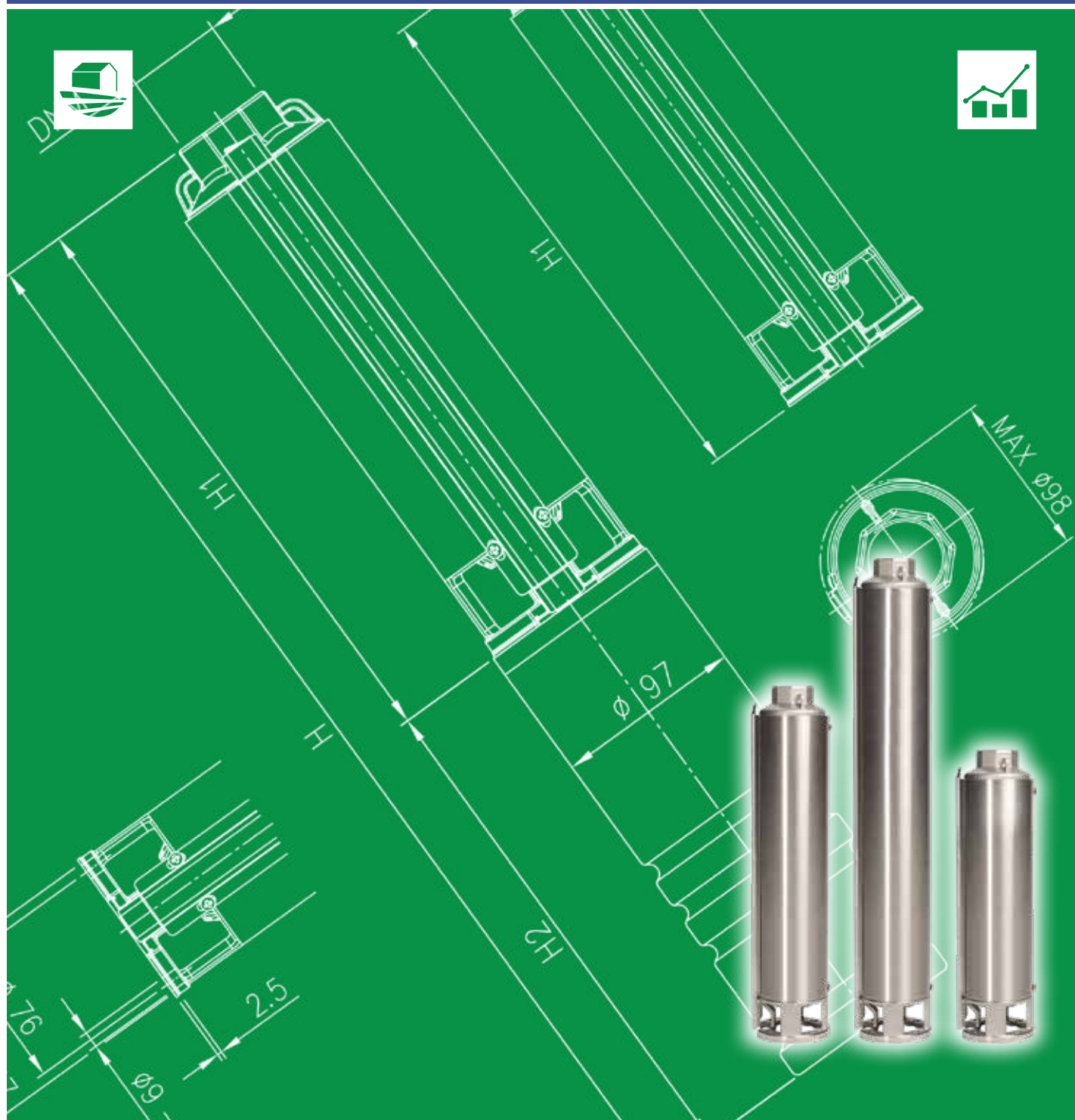


Code TVA FR 45 480 876 929



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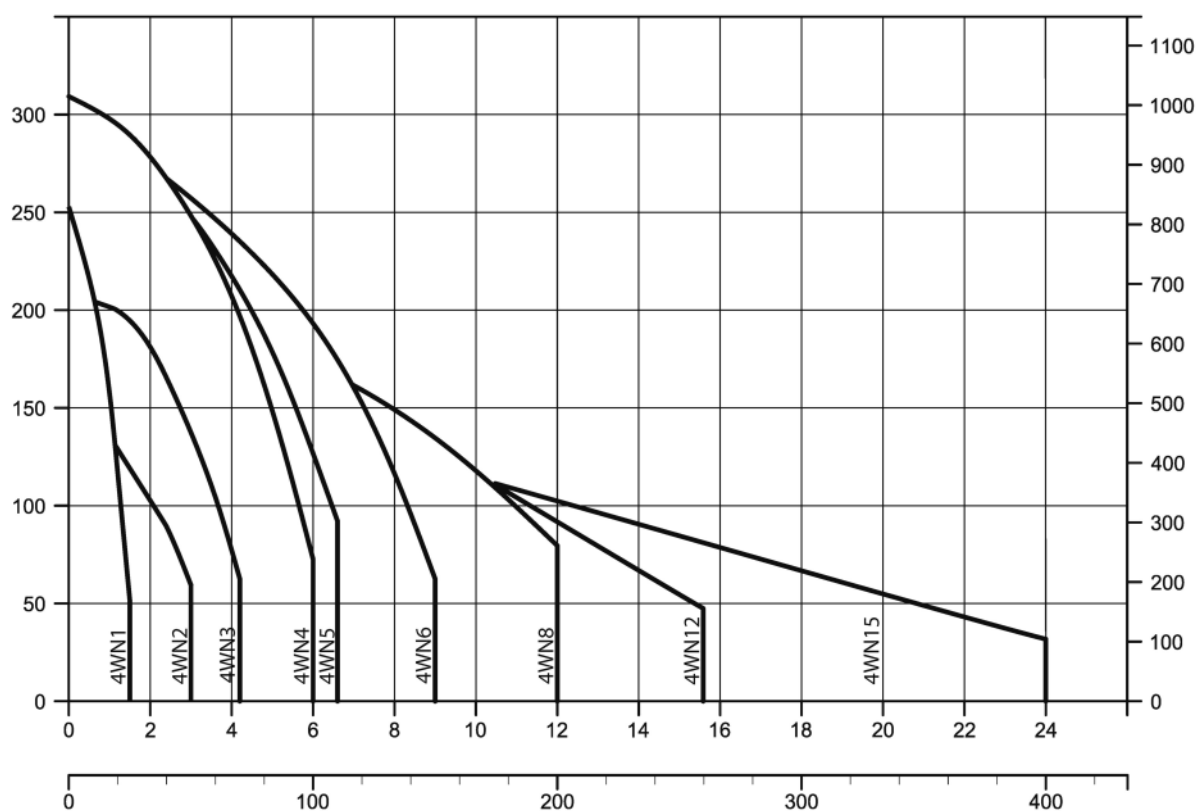
| PUMP                        |                      |                                                   |
|-----------------------------|----------------------|---------------------------------------------------|
| Liquid Handled              | Type of liquid       | Clean water                                       |
|                             | 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 - Sintered (AISI304) / Urethane       |
| Pipe connection             | Suction              | N/A                                               |
|                             | Discharge            | RP1 1/4 (models 4WN1 to 4WN4) UNI ISO 7/1         |
|                             |                      | RP1 1/2 (models 4WN5) UNI ISO 7/1                 |
| Material                    |                      | RP2 (models 4WN6 to 4WN15) UNI ISO 7/1            |
|                             | Impeller             | PPO mod. + Glass Fibre reinforced                 |
|                             | Intermediate casing  | EN 1.4301 (AISI 304)                              |
|                             | Diffuser             | Polycarbonate Glass Fibre reinforced              |
|                             | Shaft                | EN 1.4301 (AISI 304)                              |
|                             | Coupling             | Sintered type (AISI304)                           |
|                             | Discharge Head       | EN 1.4301 (AISI 304)                              |
|                             | Valve                | EN 1.4301 (AISI 304)                              |
|                             | Bracket              | EN 1.4308 (ASTM CF8)                              |
| Applicable standard of test |                      | ISO 9906 - Annex A                                |

## SPECIFICATION

50Hz

Rev.C

| MOTOR                       |            |                                                                           |                         |                                    |                         |
|-----------------------------|------------|---------------------------------------------------------------------------|-------------------------|------------------------------------|-------------------------|
| Type                        |            | Submersible oil filled (type OF)                                          |                         | Submersible water filled (type WF) |                         |
| Manufacturer                |            | Sumoto                                                                    |                         |                                    |                         |
|                             |            | Single phase                                                              | Three phase             | Single phase                       | Three phase             |
| Power rating                | [kW]       | 0.55÷3.7                                                                  | 0.55÷7.5                | 0.55÷3.7                           | 0.55÷7.5                |
|                             | [HP]       | 0.75÷5                                                                    | 0.75÷10                 | 0.75÷5                             | 0.75÷10                 |
| No. of Poles                |            | 2                                                                         |                         |                                    |                         |
| Rated speed                 |            | Refer to each characteristic performance<br>rotation speed as rated speed |                         |                                    |                         |
| Insulation class            |            | F                                                                         |                         |                                    |                         |
| Protection degree           |            | IP 68                                                                     |                         |                                    |                         |
| Maximum temperature         |            | [°C ] 35                                                                  |                         |                                    |                         |
| Maximum immersion           |            | [m] 150                                                                   |                         |                                    |                         |
| Starts / hours              |            | 30                                                                        |                         |                                    |                         |
| Start type                  |            | Direct on line                                                            |                         |                                    |                         |
| Frequency                   |            | [Hz] 50 Hz                                                                |                         |                                    |                         |
| Voltage                     |            | [V] 230(+6-10%)                                                           | 400(+6-10%)             | 230(±6%)                           | 400(±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)                                                |                         | Propylene Glycol - water solution  |                         |
| Motor bracket               |            | Cast iron nickel plated                                                   |                         | Cast iron G20                      |                         |
| Casing material             |            | EN 1.4301 (AISI 304)                                                      |                         |                                    |                         |
| Power cable                 | material   | EPDM/Cross Seald Polyethylene                                             |                         |                                    |                         |
|                             | size [mm²] | 4x1.5                                                                     |                         |                                    |                         |
|                             | lenght [m] | L=1.75 (up to 2.2 kW) / L=2.5 (for 3 and 4 kW) / L=4 (for 5.5 and 7.5 kW) |                         |                                    |                         |
| Flange mount                |            | NEMA standard                                                             |                         |                                    |                         |



# SUBMERSIBLE MULTISTAGE PUMPS

# 4WN

## SELECTION CHART

50Hz

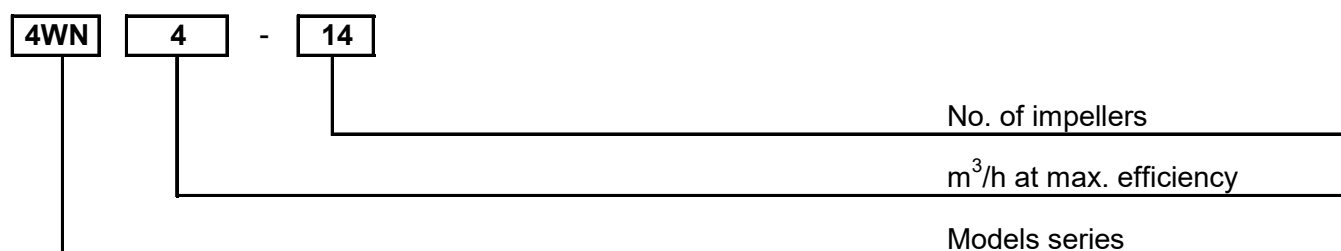
Rev. C

| Type pumps                        | Power |      | Q=Capacity |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----------------------------------|-------|------|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                                   |       |      | l/min      | 0   | 5   | 10  | 15  | 20  | 25  | 30  | 35  | 40  | 45  | 50  | 60  | 70  | 80  | 90  | 100 |
|                                   | [kW]  | [HP] | 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 |
| H=Total manometric head in meters |       |      |            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 4WN1-19                           | 0,55  | 0,75 | 126        | 118 | 105 | 86  | 60  | 30  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| 4WN1-26                           | 0,75  | 1,00 | 173        | 160 | 141 | 117 | 81  | 39  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| 4WN1-38                           | 1,10  | 1,50 | 253        | 234 | 208 | 169 | 117 | 52  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| 4WN2-10                           | 0,55  | 0,75 | 67         | -   | -   | 64  | 61  | 58  | 54  | 49  | 43  | 36  | 28  | -   | -   | -   | -   | -   | -   |
| 4WN2-14                           | 0,75  | 0,10 | 92         | -   | -   | 86  | 83  | 79  | 74  | 67  | 60  | 52  | 42  | -   | -   | -   | -   | -   | -   |
| 4WN2-20                           | 1,10  | 1,50 | 139        | -   | -   | 131 | 127 | 120 | 111 | 101 | 90  | 75  | 60  | -   | -   | -   | -   | -   | -   |
| 4WN3-8                            | 0,55  | 0,75 | 54         | -   | -   | -   | 51  | 50  | 49  | 46  | 43  | 41  | 38  | 30  | 19  | -   | -   | -   | -   |
| 4WN3-11                           | 0,75  | 1,00 | 72         | -   | -   | -   | 68  | 66  | 64  | 61  | 58  | 54  | 49  | 38  | 26  | -   | -   | -   | -   |
| 4WN3-16                           | 1,10  | 1,50 | 106        | -   | -   | -   | 101 | 98  | 95  | 89  | 83  | 77  | 70  | 54  | 33  | -   | -   | -   | -   |
| 4WN3-21                           | 1,50  | 2,00 | 142        | -   | -   | -   | 135 | 132 | 127 | 122 | 115 | 108 | 100 | 79  | 49  | -   | -   | -   | -   |
| 4WN3-32                           | 2,20  | 3,00 | 208        | -   | -   | -   | 200 | 194 | 187 | 177 | 165 | 152 | 138 | 104 | 62  | -   | -   | -   | -   |
| 4WN4-7                            | 0,55  | 0,75 | 46         | -   | -   | -   | -   | 43  | 42  | 41  | 39  | 38  | 36  | 33  | 28  | 22  | 15  | 7   |     |
| 4WN4-9                            | 0,75  | 1,00 | 59         | -   | -   | -   | -   | 55  | 54  | 52  | 51  | 49  | 47  | 43  | 37  | 28  | 20  | 10  |     |
| 4WN4-14                           | 1,10  | 1,50 | 93         | -   | -   | -   | -   | 87  | 86  | 83  | 81  | 79  | 76  | 68  | 58  | 47  | 33  | 20  |     |
| 4WN4-18                           | 1,50  | 2,00 | 120        | -   | -   | -   | -   | 113 | 111 | 108 | 105 | 102 | 98  | 88  | 75  | 60  | 42  | 25  |     |
| 4WN4-27                           | 2,20  | 3,00 | 175        | -   | -   | -   | -   | 164 | 161 | 157 | 152 | 147 | 141 | 127 | 109 | 87  | 61  | 35  |     |
| 4WN4-35                           | 3,00  | 4,00 | 228        | -   | -   | -   | -   | 212 | 208 | 203 | 197 | 191 | 184 | 166 | 145 | 119 | 85  | 46  |     |
| 4WN4-48                           | 4,00  | 5,50 | 309        | -   | -   | -   | -   | 289 | 283 | 276 | 267 | 258 | 248 | 225 | 197 | 162 | 120 | 73  |     |
| 4WN5-6                            | 0,55  | 0,75 | 38         | -   | -   | -   | -   | -   | -   | 36  | 35  | 33  | 32  | 30  | 26  | 22  | 18  | 12  |     |
| 4WN5-8                            | 0,75  | 1,00 | 51         | -   | -   | -   | -   | -   | -   | 47  | 46  | 44  | 43  | 39  | 35  | 30  | 24  | 18  |     |
| 4WN5-12                           | 1,10  | 1,50 | 77         | -   | -   | -   | -   | -   | -   | 72  | 71  | 69  | 68  | 63  | 57  | 49  | 41  | 31  |     |
| 4WN5-16                           | 1,50  | 2,00 | 102        | -   | -   | -   | -   | -   | -   | 98  | 96  | 94  | 92  | 86  | 77  | 68  | 57  | 46  |     |
| 4WN5-24                           | 2,20  | 3,00 | 151        | -   | -   | -   | -   | -   | -   | 142 | 139 | 136 | 132 | 122 | 111 | 97  | 80  | 62  |     |
| 4WN5-32                           | 3,00  | 4,00 | 203        | -   | -   | -   | -   | -   | -   | 188 | 185 | 180 | 175 | 162 | 146 | 127 | 105 | 80  |     |
| 4WN5-44                           | 4,00  | 5,50 | 278        | -   | -   | -   | -   | -   | -   | 265 | 260 | 254 | 247 | 230 | 210 | 187 | 159 | 127 |     |

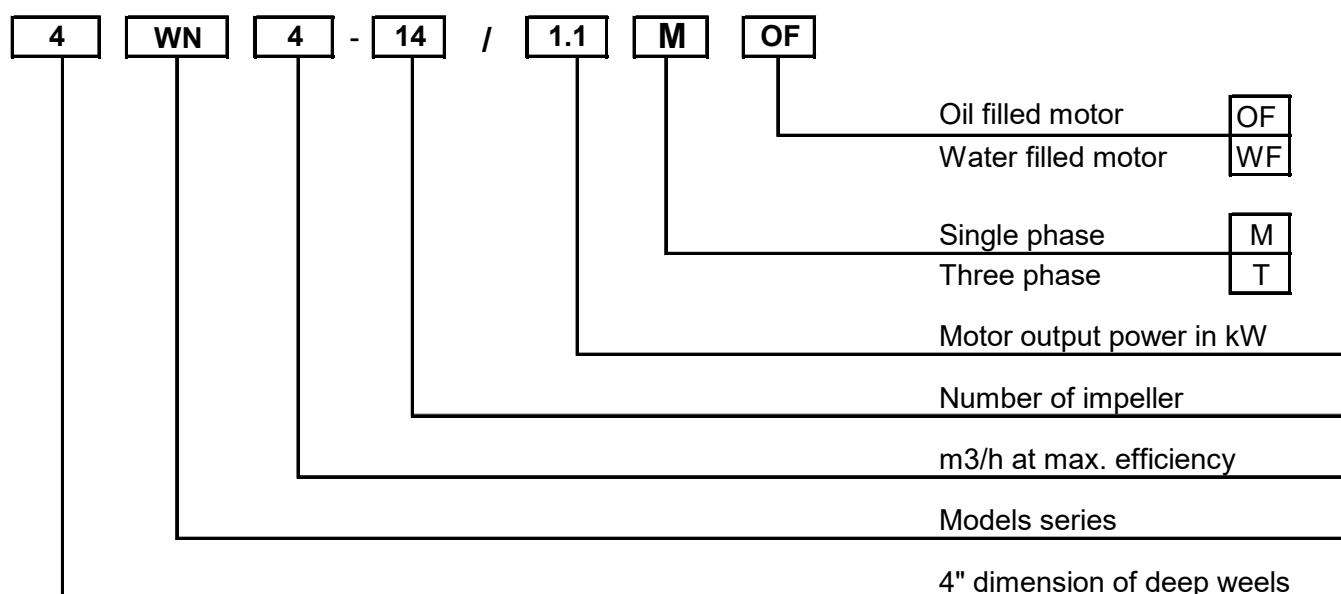
| Type pumps | Power |      | Q=Capacity                        |      |     |     |     |     |     |     |     |     |      |       |      |       |      |      |      |      |      |      |      |      |   |  |
|------------|-------|------|-----------------------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|------|-------|------|-------|------|------|------|------|------|------|------|------|---|--|
|            |       |      | l/min                             | 0    | 45  | 50  | 60  | 70  | 80  | 90  | 100 | 120 | 140  | 160   | 180  | 200   | 220  | 240  | 260  | 280  | 300  | 320  | 340  | 360  |   |  |
|            | [kW]  | [HP] | m³/h                              | 0    | 2,7 | 3,0 | 3,6 | 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 | 21,6 |   |  |
|            |       |      | H=Total manometric head in meters |      |     |     |     |     |     |     |     |     |      |       |      |       |      |      |      |      |      |      |      |      |   |  |
| 4WN6-7     | 1,1   | 1,5  |                                   | 47   | -   | -   | -   | -   | 39  | 38  | 37  | 33  | 28   | 21    | 14   | -     | -    | -    | -    | -    | -    | -    | -    | -    | - |  |
| 4WN6-10    | 1,5   | 2    |                                   | 67   | -   | -   | -   | -   | 57  | 55  | 53  | 47  | 39   | 31    | 21   | -     | -    | -    | -    | -    | -    | -    | -    | -    | - |  |
| 4WN6-15    | 2,2   | 3    |                                   | 100  | -   | -   | -   | -   | 83  | 81  | 78  | 70  | 59   | 46    | 31   | -     | -    | -    | -    | -    | -    | -    | -    | -    | - |  |
| 4WN6-21    | 3     | 4    |                                   | 140  | -   | -   | -   | -   | 118 | 115 | 110 | 99  | 83   | 64    | 43   | -     | -    | -    | -    | -    | -    | -    | -    | -    | - |  |
| 4WN6-29    | 4     | 5,5  |                                   | 194  | -   | -   | -   | -   | 163 | 158 | 152 | 137 | 118  | 93    | 66   | -     | -    | -    | -    | -    | -    | -    | -    | -    | - |  |
| 4WN6-39    | 5,5   | 7,5  |                                   | 262  | -   | -   | -   | -   | 217 | 210 | 202 | 184 | 161  | 128   | 87   | -     | -    | -    | -    | -    | -    | -    | -    | -    | - |  |
| 4WN8-6     | 1,10  | 1,50 |                                   | 38   | -   | -   | -   | -   | 35  | 34  | 33  | 31  | 28   | 24    | 19   | 14    | -    | -    | -    | -    | -    | -    | -    | -    | - |  |
| 4WN8-8     | 1,50  | 2,00 |                                   | 52   | -   | -   | -   | -   | 47  | 45  | 44  | 41  | 37   | 31    | 25   | 18    | -    | -    | -    | -    | -    | -    | -    | -    | - |  |
| 4WN8-13    | 2,20  | 3,00 |                                   | 82   | -   | -   | -   | -   | 75  | 73  | 71  | 66  | 59   | 50    | 40   | 30    | -    | -    | -    | -    | -    | -    | -    | -    | - |  |
| 4WN8-17    | 3,00  | 4,00 |                                   | 108  | -   | -   | -   | -   | 98  | 96  | 94  | 87  | 79   | 70    | 58   | 46    | -    | -    | -    | -    | -    | -    | -    | -    | - |  |
| 4WN8-23    | 4,00  | 5,50 |                                   | 148  | -   | -   | -   | -   | 134 | 131 | 127 | 118 | 108  | 95    | 79   | 60    | -    | -    | -    | -    | -    | -    | -    | -    | - |  |
| 4WN8-32    | 5,50  | 7,50 |                                   | 202  | -   | -   | -   | -   | 182 | 178 | 172 | 160 | 143  | 125   | 105  | 80    | -    | -    | -    | -    | -    | -    | -    | -    | - |  |
| 4WN12-7    | 1,1   | 1,5  |                                   | 36   | -   | -   | -   | -   | -   | -   | 31  | 29  | 27   | 24    | 21   | 18    | 15   | 11   | -    | -    | -    | -    | -    | -    | - |  |
| 4WN12-10   | 1,5   | 2    |                                   | 55   | -   | -   | -   | -   | -   | -   | 47  | 44  | 41   | 38    | 34   | 29    | 24   | 18   | -    | -    | -    | -    | -    | -    | - |  |
| 4WN12-14   | 2,2   | 3    |                                   | 74   | -   | -   | -   | -   | -   | -   | 64  | 60  | 56   | 51    | 46   | 39    | 32   | 24   | -    | -    | -    | -    | -    | -    | - |  |
| 4WN12-19   | 3     | 4    |                                   | 102  | -   | -   | -   | -   | -   | -   | 87  | 83  | 78   | 72    | 65   | 57    | 48   | 37   | -    | -    | -    | -    | -    | -    | - |  |
| 4WN12-25   | 4     | 5,5  |                                   | 135  | -   | -   | -   | -   | -   | -   | 116 | 111 | 104  | 96    | 86   | 75    | 62   | 48   | -    | -    | -    | -    | -    | -    | - |  |
| 4WN12-35   | 5,5   | 7,5  |                                   | 190  | -   | -   | -   | -   | -   | -   | 163 | 155 | 145  | 134   | 122  | 107   | 90   | 71   | -    | -    | -    | -    | -    | -    | - |  |
| 4WN12-43   | 7,5   | 10   |                                   | 235  | -   | -   | -   | -   | -   | -   | 204 | 194 | 183  | 169   | 153  | 135   | 114  | 90   | -    | -    | -    | -    | -    | -    | - |  |
| 4WN15-12   | 2,2   | 3    |                                   | 54   | -   | -   | -   | -   | -   | -   | -   | -   | 46   | 44    | 41   | 38,5  | 35,5 | 32,5 | 29,5 | 26   | 22,5 | 18   | 14   | 10   |   |  |
| 4WN15-16   | 3     | 4    |                                   | 72,5 | -   | -   | -   | -   | -   | -   | -   | -   | 62   | 59,5  | 56   | 53    | 49   | 45   | 41   | 36,5 | 32   | 27   | 21   | 16   |   |  |
| 4WN15-21   | 4     | 5,5  |                                   | 97   | -   | -   | -   | -   | -   | -   | -   | -   | 84,5 | 81    | 76   | 71    | 66   | 61   | 55,5 | 50   | 44   | 37,5 | 30   | 23   |   |  |
| 4WN15-30   | 5,5   | 7,5  |                                   | 138  | -   | -   | -   | -   | -   | -   | -   | -   | 120  | 114,5 | 108  | 101,5 | 94   | 87   | 79   | 71,5 | 63   | 54   | 44,5 | 34,5 |   |  |

### 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:

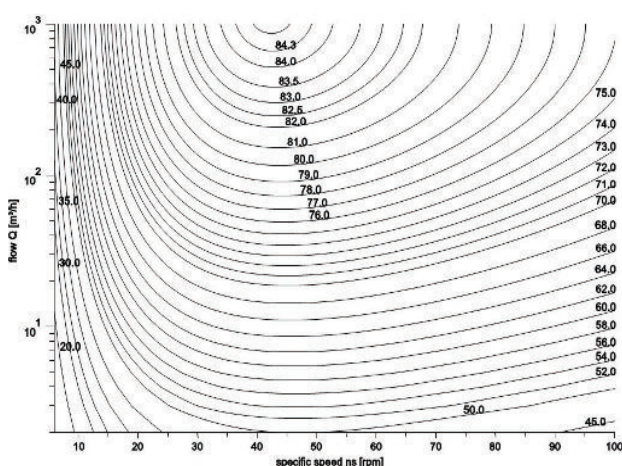
- Q = volume flow rate
- H = total head
- $P_2$  = pump power input (shaft power)
- $\eta$  = pump efficiency
- NPSH = net positive suction head required by the pump
- MEI = minimum efficiency index

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.

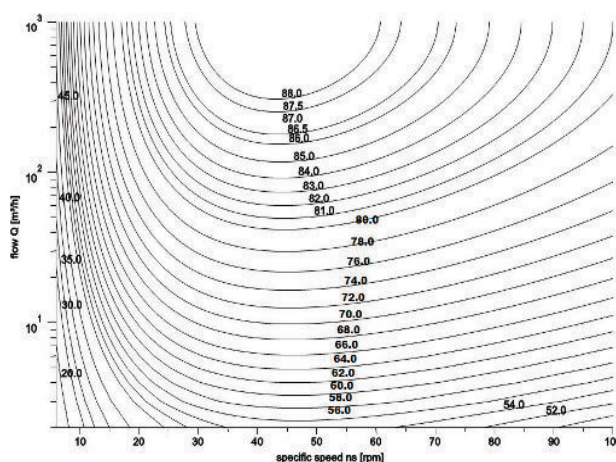
The efficiency of a pump with trimmed impeller is usually lower than that of a pump with the full impeller diameter. The trimming of the impeller will adapt the pump to a fixed duty point, leading to reduced energy consumption. The minimum efficiency index (MEI) is based on the full impeller diameter.

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

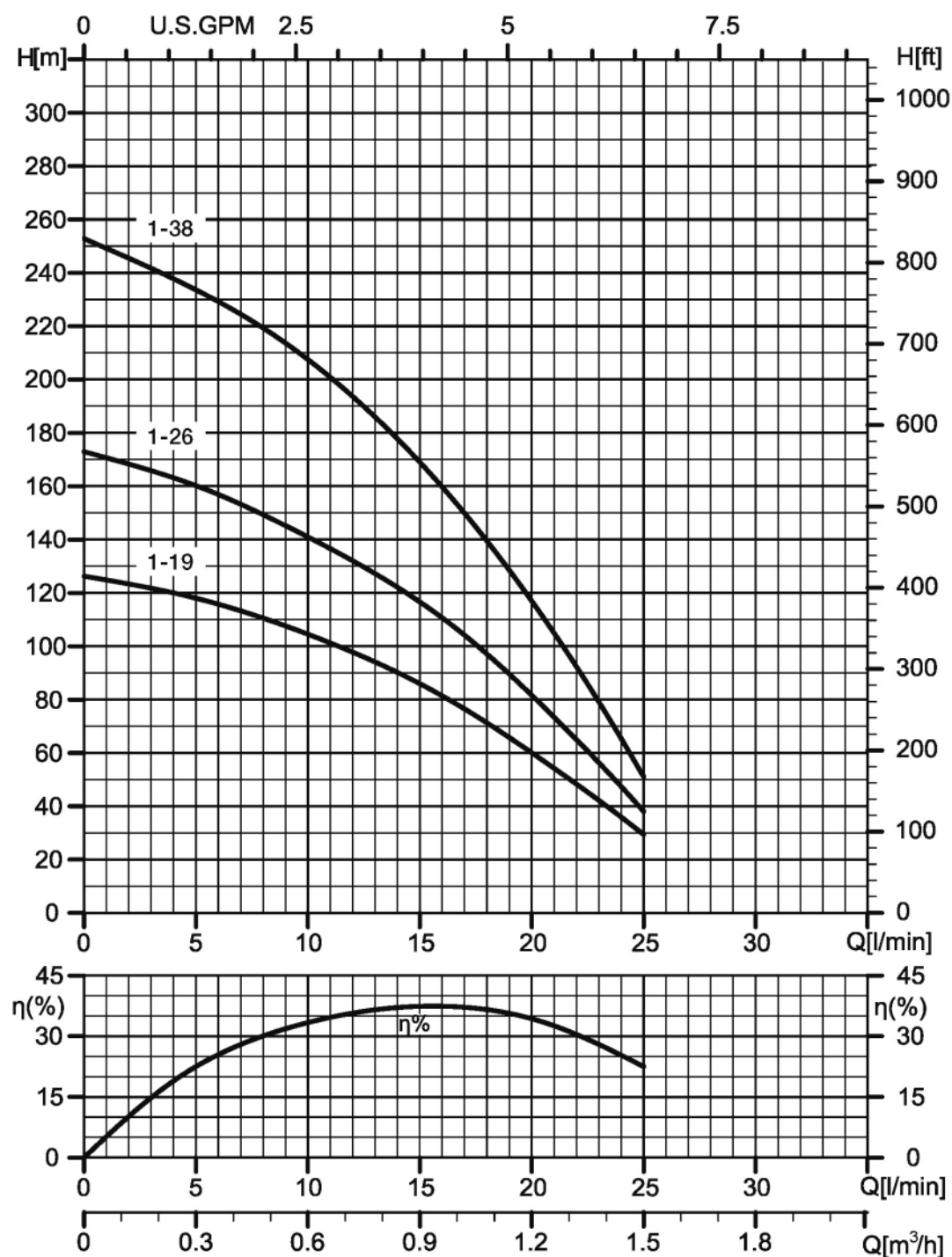


MEI = 0.7 for Multistage Submersible 2900 rpm



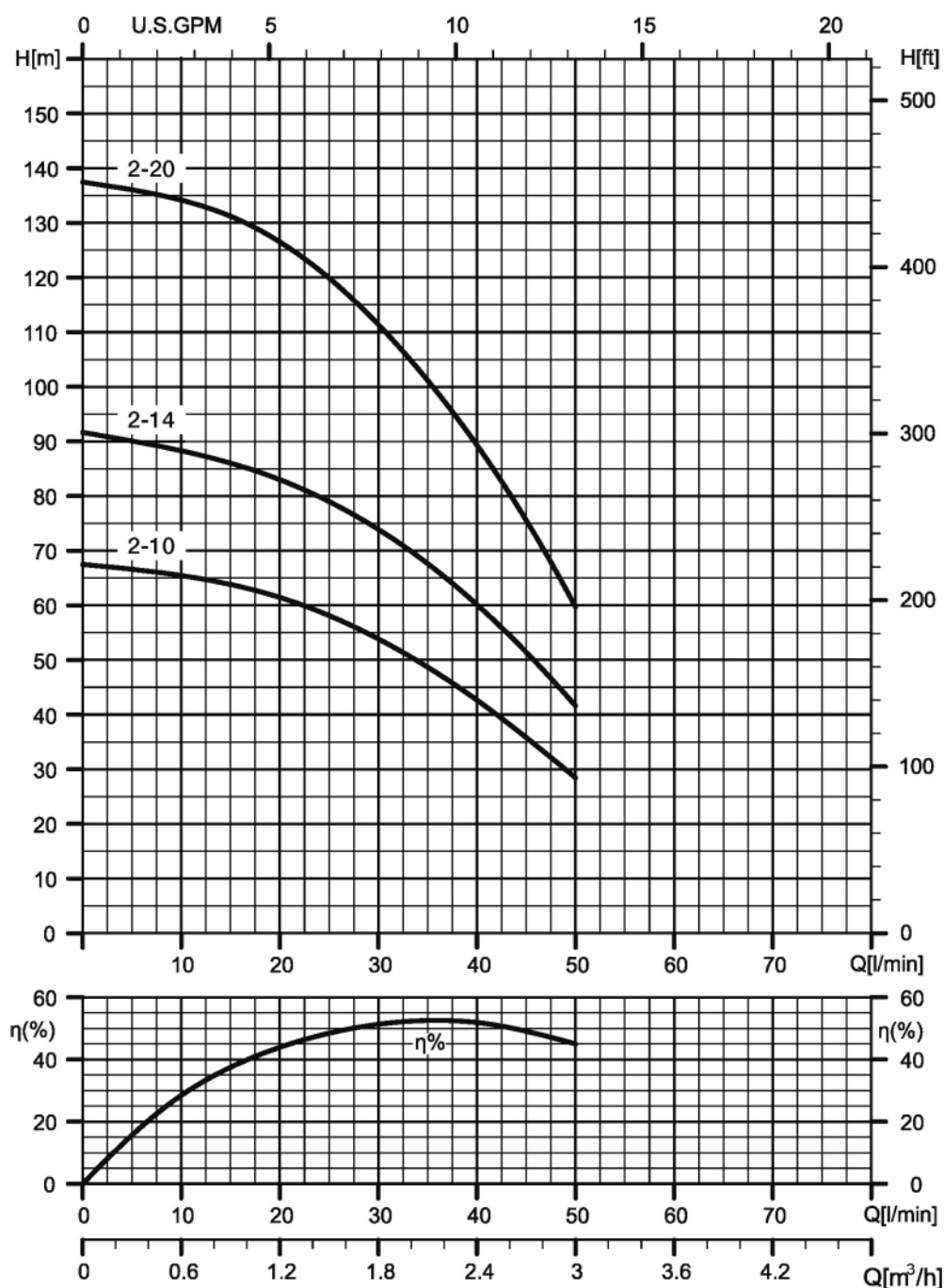


4WN1 – MEI &gt; 0.70



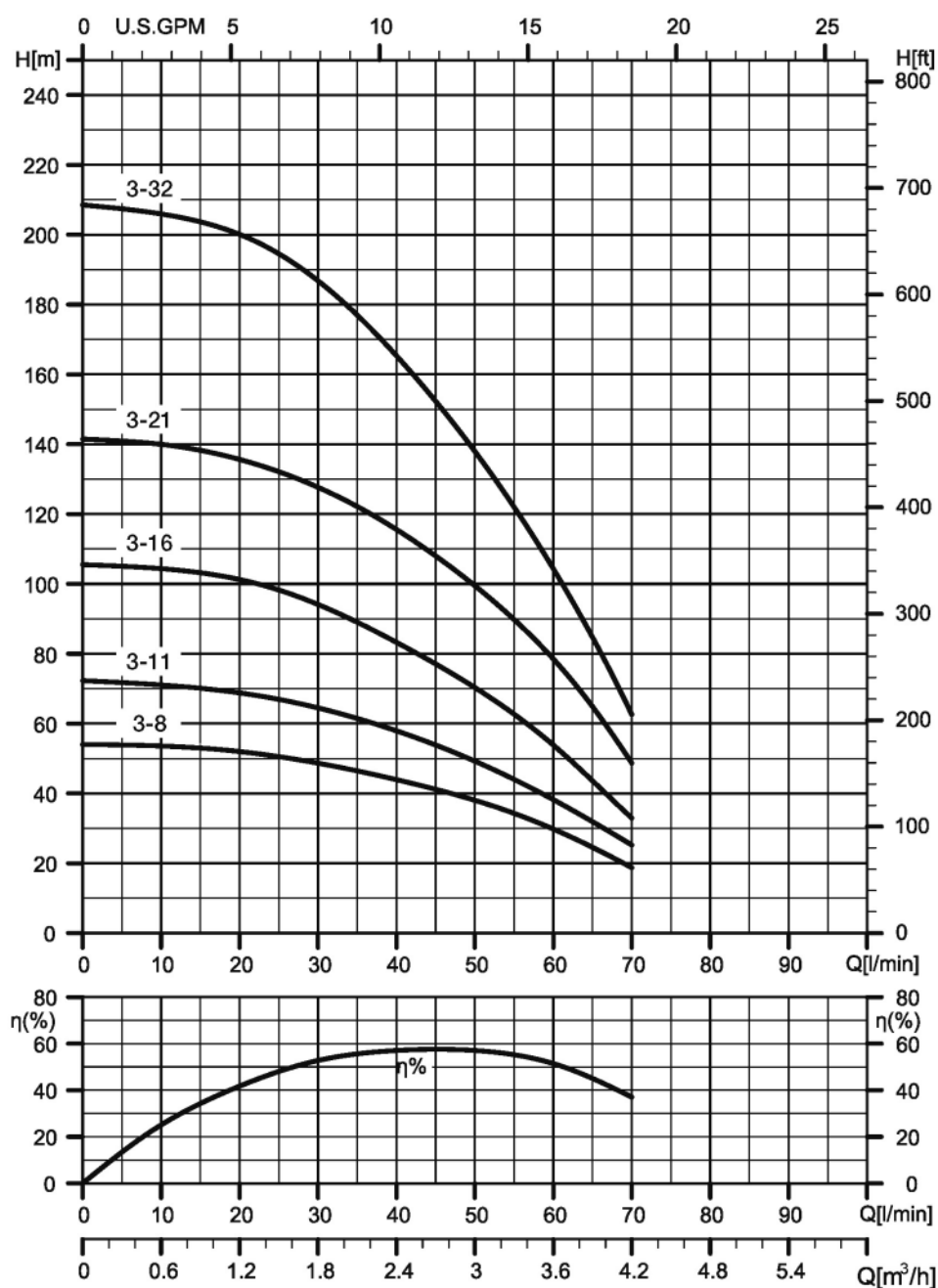
Rotation speed  $\approx 2850 \text{ min}^{-1}$   
Test standard: ISO 9906 – Annex A

4WN2 – MEI > 0.70



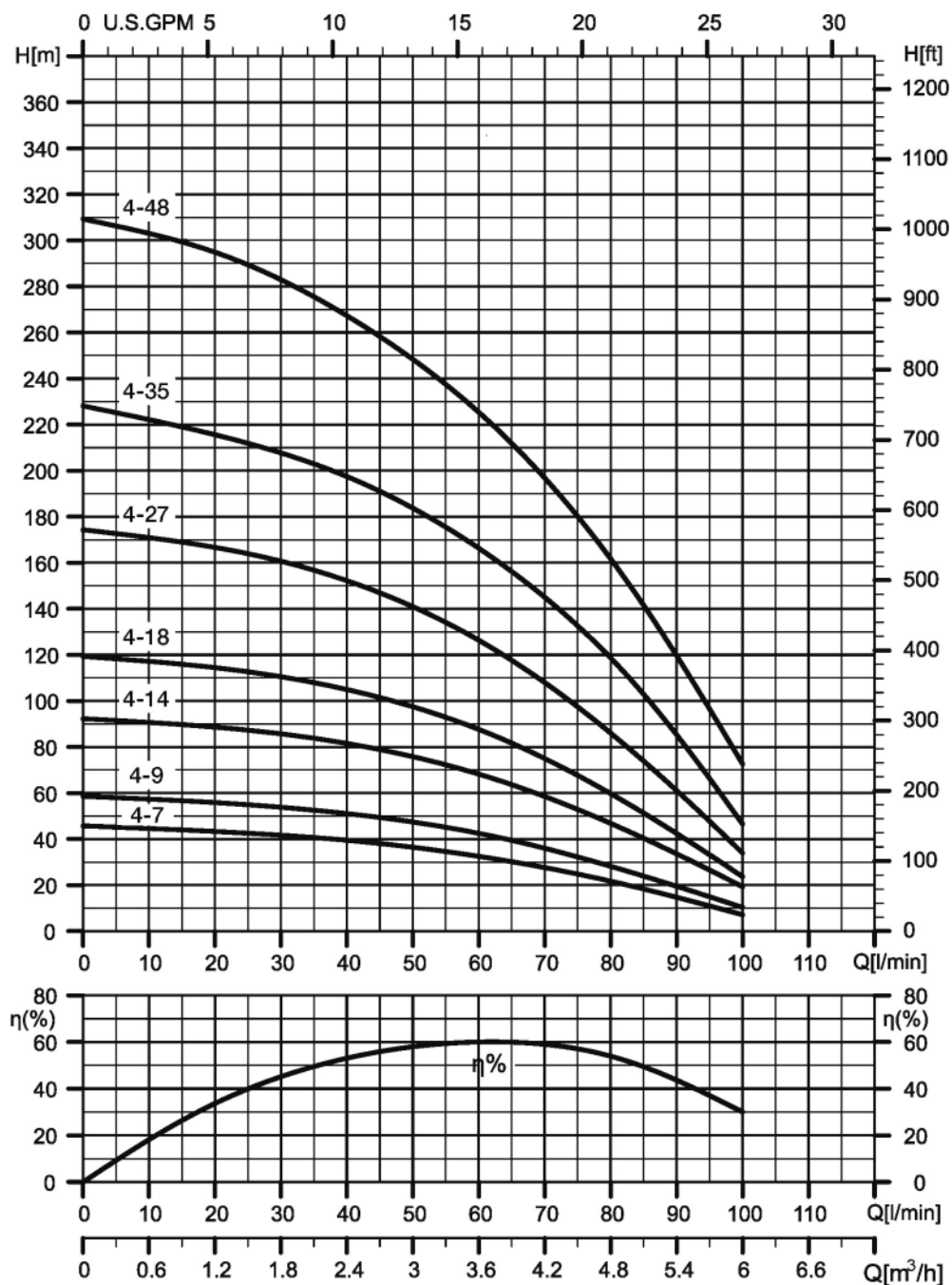
Rotation speed  $\approx 2850 \text{ min}^{-1}$   
 Test standard: ISO 9906 – Annex A

4WN3 – MEI > 0.70



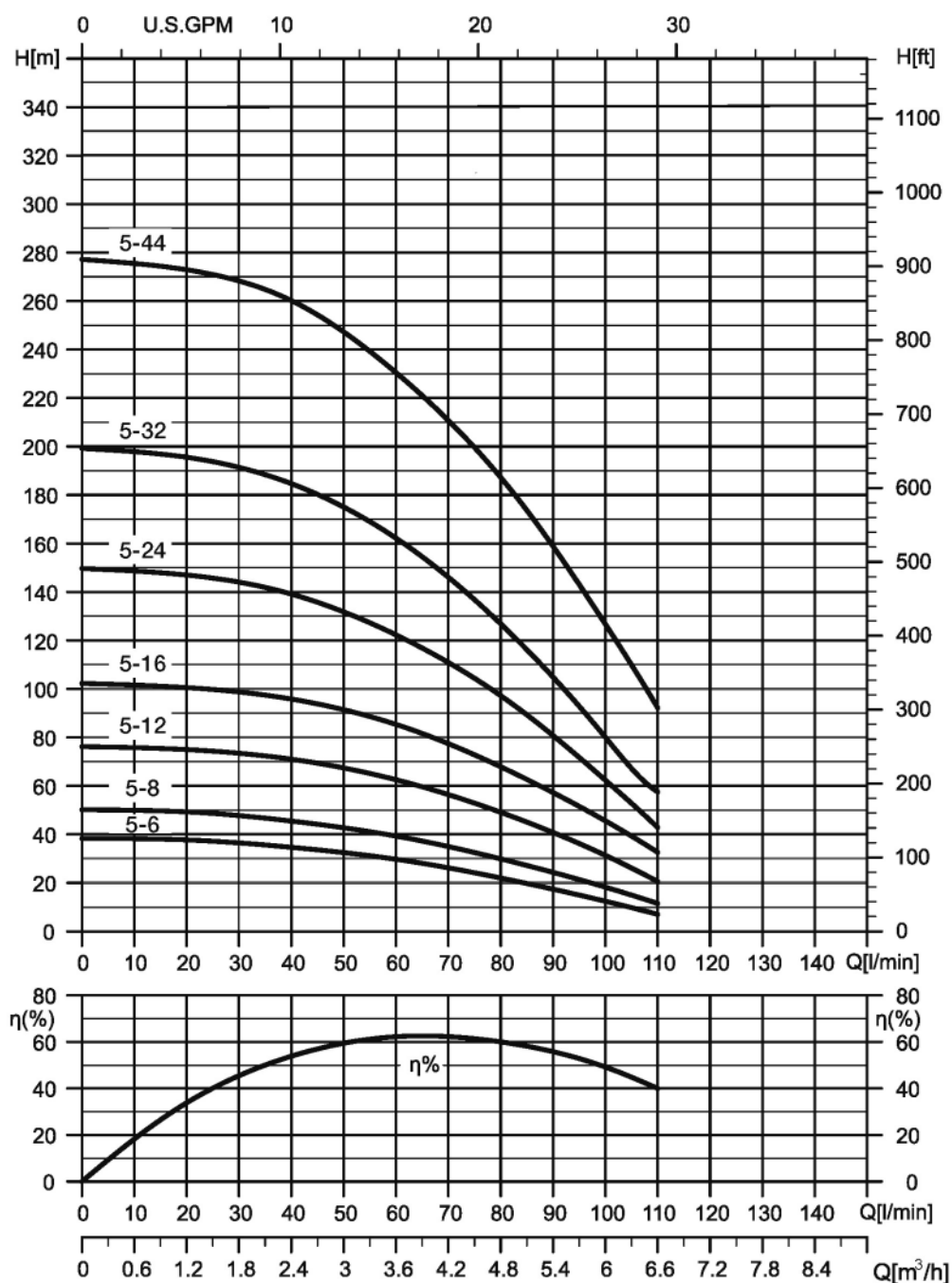
Rotation speed  $\approx 2850 \text{ min}^{-1}$   
Test standard: ISO 9906 – Annex A

4WN4 – MEI &gt; 0.70



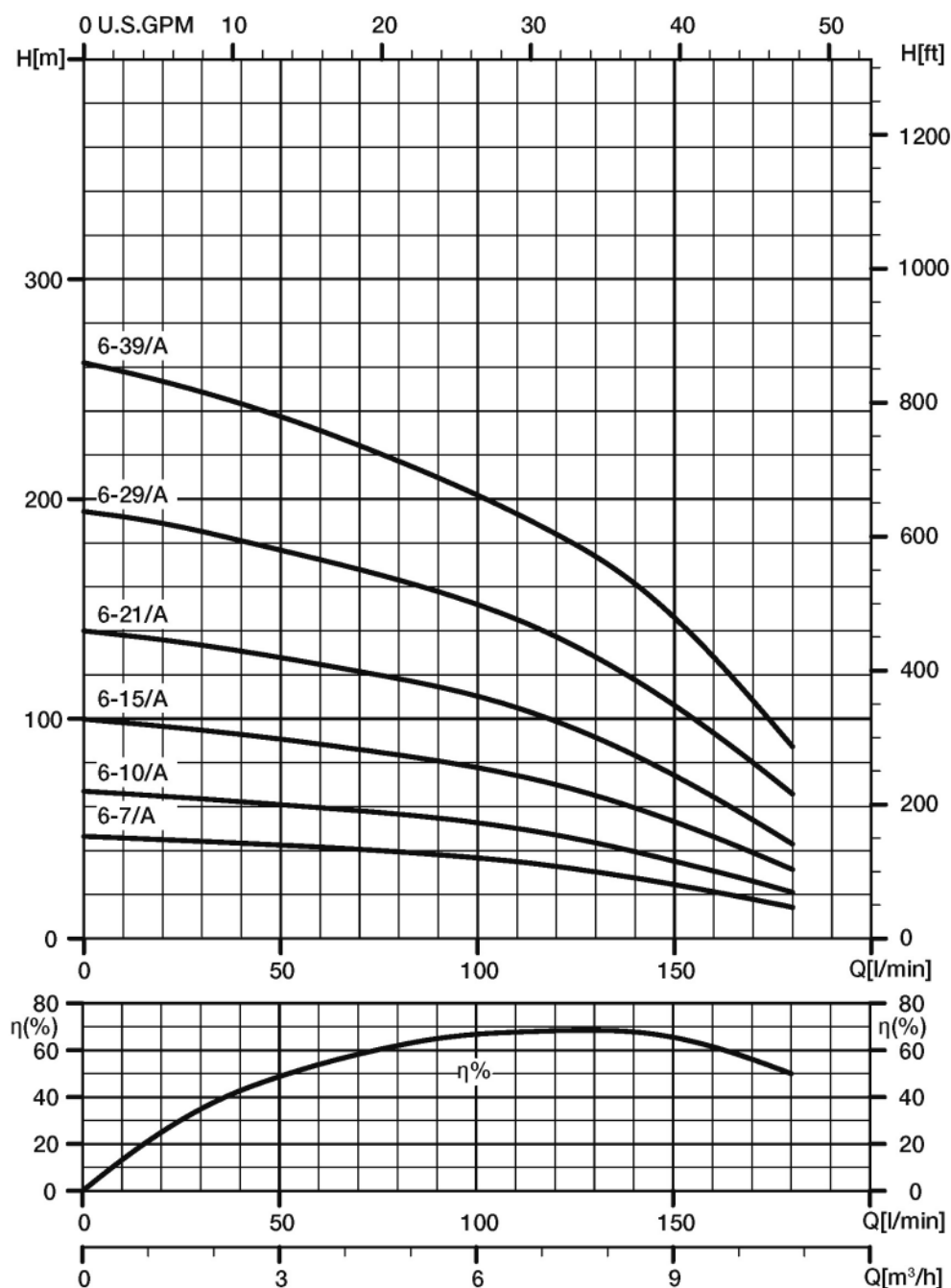
Rotation speed  $\approx 2850 \text{ min}^{-1}$   
Test standard: ISO 9906 – Annex A

4WN5 – MEI > 0.60



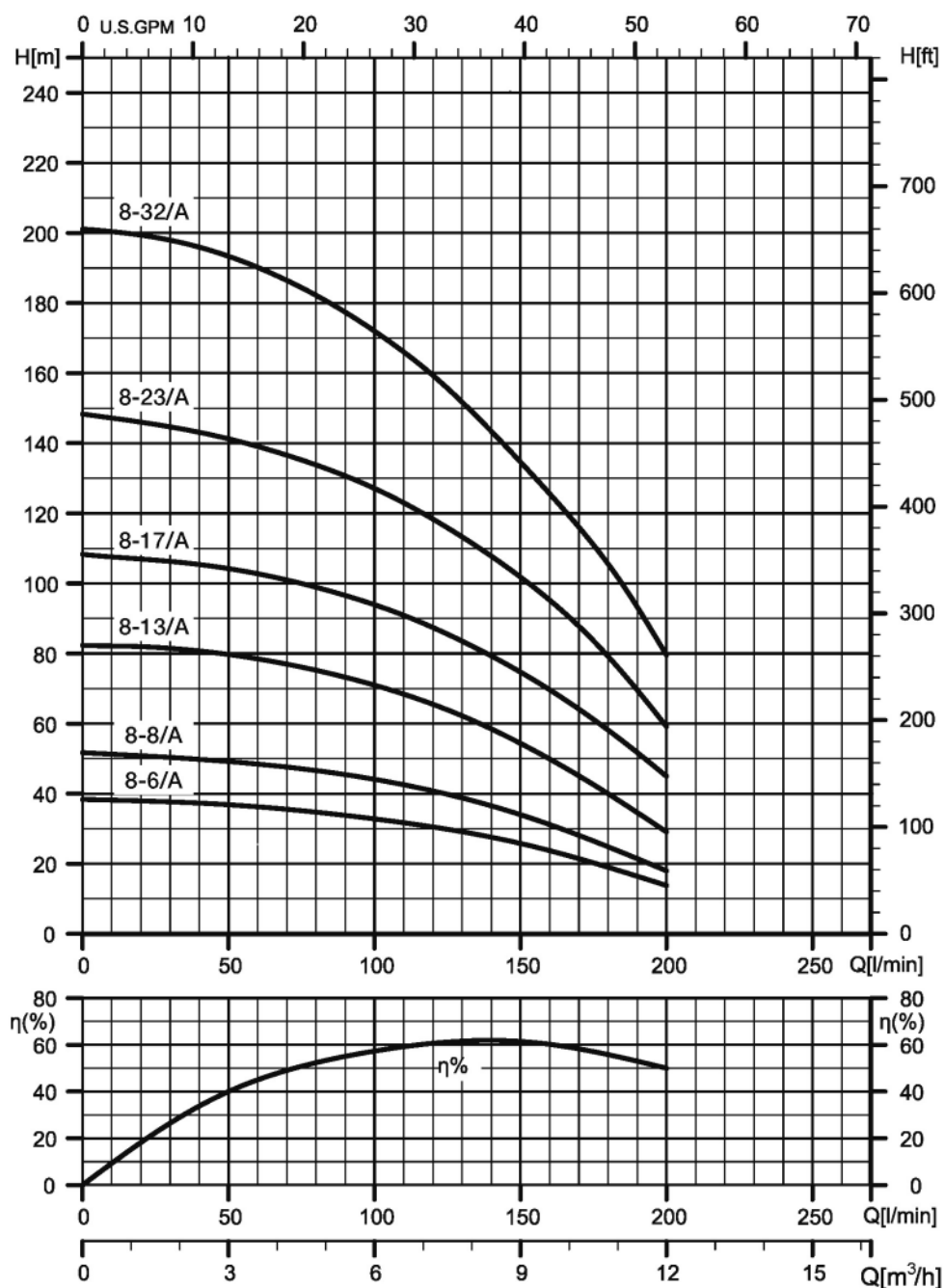
Rotation speed  $\approx 2850 \text{ min}^{-1}$   
 Test standard: ISO 9906 – Annex A

4WN6 – MEI &gt; 0.40



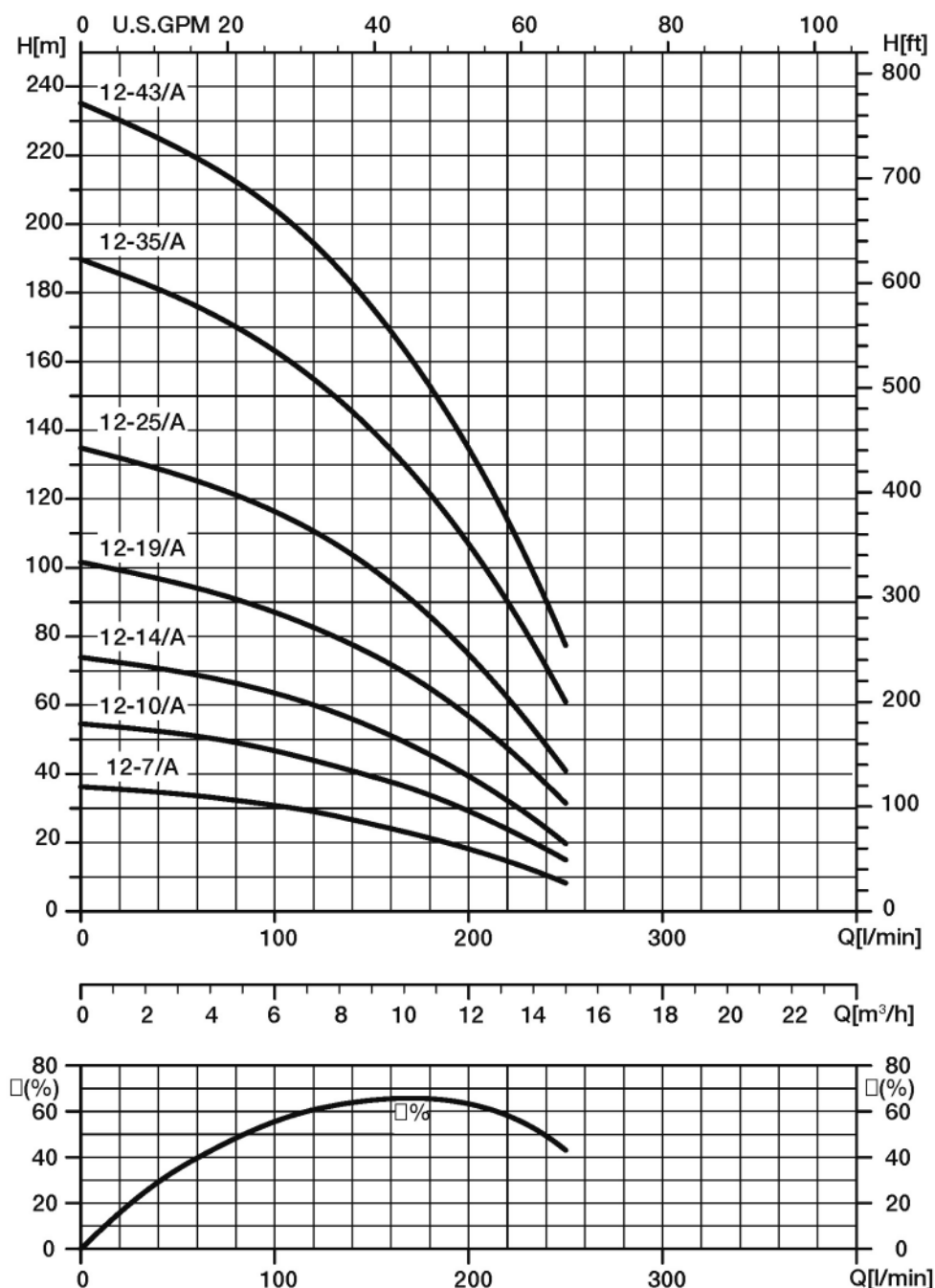
Rotation speed  $\approx 2850 \text{ min}^{-1}$   
Test standard: ISO 9906 – Annex A

4WN8 – MEI > 0.40



Rotation speed  $\approx 2850 \text{ min}^{-1}$   
 Test standard: ISO 9906 – Annex A

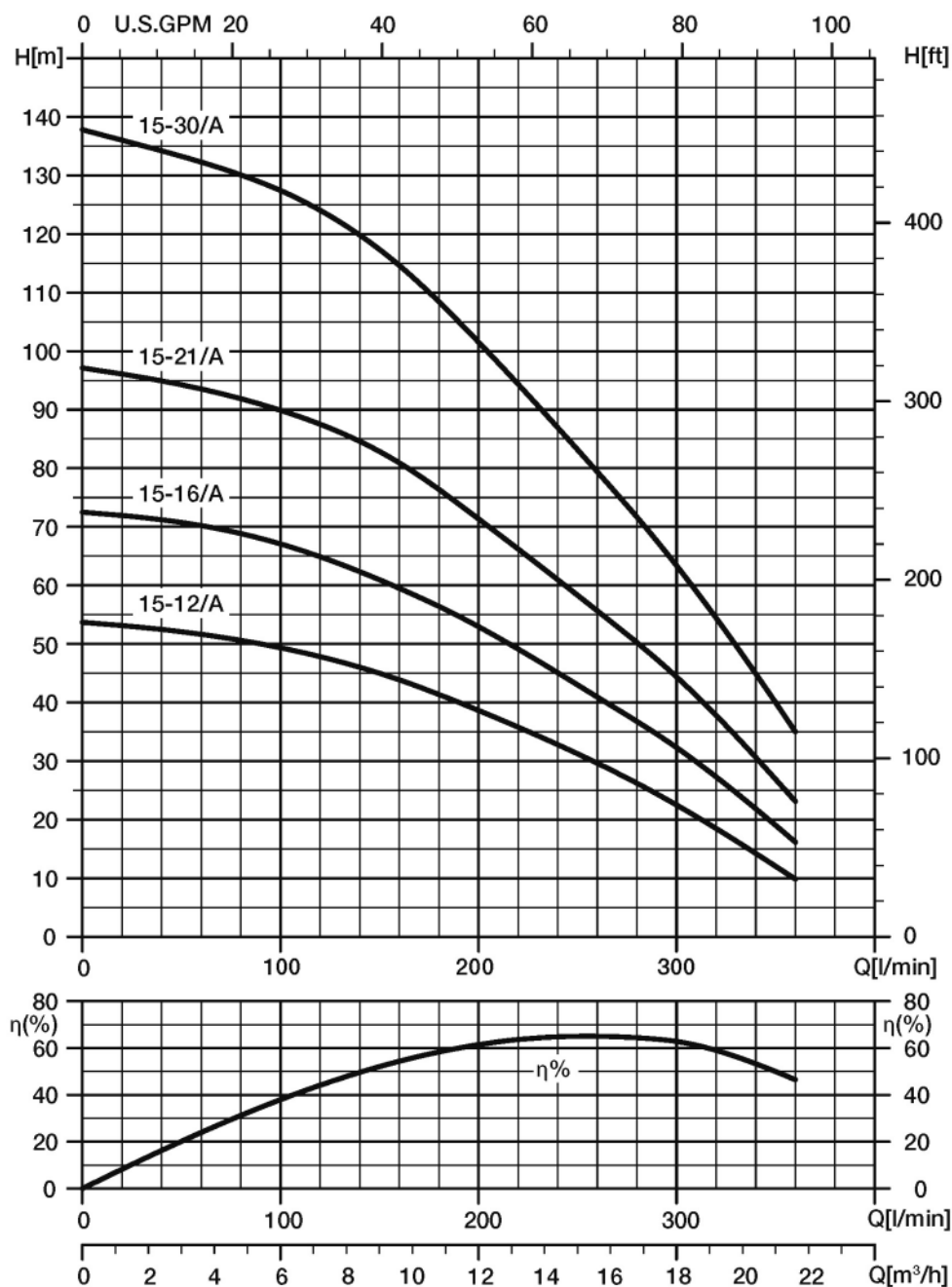
4WN12 – MEI > 0.40



Rotation speed  $\approx 2850 \text{ min}^{-1}$   
Test standard: ISO 9906 – Annex A

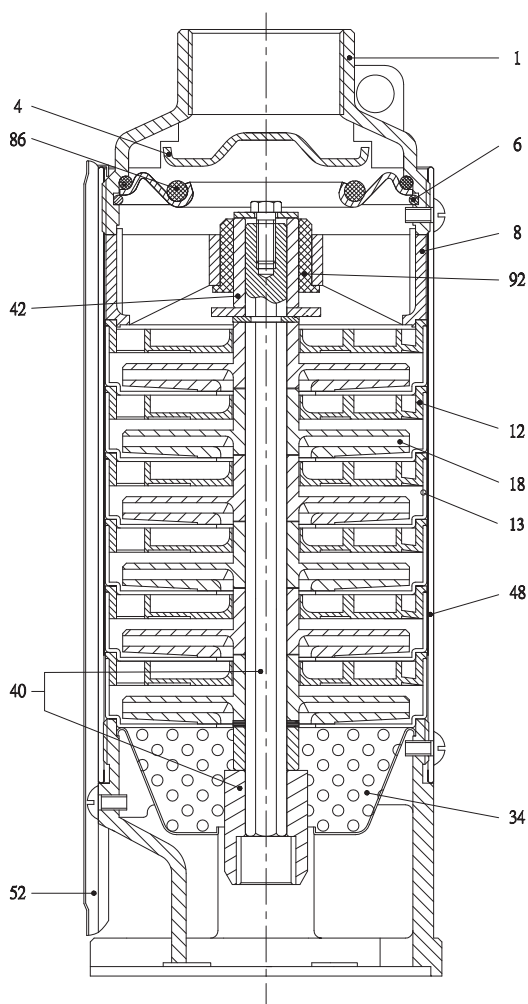


4WN15 – MEI > 0.40



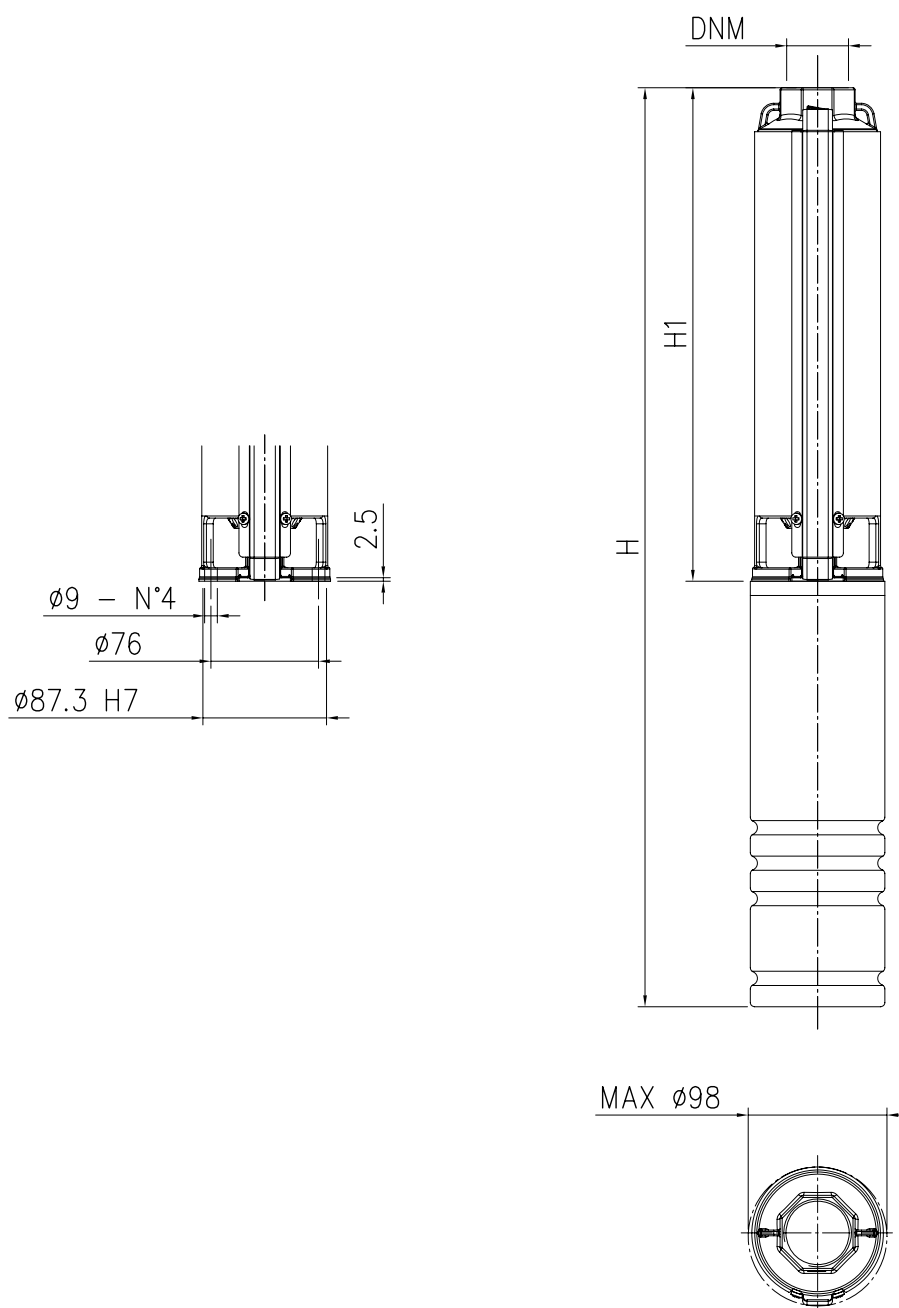
Rotation speed  $\approx 2850 \text{ min}^{-1}$   
 Test standard: ISO 9906 – Annex A

### SECTIONAL VIEW



| N° | PART NAME                  | MATERIAL                   |
|----|----------------------------|----------------------------|
| 1  | Discharge Head             | AISI 304 SS                |
| 4  | Check Valve Cone           | AISI 304 SS                |
| 6  | Check Valve retaining ring | AISI 304 SS                |
| 8  | Bearing Spider             | Glass Filled Polycarbonate |
| 12 | Diffuser                   | Glass Filled Polycarbonate |
| 13 | Bowl                       | AISI 304 SS                |
| 18 | Impeller                   | Noryl34                    |
| 34 | Strainer                   | AISI 304 SS                |
| 40 | Pump Shaft/Coupling        | AISI 304 SS                |
| 42 | Shaft Sleeve               | AISI 304 SS or Noryl       |
| 48 | Pump casing                | AISI 304 SS                |
| 52 | Cable Guard                | AISI 304 SS                |
| 86 | O-Ring                     | NBR                        |
| 92 | Bearing                    | Polyacetal                 |

### PUMP



Pump can be coupled with NEMA standard 4" motor

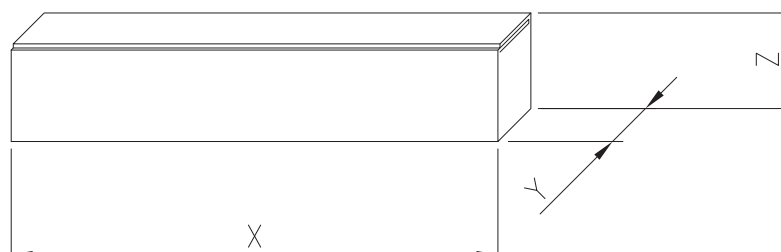
| Type    | Power |      | H1   | DNM   | H (OF-OIL motor version) |                    | H (WF-Water motor version) |                    |
|---------|-------|------|------|-------|--------------------------|--------------------|----------------------------|--------------------|
|         | kW    | HP   |      |       | <i>single-phase</i>      | <i>three-phase</i> | <i>single-phase</i>        | <i>three-phase</i> |
| 4WN1-19 | 0.55  | 0.75 | 481  | 1 1/4 | 806                      | 806                | 734                        | 709                |
| 4WN1-26 | 0.75  | 1.00 | 642  | 1 1/4 | 992                      | 967                | 925                        | 890                |
| 4WN1-38 | 1.10  | 1.50 | 864  | 1 1/4 | 1249                     | 1214               | 1171                       | 1147               |
| 4WN2-10 | 0.55  | 0.75 | 324  | 1 1/4 | 649                      | 649                | 577                        | 552                |
| 4WN2-14 | 0.75  | 1.00 | 394  | 1 1/4 | 744                      | 719                | 677                        | 642                |
| 4WN2-20 | 1.10  | 1.50 | 499  | 1 1/4 | 884                      | 849                | 806                        | 782                |
| 4WN3-8  | 0.55  | 0.75 | 289  | 1 1/4 | 614                      | 614                | 542                        | 517                |
| 4WN3-11 | 0.75  | 1.00 | 342  | 1 1/4 | 692                      | 667                | 625                        | 590                |
| 4WN3-16 | 1.10  | 1.50 | 430  | 1 1/4 | 815                      | 780                | 737                        | 713                |
| 4WN3-21 | 1.50  | 2.00 | 519  | 1 1/4 | 939                      | 904                | 858                        | 826                |
| 4WN3-32 | 2.20  | 3.00 | 749  | 1 1/4 | 1219                     | 1169               | 1186                       | 1088               |
| 4WN4-7  | 0.55  | 0.75 | 301  | 1 1/4 | 626                      | 626                | 554                        | 529                |
| 4WN4-9  | 0.75  | 1.00 | 344  | 1 1/4 | 694                      | 669                | 627                        | 592                |
| 4WN4-14 | 1.10  | 1.50 | 452  | 1 1/4 | 837                      | 802                | 759                        | 735                |
| 4WN4-18 | 1.50  | 2.00 | 538  | 1 1/4 | 958                      | 923                | 877                        | 845                |
| 4WN4-27 | 2.20  | 3.00 | 767  | 1 1/4 | 1237                     | 1187               | 1204                       | 1106               |
| 4WN4-35 | 3.00  | 4.00 | 934  | 1 1/4 | ....                     | 1478               | ....                       | 1328               |
| 4WN4-48 | 4.00  | 5.50 | 1253 | 1 1/4 | ....                     | 1827               | ....                       | 1796               |
| 4WN5-6  | 0.55  | 0.75 | 296  | 1 1/2 | 621                      | 621                | 549                        | 524                |
| 4WN5-8  | 0.75  | 1.00 | 345  | 1 1/2 | 695                      | 670                | 628                        | 593                |
| 4WN5-12 | 1.10  | 1.50 | 433  | 1 1/2 | 818                      | 783                | 740                        | 716                |
| 4WN5-16 | 1.50  | 2.00 | 542  | 1 1/2 | 962                      | 927                | 881                        | 849                |
| 4WN5-24 | 2.20  | 3.00 | 777  | 1 1/2 | 1247                     | 1197               | 1214                       | 1116               |
| 4WN5-32 | 3.00  | 4.00 | 965  | 1 1/2 | ....                     | 1509               | ....                       | 1359               |
| 4WN5-44 | 4.00  | 5.50 | 1296 | 1 1/2 | ....                     | 1870               | ....                       | 1839               |

| Type     | Power |       | H1   | DNM | H (OF-OIL motor version) |                    | H (WF-Water motor version) |                    |
|----------|-------|-------|------|-----|--------------------------|--------------------|----------------------------|--------------------|
|          | kW    | HP    |      |     | <i>single-phase</i>      | <i>three-phase</i> | <i>single-phase</i>        | <i>three-phase</i> |
| 4WN6-7   | 1.10  | 1.50  | 395  | 2   | 780                      | 745                | 702                        | 678                |
| 4WN6-10  | 1.50  | 2.00  | 485  | 2   | 905                      | 870                | 824                        | 792                |
| 4WN6-15  | 2.20  | 3.00  | 640  | 2   | 1110                     | 1060               | 1077                       | 979                |
| 4WN6-21  | 3.00  | 4.00  | 865  | 2   | ....                     | 1409               | ....                       | 1259               |
| 4WN6-29  | 4.00  | 5.50  | 1150 | 2   | ....                     | 1724               | ....                       | 1693               |
| 4WN6-39  | 5.50  | 7.50  | 1480 | 2   | ....                     | 2124               | ....                       | 2133               |
| 4WN8-6   | 1.10  | 1.50  | 356  | 2   | 741                      | 706                | 663                        | 639                |
| 4WN8-8   | 1.50  | 2.00  | 418  | 2   | 838                      | 803                | 757                        | 725                |
| 4WN8-13  | 2.20  | 3.00  | 573  | 2   | 1043                     | 993                | 1010                       | 912                |
| 4WN8-17  | 3.00  | 4.00  | 697  | 2   | ....                     | 1241               | ....                       | 1091               |
| 4WN8-23  | 4.00  | 5.50  | 921  | 2   | ....                     | 1495               | ....                       | 1464               |
| 4WN8-32  | 5.50  | 7.50  | 1238 | 2   | ....                     | 1882               | ....                       | 1891               |
| 4WN12-7  | 1.10  | 1.50  | 540  | 2   | 925                      | 925                | 847                        | 823                |
| 4WN12-10 | 1.50  | 2.00  | 695  | 2   | 1115                     | 1115               | 1034                       | 1002               |
| 4WN12-14 | 2.20  | 3.00  | 905  | 2   | 1375                     | 1449               | 1342                       | 1244               |
| 4WN12-19 | 3.00  | 4.00  | 1240 | 2   | ....                     | 1784               | ....                       | 1634               |
| 4WN12-25 | 4.00  | 5.50  | 1570 | 2   | ....                     | 2144               | ....                       | 2113               |
| 4WN12-35 | 5.50  | 7.50  | 2165 | 2   | ....                     | 2809               | ....                       | 2818               |
| 4WN12-43 | 7.50  | 10.00 | 2585 | 2   | ....                     | 3390               | ....                       | 3316               |
| 4WN15-12 | 2.20  | 3.00  | 680  | 2   | 1150                     | 1100               | 1117                       | 1019               |
| 4WN15-16 | 3.00  | 4.00  | 1220 | 2   | ....                     | 1764               | ....                       | 1614               |
| 4WN15-21 | 4.00  | 5.50  | 1610 | 2   | ....                     | 2184               | ....                       | 2153               |
| 4WN15-30 | 5.50  | 7.50  | 2225 | 2   | ....                     | 2869               | ....                       | 2878               |

| Type    | Power |      | Weight (kg) OF-Oil motor version |              |             | Weight (kg) WF-Water motor version |              |             |
|---------|-------|------|----------------------------------|--------------|-------------|------------------------------------|--------------|-------------|
|         |       |      | Pump                             | Pump + Motor |             | Pump                               | Pump + Motor |             |
|         | Kw    | HP   |                                  | single-phase | three-phase |                                    | single-phase | three-phase |
| 4WN1-19 | 0.55  | 0.75 | 4,7                              | 12,3         | 11,7        | 4,7                                | 12,8         | 12,8        |
| 4WN1-26 | 0.75  | 1.00 | 5,8                              | 14,5         | 13,4        | 5,8                                | 16,4         | 16,4        |
| 4WN1-38 | 1.10  | 1.50 | 8,2                              | 18,5         | 16,9        | 8,2                                | 19,4         | 19,4        |
| 4WN2-10 | 0.55  | 0.75 | 3,3                              | 10,9         | 10,3        | 3,3                                | 11,4         | 11,4        |
| 4WN2-14 | 0.75  | 1.00 | 3,9                              | 12,6         | 11,5        | 3,9                                | 14,5         | 14,5        |
| 4WN2-20 | 1.10  | 1.50 | 4,9                              | 15,2         | 13,6        | 4,9                                | 16,1         | 16,1        |
| 4WN3-8  | 0.55  | 0.75 | 2,9                              | 10,5         | 9,9         | 2,9                                | 11           | 11          |
| 4WN3-11 | 0.75  | 1.00 | 3,4                              | 12,1         | 11          | 3,4                                | 14           | 14          |
| 4WN3-16 | 1.10  | 1.50 | 4,2                              | 14,5         | 12,9        | 4,2                                | 15,4         | 15,4        |
| 4WN3-21 | 1.50  | 2.00 | 5                                | 17           | 15,4        | 5                                  | 19           | 19          |
| 4WN3-32 | 2.20  | 3.00 | 7,1                              | 21,3         | 19,1        | 7,1                                | 23,5         | 23,5        |
| 4WN4-7  | 0.55  | 0.75 | 3                                | 10,3         | 10          | 3                                  | 11,1         | 11,1        |
| 4WN4-9  | 0.75  | 1.00 | 3,3                              | 12           | 10,9        | 3,3                                | 13,9         | 13,9        |
| 4WN4-14 | 1.10  | 1.50 | 4,1                              | 14,4         | 12,8        | 4,1                                | 15,3         | 15,3        |
| 4WN4-18 | 1.50  | 2.00 | 4,7                              | 16,7         | 15,1        | 4,7                                | 18,7         | 18,7        |
| 4WN4-27 | 2.20  | 3.00 | 6,2                              | 20,4         | 18,2        | 6,2                                | 22,6         | 22,6        |
| 4WN4-35 | 3.00  | 4.00 | 7,9                              | ....         | 21          | 7,9                                | ....         | 26,2        |
| 4WN4-48 | 4.00  | 5.50 | 9,9                              | ....         | 25,5        | 9,9                                | ....         | 26,2        |
| 4WN5-6  | 0.55  | 0.75 | 2,9                              | 9,9          | 12          | 2,9                                | 11           | 11          |
| 4WN5-8  | 0.75  | 1.00 | 3,3                              | 12           | 10,9        | 3,3                                | 13,9         | 13,9        |
| 4WN5-12 | 1.10  | 1.50 | 4,1                              | 14,4         | 12,8        | 4,1                                | 15,3         | 15,3        |
| 4WN5-16 | 1.50  | 2.00 | 5                                | 17           | 15,4        | 5                                  | 19           | 19          |
| 4WN5-24 | 2.20  | 3.00 | 6,6                              | 20,8         | 18,6        | 6,6                                | 23           | 23          |
| 4WN5-32 | 3.00  | 4.00 | 8,7                              | ....         | 21,8        | 8,7                                | ....         | 27          |
| 4WN5-44 | 4.00  | 5.50 | 11,2                             | ....         | 26,8        | 11,2                               | ....         | 34,6        |

|          |       |       | Weight (kG) OF-Oil motor version |              |             | Weight (kG) WF-Water motor version |              |             |
|----------|-------|-------|----------------------------------|--------------|-------------|------------------------------------|--------------|-------------|
| Type     | Power |       | Pump                             | Pump + Motor |             | Pump                               | Pump + Motor |             |
|          | Kw    | HP    |                                  | single-phase | three-phase |                                    | single-phase | three-phase |
| 4WN6-7   | 1.10  | 1.50  | 3,8                              | 14,1         | 12,7        | 3,8                                | 15           | 15          |
| 4WN6-10  | 1.50  | 2.00  | 4,6                              | 16,6         | 15          | 4,6                                | 18,6         | 18,6        |
| 4WN6-15  | 2.20  | 3.00  | 6,4                              | 20,6         | 18,4        | 6,4                                | 22,8         | 22,8        |
| 4WN6-21  | 3.00  | 4.00  | 8,2                              | ....         | 21,3        | 8,2                                | ....         | 26,5        |
| 4WN6-29  | 4.00  | 5.50  | 10,7                             | ....         | 26,3        | 10,7                               | ....         | 34,1        |
| 4WN6-39  | 5.50  | 7.50  | 14,5                             | ....         | 33,4        | 14,5                               | ....         | 43,9        |
| 4WN8-6   | 1.10  | 1.50  | 3,4                              | 13,7         | 12,1        | 3,4                                | 14,6         | 14,6        |
| 4WN8-8   | 1.50  | 2.00  | 4                                | 16           | 14,4        | 4                                  | 18           | 18          |
| 4WN8-13  | 2.20  | 3.00  | 5,5                              | 19,7         | 17,5        | 5,5                                | 21,9         | 21,9        |
| 4WN8-17  | 3.00  | 4.00  | 6,6                              | ....         | 19,7        | 6,6                                | ....         | 24,9        |
| 4WN8-23  | 4.00  | 5.50  | 8,4                              | ....         | 24          | 8,4                                | ....         | 31,8        |
| 4WN8-32  | 5.50  | 7.50  | 11                               | ....         | 29,9        | 11                                 | ....         | 40,4        |
| 4WN12-7  | 1.10  | 1.50  | 4,9                              | 15,2         | 13,6        | 4,9                                | 16,1         | 16,1        |
| 4WN12-10 | 1.50  | 2.00  | 6,3                              | 18,3         | 16,7        | 6,3                                | 20,3         | 20,3        |
| 4WN12-14 | 2.20  | 3.00  | 8,1                              | 22,3         | 20,1        | 8,1                                | 24,5         | 24,5        |
| 4WN12-19 | 3.00  | 4.00  | 11                               | ....         | 24,1        | 11                                 | ....         | 29,3        |
| 4WN12-25 | 4.00  | 5.50  | 14,3                             | ....         | 29,9        | 14,3                               | ....         | 37,7        |
| 4WN12-35 | 5.50  | 7.50  | 19,8                             | ....         | 38,7        | 19,8                               | ....         | 49,2        |
| 4WN12-43 | 7.50  | 10.00 | 24                               | ....         | 51          | 24                                 | ....         | 57,8        |
| 4WN15-12 | 2.20  | 3.00  | 8,4                              | 22,6         | 20,4        | 8,4                                |              | 24,8        |
| 4WN15-16 | 3.00  | 4.00  | 10,8                             | ....         | 23,9        | 10,8                               | ....         | 29,1        |
| 4WN15-21 | 4.00  | 5.50  | 14,7                             | ....         | 30,3        | 14,7                               | ....         | 38,1        |
| 4WN15-30 | 5.50  | 7.50  | 20,1                             | ....         | 39          | 20,1                               | ....         | 49,5        |

### PACKING



| Type    | Power |      | Packing (mm) |     |     | OF Pump + Motor+Packing |             | WF Pump + Motor+Packing |             |
|---------|-------|------|--------------|-----|-----|-------------------------|-------------|-------------------------|-------------|
|         | Kw    | HP   | X            | Y   | Z   | single-phase            | three-phase | single-phase            | three-phase |
| 4WN1-19 | 0.55  | 0.75 | 950          | 100 | 100 | 12,7                    | 12,1        | 13,2                    | 13,2        |
| 4WN1-26 | 0.75  | 1.00 | 1035         | 100 | 100 | 14,9                    | 13,8        | 16,8                    | 16,8        |
| 4WN1-38 | 1.10  | 1.50 | 1300         | 100 | 100 | 19,0                    | 17,4        | 19,9                    | 19,9        |
| 4WN2-10 | 0.55  | 0.75 | 820          | 100 | 100 | 11,2                    | 10,6        | 11,7                    | 11,7        |
| 4WN2-14 | 0.75  | 1.00 | 820          | 100 | 100 | 12,9                    | 11,8        | 14,8                    | 14,8        |
| 4WN2-20 | 1.10  | 1.50 | 950          | 100 | 100 | 15,6                    | 14,0        | 16,5                    | 16,5        |
| 4WN3-8  | 0.55  | 0.75 | 640          | 100 | 100 | 10,8                    | 10,2        | 11,3                    | 11,3        |
| 4WN3-11 | 0.75  | 1.00 | 820          | 100 | 100 | 12,4                    | 11,3        | 14,3                    | 14,3        |
| 4WN3-16 | 1.10  | 1.50 | 800          | 100 | 100 | 14,8                    | 13,2        | 15,7                    | 15,7        |
| 4WN3-21 | 1.50  | 2.00 | 1035         | 100 | 100 | 17,4                    | 15,8        | 19,4                    | 19,4        |
| 4WN3-32 | 2.20  | 3.00 | 1300         | 100 | 100 | 21,8                    | 19,6        | 24,0                    | 24,0        |
| 4WN4-7  | 0.55  | 0.75 | 640          | 100 | 100 | 10,6                    | 10,3        | 11,4                    | 11,4        |
| 4WN4-9  | 0.75  | 1.00 | 820          | 100 | 100 | 12,3                    | 11,2        | 14,2                    | 14,2        |
| 4WN4-14 | 1.10  | 1.50 | 950          | 100 | 100 | 14,8                    | 13,2        | 15,7                    | 15,7        |
| 4WN4-18 | 1.50  | 2.00 | 1035         | 100 | 100 | 17,1                    | 15,5        | 19,1                    | 19,1        |
| 4WN4-27 | 2.20  | 3.00 | 1300         | 100 | 100 | 20,9                    | 18,7        | 23,1                    | 23,1        |
| 4WN4-35 | 3.00  | 4.00 | 1530         | 100 | 100 | ....                    | 21,6        | ....                    | 26,8        |
| 4WN4-48 | 4.00  | 5.50 | 2110         | 100 | 100 | ....                    | 26,4        | ....                    | 27,1        |
| 4WN5-6  | 0.55  | 0.75 | 640          | 100 | 100 | 10,2                    | 12,3        | 11,3                    | 11,3        |
| 4WN5-8  | 0.75  | 1.00 | 820          | 100 | 100 | 12,3                    | 11,2        | 14,2                    | 14,2        |
| 4WN5-12 | 1.10  | 1.50 | 800          | 100 | 100 | 14,7                    | 13,1        | 15,6                    | 15,6        |
| 4WN5-16 | 1.50  | 2.00 | 1035         | 100 | 100 | 17,4                    | 15,8        | 19,4                    | 19,4        |
| 4WN5-24 | 2.20  | 3.00 | 1300         | 100 | 100 | 21,3                    | 19,1        | 23,5                    | 23,5        |
| 4WN5-32 | 3.00  | 4.00 | 1530         | 100 | 100 | ....                    | 22,4        | ....                    | 27,6        |
| 4WN5-44 | 4.00  | 5.50 | 2110         | 100 | 100 | ....                    | 27,7        | ....                    | 35,5        |



| Type     | Power |       | Packing (mm) |     |     | OF Pump + Motor+Packing |             | WF Pump + Motor+Packing |             |
|----------|-------|-------|--------------|-----|-----|-------------------------|-------------|-------------------------|-------------|
|          | Kw    | HP    | X            | Y   | Z   | single-phase            | three-phase | single-phase            | three-phase |
| 4WN6-7   | 1.10  | 1.50  | 800          | 100 | 100 | 14,4                    | 13,0        | 15,3                    | 15,3        |
| 4WN6-10  | 1.50  | 2.00  | 1035         | 100 | 100 | 17,0                    | 15,4        | 19,0                    | 19,0        |
| 4WN6-15  | 2.20  | 3.00  | 1300         | 100 | 100 | 21,1                    | 18,9        | 23,3                    | 23,3        |
| 4WN6-21  | 3.00  | 4.00  | 1530         | 100 | 100 | ....                    | 21,9        | ....                    | 27,1        |
| 4WN6-29  | 4.00  | 5.50  | 1810         | 100 | 100 | ....                    | 27,1        | ....                    | 34,9        |
| 4WN6-39  | 5.50  | 7.50  | 2430         | 100 | 100 | ....                    | 34,4        | ....                    | 44,9        |
| 4WN8-6   | 1.10  | 1.50  | 820          | 100 | 100 | 14,0                    | 12,4        | 14,9                    | 14,9        |
| 4WN8-8   | 1.50  | 2.00  | 950          | 100 | 100 | 16,4                    | 14,8        | 18,4                    | 18,4        |
| 4WN8-13  | 2.20  | 3.00  | 1035         | 100 | 100 | 20,1                    | 17,9        | 22,3                    | 22,3        |
| 4WN8-17  | 3.00  | 4.00  | 1300         | 100 | 100 | ....                    | 20,2        | ....                    | 25,4        |
| 4WN8-23  | 4.00  | 5.50  | 1530         | 100 | 100 | ....                    | 24,6        | ....                    | 32,4        |
| 4WN8-32  | 5.50  | 7.50  | 2110         | 100 | 100 | ....                    | 30,8        | ....                    | 41,3        |
| 4WN12-7  | 1.10  | 1.50  | 1035         | 100 | 100 | 15,6                    | 14,0        | 16,5                    | 16,5        |
| 4WN12-10 | 1.50  | 2.00  | 1300         | 100 | 100 | 18,8                    | 17,2        | 20,8                    | 20,8        |
| 4WN12-14 | 2.20  | 3.00  | 1530         | 100 | 100 | 22,9                    | 20,7        | 25,1                    | 25,1        |
| 4WN12-19 | 3.00  | 4.00  | 1950         | 100 | 100 | ....                    | 24,9        | ....                    | 30,1        |
| 4WN12-25 | 4.00  | 5.50  | 2430         | 100 | 100 | ....                    | 30,9        | ....                    | 38,7        |
| 4WN12-35 | 5.50  | 7.50  | 3000         | 100 | 100 | ....                    | 40,0        | ....                    | 50,5        |
| 4WN12-43 | 7.50  | 10.00 | 3600         | 100 | 100 | ....                    | 52,5        | ....                    | 59,3        |
| 4WN15-12 | 2.20  | 3.00  | 1300         | 100 | 100 | 23,1                    | 20,9        | 26,5                    | 25,3        |
| 4WN15-16 | 3.00  | 4.00  | 1950         | 100 | 100 | ....                    | 24,7        | ....                    | 29,9        |
| 4WN15-21 | 4.00  | 5.50  | 2430         | 100 | 100 | ....                    | 31,3        | ....                    | 39,1        |
| 4WN15-30 | 5.50  | 7.50  | 3000         | 100 | 100 | ....                    | 40,3        | ....                    | 50,8        |