

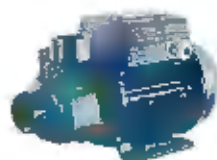
**50Hz**



# **GENERAL CATALOGUE**

**Edition 2023**

[www.pentax-pumps.it](http://www.pentax-pumps.it)



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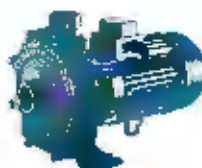
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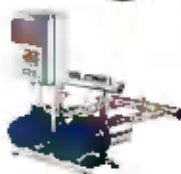
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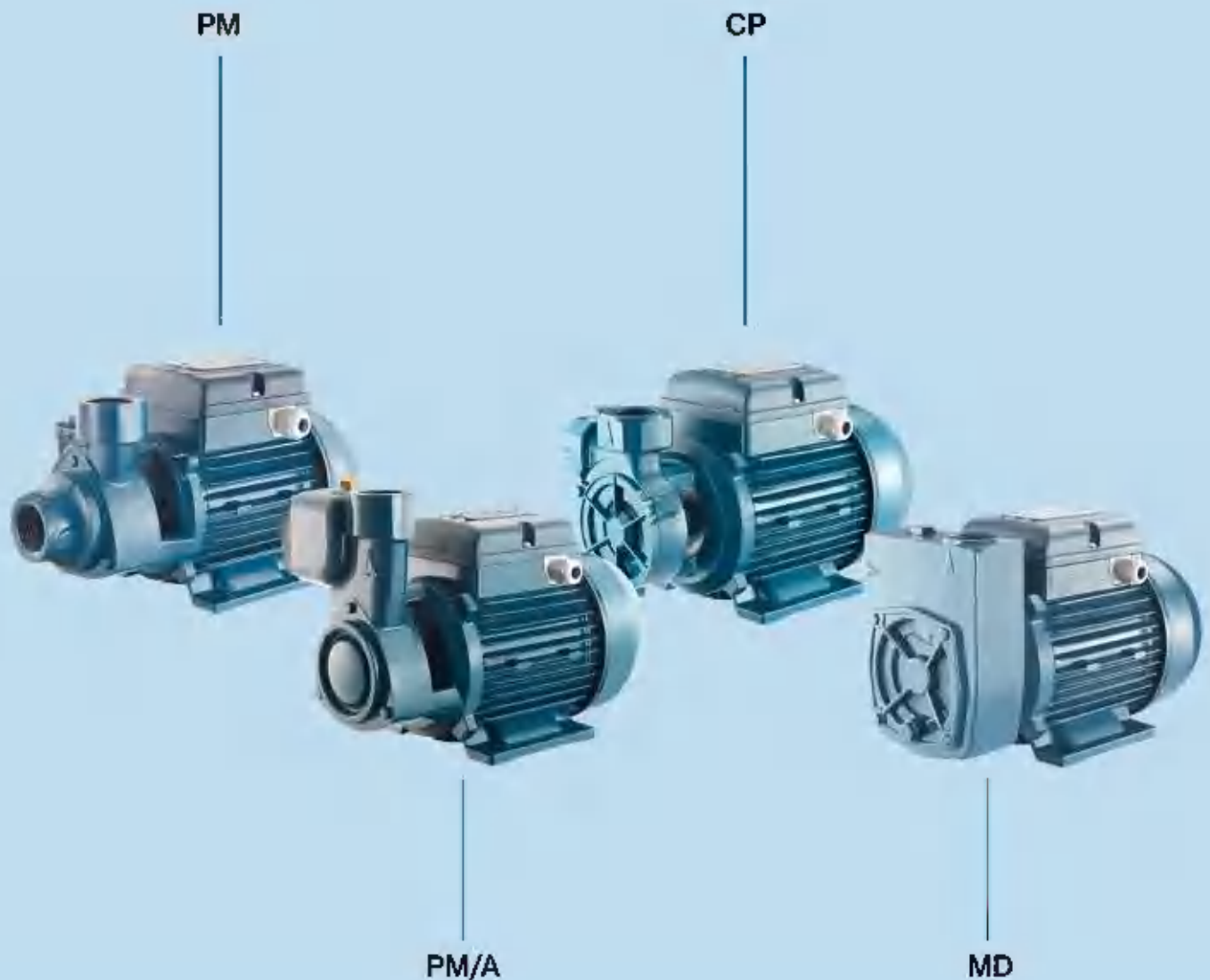
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# PERIPHERALS

# PERIPHERAL PUMPS

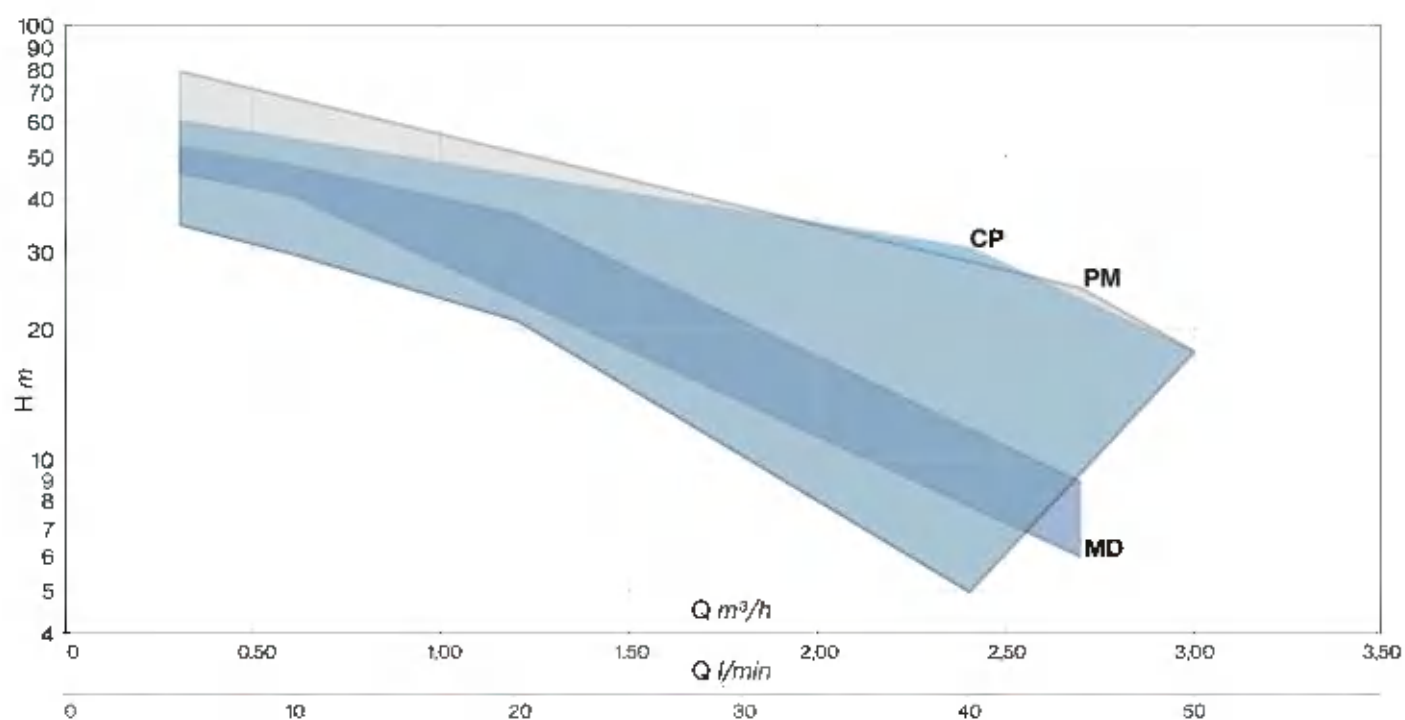


Range of peripheral and liquid ring type positive displacement pumps; they are characterized by the high ratio between the performances offered and the power required.

## **Applications:**

- Small domestic installations
- Boiler feeding
- For washing
- Pressurization of industrial plants
- Small autoclaves
- Transfer of liquids

# PERIPHERAL PUMPS



# PM

## Peripherals



PM

PM A

Peripheral positive displacement pump with front suction (PM) and side suction (PM A) for small household systems and simple industrial applications; characterised by a considerable ratio between performance and required output.

### Construction features

|                           |                                                        |
|---------------------------|--------------------------------------------------------|
| <b>Pump body</b>          | cast iron, bronze (45BR)                               |
| <b>Motor bracket</b>      | cast iron, cast iron or bronze (45BR)                  |
| <b>Impeller</b>           | brass                                                  |
| <b>Mechanical seal</b>    | ceramic-graphite-NBR                                   |
| <b>Motor shaft</b>        | stainless steel AISI 416                               |
| <b>Liquid temperature</b> | 0 - 90 °C                                              |
| <b>Operating pressure</b> | max 6 bar (45)<br>max 8 bar (65, 80)<br>max 9 bar (90) |

### Motor

|                                |                                           |
|--------------------------------|-------------------------------------------|
|                                | 3- 230/400V-50Hz                          |
| <b>2 Poles induction motor</b> | 1- 230V-50Hz<br>(with thermal protection) |
| <b>Insulation class</b>        | F                                         |
| <b>Protection degree</b>       | IPX4                                      |

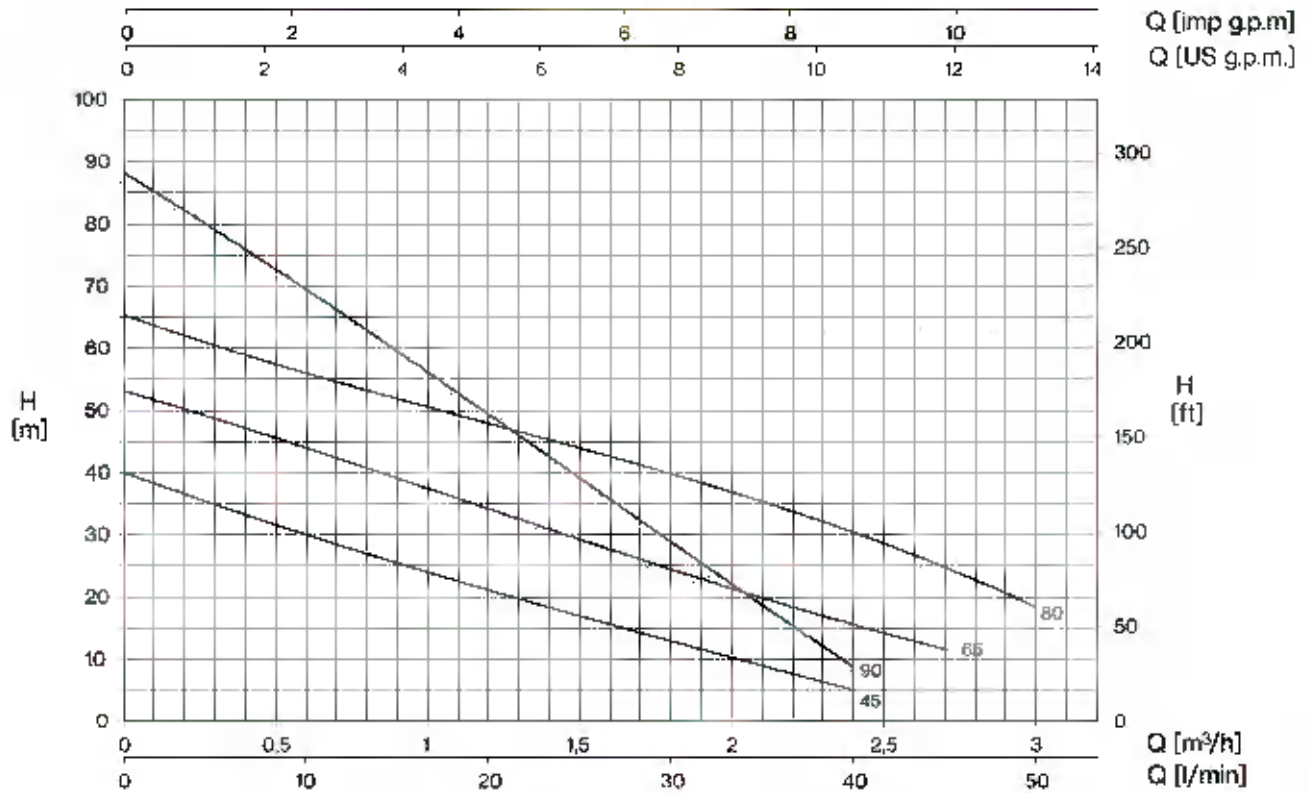
### PMT 45 A



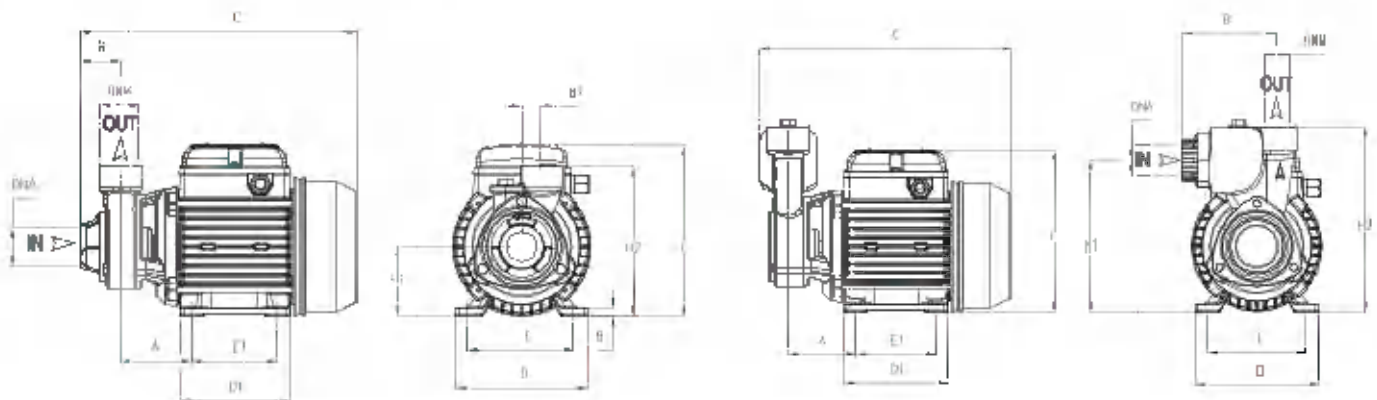
| TYPE      | LOTS        |          | CONTAINER   |          |
|-----------|-------------|----------|-------------|----------|
|           | TRUCK       |          |             |          |
|           | PALLET (cm) | N° pumps | PALLET (cm) | N° pumps |
| PM 45(BR) | 85×110×170  | 198      | 85×110×190  | 220      |
|           | 80×120×170  | 207      | 80×120×190  | 230      |
| PM 45A    |             |          | 85×110×190  | 135      |
| PM 65A    | 80×110×170  | 106      | 85×120×170  | 136      |
| PM 80-90  |             |          | 80×120×190  | 190      |
| PM 65     | 80×120×160  | 171      | 85×100×190  | 200      |
| PM 80A    | 85×100×160  | 180      | 80×120×145  | 102      |
|           | 80×120×145  | 102      | 80×120×190  | 136      |







| TYPE    |          | P2  |      | P1<br>(kW) |     | AMPERE           |                  | Q (m³/h - l/min) |      |      |      |      |      |      |      |  |
|---------|----------|-----|------|------------|-----|------------------|------------------|------------------|------|------|------|------|------|------|------|--|
| 1-      | 3-       |     |      |            |     | 1-               | 3-               | 0                | 0,3  | 0,6  | 1,2  | 1,8  | 2,4  | 2,7  | 3    |  |
|         |          |     |      |            |     |                  |                  | 0                | 5    | 10   | 20   | 30   | 40   | 45   | 50   |  |
|         |          | HP  | kW   | 1-         | 3-  | 1x230 V<br>50 Hz | 3x400 V<br>50 Hz | H (m)            |      |      |      |      |      |      |      |  |
| PM 45   | PMT 45   | 0,5 | 0,37 | 0,5        | 0,5 | 2,3              | 1,0              | 40,0             | 35,0 | 30,0 | 21,0 | 13,0 | 5,0  |      |      |  |
| PM 45BR | PMT 45BR | 0,5 | 0,37 | 0,5        | 0,5 | 2,3              | 1,0              | 40,0             | 35,0 | 30,0 | 21,0 | 13,0 | 5,0  |      |      |  |
| PM 45A  | PMT 45A  | 0,5 | 0,37 | 0,5        | 0,5 | 2,3              | 1,0              | 40,0             | 35,0 | 30,0 | 21,0 | 13,0 | 5,0  |      |      |  |
| PM 65   | PMT 65   | 0,7 | 0,5  | 0,9        | 0,9 | 4,0              | 1,7              | 53,1             | 48,8 | 44,1 | 33,8 | 24,7 | 15,5 | 11,6 |      |  |
| PM 65A  | PMT 65A  | 0,7 | 0,5  | 0,9        | 0,9 | 4,0              | 1,7              | 53,1             | 48,8 | 44,1 | 33,8 | 24,7 | 15,5 | 11,6 |      |  |
| PM 80   | PMT 80   | 1   | 0,74 | 1,1        | 1,1 | 5,2              | 2,0              | 65,0             | 61,0 | 56,0 | 48,0 | 39,0 | 31,0 | 25,1 | 18,0 |  |
| PM 80A  | PMT 80A  | 1   | 0,74 | 1,1        | 1,1 | 5,2              | 2,0              | 65,0             | 61,0 | 56,0 | 48,0 | 39,0 | 31,0 | 25,1 | 18,0 |  |
| PM 90   | PMT 90   | 1   | 0,74 | 1,2        | 1,1 | 5,6              | 2,0              | 88,2             | 79,2 | 69,3 | 49,5 | 28,6 | 8,3  |      |      |  |



| TYPE    | DIMENSIONS (mm) |     |    |     |     |     |     |    |     |     |       |     |     | K9  |     |     |
|---------|-----------------|-----|----|-----|-----|-----|-----|----|-----|-----|-------|-----|-----|-----|-----|-----|
|         | A               | B   | B1 | C   | D   | D1  | E   | E1 | F   | H1  | H2    | DNA | DNM | I   | L   | M   |
| PM 45   | 63              | 50  | 20 | 280 | 120 | 101 | 100 | 80 | 158 | 63  | 143   |     |     | 265 | 150 | 175 |
| PM 45BR | 63              | 50  | 20 | 260 | 120 | 101 | 100 | 80 | 158 | 63  | 143   |     |     | 265 | 150 | 175 |
| PM 45A  | 63              | 89  | 20 | 240 | 120 | 101 | 100 | 80 | 158 | 150 | 184   |     |     | 300 | 170 | 195 |
| PM 65   | 70              | 66  | 20 | 271 | 120 | 101 | 100 | 80 | 158 | 63  | 152,2 |     |     | 285 | 150 | 180 |
| PM 65A  | 71,5            | 101 | 10 | 248 | 120 | 101 | 100 | 30 | 158 | 157 | 193   |     |     | 300 | 170 | 195 |
| PM 80   | 71,5            | 50  | 20 | 294 | 135 | 112 | 112 | 89 | 172 | 71  | 160   |     |     | 300 | 170 | 195 |
| PM 80A  | 71,5            | 101 | 10 | 271 | 135 | 112 | 112 | 89 | 172 | 165 | 201   |     |     | 290 | 170 | 230 |
| PM 90   | 74,5            | 50  | 19 | 285 | 135 | 112 | 112 | 89 | 172 | 71  | 158   |     |     | 310 | 185 | 195 |



Peripheral positive displacement pump with side suction for small household systems and simple industrial applications; characterised by a considerable ratio between performance and required output; frontal brass insert avoiding the risk of blockage.

### Construction features

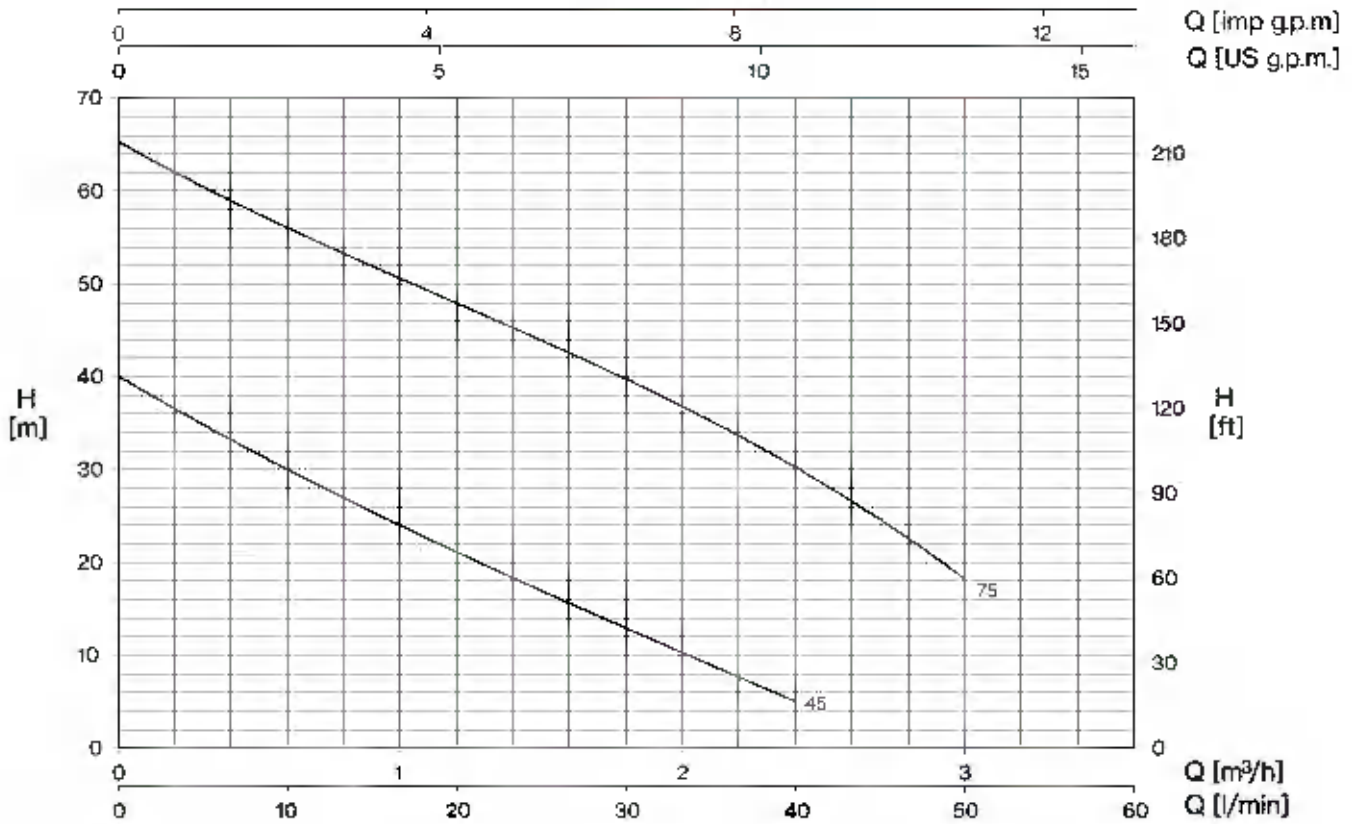
|                           |                          |
|---------------------------|--------------------------|
| <b>Pump body</b>          | cast iron and brass      |
| <b>Motor bracket</b>      | cast iron                |
| <b>Impeller</b>           | brass                    |
| <b>Mechanical seal</b>    | ceramic-graphite-NBR     |
| <b>Motor shaft</b>        | stainless steel AISI 416 |
| <b>Liquid temperature</b> | 0 - 90 °C                |
| <b>Operating pressure</b> | max 8 bar                |

### Motor

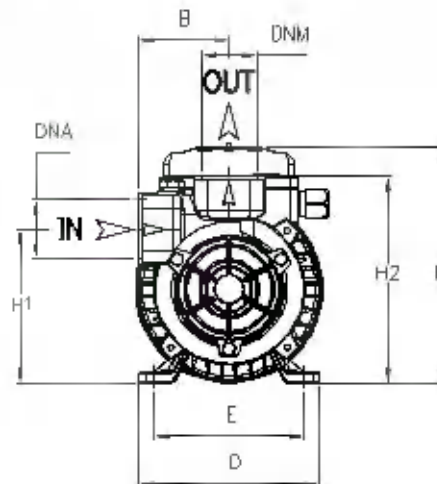
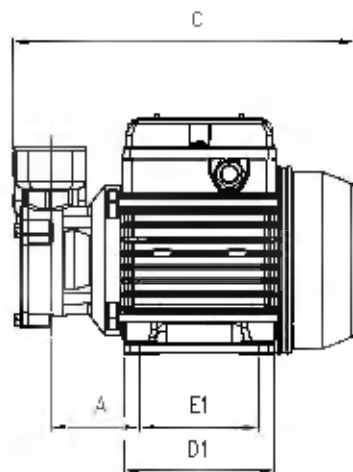
|                                |                                           |
|--------------------------------|-------------------------------------------|
|                                | 3- 230/400V-50Hz                          |
| <b>2 Poles induction motor</b> | 1- 230V-50Hz<br>(with thermal protection) |
| <b>Insulation class</b>        | F                                         |
| <b>Protection degree</b>       | IPX4                                      |

| TYPE  | LOTS           |          |                |          |
|-------|----------------|----------|----------------|----------|
|       | TRUCK          |          | DONTAINER      |          |
|       | PALLET<br>(cm) | N° pumps | PALLET<br>(cm) | N° pumps |
| CP 46 | 85×110×170     | 207      | 85×110×190     | 220      |
|       | 80×120×170     | 198      | 80×120×190     | 230      |
| CP 75 | 85×110×170     | 105      | 85×110×190     | 135      |
|       |                |          | 80×120×170     | 136      |





| TYPE  |        | P2  |      | P1 (kW) |     | AMPERE        |               | Q (m³/h - l/min) |      |      |      |      |      |
|-------|--------|-----|------|---------|-----|---------------|---------------|------------------|------|------|------|------|------|
| 1-    | 3-     |     |      |         |     | 1-            | 3-            | 0,3              | 0,6  | 1,2  | 1,8  | 2,4  | 3    |
|       |        | HP  | kW   | 1-      | 3-  | 1x230 V 50 Hz | 3x400 V 50 Hz | 5                | 10   | 20   | 30   | 40   | 50   |
| H (m) |        |     |      |         |     |               |               |                  |      |      |      |      |      |
| CP 45 | CPT 45 | 0,5 | 0,87 | 0,5     | 0,5 | 2,3           | 1,0           | 35,0             | 30,0 | 21,0 | 13,0 | 5,0  |      |
| CP 75 | CPT 75 | 1   | 0,74 | 1,1     | 1,3 | 6,2           | 2,0           | 61,0             | 56,0 | 48,0 | 39,0 | 31,0 | 18,0 |



| TYPE  | DIMENSIONS (mm) |    |     |     |     |     |    |     |     |     |      |      |     |     |     |     |
|-------|-----------------|----|-----|-----|-----|-----|----|-----|-----|-----|------|------|-----|-----|-----|-----|
|       | A               | B  | C   | D   | D1  | E   | E1 | F   | H1  | H2  | DNA  | DNM  | I   | L   | M   |     |
| CP 45 | 67              | 60 | 235 | 120 | 101 | 97  | 80 | 185 | 105 | 140 | 1" G | 1" G | 265 | 145 | 165 | 5,7 |
| CP 75 | 71,5            | 60 | 263 | 135 | 112 | 112 | 89 | 172 | 124 | 156 | 1" G | 1" G | 310 | 185 | 195 | 9,2 |



Volumetric pump with liquid ring impeller that gives considerable suction power to the pump. Particularly suitable for liquid transfer (including volatile liquids). The model has a frontal brass closing thus avoiding the risk of blockage.

### Construction features

|                           |                          |
|---------------------------|--------------------------|
| <b>Pump body</b>          | cast iron and brass      |
| <b>Motor bracket</b>      | cast iron                |
| <b>Impeller</b>           | brass                    |
| <b>Mechanical seal</b>    | ceramic-graphite-NBR     |
| <b>Motor shaft</b>        | stainless steel AISI 416 |
| <b>Liquid temperature</b> | 0 - 90 °C                |
| <b>Operating pressure</b> | max 8 bar                |

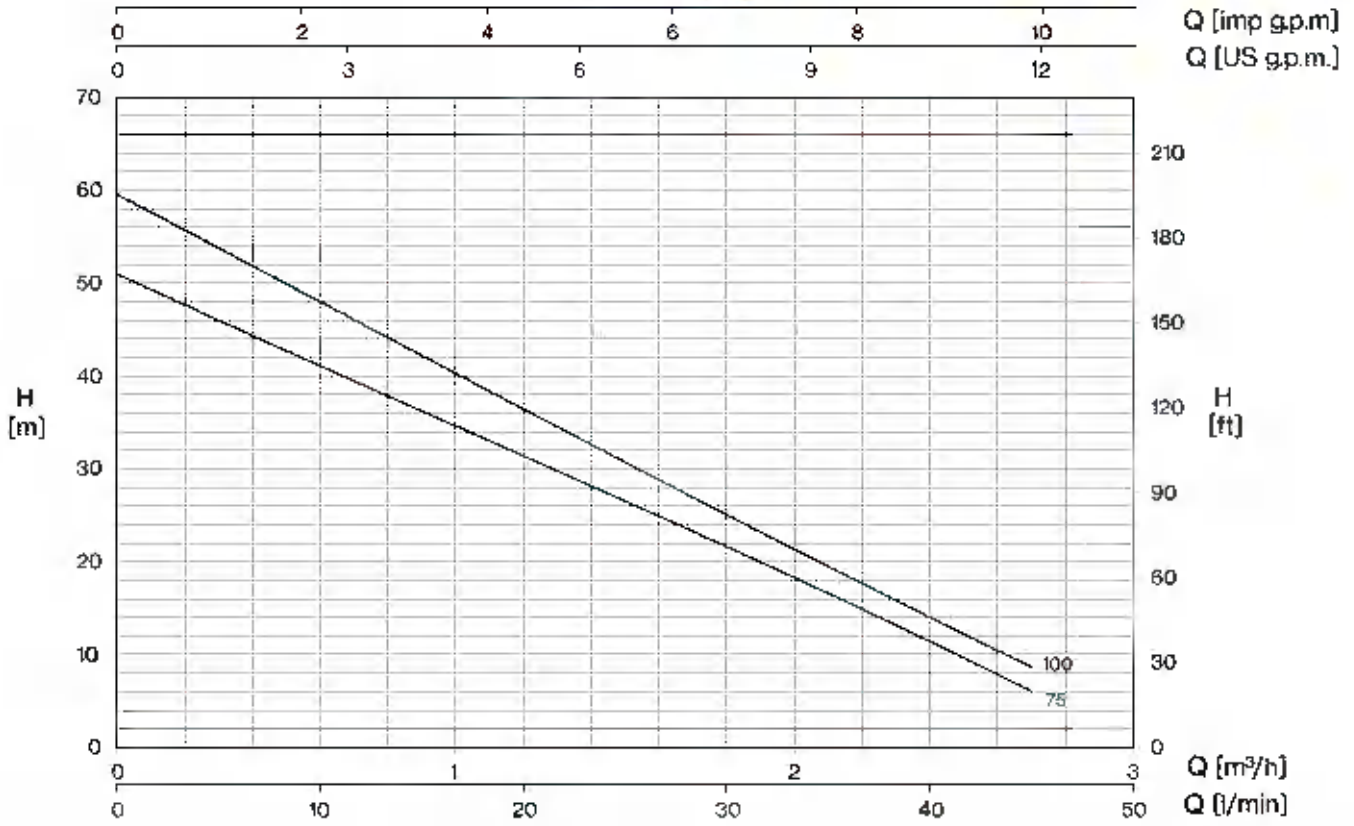
### Motor

|                                |                                           |
|--------------------------------|-------------------------------------------|
|                                | 3- 230/400V-50Hz                          |
| <b>2 Poles induction motor</b> | 1- 230V-50Hz<br>(with thermal protection) |
| <b>Insulation class</b>        | F                                         |
| <b>Protection degree</b>       | IPX4                                      |

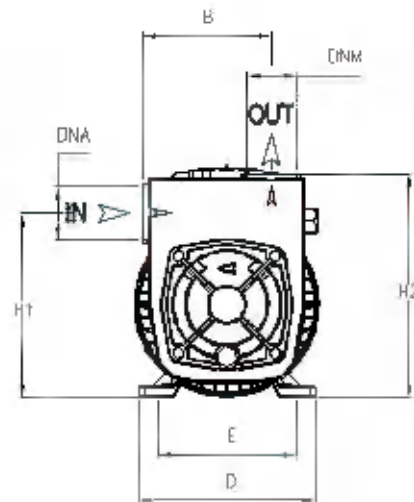
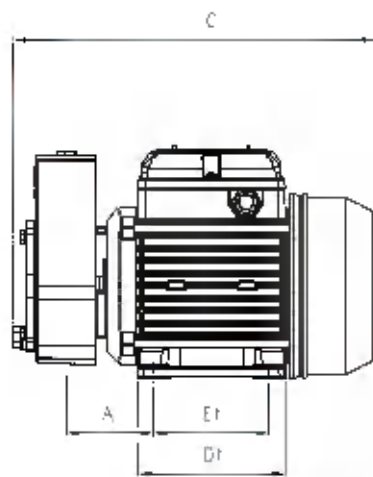
| TYPE              | LOTS        |          |                          |            |
|-------------------|-------------|----------|--------------------------|------------|
|                   | TRUCK       |          | CONTAINER                |            |
|                   | PALLET (cm) | N° pumps | PALLET (cm)              | N° pumps   |
| <b>MD 75 -100</b> | 85×110×170  | 105      | 85×110×190<br>80×120×170 | 135<br>136 |







| TYPE   |         | P2  |      | P1 (kW) |      | AMPERE           |                  | Q (m³/h - l/min) |           |           |           |           |           |
|--------|---------|-----|------|---------|------|------------------|------------------|------------------|-----------|-----------|-----------|-----------|-----------|
| 1-     | 3-      |     |      |         |      | 1-               | 3-               | 0,3<br>5         | 0,6<br>10 | 1,2<br>20 | 1,8<br>30 | 2,4<br>40 | 2,7<br>45 |
|        |         | HP  | kW   | 1-      | 3-   | 1x230 V<br>50 Hz | 3x400 V<br>50 Hz | H (m)            |           |           |           |           |           |
| MD 75  | MDT 75  | 0,8 | 0,59 | 1,03    | 0,94 | 6,0              | 1,7              | 46,0             | 41,0      | 31,5      | 21,5      | 11,5      | 6,0       |
| MD 100 | MDT 100 | 1   | 0,74 | 1,37    | 0,98 | 5,4              | 2,1              | 53,0             | 48,0      | 37,0      | 25,0      | 13,5      | 9,0       |

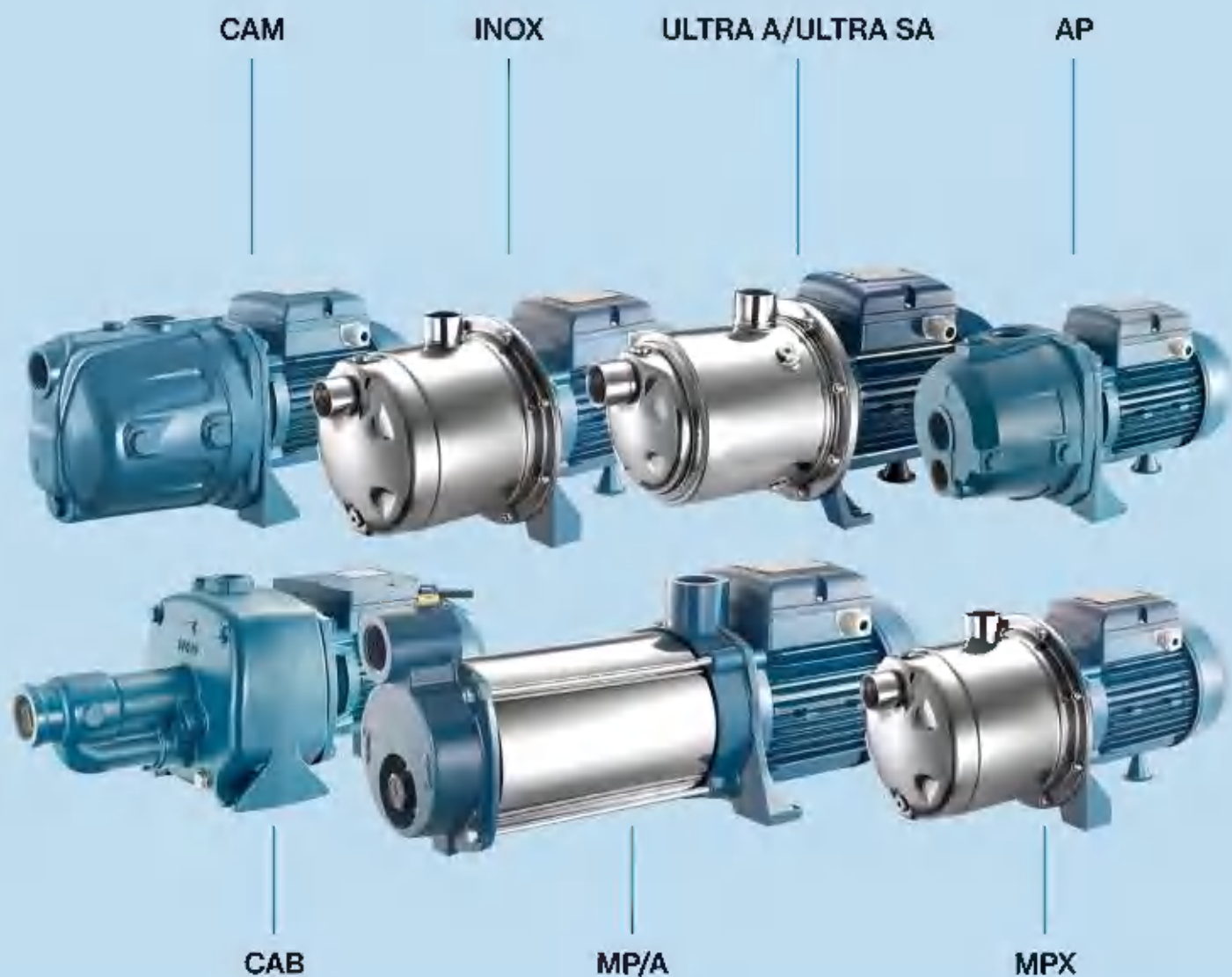


| TYPE   | DIMENSIONS (mm) |      |     |     |     |     |    |     |     |      |  |     |     |  |      |
|--------|-----------------|------|-----|-----|-----|-----|----|-----|-----|------|---------------------------------------------------------------------------------------|-----|-----|---------------------------------------------------------------------------------------|------|
|        | A               | B    | C   | D   | D1  | E   | E1 | H1  | H2  | DNA  | DNM                                                                                   | F   | L   |                                                                                       | M    |
| MD 75  | 70              | 98,5 | 270 | 135 | 112 | 112 | 89 | 141 | 170 | 1" G | 1" G                                                                                  | 310 | 185 | 195                                                                                   | 11,1 |
| MD 100 | 70              | 98,5 | 270 | 135 | 112 | 112 | 89 | 141 | 170 | 1" G | 1" G                                                                                  | 310 | 185 | 195                                                                                   | 11,8 |



**SELF-PRIMING**

# SELF-PRIMING PUMPS



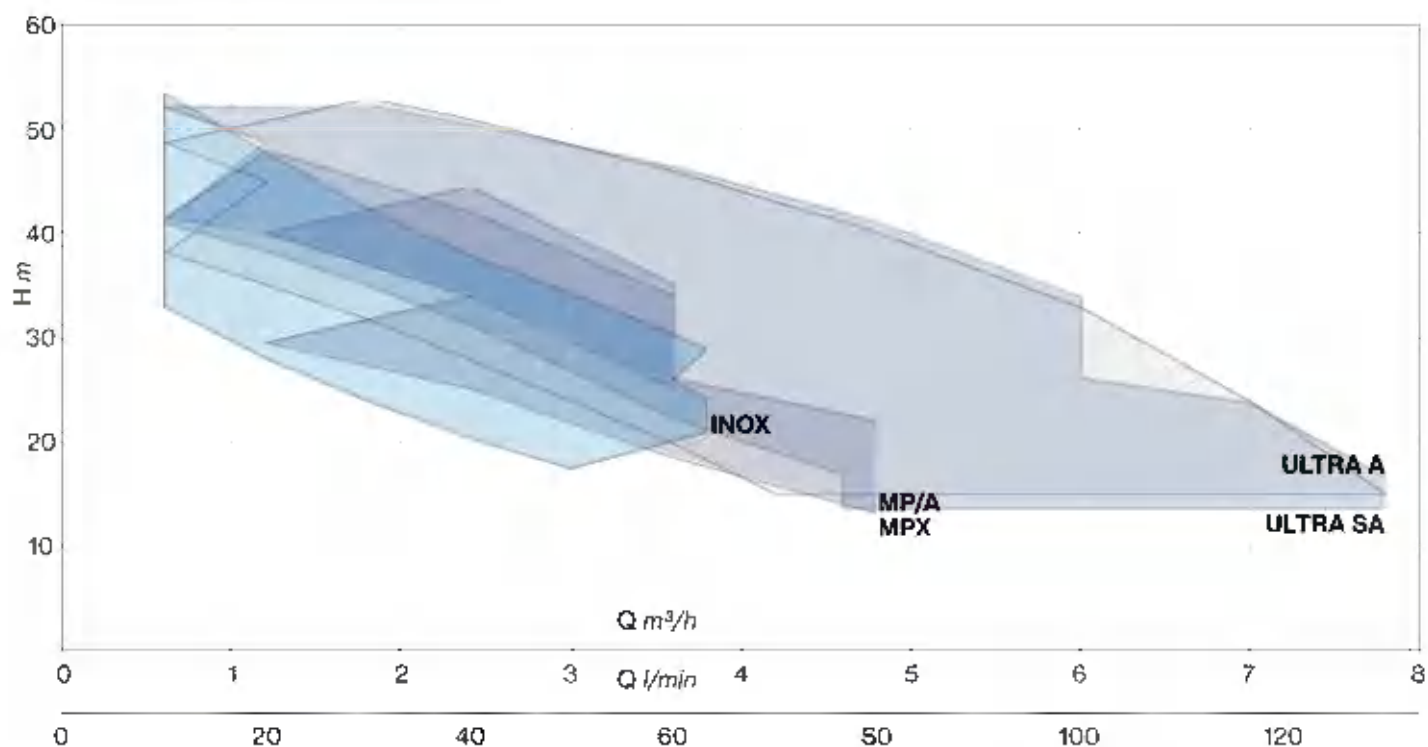
Wide range of single and multistage self-priming pumps, characterized by the fact of being able to handle liquids in the presence of dissolved gases.

## **Applications:**

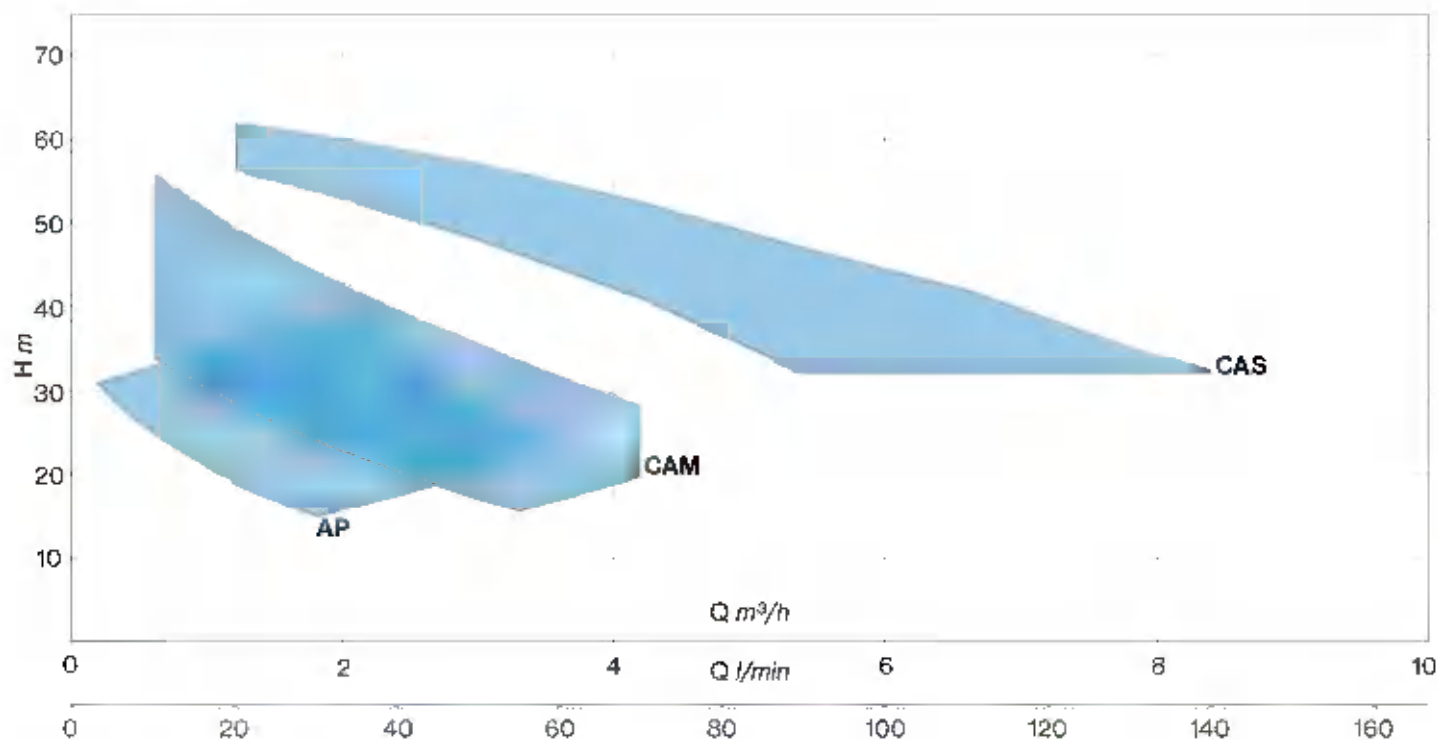
- Water supply
- Pressurization
- Liquid transfer
- Irrigation and tank emptying
- Small automatic systems of pressure increase

# SELF-PRIMING PUMPS

## Stainless steel



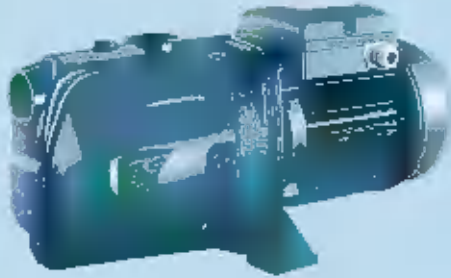
## Cast iron





# CAM

## Self-priming



CAM 50N÷140



CAM 150÷300

Self-priming centrifugal pump for water supplies (even if mixed with gas) in small household systems, connected to autoclave tanks, for transferring liquids and emptying tanks; also used for gardening.

### Construction features

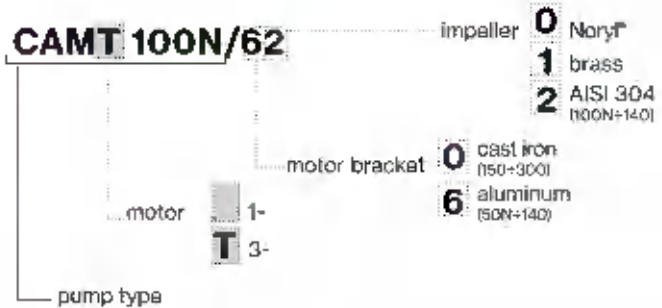
|                           |                                                                    |
|---------------------------|--------------------------------------------------------------------|
| <b>Pump body</b>          | cast iron                                                          |
| <b>Motor bracket</b>      | aluminum (50N÷140)<br>cast iron (150÷300)                          |
| <b>Impeller</b>           | Noryl®, brass, inox for 100N÷140                                   |
| <b>Mechanical seal</b>    | ceramic-graphite-NBR                                               |
| <b>Motor shaft</b>        | stainless steel AISI 416                                           |
| <b>Liquid temperature</b> | 0 - 50 °C                                                          |
| <b>Operating pressure</b> | max 6 bar (50N÷75N)<br>max 7 bar (100N÷140)<br>max 8 bar (150÷300) |

### Motor

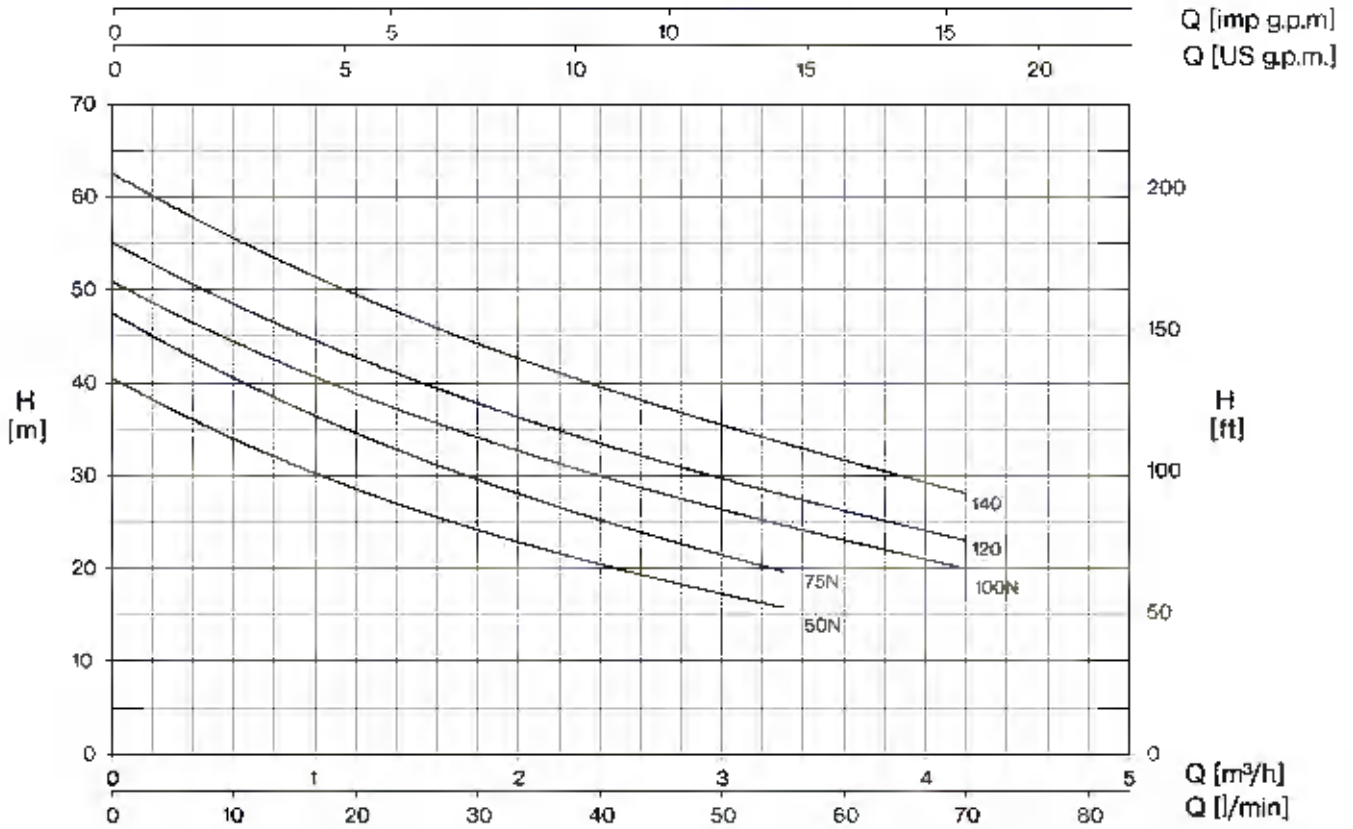
|                                |                                           |
|--------------------------------|-------------------------------------------|
|                                | 3- 230/400V-50Hz                          |
| <b>2 Poles induction motor</b> | 1- 230V-50Hz<br>(with thermal protection) |
| <b>Insulation class</b>        | F                                         |
| <b>Protection degree</b>       | IPX4                                      |



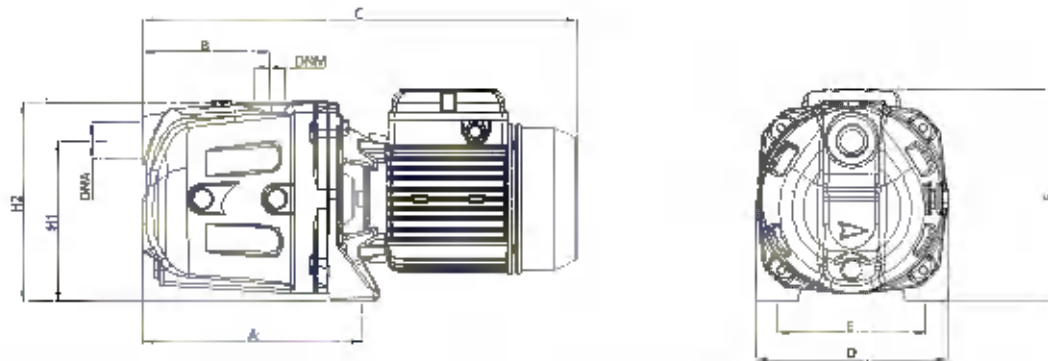
### CAMT 100N/62



| TYPE        | LOIS        |          |             |          |
|-------------|-------------|----------|-------------|----------|
|             | TRUCK       |          | CONTAINER   |          |
|             | PALLET (cm) | N° pumps | PALLET (cm) | N° pumps |
| CAM 50N-140 | 85×110×145  | 60       | 85×110×190  | 80       |
| CAM 50N-140 |             |          | 80×120×190  | 64       |
| CAM 150-300 | 80×120×145  | 35       | 80×120×180  | 49       |

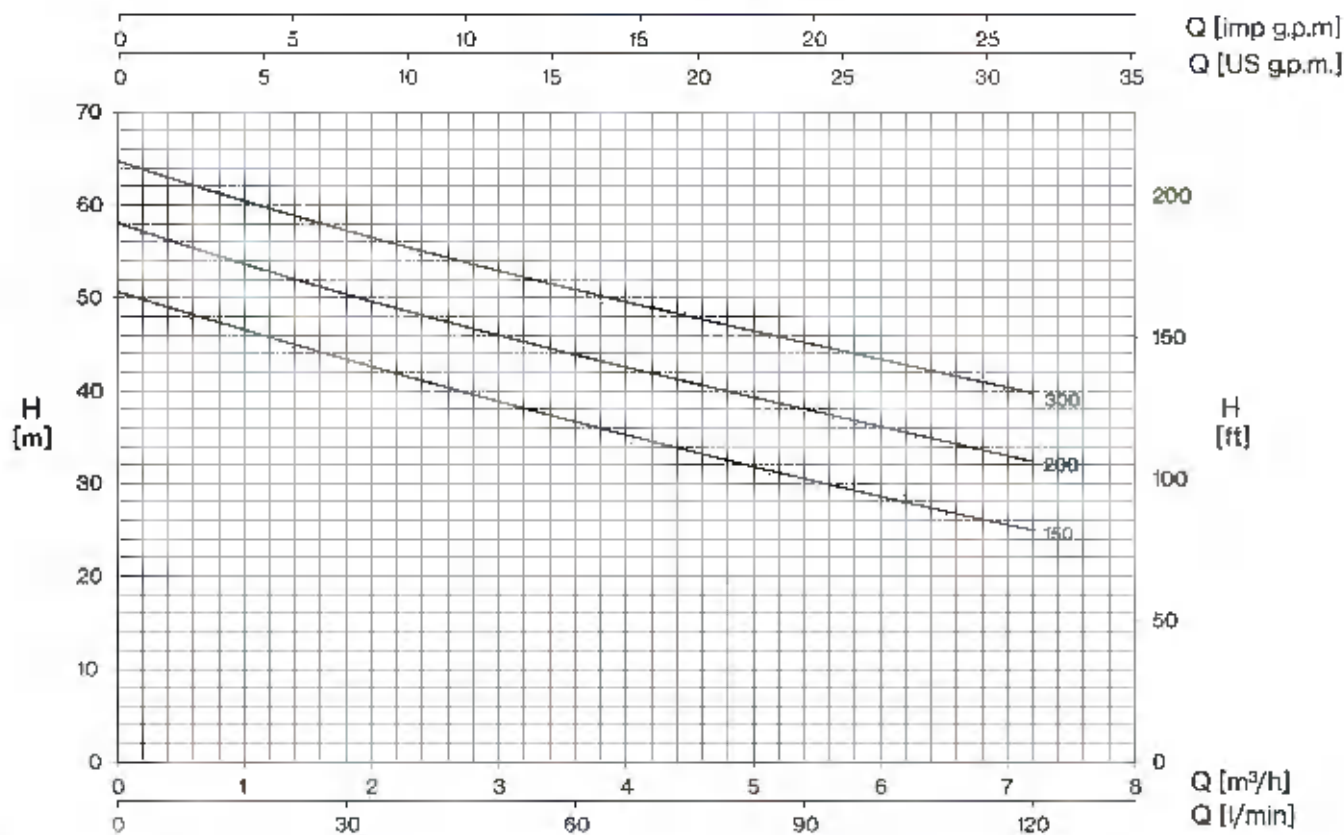


| TYPE     |           | P2  |      | P1<br>(kW) |      | AMPERE           |                  | Q (m³/h - l/min) |      |      |      |      |      |      |      |      |
|----------|-----------|-----|------|------------|------|------------------|------------------|------------------|------|------|------|------|------|------|------|------|
| 1-       | 3-        |     |      |            |      | 1-               | 3-               | 0                | 0,6  | 1,2  | 1,8  | 2,4  | 3    | 3,3  | 3,6  | 4,2  |
|          |           |     |      |            |      |                  |                  | 0                | 10   | 20   | 30   | 40   | 50   | 55   | 50   | 70   |
|          |           | HP  | KW   | 1-         | 3-   | 1x230 V<br>50 Hz | 3x400 V<br>50 Hz | H (m)            |      |      |      |      |      |      |      |      |
| CAM 50N  | CAMT 50N  | 0,6 | 0,44 | 0,7        | 0,67 | 3,1              | 1,3              | 40,5             | 34,0 | 28,5 | 24,1 | 20,5 | 17,2 | 15,8 |      |      |
| CAM 75N  | CAMT 75N  | 0,8 | 0,59 | 0,82       | 0,76 | 3,6              | 1,4              | 47,5             | 40,5 | 34,5 | 29,5 | 25,2 | 21,4 | 19,7 |      |      |
| CAM 100N | CAMT 100N | 1   | 0,74 | 1,04       | 0,92 | 4,7              | 1,7              | 50,9             | 44,3 | 38,9 | 34,1 | 30,1 | 26,3 | 24,6 | 23,0 | 20,0 |
| CAM 120  | CAMT 120  | 1,2 | 0,88 | 1,14       | 1,07 | 5,2              | 1,9              | 55,1             | 48,5 | 42,6 | 37,8 | 33,5 | 29,7 | 27,9 | 26,2 | 23,0 |
| CAM 140  | CAMT 140  | 1,5 | 1,1  | 1,3        | 1,26 | 6,0              | 2,5              | 62,5             | 55,7 | 49,4 | 44,2 | 39,5 | 35,5 | 33,5 | 31,6 | 28,1 |

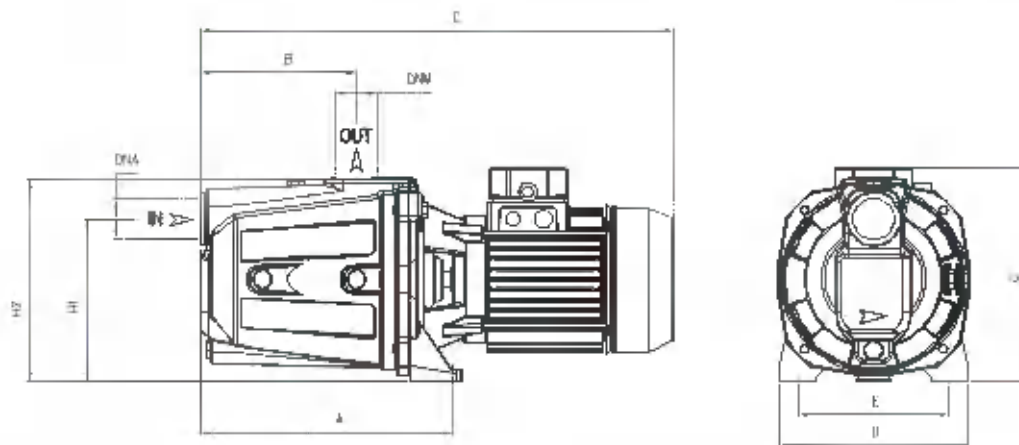


| TYPE     | DIMENSIONS (mm) |     |     |     |     |     |     |     |      |      |  |     |     |  |
|----------|-----------------|-----|-----|-----|-----|-----|-----|-----|------|------|---------------------------------------------------------------------------------------|-----|-----|---------------------------------------------------------------------------------------|
|          | A               | B   | C   | D   | E   | F   | H1  | H2  | DNA  | DNM  | I                                                                                     | L   | M   |                                                                                       |
| CAM 50N  | 214             | 119 | 410 | 180 | 140 | 195 | 150 | 185 | 1" G | 1" G | 440                                                                                   | 194 | 215 | 12                                                                                    |
| CAM 75N  | 214             | 119 | 410 | 180 | 140 | 195 | 150 | 185 |      |      | 440                                                                                   | 194 | 215 | 12,5                                                                                  |
| CAM 100N | 214             | 119 | 410 | 180 | 140 | 195 | 150 | 185 |      |      | 440                                                                                   | 194 | 215 | 14                                                                                    |
| CAM 120  | 214             | 119 | 410 | 180 | 140 | 195 | 150 | 185 |      |      | 440                                                                                   | 194 | 215 | 14,5                                                                                  |
| CAM 140  | 214             | 119 | 410 | 180 | 140 | 195 | 150 | 185 |      |      | 440                                                                                   | 194 | 215 | 15                                                                                    |

# CAM



| TYPE    |          | P2  |     | P1 (kW) |     | AMPERE           |                  | Q (m³/h - l/min) |      |      |      |      |      |      |
|---------|----------|-----|-----|---------|-----|------------------|------------------|------------------|------|------|------|------|------|------|
| 1-      | 3-       |     |     |         |     | 1-               | 3-               | 0                | 1,2  | 2,4  | 3,6  | 4,8  | 6    | 7,2  |
|         |          | HP  | KW  | 1-      | 3-  | 1x230 V<br>50 Hz | 3x400 V<br>50 Hz | 0                | 20   | 40   | 50   | 80   | 100  | 120  |
| H (m)   |          |     |     |         |     |                  |                  |                  |      |      |      |      |      |      |
| CAM 150 | CAMT 150 | 1,5 | 1,1 | 1,9     | 1,8 | 8,2              | 3,4              | 50,7             | 45,7 | 41,0 | 36,8 | 32,5 | 28,5 | 25,0 |
| CAM 200 | CAMT 200 | 2   | 1,5 | 2,2     | 2,1 | 9,8              | 3,9              | 58,1             | 52,8 | 48,0 | 44,0 | 40,0 | 36,0 | 32,4 |
| -       | CAMT 300 | 3   | 2,2 | -       | 2,5 | -                | 4,8              | 64,8             | 59,5 | 55,0 | 51,0 | 47,1 | 43,2 | 39,8 |

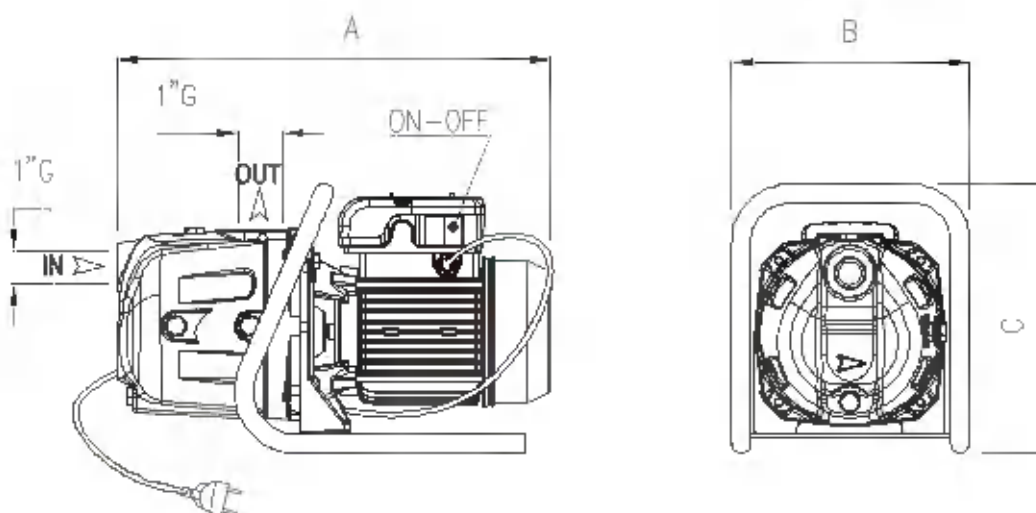


| TYPE    |       |     |     |     | DIMENSIONS (mm) |     |       |     |     |        |        |     |  |     |      |  |
|---------|-------|-----|-----|-----|-----------------|-----|-------|-----|-----|--------|--------|-----|---------------------------------------------------------------------------------------|-----|------|---------------------------------------------------------------------------------------|
|         | A     | B   | C   | B   | E               | F   | G     | H1  | H2  | DNA    | DNM    | t   | L                                                                                     | M   | Kg   |                                                                                       |
| CAM 150 | 269,6 | 167 | 506 | 203 | 165             | 220 | 231,5 | 175 | 220 | 1" ½ G | 1" ¼ G | 535 | 235                                                                                   | 230 | 26   |                                                                                       |
| CAM 200 | 259,6 | 167 | 506 | 203 | 165             | 220 | 231,5 | 175 | 220 | 1" ½ G | 1" ¼ G | 535 | 235                                                                                   | 230 | 27   |                                                                                       |
| CAM 300 | 269,6 | 167 | 506 | 203 | 165             | 220 | 231,5 | 175 | 220 | 1" ½ G | 1" ¼ G | 535 | 235                                                                                   | 230 | 26,5 |                                                                                       |

# CAM (Garden version)

Portable electropumps complete with handle, cable with plug and switch.  
The performances depend on adopted pump type.

| TYPE     | P2  |      | P1<br>(kW) | Pipe            |                  | Performance |           |
|----------|-----|------|------------|-----------------|------------------|-------------|-----------|
|          |     |      |            | Suction<br>("G) | Delivery<br>("G) | Q (l/min)   | H (m)     |
| CAM 50N  | 0,6 | 6,44 | 0,7        | 1               | 1                | 10-55       | 34,0-15,8 |
| CAM 75N  | 0,8 | 0,59 | 0,82       | 1               | 1                | 10-55       | 40,5-19,7 |
| CAM 100N | 1   | 0,74 | 1,04       | 1               | 1                | 10-70       | 44,3-20,0 |
| CAM 120  | 1,2 | 0,88 | 1,14       | 1               | 1                | 10-70       | 48,5-23   |
| CAM 140  | 1,5 | 1,1  | 1,3        | 1               | 1                | 10-70       | 55,7-28,1 |



| TYPE     | DIMENSIONS (mm) |     |     |
|----------|-----------------|-----|-----|
|          | A               | B   | C   |
| CAM 50N  | 410             | 266 | 262 |
| CAM 75N  | 410             | 266 | 252 |
| CAM 100N | 410             | 266 | 252 |
| CAM 120  | 410             | 206 | 252 |
| CAM 140  | 410             | 266 | 262 |



# INOX

## Self-priming



Self-priming centrifugal pump for domestic applications such as domestic systems where air is mixed with water. Recommended in combination with pressure set for water transfer, rainwater harvesting and garden irrigation systems.

### Construction features

|                           |                          |
|---------------------------|--------------------------|
| <b>Pump body</b>          | stainless steel AISI 304 |
| <b>Motor bracket</b>      | aluminum                 |
| <b>Impeller</b>           | Noryl®, steel AISI 304   |
| <b>Mechanical seal</b>    | ceramic-graphite-NBR     |
| <b>Motor shaft</b>        | stainless steel AISI 416 |
| <b>Liquid temperature</b> | 0 - 50 °C                |
| <b>Operating pressure</b> | max 8 bar                |

### Motor

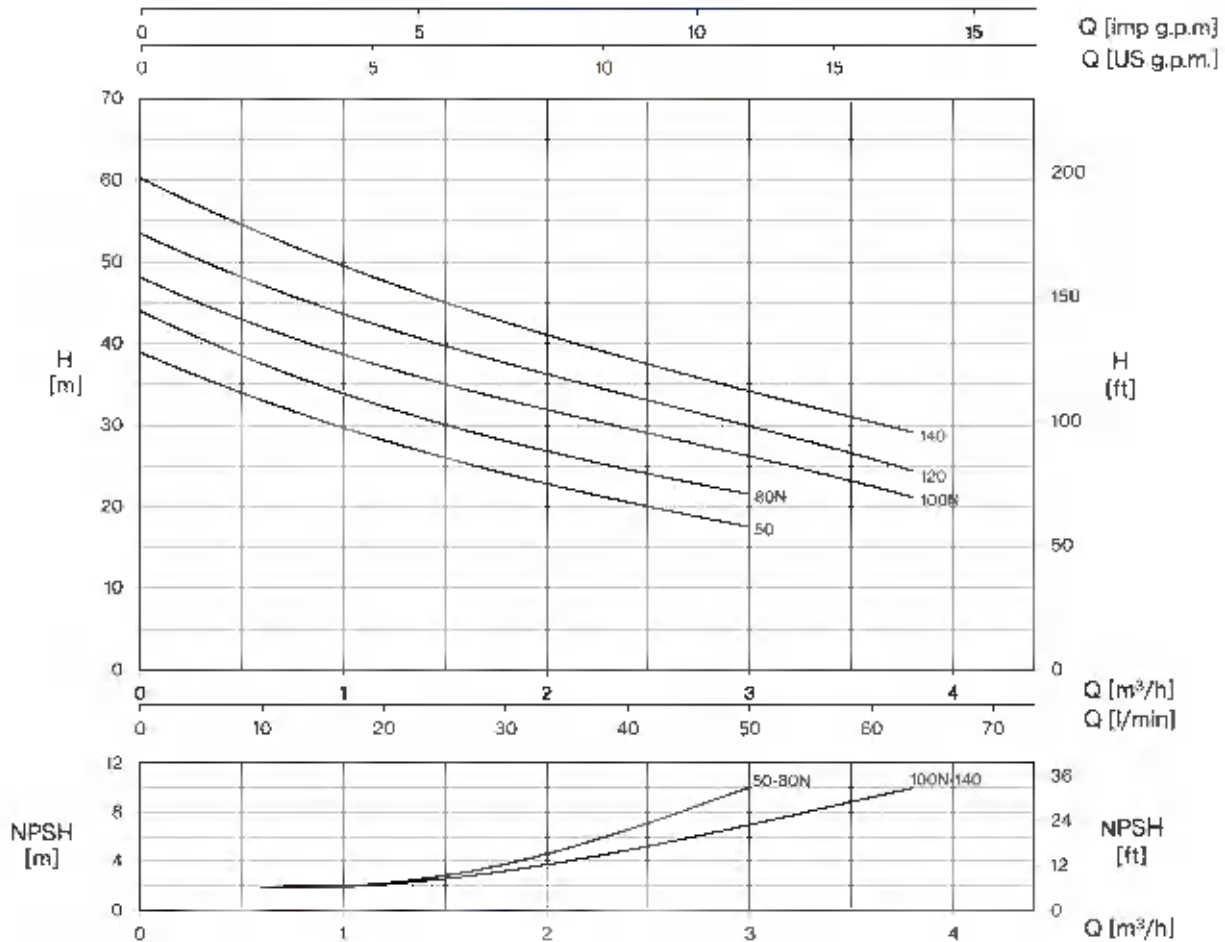
|                                |                                           |
|--------------------------------|-------------------------------------------|
|                                | 3- 230/400V-50Hz                          |
| <b>2 Poles induction motor</b> | 1- 230V-50Hz<br>(with thermal protection) |
| <b>Insulation class</b>        | F                                         |
| <b>Protection degree</b>       | IPX4                                      |

### INOXT 100N/62

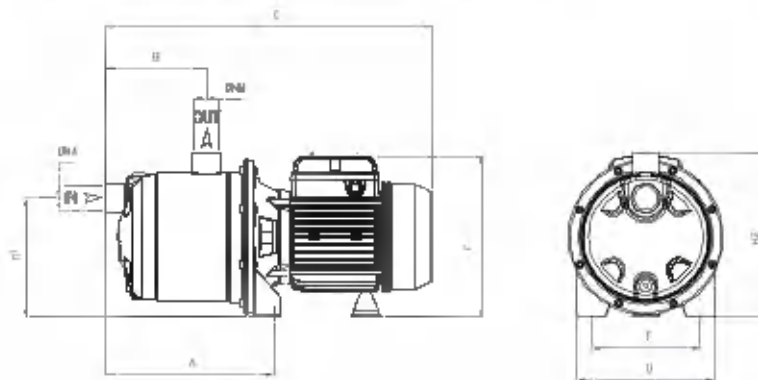
|               |                        |
|---------------|------------------------|
| impeller      | 0 Noryl®<br>2 AISI 304 |
| motor bracket | 6 aluminum             |
| motor         | 1-<br>T 3-             |
| pump type     |                        |

| TYPE | LOTS        |          |             |          |
|------|-------------|----------|-------------|----------|
|      | TRUCK       |          | CONTAINER   |          |
|      | PALLET (cm) | N° pumps | PALLET (cm) | N° pumps |
| INOX | 85×110×150  | 80       | 85×110×190  | 80       |





| TYPE      |            | P2    |      | P1 (kW) |      | AMPERE           |                  | Q (m³/h - l/min) |      |      |      |      |      |      |      |
|-----------|------------|-------|------|---------|------|------------------|------------------|------------------|------|------|------|------|------|------|------|
| 1~        | 3~         |       |      |         |      | 1~               | 3~               | 0                | 0,6  | 1,2  | 1,8  | 2,4  | 3    | 3,6  | 3,8  |
|           |            | HP    | kW   | 1~      | 3~   | 1x230 V<br>50 Hz | 3x400 V<br>50 Hz | 0                | 10   | 20   | 30   | 40   | 50   | 60   | 63,3 |
|           |            | H (m) |      |         |      |                  |                  |                  |      |      |      |      |      |      |      |
| INOX 50   | INOXT 50   | 0,6   | 0,44 | 0,67    | 0,63 | 2,9              | 1,2              | 36,9             | 33,1 | 28,1 | 24,0 | 20,6 | 17,5 | -    | -    |
| INOX 80N  | INOXT 80N  | 0,8   | 0,59 | 0,75    | 0,76 | 3,3              | 1,4              | 44,0             | 37,5 | 32,3 | 28,0 | 24,6 | 21,5 | -    | -    |
| INOX 100N | INOXT 100N | 1     | 0,74 | 1,04    | 0,92 | 4,7              | 1,7              | 48,0             | 42,8 | 37,0 | 33,0 | 29,6 | 25,2 | 22,7 | 21,0 |
| INOX 120  | INOXT 120  | 1,2   | 0,88 | 1,14    | 1,03 | 5,2              | 1,9              | 53,4             | 47,4 | 41,9 | 37,5 | 33,7 | 29,9 | 26,0 | 24,3 |
| INOX 140  | INOXT 140  | 1,5   | 1,1  | 1,3     | 1,23 | 6,0              | 2,5              | 60,2             | 53,6 | 47,8 | 42,4 | 38,0 | 34,4 | 30,6 | 29,0 |



| TYPE      | DIMENSIONS (mm) |     |     |     |     |     |     |     |      |      |     |     |     | Kg   |
|-----------|-----------------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|------|
|           | A               | B   | C   | D   | E   | F   | H1  | H2  | DNM  | DNI  | I   | L   | M   |      |
| INOX 50   | 208             | 128 | 410 | 175 | 140 | 215 | 153 | 210 |      |      | 430 | 210 | 295 | 8,5  |
| INOX 50N  | 208             | 128 | 410 | 175 | 140 | 215 | 153 | 210 |      |      | 430 | 210 | 295 | 9,5  |
| INOX 100N | 208             | 128 | 410 | 175 | 140 | 215 | 153 | 210 | 1" G | 1" G | 430 | 210 | 235 | 10,5 |
| INOX 120  | 208             | 128 | 410 | 175 | 140 | 215 | 153 | 210 |      |      | 430 | 210 | 235 | 11   |
| INOX 140  | 208             | 128 | 410 | 175 | 140 | 215 | 153 | 210 |      |      | 430 | 210 | 235 | 11,5 |



# INOX (Garden version)

Portable electropumps complete with handle, cable with plug and switch.  
The performances depend on adopted pump type.

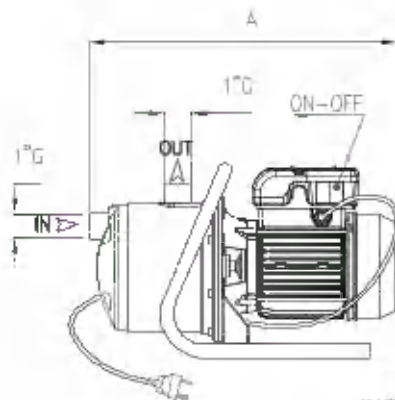


INOX

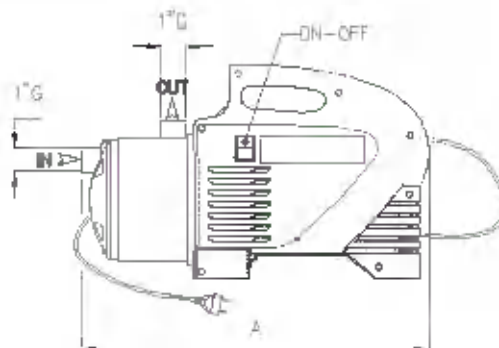
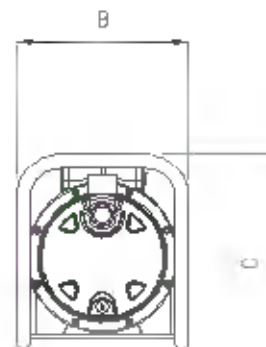


INOX BOX

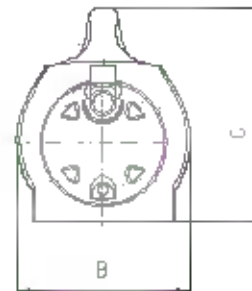
| TYPE      | P2 |      | P1<br>(kW) | Pipe            |                  | Performance |           |
|-----------|----|------|------------|-----------------|------------------|-------------|-----------|
|           | HP | kW   |            | Suction<br>("G) | Delivery<br>("G) | Q (l/min)   | H (m)     |
| INOX 100N | 1  | 0.74 | 1.64       | 1               | 1                | 10-63,3     | 42,3-21,0 |



INOX / MPX



INOX / MPX



| TYPE          | DIMENSIONS (mm) |     |     |
|---------------|-----------------|-----|-----|
|               | A               | B   | C   |
| INOX 100N     | 410             | 175 | 285 |
| INOX 100N BOX | 429             | 209 | 267 |

# ULTRA A

Self-priming



Stainless steel multistage horizontal self-priming pumps. Suitable for clean water; pressurizing system; irrigation; drinking and glycol water; water treatment; heating and air conditioning; washing system.

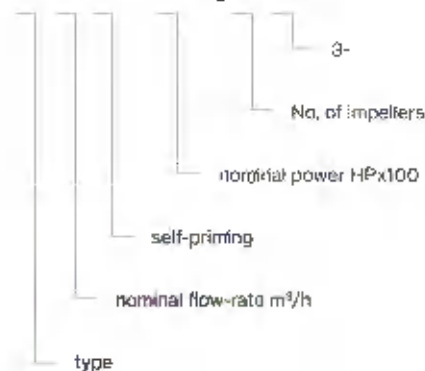
## Construction features

|                                           |                          |
|-------------------------------------------|--------------------------|
| <b>Pump body, mechanical seal housing</b> | stainless steel AISI 304 |
| <b>Motor bracket</b>                      | aluminum                 |
| <b>Impellers, diffusers</b>               | Noryl®                   |
| <b>Mechanical seal</b>                    | ceramic-graphite-EPDM    |
| <b>Motor shaft</b>                        | stainless steel AISI 303 |
| <b>Liquid temperature</b>                 | -5 ÷ +35 °C              |
| <b>Operating pressure</b>                 | max 7 bar                |

## Motor

|                                |                                                         |
|--------------------------------|---------------------------------------------------------|
|                                | 3- 230/400V-50Hz                                        |
| <b>2 poles induction motor</b> | 1- 230V-50Hz<br>(with thermal protection up to 1.85 kW) |
| <b>Insulation class</b>        | F                                                       |
| <b>Protection degree</b>       | IPX4                                                    |

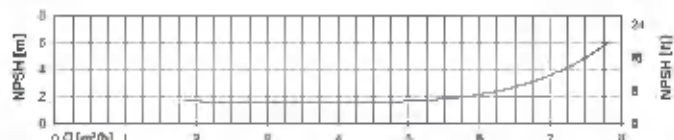
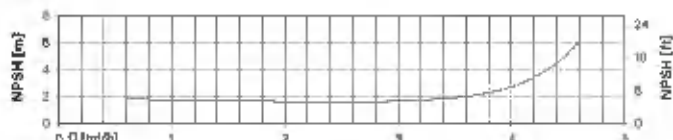
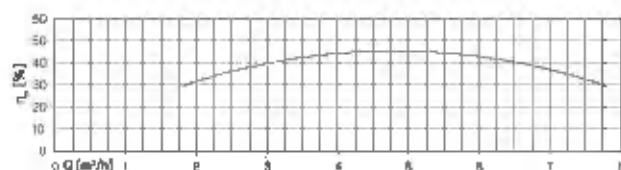
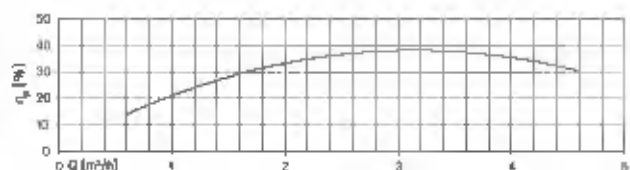
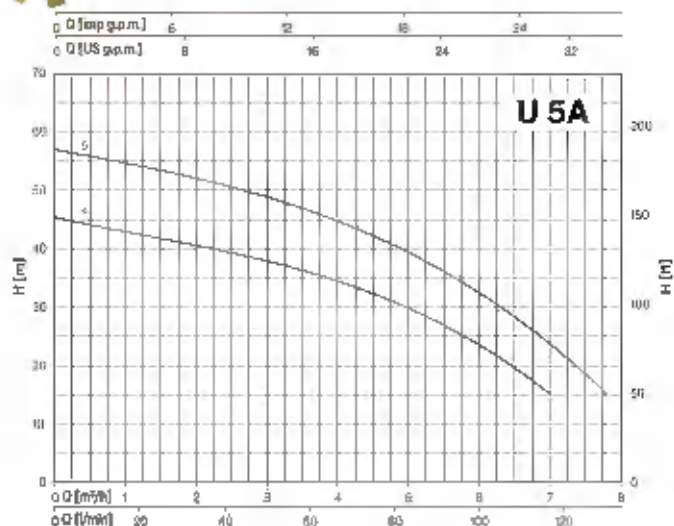
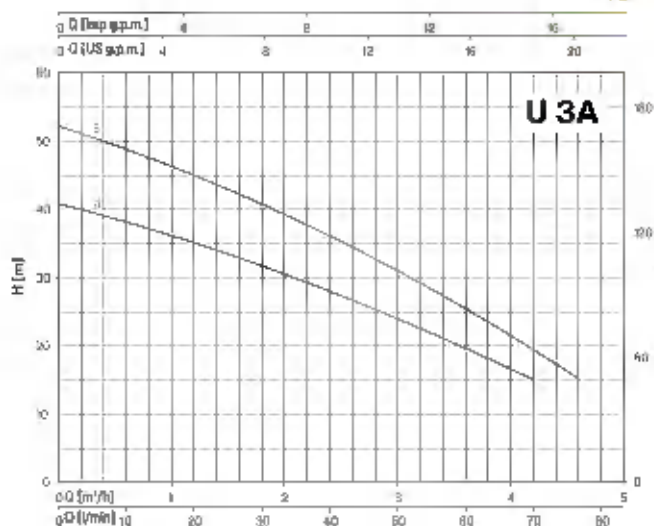
## U 3 A-100/5 T



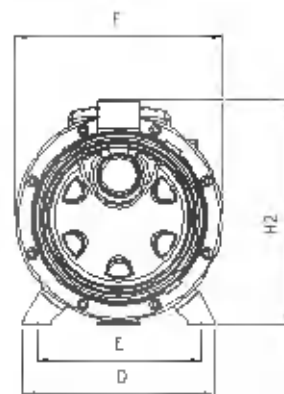
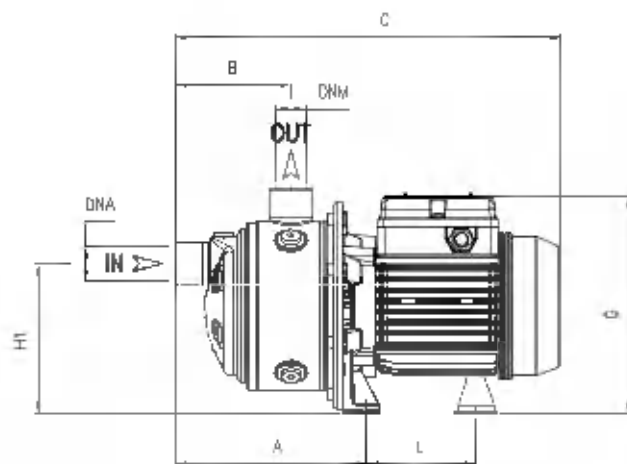
| TYPE       | TRUCK       |          | CONTAINER   |          |
|------------|-------------|----------|-------------|----------|
|            | PALLET (cm) | N° pumps | PALLET (cm) | N° pumps |
| U 3A-90/4  | 85×110×160  | 70       | 85×110×185  | 80       |
| U 3A-100/5 | 80×120×150  | 42       | 80×120×175  | 49       |
| U 5A-120/4 | 80×120×150  | 42       | 80×120×175  | 49       |
| U 5A-150/8 | 80×120×150  | 42       | 80×120×175  | 49       |



# ULTRA A



| TYPE       |              | P2  |      | P1<br>(kW) |      | AMPERE           |                  | Q (m³/h - l/min) |      |      |      |       |      |      |      |      |      |      |      |
|------------|--------------|-----|------|------------|------|------------------|------------------|------------------|------|------|------|-------|------|------|------|------|------|------|------|
| 1-         | 3-           |     |      |            |      | 1-               | 3-               | 0                | 0,6  | 1,2  | 1,8  | 2,4   | 3,6  | 4,2  | 4,6  | 4,8  | 6    | 7    | 7,8  |
|            |              | 0   | 10   | 20         | 30   | 40               | 60               | 70               | 76,7 | 80   | 100  | 116,7 | 130  |      |      |      |      |      |      |
|            |              | HP  | kW   | 1-         | 3-   | 1x230 V<br>50 Hz | 3x400 V<br>50 Hz | H (m)            |      |      |      |       |      |      |      |      |      |      |      |
| U 3A-90/4  | U 3A-90/4 T  | 0,9 | 0,66 | 0,9        | 0,88 | 4                | 1,8              | 40,8             | 38,8 | 35,1 | 31,8 | 27,9  | 19,8 | 15,0 |      |      |      |      |      |
| U 3A-100/5 | U 3A-100/5 T | 1   | 0,75 | 1,06       | 1,01 | 4,8              | 1,9              | 52,2             | 48,9 | 45,1 | 40,8 | 36,0  | 25,4 | 19,8 | 15,0 |      |      |      |      |
| U 5A-120/4 | U 5A-120/4 T | 1,2 | 0,9  | 1,13       | 1,13 | 5,2              | 2,5              | 45,3             |      |      | 41,3 | 33,6  | 36,6 | 33,4 | 31,7 | 30,8 | 24,0 | 15,0 |      |
| U 5A-150/5 | U 5A-150/5 T | 1,5 | 1,1  | 1,47       | 1,39 | 6,8              | 2,8              | 56,6             |      |      | 53,0 | 51,0  | 46,1 | 43,2 | 41,2 | 40,1 | 33,0 | 24,0 | 15,0 |



| TYPE       | DIMENSIONS (mm) |     |     |     |     |     |     |       |     |     |      |  |      |
|------------|-----------------|-----|-----|-----|-----|-----|-----|-------|-----|-----|------|---------------------------------------------------------------------------------------|------|
|            | A               | B   | C   | D   | E   | F   | G   | L     | H1  | H2  | DNA  |                                                                                       | DNM  |
| U 3A-90/4  | 190,8           | 175 | 405 | 164 | 140 | 178 | 190 | 93,7  | 128 | 192 | 1" G | 1" G                                                                                  | 9    |
| U 3A-100/5 | 214,8           | 199 | 452 | 164 | 140 | 178 | 203 | 104,7 | 128 | 192 |      |                                                                                       | 11,5 |
| U 5A-120/4 | 190,8           | 175 | 428 | 164 | 140 | 178 | 203 | 104,7 | 128 | 192 |      |                                                                                       | 11,5 |
| U 5A-150/5 | 214,8           | 199 | 514 | 164 | 140 | 201 | 211 | 128,2 | 134 | 198 |      |                                                                                       | 14,5 |

# ULTRA SA

Self-priming



Stainless steel multistage horizontal pump.  
Suitable for clean water, pressurizing system:  
Irrigation, drinking and glycol water, water  
treatment, heating and air conditioning,  
washing system.

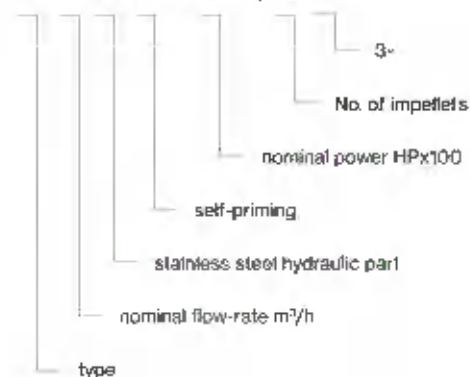
## Construction features

|                                           |                          |
|-------------------------------------------|--------------------------|
| <b>Pump body, mechanical seal housing</b> | stainless steel AISI 304 |
| <b>Motor bracket</b>                      | aluminum                 |
| <b>Impellers, diffusers</b>               | stainless steel AISI 304 |
| <b>Mechanical seal</b>                    | ceramic-graphite-EPDM    |
| <b>Motor shaft</b>                        | stainless steel AISI 303 |
| <b>Liquid temperature</b>                 | -15 ÷ +110 °C            |
| <b>Operating pressure</b>                 | max 7 bar                |

## Motor

|                                |                                                            |
|--------------------------------|------------------------------------------------------------|
|                                | 3- 230/400V-50Hz                                           |
| <b>2 poles induction motor</b> | 1- 230V-50Hz<br>(with thermal protection<br>up to 1.85 kW) |
| <b>Insulation class</b>        | F                                                          |
| <b>Protection degree</b>       | IPX4                                                       |

## U 3 S A - 100/5 T

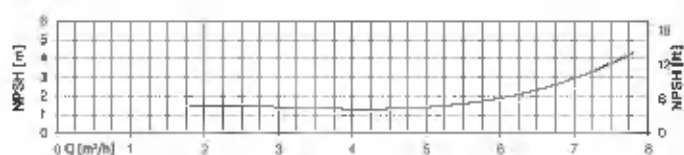
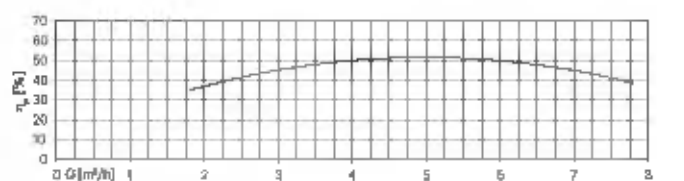
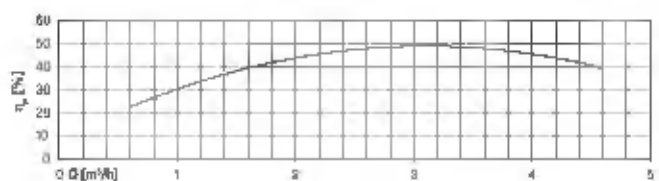
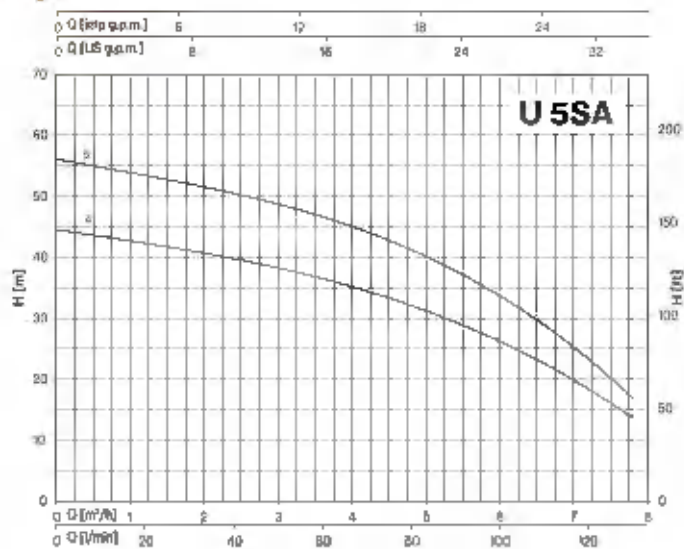
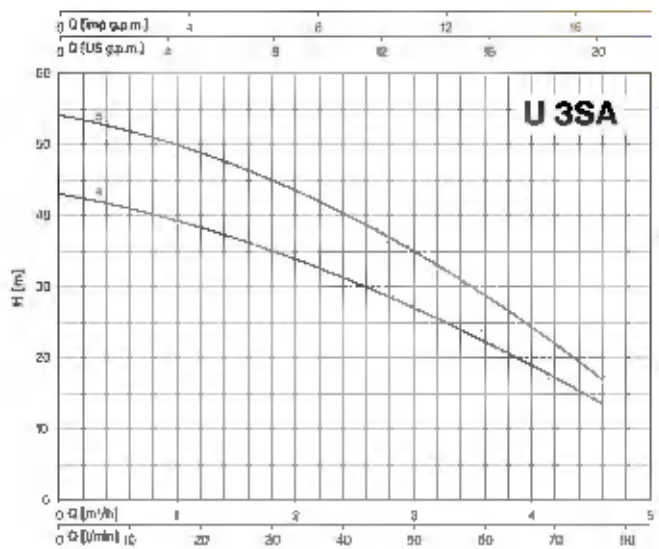


| TYPE        | LOTS        |          |             |          |
|-------------|-------------|----------|-------------|----------|
|             | TRUCK       |          | CONTAINER   |          |
|             | PALLET (cm) | N° pumps | PALLET (cm) | N° pumps |
| U 3SA-90/4  | 85×110×160  | 70       | 85×110×185  | 80       |
| U 3SA-100/5 | 80×120×150  | 42       | 80×120×175  | 49       |
| U 5SA-120/4 | 80×120×150  | 42       | 80×120×175  | 49       |
| U 5SA-150/5 | 80×120×150  | 42       | 80×120×175  | 49       |

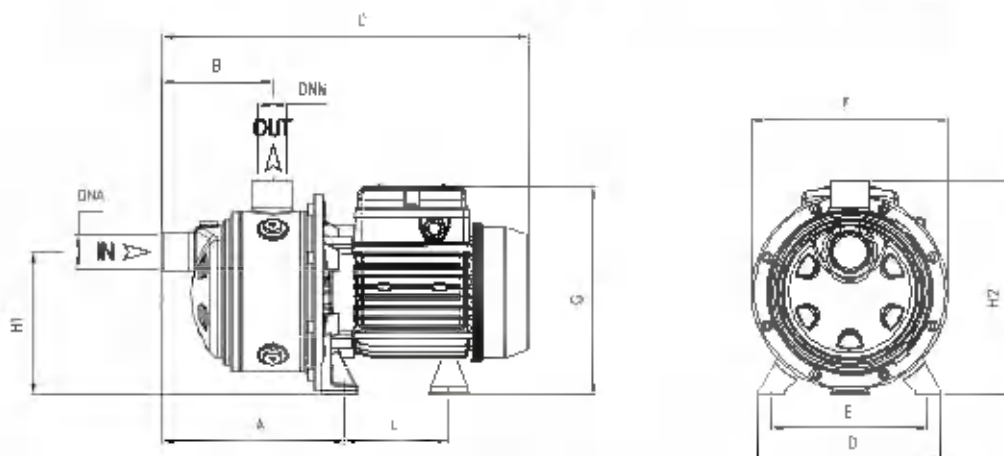




# ULTRA SA



| TYPE        |               | P2  |      | P1<br>(kW) |      | AMPERE           |                  |      |      |      | Q (m³/h - l/min) |      |      |      |      |      |       |      |  |
|-------------|---------------|-----|------|------------|------|------------------|------------------|------|------|------|------------------|------|------|------|------|------|-------|------|--|
| 1-          | 3-            |     |      |            |      | 1-               | 3-               | 0    | 0,6  | 1,2  | 1,8              | 2,4  | 3,6  | 4,6  | 4,8  | 6    | 7     | 7,8  |  |
|             |               |     |      |            |      |                  |                  | 0    | 10   | 20   | 30               | 40   | 60   | 76,7 | 60   | 100  | 116,7 | 130  |  |
|             |               | HP  | kW   | 1-         | 3-   | 1x230 V<br>50 Hz | 3x400 V<br>50 Hz |      |      |      | H (m)            |      |      |      |      |      |       |      |  |
| U 3SA-90/4  | U 3SA-90/4 T  | 0,9 | 0,66 | 0,83       | 0,8  | 3,8              | 1,7              | 43,0 | 41,0 | 38,3 | 35,0             | 31,3 | 22,3 | 13,5 |      |      |       |      |  |
| U 3SA-100/5 | U 3SA-100/5 T | 1   | 0,75 | 0,99       | 0,92 | 4,4              | 1,7              | 54,0 | 52,1 | 48,8 | 44,9             | 40,2 | 29,0 | 16,8 |      |      |       |      |  |
| U 5SA-120/4 | U 5SA-120/4 T | 1,2 | 0,9  | 1,09       | 1,08 | 4,9              | 2,4              | 44,5 |      |      | 41,0             | 40,0 | 36,4 | 32,8 | 32,0 | 26,2 | 18,5  | 13,5 |  |
| U 6SA-150/5 | U 6SA-150/5 T | 1,5 | 1,1  | 1,39       | 1,31 | 6,5              | 2,7              | 56,0 |      |      | 52,4             | 50,5 | 46,4 | 42,0 | 41,0 | 33,8 | 23,8  | 16,5 |  |



| TYPE        | DIMENSIONS (mm) |     |     |     |     |     |     |       |     |     |      |      | Kg   |
|-------------|-----------------|-----|-----|-----|-----|-----|-----|-------|-----|-----|------|------|------|
|             | A               | B   | C   | D   | E   | F   | G   | L     | H1  | H2  | UNA  | DNM  |      |
| U 3SA-90/4  | 190,8           | 175 | 405 | 164 | 140 | 178 | 190 | 98,7  | 128 | 192 | 1" G | 1" G | 10   |
| U 3SA-100/5 | 214,8           | 199 | 452 | 164 | 140 | 178 | 203 | 104,7 | 128 | 192 |      |      | 12,5 |
| U 5SA-120/4 | 190,8           | 175 | 428 | 164 | 140 | 178 | 203 | 104,7 | 128 | 192 |      |      | 12,5 |
| U 5SA-150/5 | 214,8           | 199 | 514 | 164 | 140 | 201 | 211 | 128,2 | 134 | 198 |      |      | 15,5 |

# AP

## Self-priming

Self-priming centrifugal pump with external ejector (convertible) 2" and 4"; for water supplies (even if mixed with gas) in small household systems, when connected to autoclave tanks, an automatic oressurisation system comes.

### Construction features

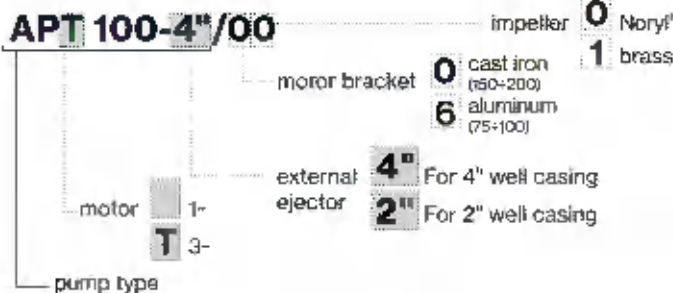
|                           |                                                                        |
|---------------------------|------------------------------------------------------------------------|
| <b>Pump body</b>          | cast iron                                                              |
| <b>Motor bracket</b>      | aluminum (75÷100),<br>cast iron (150÷200)                              |
| <b>Impeller</b>           | Noryl® or brass                                                        |
| <b>Mechanical seal</b>    | ceramic-graphite-NBR                                                   |
| <b>Motor shaft</b>        | steel AISI 416 (75÷100),<br>steel AISI 303 hydraulic part<br>(150÷200) |
| <b>Liquid temperature</b> | 0 - 50 °C                                                              |
| <b>Operating pressure</b> | max 8 bar                                                              |

### Motor

|                                |                                           |
|--------------------------------|-------------------------------------------|
|                                | 3- 230/400V-50Hz                          |
| <b>2 poles induction motor</b> | 1- 230V-50Hz<br>(with thermal protection) |
| <b>Insulation class</b>        | F                                         |
| <b>Protection degree</b>       | IPX4                                      |



### APT 100-4"/00



AP 100



APT 200

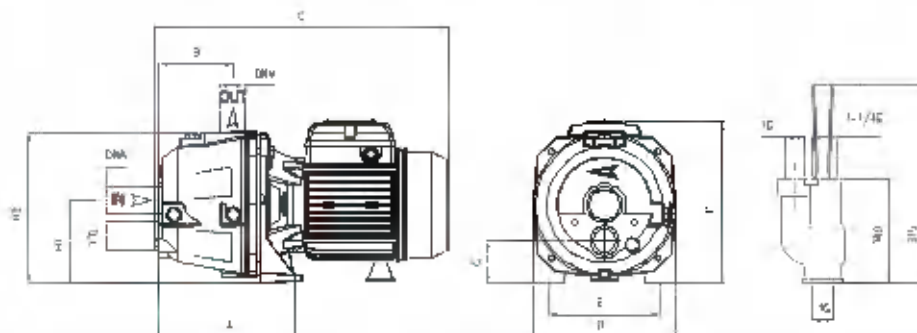
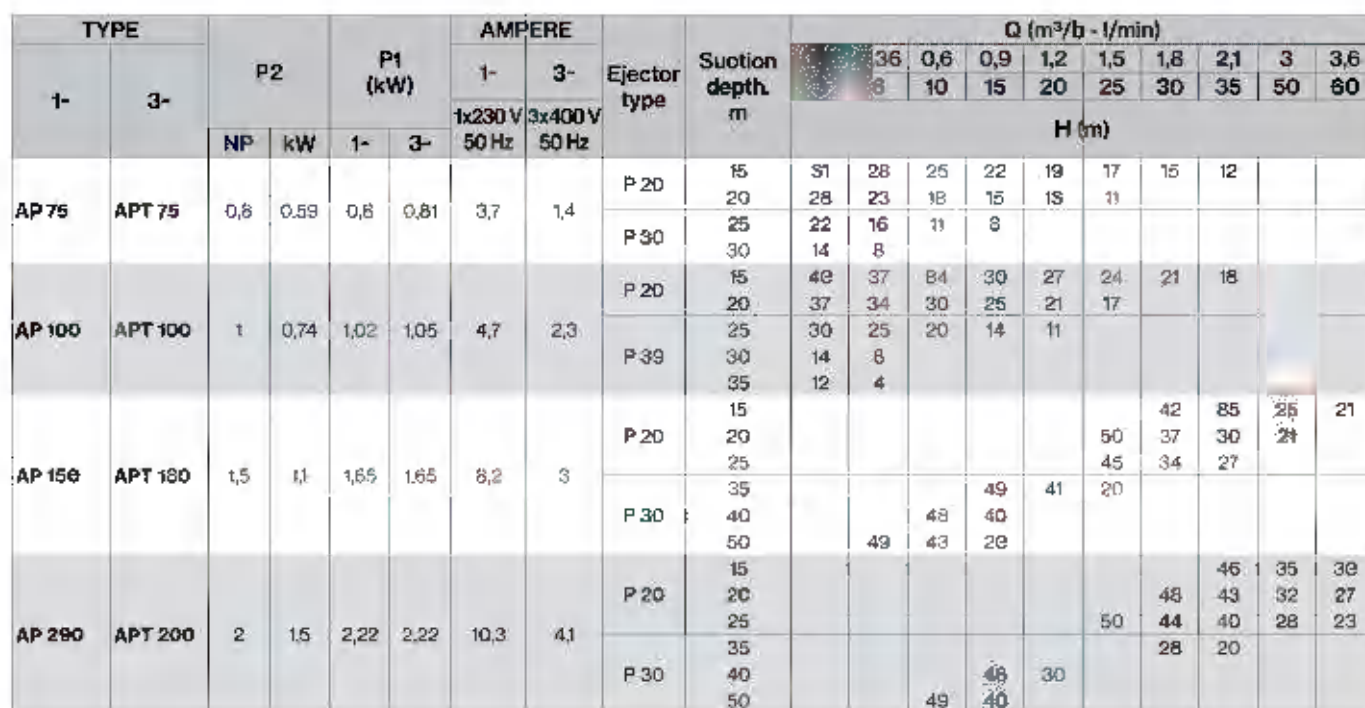


4"



| TYPE       | LOTS        |          | CONTAINER   |          |
|------------|-------------|----------|-------------|----------|
|            | TRUCK       |          |             |          |
|            | PALLET (cm) | N° pumps | PALLET (cm) | N° pumps |
| AP 75-100  | 85×110×145  | 50       | 85×110×190  | 80       |
| AP 150-200 | 80×120×140  | 35       | 80×120×190  | 49       |

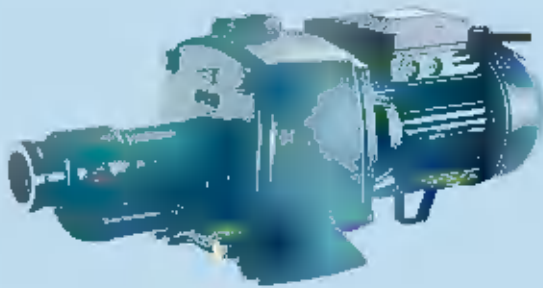




| TYPE   | DIMENSIONS (mm) |    |     |     |     |     |    |     |     |        |      |  |     |     |  |
|--------|-----------------|----|-----|-----|-----|-----|----|-----|-----|--------|------|---------------------------------------------------------------------------------------|-----|-----|---------------------------------------------------------------------------------------|
|        | A               | B  | C   | O   | E   | F   | G  | H1  | H2  | ONA    | ONM  | I                                                                                     | L   | M   |                                                                                       |
| AP 75  | 168             | 82 | 360 | 180 | 140 | 195 | 52 | 97  | 188 | 1" ¼ G | 1" G | 440                                                                                   | 200 | 225 | 16                                                                                    |
| AP 100 | 168             | 82 | 360 | 180 | 140 | 195 | 52 | 97  | 188 |        |      | 440                                                                                   | 200 | 225 | 18                                                                                    |
| AP 150 | 125             | 74 | 415 | 220 | 177 | 230 | 60 | 112 | 240 |        |      | 525                                                                                   | 230 | 280 | 28,5                                                                                  |
| AP 200 | 125             | 74 | 415 | 220 | 177 | 230 | 60 | 112 | 240 |        |      | 525                                                                                   | 230 | 280 | 29                                                                                    |

# CAB

## Self-priming



Self-priming centrifugal pump for water supplies (even if mixed with gas) in small and medium household and civil systems; when connected to autoclave tanks, an automatic pressurisation system comes.

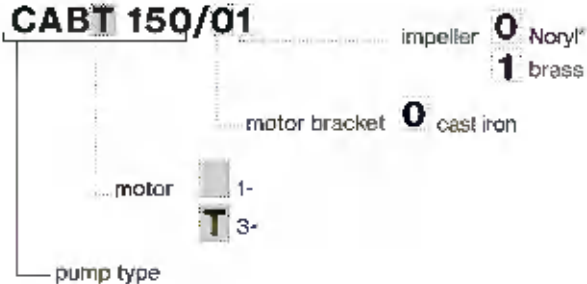
### Construction features

|                           |                                            |
|---------------------------|--------------------------------------------|
| <b>Pump body</b>          | cast iron                                  |
| <b>Motor bracket</b>      | cast iron                                  |
| <b>Impeller</b>           | Noryl® or brass                            |
| <b>Mechanical seal</b>    | ceramic-graphite-NBR                       |
| <b>Motor shaft</b>        | stainless steel AISI 303<br>hydraulic side |
| <b>Liquid temperature</b> | 0 - 50 °C                                  |
| <b>Operating pressure</b> | max 8 bar                                  |

### Motor

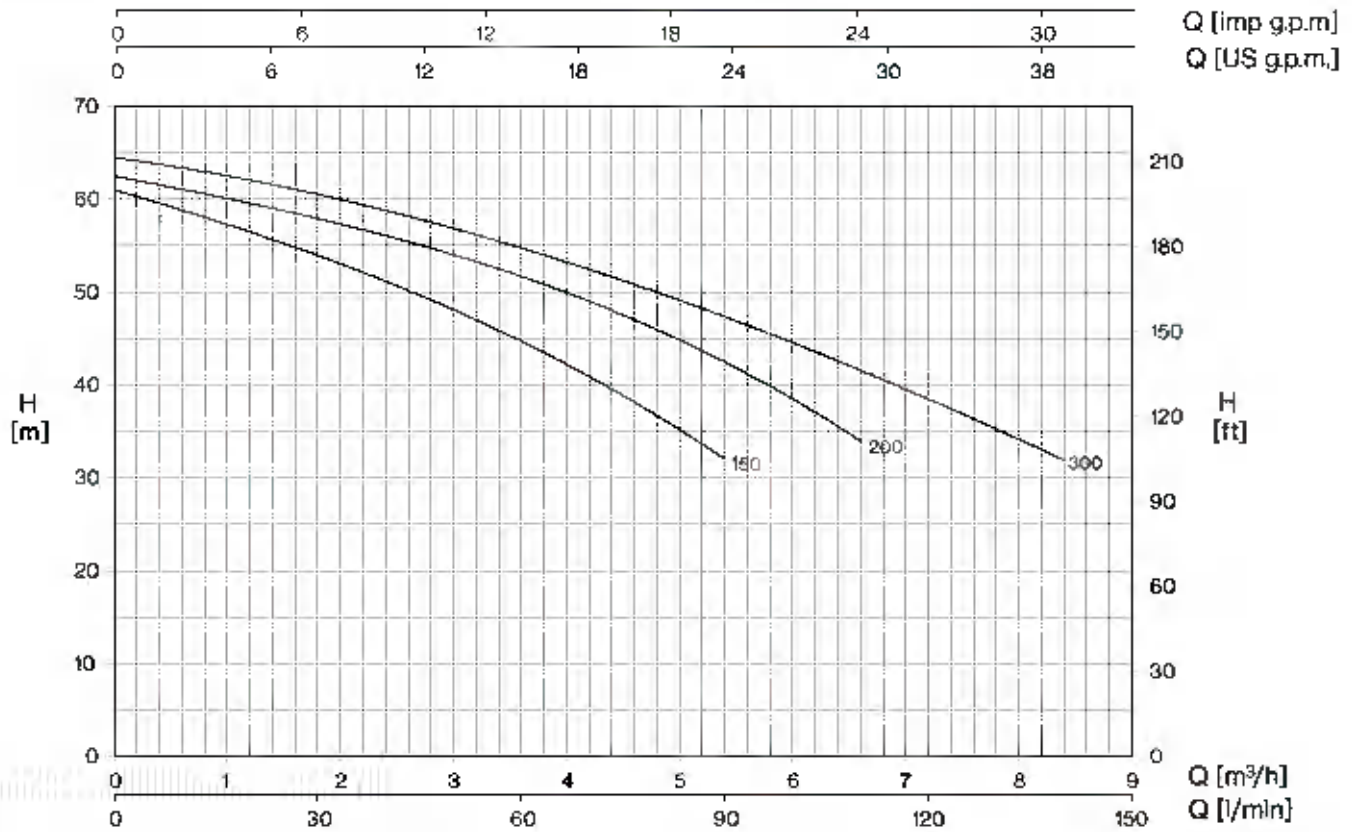
|                                |                                           |
|--------------------------------|-------------------------------------------|
|                                | 3- 230/400V-50Hz                          |
| <b>2 Poles induction motor</b> | 1- 230V-50Hz<br>(with thermal protection) |
| <b>Insulation class</b>        | F                                         |
| <b>Protection degree</b>       | IPX4                                      |

### CABT 150/01

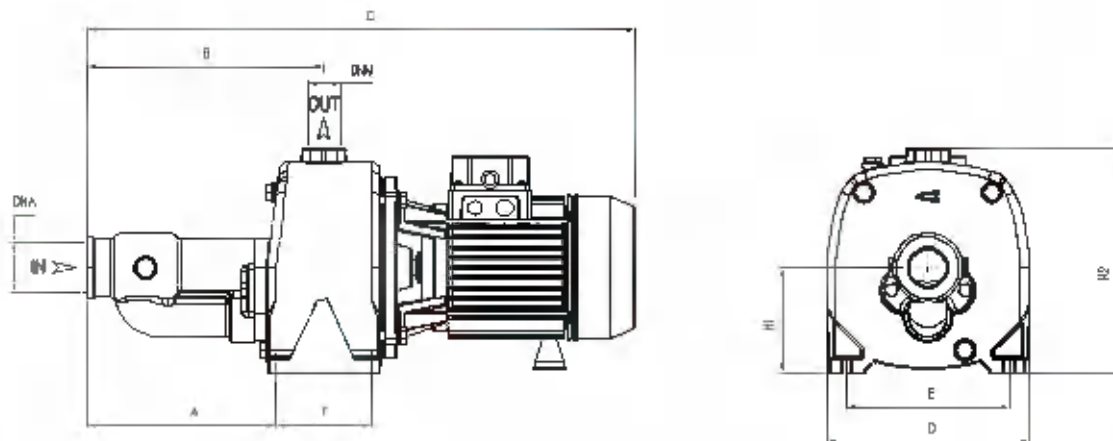


| TYPE | TRUCK       |          | CONTAINER   |          |
|------|-------------|----------|-------------|----------|
|      | PALLET (cm) | N° pumps | PALLET (cm) | N° pumps |
| CAB  | 86×110×140  | 30       | 85×110×190  | 42       |





| TYPE    |           | P2  |     | P1<br>(kW) |      | AMPERE           |                  | Q (m³/h - l/min) |      |      |      |      |      |      |      |      |
|---------|-----------|-----|-----|------------|------|------------------|------------------|------------------|------|------|------|------|------|------|------|------|
| 1-      | 3-        |     |     |            |      | 1-               | 3-               | 0                | 1,2  | 1,8  | 3    | 4,2  | 5,4  | 6,6  | 7,8  | 8,4  |
|         |           | 0   | 20  | 30         | 50   | 70               | 90               | 110              | 130  | 140  |      |      |      |      |      |      |
|         |           | HP  | kW  | 1-         | 3-   | 1x230 V<br>50 Hz | 3x400 V<br>50 Hz | H (m)            |      |      |      |      |      |      |      |      |
| CAB 150 | CAB T 150 | 1,5 | 1,1 | 1,74       | 1,68 | 7,9              | 3,3              | 61,0             | 56,5 | 64,0 | 48,0 | 41,0 | 32,0 |      |      |      |
| CAB 200 | CAB T 200 | 2   | 1,5 | 2,22       | 2,1  | 10,3             | 3,9              | 62,5             | 59,5 | 58,0 | 54,0 | 49,0 | 42,5 | 34,0 |      |      |
| CAB 300 | CAB T 300 | 3   | 2,2 | 2,65       | 2,5  | 11,8             | 4,9              | 64,5             | 62,0 | 60,5 | 57,0 | 52,5 | 47,0 | 42,0 | 35,0 | 32,0 |



| TYPE    | DIMENSIONS (mm) |     |     |     |     |     |     |     |        |      |  |     |     |  |
|---------|-----------------|-----|-----|-----|-----|-----|-----|-----|--------|------|---------------------------------------------------------------------------------------|-----|-----|---------------------------------------------------------------------------------------|
|         | A               | B   | C   | D   | E   | F   | H1  | H2  | DNA    | DNM  | I                                                                                     | L   | M   |                                                                                       |
| CAB 15C | 204             | 257 | 596 | 220 | 177 | 105 | 112 | 240 |        |      | 610                                                                                   | 235 | 275 | 30                                                                                    |
| CAB 200 | 204             | 257 | 596 | 220 | 177 | 105 | 112 | 240 | 1" ½ G | 1" G | 618                                                                                   | 235 | 275 | 30,5                                                                                  |
| CAB 300 | 204             | 257 | 596 | 220 | 177 | 105 | 112 | 240 |        |      | 610                                                                                   | 235 | 275 | 31,5                                                                                  |

# MP/A

Self-priming



Multi-stage centrifugal pump, horizontal and self-priming, particularly suitable for constructing small and medium sized pressurisation systems; able to suck liquids mixed with air or gas.

## Construction features

|                           |                          |
|---------------------------|--------------------------|
| <b>Pump body</b>          | cast iron                |
| <b>Motor bracket</b>      | cast iron                |
| <b>Impeller</b>           | Noryl®                   |
| <b>Mechanical seal</b>    | ceramic-graphite-NBR     |
| <b>Motor shaft</b>        | stainless steel AISI 416 |
| <b>Liquid temperature</b> | 0 - 50 °C                |
| <b>Operating pressure</b> | max 11 bar               |

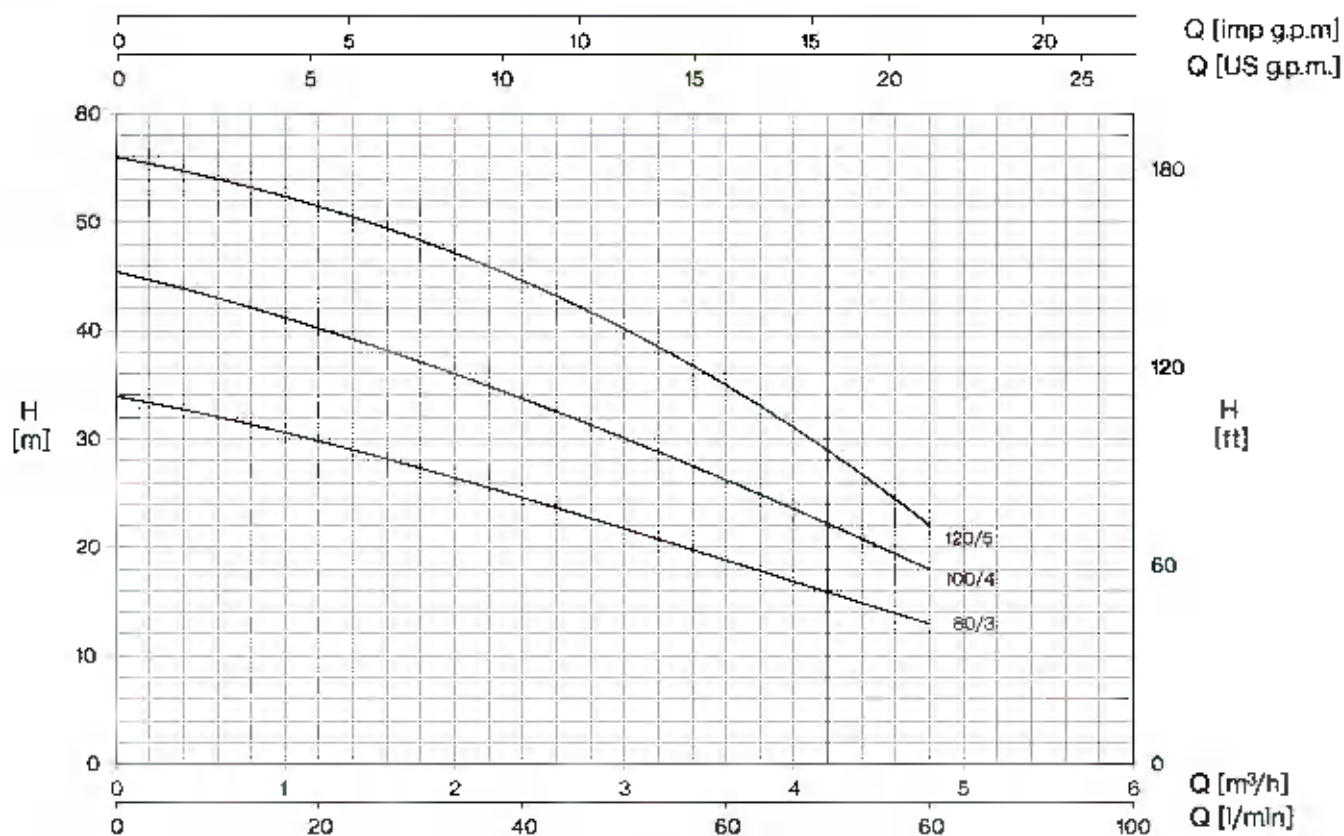
## Motor

|                                |                                           |
|--------------------------------|-------------------------------------------|
|                                | 3- 230/400V-50Hz                          |
| <b>2 poles induction motor</b> | 1- 230V-50Hz<br>(with thermal protection) |
| <b>Insulation class</b>        | F                                         |
| <b>Protection degree</b>       | IPX4                                      |

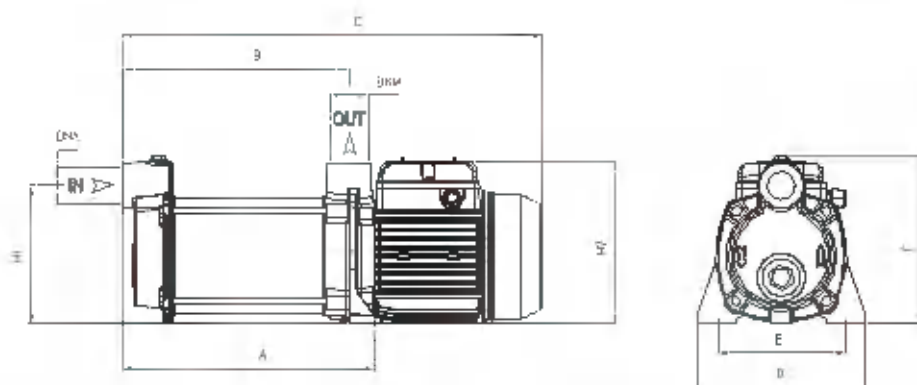
| TYPE | LOTS           |          |                |          |
|------|----------------|----------|----------------|----------|
|      | TRUCK          |          | CONTAINER      |          |
|      | PALLET<br>(cm) | N° pumps | PALLET<br>(cm) | N° pumps |
| MP/A | 80×120×150     | 48       | 80×120×190     | 64       |







| TYPE       |             | P2  |      | P1 (kW) |      | AMPERE           |                  | Q (m³/h - l/min) |      |      |      |      |
|------------|-------------|-----|------|---------|------|------------------|------------------|------------------|------|------|------|------|
| 1-         | 3-          |     |      |         |      | 1-               | 3-               | 0                | 1,2  | 2,4  | 3,6  | 4,8  |
|            |             | HP  | kW   | 1-      | 3-   | 1x230 V<br>50 Hz | 3x400 V<br>50 Hz | 0                | 20   | 40   | 60   | 80   |
|            |             |     |      |         |      |                  |                  | H (m)            |      |      |      |      |
| MP 80/3 A  | MPT 80/3 A  | 0,8 | 0,59 | 0,83    | 0,88 | 3,8              | 1,6              | 84,0             | 29,5 | 25,0 | 18,5 | 13,0 |
| MP 100/4 A | MPT 100/4 A | 1   | 0,74 | 1,07    | 1,1  | 5,0              | 1,9              | 45,5             | 40,0 | 34,0 | 26,0 | 18,0 |
| MP 120/5 A | MPT 120/5 A | 1,2 | 0,88 | 1,27    | 1,33 | 6,1              | 2,3              | 56               | 61,5 | 44,5 | 35,0 | 22,0 |



| TYPE       | DIMENSIONS (mm) |     |     |     |     |     |     |     |      |      |  |     |     |  |
|------------|-----------------|-----|-----|-----|-----|-----|-----|-----|------|------|---------------------------------------------------------------------------------------|-----|-----|---------------------------------------------------------------------------------------|
|            | A               | B   | C   | D   | E   | F   | H1  | H2  | DNA  | DNM  | I                                                                                     | L   | M   |                                                                                       |
| MP 50/3 A  | 245             | 224 | 425 | 180 | 140 | 185 | 150 | 175 |      |      | 440                                                                                   | 200 | 215 | 14                                                                                    |
| MP 100/4 A | 270             | 240 | 450 | 180 | 140 | 135 | 150 | 175 | 1" G | 1" G | 500                                                                                   | 200 | 215 | 15.5                                                                                  |
| MP 120/5 A | 295             | 264 | 475 | 180 | 140 | 185 | 150 | 175 |      |      | 500                                                                                   | 200 | 215 | 16                                                                                    |



# MPX

Self-priming



Multi-stage centrifugal pumps, horizontal and self-priming, particularly suitable for constructing small and medium sized pressurisation systems; able to suck liquids mixed with air or gas.

## Construction features

|                           |                          |
|---------------------------|--------------------------|
| <b>Pump body</b>          | stainless steel AISI 304 |
| <b>Motor bracket</b>      | aluminum                 |
| <b>Impeller</b>           | Noryl®                   |
| <b>Mechanical seal</b>    | ceramic-graphite-NBR     |
| <b>Pump shaft</b>         | stainless steel AISI 416 |
| <b>Liquid temperature</b> | 0 - 50 °C                |
| <b>Operating pressure</b> | max 8 bar                |

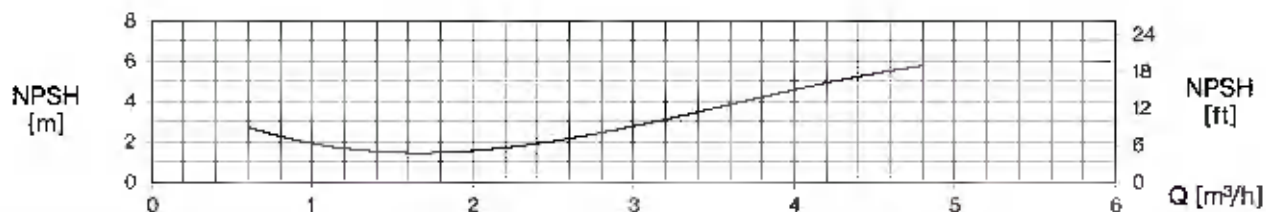
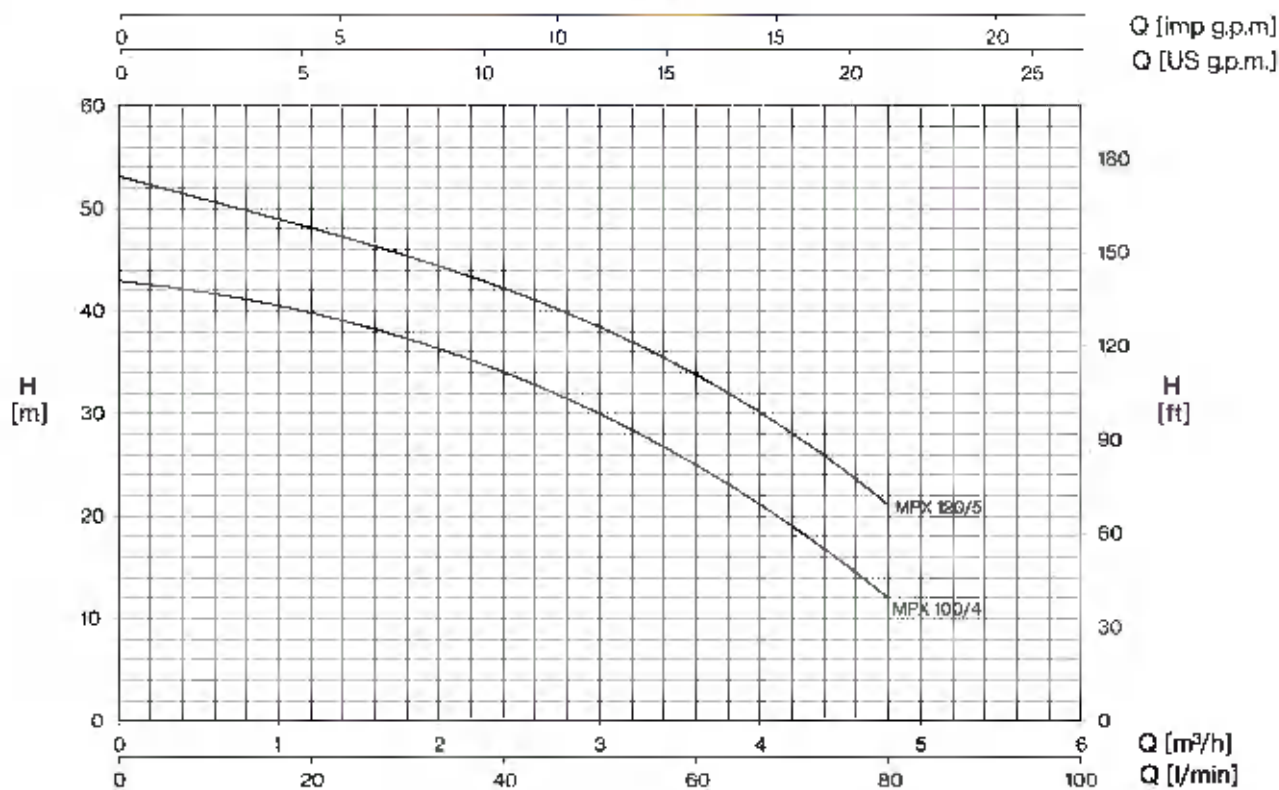
## Motor

|                                |                                           |
|--------------------------------|-------------------------------------------|
|                                | 3~ 230/400V-50Hz                          |
| <b>2 poles induction motor</b> | 1~ 230V-50Hz<br>(with thermal protection) |
| <b>Insulation class</b>        | F                                         |
| <b>Protection degree</b>       | IPX4                                      |

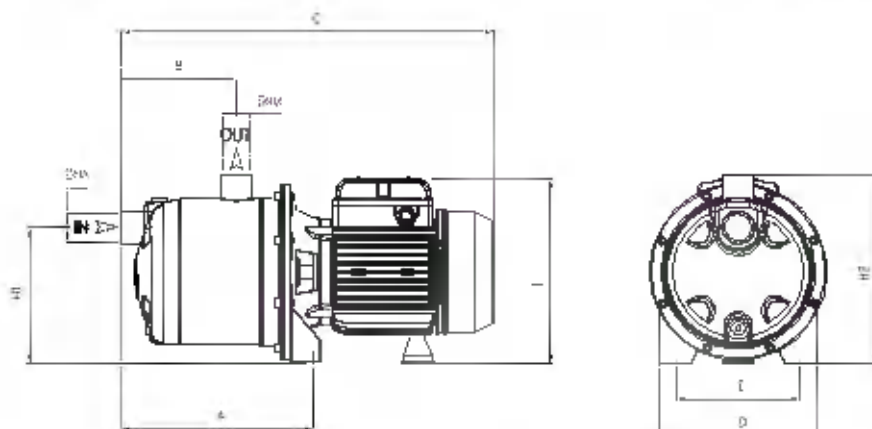
| TYPE | LOTS           |          |                |          |
|------|----------------|----------|----------------|----------|
|      | TRUCK          |          | CONTAINER      |          |
|      | PALLET<br>(cm) | N° pumps | PALLET<br>(cm) | N° pumps |
| MPX  | 85×110×170     | 60       | 85×110×190     | 80       |



# MPX



| TYPE      |            | P2  |      | P1 (kW) |      | AMPERE           |                  | Q (m³/h - l/min) |      |      |      |      |      |
|-----------|------------|-----|------|---------|------|------------------|------------------|------------------|------|------|------|------|------|
| 1-        | 3-         |     |      |         |      | 1-               | 3-               | 0                | 0,6  | 1,2  | 2,4  | 3,6  | 4,6  |
|           |            | HP  | kW   | 1-      | 3-   | 1x230 V<br>50 Hz | 3x400 V<br>50 Hz | 0                | 10   | 20   | 40   | 60   | 80   |
| MPX 100/4 | MPXT 100/4 | 1   | 0,74 | 1,07    | 1,1  | 5,0              | 1,9              | 43,0             | 41,5 | 40,0 | 34,0 | 25,0 | 12,0 |
| MPX 120/5 | MPXT 120/5 | 1,2 | 0,88 | 1,27    | 1,33 | 6,1              | 2,3              | 53,0             | 51,0 | 48,0 | 42,0 | 34,0 | 21,0 |



| TYPE      | DIMENSIONS (mm) |     |     |     |     |     |     |     |      |      | WEIGHT (kg) |     |     |
|-----------|-----------------|-----|-----|-----|-----|-----|-----|-----|------|------|-------------|-----|-----|
|           | A               | B   | C   | D   | E   | F   | H1  | H2  | DHA  | DNM  | f           | L   | M   |
| MPX 100/4 | 208             | 128 | 410 | 175 | 140 | 215 | 153 | 210 | 1" G | 1" G | 430         | 210 | 235 |
| MPX 120/5 | 208             | 128 | 410 | 175 | 140 | 215 | 153 | 210 | 1" G | 1" G | 430         | 210 | 235 |

# MPX (Garden version)

Portable electropumps complete with handle, cable with plug and switch.  
The performances depend on adopted pump type.

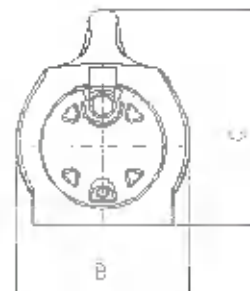
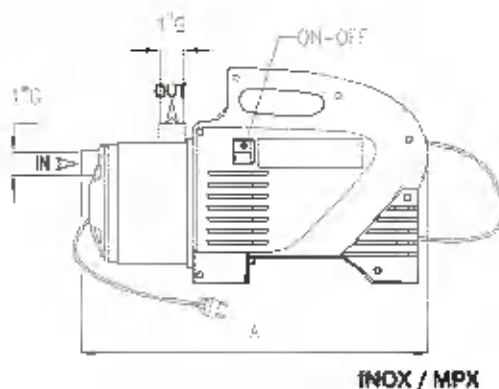
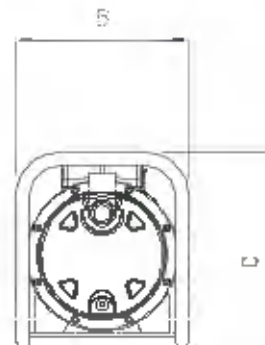
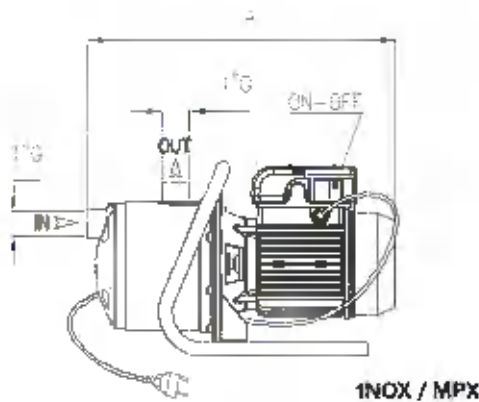


MPX



MPX BQX

| TYPE      | P2  |      | P1 (kW) | Pipe         |               | Performance |           |
|-----------|-----|------|---------|--------------|---------------|-------------|-----------|
|           | HP  | kW   | 1-      | Suction (°G) | Delivery (°G) | Q (l/min)   | H (m)     |
| MPX 100/4 | 1   | 0.74 | 1.07    | 1            | 1             | 10.0-80.0   | 41.5-12.0 |
| MPX 120/6 | 1.2 | 0.88 | 1.27    | 1            | 1             | 10.0-80.0   | 51.0-21.0 |



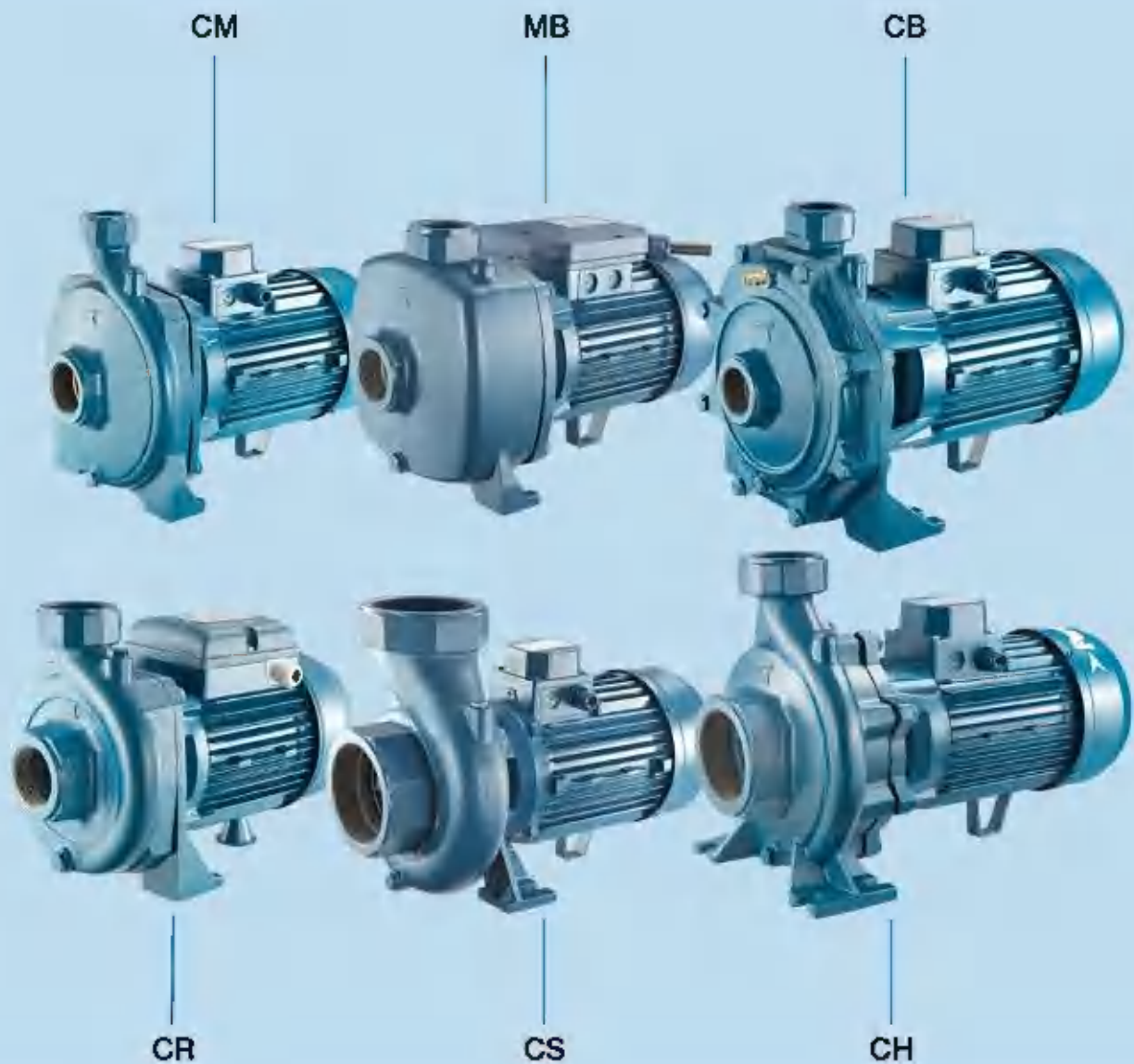
| TYPE          | DIMENSIONS (mm) |     |     |
|---------------|-----------------|-----|-----|
|               | A               | D   | C   |
| MPX 100/4     | 410             | 175 | 285 |
| MPX 120/5     | 410             | 175 | 285 |
| MPX 100/4 BQX | 429             | 209 | 287 |



**THREADED CENTRIFUGAL**



# THREADED CENTRIFUGAL PUMPS



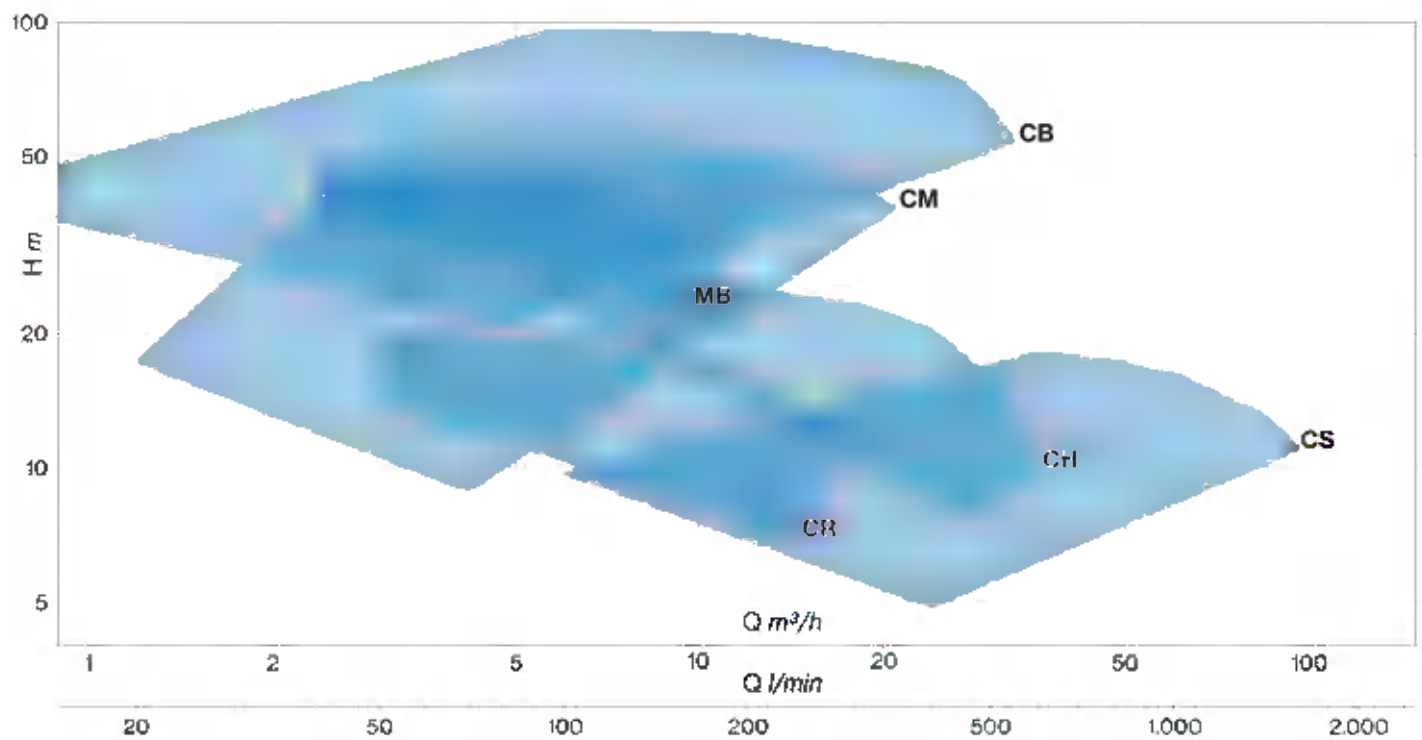
Extremely silent single and double impeller centrifugal pumps, designed for a wide range of applications

## **Applications:**

- Water supply
- Pressurization
- Water circulation systems for heating and air conditioning
- Liquid transfer in industry and horticulture



# THREADED CENTRIFUGAL PUMPS





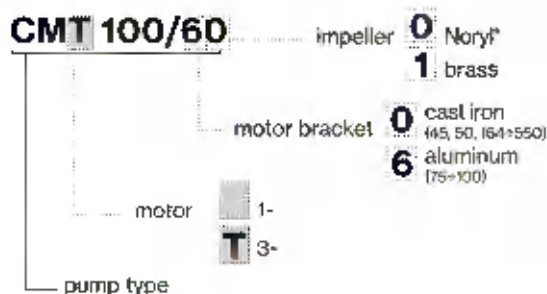
Single impeller centrifugal pump, extremely silent suitable for household, civil and industrial applications, with a very flat curve to guarantee constant pressure at the variation of the flow.

### Construction features

|                           |                                                            |
|---------------------------|------------------------------------------------------------|
| <b>Pump body</b>          | cast iron                                                  |
| <b>Motor bracket</b>      | cast iron (45, 50, 164÷550);<br>aluminum (75÷100)          |
| <b>Impeller</b>           | Noryl® (45)<br>Noryl® or brass (50-314)<br>brass (400-550) |
| <b>Mechanical seal</b>    | ceramic-graphite-NBR                                       |
| <b>Motor shaft</b>        | steel AISI 416 (45÷100)<br>steel AISI 303 (164÷550)        |
| <b>Liquid temperature</b> | Ncryl® impeller: 0 - 50 °C<br>brass impeller: 0 - 90 °C    |
| <b>Operating pressure</b> | max 6 bar (45-100)<br>max 8 bar (164-550)                  |

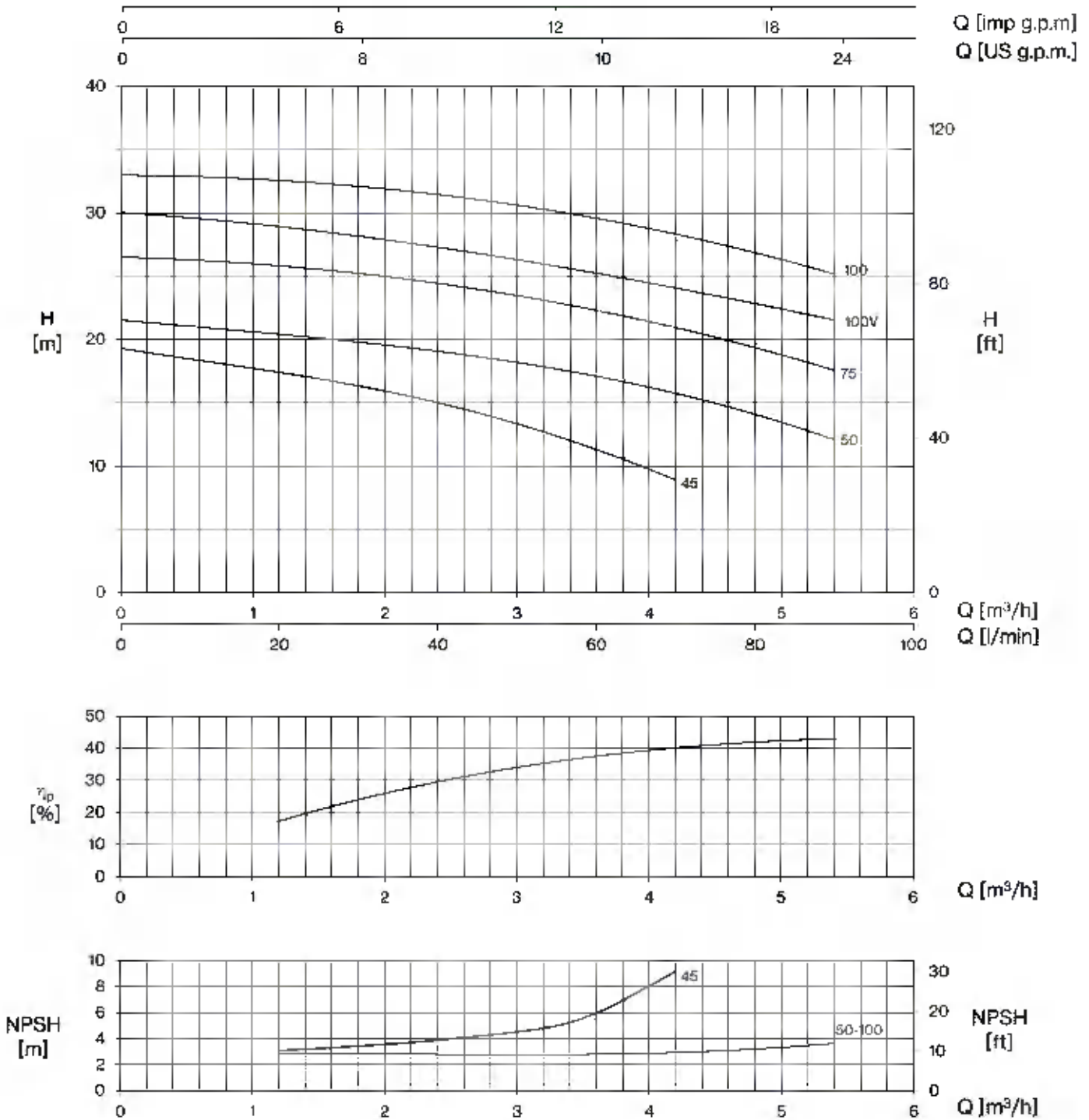
### Motor

|                                |                                                           |
|--------------------------------|-----------------------------------------------------------|
|                                | 3- 230/400V-50Hz                                          |
| <b>2 Poles induction motor</b> | 1- 230V-50Hz<br>(with thermal protection<br>up to MEC 80) |
| <b>Insulation class</b>        | F                                                         |
| <b>Protection degree</b>       | IPX4                                                      |



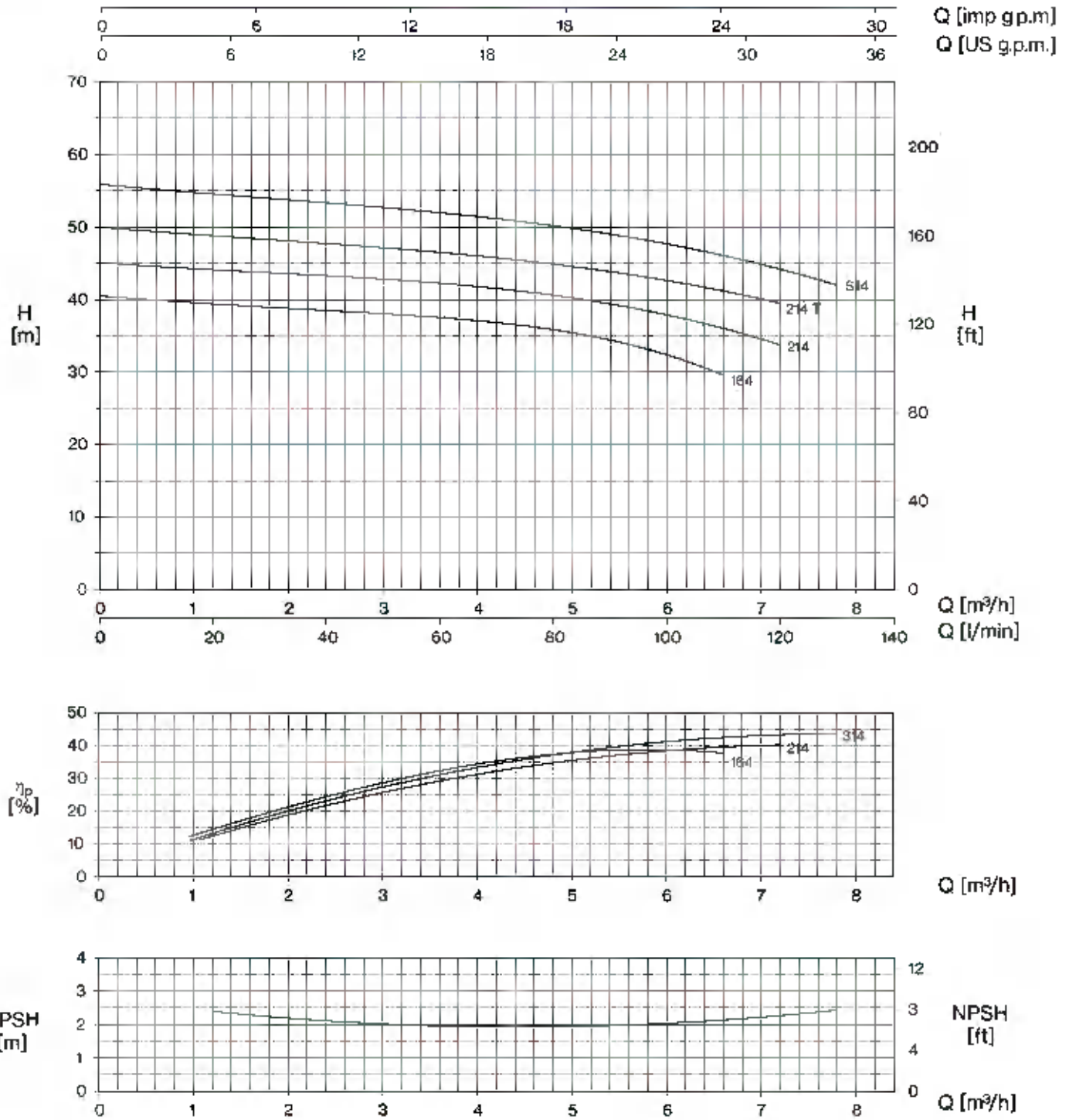
| TYPE              | LOTS        |          |             |          |
|-------------------|-------------|----------|-------------|----------|
|                   | TRUCK       |          | CONTAINER   |          |
|                   | PALLET (cm) | N° pumps | PALLET (cm) | N° pumps |
| <b>CM 45-50</b>   | 80×120×145  | 102      | 80×120×190  | 136      |
| <b>CM 75-100</b>  | 85×110×145  | 65       | 85×110×195  | 91       |
| <b>CM 154-314</b> | 85×110×140  | 40       | 85×110×170  | 66       |
| <b>CM 314 M</b>   | 85×110×150  | 24       | 85×110×180  | 30       |
| <b>CM 400-550</b> | 85×110×150  | 24       | 85×110×180  | 30       |



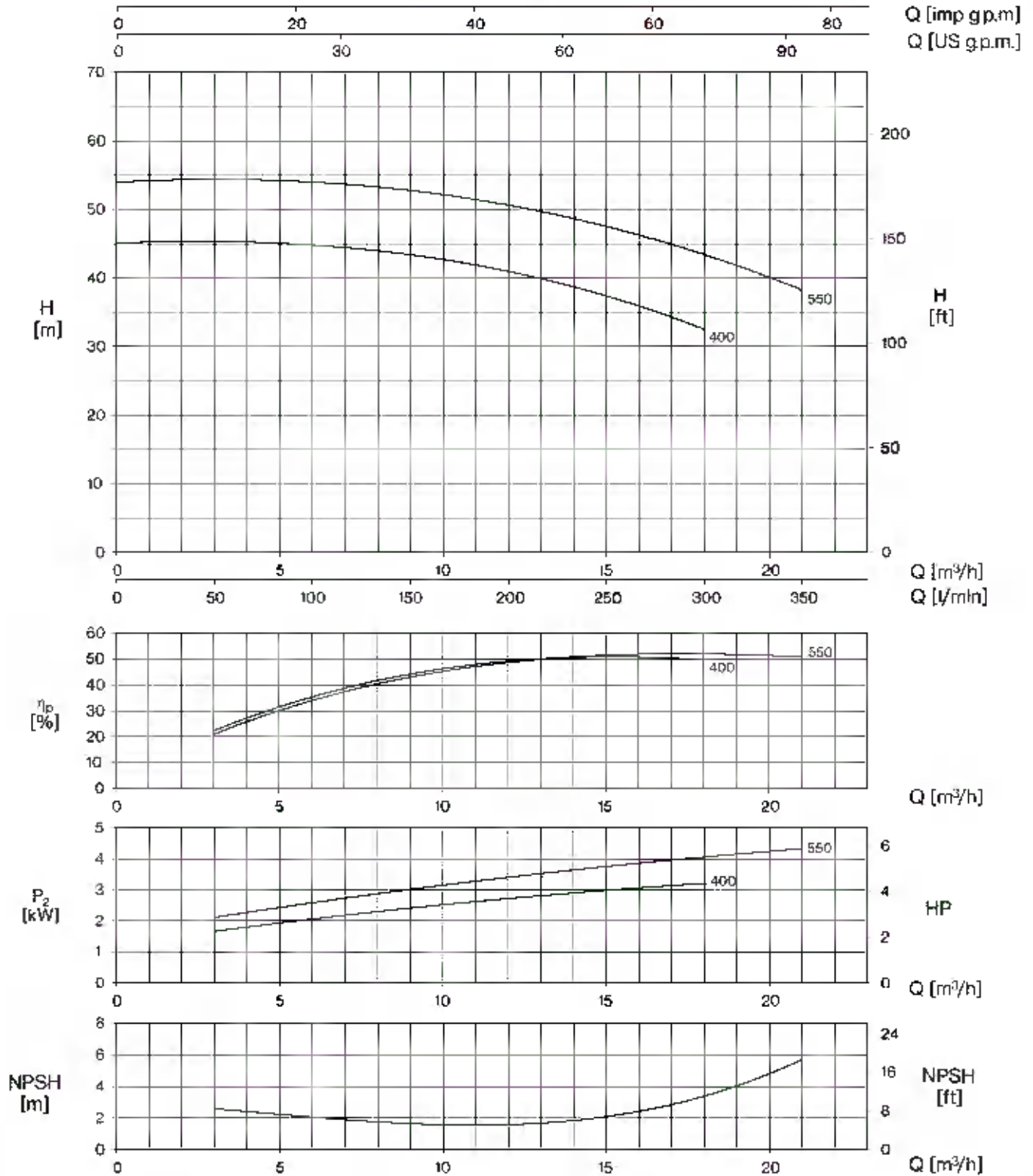


| TYPE     |         | P2  |      | P1 (kW) |      | AMPERE           |                  | Q (m³/h - l/min) |      |      |      |      |      |      |
|----------|---------|-----|------|---------|------|------------------|------------------|------------------|------|------|------|------|------|------|
| 1-       | 3-      |     |      |         |      | 1-               | 3-               | 0                | 1,2  | 2,4  | 3,6  | 4,2  | 4,8  | 5,4  |
|          |         | HP  | kW   | 1-      | 3-   | lx230 V<br>50 Hz | 3x400 V<br>50 Hz | 0                | 20   | 40   | 60   | 79   | 50   | 90   |
| H (m)    |         |     |      |         |      |                  |                  |                  |      |      |      |      |      |      |
| CM 45    | CMT 45  | 0,4 | 0,8  | 0,51    | 0,56 | 2,3              | 1,0              | 15,3             | 17,4 | 15,0 | 11,3 | 5,9  | -    | -    |
| CM 50    | CMT 50  | 0,5 | 0,37 | 0,59    | 0,65 | 2,8              | 1,1              | 21,5             | 20,5 | 19,0 | 17,0 | 15,8 | 14,2 | 12,0 |
| CM 75    | CMT 75  | 0,8 | 0,52 | 0,9     | 0,94 | 4,5              | 1,7              | 26,5             | 25,8 | 24,5 | 22,2 | 20,9 | 19,5 | 17,5 |
| CM 100 V | -       | 1   | 0,74 | 1,05    | -    | 4,6              | -                | 30,0             | 29,0 | 27,2 | 25,2 | 24,1 | 22,9 | 21,5 |
| CM 100   | CMT 100 | 1   | 0,74 | 1,15    | 1,17 | 5,7              | 2,0              | 33,0             | 32,5 | 31,5 | 29,6 | 28,3 | 26,8 | 25,2 |

CM

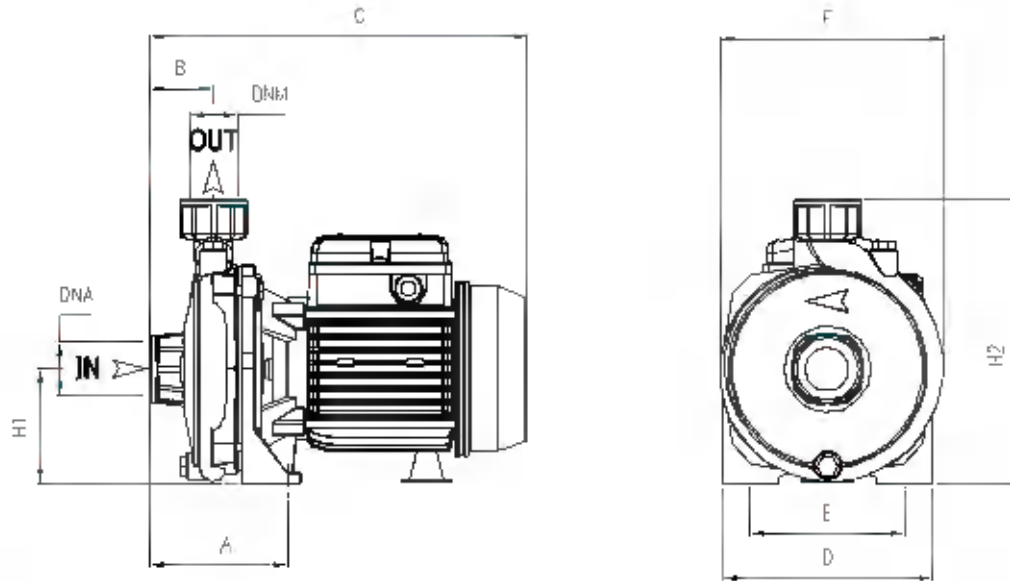


| TYPE   |         | P2  |     | P1<br>(kW) |      | AMPERE           |                  | Q (m³/h - l/min) |      |      |      |      |      |      |      |      |
|--------|---------|-----|-----|------------|------|------------------|------------------|------------------|------|------|------|------|------|------|------|------|
| 1-     | 3-      |     |     |            |      | 1-               | 3-               | 0                | 1,2  | 2,4  | 3,6  | 4,8  | 5,4  | 6,6  | 7,2  | 7,8  |
|        |         | 0   | 20  | 40         | 60   |                  |                  | 80               | 90   | 110  | 120  | 130  |      |      |      |      |
|        |         | HP  | kW  | 1-         | 3-   | 1x230 V<br>50 Hz | 3x400 V<br>50 Hz | H (m)            |      |      |      |      |      |      |      |      |
| CM 164 | CMT 164 | 1,5 | 1,1 | 1,9        | 1,8  | 8,5              | 3,4              | 40,5             | 39,3 | 38,8 | 37,5 | 35,6 | 34,6 | 29,5 |      |      |
| CM 214 | -       | 2   | 1,5 | 2,2        |      | 10,3             |                  | 45,1             | 44,1 | 43,3 | 42,3 | 40,5 | 39,2 | 36,4 | 33,5 |      |
| -      | CMT 214 | 2   | 1,5 |            | 2,43 |                  | 4,9              | 50,0             | 48,7 | 47,8 | 46,5 | 44,9 | 43,7 | 41,3 | 39,4 |      |
| CM 314 | CMT 314 | 3   | 2,2 | 2,85       | 2,67 | 13,5             | 5,1              | 55,9             | 54,5 | 53,4 | 52,0 | 50,1 | 48,9 | 45,2 | 44,2 | 41,9 |



| TYPE   |         | P2  |    | P1 (kW) |     | AMPERE           |                  | Q (m³/h - l/min) |      |      |      |      |      |      |      |
|--------|---------|-----|----|---------|-----|------------------|------------------|------------------|------|------|------|------|------|------|------|
| 1-     | 3-      |     |    |         |     | 1-               | 3-               | 0                | 3    | 6    | 9    | 12   | 15   | 18   | 21   |
|        |         | HP  | KW | l-      | 3-  | 1x230 V<br>50 Hz | 3x400 V<br>50 Hz | C                | 50   | 100  | 150  | 200  | 250  | 300  | 350  |
|        |         |     |    |         |     |                  |                  | H (m)            |      |      |      |      |      |      |      |
| CM 400 | CMT 400 | 4   | 8  | 3,6     | 9,7 | 16,0             | 8,7              | 45,1             | 45,2 | 44,9 | 43,4 | 40,9 | 37,4 | 32,5 | -    |
|        | CMT 550 | 5,5 | 4  |         | 4,9 |                  | 9,0              | 54,1             | 54,1 | 54,0 | 52,9 | 50,7 | 47,5 | 43,2 | 38,4 |





| TYPE     | DIMENSIONS (mm) |      |       |     |     |     |     |     | DNA    | DNM    |  |     |     |  |
|----------|-----------------|------|-------|-----|-----|-----|-----|-----|--------|--------|-------------------------------------------------------------------------------------|-----|-----|-------------------------------------------------------------------------------------|
|          | A               | B    | C     | D   | E   | F   | H1  | H2  |        |        | I                                                                                   | L   | M   |                                                                                     |
| CM 45    | 95              | 45,5 | 265   | 150 | 110 | 160 | 82  | 202 |        |        | 290                                                                                 | 175 | 225 | 8,5                                                                                 |
| CM 50    | 95              | 45,5 | 265   | 150 | 110 | 100 | 82  | 202 |        |        | 290                                                                                 | 170 | 230 | 9,5                                                                                 |
| CM 75    | 110             | 46,5 | 300   | 180 | 140 | 185 | 97  | 234 | 1" G   | 1" G   | 325                                                                                 | 200 | 265 | 13,5 T 13                                                                           |
| CM 100 V | 110             | 46,5 | 300   | 180 | 140 | 185 | 97  | 234 |        |        | 325                                                                                 | 200 | 265 | 14 T 13,5                                                                           |
| CM 100   | 110             | 46,5 | 300   | 180 | 140 | 185 | 97  | 234 |        |        | 325                                                                                 | 200 | 265 | 15 T 14,5                                                                           |
| CM 164   | 117             | 46,5 | 348   | 220 | 180 | 225 | 115 | 285 |        |        | 370                                                                                 | 240 | 315 | 23 T 22                                                                             |
| CM 214   | 117             | 46,5 | 348   | 220 | 180 | 225 | 115 | 285 | 1" ¼ G | 1" G   | 370                                                                                 | 240 | 315 | 24 T 23                                                                             |
| CM 314   | 117             | 46,5 | M 410 | 220 | 180 | 225 | 115 | 285 |        |        | 370                                                                                 | 240 | 315 | 29 T 23,5                                                                           |
| CM 400   | 108             | 54   | 460   | 240 | 190 | 250 | 133 | 323 | 2" G   | 1" ¼ G | 480                                                                                 | 255 | 342 | 46 T 41,5                                                                           |
| CM 550   | 108             | 54   | 460   | 240 | 190 | 250 | 133 | 323 |        |        | 480                                                                                 | 255 | 342 | 46 T 45,5                                                                           |



Two impeller compact centrifugal pumps for constructing pressurisation systems for civil and industrial plant: guarantee good ratio between pressure and flow rate.

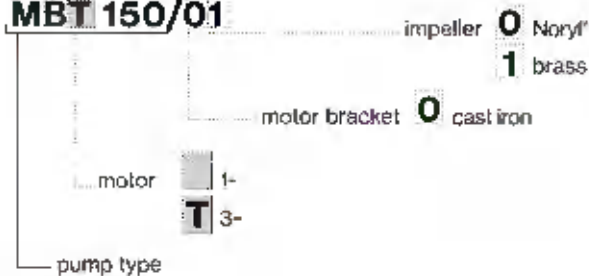
### Construction features

|                           |                          |
|---------------------------|--------------------------|
| <b>Pump body</b>          | cast iron                |
| <b>Motor bracket</b>      | cast iron                |
| <b>Impeller</b>           | Noryl® or brass          |
| <b>Mechanical seal</b>    | ceramic-graphite-NBR     |
| <b>Motor shaft</b>        | stainless steel AISI 303 |
| <b>Liquid temperature</b> | 0 - 50 °C                |
| <b>Operating pressure</b> | max 8 bar                |

### Motor

|                                |                                           |
|--------------------------------|-------------------------------------------|
|                                | 3- 230/400V-50Hz                          |
| <b>2 Poles induction motor</b> | 1- 230V-50Hz<br>(with thermal protection) |
| <b>Insulation class</b>        | F                                         |
| <b>Protection degree</b>       | IPX4                                      |

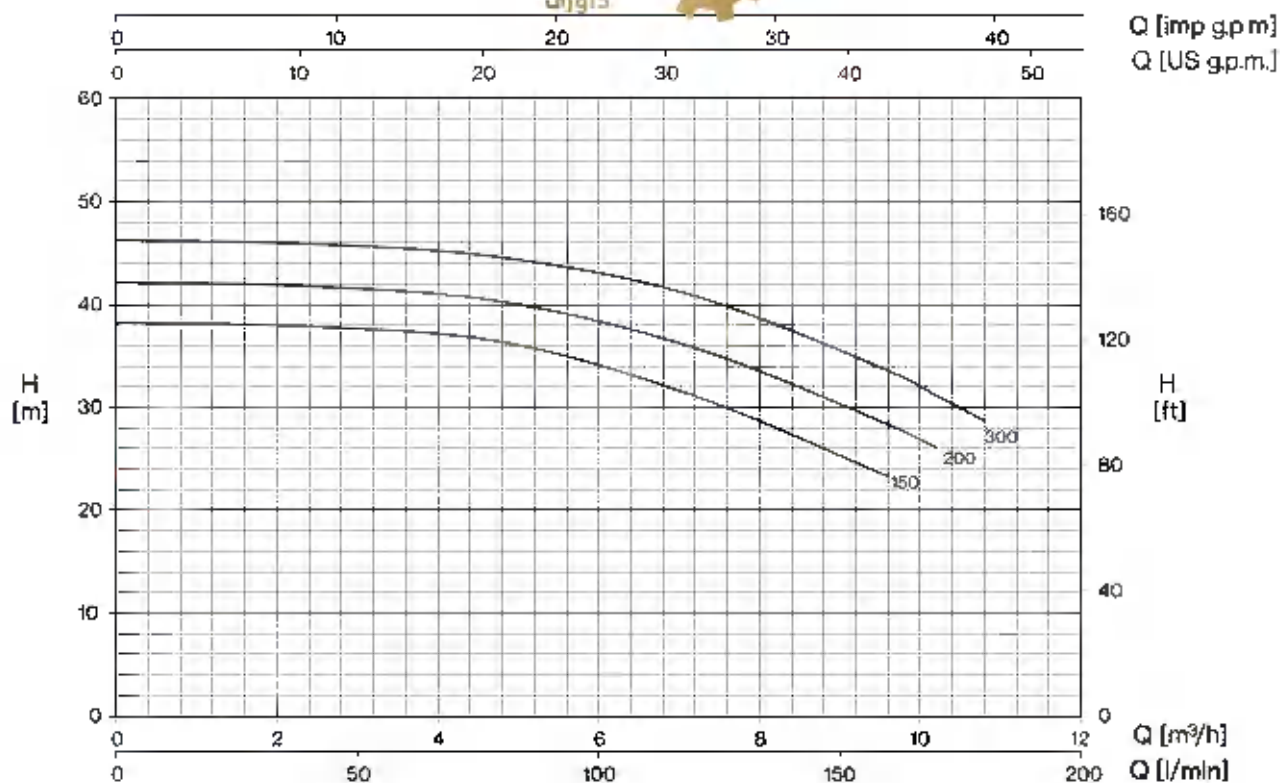
### MBT 150/01



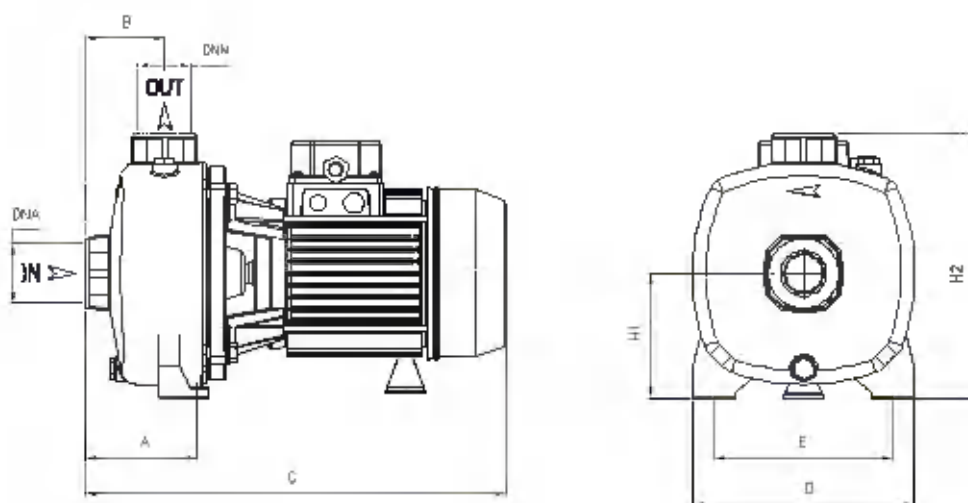
| TYPE | TRUCK       |          | CONTAINER   |          |
|------|-------------|----------|-------------|----------|
|      | PALLET (cm) | N° pumps | PALLET (cm) | N° pumps |
| MB   | 85×110×130  | 40       | 85×110×190  | 60       |



MB



| TYPE   |         | P2  |     | P1 (kW) |      | AMPERE           |                  | Q (m³/h - l/min) |      |      |      |      |      |      |
|--------|---------|-----|-----|---------|------|------------------|------------------|------------------|------|------|------|------|------|------|
| 1-     | 3-      |     |     |         |      | 1-               | 3-               | 0                | 2,4  | 4,8  | 7,2  | 9,6  | 10,2 | 10,8 |
|        |         | HP  | KW  | 1-      | 3-   | 1x230 V<br>50 Hz | 3x400 V<br>50 Hz | 0                | 40   | 80   | 120  | 160  | 170  | 180  |
| H (m)  |         |     |     |         |      |                  |                  |                  |      |      |      |      |      |      |
| MB 150 | MBT 150 | 1,5 | 1,1 | 1,6     | 1,5  | 7,2              | 3,1              | 33,2             | 37,9 | 36,3 | 31,2 | 23,3 |      |      |
| MB 200 | MBT 200 | 2   | 1,5 | 1,85    | 1,75 | 8,4              | 3,4              | 42,2             | 41,8 | 40,2 | 35,7 | 28,4 | 26,0 |      |
| MB 300 | MBT 300 | 3   | 2,2 | 2,15    | 2,05 | 9,7              | 4,3              | 46,2             | 45,9 | 44,6 | 40,9 | 33,5 | 31,2 | 28,5 |



| TYPE   | DIMENSIONS (mm) |    |     |     |     |     |     |        |        |     |     |     | Kg   |        |
|--------|-----------------|----|-----|-----|-----|-----|-----|--------|--------|-----|-----|-----|------|--------|
|        | A               | B  | C   | D   | E   | H1  | H2  | DNA    | DNM    | I   | L   | M   |      |        |
| MB 150 | 108             | 73 | 385 | 205 | 165 | 115 | 242 |        |        | 405 | 225 | 295 | 22   | T 21   |
| MB 200 | 108             | 73 | 335 | 205 | 165 | 115 | 242 | 1" ½ G | 1" ¼ G | 405 | 225 | 295 | 22,5 | T 21,5 |
| MB 300 | 108             | 73 | 385 | 205 | 165 | 115 | 242 |        |        | 405 | 225 | 295 | 23,5 | T 22,5 |



Two impeller centrifugal pumps for constructing pressurisation systems for civil and industrial plant; the two counter-posed impellers guarantee high head and flow rate.

### Construction features

**Pump body** cast iron

**Motor bracket** cast iron

**Impeller** Noryl® or brass (100÷900)  
brass (800÷1500)

**Mechanical seal** ceramic-graphite-NBR

**Motor shaft** stainless steel AISI 303  
stainless steel AISI 416 (100)

**Liquid temperature** Noryl® impeller: 0 - 50 °C  
brass impeller: 0 - 90 °C

**Operating pressure** max 6 bar (100)  
max 11 bar (160-1500)

### Motor

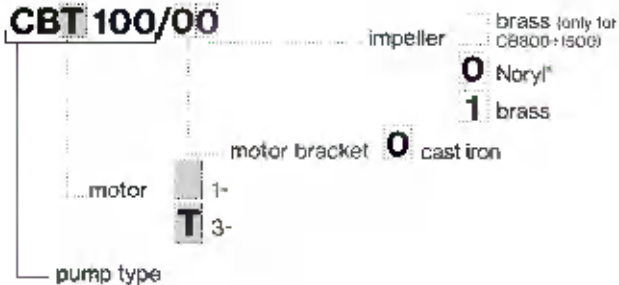
3- 230/400V-50Hz P ≤ 4kW  
3- 400/690V-50Hz P > 4kW

**2 Poles Induction motor** 1- 230V-50Hz  
(with thermal protection up to  
MEC 80)

**Insulation class** F

**Protection degree** IPX4  
IPX5 (800÷1500)

**CBT 100/00**

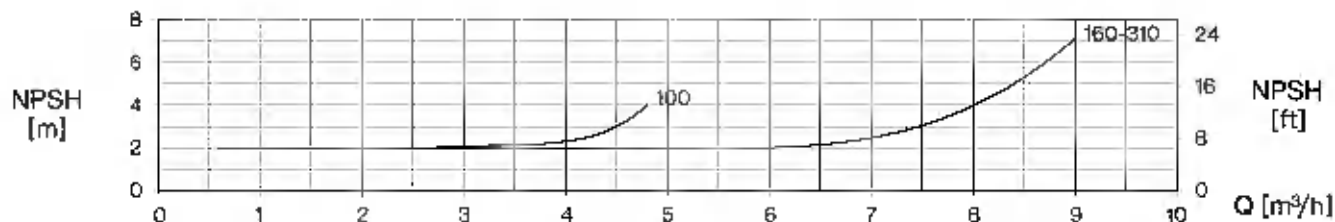
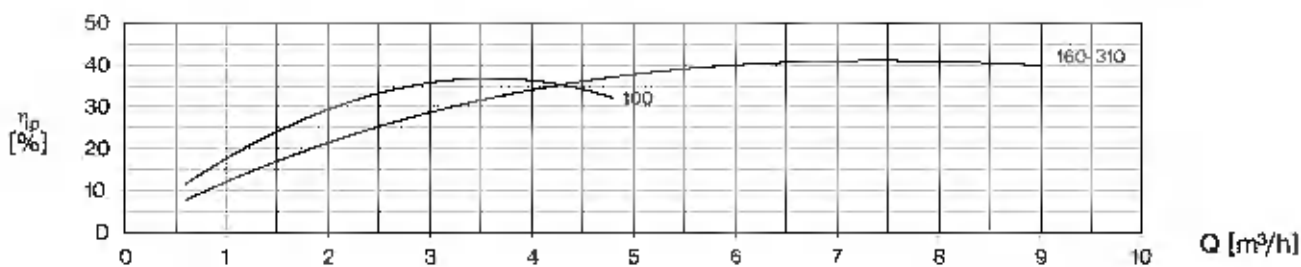
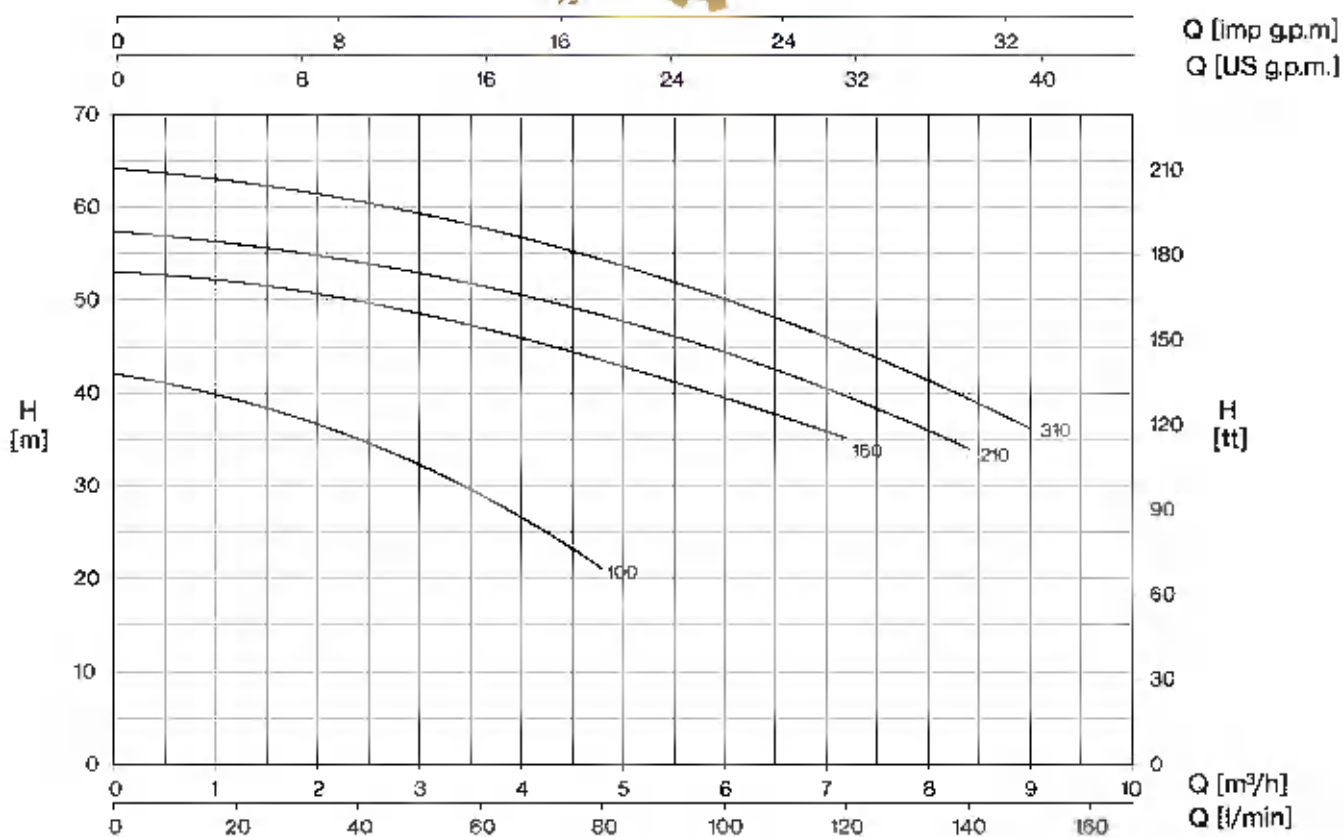


### LOTS

| TYPE            | TRUCK       |          | CONTAINER   |          |
|-----------------|-------------|----------|-------------|----------|
|                 | PALLET (cm) | N° pumps | PALLET (cm) | N° pumps |
| CB 100          | 90×110×145  | 65       | 90×110×195  | 91       |
| CB 160- CBT 310 | 85×110×130  | 40       | 85×110×190  | 60       |
| CB 310          | 85×110×150  | 24       | 85×110×180  | 80       |
| CB 400-900      | 80×120×150  | 24       | 80×120×180  | 30       |
| CB1 800-1800    | 100×120×140 | 18       | 100×120×185 | 24       |

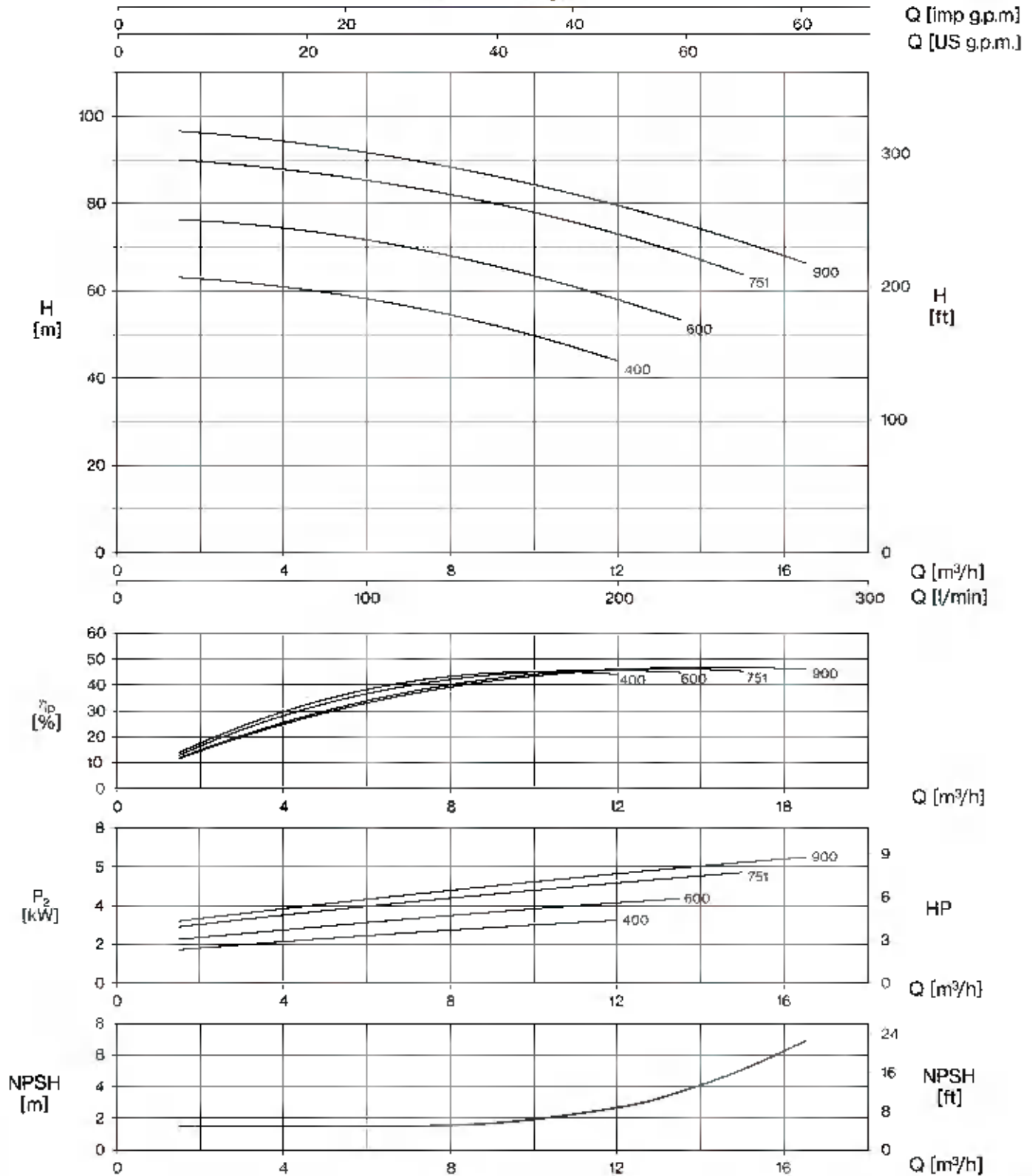


CB

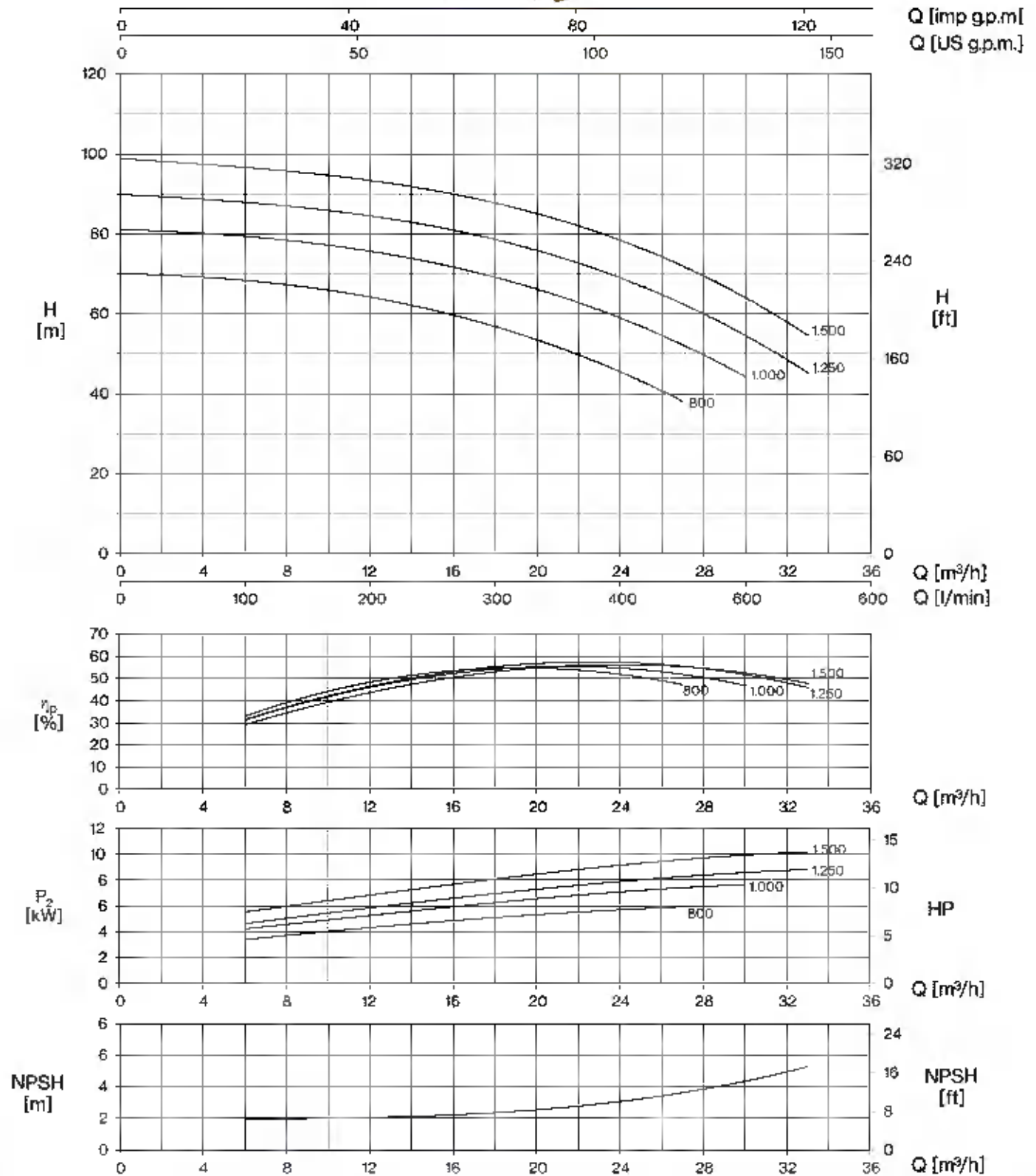


| TYPE   |         | P2  |      | P1<br>(kW) |      | AMPERE |     | Q (m³/h - l/min) |                  |       |      |      |      |      |      |      |      |      |
|--------|---------|-----|------|------------|------|--------|-----|------------------|------------------|-------|------|------|------|------|------|------|------|------|
| 1-     | 3-      |     |      |            |      | 1-     | 3-  | 0                | 0,8              | 1,2   | 1,8  | 2,4  | 3,6  | 4,8  | 6    | 7,2  | 8,4  | 9    |
|        |         | HP  | KW   | 1-         | 3-   |        |     | 1x230 V<br>50 Hz | 3x400 V<br>50 Hz | H (m) |      |      |      |      |      |      |      |      |
| CB 100 | CBT 100 | 1   | 0,74 | 1,17       | 1,15 | 5,4    | 2,4 | 42,0             | 40,8             | 39,4  | 37,4 | 34,7 | 29,2 | 21,0 |      |      |      |      |
| CB 160 | CBT 160 | 1,5 | 1,1  | 2,3        | 2,2  | 10,2   | 4,1 | 53,0             | 52,5             | 52,0  | 51,0 | 60,0 | 46,9 | 43,3 | 39,7 | 35,0 |      |      |
| CB 210 | CBT 210 | 2   | 1,5  | 2,8        | 2,45 | 11,5   | 4,8 | 57,3             | 56,9             | 56,9  | 55,1 | 54,0 | 51,5 | 48,4 | 44,4 | 39,5 | 34,0 |      |
| CB 310 | CBT 310 | 3   | 2,2  | 2,9        | 2,8  | 13,2   | 5,2 | 64,0             | 63,5             | 63,0  | 61,9 | 60,6 | 57,7 | 54,1 | 50,0 | 45,4 | 39,4 | 30,0 |

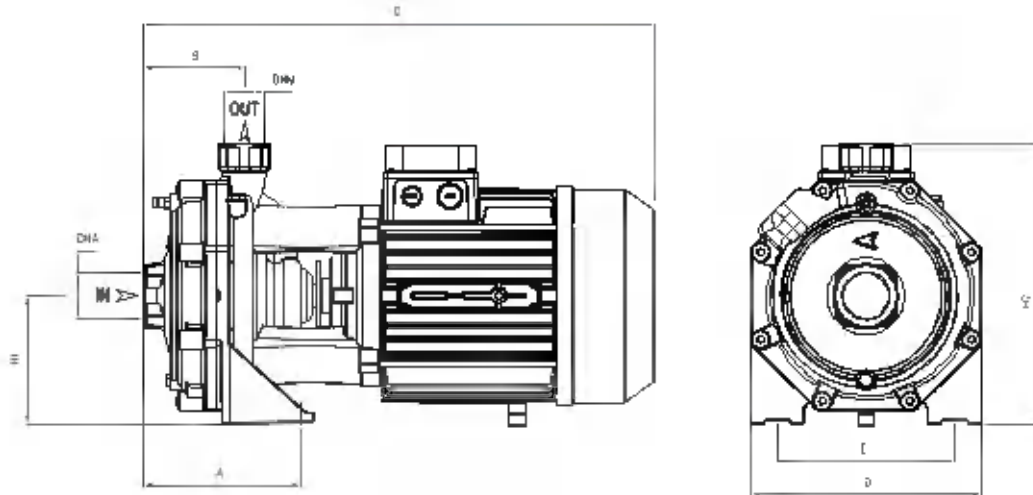




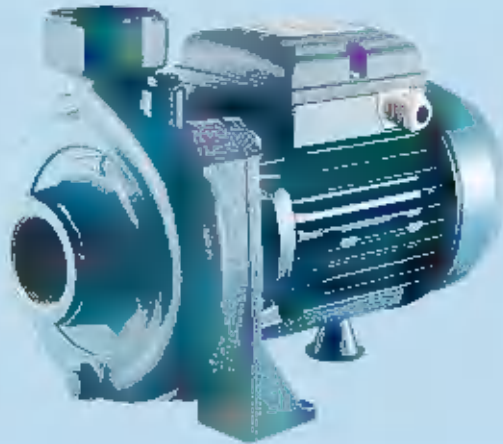
| TYPE   |         | P2  |     | P1<br>(kW) |     | AMPERE           |                  | Q (m³/h - l/min) |      |      |      |      |      |      |      |      |      |      |      |  |  |
|--------|---------|-----|-----|------------|-----|------------------|------------------|------------------|------|------|------|------|------|------|------|------|------|------|------|--|--|
| 1-     | 3-      |     |     |            |     |                  |                  | 0                | 1,5  | 3,0  | 4,5  | 6,0  | 7,5  | 9,0  | 10,5 | 12   | 13,5 | 15,0 | 16,5 |  |  |
|        |         | HP  | kW  | 1-         | 3-  | 1x230 V<br>50 Hz | 3x400 V<br>50 Hz | 0                | 25   | 50   | 75   | 100  | 125  | 150  | 175  | 200  | 226  | 250  | 275  |  |  |
| H (m)  |         |     |     |            |     |                  |                  |                  |      |      |      |      |      |      |      |      |      |      |      |  |  |
| CB 400 | CBT 400 | 4   | 3,0 | 3,7        | 3,8 | 16,4             | 6,7              | 63,8             | 63,1 | 62,0 | 60,3 | 58,2 | 55,5 | 52,3 | 48,4 | 43,9 |      |      |      |  |  |
| CB 600 | CBT 600 | 5,5 | 4,0 | 5,2        | 5,0 | 23,3             | 9,1              | 76,9             | 76,4 | 75,4 | 73,8 | 71,7 | 69,0 | 65,9 | 62,1 | 58,0 | 53,4 |      |      |  |  |
| -      | CBT 751 | 7,5 | 5,5 |            | 6,5 |                  | 11,5             | 90,7             | 90,0 | 88,9 | 87,8 | 85,8 | 82,9 | 80,1 | 76,8 | 73,1 | 68,8 | 63,7 |      |  |  |
| -      | CBT 900 | 10  | 7,5 |            | 7,3 |                  | 13,3             | 97,5             | 96,8 | 95,4 | 93,7 | 91,7 | 89,2 | 86,5 | 83,3 | 79,8 | 75,2 | 71,2 | 66,4 |  |  |



| TYPE     | P2   |      | P1<br>(kW) | AMPERE | Q (m³/h - l/min) |       |      |      |      |      |      |      |
|----------|------|------|------------|--------|------------------|-------|------|------|------|------|------|------|
|          |      |      |            | 3~     | 0                | 6     | 12   | 18   | 24   | 27   | 30   | 33   |
|          |      |      |            |        | 0                | 100   | 200  | 300  | 400  | 450  | 500  | 550  |
|          | 3~   | HP   | kW         | 3~     | 3x400 V<br>50 Hz | H (m) |      |      |      |      |      |      |
| CBT 800  | 7,5  | 5,5  | 6,7        | 11,1   | 70,0             | 68,5  | 63,9 | 57,1 | 45,3 | 38,2 |      |      |
| CBT 1000 | 10   | 7,5  | 8,5        | 13,9   | 80,7             | 80,4  | 75,0 | 68,5 | 59,7 | 52,6 | 43,7 |      |
| CBT 1250 | 12,5 | 9,2  | 9,8        | 16,8   | 89,5             | 88,8  | 84,1 | 77,7 | 69,7 | 63,9 | 54,2 | 45,1 |
| CBT 1500 | 15   | 11,0 | 11,2       | 18,6   | 98,3             | 97,8  | 93,5 | 85,7 | 78,9 | 73,3 | 64,0 | 54,5 |



| TYPE     | DIMENSIONS (mm) |      |     |     |     |     |     |         |  |     |     |  |      |        |
|----------|-----------------|------|-----|-----|-----|-----|-----|---------|-------------------------------------------------------------------------------------|-----|-----|-------------------------------------------------------------------------------------|------|--------|
|          | A               | B    | C   | D   | E   | H1  | H2  | DNA     | DNM                                                                                 | I   | L   | M                                                                                   | kg   | T      |
| CB 100   | 122             | 72   | 328 | 180 | 140 | 98  | 228 | 1" G    | 1" G                                                                                | 350 | 195 | 265                                                                                 | 15,5 | T 15   |
| CB 160   | 115             | 82   | 385 | 210 | 170 | 110 | 265 | 1 1/4 G |                                                                                     | 405 | 226 | 295                                                                                 | 23,5 | T 22,5 |
| CB 210   | 115             | 82   | 385 | 210 | 170 | 110 | 265 |         |                                                                                     | 405 | 225 | 295                                                                                 | 24,5 | T 23,5 |
| CB 310   | 115             | 82   | 385 | 210 | 170 | 110 | 265 |         |                                                                                     | 405 | 225 | 295                                                                                 | 29,5 | T 24,5 |
| CB 400   | 145             | 95,5 | 438 | 266 | 212 | 135 | 305 | 1 1/2 G | 1" 1/4 G                                                                            | 553 | 274 | 318                                                                                 | 48   | T 44   |
| CB 600   | 145             | 95,5 | 438 | 266 | 212 | 135 | 305 |         |                                                                                     | 553 | 274 | 318                                                                                 | 55,5 | T 48   |
| CBT 751  | 145             | 95,5 | 532 | 266 | 212 | 185 | 305 |         |                                                                                     | 553 | 274 | 318                                                                                 | 56   |        |
| CBT 900  | 145             | 95,5 | 532 | 266 | 212 | 135 | 305 |         |                                                                                     | 553 | 274 | 318                                                                                 | 62   |        |
| CBT 800  | 190             | 120  | 605 | 275 | 210 | 150 | 330 | 2" G    | 1" 1/4 G                                                                            | 722 | 290 | 370                                                                                 | 78   |        |
| CBT 1000 | 190             | 120  | 605 | 275 | 210 | 150 | 330 |         |                                                                                     | 722 | 290 | 370                                                                                 | 84   |        |
| CBT 1260 | 190             | 120  | 645 | 275 | 210 | 150 | 330 |         |                                                                                     | 722 | 290 | 370                                                                                 | 91,5 |        |
| CBT 1500 | 190             | 120  | 645 | 275 | 210 | 150 | 330 |         |                                                                                     | 722 | 290 | 370                                                                                 | 95,5 |        |



Medium delivery centrifugal pumps for small and medium agricultural applications. Open impeller which allows small solid items to pass through (Ø max 10 mm).

### Construction features

**Pump body** cast iron

**Motor bracket** cast iron

**Impeller** Noryl® or brass

**Mechanical seal** ceramic-graphite-NBR

**Motor shaft** stainless steel AISI 416

**Liquid temperature** Noryl® impeller: 0 - 50 °C  
brass impeller: 0 - 90 °C

**Operating pressure** max 6 bar

### Motor

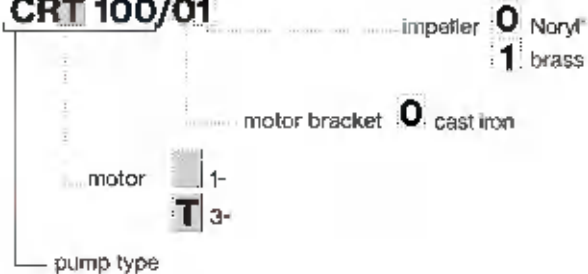
3- 230/400V-50Hz

**2 Poles induction motor** 1- 230V-50Hz  
(with thermal protection)

**Insulation class** F

**Protection degree** IPX4

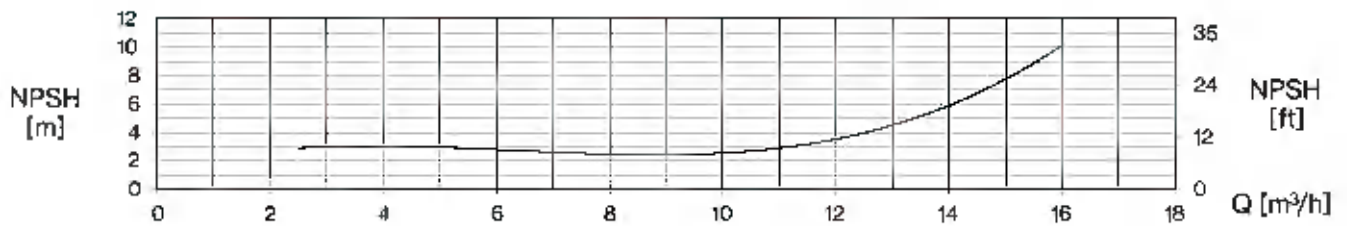
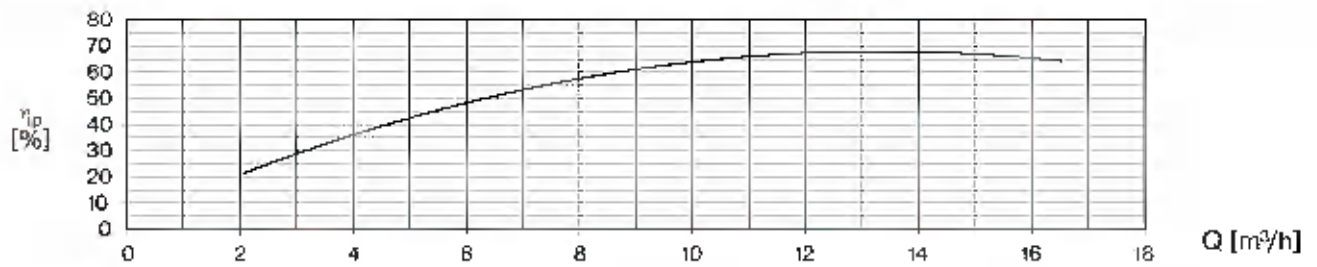
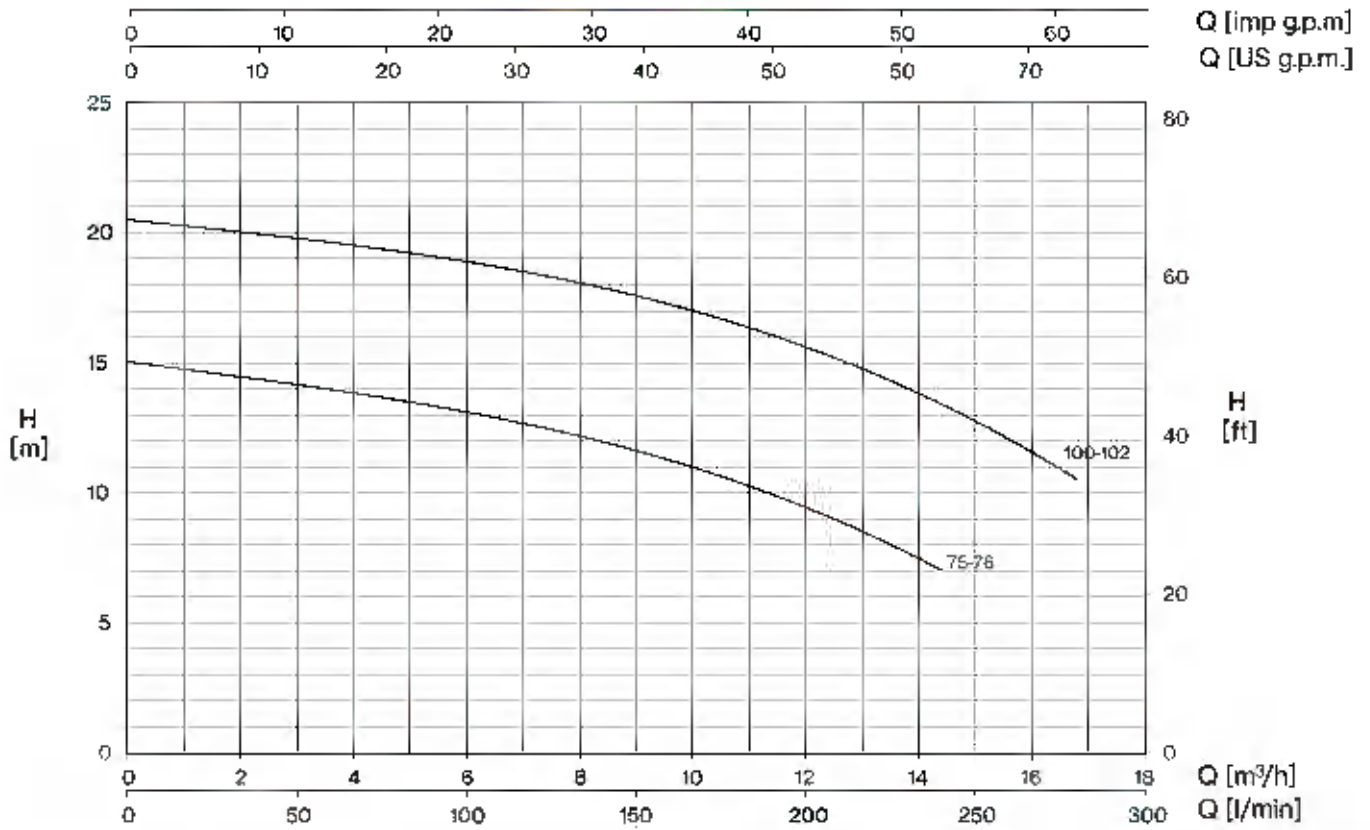
### CRT 100/01



### LOTS

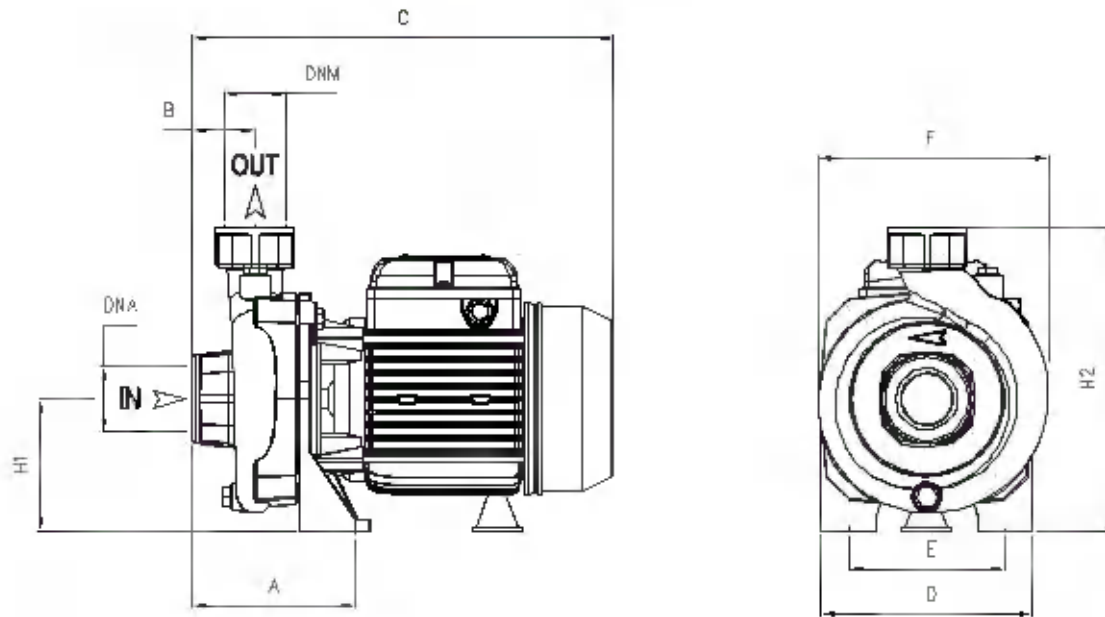
| TYPE | TRUCK       |          | CONTAINER   |          |
|------|-------------|----------|-------------|----------|
|      | PALLET (cm) | N° pumps | PALLET (cm) | N° pumps |
| CR   | 85×110×143  | 65       | 85×110×195  | 91       |





| TYPE       |             | P2  |      | P1 (kW) |      | AMPERE        |               | Q (m³/h - l/min) |      |      |      |      |      |      |
|------------|-------------|-----|------|---------|------|---------------|---------------|------------------|------|------|------|------|------|------|
| 1-         | 3-          |     |      |         |      | 1-            | 3-            | 0                | 3    | 6    | 9    | 12   | 14,4 | 16,8 |
|            |             | HP  | kW   | 1-      | 3-   | 1x230 V 50 Hz | 3x400 V 50 Hz | 0                | 50   | 100  | 150  | 200  | 240  | 280  |
| H (m)      |             |     |      |         |      |               |               |                  |      |      |      |      |      |      |
| ch 75/76   | CRT 75/76   | 0,8 | 0,59 | 0,73    | 0,83 | 3,4           | 1,5           | 15,0             | 14,3 | 13,0 | 11,8 | 9,5  | 7,0  |      |
| ch 100/102 | CRT 100/102 | 1   | 0,74 | 1,14    | 1,2  | 5,3           | 2,4           | 20,5             | 19,8 | 18,9 | 17,7 | 15,5 | 13,5 | 10,5 |





| TYPE   | DIMENSIONS (mm) |    |     |     |     |     |    |     |          |          |  |     |     |  |
|--------|-----------------|----|-----|-----|-----|-----|----|-----|----------|----------|-------------------------------------------------------------------------------------|-----|-----|-------------------------------------------------------------------------------------|
|        | A               | B  | C   | D   | E   | F   | H1 | H2  | DNA      | DNM      | I                                                                                   | L   | M   | KG                                                                                  |
| CR 75  | 120             | 45 | 308 | 155 | 115 | 170 | 97 | 222 | 1" 1/2 G | 1" 1/4 G | 325                                                                                 | 200 | 265 | 13                                                                                  |
| CR 76  | 120             | 45 | 308 | 155 | 115 | 170 | 97 | 222 |          | 1" 1/2 G | 325                                                                                 | 200 | 265 | 13                                                                                  |
| CR 100 | 120             | 45 | 308 | 155 | 115 | 170 | 97 | 222 |          | 1" 1/4 G | 325                                                                                 | 200 | 265 | 14                                                                                  |
| CR 102 | 120             | 45 | 308 | 155 | 115 | 170 | 97 | 222 |          | 1" 1/2 G | 325                                                                                 | 200 | 265 | 14                                                                                  |



Single impeller centrifugal pumps, from medium to high flow rate with 2", 3" and 4" delivery openings, mainly used in agriculture and applications requiring high level flow rate.

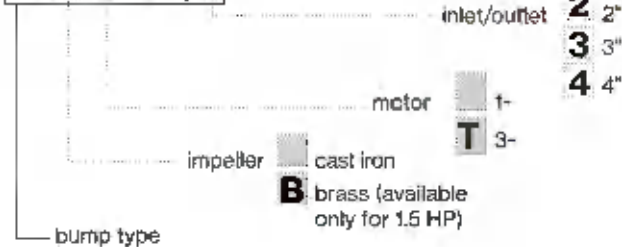
### Construction features

|                           |                                                                     |
|---------------------------|---------------------------------------------------------------------|
| <b>Pump body</b>          | cast iron                                                           |
| <b>Motor bracket</b>      | cast Iron                                                           |
| <b>Impeller</b>           | cast iron or brass (CSB)                                            |
| <b>Mechanical seaf</b>    | ceramic-graphite-NBR                                                |
| <b>Motor shaft</b>        | stainless steel AISI 303<br>stainless steel AISI 416<br>(CS 75÷120) |
| <b>Liquid temperature</b> | 0 - 90 °C                                                           |
| <b>Operating pressure</b> | max 6 bar                                                           |

### Motor

|                                |                                                           |
|--------------------------------|-----------------------------------------------------------|
|                                | 3- 230/400V-50Hz                                          |
| <b>2 Poles induction motor</b> | 1- 230V-50Hz<br>(with thermal protection<br>up to MEC 80) |
| <b>Insulation class</b>        | F                                                         |
| <b>Protection degree</b>       | IPX4                                                      |

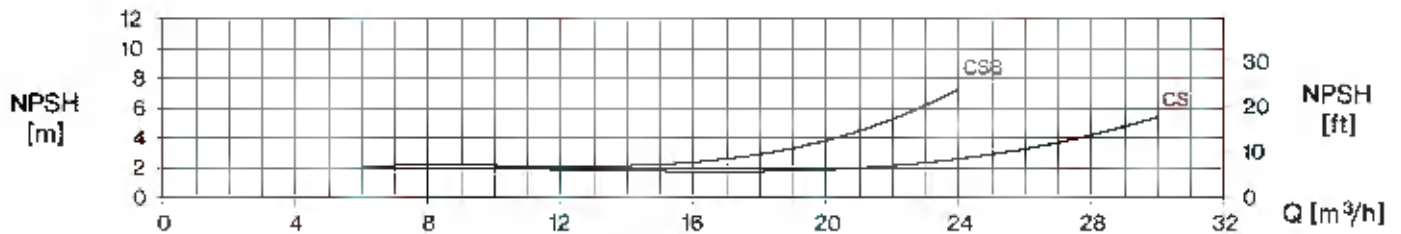
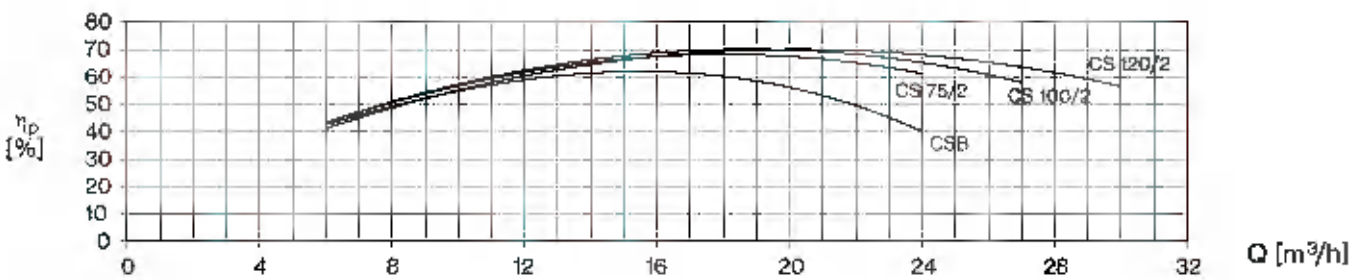
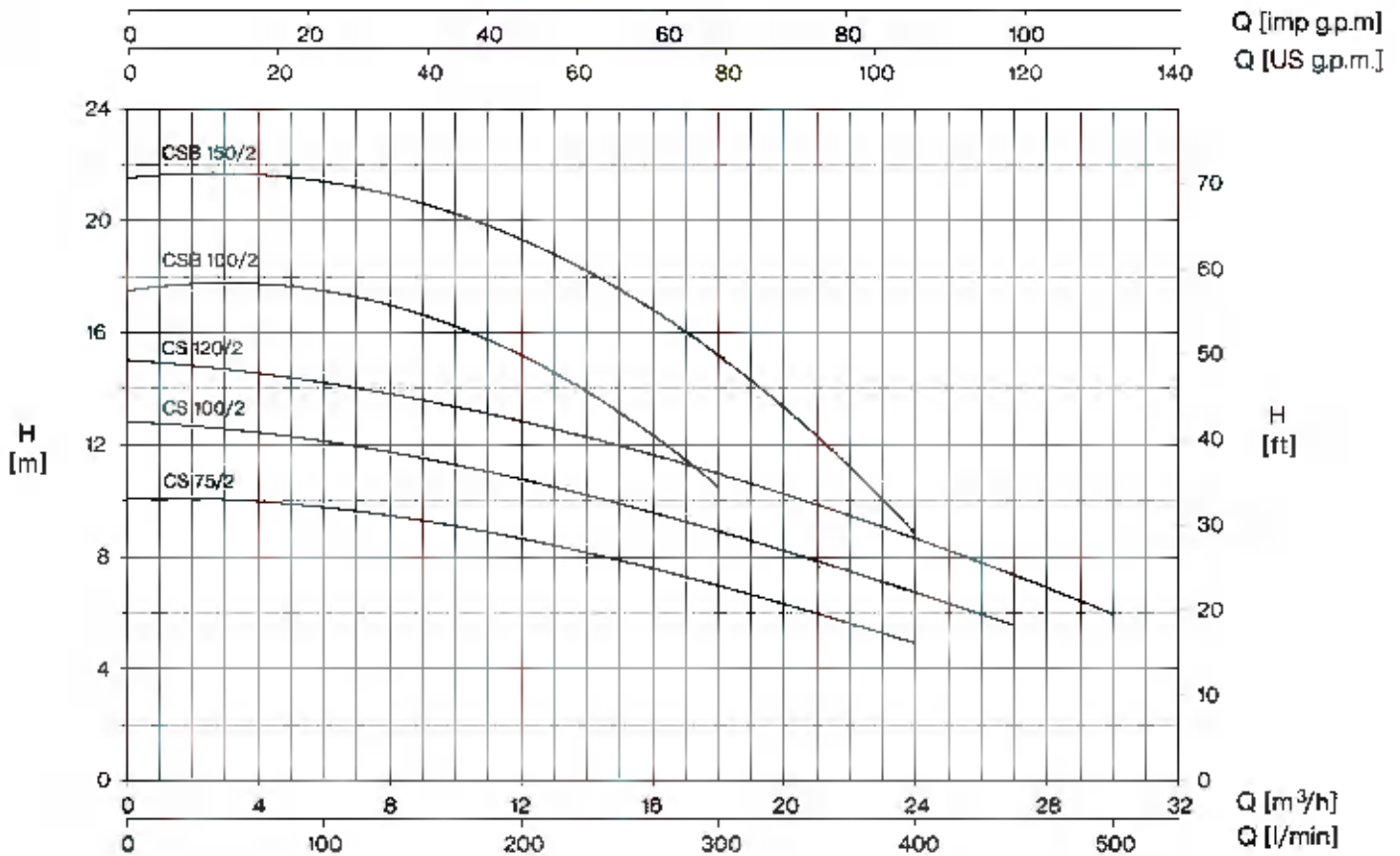
### CS T 150/2



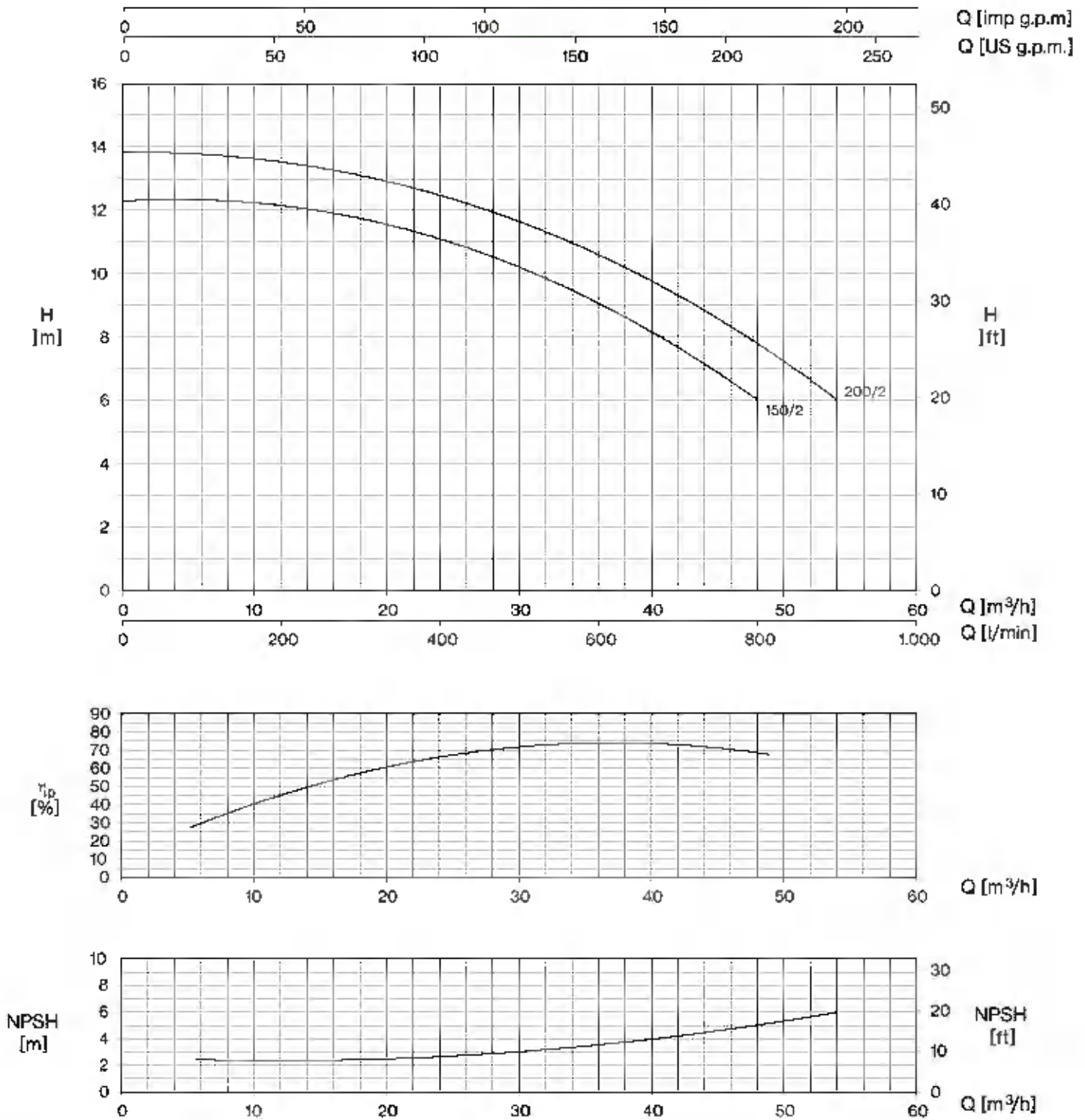
### LOTS

| TYPE           | TRUCK       |          | CONTAINER   |          |
|----------------|-------------|----------|-------------|----------|
|                | PALLET (cm) | N° pumps | PALLET (cm) | N° pumps |
| CS 75/2-120/2  | 90×110×145  | 65       | 90×110×195  | 91       |
| CS 150/2-200/2 | 85×110×140  | 40       | 85×110×205  | 60       |
| CS 200/3-300/3 | 85×110×150  | 30       | 85×110×180  | 60       |
| CS 400/4-550/4 | 80×120×150  | 30       | 80×120×180  | 60       |

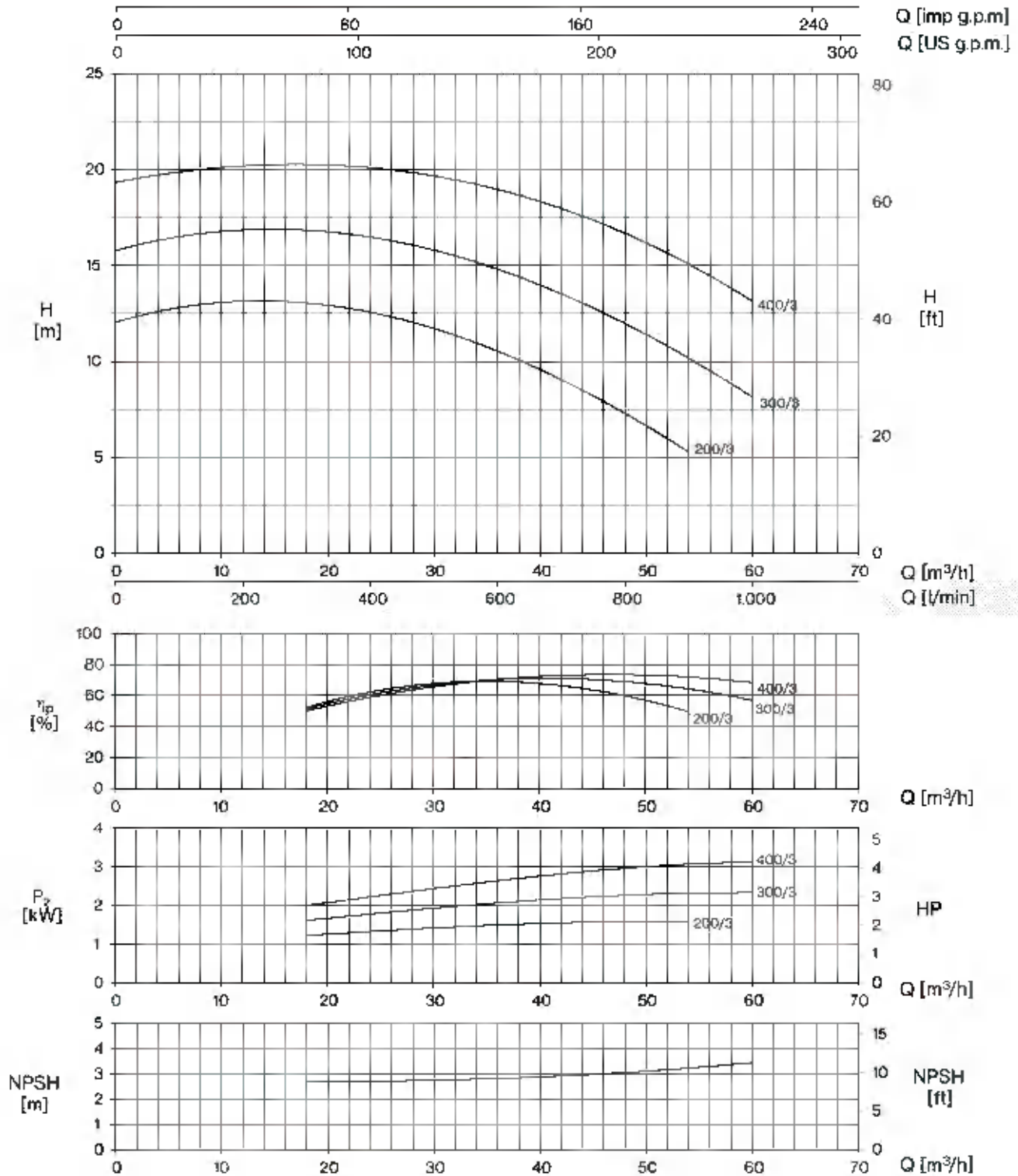




| TYPE      |            | P2  |      | P1 (kW) |      | AMPEPE           |                  | Q (m³/h - l/min) |      |      |      |     |     |     |
|-----------|------------|-----|------|---------|------|------------------|------------------|------------------|------|------|------|-----|-----|-----|
| 1-        | 3-         |     |      |         |      | 1-               | 3-               | 0                | 6    | 12   | 18   | 24  | 27  | 30  |
|           |            | HP  | kW   | 1-      | 3-   | 1x230 V<br>50 Hz | 3x400 V<br>50 Hz | 0                | 100  | 200  | 300  | 400 | 450 | 500 |
|           |            |     |      |         |      |                  |                  | H (m)            |      |      |      |     |     |     |
| CS 75/2   | CST 75/2   | 0,8 | 0,59 | 0,8     | 0,7  | 3,5              | 1,3              | 10,1             | 9,8  | 8,6  | 7,0  | 4,9 |     |     |
| CS 100/2  | CST 100/2  | 1   | 0,74 | 1       | 0,85 | 4,5              | 1,6              | 12,3             | 12,2 | 10,7 | 8,9  | 6,8 | 5,5 |     |
| CS 120/2  | CST 120/2  | 1,2 | 0,9  | 1,2     | 1,1  | 5,4              | 2,0              | 15,0             | 14,3 | 12,8 | 10,9 | 8,7 | 7,4 | 5,9 |
| CSB 100/2 | -          | 1   | 0,74 | 1,23    |      | 6,0              |                  | 17,5             | 17,5 | 15,2 | 10,5 |     |     |     |
| CSB 150/2 | CSST 150/2 | 1,5 | 1,1  | 1,78    | 1,65 | 8,5              | 3,0              | 21,5             | 21,5 | 19,2 | 15,2 | 8,8 |     |     |

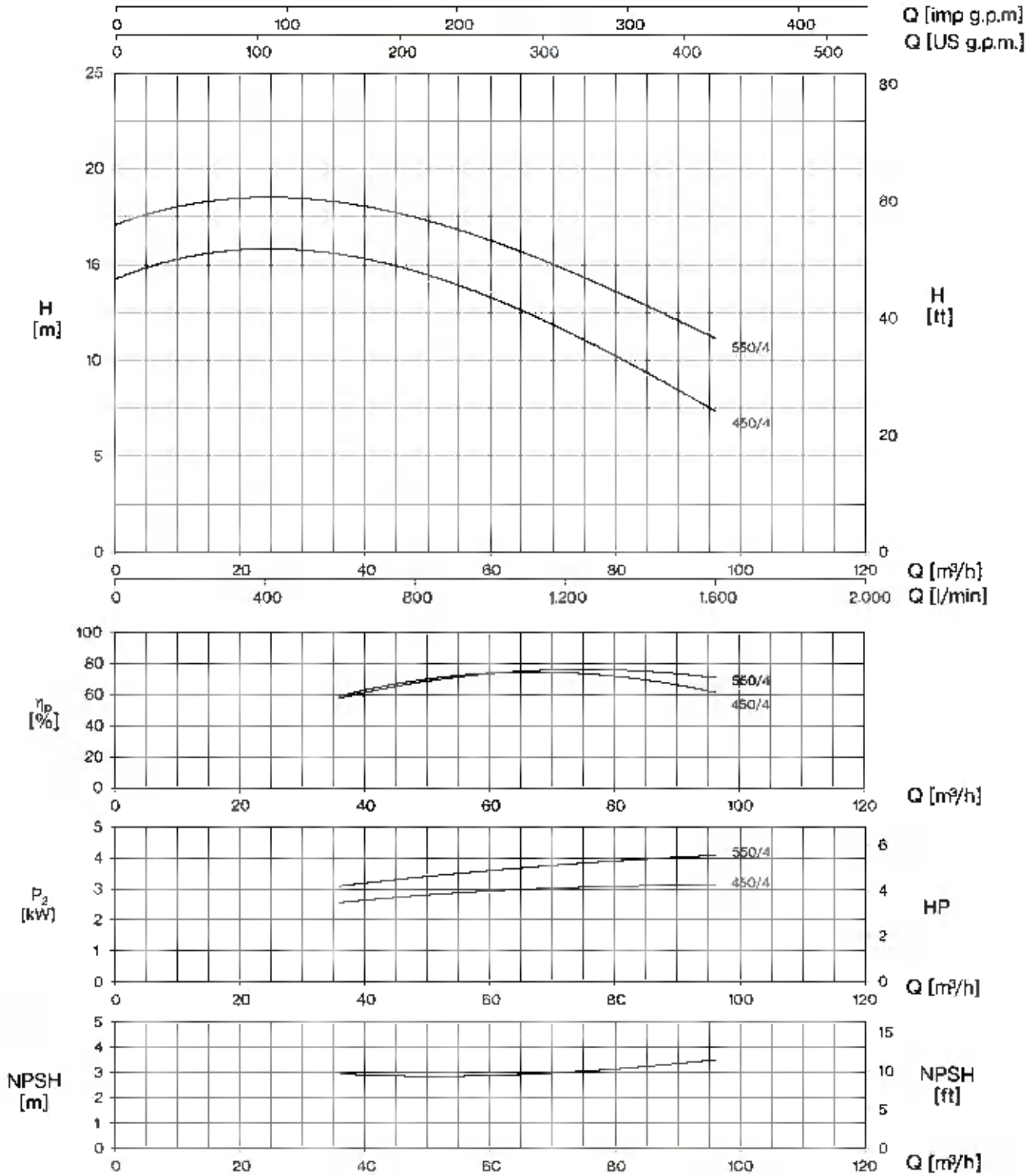


| TYPE     |           | P2  |     | P1 (kW) |     | AMPERE           |                  | Q (m³/h - l/min) |      |      |      |      |      |      |     |     |     |
|----------|-----------|-----|-----|---------|-----|------------------|------------------|------------------|------|------|------|------|------|------|-----|-----|-----|
| 1-       | 3-        |     |     |         |     | 1-               | 3-               | 0                | 6    | 12   | 18   | 24   | 30   | 36   | 42  | 48  | 54  |
|          |           | HP  | kW  | 1-      | 3-  | 1x230 V<br>50 Hz | 3x400 V<br>50 Hz | 0                | 100  | 200  | 300  | 400  | 500  | 600  | 700 | 800 | 900 |
|          |           |     |     |         |     |                  |                  | N (m)            |      |      |      |      |      |      |     |     |     |
| CS 150/2 | CST 150/2 | 1,5 | 1,1 | 1,85    | 1,8 | 8,8              | 3,3              | 12,3             | 12,3 | 12,2 | 11,8 | 11,0 | 10,2 | 9,1  | 7,7 | 6,0 | 5,0 |
| CS 200/2 | CST 200/2 | 2   | 1,5 | 2,1     | 2,1 | 10,0             | 3,9              | 13,8             | 13,8 | 13,6 | 13,1 | 12,4 | 11,6 | 10,6 | 9,4 | 7,8 | 6,0 |

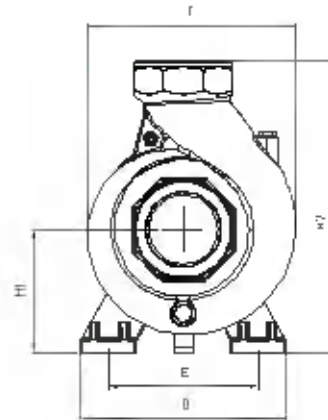
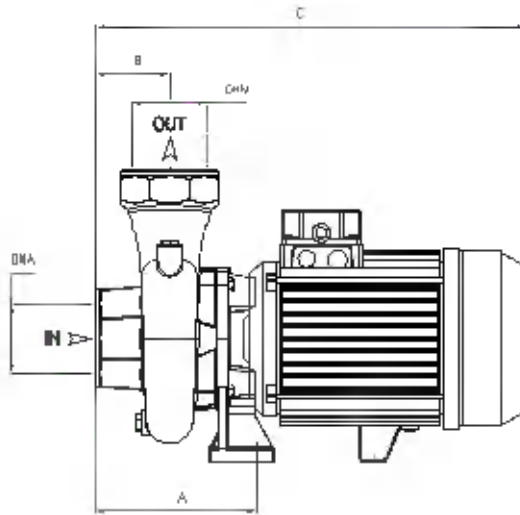


| TYPE     |           | P2 |     | P1<br>(kW) |     | AMPERE           |                  | Q (m³/h - l/min) |      |      |      |      |      |      |      |      |
|----------|-----------|----|-----|------------|-----|------------------|------------------|------------------|------|------|------|------|------|------|------|------|
| 1-       | 3-        |    |     |            |     | 1-               | 3-               | 0                | 18   | 24   | 30   | 36   | 42   | 48   | 54   | 60   |
|          |           |    |     |            |     |                  |                  | 0                | 300  | 400  | 500  | 600  | 700  | 800  | 900  | 1000 |
|          |           | HP | kW  | 1-         | 3-  | 1x230 V<br>50 Hz | 3x400 V<br>50 Hz | H (m)            |      |      |      |      |      |      |      |      |
| CS 200/3 | CST 200/3 | 2  | 1,5 | 1,9        | 1,9 | 8,9              | 3,5              | 12,0             | 13,0 | 12,6 | 11,5 | 10,6 | 9,0  | 7,2  | 5,3  |      |
| CS 300/3 | CST 300/3 | 3  | 2,2 | 2,7        | 2,7 | 12,4             | 5                | 15,8             | 16,8 | 16,5 | 15,7 | 14,7 | 13,6 | 12,0 | 10,1 | 8,2  |
|          | CST 400/3 | 4  | 3   |            | 3,6 |                  | 6,6              | 19,3             | 20,3 | 20,1 | 19,6 | 18,9 | 18,0 | 16,8 | 15,0 | 13,1 |





| TYPE     |           | P2  |    | P1<br>(kW) |     | AMPERE           |                  | Q (m³/h - l/min) |      |      |      |      |      |      |
|----------|-----------|-----|----|------------|-----|------------------|------------------|------------------|------|------|------|------|------|------|
| 1-       | 3-        |     |    |            |     | 1-               | 3-               | 0                | 36   | 48   | 60   | 72   | 84   | 96   |
|          |           | HP  | kW | 1-         | 3-  | 1x230 V<br>50 Hz | 3x400 V<br>50 Hz | 0                | 000  | 800  | 1000 | 1200 | 1400 | 1500 |
| H (m)    |           |     |    |            |     |                  |                  |                  |      |      |      |      |      |      |
| CS 450/4 | CST 450/4 | 4   | 3  | 3,5        | 3,6 | 16,1             | 6,5              | 14,2             | 15,5 | 14,7 | 13,4 | 11,5 | 9,6  | 7,4  |
| -        | CST 550/4 | 5,5 | 4  | -          | 4,7 | -                | 8,5              | 17,1             | 18,3 | 17,4 | 16,3 | 14,7 | 13,1 | 11,1 |



| TYPE      | DIMENSIONS (mm) |    |     |     |     |     |     |     |      |  |     |     |  |      |        |
|-----------|-----------------|----|-----|-----|-----|-----|-----|-----|------|-------------------------------------------------------------------------------------|-----|-----|-------------------------------------------------------------------------------------|------|--------|
|           | A               | B  | C   | D   | E   | F   | H1  | H2  | DNA  | DNM                                                                                 | I   | L   | M                                                                                   |      |        |
| CS 75/2   | 127             | 45 | 315 | 155 | 115 | 178 | 97  | 247 | 2" G | 2" G                                                                                | 340 | 195 | 280                                                                                 | 14.5 | T 14   |
| CS 100/2  | 127             | 45 | 315 | 155 | 115 | 178 | 97  | 247 |      |                                                                                     | 340 | 195 | 280                                                                                 | 16   | T 25   |
| CS 120/2  | 127             | 45 | 315 | 155 | 115 | 178 | 97  | 247 |      |                                                                                     | 340 | 195 | 280                                                                                 | 16.5 | T 16   |
| CSB 100/2 | 130             | 70 | 365 | 180 | 130 | 195 | 90  | 240 | 2" G | 2" G                                                                                | 390 | 230 | 325                                                                                 | 19   |        |
| CSB 150/2 | 130             | 70 | 365 | 180 | 130 | 195 | 90  | 240 |      |                                                                                     | 390 | 230 | 325                                                                                 | 20   | T 19   |
| CS 150/2  | 150             | 53 | 370 | 180 | 140 | 218 | 115 | 285 |      |                                                                                     | 390 | 230 | 325                                                                                 | 24.5 | T 23.5 |
| CS 200/2  | 150             | 53 | 370 | 180 | 140 | 218 | 115 | 285 | 3" G | 3" G                                                                                | 390 | 230 | 325                                                                                 | 25   | T 24.5 |
| CS 200/3  | 176.5           | 80 | 485 | 200 | 140 | 225 | 112 | 292 |      |                                                                                     | 520 | 235 | 320                                                                                 | 29   | T 28   |
| CS 300/3  | 176.5           | 80 | 485 | 200 | 140 | 225 | 112 | 292 |      |                                                                                     | 520 | 235 | 320                                                                                 | 32.5 | T 30   |
| CST 400/3 | 176.5           | 80 | 485 | 200 | 140 | 225 | 112 | 292 | 4" G | 4" G                                                                                | 520 | 235 | 320                                                                                 | 32.5 |        |
| CS 450/4  | 165             | 85 | 515 | 220 | 160 | 250 | 130 | 330 |      |                                                                                     | 546 | 265 | 355                                                                                 | 46   | T 42   |
| CST 550/4 | 165             | 85 | 515 | 220 | 160 | 250 | 130 | 330 |      |                                                                                     | 546 | 265 | 355                                                                                 | 46   |        |



Centrifugal pumps that combine medium head with medium-high flow rate; ideal for sprinkle irrigation and in applications where quiet operations are requested and large change in flow produces small change in pressure drop.

### Construction features

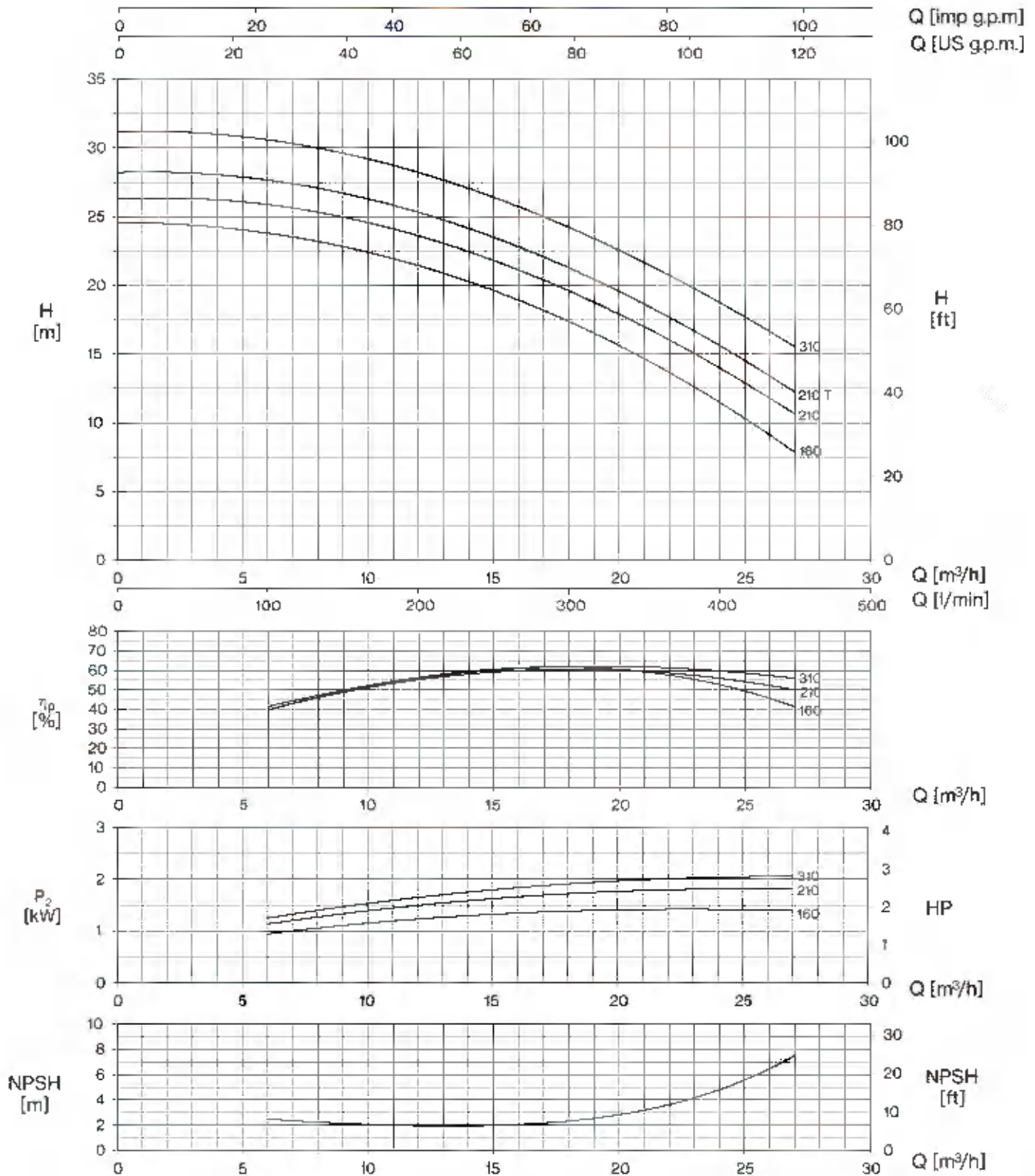
|                           |                                        |
|---------------------------|----------------------------------------|
| <b>Pump body</b>          | cast iron                              |
| <b>Motor bracket</b>      | cast iron                              |
| <b>Impeller</b>           | brass (160-310)<br>cast iron (350-550) |
| <b>Mechanical seal</b>    | ceramic-graphite-NBR                   |
| <b>Motor shaft</b>        | stainless steel AISI 303               |
| <b>Liquid temperature</b> | 0 - 90 °C                              |
| <b>Operating pressure</b> | max 6 bar                              |

### Motor

|                                |                                                           |
|--------------------------------|-----------------------------------------------------------|
|                                | 3- 230/400V-50Hz                                          |
| <b>2 Poles induction motor</b> | 1- 230V-50Hz<br>(with thermal protection<br>up to MEC 80) |
| <b>Insulation class</b>        | F                                                         |
| <b>Protection degree</b>       | IPX4                                                      |

| TYPE       | LOTS           |          |                |          |
|------------|----------------|----------|----------------|----------|
|            | TRUCK          |          | CONTAINER      |          |
|            | PALLET<br>(cm) | N° pumps | PALLET<br>(cm) | N° pumps |
| CH 160-310 | 65×11×140      | 40       | 85×110×195     | 60       |
| CH 350-550 | 85×110×150     | 30       | 85×110×180     | 30       |

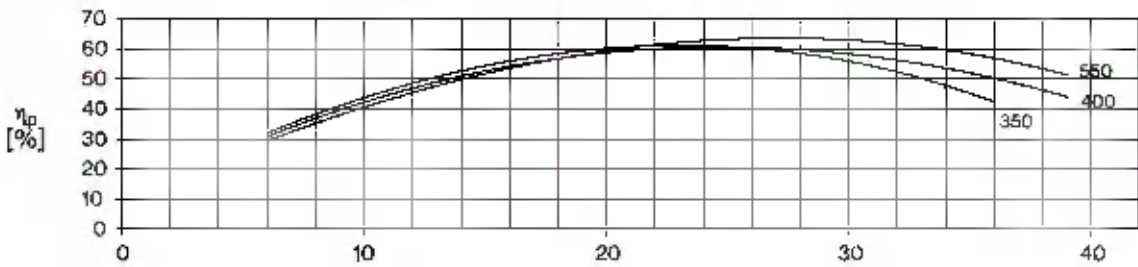
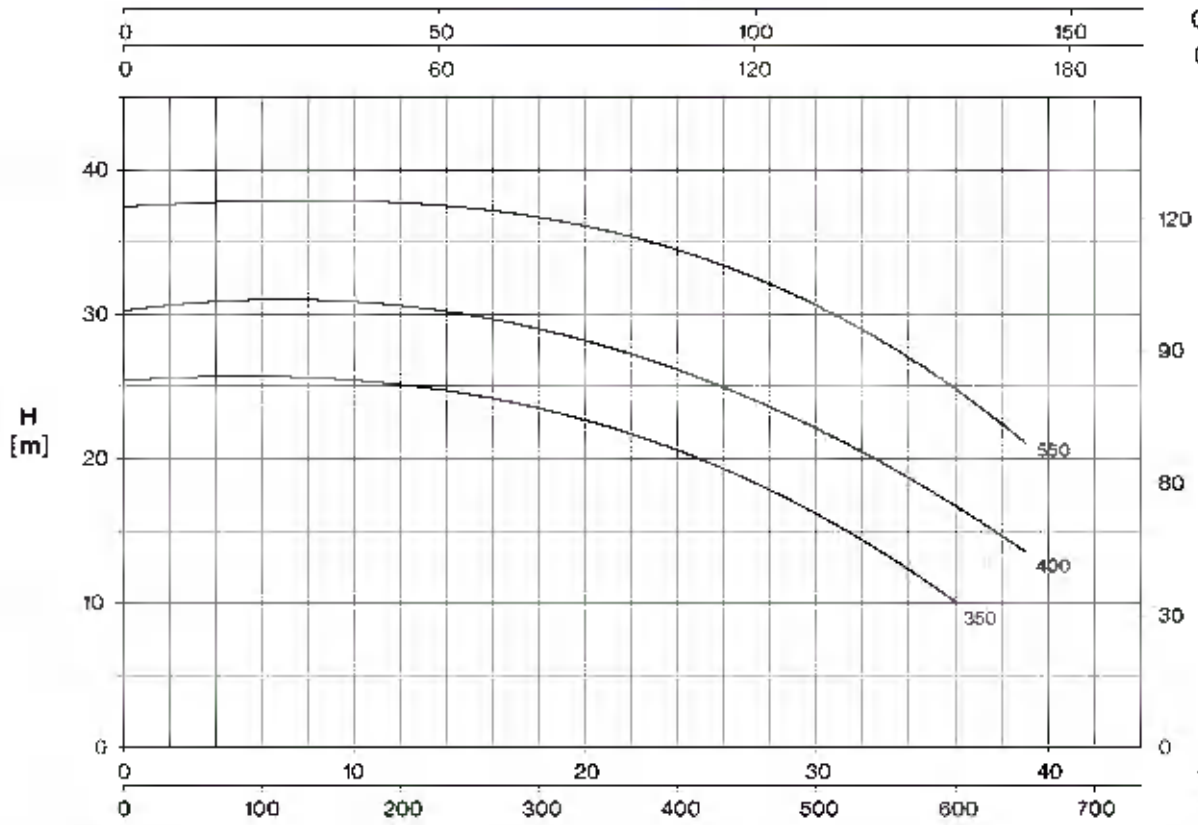




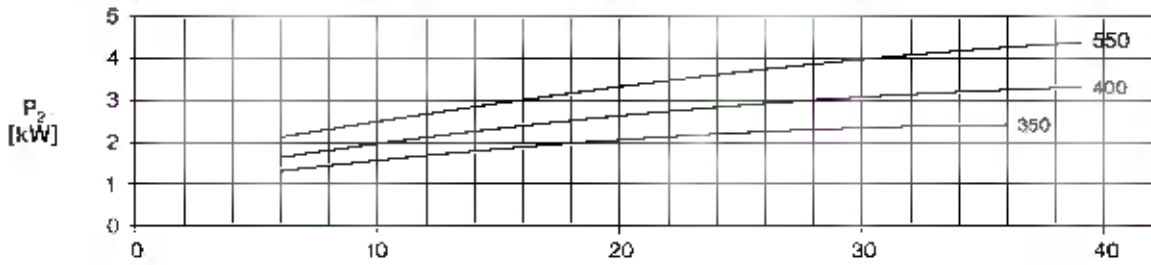
| TYPE   |         | P2  |     | P1<br>(kW) |     | AMPERE           |                  | Q (m³/h - l/min) |      |      |      |      |      |      |      |      |
|--------|---------|-----|-----|------------|-----|------------------|------------------|------------------|------|------|------|------|------|------|------|------|
| 1-     | 8-      |     |     |            |     | 1-               | 3-               | 0                | 6    | 9    | 12   | 15   | 18   | 21   | 24   | 27   |
|        |         |     |     |            |     | 1x230 V<br>50 Hz | 3x400 V<br>50 Hz | 0                | 100  | 150  | 200  | 250  | 300  | 350  | 400  | 450  |
|        |         |     |     |            |     |                  |                  | H (m)            |      |      |      |      |      |      |      |      |
| CH 160 | CHT 160 | 1,5 | 1,1 | 1,8        | 1,8 | 3,3              | 3,4              | 24,5             | 23,9 | 22,9 | 21,4 | 19,5 | 17,3 | 14,7 | 11,6 | 7,6  |
| CH 210 | CHT 210 | 2   | 1,5 | 2,2        | 2,2 | 10,1             | 10,1             | 26,3             | 25,9 | 25,0 | 23,6 | 21,7 | 19,6 | 17,1 | 14,1 | 10,8 |
| -      | CHT 218 | 2   | 1,5 | 2,2        | 2,2 | 4,7              | 4,7              | 28,2             | 27,6 | 26,7 | 25,3 | 23,5 | 21,3 | 18,6 | 15,6 | 12,2 |
| CH 310 | CHT 310 | 3   | 2,2 | 2,8        | 2,8 | 12,4             | 12,4             | 31,2             | 30,5 | 29,6 | 28,3 | 26,4 | 24,8 | 21,6 | 18,6 | 15,6 |

Q [imp g.p.m.]

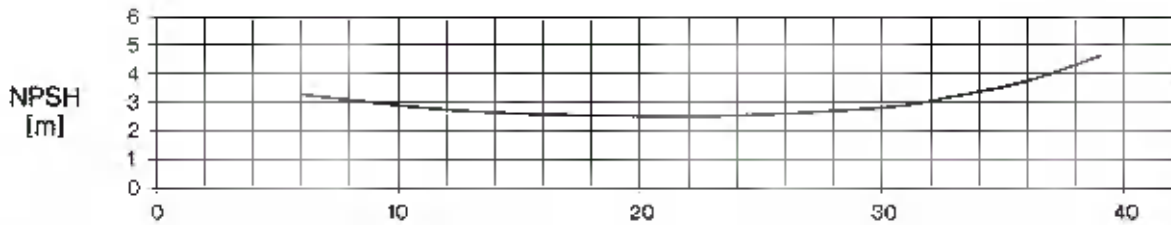
Q [US g.p.m.]



Q [m³/h]



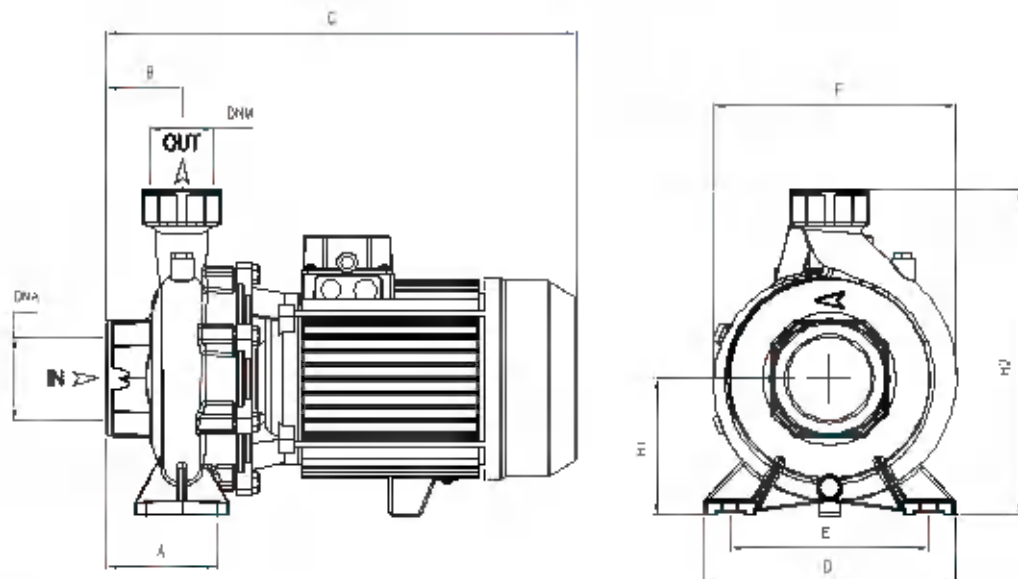
Q [m³/h]



Q [m³/h]

| TYPE   |         | P2  |     | P1<br>(kW) |     | AMPERE           |                  | Q (m³/h - l/min) |      |      |      |      |      |      |      |      |
|--------|---------|-----|-----|------------|-----|------------------|------------------|------------------|------|------|------|------|------|------|------|------|
| 1-     | 3-      |     |     |            |     | 1-               | 3-               | 0                | 6    | 12   | 18   | 24   | 30   | 33   | 36   | 39   |
|        |         |     |     |            |     |                  |                  | 0                | 100  | 200  | 300  | 400  | 300  | 550  | 600  | 850  |
|        |         | HP  | kW  | 1-         | 3-  | 1x230 V<br>50 Hz | 3x400 V<br>50 Hz | H (m)            |      |      |      |      |      |      |      |      |
| CH 350 | CHT 350 | 3   | 2,2 | 2,8        | 2,6 | 12,7             | 5,2              | 25,4             | 25,6 | 25,3 | 23,5 | 20,5 | 16,2 | 13,5 | 10,0 |      |
| CH 400 | CHT 400 | 4   | 3,0 | 3,8        | 3,6 | 17,0             | 8,9              | 30,3             | 30,8 | 30,7 | 29,1 | 26,1 | 22   | 19,5 | 16,7 | 13,6 |
| -      | CHT 550 | 5,5 | 4,0 |            | 5,0 |                  | 9,1              | 37,4             | 37,8 | 37,9 | 36,8 | 34,3 | 30,2 | 28,2 | 25,5 | 20,7 |





| TYPE    | DIMENSIONS (mm) |    |     |     |     |     |     |     |      |      |  |     |     |  |        |
|---------|-----------------|----|-----|-----|-----|-----|-----|-----|------|------|-------------------------------------------------------------------------------------|-----|-----|-------------------------------------------------------------------------------------|--------|
|         | A               | B  | C   | D   | E   | P   | H1  | H2  | DNA  | DNM  | I                                                                                   | L   | M   |                                                                                     |        |
| CH 160  | 105             | 48 | 370 | 200 | 160 | 215 | 110 | 280 | 2" G | 2" G | 390                                                                                 | 230 | 300 | 24,5                                                                                | T 23,5 |
| CH 210  | 105             | 48 | 370 | 200 | 160 | 215 | 110 | 280 |      |      | 390                                                                                 | 230 | 300 | 26                                                                                  | T 25,5 |
| CH 310  | 105             | 48 | 410 | 200 | 160 | 215 | 110 | 280 |      |      | 430                                                                                 | 230 | 300 |                                                                                     | 31,5   |
| CHT 310 | 105             | 48 | 370 | 200 | 160 | 215 | 110 | 280 |      |      | 390                                                                                 | 230 | 300 |                                                                                     | 26     |
| CH 350  | 105             | 70 | 465 | 240 | 190 | 240 | 126 | 306 | 3" G | 2" G | 530                                                                                 | 280 | 355 |                                                                                     | 38     |
| CHT 350 | 105             | 70 | 425 | 240 | 190 | 240 | 126 | 306 |      |      | 530                                                                                 | 280 | 355 |                                                                                     | 35     |
| CH 400  | 105             | 70 | 480 | 240 | 180 | 240 | 126 | 306 |      |      | 530                                                                                 | 280 | 355 |                                                                                     | 45,5   |
| CHT 400 | 105             | 70 | 465 | 240 | 190 | 240 | 126 | 306 |      |      | 530                                                                                 | 280 | 355 |                                                                                     | 38,9   |
| CHT 550 | 105             | 70 | 480 | 240 | 190 | 240 | 128 | 306 |      |      | 530                                                                                 | 280 | 355 |                                                                                     | 45,5   |

| PUMP |         |         |    |   |        |    |          | VSD     |              |       |
|------|---------|---------|----|---|--------|----|----------|---------|--------------|-------|
| TYPE | MODEL   | Version |    |   |        |    |          | TYPE    | Power system |       |
|      |         | V       | SV | L | SL/SLX | LG | SLG/SLGX |         | in           | out   |
| U 3  | 100/5T  | ■       | ■  | ■ | ■      | -  | -        | EPIC    | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC109 | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
|      | 120/6T  | ■       | ■  | ■ | ■      | -  | -        | EPIC    | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC109 | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
|      | 150/7T  | ■       | ■  | ■ | ■      | -  | -        | EPIC    | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC109 | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
|      | 180/8T  | ■       | ■  | ■ | ■      | -  | -        | EPIC    | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC109 | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
|      | 200/9T  | ■       | ■  | ■ | ■      | -  | -        | EPIC    | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC109 | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
|      | 250/10T | ■       | ■  | ■ | ■      | -  | -        | EPIC    | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC114 | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
|      | 250/11T | -       | ■  | - | ■      | -  | -        | EPIC    | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC114 | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
| U 6  | 120/4T  | ■       | ■  | ■ | ■      | -  | -        | EPIC    | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC109 | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
|      | 150/5T  | ■       | ■  | ■ | ■      | -  | -        | EPIC    | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC109 | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
|      | 180/6T  | ■       | ■  | ■ | ■      | -  | -        | EPIC    | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC109 | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
|      | 200/7T  | ■       | ■  | ■ | ■      | -  | -        | EPIC    | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC109 | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
|      | 250/8T  | ■       | ■  | ■ | ■      | -  | -        | EPIC    | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC114 | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
|      | 280/9T  | ■       | ■  | ■ | ■      | -  | -        | IPFC114 | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
|      | 300/10T | ■       | ■  | ■ | ■      | -  | -        | IPFC114 | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
|      | 350/11T | ■       | ■  | ■ | ■      | -  | -        | IPFC114 | 1-230        | 3-230 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
|      | 380/12T | ■       | ■  | ■ | ■      | -  | -        | IPFC309 | 3-400        | 3-400 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC309 | 3-400        | 3-400 |
|      |         | ■       | ■  | ■ | ■      | -  | -        | IPFC309 | 3-400        | 3-400 |
|      | 400/14T | -       | -  | - | -      | -  | ■        | IPFC309 | 3-400        | 3-400 |
|      |         | ■       | ■  | ■ | ■      | -  | ■        | IPFC309 | 3-400        | 3-400 |
|      |         | ■       | ■  | ■ | ■      | -  | ■        | IPFC309 | 3-400        | 3-400 |
|      | 450/16T | -       | -  | - | -      | -  | ■        | IPFC309 | 3-400        | 3-400 |
|      |         | ■       | ■  | ■ | ■      | -  | ■        | IPFC309 | 3-400        | 3-400 |
|      |         | ■       | ■  | ■ | ■      | -  | ■        | IPFC309 | 3-400        | 3-400 |
|      | 500/20T | -       | -  | - | -      | -  | ■        | IPFC311 | 3-400        | 3-400 |
|      |         | ■       | ■  | ■ | ■      | -  | ■        | IPFC311 | 3-400        | 3-400 |
|      |         | ■       | ■  | ■ | ■      | -  | ■        | IPFC311 | 3-400        | 3-400 |

# ULTRA+VSD



| PUMP |          |         |    |   |        |    |          | VSD     |              |       |
|------|----------|---------|----|---|--------|----|----------|---------|--------------|-------|
| TYPE | MODEL    | Version |    |   |        |    |          | TYPE    | Power system |       |
|      |          | V       | SV | L | SL/SLX | LG | SLG/SLGX |         | in           | out   |
| U7   | 180/4T   | ■       | ■  | ■ | ■      | -  | -        | EPIC    | 1-230        | 3-250 |
|      |          | ■       | ■  | ■ | ■      | -  | -        | IPFC109 | 1-230        | 3-230 |
|      |          | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
|      | 250/5T   | ■       | ■  | ■ | ■      | -  | -        | IPFC114 | 1-230        | 3-230 |
|      |          | ■       | ■  | ■ | ■      | -  | -        | IPFC308 | 3-400        | 3-400 |
|      | 300/6T   | ■       | ■  | ■ | ■      | -  | -        | IPFC114 | 1-230        | 3-230 |
|      |          | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
|      | 350/7T   | ■       | ■  | ■ | ■      | -  | -        | IPFC114 | 1-230        | 3-230 |
|      |          | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
|      | 400/8T   | ■       | ■  | ■ | ■      | -  | -        | IPFC309 | 3-400        | 3-400 |
|      | 450/9T   | ■       | ■  | ■ | ■      | -  | -        | IPFC309 | 3-400        | 3-400 |
|      | 550/10T  | ■       | ■  | ■ | ■      | -  | -        | IPFC311 | 3-400        | 3-400 |
| U9   | 200/4T   | ■       | ■  | ■ | ■      | -  | -        | EPIC    | 1-230        | 3-230 |
|      | 250/5T   | ■       | ■  | ■ | ■      | -  | -        | IPFC109 | 1-230        | 3-230 |
|      |          | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
|      |          | ■       | ■  | ■ | ■      | -  | -        | EPIC    | 1-230        | 3-230 |
|      | 500/8T   | ■       | ■  | ■ | ■      | -  | -        | IPFC114 | 1-230        | 3-230 |
|      |          | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
|      | 400/7T   | ■       | ■  | ■ | ■      | -  | -        | IPFC114 | 1-230        | 3-230 |
|      |          | ■       | ■  | ■ | ■      | -  | -        | IPFC306 | 3-400        | 3-400 |
|      |          | ■       | ■  | ■ | ■      | -  | -        | IPFC309 | 3-400        | 3-400 |
|      | 450/8T   | ■       | ■  | ■ | ■      | -  | -        | IPFC309 | 3-400        | 3-400 |
|      | 500/9T   | ■       | ■  | ■ | ■      | -  | -        | IPFC309 | 3-400        | 3-400 |
|      | 550/10T  | ■       | ■  | ■ | ■      | -  | -        | IPFC311 | 3-400        | 3-400 |
|      | 750/12T  | -       | -  | - | -      | -  | ■        | IPFC311 | 3-400        | 3-400 |
|      | 800/14T  | -       | -  | - | -      | -  | ■        | IPFC314 | 3-400        | 3-400 |
|      | 900/16T  | -       | -  | - | -      | -  | ■        | IPFC314 | 3-400        | 3-400 |
|      | 950/16T  | -       | -  | - | -      | -  | ■        | IPFC318 | 3-400        | 3-400 |
|      | 1000/20T | -       | -  | - | -      | -  | ■        | IPFC318 | 3-400        | 3-400 |

| PUMP |          |         |    |   |        |    |    |    | VSD     |              |       |
|------|----------|---------|----|---|--------|----|----|----|---------|--------------|-------|
| TYPE | MODEL    | Version |    |   |        |    |    |    | TYPE    | Power system |       |
|      |          | V       | SV | L | SL/SLX | LG | HS | HX |         | in           | out   |
| U 18 | 100/1T   | -       | -  | - | -      | -  | -  | ■  | IPFC109 | 1-230        | 3-230 |
|      |          | -       | -  | - | -      | -  | -  | ■  | IPFC306 | 3-400        | 3-400 |
|      | 200/2T   | -       | -  | - | -      | -  | -  | ■  | IPFC109 | 1-230        | 3-230 |
|      |          | -       | -  | - | -      | -  | -  | ■  | IPFC306 | 3-400        | 3-400 |
|      | 259/3T   | ■       | ■  | ■ | ■      | -  | -  | -  | EPIC    | 1-230        | 3-230 |
|      |          | ■       | ■  | ■ | ■      | -  | -  | -  | IPFC114 | 1-230        | 9-230 |
|      |          | ■       | ■  | ■ | ■      | -  | -  | -  | IPFC306 | 3-400        | 3-400 |
|      | 300/3T   | -       | -  | - | -      | -  | -  | ■  | IPFC114 | 1-230        | 3-230 |
|      |          | -       | -  | - | -      | -  | -  | ■  | IPFC306 | 3-400        | 3-400 |
|      | 400/4T   | ■       | ■  | ■ | ■      | -  | -  | ■  | IPFC114 | 1-230        | 3-230 |
|      |          | ■       | ■  | ■ | ■      | -  | -  | -  | IPFC306 | 3-400        | 3-400 |
|      |          | -       | -  | - | -      | -  | -  | ■  | IPFC309 | 3-400        | 3-400 |
|      | 450/5T   | ■       | ■  | ■ | ■      | -  | -  | -  | IPFC309 | 3-400        | 3-400 |
|      | 550/5T   | -       | -  | - | -      | -  | -  | ■  | IPFC309 | 3-400        | 3-400 |
|      | 550/6T   | ■       | ■  | ■ | ■      | -  | -  | -  | IPFC311 | 3-400        | 3-400 |
|      | 780/6T   | -       | -  | - | -      | -  | -  | ■  | IPFC311 | 3-400        | 3-400 |
|      | 750/7T   | -       | -  | - | -      | -  | -  | ■  | IPFC314 | 3-400        | 3-400 |
|      | 750/8T   | ■       | ■  | ■ | ■      | -  | -  | -  | IPFC314 | 3-400        | 3-400 |
|      | 900/9T   | ■       | ■  | ■ | ■      | -  | -  | -  | IPFC313 | 3-400        | 3-400 |
|      | 920/10T  | -       | -  | - | -      | ■  | -  | -  | IPFC313 | 3-400        | 3-400 |
|      | 1000/8T  | -       | -  | - | -      | -  | -  | ■  | IPFC314 | 3-400        | 3-400 |
|      | 1060/9T  | -       | -  | - | -      | -  | -  | ■  | IPFC318 | 3-400        | 3-400 |
|      | 1000/11T | -       | -  | - | -      | ■  | -  | -  | IPFC313 | 3-400        | 3-400 |
|      | 1800/10T | -       | -  | - | -      | -  | -  | ■  | IPFC325 | 3-400        | 3-400 |
|      | 1500/11T | -       | -  | - | -      | -  | -  | ■  | IPFC325 | 3-400        | 3-400 |
|      | 1500/12T | -       | -  | - | -      | -  | -  | ■  | IPFC325 | 3-400        | 3-400 |
|      | 1500/18T | -       | -  | - | -      | -  | -  | ■  | IPFC325 | 3-400        | 3-400 |
|      | 1500/14T | -       | -  | - | -      | -  | -  | ■  | IPFC325 | 3-400        | 3-400 |
|      | 2900/15T | -       | -  | - | -      | -  | -  | ■  | IPFC325 | 3-400        | 3-400 |
|      | 2000/16T | -       | -  | - | -      | -  | -  | ■  | IPFC325 | 3-400        | 3-400 |
|      | 2000/17T | -       | -  | - | -      | -  | -  | ■  | IPFC330 | 3-400        | 3-400 |
| U 22 | 200/1T   | -       | -  | - | -      | -  | -  | ■  | IPFC109 | 1-230        | 3-230 |
|      |          | -       | -  | - | -      | -  | -  | ■  | IPFC306 | 3-400        | 3-400 |
|      | 300/2T   | -       | -  | - | -      | -  | -  | ■  | IPFC114 | 1-230        | 3-230 |
|      |          | -       | -  | - | -      | -  | -  | ■  | IPFC306 | 3-400        | 3-400 |
|      | 400/3T   | -       | -  | - | -      | -  | -  | ■  | IPFC309 | 3-400        | 3-400 |
|      | 550/4T   | -       | -  | - | -      | -  | -  | ■  | IPFC311 | 3-400        | 3-400 |
|      | 750/5T   | -       | -  | - | -      | -  | -  | ■  | IPFC314 | 3-400        | 3-400 |
|      | 1000/6T  | -       | -  | - | -      | -  | -  | ■  | IPFC314 | 3-400        | 3-400 |
|      | 1000/7T  | -       | -  | - | -      | -  | -  | ■  | IPFC313 | 3-400        | 3-400 |
|      | 1500/8T  | -       | -  | - | -      | -  | -  | ■  | IPFC325 | 3-400        | 3-400 |
|      | 1500/9T  | -       | -  | - | -      | -  | -  | ■  | IPFC325 | 3-400        | 3-400 |
|      | 1500/10T | -       | -  | - | -      | -  | -  | ■  | IPFC325 | 3-400        | 3-400 |
|      | 2000/11T | -       | -  | - | -      | -  | -  | ■  | IPFC325 | 3-400        | 3-400 |
|      | 2000/12T | -       | -  | - | -      | -  | -  | ■  | IPFC325 | 3-400        | 3-400 |
|      | 2900/13T | -       | -  | - | -      | -  | -  | ■  | IPFC330 | 3-400        | 3-400 |
|      | 2000/14T | -       | -  | - | -      | -  | -  | ■  | IPFC330 | 3-400        | 3-400 |

# ULTRA+VSD



| PUMP |            |         |    |   |        |    |    |    | VSD     |              |       |
|------|------------|---------|----|---|--------|----|----|----|---------|--------------|-------|
| TYPE | MGDEL      | Version |    |   |        |    |    |    | TYPE    | Power system |       |
|      |            | V       | SV | L | SL/SLX | LG | HS | HX |         | in           | out   |
| U 35 | 306/1T     | -       | -  | - | -      | -  | ■  | ■  | IPFC114 | 1-230        | 3-230 |
|      | 550/2-2RT  | -       | -  | - | -      | -  | ■  | ■  | IPFC306 | 3-400        | 3-400 |
|      | 550/2-1RT  | -       | -  | - | -      | -  | ■  | ■  | IPFC309 | 3-400        | 3-400 |
|      | 750/2T     | -       | -  | - | -      | -  | ■  | ■  | IPFC311 | 3-400        | 3-400 |
|      | 750/3-2RT  | -       | -  | - | -      | -  | ■  | ■  | IPFC314 | 3-400        | 3-400 |
|      | 1000/3-1RT | -       | -  | - | -      | -  | ■  | ■  | IPFC314 | 3-400        | 3-400 |
|      | 1000/3T    | -       | -  | - | -      | -  | ■  | ■  | IPFC314 | 3-400        | 3-400 |
|      | 1000/4-2RT | -       | -  | - | -      | -  | ■  | ■  | IPFC318 | 3-400        | 3-400 |
|      | 1500/4-1RT | -       | -  | - | -      | -  | ■  | ■  | IPFC325 | 3-400        | 3-400 |
|      | 1500/4T    | -       | -  | - | -      | -  | ■  | ■  | IPFC325 | 3-400        | 3-400 |
|      | 1500/5-2RT | -       | -  | - | -      | -  | ■  | ■  | IPFC325 | 3-400        | 3-400 |
|      | 1500/5-1RT | -       | -  | - | -      | -  | ■  | ■  | IPFC325 | 3-400        | 3-400 |
|      | 3000/5T    | -       | -  | - | -      | -  | ■  | ■  | IPFC325 | 3-400        | 3-400 |
|      | 2000/6-2RT | -       | -  | - | -      | -  | ■  | ■  | IPFC325 | 3-400        | 3-400 |
|      | 2000/6-1RT | -       | -  | - | -      | -  | ■  | ■  | IPFC330 | 3-400        | 3-400 |
|      | 2000/6T    | -       | -  | - | -      | -  | ■  | ■  | IPFC330 | 3-490        | 3-400 |
|      | 3000/7-2RT | -       | -  | - | -      | -  | ■  | ■  | IPFC330 | 3-400        | 3-400 |
|      | 2000/7-1RT | -       | -  | - | -      | -  | ■  | ■  | IPFC330 | 3-400        | 3-400 |
| U 50 | 400/1-1RT  | -       | -  | - | -      | -  | ■  | ■  | IPFC114 | 1-230        | 3-230 |
|      | 550/1T     | -       | -  | - | -      | -  | ■  | ■  | IPFC306 | 3-400        | 3-400 |
|      | 750/2-2RT  | -       | -  | - | -      | -  | ■  | ■  | IPFC309 | 3-400        | 3-400 |
|      | 1000/2T    | -       | -  | - | -      | -  | ■  | ■  | IPFC314 | 3-400        | 3-400 |
|      | 1500/3-2RT | -       | -  | - | -      | -  | ■  | ■  | IPFC318 | 3-400        | 3-400 |
|      | 1500/3T    | -       | -  | - | -      | -  | ■  | ■  | IPFC325 | 3-400        | 3-400 |
|      | 3000/4-2RT | -       | -  | - | -      | -  | ■  | ■  | IPFC325 | 3-490        | 3-400 |
|      | 2000/4T    | -       | -  | - | -      | -  | ■  | ■  | IPFC330 | 3-400        | 3-400 |
| U 75 | 550/1-1RT  | -       | -  | - | -      | -  | ■  | ■  | IPFC309 | 3-400        | 3-400 |
|      | 750/1T     | -       | -  | - | -      | -  | ■  | ■  | IPFC314 | 3-400        | 3-400 |
|      | 1000/2-2RT | -       | -  | - | -      | -  | ■  | ■  | IPFC318 | 3-400        | 3-400 |
|      | 1500/2-1RT | -       | -  | - | -      | -  | ■  | ■  | IPFC325 | 3-400        | 3-400 |
|      | 1500/2T    | -       | -  | - | -      | -  | ■  | ■  | IPFC325 | 3-400        | 3-490 |
|      | 3000/3-2RT | -       | -  | - | -      | -  | ■  | ■  | IPFC325 | 3-400        | 3-400 |
|      | 2000/3-1RT | -       | -  | - | -      | -  | ■  | ■  | IPFC330 | 3-400        | 3-400 |
| U 90 | 750/1-1RT  | -       | -  | - | -      | -  | ■  | ■  | IPFC314 | 3-400        | 3-400 |
|      | 1900/1T    | -       | -  | - | -      | -  | ■  | ■  | IPFC318 | 3-400        | 3-400 |
|      | 1500/2-2RT | -       | -  | - | -      | -  | ■  | ■  | IPFC325 | 3-400        | 3-400 |
|      | 2000/2T    | -       | -  | - | -      | -  | ■  | ■  | IPFC330 | 3-400        | 3-400 |

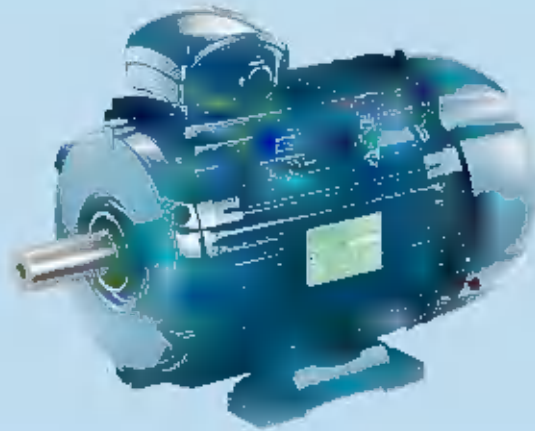




# IE3 MOTORS

# 80-132 (0,75 kW-7,5 kW)

Motors



## Construction features

|                                                                                                                |                                                                          |
|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| <b>Frame</b>                                                                                                   | aluminum alloy                                                           |
| <b>Multiple voltage/<br/>Multi-frequency</b>                                                                   | 50/60 Hz                                                                 |
| <b>Duty service</b>                                                                                            | S1 continuous                                                            |
| <b>Winding</b>                                                                                                 | tropicalized suitable for<br>inverter power supply                       |
|  <b>ATEX (dust and gas)</b> | version available:<br>II 3G Ex nA IIB T4 Gc<br>II 3D Ex tc IIB T125°C Dc |

## Motor

|                          |                                       |
|--------------------------|---------------------------------------|
| <b>Motor</b>             | closed and externally<br>ventilated   |
| <b>Insulation class</b>  | F (on request H)                      |
| <b>Protection degree</b> | IPX5 (on request IP56,<br>IP66, IP67) |
| <b>Efficiency class</b>  | IE3, IEC60034-30-1                    |



# 160-355 (11 kW-315 kW)

Motors



## Construction features

|                                                                                                                |                                                                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Frame</b>                                                                                                   | cast iron                                                                                                                                                                                   |
| <b>Multiple voltage/<br/>Multi-frequency</b>                                                                   | 50/60 Hz                                                                                                                                                                                    |
| <b>Duty service</b>                                                                                            | S1 continuous                                                                                                                                                                               |
| <b>Winding</b>                                                                                                 | tropicalized and reinforced insulation for inverter power supply (P>110kW we recommend to order the motor with insulated bearings option). Windings with PTC (n° 3) thermistor as standard. |
|  <b>ATEX (dust and gas)</b> | version available:<br>II 3G Ex nA IIB T4 Gc<br>II 3D Ex tc IIB T125°C Dc                                                                                                                    |

## Motor

|                          |                                    |
|--------------------------|------------------------------------|
| <b>Motor</b>             | closed and externally ventilated   |
| <b>Insulation class</b>  | F (on request H)                   |
| <b>Protection degree</b> | IPX5 (on request IP56, IP66, IP67) |
| <b>Efficiency class</b>  | IE3, IEC60034-30-1                 |



## 2 POLES IE3



Data at 400V - 50Hz

| TYPE    | kW   | HP  | rpm  | I <sub>n</sub><br>(A) | I <sub>s</sub><br>(A) | I <sub>s</sub><br>I <sub>n</sub> | C <sub>n</sub><br>(Nm) | C <sub>s</sub><br>(Nm) | C <sub>s</sub><br>C <sub>n</sub> | C <sub>max</sub><br>(Nm) | C <sub>max</sub><br>C <sub>n</sub> |
|---------|------|-----|------|-----------------------|-----------------------|----------------------------------|------------------------|------------------------|----------------------------------|--------------------------|------------------------------------|
| 80A-2   | 0,75 | 1   | 2892 | 1,74                  | 11,84                 | 5,8                              | 2,48                   | 5,6                    | 2,5                              | 9,18                     | 3,7                                |
| 80B-2   | 1,1  | 1,5 | 2885 | 2,26                  | 16,74                 | 7,4                              | 3,64                   | 10,9                   | 3                                | 12,74                    | 3,5                                |
| 90S-2   | 1,5  | 2   | 2894 | 3,22                  | 23,78                 | 7,4                              | 4,95                   | 20,1                   | 4,1                              | 18,78                    | 5,8                                |
| 90L-2   | 2,2  | 3   | 2891 | 4,58                  | 35,2                  | 7,7                              | 7,27                   | 30,3                   | 4,2                              | 30,89                    | 4,2                                |
| 10CL-2  | 8    | 4   | 2898 | 5,8                   | 44,87                 | 7,7                              | 9,59                   | 30,5                   | 8,1                              | 35,95                    | 3,6                                |
| 112M-2  | 4    | 5,5 | 2894 | 7,48                  | 59,55                 | 7                                | 13,2                   | 33,06                  | 2,8                              | 87,02                    | 3,5                                |
| 132SA-2 | 5,5  | 7,5 | 2940 | 10,14                 | 70,59                 | 7                                | 17,87                  | 37,7                   | 2,1                              | 35,79                    | 2                                  |
| 132SB-2 | 7,5  | 10  | 2925 | 13,35                 | 95                    | 7,1                              | 24,49                  | 58,5                   | 2,2                              | 78,5                     | 3,2                                |
| 160MA-2 | 11   | 15  | 2937 | 19,72                 | 128,05                | 6,2                              | 35,77                  | 73,32                  | 2,1                              | 100,15                   | 2,8                                |
| 160MB-2 | 15   | 20  | 2938 | 26,29                 | 150,23                | 5,7                              | 48,76                  | 95,08                  | 2                                | 121,89                   | 2,5                                |
| 16PL-2  | 18,5 | 25  | 2942 | 32,15                 | 192,92                | 6                                | 50,05                  | 124,31                 | 2,1                              | 179                      | 2,1                                |
| 180M-2  | 22   | 30  | 2950 | 37,53                 | 304,03                | 8,1                              | 71,22                  | 188,81                 | 2,8                              | 220,8                    | 3,1                                |
| 200LA-2 | 30   | 40  | 2940 | 51,51                 | 388,34                | 7,5                              | 97,45                  | 224,19                 | 2,3                              | 223,37                   | 2,3                                |
| 200LB-2 | 37   | 50  | 2960 | 63,26                 | 474,46                | 7,5                              | 119,38                 | 274,55                 | 2,3                              | 275,49                   | 2,3                                |
| 225M-2  | 45   | 60  | 2960 | 76,69                 | 582,87                | 7,6                              | 145,19                 | 338,93                 | 2,3                              | 332,3                    | 2,3                                |
| 250M-2  | 55   | 75  | 2970 | 94,89                 | 707,92                | 7,5                              | 178,85                 | 408,78                 | 2,3                              | 406,78                   | 2,8                                |
| 280S-2  | 75   | 100 | 2970 | 127,01                | 876,89                | 8,9                              | 241,16                 | 530,56                 | 2,2                              | 554,67                   | 2,3                                |
| 280M-2  | 90   | 125 | 2970 | 151,93                | 1078,73               | 7,1                              | 289,39                 | 636,67                 | 2,2                              | 665,61                   | 2,3                                |
| 315S-2  | 110  | 150 | 2970 | 185,31                | 1315,68               | 7,1                              | 353,7                  | 707,41                 | 2                                | 778,15                   | 2,2                                |
| 315MA-2 | 132  | 180 | 2970 | 221,67                | 1573,86               | 7,1                              | 424,44                 | 848,89                 | 2                                | 933,78                   | 2,2                                |
| 315LA-2 | 160  | 215 | 2970 | 265,46                | 1884,77               | 7,1                              | 514,48                 | 1028,96                | 2                                | 1131,55                  | 2,2                                |
| 315LB-2 | 200  | 270 | 2970 | 330,79                | 2348,59               | 7,1                              | 643,1                  | 1286,2                 | 2                                | 1414,81                  | 2,2                                |
| 355M-2  | 250  | 335 | 2960 | 413,48                | 2935,74               | 7,1                              | 801,17                 | 1602,35                | 2                                | 1762,58                  | 2,2                                |
| 355L-2  | 315  | 423 | 2980 | 520,99                | 3699,03               | 7,1                              | 1009,48                | 2018,96                | 2                                | 2220,86                  | 2,2                                |

| TYPE    | η%   |     |      |      | min<br>IE3 | Fatt. pot. cos φ |       |       | ΔT<br>(°C) | LwA<br>(dB) | J<br>Kgm2 | Kg     |
|---------|------|-----|------|------|------------|------------------|-------|-------|------------|-------------|-----------|--------|
|         | 100% | IE  | 75%  | 50%  |            | 100%             | 75%   | 50%   |            |             |           |        |
| 80A-2   | 80,9 | IE8 | 79,6 | 76,4 | 80,7       | 0,77             | 0,7   | 0,568 | 35         | 85          | 0,00155   | 17     |
| 80B-2   | 84,5 | IE3 | 84,7 | 82,8 | 82,7       | 0,83             | 0,77  | 0,682 | 41         | 85          | 0,00185   | 18     |
| 90S-2   | 85,3 | IE3 | 85,2 | 83,7 | 84,2       | 0,788            | 0,71  | 0,588 | 37         | 71          | 0,00383   | 23     |
| 90L-2   | 86,2 | IE3 | 86,4 | 84,7 | 85,9       | 0,81             | 0,71  | 0,61  | 43         | 71          | 0,00726   | 26     |
| 10CL-2  | 87,1 | IE8 | 87,7 | 86,8 | 87,1       | 0,857            | 0,807 | 0,692 | 51         | 75          | 0,01439   | 35     |
| 112M-2  | 89,6 | IE3 | 90,5 | 90,2 | 88,1       | 0,862            | 0,81  | 0,719 | 52         | 77          | 0,01653   | 43     |
| 132SA-2 | 91   | IE3 | 89,7 | 87,4 | 89,2       | 0,96             | 0,84  | 0,761 | 48         | 78          | 0,033     | 66     |
| 132SB-2 | 91,8 | IE3 | 92,4 | 92,9 | 90,1       | 0,885            | 0,85  | 0,76  | 50         | 78          | 0,0398    | 73     |
| 160MA-2 | 91,4 | IE3 | 91,2 | 89,7 | 91,2       | 0,881            | 0,864 | 0,812 | 49         | 81          | 0,04978   | 120    |
| 160MB-2 | 92   | IE3 | 92,6 | 91,8 | 91,9       | 0,885            | 0,877 | 0,841 | 61         | 81          | 0,06587   | 132    |
| 160L-2  | 95   | IE3 | 93,7 | 93   | 92,4       | 0,893            | 0,875 | 0,827 | 58         | 81          | 0,0726    | 150    |
| 180M-2  | 94   | IE3 | 93,9 | 93   | 92,7       | 0,9              | 0,88  | 0,87  | 41         | 83          | 0,099     | 205    |
| 200LA-2 | 93,4 | IE3 | 94,4 | 90,7 | 93,8       | 0,9              | 0,881 | 0,82  | 68         | 84          | 0,16368   | 250    |
| 200LB-2 | 93,8 | IE3 | 93,6 | 90,2 | 93,7       | 0,9              | 0,887 | 0,84  | 68         | 84          | 0,18348   | 270    |
| 225M-2  | 94,1 | IE3 | 93,9 | 90,7 | 94         | 0,9              | 0,876 | 0,816 | 65         | 86          | 0,30756   | 315    |
| 250M-2  | 94,5 | IE3 | 92,6 | 88,5 | 94,8       | 0,89             | 0,872 | 0,825 | 65         | 89          | 0,41184   | 420    |
| 280S-2  | 94,7 | IE3 | 92,8 | 89,7 | 94,7       | 0,9              | 0,896 | 0,875 | 55         | 91          | 0,76426   | 550,8  |
| 280M-2  | 95   | IE3 | 94,9 | 92,9 | 95         | 0,9              | 0,894 | 0,857 | 68         | 91          | 0,881     | 625    |
| 315S-2  | 95,2 | IE3 | 95,1 | 93,1 | 95,2       | 0,9              | 0,894 | 0,857 | 65         | 92          | 1,5576    | 968    |
| 315MA-2 | 95,5 | IE3 | 95,4 | 93,4 | 95,4       | 0,9              | 0,894 | 0,857 | 65         | 92          | 2,4024    | 1100   |
| 315LA-2 | 95,6 | IE3 | 95,5 | 93,5 | 95,6       | 0,91             | 0,904 | 0,867 | 85         | 92          | 2,7456    | 1160,5 |
| 315LB-2 | 95,9 | IE3 | 95,8 | 93,8 | 95,8       | 0,91             | 0,904 | 0,867 | 68         | 92          | 3,1415    | 1221   |
| 355M-2  | 95,9 | IE8 | 95,8 | 93,8 | 95,8       | 0,91             | 0,904 | 0,867 | 65         | 100         | 3,96      | 2090   |
| 355L-2  | 95,9 | IE3 | 95,8 | 93,8 | 95,8       | 0,91             | 0,904 | 0,867 | 65         | 100         | 4,62      | 2530   |



# 4 POLES IE3



Data at 400V - 50Hz

| TYPE    | kW   | HP  | rpm  | I <sub>n</sub><br>(A) | I <sub>s</sub><br>(A) | I <sub>s</sub><br>I <sub>n</sub> | C <sub>n</sub><br>(Nm) | C <sub>s</sub><br>(Nm) | C <sub>s</sub><br>C <sub>n</sub> | C <sub>max</sub><br>(Nm) | C <sub>max</sub><br>C <sub>n</sub> |
|---------|------|-----|------|-----------------------|-----------------------|----------------------------------|------------------------|------------------------|----------------------------------|--------------------------|------------------------------------|
| 80S-4   | 0.75 | 1   | 1430 | 1.87                  | 11.24                 | 6                                | 5.01                   | 16.9                   | 3.4                              | 12.8                     | 2.6                                |
| 90S-4   | 1.1  | 1.5 | 1431 | 2.54                  | 15.83                 | 6.2                              | 7.34                   | 25.6                   | 3.5                              | 24.5                     | 3.8                                |
| 90L-4   | 1.5  | 2   | 1438 | 3.38                  | 19.82                 | 5.8                              | 9.96                   | 32.11                  | 3.2                              | 34.9                     | 3.5                                |
| 100LA-4 | 2.2  | 3   | 1425 | 4.35                  | 24.15                 | 7.8                              | 14.74                  | 41.27                  | 2.8                              | 41.27                    | 2.8                                |
| 100LB-4 | 3    | 4   | 1450 | 6.07                  | 46.83                 | 7.7                              | 19.78                  | 54.3                   | 2.7                              | 56.31                    | 2.8                                |
| 112M-4  | 4    | 5.5 | 1442 | 7.95                  | 54.51                 | 5.9                              | 26.49                  | 74.03                  | 2.9                              | 74.22                    | 3.3                                |
| 132S-4  | 5.5  | 7.5 | 1454 | 10.64                 | 68.01                 | 6.4                              | 36.12                  | 75.66                  | 2.1                              | 101.15                   | 2.8                                |
| 132M-4  | 7.5  | 10  | 1460 | 14.39                 | 94.37                 | 6.8                              | 49.06                  | 91.6                   | 1.9                              | 132.46                   | 2.7                                |
| 160M-4  | 11   | 15  | 1468 | 20.76                 | 121.31                | 5.8                              | 71.58                  | 121.5                  | 1.7                              | 193.21                   | 2.7                                |
| 160L-4  | 15   | 20  | 1480 | 28.19                 | 140.97                | 5                                | 98.12                  | 156.6                  | 1.7                              | 255.1                    | 2.6                                |
| 150M-4  | 16.5 | 25  | 1477 | 33.53                 | 206.45                | 6.2                              | 120.94                 | 202.5                  | 1.7                              | 384.23                   | 3.2                                |
| 180L-4  | 22   | 30  | 1470 | 39.62                 | 297.13                | 7.5                              | 142.93                 | 314.44                 | 2.2                              | 328.78                   | 2.3                                |
| 200L-4  | 30   | 40  | 1480 | 53.48                 | 385.07                | 7.2                              | 193.55                 | 425.56                 | 2.2                              | 445.24                   | 2.3                                |
| 225S-4  | 37   | 50  | 1480 | 65.37                 | 490.3                 | 7.5                              | 238.75                 | 525.25                 | 2.2                              | 549.13                   | 2.8                                |
| 225M-4  | 45   | 60  | 1480 | 77.39                 | 598.17                | 7.6                              | 290.37                 | 638.82                 | 2.2                              | 667.65                   | 2.3                                |
| 250M-4  | 55   | 75  | 1480 | 93.89                 | 713.58                | 7.6                              | 354.9                  | 780.78                 | 2.2                              | 816.27                   | 2.3                                |
| 280S-4  | 75   | 100 | 1480 | 127.9                 | 882.51                | 6.9                              | 483.95                 | 1064.7                 | 2.2                              | 1113.09                  | 2.3                                |
| 280M-4  | 90   | 120 | 1485 | 155.05                | 1085.43               | 7                                | 576.79                 | 1273.33                | 2.2                              | 1331.21                  | 2.3                                |
| 315S-4  | 110  | 150 | 1480 | 188.92                | 1303.57               | 6.9                              | 709.8                  | 1561.56                | 2.2                              | 1632.58                  | 2.3                                |
| 315M-4  | 132  | 180 | 1450 | 226.23                | 1581.02               | 6.9                              | 851.76                 | 1873.88                | 2.2                              | 1959.04                  | 2.3                                |
| 315LA-4 | 160  | 220 | 1480 | 273.65                | 1886.2                | 6.9                              | 1032.43                | 2271.35                | 2.2                              | 2374.59                  | 2.3                                |
| 315LB-4 | 200  | 270 | 1480 | 341.71                | 2357.79               | 6.9                              | 1290.54                | 2839.19                | 2.2                              | 2968.24                  | 2.3                                |
| 355M-4  | 250  | 335 | 1490 | 417.21                | 2878.74               | 6.9                              | 1602.35                | 3525.17                | 2.2                              | 3685.4                   | 2.3                                |
| 355L-4  | 315  | 423 | 1490 | 526.23                | 3630.99               | 6.9                              | 2018.96                | 4441.71                | 2.2                              | 4643.61                  | 2.3                                |

| TYPE    | η %  |     |      |      | min<br>IE3 | Fatt. pot. cos φ |       |       | ΔT<br>(°C) | LwA<br>(dB) | J<br>Kgm2 | Kg     |
|---------|------|-----|------|------|------------|------------------|-------|-------|------------|-------------|-----------|--------|
|         | 100% | IE3 | 75%  | 50%  |            | 100%             | 75%   | 50%   |            |             |           |        |
| 80S-4   | 82.9 | IE3 | 82.6 | 79.2 | 82.5       | 0.7              | 0.6   | 0.451 | 38         | 56          | 0.00277   | 18     |
| 90S-4   | 84.8 | IE3 | 85.2 | 85.5 | 84.1       | 0.738            | 0.66  | 0.518 | 44         | 61          | 0.00304   | 25     |
| 90L-4   | 85.9 | IE3 | 86.3 | 85.1 | 85.3       | 0.747            | 0.658 | 0.569 | 47         | 61          | 0.00356   | 30     |
| 100LA-4 | 86.7 | IE3 | 86.9 | 86   | 85.7       | 0.841            | 0.782 | 0.7   | 53         | 64          | 0.00718   | 36     |
| 100LB-4 | 89   | IE3 | 89.3 | 86   | 87.7       | 0.801            | 0.72  | 0.7   | 57         | 64          | 0.00893   | 40     |
| 112M-4  | 89.1 | IE3 | 90.3 | 90.5 | 88.6       | 0.815            | 0.76  | 0.541 | 53         | 55          | 0.01267   | 46     |
| 132S-4  | 89.9 | IE3 | 92.1 | 92.4 | 89.6       | 0.83             | 0.77  | 0.875 | 61         | 71          | 0.02853   | 70     |
| 132M-4  | 90.5 | IE3 | 90.8 | 89.9 | 90.4       | 0.831            | 0.79  | 0.599 | 48         | 71          | 0.03946   | 81     |
| 160M-4  | 91.8 | IE3 | 91.7 | 90.4 | 91.4       | 0.833            | 0.79  | 0.675 | 52         | 73          | 0.06133   | 125    |
| 160L-4  | 92.3 | IE3 | 93.1 | 92.3 | 92.3       | 0.832            | 0.78  | 0.68  | 81         | 75          | 0.12239   | 150    |
| 180M-4  | 92.6 | IE3 | 92.1 | 90.2 | 92.6       | 0.87             | 0.817 | 0.724 | 40         | 78          | 0.18531   | 170.6  |
| 180L-4  | 93.2 | IE3 | 91.7 | 91   | 93         | 0.86             | 0.532 | 0.761 | 80         | 76          | 0.21665   | 189.3  |
| 200L-4  | 93.6 | IE3 | 93.8 | 92.8 | 93.6       | 0.865            | 0.818 | 0.767 | 80         | 79          | 0.3493    | 254.8  |
| 225S-4  | 93.9 | IE3 | 92.7 | 92   | 93.9       | 0.87             | 0.839 | 0.778 | 75         | 81          | 0.54128   | 288.3  |
| 225M-4  | 94.3 | IE3 | 93.3 | 92.8 | 94.2       | 0.89             | 0.872 | 0.807 | 80         | 81          | 0.62527   | 353    |
| 250M-4  | 95   | IE3 | 94.2 | 93.5 | 94.6       | 0.89             | 0.862 | 0.8   | 75         | 83          | 0.87991   | 450    |
| 280S-4  | 95.1 | IE3 | 93.5 | 91   | 95         | 0.89             | 0.863 | 0.848 | 70         | 86          | 1.716     | 605    |
| 280M-4  | 95.2 | IE3 | 93.5 | 92   | 95.2       | 0.88             | 0.872 | 0.838 | 85         | 86          | 1.9358    | 700    |
| 315S-4  | 95.5 | IE3 | 93.5 | 92.3 | 95.4       | 0.88             | 0.872 | 0.838 | 85         | 87          | 4.1816    | 925    |
| 315M-4  | 95.7 | IE3 | 94   | 92.5 | 95.8       | 0.88             | 0.872 | 0.838 | 55         | 87          | 4.815     | 1180   |
| 315LA-4 | 95.9 | IE3 | 94.2 | 92.7 | 95.8       | 0.88             | 0.872 | 0.838 | 75         | 87          | 5.42784   | 1180.5 |
| 315LB-4 | 96   | IE3 | 94.3 | 92.8 | 96         | 0.88             | 0.872 | 0.838 | 70         | 87          | 6.8492    | 1240.8 |
| 355M-4  | 96.1 | IE3 | 94.4 | 92.9 | 96         | 0.9              | 0.892 | 0.857 | 75         | 94          | 8.6196    | 1870   |
| 355L-4  | 96   | IE3 | 94.3 | 92.8 | 96         | 0.9              | 0.892 | 0.857 | 70         | 94          | 10.8768   | 2090   |



## 4 POLES IE3

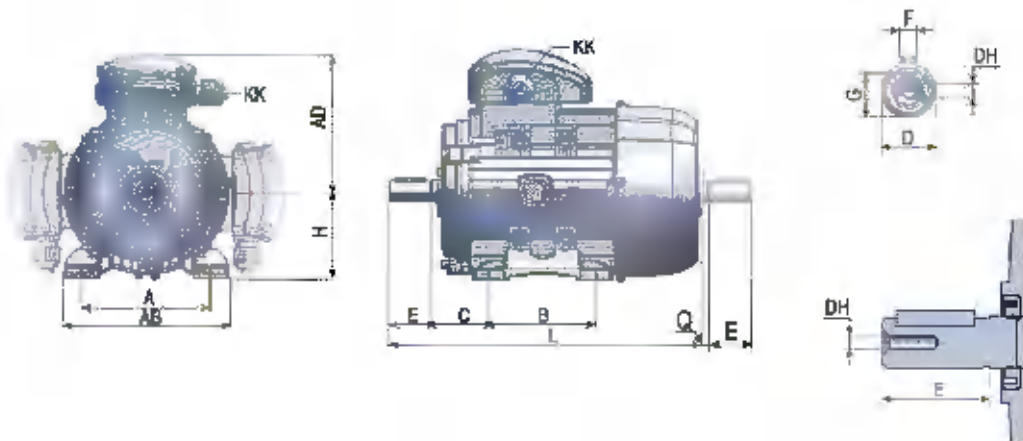
Data at 400V - 50Hz

The following voltages and frequencies are inside the standard power supply of all three-phase motors, under S1 duty service.

| SIZE    | Hz        | V                                                                                   |                                                                                     |
|---------|-----------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|         |           |  |  |
| 80-112  | 50<br>±5% | 230                                                                                 | 400                                                                                 |
|         |           | 220                                                                                 | 380                                                                                 |
|         |           | 240                                                                                 | 415                                                                                 |
|         | 60<br>±5% | 260                                                                                 | 440                                                                                 |
|         |           | 220                                                                                 | 380                                                                                 |
|         |           | 265                                                                                 | 480                                                                                 |
| 132-355 | 50<br>±5% | 280                                                                                 | 480                                                                                 |
|         |           | 400                                                                                 | 690                                                                                 |
|         |           | 380                                                                                 | 550                                                                                 |
|         | 60<br>±5% | 415                                                                                 | 720                                                                                 |
|         |           | 440                                                                                 | 760                                                                                 |
|         |           | 380                                                                                 | 660                                                                                 |
|         |           | 460                                                                                 | 795                                                                                 |
|         |           | 480                                                                                 | 830                                                                                 |

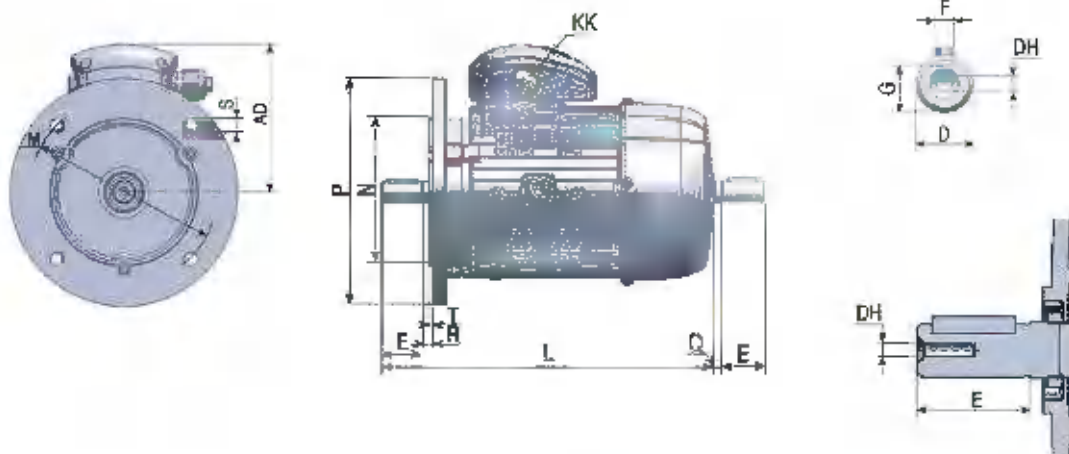
All electrical data refer to motors at 50 Hz. These may be connected to 60 Hz, taking into account the multiplier coefficients in the table below.

| V 50Hz    | V 50Hz    | W    | I <sub>n</sub><br>(A) | C <sub>n</sub><br>(Nm) | rpm | I <sub>s</sub><br>(A) | C <sub>S</sub><br>(Nm) | C max<br>(Nm) |
|-----------|-----------|------|-----------------------|------------------------|-----|-----------------------|------------------------|---------------|
| 230 ± 10% | 230 ± 5%  | 1    | 1                     | 0,83                   | 1,2 | 0,88                  | 0,83                   | 0,83          |
| 230 ± 10% | 230 ± 10% | 1    | 0,95                  | 0,83                   | 1,2 | 0,83                  | 0,83                   | 0,83          |
| 230 ± 10% | 240 ± 5%  | 1,05 | 1                     | 0,87                   | 1,2 | 0,87                  | 0,87                   | 0,87          |
| 400 ± 10% | 380 ± 5%  | 1    | 1                     | 0,83                   | 1,2 | 0,83                  | 0,83                   | 0,83          |
| 400 ± 10% | 400 ± 10% | 1    | 0,95                  | 0,83                   | 1,2 | 0,83                  | 0,83                   | 0,83          |
| 400 ± 10% | 415 ± 10% | 1,05 | 1                     | 0,87                   | 1,2 | 0,87                  | 0,87                   | 0,87          |
| 400 ± 10% | 440 ± 10% | 1,10 | 1                     | 0,90                   | 1,2 | 0,93                  | 0,93                   | 0,93          |
| 400 ± 10% | 400 ± 5%  | 1,15 | 1                     | 0,98                   | 1,2 | 0,96                  | 0,96                   | 0,96          |
| 400 ± 10% | 480 ± 5%  | 1,20 | 1                     | 1                      | 1,2 | 1                     | 1                      | 1             |



DIMENSIONS (mm)

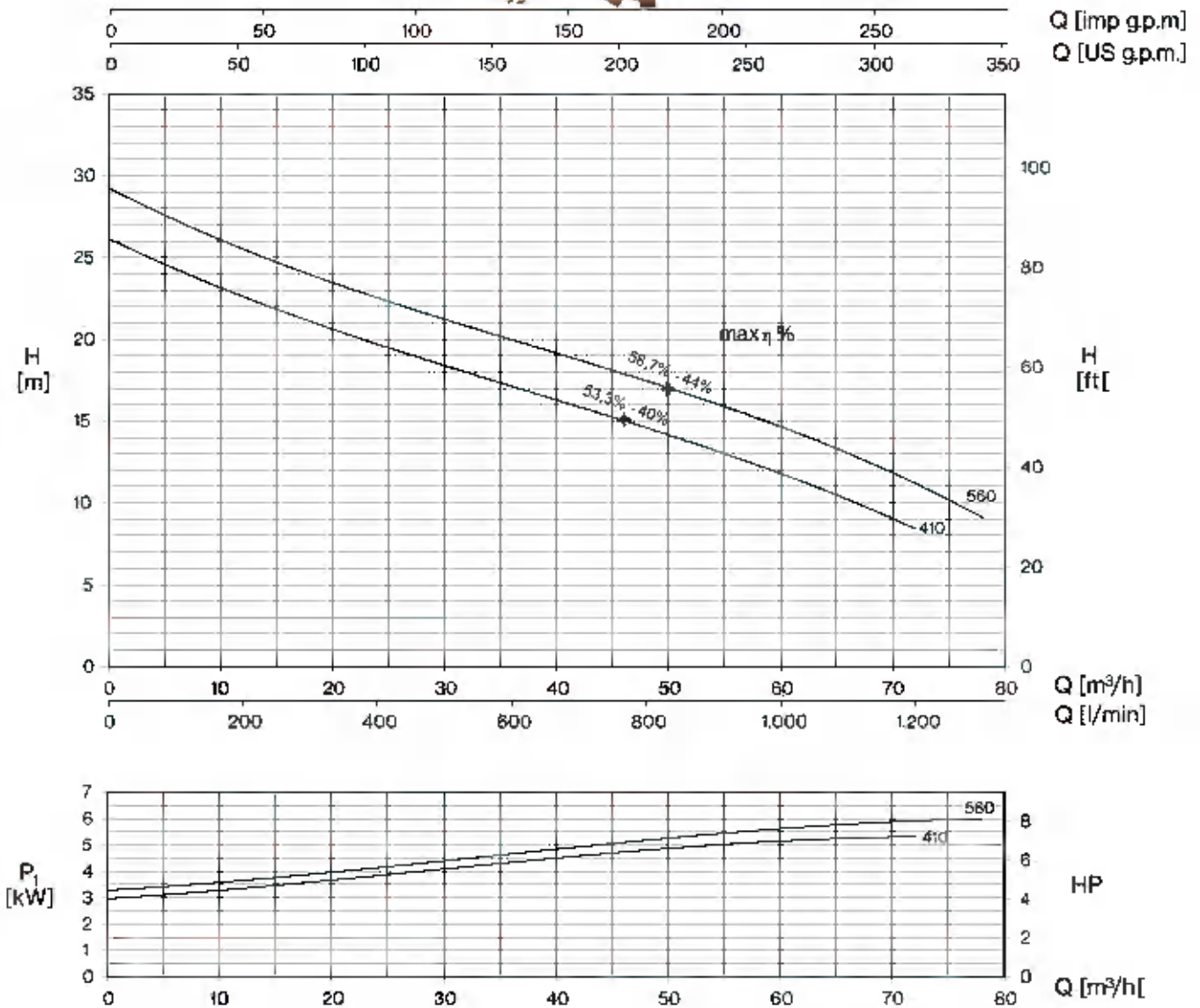
| TYPE | POLES | AD  | H   | KK    | L    | D  | DH     | E   | G  | F  | G    | B3  |     |         |     |    |
|------|-------|-----|-----|-------|------|----|--------|-----|----|----|------|-----|-----|---------|-----|----|
|      |       |     |     |       |      |    |        |     |    |    |      | A   | AB  | B       | C   | K  |
| 80   | 2-8   | 130 | 80  | M20   | 283  | 19 | M6x16  | 40  | 3  | 6  | 15,5 | 125 | 157 | 100     | 50  | 10 |
| 90S  | 2-8   | 145 | 90  | M20   | 330  | 24 | M8x19  | 50  | 5  | 8  | 20   | 140 | 173 | 100     | 56  | 10 |
| 90L  | 2-8   | 145 | 90  | M20   | 358  | 24 | M8x19  | 50  | 8  | 8  | 20   | 140 | 173 | 125     | 56  | 10 |
| 100  | 2-8   | 157 | 100 | M20   | 393  | 28 | M10x22 | 60  | 5  | 8  | 24   | 180 | 196 | 140     | 63  | 12 |
| 112M | 2-8   | 177 | 112 | M25   | 410  | 28 | M10x22 | 60  | 5  | 8  | 24   | 190 | 227 | 140     | 70  | 12 |
| 152S | 2-8   | 197 | 132 | M32   | 480  | 38 | M12x28 | 80  | 5  | 10 | 33   | 216 | 262 | 140     | 89  | 12 |
| 132M | 2-8   | 197 | 132 | M32   | 516  | 38 | M12x28 | 80  | 5  | 10 | 33   | 216 | 262 | 178     | 89  | 12 |
| 160M | 2-8   | 255 | 160 | 2xM40 | 613  | 42 | M16x36 | 110 | 5  | 12 | 37   | 254 | 320 | 210     | 108 | 15 |
| 160L | 2-8   | 252 | 160 | 2xM40 | 708  | 42 | M16x36 | 110 | 5  | 12 | 37   | 254 | 320 | 254     | 106 | 15 |
| 180M | 2-6   | 270 | 180 | 2xM40 | 730  | 48 | M16x36 | 110 | 9  | 14 | 42,5 | 279 | 355 | 241     | 121 | 16 |
| 180L | 2-8   | 270 | 180 | 2xM40 | 780  | 48 | M16x36 | 110 | 8  | 14 | 42,5 | 279 | 355 | 279     | 121 | 15 |
| 200L | 2-8   | 303 | 200 | 2xM50 | 771  | 55 | M20x42 | 110 | 12 | 16 | 49   | 318 | 395 | 305     | 133 | 19 |
| 225S | 2-8   | 312 | 225 | 2xM60 | 815  | 60 | M20x42 | 140 | 12 | 18 | 53   | 356 | 435 | 286     | 149 | 19 |
| 225M | 2     | 312 | 225 | 2xM60 | 820  | 55 | M20x42 | 110 | 12 | 15 | 49   | 356 | 435 | 286/311 | 149 | 19 |
| 225M | 4-8   | 312 | 225 | 2xM50 | 850  | 60 | M20x42 | 140 | 12 | 18 | 53   | 356 | 435 | 286/311 | 149 | 19 |
| 250M | 2     | 355 | 250 | 2xM63 | 910  | 60 | M20x42 | 140 | 12 | 18 | 53   | 406 | 490 | 349     | 168 | 24 |
| 250M | 4-8   | 355 | 250 | 2xM63 | 910  | 65 | M20x42 | 140 | 12 | 18 | 58   | 406 | 490 | 349     | 168 | 24 |
| 280S | 2     | 398 | 280 | 2xM63 | 965  | 65 | M20x42 | 140 | 12 | 16 | 58   | 457 | 550 | 368     | 190 | 24 |
| 280S | 4-8   | 398 | 280 | 2xM63 | 985  | 75 | M20x42 | 140 | 12 | 20 | 67,5 | 457 | 550 | 368     | 190 | 24 |
| 250M | 2     | 398 | 280 | 2xM63 | 1035 | 65 | M20x42 | 140 | 12 | 18 | 58   | 457 | 550 | 358/419 | 190 | 24 |
| 250M | 4-8   | 398 | 280 | 2xM63 | 1035 | 75 | M20x42 | 140 | 12 | 20 | 67,5 | 457 | 550 | 368/419 | 190 | 24 |
| 315S | 2     | 540 | 315 | 2xM63 | 1160 | 65 | M20x42 | 140 | 15 | 16 | 58   | 508 | 630 | 406     | 216 | 26 |
| 315S | 4-8   | 540 | 315 | 2xM63 | 1270 | 89 | M20x42 | 170 | 15 | 22 | 71   | 508 | 630 | 406     | 216 | 28 |
| 315M | 2     | 540 | 315 | 2xM63 | 1290 | 65 | M20x42 | 140 | 15 | 18 | 58   | 508 | 630 | 457     | 216 | 28 |
| 315M | 4-8   | 540 | 315 | 2xM63 | 1325 | 80 | M20x42 | 170 | 15 | 22 | 71   | 508 | 630 | 457     | 216 | 26 |
| 319L | 2     | 540 | 315 | 2xM63 | 1320 | 65 | M20x42 | 140 | 15 | 16 | 58   | 508 | 630 | 508     | 216 | 26 |
| 315L | 4-8   | 540 | 315 | 2xM63 | 1350 | 30 | M20x42 | 170 | 15 | 22 | 71   | 508 | 630 | 508     | 216 | 28 |
| 355M | 2     | 655 | 355 | 2xM63 | 1500 | 75 | M20x42 | 140 | 15 | 20 | 67,5 | 510 | 730 | 560/630 | 254 | 28 |
| 355M | 4-8   | 655 | 355 | 2xM63 | 1530 | 95 | M20x42 | 170 | 15 | 25 | 85   | 510 | 730 | 560/630 | 254 | 28 |
| 355L | 2     | 655 | 355 | 2xM63 | 1500 | 75 | M29x42 | 140 | 15 | 20 | 67,5 | 510 | 730 | 560/630 | 254 | 26 |
| 355L | 4-8   | 655 | 355 | 2xM63 | 1530 | 95 | M20x42 | 170 | 15 | 25 | 85   | 510 | 730 | 560/630 | 254 | 28 |



DIMENSIONS (mm)

| TYPE | POLES | AD  | H   | KK    | L    | D  | DH     | E   | Q  | F  | G    | B5  |     |     |      |     |
|------|-------|-----|-----|-------|------|----|--------|-----|----|----|------|-----|-----|-----|------|-----|
|      |       |     |     |       |      |    |        |     |    |    |      | M   | N   | P   | S    | T   |
| 80   | 2-8   | 130 | 80  | M20   | 283  | 19 | M6x16  | 40  | 3  | 6  | 15,5 | 168 | 130 | 200 | 12x4 | 3,5 |
| 80S  | 2-8   | 145 | 90  | M20   | 330  | 24 | M8x19  | 50  | 5  | 8  | 20   | 165 | 130 | 200 | 12x4 | 3,5 |
| 90L  | 2-8   | 145 | 90  | M20   | 358  | 24 | M8x19  | 50  | 5  | 8  | 20   | 165 | 130 | 200 | 12x4 | 3,5 |
| 100  | 2-8   | 157 | 100 | M20   | 393  | 28 | M10x22 | 80  | 5  | 8  | 24   | 215 | 180 | 250 | 15x4 | 4   |
| 112M | 2-8   | 177 | 112 | M25   | 410  | 28 | M10x22 | 60  | 5  | 8  | 24   | 215 | 180 | 250 | 15x4 | 4   |
| 132S | 2-8   | 197 | 132 | M32   | 480  | 38 | M12x28 | 60  | 5  | 10 | 33   | 265 | 230 | 300 | 15x4 | 4   |
| 132M | 2-8   | 197 | 132 | M32   | 516  | 33 | M12x28 | 60  | 5  | 10 | 33   | 265 | 230 | 300 | 15x4 | 4   |
| 160M | 2-8   | 255 | 160 | 2xM40 | 613  | 42 | M16x36 | 110 | 5  | 12 | 37   | 300 | 250 | 350 | 19x4 | 5   |
| 160L | 2-8   | 252 | 160 | 2xM40 | 708  | 42 | M18x36 | 110 | 5  | 12 | 37   | 380 | 250 | 350 | 19x4 | 5   |
| 180M | 2-8   | 270 | 180 | 2xM40 | 730  | 48 | M16x36 | 110 | 8  | 14 | 42,5 | 300 | 250 | 350 | 19x4 | 5   |
| 180L | 2-8   | 270 | 180 | 2xM40 | 780  | 48 | M16x36 | 110 | 8  | 14 | 42,5 | 300 | 250 | 350 | 19x4 | 5   |
| 209L | 2-8   | 303 | 290 | 2xM60 | 771  | 55 | M29x42 | 110 | 12 | 16 | 49   | 350 | 300 | 400 | 19x4 | 5   |
| 225S | 2-8   | 312 | 225 | 2xM50 | 815  | 60 | M20x42 | 140 | 12 | 18 | 53   | 400 | 350 | 450 | 19x8 | 5   |
| 225M | 2     | 312 | 225 | 2xM50 | 820  | 55 | M20x42 | 110 | 12 | 16 | 49   | 400 | 350 | 450 | 19x8 | 5   |
| 225M | 4-8   | 312 | 225 | 2xM50 | 850  | 60 | M20x42 | 140 | 12 | 18 | 53   | 400 | 350 | 450 | 19x8 | 5   |
| 250M | 2     | 355 | 250 | 2xM63 | 910  | 60 | M20x42 | 140 | 12 | 18 | 53   | 500 | 450 | 550 | 19x8 | 5   |
| 250M | 4-8   | 355 | 250 | 2xM63 | 910  | 65 | M20x42 | 140 | 12 | 18 | 58   | 500 | 450 | 550 | 19x8 | 5   |
| 280S | 2     | 398 | 280 | 2xM63 | 985  | 65 | M20x42 | 140 | 12 | 18 | 58   | 500 | 450 | 550 | 19x8 | 5   |
| 280S | 4-8   | 398 | 280 | 2xM63 | 985  | 75 | M20x42 | 140 | 12 | 20 | 67,5 | 500 | 450 | 560 | 19x8 | 5   |
| 250M | 2     | 398 | 280 | 2xM63 | 1035 | 65 | M20x42 | 140 | 12 | 16 | 58   | 500 | 450 | 550 | 19x8 | 5   |
| 250M | 4-8   | 398 | 280 | 2xM63 | 1035 | 75 | M20x42 | 140 | 12 | 20 | 67,5 | 500 | 450 | 550 | 19x8 | 5   |
| 315S | 2     | 540 | 315 | 2xM63 | 1160 | 65 | M20x42 | 140 | 15 | 18 | 58   | 600 | 550 | 660 | 24x8 | 6   |
| 315S | 4-8   | 540 | 315 | 2xM63 | 1270 | 80 | M20x42 | 170 | 15 | 22 | 71   | 600 | 550 | 660 | 24x8 | 6   |
| 315M | 2     | 540 | 315 | 2xM63 | 1290 | 65 | M20x42 | 140 | 16 | 18 | 58   | 600 | 550 | 660 | 24x8 | 6   |
| 315M | 4-8   | 540 | 315 | 2xM63 | 1325 | 80 | M20x42 | 170 | 15 | 22 | 71   | 600 | 550 | 660 | 24x8 | 6   |
| 315L | 2     | 540 | 315 | 2xM63 | 1320 | 65 | M20x42 | 140 | 15 | 18 | 58   | 600 | 550 | 660 | 24x8 | 6   |
| 315L | 4-8   | 540 | 315 | 2xM63 | 1350 | 80 | M20x42 | 170 | 16 | 22 | 71   | 600 | 550 | 660 | 24x8 | 6   |
| 355M | 2     | 655 | 355 | 2xM63 | 1500 | 75 | M29x42 | 140 | 15 | 20 | 67,5 | 740 | 680 | 800 | 24x8 | 6   |
| 355M | 4-8   | 655 | 355 | 2xM63 | 1530 | 95 | M20x42 | 170 | 15 | 25 | 86   | 740 | 680 | 800 | 24x8 | 6   |
| 355L | 2     | 655 | 355 | 2xM63 | 1500 | 75 | M20x42 | 140 | 15 | 20 | 67,5 | 740 | 680 | 800 | 24x8 | 6   |
| 355L | 4-8   | 655 | 355 | 2xM63 | 1530 | 95 | M20x42 | 170 | 15 | 25 | 86   | 740 | 680 | 800 | 24x8 | 6   |





| TYPE    | AMPERE               |                  |                               |                           |
|---------|----------------------|------------------|-------------------------------|---------------------------|
|         | 3x230 V<br>50 Hz (*) | 3x400 V<br>50 Hz | 230/400 V<br>50 Hz<br>λ/Δ (*) | 400/690 V<br>50 Hz<br>λ/Δ |
| DMT 410 | 15,4                 | 8,6              | -                             | -                         |
| DMT 560 | 17,6                 | 10,2             | -                             | -                         |

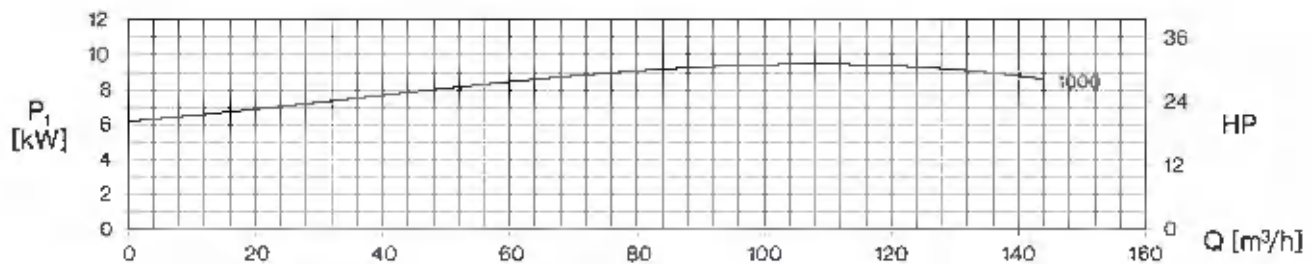
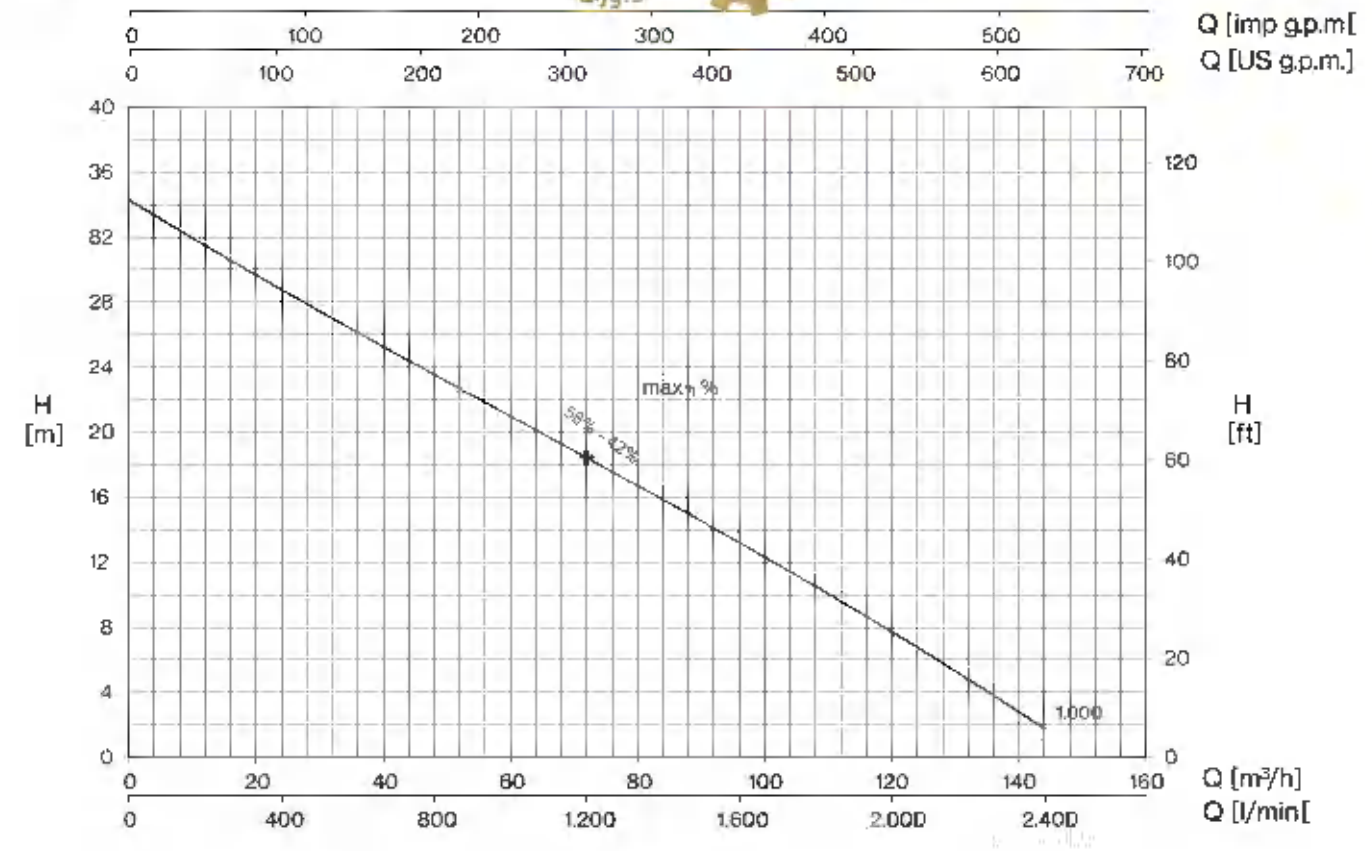
(\*) no standard execution

+ max η %

max hydraulic efficiency and respective total efficiency

| TYPE    | P2    |    | P1<br>(kW) | Q (m³/h - l/min) |      |      |      |      |      |      |      |      |      |  |
|---------|-------|----|------------|------------------|------|------|------|------|------|------|------|------|------|--|
|         |       |    |            | 0                | 6    | 18   | 30   | 42   | 54   | 60   | 66   | 72   | 78   |  |
|         | HP    | kW | 3-         | 0                | 100  | 300  | 500  | 700  | 900  | 1000 | 1100 | 1200 | 1300 |  |
| 3-      | H (m) |    |            |                  |      |      |      |      |      |      |      |      |      |  |
|         |       |    |            |                  |      |      |      |      |      |      |      |      |      |  |
| DMT 410 | 4     | 3  | 5,3        | 26               | 24,6 | 21,1 | 18,2 | 15,9 | 13,3 | 11,6 | 10,3 | 8,3  |      |  |
| DMT 560 | 5,5   | 4  | 6,0        | 29,1             | 27,5 | 24,1 | 21,1 | 18,6 | 16,1 | 14,7 | 13,1 | 11,4 | 8,9  |  |

## DM



| TYPE     | AMPERE               |                  |                                               |                                           |
|----------|----------------------|------------------|-----------------------------------------------|-------------------------------------------|
|          | 3x230 V<br>50 Hz (*) | 3x400 V<br>50 Hz | 230/400 V<br>50 Hz<br>$\Delta$ / $\Delta$ (*) | 400/690 V<br>50 Hz<br>$\Delta$ / $\Delta$ |
| DMT 1000 | -                    | 16,3             | 28,2                                          | 16,3                                      |

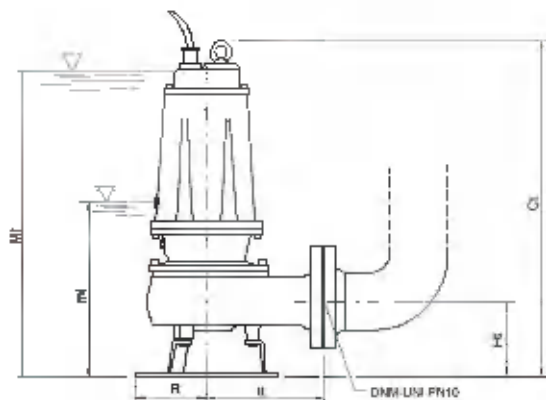
(\*) no standard execution

+ max  $\eta$  %

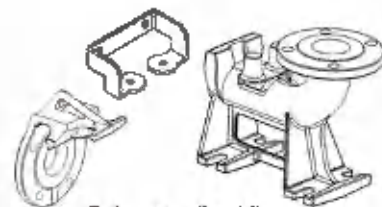
max hydraulic efficiency and respective total efficiency

| TYPE    | P2 |     | P1<br>(kW) | Q (m³/h - l/min) |      |      |      |       |      |      |      |      |      |      |      |      |
|---------|----|-----|------------|------------------|------|------|------|-------|------|------|------|------|------|------|------|------|
|         |    |     |            | 0                | 12   | 24   | 36   | 48    | 60   | 72   | 84   | 96   | 108  | 120  | 132  | 144  |
| 3~      |    |     |            | 0                | 200  | 400  | 600  | 800   | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 |
|         | HP | kW  | 3~         |                  |      |      |      | H (m) |      |      |      |      |      |      |      |      |
| DMT1000 | 10 | 7,5 | 9,6        | 34,8             | 30,9 | 28,3 | 26,1 | 23,7  | 21,3 | 18,7 | 16,1 | 13,2 | 10,2 | 7,4  | 4,5  | 2,1  |





### ACCESSORIES

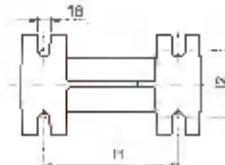
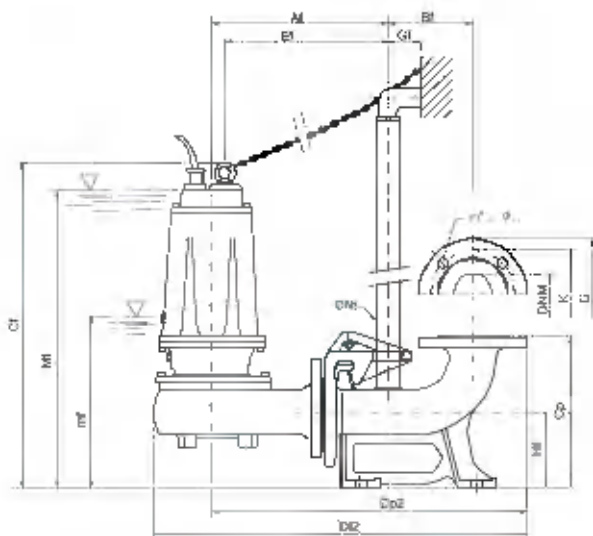


Quick coupling kit



Counterflange

| TYPE           | DIMENSIONS (mm) |     |     |     |     |     | Kg   |
|----------------|-----------------|-----|-----|-----|-----|-----|------|
|                | Ct              | Ht  | R   | lt  | mt  | Mt  |      |
| DMT 160        | 551             | 123 | 117 | 191 | 243 | 513 | 40   |
| DM 160-DMT 210 | 551             | 123 | 117 | 191 | 243 | 513 | 41,5 |
| DM 210-DMT 310 | 551             | 123 | 117 | 191 | 243 | 513 | 42,5 |
| DMT 410        | 645             | 148 | 160 | 210 | 285 | 690 | 66   |
| DMT 560        | 645             | 148 | 160 | 210 | 285 | 600 | 71,5 |
| DMT 1000       | 725             | 178 | 160 | 232 | 358 | 870 | 94   |



mt/mf: lowest working level

Mt/Mf: lowest level for continuous duty

| Flange UNI PN 10 (mm) |     |     |            |
|-----------------------|-----|-----|------------|
| DNM                   | K   | D   | n° Ø...    |
| 65                    | 145 | 185 | 4... 18... |
| 80                    | 160 | 200 | 8... 18... |

| TYPE                    | DIMENSIONS (mm) |     |     |     |     |     |     |        |     |    |     |     |     |     |     |     |     |     |
|-------------------------|-----------------|-----|-----|-----|-----|-----|-----|--------|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|
|                         | Af              | Bf  | Cf  | Cp  | Df1 | Df2 | Dp2 | DNt    | Ef  | Gf | Hf  | I1  | I2  | Is  | Ls  | mf  | Mf  | DNM |
| DMT 160 / P             | 303             | 145 | 560 | 260 | 200 | 639 | 542 | 1" 1/4 | 280 | 55 | 130 | 200 | 100 | 95  | 140 | 251 | 521 | 65  |
| DM 160 / P, DMT 210 / P | 303             | 145 | 560 | 260 | 200 | 639 | 542 | 1" 1/4 | 280 | 55 | 130 | 200 | 100 | 95  | 140 | 251 | 521 | 65  |
| DM 210 / P, DMT 310 / P | 303             | 145 | 560 | 260 | 200 | 639 | 542 | 1" 1/4 | 280 | 56 | 130 | 200 | 100 | 95  | 140 | 251 | 521 | 65  |
| DMT 410 / P             | 350             | 165 | 690 | 340 | 220 | 722 | 615 | 2"     | 319 | 85 | 190 | 250 | 140 | 130 | 180 | 327 | 642 | 80  |
| DMT 560 / P             | 350             | 165 | 690 | 340 | 220 | 722 | 615 | 2"     | 319 | 85 | 190 | 250 | 140 | 130 | 180 | 327 | 642 | 80  |
| DMT 1000 / P            | 370             | 185 | 745 | 340 | 240 | 750 | 638 | 2"     | 350 | 85 | 190 | 250 | 140 | 130 | 180 | 380 | 690 | 80  |
| DMT 1000/P              | 370             | 185 | 745 | 340 | 235 | 750 | 638 | 2"     | 338 | 85 | 190 | 250 | 140 | 130 | 180 | 330 | 690 | 80  |

| TYPE     | PROTECTION   |                     | 1 PUMP CONTROL PANEL |           |             | 2 PUMPS CONTROL PANEL |           |             |
|----------|--------------|---------------------|----------------------|-----------|-------------|-----------------------|-----------|-------------|
|          | 1 x 230 V    | 3 x 400 V           | 1 x 230 V            | 3 x 400 V | 400 / 690 V | 1 x 230 V             | 3 x 400 V | 400 / 690 V |
| DM 160   | PMC 15/35-15 | PT 20-30-40/4/3-6.8 | EQSM + 35µF          | EQSMT 10  |             | EQ2SM + 2x35µF        | EQ2SMT 10 |             |
| DM 210   | PMC 20/50-48 | PT 20-30-40/4/3-6.8 | EQSM + 50µF          | EQSMT 10  |             | EQ2SM + 2x50µF        | EQ2SMT 10 |             |
| DMT 310  |              | PT 40-59/5.7-9.1    |                      | EQSMT 10  |             |                       | EQ2SMT 10 |             |
| DMT 400  |              | PT 55-75/6.5-13.5   |                      | EQSMT 10  |             |                       | EQ2SMT 10 |             |
| DMT 550  |              | PT 55-75/8.6-13.5   |                      | EQSMT 10  |             |                       | EQ2SMT 10 |             |
| DMT 1000 |              | PT 125-150/16-21    |                      | EQSMT 10  | QST 10      |                       | EQ2SMT 10 | Q2ST 10     |

# DM4

## Drainage Single-channel



DMT 250-750-4



DMT 250-750-4/P

Single-channel centrifugal drainage pump: besides the high capacity it guarantees excellent head; ideal for civil and industrial applications; specifically designed for very heavy use; available in the mobile or permanent versions with coupling feet.



DMT 250-4  
DMT 300-4  
DMT 400-4



DMT 550-4  
DMT 750-4



Grey water



Black water

### Construction features

**Pump body** cast iron



**Impeller** cast iron

#### Mechanical seal

double seal with oil barrier: silicon carbide on pump side, ceramic-graphite on motor side

**Motor shaft** stainless steel AISI 304

**Passage of solids** 60 mm (DMT 250/4-400/4)  
90 mm (DMT 550/4-750/4)

**Depth of immersion** max 20 m

**Liquid temperature** 0 - 40 °C

**Cable** H05 RN8F, 10 m

**Bolts** A2 stainless steel

**Foot support** galvanized iron

**Gaskets** NBR rubber

### Motor

**2 Poles induction motor** 3- 230/400V-50Hz P ≤ 4kW  
3- 400/690V-50Hz P > 4kW

**Insulation class** F

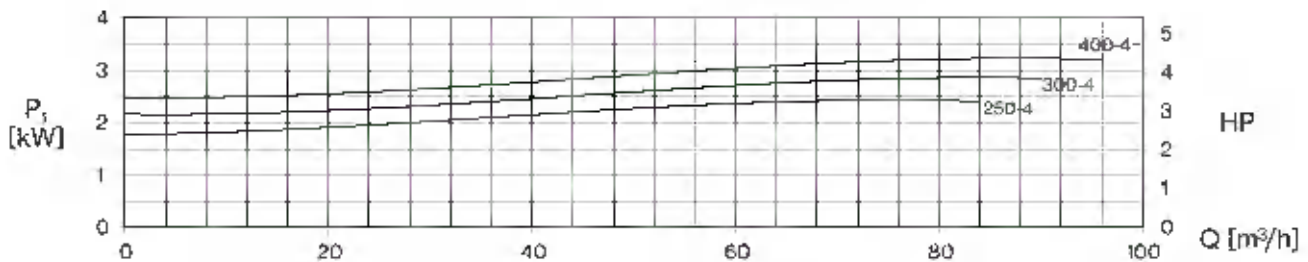
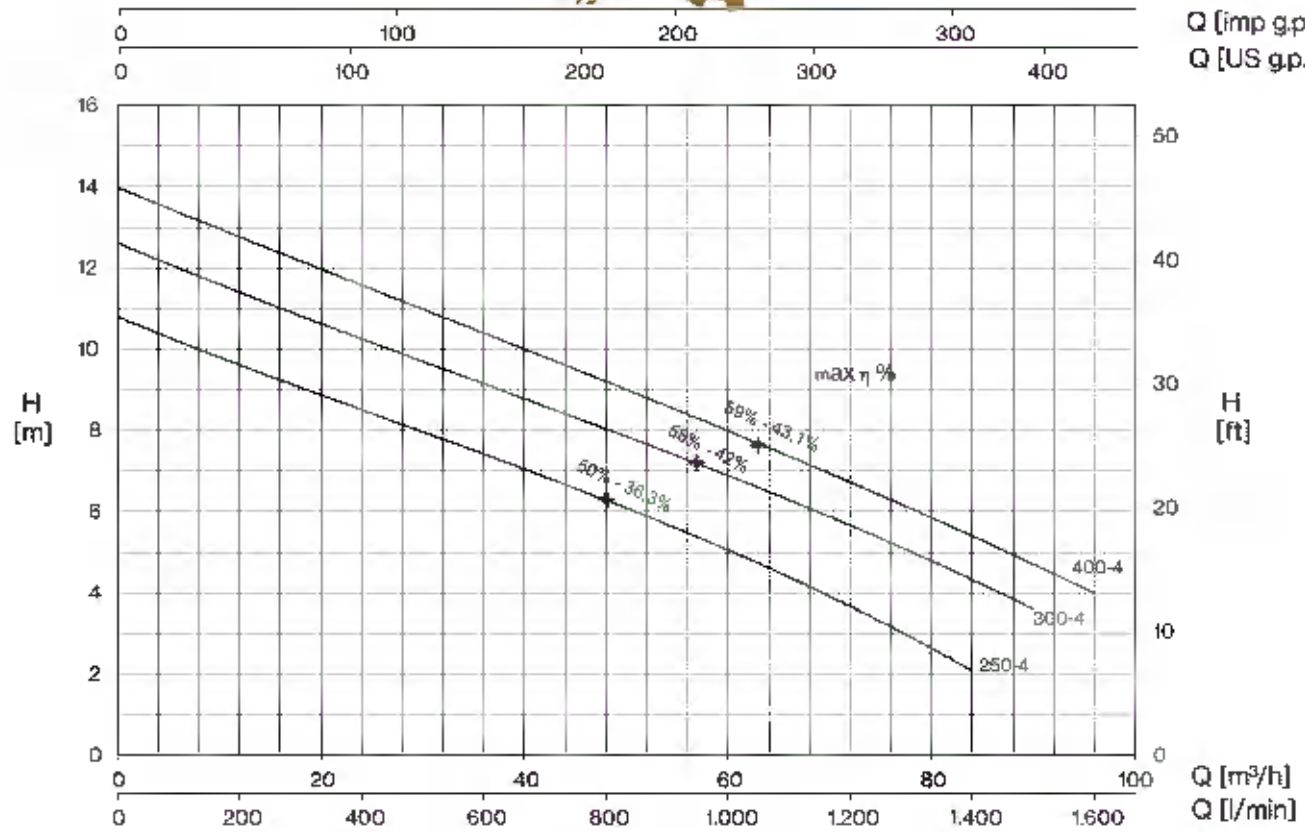
**Protection degree** IPX8

| TYPE            | LOTS        |          |             |          |
|-----------------|-------------|----------|-------------|----------|
|                 | TRUCK       |          | CONTAINER   |          |
|                 | PALLET (cm) | N° pumps | PALLET (cm) | N° pumps |
| DMT 250-4/750-4 | 85×110×190  | 12       | 100×120×190 | 12       |



Q [imp g.p.m]

Q [US g.p.m]



| TYPE      | AMPERE               |                  |                               |                           |
|-----------|----------------------|------------------|-------------------------------|---------------------------|
|           | 3x230 V<br>50 Hz (*) | 3x400 V<br>50 Hz | 230/400 V<br>50 Hz<br>λ/Δ (*) | 400/690 V<br>50 Hz<br>λ/Δ |
| DMT 250-4 | 7,8                  | 4,5              | -                             | -                         |
| DMT 300-4 | 9                    | 5,2              | -                             | -                         |
| DMT 400-4 | 11,2                 | 5,5              | -                             | -                         |

(\*) no standard execution

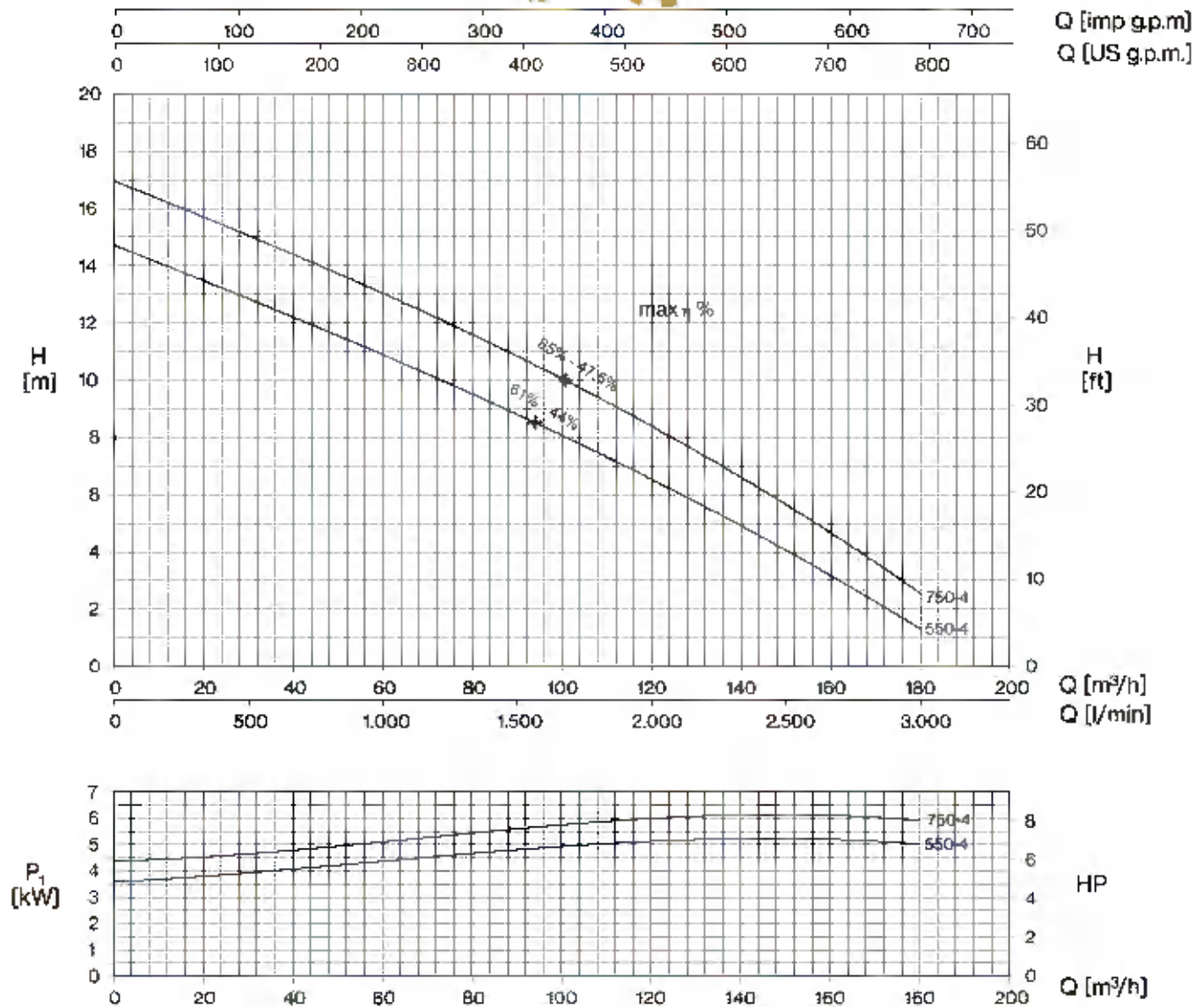
+ max η %

max hydraulic efficiency and respective  
total efficiency

| TYPE      | P2  |     | P1<br>(kW) | Q (m³/h - l/min) |      |      |      |      |      |      |      |      |     |
|-----------|-----|-----|------------|------------------|------|------|------|------|------|------|------|------|-----|
| 0         |     |     |            | 12               | 24   | 36   | 48   | 60   | 72   | 84   | 90   | 96   |     |
| 0         |     |     |            | 200              | 400  | 600  | 800  | 1000 | 1200 | 1400 | 1500 | 1600 |     |
| 3-        | HP  | kW  | 3-         | N (m)            |      |      |      |      |      |      |      |      |     |
| DMT 250-4 | 2,5 | 1,6 | 2,4        | 10,8             | 9,6  | 8,5  | 7,4  | 6,3  | 5,1  | 3,6  | 2,1  |      |     |
| DMT 300-4 | 3   | 2,2 | 2,9        | 12,6             | 11,4 | 10,3 | 9,1  | 8,0  | 6,9  | 5,7  | 4,3  | 3,6  |     |
| DMT 400-4 | 4   | 3   | 3,2        | 14,0             | 12,7 | 11,5 | 10,4 | 9,2  | 8,0  | 6,7  | 5,4  | 4,7  | 4,0 |



# DM4



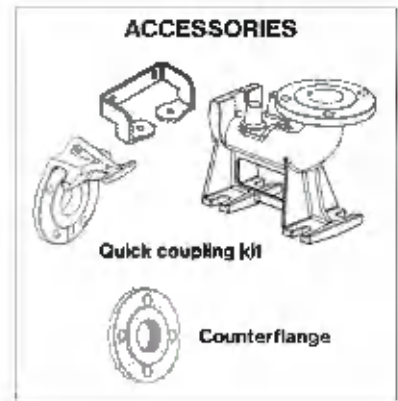
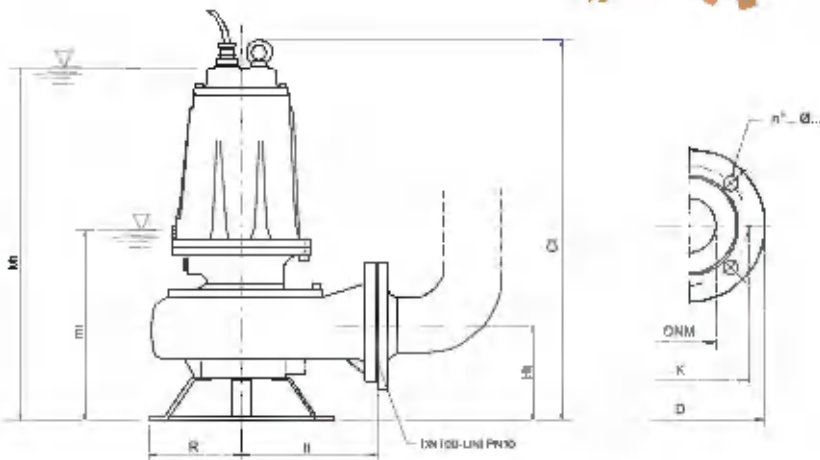
| TYPE      | AMPERE               |                  |                              |                           |
|-----------|----------------------|------------------|------------------------------|---------------------------|
|           | 3x230 V<br>50 Hz (*) | 3x400 V<br>50 Hz | 230/400 V<br>50 Hz<br>λ/Δ(*) | 400/690 V<br>50 Hz<br>λ/Δ |
| DMT 550-4 | -                    | 9,4              | 16,3                         | 9,4                       |
| DMT 750-4 | -                    | 11,8             | 20,4                         | 11,8                      |

(\*) no standard execution

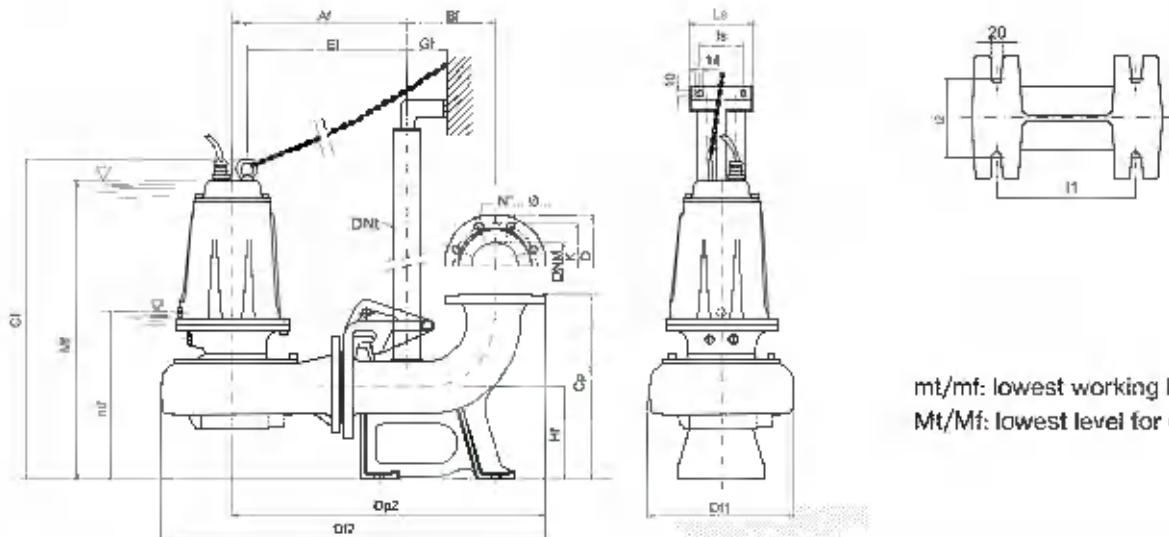
+ max η %

max hydraulic efficiency and respective total efficiency

| TYPE      | P2  |     | P1<br>(kW) | Q (m³/h - l/min) |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------|-----|-----|------------|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|           |     |     |            | 0                | 12   | 24   | 36   | 48   | 60   | 72   | 84   | 96   | 108  | 120  | 132  | 144  | 156  | 168  | 180  |
|           | HP  | kW  | 3~         | 0                | 200  | 400  | 600  | 800  | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 |
| 3~        |     |     |            | H (m)            |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|           |     |     |            | 14,7             | 14,0 | 13,2 | 12,5 | 11,7 | 10,9 | 10,1 | 9,2  | 8,3  | 7,5  | 6,5  | 5,6  | 4,6  | 3,6  | 2,4  | 1,3  |
| DMT 550-4 | 5,5 | 4   | 5,2        | 14,7             | 14,0 | 13,2 | 12,5 | 11,7 | 10,9 | 10,1 | 9,2  | 8,3  | 7,5  | 6,5  | 5,6  | 4,6  | 3,6  | 2,4  | 1,3  |
| DMT 750-4 | 7,5 | 5,5 | 6,1        | 17,0             | 16,2 | 15,4 | 14,7 | 13,8 | 13,0 | 12,2 | 11,4 | 10,4 | 9,4  | 8,4  | 7,3  | 6,2  | 5,1  | 3,8  | 2,6  |



| TYPE      | DIMENSIONS (mm) |     |     |     |     |     |     | Kg    |
|-----------|-----------------|-----|-----|-----|-----|-----|-----|-------|
|           | Ct              | Rt  | R   | lt  | mt  | Mt  | DNM |       |
| DMT 250-4 | 660             | 165 | 160 | 235 | 300 | 614 | 100 | 71,5  |
| DMT 300-4 | 600             | 105 | 160 | 235 | 300 | 614 | 100 | 74    |
| DMT 400-4 | 560             | 165 | 160 | 235 | 300 | 614 | 100 | 77,5  |
| DMT 550-4 | 715             | 195 | 180 | 276 | 385 | 695 | 100 | 104   |
| DMT 750-4 | 715             | 195 | 180 | 276 | 385 | 695 | 100 | 107,5 |



mt/mf: lowest working level  
Mt/Mf: lowest level for continuous duty

| TYPE        | DIMENSIONS (mm) |     |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |     |
|-------------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|
|             | Af              | Bf  | Cf  | Cp  | Df1 | Df2 | Dp2 | DNt | Ef  | Gf | Hf  | I1  | I2  | Is  | Ls  | mf  | Mf  | DNM |
| DMT 250-4/P | 378             | 190 | 695 | 400 | 317 | 835 | 678 | 2"  | 347 | 85 | 200 | 250 | 140 | 130 | 180 | 335 | 650 | 100 |
| DMT 300-4/P | 378             | 190 | 695 | 400 | 317 | 835 | 678 | 2"  | 347 | 85 | 200 | 250 | 140 | 130 | 180 | 335 | 650 | 100 |
| DMT 400-4/P | 378             | 190 | 695 | 400 | 317 | 835 | 678 | 2"  | 347 | 85 | 200 | 250 | 140 | 130 | 180 | 335 | 650 | 100 |
| DMT 550-4/P | 419             | 190 | 755 | 400 | 371 | 900 | 719 | 2"  | 384 | 85 | 200 | 250 | 140 | 130 | 180 | 390 | 700 | 100 |
| DMT 750-4/P | 419             | 190 | 755 | 400 | 371 | 900 | 719 | 2"  | 384 | 85 | 200 | 250 | 140 | 130 | 180 | 390 | 700 | 100 |

| Flange UNI PN 10 (mm) |     |     |                         |
|-----------------------|-----|-----|-------------------------|
| DNM                   | K   | D   | n <sup>°</sup> ... Ø... |
| 100                   | 180 | 220 | 8... 18...              |

| TYPE      | PROTECTION        | 1 PUMP CONTROL PANEL |             | 2 PUMPS CONTROL PANEL |             |
|-----------|-------------------|----------------------|-------------|-----------------------|-------------|
|           | 3 x 400 V         | 3 x 400 V            | 400 / 690 V | 3 x 400 V             | 400 / 690 V |
| DMT 250-4 | PT 40-50/5.7-9.1  | EQSMT 10             |             | EQ23MT 10             |             |
| DMT 300-4 | PT 40-50/5.7-9.1  | EQ8MT 10             |             | EQ2SMT 10             |             |
| DMT 400-4 | PT 40-50/5.7-9.1  | EQ8MT 10             |             | EQ2SMT 10             |             |
| DMT 550-4 | PT 55-75/8.6-13.5 | EQSMT 10             |             | EQ23MT 10             |             |
| DMT 750-4 | PT 100/12.5-16.5  | EQSMT 10             | QST 5       | EQ2SMT 10             | Q2ST 5      |



# DTR with grinder

Drainage  
Grinder



DTP 101



DTR 150-300



DTRT 400-1000



DTRT 400-1000/P

Drainage and waste water pumps equipped with open impeller and grinder system able to shred sewage with suspended solids and prevent the pump from clogging. Best for emptying of septic tanks and residential sumps as well as for rain water systems and for draining of flooded areas where seamless operation is required. The quick coupling feet DN50 and DN85 is available for flanged pumps.

DTR 101



Grey water

DTP



Black water

## Construction features

**Pump body** cast iron

**Shell, motor cover** stainless steel (DTR 101)

**Impeller** brass (DTR 101)  
cast iron

**Mechanical seal** double seal with oil barrier: silicon  
carbide on pump side (DTR, DTR 101)  
sealing ring on motor side (DTR 101)  
ceramic-graphite on motor side

**Motor shaft** stainless steel AISI 430 (DTR 101)  
stainless steel AISI 304

**Depth of immersion** max 5 m (DTR 101)  
max 20 m (DTR)

**Liquid temperature** 0 - 40 °C

**Cable** H05 RN8F, 10 m



**Grinder** treated stainless steel

**Bolts** A2 stainless steel

**Foot support** galvanized iron

**Gaskets** NBR rubber

## Motor

3~ 3x400V-50Hz (DTR 101)  
3~ 230/400V-50Hz P ≤ 4kW  
3~ 400/690V-50Hz P > 4kW

**2 Poles induction motor** 1~ 1x230V-50Hz  
DTR 101: thermal protection and run  
capacitor included  
Other models: run capacitor (35μF for  
1.5HP models, 50μF for 2HP model) +  
start capacitor (80μF with disjuntor)  
required

**Insulation class** F

**Protection degree** IPX8

| TYPE          | LOTS           |          |                |          |
|---------------|----------------|----------|----------------|----------|
|               | TRUCK          |          | CONTAINER      |          |
|               | PALLET<br>(cm) | N° pumps | PALLET<br>(cm) | N° pumps |
| DTRT 150-300  | 85×110×145     | 18       | 85×110×190     | 27       |
| DTRT 400-550  | 85×110×170     | 12       | 85×110×170     | 12       |
| DTRT 750-1000 | 100×120×190    | 12       | 100×120×190    | 12       |



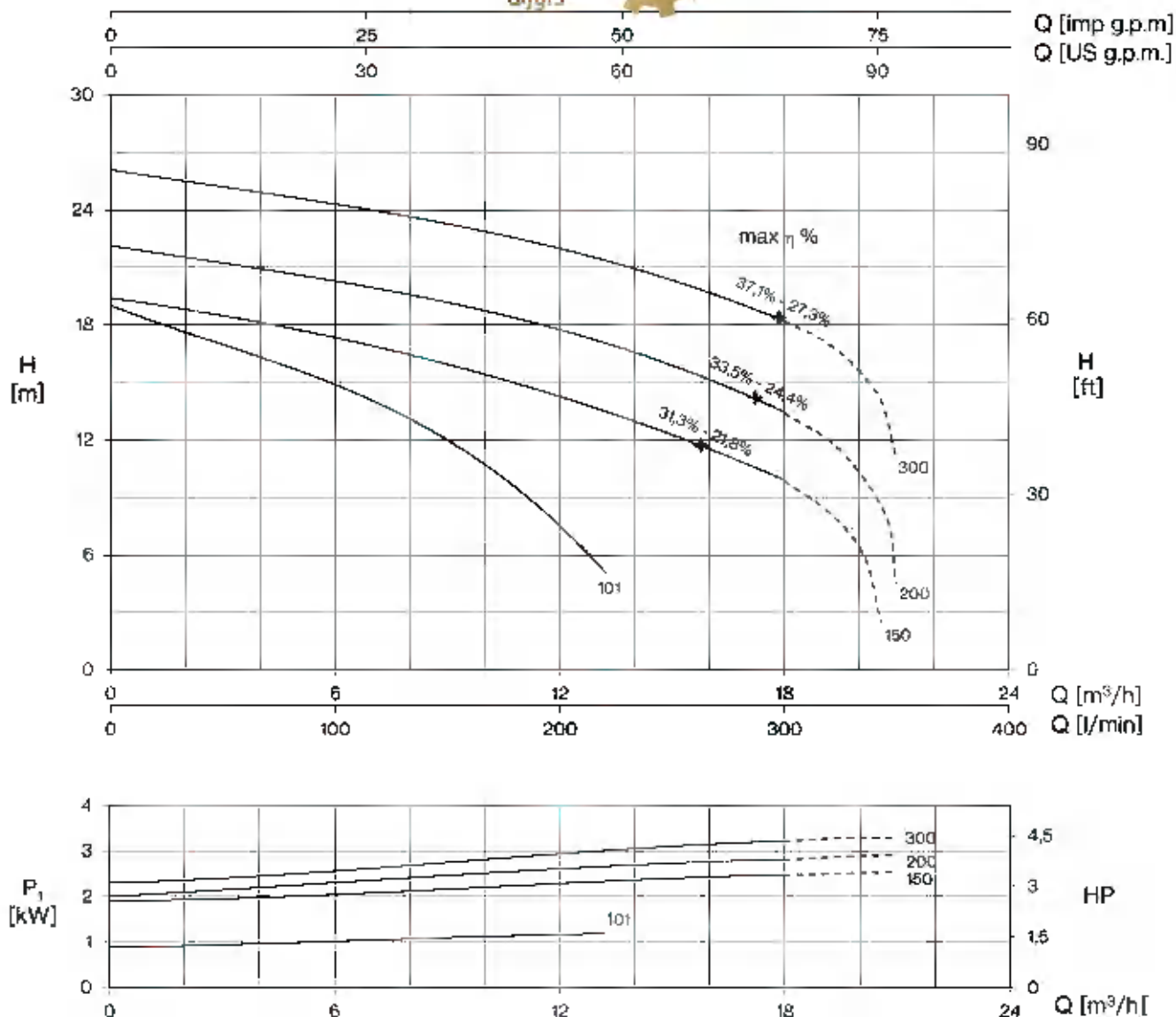
DTR 101



DTR



## DTR with grinder



| TYPE    |          | AMPERE         |                      |                  |                                           |                                       |
|---------|----------|----------------|----------------------|------------------|-------------------------------------------|---------------------------------------|
| 1-      | 3-       | 230 V<br>50 Hz | 3x230 V<br>50 Hz (*) | 3x400 V<br>50 Hz | 230/400 V<br>50 Hz<br>$\Delta/\Delta$ (*) | 400/690 V<br>50 Hz<br>$\Delta/\Delta$ |
| DTR 150 | DTRT 150 | 11,5           | 7,6                  | 4,4              | -                                         | -                                     |
| DTR 200 | DTRT 200 | 13,6           | 8,8                  | 5,1              | -                                         | -                                     |
| -       | DTRT 300 | -              | 10                   | 5,8              | -                                         | -                                     |

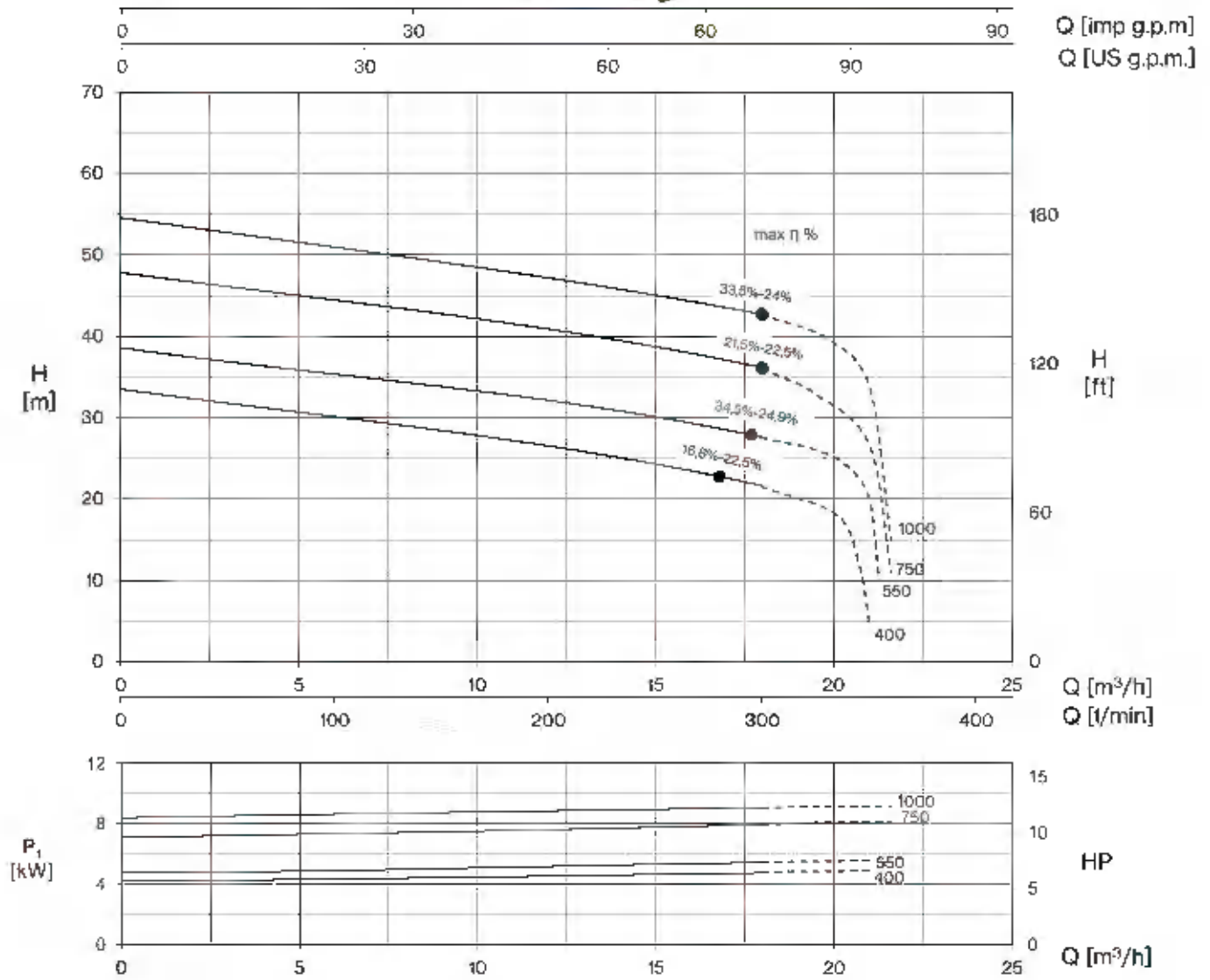
(\*) no standard execution

+ max  $\eta$  %

max hydraulic efficiency and respective total efficiency

| TYPE        |          | W    | P2  |     | P1 (kW) |     | AMPERE         |                | Q (m³/h - l/min) |      |      |      |      |      |      |      |
|-------------|----------|------|-----|-----|---------|-----|----------------|----------------|------------------|------|------|------|------|------|------|------|
| 1-          | 3-       |      |     |     |         |     | 1-             | 3-             | 0                | 3    | 6    | 9    | 12   | 13,2 | 15   | 18   |
|             |          |      |     |     |         |     | 1x230V<br>50Hz | 3x400V<br>50Hz | 0                | 50   | 100  | 150  | 200  | 220  | 250  | 300  |
|             |          |      |     |     |         |     |                |                | H (m)            |      |      |      |      |      |      |      |
|             |          |      |     |     |         |     |                |                | HP               | kW   | 1-   | 3-   |      |      |      |      |
| DTR 101 (G) | DTRT 101 | 1200 | -   | -   | -       | -   | 5,3            | 2,2            | 19,0             | 17,1 | 14,8 | 11,9 | 7,8  | 4,9  | -    | -    |
| DTRT 150    | DTRT 150 | -    | 1,5 | 1,1 | 2,6     | 2,5 | -              | -              | 19,4             | 18,5 | 17,3 | 16,0 | 14,2 | 13,5 | 12,3 | 9,9  |
| DTRT 200    | DTRT 200 | -    | 2   | 1,1 | 3       | 2,8 | -              | -              | 22,1             | 21,3 | 20,3 | 19,1 | 17,7 | 17,1 | 16   | 13,4 |
| -           | DTRT 300 | -    | 3   | 2,2 | -       | 3,2 | -              | -              | 26,1             | 25,2 | 24,3 | 23,3 | 22   | 21,4 | 20,3 | 18,2 |

## DTR with grinder



| TYPE     | AMPERE               |                  |                               |                           |
|----------|----------------------|------------------|-------------------------------|---------------------------|
|          | 3x230 V<br>50 Hz (*) | 3x400 V<br>50 Hz | 230/400 V<br>50 Hz<br>λ/Δ (*) | 400/690 V<br>50 Hz<br>λ/Δ |
| DTR 400  | 13,0                 | 7,5              | -                             | -                         |
| DTR 550  | 15,9                 | 9,2              | -                             | -                         |
| DTR 750  | -                    | 13,9             | 24                            | 13,9                      |
| DTR 1000 | -                    | 15,5             | 26,8                          | 15,5                      |

(\*) no standard execution

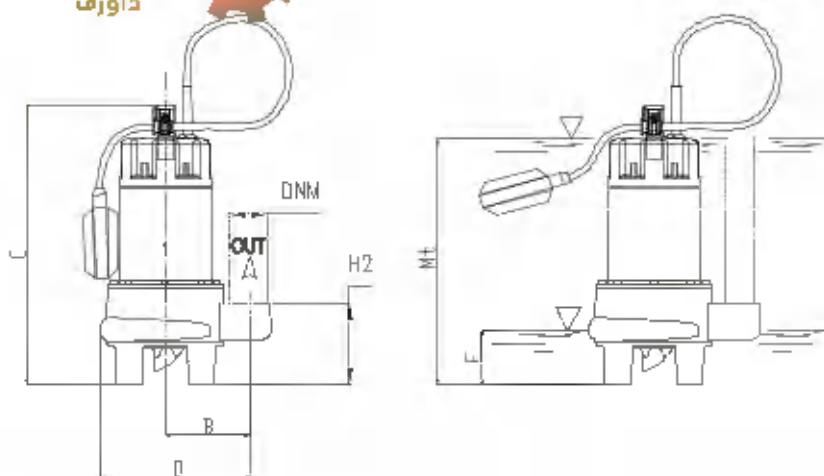
+ max η %

max hydraulic efficiency and respective total efficiency

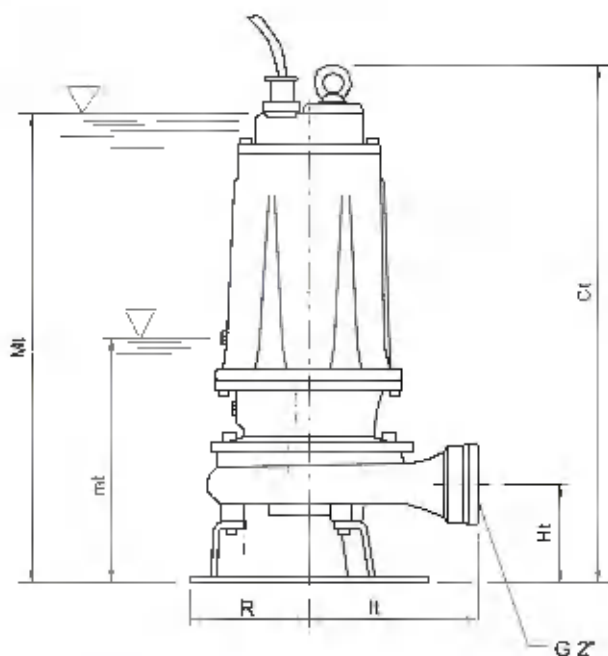
| TYPE     | P2    |     | P1<br>(kW) | Q (m³/h - l/min) |      |      |      |      |      |      |      |      |  |
|----------|-------|-----|------------|------------------|------|------|------|------|------|------|------|------|--|
|          |       |     |            | 0                | 3    | 6    | 9    | 12   | 15   | 18   | 21   | 21,6 |  |
|          | HP    | kW  | 3~         | 0                | 50   | 100  | 150  | 200  | 250  | 300  | 350  | 360  |  |
| 3~       | H (m) |     |            |                  |      |      |      |      |      |      |      |      |  |
|          |       |     |            |                  |      |      |      |      |      |      |      |      |  |
| DTR 400  | 4     | 3   | 4,5        | 33,5             | 31,8 | 30,1 | 28,5 | 26,4 | 24,4 | 21,6 |      |      |  |
| DTR 550  | 5,5   | 4   | 5,3        | 38,6             | 36,9 | 35,3 | 33,9 | 32,1 | 30,1 | 27,6 |      |      |  |
| DTR 750  | 7,5   | 5,5 | 8,0        | 47,8             | 46,2 | 44,5 | 42,7 | 40,8 | 38,9 | 36,1 | 26,7 | 11,0 |  |
| DTR 1000 | 10    | 7,5 | 9,1        | 54,6             | 52,7 | 51,0 | 49,2 | 47,1 | 45,1 | 42,7 | 34,0 | 15,0 |  |

## DTR with grinder

E: maximum emptying level  
Mt: lowest level for continuous duty



| TYPE    | DIMENSIONS (mm) |     |       |    |       |     |          |  |     |     |  kg |
|---------|-----------------|-----|-------|----|-------|-----|----------|-------------------------------------------------------------------------------------|-----|-----|----------------------------------------------------------------------------------------|
|         | B               | C   | D     | E  | H2    | ME  | DNM      | I                                                                                   | L   | M   |                                                                                        |
| DTR 101 | 105             | 359 | 218,5 | 70 | 104,5 | 313 | 1" 1/2 G | 260                                                                                 | 185 | 450 | 16,5                                                                                   |



mt/mf: lowest working level  
Mt/Mf: lowest level for continuous duty

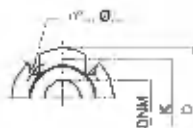
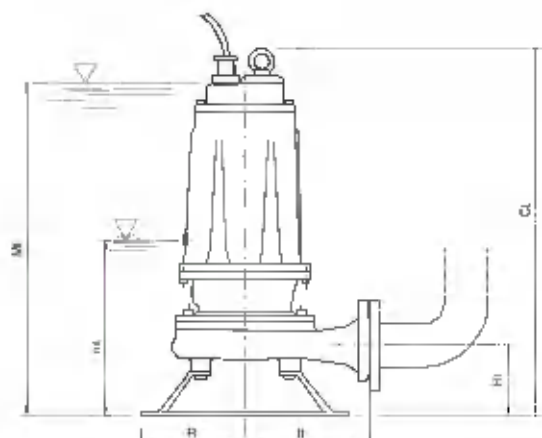
| TYPE             | DIMENSIONS (mm) |     |     |     |     |     |     | Kg   |
|------------------|-----------------|-----|-----|-----|-----|-----|-----|------|
|                  | Ct              | Ht  | R   | It  | mt  | Mt  | DNM |      |
| DTR 150-DTRT 150 | 513             | 102 | 117 | 174 | 205 | 475 | 2"G | 38   |
| DTR 200-DTRT 200 | 513             | 102 | 117 | 174 | 205 | 475 | 2"G | 38,5 |
| DTRT 300         | 513             | 102 | 117 | 174 | 205 | 475 | 2"G | 38   |

| TYPE      | PROTECTION    |                     | 1 PUMP<br>CONTROL PANEL |           |             | 2 PUMPS<br>CONTROL PANEL |           |             |
|-----------|---------------|---------------------|-------------------------|-----------|-------------|--------------------------|-----------|-------------|
|           | 1 x 230 V     | 3 x 400 V           | 1 x 230 V               | 3 x 400 V | 400 / 690 V | 1 x 230 V                | 3 x 400 V | 400 / 690 V |
| DTR 150   | PMLD 15/35-13 | PT 20-30-40/4.3-6.8 | EQSM + 35µF + 80µF*     | EQSMT 10  |             | EQ2SM + 2x35µF + 2x30µF* | EQ2SMT 10 |             |
| DTR 200   | PMLD 20/50-15 | PT 20-30-40/4.3-6.8 | EQSM + 50µF + 80µF*     | EQSMT 10  |             | EQ2SM + 2x50µF + 2x60µF* | EQ2SMT 10 |             |
| DTRT 300  |               | PT 20-30-40/4.3-6.8 |                         | EQSMT 10  |             |                          | EQ2SMT 10 |             |
| DTRT 400  |               | PT 40-50/5.7-9.1    |                         | EQSMT 10  |             |                          | EQ2SMT 10 |             |
| DTRT 550  |               | PT 55-75/8.6-13.5   |                         | EQSMT 10  |             |                          | EQ2SMT 10 |             |
| DTRT 750  |               | PT 100/12.5-18.5    |                         | EQSMT 10  | QST 7       |                          | EQ2SMT 10 | Q2ST 7      |
| DTRT 1000 |               | PT 125-150/16-21    |                         | EQSMT 10  | QST 10      |                          | EQ2SMT 10 | Q2ST 10     |

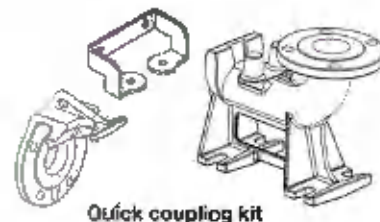
\*start capacitor with disjuntor



## DTR with grinder



### ACCESSORIES

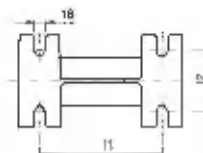
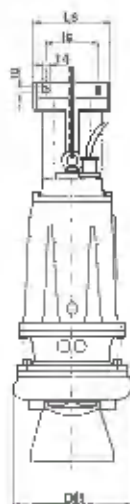
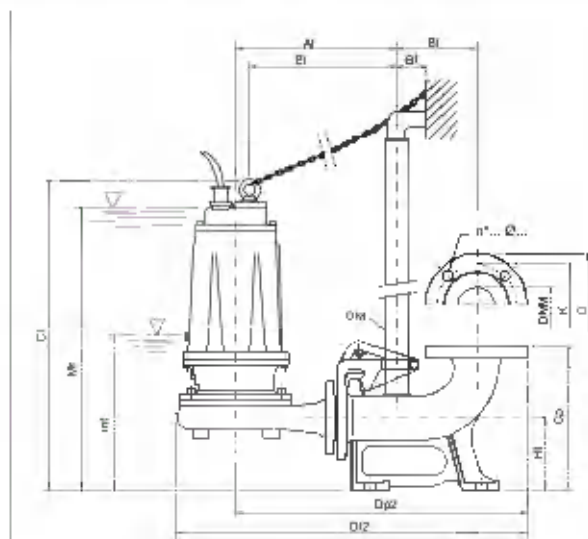


Quick coupling kit



Counterflange

| TYPE      | DIMENSIONS (mm) |     |     |     |     |     |     | Kg   |
|-----------|-----------------|-----|-----|-----|-----|-----|-----|------|
|           | C1              | Ht  | R   | it  | mt  | Mt  | DNM |      |
| DTRT 400  | 595             | 112 | 160 | 190 | 265 | 550 | 50  | 62,5 |
| DTRT 550  | 595             | 112 | 160 | 190 | 265 | 550 | 50  | 65,5 |
| DTRT 750  | 630             | 160 | 180 | 250 | 280 | 630 | 65  | 91,5 |
| DTRT 1000 | 680             | 160 | 180 | 250 | 280 | 680 | 65  | 94,5 |



mt/mf: lowest working level  
Mt/Mf: lowest level for continuous duty

| TYPE        | DIMENSIONS (mm) |     |     |     |     |     |     |        |     |    |     |     |     |    |     |     |     |     |
|-------------|-----------------|-----|-----|-----|-----|-----|-----|--------|-----|----|-----|-----|-----|----|-----|-----|-----|-----|
|             | Af              | Bf  | Cf  | Cp  | Df1 | Df2 | Op2 | DNt    | Et  | Gf | Hf  | I1  | I2  | Is | Ls  | mf  | Mf  | DNM |
| DTRT 400/P  | 300             | 145 | 614 | 260 | 237 | 654 | 538 | 1" 1/4 | 269 | 55 | 130 | 200 | 100 | 95 | 140 | 290 | 566 | 50  |
| DTRT 550/P  | 300             | 145 | 614 | 260 | 237 | 654 | 538 | 1" 1/4 | 269 | 55 | 130 | 200 | 100 | 95 | 140 | 290 | 566 | 50  |
| DTRT 750/P  | 331             | 145 | 656 | 260 | 279 | 710 | 569 | 1" 1/4 | 297 | 55 | 130 | 200 | 100 | 95 | 140 | 290 | 800 | 65  |
| DTRT 1000/R | 331             | 145 | 656 | 269 | 279 | 710 | 569 | 1" 1/4 | 297 | 55 | 130 | 250 | 100 | 95 | 140 | 290 | 800 | 65  |

### Flango UNI PN 10 (mm)

| DNM | K   | D   | n°... O... |
|-----|-----|-----|------------|
| 50  | 125 | 165 | 4... 18... |
| 65  | 145 | 165 | 4... 18... |





Drainage pump with set-back Vortex type impeller for pumping charged waters and liquids with suspended solids; ideal for civil and household applications.



### Construction features

**Pump body** cast iron with openings 1" ½ and 2"

**Shell, motor cover, base support** stainless steel



**Impeller** stainless steel set-back Vortex

**Mechanical seal** double seal with oil barrier: silicon carbide on pump side, sealing ring on motor side

**Motor shaft** stainless steel AISI 430

**Passage of solids** Ø max 35 mm (80-100)  
Ø max 50 mm (82-102)

**Depth of immersion** max 5 m

**Liquid temperature** 0 - 40 °C

**Cable** H05 RN8F, 10 m

**G** float switch

### Motor

3- 3x400V-50Hz

**2 Poles induction motor** 1- 1x230V-50Hz  
(with thermal protection)

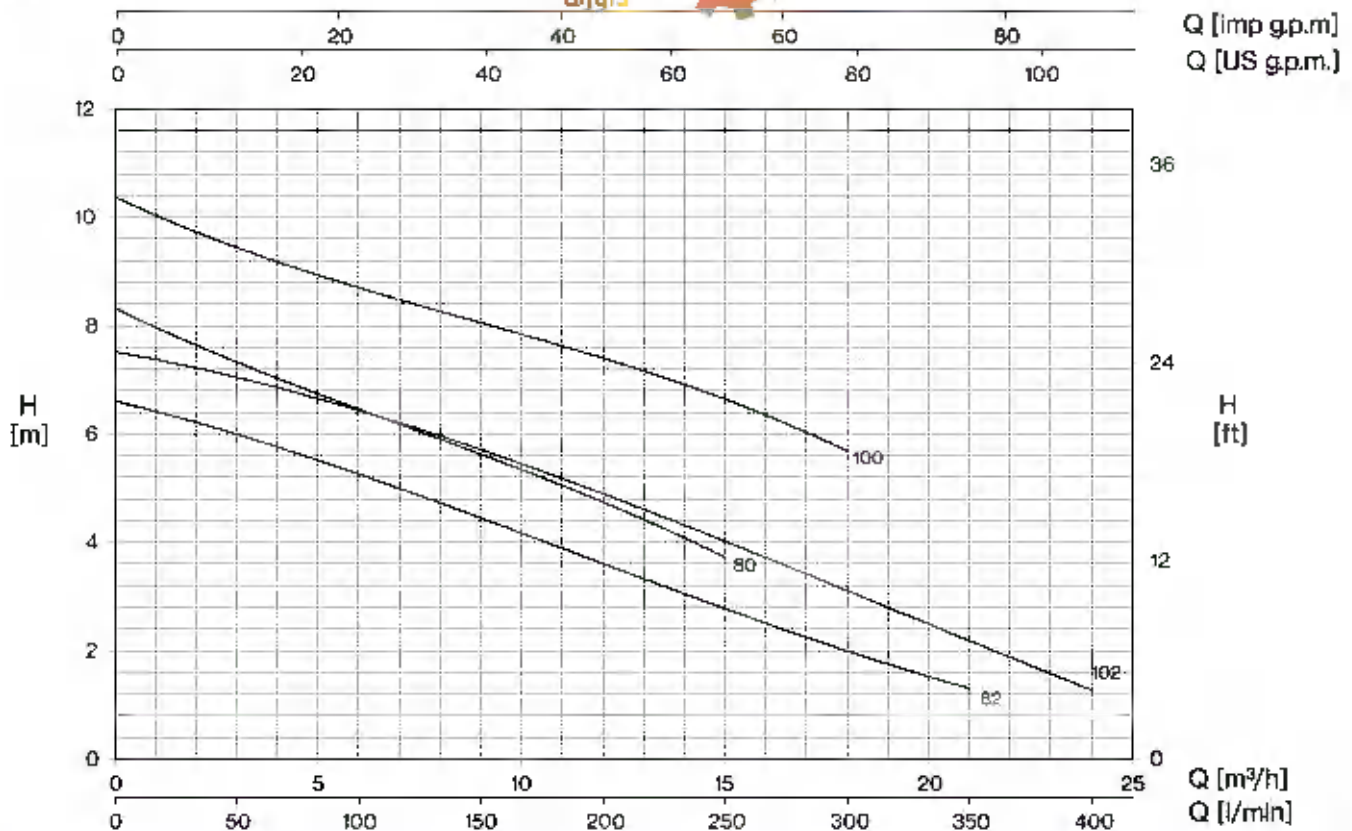
**Insulation class** F

**Protection degree** IPX8

| TYPE | LDTS        |          |             |          |
|------|-------------|----------|-------------|----------|
|      | TRUCK       |          | CONTAINER   |          |
|      | PALLET (cm) | N° pumps | PALLET (cm) | N° pumps |
| DG   | 80×120×145  | 48       | 80×120×190  | 75       |

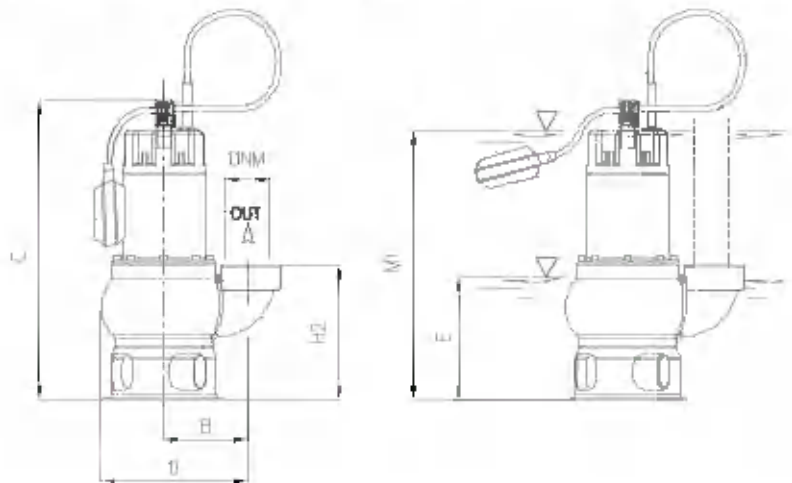


# DG



| TYPE         |           | W    | AMPERE           |                  | Q (m³/h - l/min) |     |     |     |     |     |     |     |     |
|--------------|-----------|------|------------------|------------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| 1-           | 3-        |      | 1-               | 3-               | 0                | 3   | 6   | 9   | 12  | 15  | 18  | 21  | 24  |
|              |           |      |                  |                  | 0                | 50  | 100 | 150 | 200 | 250 | 300 | 350 | 400 |
|              |           |      | 1x230 V<br>50 Hz | 3x400 V<br>50 Hz | H (m)            |     |     |     |     |     |     |     |     |
| DG 80 (G)    | DGT 80    | 1050 | 4,7              | 2,2              | 8,3              | 7,4 | 6,4 | 5,6 | 4,8 | 3,7 |     |     |     |
| DG 80/2 (G)  | DGT 80/2  | 1050 | 4,7              | 2,2              | 8,3              | 7,4 | 6,4 | 5,6 | 4,8 | 3,7 |     |     |     |
| DG 100 (G)   | DGT 100   | 1350 | 6,2              | 2,8              | 10,4             | 9,4 | 8,7 | 8,1 | 7,4 | 6,6 | 5,7 |     |     |
| DG 100/2 (G) | DGT 100/2 | 1350 | 6,2              | 2,8              | 10,4             | 9,4 | 8,7 | 8,1 | 7,4 | 6,6 | 5,7 |     |     |
| DG 82 (G)    | DGT 82    | 1000 | 4,5              | 2,1              | 6,6              | 6,0 | 5,3 | 4,4 | 3,6 | 2,8 | 2,0 | 1,3 |     |
| DG 102 (G)   | DGT 102   | 1200 | 5,3              | 2,4              | 7,5              | 7,1 | 6,4 | 5,7 | 4,9 | 4,0 | 3,2 | 2,1 | 1,8 |

E: maximum emptying level  
Mt: lowest level for continuous duty



| TYPE         | DIMENSIONS (mm) |     |     |     |     |     |          | Kg  |     |     |
|--------------|-----------------|-----|-----|-----|-----|-----|----------|-----|-----|-----|
|              | B               | C   | O   | E   | H2  | Mt  | DNM      | 1   | L   | M   |
| DG 80 (G)    | 110             | 410 | 230 | 140 | 174 | 290 | 1 1/2" G | 250 | 183 | 448 |
| DG 80/2 (G)  | 110             | 410 | 230 | 140 | 174 | 290 | 2" G     | 250 | 183 | 448 |
| DG 100 (G)   | 110             | 410 | 230 | 140 | 174 | 290 | 1 1/2" G | 250 | 183 | 448 |
| DG 100/2 (G) | 110             | 410 | 230 | 140 | 174 | 290 | 2" G     | 250 | 183 | 448 |
| DG 82 (G)    | 120             | 426 | 250 | 150 | 190 | 300 | 2" G     | 264 | 203 | 482 |
| DG 102 (G)   | 120             | 426 | 250 | 150 | 190 | 300 | 2" G     | 264 | 203 | 482 |



Drainage pump with set-back Vortex type impeller for pumping charged waters and liquids with suspended solids; ideal for civil and household applications.



### Construction features

**Pump body** stainless steel with openings 1" ½ and 2"

**Shell, motor cover, base support** stainless steel



**Impeller** stainless steel set-back Vortex

**Mechanical seal** double seal with oil barrier: silicon carbide on pump side, sealing ring on motor side

**Motor shaft** stainless steel AISI 430

**Passage of solids** Ø max 28 mm

**Depth of immersion** max 5 m

**Liquid temperature** 0 - 40 °C

**Cable** H05 RN8F, 10 m

**G** float switch

### Motor

3- 3x400V-50Hz

**2 Poles induction motor** 1- 1x230V-50Hz  
(with thermal protection)

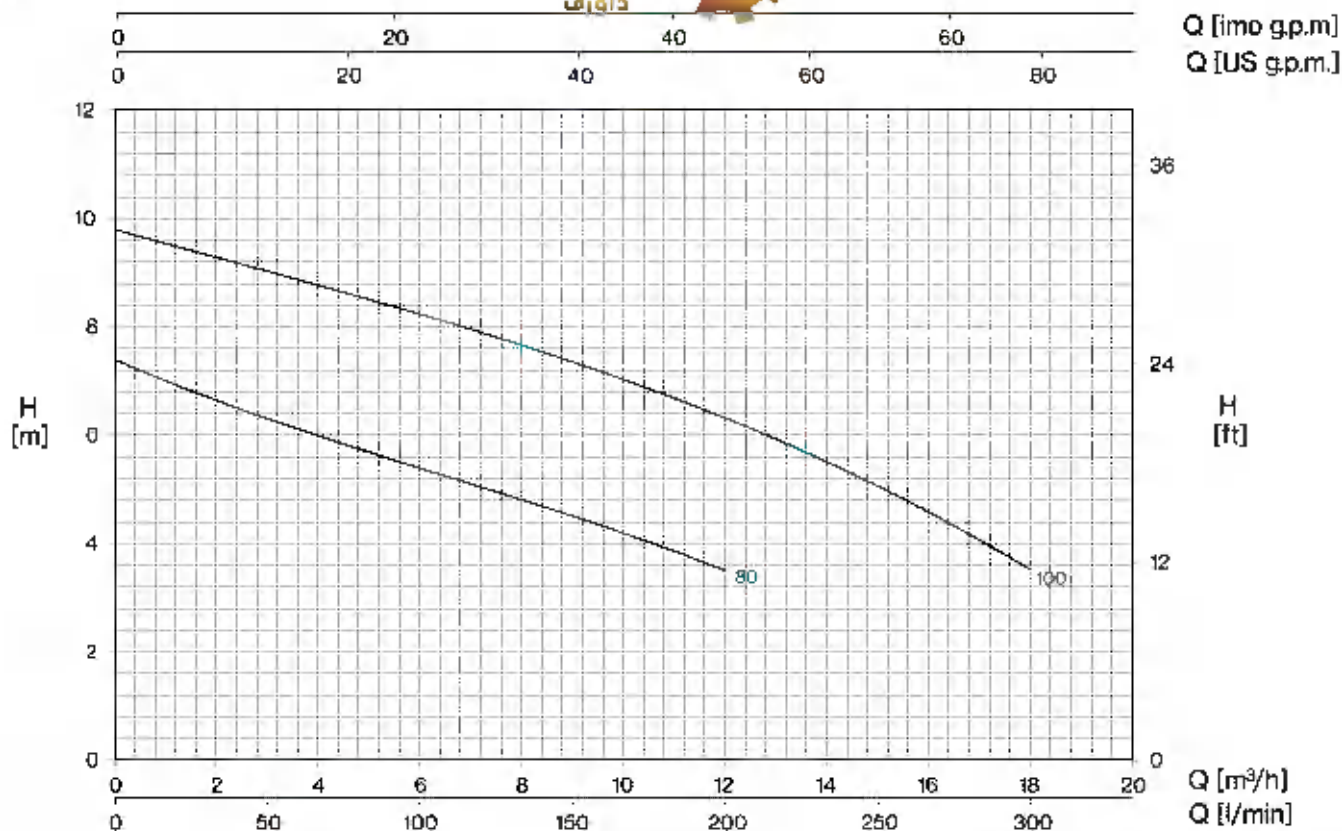
**Insulation class** F

**Protection degree** IPX8

| TYPE | LOTS           |          |                |          |
|------|----------------|----------|----------------|----------|
|      | TRUCK          |          | CONTAINER      |          |
|      | PALLET<br>(cm) | N° pumps | PALLET<br>(cm) | N° pumps |
| DX   | 80×120×145     | 48       | 80×120×190     | 76       |

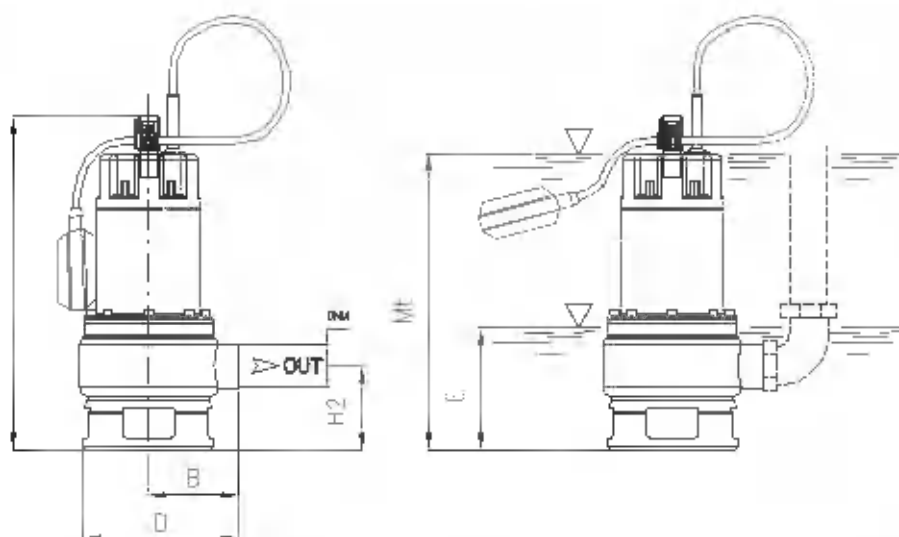


**DX**



| TYPE         |           | W    | AMPERE           |                  | Q (m³/h - l/min) |     |     |     |     |     |     |
|--------------|-----------|------|------------------|------------------|------------------|-----|-----|-----|-----|-----|-----|
| 1-           | 3-        |      | 1-               | 3-               | 0                | 3   | 6   | 9   | 12  | 15  | 18  |
|              |           |      |                  |                  | 0                | 50  | 100 | 150 | 200 | 250 | 300 |
|              |           |      | 1x230 V<br>50 Hz | 3x400 V<br>50 Hz | H (m)            |     |     |     |     |     |     |
| DX 80 (G)    | DXT 80    | 1050 | 4,7              | 2,2              | 7,4              | 6,3 | 5,4 | 4,5 | 3,5 |     |     |
| DX 80/2 (G)  | DXT 80/2  | 1050 | 4,7              | 2,2              | 7,4              | 6,3 | 5,4 | 4,5 | 3,5 |     |     |
| DX 100 (G)   | DXT 100   | 1350 | 6,2              | 2,8              | 9,8              | 9,0 | 8,3 | 7,3 | 6,3 | 5,1 | 3,5 |
| DX 100/2 (G) | DXT 100/2 | 1350 | 6,2              | 2,8              | 9,8              | 9,0 | 8,3 | 7,3 | 6,3 | 5,1 | 3,5 |

E: maximum emptying level  
Mt: lowest level for continuous duty



| TYPE         | DIMENSIONS (mm) |     |     |     |     |     |        | Kg  |     |     |
|--------------|-----------------|-----|-----|-----|-----|-----|--------|-----|-----|-----|
|              | B               | C   | D   | E   | H2  | Mt  | DNM    | !   | L   | M   |
| DX 80 (G)    | 104             | 400 | 183 | 125 | 112 | 260 | 1" ½ G | 250 | 183 | 448 |
| DX 80/2 (G)  | 114             | 400 | 183 | 125 | 112 | 230 | 2" G   | 250 | 183 | 448 |
| DX 100 (G)   | 104             | 400 | 183 | 125 | 112 | 260 | 1" ½ G | 250 | 183 | 448 |
| DX 100/2 (G) | 114             | 400 | 183 | 125 | 112 | 280 | 2" G   | 250 | 183 | 448 |





### Construction features

**Pump body** cast iron



**Impeller** cast iron

#### Mechanical seal

double seal with oil barrier:  
silicon carbide on pump side,  
ceramic-graphite on motor  
side

**Motor shaft** stainless steel AISI 304

**Passage of solids** 50 mm (DV 160-310; 750-1000)  
45 mm (DV 400-550)

**Depth of immersion** max 20 m

**Liquid temperature** 0 - 40 °C

**Cable** H05 RN8F, 10 m

**Bolts** A2 stainless steel

**Foot support** galvanized iron

**Gaskets** NBR rubber

### Motor

3- 230/400V-50Hz P ≤ 4kW  
3- 400/690V-50Hz P > 4kW

**2 Poles Induction motor** 1- 230V-50Hz  
required run capacitor (35µF  
for 1,5HP model, 50µF for  
2HP model)

**Insulation class** F

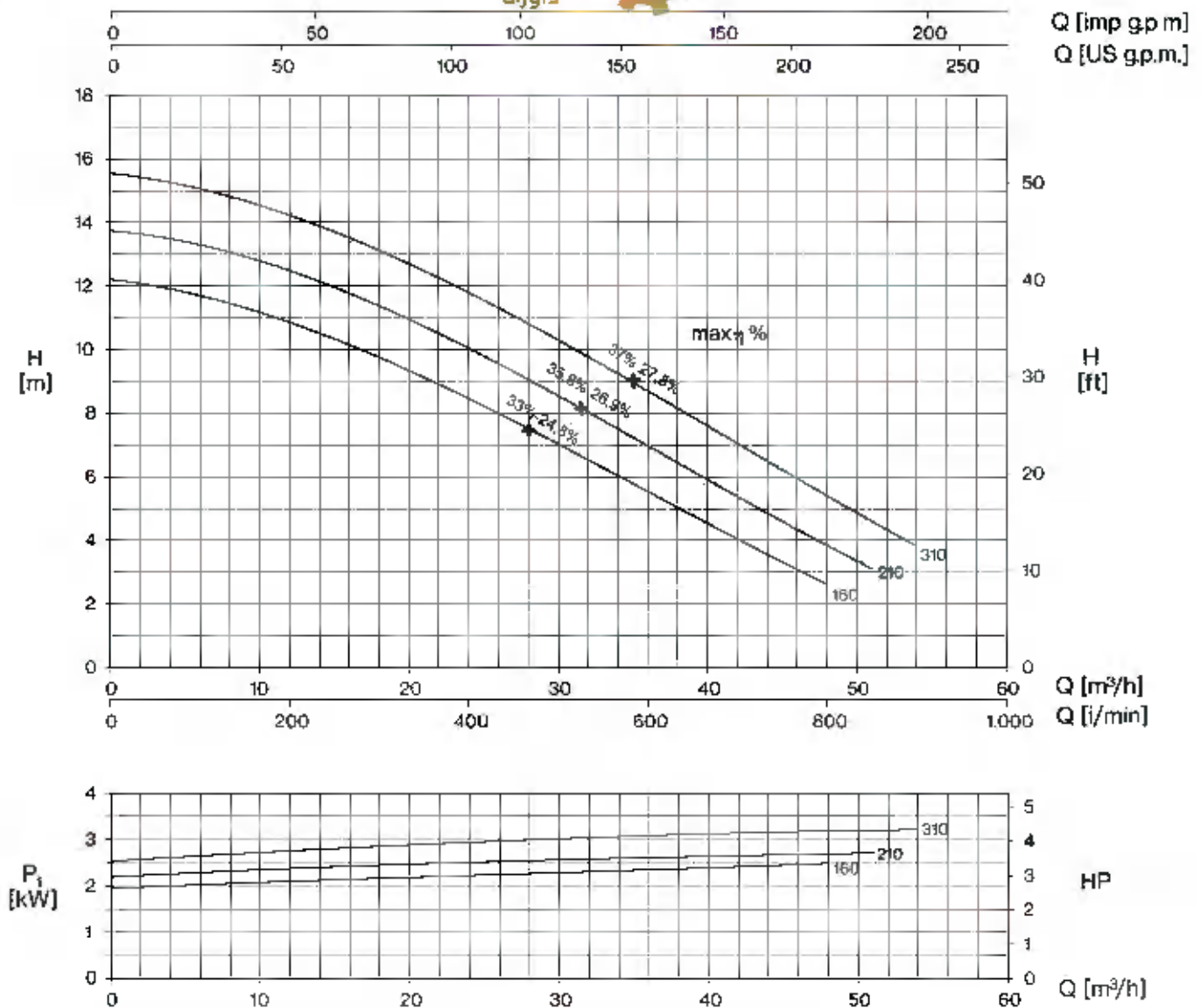
**Protection degree** IPX8

| TYPE         | LOTS           |          |                |          |
|--------------|----------------|----------|----------------|----------|
|              | TRUCK          |          | CONTAINER      |          |
|              | PALLET<br>(cm) | N° pumps | PALLET<br>(cm) | N° pumps |
| DV 160-310   | 85×110×145     | 18       | 85×110×190     | 27       |
| DVT 400-350  | 85×110×170     | 12       | 85×110×170     | 12       |
| DVT 750-1000 | 100×120×190    | 12       | 100×120×190    | 12       |





DV



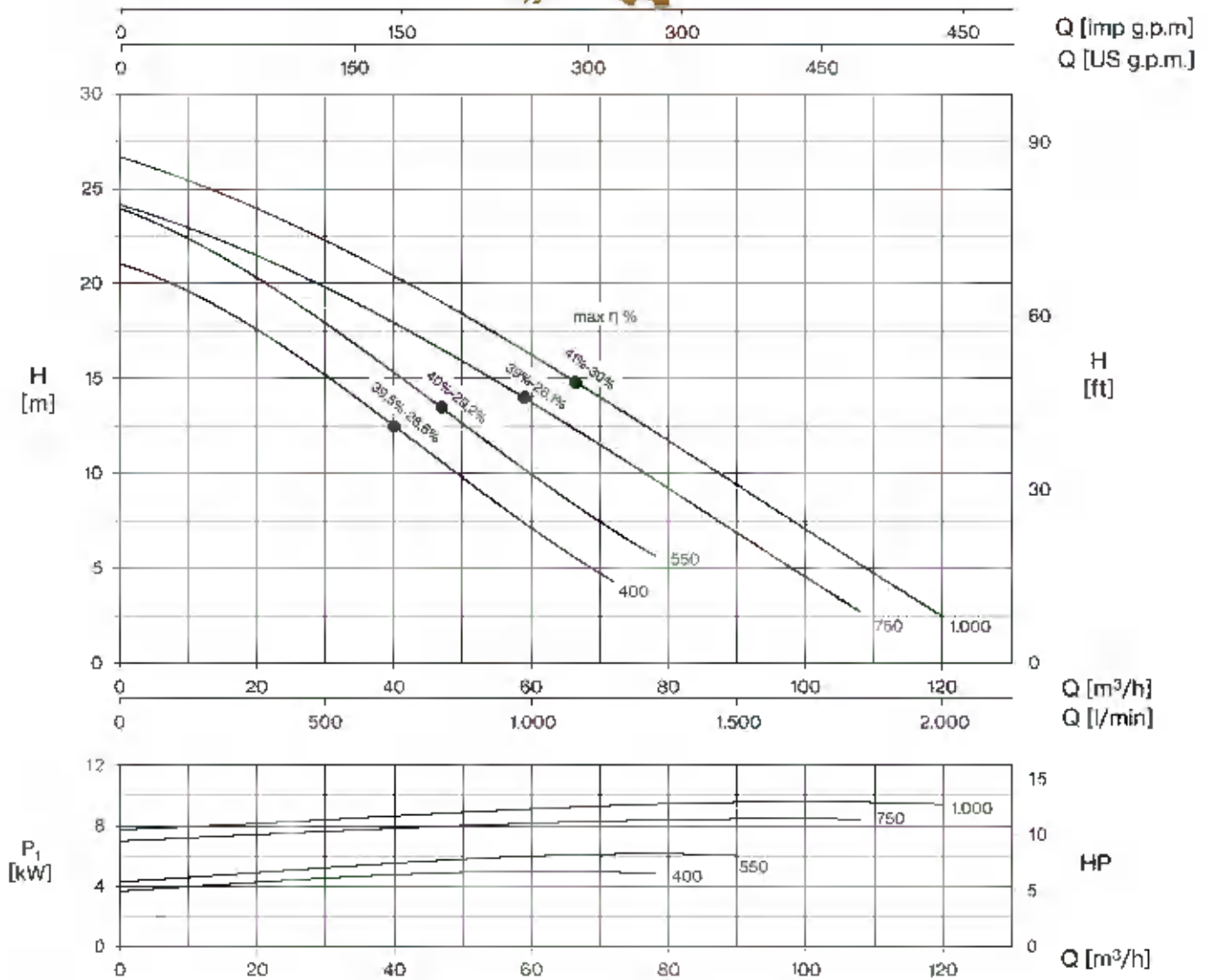
| TYPE   |         | AMPERE         |                      |                  |                               |                           |
|--------|---------|----------------|----------------------|------------------|-------------------------------|---------------------------|
| 1~     | 3~      | 230 V<br>50 Hz | 3x230 V<br>50 Hz (*) | 3x400 V<br>50 Hz | 230/400 V<br>50 Hz<br>λ/Δ (*) | 400/690 V<br>50 Hz<br>λ/Δ |
| DV 160 | DVT 100 | 11,3           | 7,1                  | 4,1              | -                             | -                         |
| DV 210 | DVT 210 | 12,6           | 8,7                  | 5                | -                             | -                         |
| -      | DVT 310 | -              | 9,9                  | 5,7              | -                             | -                         |

(\*) no standard execution

+ max η %

max hydraulic efficiency and respective total efficiency

| TYPE   |         | P2  |     | P1<br>(kW) |     | Q (m³/h - l/min) |      |      |     |     |     |     |     |
|--------|---------|-----|-----|------------|-----|------------------|------|------|-----|-----|-----|-----|-----|
| 1-     | 3-      |     |     |            |     | 0                | 12   | 24   | 36  | 42  | 48  | 51  | 54  |
|        |         |     |     |            |     | D                | 200  | 400  | 600 | 700 | 800 | 850 | 900 |
|        |         | HP  | kW  | 1-         | 3-  | H (m)            |      |      |     |     |     |     |     |
| DV 160 | DVT 160 | 1,5 | 1,1 | 2,5        | 2,3 | 12,2             | 10,9 | 8,4  | 5,6 | 4,1 | 2,6 |     |     |
| DV 210 | DVT 210 | 2   | 1,5 | 2,8        | 2,7 | 13,7             | 12,6 | 9,9  | 7,0 | 5,4 | 3,6 | 3,1 |     |
|        | DVT 310 | 3   | 2,2 |            | 3,3 | 15,5             | 14,4 | 11,6 | 8,8 | 7,1 | 5,4 | 4,5 | 3,8 |



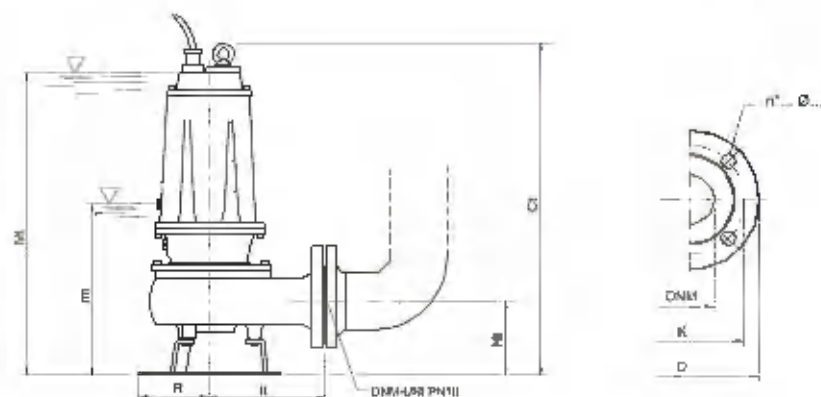
| TYPE     | AMPERE               |                  |                                 |                             |
|----------|----------------------|------------------|---------------------------------|-----------------------------|
|          | 3x230 V<br>50 Hz (*) | 3x400 V<br>50 Hz | 230/400 V<br>50 Hz<br>λ / Δ (*) | 400/690 V<br>50 Hz<br>λ / Δ |
| DVT 400  | 14,1                 | 8,1              | -                               | -                           |
| DVT 550  | 18,1                 | 10,4             | -                               | -                           |
| DVT 750  | -                    | 14,4             | 25                              | 14,4                        |
| DVT 1000 | -                    | 18,4             | 28,5                            | 18,4                        |

(\*) no standard execution

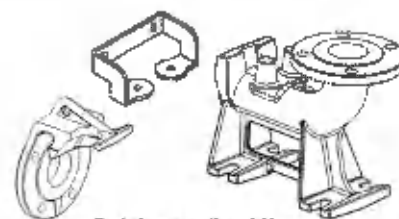
+ max η %

max hydraulic efficiency and respective total efficiency

| TYPE     | P2  |     | P1<br>(kW) | Q (m³/h - l/min) |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----------|-----|-----|------------|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|          |     |     |            | 0                | 12   | 24   | 36   | 42   | 48   | 51   | 54   | 60   | 72   | 78   | 84   | 90   | 96   | 108  | 114  | 120  |
|          | HP  | kW  | 3-         | 0                | 200  | 400  | 600  | 700  | 800  | 850  | 900  | 1000 | 1200 | 1300 | 1400 | 1500 | 1600 | 1800 | 1900 | 2000 |
| 3-       |     |     |            | H (m)            |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|          |     |     |            | 21,0             | 19,4 | 16,6 | 13,5 | 12,0 | 10,4 | 9,6  | 8,8  | 7,2  | 4,3  | 2,8  |      |      |      |      |      |      |
| DVT 400  | 4   | 3   | 4,9        | 21,0             | 19,4 | 16,6 | 13,5 | 12,0 | 10,4 | 9,6  | 8,8  | 7,2  | 4,3  | 2,8  |      |      |      |      |      |      |
| DVT 550  | 5,5 | 4   | 6,1        | 23,9             | 22,2 | 19,3 | 16,3 | 14,8 | 13,2 | 12,4 | 11,6 | 10   | 7,1  | 5,6  | 4,1  | 2,6  |      |      |      |      |
| DVT 750  | 7,5 | 5,5 | 8,5        | 24,2             | 22,7 | 20,7 | 18,7 | 17,6 | 16,4 | 15,8 | 15,2 | 13,9 | 11,1 | 9,7  | 8,2  | 6,8  | 5,4  | 2,8  |      |      |
| DVT 1000 | 10  | 7,5 | 9,8        | 26,7             | 25,2 | 23,2 | 21,2 | 20,0 | 18,8 | 18,2 | 17,8 | 16,3 | 13,7 | 12,3 | 10,8 | 9,4  | 8,0  | 5,1  | 3,8  | 2,6  |



## ACCESSORIES

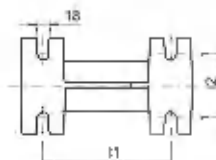
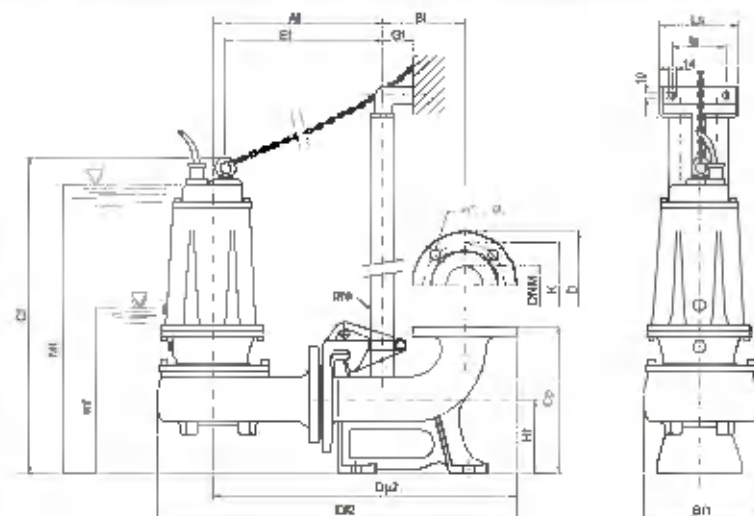


Quick coupling kit



Counterflange

| TYPE           | DIMENSIONS (mm) |     |     |     |  |     |     |     |  |
|----------------|-----------------|-----|-----|-----|--|-----|-----|-----|-------------------------------------------------------------------------------------|
|                | C1              | Ht  | R   | lt  |  | mt  | Mt  | DNM |                                                                                     |
| DVT 160        | 551             | 123 | 117 | 191 |  | 243 | 513 | 65  | 39,5                                                                                |
| DV 160-DVT 210 | 551             | 123 | 117 | 191 |  | 243 | 513 | 65  | 40,5                                                                                |
| DV 210-DVT 310 | 551             | 123 | 117 | 191 |  | 243 | 513 | 65  | 41,5                                                                                |
| DVT 400        | 645             | 148 | 160 | 210 |  | 285 | 600 | 80  | 68                                                                                  |
| DVT 550        | 645             | 148 | 180 | 210 |  | 285 | 600 | 60  | 71                                                                                  |
| DVT 750        | 725             | 178 | 180 | 232 |  | 358 | 670 | 60  | 90                                                                                  |
| DVT 1000       | 725             | 178 | 180 | 232 |  | 358 | 670 | 80  | 92,5                                                                                |



mt/mt: lowest working level

Mt/Mf: lowest level for continuous duty

Flange UNI FN 10 (mm)

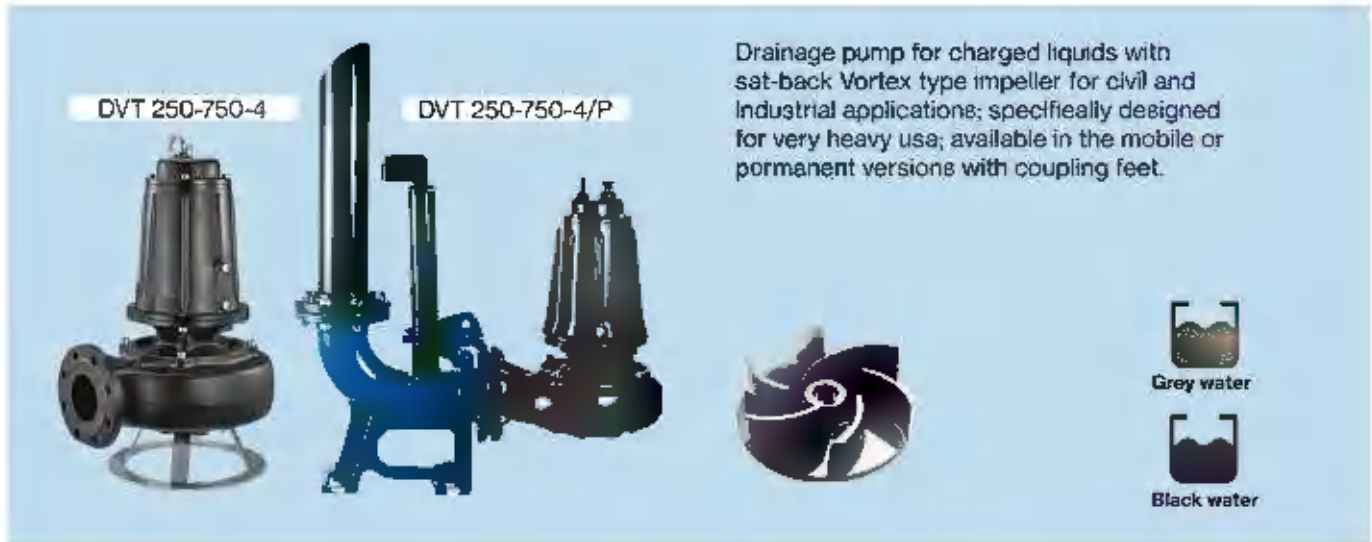
| DNM | K   | D   | n°... Ø... |
|-----|-----|-----|------------|
| 65  | 145 | 185 | 4... 18... |
| 60  | 160 | 200 | 8... 18... |

| TYPE             | DIMENSIONS (mm) |     |     |     |     |     |     |        |     |    |     |     |     |     |     |     |     |     |
|------------------|-----------------|-----|-----|-----|-----|-----|-----|--------|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|
|                  | Af              | Bf  | Cf  | Cp  | Df1 | Df2 | Dp2 | DNt    | Ef  | Gf | Ht  | I1  | I2  | I3  | L5  | mf  | Mf  | DNM |
| DVT 160 /P       | 303             | 145 | 559 | 260 | 200 | 689 | 541 | 1" 1/4 | 280 | 55 | 180 | 200 | 100 | 95  | 140 | 251 | 521 | 65  |
| DV 160-DVT 210/P | 303             | 145 | 559 | 260 | 200 | 689 | 541 | 1" 1/4 | 280 | 55 | 180 | 200 | 100 | 95  | 140 | 251 | 521 | 65  |
| DV 210-DVT 310/P | 303             | 145 | 559 | 260 | 200 | 839 | 541 | 1" 1/4 | 280 | 55 | 130 | 200 | 100 | 95  | 140 | 251 | 521 | 85  |
| DVT 400/P        | 350             | 185 | 690 | 340 | 220 | 720 | 615 | 2"     | 319 | 85 | 190 | 250 | 140 | 130 | 160 | 327 | 642 | 80  |
| DVT 550/P        | 350             | 185 | 690 | 340 | 220 | 720 | 615 | 2"     | 319 | 85 | 190 | 250 | 140 | 130 | 160 | 327 | 642 | 80  |
| DVT 750/P        | 370             | 165 | 745 | 340 | 235 | 750 | 638 | 2"     | 338 | 85 | 190 | 250 | 140 | 130 | 180 | 380 | 690 | 80  |
| DVT 1000/F       | 370             | 165 | 745 | 340 | 235 | 750 | 638 | 2"     | 338 | 85 | 190 | 250 | 140 | 130 | 180 | 380 | 690 | 80  |

| TYPE     | PROTECTION   |                     | 1 PUMP CONTROL PANEL |           |             | 2 PUMPS CONTROL PANEL |           |             |
|----------|--------------|---------------------|----------------------|-----------|-------------|-----------------------|-----------|-------------|
|          | 1 x 230 V    | 3 x 400 V           | 1 x 230 V            | 3 x 400 V | 400 / 690 V | 1 x 230 V             | 3 x 400 V | 400 / 690 V |
| DV 160   | PMC 15/35-15 | PT 20-30-40/4.3-6.8 | EQSM + 35µF          | EQSMT 10  |             | EQ2SM + 35µF          | EQ2SMT 10 |             |
| DV 210   | PMC 20/50-18 | PT 20-30-40/4.3-6.8 | EQSM + 50µF          | EQSMT 10  |             | EQ2SM + 50µF          | EQ2SMT 10 |             |
| DVT 310  |              | PT 40-50/5.7-9.1    |                      | EQSMT 10  |             |                       | EQ2SMT 10 |             |
| DVT 400  |              | PT 55-75/8.6-13.5   |                      | EQSMT 10  |             |                       | EQ2SMT 10 |             |
| DVT 550  |              | PT 58-75/6.8-13.5   |                      | EQSMT 10  |             |                       | EQ2SMT 10 |             |
| DVT 750  |              | PT 100/12.5-16.5    |                      | EQSMT 10  | QST 7       |                       | EQ2SMT 10 | Q2ST 7      |
| DVT 1000 |              | PT 125-150/16-21    |                      | EQSMT 10  | QST 10      |                       | EQ2SMT 10 | Q2ST 10     |

# DV4

## Drainage Vortex



Drainage pump for charged liquids with sat-back Vortex type impeller for civil and industrial applications; specifically designed for very heavy use; available in the mobile or permanent versions with coupling feet.

### Construction features

**Pump body** cast iron



**Impeller** cast iron

#### Mechanical seal

double seal with oil barrier; silicon carbide on pump side, ceramic-graphite on motor side

**Motor shaft** stainless steel AISI 304

**Passage of solids** 50 mm

**Depth of immersion** max 20 m

**Liquid temperature** 0 - 40 °C

**Cable** H05 RN8F, 10 m

**Bolts** A2 stainless steel

**Foot support** galvanized iron

**Gaskets** NBR rubber

### Motor

**2 Poles induction motor** 3- 230/400V-50Hz P ≤ 4kW  
3- 400/690V-50Hz P > 4kW

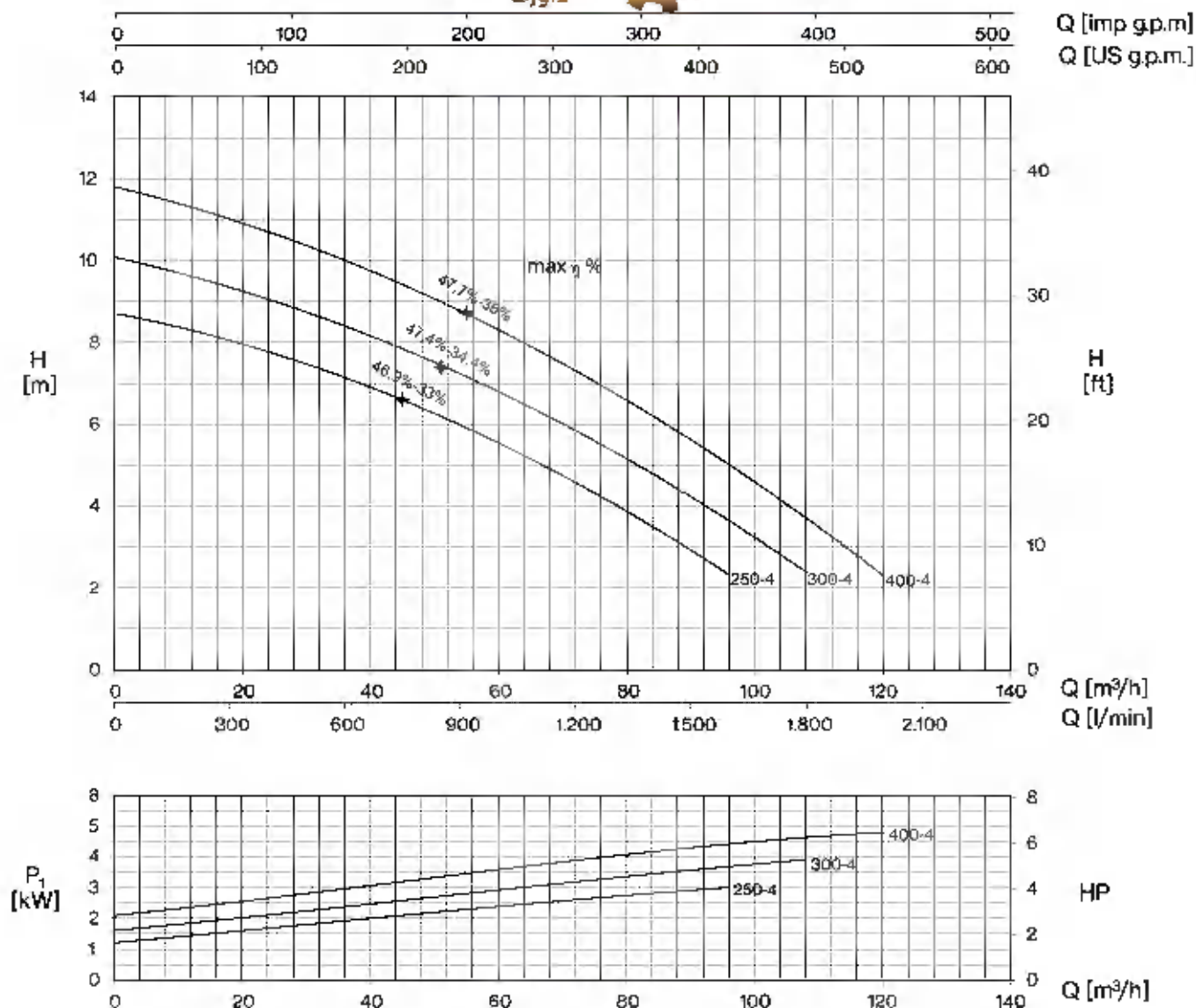
**Insulation class** F

**Protection degree** IPX8

| TYPE            | LOTS        |          |             |          |
|-----------------|-------------|----------|-------------|----------|
|                 | TRUCK       |          | CONTAINER   |          |
|                 | PALLET (cm) | N° pumps | PALLET (cm) | N° pumps |
| DVT 250-4/750-4 | 85×110×190  | 8        | 100×120×190 | 12       |







| TYPE      | AMPERE               |                  |                               |                           |
|-----------|----------------------|------------------|-------------------------------|---------------------------|
|           | 3x230 V<br>50 Hz (*) | 3x400 V<br>50 Hz | 230/400 V<br>50 Hz<br>Δ/Δ (*) | 400/690 V<br>50 Hz<br>Δ/Δ |
| DVT 250-4 | 19                   | 5.8              | -                             | -                         |
| DVT 300-4 | 11.8                 | 6.8              | -                             | -                         |
| DVT 400-4 | 15.1                 | 8.7              | -                             | -                         |

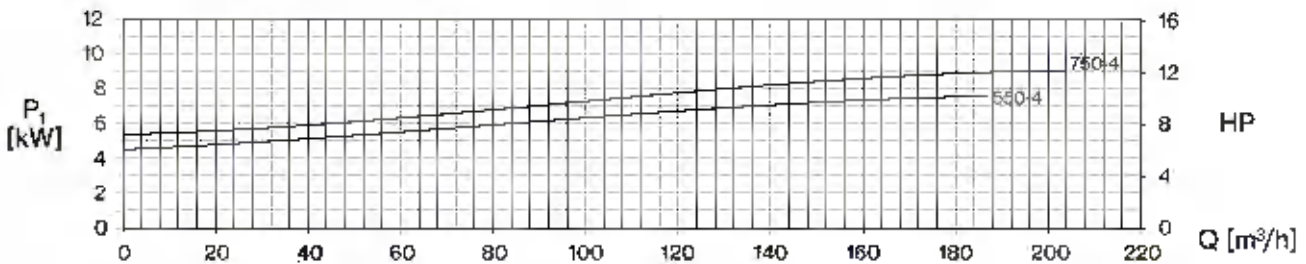
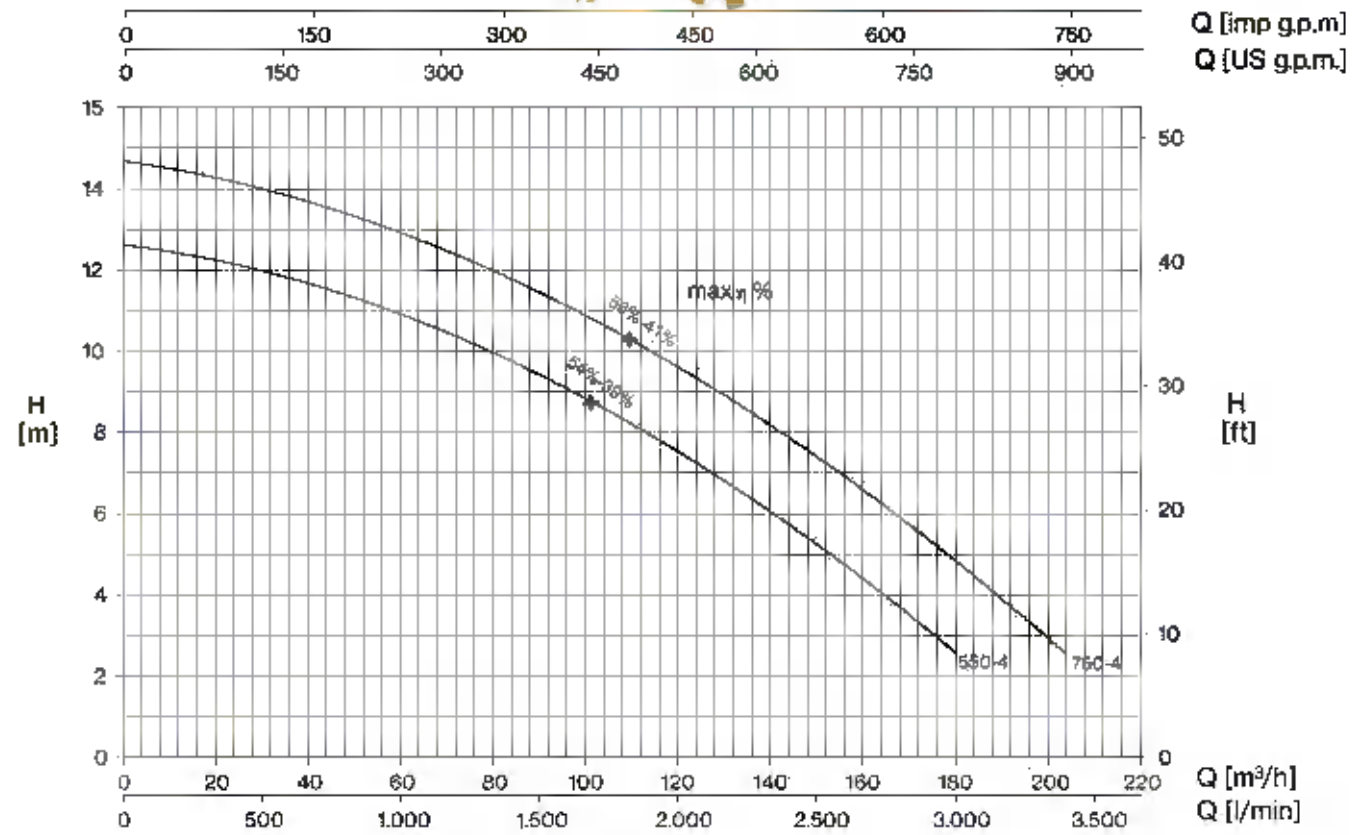
(\*) no standard execution

+ max η %

max hydraulic efficiency and respective total efficiency

| TYPE      | P2  |     | P1<br>(kW) | Q (m³/h - l/min) |      |      |      |     |     |      |      |      |      |      |      |
|-----------|-----|-----|------------|------------------|------|------|------|-----|-----|------|------|------|------|------|------|
|           |     |     |            | 0                | 12   | 24   | 36   | 48  | 60  | 72   | 84   | 96   | 108  | 120  |      |
|           | 3-  | HP  | kW         | 3-               | 0    | 200  | 400  | 600 | 800 | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 |
|           |     |     |            | H (m)            |      |      |      |     |     |      |      |      |      |      |      |
| DVT 250-4 | 2,5 | 1,3 | 3,3        | 8,7              | 8,3  | 7,8  | 7,1  | 6,4 | 5,5 | 4,5  | 3,5  | 2,3  |      |      |      |
| DVT 300-4 | 9   | 2,2 | 4,1        | 10,1             | 9,6  | 9,0  | 8,4  | 7,7 | 6,8 | 5,8  | 4,8  | 3,6  | 2,4  |      |      |
| DVT 400-4 | 4   | 3   | 4,9        | 11,8             | 11,3 | 10,7 | 10,0 | 9,2 | 8,3 | 7,3  | 6,2  | 5,0  | 3,7  | 2,3  |      |





| TYPE      | AMPERE               |                  |                                           |                                       |
|-----------|----------------------|------------------|-------------------------------------------|---------------------------------------|
|           | 3x230 V<br>50 Hz (*) | 3x400 V<br>50 Hz | 230/400 V<br>50 Hz<br>$\Delta/\Delta$ (*) | 400/690 V<br>50 Hz<br>$\Delta/\Delta$ |
| DVT 550-4 | -                    | 12,9             | 22,3                                      | 12,9                                  |
| DVT 750-4 | -                    | 15,4             | 26,6                                      | 15,4                                  |

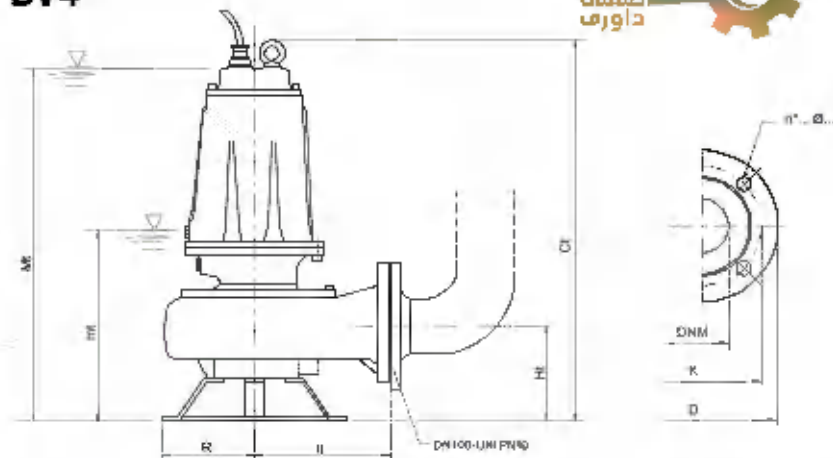
+ max  $\eta$  %

max hydraulic efficiency and respective total efficiency

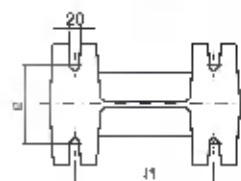
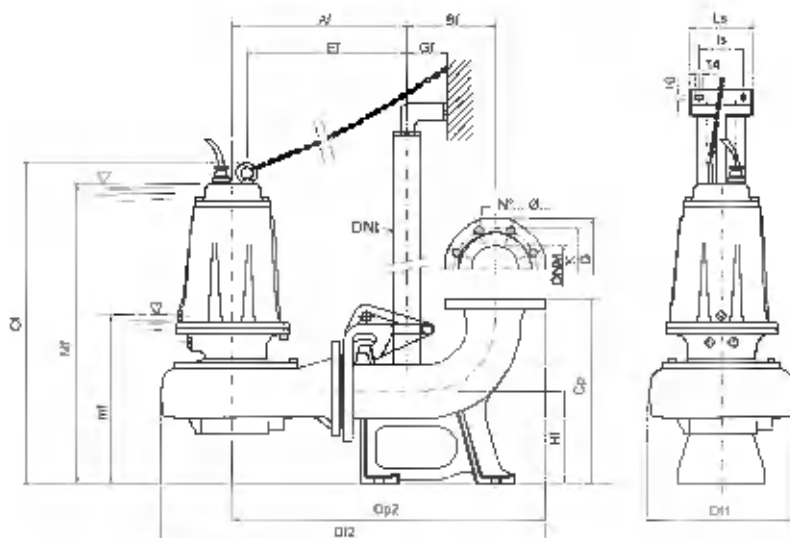
(\*) no standard execution

| TYPE      | P2  |     |     | Q (m³/h - l/min) |      |      |      |      |      |      |      |      |      |      |  |
|-----------|-----|-----|-----|------------------|------|------|------|------|------|------|------|------|------|------|--|
|           |     |     |     | P1 (kW)          |      |      |      |      |      |      |      |      |      |      |  |
|           |     |     |     | 0                | 24   | 48   | 72   | 96   | 120  | 144  | 168  | 180  | 192  | 204  |  |
| 3-        |     |     |     | 0                | 400  | 800  | 1200 | 1600 | 2000 | 2400 | 2800 | 3000 | 3200 | 3400 |  |
|           | HP  | kW  | 3-  | H (m)            |      |      |      |      |      |      |      |      |      |      |  |
| DVT 550-4 | 5,5 | 4   | 7,5 | 12,6             | 12,2 | 11,4 | 10,3 | 9,1  | 7,6  | 5,7  | 3,7  | 2,6  |      |      |  |
| DVT 750-4 | 7,5 | 5,5 | 9   | 14,7             | 14,2 | 13,3 | 12,4 | 11,2 | 9,8  | 7,9  | 5,9  | 4,8  | 3,7  | 2,6  |  |

# DV4



| TYPE      | DIMENSIONS (mm) |     |     |     |     |     |     | Kg    |
|-----------|-----------------|-----|-----|-----|-----|-----|-----|-------|
|           | Ct              | Ht  | R   | It  | mt  | Mt  | DNM |       |
| DVT 250-4 | 660             | 165 | 160 | 235 | 300 | 614 | 100 | 69,5  |
| DVT 300-4 | 660             | 165 | 160 | 235 | 300 | 614 | 100 | 71    |
| DVT 400-4 | 660             | 165 | 150 | 235 | 300 | 614 | 100 | 74,5  |
| DVT 550-4 | 716             | 195 | 180 | 276 | 385 | 695 | 100 | 101,5 |
| DVT 750-4 | 716             | 195 | 180 | 276 | 385 | 695 | 100 | 106   |



mt/mf: lowest working level  
Mt/Mf: lowest level for continuous duty

| Flange UNI PN 10 (mm) |     |     |            |
|-----------------------|-----|-----|------------|
| DNM                   | K   | D   | n°... Ø... |
| 100                   | 180 | 220 | 8... 19... |

| TYPE        | DIMENSIONS (mm) |     |     |     |     |     |     |     |     |    |     |     |     |     |     |     |     |     |
|-------------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|
|             | Af              | Bf  | Cf  | Cp  | Df1 | Df2 | Dp2 | DNt | Et  | Gf | Hf  | I1  | I2  | Is  | Ls  | mf  | Mf  | DNM |
| DVT 250-4/P | 576             | 190 | 895 | 400 | 317 | 835 | 678 | 2"  | 347 | 85 | 200 | 250 | 140 | 130 | 180 | 335 | 650 | 100 |
| DVT 300-4/P | 376             | 190 | 895 | 400 | 317 | 835 | 678 | 2"  | 347 | 85 | 200 | 250 | 140 | 130 | 180 | 335 | 650 | 100 |
| DVT 400-4/P | 376             | 190 | 895 | 400 | 317 | 835 | 678 | 2"  | 347 | 85 | 200 | 250 | 140 | 130 | 180 | 335 | 650 | 100 |
| DVT 550-4/P | 419             | 190 | 755 | 400 | 371 | 900 | 719 | 2"  | 364 | 85 | 200 | 250 | 140 | 130 | 180 | 390 | 700 | 100 |
| DVT 750-4/P | 419             | 190 | 755 | 400 | 371 | 930 | 719 | 2"  | 364 | 85 | 200 | 250 | 140 | 130 | 180 | 390 | 700 | 100 |

| TYPE      | PROTECTION        | 1 PUMP<br>CONTROL PANEL |             | 2 PUMPS<br>CONTROL PANEL |             |
|-----------|-------------------|-------------------------|-------------|--------------------------|-------------|
|           | 3 x 400 V         | 3 x 400 V               | 400 / 690 V | 3 x 400 V                | 400 / 690 V |
| DVT 250-4 | PT 40-50/5,7-9,1  | EQSMT 10                |             | EQ2SMT 10                |             |
| DVT 300-4 | PT 40-50/5,7-9,1  | EQSMT 10                |             | EQ2SMT 10                |             |
| DVT 400-4 | PT 55-75/8,6-13,5 | EQSMT 10                |             | EQ2SMT 10                |             |
| DVT 550-4 | PT 55-75/8,6-13,5 | EQSMT 10                |             | EQ2SMT 10                |             |
| DVT 750-4 | PT 100/12,5-16,5  | EQSMT 10                | QST 10      | EQ2SMT 10                | Q2ST 10     |



# DEEPWELL BOREHOLE

# DEEPWELL BOREHOLE PUMPS



- **5PES, 4S/A, 4L, 6L lines:** 4", 5" and 6" electric well pumps with polymer hydraulics and pressed steel body. Coupling to the motor according to Nema flange.
- **6- 8- 10LMG lines:** 6", 8" and 10" electric well pumps with cast iron hydraulics. Non-return valve in the delivery port and motor coupling according to Nema flange.
- **LM, LRS and 14E lines:** 6", 8", 10", 12" and 14" electric well pumps manufactured with a micro-casting process that allows to obtain very smooth hydraulic surfaces and therefore high hydraulic efficiency values, all combined with a high mechanical resistance thanks to the cast steel structure. The range is available in AISi304, AISi316 and Duplex steel types with flow rates up to 860m<sup>3</sup>/h and 800 m maximum head. The check valve is incorporated in the delivery port, while coupling with the motor is ensured by NEMA flanging.

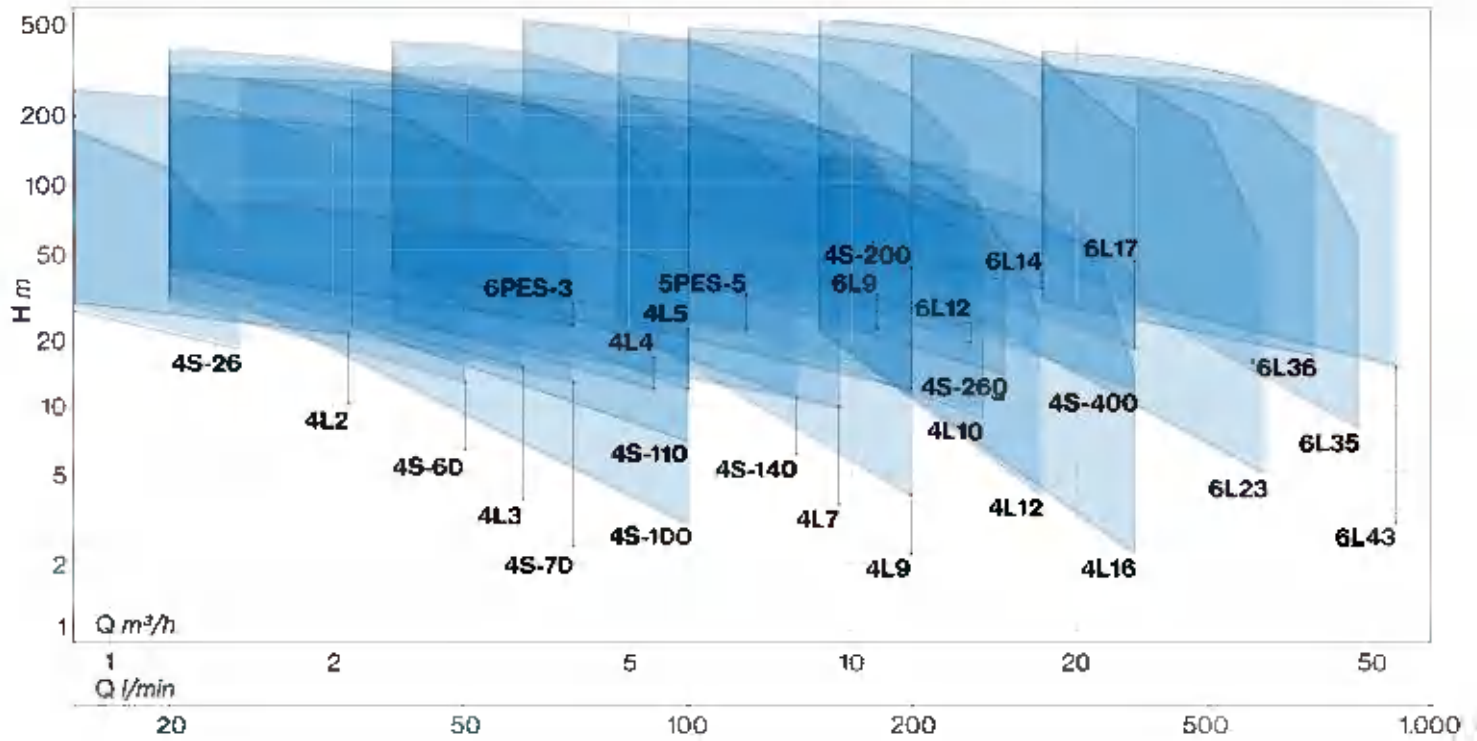
## Applications:

- Water supply for civil and industrial uses
- Distribution in aqueducts
- Agricultural irrigation
- Installation on wells and groundwater withdrawal
- Reverse osmosis plants

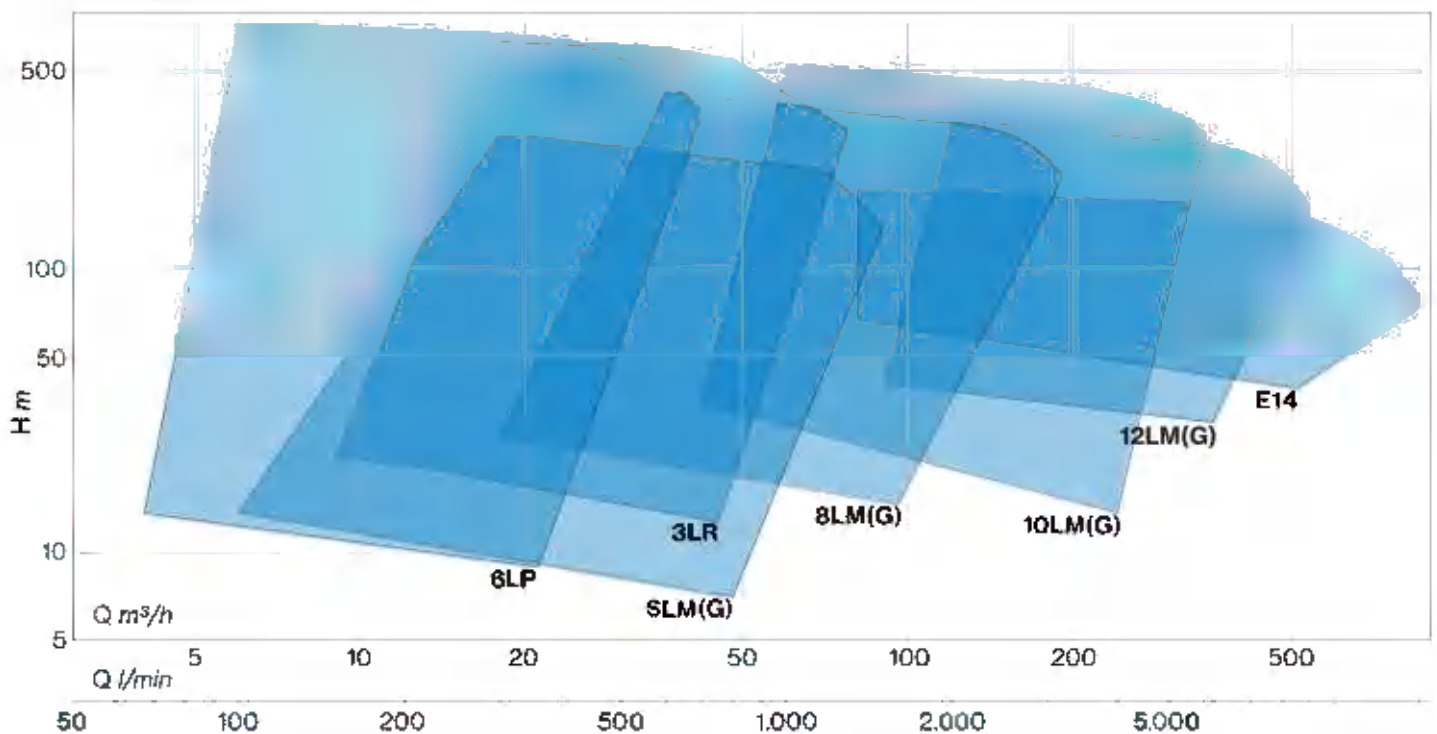


# DEEPWELL BOREHOLE PUMPS

## Low-Medium flow



## High flow





# 5PES

## Deepwell Borehole

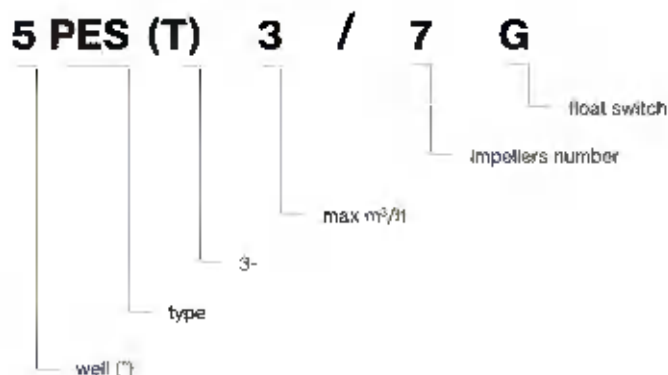
5" submersible multistage centrifugal pumps. All components in contact with fluid are made of AISI 304 stainless steel. Particularly suitable for water distribution rainwater collection, irrigation, fountains, wash down unit. Single phase versions have an internal capacitor and thermal motor protector.

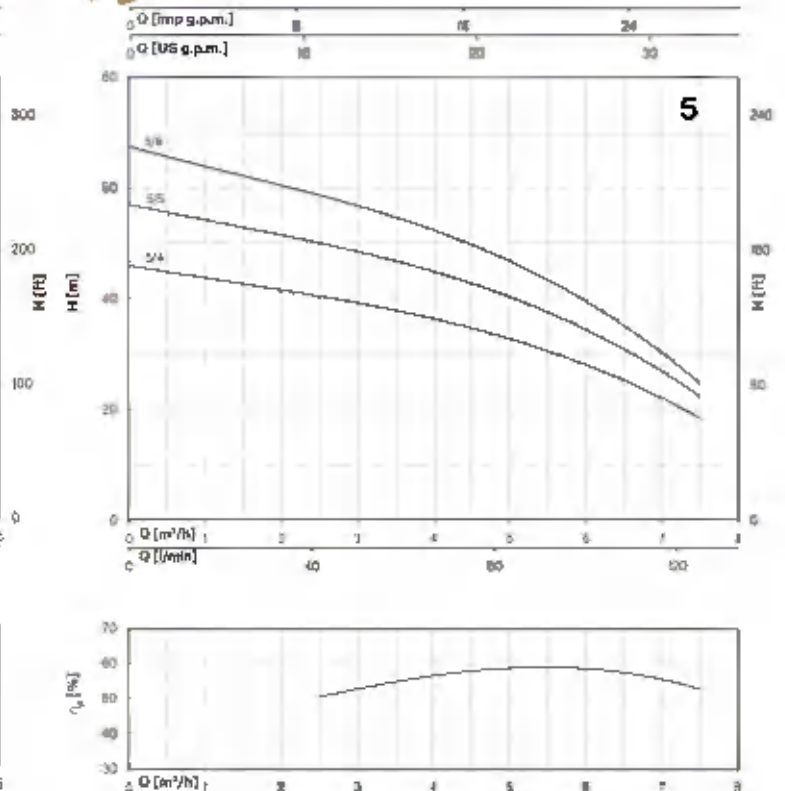
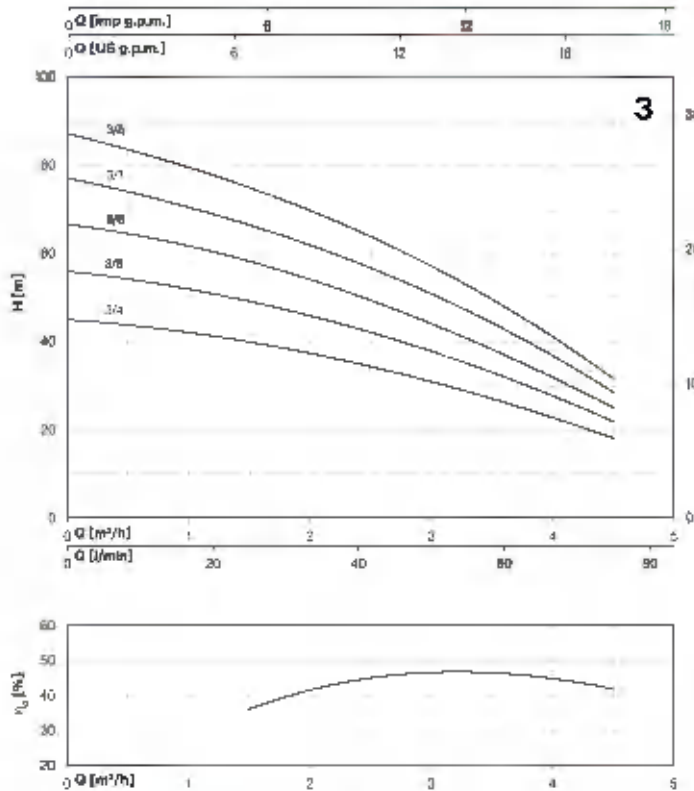
### Construction features

|                                                 |                          |
|-------------------------------------------------|--------------------------|
| <b>Delivery outlet</b>                          | 1" ¼ G                   |
| <b>External jacket, impellers and diffusers</b> | stainless steel AISI 304 |
| <b>Passage of solids</b>                        | 2 mm                     |
| <b>Depth of immersion</b>                       | max 20 m                 |
| <b>Liquid temperature</b>                       | +5 ÷ +40 °C              |
| <b>Quantity of sand in the water</b>            | max 50 g/m³              |
| <b>Cable</b>                                    | H07 RNF, 20 m            |
| <b>Number of startups/hr</b>                    | max 20                   |

### Motor

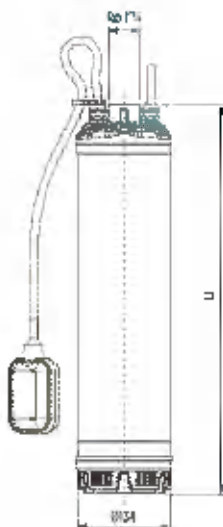
|                             |                                               |
|-----------------------------|-----------------------------------------------|
|                             | 3- 380/415V-50Hz                              |
| <b>Asynchronous 2 poles</b> | 1- 220/240V-50Hz<br>(with thermal protection) |
| <b>Insulation class</b>     | F                                             |
| <b>Protection degree</b>    | IP68                                          |





| TYPE     | MOTOR |      | INTERNAL CAPACITOR |     | RATED CURRENT      |                    |                    | Q (m³/h - l/min) |      |      |      |      |      |      |      |
|----------|-------|------|--------------------|-----|--------------------|--------------------|--------------------|------------------|------|------|------|------|------|------|------|
|          |       |      |                    |     | 1~                 | 3~                 | 3~                 | 0                | 1,5  | 2    | 2,5  | 3    | 3,5  | 4    | 4,5  |
|          |       |      |                    |     | 220/240 V<br>50 Hz | 220/240 V<br>50 Hz | 380/415 V<br>50 Hz | 0                | 25   | 33,3 | 42   | 50   | 58,3 | 67   | 75   |
|          |       |      |                    |     | H (m)              |                    |                    |                  |      |      |      |      |      |      |      |
| 5PES 3/4 | 0,75  | 0,55 | 16                 | 450 | 4,0                | 3,5                | 2,0                | 45,0             | 40,0 | 37,5 | 34,0 | 31,0 | 27,0 | 23,0 | 18,0 |
| 5PES 3/5 | 1     | 0,75 | 20                 | 450 | 4,7                | 3,7                | 2,1                | 56               | 49,0 | 46,0 | 42,0 | 38,0 | 33,0 | 27,5 | 22,0 |
| 5PES 3/6 | 1     | 0,75 | 20                 | 450 | 5,2                | 4,0                | 2,3                | 66,5             | 58,5 | 54,0 | 42,0 | 44,0 | 38,5 | 32,0 | 25,0 |
| 5PES 3/7 | 1,2   | 0,9  | 30                 | 450 | 6,7                | 4,4                | 2,5                | 77,0             | 67,0 | 62,0 | 58,0 | 50,0 | 45,0 | 37,5 | 28,0 |
| 5PES 3/8 | 1,5   | 1,1  | 30                 | 450 | 7,2                | 4,7                | 2,7                | 87,0             | 75,5 | 70,0 | 63,0 | 56,0 | 50,5 | 42,0 | 31,0 |

| TYPE     | MOTOR |      | INTERNAL CAPACITOR |     | RATED CURRENT      |                    |                    | Q (m³/h - l/min) |      |      |      |      |      |      |      |      |       |
|----------|-------|------|--------------------|-----|--------------------|--------------------|--------------------|------------------|------|------|------|------|------|------|------|------|-------|
|          |       |      |                    |     | 1~                 | 3~                 | 3~                 | 0                | 2,5  | 3    | 3,5  | 4    | 4,5  | 5    | 5,5  | 6    | 7     |
|          |       |      |                    |     | 220/240 V<br>50 Hz | 380/415 V<br>50 Hz | 380/415 V<br>50 Hz | 0                | 42   | 50   | 58,3 | 67   | 75   | 83,3 | 92   | 100  | 115,7 |
|          |       |      |                    |     | H (m)              |                    |                    |                  |      |      |      |      |      |      |      |      |       |
| 5PES 5/4 | 1     | 0,75 | 20                 | 450 | 5,0                | 3,8                | 2,2                | 46,6             | 40,6 | 39,0 | 38,0 | 36,5 | 34,5 | 33,0 | 30,6 | 26,0 | 22,0  |
| 5PES 5/5 | 1,2   | 0,9  | 30                 | 450 | 5,6                | 4,4                | 2,5                | 57,0             | 50,0 | 46,0 | 47,5 | 45,5 | 42,0 | 40,0 | 38,0 | 34,0 | 27,5  |
| 5PES 5/6 | 1,5   | 1,1  | 30                 | 450 | 7,4                | 4,7                | 2,7                | 67,5             | 58,5 | 55,5 | 55,5 | 53,0 | 49,0 | 46,0 | 44,0 | 39,0 | 31,5  |



| TYPE     | DIMENSIONS (mm) |     |     |     | Kg   |      |
|----------|-----------------|-----|-----|-----|------|------|
|          | Lt              | L   | B   | H   | 1~   | 3~   |
| 5PES 3/4 | 470             | 720 | 230 | 175 | 12,7 | 14   |
| 5PES 3/5 | 544             | 720 | 230 | 175 | 14,3 | 14,5 |
| 5PES 3/6 | 565             | 720 | 230 | 175 | 14,8 | 15   |
| 5PES 3/7 | 592             | 720 | 230 | 175 | 17   | 15,5 |
| 5PES 3/8 | 616             | 720 | 230 | 175 | 17,1 | 16   |
| 5PES 5/4 | 470             | 720 | 230 | 175 | 13,5 | 14   |
| 5PES 5/5 | 544             | 720 | 230 | 175 | 15,7 | 14,5 |
| 5PES 5/6 | 568             | 720 | 230 | 175 | 16,2 | 15   |

# 4L line

## Deepwell Borehole

Submersible multistage centrifugal pumps for 4" wells with sand-resistant floating impellers. Check valve built into the delivery outlet. Pump flange for coupling with motors are made according to NEMA standards. Most common applications are civil and agricultural.

### Construction features

|                                      |                          |
|--------------------------------------|--------------------------|
| <b>Delivery outlet and bracket</b>   | stainless steel AISI 304 |
| <b>External jacket</b>               | stainless steel AISI 304 |
| <b>Impellers</b>                     | polycarbonate Lexan      |
| <b>Diffusers</b>                     | polycarbonate Noryl®     |
| <b>Upper bushings</b>                | NBR rubber               |
| <b>Shaft</b>                         | stainless steel AISI 420 |
| <b>Quantity of sand in the water</b> | max 300 g/m <sup>3</sup> |
| <b>Max liquid temperature</b>        | 35° C                    |



## 4L

### 4L 2

| Motor 50 Hz - 2900 rpm |       |      |             |    |       |       | Q   |      |      |      |      |      |      |      |
|------------------------|-------|------|-------------|----|-------|-------|-----|------|------|------|------|------|------|------|
| TYPE                   | Power |      | 1-<br>230 V |    | 400 V | l/min | 0   | 5    | 10   | 15   | 20   | 25   | 30   | 35   |
|                        |       |      |             |    |       | l/sec | 0   | 9,08 | 0,17 | 0,25 | 0,33 | 0,42 | 0,50 | 0,58 |
|                        | HP    | kW   | A           | μF | A     | m³/h  | 0   | 0,3  | 0,6  | 0,9  | 1,2  | 1,5  | 1,3  | 2,1  |
| 4L 2/08                | 0,5   | 0,37 | 3,5         | 16 | 1,2   | H[m]  | 45  | 45   | 44   | 42   | 38   | 33   | 27   | 21   |
| 4L 2/13                | 0,75  | 0,55 | 4,9         | 20 | 1,7   |       | 74  | 73   | 71   | 53   | 52   | 54   | 44   | 33   |
| 4L 2/17                | 1     | 0,75 | 6,5         | 30 | 2,2   |       | 97  | 96   | 93   | 83   | 81   | 70   | 56   | 44   |
| 4L 2/25                | 1,5   | 1,1  | 9,4         | 40 | 3     |       | 143 | 141  | 137  | 131  | 119  | 104  | 35   | 84   |
| 4L 2/34                | 2     | 1,5  | 11,5        | 50 | 4     |       | 194 | 191  | 187  | 178  | 152  | 141  | 115  | 37   |
| 4L 2/50                | 3     | 2,2  | 14,7        | 75 | 5,7   |       | 286 | 281  | 274  | 261  | 239  | 207  | 170  | 129  |

### 4L 3

| Motor 50 Hz - 2900 rpm |       |      |             |    |       |       | Q   |      |      |      |      |      |
|------------------------|-------|------|-------------|----|-------|-------|-----|------|------|------|------|------|
| TYPE                   | Power |      | 1-<br>230 V |    | 400 V | l/min | 0   | 29   | 30   | 40   | 50   | 80   |
|                        |       |      |             |    |       | l/sec | 0   | 0,33 | 0,50 | 0,67 | 0,83 | 1,00 |
|                        | HP    | kW   | A           | μF | A     | m³/h  | 0   | 1,2  | 1,8  | 2,4  | 3    | 3,8  |
| 4L 3/07                | 0,5   | 0,37 | 3,5         | 16 | 1,2   | H[m]  | 45  | 40   | 35   | 31   | 24   | 15   |
| 4L 3/10                | 0,75  | 0,55 | 4,9         | 20 | 1,7   |       | 55  | 57   | 52   | 44   | 35   | 22   |
| 4L 3/14                | 1     | 0,75 | 6,5         | 30 | 2,2   |       | 92  | 80   | 73   | 62   | 49   | 31   |
| 4L 3/21                | 1,5   | 1,1  | 9,4         | 40 | 3     |       | 139 | 120  | 109  | 63   | 73   | 45   |
| 4L 3/28                | 2     | 1,5  | 11,5        | 50 | 4     |       | 184 | 160  | 145  | 124  | 97   | 61   |
| 4L 3/41                | 3     | 2,2  | 14,7        | 75 | 5,7   |       | 269 | 234  | 213  | 182  | 143  | 90   |
| 4L 3/55                | 4     | 3    |             |    | 7,4   |       | 368 | 320  | 291  | 246  | 195  | 123  |
| 4L 3/70                | 5,5   | 4    |             |    | 10    |       | 460 | 400  | 363  | 310  | 243  | 153  |

### 4L 4

| Motor 50 Hz - 2900 rpm |       |      |             |    |       |       | Q   |      |      |      |      |      |      |      |      |
|------------------------|-------|------|-------------|----|-------|-------|-----|------|------|------|------|------|------|------|------|
| TYPE                   | Power |      | 1-<br>230 V |    | 400 V | l/min | 0   | 20   | 30   | 40   | 50   | 60   | 70   | 80   | 90   |
|                        |       |      |             |    |       | l/sec | 0   | 0,83 | 0,50 | 0,67 | 0,83 | 1,00 | 1,17 | 1,33 | 1,50 |
|                        | HP    | kW   | A           | µF | A     | m³/h  | 0   | 1,2  | 1,3  | 2,4  | 3    | 3,6  | 4,2  | 4,3  | 5,4  |
| 4L 4/07                | 0,75  | 0,65 | 4,9         | 20 | 1,7   | H[m]  | 46  | 46   | 44   | 41   | 37   | 32   | 27   | 20   | 12   |
| 4L 4/10                | 1     | 0,75 | 5,5         | 30 | 2,2   |       | 66  | 65   | 63   | 59   | 53   | 46   | 38   | 28   | 18   |
| 4L 4/14                | 1,5   | 1,1  | 9,4         | 40 | 3     |       | 93  | 91   | 88   | 82   | 74   | 65   | 53   | 39   | 25   |
| 4L 4/20                | 2     | 1,5  | 11,5        | 50 | 4     |       | 133 | 130  | 126  | 118  | 106  | 93   | 76   | 56   | 35   |
| 4L 4/28                | 3     | 2,2  | 14,7        | 75 | 5,7   |       | 192 | 189  | 163  | 170  | 154  | 134  | 111  | 82   | 51   |
| 4L 4/39                | 4     | 3    |             |    | 7,4   |       | 258 | 254  | 246  | 229  | 207  | 180  | 149  | 110  | 66   |
| 4L 4/52                | 5,5   | 4    |             |    | 10    |       | 345 | 338  | 328  | 306  | 276  | 241  | 198  | 146  | 91   |



| Mctor 50 Hz - 2900 rpm |       |      |             |    |       |       | Q   |      |      |      |      |      |      |      |
|------------------------|-------|------|-------------|----|-------|-------|-----|------|------|------|------|------|------|------|
| TYPE                   | Power |      | 1-<br>230 V |    | 400 V | l/min | 0   | 40   | 50   | 80   | 70   | 80   | 90   | 100  |
|                        |       |      |             |    |       | l/sec | 0   | 0,67 | 0,33 | 1,90 | 1,17 | 1,33 | 1,50 | 1,67 |
|                        | HR    | kW   | A           | µF | A     | m³/h  | 0   | 2,4  | 3    | 3,6  | 4,2  | 4,3  | 5,4  | 6    |
| 4L 5/08                | 0,75  | 0,55 | 4,9         | 20 | 1,7   | H[m]  | 41  | 33   | 36   | 34   | 30   | 25   | 19   | 12   |
| 4L 5/08                | 1     | 0,75 | 6,5         | 30 | 2,2   |       | 56  | 51   | 49   | 45   | 40   | 34   | 26   | 17   |
| 4L 6/12                | 1,5   | 1,1  | 9,4         | 40 | 3     |       | 83  | 77   | 73   | 68   | 60   | 50   | 38   | 25   |
| 4L 5/16                | 2     | 1,5  | 11,5        | 50 | 4     |       | 110 | 102  | 97   | 90   | 80   | 67   | 51   | 33   |
| 4L 5/23                | 3     | 2,2  | 14,7        | 75 | 5,7   |       | 153 | 147  | 139  | 129  | 115  | 96   | 73   | 47   |
| 4L 5/32                | 4     | 3    |             |    | 7,4   |       | 220 | 204  | 194  | 160  | 150  | 134  | 102  | 86   |
| 4L 5/42                | 5,5   | 4    |             |    | 10    |       | 289 | 233  | 265  | 236  | 210  | 176  | 134  | 87   |
| 4L 5/52                | 7,5   | 5,5  |             |    | 13,5  |       | 358 | 332  | 315  | 293  | 260  | 218  | 156  | 107  |
| 4L 5/63                | 10    | 7,5  |             |    | 18    |       | 488 | 434  | 412  | 383  | 340  | 265  | 217  | 140  |

| Motor 50 Hz - 2900 rpm |       |      |             |    |       | Q     |     |      |      |      |      |      |      |      |
|------------------------|-------|------|-------------|----|-------|-------|-----|------|------|------|------|------|------|------|
| TYPE                   | Power |      | 1-<br>230 V |    | 400 V | l/min | 0   | 40   | 60   | 30   | 100  | 120  | 140  | 160  |
|                        |       |      |             |    |       | l/sec | 0   | 0,57 | 1,00 | 1,33 | 1,67 | 2,00 | 2,33 | 2,87 |
|                        | HP    | KW   | A           | µF | A     | m³/h  | 0   | 2,4  | 3,6  | 4,8  | 6    | 7,2  | 8,4  | 9,6  |
| 4L 7/04                | 3,75  | 0,55 | 4,9         | 20 | 1,7   | H[m]  | 26  | 24   | 23   | 22   | 20   | 17   | 14   | 10   |
| 4L 7/06                | 1     | 0,75 | 6,5         | 30 | 2,2   |       | 36  | 36   | 34   | 32   | 30   | 26   | 21   | 14   |
| 4L 7/08                | 1,5   | 1,1  | 9,4         | 40 | 3     |       | 57  | 53   | 51   | 48   | 44   | 38   | 32   | 21   |
| 4L 7/12                | 2     | 1,5  | 11,5        | 56 | 4     |       | 77  | 71   | 68   | 65   | 59   | 52   | 42   | 29   |
| 4L 7/17                | 3     | 2,2  | 14,7        | 75 | 5,7   |       | 109 | 101  | 97   | 92   | 84   | 73   | 60   | 41   |
| 4L 7/23                | 4     | 3    |             |    | 7,4   |       | 147 | 138  | 131  | 124  | 113  | 99   | 81   | 55   |
| 4L 7/31                | 5,5   | 4    |             |    | 10    |       | 198 | 184  | 175  | 167  | 153  | 134  | 110  | 74   |
| 4L 7/42                | 7,5   | 5,5  |             |    | 13,5  |       | 268 | 249  | 239  | 226  | 207  | 181  | 149  | 100  |
| 4L 7/56                | 10    | 7,6  |             |    | 18    |       | 358 | 332  | 319  | 302  | 276  | 241  | 196  | 134  |

| TYPE    | Motor 50 Hz - 2900 rpm |      |            |    |       | l/min<br>l/sec<br>m³/h | Q   |      |      |      |      |      |      |      |
|---------|------------------------|------|------------|----|-------|------------------------|-----|------|------|------|------|------|------|------|
|         | Power                  |      | t<br>230 V |    | 400 V |                        | 0   | 80   | 100  | 120  | 140  | 160  | 180  | 200  |
|         | HP                     | kW   | A          | µF | A     |                        | 0   | 1,33 | 1,67 | 2,00 | 2,33 | 2,87 | 3,00 | 3,33 |
| 4L 9/04 | 1                      | 0,75 | 6,5        | 33 | 2,2   | H[m]                   | 25  | 24   | 22   | 21   | 18   | 15   | 11   | 4    |
| 4L 9/07 | 1,5                    | 1,1  | 9,4        | 40 | 3     |                        | 44  | 41   | 39   | 36   | 32   | 27   | 19   | 8    |
| 4L 9/09 | 2                      | 1,5  | 11,5       | 60 | 4     |                        | 56  | 53   | 50   | 45   | 42   | 35   | 25   | 10   |
| 4L 9/13 | 3                      | 2,2  | 14,7       | 76 | 6,7   |                        | 81  | 77   | 72   | 67   | 60   | 50   | 36   | 14   |
| 4L 9/13 | 4                      | 3    |            |    | 7,4   |                        | 112 | 107  | 100  | 93   | 83   | 69   | 50   | 19   |
| 4L 9/24 | 5,5                    | 4    |            |    | 10    |                        | 150 | 142  | 133  | 124  | 111  | 92   | 66   | 25   |
| 4L 9/31 | 7,5                    | 5,5  |            |    | 13,5  |                        | 193 | 184  | 172  | 160  | 143  | 119  | 86   | 33   |
| 4L 9/42 | 10                     | 7,5  |            |    | 18    |                        | 262 | 249  | 233  | 215  | 194  | 162  | 116  | 45   |



4L

4L 10

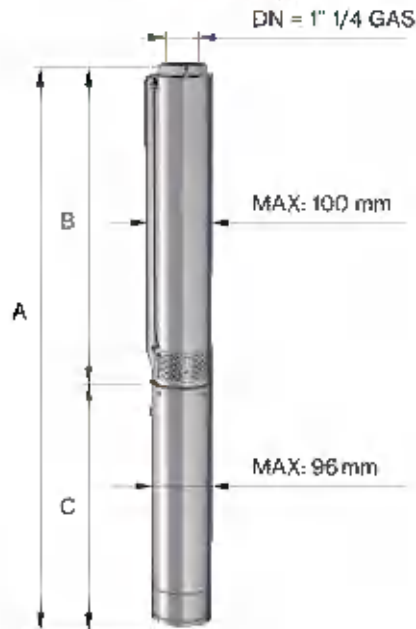
| Motor 50 Hz - 2900 rpm |       |      |             |    |       |       | Q   |      |      |      |      |      |      |      |
|------------------------|-------|------|-------------|----|-------|-------|-----|------|------|------|------|------|------|------|
| TYPE                   | Power |      | 1-<br>230 V |    | 400 V | I/min | 0   | 100  | 125  | 150  | 175  | 200  | 225  | 250  |
|                        |       |      |             |    |       | I/sec | 0   | 1,67 | 2,03 | 2,50 | 2,92 | 3,33 | 3,75 | 4,17 |
|                        | HP    | kW   | A           | µF | A     | m³/h  | 0   | 8    | 7    | 9    | 10,5 | 12   | 13,5 | 15   |
| 4L 10/04               | 1     | 0,75 | 6,5         | 30 | 2,2   | H[m]  | 31  | 24   | 22   | 20   | 18   | 14   | 12   | 9    |
| 4L 10/05               | 1,5   | 1,1  | 9,4         | 40 | 3     |       | 39  | 30   | 28   | 25   | 22   | 18   | 15   | 11   |
| 4L 10/07               | 2     | 1,5  | 11,5        | 50 | 4     |       | 54  | 42   | 39   | 35   | 31   | 25   | 21   | 15   |
| 4L 10/10               | 3     | 2,2  | 14,7        | 75 | 5,7   |       | 77  | 60   | 55   | 50   | 44   | 36   | 30   | 22   |
| 4L 10/14               | 4     | 3    |             |    | 7,4   |       | 108 | 83   | 77   | 70   | 62   | 50   | 42   | 31   |
| 4L 10/18               | 5,5   | 4    |             |    | 10    |       | 146 | 113  | 105  | 95   | 84   | 68   | 57   | 42   |
| 4L 10/26               | 7,5   | 5,5  |             |    | 13,5  |       | 200 | 155  | 143  | 130  | 114  | 94   | 78   | 57   |
| 4L 10/35               | 10    | 7,5  |             |    | 18    |       | 270 | 208  | 198  | 175  | 154  | 126  | 105  | 77   |

4L 12

| Motor 50 Hz - 2900 rpm |       |     |             |    |       |       | Q   |      |      |      |      |      |      |      |
|------------------------|-------|-----|-------------|----|-------|-------|-----|------|------|------|------|------|------|------|
| TYPE                   | Power |     | 1-<br>230 V |    | 400 V | I/min | 0   | 180  | 175  | 200  | 225  | 250  | 275  | 300  |
|                        |       |     |             |    |       | I/sec | 0   | 2,50 | 2,92 | 3,33 | 3,75 | 4,17 | 4,53 | 5,00 |
|                        | HP    | KW  | A           | µF | A     | m³/h  | 0   | 9    | 10,5 | 12   | 13,5 | 15,0 | 16,5 | 18   |
| 4L 12/04               | 1,5   | 1,1 | 9,4         | 40 | 3     | H[m]  | 28  | 22   | 20   | 17   | 15   | 12   | 8    | 4    |
| 4L 12/06               | 2     | 1,5 | 11,5        | 50 | 4     |       | 35  | 28   | 26   | 22   | 18   | 15   | 10   | 5    |
| 4L 12/07               | 3     | 2,2 | 14,7        | 75 | 5,7   |       | 49  | 39   | 36   | 30   | 26   | 21   | 14   | 7    |
| 4L 12/10               | 4     | 3   |             |    | 7,4   |       | 70  | 56   | 51   | 43   | 37   | 29   | 20   | 9    |
| 4L 12/13               | 5,5   | 4   |             |    | 10    |       | 91  | 72   | 66   | 55   | 48   | 38   | 26   | 12   |
| 4L 12/18               | 7,5   | 5,5 |             |    | 13,5  |       | 126 | 100  | 92   | 76   | 66   | 53   | 36   | 17   |
| 4L 12/24               | 10    | 7,5 |             |    | 18    |       | 168 | 133  | 123  | 104  | 88   | 71   | 46   | 23   |

4L 16

| Motor 50 Hz - 2900 rpm |       |     |             |    |       |       | Q   |      |      |      |      |      |      |
|------------------------|-------|-----|-------------|----|-------|-------|-----|------|------|------|------|------|------|
| TYPE                   | Power |     | 1-<br>230 V |    | 400 V | I/min | 0   | 150  | 200  | 250  | 300  | 350  | 400  |
|                        |       |     |             |    |       | I/sec | 0   | 2,50 | 3,33 | 4,17 | 5,09 | 5,33 | 6,67 |
|                        | HP    | KW  | A           | μF | A     | m³/h  | 0   | 9    | 12   | 15   | 18   | 21   | 24   |
| 4L 16/05               | 1,5   | 1,1 | 9,4         | 40 | 3     | H[m]  | 28  | 22   | 19   | 17   | 14   | 9    | 2,2  |
| 4L 16/07               | 2     | 1,5 | 11,5        | 50 | 4     |       | 39  | 30   | 27   | 24   | 19   | 12   | 3,1  |
| 4L 16/10               | 3     | 2,2 | 14,7        | 75 | 5,7   |       | 56  | 43   | 39   | 34   | 27   | 17   | 4,4  |
| 4L 16/14               | 4     | 3   |             |    | 7,4   |       | 73  | 61   | 54   | 48   | 38   | 24   | 5    |
| 4L 16/19               | 5,5   | 4   |             |    | 10    |       | 106 | 82   | 74   | 65   | 52   | 33   | 8    |
| 4L 16/23               | 7,5   | 5,5 |             |    | 13,5  |       | 128 | 100  | 99   | 79   | 63   | 40   | 10   |
| 4L 16/32               | 10    | 7,5 |             |    | 18    |       | 178 | 139  | 124  | 110  | 87   | 55   | 14   |



## 4L 2

| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm)  |                  |      |         |         | Weight (kg) |         |    |
|-------------------------|------------------|------------------|------|---------|---------|-------------|---------|----|
| TYPE                    | A<br>1-<br>230 V | A<br>3-<br>400 V | B    | C<br>1- | C<br>3- | M<br>1-     | M<br>3- | P  |
| 4L 2/08                 | 663              | -                | 366  | 317     | -       | 7           | -       | 4  |
| 4L 2/13                 | 801              | 781              | 464  | 337     | 317     | 8           | 8       | 5  |
| 4L 2/17                 | 904              | 879              | 542  | 362     | 337     | 10          | 10      | 6  |
| 4L 2/25                 | 1090             | 1080             | 898  | 392     | 362     | 12          | 12      | 8  |
| 4L 2/34                 | 1296             | 1265             | 873  | 422     | 392     | 13          | 13      | 11 |
| 4L 2/50                 | 1652             | 1637             | 1185 | 467     | 452     | 15          | 15      | 15 |

|                |       |
|----------------|-------|
| Max Eff. % =   | 40,5  |
| Max kW / St. = | 0,044 |

|          |     |     |     |      |
|----------|-----|-----|-----|------|
| Q (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 2   | 2   | 2,2 | 2,7  |

## 4L 3

| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm)  |                  |      |         |         | Weight (kg) |         |    |
|-------------------------|------------------|------------------|------|---------|---------|-------------|---------|----|
| TYPE                    | A<br>1-<br>230 V | A<br>3-<br>400 V | B    | C<br>1- | C<br>3- | M<br>1-     | M<br>3- | P  |
| 4L 3/07                 | 681              | -                | 364  | 317     | -       | 7           | -       | 4  |
| 4L 3/10                 | 767              | 747              | 430  | 337     | 317     | 8           | 8       | 8  |
| 4L 3/14                 | 880              | 855              | 518  | 382     | 337     | 10          | 10      | 6  |
| 4L 3/21                 | 1064             | 1034             | 672  | 392     | 362     | 12          | 12      | 7  |
| 4L 3/28                 | 1243             | 1218             | 826  | 422     | 392     | 13          | 13      | 9  |
| 4L 3/41                 | 1579             | 1564             | 1112 | 467     | 452     | 15          | 15      | 12 |
| 4L 3/56                 | -                | 1996             | 1442 | -       | 567     | -           | 19      | 16 |
| 4L 3/70                 | -                | 2347             | 1750 | -       | 597     | -           | 22      | 20 |

|                |       |
|----------------|-------|
| Max Eff. % =   | 56    |
| Max kW / St. = | 0,053 |

|          |     |     |     |      |
|----------|-----|-----|-----|------|
| Q (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 2   | 2   | 2,5 | 3,2  |

4L

4L 4

| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm)  |                  |      |         |         | Weight (kg) |         |    |
|-------------------------|------------------|------------------|------|---------|---------|-------------|---------|----|
| TYPE                    | A<br>1-<br>230 V | A<br>3-<br>400 V | B    | C<br>1- | C<br>3- | M<br>1-     | M<br>3- | P  |
| 4L 4/07                 | 701              | 681              | 354  | 337     | 317     | 8           | 8       | 4  |
| 4L 4/10                 | 792              | 767              | 430  | 362     | 337     | 10          | 10      | 5  |
| 4L 4/14                 | 910              | 880              | 518  | 392     | 362     | 12          | 12      | 6  |
| 4L 4/20                 | 1072             | 1042             | 650  | 422     | 392     | 13          | 13      | 7  |
| 4L 4/29                 | 1315             | 1300             | 848  | 467     | 452     | 15          | 15      | 10 |
| 4L 4/39                 |                  | 1625             | 1088 |         | 557     |             | 19      | 12 |
| 4L 4/52                 |                  | 1951             | 1354 |         | 597     |             | 22      | 16 |

|                |       |
|----------------|-------|
| Max Eff. % =   | 84    |
| Max kW / St. = | 0,076 |

|          |     |     |     |      |
|----------|-----|-----|-----|------|
| Q (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 2   | 2   | 2,5 | 3,2  |

4L 5

| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm)  |                  |      |         |         | Weight (kg) |         |     |
|-------------------------|------------------|------------------|------|---------|---------|-------------|---------|-----|
| TYPE                    | A<br>1-<br>230 V | A<br>3-<br>400 V | B    | C<br>1- | C<br>3- | M<br>1-     | M<br>3- | P   |
| 4L 5/08                 | 579              | 659              | 342  | 337     | 317     | 8           | 3       | 4   |
| 4L 5/09                 | 748              | 723              | 886  | 362     | 337     | 10          | 10      | 4,5 |
| 4L 5/12                 | 866              | 838              | 474  | 392     | 362     | 12          | 19      | 6   |
| 4L 5/18                 | 984              | 954              | 562  | 422     | 392     | 13          | 13      | 7   |
| 4L 5/23                 | 1183             | 1168             | 716  | 467     | 452     | 15          | 15      | 9   |
| 4L 5/32                 |                  | 1471             | 914  |         | 557     |             | 19      | 12  |
| 4L 5/42                 |                  | 1731             | 1134 |         | 597     |             | 22      | 15  |
| 4L 5/52                 |                  | 2052             | 1354 |         | 698     |             | 27      | 18  |
| 4L 5/58                 |                  | 2524             | 1706 |         | 818     |             | 32      | 23  |

|                |       |
|----------------|-------|
| Max Eff. % =   | 63,5  |
| Max kW / St. = | 0,095 |

|          |     |     |     |      |
|----------|-----|-----|-----|------|
| Q (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 2   | 2   | 2,6 | 3,2  |

4L 7

| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm)  |                  |      |         |         | Weight (kg) |         |    |
|-------------------------|------------------|------------------|------|---------|---------|-------------|---------|----|
| TYPE                    | A<br>1-<br>230 V | A<br>3-<br>400 V | B    | C<br>1- | C<br>3- | M<br>1-     | M<br>3- | P  |
| 4L 7/04                 | 687              | 647              | 330  | 337     | 317     | 8           | 8       | 3  |
| 4L 7/06                 | 752              | 727              | 390  | 362     | 337     | 10          | 10      | 4  |
| 4L 7/09                 | 872              | 842              | 480  | 392     | 362     | 12          | 12      | 5  |
| 4L 7/12                 | 992              | 962              | 570  | 422     | 392     | 13          | 13      | 6  |
| 4L 7/17                 | 1137             | 1172             | 720  | 467     | 452     | 15          | 15      | 8  |
| 4L 7/23                 |                  | 1457             | 900  |         | 557     |             | 19      | 10 |
| 4L 7/31                 |                  | 1737             | 1140 |         | 597     |             | 22      | 13 |
| 4L 7/42                 |                  | 2168             | 1470 |         | 698     |             | 27      | 16 |
| 4L 7/58                 |                  | 2708             | 1890 |         | 818     |             | 32      | 21 |

|                |       |
|----------------|-------|
| Max Eff. % =   | 65    |
| Max kW / St. = | 0,128 |

|          |     |     |     |      |
|----------|-----|-----|-----|------|
| Q (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 2   | 2   | 2,7 | 3,5  |

| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm)  |                  |      |         |         | Weight (kg) |         |    |
|-------------------------|------------------|------------------|------|---------|---------|-------------|---------|----|
| TYPE                    | A<br>1-<br>230 V | A<br>3-<br>400 V | B    | C<br>1- | C<br>3- | M<br>1-     | M<br>3- | P  |
| 4L 9/04                 | 692              | 667              | 330  | 362     | 387     | 10          | 10      | 3  |
| 4L 9/07                 | 812              | 782              | 420  | 392     | 362     | 12          | 12      | 4  |
| 4L 9/09                 | 902              | 872              | 480  | 422     | 392     | 13          | 18      | 5  |
| 4L 9/13                 | 1067             | 1052             | 600  | 467     | 452     | 15          | 15      | 6  |
| 4L 9/18                 |                  | 1807             | 750  |         | 557     |             | 19      | 8  |
| 4L 9/24                 |                  | 1527             | 930  |         | 597     |             | 22      | 10 |
| 4L 9/31                 |                  | 1838             | 1140 |         | 598     |             | 27      | 12 |
| 4L 9/42                 |                  | 2288             | 1470 |         | 818     |             | 32      | 16 |

|                |       |
|----------------|-------|
| Max Eff. % =   | 64    |
| Max kW / St. = | 0,165 |

|          |     |     |     |      |
|----------|-----|-----|-----|------|
| Q (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 2,2 | 2,2 | 3   | 4,8  |

| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm)  |                  |      |         |         | Weight (kg) |         |    |
|-------------------------|------------------|------------------|------|---------|---------|-------------|---------|----|
| TYPE                    | A<br>1-<br>230 V | A<br>3-<br>400 V | B    | C<br>1- | C<br>3- | M<br>1-     | M<br>3- | P  |
| 4L 10/04                | 736              | 711              | 374  | 362     | 337     | 10          | 10      | 4  |
| 4L 10/05                | 607              | 777              | 415  | 892     | 382     | 12          | 12      | 4  |
| 4L 10/07                | 919              | 889              | 497  | 422     | 392     | 13          | 13      | 5  |
| 4L 10/10                | 1087             | 1072             | 820  | 437     | 452     | 15          | 15      | 6  |
| 4L 10/14                |                  | 1841             | 784  |         | 557     |             | 19      | 7  |
| 4L 10/19                |                  | 1586             | 989  |         | 597     |             | 22      | 9  |
| 4L 10/28                |                  | 1974             | 1276 |         | 698     |             | 27      | 12 |
| 4L 10/38                |                  | 2463             | 1645 |         | 818     |             | 32      | 15 |

|                |       |
|----------------|-------|
| Max Eff. % =   | 60    |
| Max kW / St. = | 0,210 |

|          |     |     |     |      |
|----------|-----|-----|-----|------|
| Q (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 2,2 | 2,2 | 3   | 4,8  |

| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm)  |                  |      |         |         | Weight (kg) |         |    |
|-------------------------|------------------|------------------|------|---------|---------|-------------|---------|----|
| TYPE                    | A<br>1-<br>230 V | A<br>3-<br>400 V | B    | C<br>1- | C<br>3- | M<br>1-     | M<br>3- | P  |
| 4L 12/04                | 766              | 736              | 874  | 392     | 352     | 12          | 12      | 4  |
| 4L 12/06                | 837              | 807              | 415  | 422     | 392     | 13          | 13      | 4  |
| 4L 12/07                | 964              | 949              | 497  | 467     | 452     | 15          | 15      | 5  |
| 4L 12/10                |                  | 1177             | 620  |         | 557     |             | 19      | 6  |
| 4L 12/13                |                  | 1340             | 743  |         | 597     |             | 22      | 7  |
| 4L 12/18                |                  | 1646             | 948  |         | 698     |             | 27      | 9  |
| 4L 12/24                |                  | 2012             | 1194 |         | 818     |             | 32      | 12 |

|                |       |
|----------------|-------|
| Max Eff. % =   | 57    |
| Max kW / St. = | 0,308 |

|          |     |     |     |      |
|----------|-----|-----|-----|------|
| Q (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 2,2 | 2,2 | 3   | 4,8  |

4L

4L 16

| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm)  |                  |      |         |         | Weight (kg) |         |    |
|-------------------------|------------------|------------------|------|---------|---------|-------------|---------|----|
| TYPE                    | A<br>1-<br>230 V | A<br>3-<br>400 V | B    | C<br>1- | C<br>3- | M<br>1-     | M<br>3- | P  |
| 4L 16/05                | 967              | 937              | 575  | 392     | 362     | 12          | 12      | 5  |
| 4L 16/07                | 1143             | 1113             | 721  | 422     | 392     | 13          | 13      | 6  |
| 4L 16/10                | 1407             | 1392             | 940  | 467     | 452     | 15          | 15      | 8  |
| 4L 16/14                |                  | 1789             | 1232 |         | 557     |             | 19      | 10 |
| 4L 16/19                |                  | 2194             | 1597 |         | 597     |             | 22      | 13 |
| 4L 16/28                |                  | 2587             | 1889 |         | 698     |             | 27      | 16 |
| 4L 16/32                |                  | 3364             | 2546 |         | 818     |             | 32      | 21 |

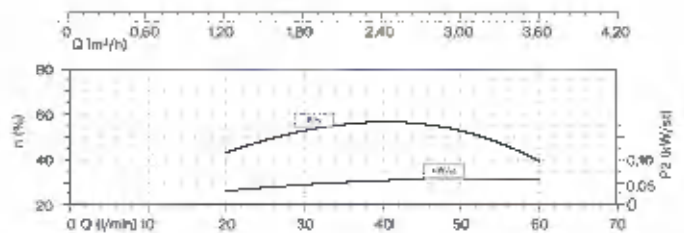
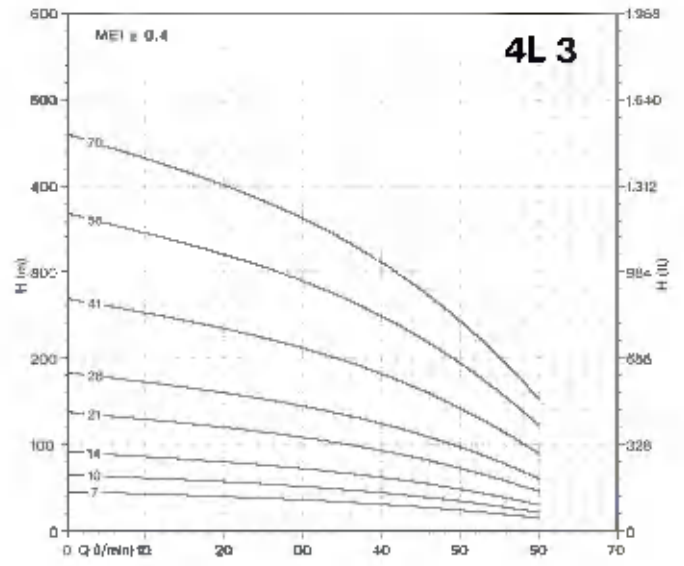
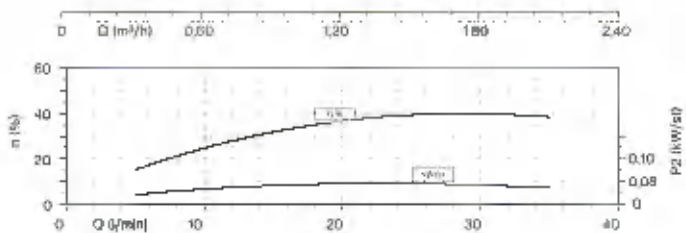
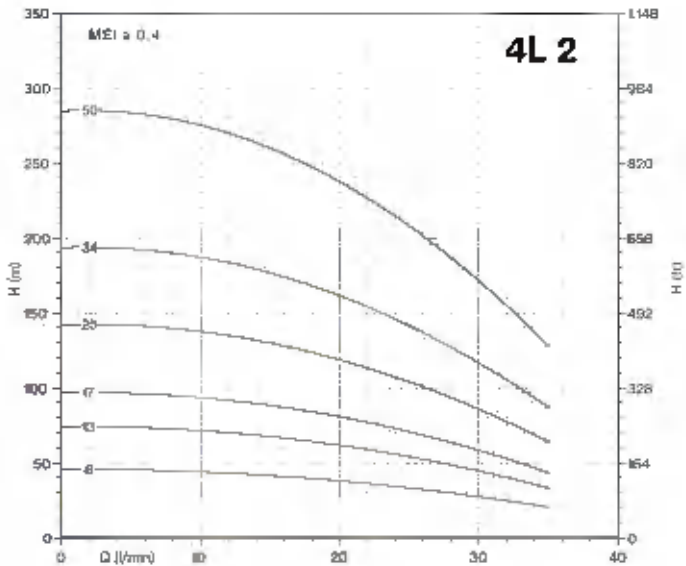
  

|                |       |
|----------------|-------|
| Max Eff. % =   | 64,5  |
| Max kW / St. = | 0,216 |

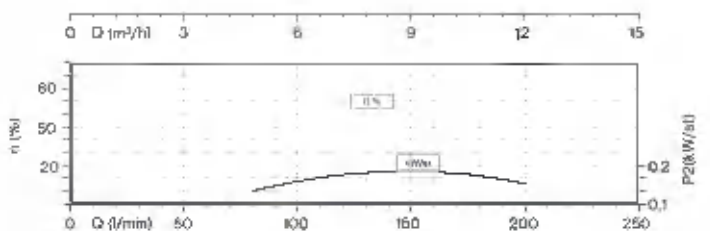
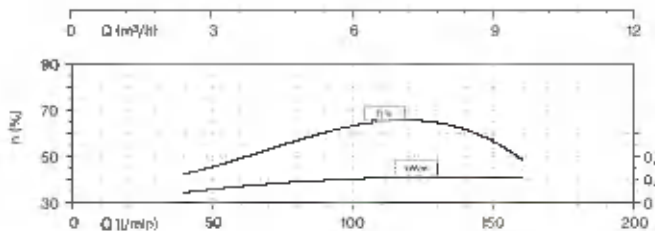
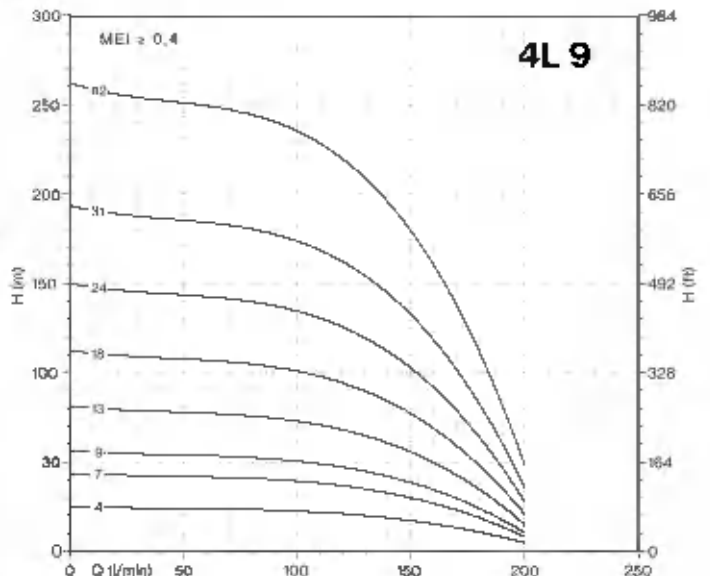
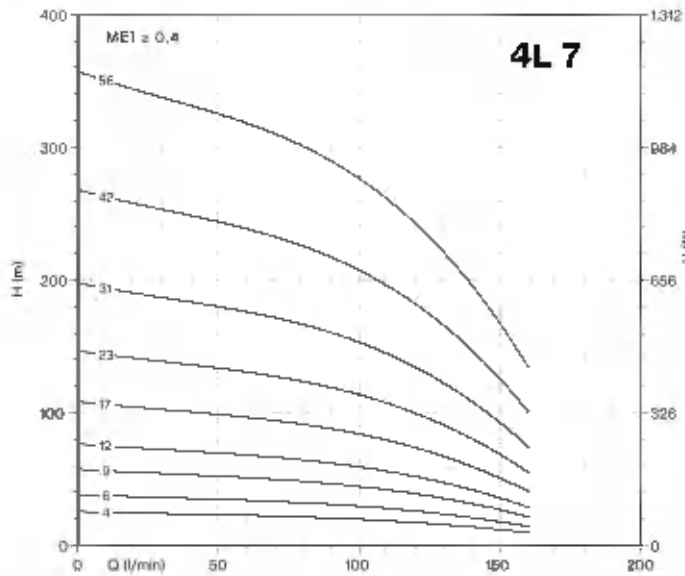
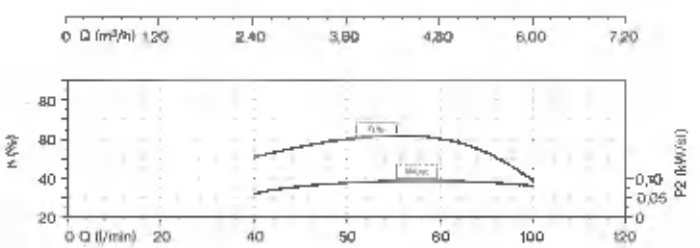
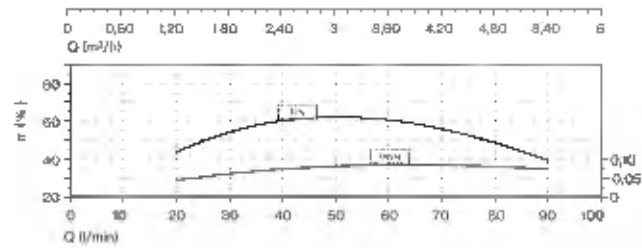
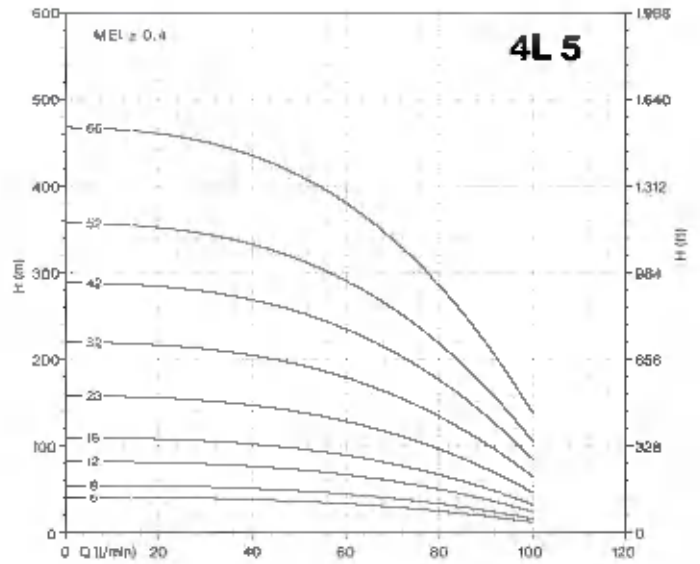
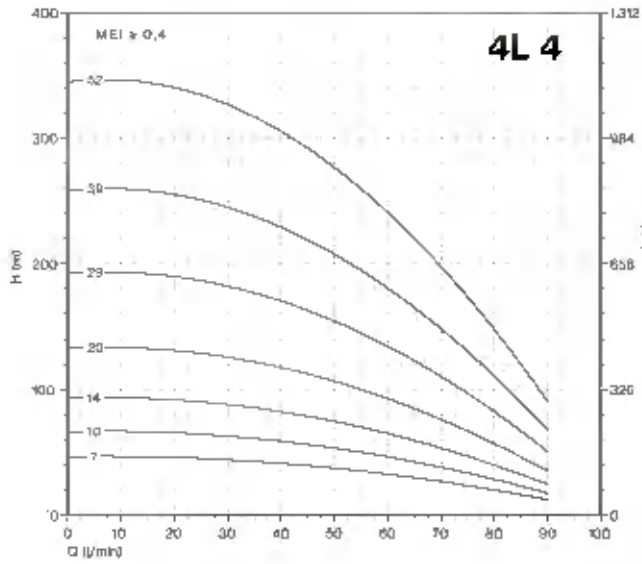
  

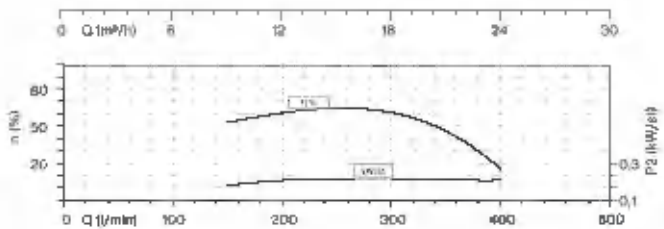
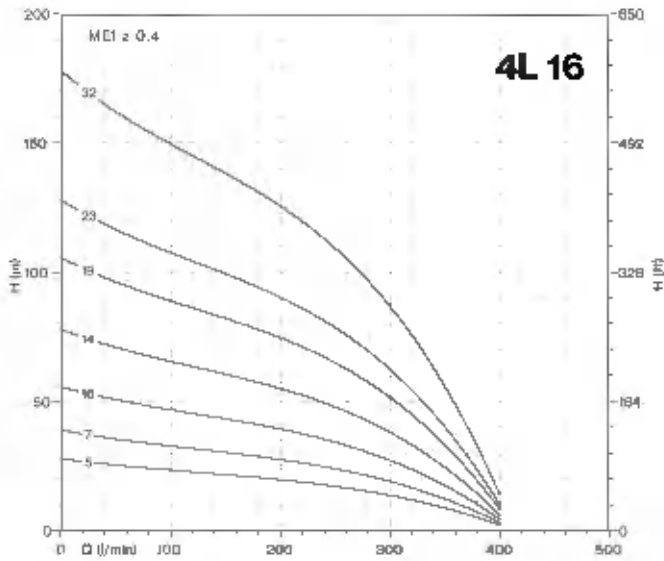
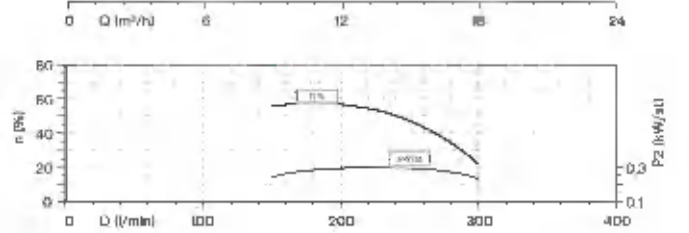
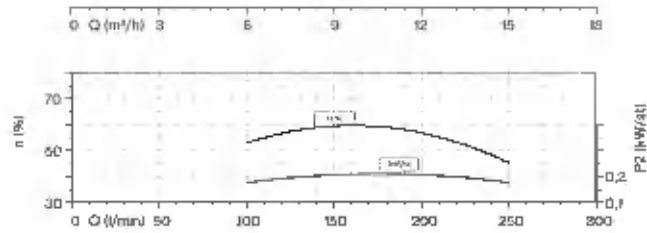
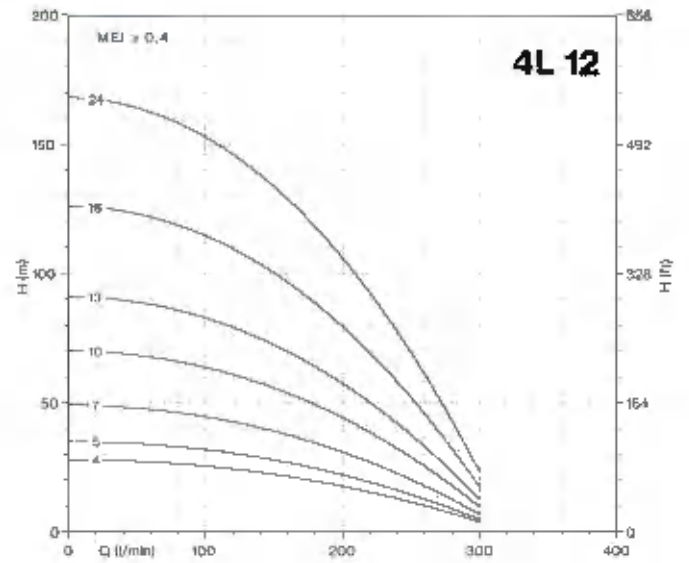
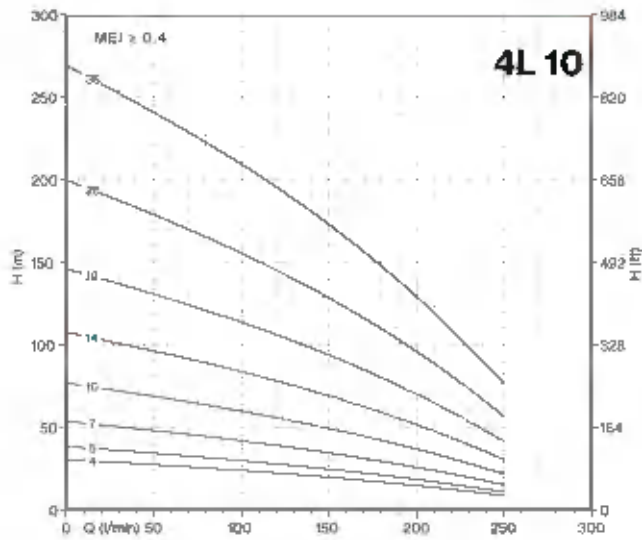
|          |     |     |     |      |
|----------|-----|-----|-----|------|
| Q (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 3   | 3   | 4   | 6    |

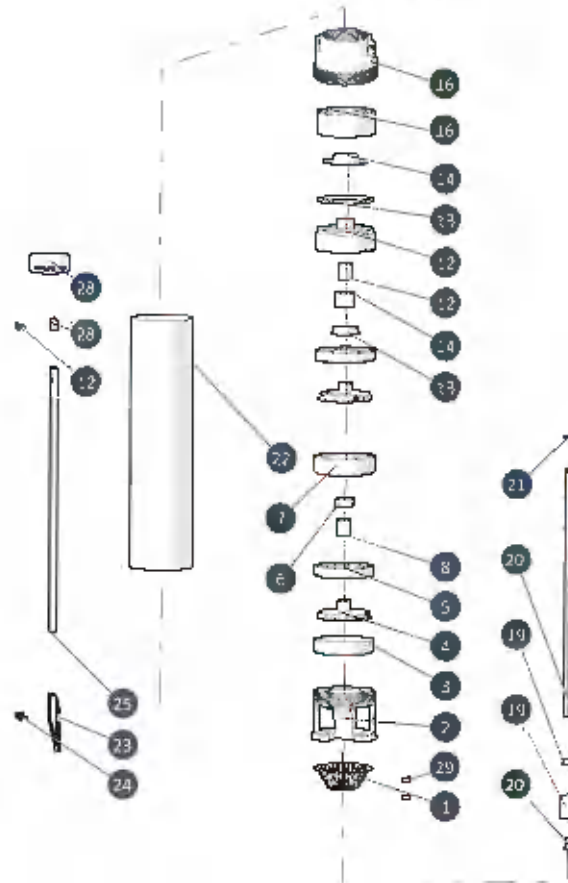
4L











| N. CODE | DESCRIPTION                      | MATERIAL      |
|---------|----------------------------------|---------------|
| 1       | SUCTION STRAINER                 | AISI 304      |
| 2       | SUCTION CAGE                     | AISI 304      |
| 3       | INTERMEDIATE CASING              | AISI 304      |
| 4       | IMPELLER                         | POLYCARBONATE |
| 5       | DIFFUSEUR                        | NORYL GFN2    |
| 6       | INTERMEDIATE BEARING BUSH        | RUBBER NBR    |
| 7       | INTERMEDIATE SUPPORT             | NORYL GFN2    |
| 8       | INTERMEDIATE SPACER              | AISI 304      |
| 9       | SAND GUARD                       | NORYL GFN2    |
| 10      | SPACER UPPER SUPPORT             | AISI 304      |
| 11      | UPPER BEARING BUSH               | RUBBER NBR    |
| 12      | UPPER SUPPORT                    | NORYL GFN2    |
| 13      | GASLET VALVE                     | RUBBER NBR    |
| 14      | CAP VALVE                        | AISI 304      |
| 15      | RING CONNECTOR DELIVERY BOWL     | NORYL GFN2    |
| 16      | DELIVERY BOWL                    | AISI 304      |
| 17      | SCREW M6X12                      | AISI 304      |
| 18      | FLOTTANTE FLOATING JOINT         | AISI 304      |
| 19      | SPACER FIRST IMPELLER            | POLYCARBONATE |
| 20      | PUMP SHAFT                       | AISI 420      |
| 21      | SEGER                            | AISI 304      |
| 22      | SLEEVE                           | AISI 304      |
| 23      | LOWER FLANGE                     | AISI 304      |
| 24      | N.2 SCREW M4X10 FOR LOWER FLANGE | AISI 304      |
| 25      | COVER CABLE                      | AISI 304      |
| 26      | UPPER FLANGE                     | AISI 304      |
| 27      | N.2 SCREW M4X10 FOR UPPER FLANGE | AISI 304      |
| 28      | ADHESIVE LABEL                   | POLYESTER     |
| 29      | N.2 SCREW M4X10 SUCTION STRAINER | AISI 304      |

# 6-8-10LMG lines

## Deepwell Borehole



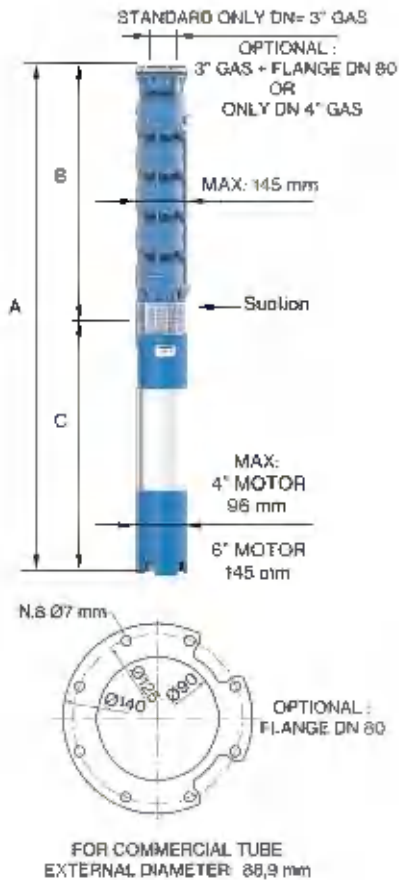
Submersible multistage centrifugal pumps for 6", 8", 10" wells. Check valve built into the delivery outlet. Pump flange for coupling with motors are made according to NEMA standards. Most common applications are civil and agricultural.

### Construction features

|                                      |                                              |
|--------------------------------------|----------------------------------------------|
| <b>Suction and delivery outlet</b>   | cast iron GG25                               |
| <b>Valve</b>                         | stainless steel AISI 304                     |
| <b>Impellers and diffusers</b>       | cast iron GG25; AISI 304 impeller on request |
| <b>Upper bushings</b>                | NBR rubber                                   |
| <b>Shaft pump side</b>               | stainless steel AISI 304                     |
| <b>Quantity of sand in the water</b> | max 50 g/m <sup>3</sup>                      |



| Motor 50 Hz - 2900 rpm |       |      |       | Q     |     |      |      |      |       |       |       |
|------------------------|-------|------|-------|-------|-----|------|------|------|-------|-------|-------|
| TYPE                   | Power |      | 400 V | l/min | 0   | 300  | 400  | 300  | 600   | 700   | 800   |
|                        |       |      |       | l/sec | 0   | 5,00 | 6,67 | 8,33 | 10,00 | 11,67 | 13,33 |
|                        | HP    | kW   | A     | m³/h  | 0   | 18   | 24   | 30   | 36    | 42    | 48    |
| 6LMG 38/03             | 5,5   | 4    | 7,5   | H[m]  | 43  | 36   | 33   | 30   | 27    | 22    | 16    |
| 6LMG 38/04             | 7,5   | 5,5  | 12,5  |       | 57  | 48   | 44   | 40   | 37    | 30    | 20    |
| 6LMG 38/05             | 10    | 7,5  | 17,5  |       | 71  | 60   | 55   | 50   | 46    | 37    | 25    |
| 6LMG 38/06             | 10    | 7,5  | 17,5  |       | 86  | 72   | 68   | 60   | 55    | 45    | 30    |
| 6LMG 38/07             | 12,5  | 9,2  | 21    |       | 100 | 84   | 77   | 70   | 64    | 52    | 36    |
| 6LMG 38/08             | 15    | 11   | 24,5  |       | 114 | 96   | 88   | 80   | 73    | 59    | 40    |
| 6LMG 38/09             | 15    | 11   | 24,5  |       | 129 | 108  | 99   | 90   | 82    | 67    | 45    |
| 6LMG 38/10             | 17,5  | 13   | 28    |       | 143 | 120  | 110  | 100  | 91    | 74    | 50    |
| 6LMG 38/11             | 17,5  | 13   | 28    |       | 157 | 132  | 121  | 110  | 101   | 82    | 55    |
| 6LMG 38/12             | 20    | 15   | 32    |       | 171 | 144  | 132  | 120  | 110   | 89    | 60    |
| 6LMG 38/13             | 20    | 15   | 32    |       | 186 | 156  | 143  | 130  | 119   | 97    | 65    |
| 6LMG 38/14             | 25    | 18,5 | 40    |       | 200 | 168  | 154  | 140  | 128   | 104   | 70    |
| 6LMG 38/15             | 25    | 18,5 | 40    |       | 214 | 180  | 165  | 150  | 137   | 111   | 75    |



| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm) |      |     | Weight (kg) |    |
|-------------------------|-----------------|------|-----|-------------|----|
| TYPE                    | A               | B    | C   | M           | P  |
| 6LMG 38/03              | 1242            | 596  | 648 | 40          | 19 |
| 6LMG 38/04              | 1368            | 697  | 671 | 45          | 23 |
| 6LMG 38/05              | 1499            | 798  | 701 | 55          | 26 |
| 6LMG 38/06              | 1600            | 899  | 701 | 55          | 32 |
| 6LMG 38/07              | 1751            | 1000 | 751 | 60          | 36 |
| 6LMG 38/08              | 1912            | 1101 | 811 | 65          | 40 |
| 6LMG 38/09              | 2013            | 1202 | 811 | 65          | 44 |
| 6LMG 38/10              | 2144            | 1303 | 841 | 70          | 48 |
| 6LMG 38/11              | 2245            | 1404 | 841 | 70          | 52 |
| 6LMG 38/12              | 2436            | 1505 | 931 | 75          | 55 |
| 6LMG 38/13              | 2537            | 1606 | 931 | 75          | 60 |
| 6LMG 38/14              | 2688            | 1707 | 991 | 83          | 64 |
| 6LMG 38/15              | 2799            | 1808 | 991 | 83          | 69 |

|                |      |
|----------------|------|
| Max Eff. % =   | 74   |
| Max kW / St. = | 1,22 |

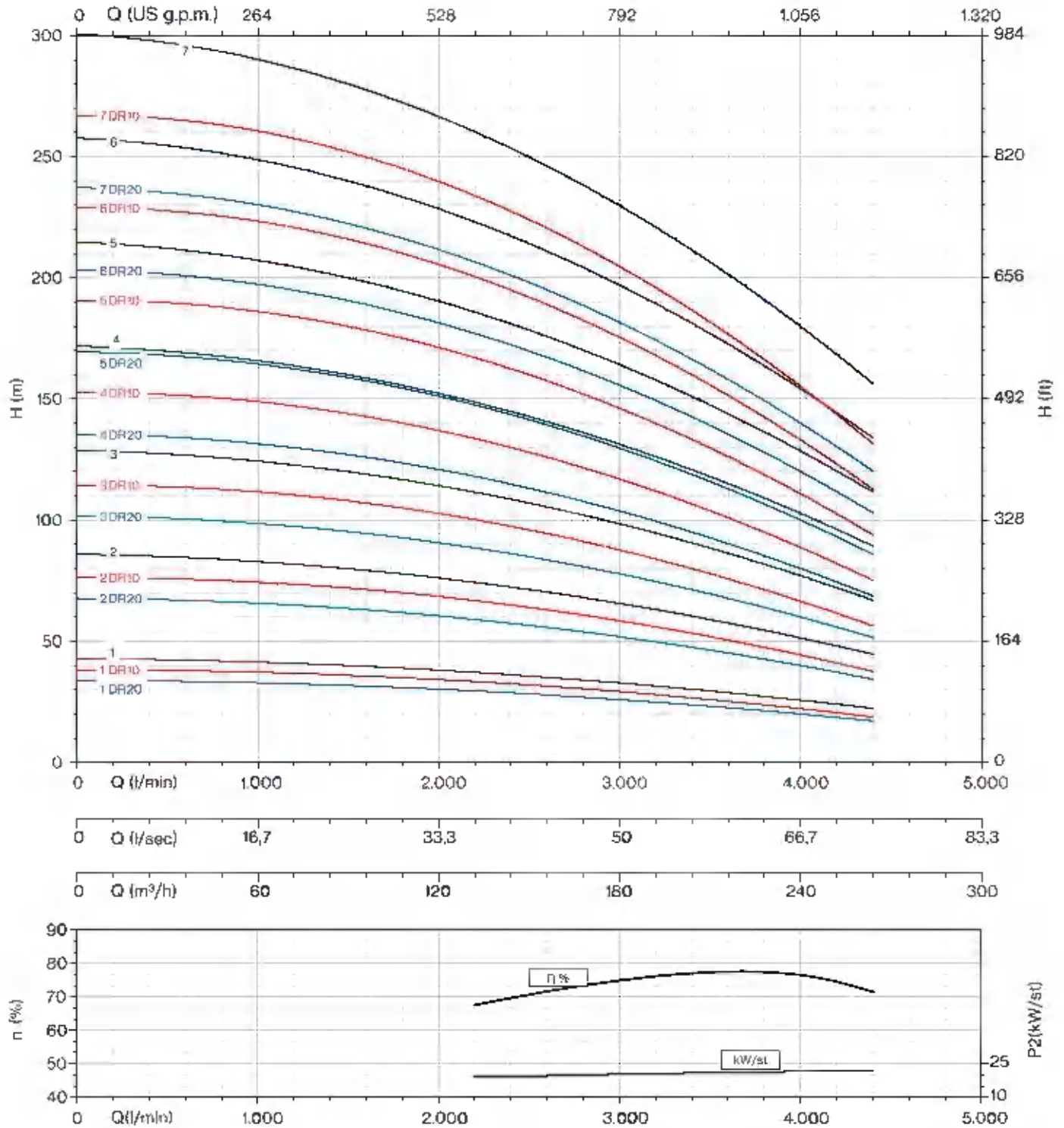
|          |     |     |     |      |
|----------|-----|-----|-----|------|
| Q (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 3,4 | 3,4 | 3,8 | 8    |



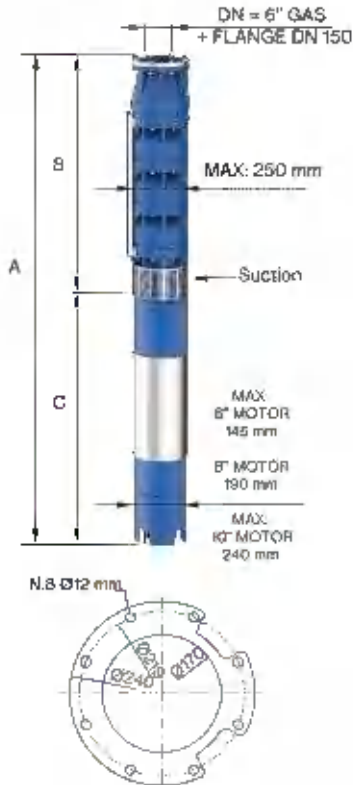
10LMG



10LMG 230



| Motor 50 Hz - 2900 rpm |       |     |       |       | Q     |      |       |       |       |       |       |       |       |
|------------------------|-------|-----|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| TYPE                   | Power |     | 400 V | l/min | 0     | 2400 | 2800  | 3200  | 3600  | 4000  | 4400  | 4800  | 5000  |
|                        | HP    | kW  |       | A     | l/sec | 0    | 40,00 | 46,67 | 53,33 | 60,00 | 66,67 | 73,33 | 80,00 |
|                        |       |     | m³/h  |       | 0     | 144  | 158   | 192   | 216   | 240   | 264   | 288   | 300   |
| 10LMG 250/01 DR 20     | 30    | 22  | 47,5  | H[m]  | 34    | 28   | 27    | 26    | 25    | 22    | 21    | 16    | 17    |
| 10LMG 250/01 DR 10     | 35    | 26  | 55    |       | 38    | 32   | 30    | 29    | 23    | 25    | 23    | 20    | 20    |
| 10LMG 250/01           | 35    | 26  | 55    |       | 43    | 36   | 34    | 33    | 31    | 28    | 26    | 23    | 22    |
| 10LMG 250/02 DR 20     | 60    | 45  | 92    |       | 58    | 57   | 54    | 52    | 49    | 44    | 41    | 36    | 35    |
| 10LMG 250/02 DR 10     | 75    | 55  | 113,5 |       | 77    | 64   | 61    | 59    | 55    | 50    | 46    | 41    | 39    |
| 10LMG 250/02           | 75    | 55  | 113,5 |       | 86    | 72   | 68    | 66    | 62    | 56    | 52    | 46    | 44    |
| 10LMG 250/03 DR 20     | 90    | 66  | 134,6 |       | 102   | 85   | 81    | 79    | 74    | 67    | 62    | 55    | 52    |
| 10LMG 250/03 DR 10     | 100   | 75  | 148,5 |       | 115   | 95   | 91    | 88    | 83    | 75    | 70    | 61    | 59    |
| 10LMG 250/02           | 125   | 92  | 165   |       | 129   | 108  | 102   | 99    | 93    | 84    | 78    | 69    | 66    |
| 10LMG 250/04 DR 20     | 125   | 92  | 185   |       | 136   | 114  | 108   | 105   | 98    | 89    | 82    | 73    | 70    |
| 10LMG 250/04 DR 10     | 125   | 92  | 185   |       | 154   | 128  | 122   | 118   | 110   | 100   | 93    | 82    | 78    |
| 10LMG 250/04           | 150   | 110 | 219   |       | 172   | 144  | 136   | 132   | 124   | 112   | 104   | 92    | 88    |
| 10LMG 250/06 DR 20     | 150   | 110 | 219   |       | 170   | 142  | 135   | 131   | 123   | 111   | 103   | 91    | 87    |
| 10LMG 250/05 DR 10     | 175   | 130 | 254,5 |       | 192   | 160  | 152   | 147   | 138   | 125   | 116   | 102   | 96    |
| 10LMG 250/05           | 175   | 130 | 254,5 |       | 215   | 180  | 170   | 165   | 155   | 140   | 130   | 115   | 110   |
| 10LMG 250/06 DR 20     | 175   | 130 | 254,5 |       | 204   | 170  | 162   | 157   | 148   | 133   | 124   | 109   | 104   |
| 10LMG 250/06 DR 10     | 200   | 150 | 290   |       | 230   | 192  | 182   | 176   | 165   | 150   | 139   | 122   | 115   |
| 10LMG 250/06           | 225   | 165 | 330   |       | 258   | 215  | 204   | 198   | 186   | 168   | 156   | 138   | 132   |
| 10LMG 250/07 DR 20     | 225   | 165 | 330   |       | 236   | 199  | 189   | 183   | 172   | 155   | 144   | 127   | 122   |
| 10LMG 250/07 DR 10     | 225   | 165 | 330   |       | 269   | 224  | 213   | 206   | 193   | 175   | 162   | 143   | 137   |



FOR COMMERCIAL TUBE  
EXTERNAL DIAMETER: 168,3 mm

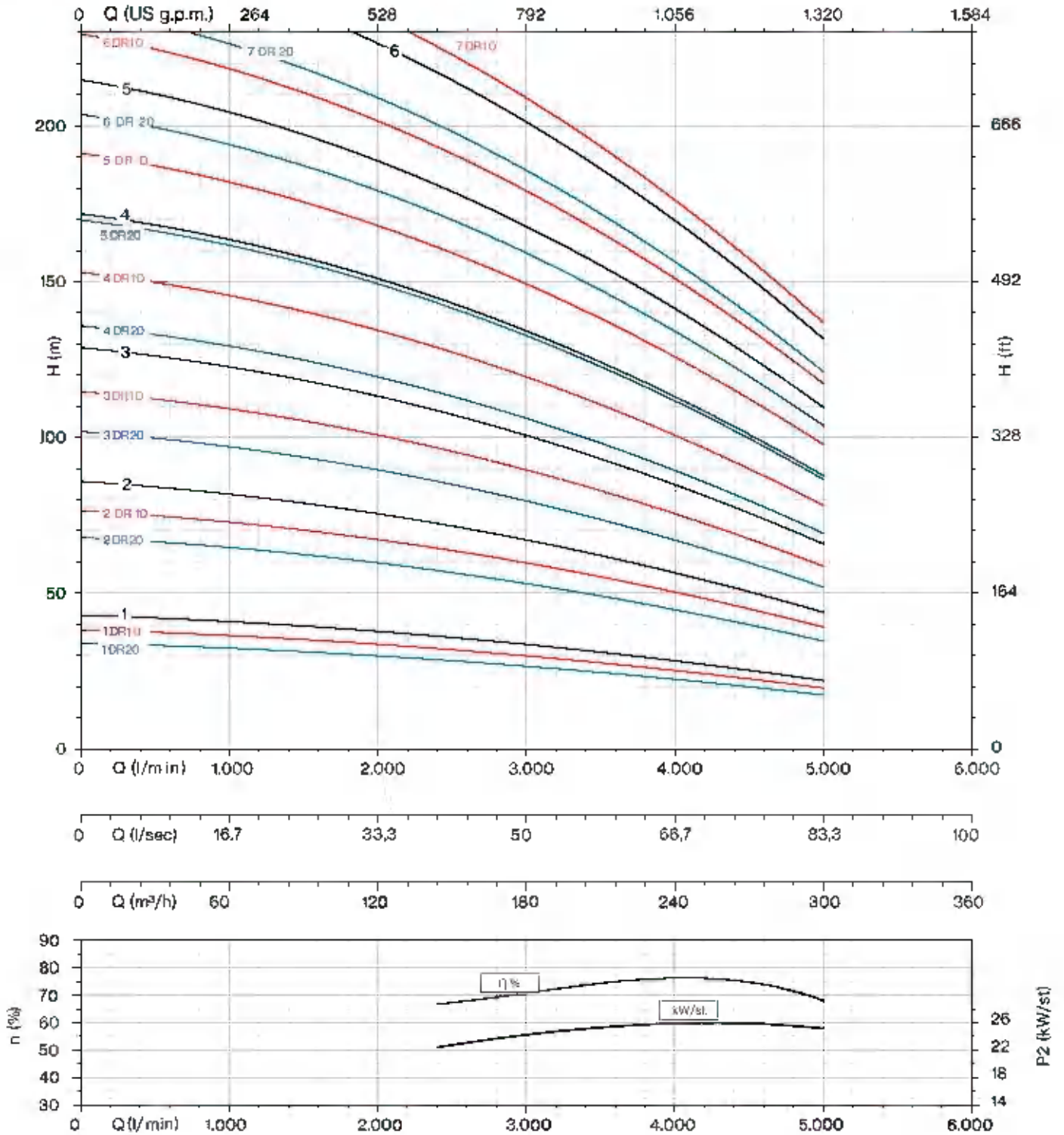
| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm) |      |      | Weight (kg) |     |
|-------------------------|-----------------|------|------|-------------|-----|
| TYPE                    | A               | B    | C    | M           | P   |
| 10LMG 250/01 DR 20      | 1696            | 625  | 1071 | 92          | 50  |
| 10LMG 250/01 DR 10      | 1606            | 625  | 1181 | 100         | 50  |
| 10LMG 250/01            | 1606            | 625  | 1181 | 100         | 50  |
| 10LMG 250/02 DR 20      | 1928            | 805  | 1123 | 178         | 68  |
| 10LMG 250/02 DR 10      | 2038            | 805  | 1233 | 200         | 68  |
| 10LMG 250/02            | 2038            | 805  | 1233 | 200         | 68  |
| 10LMG 250/03 DR 20      | 2288            | 985  | 1303 | 214         | 87  |
| 10LMG 250/03 DR 10      | 2368            | 985  | 1383 | 230         | 87  |
| 10LMG 250/03            | 2558            | 985  | 1583 | 270         | 87  |
| 10LMG 250/04 DR 20      | 2748            | 1165 | 1583 | 270         | 105 |
| 10LMG 250/04 DR 10      | 2748            | 1165 | 1583 | 270         | 105 |
| 10LMG 250/04            | 2898            | 1165 | 1733 | 300         | 105 |
| 10LMG 250/05 DR 20      | 3076            | 1345 | 1783 | 300         | 124 |
| 10LMG 250/05 DR 10      | 2979            | 1345 | 1834 | 385         | 124 |
| 10LMG 250/05            | 2979            | 1345 | 1834 | 385         | 124 |
| 10LMG 250/06 DR 20      | 3159            | 1525 | 1834 | 385         | 142 |
| 10LMG 250/06 DR 10      | 3259            | 1525 | 1734 | 415         | 142 |
| 10LMG 250/06            | 3379            | 1525 | 1854 | 444         | 142 |
| 10LMG 250/07 DR 20      | 3558            | 1705 | 1854 | 444         | 161 |
| 10LMG 250/07 DR 10      | 3558            | 1705 | 1854 | 444         | 161 |

|                     |      |
|---------------------|------|
| Max Eff. % DR20 =   | 75,5 |
| Max Eff. % DR10 =   | 76   |
| Max Eff. % =        | 76,5 |
| Max kW / St. DR20 = | 21,9 |
| Max kW / St. DR10 = | 23,5 |
| Max kW / St. =      | 26,3 |

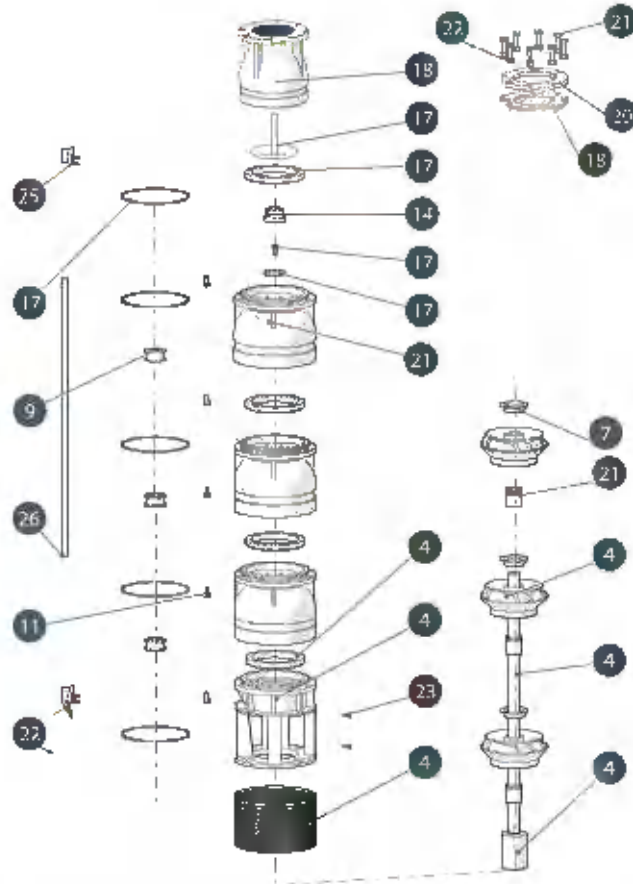
| Q (flow) | 25% | 50% | 75% | 100% |
|----------|-----|-----|-----|------|
| NPSH (m) | 3,9 | 5,5 | 8,5 | 14,4 |

10LMG

10LMG 250



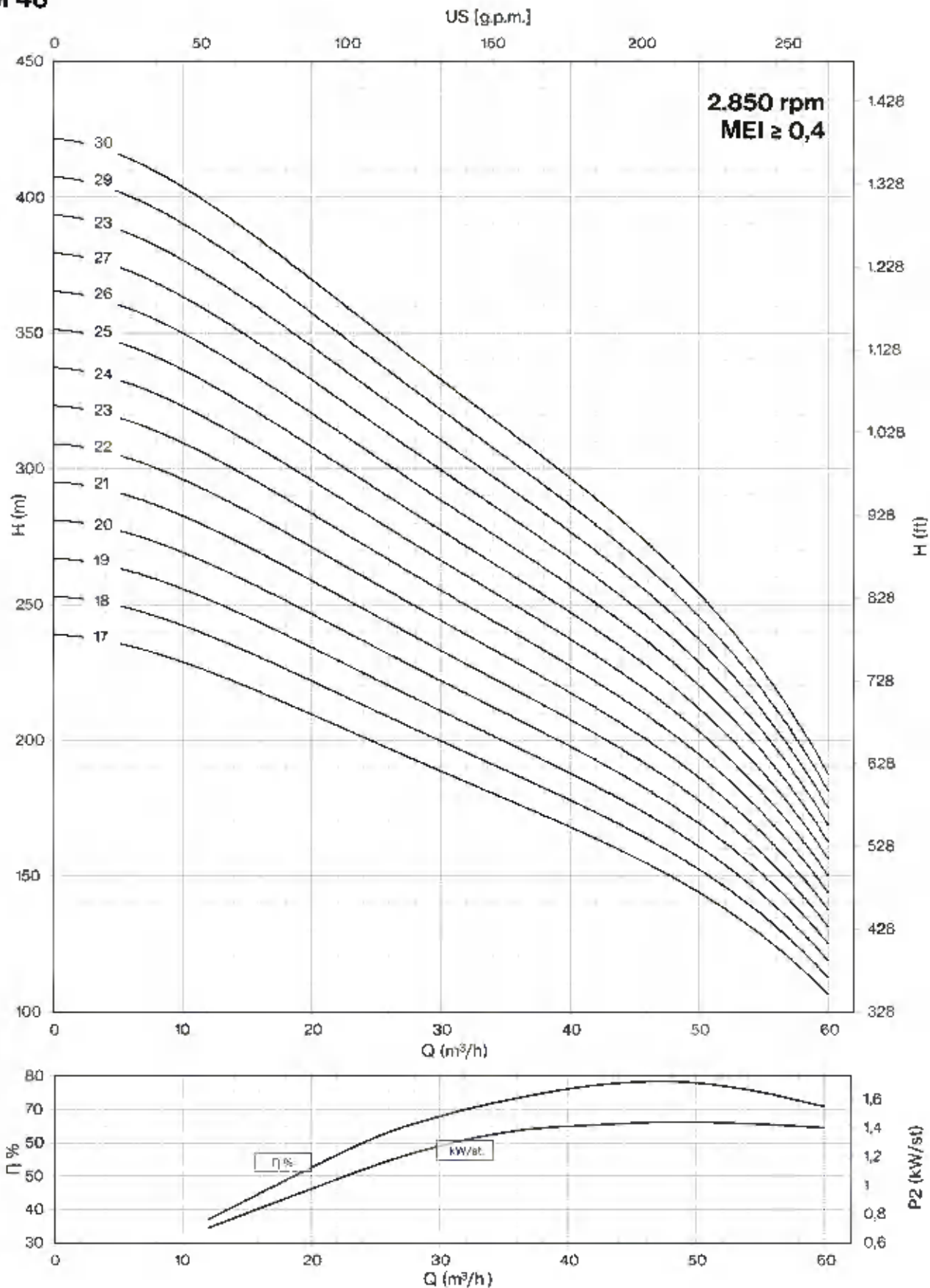




| N. CODE | DESCRIPTION                    | MATERIAL          |
|---------|--------------------------------|-------------------|
| 1       | SUCTION STRAINER               | AISI 304          |
| 2       | SUCTIGN OAGE                   | CAST IRON         |
| 3       | JOINT                          | AISI 304          |
| 4       | USURY RING                     | NBR               |
| 5       | IMPELLER                       | CAST IRON         |
| 6       | CGNE                           | AISI 304          |
| 7       | HEXAGONAL RING                 | AISI 304          |
| 8       | DIFFUSEUR                      | AISI 304          |
| 9       | REARING BUSH                   | NBR               |
| 10      | PUMP SHAFT                     | AISI 304          |
| 11      | N.8 SCREW FOR DIFFUSEUR        | AISI 304          |
| 12      | RING                           | AISI 304          |
| 13      | SCREW FOR DISK                 | AISI 304          |
| 14      | COUNTERTHRUST                  | PTFE + 25% CARBON |
| 15      | G-RING                         | NBR               |
| 16      | GASKET VALVE                   | NBR               |
| 17      | QAP VALVE                      | AISI 304          |
| 18      | SDDY VALVE                     | CAST IRON         |
| 19      | SEAL COUNTERFLANGE             | NBR               |
| 20      | COUNTERFLANGE                  | IRON              |
| 21      | N.8 SCREW FOR COUNTERFLANGE    | AISI 304          |
| 22      | N.8 NUT FOR COUNTERFLANGE      | AISI 304          |
| 23      | N.2 SCREW FOR SUCTION STRAINER | AISI 304          |
| 24      | LOWER FLANGE                   | AISI 304          |
| 25      | UPPER FLANGE                   | AISI 304          |
| 26      | COVER CABLE                    | AISI 304          |

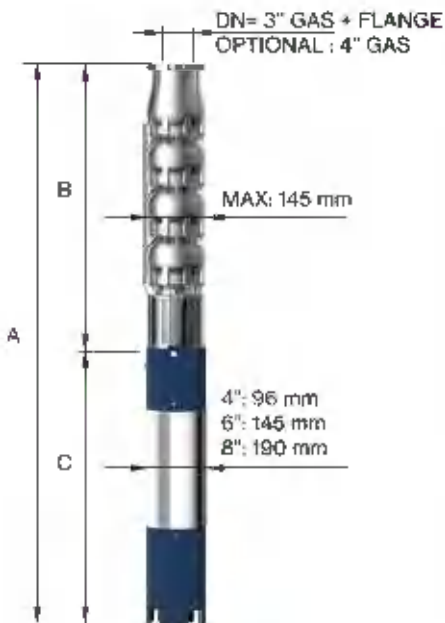
6LM

6LM 46





| Motor 50 Hz - 2900 rpm |       |      |       |       | Q   |     |      |      |      |      |      |      |      |
|------------------------|-------|------|-------|-------|-----|-----|------|------|------|------|------|------|------|
| TYRE                   | Power |      | 400 V | l/min | 0   | 300 | 600  | 700  | 500  | 900  | 1000 | 1100 | 1200 |
|                        |       |      |       | l/sec | 0   | 5,0 | 10,0 | 11,7 | 18,3 | 15,0 | 16,7 | 18,3 | 20,0 |
|                        | HP    | kW   | A     | m³/h  | 0   | 18  | 36   | 42   | 48   | 54   | 60   | 66   | 72   |
| 6LM 60/01              | 3     | 2    | 5,50  | H(m)  | 14  | 12  | 10   | 10   | 9    | 9    | 8    | 7    | 6    |
| 6LM 60/02              | 5,5   | 4    | 10,00 |       | 27  | 25  | 21   | 18   | 18   | 17   | 16   | 14   | 12   |
| 6LM 60/03              | 7,5   | 5,5  | 12,50 |       | 41  | 37  | 31   | 29   | 27   | 25   | 23   | 21   | 18   |
| 6LM 60/04              | 10    | 7,5  | 16,30 |       | 55  | 49  | 41   | 38   | 36   | 34   | 31   | 28   | 24   |
| 6LM 60/05              | 12,5  | 9,2  | 19,90 |       | 69  | 62  | 52   | 48   | 46   | 43   | 39   | 35   | 30   |
| 6LM 60/06              | 15    | 11   | 23,40 |       | 82  | 74  | 62   | 58   | 55   | 51   | 47   | 41   | 36   |
| 6LM 60/07              | 17,5  | 13   | 27,30 |       | 96  | 86  | 72   | 67   | 64   | 60   | 56   | 48   | 42   |
| 6LM 60/08              | 20    | 15   | 31,50 |       | 110 | 98  | 82   | 77   | 73   | 68   | 62   | 55   | 48   |
| 6LM 60/09              | 20    | 15   | 31,50 |       | 123 | 111 | 93   | 86   | 82   | 77   | 70   | 62   | 54   |
| 6LM 60/10              | 25    | 18,5 | 38,30 |       | 137 | 123 | 103  | 96   | 91   | 85   | 78   | 69   | 60   |
| 6LM 60/11              | 25    | 18,5 | 38,30 |       | 151 | 136 | 113  | 106  | 100  | 94   | 86   | 76   | 66   |
| 6LM 60/12              | 30    | 22   | 45,10 |       | 164 | 148 | 124  | 115  | 109  | 102  | 94   | 83   | 72   |
| 6LM 60/13              | 30    | 22   | 45,10 |       | 178 | 160 | 134  | 125  | 118  | 111  | 101  | 90   | 78   |
| 6LM 60/14              | 35    | 25   | 52,90 |       | 192 | 172 | 144  | 134  | 127  | 119  | 109  | 97   | 84   |
| 6LM 60/15              | 35    | 25   | 52,90 |       | 206 | 186 | 156  | 144  | 137  | 126  | 117  | 104  | 90   |
| 6LM 60/16              | 40    | 30   | 61,10 |       | 219 | 197 | 165  | 154  | 146  | 136  | 125  | 110  | 96   |



FOR COMMERCIAL TUBE  
EXTERNAL DIAMETER: 88,9 mm

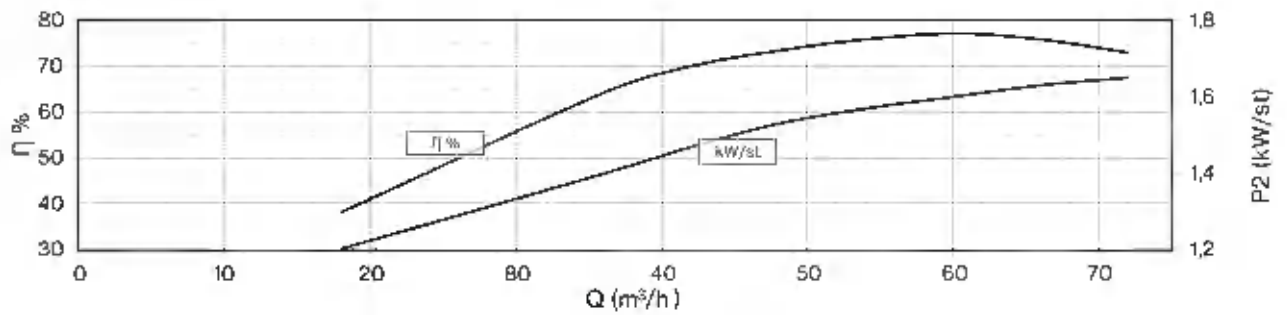
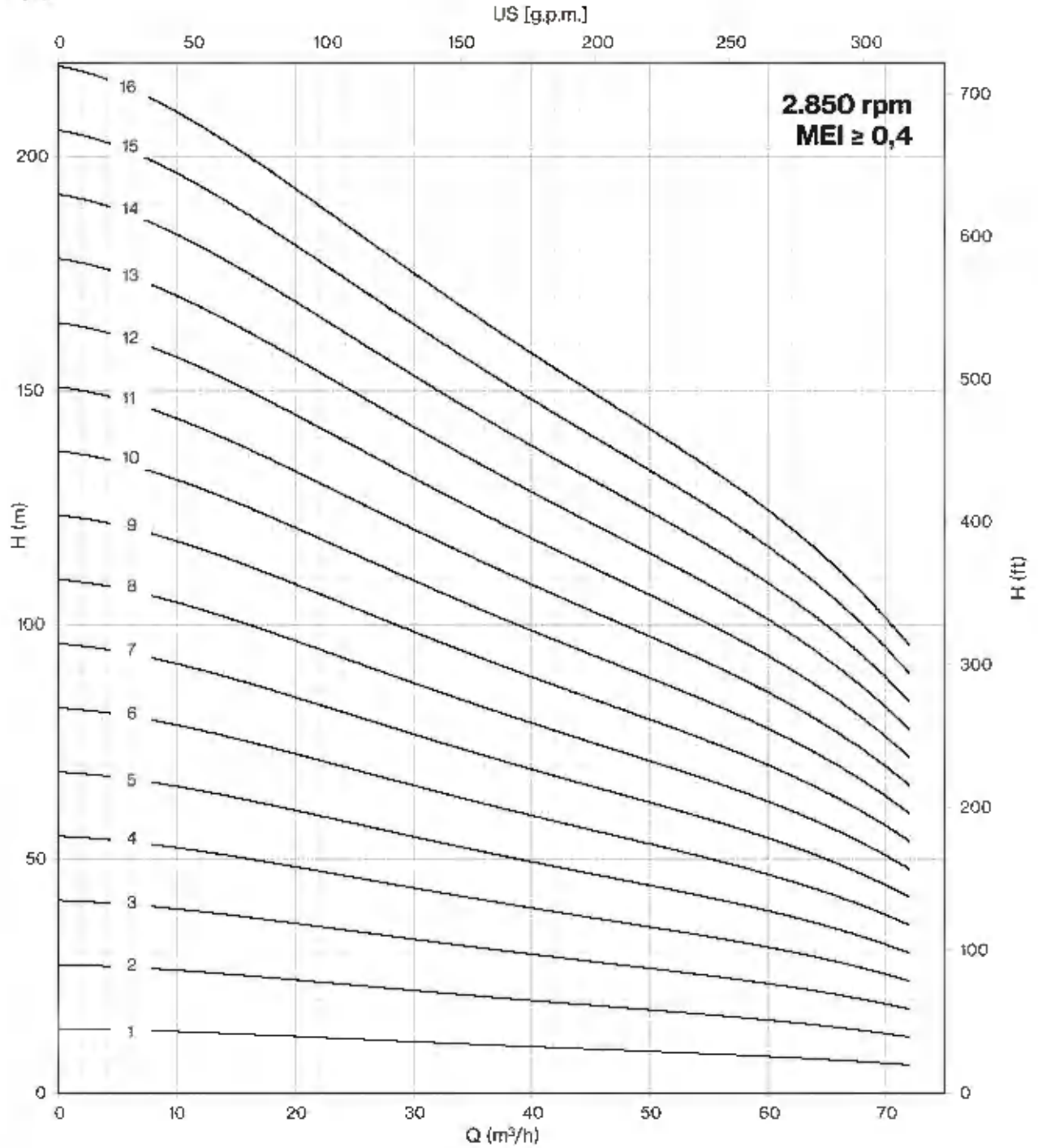
| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm) |      |      | Weight (kg) |    |
|-------------------------|-----------------|------|------|-------------|----|
|                         | A               | B    | C    | M           | R  |
| 6LM 60/01               | 812             | 360  | 452  | 16          | 8  |
| 6LM 60/02               | 1064            | 467  | 597  | 22          | 12 |
| 6LM 60/03               | 1272            | 574  | 688  | 27          | 16 |
| 6LM 60/04               | 1422            | 721  | 701  | 55          | 20 |
| 6LM 60/05               | 1579            | 828  | 751  | 50          | 24 |
| 6LM 60/06               | 1746            | 935  | 811  | 65          | 27 |
| 6LM 60/07               | 1883            | 1042 | 841  | 70          | 31 |
| 6LM 60/08               | 2060            | 1149 | 931  | 75          | 36 |
| 6LM 60/09               | 2167            | 1256 | 931  | 75          | 39 |
| 6LM 60/10               | 2364            | 1363 | 991  | 83          | 43 |
| 6LM 60/11               | 2481            | 1470 | 991  | 83          | 45 |
| 6LM 60/12               | 2545            | 1577 | 1071 | 92          | 50 |
| 6LM 60/13               | 2755            | 1684 | 1071 | 92          | 54 |
| 6LM 60/14               | 2972            | 1791 | 1131 | 100         | 58 |
| 6LM 60/15               | 3079            | 1898 | 1181 | 100         | 62 |
| 6LM 60/16               | 3255            | 2005 | 1251 | 108         | 66 |

|               |      |
|---------------|------|
| Max Eff. % =  | 77   |
| Max kW / SL = | 1,65 |

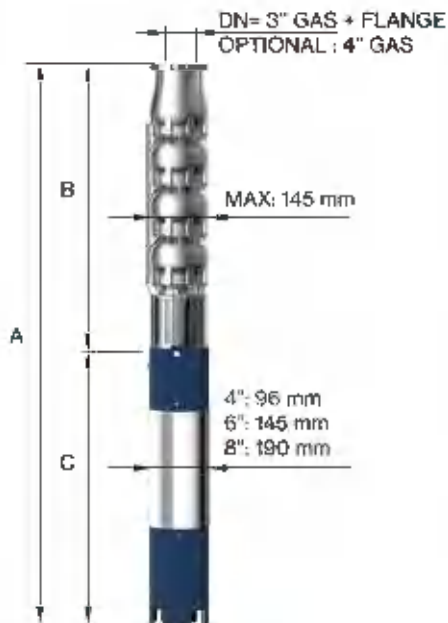
|          |     |     |     |      |
|----------|-----|-----|-----|------|
| Q (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 3,8 | 3,8 | 6,1 | 7,1  |

6LM

6LM 60



| Motor 50 Hz - 2900 rpm |       |    |       |       | Q   |     |      |      |      |      |      |      |      |
|------------------------|-------|----|-------|-------|-----|-----|------|------|------|------|------|------|------|
| TYPE                   | Power |    | 400 V | l/min | 0   | 300 | 600  | 700  | 800  | 900  | 1000 | 1100 | 1200 |
|                        |       |    |       | l/sec | 0   | 5,0 | 10,0 | 11,7 | 13,3 | 15,0 | 16,7 | 18,3 | 20,0 |
|                        | HP    | kW | A     | m³/h  | 0   | 18  | 36   | 42   | 48   | 54   | 60   | 66   | 72   |
| 6LM 60/17              | 40    | 30 | 61,1  | H[m]  | 233 | 209 | 175  | 163  | 155  | 145  | 133  | 117  | 102  |
| 6LM 60/18              | 40    | 30 | 61,1  |       | 247 | 221 | 185  | 173  | 164  | 153  | 140  | 124  | 108  |
| 6LM 60/19              | 50    | 37 | 75,8  |       | 260 | 234 | 196  | 182  | 173  | 162  | 143  | 131  | 114  |
| 6LM 60/20              | 50    | 37 | 75,8  |       | 274 | 246 | 206  | 192  | 182  | 170  | 156  | 138  | 120  |
| 6LM 60/21              | 50    | 37 | 75,8  |       | 288 | 258 | 216  | 202  | 191  | 179  | 164  | 145  | 126  |
| 6LM 60/22              | 50    | 37 | 75,8  |       | 301 | 271 | 227  | 211  | 200  | 187  | 172  | 152  | 132  |
| 6LM 60/23              | 80    | 45 | 86,3  |       | 315 | 283 | 237  | 221  | 209  | 196  | 179  | 159  | 136  |
| 6LM 60/24              | 60    | 45 | 86,3  |       | 329 | 295 | 247  | 230  | 218  | 204  | 187  | 166  | 144  |
| 6LM 60/25              | 60    | 45 | 86,3  |       | 348 | 303 | 263  | 240  | 228  | 213  | 195  | 173  | 150  |
| 6LM 60/26              | 60    | 45 | 86,3  |       | 356 | 320 | 268  | 250  | 237  | 221  | 203  | 179  | 156  |
| 6LM 60/27              | 60    | 45 | 86,3  |       | 370 | 332 | 278  | 259  | 246  | 230  | 211  | 186  | 162  |
| 6LM 60/28              | 75    | 55 | 106,2 |       | 384 | 344 | 288  | 269  | 255  | 238  | 213  | 193  | 168  |
| 6LM 60/29              | 75    | 55 | 106,2 |       | 397 | 357 | 299  | 276  | 264  | 247  | 225  | 300  | 174  |
| 6LM 60/30              | 75    | 55 | 106,2 |       | 411 | 369 | 309  | 288  | 273  | 255  | 234  | 207  | 180  |
| 6LM 60/31              | 75    | 55 | 106,2 |       | 425 | 381 | 319  | 298  | 282  | 264  | 242  | 214  | 186  |
| 6LM 60/32              | 75    | 55 | 106,2 |       | 438 | 394 | 330  | 307  | 291  | 272  | 250  | 221  | 192  |
| 6LM 60/33              | 75    | 55 | 106,2 |       | 452 | 406 | 340  | 317  | 300  | 281  | 257  | 228  | 198  |



| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm) |      |      | Weight (kg) |     |
|-------------------------|-----------------|------|------|-------------|-----|
| TYPE                    | A               | B    | C    | M           | P   |
| 6LM 60/17               | 3363            | 2112 | 1261 | 106         | 69  |
| 6LM 60/18               | 3470            | 2219 | 1251 | 108         | 78  |
| 6LM 60/19               | 3667            | 2326 | 1341 | 113         | 77  |
| 6LM 60/20               | 3774            | 2433 | 1341 | 118         | 81  |
| 6LM 60/21               | 3981            | 2540 | 1341 | 118         | 84  |
| 6LM 60/22               | 3988            | 2647 | 1341 | 118         | 88  |
| 6LM 60/23               | 3944            | 2321 | 1123 | 178         | 96  |
| 6LM 60/24               | 4081            | 2926 | 1123 | 178         | 100 |
| 6LM 60/25               | 4158            | 3035 | 1123 | 173         | 103 |
| 6LM 60/26               | 4265            | 3142 | 1123 | 178         | 107 |
| 6LM 60/27               | 4372            | 3249 | 1123 | 178         | 111 |
| 6LM 60/28               | 4589            | 3356 | 1238 | 200         | 116 |
| 6LM 60/29               | 4696            | 3463 | 1238 | 200         | 118 |
| 6LM 60/30               | 4303            | 3570 | 1233 | 200         | 122 |
| 6LM 60/31               | 4910            | 3677 | 1233 | 200         | 126 |
| 6LM 60/32               | 5017            | 3784 | 1233 | 200         | 130 |
| 6LM 60/33               | 5124            | 3891 | 1233 | 200         | 134 |



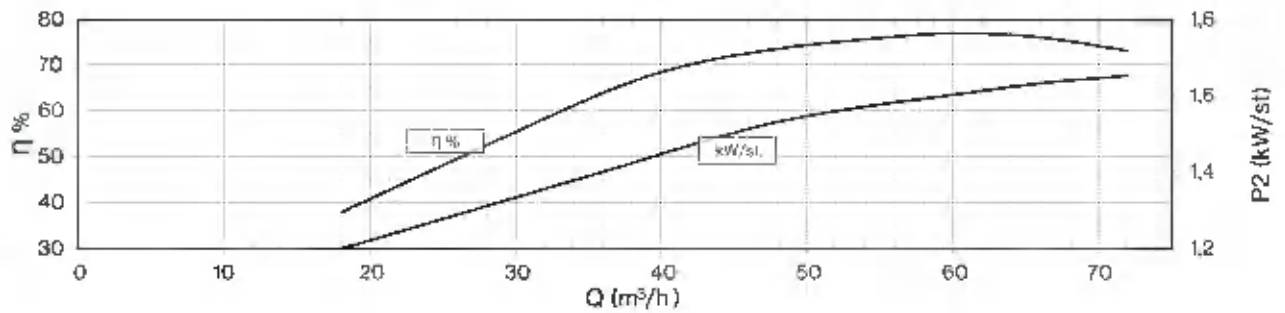
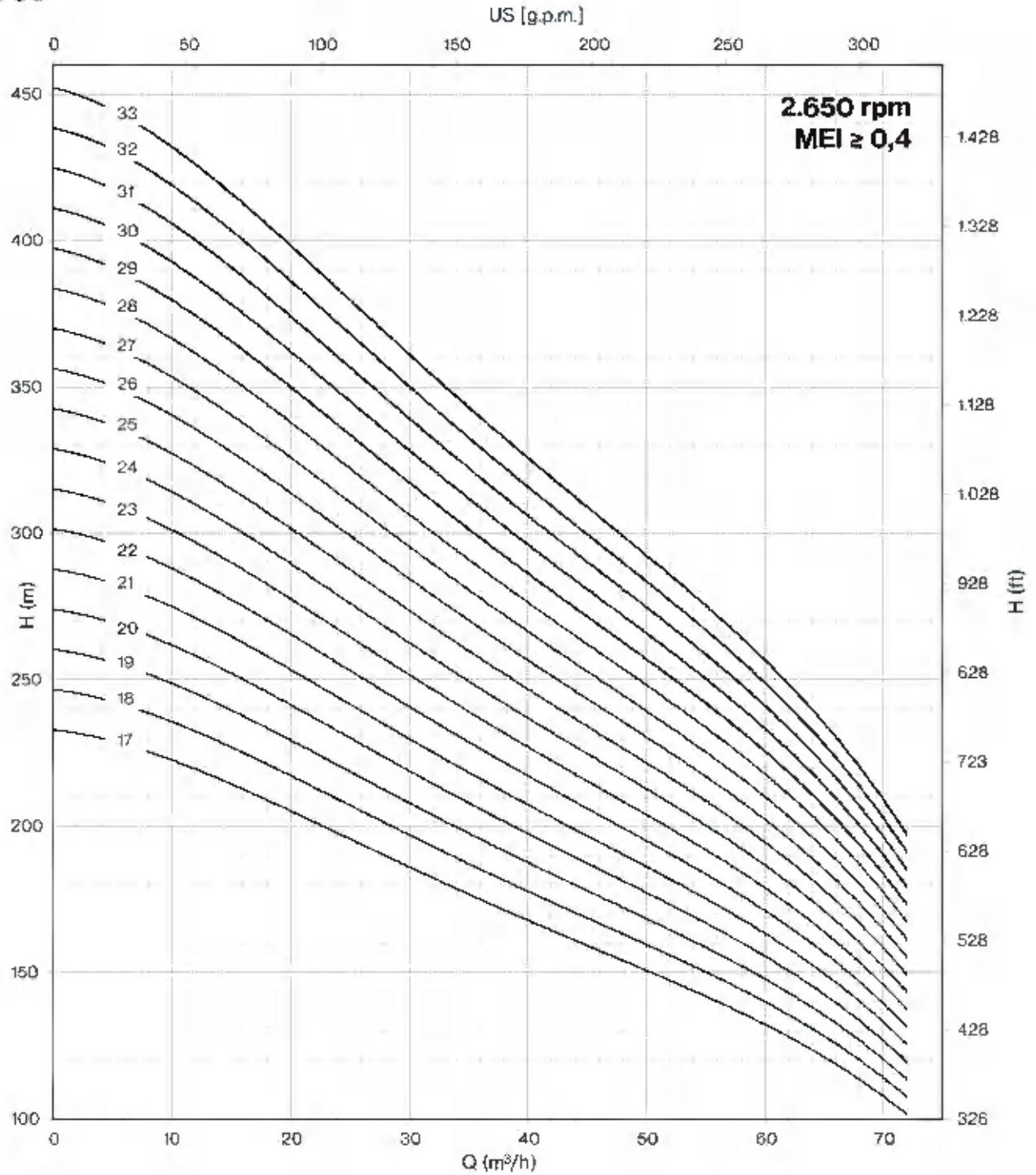
FOR COMMERCIAL TUBE  
EXTERNAL DIAMETER: 68,9 mm

|                |     |
|----------------|-----|
| Max Eff. % =   | 77  |
| Max kW / St. = | 165 |

|          |     |     |     |      |
|----------|-----|-----|-----|------|
| Q (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 3,8 | 3,8 | 5,1 | 7,1  |

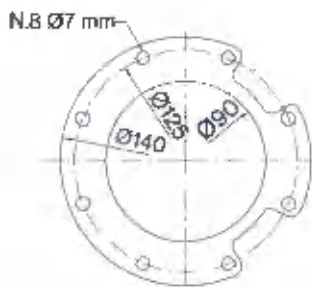
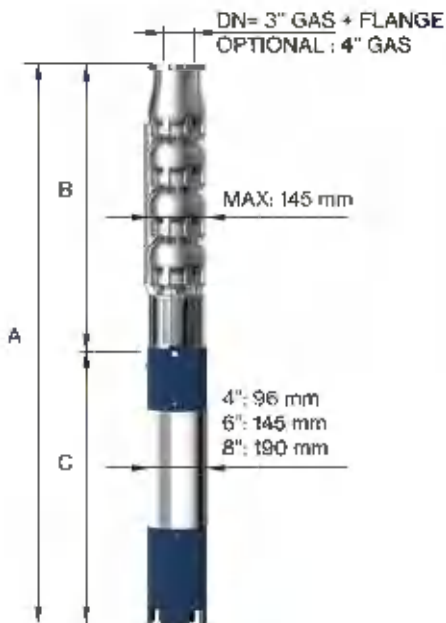
6LM

6LM 60





| Motor 50 Hz - 2900 rpm |       |      |       |       | Q   |     |      |      |      |      |      |      |      |
|------------------------|-------|------|-------|-------|-----|-----|------|------|------|------|------|------|------|
| TYPE                   | Power |      | 400 V | l/min | 0   | 300 | 900  | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 |
|                        |       |      |       | l/sec | 0   | 5,0 | 15,0 | 16,7 | 18,3 | 20,0 | 21,7 | 23,3 | 25,0 |
|                        | HP    | kW   | A     | m³/h  | 0   | 18  | 54   | 80   | 88   | 72   | 78   | 84   | 90   |
| 6LM 70/01              | 3     | 2,2  | 5,5   | H[m]  | 13  | 12  | 10   | 9    | 9    | 9    | 8    | 7    | 6    |
| 6LM 70/02              | 7,5   | 5,5  | 12,5  |       | 26  | 24  | 19   | 19   | 18   | 17   | 16   | 13   | 11   |
| 6LM 70/03              | 10    | 7,5  | 16,3  |       | 39  | 36  | 29   | 28   | 27   | 26   | 23   | 20   | 17   |
| 6LM 70/04              | 12,5  | 9,2  | 19,9  |       | 52  | 48  | 38   | 38   | 36   | 34   | 30   | 26   | 22   |
| 6LM 70/05              | 15    | 11   | 23,4  |       | 66  | 61  | 45   | 47   | 45   | 43   | 38   | 33   | 28   |
| 6LM 70/06              | 20    | 15   | 31,8  |       | 79  | 73  | 57   | 56   | 55   | 51   | 46   | 40   | 34   |
| 6LM 70/07              | 25    | 18,5 | 38,3  |       | 92  | 85  | 57   | 66   | 64   | 60   | 53   | 46   | 39   |
| 6LM 70/08              | 25    | 18,5 | 38,3  |       | 105 | 97  | 76   | 75   | 73   | 68   | 61   | 53   | 45   |
| 6LM 70/09              | 30    | 22   | 45,1  |       | 118 | 109 | 86   | 85   | 82   | 77   | 69   | 61   | 50   |
| 6LM 70/10              | 30    | 22   | 45,1  |       | 131 | 121 | 98   | 94   | 91   | 86   | 76   | 66   | 56   |
| 6LM 70/11              | 35    | 26   | 52,9  |       | 144 | 136 | 105  | 103  | 100  | 94   | 84   | 73   | 62   |
| 6LM 70/12              | 40    | 30   | 61,1  |       | 157 | 145 | 115  | 113  | 109  | 102  | 91   | 79   | 67   |
| 6LM 70/13              | 40    | 30   | 61,1  |       | 170 | 157 | 124  | 122  | 118  | 111  | 99   | 86   | 73   |



FOR COMMERCIAL TUBE  
EXTERNAL DIAMETER: 68,9 mm

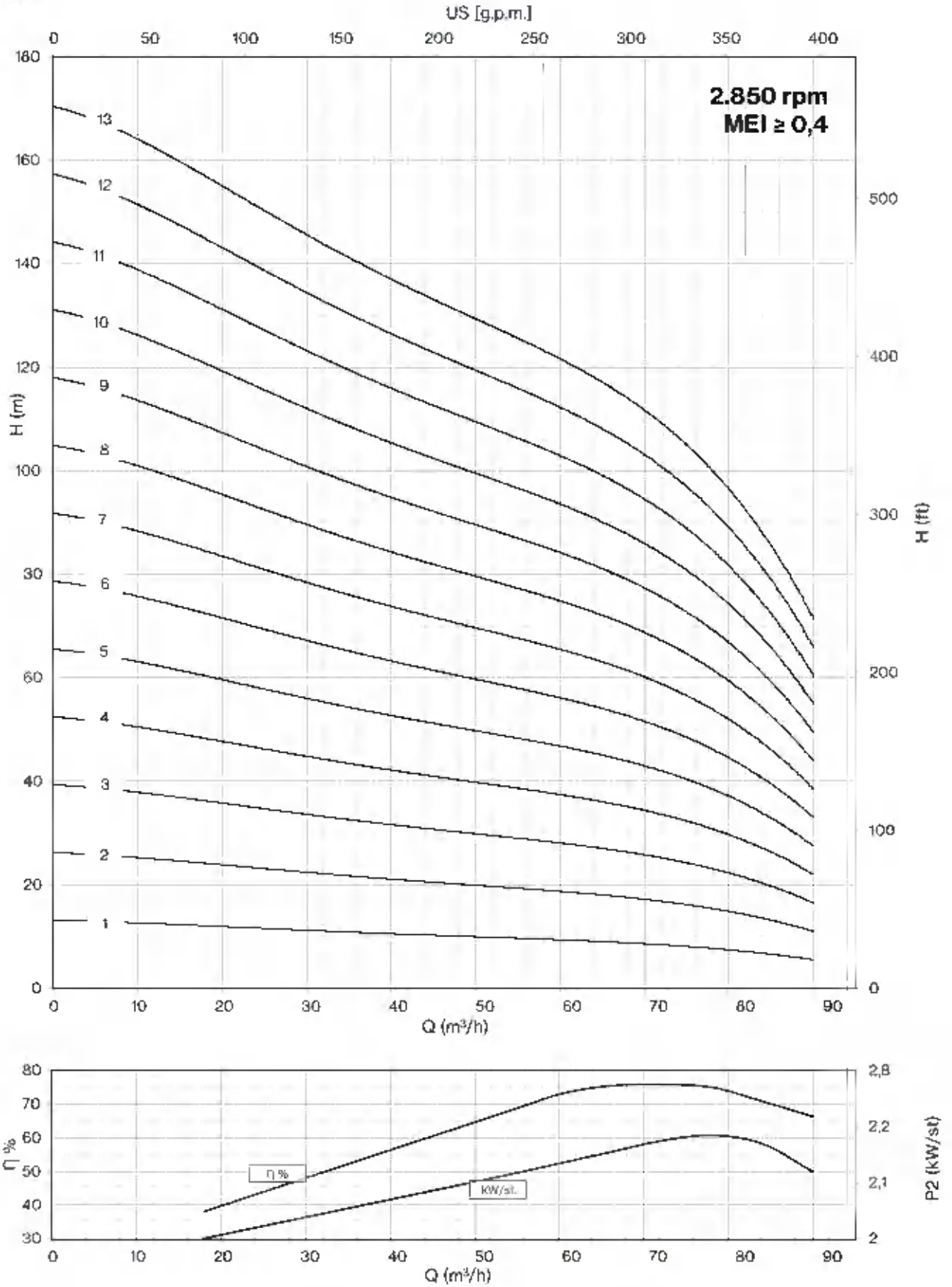
| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm) |      |      | Weight (kg) |    |
|-------------------------|-----------------|------|------|-------------|----|
| TYPE                    | A               | B    | C    | M           | P  |
| 6LM 70/01               | 812             | 360  | 452  | 15          | 8  |
| 6LM 70/02               | 1165            | 467  | 693  | 27          | 12 |
| 6LM 70/03               | 1315            | 614  | 701  | 55          | 18 |
| 6LM 70/04               | 1472            | 721  | 751  | 60          | 20 |
| 6LM 70/05               | 1639            | 828  | 811  | 65          | 24 |
| 6LM 70/06               | 1866            | 935  | 931  | 75          | 27 |
| 6LM 70/07               | 2033            | 1042 | 981  | 83          | 31 |
| 6LM 70/08               | 2140            | 1149 | 991  | 83          | 36 |
| 6LM 70/09               | 2327            | 1256 | 1071 | 92          | 39 |
| 6LM 70/10               | 2434            | 1363 | 1071 | 92          | 43 |
| 6LM 70/11               | 2681            | 1470 | 1131 | 100         | 46 |
| 6LM 70/12               | 2828            | 1577 | 1251 | 108         | 50 |
| 6LM 70/13               | 2936            | 1684 | 1251 | 109         | 54 |

|                |      |
|----------------|------|
| Max Eff. % =   | 76   |
| Max kW / St. = | 2,18 |

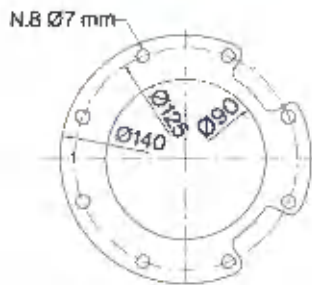
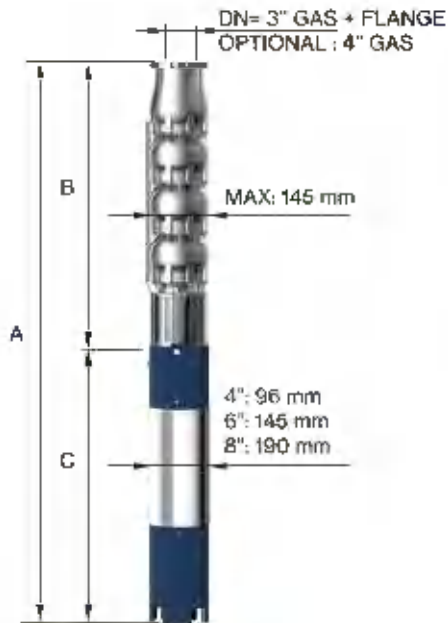
|          |     |     |     |      |
|----------|-----|-----|-----|------|
| Q (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 3,8 | 3,8 | 5,1 | 7,1  |

6LM

6LM 70



| Motor 50 Hz - 2900 rpm |       |    |       | Q     |     |     |      |      |      |      |      |      |      |
|------------------------|-------|----|-------|-------|-----|-----|------|------|------|------|------|------|------|
| TYPE                   | Power |    | 400 V | l/min | 0   | 300 | 900  | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 |
|                        |       |    |       | l/sec | 0   | 5,0 | 15,0 | 16,7 | 18,3 | 20,0 | 21,7 | 23,3 | 25,0 |
|                        | HP    | kW | A     | m³/h  | 0   | 18  | 54   | 60   | 66   | 72   | 78   | 84   | 90   |
| 6LM 70/14              | 50    | 37 | 75,8  | H[m]  | 183 | 169 | 134  | 132  | 127  | 119  | 166  | 92   | 78   |
| 6LM 70/15              | 50    | 37 | 75,8  |       | 197 | 182 | 143  | 141  | 137  | 128  | 114  | 99   | 84   |
| 6LM 70/16              | 50    | 37 | 75,8  |       | 210 | 194 | 153  | 150  | 145  | 135  | 122  | 106  | 90   |
| 6LM 70/17              | 60    | 45 | 86,3  |       | 223 | 206 | 162  | 160  | 155  | 145  | 129  | 112  | 95   |
| 6LM 70/18              | 60    | 45 | 86,3  |       | 236 | 218 | 172  | 169  | 164  | 153  | 137  | 119  | 101  |
| 6LM 70/19              | 60    | 45 | 86,6  |       | 249 | 239 | 181  | 179  | 173  | 162  | 144  | 125  | 106  |
| 6LM 70/20              | 60    | 45 | 86,3  |       | 262 | 242 | 191  | 188  | 182  | 170  | 152  | 132  | 112  |
| 6LM 70/21              | 75    | 55 | 106,2 |       | 275 | 254 | 201  | 197  | 191  | 179  | 160  | 139  | 118  |
| 6LM 70/22              | 75    | 55 | 106,2 |       | 288 | 266 | 210  | 207  | 200  | 167  | 167  | 145  | 123  |
| 6LM 70/23              | 75    | 55 | 106,2 |       | 301 | 278 | 220  | 216  | 209  | 196  | 175  | 152  | 129  |
| 6LM 70/24              | 75    | 55 | 106,2 |       | 314 | 290 | 229  | 228  | 218  | 204  | 182  | 158  | 134  |
| 6LM 70/25              | 75    | 55 | 106,2 |       | 328 | 303 | 239  | 235  | 228  | 213  | 190  | 165  | 140  |



FOR COMMERCIAL TUBE  
 EXTERNAL DIAMETER: 68,9 mm

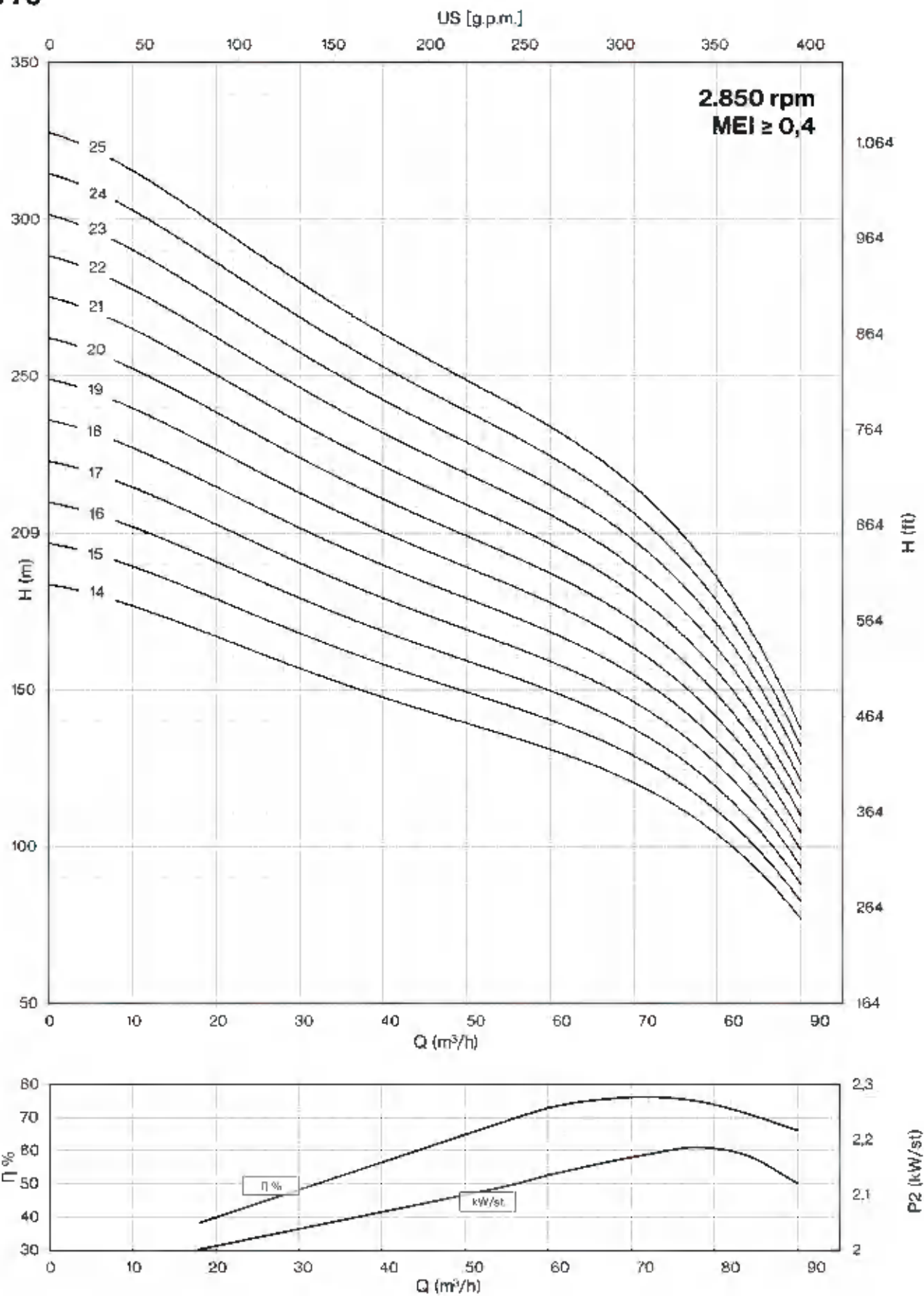
| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm) |      |      | Weight (kg) |     |
|-------------------------|-----------------|------|------|-------------|-----|
| TYPE                    | A               | B    | C    | M           | P   |
| 6LM 70/14               | 3132            | 1791 | 1341 | 118         | 58  |
| 6LM 70/15               | 3239            | 1696 | 1341 | 118         | 62  |
| 6LM 70/16               | 3346            | 2005 | 1341 | 118         | 65  |
| 6LM 70/17               | 3235            | 2112 | 1123 | 178         | 69  |
| 6LM 70/18               | 3342            | 2219 | 1123 | 178         | 73  |
| 6LM 70/19               | 3616            | 2393 | 1123 | 178         | 81  |
| 6LM 70/20               | 3623            | 2500 | 1123 | 178         | 84  |
| 6LM 70/21               | 3840            | 2607 | 1233 | 200         | 88  |
| 6LM 70/22               | 3947            | 2714 | 1233 | 200         | 92  |
| 6LM 70/23               | 4664            | 2621 | 1233 | 200         | 96  |
| 6LM 70/24               | 4161            | 2928 | 1233 | 200         | 100 |
| 6LM 70/25               | 4268            | 3035 | 1233 | 200         | 103 |

|                |      |
|----------------|------|
| Max Eff. % =   | 76   |
| Max kW / St. = | 2,18 |

|          |     |     |     |      |
|----------|-----|-----|-----|------|
| Q (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 3,8 | 3,8 | 5,1 | 7,1  |

6LM

6LM 70





# 10-12LM & E14 lines

## Deepwell Borehole



10LM line



12LM line



E14

Submersible multistage centrifugal pumps for 10", 12" and 14" wells. Check valve built into the delivery outlet. Pump flange for coupling with motors are made according to NEMA standards. Most common applications are civil and agricultural. All components are made of stainless steel with lost wax Microfusion technology, the standard material is AISI 304 stainless steel, alternatively the following materials are available on request: AISI 316 Steel, Duplex steel, AISI 904L Steel. Bushing bearings and wear-rings made of sand abrasion-resistant rubber, reverse-Thrust ring in PTFE/Graphite.

### General operating data:

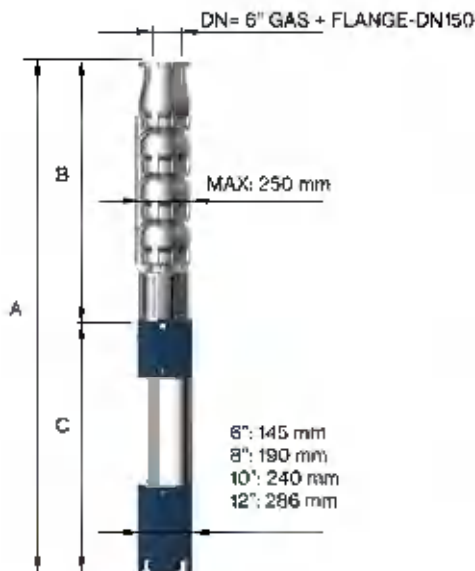
- Capacity up to 860 m<sup>3</sup>/h
- Pressure up to 800 m
- Hydraulic efficiency 10", up to 84,0%
- Hydraulic efficiency 12", up to 82,5%
- Hydraulic efficiency 14", up to 82,3%
- Pressure up to 80 bar
- Powers up to 400 kW
- Rotation speed up to 3600 rpm
- Maximum depth: 350 m
- Maximum quantity of permitted sand: 100 gr/m<sup>3</sup>
- Drinking water compatibility according to DM174 MEI >= 0,4 (EU directive No.547/2012)
- Performance tolerance: ISO9906-3B.

### Construction features

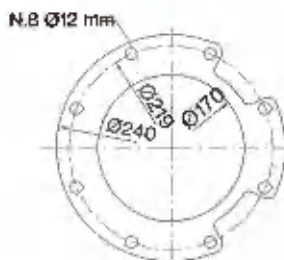
|                               |                          |
|-------------------------------|--------------------------|
| Suction and delivery outlet   | AISI 304 (LMS)           |
|                               | AISI 316 (LMX - EX)      |
|                               | Duplex (LMD - ED)        |
|                               | Cast iron (E)            |
| Valve                         | AISI 304 (LMS)           |
|                               | AISI 316 (LMX - EX)      |
|                               | Duplex (LMD - ED)        |
|                               | Cast iron (E)            |
| Impellers and diffusers       | AISI 304 (LMS)           |
|                               | AISI 316 (LMX - EX)      |
|                               | Duplex (LMD - ED)        |
|                               | Cast iron (E)            |
| Upper bushings                | NBR rubber               |
| Shaft pump side               | AISI 304 (LMS)           |
|                               | AISI 316 (LMX)           |
|                               | Duplex (LMD)             |
|                               | AISI 431 (E - EX - ED)   |
| Quantity of sand in the water | max 100 g/m <sup>3</sup> |



| Motor 50 Hz - 2900 rpm |       |      |       | Q     |     |      |      |      |      |      |      |      |      |
|------------------------|-------|------|-------|-------|-----|------|------|------|------|------|------|------|------|
| TYPE                   | Power |      | 400 V | l/min | 0   | 700  | 1800 | 2200 | 2600 | 3000 | 3400 | 3300 | 4000 |
|                        |       |      |       | l/sec | 0   | 11,7 | 30,0 | 36,7 | 43,3 | 50,0 | 56,7 | 63,3 | 66,7 |
|                        | HP    | kW   | A     | m³/h  | 0   | 42   | 108  | 132  | 156  | 180  | 204  | 228  | 240  |
| 10LM 190/01 DR20       | 25    | 18,5 | 33,3  | h[m]  | 35  | 34   | 32   | 30   | 27   | 24   | 21   | 16   | 14   |
| 10LM 190/01            | 30    | 22   | 46,1  |       | 42  | 41   | 38   | 36   | 34   | 31   | 28   | 23   | 21   |
| 10LM 190/02 DR10       | 50    | 37   | 75,8  |       | 78  | 76   | 70   | 66   | 61   | 55   | 48   | 40   | 35   |
| 10LM 190/02            | 60    | 45   | 86,3  |       | 88  | 82   | 77   | 73   | 68   | 62   | 55   | 47   | 41   |
| 10LM 190/03 DR20       | 75    | 55   | 108,2 |       | 164 | 102  | 95   | 89   | 82   | 73   | 62   | 49   | 42   |
| 10LM 190/03            | 90    | 66   | 126,0 |       | 125 | 124  | 115  | 109  | 102  | 93   | 83   | 70   | 52   |
| 10LM 190/04 DR10       | 100   | 75   | 143,2 |       | 152 | 150  | 140  | 132  | 122  | 110  | 96   | 76   | 70   |
| 10LM 190/04            | 125   | 92   | 175,1 |       | 166 | 165  | 154  | 146  | 136  | 124  | 110  | 94   | 82   |
| 10LM 190/05 DR10       | 150   | 110  | 211,0 |       | 196 | 188  | 175  | 165  | 153  | 138  | 120  | 99   | 87   |
| 10LM 190/05 D          | 150   | 110  | 211,0 |       | 208 | 206  | 192  | 182  | 170  | 155  | 138  | 117  | 103  |
| 10LM 190/06 DR10 D     | 175   | 130  | 245,3 |       | 228 | 225  | 210  | 198  | 184  | 166  | 144  | 119  | 104  |
| 10LM 190/06 D          | 175   | 130  | 245,3 |       | 250 | 247  | 230  | 218  | 204  | 186  | 166  | 140  | 124  |



| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm) |      |      | Weight (kg) |    |
|-------------------------|-----------------|------|------|-------------|----|
| TYPE                    | A.              | B.   | C.   | M.          | P. |
| 10LM 190/01 DR20        | 1616            | 625  | 991  | 83          | 41 |
| 10LM 190/01             | 1696            | 625  | 1071 | 92          | 41 |
| 10LM 190/02 DR10        | 2146            | 805  | 1341 | 118         | 56 |
| 10LM 190/02             | 1928            | 805  | 1123 | 178         | 56 |
| 10LM 190/03 DR20        | 2218            | 985  | 1233 | 200         | 72 |
| 10LM 190/03             | 2267            | 985  | 1302 | 214         | 72 |
| 10LM 190/04 DR10        | 2548            | 1165 | 1383 | 230         | 87 |
| 10LM 190/04             | 2748            | 1185 | 1583 | 270         | 87 |
| 10LM 190/05 DR10        | 2898            | 1165 | 1733 | 300         | 87 |
| 10LM 190/06 D           | 2896            | 1165 | 1733 | 300         | 87 |
| 10LM 190/06 DR10 D      | 2799            | 1165 | 1634 | 365         | 87 |
| 10LM 190/06 D           | 2799            | 1165 | 1634 | 385         | 87 |



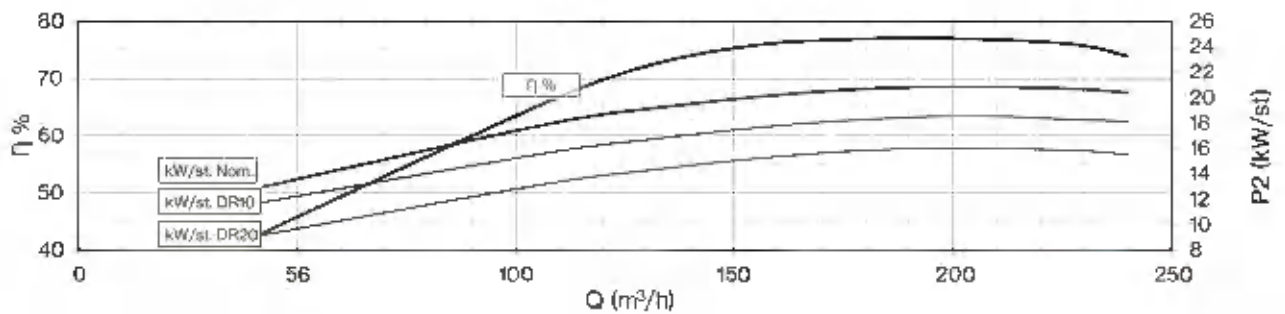
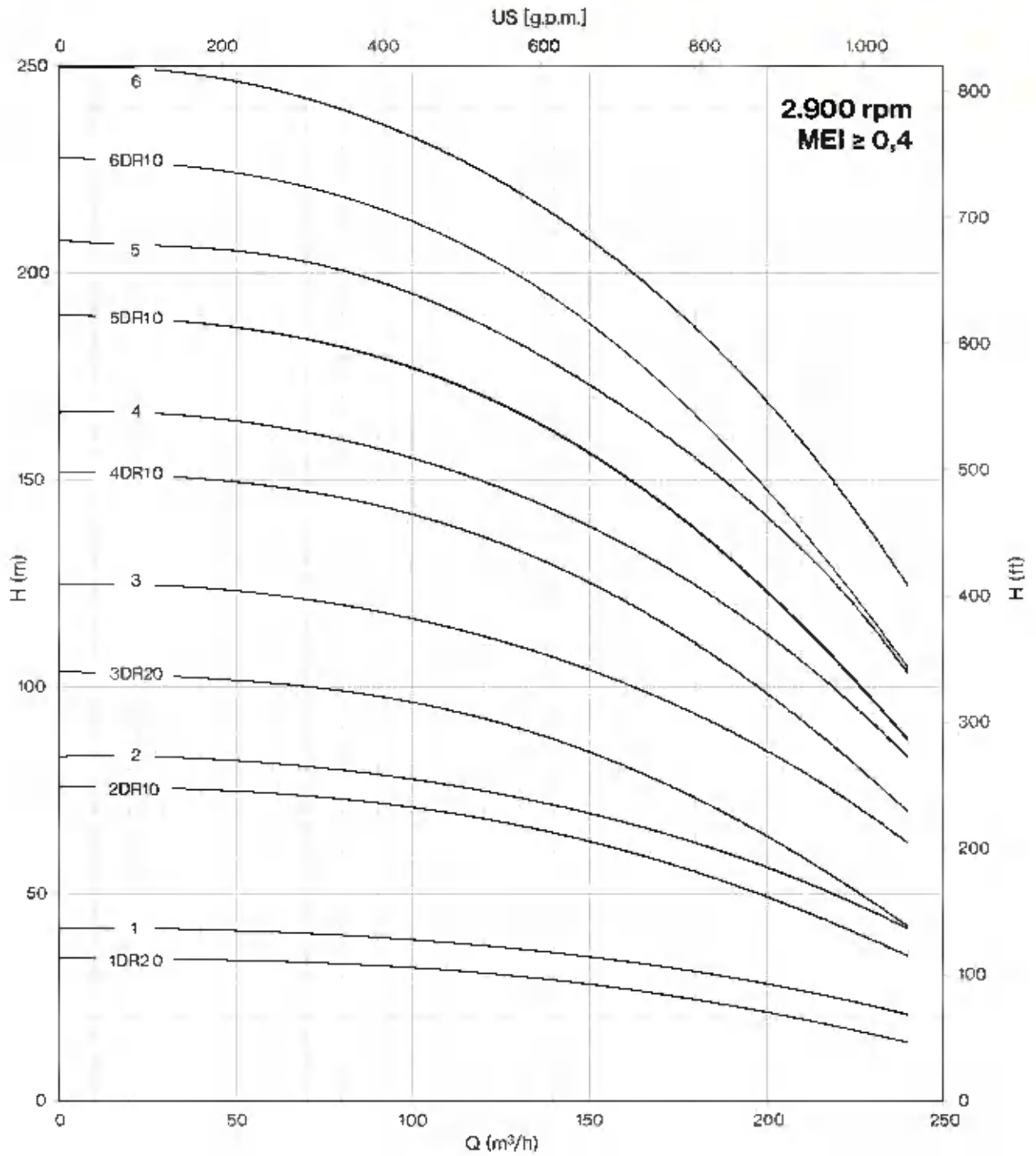
FOR COMMERCIAL TUBE  
EXTERNAL DIAMETER: 168,3 mm

|                     |      |
|---------------------|------|
| Max Eff. % DR20 =   | 76,5 |
| Max Eff. % DR10 =   | 77,5 |
| Max Eff. % =        | 77   |
| Max kW / St. DR20 = | 16   |
| Max kW / St. DR10 = | 18,5 |
| Max kW / St. =      | 20,8 |

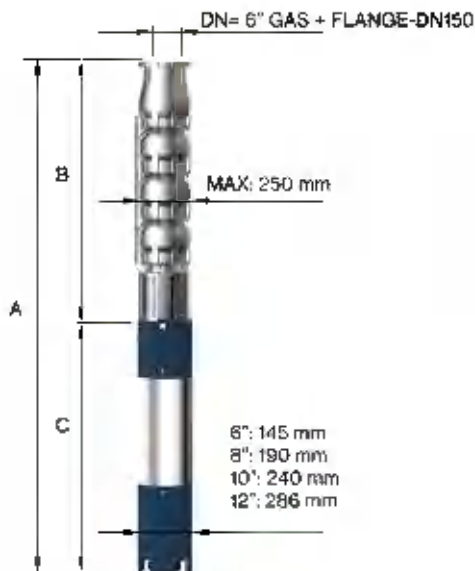
|          |     |     |     |      |
|----------|-----|-----|-----|------|
| Q (flow) | 25% | 56% | 75% | 106% |
| NPSH (m) | 3,4 | 5   | 7,8 | 11,8 |

10LM

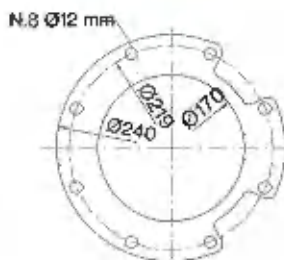
10LM 190



| Motor 50 Hz - 2900 rpm |       |     |       |       | Q   |      |      |      |      |      |      |      |      |
|------------------------|-------|-----|-------|-------|-----|------|------|------|------|------|------|------|------|
| TYPE                   | Power |     | 400 V | l/min | 0   | 700  | 1800 | 2200 | 2600 | 3000 | 3400 | 3800 | 4000 |
|                        |       |     |       | 1/sec | 0   | 11,7 | 30,0 | 36,7 | 43,3 | 50,0 | 56,7 | 63,3 | 66,7 |
|                        | HP    | kW  | A     | m³/h  | 0   | 42   | 108  | 132  | 166  | 180  | 204  | 226  | 240  |
| 10LM 190/07 DR10 D     | 175   | 130 | 245,3 | H[m]  | 266 | 263  | 245  | 231  | 214  | 193  | 168  | 139  | 122  |
| 10LM 190/07 D          | 200   | 150 | 277,2 |       | 291 | 288  | 269  | 255  | 238  | 217  | 193  | 164  | 144  |
| 10LM 190/08 DR10 D     | 200   | 150 | 277,2 |       | 304 | 300  | 280  | 264  | 245  | 221  | 192  | 158  | 139  |
| 10LM 190/08 D          | 250   | 185 | 342,2 |       | 333 | 330  | 307  | 291  | 272  | 248  | 221  | 187  | 165  |
| 10LM 190/09 D          | 300   | 220 | 430,0 |       | 374 | 371  | 346  | 328  | 306  | 279  | 248  | 211  | 185  |
| 10LM 190/010 D         | 300   | 220 | 430,0 |       | 416 | 412  | 384  | 364  | 340  | 310  | 276  | 234  | 205  |
| 10LM 190/011 D         | 340   | 250 | 481,0 |       | 458 | 453  | 422  | 400  | 374  | 341  | 304  | 257  | 227  |



| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm) |      |      | Weight (kg) |     |
|-------------------------|-----------------|------|------|-------------|-----|
| TYPE                    | A               | B    | C    | M           | P   |
| 10LM 190/07 DR10 D      | 3339            | 1705 | 1634 | 385         | 134 |
| 10LM 190/07 D           | 3439            | 1705 | 1734 | 415         | 134 |
| 10LM 190/08 DR10 D      | 3619            | 1885 | 1734 | 415         | 149 |
| 10LM 190/08 D           | 3869            | 1885 | 1984 | 480         | 149 |
| 10LM 190/09 D           | 4175            | 2055 | 2110 | 700         | 165 |
| 10LM 190/010 D          | 4355            | 2245 | 2110 | 700         | 180 |
| 10LM 190/011 D          | 4705            | 2425 | 2280 | 775         | 198 |



FOR COMMERCIAL TUBE  
EXTERNAL DIAMETER: 168,3 mm

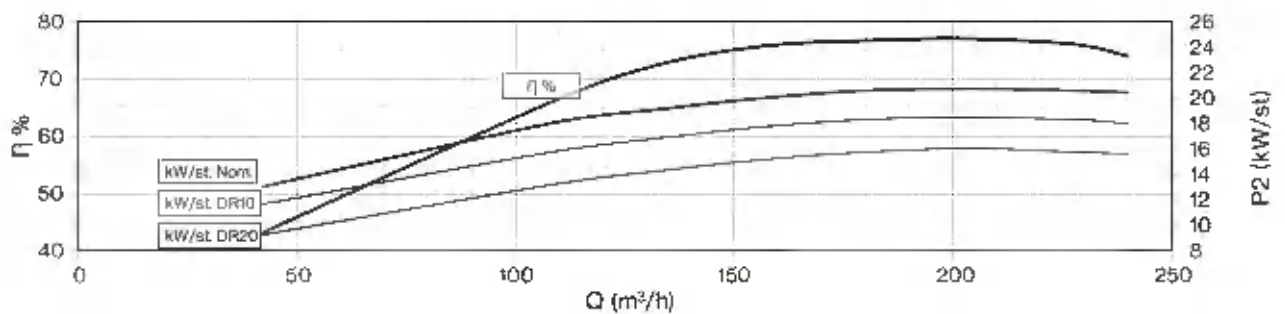
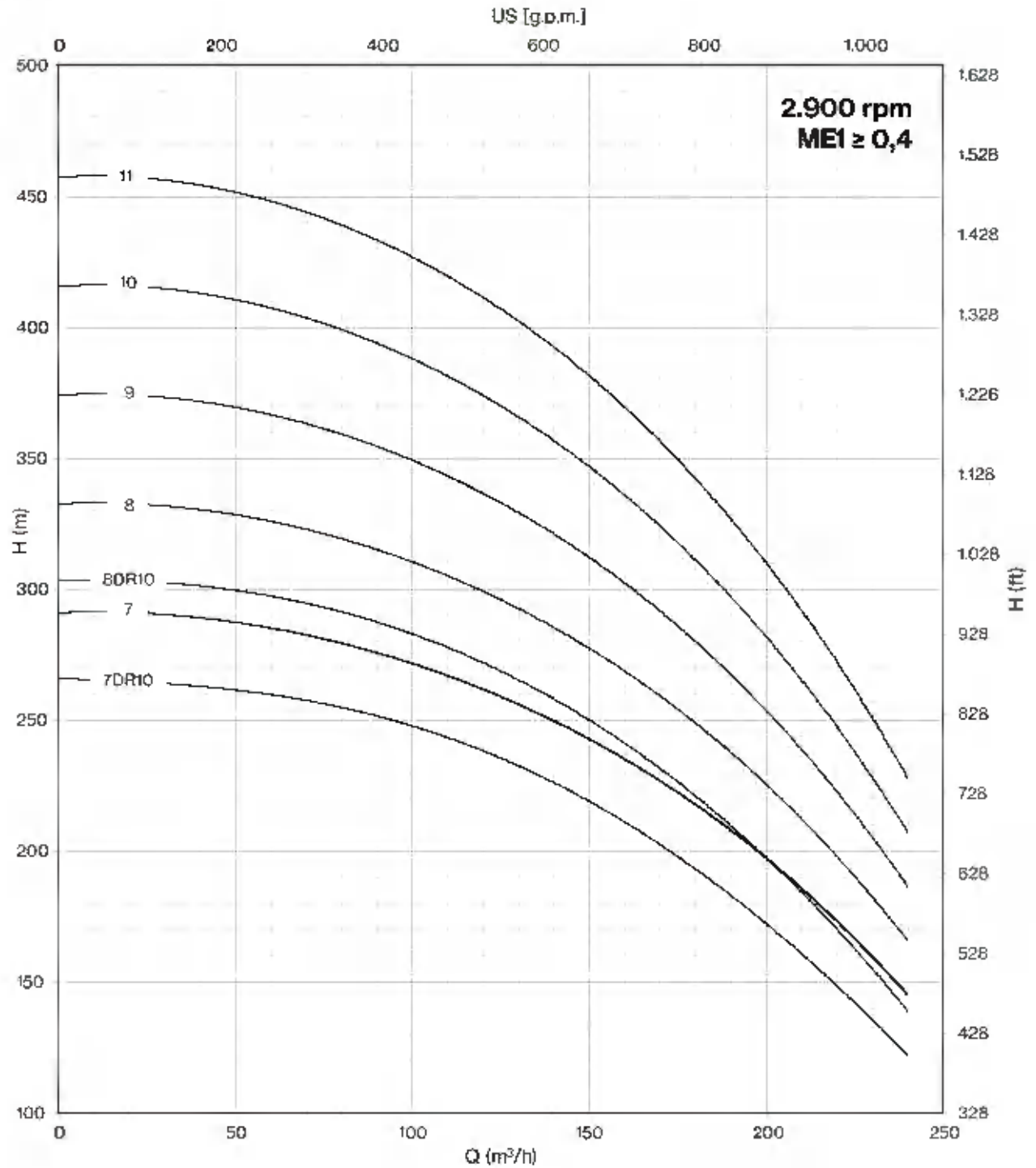
|                     |      |
|---------------------|------|
| Max Eff. % DR20 =   | 76,5 |
| Max Eff. % DR10 =   | 77,5 |
| Max Eff. % =        | 77   |
| Max kW / St. DR20 = | 16   |
| Max kW / St. DR10 = | 18,5 |
| Max kW / St. =      | 20,8 |

|          |     |     |     |      |
|----------|-----|-----|-----|------|
| D (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 3,4 | 5   | 7,8 | 11,8 |

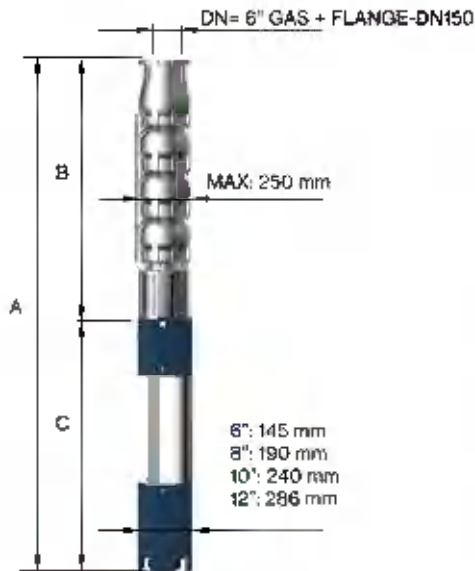


10LM

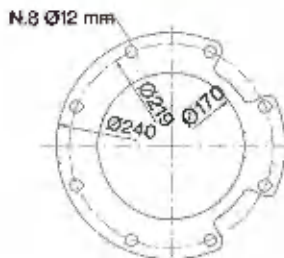
10LM 190



| Motor 50 Hz - 2900 rpm |       |      |       | Q     |     |      |      |      |      |      |      |      |      |
|------------------------|-------|------|-------|-------|-----|------|------|------|------|------|------|------|------|
| TYPE                   | Power |      | 400 V | l/min | 0   | 500  | 2200 | 2600 | 3000 | 3400 | 3800 | 4200 | 4600 |
|                        | HP    | kW   | A     | l/sec | 0   | 13,3 | 36,7 | 43,3 | 50,0 | 50,7 | 63,3 | 70,0 | 76,7 |
|                        |       |      |       | m3/h  | 0   | 48   | 132  | 156  | 180  | 204  | 228  | 252  | 276  |
| 10LM 230/01 DR20       | 25    | 18,5 | 38,3  | H[m]  | 37  | 36   | 31   | 29   | 27   | 25   | 23   | 19   | 18   |
| 10LM 230/01            | 35    | 25   | 52,9  |       | 44  | 43   | 38   | 36   | 34   | 32   | 30   | 26   | 23   |
| 10LM 230/02 DR20       | 50    | 37   | 75,8  |       | 74  | 71   | 62   | 58   | 54   | 50   | 45   | 38   | 32   |
| 10LM 230/02            | 75    | 55   | 106,2 |       | 88  | 85   | 75   | 72   | 68   | 64   | 59   | 53   | 46   |
| 10LM 230/03 DR20       | 75    | 55   | 106,2 |       | 110 | 107  | 93   | 87   | 81   | 75   | 69   | 57   | 48   |
| 10LM 230/03 DR10       | 90    | 66   | 126,0 |       | 121 | 116  | 102  | 98   | 92   | 86   | 78   | 68   | 59   |
| 10LM 230/03            | 100   | 75   | 143,2 |       | 131 | 128  | 113  | 108  | 102  | 96   | 89   | 79   | 69   |
| 10LM 230/04 DR10       | 125   | 92   | 175,1 |       | 182 | 154  | 136  | 130  | 122  | 114  | 104  | 91   | 78   |
| 10LM 230/04            | 125   | 92   | 175,1 |       | 175 | 170  | 150  | 144  | 136  | 128  | 118  | 106  | 92   |
| 10LM 230/05 DR10 D     | 150   | 110  | 211,0 |       | 202 | 193  | 170  | 163  | 153  | 143  | 130  | 114  | 98   |
| 10LM 230/05 D          | 175   | 130  | 245,3 |       | 219 | 213  | 188  | 180  | 170  | 160  | 148  | 132  | 115  |
| 10LM 230/06 DR10 D     | 175   | 130  | 245,3 |       | 242 | 231  | 204  | 195  | 183  | 171  | 158  | 137  | 117  |
| 10LM 230/06 D          | 200   | 150  | 277,2 |       | 263 | 255  | 225  | 216  | 204  | 192  | 178  | 159  | 138  |



| Motor 50 Hz<br>2900 rpm | DIMENSION6 (mm) |      |      | Weight (kg) |     |
|-------------------------|-----------------|------|------|-------------|-----|
| TYPE                    | A               | B    | C    | M           | P   |
| 10LM 230/01 DR20        | 1616            | 625  | 991  | 90          | 41  |
| 10LM 230/01             | 1506            | 625  | 1181 | 100         | 41  |
| 10LM 230/02 DR20        | 2146            | 605  | 1341 | 118         | 56  |
| 10LM 230/02             | 2038            | 605  | 1233 | 200         | 56  |
| 10LM 230/03 DR20        | 2218            | 985  | 1233 | 200         | 72  |
| 10LM 230/03 DR10        | 2287            | 985  | 1302 | 214         | 72  |
| 10LM 230/03             | 2366            | 985  | 1383 | 230         | 72  |
| 10LM 230/04 DR10        | 2748            | 1165 | 1583 | 270         | 87  |
| 10LM 230/04             | 2748            | 1165 | 1583 | 270         | 87  |
| 10LM 230/05 DR10 D      | 3078            | 1345 | 1733 | 300         | 103 |
| 10LM 230/05 D           | 3078            | 1345 | 1733 | 300         | 103 |
| 10LM 230/06 DR10 D      | 3159            | 1525 | 1834 | 385         | 118 |
| 10LM 230/06 D           | 3159            | 1525 | 1834 | 385         | 118 |



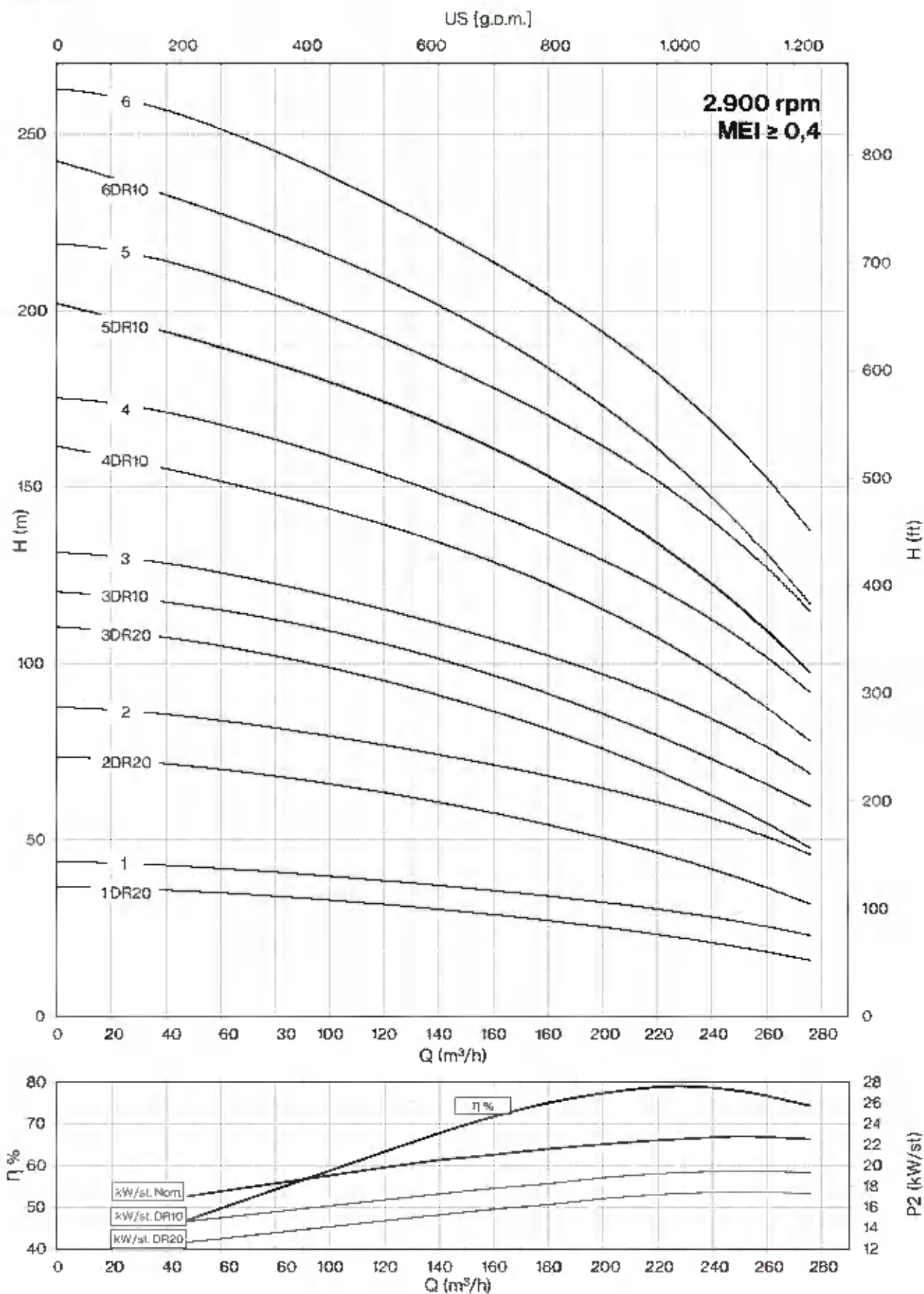
FOR COMMERCIAL TUBE  
EXTERNAL DIAMETER: 168,3 mm

|                     |      |
|---------------------|------|
| Max Eff. % DR20 =   | 78,4 |
| Max Eff. % DR10 =   | 79,5 |
| Max Eff. % =        | 79,2 |
| Max kW / St. DR20 = | 17,5 |
| Max kW / St. DR10 = | 19,5 |
| Max kW / St. =      | 22,8 |

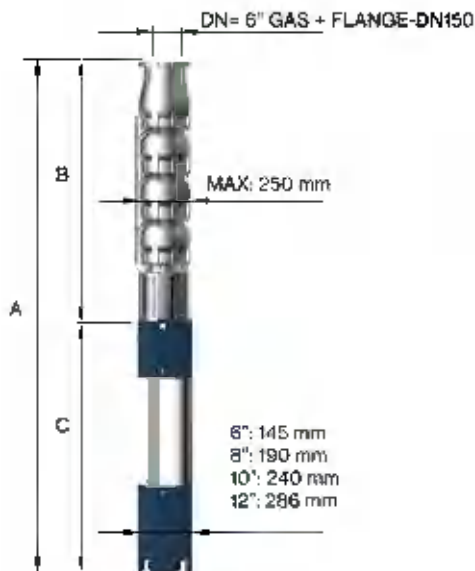
|          |     |     |     |      |
|----------|-----|-----|-----|------|
| D (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 3,4 | 5   | 7,8 | 11,8 |

10LM

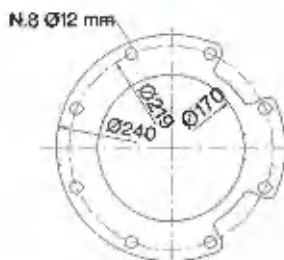
10LM 230



| Motor 50 Hz - 2900 rpm |       |     |       | Q     |     |      |      |      |      |      |      |      |      |
|------------------------|-------|-----|-------|-------|-----|------|------|------|------|------|------|------|------|
| TYPE                   | Power |     | 400 V | l/min | 0   | 500  | 2200 | 2600 | 3000 | 3400 | 3800 | 4200 | 4600 |
|                        |       |     |       | l/sec | 0   | 13,3 | 36,7 | 43,3 | 50,0 | 50,7 | 63,3 | 70,0 | 76,7 |
|                        | HP    | kW  | A     | m³/h  | 0   | 48   | 132  | 156  | 180  | 204  | 228  | 252  | 276  |
| 10LM 230/07 DR10 D     | 200   | 150 | 277,2 | H[m]  | 283 | 270  | 238  | 228  | 214  | 200  | 182  | 160  | 137  |
| 10LM 230/07 O          | 225   | 165 | 313,3 |       | 307 | 288  | 263  | 252  | 288  | 224  | 207  | 186  | 161  |
| 10LM 230/08 DR10 O     | 226   | 166 | 313,3 |       | 323 | 308  | 272  | 261  | 245  | 229  | 208  | 182  | 157  |
| 10LM 230/08 D          | 250   | 185 | 342,2 |       | 350 | 340  | 301  | 288  | 272  | 256  | 237  | 211  | 184  |
| 10LM 230/09 O          | 300   | 220 | 430,0 |       | 394 | 383  | 338  | 324  | 306  | 288  | 266  | 238  | 207  |
| 10LM 230/10 D          | 340   | 250 | 481,0 |       | 438 | 425  | 376  | 360  | 340  | 320  | 296  | 264  | 230  |
| 10LM 230/11 D          | 340   | 250 | 481,0 |       | 482 | 468  | 413  | 396  | 374  | 352  | 325  | 291  | 253  |



| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm) |      |      | Weight (kg) |     |
|-------------------------|-----------------|------|------|-------------|-----|
| TYPE                    | A               | B    | C    | M           | P   |
| 10LM 230/07 DR10 O      | 3439            | 1705 | 1734 | 415         | 134 |
| 10LM 230/07 D           | 3559            | 1705 | 1854 | 444         | 134 |
| 10LM 230/08 DR10 D      | 3739            | 1885 | 1854 | 444         | 149 |
| 10LM 230/09 O           | 3859            | 1885 | 1984 | 480         | 149 |
| 10LM 230/09 D           | 4175            | 2065 | 2110 | 700         | 165 |
| 10LM 230/10 D           | 4355            | 2245 | 2110 | 700         | 180 |
| 10LM 230/11 D           | 4705            | 2425 | 2280 | 775         | 196 |



FOR COMMERCIAL TUBE  
 EXTERNAL DIAMETER: 168,3 mm

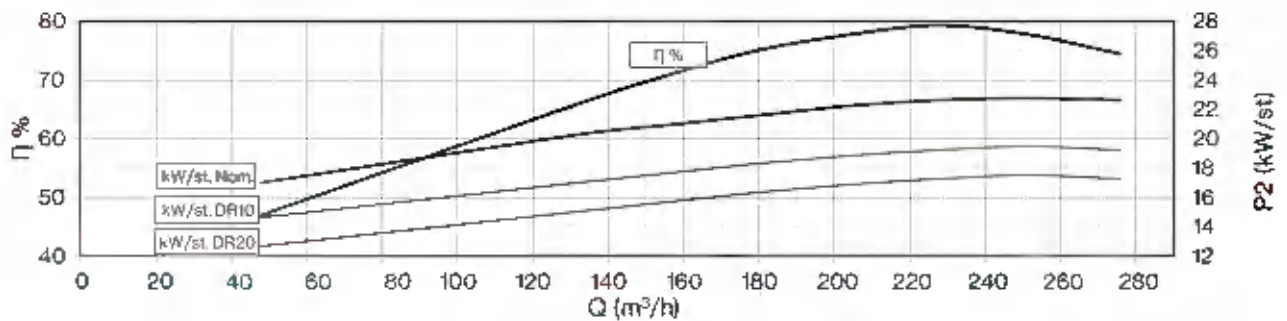
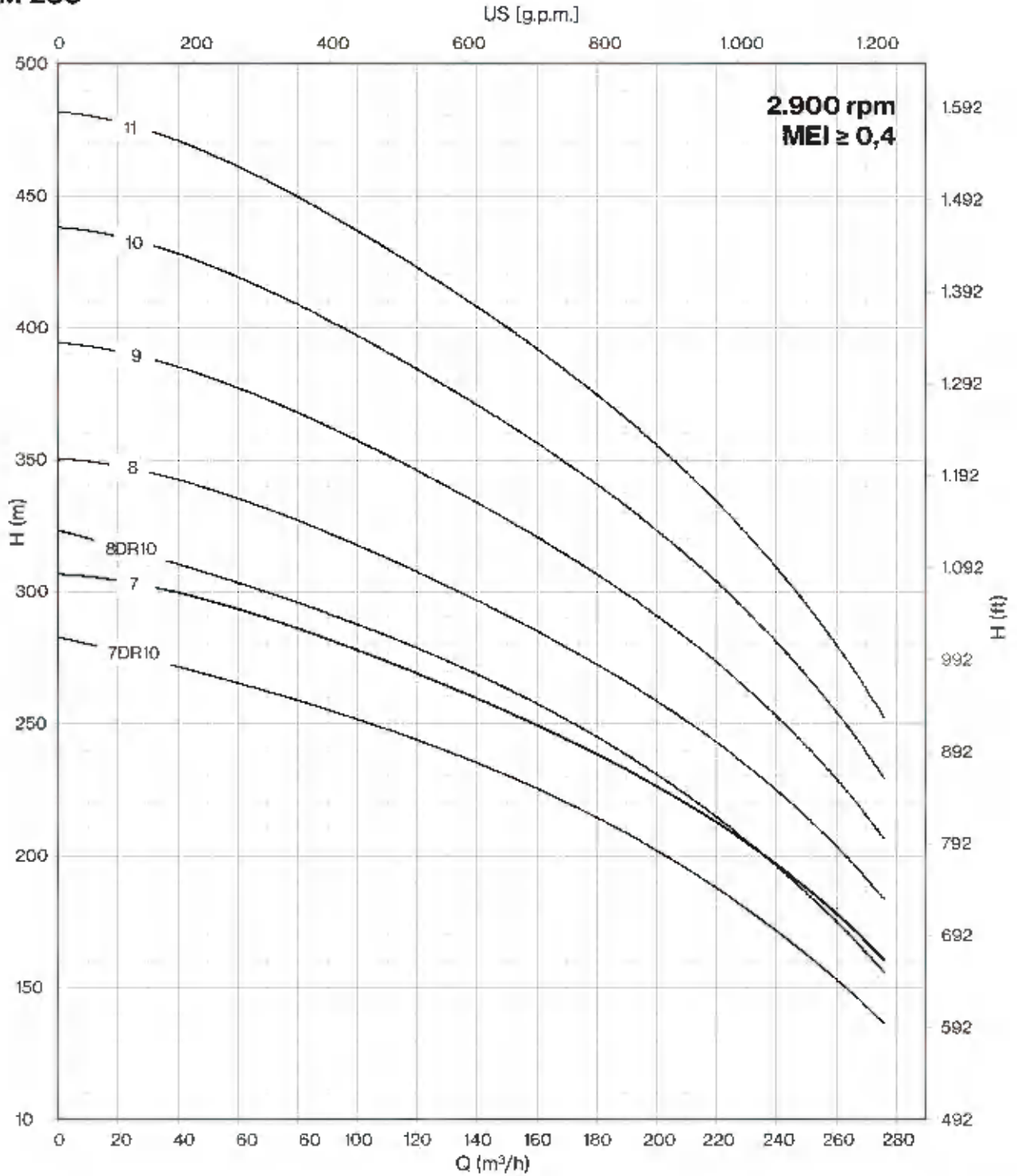
|                     |      |
|---------------------|------|
| Max Eff. % DR20 =   | 78,4 |
| Max Eff. % DR10 =   | 79,5 |
| Max Eff. % =        | 79,2 |
| Max kW / St. DR20 = | 17,5 |
| Max kW / St. OR10 = | 19,5 |
| Max kW / St. =      | 22,8 |

|          |     |     |     |      |
|----------|-----|-----|-----|------|
| D (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 3,4 | 5   | 7,8 | 11,8 |

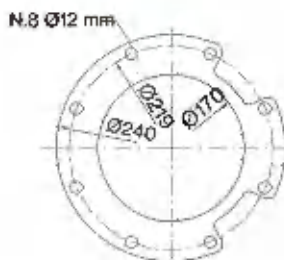
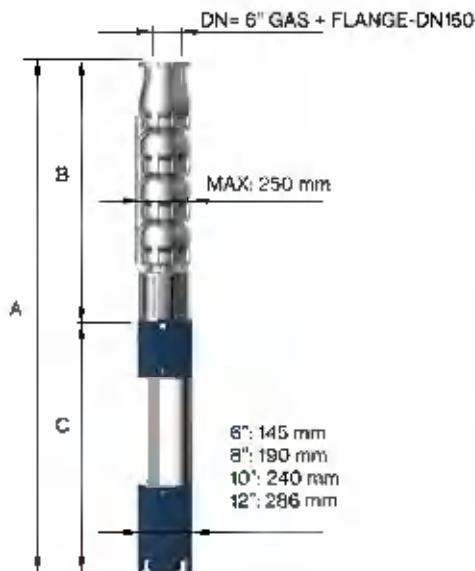


10LM

10LM 230



| Motor 50 Hz - 2900 rpm |       |      |       | Q     |     |      |      |      |      |      |      |      |      |
|------------------------|-------|------|-------|-------|-----|------|------|------|------|------|------|------|------|
| TYPE                   | Power |      | 400 V | l/min | 0   | 1000 | 3200 | 3800 | 4000 | 4400 | 4800 | 5000 | 5200 |
|                        |       |      |       | l/sec | 0   | 16,7 | 53,3 | 60,0 | 66,7 | 73,3 | 80,0 | 83,3 | 86,7 |
|                        | HP    | kW   | A     | m³/h  | 0   | 60   | 192  | 216  | 240  | 264  | 288  | 300  | 312  |
| 10LM 250/01 DR20       | 25    | 18,5 | 38,3  | H[m]  | 31  | 31   | 27   | 25   | 23   | 21   | 18   | 17   | 14   |
| 10LM 250/01            | 40    | 20   | 61,1  |       | 44  | 42   | 34   | 32   | 30   | 28   | 26   | 25   | 24   |
| 10LM 250/02 DR20       | 50    | 37   | 75,8  |       | 63  | 62   | 54   | 50   | 46   | 42   | 36   | 33   | 27   |
| 10LM 250/02            | 75    | 55   | 108,2 |       | 88  | 84   | 67   | 64   | 59   | 56   | 52   | 50   | 48   |
| 10LM 250/03 DR10       | 100   | 75   | 143,2 |       | 107 | 107  | 03   | 86   | 80   | 73   | 65   | 59   | 53   |
| 10LM 250/03            | 125   | 92   | 175,1 |       | 132 | 126  | 101  | 96   | 89   | 83   | 78   | 75   | 72   |
| 10LM 250/04 DR10       | 125   | 92   | 175,1 |       | 143 | 142  | 124  | 115  | 107  | 97   | 87   | 79   | 70   |
| 10LM 250/04 D          | 150   | 110  | 211,0 |       | 176 | 168  | 134  | 128  | 118  | 111  | 104  | 100  | 96   |
| 10LM 250/05 DR10 D     | 175   | 130  | 245,3 |       | 179 | 178  | 155  | 144  | 134  | 121  | 109  | 99   | 88   |
| 10LM 250/05 D          | 200   | 150  | 277,2 |       | 220 | 210  | 168  | 160  | 148  | 139  | 130  | 125  | 120  |
| 10LM 250/06 D          | 225   | 165  | 313,3 | 264   | 252 | 202  | 192  | 178  | 167  | 156  | 150  | 144  |      |



FOR COMMERCIAL TUBE  
EXTERNAL DIAMETER: 168,3 mm

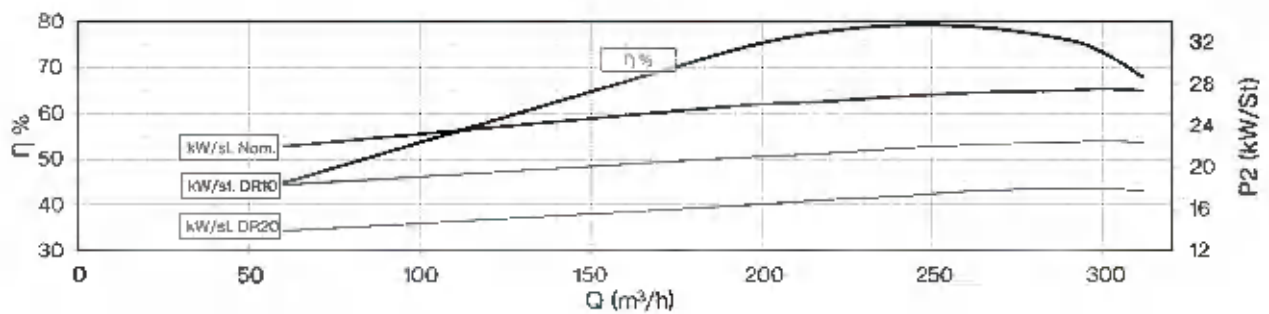
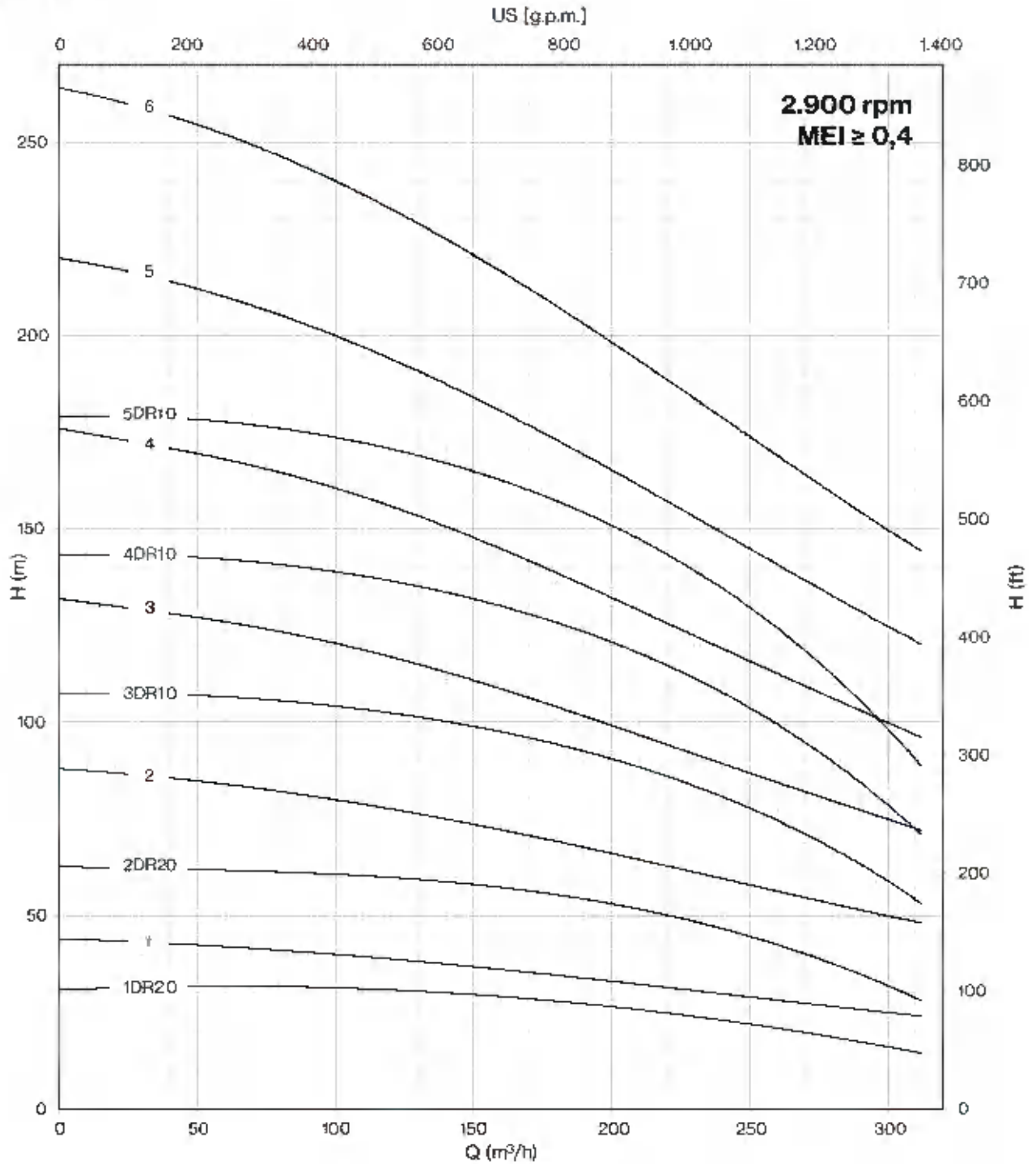
| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm) |      |      | Weight (kg) |     |
|-------------------------|-----------------|------|------|-------------|-----|
| TYPE                    | A               | B    | C    | M           | R   |
| 10LM 250/01 DR20        | 1616            | 625  | 991  | 83          | 41  |
| 10LM 250/01             | 1676            | 625  | 1251 | 106         | 41  |
| 10LM 250/02 DR20        | 2146            | 805  | 1341 | 118         | 57  |
| 10LM 250/02             | 2038            | 805  | 1233 | 200         | 57  |
| 10LM 250/03 DR10        | 2368            | 965  | 1303 | 230         | 72  |
| 10LM 250/03             | 2568            | 965  | 1583 | 270         | 72  |
| 10LM 250/04 DR10        | 2748            | 1165 | 1583 | 270         | 66  |
| 10LM 250/04 D           | 2898            | 1165 | 1733 | 300         | 88  |
| 10LM 250/05 DR10 D      | 2979            | 1345 | 1634 | 365         | 103 |
| 10LM 250/05 D           | 2979            | 1345 | 1534 | 365         | 103 |
| 10LM 250/06 D           | 3379            | 1525 | 1854 | 444         | 119 |

|                     |      |
|---------------------|------|
| Max Eff. % DR20 =   | 79   |
| Max Eff. % DR10 =   | 79,5 |
| Max Eff. % =        | 79,3 |
| Max kW / St. DR20 = | 18   |
| Max kW / St. DR10 = | 22,5 |
| Max kW / St. =      | 27,4 |

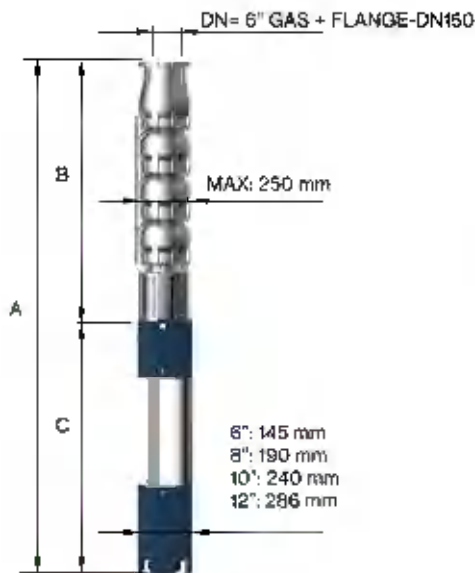
|          |     |     |     |      |
|----------|-----|-----|-----|------|
| Q (flow) | 25% | 56% | 75% | 106% |
| NP5H (m) | 3,4 | 5   | 7,8 | 11,8 |

10LM

10LM 250



| Motor 50 Hz - 2900 rpm |       |     |       |       | Q   |      |      |      |      |      |      |      |      |
|------------------------|-------|-----|-------|-------|-----|------|------|------|------|------|------|------|------|
| TYPE                   | Power |     | 400 V | l/mh  | 0   | 1000 | 3200 | 3600 | 4000 | 4400 | 4800 | 5000 | 5200 |
|                        |       |     |       | l/sec | 0   | 16,7 | 53,3 | 60,0 | 66,7 | 73,3 | 80,0 | 83,3 | 86,7 |
|                        | HP    | kW  | A     | m³/h  | 0   | 60   | 192  | 216  | 240  | 264  | 288  | 300  | 312  |
| 10LM 250/07 DR10 D     | 225   | 165 | 313,3 | H[m]  | 251 | 249  | 217  | 202  | 188  | 169  | 153  | 139  | 123  |
| 10LM 250/07 D          | 300   | 220 | 430,0 |       | 308 | 294  | 235  | 224  | 207  | 195  | 182  | 175  | 188  |
| 10LM 250/08 D          | 300   | 220 | 430,0 |       | 352 | 336  | 269  | 255  | 237  | 222  | 208  | 200  | 192  |
| 10LM 250/09 D          | 400   | 250 | 481,0 |       | 396 | 378  | 302  | 288  | 266  | 250  | 234  | 225  | 216  |
| 10LM 250/10 D          | 400   | 300 | 551,0 |       | 440 | 420  | 336  | 320  | 296  | 278  | 260  | 250  | 240  |
| 10LM 250/11 D          | 450   | 330 | 620,0 |       | 484 | 462  | 370  | 352  | 326  | 308  | 288  | 275  | 264  |
| 10LM 250/12 D          | 450   | 330 | 620,0 |       | 528 | 504  | 403  | 384  | 355  | 334  | 312  | 300  | 288  |



| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm) |      |      | Weight (kg) |     |
|-------------------------|-----------------|------|------|-------------|-----|
| TYPE                    | A               | B    | C    | M           | P   |
| 10LM 250/07 DR10 D      | 3559            | 1705 | 1854 | 444         | 134 |
| 10LM 250/07 D           | 3815            | 1705 | 2110 | 700         | 134 |
| 10LM 250/08 D           | 3995            | 1885 | 2110 | 700         | 150 |
| 10LM 250/09 D           | 4345            | 2065 | 2280 | 775         | 165 |
| 10LM 250/10 D           | 4525            | 2245 | 2280 | 775         | 181 |
| 10LM 250/11 D           | 4705            | 2425 | 2280 | 775         | 196 |
| 10LM 250/12 D           | 4765            | 2605 | 2160 | 906         | 212 |



FOR COMMERCIAL TUBE  
EXTERNAL DIAMETER: 168,3 mm

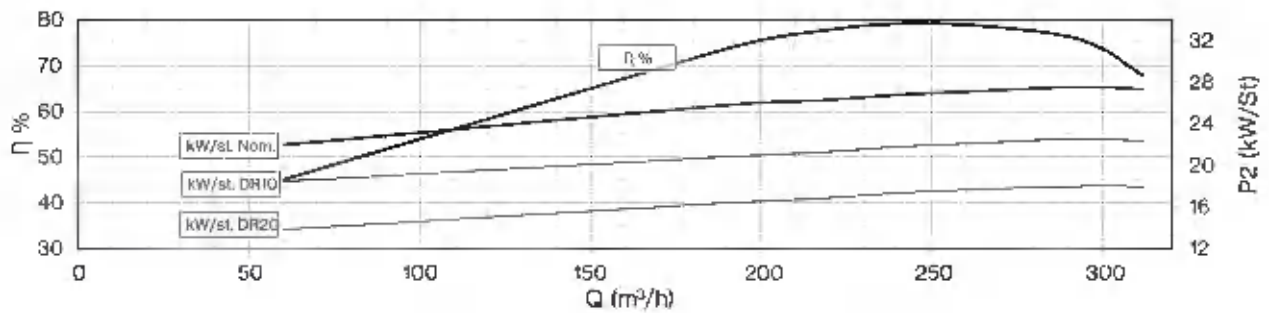
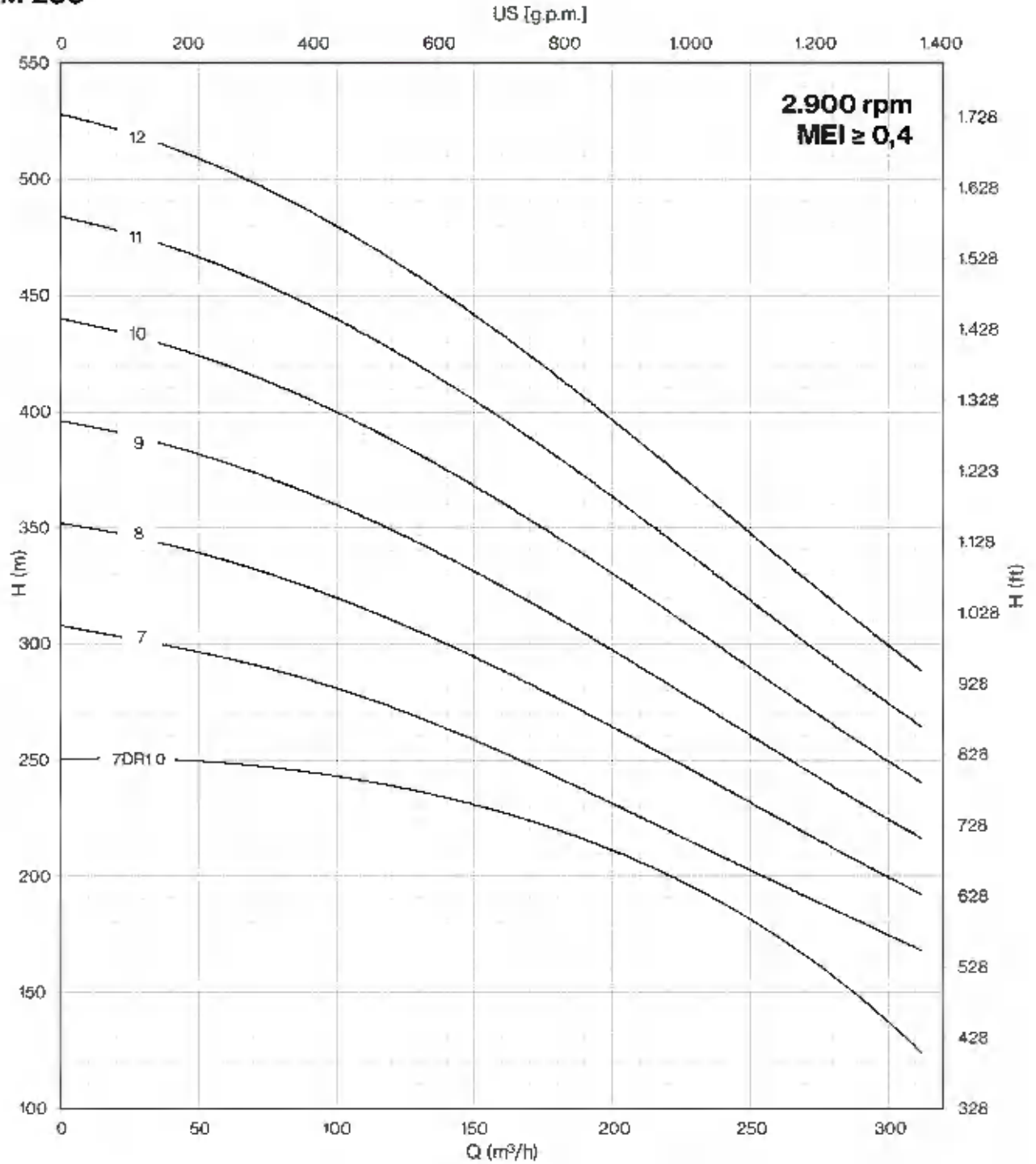
|                     |      |
|---------------------|------|
| Max Eff. % DR20 =   | 79   |
| Max Eff. % DR10 =   | 79,5 |
| Max Eff. % =        | 79,3 |
| Max kW / St. DR20 = | 18   |
| Max kW / St. OR10 = | 22,5 |
| Max kW / St. =      | 27,4 |

|          |     |     |     |      |
|----------|-----|-----|-----|------|
| Q (flow) | 25% | 56% | 75% | 106% |
| NP5H (m) | 3,4 | 5   | 7,8 | 11,8 |

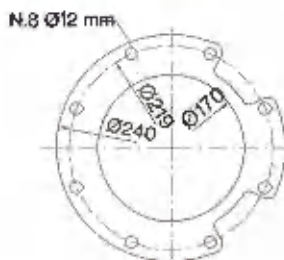
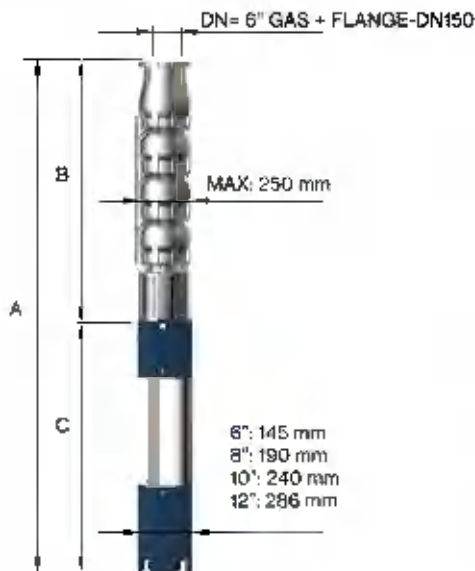


10LM

10LM 250



| Motor 50 Hz - 2900 rpm |       |     |       | Q     |     |      |      |      |      |      |      |      |      |
|------------------------|-------|-----|-------|-------|-----|------|------|------|------|------|------|------|------|
| TYPE                   | Power |     | 400 V | l/min | 0   | 1000 | 3400 | 3800 | 4200 | 4000 | 5000 | 5400 | 5800 |
|                        |       |     |       | l/sec | 0   | 16,7 | 56,7 | 63,3 | 70,0 | 76,7 | 83,3 | 90,0 | 96,7 |
|                        | HP    | kW  | A     | m³/h  | 0   | 60   | 204  | 228  | 252  | 276  | 300  | 324  | 348  |
| 10LM 275/01 DR20       | 35    | 26  | 52,9  | H[m]  | 36  | 36   | 28   | 26   | 25   | 23   | 21   | 19   | 16   |
| 10LM 275/01            | 50    | 37  | 75,8  |       | 45  | 44   | 87   | 35   | 34   | 32   | 30   | 26   | 25   |
| 10LM 275/02 DR20       | 75    | 55  | 106,2 |       | 72  | 71   | 66   | 52   | 50   | 46   | 42   | 39   | 32   |
| 10LM 275/02            | 90    | 66  | 126,0 |       | 90  | 87   | 73   | 70   | 67   | 63   | 60   | 56   | 50   |
| 10LM 275/03 DR10       | 125   | 92  | 175,1 |       | 122 | 121  | 97   | 92   | 88   | 82   | 77   | 72   | 62   |
| 10LM 275/03 D          | 150   | 110 | 211,0 |       | 135 | 131  | 110  | 135  | 101  | 95   | 90   | 85   | 75   |
| 10LM 275/04 DR10 D     | 175   | 130 | 245,3 |       | 163 | 161  | 130  | 123  | 116  | 110  | 103  | 96   | 83   |
| 10LM 275/04 D          | 200   | 150 | 277,2 |       | 180 | 175  | 146  | 149  | 134  | 126  | 120  | 113  | 100  |
| 10LM 275/05 DR10 D     | 200   | 150 | 277,2 |       | 204 | 202  | 162  | 154  | 147  | 137  | 129  | 120  | 104  |
| 10LM 275/05 D          | 225   | 165 | 313,3 |       | 225 | 219  | 183  | 175  | 168  | 158  | 150  | 141  | 125  |
| 10LM 275/06 DR10 D     | 250   | 185 | 342,2 | 245   | 242 | 194  | 186  | 176  | 164  | 155  | 144  | 125  |      |
| 10LM 275/06 D          | 300   | 220 | 430,0 | 270   | 262 | 220  | 210  | 202  | 190  | 180  | 169  | 150  |      |



FOR COMMERCIAL TUBE  
EXTERNAL DIAMETER: 168,3 mm

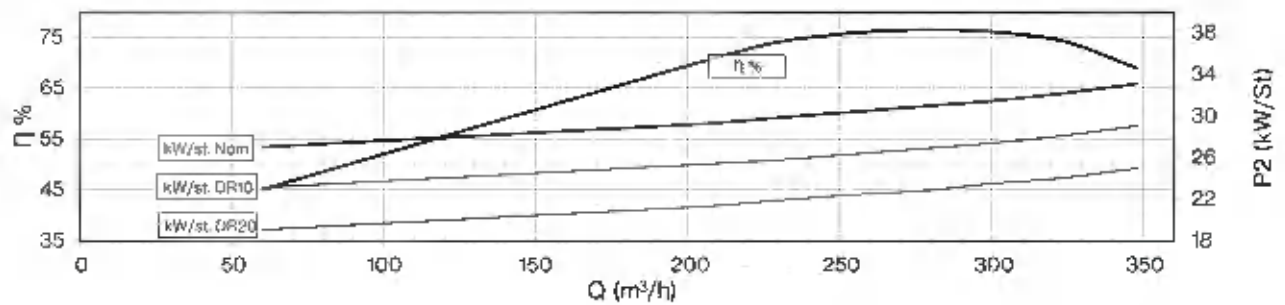
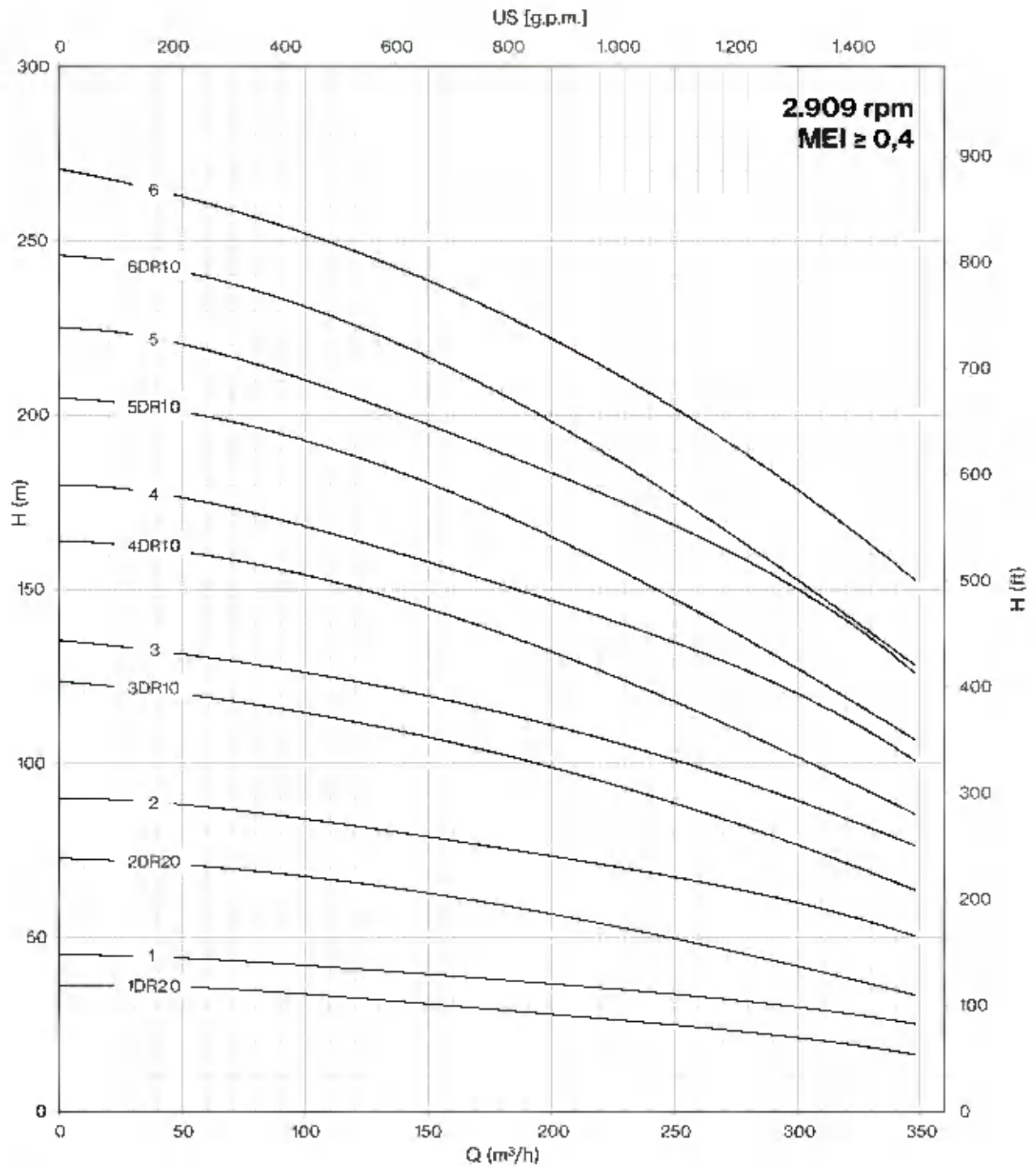
| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm) |      |      | Weight (kg) |     |
|-------------------------|-----------------|------|------|-------------|-----|
| TYPE                    | A               | B    | C    | M           | P   |
| 10LM 275/01 DR20        | 1808            | 625  | 1181 | 100         | 41  |
| 10LM 275/01             | 1966            | 625  | 1341 | 113         | 41  |
| 10LM 275/02 DR20        | 2038            | 805  | 1233 | 200         | 56  |
| 10LM 275/02             | 2107            | 805  | 1302 | 214         | 56  |
| 10LM 275/03 DR10        | 2566            | 985  | 1583 | 270         | 72  |
| 10LM 275/03 D           | 2718            | 985  | 1733 | 300         | 72  |
| 10LM 275/04 DR10 D      | 2799            | 1165 | 1634 | 385         | 87  |
| 10LM 275/04 D           | 2899            | 1165 | 1734 | 415         | 87  |
| 10LM 275/05 DR10 D      | 3079            | 1345 | 1734 | 415         | 103 |
| 10LM 275/06 D           | 3199            | 1345 | 1854 | 444         | 103 |
| 10LM 275/06 DR10 D      | 3509            | 1525 | 1954 | 480         | 118 |
| 10LM 275/06 D           | 3635            | 1525 | 2110 | 700         | 118 |

|                     |      |
|---------------------|------|
| Max Eff. % DR20 =   | 76,1 |
| Max Eff. % DR10 =   | 77,2 |
| Max Eff. % =        | 76,5 |
| Max kW / St. DR20 = | 25   |
| Max kW / St. DR10 = | 29   |
| Max kW / St. =      | 33   |

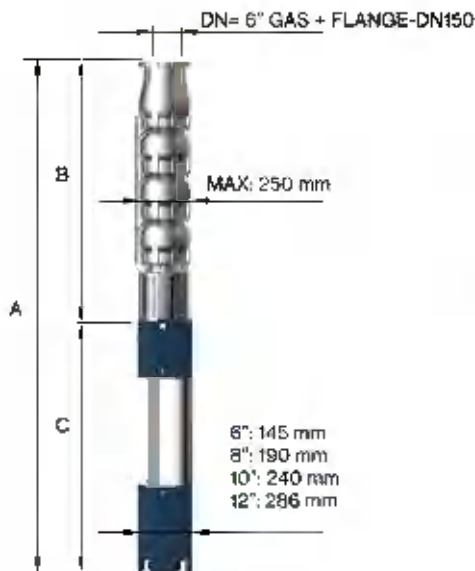
|          |     |     |     |      |
|----------|-----|-----|-----|------|
| Q (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 3,4 | 5   | 7,8 | 11,8 |

10LM

10LM 275



| Motor 50 Hz - 2900 rpm |       |     |       | Q     |     |      |      |      |      |      |      |      |      |
|------------------------|-------|-----|-------|-------|-----|------|------|------|------|------|------|------|------|
| TYPE                   | Power |     | 400 V | l/min | 0   | 1000 | 3400 | 3800 | 4200 | 4000 | 5000 | 5400 | 5800 |
|                        |       |     |       | l/sec | 0   | 16,7 | 56,7 | 63,3 | 70,0 | 76,7 | 83,3 | 90,0 | 96,7 |
|                        | HP    | kW  | A     | m³/h  | 0   | 60   | 204  | 228  | 252  | 276  | 300  | 324  | 348  |
| 10LM 275/07 DR10 D     | 300   | 220 | 480,0 | H[m]  | 286 | 282  | 227  | 216  | 206  | 192  | 181  | 163  | 148  |
| 10LM 275/07 D          | 340   | 250 | 481,0 |       | 315 | 305  | 258  | 245  | 235  | 221  | 210  | 197  | 175  |
| 10LM 275/06 D          | 400   | 300 | 551,0 |       | 360 | 350  | 293  | 280  | 269  | 253  | 240  | 226  | 200  |
| 10LM 275/00 D          | 400   | 300 | 551,0 |       | 405 | 393  | 329  | 315  | 302  | 284  | 270  | 254  | 225  |
| 10LM 275/10 D          | 450   | 330 | 620,0 |       | 450 | 437  | 368  | 350  | 336  | 316  | 300  | 282  | 250  |
| 10LM 275/11 D          | 500   | 370 | 693,0 |       | 495 | 481  | 403  | 385  | 370  | 348  | 330  | 310  | 275  |
| 10LM 275/12 D          | 550   | 400 | 796,0 |       | 540 | 524  | 439  | 420  | 403  | 379  | 360  | 336  | 300  |



| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm) |      |      | Weight (kg) |     |
|-------------------------|-----------------|------|------|-------------|-----|
| TYPE                    | A               | B    | C    | M           | P   |
| 10LM 275/07 DR10 D      | 3815            | 1705 | 2110 | 700         | 134 |
| 10LM 275/07 D           | 3985            | 1705 | 2280 | 775         | 134 |
| 10LM 275/08 D           | 4165            | 1865 | 2280 | 775         | 149 |
| 10LM 275/09 D           | 4345            | 2065 | 2280 | 775         | 165 |
| 10LM 275/10 D           | 4405            | 2245 | 2160 | 906         | 180 |
| 10LM 275/11 D           | 4585            | 2425 | 2160 | 906         | 196 |
| 10LM 275/12 D           | 4925            | 2605 | 2320 | 1010        | 211 |



FOR COMMERCIAL TUBE  
EXTERNAL DIAMETER: 168,3 mm

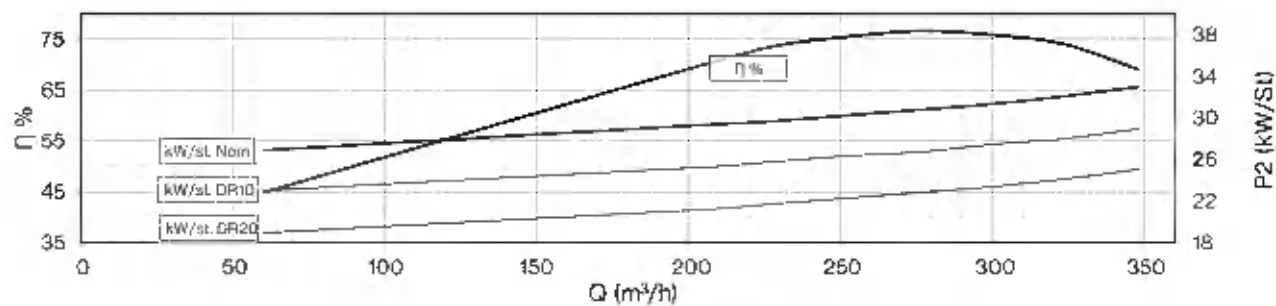
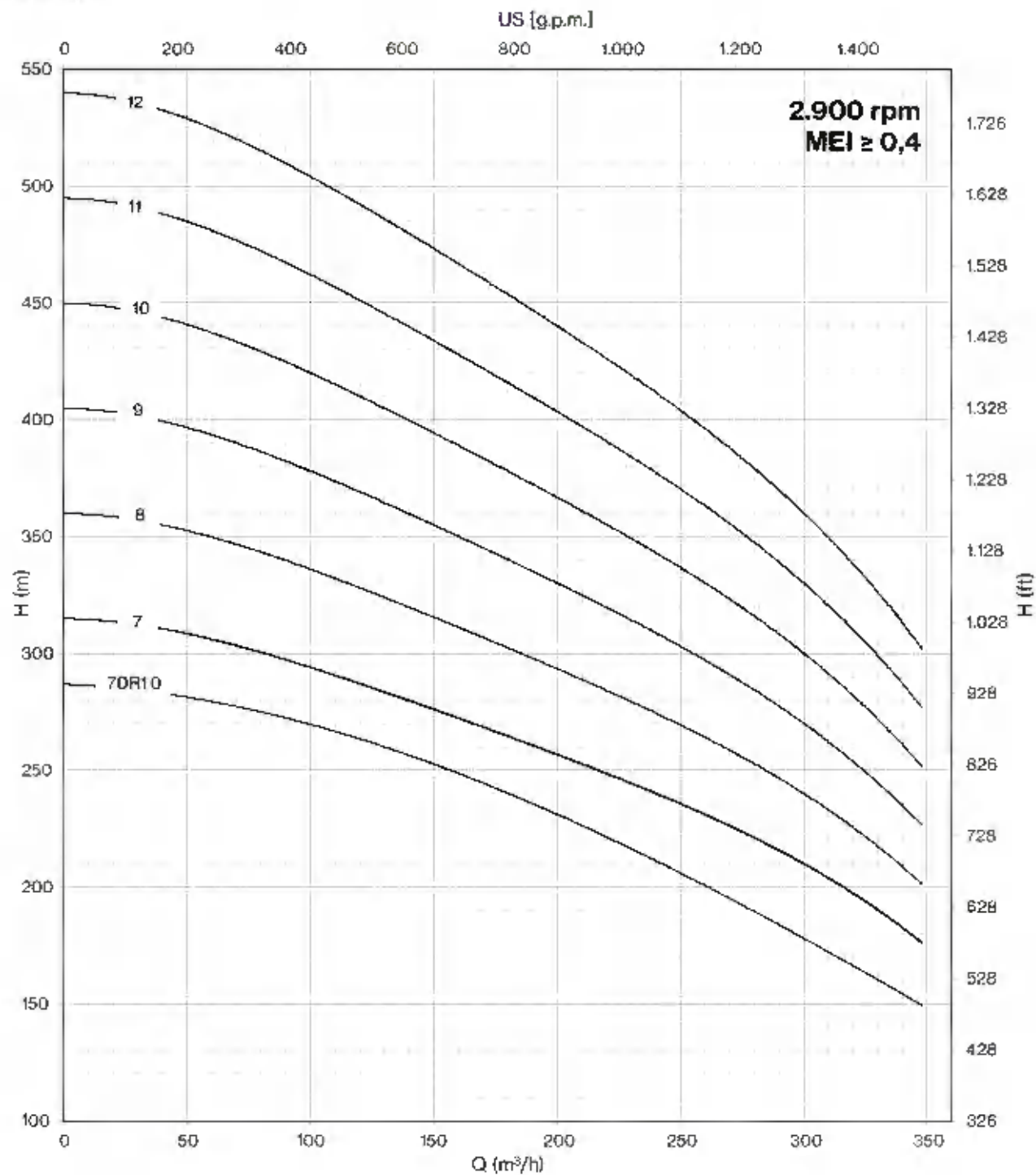
|                     |      |
|---------------------|------|
| Max Eff. % DR20 =   | 76,1 |
| Max Eff. % DR10 =   | 77,2 |
| Max Eff. % =        | 76,5 |
| Max kW / St. DR20 = | 25   |
| Max kW / St. OR10 = | 29   |
| Max kW / St. =      | 33   |

|          |     |     |     |      |
|----------|-----|-----|-----|------|
| Q (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 3,4 | 5   | 7,8 | 11,8 |

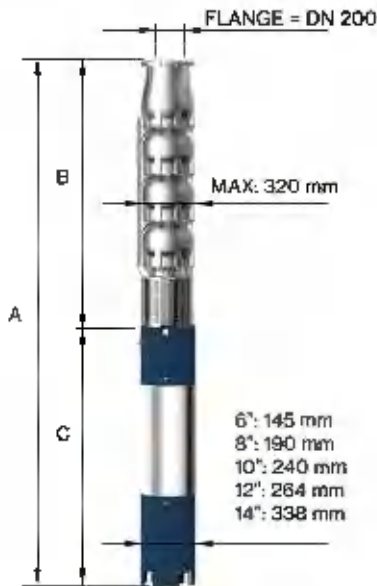


10LM

10LM 275



| Motor 50 Hz - 2900 rpm |       |     |       |                        | Q   |      |      |      |      |      |       |       |       |
|------------------------|-------|-----|-------|------------------------|-----|------|------|------|------|------|-------|-------|-------|
| TYPE                   | Power |     | 400 V | l/min<br>l/sec<br>m³/h | 0   | 1500 | 4000 | 4500 | 5000 | 5500 | 6000  | 6500  | 7000  |
|                        | HP    | kW  |       |                        | 0   | 25,0 | 66,7 | 75,0 | 83,3 | 91,7 | 100,0 | 108,3 | 116,7 |
|                        |       |     |       |                        | 0   | 90   | 240  | 270  | 300  | 330  | 360   | 390   | 420   |
| 12LM 360/01 DR35       | 50    | 37  | 75,8  | H[m]                   | 41  | 40   | 37   | 35   | 33   | 32   | 29    |       |       |
| 12LM 360/01 DR20       | 75    | 55  | 106,2 |                        | 49  | 48   | 47   | 45   | 44   | 42   | 40    | 38    | 34    |
| 12LM 360/01            | 90    | 56  | 125,0 |                        | 62  | 61   | 56   | 53   | 52   | 52   | 50    | 47    | 42    |
| 12LM 360/02 DR35       | 100   | 75  | 143,2 |                        | 82  | 80   | 73   | 70   | 66   | 63   | 57    |       |       |
| 12LM 360/02 DR20 D     | 150   | 110 | 211,0 |                        | 98  | 96   | 93   | 90   | 87   | 84   | 80    | 75    | 68    |
| 12LM 360/02 D          | 175   | 130 | 245,3 |                        | 124 | 122  | 109  | 105  | 104  | 103  | 100   | 93    | 84    |
| 12LM 360/03 DR20 D     | 200   | 150 | 277,2 |                        | 147 | 144  | 140  | 135  | 131  | 126  | 120   | 113   | 102   |
| 12LM 360/03 DR10 D     | 250   | 185 | 342,2 |                        | 165 | 162  | 152  | 149  | 144  | 140  | 132   | 126   | 120   |
| 12LM 360/03 D          | 300   | 220 | 430,0 |                        | 136 | 183  | 164  | 159  | 158  | 155  | 150   | 140   | 126   |
| 12LM 360/04 DR20 D     | 300   | 220 | 430,0 |                        | 195 | 192  | 135  | 130  | 174  | 159  | 160   | 158   | 136   |
| 12LM 360/04 DR10 D     | 340   | 250 | 461,0 |                        | 220 | 216  | 202  | 198  | 192  | 186  | 176   | 168   | 160   |
| 12LM 360/04 D          | 400   | 300 | 551,0 |                        | 248 | 244  | 218  | 212  | 203  | 206  | 200   | 186   | 168   |



| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm) |      |      | Weight (kg) |     |
|-------------------------|-----------------|------|------|-------------|-----|
| TYPE                    | A               | B    | C    | M           | P   |
| 12LM 360/01 DR35        | 2111            | 770  | 1341 | 118         | 79  |
| 12LM 360/01 DR20        | 2003            | 770  | 1233 | 200         | 79  |
| 12LM 360/01             | 2072            | 770  | 1302 | 214         | 79  |
| 12LM 360/02 DR35        | 2333            | 1000 | 1383 | 230         | 104 |
| 12LM 360/02 DR20 D      | 2733            | 1000 | 1733 | 300         | 104 |
| 12LM 360/02 D           | 2634            | 1000 | 1634 | 385         | 104 |
| 12LM 360/03 DR20 D      | 2964            | 1230 | 1734 | 415         | 129 |
| 12LM 360/03 DR10 D      | 3214            | 1230 | 1984 | 480         | 129 |
| 12LM 360/03 D           | 3340            | 1230 | 2110 | 700         | 129 |
| 12LM 360/04 DR20 D      | 3870            | 1460 | 2110 | 700         | 154 |
| 12LM 360/04 DR10 D      | 3740            | 1460 | 2280 | 775         | 154 |
| 12LM 360/04 D           | 3740            | 1460 | 2280 | 775         | 154 |



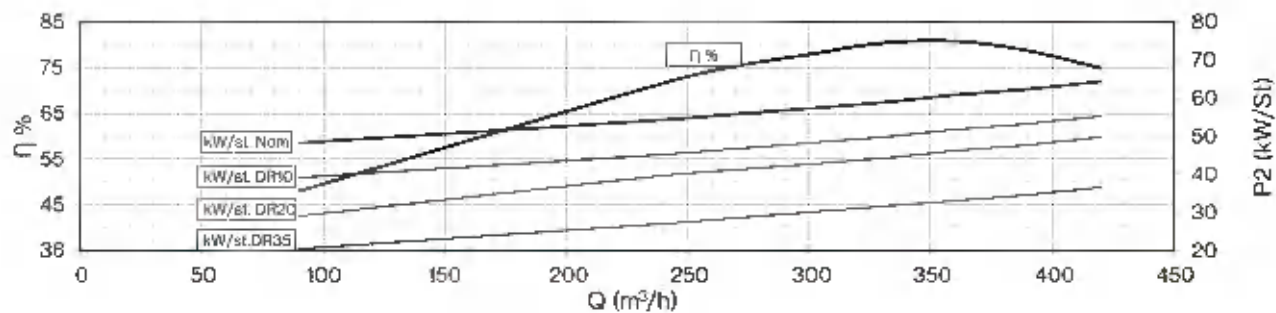
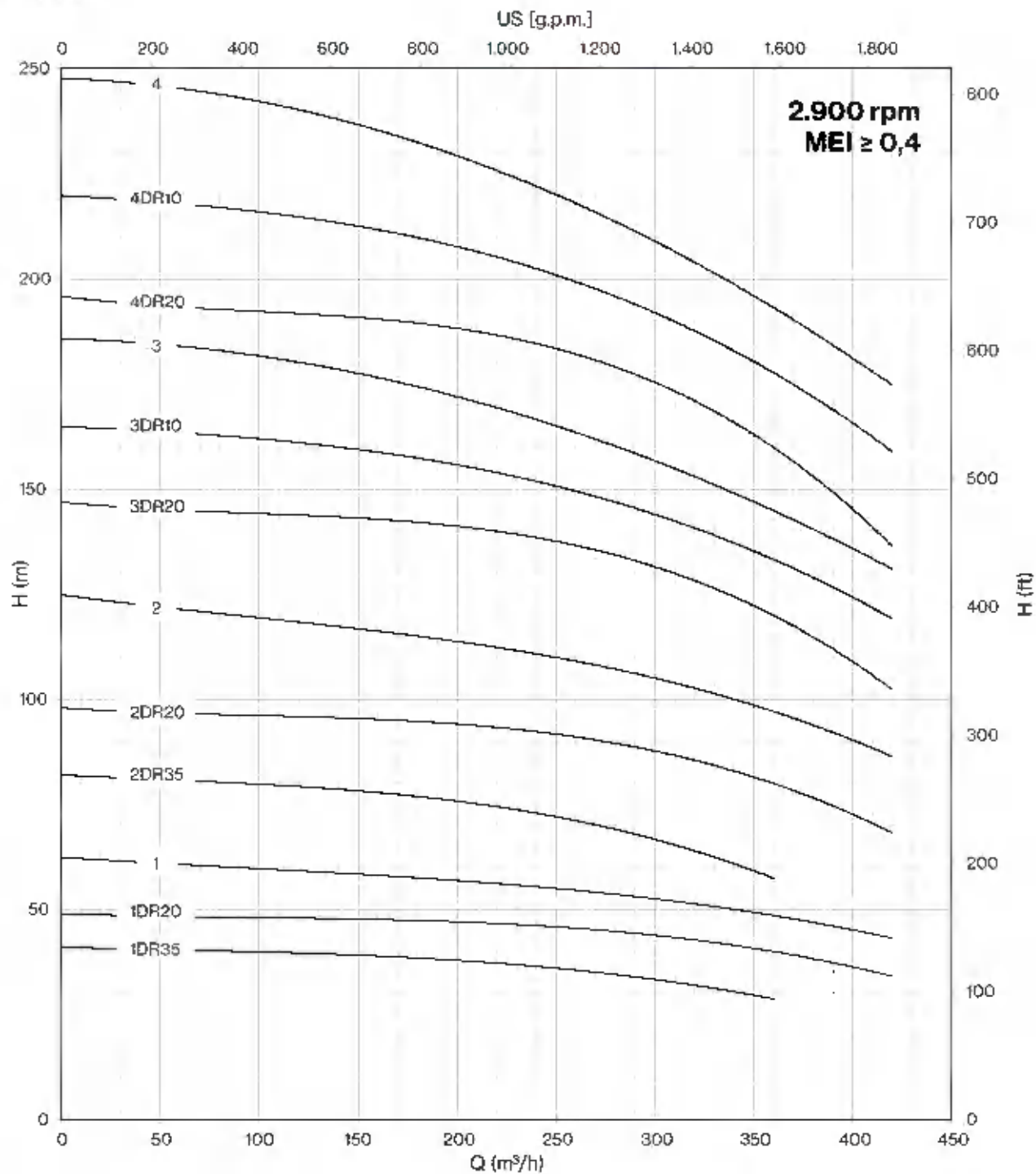
FOR COMMERCIAL TUBE  
EXTERNAL DIAMETER: 219,1 mm

|                     |       |
|---------------------|-------|
| Max Eff. % DR35 =   | 77,5  |
| Max Eff. % DR20 =   | 50    |
| Max Eff. % DR10 =   | 80,5  |
| Max Eff. % =        | 81    |
| Max kW / St. DR35 = | 36,30 |
| Max kW / St. DR20 = | 49,5  |
| Max kW / St. DR10 = | 55,2  |
| Max kW / St. =      | 64,2  |

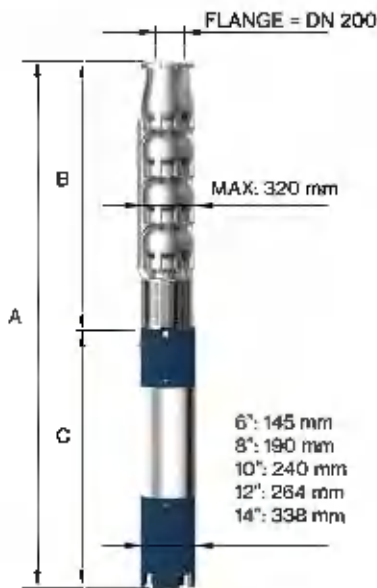
|          |     |     |     |      |
|----------|-----|-----|-----|------|
| Q (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 3,4 | 5   | 7,8 | 11,8 |

12LM

12LM 360



| Motor 50 Hz - 2900 rpm |       |     |       | Q     |       |      |      |      |      |      |      |       |       |
|------------------------|-------|-----|-------|-------|-------|------|------|------|------|------|------|-------|-------|
| TYPE                   | Power |     | 400 V | l/min | 0     | 1500 | 4000 | 4500 | 5000 | 5500 | 6000 | 6500  | 7000  |
|                        | HP    | kW  |       | A     | l/sec | 0    | 25,0 | 86,7 | 75,0 | 83,3 | 91,7 | 100,0 | 108,3 |
|                        |       |     | m³/h  |       | 0     | 90   | 240  | 270  | 300  | 330  | 360  | 390   | 420   |
| 12LM 360/05 DR20 D     | 340   | 250 | 481,0 | H[m]  | 245   | 240  | 233  | 225  | 218  | 210  | 200  | 188   | 170   |
| 12LM 360/05 DR10 D     | 400   | 300 | 551,0 |       | 275   | 270  | 253  | 248  | 240  | 232  | 220  | 210   | 200   |
| 12LM 360/05 D          | 450   | 330 | 620,0 |       | 310   | 305  | 273  | 265  | 260  | 258  | 250  | 233   | 210   |
| 12LM 360/06 DR10 D     | 500   | 370 | 693,0 |       | 330   | 324  | 304  | 298  | 288  | 280  | 264  | 252   | 240   |
| 12LM 360/05 D          | 550   | 400 | 798,0 |       | 372   | 366  | 328  | 313  | 312  | 310  | 300  | 280   | 252   |
| 12LM 360/07 DR10 D     | 550   | 400 | 798,0 |       | 385   | 378  | 354  | 347  | 336  | 326  | 308  | 284   | 280   |



FOR COMMERCIAL TUBE  
EXTERNAL DIAMETER: 219,1 mm

| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm) |      |      | Weight (kg) |     |
|-------------------------|-----------------|------|------|-------------|-----|
| TYPE                    | A               | B    | C    | M           | P   |
| 12LM 360/05 DR20 D      | 3970            | 1690 | 2280 | 775         | 179 |
| 12LM 360/05 DR10 D      | 3970            | 1690 | 2280 | 775         | 179 |
| 12LM 360/05 D           | 3850            | 1690 | 2160 | 908         | 179 |
| 12LM 360/06 DR10 D      | 4240            | 1920 | 2320 | 1010        | 204 |
| 12LM 360/06 D           | 4380            | 1920 | 2460 | 1105        | 204 |
| 12LM 360/07 DR10 D      | 4610            | 2150 | 2460 | 1105        | 229 |

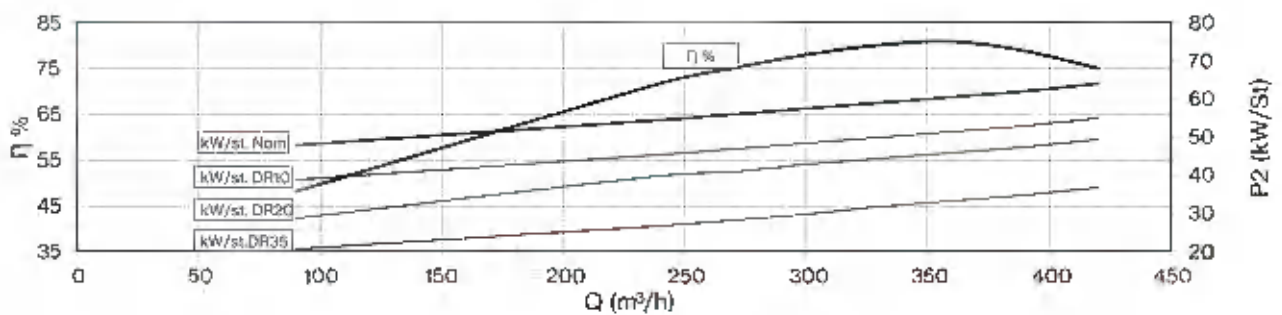
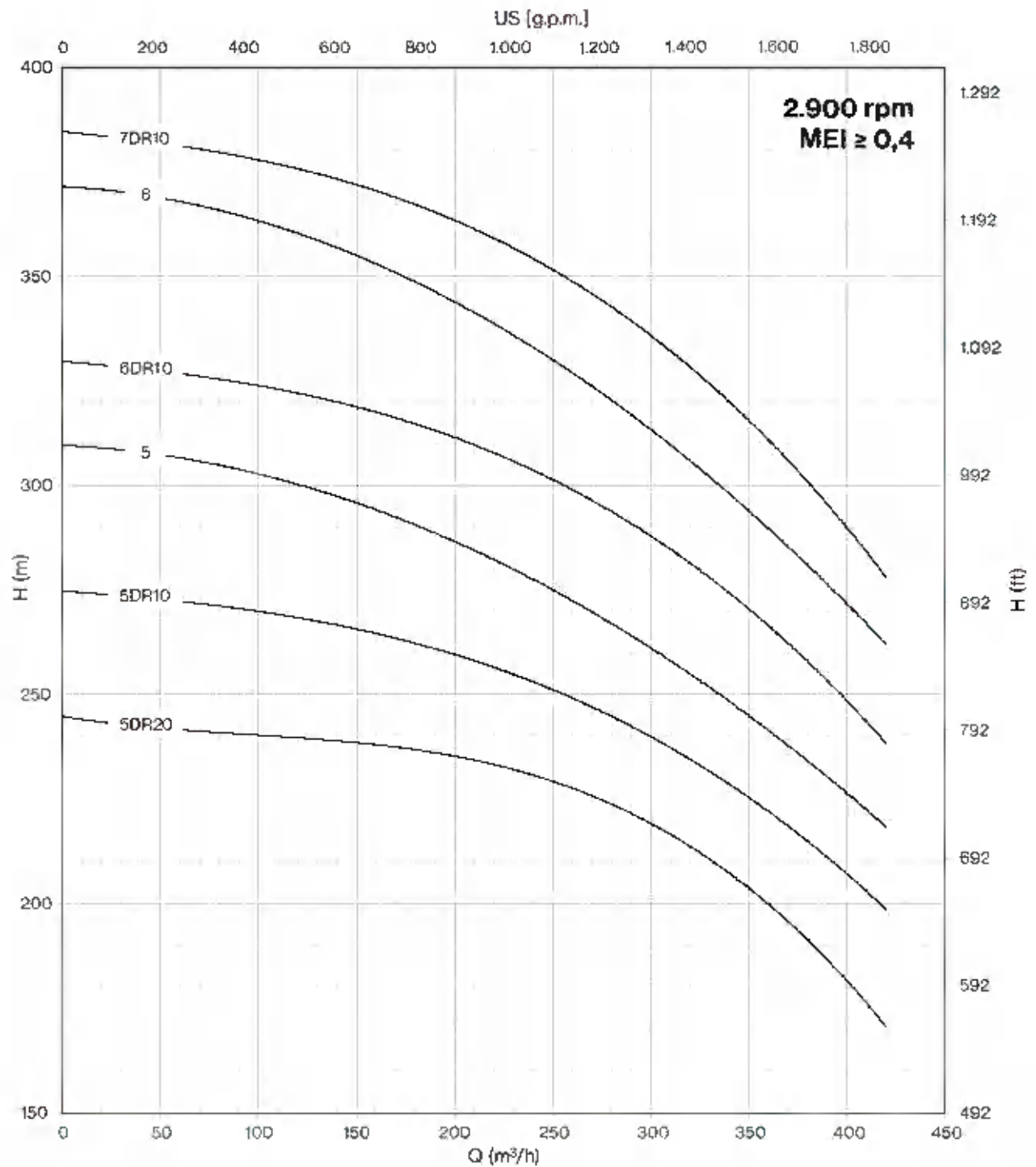
|                     |       |
|---------------------|-------|
| Max Eff. % DR35 =   | 77,5  |
| Max Eff. % DR20 =   | 80    |
| Max Eff. % DP10 =   | 80,5  |
| Max Eff. % =        | 81    |
| Max kW / St. DR35 = | 35,80 |
| Max kW / St. DR20 = | 49,5  |
| Max kW / St. DR10 = | 55,2  |
| Max kW / SL =       | 64,2  |

|          |     |     |     |      |
|----------|-----|-----|-----|------|
| D (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 3,4 | 5   | 7,8 | 11,8 |

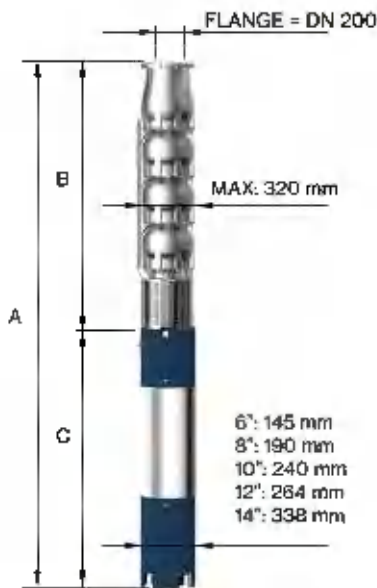


12LM

12LM 360



| Motor 50 Hz - 2900 rpm |       |     |       | Q     |     |      |       |       |       |       |       |       |       |
|------------------------|-------|-----|-------|-------|-----|------|-------|-------|-------|-------|-------|-------|-------|
| TYPE                   | Power |     | 400 V | l/min | Q   | 2000 | 6000  | 550D  | 7000  | 7500  | 6000  | 3500  | 900D  |
|                        |       |     |       | l/sec | Q   | 33,3 | 100,0 | 108,3 | 116,7 | 125,0 | 133,3 | 141,7 | 150,0 |
|                        | HP    | kW  | A     | m³/h  | Q   | 120  | 360   | 390   | 420   | 450   | 480   | 510   | 540   |
| 12LM 400/01 DR30       | 50    | 37  | 75,8  | H[m]  | 48  | 42   | 32    | 30    | 27    | 24    |       |       |       |
| 12LM 400/01 DR20       | 75    | 55  | 106,2 |       | 47  | 45   | 37    | 35    | 33    | 30    | 26    | 22    |       |
| 12LM 400/01 DR10       | 75    | 55  | 105,2 |       | 53  | 52   | 42    | 40    | 38    | 36    | 32    | 28    |       |
| 12LM 400/01            | 90    | 66  | 126,0 |       | 58  | 57   | 46    | 44    | 42    | 40    | 37    | 31    | 27    |
| 12LM 400/02 DR30       | 100   | 75  | 143,2 |       | 86  | 84   | 64    | 59    | 54    | 48    |       |       |       |
| 12LM 400/02 DR20       | 125   | 92  | 175,1 |       | 94  | 90   | 73    | 69    | 65    | 59    | 52    | 44    |       |
| 12LM 400/02 DR10 D     | 150   | 110 | 211,0 |       | 106 | 104  | 84    | 80    | 76    | 71    | 64    | 56    |       |
| 12LM 400/02 D          | 175   | 130 | 245,3 |       | 116 | 114  | 92    | 88    | 84    | 80    | 73    | 62    | 54    |
| 12LM 400/03 DR20 D     | 200   | 150 | 277,2 |       | 141 | 135  | 110   | 104   | 98    | 89    | 78    | 66    |       |
| 12LM 400/03 DR10 D     | 225   | 165 | 313,3 |       | 159 | 156  | 126   | 120   | 114   | 107   | 96    | 84    |       |
| 12LM 400/03 D          | 250   | 185 | 342,2 |       | 174 | 171  | 138   | 132   | 126   | 120   | 110   | 93    | 81    |



FOR COMMERCIAL TUBE  
EXTERNAL DIAMETER: 219,1 mm

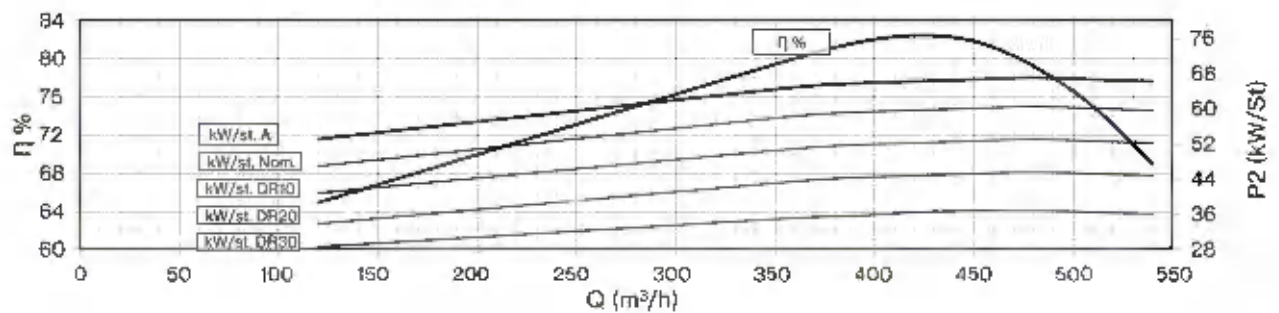
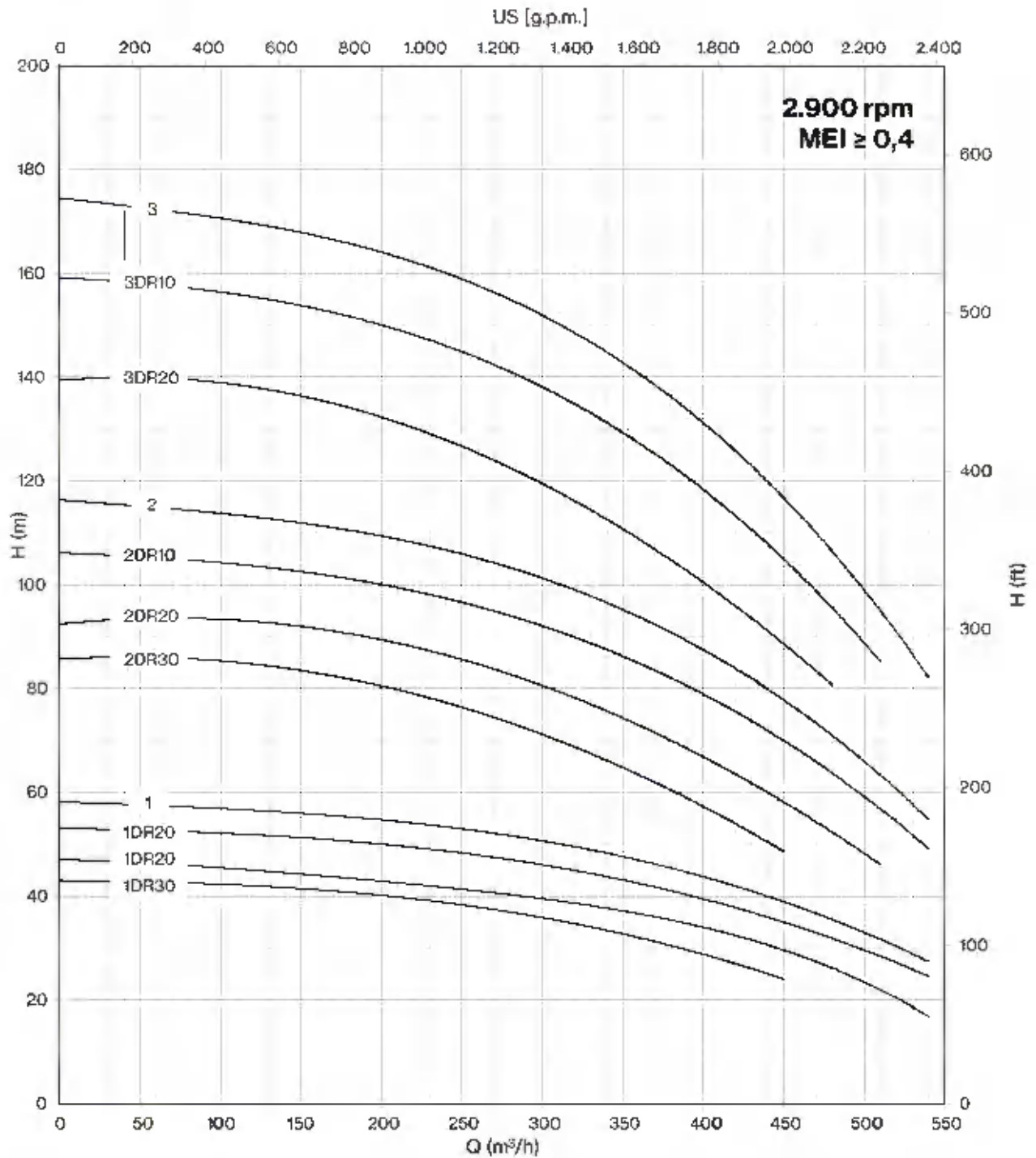
| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm) |      |      | Weight (kg) |     |
|-------------------------|-----------------|------|------|-------------|-----|
| TYPE                    | A               | B    | C    | M           | P   |
| 12LM 400/01 DR30        | 2111            | 770  | 1341 | 118         | 79  |
| 12LM 400/01 DR20        | 2003            | 770  | 1233 | 200         | 79  |
| 12LM 400/01 DR10        | 2003            | 770  | 1233 | 200         | 79  |
| 12LM 400/01             | 2072            | 770  | 1302 | 214         | 79  |
| 12LM 400/02 DR30        | 2383            | 1000 | 1383 | 230         | 104 |
| 12LM 400/02 DR20        | 2583            | 1000 | 1583 | 270         | 104 |
| 12LM 400/02 DR10 D      | 2733            | 1000 | 1733 | 300         | 104 |
| 12LM 400/02 D           | 2634            | 1000 | 1634 | 385         | 104 |
| 12LM 400/03 DR20 D      | 2964            | 1280 | 1734 | 415         | 128 |
| 12LM 400/03 DR10 D      | 3084            | 1230 | 1854 | 444         | 129 |
| 12LM 400/03 D           | 3214            | 1230 | 1984 | 480         | 129 |

|                     |      |
|---------------------|------|
| Max Eff. % DR30 =   | 81,2 |
| Max Eff. % DR20 =   | 81,8 |
| Max Eff. % DR10 =   | 82,7 |
| Max Eff. % =        | 81,6 |
| Max Eff. % A =      | 82,5 |
| Max kW / St. DR30 = | 37   |
| Max kW / St. DR20 = | 45,6 |
| Max kW / St. DR10 = | 53   |
| Max kW / St. =      | 60,4 |
| Max kW / St. A =    | 67   |

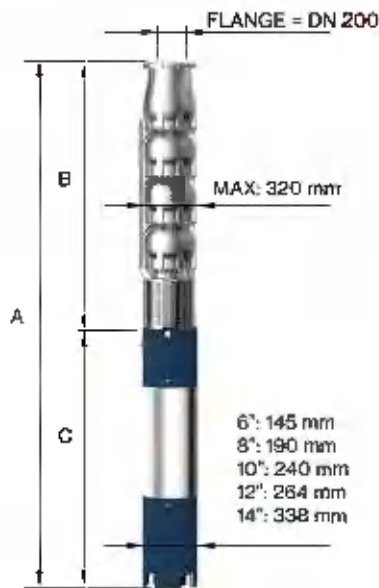
|          |     |     |     |      |
|----------|-----|-----|-----|------|
| Q (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 8,4 | 5   | 7,8 | 11,8 |

12LM

12LM 400



| Motor 50 Hz - 2900 rpm |       |     |       | Q     |     |      |       |       |       |       |       |       |       |
|------------------------|-------|-----|-------|-------|-----|------|-------|-------|-------|-------|-------|-------|-------|
| TYPE                   | Power |     | 400 V | l/min | 0   | 2000 | 6000  | 6500  | 7000  | 7500  | 8000  | 8500  | 9000  |
|                        |       |     |       | l/sec | 0   | 33,3 | 100,0 | 108,3 | 116,7 | 125,0 | 133,3 | 141,7 | 150,0 |
|                        | HP    | kW  | A     | m³/h  | 0   | 120  | 360   | 390   | 420   | 450   | 480   | 510   | 540   |
| 12LM 400/04 DR20 D     | 250   | 185 | 342,2 | H[m]  | 188 | 180  | 146   | 138   | 130   | 118   | 104   | 88    |       |
| 12LM 400/04 DR10 D     | 300   | 220 | 430,0 |       | 212 | 208  | 168   | 160   | 152   | 142   | 128   | 112   |       |
| 12LM 400/04 D          | 340   | 250 | 481,0 |       | 232 | 228  | 184   | 176   | 168   | 160   | 146   | 124   | 108   |
| 12LM 400/05 DR10 D     | 400   | 300 | 551,0 |       | 265 | 260  | 210   | 200   | 100   | 178   | 160   | 140   |       |
| 12LM 400/05 D          | 450   | 330 | 620,0 |       | 290 | 285  | 230   | 220   | 210   | 206   | 183   | 155   | 135   |
| 12LM 400/05A D         | 500   | 370 | 693,0 |       | 305 | 330  | 250   | 240   | 230   | 223   | 205   | 195   | 160   |
| 12LM 400/06 D          | 500   | 370 | 693,0 |       | 348 | 342  | 276   | 264   | 252   | 240   | 220   | 186   | 162   |



FOR COMMERCIAL TUBE  
EXTERNAL DIAMETER: 219,1 mm

| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm) |      |      | Weight (kg) |     |
|-------------------------|-----------------|------|------|-------------|-----|
|                         | A               | B    | C    | M           | P   |
| 12LM 400/04 DR20 D      | 3444            | 1460 | 1984 | 480         | 154 |
| 12LM 400/04 DR10 D      | 3570            | 1460 | 2110 | 700         | 154 |
| 12LM 400/04 D           | 3740            | 1460 | 2280 | 775         | 154 |
| 12LM 400/05 DR10 D      | 3970            | 1690 | 2280 | 775         | 179 |
| 12LM 400/05 D           | 3850            | 1690 | 2160 | 906         | 179 |
| 12LM 400/05A D          | 4010            | 1690 | 2320 | 1010        | 179 |
| 12LM 400/06 D           | 4240            | 1920 | 2320 | 1010        | 204 |

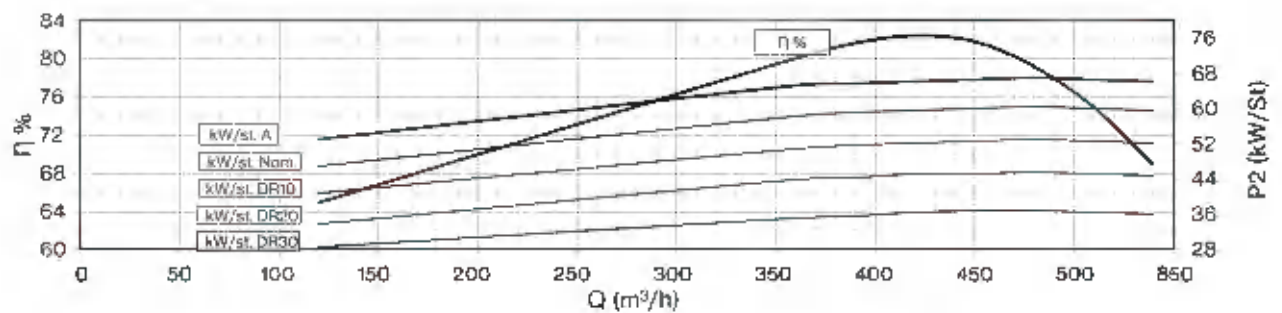
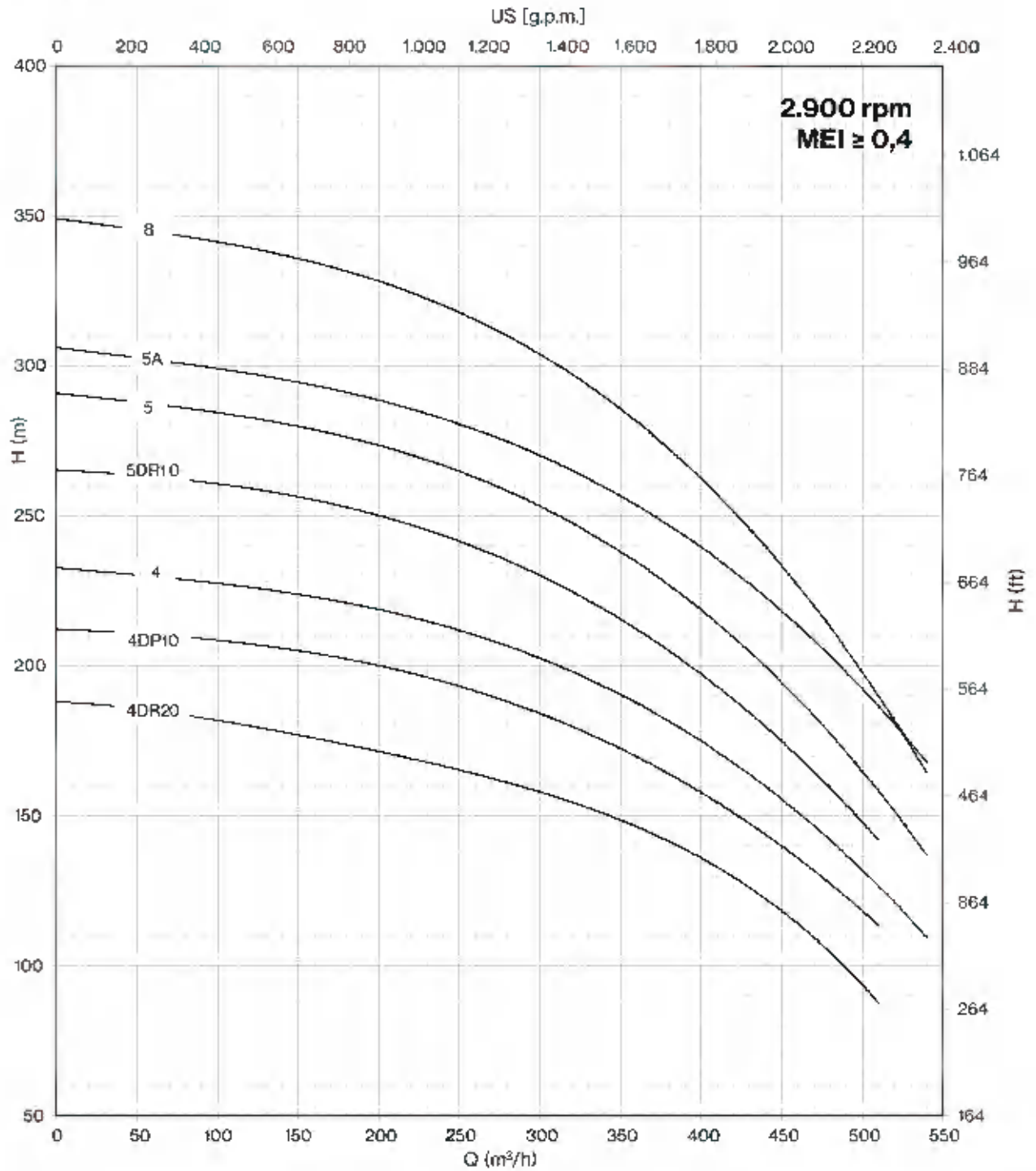
|                     |      |
|---------------------|------|
| Max Eff. % DR30 =   | 81,2 |
| Max Eff. % DR20 =   | 81,8 |
| Max Eff. % DR10 =   | 82,7 |
| Max Eff. % =        | 81,6 |
| Max Eff. % A =      | 82,5 |
| Max kW / St. DR30 = | 37   |
| Max kW / St. DR20 = | 45,6 |
| Max kW / St. DR10 = | 53   |
| Max kW / St. =      | 60,4 |
| Max kW / St. A =    | 67   |

|          |     |     |     |      |
|----------|-----|-----|-----|------|
| Q (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 3,4 | 5   | 7,8 | 11,8 |

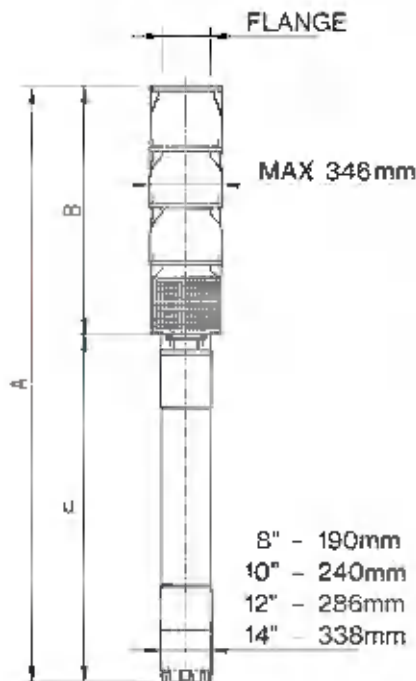


12LM

12LM 400

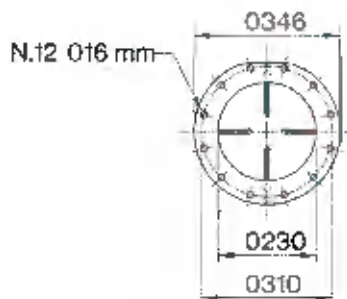


| Motor 50 Hz - 2900 rpm |       |     |       | Q     |       |       |       |       |       |       |       |       |       |
|------------------------|-------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| TYPE                   | Power |     | 400 V | 1/mto | 0     | 1333  | 2667  | 4000  | 5033  | 6667  | 8000  | 8500  | 9667  |
|                        |       |     |       | 1/sec | 0     | 22,2  | 44,5  | 66,7  | 38,9  | 111,1 | 133,3 | 141,8 | 161,2 |
|                        | HP    | kW  | A     | m³/h  | 0     | 80    | 160   | 240   | 320   | 400   | 480   | 510   | 580   |
| E 14 A/1 0             | 90    | 58  | 126,0 | H[m]  | 71,8  | 86,5  | 62,5  | 58,7  | 54,4  | 49,0  | 41,8  | 38,2  |       |
| E 14 A/1 C             | 100   | 75  | 143,2 |       | 76,8  | 71,7  | 67,5  | 63,8  | 59,6  | 54,6  | 47,9  | 45,0  | 39,0  |
| E 14 A/1 B             | 125   | 92  | 175,1 |       | 85,1  | 79,9  | 75,6  | 71,8  | 67,8  | 63,3  | 57,7  | 55,1  | 48,2  |
| E 14 A/1 A             | 150   | 110 | 211,0 |       | 97,1  | 90,8  | 85,5  | 80,4  | 75,6  | 70,7  | 65,4  | 63,0  | 57,5  |
| E 14 A/1 Nom.          | 175   | 130 | 245,3 |       | 108,6 | 99,3  | 92,3  | 87,0  | 82,5  | 78,0  | 73,0  | 70,8  | 64,1  |
| E 14 A/2 D             | 175   | 130 | 245,3 |       | 143,5 | 133,0 | 125,0 | 117,4 | 108,8 | 98,0  | 88,2  | 76,4  |       |
| E 14 A/2 C             | 200   | 150 | 277,2 |       | 153,6 | 143,4 | 135,0 | 127,6 | 119,1 | 109,1 | 95,8  | 90,0  | 78,0  |
| E 14 A/2 B             | 250   | 185 | 342,2 |       | 170,2 | 159,8 | 151,2 | 143,6 | 135,6 | 126,5 | 115,4 | 110,2 | 96,4  |
| E 14 A/2 A             | 300   | 226 | 430,0 |       | 194,3 | 181,6 | 171,0 | 160,8 | 161,2 | 141,4 | 130,8 | 126,0 | 115,2 |
| E 14 A/2 Nom.          | 340   | 250 | 481,0 |       | 217,3 | 198,6 | 184,6 | 174,0 | 165,0 | 156,0 | 146,0 | 141,6 | 128,2 |



| Motor 50 Hz<br>2000 rpm |  | DIMENSIONS (mm) |      |      | Weight (kg) |     |
|-------------------------|--|-----------------|------|------|-------------|-----|
| TYPE                    |  | A               | B    | C    | M           | P   |
| E 14 A/1 0              |  | 2237            | 935  | 1302 | 214         | 184 |
| E 14 A/1 C              |  | 2318            | 935  | 1863 | 230         | 184 |
| E 14 A/1 D              |  | 2518            | 935  | 1583 | 270         | 184 |
| E 14 A/1 A              |  | 2668            | 935  | 1733 | 300         | 184 |
| E 14 A/1 Nom.           |  | 2565            | 935  | 1834 | 386         | 184 |
| E 14 A/2 D              |  | 2809            | 1175 | 1534 | 385         | 260 |
| E 14 A/2 C              |  | 2909            | 1175 | 1734 | 415         | 260 |
| E 14 A/2 B              |  | 3159            | 1175 | 1984 | 480         | 260 |
| E 14 A/2 A              |  | 3286            | 1175 | 2110 | 700         | 260 |
| E 14 A/2 Nom.           |  | 3455            | 1175 | 2280 | 775         | 260 |

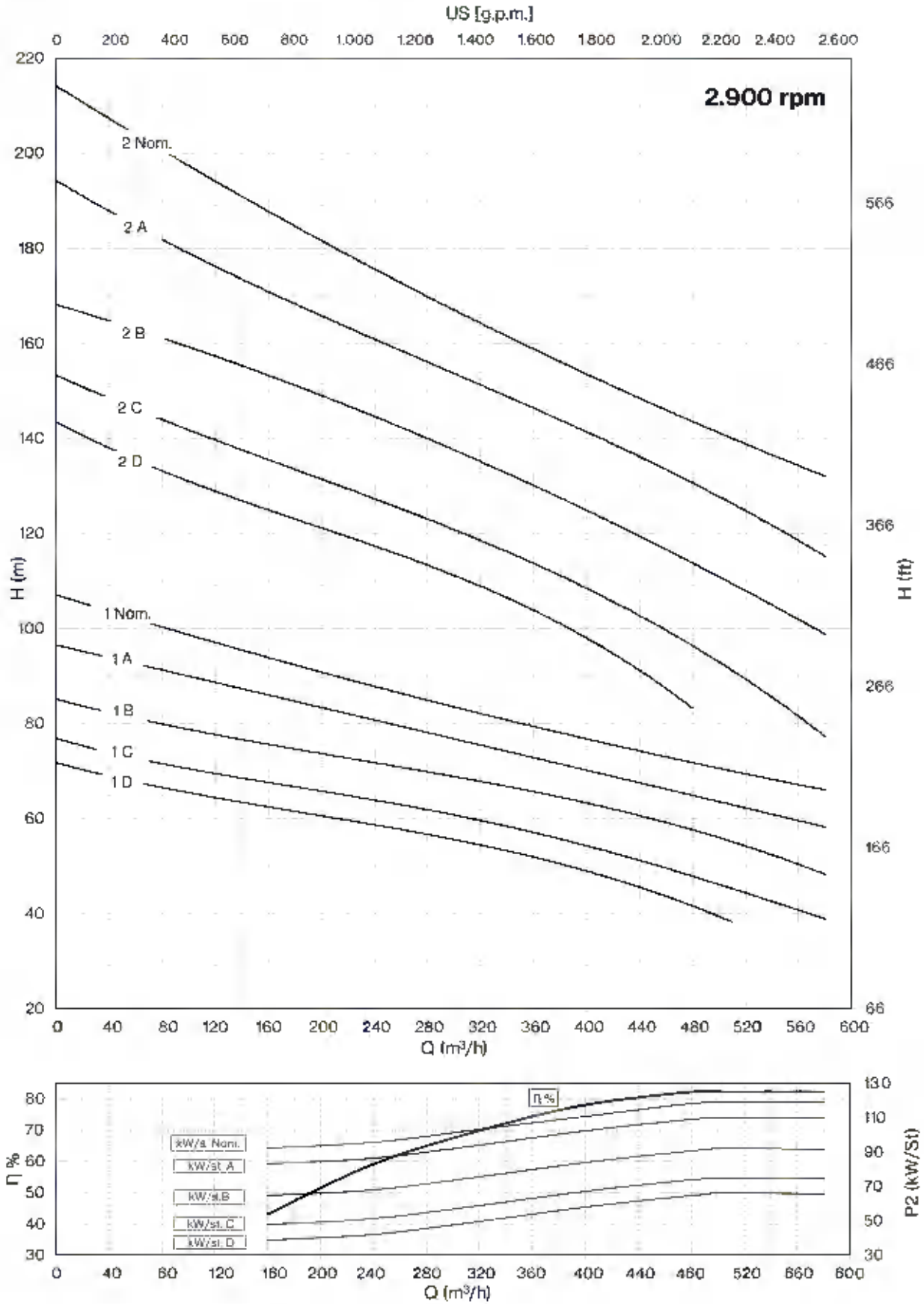
|                               |       |
|-------------------------------|-------|
| Max Eff. % =                  | 82,3  |
| Max KW / St.: D = - D.230mm = | 64,9  |
| Max KW / St.: C = - D.238mm = | 74,0  |
| Max KW / St.: B = - D.251mm = | 90,8  |
| Max KW / St.: A = - D.268mm = | 109,1 |
| Max KW / St. Nom. - D.276mm = | 119,3 |



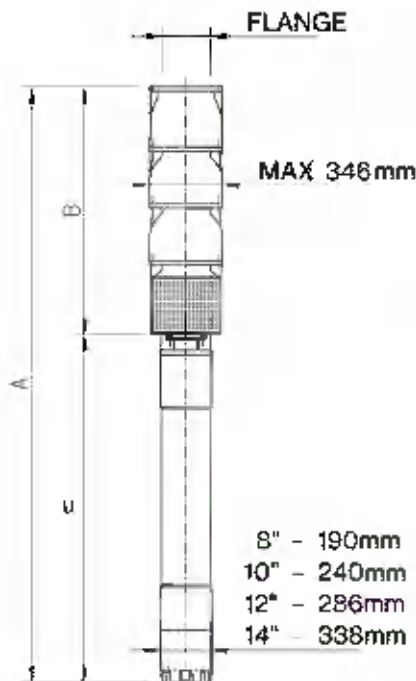
|          |     |     |     |      |
|----------|-----|-----|-----|------|
| Q (flow) | 25% | 50% | 75% | 100% |
| NPSH (m) | 5,8 | 6,4 | 9,4 | 15,3 |

E14

E14 A

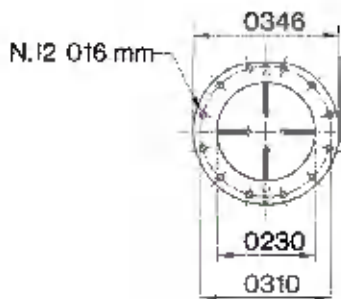


| Motor 50 Hz - 2900 rpm |       |     |       | Q     |       |       |       |       |       |       |       |       |       |
|------------------------|-------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| TYPE                   | Power |     | 400 V | l/mlo | 0     | 1333  | 4000  | 5333  | 6667  | 9000  | 10000 | 12600 | 14333 |
|                        |       |     |       | l/sec | 0     | 22,2  | 88,7  | 88,9  | 111,1 | 150,0 | 166,7 | 208,3 | 238,9 |
|                        | HP    | kW  | A     | m³/h  | 0     | 80    | 240   | 320   | 400   | 540   | 600   | 750   | 860   |
| E 14 B/1 C             | 125   | 92  | 175,1 | H(m)  | 73,5  | 72,5  | 88,0  | 83,5  | 57,8  | 44,0  | 36,5  | 14,0  |       |
| E 14 B/1 B             | 150   | 110 | 211,0 |       | 80,4  | 79,5  | 75,0  | 71,5  | 88,0  | 53,5  | 46,7  | 26,5  |       |
| E 14 B/1 A             | 175   | 130 | 245,3 |       | 87,0  | 84,0  | 79,0  | 77,0  | 73,8  | 66,0  | 61,5  | 46,5  | 29,0  |
| E 14 B/1 Nom.          | 200   | 150 | 277,2 |       | 100,8 | 97,4  | 90,4  | 86,9  | 82,9  | 74,2  | 69,0  | 53,9  | 38,4  |
| E 14 B/2 C             | 250   | 185 | 342,2 |       | 147,0 | 145,0 | 136,0 | 127,0 | 115,6 | 88,0  | 73,0  | 28,0  |       |
| E 14 B/2 B             | 300   | 220 | 430,0 |       | 160,7 | 159,0 | 150,0 | 143,0 | 132,0 | 107,0 | 93,4  | 53,0  |       |
| E 14 B/2 A             | 400   | 300 | 551,0 |       | 174,0 | 168,0 | 166,0 | 154,0 | 147,6 | 132,0 | 123,0 | 31,0  | 58,0  |
| E 14 B/2 Nom.          | 400   | 300 | 551,0 |       | 201,6 | 194,8 | 180,8 | 173,8 | 165,8 | 148,4 | 138,0 | 107,8 | 78,8  |



| Motor 50 Hz<br>2900 rpm | DIMENSIONS (mm) |      |      | Weight (kg) |     |
|-------------------------|-----------------|------|------|-------------|-----|
| TYPE                    | A               | B    | C    | M           | P   |
| E 14 B/1 C              | 2488            | 905  | 1883 | 270         | 184 |
| E 14 B/1 B              | 2636            | 905  | 1733 | 300         | 184 |
| E 14 B/1 A              | 2539            | 905  | 1834 | 335         | 184 |
| E 14 B/1 Nom.           | 2639            | 905  | 1734 | 415         | 184 |
| E 14 B/2 C              | 3159            | 1175 | 1984 | 480         | 260 |
| E 14 B/2 B              | 3285            | 1175 | 2110 | 700         | 260 |
| E 14 B/2 A              | 3455            | 1175 | 2260 | 775         | 260 |
| E 14 B/2 Nom.           | 3456            | 1175 | 2230 | 775         | 260 |

|                               |       |
|-------------------------------|-------|
| Max Eff. % =                  | 78,6  |
| Max KW / St.: C - D.240mm =   | 91,8  |
| Max KW / St.: B - D.250mm =   | 109,7 |
| Max KW / St. A. - D.259mm =   | 129,6 |
| Max KW / St. Nom. - D.274mm = | 149,6 |

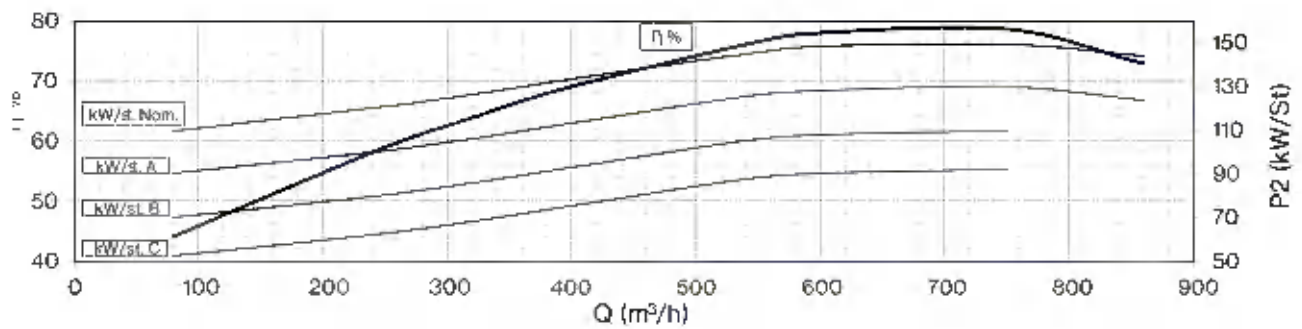
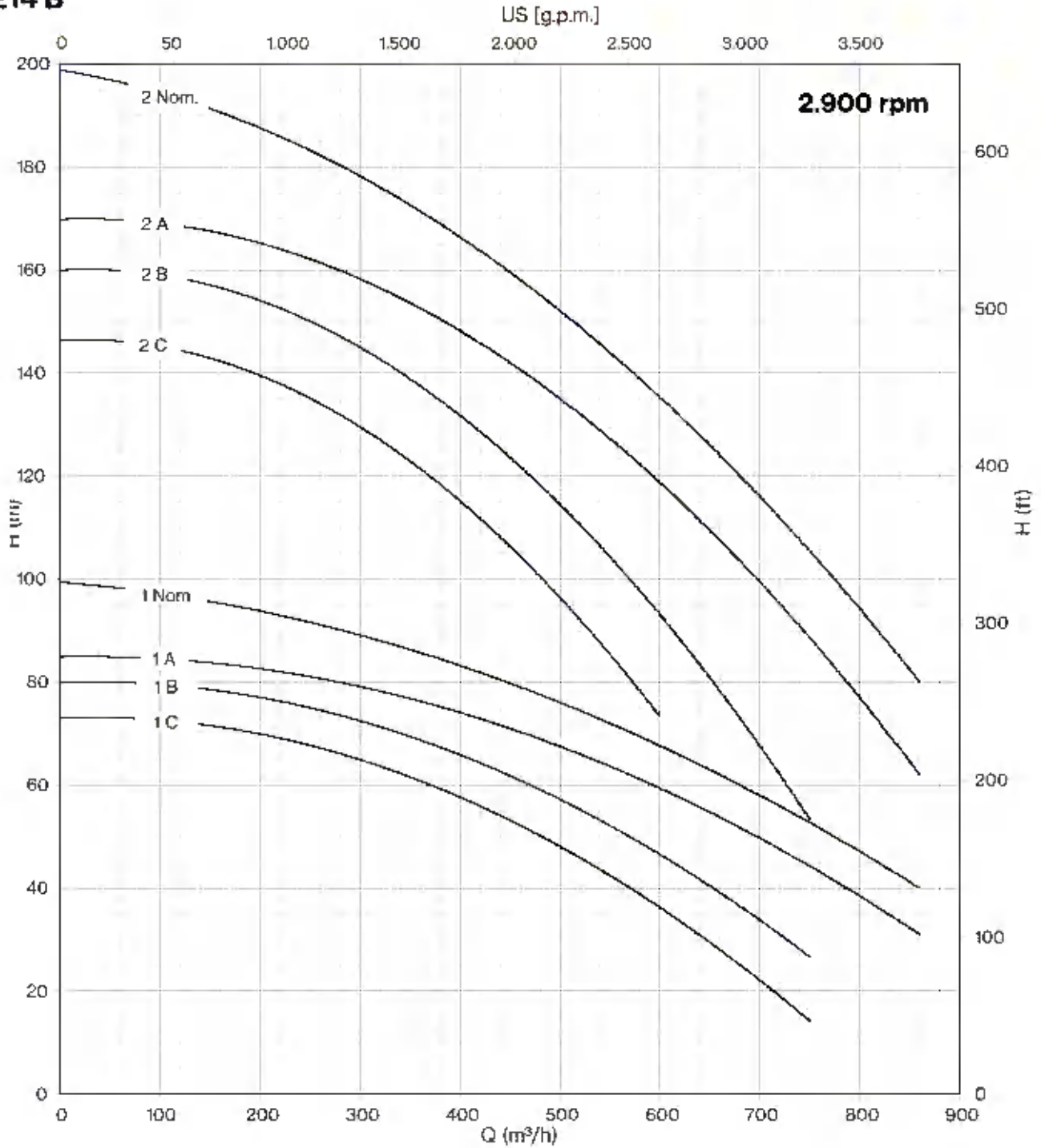


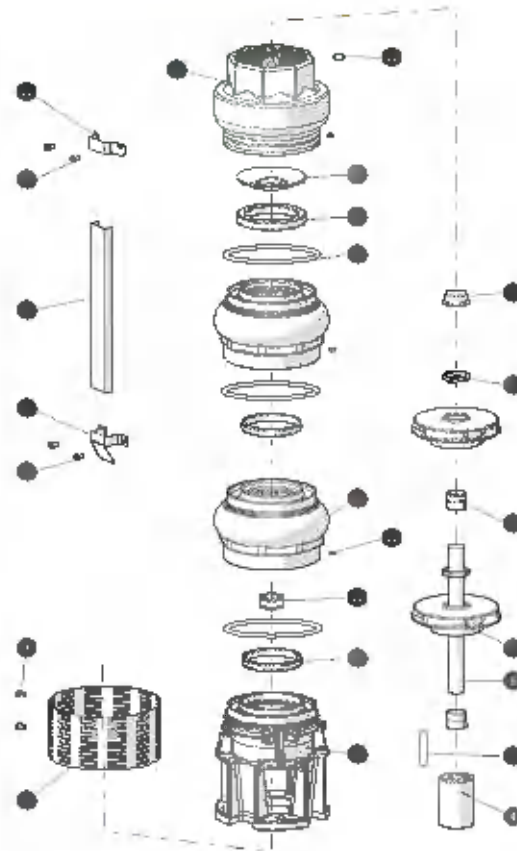
| Q (flow) | 25% | 50% | 75% | 100% |
|----------|-----|-----|-----|------|
| NPSH (m) | 5   | 6,4 | 8,6 | 18,3 |



E14

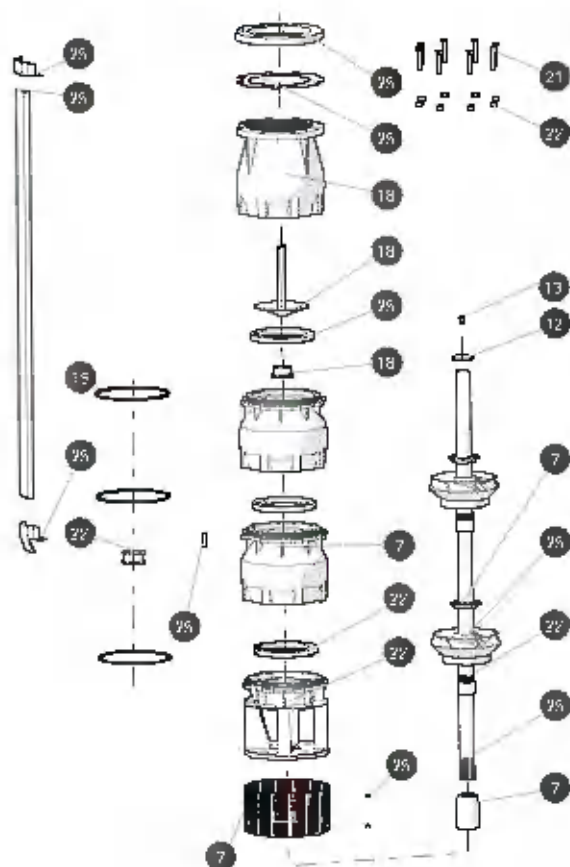
E14 B



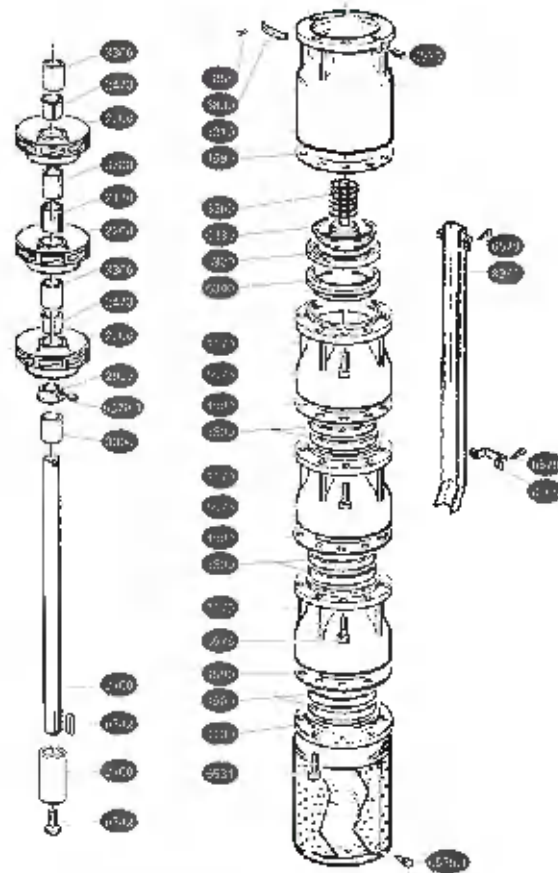


| N. CODE | DESCRIPTION                    | LRS EXECUTION               | LRX EXECUTION               | LRD EXECUTION               | (*) Q.TY  |
|---------|--------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------|
| 1       | Motor bracket                  | AISI 304                    | AISI 316                    | Duplex                      | -         |
| 2       | Suction strainer               | AISI 304                    | AISI 316                    | Duplex                      | -         |
| 3       | M4x8 screws for strainer       | AISI 304                    | AISI 316                    | Duplex                      | -         |
| 4       | Coupling                       | AISI 304                    | AISI 316                    | Duplex                      | 1         |
| 5       | Key                            | AISI 304                    | AISI 316                    | Duplex                      | 1         |
| 6       | Pump shaft                     | AISI 304                    | AISI 318                    | Duplex                      | 1         |
| 7       | Impeller wear ring             | NBR                         | NBR                         | NBR                         | N° of St. |
| 8       | Conic collar                   | AISI 304                    | AISI 316                    | Duplex                      | N° of St. |
| 9       | Conic collar nut               | AISI 304                    | AISI 316                    | Duplex                      | N° of St. |
| 10      | Diffuser bush bearing          | NBR                         | NBR                         | NBR                         | N° of St. |
| 11      | Diffuser                       | AISI 304                    | AISI 316                    | Duplex                      | -         |
| 12      | Impeller                       | AISI 304                    | AISI 316                    | Duplex                      | N° of St. |
| 13      | Reverse thrust ring            | RTFE+25% CARBONE / Graphite | RTFE+25% CARBONE / Graphite | RTFE+25% CARBONE / Graphite | 1         |
| 14      | NRV gasket                     | NBR                         | NBR                         | NBR                         | 1         |
| 15      | Valve plate                    | AISI 304                    | AISI 316                    | Duplex                      | -         |
| 16      | Delivery pump body             | AISI 304                    | AISI 316                    | Duplex                      | -         |
| 17      | Delivery body locking screw    | AISI 304                    | AISI 316                    | Duplex                      | 1         |
| 18      | Diffuser locking screw         | AISI 304                    | AISI 316                    | Duplex                      | N° of St. |
| 19      | Bottom cable guard clamp       | AISI 304                    | AISI 316                    | Duplex                      | -         |
| 20      | Bottom cable guard screws M4x8 | AISI 304                    | AISI 316                    | Duplex                      | -         |
| 21      | Cable guard                    | AISI 304                    | AISI 316                    | Duplex                      | -         |
| 22      | Upper cable guard clamp        | AISI 304                    | AISI 316                    | Duplex                      | -         |
| 23      | Upper cable guard screws M4x8  | AISI 304                    | AISI 316                    | Duplex                      | -         |
| 24      | O-Ring                         | NBR                         | NBR                         | NBR                         | -         |

\* Recommended spare parts quantity



| N. CODE | DESCRIPTION                    | LMS EXECUTION     | LMX EXECUTION     | LMD EXECUTION     | (*) Q.TY |
|---------|--------------------------------|-------------------|-------------------|-------------------|----------|
| 1       | Suction strainer               | AISI 304          | AISI 316          | Duplex            | -        |
| 2       | Suction cage                   | AISI 304          | AISI 316          | Duplex            | -        |
| 3       | Joint                          | AISI 304          | AISI 316          | Duplex            | 1        |
| 4       | Usary ring                     | NBR               | NSR               | NBR               | N° of St |
| 5       | Impeller                       | AISI 304          | AISI 316          | Duplex            | -        |
| 6       | Cbne                           | AISI 304          | AISI 316          | Duplex            | N° of St |
| 7       | Hexagonal ring                 | AISI 304          | AISI 316          | Duplex            | N° of St |
| 8       | Diffuseur                      | AISI 304          | AISI 316          | Duplex            | -        |
| 9       | Bearing bush                   | NBR               | NBR               | NBR               | N° of St |
| 10      | Pump shaft                     | AISI 304          | AISI 316          | Duplex            | 1        |
| 11      | N.8 Screw for diffuseur        | AISI 304          | AISI 316          | Duplex            | -        |
| 12      | Ring                           | AISI 304          | AISI 316          | Duplex            | 1        |
| 13      | Screw for disk                 | AISI 304          | AISI 316          | Duplex            | 1        |
| 14      | Counterbrust                   | PTFE + 25% CARBON | PTFE + 25% CARBON | PTFE + 25% CARBON | 1        |
| 15      | O-Ring                         | NBR               | NSR               | NBR               | N° of St |
| 16      | Gasket valve                   | NBR               | NBR               | NBR               | 1        |
| 17      | Cap valve                      | AISI 304          | AISI 316          | Duplex            | -        |
| 18      | Body valve                     | AISI 304          | AISI 316          | Duplex            | -        |
| 19      | Seal counterflange             | NBR               | NBR               | NBR               | 1        |
| 20      | Counterflange                  | AISI 304          | AISI 316          | Duplex            | -        |
| 21      | N.8 Screw for counterflange    | AISI 304          | AISI 316          | Duplex            | -        |
| 22      | N.8 Nut for counterflange      | AISI 304          | AISI 316          | Duplex            | -        |
| 23      | N.2 Screw for suction strainer | AISI 304          | AISI 316          | Duplex            | -        |
| 24      | Lower clamp                    | AISI 304          | AISI 316          | Duplex            | -        |
| 25      | Upper clamp                    | AISI 304          | AISI 316          | Duplex            | -        |
| 26      | Cover cable                    | AISI 304          | AISI 316          | Duplex            | -        |



| N. CODE | DESCRIPTION       | MATERIAL               | (*) Q.TY  |
|---------|-------------------|------------------------|-----------|
| 1130    | Support           | Cast iron              |           |
| 1170    | Diffuser          | Cast iron              |           |
| 1170.1  | Lat Diffuser      | Cast iron              |           |
| 1500    | Wear ring         | Rubber                 | 1 x stage |
| 2100    | Shaft             | Stainless steel        |           |
| 2200    | Impeller          | Cast iron              | 1 x stage |
| 2470    | Bushing           | Steel                  | 1 x stage |
| 2922    | Sandguard         | Brass                  |           |
| 3300    | Bearing           | Steel - rubber         | 1 x stage |
| 4590    | Gland             | Guarnital              | 1 x stage |
| 6310    | Valve body        | Valve body / Cast iron |           |
| 6320    | Valve housing     | Rubber                 |           |
| 6330    | Washer            | Stainless steel        |           |
| 6340    | Housing ring      | Cast iron              |           |
| 6360    | Spring            | Stainless steel        |           |
| 6531    | Strainer          | Stainless steel        |           |
| 6570    | Screw             | Stainless steel        |           |
| 6570.1  | Screw             | Stainless steel        |           |
| 6672    | Screw             | Stainless steel        |           |
| 6576    | Screw             | Stainless steel        |           |
| 6579    | Screw             | Stainless steel        |           |
| 6679.1  | Screw             | Stainless steel        |           |
| 6742    | Key               | Stainless steel        |           |
| 6830    | Label             | Stainless steel        |           |
| 6855    | Pin               | Stainless steel        |           |
| 7130    | Jolet             | Stainless steel        |           |
| 8361    | Sheet             | Stainless steel        |           |
| 8365    | Cable guard clamp | Stainless steel        |           |

\* Recommended spare parts quantity







# DEEPWELL BOREHOLE MOTORS

# DEEPWELL BOREHOLE MOTORS

4MPE/6MPE



4MPC/6MPC



6R/8R/10R



PTR12/PTR14



Line of motors for submersible electric pumps, available with different construction technologies and available in sizes 4", 6", 8", 10", 12" and 14".

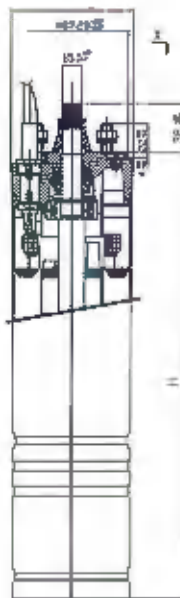
# 4MPE/6MPE

Deepwell Motors

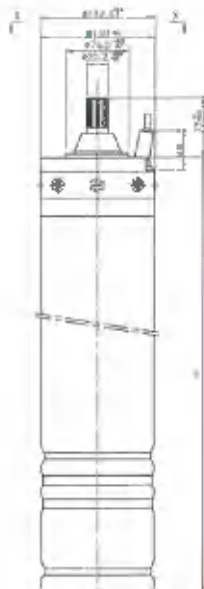
4" and 6" rewindable oil filled submersible motors characterized by high torque, strong mechanical structure, high reliability. Suitable for vertical and horizontal operations.

## Construction features

|                                       |                                                           |
|---------------------------------------|-----------------------------------------------------------|
| <b>Upper support</b>                  | nickel plated cast iron                                   |
| <b>External jacket, shaft and cup</b> | stainless steel                                           |
| <b>Mechanical seal</b>                | ceramic-graphite                                          |
| <b>Ball bearings</b>                  | axial and radial oil lubricated                           |
| <b>Number of startups/hr</b>          | max 30                                                    |
| <b>Coolant</b>                        | non-toxic dielectric lubricant                            |
| <b>Cable</b>                          | 1,75 to 4 m according to motor size<br>(3 wires + ground) |
| <b>Shaft extension and coupling</b>   | NEMA standard                                             |
| <b>Voltage</b>                        | 1- 220/230V-50Hz<br>3- 380/415V-50Hz                      |
| <b>Insulation class</b>               | F                                                         |
| <b>Protection degree</b>              | IP68                                                      |
| <b>Max liquid temperature</b>         | 35° C                                                     |
| <b>Max depth immersion</b>            | 150 m                                                     |



4"



6"



4MPE



6MPE





# 4MPE/6MPE



| TYPE<br>230V/50Hz<br>1- | Power |      | Thrust<br>Load<br>N | I <sub>N</sub><br>A | I <sub>START</sub><br>A | EFF%<br>% | COS φ | T <sub>START</sub><br>T <sub>RATED</sub> | H<br>mm | Weight<br>Kg | C<br>μF | CABLE       |                         |
|-------------------------|-------|------|---------------------|---------------------|-------------------------|-----------|-------|------------------------------------------|---------|--------------|---------|-------------|-------------------------|
|                         | HP    | kW   |                     |                     |                         |           |       |                                          |         |              |         | Length<br>m | Size<br>mm <sup>2</sup> |
| 4MPE 5                  | 0.5   | 0.37 | 1500                | 3.4/3.6             | 10.8                    | 53        | 0.94  | 1                                        | 325     | 7            | 20      | 1.75        | 1.5                     |
| 4MPE 7                  | 0.75  | 0.55 |                     | 4.2/4.5             | 13.9                    | 60        | 0.92  | 0.87                                     | 325     | 7.6          | 25      |             |                         |
| 4MPE 10                 | 1     | 0.75 |                     | 5.6/6               | 18.5                    | 62        | 0.92  | 0.7                                      | 350     | 8.7          | 35      |             |                         |
| 4MPE 15                 | 1.5   | 1.1  |                     | 7.8/8.2             | 23                      | 66        | 0.92  | 0.5                                      | 385     | 10.3         | 40      |             |                         |
| 4MPE 20                 | 2     | 1.5  |                     | 10.8/11             | 38.7                    | 68        | 0.88  | 0.55                                     | 420     | 12           | 50      |             |                         |
| 4MPE 30                 | 3     | 2.2  | 7500                | 14.6/14.8           | 43.5                    | 69        | 0.94  | 0.48                                     | 470     | 14.2         | 70      | 2.5         |                         |
| 4MPE 30H                | 3     | 2.2  |                     | 14.6/14.8           | 43.5                    | 69        | 0.94  | 0.48                                     | 520     | 15.5         | 70      |             |                         |

| TYPE<br>230V/50Hz<br>3- | Power |      | Thrust<br>Load<br>N | I <sub>N</sub><br>A | I <sub>START</sub><br>A | EFF%<br>% | COS φ | T <sub>START</sub><br>T <sub>RATED</sub> | H<br>mm | Weight<br>Kg | CABLE       |                         |
|-------------------------|-------|------|---------------------|---------------------|-------------------------|-----------|-------|------------------------------------------|---------|--------------|-------------|-------------------------|
|                         | HP    | kW   |                     |                     |                         |           |       |                                          |         |              | Length<br>m | Size<br>mm <sup>2</sup> |
| 4MPET 5                 | 0.5   | 0.37 | 1500                | 1.3/1.6             | 6.2                     | 60        | 0.72  | 2.9                                      | 325     | 6.5          | 1.75        | 1.5                     |
| 4MPET 7                 | 0.75  | 0.55 |                     | 1.9/2               | 8.5                     | 62        | 0.71  | 3.1                                      | 325     | 7            |             |                         |
| 4MPET 10                | 1     | 0.75 |                     | 2.4/2.6             | 10.9                    | 66        | 0.71  | 3.1                                      | 325     | 7.6          |             |                         |
| 4MPET 15                | 1.5   | 1.1  |                     | 3.2/3.4             | 14                      | 73        | 0.7   | 3.2                                      | 350     | 8.7          |             |                         |
| 4MPET 20                | 2     | 1.5  |                     | 4.4/4.6             | 17                      | 73        | 0.7   | 3.1                                      | 385     | 10.4         |             |                         |
| 4MPET 30                | 3     | 2.2  | 7500                | 5.8/6.2             | 25                      | 75        | 0.78  | 3.1                                      | 420     | 12           | 2.5         |                         |
| 4MPET 30H               | 3     | 2.2  |                     | 5.8/6.2             | 25                      | 75        | 0.78  | 3.1                                      | 470     | 14.2         |             |                         |
| 4MPET 40                | 4     | 3    | 2500                | 7.6/7.8             | 35                      | 74        | 0.81  | 2.8                                      | 418     | 12.8         |             |                         |
| 4MPET 42                | 4     | 3    | 5000                | 7.6/7.8             | 34                      | 74        | 0.81  | 2.8                                      | 418     | 13.1         |             |                         |
| 4MPET 42H               | 4     | 3    | 7500                | 7.9/8               | 34                      | 77        | 0.75  | 3                                        | 550     | 19           |             |                         |
| 4MPET 55                | 5.5   | 4    | 2500                | 9.8/9.9             | 49                      | 76        | 0.82  | 3                                        | 468     | 15.3         | 3           |                         |
| 4MPET 57                | 5.5   | 4    | 5000                | 9.8/9.9             | 49                      | 76        | 0.82  | 3                                        | 468     | 15.6         |             |                         |
| 4MPET 57H               | 5.5   | 4    | 7500                | 10/10.2             | 51                      | 76        | 0.79  | 3.2                                      | 580     | 20.5         |             |                         |
| 4MPET 75                | 7.5   | 5.5  | 2500                | 13.5/13.8           | 57                      | 78        | 0.85  | 3                                        | 538     | 18.6         |             |                         |
| 4MPET 77                | 7.5   | 5.5  | 5000                | 13.5/13.8           | 57                      | 78        | 0.85  | 3                                        | 538     | 18.9         |             |                         |
| 4MPET 77H               | 7.5   | 5.5  | 7500                | 14.5/14.7           | 58                      | 76        | 0.72  | 3.1                                      | 650     | 22.4         | 4           | 2                       |
| 4MPET 100H              | 10    | 7.5  |                     | 19/19.5             | 77                      | 79        | 0.8   | 3.2                                      | 810     | 27           |             |                         |

| TYPE      | P2   |      | PROTECTION   |  |                     |  | CONTROL PANEL |  |          |  |
|-----------|------|------|--------------|--|---------------------|--|---------------|--|----------|--|
|           | HP   | kW   | 1-           |  | 3-                  |  | 1-            |  | 3-       |  |
| 4MPE 5    | 0.5  | 0.37 | PML 5/20-4   |  | PT 7/1.3-2.1        |  | EQSM + 20μF   |  | EQSMT 10 |  |
| 4MPE 7    | 0.75 | 0.55 | PML 7/25-6   |  | PT 7/1.3-2.1        |  | EQSM + 25μF   |  | EQSMT 10 |  |
| 4MPE 10   | 1    | 0.75 | PML 10/35-7  |  | PT 10/1.9-3         |  | EQSM + 35μF   |  | EQSMT 10 |  |
| 4MPE 15   | 1.5  | 1    | PML 15/40-10 |  | PT 15-20/2.9-4.5    |  | EQSM + 40μF   |  | EQSMT 10 |  |
| 4MPE 20   | 2    | 1.5  | PML 20/50-13 |  | PT 20/30-40/4.3-6.8 |  | EQSM + 50μF   |  | EQSMT 10 |  |
| 4MPE 30   | 3    | 2.2  | PML 30/80-18 |  | PT 20/30-40/4.3-6.8 |  | EQSM + 80μF   |  | EQSMT 10 |  |
| 4MPE 40*  | 4    | 3    |              |  | PT 40-50/5.7-9.1    |  | -             |  | EQSMT 10 |  |
| 4MPE 55*  | 5.5  | 4    |              |  | PT 55-75/8.6-13.5   |  | -             |  | EQSMT 10 |  |
| 4MPE 75*  | 7.5  | 5.5  |              |  | PT 100/12.5-16.5    |  | -             |  | EQSMT 10 |  |
| 4MPE 100* | 10   | 7.5  |              |  | PT 125-150/16-21    |  | -             |  | EQSMT 15 |  |

\*Only 3 phases

| TYPE<br>230V/50Hz<br>3- | Power |      | Thrust<br>Load<br>N | I <sub>N</sub><br>A | I <sub>START</sub><br>A | EFF%<br>% | COS φ | T <sub>START</sub><br>T <sub>RATED</sub> | H<br>mm | Weight<br>Kg | CABLE       |                         |
|-------------------------|-------|------|---------------------|---------------------|-------------------------|-----------|-------|------------------------------------------|---------|--------------|-------------|-------------------------|
|                         | HP    | kW   |                     |                     |                         |           |       |                                          |         |              | Length<br>m | Size<br>mm <sup>2</sup> |
| 6MPET 55                | 5.5   | 4    | 10000               | 8.8                 | 45                      | 76        | 0.82  | 2.4                                      | 640     | 32           | 2.8         | 4                       |
| 6MPET 75                | 7.5   | 5.5  |                     | 12.5                | 64                      | 78        | 0.82  | 3                                        | 570     | 40           |             |                         |
| 6MPET 100               | 10    | 7.5  |                     | 16.9                | 78                      | 77        | 0.82  | 2.5                                      | 600     | 42           |             |                         |
| 6MPET 125               | 12.5  | 9.2  |                     | 21.5                | 95                      | 80        | 0.81  | 2.4                                      | 600     | 45           |             |                         |
| 6MPET 150               | 15    | 11   |                     | 23.7                | 121                     | 83        | 0.83  | 2.4                                      | 700     | 48           |             |                         |
| 6MPET 175               | 17.5  | 12.8 | 20000               | 27.6                | 145                     | 82        | 0.84  | 2.4                                      | 700     | 50           | 8           |                         |
| 6MPET 200               | 20    | 15   |                     | 30.4                | 160                     | 82        | 0.85  | 2.5                                      | 780     | 54           |             |                         |
| 6MPET 250               | 25    | 18.5 |                     | 38.3                | 225                     | 82        | 0.85  | 2.1                                      | 830     | 65           |             |                         |
| 6MPET 300               | 30    | 22   |                     | 44                  | 250                     | 83        | 0.86  | 2                                        | 880     | 70           |             |                         |
| 6MPET 400               | 40    | 30   |                     | 62                  | 330                     | 86        | 0.86  | 2                                        | 1030    | 90           |             |                         |
| 6MPET 500               | 50    | 37   |                     | 72                  | 400                     | 86        | 0.87  | 2                                        | 1170    | 101          |             |                         |

| TYPE      | P2   |      | PROTECTION        |  | CONTROL PANEL |  | CONTROL PANEL                    |  |
|-----------|------|------|-------------------|--|---------------|--|----------------------------------|--|
|           | HP   | kW   | 3-                |  | 3-            |  | star-delta starting<br>400/690 V |  |
| 6MPET 55  | 5.4  | 4    | PT 55-75/8.6-13.5 |  | EQSMT 10      |  | QST 5                            |  |
| 6MPET 75  | 7.5  | 5.5  | PT 100/12.5-16.5  |  | EQSMT 10      |  | QST 7                            |  |
| 6MPET 100 | 10   | 7.5  | PT 125-150/16-21  |  | EQSMT 10      |  | QST 10                           |  |
| 6MPET 125 | 12.5 | 9.2  | PT 200/22-29      |  | EQSMT 15      |  | QST 15                           |  |
| 6MPET 150 | 15   | 11   | PT 200/22-29      |  | EQSMT 15      |  | QST 15                           |  |
| 6MPET 175 | 17.5 | 13   | -                 |  | EQSMT 20      |  | QST 20                           |  |
| 6MPET 200 | 20   | 15   | -                 |  | EQSMT 20      |  | QST 20                           |  |
| 6MPET 250 | 25   | 18.5 | -                 |  | -             |  | QST 30                           |  |
| 6MPET 300 | 30   | 22   | -                 |  | -             |  | QST 30                           |  |
| 6MPET 400 | 40   | 30   | -                 |  | -             |  | QST 50                           |  |
| 6MPET 500 | 50   | 37   | -                 |  | -             |  | QST 60                           |  |

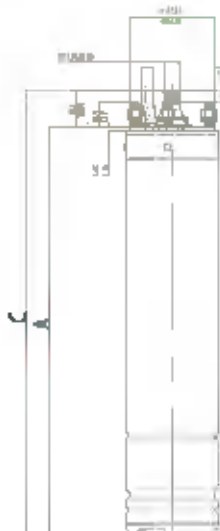
# 4MPC/6MPC

Deepwell Motors

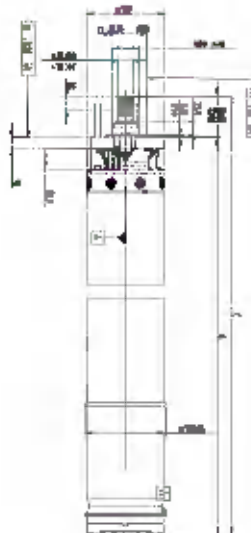
4" and 6" rewirable oil filled submersible motors characterized by high torque, strong mechanical structure, high reliability. Suitable for vertical and horizontal operations.

## Construction features

|                                       |                                                                                         |
|---------------------------------------|-----------------------------------------------------------------------------------------|
| <b>Upper support</b>                  | cast iron and stainless steel                                                           |
| <b>External jacket, shaft and cup</b> | stainless steel                                                                         |
| <b>Mechanical seal</b>                | ceramic-graphite                                                                        |
| <b>Ball bearings</b>                  | axial and radial oil lubricated                                                         |
| <b>Number of startups/hr</b>          | 4": max 30<br>6": max 20                                                                |
| <b>Coolant</b>                        | non-toxic dielectric lubricant                                                          |
| <b>Cable</b>                          | 1,5 m (4" 0,37-2,2 kW)<br>2,5 m (4" 3,0-5,5 kW)<br>3,5 m (4" 7,5 kW)<br>4m (6" 4-30 kW) |
| <b>Shaft extension and coupling</b>   | NEMA standard                                                                           |
| <b>Voltage</b>                        | 1- 220/230V-50Hz<br>3- 380/415V-50Hz                                                    |
| <b>Insulation class</b>               | F                                                                                       |
| <b>Protection degree</b>              | IP68                                                                                    |
| <b>Max liquid temperature</b>         | 30° C                                                                                   |
| <b>Max depth immersion</b>            | 4": 250m<br>6": 350m                                                                    |



4"



6"



4MPC



6MPC



## 4MPC/6MPC



| TYPE<br>230V/50Hz<br>1- | Volt<br>V | Power |      | I <sub>N</sub><br>A | I <sub>START</sub><br>A | R.p.m. | EFF%<br>% | COS Φ | T <sub>START</sub><br>T <sub>RATED</sub> | C<br>μF |
|-------------------------|-----------|-------|------|---------------------|-------------------------|--------|-----------|-------|------------------------------------------|---------|
|                         |           | HP    | kW   |                     |                         |        |           |       |                                          |         |
| 4MPC 5                  | 220       | 0.50  | 0.37 | 3.4                 | 11.56                   | 2830   | 53        | 0.95  | 0.94                                     | 20      |
|                         | 230       |       |      | 3.5                 | 11.90                   | 2845   | 51        | 0.91  | 1.05                                     | 20      |
| 4MPC 7                  | 220       | 0.75  | 0.55 | 4.5                 | 15.75                   | 2830   | 59        | 0.95  | 0.79                                     | 25      |
|                         | 230       |       |      | 4.7                 | 16.45                   | 2845   | 57        | 0.91  | 0.86                                     | 25      |
| 4MPC 10                 | 220       | 1.0   | 0.75 | 5.7                 | 20.52                   | 2830   | 63        | 0.96  | 0.82                                     | 35      |
|                         | 230       |       |      | 5.3                 | 20.30                   | 2845   | 61        | 0.92  | 0.83                                     | 35      |
| 4MPC 15                 | 220       | 1.5   | 1.1  | 8.3                 | 27.39                   | 2810   | 64        | 0.95  | 0.88                                     | 40      |
|                         | 230       |       |      | 8.6                 | 27.52                   | 2830   | 62        | 0.90  | 0.76                                     | 40      |
| 4MPC 20                 | 220       | 2.0   | 1.5  | 10.5                | 34.65                   | 2810   | 67        | 0.97  | 0.63                                     | 50      |
|                         | 230       |       |      | 10.7                | 36.33                   | 2320   | 65        | 0.93  | 0.70                                     | 50      |
| 4MPC 30                 | 220       | 3.0   | 2.2  | 14.8                | 81.40                   | 2810   | 71        | 0.98  | 0.87                                     | 80      |
|                         | 230       |       |      | 14.5                | 79.75                   | 2830   | 70        | 0.96  | 0.73                                     | 80      |
| 4MPC 30H                | 220       | 3.0   | 2.2  | 14.8                | 81.40                   | 2810   | 71        | 0.98  | 0.67                                     | 80      |
|                         | 230       |       |      | 14.5                | 79.75                   | 2830   | 70        | 0.96  | 0.73                                     | 30      |
| 4MPC 30                 | 220       | 5.0   | 3.7  | 23.1                | 97.02                   | 2910   | 75        | 0.97  | 0.91                                     | 130+176 |
|                         | 230       |       |      | 23.9                | 102.77                  | 2920   | 73        | 0.93  | 1.01                                     | 130+178 |

| TYPE<br>380-400-415V/50Hz<br>3- | Volt<br>V | Power |      | I <sub>N</sub><br>A | I <sub>START</sub><br>A | R.p.m. | EFF%<br>% | COS Φ | T <sub>START</sub><br>T <sub>RATED</sub> |
|---------------------------------|-----------|-------|------|---------------------|-------------------------|--------|-----------|-------|------------------------------------------|
|                                 |           | HP    | kW   |                     |                         |        |           |       |                                          |
| 4MPC 5T                         | 380       | 0.50  | 0.37 | 1.35                | 4.725                   | 2790   | 51        | 0.83  | 1.7                                      |
|                                 | 400       |       |      | 1.35                | 4.995                   | 2820   | 51        | 0.79  | 1.9                                      |
|                                 | 415       |       |      | 1.35                | 6.265                   | 2835   | 50        | 0.76  | 2.0                                      |
| 4MPC 7T                         | 380       | 0.75  | 0.55 | 1.85                | 6.56                    | 2800   | 58        | 0.83  | 1.8                                      |
|                                 | 400       |       |      | 1.85                | 7.03                    | 2830   | 56        | 0.78  | 2.1                                      |
|                                 | 415       |       |      | 1.90                | 7.41                    | 2850   | 56        | 0.75  | 2.3                                      |
| 4MPC 10T                        | 380       | 1.0   | 0.75 | 2.20                | 9.02                    | 2810   | 63        | 0.82  | 2.3                                      |
|                                 | 400       |       |      | 2.20                | 9.24                    | 2835   | 63        | 0.78  | 2.5                                      |
|                                 | 415       |       |      | 2.25                | 9.675                   | 2850   | 63        | 0.74  | 2.9                                      |
| 4MPC 15T                        | 380       | 1.5   | 1.1  | 3.00                | 13.80                   | 2800   | 69        | 0.83  | 2.6                                      |
|                                 | 400       |       |      | 3.00                | 14.10                   | 2830   | 68        | 0.78  | 2.8                                      |
|                                 | 415       |       |      | 3.00                | 14.10                   | 2845   | 68        | 0.75  | 3.0                                      |
| 4MPC 20T                        | 380       | 2.0   | 1.5  | 4.00                | 17.50                   | 2800   | 70        | 0.82  | 2.6                                      |
|                                 | 400       |       |      | 4.10                | 18.45                   | 2825   | 69        | 0.76  | 2.9                                      |
|                                 | 415       |       |      | 4.30                | 19.35                   | 2840   | 69        | 0.71  | 3.1                                      |
| 4MPC 30T                        | 380       | 3.0   | 2.2  | 5.50                | 22.05                   | 2800   | 74        | 0.83  | 2.4                                      |
|                                 | 400       |       |      | 5.60                | 28.00                   | 2825   | 74        | 0.78  | 2.8                                      |
|                                 | 415       |       |      | 5.70                | 29.07                   | 2840   | 73        | 0.73  | 3.0                                      |
| 4MPC 30HT                       | 380       | 3.0   | 2.2  | 5.50                | 22.06                   | 2800   | 74        | 0.88  | 2.4                                      |
|                                 | 400       |       |      | 5.60                | 28.00                   | 2825   | 74        | 0.78  | 2.8                                      |
|                                 | 415       |       |      | 5.70                | 29.07                   | 2840   | 73        | 0.73  | 3.0                                      |
| 4MPC 40T                        | 380       | 4.0   | 3    | 7.40                | 33.30                   | 2780   | 75        | 0.83  | 2.5                                      |
|                                 | 400       |       |      | 7.50                | 34.50                   | 2810   | 74        | 0.78  | 2.7                                      |
|                                 | 415       |       |      | 7.90                | 37.92                   | 2825   | 73        | 0.72  | 3.0                                      |
| 4MPC 40HT                       | 380       | 4.0   | 3    | 7.40                | 33.30                   | 2780   | 75        | 0.83  | 2.5                                      |
|                                 | 400       |       |      | 7.50                | 34.50                   | 2810   | 74        | 0.78  | 2.7                                      |
|                                 | 415       |       |      | 7.90                | 37.92                   | 2825   | 73        | 0.72  | 3.0                                      |
| 4MPC 55T                        | 380       | 5.5   | 4    | 9.60                | 48.96                   | 2800   | 79        | 0.82  | 2.8                                      |
|                                 | 400       |       |      | 9.80                | 49.98                   | 2820   | 78        | 0.77  | 3.1                                      |
|                                 | 415       |       |      | 10.3                | 52.53                   | 2835   | 77        | 0.71  | 3.4                                      |
| 4MPC 55HT                       | 380       | 5.5   | 4    | 9.60                | 48.96                   | 2800   | 79        | 0.82  | 2.8                                      |
|                                 | 400       |       |      | 9.80                | 49.98                   | 2820   | 78        | 0.77  | 3.1                                      |
|                                 | 415       |       |      | 10.3                | 52.53                   | 2835   | 77        | 0.71  | 3.4                                      |
| 4MPC 75T                        | 380       | 7.5   | 5.5  | 12.6                | 65.52                   | 2825   | 80        | 0.86  | 2.5                                      |
|                                 | 400       |       |      | 12.5                | 67.50                   | 2845   | 80        | 0.82  | 2.7                                      |
|                                 | 415       |       |      | 12.8                | 69.12                   | 2860   | 79        | 0.73  | 2.9                                      |
| 4MPC 75HT                       | 380       | 7.5   | 5.5  | 12.6                | 65.52                   | 2825   | 80        | 0.86  | 2.5                                      |
|                                 | 400       |       |      | 12.5                | 67.50                   | 2845   | 80        | 0.82  | 2.7                                      |
|                                 | 415       |       |      | 12.8                | 69.12                   | 2860   | 79        | 0.78  | 2.9                                      |
| 4MPC 100T                       | 380       | 10.0  | 7.5  | 16.9                | 86.19                   | 2810   | 80        | 0.87  | 2.4                                      |
|                                 | 400       |       |      | 16.9                | 89.57                   | 2835   | 80        | 0.85  | 2.6                                      |
|                                 | 415       |       |      | 17.3                | 91.69                   | 2850   | 79        | 0.77  | 2.7                                      |



| TYPE<br>390-400-415V/50Hz<br>3- | Volt<br>V | Power |      | I <sub>N</sub><br>A | I <sub>START</sub><br>A | R.p.m. | EFF%<br>% | COS φ | T <sub>N</sub><br>Nm | T <sub>S</sub> / T <sub>N</sub> |
|---------------------------------|-----------|-------|------|---------------------|-------------------------|--------|-----------|-------|----------------------|---------------------------------|
|                                 |           | HP    | kW   |                     |                         |        |           |       |                      |                                 |
| 6MPC 55T                        | 380       | 5,5   | 4    | 9,6                 | 37,5                    | 2815   | 76        | 0,85  | 13,6                 | 1,44                            |
|                                 | 400       |       |      | 9,5                 | 38,0                    | 2820   | 75        | 0,81  | 13,5                 | 1,62                            |
|                                 | 415       |       |      | 9,6                 | 38,5                    | 2836   | 75        | 0,77  | 13,4                 | 1,78                            |
| 6MPC 75T                        | 380       | 7,5   | 5,5  | 12,9                | 50,3                    | 2800   | 79        | 0,84  | 18,7                 | 1,43                            |
|                                 | 400       |       |      | 13,0                | 52,0                    | 2830   | 79        | 0,79  | 18,5                 | 1,58                            |
|                                 | 415       |       |      | 13,2                | 54,1                    | 2850   | 79        | 0,75  | 18,4                 | 1,75                            |
| 6MPC 100T                       | 380       | 10    | 7,5  | 17,1                | 63,3                    | 2810   | 79        | 0,86  | 25,6                 | 1,29                            |
|                                 | 400       |       |      | 16,8                | 67,2                    | 2835   | 79        | 0,82  | 25,3                 | 1,46                            |
|                                 | 415       |       |      | 17,1                | 73,5                    | 2850   | 79        | 0,78  | 25,2                 | 1,54                            |
| 6MPC 125T                       | 380       | 12,5  | 9,2  | 20,8                | 81,1                    | 2800   | 81        | 0,84  | 31,3                 | 1,41                            |
|                                 | 400       |       |      | 20,9                | 85,7                    | 2830   | 81        | 0,80  | 31,0                 | 1,59                            |
|                                 | 415       |       |      | 21,5                | 88,1                    | 2845   | 81        | 0,75  | 30,9                 | 1,73                            |
| 6MPC 150T                       | 380       | 15    | 11   | 24,5                | 129,9                   | 2800   | 85        | 0,81  | 35,8                 | 1,97                            |
|                                 | 400       |       |      | 25,3                | 136,8                   | 2825   | 85        | 0,75  | 36,4                 | 2,22                            |
|                                 | 415       |       |      | 26,6                | 143,6                   | 2840   | 84        | 0,70  | 36,3                 | 2,41                            |
| 6MPC 200T                       | 380       | 20    | 15   | 33,0                | 168,3                   | 2800   | 84        | 0,84  | 50,2                 | 2,50                            |
|                                 | 400       |       |      | 33,4                | 183,7                   | 2825   | 84        | 0,79  | 49,9                 | 2,74                            |
|                                 | 415       |       |      | 34,7                | 190,8                   | 2840   | 84        | 0,73  | 49,7                 | 2,97                            |
| 6MPC 250T                       | 380       | 25    | 18,5 | 40,1                | 180,4                   | 2800   | 85        | 0,84  | 62,3                 | 2,10                            |
|                                 | 400       |       |      | 40,7                | 187,2                   | 2825   | 85        | 0,79  | 61,9                 | 2,35                            |
|                                 | 415       |       |      | 42,1                | 193,7                   | 2840   | 85        | 0,73  | 61,5                 | 2,57                            |
| 6MPC 300T                       | 380       | 30    | 22   | 50,3                | 286,7                   | 2780   | 86        | 0,79  | 73,1                 | 2,25                            |
|                                 | 400       |       |      | 53,3                | 293,1                   | 2810   | 85        | 0,71  | 72,7                 | 2,52                            |
|                                 | 415       |       |      | 57,6                | 311,0                   | 2825   | 84        | 0,64  | 72,5                 | 2,73                            |
| 6MPC 400T                       | 380       | 40    | 30   | 68,2                | 297,0                   | 2780   | 83        | 0,88  | 101,5                | 1,56                            |
|                                 | 400       |       |      | 61,9                | 309,5                   | 2810   | 84        | 0,85  | 100,8                | 1,76                            |
|                                 | 415       |       |      | 62,2                | 317,2                   | 2826   | 84        | 0,81  | 100,3                | 1,91                            |

| 1-/3- DIMENSIONS |                   |      |      |                |                |      |             |
|------------------|-------------------|------|------|----------------|----------------|------|-------------|
| TYPE             | Axial Thrust<br>N | HP   | kW   | Tot. A<br>(mm) | Tot. C<br>(mm) | Kg   | Oil<br>(Kg) |
| 4MPC 5           | 1500              |      | 0,37 | 364            | 402            | 8,1  | 0,71        |
| 4MPC 7           | 1500              |      | 0,55 | 389            | 427            | 9,2  | 0,72        |
| 4MPC 10          | 1500              |      | 0,75 | 411            | 449            | 10,3 | 0,76        |
| 4MPC 15          | 2500              |      | 1,1  | 434            | 472            | 11,4 | 0,79        |
| 4MPC 20          | 2500              |      | 1,5  | 467            | 505            | 12,8 | 0,76        |
| 4MPC 30          | 2500              |      | 2,2  | 565            | 503            | 17,4 | 0,86        |
| 4MPC 30H         | 4500              |      | 2,2  | 565            | 603            | 17,4 | 0,84        |
| 4MPC 50          | 2500              |      | 3,7  | 680            | 718            | 24,1 | 0,86        |
| 4MPC 5T          | 1500              |      | 0,37 | 350            | 388            | 7,4  | 0,70        |
| 4MPC 7T          | 1500              |      | 0,55 | 364            | 402            | 8,0  | 0,71        |
| 4MPC 10T         | 2500              |      | 0,75 | 384            | 422            | 8,8  | 0,72        |
| 4MPC 15T         | 2500              |      | 1,1  | 411            | 449            | 10,6 | 0,70        |
| 4MPC 20T         | 2500              |      | 1,5  | 428            | 466            | 10,8 | 0,74        |
| 4MPC 30T         | 2500              |      | 2,2  | 467            | 505            | 12,5 | 0,78        |
| 4MPC 30HT        | 4500              |      | 2,2  | 467            | 505            | 12,5 | 0,78        |
| 4MPC 40T         | 2500              |      | 3    | 522            | 560            | 15,0 | 0,60        |
| 4MPC 40HT        | 4500              |      | 3    | 522            | 560            | 15,0 | 0,60        |
| 4MPC 55T         | 2500              |      | 4    | 587            | 625            | 18,3 | 0,82        |
| 4MPC 55HT        | 4500              |      | 4    | 587            | 625            | 18,8 | 0,82        |
| 4MPC 75T         | 2500              |      | 5,5  | 687            | 725            | 24,3 | 0,88        |
| 4MPC 75HT        | 4500              |      | 5,5  | 687            | 725            | 24,3 | 0,86        |
| 4MPC 100T        | 4500              |      | 7,5  | 768            | 806            | 28,3 | 1,09        |
| 6MPC 55T         | 10000             | 5,5  | 4    | 633            | 706            | 34   | 2,50        |
| 6MPC 75T         |                   | 7,5  | 5,5  | 667            | 740            | 36   | 2,95        |
| 6MPC 100T        |                   | 10   | 7,5  | 698            | 771            | 39   | 3,15        |
| 6MPC 125T        |                   | 12,5 | 9,2  | 731            | 804            | 42   | 3,25        |
| 6MPC 150T        |                   | 15   | 11   | 826            | 899            | 50   | 3,30        |
| 6MPC 200T        |                   | 20   | 15   | 894            | 967            | 57   | 3,50        |
| 6MPC 250T        |                   | 26   | 18,5 | 959            | 1032           | 65   | 3,60        |
| 6MPC 300T        |                   | 30   | 22   | 1116           | 1189           | 78   | 3,80        |
| 6MPC 400T        |                   | 40   | 30   | 1243           | 1316           | 91   | 4,10        |

| Cables                                    |             |           |
|-------------------------------------------|-------------|-----------|
| TYPE<br>400V/50Hz                         | DOL         | Δ/Δ       |
| 4 × 4 mm <sup>2</sup>                     | 4 - 18,5 kW | 4 - 30 kW |
| 3 × 8 mm <sup>2</sup> + 8 mm <sup>2</sup> | 22 - 30 kW  | -         |

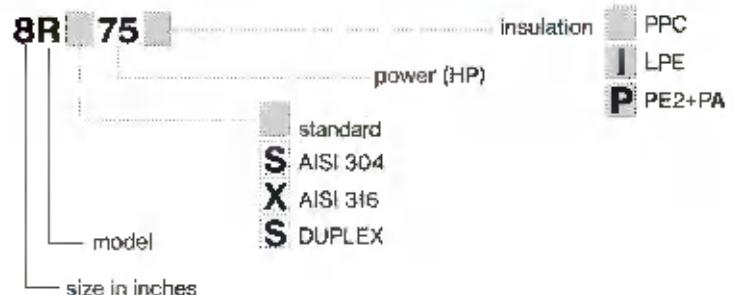
# 6R/8R/10R

## Deepwell Motors

6", 8", 10" submersible motors rewindable in water bath. Power from 4 kW up to 185 kW. Available with mechanical seal. Available in PPC (standard), LPE and PE2+PA. AISI 304, AISI 316, DUPLEX versions available. NEMA coupling flange.

### Construction faatures

|                                 |                                                      |
|---------------------------------|------------------------------------------------------|
| <b>Upper and bottom support</b> | G25 (6R / 8R / 10R)                                  |
|                                 | AISI 304 (6RS / 8RS / 10RS)                          |
|                                 | AISI 316 (6RX / 8RX / 10RX)                          |
|                                 | DUPLEX (6RD / 8RD / 10RD)                            |
| <b>Sfator sleeve</b>            | stainless steel AISI 304 - (R)                       |
|                                 | stainless steel AISI 304 - (RS)                      |
|                                 | stainless steel AISI 316 - (RX)                      |
|                                 | Duplex - (RD)                                        |
| <b>Shaft end</b>                | stainless steel AISI 431 - (R)                       |
|                                 | stainless steel AISI 431 - (RS)                      |
|                                 | stainless steel AISI 316 - (RX)                      |
|                                 | Duplex - (RD)                                        |
| <b>Seal type</b>                | lip seal (standard);<br>mechanical seal (on request) |
| <b>Bearings</b>                 | radial and axial, water lubricated                   |
| <b>Thrust bearing</b>           | Michell                                              |
| <b>Voltage</b>                  | 3- 400V $\pm$ 10% - 50Hz                             |
|                                 | 3- 400/690V $\pm$ 10% -50Hz                          |
| <b>Min. cooling flow</b>        | 0,5 m/s                                              |
| <b>Insulation class</b>         | Y (max 30° C) for PPC                                |
|                                 | F (max 50° C) for PE2+PA or LPE                      |
| <b>Insulation</b>               | PPC (standard)                                       |
|                                 | PE2 + PA or LPE (on request)                         |
| <b>Protection degree</b>        | IP68                                                 |
| <b>Max depth immersion</b>      | 350m                                                 |
| <b>Available on demand</b>      | - PT 100                                             |
|                                 | - Star/Delta starting                                |
|                                 | - Cooling Sleeve                                     |
|                                 | - Cer./Carb./NBR Seal                                |
|                                 | - SIC/SIC/NBR Seal                                   |



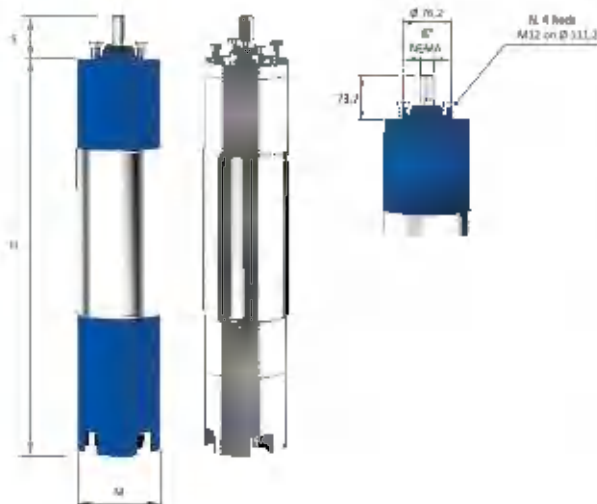


| TYPE | Power |      | V   | A    | RPM  | $\eta$ (Efficiency motor %)<br>at % load |      |      | cos $\phi$ at % load |      |      | Starting |         |            |          | Axial<br>load<br>daN | Start/<br>hour<br>(max) |      |  |      |  |      |  |
|------|-------|------|-----|------|------|------------------------------------------|------|------|----------------------|------|------|----------|---------|------------|----------|----------------------|-------------------------|------|--|------|--|------|--|
|      | HP    | kW   |     |      |      | 50                                       | 75   | 100  | 50                   | 75   | 100  | Direct   |         | Star-delta | Statoric |                      |                         |      |  |      |  |      |  |
|      |       |      |     |      |      |                                          |      |      |                      |      |      | Cs/Cn    | Is / In | Is / In    | Is / In  |                      |                         |      |  |      |  |      |  |
| 6R7  | 7.5   | 5.5  | 380 | 12.4 | 2846 | 77.0                                     | 82.0 | 81.0 | 0.67                 | 0.78 | 0.83 | 1.60     | 5.60    | 1.90       | 3.40     | 1800                 |                         |      |  |      |  |      |  |
|      |       |      | 400 | 12.3 | 2859 | 76.0                                     | 81.0 | 80.0 | 0.65                 | 0.76 | 0.81 |          |         |            |          |                      |                         |      |  |      |  |      |  |
|      |       |      | 415 | 12.3 | 2880 | 75.0                                     | 80.0 | 79.0 | 0.63                 | 0.74 | 0.79 |          |         |            |          |                      |                         |      |  |      |  |      |  |
| 6R10 | 10    | 7.5  | 380 | 16.6 | 2843 | 78.0                                     | 82.5 | 82.0 | 0.68                 | 0.78 | 0.84 | 1.80     | 5.70    | 1.90       | 3.40     |                      |                         | 1800 |  |      |  |      |  |
|      |       |      | 400 | 16.3 | 2861 | 77.0                                     | 81.5 | 81.0 | 0.66                 | 0.76 | 0.82 |          |         |            |          |                      |                         |      |  |      |  |      |  |
|      |       |      | 415 | 16.3 | 2882 | 76.0                                     | 80.5 | 80.0 | 0.64                 | 0.74 | 0.80 |          |         |            |          |                      |                         |      |  |      |  |      |  |
| 6R12 | 12.5  | 9.2  | 380 | 20.2 | 2846 | 79.0                                     | 83.0 | 82.0 | 0.68                 | 0.79 | 0.85 | 1.80     | 5.70    | 1.90       | 3.40     |                      |                         |      |  | 1800 |  |      |  |
|      |       |      | 400 | 19.9 | 2864 | 78.0                                     | 82.0 | 81.0 | 0.66                 | 0.77 | 0.83 |          |         |            |          |                      |                         |      |  |      |  |      |  |
|      |       |      | 415 | 19.9 | 2886 | 77.0                                     | 81.0 | 80.0 | 0.64                 | 0.75 | 0.81 |          |         |            |          |                      |                         |      |  |      |  |      |  |
| 6R15 | 15    | 11   | 380 | 23.7 | 2849 | 80.0                                     | 84.5 | 83.5 | 0.69                 | 0.79 | 0.85 | 1.90     | 5.90    | 2.00       | 3.50     |                      |                         |      |  |      |  | 1800 |  |
|      |       |      | 400 | 23.4 | 2867 | 79.0                                     | 83.5 | 82.5 | 0.67                 | 0.77 | 0.83 |          |         |            |          |                      |                         |      |  |      |  |      |  |
|      |       |      | 415 | 23.4 | 2882 | 78.0                                     | 82.5 | 81.5 | 0.65                 | 0.75 | 0.81 |          |         |            |          |                      |                         |      |  |      |  |      |  |
| 6R17 | 17.5  | 13   | 380 | 27.7 | 2851 | 81.0                                     | 84.5 | 84.0 | 0.69                 | 0.79 | 0.85 | 1.80     | 6.00    | 2.00       | 3.60     | 1800                 |                         |      |  |      |  |      |  |
|      |       |      | 400 | 27.3 | 2870 | 80.0                                     | 83.5 | 83.0 | 0.67                 | 0.77 | 0.83 |          |         |            |          |                      |                         |      |  |      |  |      |  |
|      |       |      | 415 | 27.3 | 2887 | 79.0                                     | 82.5 | 82.0 | 0.65                 | 0.75 | 0.81 |          |         |            |          |                      |                         |      |  |      |  |      |  |
| 6R20 | 20    | 15   | 380 | 32   | 2852 | 82.0                                     | 85.0 | 84.0 | 0.69                 | 0.79 | 0.85 | 1.70     | 5.90    | 2.00       | 3.50     |                      |                         | 1800 |  |      |  |      |  |
|      |       |      | 400 | 31.5 | 2871 | 81.0                                     | 84.0 | 83.0 | 0.67                 | 0.77 | 0.83 |          |         |            |          |                      |                         |      |  |      |  |      |  |
|      |       |      | 415 | 31.5 | 2883 | 80.0                                     | 83.0 | 82.0 | 0.65                 | 0.75 | 0.81 |          |         |            |          |                      |                         |      |  |      |  |      |  |
| 6R25 | 25    | 18.5 | 380 | 38.9 | 2854 | 82.5                                     | 85.5 | 85.0 | 0.69                 | 0.79 | 0.85 | 1.70     | 5.60    | 1.90       | 3.40     |                      |                         |      |  | 1800 |  |      |  |
|      |       |      | 400 | 38.3 | 2873 | 81.5                                     | 84.5 | 84.0 | 0.67                 | 0.77 | 0.83 |          |         |            |          |                      |                         |      |  |      |  |      |  |
|      |       |      | 415 | 38.6 | 2889 | 80.0                                     | 83.0 | 82.5 | 0.65                 | 0.75 | 0.81 |          |         |            |          |                      |                         |      |  |      |  |      |  |
| 6R30 | 30    | 22   | 380 | 45.8 | 2857 | 82.5                                     | 85.5 | 85.0 | 0.70                 | 0.80 | 0.86 | 1.70     | 5.90    | 2.00       | 3.50     |                      |                         |      |  |      |  | 1800 |  |
|      |       |      | 400 | 45.1 | 2877 | 81.5                                     | 84.5 | 84.0 | 0.68                 | 0.78 | 0.84 |          |         |            |          |                      |                         |      |  |      |  |      |  |
|      |       |      | 415 | 45.3 | 2890 | 80.0                                     | 83.0 | 82.5 | 0.66                 | 0.76 | 0.82 |          |         |            |          |                      |                         |      |  |      |  |      |  |
| 6R35 | 35    | 26   | 380 | 53.8 | 2867 | 82.5                                     | 85.5 | 85.0 | 0.71                 | 0.81 | 0.86 | 1.70     | 5.70    | 1.90       | 3.40     | 1800                 |                         |      |  |      |  |      |  |
|      |       |      | 400 | 52.9 | 2878 | 81.5                                     | 85.0 | 84.5 | 0.69                 | 0.79 | 0.84 |          |         |            |          |                      |                         |      |  |      |  |      |  |
|      |       |      | 415 | 53.2 | 2891 | 80.0                                     | 83.5 | 83.0 | 0.67                 | 0.77 | 0.82 |          |         |            |          |                      |                         |      |  |      |  |      |  |
| 6R40 | 40    | 30   | 380 | 62.1 | 2861 | 82.5                                     | 85.0 | 85.5 | 0.72                 | 0.81 | 0.86 | 1.70     | 5.60    | 1.90       | 3.40     |                      |                         | 1800 |  |      |  |      |  |
|      |       |      | 400 | 61.1 | 2880 | 81.5                                     | 85.0 | 84.5 | 0.70                 | 0.79 | 0.84 |          |         |            |          |                      |                         |      |  |      |  |      |  |
|      |       |      | 415 | 61.4 | 2892 | 80.0                                     | 83.5 | 83.0 | 0.68                 | 0.77 | 0.82 |          |         |            |          |                      |                         |      |  |      |  |      |  |
| 6R50 | 50    | 37   | 380 | 77   | 2863 | 83.0                                     | 86.5 | 85.0 | 0.72                 | 0.81 | 0.86 | 1.60     | 5.60    | 1.90       | 3.40     |                      |                         |      |  | 1800 |  |      |  |
|      |       |      | 400 | 75.8 | 2882 | 82.0                                     | 85.5 | 84.0 | 0.70                 | 0.79 | 0.84 |          |         |            |          |                      |                         |      |  |      |  |      |  |
|      |       |      | 415 | 76.2 | 2891 | 80.5                                     | 84.0 | 82.5 | 0.68                 | 0.77 | 0.82 |          |         |            |          |                      |                         |      |  |      |  |      |  |

Service factor: 50Hz=1 - Direction of rotation (view from shaft projection side; anti-clockwise)

Cs = Starting torque - Cn = Nominal couple - Is = Starting current - In = Nominal current

| TYPE | Power |      | Cables                  |                              | Standard Cable length m | Max water temperature Winding type |              |
|------|-------|------|-------------------------|------------------------------|-------------------------|------------------------------------|--------------|
|      |       |      |                         |                              |                         |                                    |              |
|      |       |      |                         |                              |                         |                                    |              |
|      | HP    | kW   | Direct                  | Star Delta                   |                         | PPC                                | PE2-PA / LPE |
| 6R7  | 7.5   | 5.5  | 4G x 4 mm <sup>2</sup>  | 2x(4G x 4 mm <sup>2</sup> )  | 3                       | 30 °C                              | 50 °C        |
| 6R10 | 10    | 7.5  | 4G x 4 mm <sup>2</sup>  | 2x(4G x 4 mm <sup>2</sup> )  |                         |                                    |              |
| 6R12 | 12.5  | 9.2  | 4G x 4 mm <sup>2</sup>  | 2x(4G x 4 mm <sup>2</sup> )  |                         |                                    |              |
| 6R15 | 15    | 11   | 4G x 4 mm <sup>2</sup>  | 2x(4G x 4 mm <sup>2</sup> )  |                         |                                    |              |
| 6R17 | 17.5  | 13   | 4G x 6 mm <sup>2</sup>  | 2x(4G x 4 mm <sup>2</sup> )  |                         |                                    |              |
| 6R20 | 20    | 15   | 4G x 6 mm <sup>2</sup>  | 2x(4G x 4 mm <sup>2</sup> )  |                         |                                    |              |
| 6R25 | 25    | 18.5 | 4G x 6 mm <sup>2</sup>  | 2x(4G x 4 mm <sup>2</sup> )  |                         |                                    |              |
| 6R30 | 30    | 22   | 4G x 6 mm <sup>2</sup>  | 2x(4G x 4 mm <sup>2</sup> )  |                         |                                    |              |
| 6R35 | 35    | 26   | 4G x 10 mm <sup>2</sup> | 2x(4G x 6 mm <sup>2</sup> )  |                         |                                    |              |
| 6R40 | 40    | 30   | 4G x 10 mm <sup>2</sup> | 2x(4G x 6 mm <sup>2</sup> )  |                         |                                    |              |
| 6R50 | 50    | 37   | 4G x 10 mm <sup>2</sup> | 2x(4G x 10 mm <sup>2</sup> ) |                         |                                    |              |



| 5R - 6RS - 6RX - 6RD  |      |                                |      |     |
|-----------------------|------|--------------------------------|------|-----|
| Motor 50Hz - 2900 rpm |      | Overall dimensions and weights |      |     |
| TYPE                  | H mm | S mm                           | M mm | kg  |
| 6R7                   | 671  | 73.2                           | 145  | 45  |
| 6R10                  | 701  |                                |      | 55  |
| 6R12                  | 751  |                                |      | 60  |
| 6R15                  | 811  |                                |      | 65  |
| 6R17                  | 841  |                                |      | 70  |
| 6R20                  | 931  |                                |      | 75  |
| 6R25                  | 991  |                                |      | 83  |
| 6R30                  | 1071 |                                |      | 92  |
| 6R35                  | 1181 |                                |      | 100 |
| 6R40                  | 1251 |                                |      | 108 |
| 6R50                  | 1341 |                                |      | 118 |

6R/8R/10R

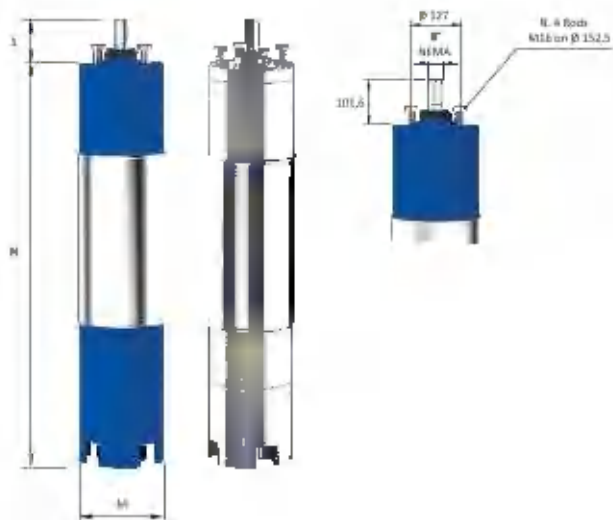


8R-8RS-8RX-8RD

| TYPE  | Power |     | V   | A     | RPM  | $\eta$ (Efficiency motor %) at % load |      |      | $\cos \varphi$ at % load |      |      | Starting |         |            |          | Axial load daN | Start/ hour (max) |
|-------|-------|-----|-----|-------|------|---------------------------------------|------|------|--------------------------|------|------|----------|---------|------------|----------|----------------|-------------------|
|       | HP    | kW  |     |       |      | 50                                    | 75   | 100  | 50                       | 75   | 100  | Direct   |         | Star-delta | Statoric |                |                   |
|       |       |     |     |       |      |                                       |      |      |                          |      |      | Cs/Cn    | Is / In | Is / In    | Is / In  |                |                   |
| 8R40  | 40    | 30  | 380 | 64,4  | 2859 | 79,8                                  | 85,2 | 84,3 | 0,77                     | 0,81 | 0,84 | 2,05     | 6,40    | 2,10       | 3,80     | 4500           | 10                |
|       |       |     | 400 | 61,7  | 2875 | 80,1                                  | 85,0 | 84,7 | 0,78                     | 0,80 | 0,83 |          |         |            |          |                |                   |
|       |       |     | 415 | 60    | 2892 | 79,3                                  | 84,5 | 85,0 | 0,75                     | 0,79 | 0,82 |          |         |            |          |                |                   |
| 8R50  | 50    | 37  | 380 | 75,4  | 2865 | 80,3                                  | 85,7 | 84,8 | 0,79                     | 0,83 | 0,88 | 1,95     | 5,70    | 2,00       | 3,70     |                |                   |
|       |       |     | 400 | 73    | 2888 | 80,6                                  | 85,5 | 85,2 | 0,77                     | 0,81 | 0,86 |          |         |            |          |                |                   |
|       |       |     | 415 | 71,8  | 2904 | 79,8                                  | 85,0 | 85,5 | 0,75                     | 0,79 | 0,84 |          |         |            |          |                |                   |
| 8R60  | 60    | 45  | 380 | 90,2  | 2882 | 80,8                                  | 86,2 | 85,3 | 0,76                     | 0,86 | 0,87 | 1,95     | 5,80    | 2,00       | 3,70     |                |                   |
|       |       |     | 400 | 86,3  | 2893 | 81,1                                  | 86,0 | 85,7 | 0,74                     | 0,81 | 0,86 |          |         |            |          |                |                   |
|       |       |     | 415 | 84,8  | 2905 | 80,3                                  | 85,5 | 86,0 | 0,72                     | 0,79 | 0,84 |          |         |            |          |                |                   |
| 8R75  | 75    | 55  | 380 | 110,2 | 2880 | 81,3                                  | 86,7 | 85,8 | 0,76                     | 0,85 | 0,89 | 1,85     | 5,80    | 2,00       | 3,60     |                |                   |
|       |       |     | 400 | 106,2 | 2889 | 81,6                                  | 86,5 | 86,2 | 0,74                     | 0,81 | 0,87 |          |         |            |          |                |                   |
|       |       |     | 415 | 105,4 | 2901 | 80,8                                  | 86,0 | 86,5 | 0,72                     | 0,80 | 0,84 |          |         |            |          |                |                   |
| 8R90  | 90    | 66  | 380 | 130,7 | 2881 | 82,4                                  | 87,5 | 86,8 | 0,76                     | 0,86 | 0,89 | 1,85     | 5,80    | 2,00       | 3,50     |                |                   |
|       |       |     | 400 | 126   | 2892 | 82,6                                  | 87,4 | 87,2 | 0,74                     | 0,82 | 0,87 |          |         |            |          |                |                   |
|       |       |     | 415 | 125,1 | 2905 | 81,9                                  | 86,9 | 87,5 | 0,72                     | 0,79 | 0,84 |          |         |            |          |                |                   |
| 8R100 | 100   | 75  | 380 | 148,5 | 2882 | 82,3                                  | 87,7 | 86,8 | 0,75                     | 0,85 | 0,89 | 1,80     | 5,60    | 2,00       | 3,50     |                |                   |
|       |       |     | 400 | 143,2 | 2893 | 82,6                                  | 87,5 | 87,2 | 0,73                     | 0,81 | 0,87 |          |         |            |          |                |                   |
|       |       |     | 415 | 142,1 | 2905 | 81,8                                  | 87,0 | 87,5 | 0,71                     | 0,77 | 0,84 |          |         |            |          |                |                   |
| 8R125 | 125   | 92  | 380 | 183,5 | 2880 | 83,0                                  | 88,0 | 85,7 | 0,75                     | 0,84 | 0,89 | 1,80     | 5,70    | 1,90       | 3,50     |                |                   |
|       |       |     | 400 | 175,1 | 2891 | 83,5                                  | 88,5 | 88,3 | 0,74                     | 0,83 | 0,88 |          |         |            |          |                |                   |
|       |       |     | 415 | 172,7 | 2903 | 83,0                                  | 88,0 | 88,3 | 0,72                     | 0,81 | 0,86 |          |         |            |          |                |                   |
| 8R150 | 150   | 110 | 380 | 216,6 | 2885 | 85,5                                  | 88,5 | 86,0 | 0,74                     | 0,83 | 0,89 | 1,80     | 5,70    | 1,90       | 3,50     |                |                   |
|       |       |     | 400 | 211   | 2898 | 86,1                                  | 87,0 | 86,6 | 0,73                     | 0,82 | 0,87 |          |         |            |          |                |                   |
|       |       |     | 415 | 212,1 | 2908 | 85,5                                  | 86,5 | 86,0 | 0,72                     | 0,81 | 0,84 |          |         |            |          |                |                   |

Service factor: 50Hz=1 - Direction of rotation (view from shaft projection side: anti-clockwise)  
Cs = Starting torque - Cn = Nominal couple - Is = Starting current - In = Nominal current

| 8R - 8RS - 8RX - 8RD |       |     |                        |                        | Standard<br>Cable length<br>m | Max water temperature |                 |
|----------------------|-------|-----|------------------------|------------------------|-------------------------------|-----------------------|-----------------|
| TYPE                 | Power |     | Cables                 |                        |                               | Winding type          |                 |
|                      |       |     | Starting               |                        |                               | PPC                   | PE2-PA<br>/ LPE |
|                      | HP    | kW  | Direct                 | Star Delta             |                               |                       |                 |
| 400 V ± 5%           |       |     | 400 / 690 V            |                        |                               |                       |                 |
| 8R40                 | 40    | 30  | 3×1×10 mm <sup>2</sup> | 6×1×10 mm <sup>2</sup> | 3                             | 30 °C                 | 50 °C           |
| 8R50                 | 50    | 37  | 3×1×10 mm <sup>2</sup> | 6×1×10 mm <sup>2</sup> |                               |                       |                 |
| 8R60                 | 60    | 45  | 3×1×16 mm <sup>2</sup> | 6×1×10 mm <sup>2</sup> |                               |                       |                 |
| 8R75                 | 75    | 65  | 3×1×16 mm <sup>2</sup> | 6×1×10 mm <sup>2</sup> |                               |                       |                 |
| 8R90                 | 90    | 66  | 3×1×25 mm <sup>2</sup> | 6×1×16 mm <sup>2</sup> |                               |                       |                 |
| 8R100                | 100   | 75  | 3×1×25 mm <sup>2</sup> | 6×1×16 mm <sup>2</sup> |                               |                       |                 |
| 8R125                | 125   | 92  | 3×1×25 mm <sup>2</sup> | 8×1×16 mm <sup>2</sup> |                               |                       |                 |
| 8R150                | 150   | 110 | 3×1×35 mm <sup>2</sup> | 8×1×25 mm <sup>2</sup> |                               |                       |                 |



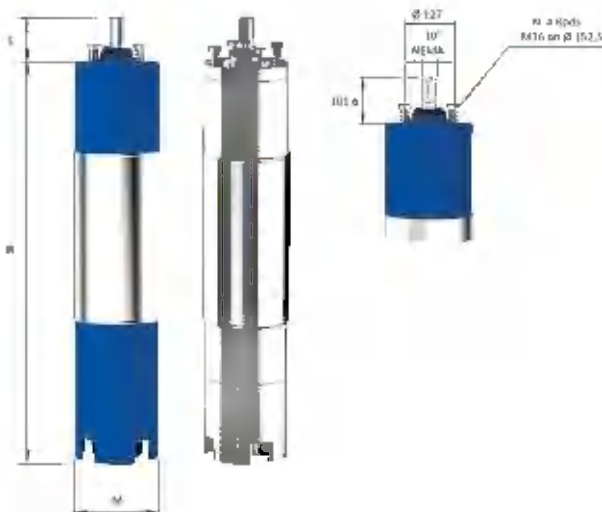
| 8R - 8RS - 8RX - 8RD  |      |                                |      |     |
|-----------------------|------|--------------------------------|------|-----|
| Motor 50Hz - 2900 rpm |      | Overall dimensions and weights |      |     |
| TYPE                  | H mm | S mm                           | M mm | kg  |
| 8R40                  | 393  | 101,8                          | 134  | 150 |
| 8R50                  | 1043 |                                |      | 160 |
| 8R60                  | 1123 |                                |      | 178 |
| 8R75                  | 1233 |                                |      | 200 |
| 8R90                  | 1302 |                                |      | 214 |
| 8R100                 | 1363 |                                |      | 230 |
| 8R125                 | 1563 |                                |      | 270 |
| 8R150                 | 1733 |                                |      | 300 |

10R-10RS-10RX-10RD

| TYPE   | Power |     | V   | A     | RPM  | $\eta$ ( Efficiency motor %) at % load |      |      | $\cos \varphi$ at % load |      |      | Starting |         |            |          | Axial load daN | Start/ hour (max) |
|--------|-------|-----|-----|-------|------|----------------------------------------|------|------|--------------------------|------|------|----------|---------|------------|----------|----------------|-------------------|
|        | HP    | kW  |     |       |      | 50                                     | 75   | 100  | 50                       | 75   | 100  | Direct   |         | Star-delta | Statoric |                |                   |
|        |       |     |     |       |      |                                        |      |      |                          |      |      | Ca/Cn    | Is / In | Is / In    | ts / In  |                |                   |
| 10R100 | 100   | 75  | 380 | 154.3 | 2884 | 86.9                                   | 87.0 | 88.0 | 0.73                     | 0.80 | 0.84 | 1.60     | 6.40    | 1.90       | 3.40     | 5000           | 10                |
|        |       |     | 400 | 142.7 | 2896 | 85.9                                   | 88.0 | 88.3 | 0.72                     | 0.84 | 0.86 |          |         |            |          |                |                   |
|        |       |     | 415 | 143.9 | 2909 | 86.4                                   | 88.3 | 88.5 | 0.64                     | 0.77 | 0.82 |          |         |            |          |                |                   |
| 10R125 | 125   | 92  | 380 | 188.7 | 2890 | 87.2                                   | 87.3 | 88.3 | 0.74                     | 0.83 | 0.84 | 1.60     | 6.30    | 1.80       | 3.40     |                |                   |
|        |       |     | 400 | 174.5 | 2904 | 86.2                                   | 88.3 | 88.6 | 0.71                     | 0.83 | 0.86 |          |         |            |          |                |                   |
|        |       |     | 415 | 176   | 2914 | 86.7                                   | 88.6 | 88.8 | 0.63                     | 0.75 | 0.82 |          |         |            |          |                |                   |
| 10R150 | 150   | 110 | 380 | 222.2 | 2930 | 87.9                                   | 88.0 | 89.0 | 0.71                     | 0.81 | 0.86 | 1.55     | 6.70    | 1.80       | 3.30     |                |                   |
|        |       |     | 400 | 207   | 2937 | 86.9                                   | 89.0 | 89.3 | 0.73                     | 0.84 | 0.86 |          |         |            |          |                |                   |
|        |       |     | 415 | 211.3 | 2943 | 87.4                                   | 89.3 | 89.5 | 0.63                     | 0.77 | 0.81 |          |         |            |          |                |                   |
| 10R175 | 175   | 130 | 380 | 265.6 | 2895 | 87.5                                   | 88.2 | 89.0 | 0.73                     | 0.81 | 0.83 | 1.85     | 5.80    | 2.00       | 3.60     |                |                   |
|        |       |     | 400 | 245.3 | 2915 | 86.5                                   | 89.3 | 89.4 | 0.71                     | 0.83 | 0.85 |          |         |            |          |                |                   |
|        |       |     | 415 | 244.6 | 2928 | 87.1                                   | 89.5 | 89.6 | 0.62                     | 0.75 | 0.82 |          |         |            |          |                |                   |
| 10R200 | 200   | 150 | 380 | 299.1 | 2898 | 87.1                                   | 88.2 | 89.0 | 0.72                     | 0.82 | 0.84 | 1.55     | 6.50    | 1.80       | 3.30     |                |                   |
|        |       |     | 400 | 277.2 | 2917 | 86.1                                   | 88.5 | 89.1 | 0.71                     | 0.81 | 0.86 |          |         |            |          |                |                   |
|        |       |     | 415 | 278.1 | 2931 | 86.5                                   | 88.1 | 88.7 | 0.65                     | 0.75 | 0.83 |          |         |            |          |                |                   |
| 10R225 | 225   | 165 | 380 | 337.2 | 2901 | 86.5                                   | 87.5 | 88.6 | 0.72                     | 0.82 | 0.84 | 1.55     | 6.50    | 1.80       | 3.30     |                |                   |
|        |       |     | 400 | 313.3 | 2920 | 85.4                                   | 87.2 | 86.5 | 0.71                     | 0.81 | 0.86 |          |         |            |          |                |                   |
|        |       |     | 415 | 313.9 | 2930 | 86.0                                   | 87.3 | 88.2 | 0.65                     | 0.75 | 0.83 |          |         |            |          |                |                   |
| 10R250 | 250   | 185 | 380 | 370   | 2904 | 87.4                                   | 88.0 | 89.0 | 0.73                     | 0.83 | 0.85 | 1.50     | 6.50    | 1.80       | 3.30     |                |                   |
|        |       |     | 400 | 342.2 | 2924 | 86.5                                   | 88.7 | 89.3 | 0.72                     | 0.82 | 0.87 |          |         |            |          |                |                   |
|        |       |     | 415 | 340.9 | 2936 | 87.3                                   | 89.3 | 89.5 | 0.65                     | 0.77 | 0.84 |          |         |            |          |                |                   |

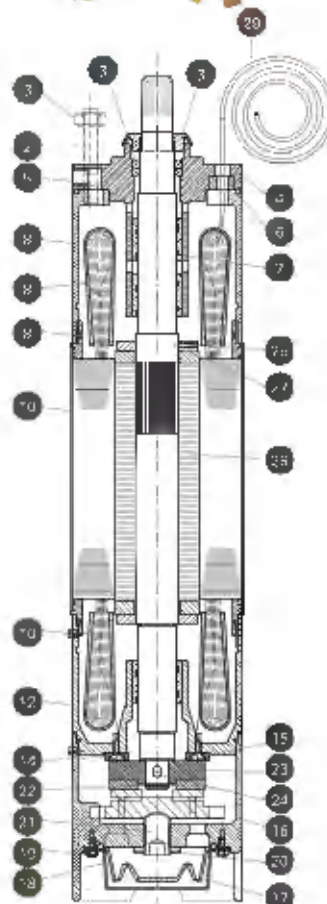
Service factor: 50Hz=1 - Direction of rotation (view from shaft projection side): anti-clockwise  
Cs = Starting torque - Cn = Nominal couple - Is = Starting current - In = Nominal current

|        |       | 10R - 10RS - 10RX - 10RD |            |             |                               |              |                 | Max water temperature |  |
|--------|-------|--------------------------|------------|-------------|-------------------------------|--------------|-----------------|-----------------------|--|
| TYPE   | Power |                          | Cables     |             | Standard<br>Cable lenght<br>m | Winding type |                 |                       |  |
|        | HP    | kW                       | Starting   |             |                               | PPC          | PE2-PA<br>/ LPE |                       |  |
|        |       |                          | Direct     | Star Delta  |                               |              |                 |                       |  |
|        |       |                          | 400 V ± 5% | 400 / 690 V |                               |              |                 |                       |  |
| 10R100 | 100   | 75                       | 3×1×25 mm² | 6×1×16 mm²  | 3                             | 30 °C        | 50 °C           |                       |  |
| 10R125 | 125   | 92                       | 3×1×25 mm² | 6×1×16 mm²  |                               |              |                 |                       |  |
| 10R150 | 150   | 110                      | 3×1×35 mm² | 6×1×16 mm²  |                               |              |                 |                       |  |
| 10R175 | 175   | 130                      | 3×1×35 mm² | 6×1×25 mm²  |                               |              |                 |                       |  |
| 10R200 | 200   | 150                      | 3×1×50 mm² | 6×1×25 mm²  |                               |              |                 |                       |  |
| 10R225 | 225   | 165                      | 3×1×50 mm² | 6×1×35 mm²  |                               |              |                 |                       |  |
| 10R250 | 250   | 185                      | 3×1×50 mm² | 6×1×35 mm²  |                               |              |                 |                       |  |



| 10R - 10RS - 10RX - 10RD |      |                                |      |     |
|--------------------------|------|--------------------------------|------|-----|
| Motor<br>50Hz - 2900 rpm |      | Overall dimensions and weights |      |     |
| TYPE                     | H mm | S mm                           | M mm | kg  |
| 10R100                   | 1284 | 101,6                          | 240  | 270 |
| 10R125                   | 1354 |                                |      | 310 |
| 10R150                   | 1504 |                                |      | 350 |
| 10R175                   | 1634 |                                |      | 385 |
| 10R200                   | 1734 |                                |      | 415 |
| 10R225                   | 1654 |                                |      | 444 |
| 10R250                   | 1684 |                                |      | 460 |

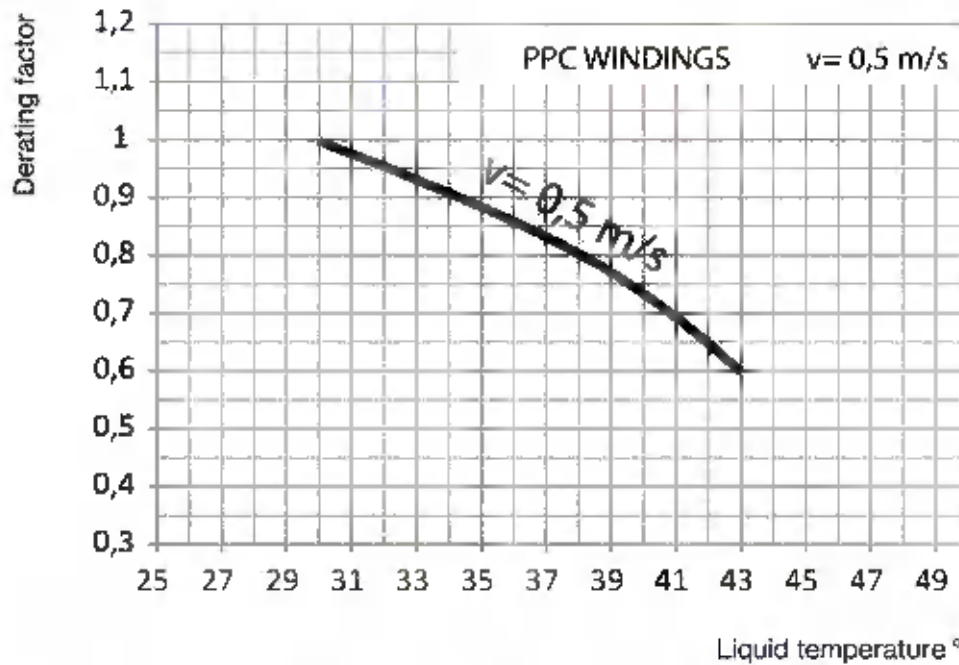




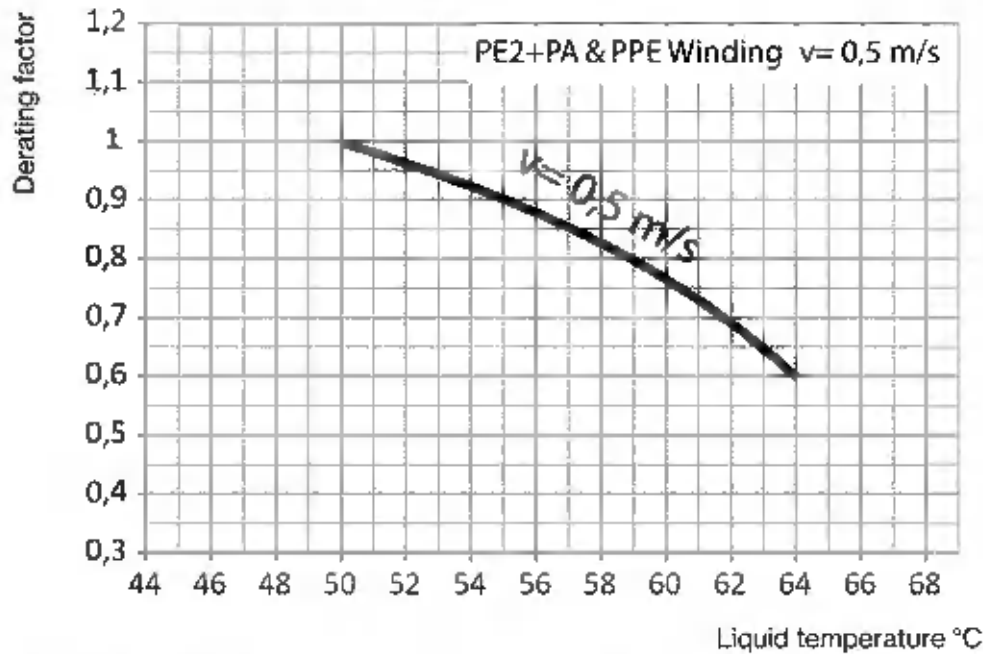
| N. CODE | (*) N° | DESCRIPTION                     | MATERIAL STANDARD VERSION R | MATERIAL VERSION RS-RX-RD    |
|---------|--------|---------------------------------|-----------------------------|------------------------------|
| 1       |        | N.4 Nuts                        | AISI 304                    | AISI 304 / AISI 316 / DUPLEX |
| 2       |        | N.4 Studs                       | AISI 304                    | AISI 304 / AISI 316 / DUPLEX |
| 3(*)    | 1      | N.2 Seal rings                  | NBR                         | NBR                          |
| 4       |        | Upper support                   | CAST IRON                   | AISI 304 / AISI 316 / DUPLEX |
| 5       |        | N.2 Grains for Liquid filling   | AISI 304                    | AISI 304 / AISI 316 / DUPLEX |
| 6       |        | Grommet                         | NBR                         | NBR                          |
| 7(*)    | 3      | N.3 Bearings                    | GRAPHITE                    | GRAPHITE                     |
| 8       |        | Motor casing                    | CAST IRON                   | AISI 304 / AISI 316 / DUPLEX |
| 9(*)    | 4      | N.4 O-ring                      | NBR                         | NBR                          |
| 10      |        | Motor external sleeve           | AISI 304                    | AISI 304 / AISI 316 / DUPLEX |
| 11      |        | N.2 Covers winding protection   | POM                         | POM                          |
| 12      |        | Lower support                   | CAST IRON                   | AISI 304 / AISI 316 / DUPLEX |
| 13      |        | N.3 Screw                       | AISI 304                    | AISI 304 / AISI 316 / DUPLEX |
| 14(*)   | 2      | N.2 Disks controsuspention      | TEFLON                      | TEFLON                       |
| 15      |        | N.2 Screws for controsuspention | AISI 304                    | AISI 304                     |
| 16      |        | Base motor                      | CAST IRON                   | AISI 304 / AISI 316 / DUPLEX |
| 17(*)   | 1      | Diaphram                        | NBR                         | NBR                          |
| 18      |        | Cover diaphram                  | AISI 304                    | AISI 304 / AISI 316 / DUPLEX |
| 19      |        | N.4 Screw for cover diaphram    | AISI 304                    | AISI 304 / AISI 316 / DUPLEX |
| 20      |        | Nut                             | AISI 304                    | AISI 304                     |
| 21      |        | Screw                           | AISI 304                    | AISI 304                     |
| 22      |        | Seeger                          | AISI 304                    | AISI 304                     |
| 23(*)   | 1      | Trust bearing                   | AISI + GRAPHITE             | AISI + GRAPHITE              |
| 24      |        | Key                             | AISI 304                    | AISI 304                     |
| 25      |        | N.2 Grains for stablizer        | AISI 304                    | AISI 304                     |
| 26      |        | Complete rotor                  | AISI                        | AISI                         |
| 27      |        | N.2 Stabilizers                 | AISI                        | AISI                         |
| 28(*)   | 1      | Deflector                       | NBR                         | NBR                          |
| 29      |        | Cable                           | HD7 RNF                     | HD7 RNF                      |



## OPERATING CONDITIONS VS WATER TEMPERATURE



All 6" - 8" - 10" standard motors with PPC windings can operate at liquid temperatures up to 30 °C without derating factor. From 31 °C till 43 °C they have to be derated according to the factor shown in the following graph.



All 6" - 8" - 10" motors with LPE or PE2+PA windings can operate at liquid temperatures up to 50 °C without derating factor. From 51 °C till 64 °C the motors have to be derated according to the factor shown in the following graph.

| Motor size | Max motor sharing per hour | Winding max temperature (°C) |     |        | Liquid max temperature (°C) |     |        |
|------------|----------------------------|------------------------------|-----|--------|-----------------------------|-----|--------|
|            |                            | PPC                          | LPE | PE2+PA | PPC                         | LPE | PE2+PA |
| 6"         | 15                         | 70                           | 80  | 80     | 30                          | 50  | 50     |
| 8"         | 10                         | 70                           | 80  | 80     | 30                          | 50  | 50     |
| 10"        | 8                          | 70                           | 80  | 80     | 30                          | 50  | 50     |

PPC = Y insulation class

LPE = F insulation class

PE2+PA = / F insulation class

Minimum liquid velocity for motor 6" - 8" - 10": 0.5 m/s

# PTR12-PTR14

Deepwell Motors

12"-14" submersible motors rewindable in water bath. Power from 185 kW up to 400 kW. Available with mechanical seal. Standard PE2+PA winding, for temperatures up to 30°C. Made of Cast iron /AISI 304, available in AISI 316.

## Construction foatures

|                                 |                                                                                                                                                                                         |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Upper and bottom support</b> | GG25 or stainless steel AISI 316                                                                                                                                                        |
| <b>Stator sleeve</b>            | stainless steel AISI 316                                                                                                                                                                |
| <b>Shaft end</b>                | stainless steel                                                                                                                                                                         |
| <b>Mechanical seal</b>          | SIC / SIC / NBR                                                                                                                                                                         |
| <b>Bearings</b>                 | steel/NBR                                                                                                                                                                               |
| <b>Voltage</b>                  | 3- 380-400V $\pm$ 10% - 50Hz                                                                                                                                                            |
| <b>Cooling flow</b>             | min 0,5 m/s                                                                                                                                                                             |
| <b>Insulation class</b>         | F                                                                                                                                                                                       |
| <b>Insulation</b>               | PE2 + PA                                                                                                                                                                                |
| <b>Protection degree</b>        | IP68                                                                                                                                                                                    |
| <b>Available on demand</b>      | <ul style="list-style-type: none"> <li>- Full motor in AISI 316</li> <li>- Full motor in AISI 904</li> <li>- PT 100</li> <li>- Star/Delta starting</li> <li>- Cooling Sleeve</li> </ul> |



| TYPE<br>230V/50Hz<br>3~  | Volt<br>V | P <sub>2</sub> |     | I <sub>N</sub><br>A | I <sub>s</sub> /I <sub>N</sub> | P <sub>1</sub><br>W | N<br>min <sup>-1</sup> | EFF%<br>% | COS φ | CABLE       |                         |
|--------------------------|-----------|----------------|-----|---------------------|--------------------------------|---------------------|------------------------|-----------|-------|-------------|-------------------------|
|                          |           | HP             | kW  |                     |                                |                     |                        |           |       | Lenght<br>m | Size<br>mm <sup>2</sup> |
| PTR12 - 220kW - 400V - T | 400       | 300            | 220 | 424                 | 6,1                            | 250300              | 2920                   | 88        | 0,85  | 8           | 3×70+1×50               |
| PTR12 - 250kW - 400V - T | 400       | 340            | 250 | 481                 | 5,9                            | 284091              | 2920                   | 88        | 0,85  | 8           | 3×70+1×50               |
| PTR12 - 300kW - 400V - T | 400       | 400            | 300 | 575                 | 6                              | 341000              | 2905                   | 88        | 0,87  | 8           | 3×70+1×50               |
| PTR14 - 330kW - 380V - T | 380       | 450            | 330 | 620                 | 6                              | 366667              | 2900                   | 90        | 0,9   | 8           | 3×95+1×50               |
| PTR14 - 387kW - 380V - T | 380       | 500            | 370 | 693                 | 6,4                            | 405825              | 2900                   | 90,5      | 0,89  | 8           | 3×95+1×50               |
| PTR14 - 404kW - 380V - T | 380       | 550            | 400 | 796                 | 6,8                            | 446409              | 2900                   | 90,5      | 0,85  | 8           | 3×95+1×50               |

**P<sub>2</sub>**: Nominal power

**V**: Nominal voltage

**I<sub>N</sub>**: Nominal current

**I<sub>s</sub>/I<sub>N</sub>**: Starting current / Nominal current

**P<sub>1</sub>**: Absorbed power

**N**: Rotations per minute - Rpm

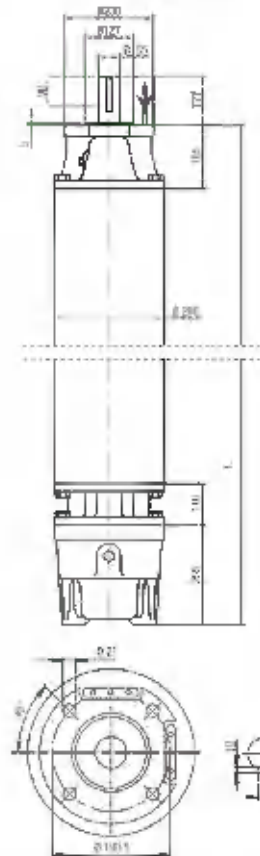
**Cos φ**: Power factor

**EFF%**: Efficiency

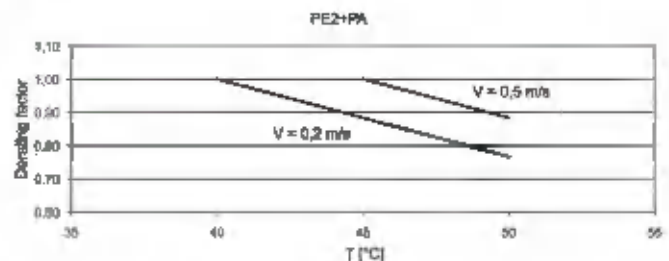
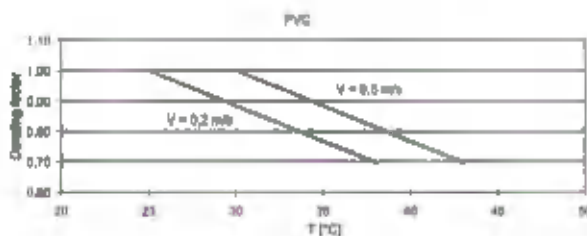
**Size**: Cable cross section

**Lenght**: Cable length

| DIMENSIONS    |       |     |                   |              |              |
|---------------|-------|-----|-------------------|--------------|--------------|
| Motor Type    | Power |     | Axial Thrust<br>N | Lenght<br>mm | Weight<br>Kg |
|               | HP    | kW  |                   |              |              |
| PTR12 - 220kW | 300   | 220 | 70000             | 2110         | 700          |
| PTP12 - 250kW | 340   | 250 |                   | 2280         | 775          |
| PTR12 - 300kW | 400   | 300 |                   | 2280         | 775          |
| PTR14 - 330kW | 450   | 330 |                   | 2160         | 906          |
| PTR14 - 387kW | 500   | 370 |                   | 2320         | 1010         |
| PTP14 - 404kW | 550   | 400 |                   | 2460         | 1105         |

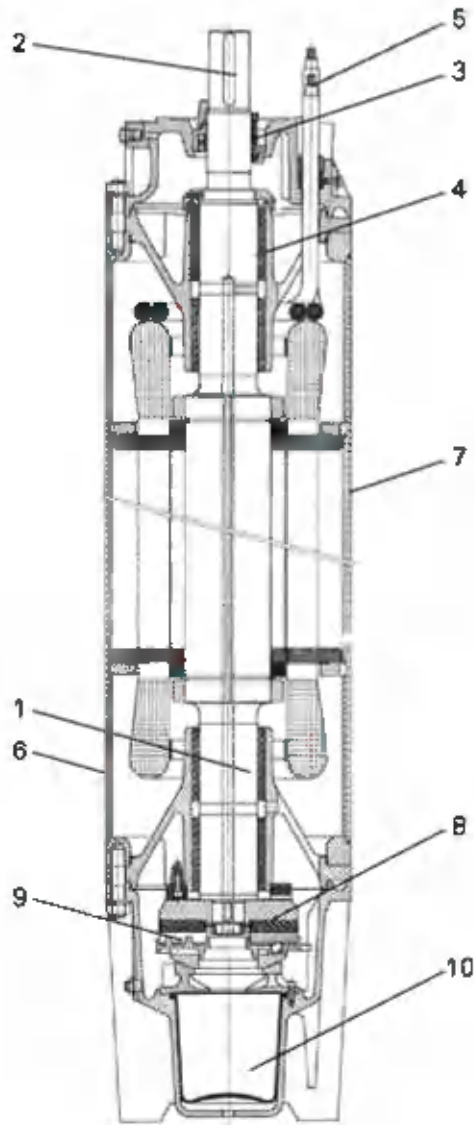


## PDWER DERATING VERSUS THE LIQUID TEMPERATURE



For PTR12 220 kW PE2+PA and 250 kW PE2+PA 50 Hz and for all the PTR12 60 Hz versions the maximum liquid temperature is 10 °C lower than that indicated in the graph.

For PTR12 300kW PE2+PA the maximum liquid temperature is 25°C.

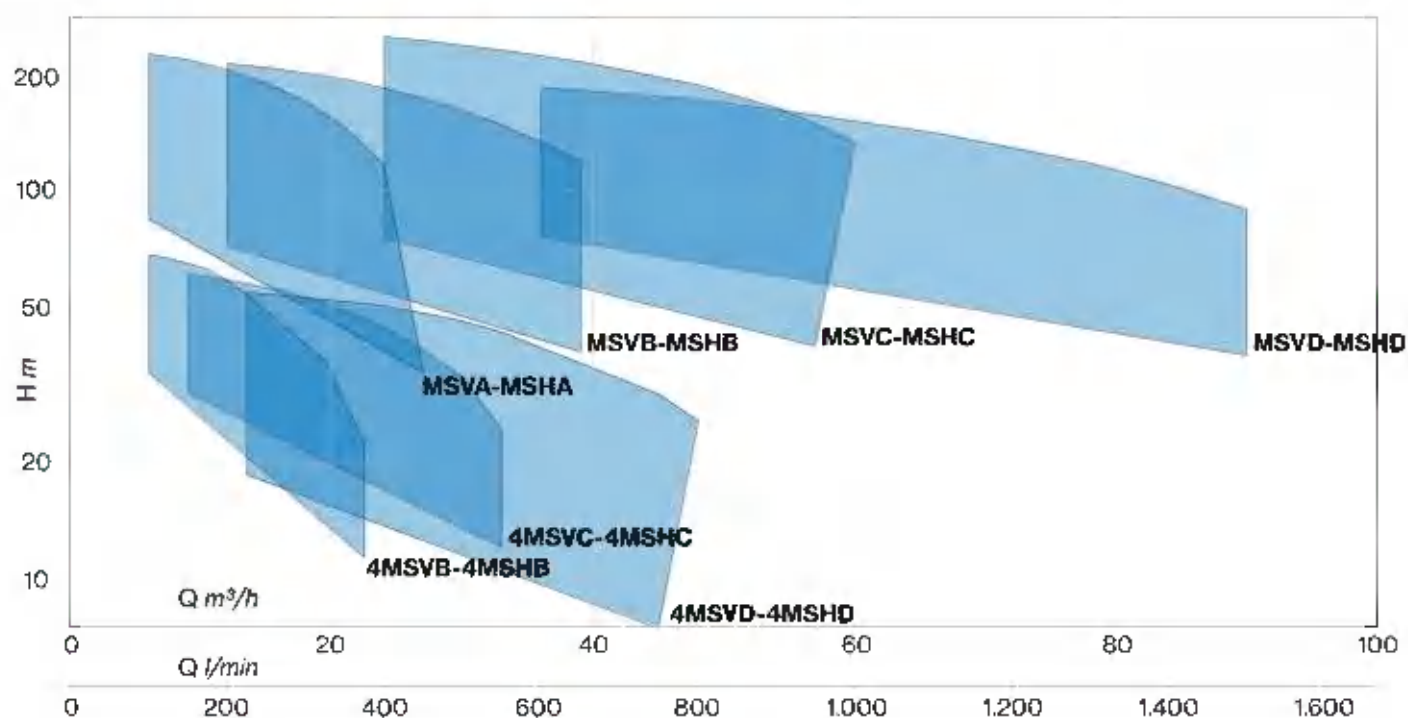


| N. | PARTS            | STD VERSION              | VERSION 316 SS           | VERSION 904 SS           |
|----|------------------|--------------------------|--------------------------|--------------------------|
| 1  | Shaft            | stainless steel          | stainless steel          | stainless steel          |
| 2  | Shaft Terminal   | AISI 316 stainless steel | AISI 316 stainless steel | AISI 904 stainless steel |
| 3  | Mechanical Seal  | ceramic/carbon           | SIC/SIC                  | SIC/SIC                  |
| 4  | Bushes           | steel/NBR                | steel/NBR                | steel/NBR                |
| 5  | Cable            | EPDM                     | EPDM                     | EPDM                     |
| 6  | Structural Parts | cast iron                | AISI 316 stainless steel | AISI 904 stainless steel |
| 7  | Jacket           | AISI 316 stainless steel | AISI 316 stainless steel | AISI 904 stainless steel |
| 8  | Thrust Plate     | steel                    | steel                    | steel                    |
| 9  | Thrust Bearing   | steel/NBR                | steel/NBR                | steel/NBR                |
| 10 | Diaphragm        | EPDM                     | EPDM                     | EPDM                     |
| 11 | Screws           | AISI 304 stainless steel | AISI 316 stainless steel | AISI 904 stainless steel |





INDUSTRIAL LINE



# MSV - 4MSV

## Multistage Vertical

Multi-stage centrifugal pumps that guarantee high pressure. Particularly suitable for civil and industrial applications - in particular pressurisation systems, fire fighting systems and washing plant.



### Construction features

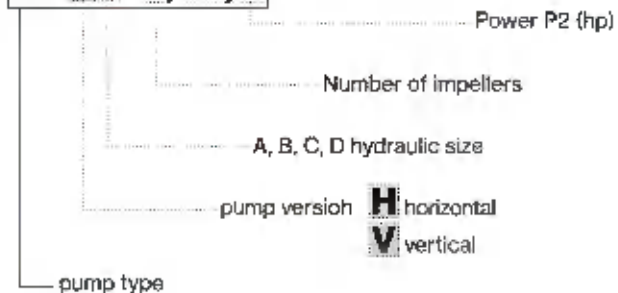
|                           |                          |
|---------------------------|--------------------------|
| <b>Pump body</b>          | cast iron                |
| <b>Motor bracket</b>      | cast iron                |
| <b>Impeller</b>           | brass                    |
| <b>Mechanical seal</b>    | ceramic-graphite-NBR     |
| <b>Motor shaft</b>        | stainless steel AISI 304 |
| <b>Liquid temperature</b> | -10 ÷ +90 °C             |
| <b>Operating pressure</b> | max 30 bar               |

### Motor

|                                |                                                      |
|--------------------------------|------------------------------------------------------|
| <b>2 poles induction motor</b> | 3- 230/400V-50Hz P ≤ 4kW<br>3- 400/690V-50Hz P > 4kW |
| <b>Insulation class</b>        | F                                                    |
| <b>Protection degree</b>       | IPX5                                                 |



### MSVC -3/18,5



# MSV - 2900 r.p.m.



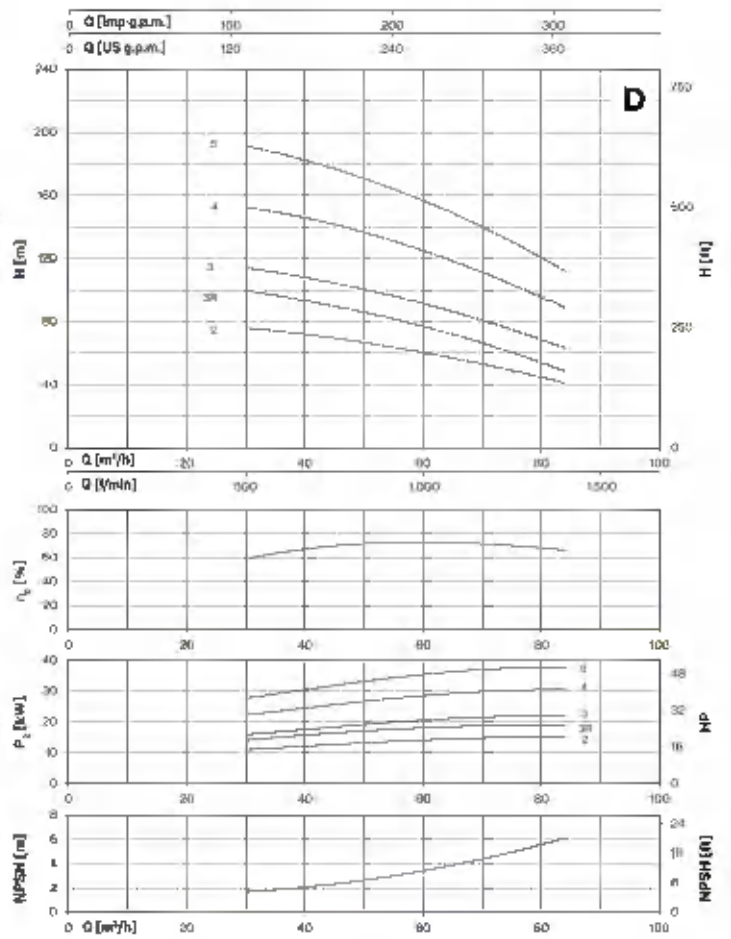
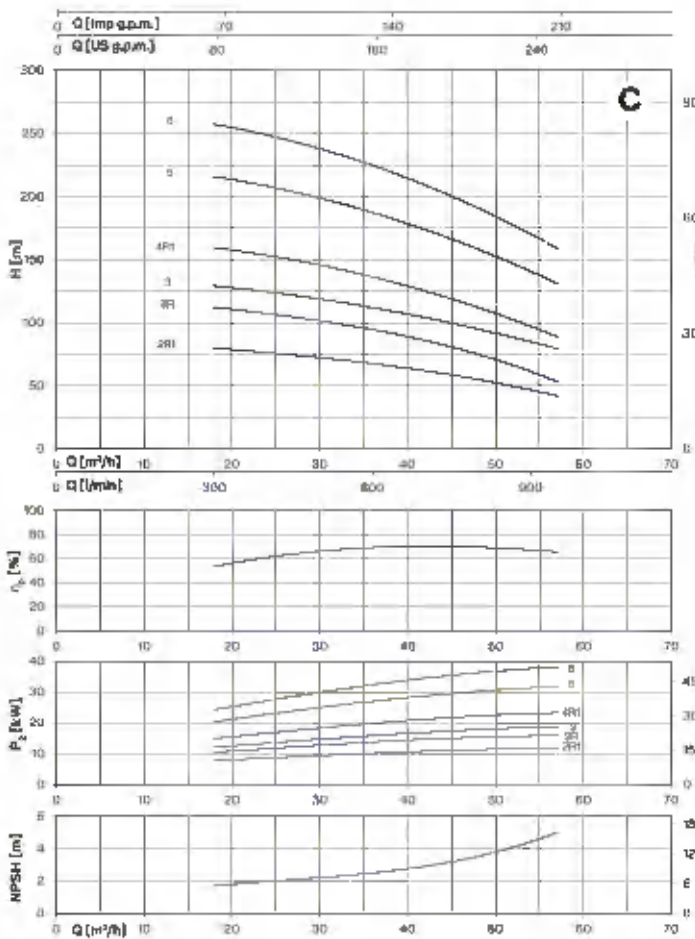
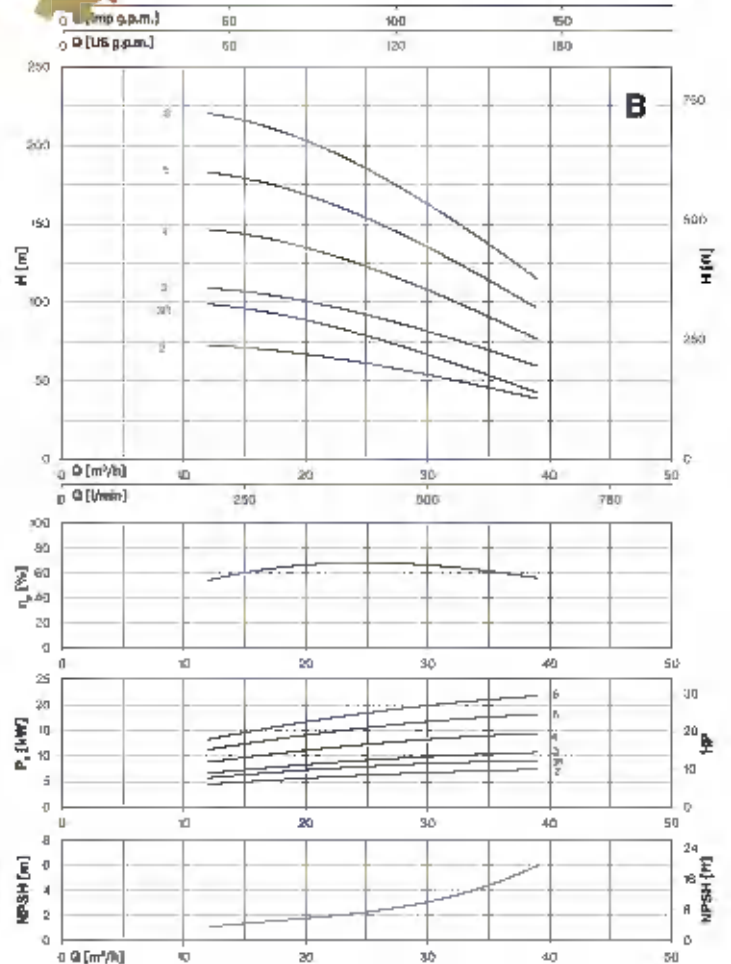
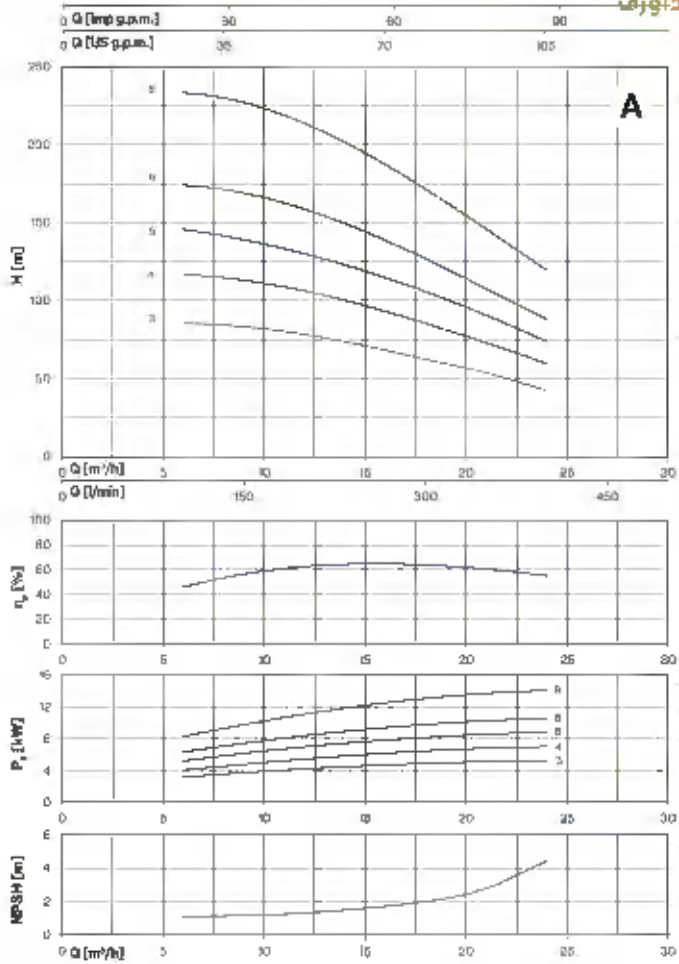
| TYPE |        | P2    |     | P1<br>kW | I(A)<br>3x400V | Q (m³/h - l/min - l/s) |       |       |       |       |       |       |       |
|------|--------|-------|-----|----------|----------------|------------------------|-------|-------|-------|-------|-------|-------|-------|
|      |        |       |     |          |                | 0                      | 6     | 9     | 12    | 15    | 18    | 21    | 24    |
|      |        | 100   | 150 |          |                |                        | 200   | 250   | 300   | 350   | 400   |       |       |
|      |        | HP    | kW  |          |                |                        | 1,67  | 2,5   | 3,33  | 4,17  | 5     | 5,83  | 6,67  |
|      |        | H (m) |     |          |                |                        |       |       |       |       |       |       |       |
| MSVA | -3/5,5 | 7,5   | 5,5 | 6,0      | 10,1           | 86,2                   | 85,3  | 83,7  | 78,6  | 71,2  | 62,6  | 53,4  | 43,2  |
|      | -4/7,5 | 10    | 7,5 | 7,8      | 15,0           | 118,0                  | 116,7 | 113,0 | 106,5 | 96,8  | 85,2  | 73,1  | 59,7  |
|      | -5/9,2 | 12,5  | 9,2 | 9,8      | 16,4           | 148,2                  | 145,9 | 138,8 | 130,0 | 119,8 | 105,2 | 90,7  | 73,8  |
|      | -6/11  | 15    | 11  | 11,8     | 19,6           | 177,5                  | 174,2 | 168,9 | 158,9 | 144,2 | 126,7 | 107,9 | 88,0  |
|      | -8/15  | 20    | 15  | 15,5     | 26,3           | 237,8                  | 233,4 | 227,0 | 213,8 | 194,6 | 171,4 | 146,0 | 119,5 |

| TYPE |         | P2    |      | P1<br>kW | I(A)<br>3x400V | Q (m³/h - l/min - l/s) |       |       |       |       |       |       |       |       |       |       |
|------|---------|-------|------|----------|----------------|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|      |         |       |      |          |                | 0                      | 12    | 15    | 18    | 21    | 24    | 27    | 30    | 33    | 36    | 39    |
|      |         | HP    | kW   |          |                |                        | 200   | 250   | 300   | 350   | 400   | 450   | 500   | 550   | 600   | 650   |
|      |         | 3,33  | 4,17 |          |                |                        | 5     | 5,83  | 6,67  | 7,5   | 8,33  | 9,17  | 10    | 10,83 |       |       |
|      |         | H (m) |      |          |                |                        |       |       |       |       |       |       |       |       |       |       |
| MSVB | -2/7,5  | 10    | 7,5  | 8,2      | 18,4           | 74,5                   | 72,7  | 71,1  | 68,7  | 56,1  | 52,4  | 58,3  | 53,8  | 49,0  | 43,9  | 38,8  |
|      | -3R/9,2 | 12,5  | 9,2  | 10,0     | 16,7           | 101,8                  | 98,9  | 96,2  | 91,4  | 87,4  | 81,0  | 74,3  | 68,5  | 58,8  | 50,8  | 42,4  |
|      | -3/11   | 15    | 11   | 11,6     | 19,6           | 112,7                  | 109,2 | 105,9 | 102,9 | 99,6  | 94,1  | 88,1  | 81,3  | 74,5  | 67,2  | 59,3  |
|      | -4/16   | 20    | 15   | 15,9     | 26,5           | 149,7                  | 146,5 | 143,4 | 138,2 | 133,4 | 125,4 | 117,1 | 107,4 | 97,8  | 87,7  | 76,2  |
|      | -5/18,5 | 25    | 18,5 | 19,8     | 38,0           | 187,7                  | 182,9 | 179,2 | 172,3 | 166,7 | 157,2 | 146,7 | 134,9 | 122,7 | 109,9 | 96,2  |
|      | -6/22   | 30    | 22   | 28,6     | 38,8           | 225,9                  | 220,4 | 216,3 | 207,1 | 201,1 | 189,8 | 176,6 | 162,5 | 147,5 | 131,7 | 115,1 |

| TYPE |         | P2    |      | P1<br>kW | I(A)<br>3x400V | 0     | Q (m³/h - l/min - l/s) |       |       |       |       |       |       |       |
|------|---------|-------|------|----------|----------------|-------|------------------------|-------|-------|-------|-------|-------|-------|-------|
|      |         | HP    | kW   |          |                |       | 18                     | 24    | 30    | 36    | 42    | 48    | 54    | 57    |
|      |         |       |      |          |                |       | 300                    | 400   | 500   | 600   | 700   | 800   | 900   | 950   |
|      |         |       |      |          |                |       | 5                      | 6,67  | 8,33  | 10    | 11,67 | 13,33 | 15    | 15,83 |
|      |         | H (m) |      |          |                |       |                        |       |       |       |       |       |       |       |
| MSVC | -2R1/11 | 15    | 11   | 13,0     | 21,4           | 78,4  | 79,5                   | 76,3  | 72,8  | 67,6  | 61,8  | 55,2  | 46,9  | 41,8  |
|      | -3R/15  | 20    | 15   | 17,4     | 28,9           | 110,4 | 111,9                  | 107,2 | 101,5 | 94,5  | 85,8  | 75,3  | 61,5  | 53,0  |
|      | -3/18,5 | 25    | 18,5 | 20,5     | 34,0           | 127,5 | 126,8                  | 124,7 | 118,8 | 111,9 | 104,0 | 95,1  | 85,3  | 79,2  |
|      | -4R1/22 | 30    | 22   | 25,3     | 41,5           | 159,5 | 159,0                  | 153,6 | 145,7 | 136,3 | 125,0 | 112,2 | 98,1  | 86,3  |
|      | -5/30   | 40    | 30   | 34,6     | 59,4           | 214,7 | 215,7                  | 208,6 | 198,9 | 187,2 | 173,9 | 158,5 | 141,2 | 130,9 |
|      | -6/37   | 50    | 37   | 41,2     | 72,8           | 256,5 | 257,1                  | 249,2 | 238,2 | 224,8 | 209,6 | 191,3 | 170,7 | 158,9 |

| TYPE |          | P2 |      | P1<br>kW | I(A)<br>3x400V | 0     | Q (m³/h - l/min - l/s) |       |       |       |       |       |       |       |       |       |
|------|----------|----|------|----------|----------------|-------|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|      |          | HP | kW   |          |                |       | 30                     | 36    | 42    | 48    | 54    | 60    | 66    | 72    | 78    | 84    |
|      |          |    |      |          |                |       | 500                    | 600   | 700   | 800   | 900   | 1000  | 1100  | 1200  | 1300  | 1400  |
|      |          |    |      |          |                |       | 8,33                   | 10    | 11,67 | 13,33 | 15    | 15,67 | 18,33 | 20    | 21,67 | 23,33 |
|      |          |    |      |          |                |       | H (m)                  |       |       |       |       |       |       |       |       |       |
| MSVD | -2/15    | 20 | 15   | 18,6     | 27,6           | 75,9  | 75,9                   | 73,8  | 71,0  | 67,8  | 64,3  | 60,4  | 56,1  | 51,5  | 46,4  | 41,0  |
|      | -3R/18,5 | 25 | 18,5 | 20,3     | 33,7           | 99,6  | 99,6                   | 96,6  | 91,7  | 87,5  | 82,7  | 77,1  | 70,8  | 64,0  | 56,6  | 48,5  |
|      | -3/22    | 30 | 22   | 28,7     | 39,8           | 113,1 | 113,9                  | 110,8 | 106,7 | 102,0 | 96,9  | 91,4  | 85,4  | 78,8  | 71,2  | 63,0  |
|      | -4/30    | 40 | 30   | 33,0     | 57,2           | 152,0 | 152,5                  | 148,9 | 144,1 | 138,7 | 132,4 | 125,1 | 117,0 | 108,1 | 98,8  | 89,0  |
|      | -5/37    | 50 | 37   | 40,6     | 71,9           | 189,6 | 191,4                  | 186,4 | 179,9 | 173,8 | 165,7 | 157,0 | 147,0 | 136,0 | 124,5 | 112,8 |





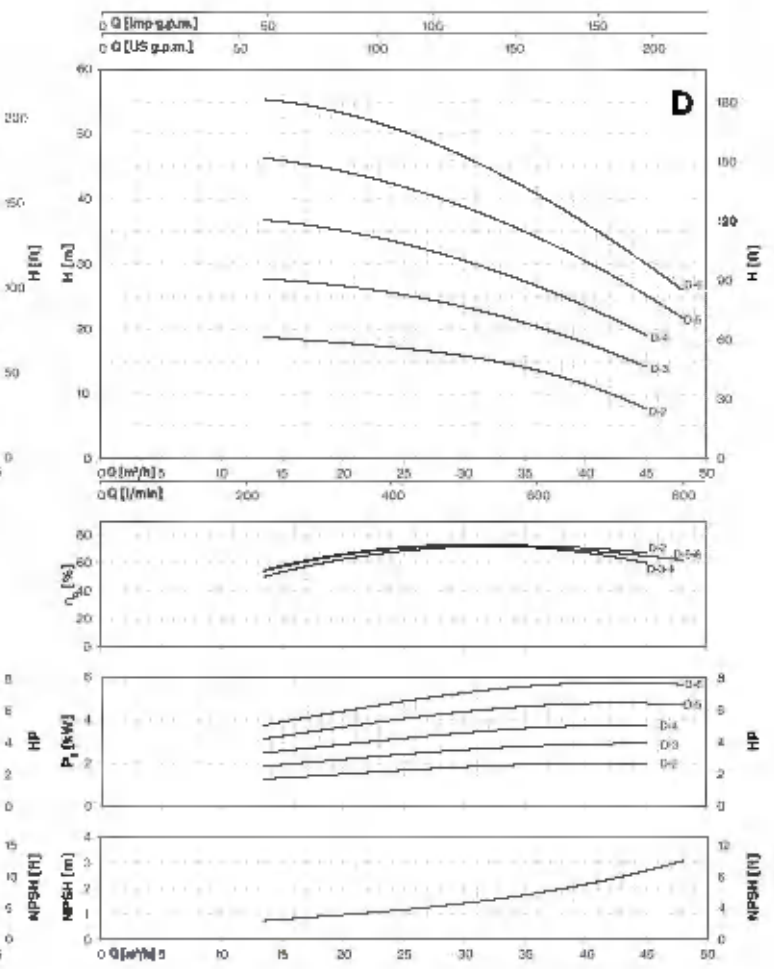
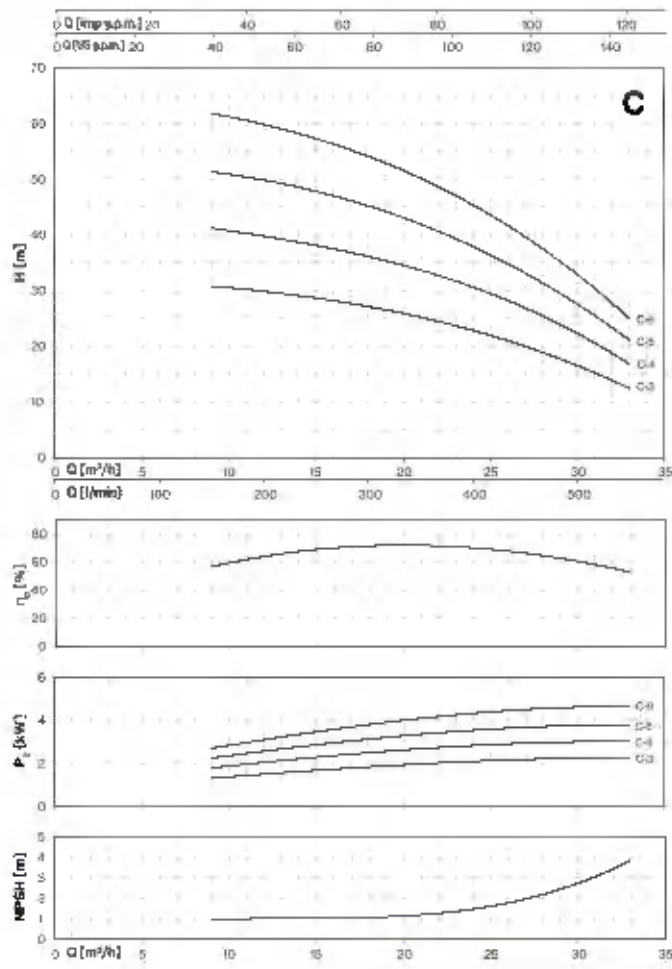
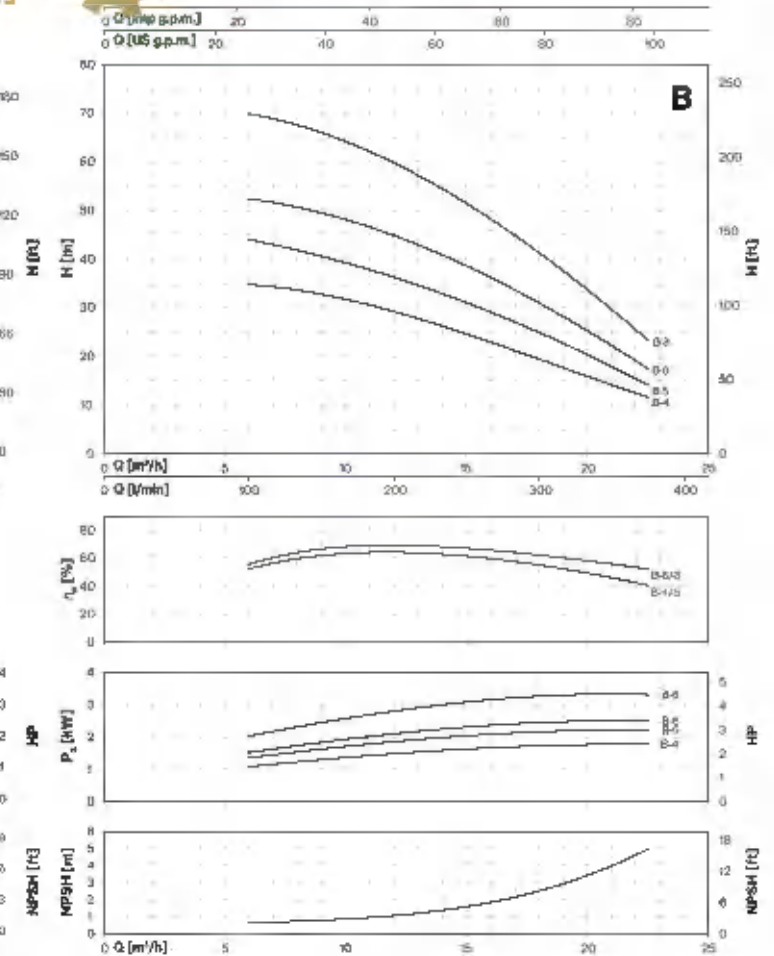
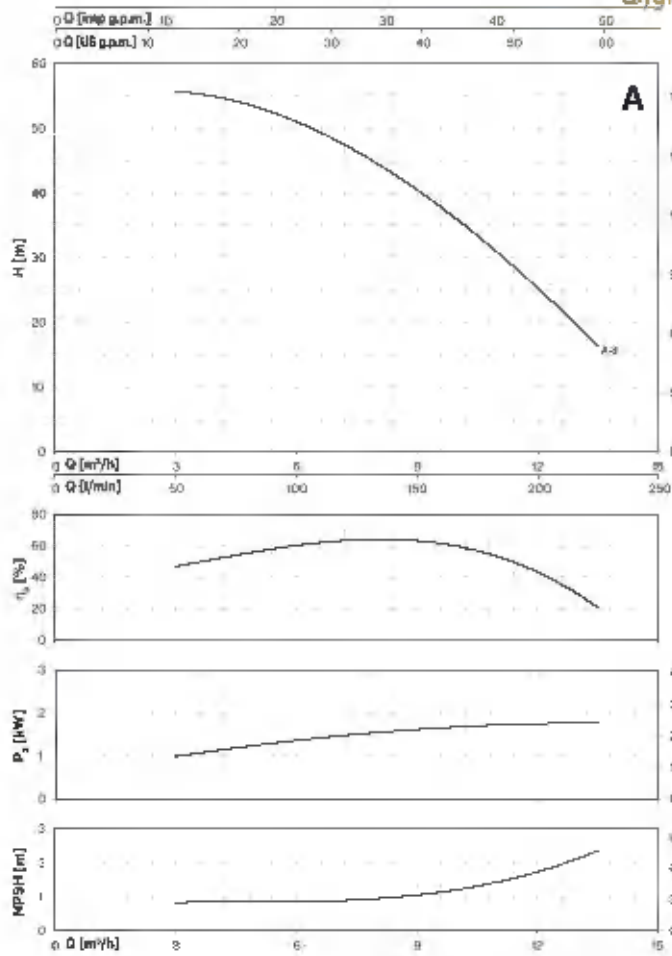
## 4MSV - 1450 r.p.m.

| TYPE  |        | P2 |     | Q (m³/h - l/min - l/s) |      |      |      |      |      |      |      |      |
|-------|--------|----|-----|------------------------|------|------|------|------|------|------|------|------|
|       |        |    |     | 0                      | 3    | 4,5  | 6    | 7,5  | 9    | 10,5 | 12   | 13,5 |
|       |        |    |     |                        | 50   | 75   | 100  | 125  | 150  | 175  | 200  | 225  |
|       |        | HP | kW  | H (m)                  |      |      |      |      |      |      |      |      |
| 4MSVA | -3/2,2 | 3  | 2,2 | 66,0                   | 55,7 | 54,2 | 51,3 | 46,3 | 40,2 | 33,4 | 25,7 | 16,2 |

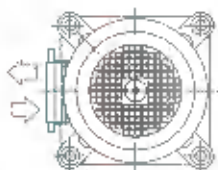
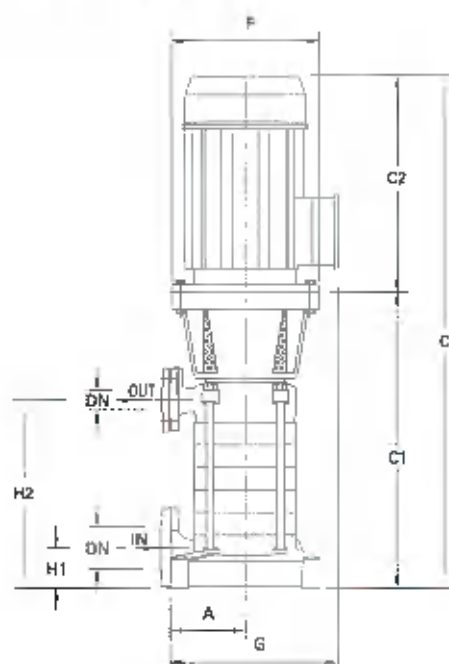
| TYPE  |        | P2  |     | Q (m³/h - l/min - l/s) |      |      |      |      |      |      |      |      |      |
|-------|--------|-----|-----|------------------------|------|------|------|------|------|------|------|------|------|
|       |        |     |     | 0                      | 6    | 7,5  | 9    | 10,5 | 12   | 13,5 | 16,5 | 19,5 | 22,5 |
|       |        |     |     |                        | 100  | 125  | 150  | 175  | 200  | 225  | 275  | 325  | 375  |
|       |        | HP  | kW  | H (m)                  |      |      |      |      |      |      |      |      |      |
| 4MSVB | -4/2,2 | 3   | 2,2 | 35,4                   | 34,8 | 34,0 | 32,8 | 31,2 | 29,3 | 27,0 | 22,0 | 16,9 | 11,6 |
|       | -5/2,2 | 3   | 2,2 | 44,3                   | 43,5 | 42,5 | 41,0 | 39,0 | 36,8 | 33,8 | 27,5 | 21,1 | 14,6 |
|       | -6/3   | 4   | 3   | 53,2                   | 52,2 | 51,3 | 49,9 | 47,8 | 44,7 | 41,5 | 34,4 | 27,7 | 17,2 |
|       | -8/4   | 5,5 | 4   | 70,9                   | 69,6 | 68,3 | 66,5 | 66,7 | 59,7 | 55,3 | 45,9 | 36,9 | 23,0 |

| TYPE  |        | P2  |     | Q (m³/h - l/min - l/s) |      |      |      |      |      |      |      |      |      |
|-------|--------|-----|-----|------------------------|------|------|------|------|------|------|------|------|------|
|       |        |     |     | 0                      | 9    | 10,5 | 12   | 13,5 | 16,5 | 19,5 | 22,5 | 24   | 27   |
|       |        |     |     |                        | 150  | 175  | 200  | 225  | 275  | 325  | 375  | 400  | 450  |
|       |        | HP  | kW  | H (m)                  |      |      |      |      |      |      |      |      |      |
| 4MSVC | -3/2,2 | 3   | 2,2 | 30,2                   | 30,7 | 30,5 | 36,6 | 28,4 | 27,9 | 26,2 | 24,0 | 22,8 | 20,6 |
|       | -4/3   | 4   | 3   | 40,1                   | 41,0 | 40,6 | 39,9 | 39,1 | 37,8 | 35,0 | 32,0 | 30,3 | 26,9 |
|       | -5/4   | 5,5 | 4   | 50,1                   | 51,3 | 50,8 | 49,0 | 48,8 | 45,5 | 43,3 | 40,0 | 37,3 | 33,0 |
|       | -6/5,5 | 7,5 | 5,5 | 60,3                   | 61,7 | 61,0 | 59,9 | 58,7 | 55,9 | 52,3 | 47,7 | 45,1 | 39,6 |

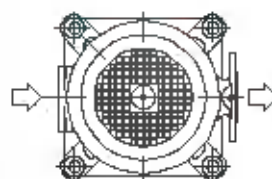
| TYPE  |        | P2  |     | Q (m³/h - l/min - l/s) |      |      |      |      |      |      |      |      |      |
|-------|--------|-----|-----|------------------------|------|------|------|------|------|------|------|------|------|
|       |        |     |     | 0                      | 13,5 | 16,5 | 19,5 | 22,5 | 24   | 27   | 30   | 33   | 39   |
|       |        |     |     |                        | 225  | 275  | 325  | 375  | 400  | 450  | 500  | 550  | 650  |
|       |        | HP  | kW  | H (m)                  |      |      |      |      |      |      |      |      |      |
| 4MSVD | -2/2,2 | 3   | 2,2 | 13,3                   | 18,7 | 18,4 | 13,0 | 17,5 | 17,2 | 16,5 | 15,7 | 14,7 | 12,3 |
|       | -3/3   | 4   | 3   | 27,1                   | 27,7 | 27,3 | 25,7 | 26,0 | 25,5 | 24,6 | 23,5 | 22,0 | 18,4 |
|       | -4/4   | 5,5 | 4   | 36,2                   | 36,8 | 36,1 | 35,2 | 34,1 | 33,6 | 32,3 | 30,6 | 28,7 | 24,2 |
|       | -5/5,5 | 7,5 | 5,5 | 45,2                   | 46,3 | 45,4 | 44,4 | 43,2 | 42,6 | 41,0 | 39,0 | 36,6 | 30,9 |
|       | -8/7,5 | 10  | 7,5 | 54,2                   | 55,5 | 54,5 | 53,2 | 51,9 | 51,1 | 49,1 | 46,8 | 43,9 | 37,0 |



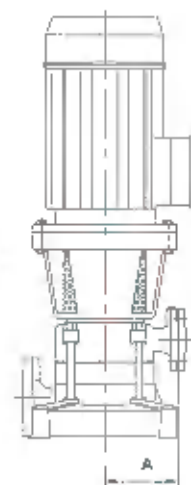
4MSV - 1450 r.p.m.



Standard pos.



Pos. 01

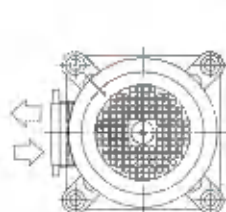


**STANDARD**  
Not available for pump type: MSVB 2/7.5,  
MSVC-2R1/11, MSVD-2/15, 4MSVD-2/2.2

STANDARD FOR:

MSVB-2/7.5  
MSVC-2R1/11  
MSVD-2/15  
4MSVD-2/2.2

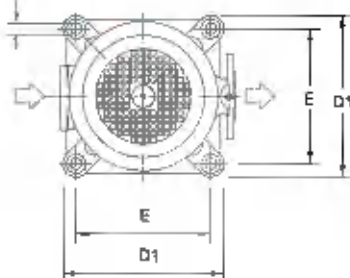
### Direction of nozzles



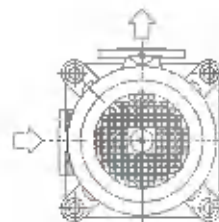
Standard pos.

Not available for pump type: MSVB 2/7.5,  
MSVC-2R1/11, MSVD-2/15, 4MSVD-2/2.2

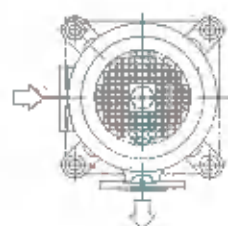
N° 4 HOLES Ø22



Pos. 01

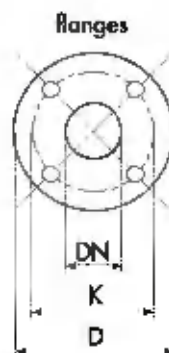


Pos. 02



Pos. 03

| DIMENSIONS (mm) |     |     |       |    |
|-----------------|-----|-----|-------|----|
| DN              | D   | K   | holes |    |
|                 |     |     | n°    | ø  |
| 40              | 150 | 110 | 4     | 18 |
| 50              | 165 | 125 | 4     | 18 |
| 65              | 185 | 145 | 4     | 18 |
| 80              | 200 | 160 | 8     | 18 |





| TYPE          | DN IN          | DN OUT         | N. STAGE | DIMENSIONS (mm) |        |       |     |     |     |     |     |    |       |      |     |     |       |
|---------------|----------------|----------------|----------|-----------------|--------|-------|-----|-----|-----|-----|-----|----|-------|------|-----|-----|-------|
|               |                |                |          | A               | C      | C1    | C2  | D1  | E   | F   | G   | H1 | H2    | I    | L   | M   |       |
| MSVA -3/5,5   | {UNI PN 16} 50 | {UNI PN 40} 40 | 3        | 175             | 921,5  | 544,5 | 377 | 806 | 256 | 300 | 355 | 82 | 255,5 | 1100 | 400 | 500 | 189,5 |
| MSVA -4/7,5   |                |                | 4        |                 | 972,5  | 595,5 | 377 |     |     | 300 | 355 |    | 306,5 | 1100 | 400 | 500 | 155   |
| MSVA -5/9,2   |                |                | 5        |                 | 1062,5 | 646,5 | 416 |     |     | 300 | 355 |    | 357,5 | 1106 | 406 | 500 | 173   |
| MSVA -6/11    |                |                | 6        |                 | 1113,5 | 697,5 | 416 |     |     | 300 | 355 |    | 403,5 | 1100 | 400 | 500 | 192   |
| MSVA -6/15    |                |                | 8        |                 | 1297,5 | 799,5 | 498 |     |     | 350 | 410 |    | 510,5 | 1400 | 500 | 500 | 259   |
| MSVB -2/7,5   | {UNI PN 16} 50 | {UNI PN 40} 40 | 2        | 175             | 570,5  | 493,5 | 377 | 306 | 255 | 300 | 355 | 82 | 204,5 | 1100 | 400 | 500 | 136,5 |
| MSVB -3R/9,2  |                |                | 3        |                 | 931    | 515   | 416 |     |     | 300 | 335 |    | 255,5 | 1100 | 400 | 500 | 158,5 |
| MSVB -3/11    |                |                | 3        |                 | 931    | 515   | 416 |     |     | 300 | 355 |    | 255,5 | 1100 | 400 | 500 | 157,5 |
| MSVB -4/15    |                |                | 4        |                 | 1016   | 515   | 498 |     |     | 366 | 410 |    | 366,5 | 1406 | 500 | 506 | 226,6 |
| MSVB -5/18,5  |                |                | 5        |                 | 1056   | 515   | 541 |     |     | 850 | 410 |    | 357,5 | 1400 | 500 | 500 | 245   |
| MSVB -6/22    |                |                | 6        |                 | 1056   | 515   | 541 |     |     | 350 | 410 |    | 408,5 | 1400 | 500 | 500 | 265   |
| MSVC -2R1/11  | {UNI PN 16} 65 | {UNI PN 40} 50 | 2        | 200             | 944    | 526   | 416 | 332 | 282 | 300 | 380 | 95 | 233   | 1100 | 400 | 500 | 167   |
| MSVC -3R/15   |                |                | 3        |                 | 1086   | 588   | 498 |     |     | 850 | 435 |    | 298   | 1100 | 400 | 500 | 234   |
| MSVC -3/18,5  |                |                | 3        |                 | 1129   | 583   | 541 |     |     | 350 | 435 |    | 293   | 1406 | 500 | 500 | 249   |
| MSVC -4R1/22  |                |                | 4        |                 | 1189   | 648   | 541 |     |     | 350 | 435 |    | 353   | 1400 | 500 | 500 | 273   |
| MSVC -5/30    |                |                | 5        |                 | 1276   | 708   | 568 |     |     | 850 | 450 |    | 413   | 1400 | 500 | 500 | 321,5 |
| MSVC -6/37    |                |                | 6        |                 | 1376   | 768   | 608 |     |     | 350 | 450 |    | 473   | 1400 | 500 | 500 | 360,5 |
| MSVD -2/15    | {UNI PN 16} 65 | {UNI PN 40} 50 | 2        | 200             | 1026   | 528   | 493 | 332 | 282 | 350 | 435 | 95 | 233   | 1400 | 400 | 500 | 219   |
| MSVD -3R/18,5 |                |                | 3        |                 | 1129   | 588   | 541 |     |     | 850 | 435 |    | 293   | 1400 | 500 | 500 | 247   |
| MSVD -3/22    |                |                | 3        |                 | 1129   | 588   | 541 |     |     | 350 | 435 |    | 298   | 1400 | 500 | 500 | 257,5 |
| MSVD -4/30    |                |                | 4        |                 | 1216   | 648   | 568 |     |     | 350 | 450 |    | 353   | 1400 | 500 | 500 | 305   |
| MSVD -5/37    |                |                | 5        |                 | 1316   | 708   | 608 |     |     | 350 | 450 |    | 413   | 1406 | 500 | 500 | 342,5 |

| TYPE         | DN IN          | DN OUT         | N. STAGE | DIMENSIONS (mm) |      |       |     |     |     |     |     |    |       |      |     |     |     |
|--------------|----------------|----------------|----------|-----------------|------|-------|-----|-----|-----|-----|-----|----|-------|------|-----|-----|-----|
|              |                |                |          | A               | C    | C1    | C2  | D1  | E   | F   | G   | H1 | H2    | I    | L   | M   |     |
| 4MSVA -6/2,2 | {UNI PN 16} 50 | {UNI PN 40} 40 | 8        | 175             | 1678 | 762,5 | 315 | 366 | 256 | 250 | 345 | 82 | 516,5 | 1100 | 400 | 500 | 183 |
| 4MSVB -4/2,2 | {UNI PN 16} 50 | {UNI PN 40} 40 | 4        | 175             | 874  | 558,5 | 315 | 306 | 256 | 250 | 345 | 82 | 306,5 | 1100 | 400 | 500 | 136 |
| 4MSVB -5/2,2 |                |                | 5        |                 | 925  | 609,5 | 315 |     |     | 250 | 345 |    | 357,5 | 1400 | 500 | 500 | 140 |
| 4MSVB -6/3   |                |                | 5        |                 | 976  | 660,5 | 815 |     |     | 250 | 345 |    | 408,5 | 1400 | 500 | 500 | 171 |
| 4MSVB -8/4   |                |                | 6        |                 | 1103 | 762,5 | 340 |     |     | 250 | 368 |    | 511   | 1400 | 500 | 500 | 200 |
| 4MSVC -3/2,2 | {UNI PN 16} 65 | {UNI PN 40} 50 | 3        | 200             | 866  | 551   | 315 | 332 | 282 | 250 | 370 | 95 | 293   | 1100 | 400 | 500 | 192 |
| 4MSVC -4/3   |                |                | 4        |                 | 926  | 611   | 315 |     |     | 250 | 370 |    | 353   | 1100 | 400 | 500 | 194 |
| 4MSVC -5/4   |                |                | 5        |                 | 1011 | 671   | 340 |     |     | 250 | 393 |    | 413   | 1100 | 400 | 500 | 202 |
| 4MSVC -6/5,6 |                |                | 6        |                 | 1116 | 731   | 385 |     |     | 300 | 423 |    | 473   | 1400 | 500 | 500 | 206 |
| 4MSVD -2/2,2 | {UNI PN 16} 65 | {UNI PN 40} 50 | 2        | 260             | 806  | 491   | 315 | 362 | 282 | 250 | 370 | 95 | 238   | 1100 | 400 | 500 | 135 |
| 4MSVD -3/3   |                |                | 3        |                 | 855  | 551   | 315 |     |     | 250 | 370 |    | 293   | 1100 | 400 | 500 | 157 |
| 4MSVD -4/4   |                |                | 4        |                 | 951  | 611   | 340 |     |     | 250 | 393 |    | 353   | 1100 | 400 | 500 | 189 |
| 4MSVD -5/5,5 |                |                | 5        |                 | 1056 | 671   | 385 |     |     | 300 | 423 |    | 413   | 1100 | 400 | 500 | 194 |
| 4MSVD -6/7,5 |                |                | 5        |                 | 1156 | 731   | 425 |     |     | 300 | 423 |    | 473   | 1400 | 500 | 500 | 218 |

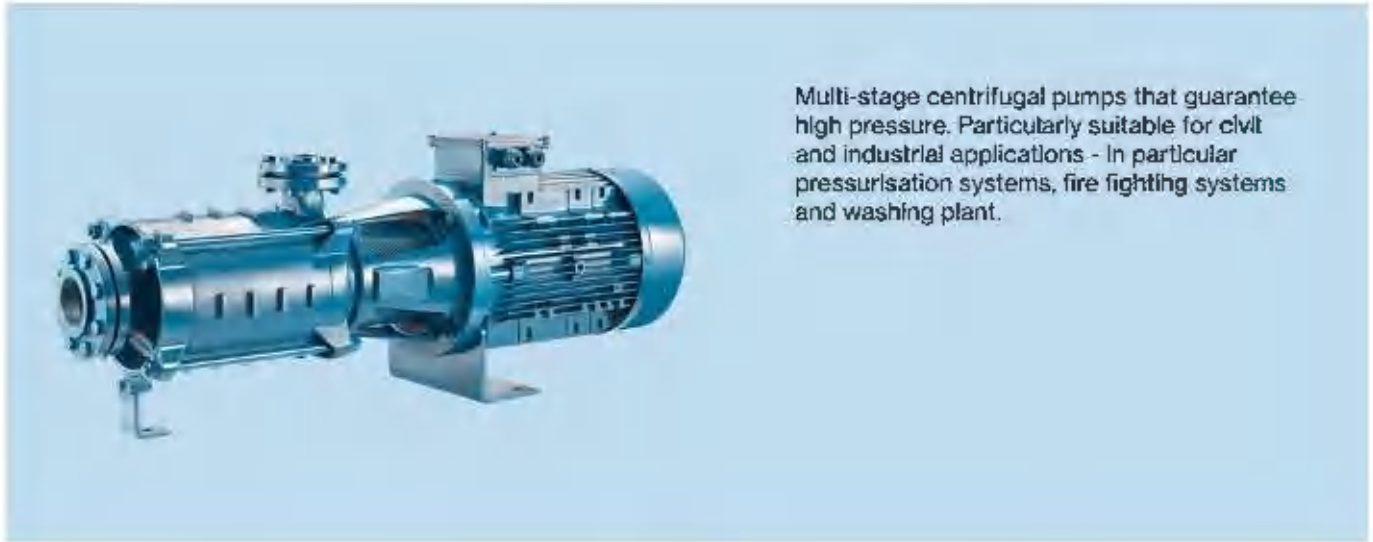
## MSV-4MSV Serie-Mechanical seal and hearings

| MECHANICAL SEAL                                                                   | PUMP MODEL                                                                                                                                                                        | SHAFT Ø              |                                                                    | STANDARD MATERIAL          | OPTIONAL              |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------------------------------------------------------------|----------------------------|-----------------------|
|  | MSVA-3/5,5-132S   MSVB-2/7,5-132S  <br>4MSVA-8/2,2   4MSVB-4/2,2   4MSVD-5/2,2  <br>4MSVB-6/3   4MSVB-8/4                                                                         | 26mm                 | <b>Rotating face</b><br><b>Stationary face</b><br><b>Elastomer</b> | Ceramic<br>Graphite<br>NBR | Widia<br>Widia<br>NBR |
|                                                                                   | MSVC-2R/11-182M   MSVD-2/15-160M  <br>4MSVC-3/2,2   4MSVC-4/3   4MSVC-5/4  <br>4MSVC-6/5,5-132S   4MSVD-2/2,2   4MSVD-3/3  <br>4MSVD-4/4   4MSVD-5/5,5-132S  <br>4MSVD-6/7,5-132S | 35mm                 | <b>Rotating face</b><br><b>Stationary face</b><br><b>Elastomer</b> | Ceramic<br>Graphite<br>NBR | Widia<br>Widia<br>NBR |
|                                                                                   | MSVA-4/7,5-132S   MSVA-5/9,2-132M  <br>MSVA-6/11-132M   MSVA-8/15-160M   MSVB-3R/9,2-132M  <br>MSVB-3/11-132M   MSVB-4/15-160M  <br>MSVB-5/18,5-160L   MSVB-6/22-160L             | 25mm / Balanced seal | <b>Rotating face</b><br><b>Stationary face</b><br><b>Elastomer</b> | Widia<br>Graphite<br>NBR   | Widia<br>Widia<br>NBR |
|                                                                                   | MSVC-3R/15-160M   MSVC-3/18,5-160L  <br>MSVC-4R/22-160L   MSVC-5/30-180M  <br>MSVC-6/37-180L   MSVD-3R/18,5-160L  <br>MSVD-3/22-160L   MSVD-4/30-180M  <br>MSVD-5/37-180L         | 35mm / Balanced seal | <b>Rotating face</b><br><b>Stationary face</b><br><b>Elastomer</b> | Widia<br>Graphite<br>NBR   | Widia<br>Widia<br>NBR |
|                                                                                   |                                                                                                                                                                                   |                      |                                                                    |                            |                       |
|                                                                                   |                                                                                                                                                                                   |                      |                                                                    |                            |                       |
|                                                                                   |                                                                                                                                                                                   |                      |                                                                    |                            |                       |
|                                                                                   |                                                                                                                                                                                   |                      |                                                                    |                            |                       |

| SEARINGS                                                                            | PUMP MODEL                                                                                                                                                                             | TYPE       |            |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|
|  | 4MSVA-8/2,2   4MSVB-4/2,2   4MSVB-5/2,2   4MSVC-3/2,2   4MSVD-2/2,2                                                                                                                    | 6205-ZZ C3 | 6205-ZZ C3 |
|                                                                                     | 4MSVB-6/3   4MSVB-8/4   4MSVC-4/3   4MSVC-5/4   4MSVD-3/3  <br>4MSVD-4/4                                                                                                               | 6206-ZZ C3 | 6206-ZZ C3 |
|                                                                                     | MSVA-3/5,5-132S   MSVA-4/7,5-132S   MSVA-5/9,2-132M   MSVA-6/11-132M  <br>MSVB-2/7,5-132S   MSVB-3R/9,2-132M   MSVB-3/11-132M   MSVC-2R/11-132M                                        | 6206-ZZ C3 | 6308-ZZ C3 |
|                                                                                     | 4MSVC-6/5,5-132S   4MSVD-5/5,5-132S   4MSVD-6/7,5-132S                                                                                                                                 | 6208-ZZ C3 | 6208-ZZ C3 |
|                                                                                     | MSVA-8/15-160M   MSVB-4/15-160M   MSVB-5/18,5-160L   MSVB-6/22-160L  <br>MSVC-3R/15-160M   MSVC-3/18,5-160L   MSVC-4R/22-160L  <br>MSVD-2/15-160M   MSVD-3R/18,5-160L   MSVD-3/22-160L | 6308-ZZ C3 | 6309-ZZ C3 |
|                                                                                     | MSVC-5/30-180M   MSVC-6/37-180L   MSVD-4/30-180M   MSVD-5/37-180L                                                                                                                      | 6300-ZZ C8 | 3810-ZZ C8 |

# MSH - 4MSH

## Multistage Horizontal



Multi-stage centrifugal pumps that guarantee high pressure. Particularly suitable for civil and industrial applications - In particular pressurisation systems, fire fighting systems and washing plant.

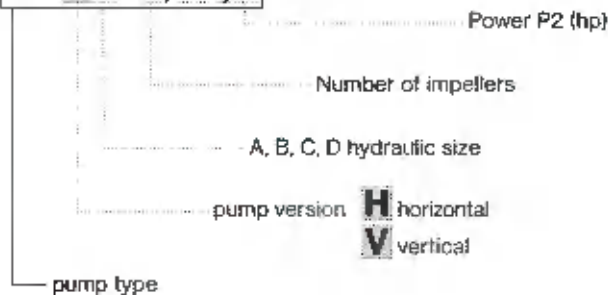
### Construction features

|                           |                          |
|---------------------------|--------------------------|
| <b>Pump body</b>          | cast iron                |
| <b>Motor bracket</b>      | cast iron                |
| <b>Impeller</b>           | brass                    |
| <b>Mechanical seat</b>    | ceramic-graphite-NBR     |
| <b>Motor shaft</b>        | stainless steel AISI 304 |
| <b>Liquid temperature</b> | -10 ÷ +90 °C             |
| <b>Operating pressure</b> | max 30 bar               |

### Motor

|                                |                                                      |
|--------------------------------|------------------------------------------------------|
| <b>2 poles induction motor</b> | 3- 230/400V-50Hz P ≤ 4kW<br>3- 400/690V-50Hz P > 4kW |
| <b>Insulation class</b>        | F                                                    |
| <b>Protection degree</b>       | IPX5                                                 |

### MSHC -3/18,5





# MSH - 2900 r.p.m.



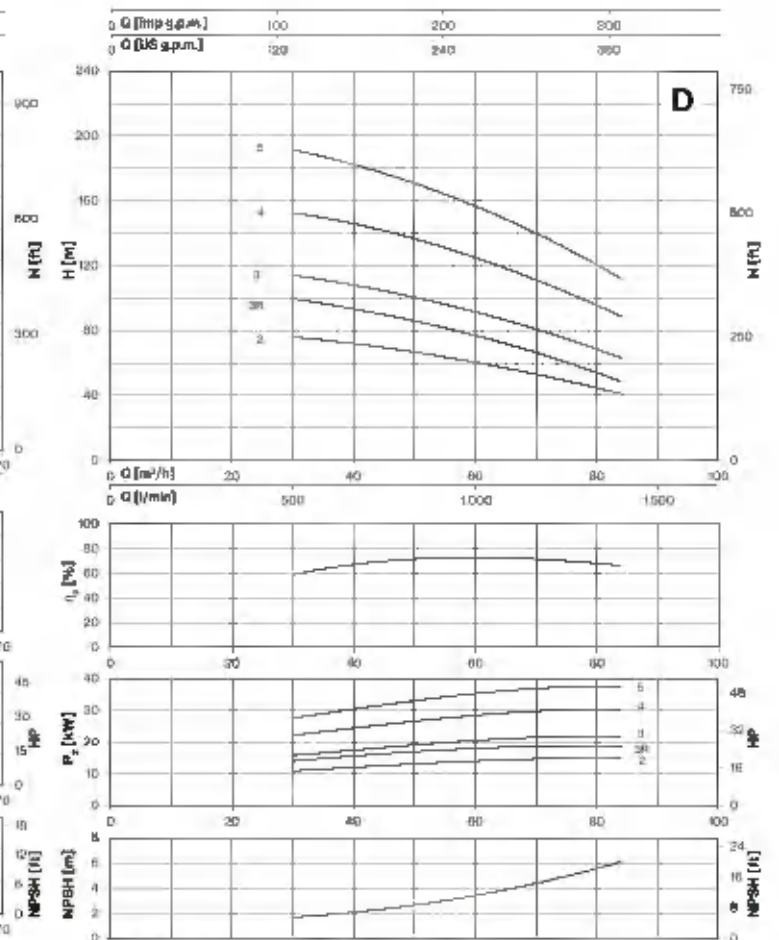
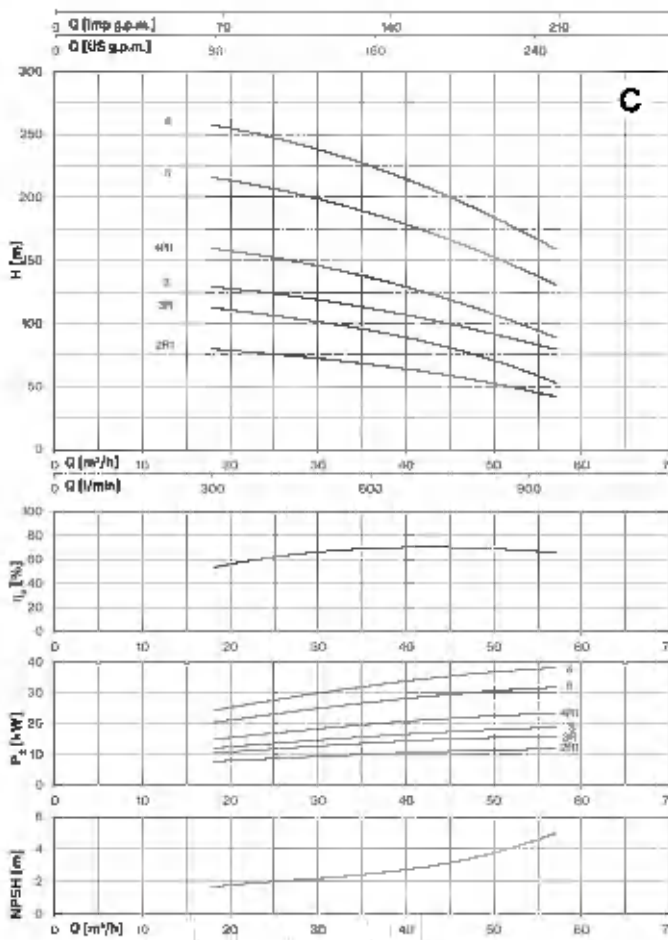
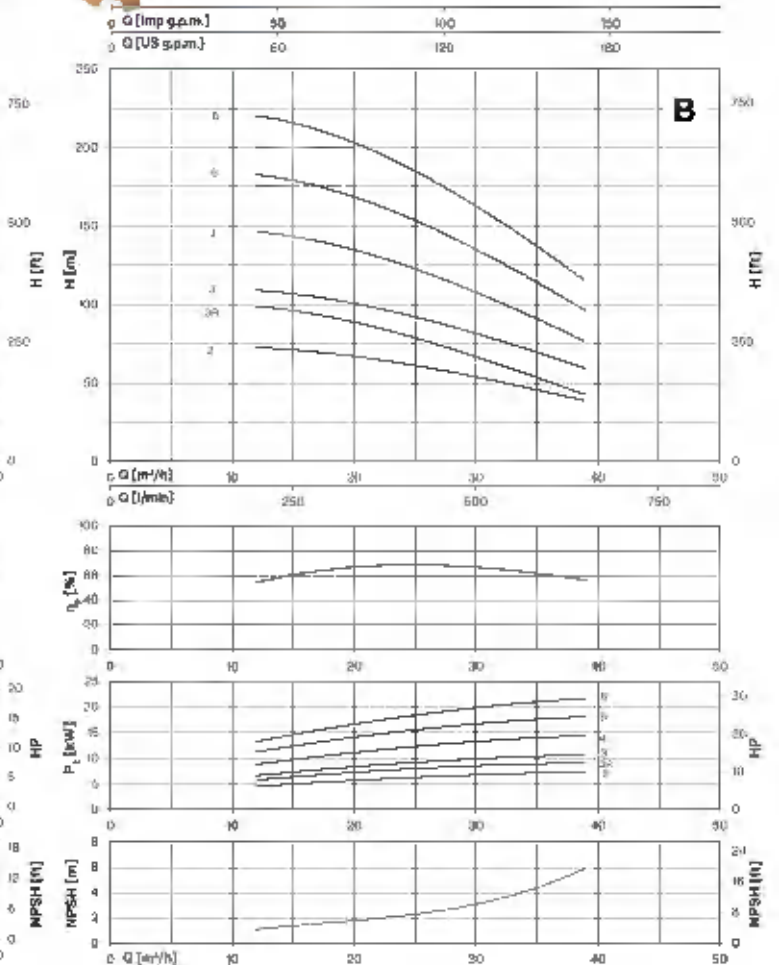
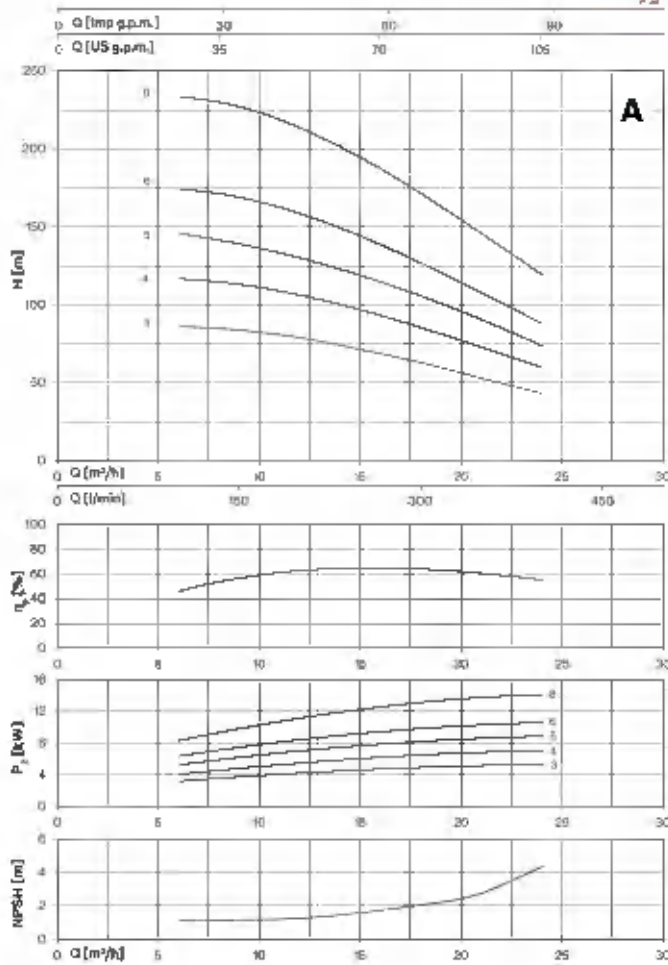
| TYPE  |        | P2   |     | P1<br>kW | I(A)<br>3x400V | Q (m³/h - l/min - l/s) |       |       |       |       |       |       |       |
|-------|--------|------|-----|----------|----------------|------------------------|-------|-------|-------|-------|-------|-------|-------|
|       |        |      |     |          |                | 0                      | 6     | 9     | 12    | 15    | 18    | 21    | 24    |
|       |        | HP   | kW  |          |                |                        | 100   | 150   | 200   | 250   | 300   | 350   | 400   |
|       |        |      |     |          |                |                        | 1,67  | 2,5   | 3,33  | 4,17  | 5     | 5,83  | 6,67  |
| H (m) |        |      |     |          |                |                        |       |       |       |       |       |       |       |
| MSHA  | -3/5,5 | 7,5  | 5,5 | 6,0      | 10,1           | 88,2                   | 86,3  | 83,7  | 78,6  | 71,2  | 62,6  | 53,4  | 48,2  |
|       | -4/7,5 | 10   | 7,5 | 7,8      | 13,0           | 118,0                  | 116,7 | 113,0 | 106,5 | 96,8  | 85,2  | 73,1  | 59,7  |
|       | -5/9,2 | 12,5 | 9,2 | 9,8      | 16,4           | 148,2                  | 145,9 | 138,8 | 130,0 | 119,8 | 105,2 | 90,7  | 73,8  |
|       | -6/11  | 15   | 11  | 11,8     | 19,6           | 177,5                  | 174,2 | 168,9 | 158,9 | 144,2 | 126,7 | 107,9 | 88,0  |
|       | -8/15  | 20   | 15  | 15,5     | 26,3           | 237,8                  | 233,4 | 227,0 | 213,8 | 194,8 | 171,4 | 146,0 | 119,5 |

| TYPE  |         | P2   |      | P1<br>kW | I(A)<br>3x460V | Q (m³/h - l/min - l/s) |       |       |       |       |       |       |       |       |       |       |
|-------|---------|------|------|----------|----------------|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|       |         |      |      |          |                | 0                      | 12    | 15    | 18    | 21    | 24    | 27    | 30    | 33    | 36    | 39    |
|       |         | 200  | 250  |          |                |                        | 300   | 350   | 400   | 450   | 500   | 550   | 600   | 650   |       |       |
|       |         | 3,33 | 4,17 |          |                |                        | 5     | 5,83  | 6,67  | 7,5   | 8,33  | 9,17  | 10    | 10,33 |       |       |
| H (m) |         |      |      |          |                |                        |       |       |       |       |       |       |       |       |       |       |
| MSHB  | -2/7,5  | 10   | 7,5  | 8,2      | 13,4           | 74,5                   | 72,7  | 71,1  | 68,7  | 66,1  | 62,4  | 58,3  | 53,8  | 49,0  | 43,9  | 38,6  |
|       | -3R/9,2 | 12,5 | 9,2  | 10,0     | 16,7           | 101,8                  | 98,9  | 96,2  | 91,4  | 87,4  | 81,0  | 74,3  | 66,5  | 58,8  | 50,8  | 42,4  |
|       | -3/11   | 15   | 11   | 11,8     | 19,6           | 112,7                  | 109,2 | 106,9 | 102,9 | 99,6  | 94,1  | 88,1  | 81,3  | 74,5  | 67,2  | 59,3  |
|       | -4/15   | 20   | 15   | 15,9     | 26,5           | 149,7                  | 146,5 | 143,4 | 138,2 | 133,4 | 125,4 | 117,1 | 107,4 | 97,8  | 87,7  | 76,2  |
|       | -5/18,5 | 25   | 18,5 | 19,8     | 33,0           | 187,7                  | 182,9 | 179,2 | 172,3 | 166,7 | 157,2 | 146,7 | 134,9 | 122,7 | 109,9 | 96,2  |
|       | -6/22   | 30   | 22   | 23,6     | 33,8           | 225,9                  | 220,4 | 216,3 | 207,1 | 201,1 | 189,6 | 176,6 | 162,5 | 147,5 | 131,7 | 115,1 |

| TYPE  |         | P2 |      | P1<br>kW | I(A)<br>3x400V | O     | Q (m³/h - l/min - l/s) |       |       |       |       |       |       |       |
|-------|---------|----|------|----------|----------------|-------|------------------------|-------|-------|-------|-------|-------|-------|-------|
|       |         | HP | kW   |          |                |       | 18                     | 24    | 30    | 36    | 42    | 48    | 54    | 57    |
|       |         |    |      |          |                |       | 300                    | 400   | 500   | 600   | 700   | 800   | 900   | 950   |
|       |         |    |      |          |                |       | 5                      | 6,67  | 8,33  | 10    | 11,67 | 13,33 | 15    | 15,83 |
| H (m) |         |    |      |          |                |       |                        |       |       |       |       |       |       |       |
| MSHC  | -2R1/11 | 15 | 11   | 13,0     | 21,4           | 78,4  | 79,6                   | 76,3  | 72,3  | 67,6  | 61,8  | 55,2  | 46,9  | 41,8  |
|       | -3R/15  | 20 | 15   | 17,4     | 28,9           | 110,4 | 111,9                  | 107,2 | 101,5 | 94,5  | 85,8  | 75,3  | 61,5  | 53,0  |
|       | -3/18,5 | 25 | 18,5 | 20,5     | 34,0           | 127,5 | 128,8                  | 124,7 | 118,8 | 111,0 | 104,0 | 95,1  | 85,3  | 79,2  |
|       | -4R1/22 | 30 | 22   | 25,3     | 41,6           | 159,5 | 159,0                  | 153,6 | 145,7 | 136,3 | 125,0 | 112,2 | 98,1  | 88,3  |
|       | -8/30   | 40 | 30   | 34,6     | 59,4           | 214,7 | 215,7                  | 208,6 | 198,9 | 187,2 | 173,9 | 158,5 | 141,2 | 130,9 |
|       | -6/37   | 50 | 37   | 41,2     | 72,8           | 256,5 | 257,1                  | 249,2 | 238,2 | 224,6 | 209,0 | 191,3 | 170,7 | 158,9 |

| TYPE |          | P2 |      | P1<br>kW | I(A)<br>3x400V | 0     | Q (m³/h - l/min - l/s) |       |       |       |       |       |       |       |       |       |
|------|----------|----|------|----------|----------------|-------|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|      |          | HP | kW   |          |                |       | 30                     | 36    | 42    | 48    | 54    | 60    | 66    | 72    | 78    | 84    |
|      |          |    |      |          |                |       | 500                    | 600   | 700   | 800   | 900   | 1000  | 1100  | 1200  | 1300  | 1400  |
|      |          |    |      |          |                |       | 8,33                   | 10    | 11,67 | 13,33 | 15    | 16,67 | 18,33 | 20    | 21,87 | 23,33 |
|      |          |    |      |          |                |       | H (m)                  |       |       |       |       |       |       |       |       |       |
| MSHO | -2/15    | 20 | 15   | 16,6     | 27,6           | 75,9  | 75,9                   | 73,8  | 71,0  | 67,8  | 64,3  | 60,4  | 56,1  | 51,5  | 46,4  | 41,0  |
|      | -3R/18,5 | 25 | 18,5 | 20,8     | 33,7           | 99,6  | 99,6                   | 96,0  | 91,7  | 87,5  | 82,7  | 77,1  | 70,8  | 64,0  | 56,6  | 48,5  |
|      | -3/22    | 30 | 22   | 23,7     | 39,3           | 118,1 | 113,9                  | 110,8 | 106,7 | 102,0 | 96,9  | 91,4  | 85,4  | 78,8  | 71,2  | 63,0  |
|      | -4/30    | 40 | 30   | 33,0     | 57,2           | 152,0 | 152,5                  | 146,9 | 144,1 | 138,7 | 132,4 | 125,1 | 117,0 | 108,1 | 98,8  | 89,0  |
|      | -5/37    | 50 | 37   | 40,8     | 71,9           | 189,6 | 191,4                  | 186,4 | 179,9 | 173,3 | 165,7 | 157,0 | 147,0 | 136,0 | 124,5 | 112,3 |





# 4MSH ~ 1450 r.p.m.

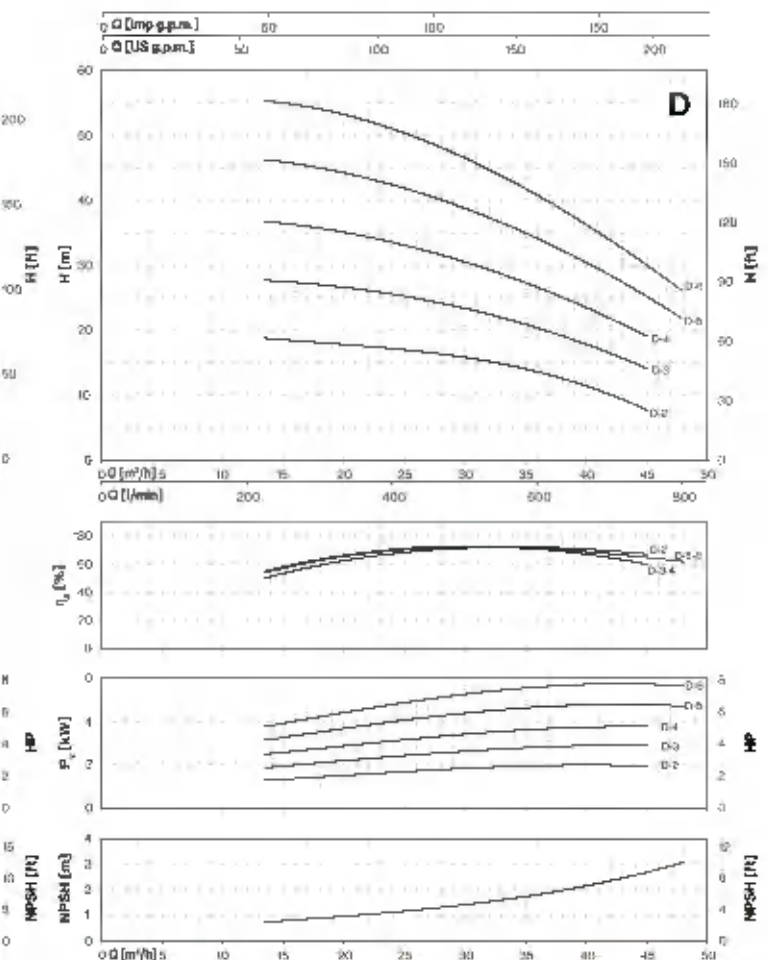
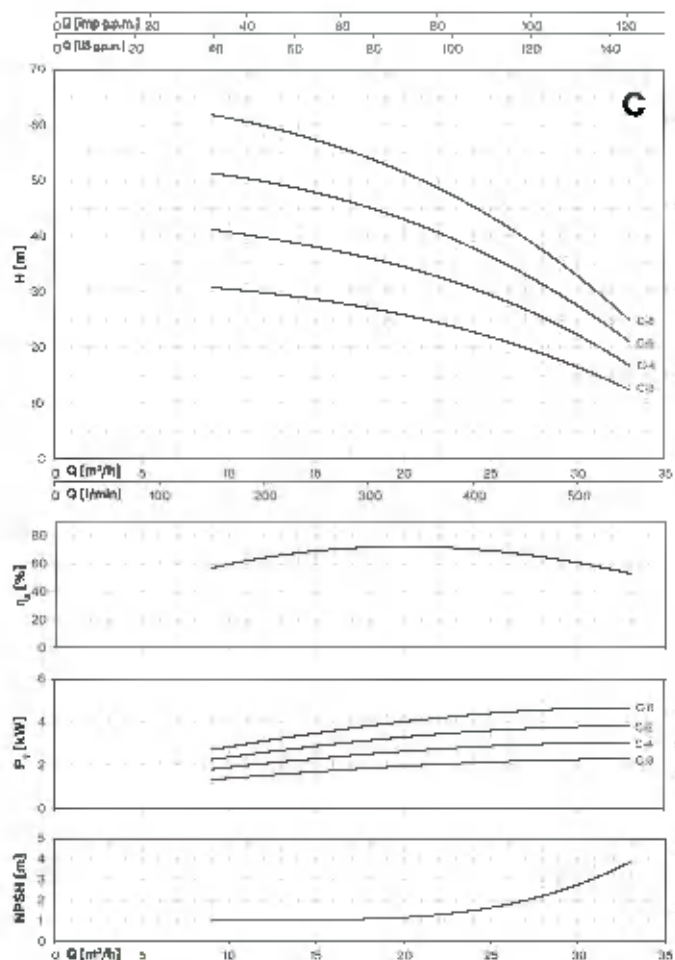
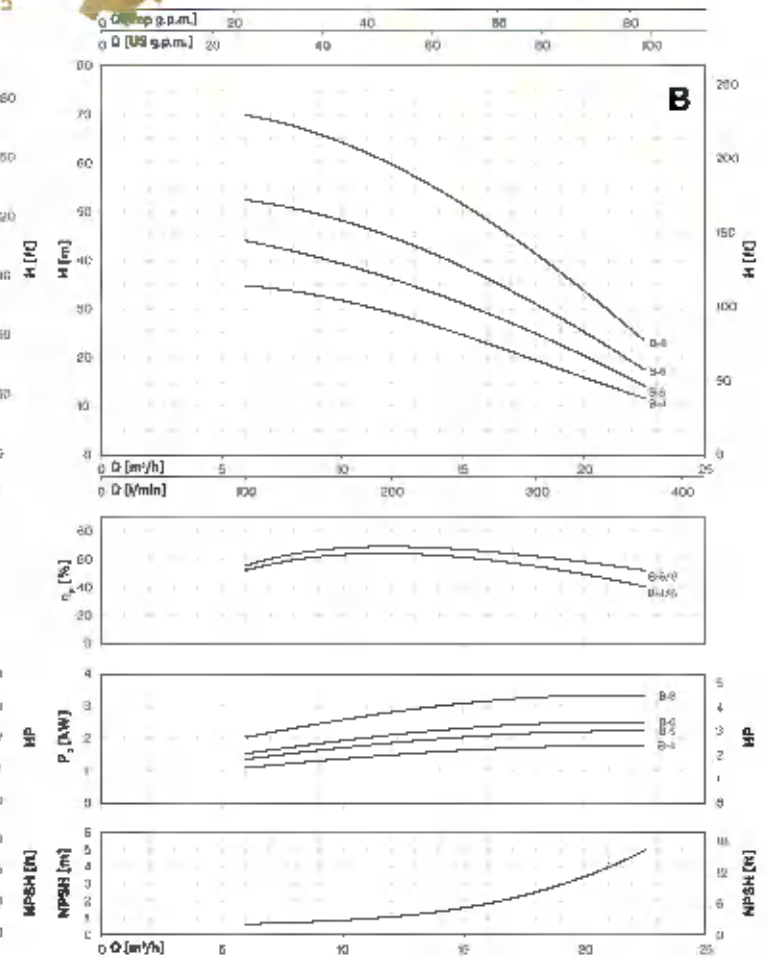
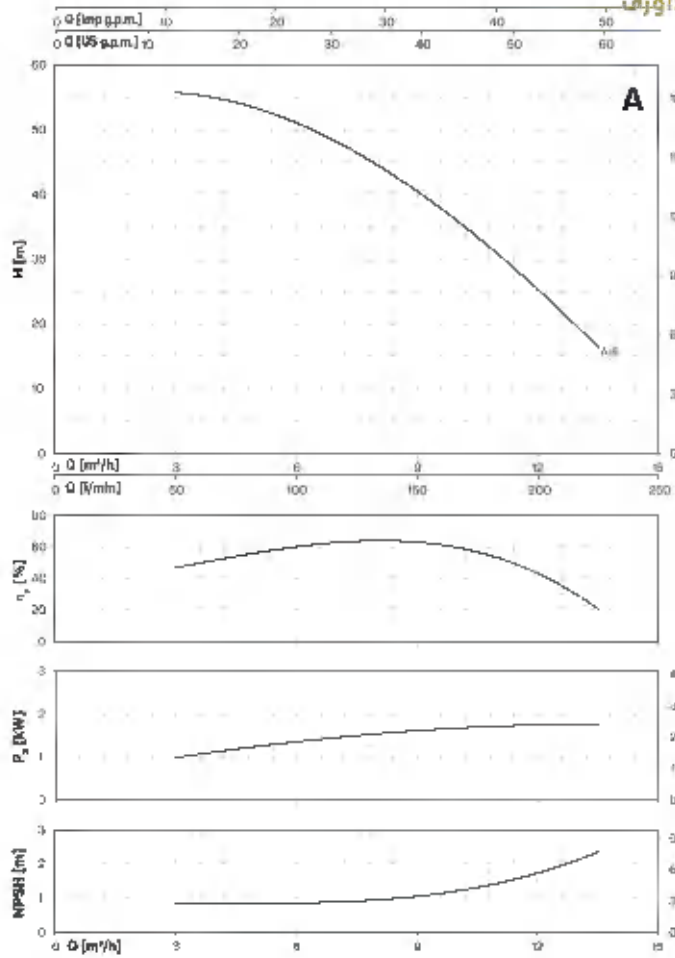


| TYPE  |        | P2   |      | Q (m³/h - l/min - l/s) |       |      |      |      |      |      |      |      |
|-------|--------|------|------|------------------------|-------|------|------|------|------|------|------|------|
|       |        |      |      | 0                      | 3     | 4,5  | 6    | 7,5  | 9    | 10,5 | 12   | 13,5 |
|       |        | 50   | 75   |                        | 100   | 125  | 150  | 175  | 200  | 225  |      |      |
|       |        | 0,83 | 1,25 |                        | 1,67  | 2,08 | 2,50 | 2,92 | 3,33 | 3,75 |      |      |
|       |        | HP   |      | kW                     | H (m) |      |      |      |      |      |      |      |
|       |        |      |      |                        |       |      |      |      |      |      |      |      |
| 4MSHA | -3/2,2 | 3    | 2,2  | 56,0                   | 55,7  | 54,2 | 51,3 | 46,3 | 40,2 | 33,4 | 25,7 | 16,2 |

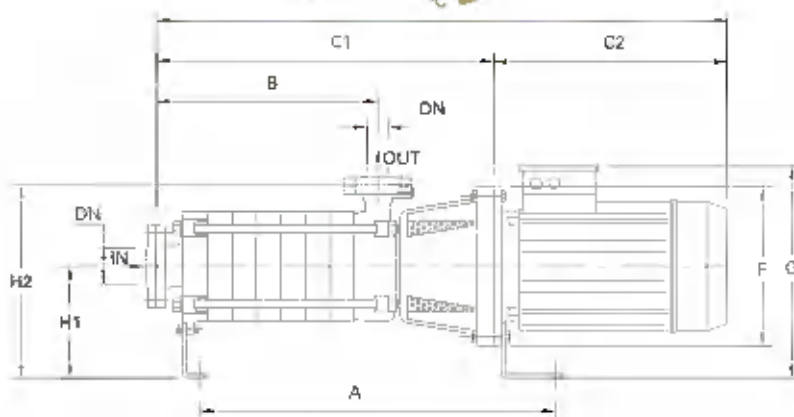
| TYPE  |        | P2   |      | Q (m³/h - l/min - l/s) |      |      |      |      |      |      |      |      |      |
|-------|--------|------|------|------------------------|------|------|------|------|------|------|------|------|------|
|       |        |      |      | 0                      | 6    | 7,5  | 9    | 10,5 | 12   | 13,5 | 16,5 | 19,5 | 22,5 |
|       |        | 100  | 125  |                        | 150  | 175  | 200  | 225  | 275  | 325  | 375  |      |      |
|       |        | 1,67 | 2,08 |                        | 2,50 | 2,92 | 3,33 | 3,75 | 4,58 | 5,42 | 6,25 |      |      |
|       |        | HP   | kW   | H (m)                  |      |      |      |      |      |      |      |      |      |
|       |        |      |      |                        |      |      |      |      |      |      |      |      |      |
| 4MSHB | -4/2,2 | 5    | 2,2  | 35,4                   | 84,8 | 94,0 | 32,8 | 81,2 | 29,3 | 27,0 | 22,0 | 16,9 | 11,6 |
|       | -5/2,2 | 3    | 2,2  | 44,3                   | 43,5 | 42,5 | 41,0 | 39,0 | 36,8 | 33,8 | 27,5 | 21,1 | 14,6 |
|       | -6/3   | 4    | 3    | 53,2                   | 52,2 | 51,9 | 49,9 | 47,8 | 44,7 | 41,6 | 34,4 | 27,7 | 17,2 |
|       | -8/4   | 6,5  | 4    | 70,9                   | 69,8 | 68,8 | 66,5 | 63,7 | 59,7 | 55,3 | 45,9 | 36,9 | 23,0 |

| TYPE  |        | P2   |      | Q (m³/h - l/min - l/s) |      |      |      |      |      |      |      |      |      |      |      |
|-------|--------|------|------|------------------------|------|------|------|------|------|------|------|------|------|------|------|
|       |        |      |      | 0                      | 9    | 10,5 | 12   | 13,5 | 16,5 | 19,5 | 22,5 | 24   | 27   | 30   | 33   |
|       |        | 150  | 175  |                        | 200  | 225  | 275  | 325  | 375  | 400  | 450  | 500  | 550  |      |      |
|       |        | 2,50 | 2,92 |                        | 3,33 | 3,75 | 4,58 | 5,42 | 6,25 | 5,67 | 7,50 | 8,33 | 9,17 |      |      |
|       |        | HP   | kW   | H (m)                  |      |      |      |      |      |      |      |      |      |      |      |
|       |        |      |      |                        |      |      |      |      |      |      |      |      |      |      |      |
| 4MSHC | -3/2,2 | 3    | 3,2  | 30,2                   | 30,7 | 30,5 | 30,0 | 29,4 | 27,9 | 26,2 | 24,0 | 22,6 | 20,0 | 16,7 | 12,3 |
|       | -4/3   | 4    | 3    | 40,1                   | 41,0 | 40,6 | 39,9 | 39,1 | 37,3 | 35,0 | 32,0 | 30,3 | 26,9 | 23,1 | 16,4 |
|       | -5/4   | 5,5  | 4    | 50,1                   | 51,8 | 50,8 | 49,9 | 48,8 | 46,6 | 43,8 | 40,0 | 37,8 | 33,0 | 27,8 | 21,0 |
|       | -6/5,5 | 7,5  | 6,6  | 60,3                   | 61,7 | 61,0 | 59,9 | 58,7 | 55,9 | 52,3 | 47,7 | 45,1 | 39,5 | 38,6 | 24,5 |

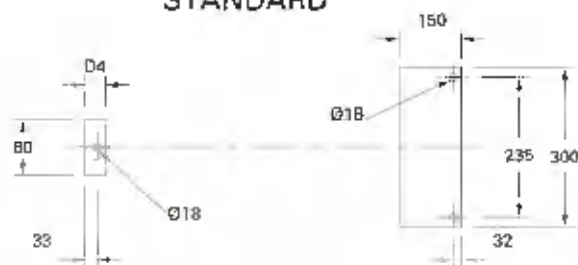
| TYPE  |        | P2   |      | Q (m³/h - l/min - l/s) |      |      |      |      |      |      |       |       |       |      |      |
|-------|--------|------|------|------------------------|------|------|------|------|------|------|-------|-------|-------|------|------|
|       |        |      |      | 0                      | 13,5 | 16,5 | 19,5 | 22,5 | 24   | 27   | 30    | 33    | 39    | 45   | 48   |
|       |        | 225  | 275  |                        | 325  | 375  | 400  | 450  | 500  | 550  | 650   | 750   | 800   |      |      |
|       |        | 3,75 | 4,58 |                        | 5,42 | 6,25 | 6,67 | 7,50 | 6,33 | 9,17 | 10,83 | 12,50 | 13,33 |      |      |
|       |        | HP   | kW   | H (m)                  |      |      |      |      |      |      |       |       |       |      |      |
|       |        |      |      |                        |      |      |      |      |      |      |       |       |       |      |      |
| 4MSHO | -2/2,2 | 3    | 2,2  | 18,3                   | 18,7 | 18,4 | 18,0 | 17,5 | 17,2 | 16,5 | 15,7  | 14,7  | 12,3  | 7,6  |      |
|       | -3/3   | 4    | 3    | 27,1                   | 27,7 | 27,3 | 26,7 | 26,0 | 25,6 | 24,6 | 23,5  | 22,0  | 18,4  | 14,2 |      |
|       | -4/4   | 5,6  | 4    | 36,2                   | 36,8 | 36,1 | 35,2 | 34,1 | 33,5 | 32,3 | 30,6  | 28,7  | 24,2  | 19,2 |      |
|       | -5/5,5 | 7,5  | 5,6  | 45,2                   | 46,3 | 45,4 | 44,4 | 43,2 | 42,6 | 41,0 | 39,0  | 36,6  | 30,9  | 26,3 | 22,0 |
|       | -6/7,5 | 10   | 7,5  | 54,2                   | 55,5 | 54,5 | 53,2 | 51,9 | 51,1 | 49,1 | 46,8  | 43,9  | 37,0  | 30,8 | 26,0 |



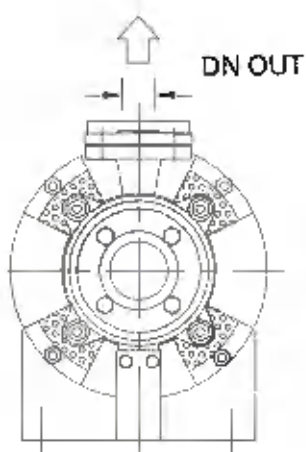
4MSH ~ 1450 r.p.m.



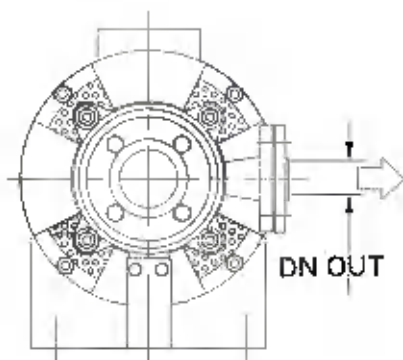
STANDARD



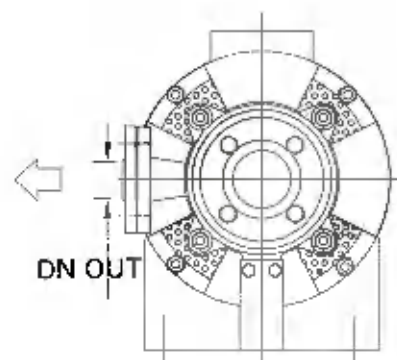
Direction of nozzles



STANDARD

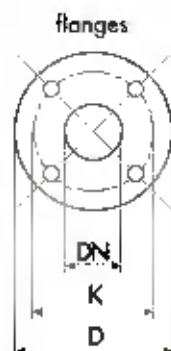


Pos. 01



Pos. 02

| DIMENSIONS (mm) |     |     |       |    |
|-----------------|-----|-----|-------|----|
| DN              | D   | K   | holes |    |
|                 |     |     | n°    | Ø  |
| 40              | 150 | 110 | 4     | 18 |
| 50              | 165 | 125 | 4     | 18 |
| 65              | 185 | 145 | 4     | 18 |
| 80              | 200 | 180 | 8     | 18 |





| TYPE          | DN IN          | DN OUT         | N. STAGE | DIMENSIONS (mm) |       |        |       |     |     |     |     |     |  |      |     |  |       |
|---------------|----------------|----------------|----------|-----------------|-------|--------|-------|-----|-----|-----|-----|-----|-------------------------------------------------------------------------------------|------|-----|-------------------------------------------------------------------------------------|-------|
|               |                |                |          | A               | B     | C      | C1    | C2  | F   | G   | H1  | H2  | D4                                                                                  | I    | L   |                                                                                     | M     |
| MSHA -3/5,5   | {UNI PN 16} 65 | {UNI PN 40} 40 | 3        | 804             | 258,5 | 922,8  | 545,5 | 377 | 300 | 428 | 245 | 420 | 70                                                                                  | 1100 | 400 | 500                                                                                 | 140,5 |
| MSHA -4/7,5   |                |                | 4        | 855             | 307,5 | 973,5  | 598,5 | 377 | 300 | 425 |     |     |                                                                                     | 1100 | 400 | 500                                                                                 | 157   |
| MSHA -6/9,2   |                |                | 5        | 706             | 358,5 | 1063,5 | 647,5 | 416 | 300 | 425 |     |     |                                                                                     | 1100 | 400 | 500                                                                                 | 173,5 |
| MSHA -6/11    |                |                | 6        | 757             | 409,5 | 1114,5 | 698,5 | 416 | 300 | 425 |     |     |                                                                                     | 1100 | 400 | 500                                                                                 | 192,5 |
| MSHA -8/15    |                |                | 8        | 859             | 511,5 | 1298,5 | 800,5 | 498 | 350 | 480 |     |     |                                                                                     | 1400 | 500 | 500                                                                                 | 259,5 |
| MSHB -2/7,5   | {UNI PN 16} 65 | {UNI PN 40} 40 | 2        | 853             | 205,5 | 931,5  | 494,5 | 37  | 300 | 425 | 245 | 420 | 70                                                                                  | 1100 | 400 | 500                                                                                 | 137   |
| MSHB -8R/9,2  |                |                | 3        | 804             | 256,5 | 961,5  | 545,5 | 416 | 300 | 425 |     |     |                                                                                     | 1100 | 400 | 500                                                                                 | 154   |
| MSHB -3/11    |                |                | 3        | 804             | 258,5 | 961,5  | 545,5 | 416 | 300 | 425 |     |     |                                                                                     | 1100 | 400 | 800                                                                                 | 158   |
| MSHB -4/15    |                |                | 4        | 855             | 307,5 | 1094,5 | 598,5 | 498 | 350 | 480 |     |     |                                                                                     | 1400 | 500 | 600                                                                                 | 220,5 |
| MSHB -6/18,5  |                |                | 5        | 706             | 358,5 | 1188,5 | 647,5 | 541 | 350 | 480 |     |     |                                                                                     | 1400 | 500 | 500                                                                                 | 245   |
| MSHB -6/22    |                |                | 6        | 757             | 409,5 | 1239,5 | 698,5 | 541 | 350 | 480 |     |     |                                                                                     | 1400 | 500 | 500                                                                                 | 265   |
| MSHC -2R1/11  | {UNI PN 16} 80 | {UNI PN 40} 50 | 2        | 596             | 243   | 954    | 538   | 416 | 300 | 425 | 245 | 445 | 60                                                                                  | 1100 | 400 | 500                                                                                 | 165   |
| MSHC -3R/15   |                |                | 3        | 656             | 303   | 1096   | 598   | 498 | 350 | 480 |     |     |                                                                                     | 1100 | 400 | 500                                                                                 | 231,5 |
| MSHC -3/18,5  |                |                | 3        | 656             | 303   | 1139   | 698   | 541 | 350 | 480 |     |     |                                                                                     | 1400 | 500 | 500                                                                                 | 246,5 |
| MSHC -4R1/22  |                |                | 4        | 716             | 363   | 1199   | 638   | 541 | 350 | 480 |     |     |                                                                                     | 1400 | 500 | 500                                                                                 | 270,5 |
| MSHC -6/30    |                |                | 5        | 776             | 423   | 1286   | 718   | 568 | 350 | 495 |     |     |                                                                                     | 1400 | 500 | 500                                                                                 | 319   |
| MSHC -6/37    |                |                | 6        | 836             | 483   | 1386   | 778   | 608 | 350 | 498 |     |     |                                                                                     | 1400 | 500 | 500                                                                                 | 358   |
| MSHD -2/15    | {UNI PN 10} 80 | {UNI PN 40} 50 | 2        | 596             | 243   | 1036   | 538   | 498 | 350 | 480 | 245 | 448 | 60                                                                                  | 1400 | 400 | 500                                                                                 | 217   |
| MSRD -3R/18,5 |                |                | 3        | 656             | 303   | 1139   | 598   | 541 | 350 | 480 |     |     |                                                                                     | 1400 | 500 | 500                                                                                 | 245   |
| MSHD -3/22    |                |                | 3        | 856             | 303   | 1139   | 598   | 541 | 350 | 480 |     |     |                                                                                     | 1400 | 500 | 800                                                                                 | 255,5 |
| MSHD -4/30    |                |                | 4        | 716             | 363   | 1226   | 698   | 568 | 350 | 495 |     |     |                                                                                     | 1400 | 500 | 500                                                                                 | 308   |
| MSRD -5/37    |                |                | 5        | 778             | 423   | 1326   | 718   | 608 | 350 | 495 |     |     |                                                                                     | 1400 | 500 | 500                                                                                 | 340,5 |

| TYPE         | DN IN          | DN OUT         | N. STAGE | DIMENSIONS (mm) |       |      |       |     |     |     |     |     |    |  |     |     |  |
|--------------|----------------|----------------|----------|-----------------|-------|------|-------|-----|-----|-----|-----|-----|----|---------------------------------------------------------------------------------------|-----|-----|---------------------------------------------------------------------------------------|
|              |                |                |          | A               | B     | C    | C1    | C2  | F   | G   | H1  | H2  | D4 | I                                                                                     | L   | M   |                                                                                       |
| 4MSHA -8/2,2 | {UNI PN 16} 65 | {UNI PN 40} 40 | 8        | 622             | 511,5 | 1079 | 763,5 | 315 | 250 | 415 | 245 | 420 | 70 | 1100                                                                                  | 400 | 500 | 188                                                                                   |
| 4MSHB -4/2,2 | {UNI PN 16} 65 | {UNI PN 40} 40 | 4        | 618             | 511,5 | 875  | 559,5 | 315 | 250 | 415 | 245 | 420 | 70 | 1100                                                                                  | 400 | 500 | 136                                                                                   |
| 4MSHB -5/2,2 |                |                | 5        | 870             | 307,5 | 926  | 610,5 | 315 | 250 | 415 |     |     |    | 1400                                                                                  | 500 | 500 | 140                                                                                   |
| 4MSHB -6/3   |                |                | 6        | 720             | 358,5 | 977  | 661,5 | 315 | 250 | 415 |     |     |    | 1400                                                                                  | 500 | 500 | 171                                                                                   |
| 4MSHB -8/4   |                |                | 8        | 720             | 409,5 | 1104 | 763,5 | 340 | 250 | 438 |     |     |    | 1400                                                                                  | 500 | 500 | 200                                                                                   |
| 4MSHC -3/2,2 | {UNI PN 16} 80 | {UNI PN 40} 50 | 3        | 620             | 303   | 976  | 561   | 315 | 250 | 415 | 245 | 445 | 60 | 1100                                                                                  | 400 | 500 | 192                                                                                   |
| 4MSHC -4/3   |                |                | 4        | 680             | 363   | 936  | 621   | 315 | 250 | 415 |     |     |    | 1100                                                                                  | 400 | 500 | 194                                                                                   |
| 4MSHC -5/4   |                |                | 5        | 740             | 423   | 1021 | 681   | 340 | 250 | 438 |     |     |    | 1100                                                                                  | 400 | 500 | 202                                                                                   |
| 4MSHC -6/5,5 |                |                | 6        | 800             | 483   | 1126 | 741   | 385 | 300 | 468 |     |     |    | 1400                                                                                  | 500 | 500 | 206                                                                                   |
| 4MSHD -2/2,2 | {UNI PN 10} 80 | {UNI PN 40} 50 | 2        | 560             | 243   | 816  | 501   | 315 | 250 | 415 | 245 | 445 | 60 | 1100                                                                                  | 400 | 500 | 135                                                                                   |
| 4MSHD -3/3   |                |                | 3        | 620             | 303   | 876  | 561   | 315 | 250 | 415 |     |     |    | 1100                                                                                  | 400 | 500 | 167                                                                                   |
| 4MSHD -4/4   |                |                | 4        | 680             | 363   | 961  | 621   | 340 | 250 | 438 |     |     |    | 1100                                                                                  | 400 | 500 | 189                                                                                   |
| 4MSHD -5/5,5 |                |                | 5        | 740             | 423   | 1088 | 681   | 385 | 300 | 468 |     |     |    | 1100                                                                                  | 400 | 500 | 194                                                                                   |
| 4MSHD -6/7,5 |                |                | 6        | 867             | 483   | 1168 | 741   | 426 | 300 | 468 |     |     |    | 1400                                                                                  | 500 | 300 | 210                                                                                   |

## MSH-4MSH Serie-Mechanical seal and bearings

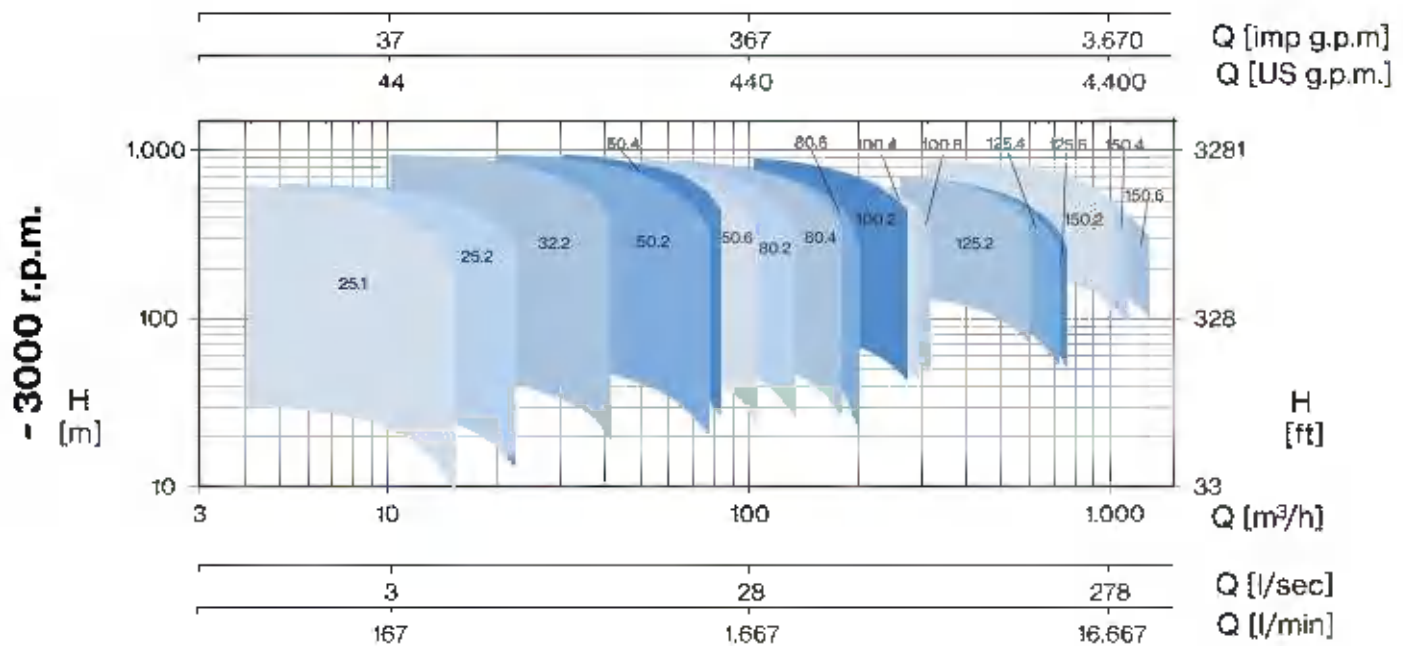
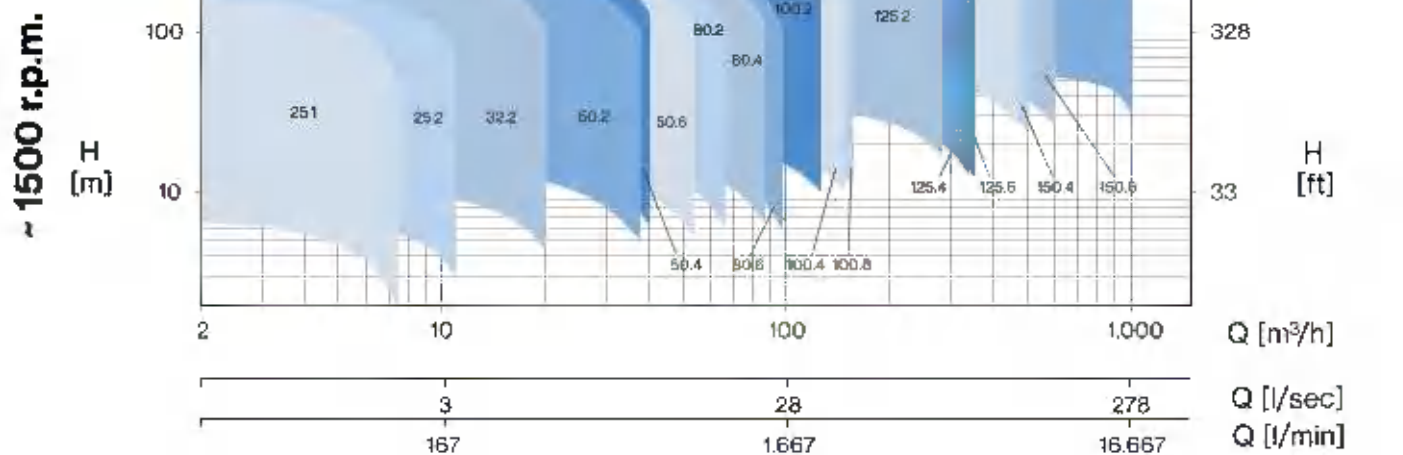
| MECHANICAL SEAL                                                                   | PDMP MODEL                                                                                                                                                                          | SHAFT Ø                   |                                                                    | STANDARD MATERIAL          | OPTIONAL              |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------------------------------------------------|----------------------------|-----------------------|
|  | MSHA-3/5,5-132S   MSHB-2/7,5-132S  <br>4MSHA-8/2,2   4MSHB-4/2,2   4MSHB-5/2,2<br>  4MSHB-6/3   4MSHB-6/4                                                                           | 25mm                      | <b>Rotating face</b><br><b>Stationary face</b><br><b>Elastomer</b> | Ceramic<br>Graphite<br>NBR | Widia<br>Widia<br>NBR |
|                                                                                   | MSHC-2R1/11-132M   MSHD-2/15-160M  <br>4MSHC-3/2,2   4MSHC-4/3   4MSHC-5/4  <br>4MSHC-6/5,5-132S   4MSHD-2/2,2   4MSHD-<br>3/3   4MSHD-4/4   4MSHD-5/5,5-132S  <br>4MSHD-6/7,5-132S | 35mm                      | <b>Rotating face</b><br><b>Stationary face</b><br><b>Elastomer</b> | Ceramic<br>Graphite<br>NBR | Widia<br>Widia<br>NBR |
|                                                                                   | MSHA-4/7,5-132S   MSHA-5/9,2-132M<br>  MSHA-6/11-132M   MSHA-8/15-160M  <br>MSHB-3R/9,2-132M   MSHB-3/11-132M  <br>MSHB-4/15-160M   MSHB-5/18,5-160L  <br>MSHB-6/22-160L            | 25mm / Balan-<br>ced seal | <b>Rotating face</b><br><b>Stationary face</b><br><b>Elastomer</b> | Widia<br>Graphite<br>NBR   | Widia<br>Widia<br>NBR |
|                                                                                   | MSHC-3R/15-160M   MSHC-3/18,5-160L<br>  MSHC-4R1/22-160L   MSHC-5/30-180M<br>  MSHC-6/37-180L   MSHD-3R/18,5-160L<br>  MSHD-3/22-160L   MSHD-4/30-180M  <br>MSHD-5/37-180L          | 35mm / Balan-<br>ced seal | <b>Rotating face</b><br><b>Stationary face</b><br><b>Elastomer</b> | Widia<br>Graphite<br>NBR   | Widia<br>Widia<br>NBR |

| BEABINGS                                                                            | PUMP MODEL                                                                                                                                                                               | TYPE       |            |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|
|  | 4MSHA-6/2,2   4MSHB-4/2,2   4MSHB-5/2,2   4MSHC-3/2,2   4MSHB-<br>2/2,2                                                                                                                  | 6205-ZZ C8 | 6205-ZZ C3 |
|                                                                                     | 4MSHB-6/3   4MSHB-6/4   4MSHC-4/3   4MSHC-5/4   4MSHD-3/3  <br>4MSHD-4/4                                                                                                                 | 6206-ZZ C3 | 6206-ZZ C3 |
|                                                                                     | MSHA-3/5,5-132S   MSHA-4/7,5-132S   MSHA-5/9,2-132M   MSHA-6/11-<br>132M   MSHB-2/7,5-132S   MSHB-3R/9,2-132M   MSHB-3/11-132M   MSHC-<br>2R1/11-132M                                    | 6206-ZZ C3 | 6308-ZZ C3 |
|                                                                                     | 4MSHC-6/5,5-132S   4MSHD-5/5,5-132S   4MSHD-6/7,5-132S                                                                                                                                   | 6208-ZZ C3 | 6208-ZZ C3 |
|                                                                                     | MSHA-8/15-160M   MSHB-4/15-160M   MSHB-5/18,5-160L   MSHB-6/22-<br>160L   MSHC-3R/15-160M   MSHC-3/18,5-160L   MSHC-4R1/22-160L  <br>MSHD-2/15-160M   MSHD-3R/18,5-160L   MSHD-3/22-160L | 6308-ZZ C3 | 6309-ZZ C3 |
|                                                                                     | MSHC-5/30-180M   MSHC-6/37-180L   MSHD-4/30-180M   MSHD-5/37-<br>180L                                                                                                                    | 6309-ZZ C3 | 3310-ZZ C3 |

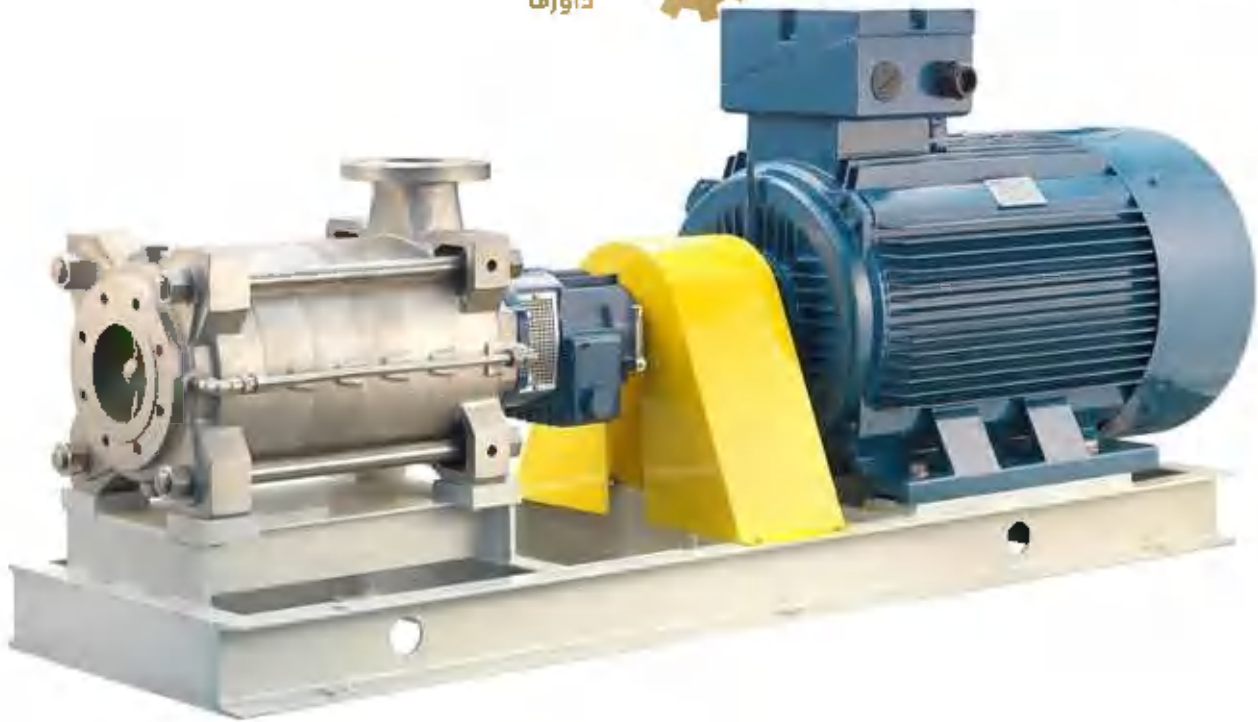
## HP SERIES



## PERFORMANCE RANGE







## Main characteristics

- Flow rates up to 1200 m<sup>3</sup>/h
- Pressure up to 1000 m
- High hydraulic efficiency, up to 80%
- Balancing drum, placed on the discharge casing, which effectively compensates the axial thrust produced by the impellers
- Versatile sealing system: which is available as packing, single Mechanical or Balanced Mechanical, other special types upon request
- The pumps' bearings are available with grease or oil lubrication in order to assure a long operating life
- Wear rings: they are available both fixed as well as rotating, in various materials, with hardening treatments

## General function data

- Pressure up to 100 bar
- Temperatures from -20°C to +180°C
- Rotational speed up to 3600 rpm.
- Standard flanges: UNI/EN
- Suction port: DN 40-300 - PN 16-25
- Discharge port: DN 25-250 - PN 64-100
- Performance tolerances: ISO9906-3B





Horizontal axial split case single stage centrifugal pumps with in-line inlet and outlet. The double suction impeller design provides hydraulic balance to enhance bearing life span.

### Construction features

**Flow rate** up to 4000 m<sup>3</sup>/h

**Pressure** up to 180 m

**Temperature** from -10 °C to +110 °C

**Rotation** 1450 - 2900 rpm

**Standard flanges** conform to EN 1092-2/  
PN 16 or FN 25

**Discharge port** DN65-350 FN 16-25

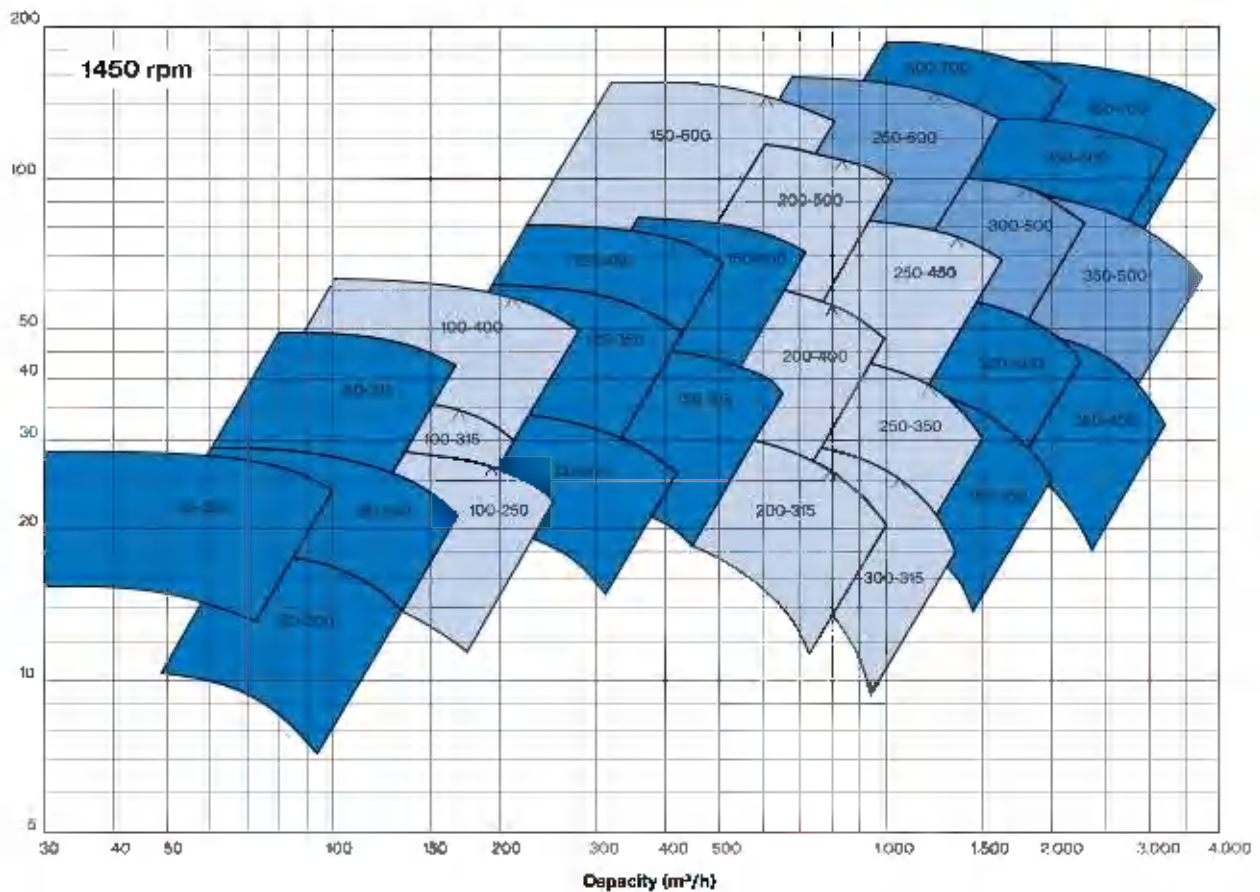
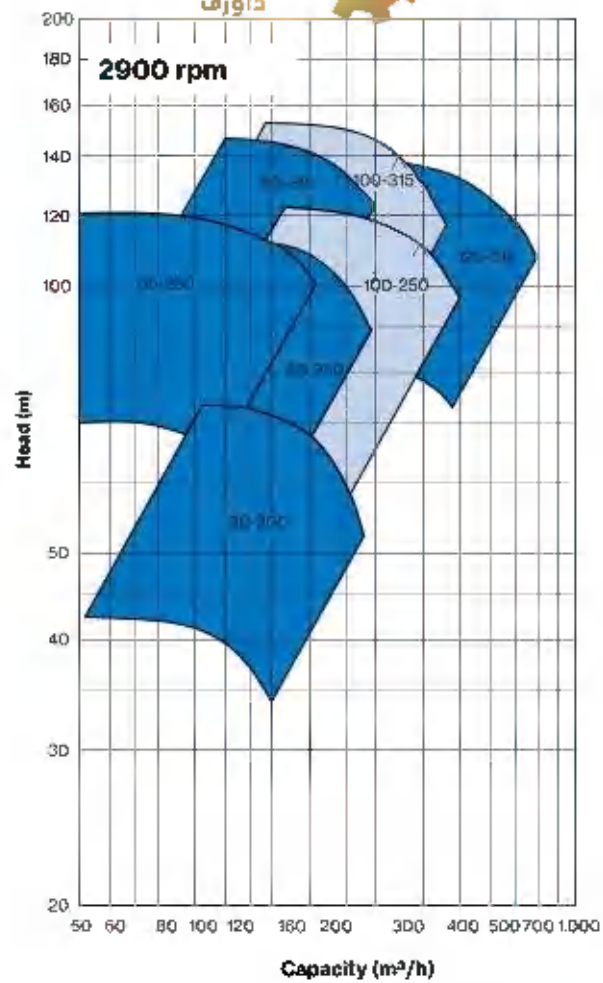
**Bearing lubrication** grease

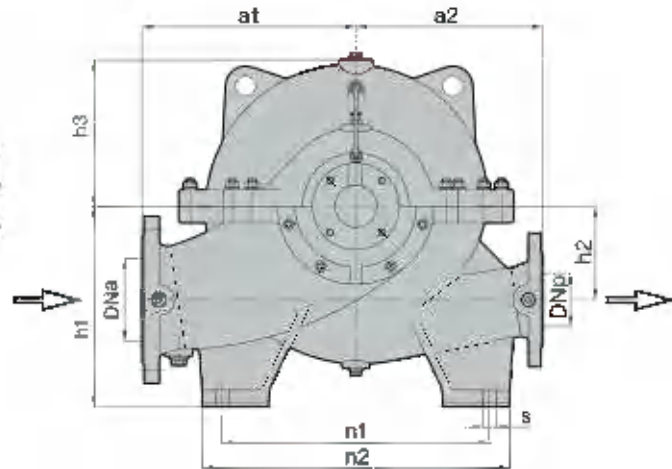
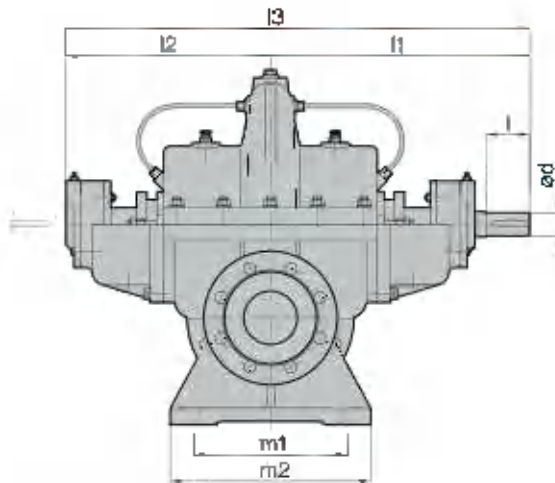
**Sealing** gland packing;  
also available with me-  
chanical seal

**Impeller, casing  
and wear rings** cast iron,  
also available in bronze or  
stainless steel

**Performance tolerance** ISO 9906-3B







| TYPE    | DIMENSIONS (mm) |                 |                 |                 |          |     |                |                |                |                |                |                |                |                |                |                |                |                |    | Kg   |
|---------|-----------------|-----------------|-----------------|-----------------|----------|-----|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----|------|
|         | PN <sub>a</sub> | PN <sub>p</sub> | DN <sub>a</sub> | DN <sub>p</sub> | $\phi d$ | t   | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | a <sub>1</sub> | a <sub>2</sub> | h <sub>1</sub> | h <sub>2</sub> | h <sub>3</sub> | n <sub>1</sub> | n <sub>2</sub> | m <sub>1</sub> | m <sub>2</sub> | s  |      |
| 65-250  | 16              | 16              | 100             | 65              | 35       | 80  | 400            | 310            | 710            | 320            | 260            | 300            | 140            | 200            | 400            | 460            | 230            | 300            | 20 | 166  |
| 80-200  | 16              | 16              | 125             | 80              | 35       | 80  | 400            | 310            | 710            | 320            | 280            | 300            | 140            | 200            | 400            | 468            | 230            | 300            | 20 | 165  |
| 80-250  | 16              | 16              | 125             | 80              | 35       | 80  | 400            | 310            | 710            | 320            | 280            | 300            | 140            | 200            | 400            | 460            | 230            | 300            | 20 | 175  |
| 80-315  | 16              | 16              | 125             | 80              | 35       | 80  | 400            | 310            | 710            | 360            | 380            | 300            | 140            | 280            | 400            | 480            | 230            | 300            | 20 | 197  |
| 100-250 | 16              | 16              | 166             | 100             | 42       | 90  | 460            | 350            | 600            | 366            | 310            | 355            | 176            | 236            | 400            | 460            | 280            | 346            | 20 | 226  |
| 100-315 | 16              | 16              | 150             | 100             | 42       | 90  | 450            | 350            | 800            | 360            | 310            | 355            | 170            | 250            | 400            | 480            | 280            | 340            | 20 | 230  |
| 100-400 | 16              | 16              | 150             | 100             | 42       | 90  | 450            | 350            | 800            | 420            | 370            | 355            | 170            | 300            | 480            | 640            | 230            | 340            | 20 | 290  |
| 125-315 | 16              | 16              | 200             | 125             | 55       | 120 | 555            | 420            | 975            | 420            | 370            | 400            | 200            | 280            | 460            | 540            | 320            | 380            | 22 | 330  |
| 125-350 | 16              | 16              | 200             | 125             | 55       | 120 | 555            | 420            | 975            | 470            | 450            | 400            | 200            | 300            | 540            | 660            | 320            | 380            | 22 | 360  |
| 125-450 | 16              | 16              | 200             | 125             | 55       | 120 | 555            | 420            | 975            | 800            | 450            | 400            | 200            | 350            | 540            | 640            | 320            | 380            | 22 | 410  |
| 150-315 | 16              | 16              | 200             | 150             | 55       | 120 | 555            | 420            | 975            | 470            | 400            | 400            | 200            | 310            | 540            | 640            | 320            | 380            | 22 | 395  |
| 150-450 | 16              | 16              | 200             | 150             | 55       | 120 | 555            | 420            | 975            | 800            | 450            | 400            | 200            | 365            | 540            | 640            | 320            | 380            | 22 | 430  |
| 150-690 | 26              | 25              | 256             | 150             | 65       | 130 | 645            | 506            | 1145           | 650            | 600            | 560            | 600            | 445            | 540            | 640            | 360            | 426            | 22 | 800  |
| 200-315 | 16              | 16              | 250             | 200             | 65       | 180 | 645            | 500            | 1145           | 500            | 450            | 500            | 240            | 315            | 540            | 640            | 360            | 420            | 22 | 570  |
| 200-400 | 16              | 16              | 250             | 200             | 65       | 130 | 645            | 500            | 1145           | 550            | 450            | 600            | 240            | 360            | 540            | 640            | 360            | 420            | 22 | 575  |
| 200-500 | 16              | 16              | 250             | 200             | 65       | 180 | 645            | 500            | 1145           | 550            | 500            | 560            | 300            | 380            | 620            | 720            | 360            | 420            | 22 | 700  |
| 250-350 | 16              | 16              | 300             | 250             | 65       | 130 | 645            | 500            | 1145           | 600            | 500            | 600            | 300            | 390            | 620            | 720            | 360            | 420            | 22 | 682  |
| 250-450 | 16              | 16              | 300             | 250             | 65       | 130 | 645            | 500            | 1145           | 800            | 500            | 600            | 300            | 415            | 620            | 720            | 360            | 420            | 22 | 780  |
| 250-600 | 25              | 25              | 300             | 250             | 80       | 170 | 720            | 540            | 1260           | 650            | 560            | 600            | 300            | 430            | 620            | 710            | 415            | 435            | 26 | 1190 |
| 300-315 | 16              | 16              | 350             | 300             | 65       | 130 | 645            | 500            | 1145           | 600            | 500            | 630            | 300            | 400            | 620            | 700            | 360            | 420            | 22 | 700  |
| 300-400 | 16              | 16              | 400             | 306             | 75       | 140 | 770            | 616            | 1385           | 700            | 560            | 710            | 350            | 456            | 720            | 800            | 420            | 626            | 26 | 1125 |
| 300-500 | 16              | 16              | 400             | 300             | 85       | 170 | 755            | 565            | 1340           | 700            | 750            | 710            | 350            | 425            | 700            | 800            | 420            | 520            | 26 | 1500 |
| 300-700 | 26              | 25              | 400             | 300             | 100      | 130 | 865            | 675            | 1540           | 750            | 800            | 710            | 350            | 470            | 720            | 880            | 420            | 620            | 26 | 1550 |
| 350-350 | 16              | 16              | 400             | 350             | 75       | 140 | 770            | 616            | 1385           | 700            | 560            | 670            | 350            | 450            | 720            | 800            | 420            | 620            | 26 | 1100 |
| 350-400 | 16              | 16              | 500             | 350             | 76       | 140 | 770            | 616            | 1385           | 800            | 600            | 800            | 380            | 500            | 800            | 960            | 500            | 660            | 26 | 1400 |
| 350-500 | 16              | 16              | 500             | 350             | 80       | 170 | 755            | 585            | 1340           | 800            | 800            | 800            | 400            | 435            | 740            | 900            | 500            | 660            | 26 | 1435 |
| 350-600 | 25              | 25              | 500             | 350             | 80       | 170 | 825            | 550            | 1475           | 800            | 600            | 300            | 400            | 510            | 300            | 900            | 500            | 600            | 26 | 1435 |
| 350-700 | 25              | 25              | 800             | 350             | 100      | 180 | 865            | 675            | 1540           | 850            | 750            | 880            | 450            | 525            | 720            | 880            | 500            | 600            | 26 | 2000 |

# VP SERIES

VP



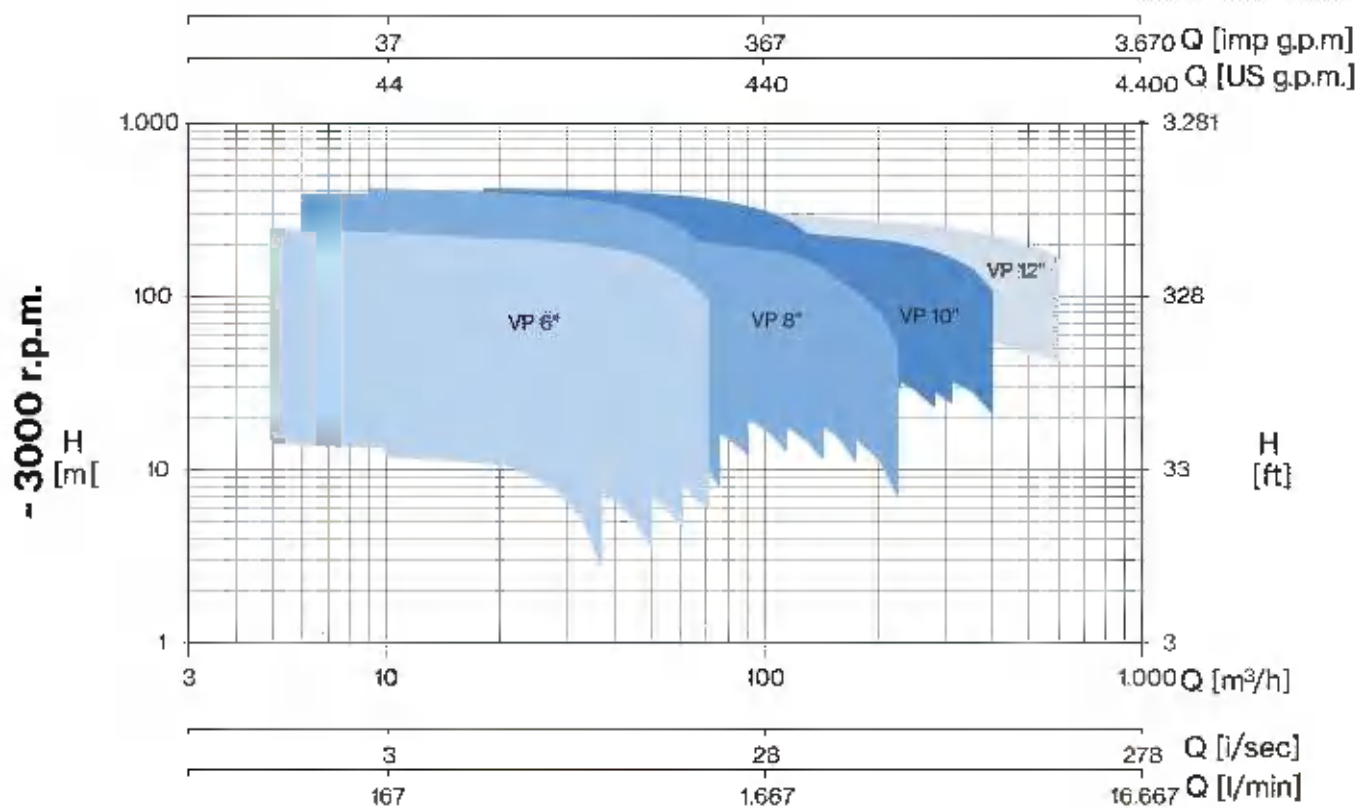
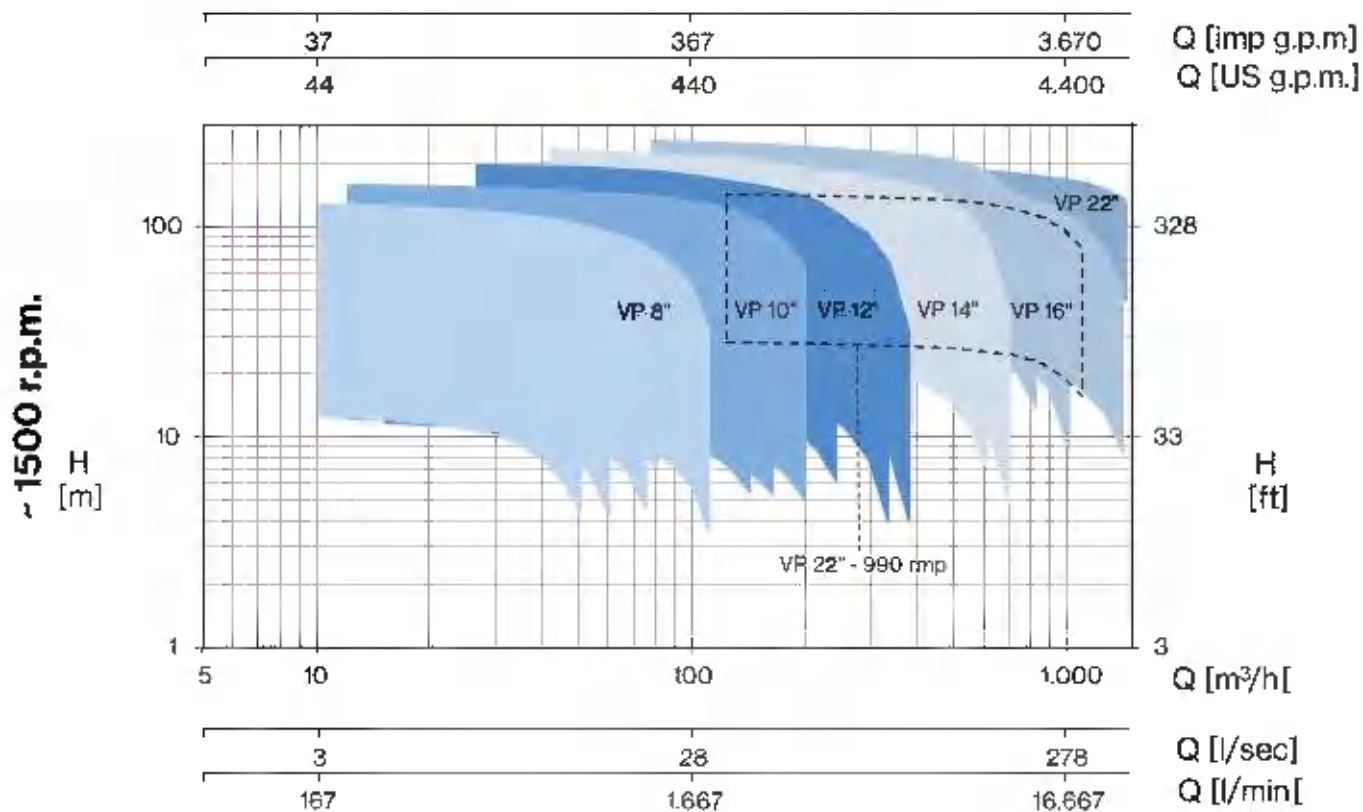
Vertical axis pumps recently improved in the hydraulic design with new models and solutions specifically developed for the industry sectors. High efficiency, reliability and extreme sturdiness are the main strengths of the VP line, which is available in versions with electric motor or with "angle drive"/pulley and internal combustion engine. The wide variety of executions and the numerous materials available make this series extremely versatile for use in areas not served by electricity, as emergency or back-up units and in all the main sectors of industry.

## **Applications:**

- Pumping units for fire-fighting systems
- Aqueducts
- Condensate extraction in power plants
- Geothermal plants
- Water treatment on Reverse Osmosis plants



## PERFORMANCE RANGE



## Main characteristics

- Capacity up to 1600 m<sup>3</sup>/h.
- Pressure up to 400 m.
- High hydraulic efficiency, up to 82%
- Thrust bearing (grease or oil with optional external cooling) for use of standard motors.
- Axis lines with tapered joints for reliable and durable connection of the shaft.
- Special bushings resistant to the wear of abrasive liquids and temperatures up to 140°C.
- Control unit for electric motor, transmission angle on request.
- AISI 420 stainless steel shaft for standard versions.
- The pump part of VPL models is produced in the standard execution in AISI 304 stainless steel.
- The pump part of VP models is produced in the standard execution in cast iron.



## Technical operational specifics for standard versions

- All the hydraulic performance values below are guaranteed in accordance with standard ISO 9906-Grade 3B.
- The allowable content of solids in the pumped liquid is 100 g/m<sup>3</sup>.
- All the components wetted with liquid are available in various types of steel and bronze alloy.





# ACCESSORIES

# ELECTRONIC FLOW CONTROL



**HIDROMATIC H2**

- Complete replacement of the traditional water system set consisting on pressure switch and pressure tank
- Control the starting of the electric pump after a pressure decrease (taps opening) and stopping when the fluid flow interrupt at the maximum pressure level of the electric pumps (taps closing)
- Protection against dry running
- Starting pressure adjustable during the installation
- Standard 1" M hydraulic connections
- Installation in any position - both vertical and horizontal according to the flow direction
- Easily replaceable electronic printed circuit board
- No need of maintenance

## TECHNICAL DATA

|                         |                               |
|-------------------------|-------------------------------|
| Power supply            | 110-230V ac $\pm$ 10% 50/60Hz |
| Max rated current       | 12 A                          |
| Starting pressure range | 1 - 3,5 bar                   |
| Max pressure            | 10 bar                        |
| Protection degree       | IP65                          |
| Max fluid temperature   | 55 °C                         |
| Max ambient temperature | 55 °C                         |



**HIDROTANK H1**

- Automatic start and stop operations of single-phases electric pumps up to 2 HP
- Replacement of the traditional water system set consisting on pressure switch and pressure tank.
- Control the starting of the electric pump after a pressure decrease (taps opening) and stopping when the fluid flow interrupt at the maximum pressure level of the electric pumps (taps closing)
- Protection against dry running
- Starting pressure adjustable during the installation
- Standard 1" M hydraulic connections
- Installation in any position-both vertical and horizontal - according to the flow direction
- Easily replaceable electronic printed circuit board
- No need of maintenance
- Thanks to the 0,4 lt. tank it protects from the frequent start-stop required by small request of water and from any losses into the system
- Protection of the electronic board thanks to the new watertight compartment
- Protection from water-hammer
- New design and new concept
- Built in 0,4 lt. tank
- Built in pressure gauge
- Watertight electronic part

## TECHNICAL DATA

|                         |                               |
|-------------------------|-------------------------------|
| Power supply            | 110-230V ac $\pm$ 10% 50/60Hz |
| Max rated current       | 12 A                          |
| Starting pressure range | 1 - 3,5 bar                   |
| Max pressure            | 10 bar                        |
| Protection degree       | IP65                          |
| Max fluid temperature   | 35 °C                         |

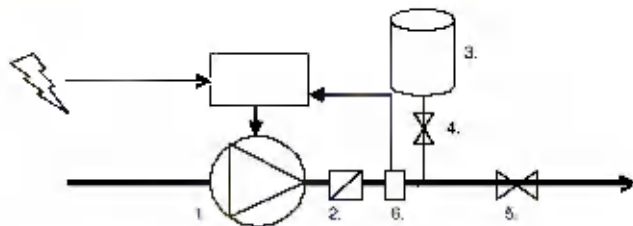


# VARIABLE SPEED DRIVE



Frequency 48-62 Hz  
Max ambient temperature 40°C (104°F)  
Max humidity 50% @ 40°C  
Max altitude 1000 m  
PWM configurable 2.5; 8 KHz  
Complies with the electromagnetic conformity directive

| V in<br>(±15%) | V out   | I line<br>max | I out<br>max | P2     | Kg  |
|----------------|---------|---------------|--------------|--------|-----|
| 1-230 V        | 3-230 V | 11 A          | 7.5 A        | 2.5 HP | 2.5 |



1. Pump
2. Non return valve
3. Pressure tank  
*Pressure tank volume suggested: 10% of the capacity of the system*
4. Valve-Tap
5. Valve
6. Pressure sensor

| VSD<br>Variable Speed Drive | TYPE     | up to |      |
|-----------------------------|----------|-------|------|
|                             |          | P2    |      |
|                             |          | HP    | kW   |
| EPIC                        | CAM      | 2     | 1.5  |
|                             | CAB      | 2     | 1.5  |
|                             | INOX     | 1.5   | 1.1  |
|                             | MPX      | 1.2   | 0.88 |
|                             | MB       | 2     | 1.5  |
|                             | CM       | 1.5   | 1.1  |
|                             | CR       | 1     | 0.74 |
|                             | CS 2"    | 2     | 1.5  |
|                             | CH       | 1.5   | 1.1  |
|                             | CR       | 1.5   | 1.1  |
|                             | ULTRA 3  | 2.5   | 1.85 |
|                             | ULTRA 5  | 2.5   | 1.85 |
|                             | ULTRA 7  | 2.5   | 1.85 |
|                             | ULTRA 9  | 2.5   | 1.85 |
|                             | ULTRA 15 | 2.5   | 1.85 |



## VARIABLE SPEED DRIVE



IPFC 109-311

IPFC 314-339

IPFC 338-385

It's a variable frequency device (inverter); specifically designed for control and protection of electric pumps. Connected to any electric pumps regulates the motor speed in order to manage the pumps performance in relation to operating conditions and requests of the system. Consists in compact electronic units equipped with microprocessor contained in an aluminum structure that grants strenght, ease cooling.

The advantages of the use of IPFC:

- Energy saving
- Simple installation
- Overload protection
- Dry running protection
- Noise reduction
- Soft Start & Stop
- Installation options: directly on the motor cover of the pump or wall installation

| TYPE                          | IPFC 109                                                               | IPFC 114             | IPFC 306        | IPFC 309 | IPFC 311 | IPFC 314           | IPFC 318  | IPFC 325                      | IPFC 330 | IPFC 338   | IPFC 348           | IPFC 365  | IPFC 375  | IPFC 385  |
|-------------------------------|------------------------------------------------------------------------|----------------------|-----------------|----------|----------|--------------------|-----------|-------------------------------|----------|------------|--------------------|-----------|-----------|-----------|
| Input rated voltage           | 1 × 230 V ± 15%                                                        |                      | 3 × 400 V ± 15% |          |          |                    |           |                               |          |            |                    |           |           |           |
| Output rated voltage          | 1 × 230 V<br>3 × 230 V                                                 |                      | 3 × 400 V       |          |          |                    |           |                               |          |            |                    |           |           |           |
| Output rated current          | 9 A 1-<br>7 A 3-                                                       | 9 A 1-<br>11 A 3-    | 6 A 3-          | 9 A 3-   | 11 A 2-  | 14 A 2-            | 18 A 3-   | 25 A 3-                       | 30 A 3-  | 38 A 3-    | 48 A 3-            | 58 A 3-   | 75 A 3-   | 85 A 3-   |
| Output rated power            | 1,1 kW 1-<br>1,5 kW 3-                                                 | 1,1 kW 1-<br>3 kW 3- | 2,2 kW 3-       | 4 kW 3-  | 4 kW 3-  | 5,5 kW 3-          | 7,5 kW 3- | 11 kW 3-                      | 15 kW 3- | 18,5 kW 3- | 22 kW 3-           | 30 kW 3-  | 37 kW 3-  | 45 kW 3-  |
| Max motor current             | 7,2 A 1-<br>6,3 A 3-                                                   | 7,2 A 1-<br>9,9 A 3- | 5,4 A 3-        | 8,1 A 3- | 9,9 A 3- | 12,6 A 3-          | 16,2 A 3- | 22,5 A 3-                     | 27 A 3-  | 34,2 A 3-  | 43,2 A 3-          | 58,5 A 3- | 67,5 A 3- | 76,5 A 3- |
| Input frequency               | 50 - 80 Hz                                                             |                      |                 |          |          |                    |           |                               |          |            |                    |           |           |           |
| PWM frequency                 | 2,5 - 4 - 6 - 8 - 10 - 12 kHz settable                                 |                      |                 |          |          |                    |           |                               |          |            |                    |           |           |           |
| Control panel                 | backlight LCD with 2 × 16 characters and buzzer / Bluetooth® SMART 4.0 |                      |                 |          |          |                    |           |                               |          |            |                    |           |           |           |
| Input analogical signals      | 4 × 4 - 20 mA                                                          |                      |                 |          |          |                    |           |                               |          |            |                    |           |           |           |
| Input digital signals         | 2                                                                      |                      |                 |          |          |                    |           |                               |          |            |                    |           |           |           |
| Communication                 | RS485 / Bluetooth SMART 4.0                                            |                      |                 |          |          |                    |           |                               |          |            |                    |           |           |           |
| 2 DOL Auxiliary pump contacts | clean, NO, 230 V, I <sub>max</sub> , 6 A                               |                      |                 |          |          |                    |           |                               |          |            |                    |           |           |           |
| Cooling                       | Auxiliar built-in cooling fan / not fan                                |                      |                 |          |          |                    |           |                               |          |            |                    |           |           |           |
| Protection degree             | IP55 (IP54 for IPFC 338 < > IPFC 385)                                  |                      |                 |          |          |                    |           |                               |          |            |                    |           |           |           |
| Assembly                      | on motor fan cover with kit / hang on wall with kit                    |                      |                 |          |          |                    |           | on motor fact / wall with kit |          |            |                    |           |           |           |
| Max ambient temperature       | 40° C                                                                  |                      |                 |          |          |                    |           |                               |          |            |                    |           |           |           |
| Max ambient altitude          | 1000 m slm / de-rate 2% each 100 m                                     |                      |                 |          |          |                    |           |                               |          |            |                    |           |           |           |
| Input / Output feeding cable  | 2 × PG 13,5 + 3 × PG 9                                                 |                      |                 |          |          |                    |           |                               |          |            |                    |           |           |           |
| Dimension                     | 181 × 181 × 228 mm                                                     |                      |                 |          |          | 260 × 260 × 180 mm |           |                               |          |            | 410 × 880 × 260 mm |           |           |           |



SPD

### PRESSURE TRANSDUCER

| TYPE | Output signal | Inout voltage | Working pressure | Maximum pressure |
|------|---------------|---------------|------------------|------------------|
| SPD  | 4... 20 mA    | 9... 28 V     | 0 - 25 bar       | 32 bar           |

# PROTECTION/CONTROL PANEL

## Legend

| SERIES | ELECTRICITY SUPPLY |    | N. PUMPS |   |   | PUMP TYPE |             |         | POWER P2   | SPEED |          | MOTOR STARTER |     |            |                 | FEATURE                         |                                 |                          |
|--------|--------------------|----|----------|---|---|-----------|-------------|---------|------------|-------|----------|---------------|-----|------------|-----------------|---------------------------------|---------------------------------|--------------------------|
|        | 1-                 | 3- | 1        | 2 | 3 | Borehole  | Submersible | Surface |            | Fixed | Variable | DOL           | Y/Δ | Soft start | Impedance start | Switch with overload protection | Electromechanical control panel | Electronic control panel |
| PML    | ■                  | -  | ■        | - | - | ■         | -           | ■       | 0,37 ÷ 2,2 | ■     | -        | ■             | -   | -          | -               | ■                               | -                               | -                        |
| PMC    | ■                  | -  | ■        | - | - | ■         | ■           | -       | 1,1 ÷ 1,5  | ■     | -        | ■             | -   | -          | -               | ■                               | -                               | -                        |
| PMLD   | ■                  | -  | ■        | - | - | -         | ■           | -       | 1,1 ÷ 1,5  | ■     | -        | ■             | -   | -          | -               | ■                               | -                               | -                        |
| PT     | -                  | ■  | -        | - | - | ■         | ■           | ■       | 0,37 ÷ 15  | ■     | -        | ■             | -   | -          | -               | ■                               | -                               | -                        |
| EQSM   | ■                  | -  | ■        | - | - | ■         | ■           | ■       | 0,37 ÷ 15  | ■     | -        | ■             | -   | -          | -               | ■                               | -                               | ■                        |
| EQSMT  | -                  | ■  | ■        | - | - | ■         | ■           | ■       | 0,55 ÷ 15  | ■     | -        | ■             | -   | -          | -               | ■                               | -                               | ■                        |
| QST    | -                  | ■  | ■        | - | - | ■         | ■           | ■       | 4,5 ÷ 220  | ■     | -        | -             | ■   | -          | -               | ■                               | -                               | -                        |
| QSS    | -                  | ■  | ■        | - | - | ■         | -           | ■       | 7,5 ÷ 220  | ■     | -        | -             | -   | ■          | -               | ■                               | -                               | -                        |
| QRS    | -                  | ■  | ■        | - | - | ■         | -           | -       | 4,5 ÷ 220  | ■     | -        | -             | -   | -          | ■               | ■                               | -                               | -                        |
| EQ2SM  | ■                  | -  | -        | ■ | - | ■         | ■           | ■       | 0,37 ÷ 15  | ■     | -        | ■             | -   | -          | -               | ■                               | -                               | ■                        |
| EQ2SMT | -                  | ■  | -        | ■ | - | ■         | ■           | ■       | 0,55 ÷ 15  | ■     | -        | ■             | -   | -          | -               | ■                               | -                               | ■                        |
| Q2ST   | -                  | ■  | -        | ■ | - | ■         | ■           | ■       | 4,5 ÷ 220  | ■     | -        | -             | ■   | -          | -               | ■                               | -                               | -                        |
| EQ3SM  | ■                  | -  | -        | - | ■ | ■         | ■           | ■       | 0,25 ÷ 1,5 | ■     | -        | ■             | -   | -          | -               | ■                               | -                               | ■                        |
| EQ3SMT | -                  | ■  | -        | - | ■ | ■         | ■           | ■       | 0,37 ÷ 5,5 | ■     | -        | ■             | -   | -          | -               | ■                               | -                               | ■                        |

## Overload protection unit for 1 single-phase pump with run capacitor



- Power supply 1x230V-50/60Hz
- NA input for start control
- Run capacitor
- Externally resettable thermal relay
- Illuminated 0-1 main switch
- IP55 rated thermoplastic enclosure
- Outputs with cable gland

| TYPE         | A  | RUN CAPACITOR (μF) | POWER |      |
|--------------|----|--------------------|-------|------|
|              |    |                    | HP    | kW   |
| PML 5/16-4   | 4  | 16                 | 0,5   | 0,37 |
| PML 5/20-4   | 4  | 20                 | 0,5   | 0,37 |
| PML 7/20-6   | 6  | 20                 | 0,75  | 0,55 |
| PML 7/25-6   | 6  | 25                 | 0,75  | 0,55 |
| PML 10/30-7  | 7  | 30                 | 1     | 0,75 |
| PML 10/35-7  | 7  | 35                 | 1     | 0,75 |
| PML 15/40-10 | 10 | 40                 | 1,5   | 1,1  |
| PML 20/50-13 | 13 | 50                 | 2     | 1,5  |
| PML 20/60-13 | 13 | 60                 | 2     | 1,5  |
| PML 30/75-18 | 18 | 75                 | 3     | 2,2  |
| PML 30/80-18 | 18 | 80                 | 3     | 2,2  |
| PMC 15/35-15 | 15 | 35                 | 1,5   | 1,1  |
| PMC 20/50-18 | 18 | 50                 | 2     | 1,5  |

## PROTECTION/CONTROL PANEL



### Overload protection unit for 1 single-phase pump with run capacitor + start capacitor with disjuncter



- Power supply 1x230V-50/60Hz
- ON/OFF switch
- NA input for start control
- Run + start capacitor with disjuncter
- Externally resettable thermal relay
- Green illuminated main switch
- IP55 rated thermoplastic enclosure
- Outputs with cable gland

| TYPE          | A  | RUN<br>CAPACITOR<br>( $\mu$ F) | START<br>CAPACITOR<br>( $\mu$ F) | POWER |     |
|---------------|----|--------------------------------|----------------------------------|-------|-----|
|               |    |                                |                                  | HP    | kW  |
| PMLD 15-35-13 | 13 | 35                             | 80                               | 1,5   | 1,1 |
| PMLD 20/50-15 | 15 | 50                             | 80                               | 2     | 1,5 |

### Overload protection unit for 1 three-phase pump



- Power supply 3x400V-50/60Hz
- ON/OFF switch
- Protective device with thermal relay for motor overload or phase failure
- Thermoplastic enclosure
- IP55 protection level

| TYPE                | A         | POWER   |         |
|---------------------|-----------|---------|---------|
|                     |           | HP      | kW      |
| PT 5/0,9-1,3        | 0,9-1,3   | 0,5     | 0,37    |
| PT 7/1,3-2,1        | 1,3-2,1   | 0,75    | 0,55    |
| PT 10/1,9-3         | 1,9-3     | 1       | 0,75    |
| PT 15-20/2,9-4,5    | 2,9-4,5   | 1,5-2   | 1,1-1,5 |
| PT 20-30-40/4,3-6,8 | 4,3-6,8   | 2-3-4   | 2,2-3   |
| PT 40-50/5,7-9,1    | 5,7-9,1   | 4-5,5   | 3-4     |
| PT 55-75/8,6-13,5   | 8,6-13,5  | 5,5-7,5 | 4-5,5   |
| PT 100/12,5-16,5    | 12,5-16,5 | 10      | 7,5     |
| PT 125-150-16-21    | 16-21     | 12,5-15 | 9,2-11  |
| PT 200/22-29        | 22-29     | 20      | 15      |



Electronic control panel for 1-2-3 pumps with direct start-up



APPLICATIONS

- ✓ PRESSURISATION
- ✓ FILLING
- ✓ EMPTYING
- ✓ DRAINAGE

EQSM

- Single-phase version 100-240Vac 50/60Hz
- Three-phase version 310-450Vac 50/60Hz
- LCD display for voltage, current, power factor, hours of operation, number of starts, motor status, alarms, analogue signal and thresholds
- AUTOMATIC - 0 - MANUAL operation buttons
- Voltage and current minimum and maximum electronic control, failure or incorrect phase sequence control on power supply input
- Programmable anti-seize autotest
- Dry running protection through level probes/ floats/ pressure switches and minimum current
- Up to 6 control inputs: floats/pressure switches
- Input for 4-20 mA or 0-10V analogue signal
- Analogue signal cm - m - bar
- Emergency start and stop inputs with analogue signal
- Clickson thermal pad inputs with automatic reset
- Inversion of inputs (from normally open to normally closed)
- Activation delay from mains return
- Manual button operation (fixed or pulse)
- Programmable alarms for voltage, levels, motor overload, minimum motor current, clickson, output contacts, starts/hour
- Automatic reset for minimum current alarm with 4 programmable times
- Auxiliary and motor protection fuses, isolator protection, duty standby protection
- ABS box IP55, Metallic box IP55 for EQ3SMT
- Duty-standby and motor changeover in the case of a fault for two-pump and three-pump control panels
- Predisposition for capacitors for single-phase versions (capacitors are available separately)

| TYPE      | VERSION | PUMPS N. | A     | POWER   |          | WEIGHT (Kg) |
|-----------|---------|----------|-------|---------|----------|-------------|
|           |         |          |       | HP      | kW       |             |
| EQSM      | 1-      | 1        | 0-18  | 0,5-3   | 0,37-2,2 | 1,5         |
| EQSMT 10  | 3-      | 1        | 0-18  | 0,75-10 | 0,55-7,5 | 2,3         |
| EQSMT 15  | 3-      | 1        | 16-25 | 10-15   | 7,5-11   | 2,5         |
| EQSMT 20  | 3-      | 1        | 16-32 | 15-20   | 11-15    | 3           |
| EQ2SM     | 1-      | 2        | 0-18  | 0,5-3   | 0,37-2,2 | 1,5         |
| EQ2SMT 10 | 3-      | 2        | 0-18  | 0,75-10 | 0,55-7,5 | 2,5         |
| EQ2SMT 15 | 3-      | 2        | 16-25 | 10-15   | 7,5-11   | 3           |
| EQ2SMT 20 | 3-      | 2        | 16-32 | 15-20   | 11-15    | 3,5         |
| EQ3SM     | 1-      | 3        | 0-18  | 0,5-3   | 0,37-2,2 | 5           |
| EQ3SMT 10 | 3-      | 3        | 0-18  | 0,75-10 | 0,55-7,5 | 15          |
| EQ3SMT 15 | 3-      | 3        | 16-25 | 10-15   | 7,5-11   | 15          |
| EQ3SMT 20 | 3-      | 3        | 16-32 | 15-20   | 11-15    | 15          |



CAPACITOR FOR EQSM

| RUN CAPACITOR | POWER |
|---------------|-------|
|               | HP    |
| 20µF          | 0,5   |
| 25µF          | 0,75  |
| 35µF          | 1-1,5 |
| 40µF          | 1,5   |
| 50µF          | 2     |
| 80µF          | 3     |

| RUN CAPACITOR + START CAPACITOR WITH DISJUNCTOR | POWER |
|-------------------------------------------------|-------|
|                                                 | HP    |
| 35µF + 80µF                                     | 1,5   |
| 50µF + 80µF                                     | 2     |

## PROTECTION/CONTROL PANEL

### Star/delta control panel for 1 three-phase pump



- Power supply 3x400V-50/60Hz
- 24V transformer for auxiliary circuit
- Low voltage inputs and circuits
- Blue mains supply LED
- Green motor running LED
- Red motor overload alarm LED
- Star/delta line contactors in AC3
- Auxiliary and motor protective devices with fuses
- Main door interlock switch disconnecter
- ABS box up to 11kW, metal box from 15kW

| TYPE    | A   | POWER |      |
|---------|-----|-------|------|
|         |     | HP    | kW   |
| QST 5   | 13  | 5,8   | 4    |
| QST 7   | 15  | 7,5   | 5,8  |
| QST 10  | 17  | 10    | 7,5  |
| QST 15  | 24  | 15    | 11   |
| QST 20  | 31  | 20    | 15   |
| QST 25  | 33  | 25    | 18,5 |
| QST 30  | 50  | 30    | 22   |
| QST 40  | 60  | 40    | 30   |
| QST 50  | 75  | 50    | 37   |
| QST 60  | 100 | 60    | 45   |
| QST 75  | 124 | 75    | 55   |
| QST 100 | 135 | 100   | 75   |
| QST 125 | 155 | 125   | 92   |
| QST 150 | 200 | 150   | 110  |
| QST 180 | 241 | 180   | 132  |
| QST 220 | 300 | 220   | 162  |
| QST 300 | 410 | 300   | 220  |

### Star/delta control panel for 2 three-phase pumps



- Power supply 3x400V-50/60Hz
- 24V transformer for auxiliary circuit
- Low voltage inputs and circuits
- Blue mains supply LED
- Green motor running LED
- Red motor overload alarm LED
- Star/delta line contactors in AC3
- Auxiliary and motor protective devices with fuses
- Main door interlock switch disconnecter
- Metal box (white range)

| TYPE     | A   | POWER |      |
|----------|-----|-------|------|
|          |     | HP    | kW   |
| Q2ST 3   | 8,5 | 3     | 2,2  |
| Q2ST 5   | 13  | 5,5   | 4    |
| Q2ST 7   | 15  | 7,5   | 5,5  |
| Q2ST 10  | 17  | 10    | 7,5  |
| Q2ST 15  | 24  | 15    | 11   |
| Q2ST 20  | 31  | 20    | 15   |
| Q2ST 25  | 38  | 25    | 18,5 |
| Q2ST 30  | 50  | 30    | 22   |
| Q2ST 40  | 60  | 40    | 30   |
| Q2ST 50  | 75  | 50    | 37   |
| Q2ST 60  | 100 | 60    | 45   |
| Q2ST 75  | 124 | 75    | 55   |
| Q2ST 100 | 135 | 100   | 75   |
| Q2ST 125 | 155 | 125   | 92   |
| Q2ST 150 | 200 | 150   | 110  |
| Q2ST 180 | 241 | 180   | 132  |
| Q2ST 220 | 300 | 220   | 162  |
| Q2ST 300 | 410 | 300   | 220  |

### Soft start control panel for 1 three-phase pump



- Power supply 3x400V-50/60Hz
- Blue mains supply LED
- Green motor running LED
- Red motor overload alarm LED
- NA input for start control
- Auxiliary motor protective devices with fuse
- Main door interlock switch disconnecter
- Forced ventilation kit
- IP54 rated metal box
- Ambient temperature  $-5 + +40^{\circ}\text{C}$

| TYPE    | A   | POWER |      |
|---------|-----|-------|------|
|         |     | HP    | kW   |
| QSS 10  | 18  | 10    | 7.5  |
| QSS 15  | 25  | 15    | 11   |
| QSS 20  | 30  | 20    | 15   |
| QSS 25  | 37  | 25    | 18.5 |
| QSS 30  | 45  | 30    | 22   |
| QSS 40  | 50  | 40    | 30   |
| QSS 50  | 72  | 50    | 37   |
| QSS 55  | 55  | 50    | 45   |
| QSS 75  | 105 | 75    | 55   |
| QSS 80  | 125 | 80    | 59   |
| QSS 100 | 142 | 100   | 75   |
| QSS 125 | 170 | 125   | 92   |
| QSS 150 | 210 | 150   | 110  |
| QSS 180 | 250 | 180   | 132  |
| QSS 220 | 300 | 220   | 162  |
| QSS 300 | 370 | 300   | 220  |

### Control panel with impedance start for 1 three-phase pump



- Power supply 3x400V-50/60Hz
- Blue mains supply LED
- Green motor running LED
- Red motor overload alarm LED
- NA input for start control
- Stator reactance with 4 starts/hour, 2 of which are consecutive
- Adjustable reactance timer
- Line and impedance starter contactors in AC3
- Main door interlock switch disconnecter
- Ambient temperature  $-5 + +40^{\circ}\text{C}$

| TYPE    | A   | POWER |      |
|---------|-----|-------|------|
|         |     | HP    | kW   |
| QRS 5   | 13  | 5.5   | 4    |
| QRS 7   | 16  | 7.5   | 5.5  |
| QRS 10  | 20  | 10    | 7.5  |
| QRS 15  | 29  | 15    | 11   |
| QRS 20  | 35  | 20    | 15   |
| QRS 25  | 52  | 25    | 13.5 |
| QRS 30  | 63  | 30    | 22   |
| QRS 40  | 80  | 40    | 30   |
| QRS 50  | 90  | 50    | 37   |
| QRS 60  | 110 | 80    | 45   |
| QRS 75  | 135 | 75    | 55   |
| QRS 90  | 150 | 90    | 66   |
| QRS 100 | 175 | 100   | 75   |
| QRS 125 | 200 | 125   | 92   |
| QRS 150 | 235 | 150   | 110  |
| QRS 180 | 310 | 180   | 132  |
| QRS 220 | 360 | 220   | 162  |
| QRS 300 | 410 | 300   | 220  |

# TANKS



## UTILIZATION

Interchangeable membrane expansion tanks; the pre-charge pressure in the tank guarantees a water reserve but also reduces the number of startups of the connected pump; the membranes are certified for use with foodstuffs; they may be in EPDM or butyl depending on the model.

## CONSTRUCTION CHARACTERISTICS

Flanges in galvanised steel or AISI 304 stainless steel.

Tanks in carbon steel coated with powder paint or in AISI 304 stainless steel.

Pre-charge valve with protective cover.

| TYPE      | DESCRIPTION                 |
|-----------|-----------------------------|
| AS 24     | 24 lt. Spherical tank       |
| ACV 24    | 24 lt. Horizontal tank      |
| ACZ 24    | 24 lt. Horizontal tank      |
| ACA 24 SS | 24 lt. Stainless steel tank |
| AC 50     | 50 lt. Horizontal tank      |
| AC 60     | 60 lt. Horizontal tank      |
| AC 80     | 80 lt. Horizontal tank      |
| AC 100    | 100 lt. Horizontal tank     |
| AC 200    | 200 lt. Horizontal tank     |
| AC 300    | 300 lt. Horizontal tank     |
| AV 50     | 50 lt. Vertical tank        |
| AV 60     | 60 lt. Vertical tank        |
| AV 80     | 80 lt. Vertical tank        |
| AV 100    | 100 lt. Vertical tank       |
| AV 200    | 200 lt. Vertical tank       |
| AV 300    | 300 lt. Vertical tank       |
| AV 500    | 500 lt. Vertical tank       |
| AV 750    | 750 lt. Vertical tank       |
| AV 1000   | 1000 lt. Vertical tank      |

# MEMBRANES



| TYPE         | DESCRIPTION                   |
|--------------|-------------------------------|
| M2 24        | EPDM membrane for ACZ 24 lt.  |
| M 24         | membrane for AS 24 - ACV 24   |
| M 50         | membrane for AC 50 - AV 50    |
| M 100        | membrane for AC 100 - AV 100  |
| M 200        | membrane for AC 200 - AV 200  |
| M 300        | membrane for AC 300 - AV 300  |
| M 500        | membrane for AV 500           |
| M 750 - 2000 | membrane for AV 750 - AV 2000 |



# PRESSURE SWITCHES



| TYPE | DESCRIPTION | RANGE AT RISING PRESSURE (bar) |
|------|-------------|--------------------------------|
| PP5  | 1- / 3-     | 1-5                            |
| PP12 | 1- / 3-     | 3-12                           |

# PRESSURE GAUGES



| TYPE    | PHASE                     |
|---------|---------------------------|
| PR 6    | 0-6 bar rear connection   |
| PR 6 R  | 0-6 bar radial connection |
| PP 12   | 0-12 bar rear connection  |
| PR 10 G | 0-10 bar glycerine        |
| PR 12 G | 0-12 bar glycerine        |

# FLEXIBLE HOSES



| TYPE   | DESCRIPTION                       |
|--------|-----------------------------------|
| FL 530 | Flexible hose with bend 1"x530x1" |
| FL 600 | Flexible hose with bend 1"x600x1" |
| FL 700 | Flexible hose with bend 1"x700x1" |
| FL 850 | Flexible hose with bend 1"x850x1" |

# CONNECTORS



| TYPE | DESCRIPTION              |
|------|--------------------------|
| R3   | 3 way 1" brass connector |
| R5   | 5 way 1" brass connector |



| TYPE       | DESCRIPTION                                                   |
|------------|---------------------------------------------------------------|
| R5X 1"     | 5 way 1" Aisi 304 connector with built-in no return valve     |
| R5X 1 1/4" | 5 way 1 1/4" Aisi 304 connector with built-in no return valve |
| R5X 1 1/2" | 5 way 1 1/2" Aisi 304 connector with built-in no return valve |

# VALVES



| TYPE      | DESCRIPTION        |
|-----------|--------------------|
| VF 1"     | foot valve 1"      |
| VF 1 1/4" | foot valve 1 1/4"  |
| VF 1 1/2" | foot valve 1 1/2"  |
| VF 2"     | foot valve 2"      |
| VR 1"     | check valve 1"     |
| VR 1 1/4" | check valve 1 1/4" |
| VR 1 1/2" | check valve 1 1/2" |
| VR 2"     | check valve 2"     |

# FLOAT SWITCHES



| TYPE  | DESCRIPTION             |
|-------|-------------------------|
| GK 2  | Key 2 mt. cable length  |
| GK 3  | Key 3 mt. cable length  |
| GK 5  | Key 5 mt. cable length  |
| GK 10 | Key 10 mt. cable length |

# CABLES JOINTS



## Kit GC series

Junction cable kit with heat - shrinkable tubing.

For a professionally made junction it is recommended to use the "Kit GC", it has excellent requirements in terms of electric, mechanical and water resistance. This kit is composed of: crimp wire connectors in tinplated copper, thin wall heat-shrinkable tubing to cover the conductor of the cable, a strip of Scotch 2547, one of Scotchfil and medium wall heat-shrinkable tubing to cover the junction. It is recommended to seal the two end points of the sheath with a PVC textured insulating tape.

| TYPE         | Cables section<br>mm <sup>2</sup> | Cable number |
|--------------|-----------------------------------|--------------|
| Kit GC 4/2,5 | 1/2,5                             | 4            |
| Kit GC 4/6   | 4/6                               | 4            |
| Kit GC 4/10  | 10                                | 4            |
| Kit GC 4/16  | 16                                | 4            |
| Kit GC 4/25  | 25                                | 4            |
| Kit GC 4/35  | 35                                | 4            |
| Kit GC 4/50  | 50                                | 4            |
| Kit GC 1/50  | 50                                | 1            |
| Kit GC 1/70  | 70                                | 1            |
| Kit GC 1/95  | 95                                | 1            |
| Kit GC 1/120 | 120                               | 1            |
| Kit GC 1/150 | 150                               | 1            |

# LEVEL PROBES



## Kit K3SL series

Level Probes Kit consist of 3 electrodes model K3SL.

Single pole probe used for level control in wells or storage tanks.

It made of an AISI 303 stainless steel electrode, a plastic (PPOX) holder and a cable gland.

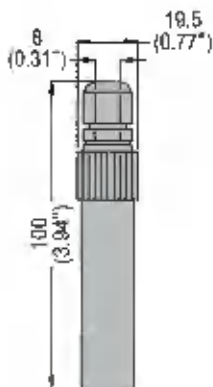
A seal ring and the tightening of the cable gland PG7 prevent water from entering the cable terminal connector and causing its oxidation.

Cable connection: screw.

The external cable diameter must be 2.5 to 6mm/Ø0.1 to 0.24" to warrant perfect sealing.

Maximum connection cable section: 2.5mm<sup>2</sup>.

Maximum operating temperature: +60°C.





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# 50Hz

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Viale dell'Industria, 1

37040 Veronella (VR) - Italia

Tel. +39 0442 489500 - Fax +39 0442 489510

[www.pentax-pumps.it](http://www.pentax-pumps.it)

[com@pentax-pumps.it](mailto:com@pentax-pumps.it)

