,2   | 3    | 54               |     |     |     |     |     |     | 44  | 41   | 38   | 35   | 32   | 29   | 26   | 22   | 18   | 14   |     |
| 4WN 15 - 16 | 3     | 4    | 72.5             |     |     |     |     |     |     | 60  | 56   | 53   | 49   | 45   | 41   | 36   | 32   | 27   | 21   |     |
| 4WN 15 - 21 | 4     | 5,5  | 97               |     |     |     |     |     |     | 81  | 76   | 71   | 66   | 61   | 56   | 50   | 44   | 37   | 30   |     |
| 4WN 15 - 30 | 5,5   | 7,5  | 138              |     |     |     |     |     |     | 114 | 108  | 102  | 94   | 87   | 79   | 71   | 63   | 54   | 45   |     |

### TYPE KEY

**EXAMPLE (pump without motor) :**



**EXAMPLE (pump with motor) :**





### PERFORMANCE CURVE SPECIFICATIONS

The specifications below qualify the curves shown on the following pages.

Tolerances according to ISO 9906 Annex A

The curves refer to effective speed of asynchronous motors at 50 Hz

Measurements were carried out with clean water at 20°C of temperature and with a kinematic viscosity of  $\nu = 1 \text{ mm}^2/\text{s}$  (1 cSt)

The continuous curves indicate the recommended working range. The dotted curve is only a guide.

In order to avoid the risk of over-heating, the pumps should not be used at a flow rate below 10% of best efficiency point.

Symbols explanation:

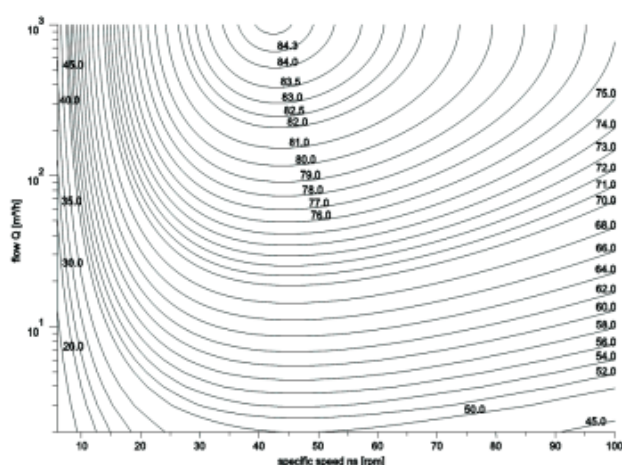
- Q = volume flow rate
- H = total head
- $P_2$  = pump power input (shaft power)
- $\eta$  = pump efficiency
- NPSH = net positive suction head required by the pump
- MEI = minimum efficiency index

The minimum efficiency index (MEI) is a measure of the quality of a pump size in respect to its mean efficiency. The minimum efficiency index is based on the hydraulic efficiency and on the head at the best efficiency point.

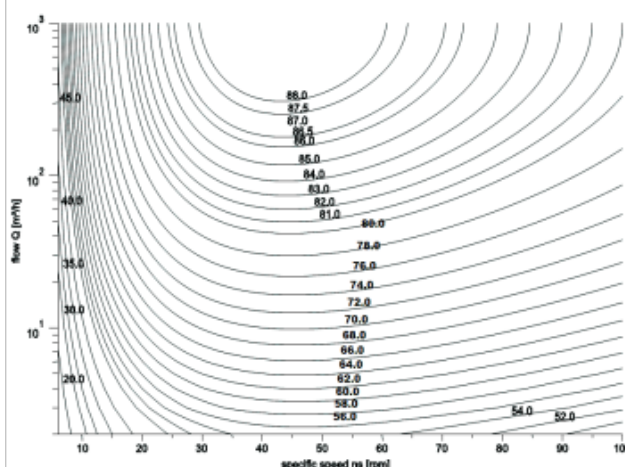
The efficiency of a pump with trimmed impeller is usually lower than that of a pump with the full impeller diameter. The trimming of the impeller will adapt the pump to a fixed duty point, leading to reduced energy consumption. The minimum efficiency index (MEI) is based on the full impeller diameter.

The operation of these water pumps with variable duty points may be more efficient and economic when controlled, for example, by the use of a variable speed drive that matches the pump duty to the system.

MEI = 0.4 for Multistage Submersible 2900rpm



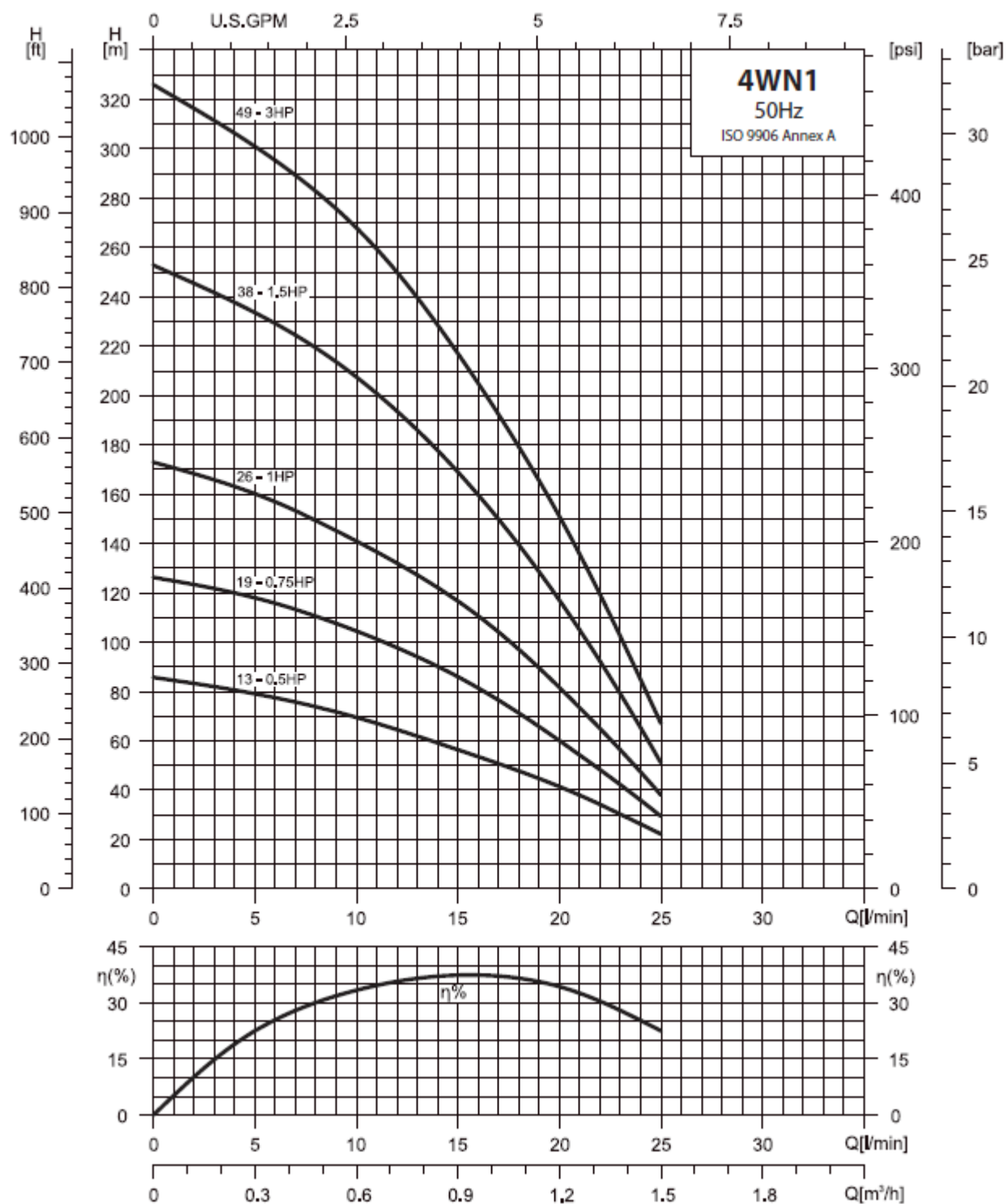
MEI = 0.7 for Multistage Submersible 2900 rpm



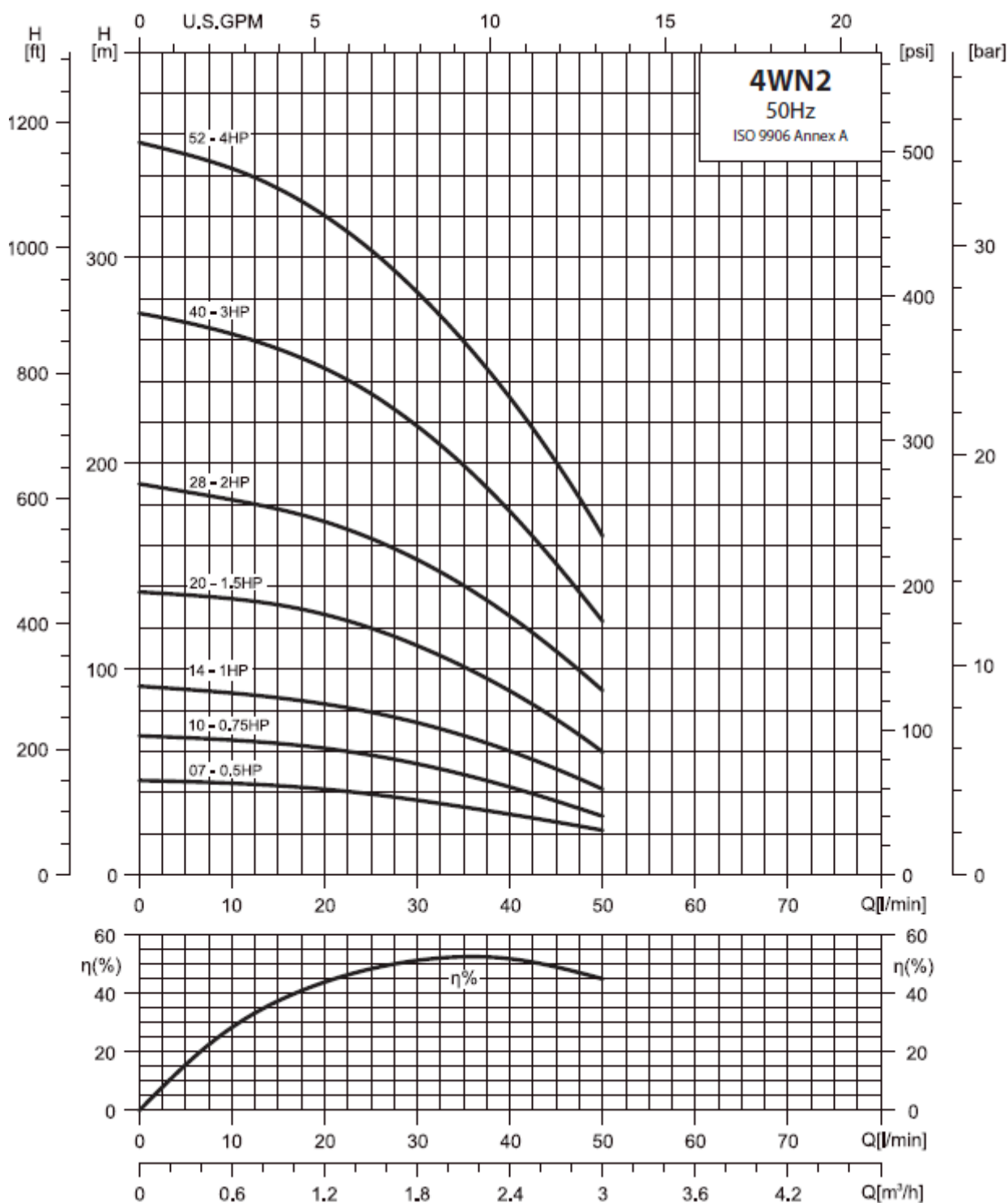
## PERFORMANCE CURVE

50Hz

Rev. D

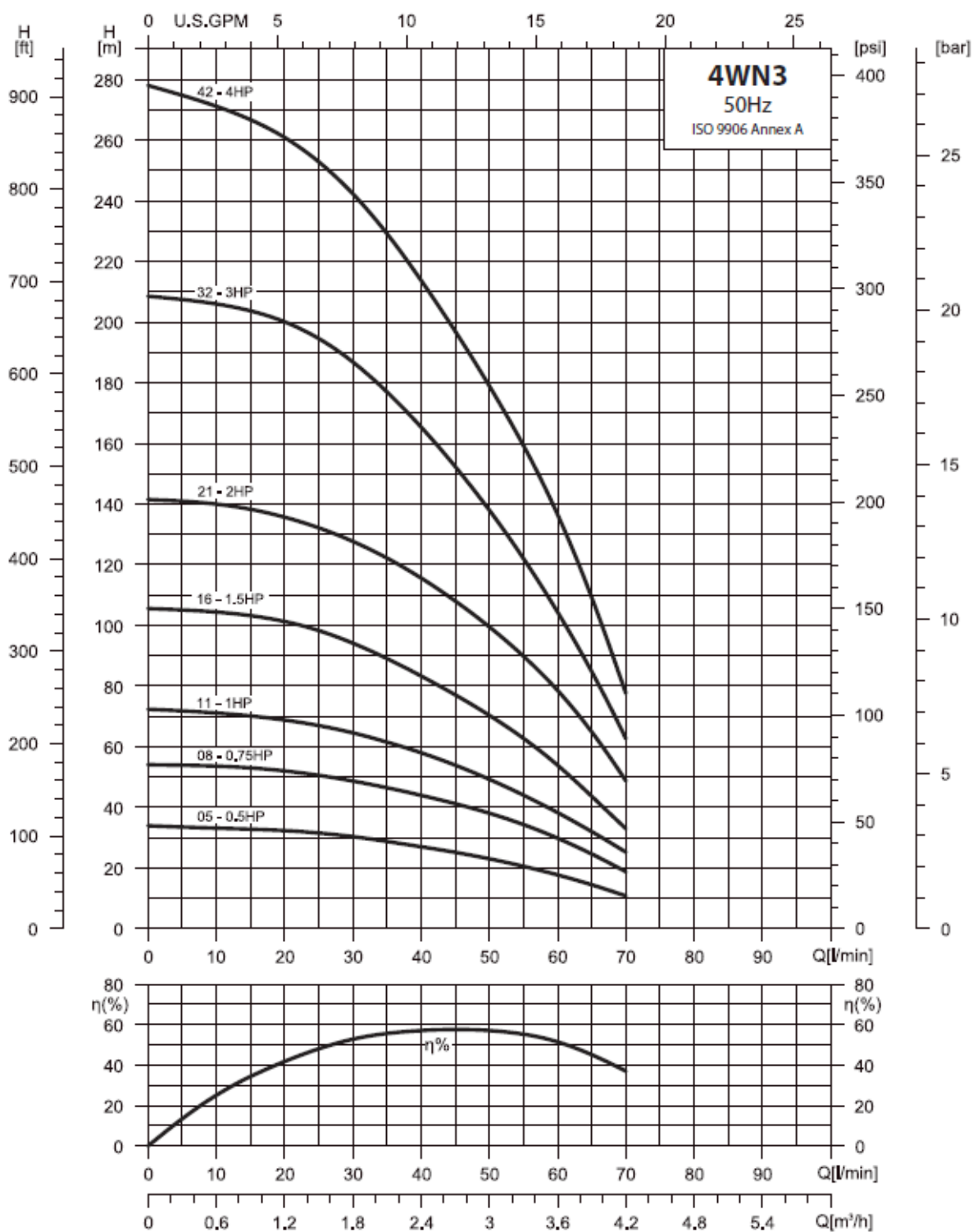
4WN1 – MEI  $\geq 0.70$ Rotation speed  $\approx 2850 \text{ min}^{-1}$

4WN2 – MEI ≥ 0.70



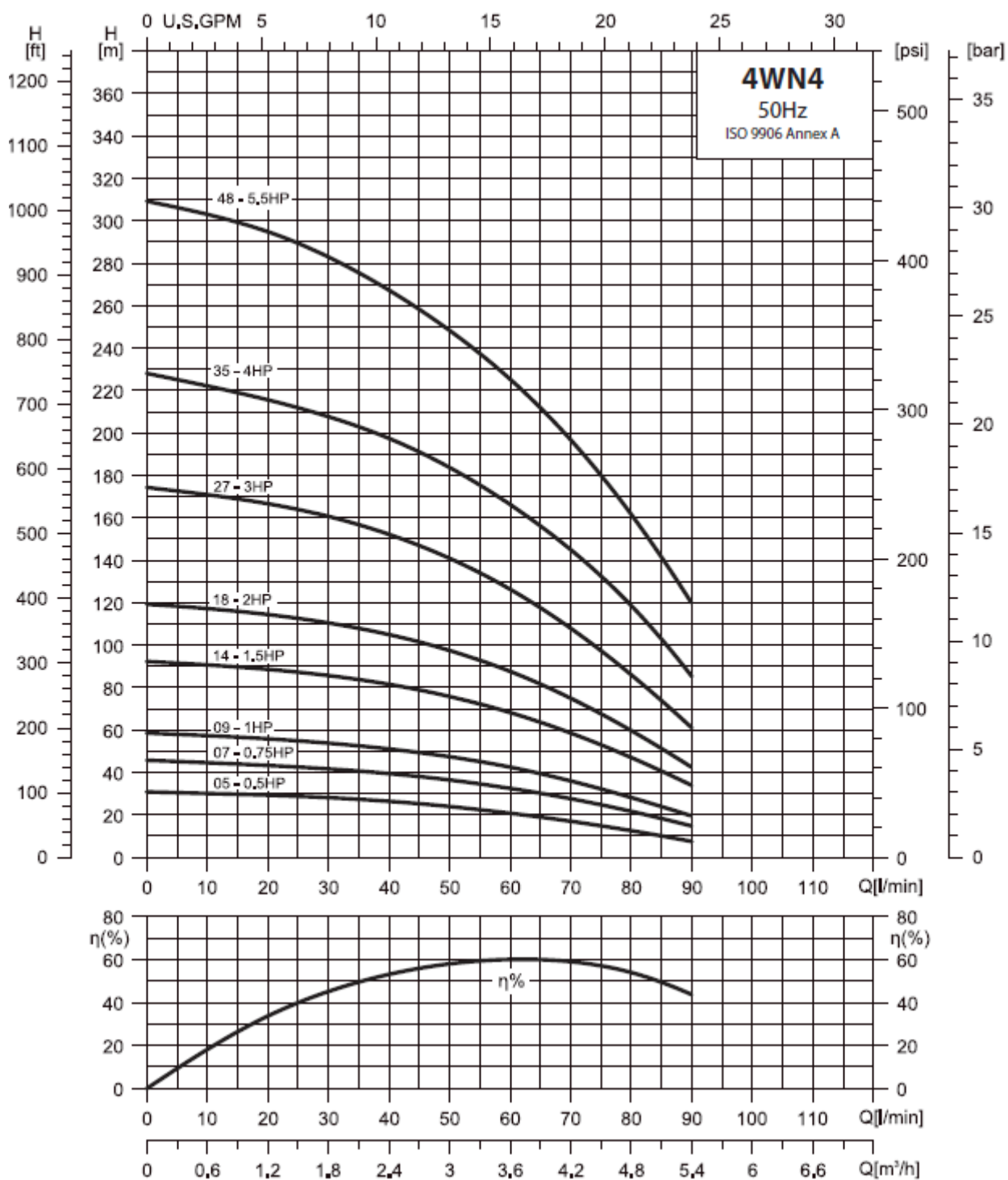
Rotation speed ≈ 2850 min<sup>-1</sup>

4WN3 – MEI ≥ 0.70



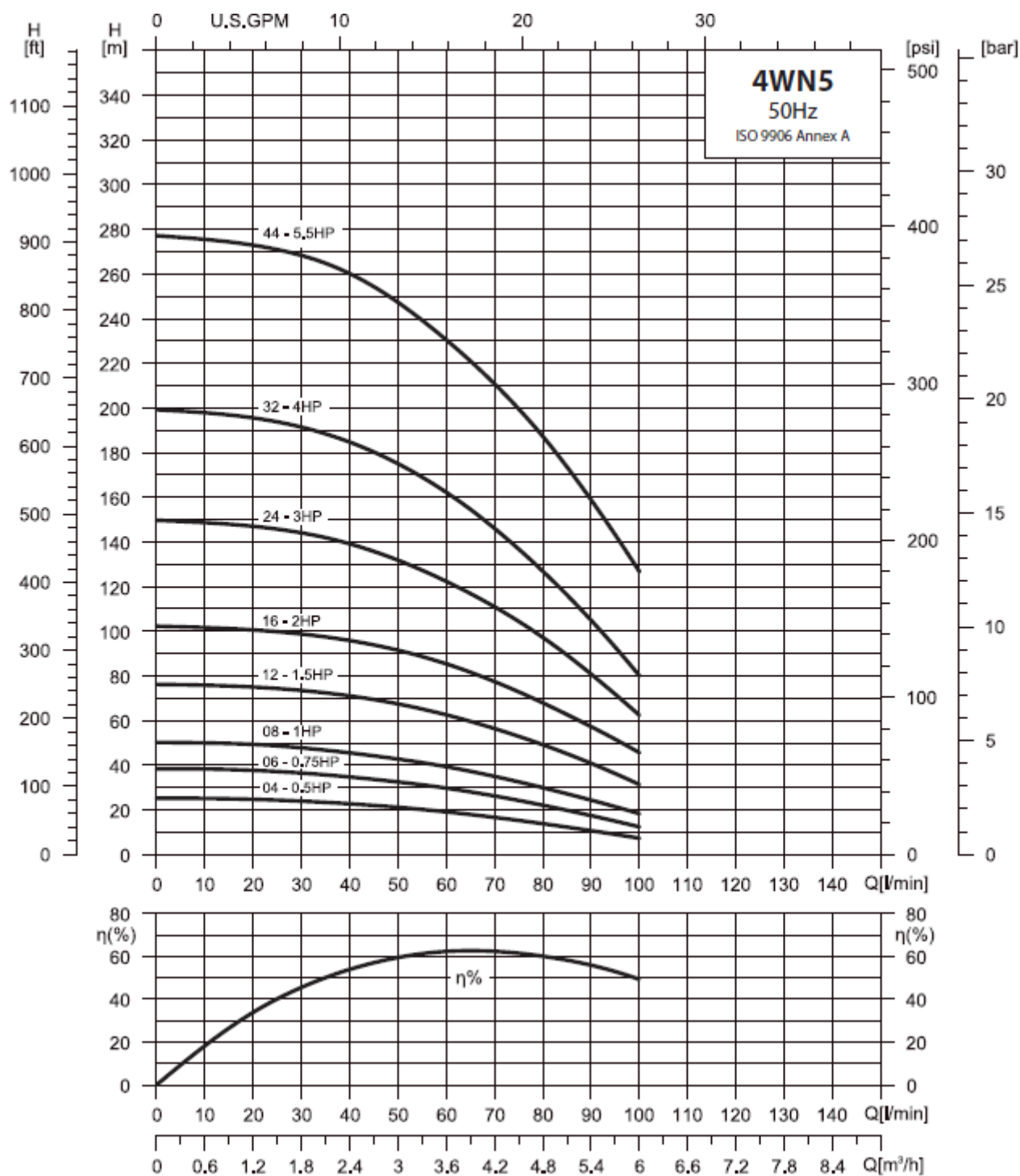
Rotation speed ≈ 2850 min<sup>-1</sup>

4WN4 – MEI ≥ 0.70

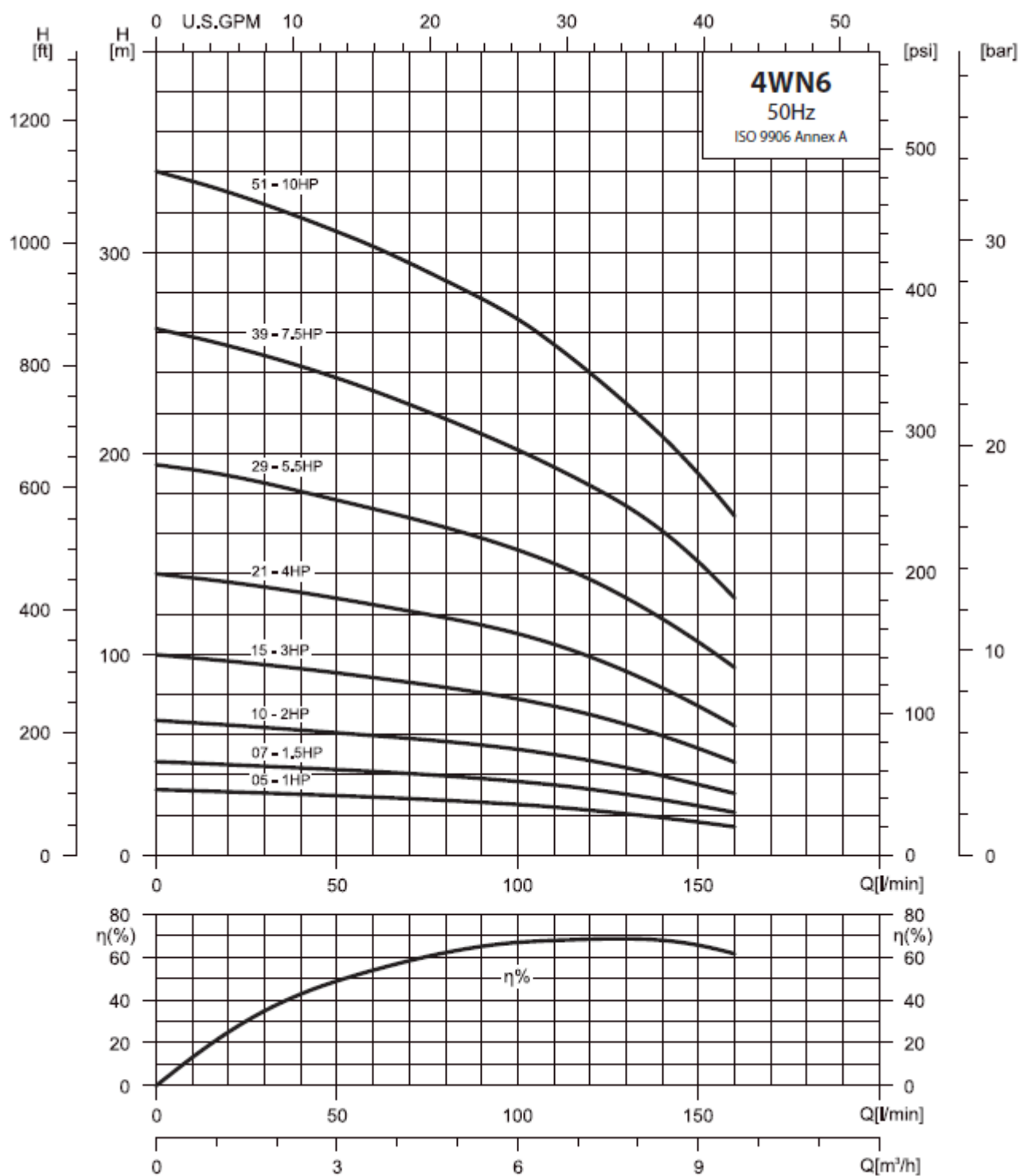


Rotation speed ≈ 2850 min<sup>-1</sup>

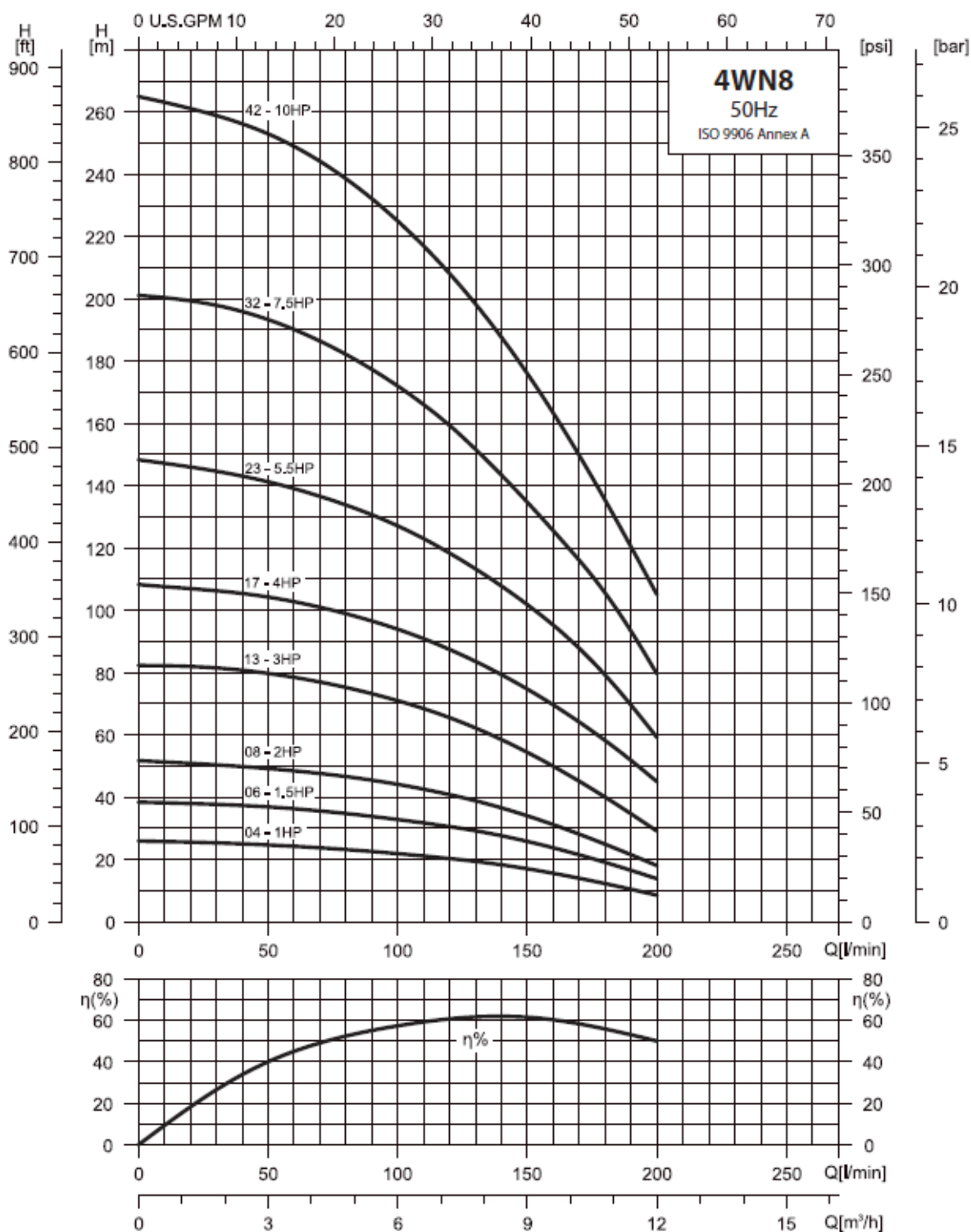
4WN5 – MEI ≥ 0.60



Rotation speed ≈ 2850 min⁻¹

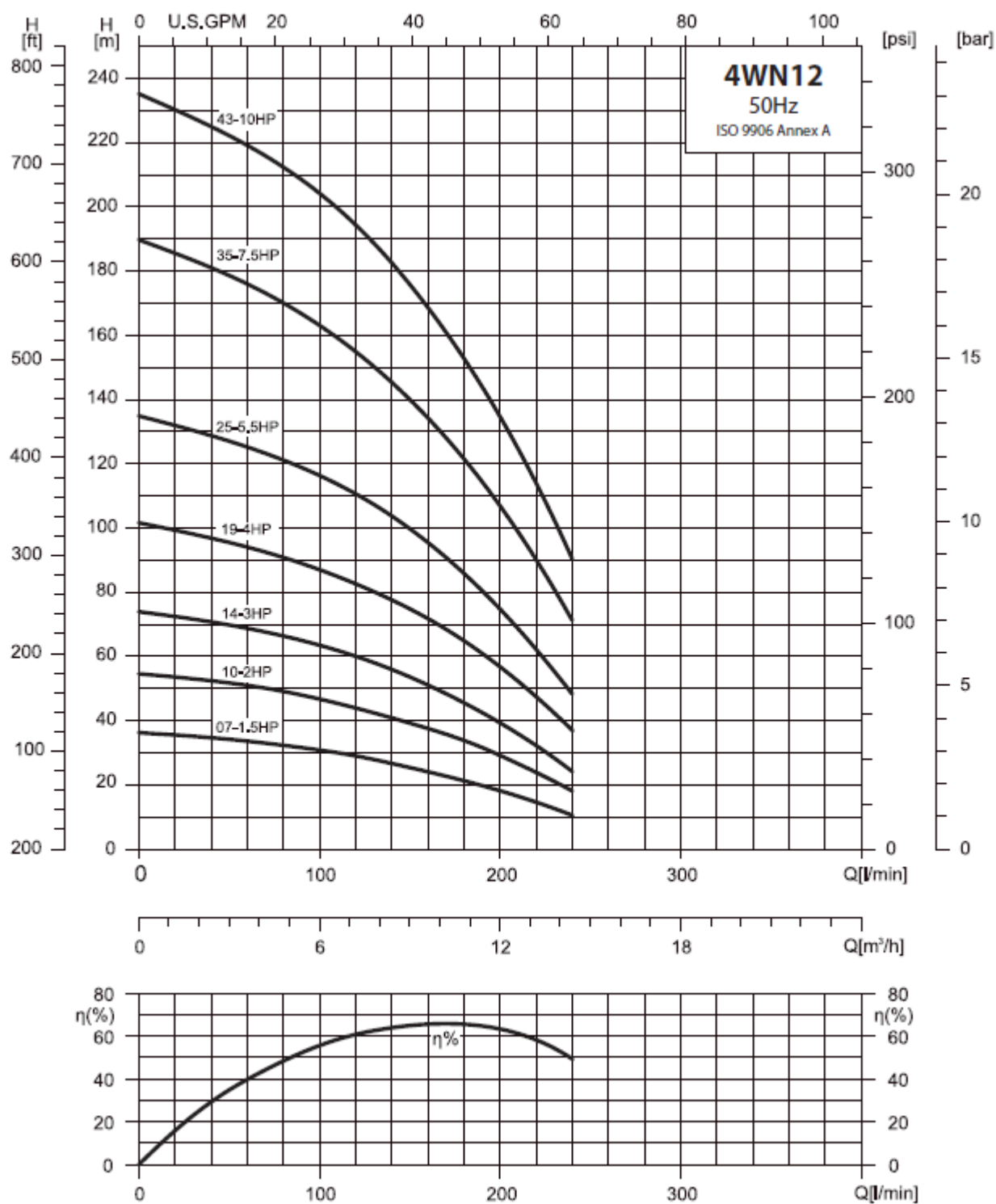
4WN6 – MEI  $\geq 0.40$ Rotation speed  $\approx 2850 \text{ min}^{-1}$

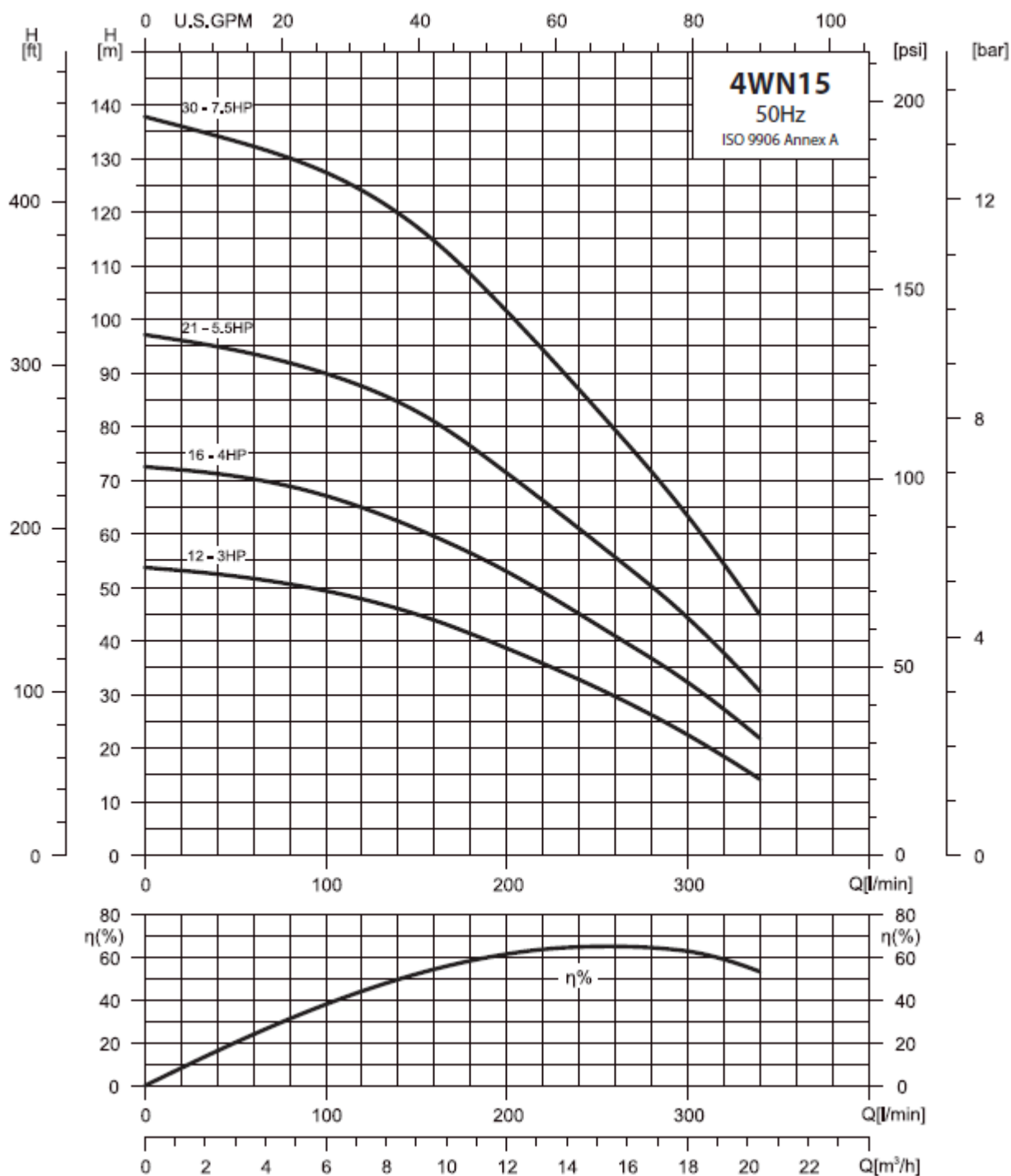
4WN8 – MEI ≥ 0.40

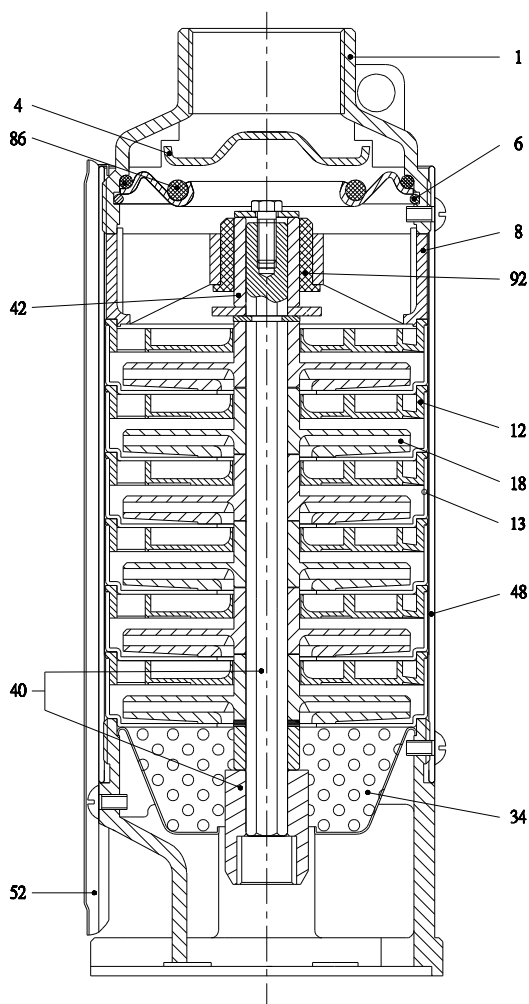


Rotation speed ≈ 2850 min<sup>-1</sup>



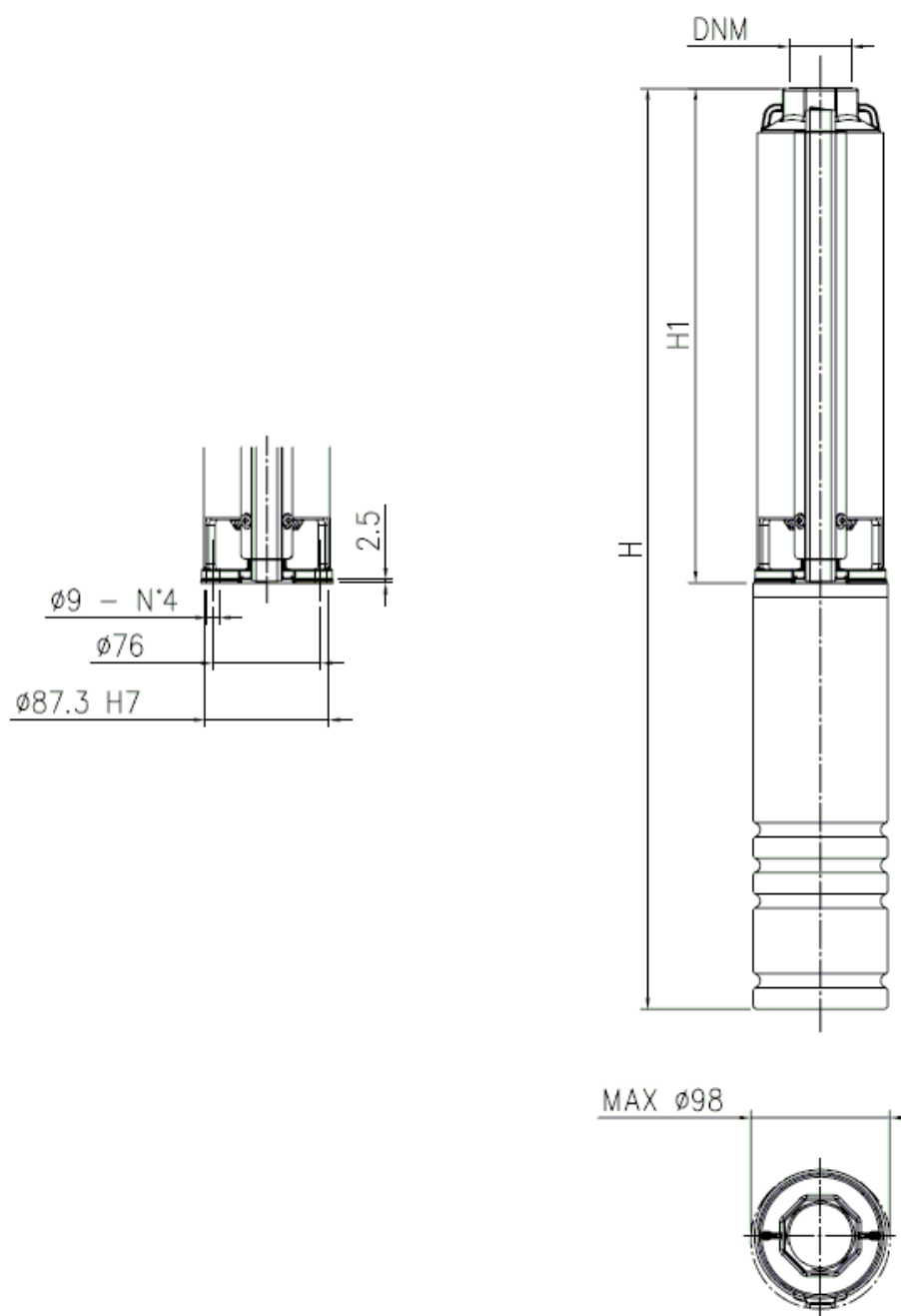
4WN12 – MEI  $\geq 0.40$ Rotation speed  $\approx 2850 \text{ min}^{-1}$

4WN15 – MEI  $\geq 0.40$ Rotation speed  $\approx 2850 \text{ min}^{-1}$

**SECTIONAL VIEW**

| N° | PART NAME             | MATERIAL                        |
|----|-----------------------|---------------------------------|
| 1  | Discharge Head        | AISI 304 casted Stainless Steel |
| 4  | Non-Return Valve Disc | AISI 304 Stainless Steel        |
| 6  | Valve Locking Ring    | AISI 304 Stainless Steel        |
| 8  | Bearing Housing       | PC + Glass Fiber Reinforced     |
| 12 | Diffuser              | PC + Glass Fiber Reinforced     |
| 13 | Diffuser Casing       | AISI 304 Stainless Steel        |
| 18 | Impeller              | Noryl                           |
| 34 | Strainer              | AISI 304 Stainless Steel        |
| 40 | Pump Shaft / Coupling | AISI 304 Stainless Steel        |
| 42 | Shaft Sleeve          | AISI 304 SS or Noryl            |
| 48 | Pump Sleeve           | AISI 304 Stainless Steel        |
| 52 | Cable Guard           | AISI 304 Stainless Steel        |
| 86 | O-Ring                | NBR                             |
| 92 | Bearing               | Polyacetal                      |

### PUMP DRAWING



Pump can be coupled with NEMA standard 4" motor

### PUMP DIMENSIONS TABLE

#### 4WN1 – 4WN2 – 4WN3 – 4WN4 – 4WN5

| Pump type  | Power |      | Pump without motor |          | Pump with oil filled motor |           |                           |           | Pump with water filled motor |           |                           |           |
|------------|-------|------|--------------------|----------|----------------------------|-----------|---------------------------|-----------|------------------------------|-----------|---------------------------|-----------|
|            | [kW]  | [HP] | H1<br>[mm]         | DNM      | single phase<br>H2<br>[mm] | H<br>[mm] | three phase<br>H2<br>[mm] | H<br>[mm] | single phase<br>H2<br>[mm]   | H<br>[mm] | three phase<br>H2<br>[mm] | H<br>[mm] |
| 4WN 1 - 13 | 0,37  | 0,5  | 377                | Rp 1"1/4 | 325                        | 702       | 304                       | 681       | 250                          | 627       | 235                       | 612       |
| 4WN 1 - 19 | 0,55  | 0,75 | 481                | Rp 1"1/4 | 325                        | 806       | 325                       | 806       | 265                          | 746       | 250                       | 731       |
| 4WN 1 - 26 | 0,75  | 1    | 642                | Rp 1"1/4 | 350                        | 992       | 325                       | 967       | 295                          | 937       | 265                       | 907       |
| 4WN 1 - 38 | 1,1   | 1,5  | 910                | Rp 1"1/4 | 385                        | 1295      | 350                       | 1260      | 340                          | 1250      | 295                       | 1205      |
| 4WN 1 - 49 | 2,2   | 3    | 1105               | Rp 1"1/4 | 470                        | 1575      | 420                       | 1525      | 430                          | 1535      | 375                       | 1480      |
| 4WN 2 - 7  | 0,37  | 0,5  | 271                | Rp 1"1/4 | 325                        | 596       | 304                       | 575       | 250                          | 521       | 235                       | 506       |
| 4WN 2 - 10 | 0,55  | 0,75 | 324                | Rp 1"1/4 | 325                        | 649       | 325                       | 649       | 265                          | 589       | 250                       | 574       |
| 4WN 2 - 14 | 0,75  | 1    | 394                | Rp 1"1/4 | 350                        | 744       | 325                       | 719       | 295                          | 689       | 265                       | 659       |
| 4WN 2 - 20 | 1,1   | 1,5  | 499                | Rp 1"1/4 | 385                        | 884       | 350                       | 849       | 340                          | 839       | 295                       | 794       |
| 4WN 2 - 28 | 1,5   | 2    | 679                | Rp 1"1/4 | 420                        | 1099      | 385                       | 1064      | 375                          | 1054      | 340                       | 1019      |
| 4WN 2 - 40 | 2,2   | 3    | 950                | Rp 1"1/4 | 470                        | 1420      | 420                       | 1370      | 430                          | 1380      | 375                       | 1325      |
| 4WN 2 - 52 | 3     | 4    | 1235               | Rp 1"1/4 | -                          | -         | 544                       | 1779      | -                            | -         | 480                       | 1715      |
| 4WN 3 - 5  | 0,37  | 0,5  | 236                | Rp 1"1/4 | 325                        | 561       | 304                       | 540       | 250                          | 486       | 235                       | 471       |
| 4WN 3 - 8  | 0,55  | 0,75 | 289                | Rp 1"1/4 | 325                        | 614       | 325                       | 614       | 265                          | 554       | 250                       | 539       |
| 4WN 3 - 11 | 0,75  | 1    | 342                | Rp 1"1/4 | 350                        | 692       | 325                       | 667       | 295                          | 637       | 265                       | 607       |
| 4WN 3 - 16 | 1,1   | 1,5  | 430                | Rp 1"1/4 | 385                        | 815       | 350                       | 780       | 340                          | 770       | 295                       | 725       |
| 4WN 3 - 21 | 1,5   | 2    | 519                | Rp 1"1/4 | 420                        | 939       | 385                       | 904       | 375                          | 894       | 340                       | 859       |
| 4WN 3 - 32 | 2,2   | 3    | 805                | Rp 1"1/4 | 470                        | 1275      | 420                       | 1225      | 430                          | 1235      | 375                       | 1180      |
| 4WN 3 - 42 | 3     | 4    | 985                | Rp 1"1/4 | -                          | -         | 544                       | 1529      | -                            | -         | 480                       | 1465      |
| 4WN 4 - 5  | 0,37  | 0,5  | 257                | Rp 1"1/4 | 325                        | 582       | 304                       | 561       | 250                          | 507       | 235                       | 492       |
| 4WN 4 - 7  | 0,55  | 0,75 | 301                | Rp 1"1/4 | 325                        | 626       | 325                       | 626       | 265                          | 566       | 250                       | 551       |
| 4WN 4 - 9  | 0,75  | 1    | 344                | Rp 1"1/4 | 350                        | 694       | 325                       | 669       | 295                          | 639       | 265                       | 609       |
| 4WN 4 - 14 | 1,1   | 1,5  | 452                | Rp 1"1/4 | 385                        | 837       | 350                       | 802       | 340                          | 792       | 295                       | 747       |
| 4WN 4 - 18 | 1,5   | 2    | 538                | Rp 1"1/4 | 420                        | 958       | 385                       | 923       | 375                          | 913       | 340                       | 878       |
| 4WN 4 - 27 | 2,2   | 3    | 805                | Rp 1"1/4 | 470                        | 1275      | 420                       | 1225      | 430                          | 1235      | 375                       | 1180      |
| 4WN 4 - 35 | 3     | 4    | 995                | Rp 1"1/4 | -                          | -         | 544                       | 1539      | -                            | -         | 480                       | 1475      |
| 4WN 4 - 48 | 4     | 5,5  | 1312               | Rp 1"1/4 | -                          | -         | 574                       | 1886      | -                            | -         | 555                       | 1867      |
| 4WN 5 - 4  | 0,37  | 0,5  | 247                | Rp 1"1/2 | 325                        | 572       | 304                       | 551       | 250                          | 497       | 235                       | 482       |
| 4WN 5 - 6  | 0,55  | 0,75 | 296                | Rp 1"1/2 | 325                        | 621       | 325                       | 621       | 265                          | 561       | 250                       | 546       |
| 4WN 5 - 8  | 0,75  | 1    | 345                | Rp 1"1/2 | 350                        | 695       | 325                       | 670       | 295                          | 640       | 265                       | 610       |
| 4WN 5 - 12 | 1,1   | 1,5  | 445                | Rp 1"1/2 | 385                        | 830       | 350                       | 795       | 340                          | 785       | 295                       | 740       |
| 4WN 5 - 16 | 1,5   | 2    | 542                | Rp 1"1/2 | 420                        | 962       | 385                       | 927       | 375                          | 917       | 340                       | 882       |
| 4WN 5 - 24 | 2,2   | 3    | 815                | Rp 1"1/2 | 470                        | 1285      | 420                       | 1235      | 430                          | 1245      | 375                       | 1190      |
| 4WN 5 - 32 | 3     | 4    | 1028               | Rp 1"1/2 | -                          | -         | 544                       | 1572      | -                            | -         | 480                       | 1508      |
| 4WN 5 - 44 | 4     | 5,5  | 1359               | Rp 1"1/2 | -                          | -         | 574                       | 1933      | -                            | -         | 555                       | 1914      |

### 4WN6 – 4WN8 – 4WN12 – 4WN15

| Pump type   | Power |      | Pump without motor |       | Pump with oil filled motor |           |                           |           | Pump with water filled motor |           |                           |           |
|-------------|-------|------|--------------------|-------|----------------------------|-----------|---------------------------|-----------|------------------------------|-----------|---------------------------|-----------|
|             | [kW]  | [HP] | H1<br>[mm]         | DNM   | single phase<br>H2<br>[mm] | H<br>[mm] | three phase<br>H2<br>[mm] | H<br>[mm] | single phase<br>H2<br>[mm]   | H<br>[mm] | three phase<br>H2<br>[mm] | H<br>[mm] |
| 4WN 6 - 5   | 0,75  | 1    | 330                | Rp 2" | 350                        | 680       | 325                       | 655       | 295                          | 625       | 265                       | 595       |
| 4WN 6 - 7   | 1,1   | 1,5  | 395                | Rp 2" | 385                        | 780       | 350                       | 745       | 340                          | 735       | 295                       | 690       |
| 4WN 6 - 10  | 1,5   | 2    | 485                | Rp 2" | 420                        | 905       | 385                       | 870       | 375                          | 860       | 340                       | 825       |
| 4WN 6 - 15  | 2,2   | 3    | 640                | Rp 2" | 470                        | 1110      | 420                       | 1060      | 430                          | 1070      | 375                       | 1015      |
| 4WN 6 - 21  | 3     | 4    | 865                | Rp 2" | -                          | -         | 544                       | 1409      | -                            | -         | 480                       | 1345      |
| 4WN 6 - 29  | 4     | 5,5  | 1150               | Rp 2" | -                          | -         | 574                       | 1724      | -                            | -         | 555                       | 1705      |
| 4WN 6 - 39  | 5,5   | 7,5  | 1480               | Rp 2" | -                          | -         | 675                       | 2155      | -                            | -         | 675                       | 2155      |
| 4WN 6 - 51  | 7,5   | 10   | 1930               | Rp 2" | -                          | -         | 805                       | 2735      | -                            | -         | 765                       | 2695      |
| 4WN 8 - 4   | 0,75  | 1    | 301                | Rp 2" | 350                        | 651       | 325                       | 626       | 295                          | 596       | 265                       | 566       |
| 4WN 8 - 6   | 1,1   | 1,5  | 356                | Rp 2" | 385                        | 741       | 350                       | 706       | 340                          | 696       | 295                       | 651       |
| 4WN 8 - 8   | 1,5   | 2    | 418                | Rp 2" | 420                        | 838       | 385                       | 803       | 375                          | 793       | 340                       | 758       |
| 4WN 8 - 13  | 2,2   | 3    | 573                | Rp 2" | 470                        | 1043      | 420                       | 993       | 430                          | 1003      | 375                       | 948       |
| 4WN 8 - 17  | 3     | 4    | 697                | Rp 2" | -                          | -         | 544                       | 1241      | -                            | -         | 480                       | 1177      |
| 4WN 8 - 23  | 4     | 5,5  | 959                | Rp 2" | -                          | -         | 574                       | 1533      | -                            | -         | 555                       | 1514      |
| 4WN 8 - 32  | 5,5   | 7,5  | 1260               | Rp 2" | -                          | -         | 675                       | 1935      | -                            | -         | 675                       | 1935      |
| 4WN 8 - 42  | 7,5   | 10   | 1650               | Rp 2" | -                          | -         | 805                       | 2455      | -                            | -         | 765                       | 2415      |
| 4WN 12 - 7  | 1,1   | 1,5  | 540                | Rp 2" | 385                        | 925       | 350                       | 890       | 340                          | 880       | 295                       | 835       |
| 4WN 12 - 10 | 1,5   | 2    | 695                | Rp 2" | 420                        | 1115      | 385                       | 1080      | 375                          | 1070      | 340                       | 1035      |
| 4WN 12 - 14 | 2,2   | 3    | 905                | Rp 2" | 470                        | 1375      | 420                       | 1325      | 430                          | 1335      | 375                       | 1280      |
| 4WN 12 - 19 | 3     | 4    | 1240               | Rp 2" | -                          | -         | 544                       | 1784      | -                            | -         | 480                       | 1720      |
| 4WN 12 - 25 | 4     | 5,5  | 1570               | Rp 2" | -                          | -         | 574                       | 2144      | -                            | -         | 555                       | 2125      |
| 4WN 12 - 35 | 5,5   | 7,5  | 2165               | Rp 2" | -                          | -         | 675                       | 2840      | -                            | -         | 675                       | 2840      |
| 4WN 12 - 43 | 7,5   | 10   | 2585               | Rp 2" | -                          | -         | 805                       | 3390      | -                            | -         | 765                       | 3350      |
| 4WN 15 - 12 | 2,2   | 3    | 950                | Rp 2" | 470                        | 1420      | 420                       | 1370      | 430                          | 1380      | 375                       | 1325      |
| 4WN 15 - 16 | 3     | 4    | 1220               | Rp 2" | -                          | -         | 544                       | 1764      | -                            | -         | 480                       | 1700      |
| 4WN 15 - 21 | 4     | 5,5  | 1610               | Rp 2" | -                          | -         | 574                       | 2184      | -                            | -         | 555                       | 2165      |
| 4WN 15 - 30 | 5,5   | 7,5  | 2225               | Rp 2" | -                          | -         | 675                       | 2900      | -                            | -         | 675                       | 2900      |

### PUMP WEIGHT TABLE

#### 4WN1 – 4WN2 – 4WN3 – 4WN4 – 4WN5

| Pump type  | Power |      | Pump without motor |          | Pump with oil filled motor |        |                     |        | Pump with water filled motor |        |                     |        |
|------------|-------|------|--------------------|----------|----------------------------|--------|---------------------|--------|------------------------------|--------|---------------------|--------|
|            | [kW]  | [HP] | Wp [kg]            | DNM      | single phase Wm [kg]       | W [kg] | three phase Wm [kg] | W [kg] | single phase Wm [kg]         | W [kg] | three phase Wm [kg] | W [kg] |
| 4WN 1 - 13 | 0,37  | 0,5  | 3,7                | Rp 1"1/4 | 7,0                        | 10,7   | 6,5                 | 10,2   | 6,8                          | 10,5   | 5,8                 | 9,5    |
| 4WN 1 - 19 | 0,55  | 0,75 | 4,7                | Rp 1"1/4 | 7,6                        | 12,3   | 7,0                 | 11,7   | 8,1                          | 12,8   | 7,0                 | 11,7   |
| 4WN 1 - 26 | 0,75  | 1    | 5,8                | Rp 1"1/4 | 8,7                        | 14,5   | 7,6                 | 13,4   | 10,6                         | 16,4   | 8,3                 | 14,1   |
| 4WN 1 - 38 | 1,1   | 1,5  | 9,2                | Rp 1"1/4 | 10,3                       | 19,5   | 8,7                 | 17,9   | 11,2                         | 20,4   | 10,9                | 20,1   |
| 4WN 1 - 49 | 2,2   | 3    | 12,5               | Rp 1"1/4 | 14,2                       | 26,7   | 12,0                | 24,5   | 16,4                         | 28,9   | 14,2                | 26,7   |
| 4WN 2 - 7  | 0,37  | 0,5  | 2,8                | Rp 1"1/4 | 7,0                        | 9,8    | 6,5                 | 9,3    | 6,8                          | 9,6    | 5,8                 | 8,6    |
| 4WN 2 - 10 | 0,55  | 0,75 | 3,3                | Rp 1"1/4 | 7,6                        | 10,9   | 7,0                 | 10,3   | 8,1                          | 11,4   | 7,0                 | 10,3   |
| 4WN 2 - 14 | 0,75  | 1    | 3,9                | Rp 1"1/4 | 8,7                        | 12,6   | 7,6                 | 11,5   | 10,6                         | 14,5   | 8,3                 | 12,2   |
| 4WN 2 - 20 | 1,1   | 1,5  | 4,9                | Rp 1"1/4 | 10,3                       | 15,2   | 8,7                 | 13,6   | 11,2                         | 16,1   | 10,9                | 15,8   |
| 4WN 2 - 28 | 1,5   | 2    | 6,5                | Rp 1"1/4 | 12,0                       | 18,5   | 10,4                | 16,9   | 14,0                         | 20,5   | 11,4                | 17,9   |
| 4WN 2 - 40 | 2,2   | 3    | 9,8                | Rp 1"1/4 | 14,2                       | 24,0   | 12,0                | 21,8   | 16,4                         | 26,2   | 14,2                | 24,0   |
| 4WN 2 - 52 | 3     | 4    | 13,5               | Rp 1"1/4 | -                          | -      | 13,1                | 26,6   | -                            | -      | 18,3                | 31,8   |
| 4WN 3 - 5  | 0,37  | 0,5  | 2,5                | Rp 1"1/4 | 7,0                        | 9,5    | 6,5                 | 9,0    | 6,8                          | 9,3    | 5,8                 | 8,3    |
| 4WN 3 - 8  | 0,55  | 0,75 | 2,9                | Rp 1"1/4 | 7,6                        | 10,5   | 7,0                 | 9,9    | 8,1                          | 11,0   | 7,0                 | 9,9    |
| 4WN 3 - 11 | 0,75  | 1    | 3,4                | Rp 1"1/4 | 8,7                        | 12,1   | 7,6                 | 11,0   | 10,6                         | 14,0   | 8,3                 | 11,7   |
| 4WN 3 - 16 | 1,1   | 1,5  | 4,2                | Rp 1"1/4 | 10,3                       | 14,5   | 8,7                 | 12,9   | 11,2                         | 15,4   | 10,9                | 15,1   |
| 4WN 3 - 21 | 1,5   | 2    | 5,0                | Rp 1"1/4 | 12,0                       | 17,0   | 10,4                | 15,4   | 14,0                         | 19,0   | 11,4                | 16,4   |
| 4WN 3 - 32 | 2,2   | 3    | 8,1                | Rp 1"1/4 | 14,2                       | 22,3   | 12,0                | 20,1   | 16,4                         | 24,5   | 14,2                | 22,3   |
| 4WN 3 - 42 | 3     | 4    | 10,7               | Rp 1"1/4 | -                          | -      | 13,1                | 23,8   | -                            | -      | 18,3                | 29,0   |
| 4WN 4 - 5  | 0,37  | 0,5  | 2,7                | Rp 1"1/4 | 7,0                        | 9,7    | 6,5                 | 9,2    | 6,8                          | 9,5    | 5,8                 | 8,5    |
| 4WN 4 - 7  | 0,55  | 0,75 | 3,0                | Rp 1"1/4 | 7,6                        | 10,6   | 7,0                 | 10,0   | 8,1                          | 11,1   | 7,0                 | 10,0   |
| 4WN 4 - 9  | 0,75  | 1    | 3,3                | Rp 1"1/4 | 8,7                        | 12,0   | 7,6                 | 10,9   | 10,6                         | 13,9   | 8,3                 | 11,6   |
| 4WN 4 - 14 | 1,1   | 1,5  | 4,1                | Rp 1"1/4 | 10,3                       | 14,4   | 8,7                 | 12,8   | 11,2                         | 15,3   | 10,9                | 15,0   |
| 4WN 4 - 18 | 1,5   | 2    | 4,7                | Rp 1"1/4 | 12,0                       | 16,7   | 10,4                | 15,1   | 14,0                         | 18,7   | 11,4                | 16,1   |
| 4WN 4 - 27 | 2,2   | 3    | 7,5                | Rp 1"1/4 | 14,2                       | 21,7   | 12,0                | 19,5   | 16,4                         | 23,9   | 14,2                | 21,7   |
| 4WN 4 - 35 | 3     | 4    | 9,7                | Rp 1"1/4 | -                          | -      | 13,1                | 22,8   | -                            | -      | 18,3                | 28,0   |
| 4WN 4 - 48 | 4     | 5,5  | 12,5               | Rp 1"1/4 | -                          | -      | 15,6                | 28,1   | -                            | -      | 23,4                | 35,9   |
| 4WN 5 - 4  | 0,37  | 0,5  | 2,4                | Rp 1"1/2 | 7,0                        | 9,4    | 6,5                 | 8,9    | 6,8                          | 9,2    | 5,8                 | 8,2    |
| 4WN 5 - 6  | 0,55  | 0,75 | 2,9                | Rp 1"1/2 | 7,6                        | 10,5   | 7,0                 | 9,9    | 8,1                          | 11,0   | 7,0                 | 9,9    |
| 4WN 5 - 8  | 0,75  | 1    | 3,3                | Rp 1"1/2 | 8,7                        | 12,0   | 7,6                 | 10,9   | 10,6                         | 13,9   | 8,3                 | 11,6   |
| 4WN 5 - 12 | 1,1   | 1,5  | 4,1                | Rp 1"1/2 | 10,3                       | 14,4   | 8,7                 | 12,8   | 11,2                         | 15,3   | 10,9                | 15,0   |
| 4WN 5 - 16 | 1,5   | 2    | 5,0                | Rp 1"1/2 | 12,0                       | 17,0   | 10,4                | 15,4   | 14,0                         | 19,0   | 11,4                | 16,4   |
| 4WN 5 - 24 | 2,2   | 3    | 7,4                | Rp 1"1/2 | 14,2                       | 21,6   | 12,0                | 19,4   | 16,4                         | 23,8   | 14,2                | 21,6   |
| 4WN 5 - 32 | 3     | 4    | 9,7                | Rp 1"1/2 | -                          | -      | 13,1                | 22,8   | -                            | -      | 18,3                | 28,0   |
| 4WN 5 - 44 | 4     | 5,5  | 12,2               | Rp 1"1/2 | -                          | -      | 15,6                | 27,8   | -                            | -      | 23,4                | 35,6   |

### 4WN6 – 4WN8 – 4WN12 – 4WN15

| Pump type   | Power |      | Pump without motor |       | Pump with oil filled motor |        |                     |        | Pump with water filled motor |        |                     |        |
|-------------|-------|------|--------------------|-------|----------------------------|--------|---------------------|--------|------------------------------|--------|---------------------|--------|
|             | [kW]  | [HP] | Wp [kg]            | DNM   | single phase Wm [kg]       | W [kg] | three phase Wm [kg] | W [kg] | single phase Wm [kg]         | W [kg] | three phase Wm [kg] | W [kg] |
| 4WN 6 - 5   | 0,75  | 1    | 3,2                | Rp 2" | 8,7                        | 11,9   | 7,6                 | 10,8   | 10,6                         | 13,8   | 8,3                 | 11,5   |
| 4WN 6 - 7   | 1,1   | 1,5  | 3,8                | Rp 2" | 10,3                       | 14,1   | 8,7                 | 12,5   | 11,2                         | 15,0   | 10,9                | 14,7   |
| 4WN 6 - 10  | 1,5   | 2    | 4,6                | Rp 2" | 12,0                       | 16,6   | 10,4                | 15,0   | 14,0                         | 18,6   | 11,4                | 16,0   |
| 4WN 6 - 15  | 2,2   | 3    | 6,1                | Rp 2" | 14,2                       | 20,3   | 12,0                | 18,1   | 16,4                         | 22,5   | 14,2                | 20,3   |
| 4WN 6 - 21  | 3     | 4    | 8,2                | Rp 2" | -                          | -      | 13,1                | 21,3   | -                            | -      | 18,3                | 26,5   |
| 4WN 6 - 29  | 4     | 5,5  | 10,7               | Rp 2" | -                          | -      | 15,6                | 26,3   | -                            | -      | 23,4                | 34,1   |
| 4WN 6 - 39  | 5,5   | 7,5  | 14,5               | Rp 2" | -                          | -      | 18,9                | 33,4   | -                            | -      | 29,4                | 43,9   |
| 4WN 6 - 51  | 7,5   | 10   | 17,7               | Rp 2" | -                          | -      | 27,0                | 44,7   | -                            | -      | 33,8                | 51,5   |
| 4WN 8 - 4   | 0,75  | 1    | 2,8                | Rp 2" | 8,7                        | 11,5   | 7,6                 | 10,4   | 10,6                         | 13,4   | 8,3                 | 11,1   |
| 4WN 8 - 6   | 1,1   | 1,5  | 3,4                | Rp 2" | 10,3                       | 13,7   | 8,7                 | 12,1   | 11,2                         | 14,6   | 10,9                | 14,3   |
| 4WN 8 - 8   | 1,5   | 2    | 4,0                | Rp 2" | 12,0                       | 16,0   | 10,4                | 14,4   | 14,0                         | 18,0   | 11,4                | 15,4   |
| 4WN 8 - 13  | 2,2   | 3    | 5,5                | Rp 2" | 14,2                       | 19,7   | 12,0                | 17,5   | 16,4                         | 21,9   | 14,2                | 19,7   |
| 4WN 8 - 17  | 3     | 4    | 6,6                | Rp 2" | -                          | -      | 13,1                | 19,7   | -                            | -      | 18,3                | 24,9   |
| 4WN 8 - 23  | 4     | 5,5  | 8,9                | Rp 2" | -                          | -      | 15,6                | 24,5   | -                            | -      | 23,4                | 32,3   |
| 4WN 8 - 32  | 5,5   | 7,5  | 12,0               | Rp 2" | -                          | -      | 18,9                | 30,9   | -                            | -      | 29,4                | 41,4   |
| 4WN 8 - 42  | 7,5   | 10   | 15,5               | Rp 2" | -                          | -      | 27,0                | 42,5   | -                            | -      | 33,8                | 49,3   |
| 4WN 12 - 7  | 1,1   | 1,5  | 4,9                | Rp 2" | 10,3                       | 15,2   | 8,7                 | 13,6   | 11,2                         | 16,1   | 10,9                | 15,8   |
| 4WN 12 - 10 | 1,5   | 2    | 6,3                | Rp 2" | 12,0                       | 18,3   | 10,4                | 16,7   | 14,0                         | 20,3   | 11,4                | 17,7   |
| 4WN 12 - 14 | 2,2   | 3    | 8,1                | Rp 2" | 14,2                       | 22,3   | 12,0                | 20,1   | 16,4                         | 24,5   | 14,2                | 22,3   |
| 4WN 12 - 19 | 3     | 4    | 11,0               | Rp 2" | -                          | -      | 13,1                | 24,1   | -                            | -      | 18,3                | 29,3   |
| 4WN 12 - 25 | 4     | 5,5  | 14,3               | Rp 2" | -                          | -      | 15,6                | 29,9   | -                            | -      | 23,4                | 37,7   |
| 4WN 12 - 35 | 5,5   | 7,5  | 19,8               | Rp 2" | -                          | -      | 18,9                | 38,7   | -                            | -      | 29,4                | 49,2   |
| 4WN 12 - 43 | 7,5   | 10   | 24,0               | Rp 2" | -                          | -      | 27,0                | 51,0   | -                            | -      | 33,8                | 57,8   |
| 4WN 15 - 12 | 2,2   | 3    | 8,4                | Rp 2" | 14,2                       | 22,6   | 12,0                | 20,4   | 16,4                         | 24,8   | 14,2                | 22,6   |
| 4WN 15 - 16 | 3     | 4    | 10,8               | Rp 2" | -                          | -      | 13,1                | 23,9   | -                            | -      | 18,3                | 29,1   |
| 4WN 15 - 21 | 4     | 5,5  | 14,7               | Rp 2" | -                          | -      | 15,6                | 30,3   | -                            | -      | 23,4                | 38,1   |
| 4WN 15 - 30 | 5,5   | 7,5  | 20,1               | Rp 2" | -                          | -      | 18,9                | 39,0   | -                            | -      | 29,4                | 49,5   |



# SUBMERSIBLE MULTISTAGE PUMPS

# 4WN

## DIMENSIONS AND WEIGHT

## 50Hz

Rev.D

### PACKAGING DIMENSIONS

| Pump type   | Pump without motor |           |           |                | Pump with oil filled motor |           |           |                |             |           |           |                | Pump with water filled motor |           |           |                |             |           |           |                |
|-------------|--------------------|-----------|-----------|----------------|----------------------------|-----------|-----------|----------------|-------------|-----------|-----------|----------------|------------------------------|-----------|-----------|----------------|-------------|-----------|-----------|----------------|
|             | L<br>[mm]          | W<br>[mm] | H<br>[mm] | Weight<br>[kg] | single phase               |           |           |                | three phase |           |           |                | single phase                 |           |           |                | three phase |           |           |                |
|             | L<br>[mm]          | W<br>[mm] | H<br>[mm] | Weight<br>[kg] | L<br>[mm]                  | W<br>[mm] | H<br>[mm] | Weight<br>[kg] | L<br>[mm]   | W<br>[mm] | H<br>[mm] | Weight<br>[kg] | L<br>[mm]                    | W<br>[mm] | H<br>[mm] | Weight<br>[kg] | L<br>[mm]   | W<br>[mm] | H<br>[mm] | Weight<br>[kg] |
| 4WN 1 - 13  | 450                | 110       | 110       | 3,9            | 800                        | 100       | 100       | 11,2           | 800         | 100       | 100       | 10,7           | 800                          | 100       | 100       | 11,0           | 640         | 100       | 100       | 9,9            |
| 4WN 1 - 19  | 520                | 110       | 110       | 5,1            | 1035                       | 100       | 100       | 12,9           | 1035        | 100       | 100       | 12,3           | 800                          | 100       | 100       | 13,3           | 800         | 100       | 100       | 12,2           |
| 4WN 1 - 26  | 690                | 110       | 110       | 6,7            | 1035                       | 100       | 100       | 15,1           | 1035        | 100       | 100       | 14,0           | 1035                         | 100       | 100       | 17,0           | 1035        | 100       | 100       | 14,7           |
| 4WN 1 - 38  | 990                | 115       | 120       | 10,0           | 1530                       | 100       | 100       | 20,3           | 1300        | 100       | 100       | 18,6           | 1300                         | 100       | 100       | 21,1           | 1300        | 100       | 100       | 20,8           |
| 4WN 1 - 49  | 1150               | 115       | 120       | 13,5           | 1810                       | 110       | 110       | 27,6           | 1810        | 110       | 110       | 25,4           | 1810                         | 110       | 110       | 29,8           | 1530        | 100       | 100       | 27,5           |
| 4WN 2 - 7   | 330                | 110       | 110       | 3,0            | 640                        | 100       | 100       | 10,2           | 640         | 100       | 100       | 9,7            | 640                          | 100       | 100       | 10,0           | 640         | 100       | 100       | 9,0            |
| 4WN 2 - 10  | 330                | 110       | 110       | 3,6            | 800                        | 100       | 100       | 11,4           | 800         | 100       | 100       | 10,8           | 640                          | 100       | 100       | 11,8           | 640         | 100       | 100       | 10,7           |
| 4WN 2 - 14  | 450                | 110       | 110       | 4,2            | 800                        | 100       | 100       | 13,1           | 800         | 100       | 100       | 12,0           | 800                          | 100       | 100       | 15,0           | 800         | 100       | 100       | 12,7           |
| 4WN 2 - 20  | 555                | 110       | 110       | 5,2            | 1035                       | 100       | 100       | 15,8           | 1035        | 100       | 100       | 14,2           | 1035                         | 100       | 100       | 16,7           | 1035        | 100       | 100       | 16,4           |
| 4WN 2 - 28  | 770                | 110       | 110       | 6,9            | 1300                       | 100       | 100       | 19,2           | 1300        | 100       | 100       | 17,6           | 1300                         | 100       | 100       | 21,2           | 1035        | 100       | 100       | 18,5           |
| 4WN 2 - 40  | 1030               | 115       | 120       | 10,6           | 1530                       | 100       | 100       | 24,8           | 1530        | 100       | 100       | 22,6           | 1530                         | 100       | 100       | 27,0           | 1530        | 100       | 100       | 24,8           |
| 4WN 2 - 52  | 1340               | 115       | 120       | 14,5           | -                          | -         | -         | -              | 1810        | 110       | 110       | 27,5           | -                            | -         | -         | -              | 1810        | 110       | 110       | 32,7           |
| 4WN 3 - 5   | 290                | 110       | 110       | 2,7            | 640                        | 100       | 100       | 9,9            | 640         | 100       | 100       | 9,4            | 640                          | 100       | 100       | 9,7            | 640         | 100       | 100       | 8,7            |
| 4WN 3 - 8   | 330                | 110       | 110       | 3,1            | 640                        | 100       | 100       | 10,9           | 640         | 100       | 100       | 10,3           | 640                          | 100       | 100       | 11,4           | 640         | 100       | 100       | 10,3           |
| 4WN 3 - 11  | 390                | 110       | 110       | 3,6            | 800                        | 100       | 100       | 12,6           | 800         | 100       | 100       | 11,5           | 800                          | 100       | 100       | 14,5           | 640         | 100       | 100       | 12,1           |
| 4WN 3 - 16  | 480                | 110       | 110       | 4,6            | 1035                       | 100       | 100       | 15,1           | 1035        | 100       | 100       | 13,5           | 800                          | 100       | 100       | 15,9           | 800         | 100       | 100       | 15,6           |
| 4WN 3 - 21  | 555                | 110       | 110       | 5,4            | 1035                       | 100       | 100       | 17,6           | 1035        | 100       | 100       | 16,0           | 1035                         | 100       | 100       | 19,6           | 1035        | 100       | 100       | 17,0           |
| 4WN 3 - 32  | 870                | 115       | 120       | 8,6            | 1300                       | 100       | 100       | 23,0           | 1300        | 100       | 100       | 20,8           | 1300                         | 100       | 100       | 25,2           | 1300        | 100       | 100       | 23,0           |
| 4WN 3 - 42  | 1060               | 115       | 120       | 11,5           | -                          | -         | -         | -              | 1810        | 110       | 110       | 24,7           | -                            | -         | -         | -              | 1530        | 100       | 100       | 29,8           |
| 4WN 4 - 5   | 290                | 110       | 110       | 2,9            | 640                        | 100       | 100       | 10,1           | 640         | 100       | 100       | 9,6            | 640                          | 100       | 100       | 9,9            | 640         | 100       | 100       | 8,9            |
| 4WN 4 - 7   | 330                | 110       | 110       | 3,2            | 800                        | 100       | 100       | 11,1           | 800         | 100       | 100       | 10,5           | 640                          | 100       | 100       | 11,5           | 640         | 100       | 100       | 10,4           |
| 4WN 4 - 9   | 390                | 110       | 110       | 3,6            | 800                        | 100       | 100       | 12,5           | 800         | 100       | 100       | 11,4           | 800                          | 100       | 100       | 14,4           | 640         | 100       | 100       | 12,0           |
| 4WN 4 - 14  | 520                | 110       | 110       | 4,4            | 1035                       | 100       | 100       | 15,0           | 1035        | 100       | 100       | 13,4           | 1035                         | 100       | 100       | 15,9           | 800         | 100       | 100       | 15,5           |
| 4WN 4 - 18  | 580                | 110       | 110       | 5,1            | 1035                       | 100       | 100       | 17,3           | 1035        | 100       | 100       | 15,7           | 1035                         | 100       | 100       | 19,3           | 1035        | 100       | 100       | 16,7           |
| 4WN 4 - 27  | 870                | 115       | 120       | 8,3            | 1300                       | 100       | 100       | 22,4           | 1300        | 100       | 100       | 20,2           | 1300                         | 100       | 100       | 24,6           | 1300        | 100       | 100       | 22,4           |
| 4WN 4 - 35  | 1060               | 115       | 120       | 10,1           | -                          | -         | -         | -              | 1810        | 110       | 110       | 23,7           | -                            | -         | -         | -              | 1530        | 100       | 100       | 28,8           |
| 4WN 4 - 48  | 1390               | 115       | 120       | 13,5           | -                          | -         | -         | -              | 1950        | 110       | 110       | 29,1           | -                            | -         | -         | -              | 1950        | 110       | 110       | 36,9           |
| 4WN 5 - 4   | 290                | 110       | 110       | 2,6            | 640                        | 100       | 100       | 9,8            | 640         | 100       | 100       | 9,3            | 640                          | 100       | 100       | 9,6            | 640         | 100       | 100       | 8,6            |
| 4WN 5 - 6   | 330                | 110       | 110       | 3,1            | 800                        | 100       | 100       | 11,0           | 800         | 100       | 100       | 10,4           | 640                          | 100       | 100       | 11,4           | 640         | 100       | 100       | 10,3           |
| 4WN 5 - 8   | 390                | 110       | 110       | 3,6            | 800                        | 100       | 100       | 12,5           | 800         | 100       | 100       | 11,4           | 800                          | 100       | 100       | 14,4           | 640         | 100       | 100       | 12,0           |
| 4WN 5 - 12  | 480                | 110       | 110       | 4,4            | 1035                       | 100       | 100       | 15,0           | 1035        | 100       | 100       | 13,4           | 1035                         | 100       | 100       | 15,9           | 800         | 100       | 100       | 15,5           |
| 4WN 5 - 16  | 580                | 110       | 110       | 5,4            | 1035                       | 100       | 100       | 17,6           | 1035        | 100       | 100       | 16,0           | 1035                         | 100       | 100       | 19,6           | 1035        | 100       | 100       | 17,0           |
| 4WN 5 - 24  | 870                | 115       | 120       | 8,2            | 1530                       | 100       | 100       | 22,4           | 1300        | 100       | 100       | 20,1           | 1300                         | 100       | 100       | 24,5           | 1300        | 100       | 100       | 22,3           |
| 4WN 5 - 32  | 1090               | 115       | 120       | 10,6           | -                          | -         | -         | -              | 1810        | 110       | 110       | 23,7           | -                            | -         | -         | -              | 1530        | 100       | 100       | 28,8           |
| 4WN 5 - 44  | 1420               | 115       | 120       | 13,2           | -                          | -         | -         | -              | 2110        | 110       | 110       | 28,9           | -                            | -         | -         | -              | 1950        | 110       | 110       | 36,6           |
| 4WN 6 - 5   | 390                | 110       | 110       | 3,4            | 800                        | 100       | 100       | 12,4           | 800         | 100       | 100       | 11,3           | 800                          | 100       | 100       | 14,3           | 640         | 100       | 100       | 11,9           |
| 4WN 6 - 7   | 450                | 110       | 110       | 4,1            | 1035                       | 100       | 100       | 14,7           | 800         | 100       | 100       | 13,0           | 800                          | 100       | 100       | 15,5           | 800         | 100       | 100       | 15,2           |
| 4WN 6 - 10  | 520                | 110       | 110       | 4,9            | 1035                       | 100       | 100       | 17,2           | 1035        | 100       | 100       | 15,6           | 1035                         | 100       | 100       | 19,2           | 1035        | 100       | 100       | 16,6           |
| 4WN 6 - 15  | 690                | 110       | 110       | 6,5            | 1300                       | 100       | 100       | 21,0           | 1300        | 100       | 100       | 18,8           | 1300                         | 100       | 100       | 23,2           | 1035        | 100       | 100       | 20,9           |
| 4WN 6 - 21  | 930                | 115       | 120       | 9,0            | -                          | -         | -         | -              | 1530        | 100       | 100       | 22,1           | -                            | -         | -         | -              | 1530        | 100       | 100       | 27,3           |
| 4WN 6 - 29  | 1220               | 115       | 120       | 11,7           | -                          | -         | -         | -              | 1810        | 110       | 110       | 27,2           | -                            | -         | -         | -              | 1810        | 110       | 110       | 35,0           |
| 4WN 6 - 39  | 1560               | 115       | 120       | 15,7           | -                          | -         | -         | -              | 2430        | 110       | 110       | 34,7           | -                            | -         | -         | -              | 2430        | 110       | 110       | 45,2           |
| 4WN 6 - 51  | 2110               | 210       | 230       | 26,0           | -                          | -         | -         | -              | 3000        | 110       | 110       | 46,2           | -                            | -         | -         | -              | 3000        | 110       | 110       | 53,0           |
| 4WN 8 - 4   | 330                | 110       | 110       | 3,0            | 800                        | 100       | 100       | 12,0           | 800         | 100       | 100       | 10,9           | 640                          | 100       | 100       | 13,8           | 640         | 100       | 100       | 11,5           |
| 4WN 8 - 6   | 390                | 110       | 110       | 3,7            | 800                        | 100       | 100       | 14,2           | 800         | 100       | 100       | 12,6           | 800                          | 100       | 100       | 15,1           | 800         | 100       | 100       | 14,8           |
| 4WN 8 - 8   | 480                | 110       | 110       | 4,3            | 1035                       | 100       | 100       | 16,6           | 1035        | 100       | 100       | 15,0           | 1035                         | 100       | 100       | 18,6           | 800         | 100       | 100       | 15,9           |
| 4WN 8 - 13  | 660                | 110       | 110       | 5,8            | 1300                       | 100       | 100       | 20,4           | 1035        | 100       | 100       | 18,1           | 1035                         | 100       | 100       | 22,5           | 1035        | 100       | 100       | 20,3           |
| 4WN 8 - 17  | 770                | 110       | 110       | 7,0            | -                          | -         | -         | -              | 1300        | 100       | 100       | 20,4           | -                            | -         | -         | -              | 1300        | 100       | 100       | 25,6           |
| 4WN 8 - 23  | 1030               | 115       | 120       | 9,7            | -                          | -         | -         | -              | 1810        | 110       | 110       | 25,4           | -                            | -         | -         | -              | 1810        | 110       | 110       | 33,2           |
| 4WN 8 - 32  | 1340               | 115       | 120       | 13,0           | -                          | -         | -         | -              | 2110        | 110       | 110       | 32,0           | -                            | -         | -         | -              | 2110        | 110       | 110       | 42,5           |
| 4WN 8 - 42  | 1840               | 115       | 120       | 16,8           | -                          | -         | -         | -              | 3000        | 110       | 110       | 44,0           | -                            | -         | -         | -              | 2430        | 110       | 110       | 50,6           |
| 4WN 12 - 7  | 580                | 110       | 110       | 5,3            | 1035                       | 100       | 100       | 15,8           | 1035        | 100       | 100       | 14,2           | 1035                         | 100       | 100       | 16,7           | 1035        | 100       | 100       | 16,4           |
| 4WN 12 - 10 | 770                | 110       | 110       | 6,8            | 1300                       | 100       | 100       | 19,0           | 1300        | 100       | 100       | 17,4           | 1300                         | 100       | 100       | 21,0           | 1300        | 100       | 100       | 18,4           |
| 4WN 12 - 14 | 950                | 115       | 120       | 8,9            | 1530                       | 100       | 100       | 23,1           | 1530        | 100       | 100       | 20,9           | 1530                         | 100       | 100       | 25,3           | 1530        | 100       | 100       | 23,1           |
| 4WN 12 - 19 | 1340               | 115       | 120       | 12,0           | -                          | -         | -         | -              | 1810        | 110       | 110       | 25,0           | -                            | -         | -         | -              | 1810        | 110       | 110       | 30,2           |
| 4WN 12 - 25 | 1620               | 115       | 120       | 15,6           | -                          | -         | -         | -              | 2430        | 110       | 110       | 31,2           | -                            | -         | -         | -              | 2430        | 110       | 110       | 39,0           |
| 4WN 12 - 35 | 2290               | 210       | 230       | 30,4           | -                          | -         | -         | -              | 3000        | 110       | 110       | 40,2           | -                            | -         | -         | -              | 3000        | 110       | 110       | 50,7           |
| 4WN 12 - 43 | 2730               | 210       | 230       | 36,5           | -                          | -         | -         | -              | 3600        | 110       | 110       | 52,7           | -                            | -         | -         | -              | 3600        | 110       | 110       | 59,5           |
| 4WN 15 - 12 | 990                | 115       | 120       | 9,2            | 1530                       | 100       | 100       | 23,4           | 1530        | 100       | 100       | 21,2           | 1530                         | 100       | 100       | 25,6           | 1530        | 100       | 100       | 23,4           |
| 4WN 15 - 16 | 1280               | 115       | 120       | 11,8           | -                          | -         | -         | -              | 1810        | 110       | 110       | 24,8           | -                            | -         | -         | -              | 1810        | 110       | 110       | 30,0           |
| 4WN 15 - 21 | 1680               | 115       | 120       | 16,0           | -                          | -         | -         | -              | 2430        | 110       | 110       | 31,6           | -                            | -         | -         | -              | 2430        | 110       | 110       | 39,4           |
| 4WN 15 - 30 | 2350               | 210       | 230       | 30,9           | -                          | -         | -         | -              | 3000        | 110       | 110       | 40,5           | -                            | -         | -         | -              | 3000        | 110       | 110       | 51,0           |

### ELECTRICAL DATA

#### 4" OIL FILLED MOTORS

| Power |      | Thrust Load<br>[N] | Single Phase - 230 V [50 Hz] |           |      |               |               |                  | Three phase - 400 V [50 Hz] |           |      |               |               |
|-------|------|--------------------|------------------------------|-----------|------|---------------|---------------|------------------|-----------------------------|-----------|------|---------------|---------------|
|       |      |                    | In<br>[A]                    | Is<br>[A] | RPM  | cos $\varphi$ | $\eta$<br>[%] | Cr<br>[ $\mu$ F] | In<br>[A]                   | Is<br>[A] | RPM  | cos $\varphi$ | $\eta$<br>[%] |
| 0,37  | 0,5  | 1500               | 3,6                          | 10,8      | 2860 | 0,94          | 53            | 20               | 1,6                         | 6,2       | 2855 | 0,72          | 60            |
| 0,55  | 0,75 | 1500               | 4,5                          | 13,9      | 2855 | 0,92          | 60            | 25               | 2,0                         | 8,5       | 2830 | 0,71          | 62            |
| 0,75  | 1    | 1500               | 6,0                          | 18,5      | 2850 | 0,92          | 62            | 35               | 2,6                         | 10,9      | 2830 | 0,71          | 66            |
| 1,1   | 1,5  | 1500               | 8,2                          | 23,0      | 2850 | 0,92          | 66            | 40               | 3,4                         | 14,0      | 2830 | 0,70          | 73            |
| 1,5   | 2    | 1500               | 11,0                         | 38,7      | 2840 | 0,88          | 68            | 50               | 4,6                         | 17,0      | 2830 | 0,70          | 73            |
| 2,2   | 3    | 1500               | 14,8                         | 43,5      | 2820 | 0,94          | 69            | 70               | 6,2                         | 25,0      | 2820 | 0,78          | 75            |
|       |      | 4400               | 14,8                         | 43,5      | 2820 | 0,94          | 69            | 70               | -                           | -         | -    | -             | -             |
|       |      | 5000               | -                            | -         | -    | -             | -             | -                | 5,8                         | 25,0      | 2820 | 0,79          | 74            |
| 3     | 4    | 5000               | -                            | -         | -    | -             | -             | -                | 7,8                         | 34,0      | 2820 | 0,81          | 74            |
| 4     | 5,5  | 5000               | -                            | -         | -    | -             | -             | -                | 9,9                         | 49,0      | 2835 | 0,82          | 76            |
| 5,5   | 7,5  | 5000               | -                            | -         | -    | -             | -             | -                | 13,8                        | 57,0      | 2820 | 0,85          | 78            |
| 7,5   | 10   | 4400               | -                            | -         | -    | -             | -             | -                | 19,5                        | 77,0      | 2830 | 0,80          | 79            |

#### 4" WATER FILLED MOTORS

| Power |      | Thrust Load<br>[N] | Single Phase - 230 V [50 Hz] |           |      |               |               |                  | Three phase - 400 V [50 Hz] |           |      |               |               |
|-------|------|--------------------|------------------------------|-----------|------|---------------|---------------|------------------|-----------------------------|-----------|------|---------------|---------------|
|       |      |                    | In<br>[A]                    | Is<br>[A] | RPM  | cos $\varphi$ | $\eta$<br>[%] | Cr<br>[ $\mu$ F] | In<br>[A]                   | Is<br>[A] | RPM  | cos $\varphi$ | $\eta$<br>[%] |
| 0,37  | 0,5  | 1500               | 3,4                          | 11,0      | 2850 | 0,90          | 54            | 16               | 1,3                         | 5,3       | 2870 | 0,72          | 62            |
| 0,55  | 0,75 | 1500               | 4,4                          | 16,6      | 2840 | 0,88          | 62            | 20               | 1,7                         | 7,2       | 2860 | 0,71          | 66            |
| 0,75  | 1    | 1500               | 6,0                          | 23,1      | 2880 | 0,86          | 63            | 30               | 2,2                         | 9,2       | 2840 | 0,73          | 67            |
| 1,1   | 1,5  | 3000               | 7,8                          | 29,6      | 2880 | 0,90          | 68            | 40               | 3,0                         | 14,2      | 2840 | 0,74          | 72            |
| 1,5   | 2    | 3000               | 10,5                         | 39,3      | 2850 | 0,96          | 65            | 50               | 4,0                         | 18,5      | 2830 | 0,75          | 72            |
| 2,2   | 3    | 3000               | 15,0                         | 52,5      | 2860 | 0,92          | 72            | 70               | 5,6                         | 26,5      | 2830 | 0,77          | 74            |
| 3     | 4    | 6500               | -                            | -         | -    | -             | -             | -                | 7,5                         | 34,3      | 2830 | 0,77          | 76            |
| 4     | 5,5  | 6500               | -                            | -         | -    | -             | -             | -                | 10,6                        | 44,0      | 2830 | 0,79          | 69            |
| 5,5   | 7,5  | 6500               | -                            | -         | -    | -             | -             | -                | 13,6                        | 62,0      | 2830 | 0,82          | 72            |
| 7,5   | 10   | 6500               | -                            | -         | -    | -             | -             | -                | 18,3                        | 90,0      | 2840 | 0,79          | 75            |

#### OIL FILLED MOTORS - CABLE SELECTION TABLE

EXAMPLE: MOTOR 0,75 kW – 230 V – CABLE LENGTH 75 m – 4x2,5 mm<sup>2</sup>

Single phase 230 V

| POWER |      | CABLE TYPE AND MAXIMUM LENGTH (*) |       |     |       |     |     |      |      |
|-------|------|-----------------------------------|-------|-----|-------|-----|-----|------|------|
| [kW]  | [HP] | 4x1                               | 4x1,5 | 4x2 | 4x2,5 | 4x4 | 4x6 | 4x10 | 4x16 |
| 0,37  | 0,5  | 50                                | 75    | 100 | 125   | -   | -   | -    | -    |
| 0,55  | 0,75 | 38                                | 57    | 76  | 95    | 152 | -   | -    | -    |
| 0,75  | 1    | 30                                | 45    | 60  | 75    | 120 | 174 | -    | -    |
| 1,1   | 1,5  | 22                                | 33    | 43  | 53    | 85  | 127 | 210  | -    |
| 1,5   | 2    | -                                 | 23    | 31  | 38    | 63  | 92  | 154  | 246  |
| 2,2   | 3    | -                                 | -     | 22  | 28    | 45  | 67  | 112  | 180  |

Three phase 400 V

| POWER |      | CABLE TYPE AND MAXIMUM LENGTH (*) |       |     |       |     |     |      |      |
|-------|------|-----------------------------------|-------|-----|-------|-----|-----|------|------|
| [kW]  | [HP] | 4x1                               | 4x1,5 | 4x2 | 4x2,5 | 4x4 | 4x6 | 4x10 | 4x16 |
| 0,37  | 0,5  | 240                               | -     | -   | -     | -   | -   | -    | -    |
| 0,55  | 0,75 | 164                               | 246   | 328 | -     | -   | -   | -    | -    |
| 0,75  | 1    | 133                               | 200   | 266 | 333   | -   | -   | -    | -    |
| 1,1   | 1,5  | 97                                | 146   | 195 | 244   | 390 | -   | -    | -    |
| 1,5   | 2    | 72                                | 109   | 145 | 180   | 290 | 435 | -    | -    |
| 2,2   | 3    | 51                                | 78    | 103 | 130   | 207 | 310 | 516  | -    |
| 3     | 4    | 41                                | 62    | 83  | 104   | 167 | 250 | 416  | -    |
| 4     | 5,5  | 31                                | 46    | 62  | 77    | 124 | 186 | 310  | 496  |
| 5,5   | 7,5  | -                                 | 33    | 45  | 56    | 90  | 135 | 225  | 360  |
| 7,5   | 10   | -                                 | -     | -   | -     | 66  | 100 | 165  | 270  |

(\*) Maximum cable length with a voltage drop of 3% at 30°C ambient temperature.

If the operating voltage  $U_i$  in the installation is different from the nominal voltage  $U_n$ , it is possible to calculate the permissible maximum length  $L_{max}$ , with the given table length  $L_{tab}$ , with the following formula:

$$L_{max} = L_{tab} (U_i / U_n)^2$$

### WATER FILLED MOTORS - CABLE SELECTION TABLE

EXAMPLE: MOTOR 0,75 kW – 230 V – CABLE LENGTH 75 m – 4x2,5 mm<sup>2</sup>

**Single phase 230 V**

| POWER |      | CABLE TYPE AND MAXIMUM LENGTH (*) |       |     |       |     |     |      |      |
|-------|------|-----------------------------------|-------|-----|-------|-----|-----|------|------|
| [kW]  | [HP] | 4x1                               | 4x1,5 | 4x2 | 4x2,5 | 4x4 | 4x6 | 4x10 | 4x16 |
| 0,37  | 0,5  | 50                                | 75    | 101 | 125   | -   | -   | -    | -    |
| 0,55  | 0,75 | 38                                | 57    | 77  | 95    | 152 | -   | -    | -    |
| 0,75  | 1    | 30                                | 45    | 58  | 75    | 120 | 174 | -    | -    |
| 1,1   | 1,5  | 22                                | 33    | 40  | 53    | 85  | 127 | 210  | -    |
| 1,5   | 2    | -                                 | 23    | 31  | 38    | 63  | 92  | 154  | 246  |
| 2,2   | 3    | -                                 | -     | 23  | 28    | 45  | 67  | 112  | 180  |

**Three phase 380-415 V**

| POWER |      | CABLE TYPE AND MAXIMUM LENGTH (*) |       |     |       |     |     |      |      |
|-------|------|-----------------------------------|-------|-----|-------|-----|-----|------|------|
| [kW]  | [HP] | 4x1                               | 4x1,5 | 4x2 | 4x2,5 | 4x4 | 4x6 | 4x10 | 4x16 |
| 0,37  | 0,5  | 240                               | -     | -   | -     | -   | -   | -    | -    |
| 0,55  | 0,75 | 164                               | 246   | 328 | -     | -   | -   | -    | -    |
| 0,75  | 1    | 133                               | 200   | 265 | 333   | -   | -   | -    | -    |
| 1,1   | 1,5  | 97                                | 146   | 194 | 244   | 390 | -   | -    | -    |
| 1,5   | 2    | 72                                | 109   | 144 | 180   | 290 | 435 | -    | -    |
| 2,2   | 3    | 51                                | 78    | 103 | 130   | 207 | 310 | 516  | -    |
| 3     | 4    | 41                                | 62    | 81  | 104   | 167 | 250 | 416  | -    |
| 4     | 5,5  | 31                                | 46    | 61  | 77    | 124 | 186 | 310  | 496  |
| 5,5   | 7,5  | -                                 | 33    | 45  | 56    | 90  | 135 | 225  | 360  |
| 7,5   | 10   | -                                 | -     | -   | -     | 66  | 100 | 165  | 270  |

(\*) Maximum cable length with a voltage drop of 3% at 30°C ambient temperature.

If the operating voltage  $U_i$  in the installation is different from the nominal voltage  $U_n$ , it is possible to calculate the permissible maximum length  $L_{max}$ , with the given table length  $L_{tab}$ , with the following formula:

$$L_{max} = L_{tab} (U_i / U_n)^2$$