

# UP

## Multi-stage submersible pumps

-  Clean water  
(Maximum sand content 150 g/m<sup>3</sup>)
-  Domestic use
-  Civil use
-  Agricultural use



### PERFORMANCE RANGE

- Flow rate up to **180 l/min** (10.8 m<sup>3</sup>/h)
- Head up to **95 m**

### APPLICATION LIMITS

- Maximum liquid temperature **+40 °C**
- Maximum sand content **150 g/m<sup>3</sup>**
- **20 m** maximum immersion depth (with a sufficiently long power cable)
- Vertical and horizontal installation
- Continuous service **S1**

### CONSTRUCTION AND SAFETY STANDARDS

- **10 m** long power cable
- Float switch for single-phase versions

EN 60335-1  
IEC 60335-1  
CEI 61-150

EN 60034-1  
IEC 60034-1  
CEI 2-3



### PATENTS - TRADE MARKS - MODELS

- Patent n. EP14755156.8
- Patent n. IT0001428923
- Patent n. EP2419642.2

### CERTIFICATIONS

Company with management system certified DNV  
ISO 9001: QUALITY



### INSTALLATION AND USE

A new concept range of submersible multi-stage pumps designed guarantee even greater reliability, thanks to patented innovative technical solutions which prevent blockage of the pumps even after prolonged periods of inactivity.

Because of their high efficiency and reliability they are suitable for use with clean water in domestic, civil and agricultural applications such as the distribution of water in combination with pressure tanks, for the irrigation of gardens and orchards and for pressure boosting, etc.

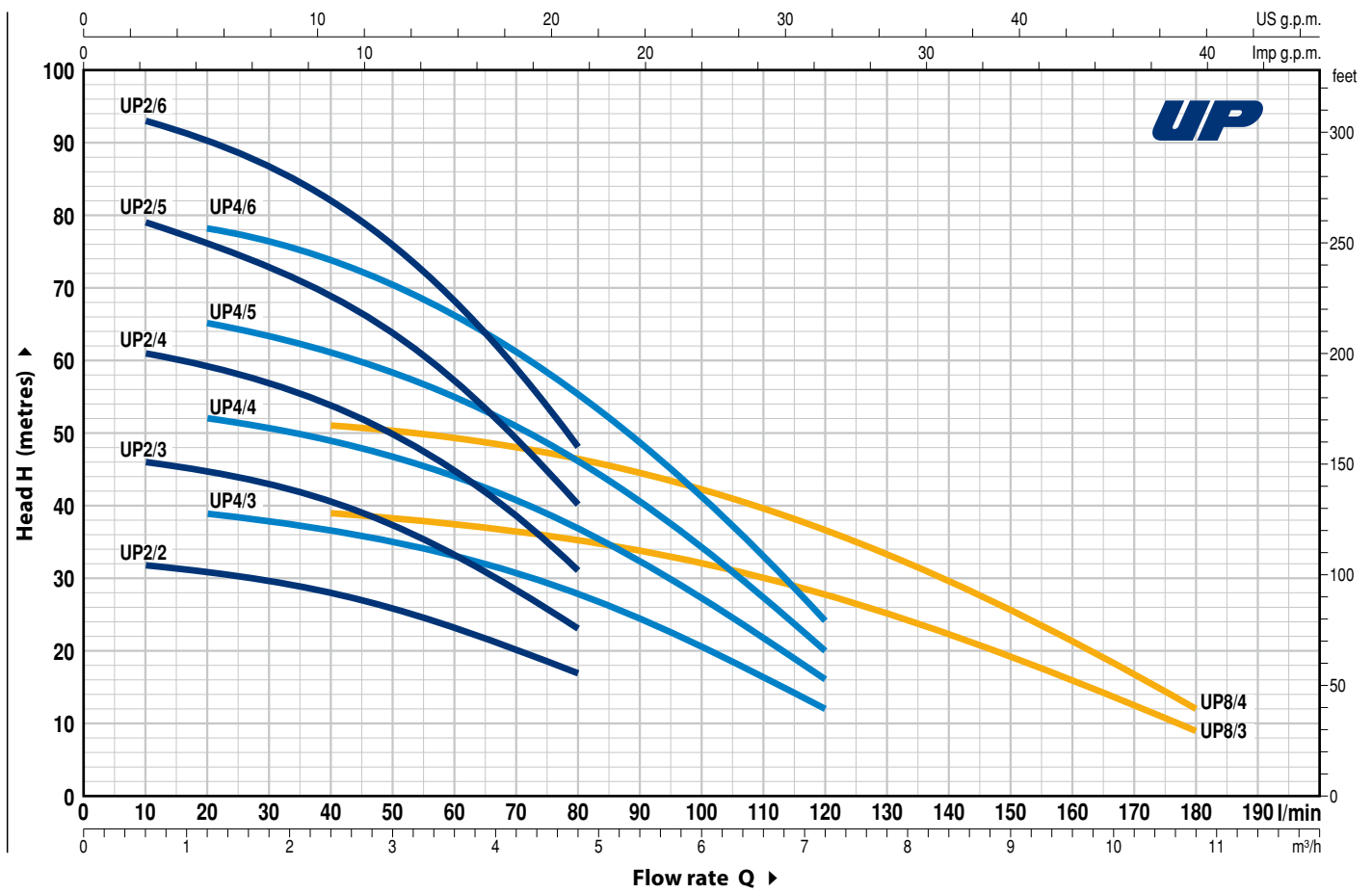
### OPTIONS AVAILABLE ON REQUEST

- Pumps without float switch
- Pumps fitted with power cables of other lengths
- Other voltages or 60 Hz frequency
- **Support kit for horizontal operation**



### CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 2900 min<sup>-1</sup>



| MODEL        |             | POWER (P <sub>2</sub> ) |      | Q<br>m <sup>3</sup> /h<br>l/min | H metres |     |      |      |      |      |      |      |      |      |      |  |  |  |
|--------------|-------------|-------------------------|------|---------------------------------|----------|-----|------|------|------|------|------|------|------|------|------|--|--|--|
| Single-phase | Three-phase | kW                      | HP   |                                 | 0        | 0.6 | 1.2  | 2.4  | 3.6  | 4.8  | 6.0  | 7.2  | 8.4  | 9.6  | 10.8 |  |  |  |
|              |             |                         |      |                                 | 0        | 10  | 20   | 40   | 60   | 80   | 100  | 120  | 140  | 160  | 180  |  |  |  |
| UPm 2/2-GE   | UP 2/2      | 0.37                    | 0.5  |                                 | 33       | 32  | 31   | 28   | 23.5 | 17   |      |      |      |      |      |  |  |  |
| UPm 2/3-GE   | UP 2/3      | 0.55                    | 0.75 |                                 | 48       | 46  | 44.5 | 40.5 | 33.5 | 23   |      |      |      |      |      |  |  |  |
| UPm 2/4-GE   | UP 2/4      | 0.75                    | 1    |                                 | 63       | 61  | 59   | 54   | 45   | 31   |      |      |      |      |      |  |  |  |
| UPm 2/5-GE   | UP 2/5      | 1.1                     | 1.5  |                                 | 81       | 79  | 75.5 | 68.5 | 57.5 | 40   |      |      |      |      |      |  |  |  |
| UPm 2/6-GE   | UP 2/6      | 1.5                     | 2    |                                 | 95       | 93  | 90   | 82   | 68.5 | 48   |      |      |      |      |      |  |  |  |
| UPm 4/3-GE   | UP 4/3      | 0.55                    | 0.75 |                                 | 40       | -   | 39   | 37   | 33   | 28   | 20.5 | 12   |      |      |      |  |  |  |
| UPm 4/4-GE   | UP 4/4      | 0.75                    | 1    |                                 | 53       | -   | 52   | 49   | 44   | 37   | 27.5 | 16   |      |      |      |  |  |  |
| UPm 4/5-GE   | UP 4/5      | 1.1                     | 1.5  |                                 | 67       | -   | 65   | 61.5 | 55   | 46.5 | 34   | 20   |      |      |      |  |  |  |
| UPm 4/6-GE   | UP 4/6      | 1.5                     | 2    |                                 | 80       | -   | 78   | 74   | 66   | 56   | 41   | 24   |      |      |      |  |  |  |
| UPm 8/3-GE   | UP 8/3      | 1.1                     | 1.5  |                                 | 40       | -   | -    | 39   | 37.5 | 35.2 | 32   | 27.8 | 22.2 | 16   | 9    |  |  |  |
| UPm 8/4-GE   | UP 8/4      | 1.5                     | 2    |                                 | 52       | -   | -    | 51   | 49.2 | 46.5 | 42   | 36.5 | 29.5 | 21.2 | 12   |  |  |  |

Q = Flow rate H = Total manometric head

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

➡ Single-phase pumps without float switch on request

## POS. COMPONENT CONSTRUCTION CHARACTERISTICS

|   |   |  |
|---|---|--|
| 1 | <b>EXTERNAL SLEEVE</b>                                  | Stainless steel AISI 304 complete with threaded delivery port in compliance with ISO 228/1 |
| 2 | <b>MOTOR SLEEVE</b>                                     | Stainless steel AISI 304   |
| 3 | <b>IMPELLERS AND DIFFUSERS</b>                          | Noryl FE1520PW   |
| 4 | <b>DIAPHRAGMS</b>                                       | Stainless steel AISI 304   |
| 5 | <b>MOTOR SHAFT</b>                                      | Stainless steel AISI 431   |
| 6 | <b>TWO MECHANICAL SEALS SEPARATED BY AN OIL CHAMBER</b> |  |

| Seal Model | Shaft Diameter | Position   | Materials       |                 |           |
|------------|----------------|------------|-----------------|-----------------|-----------|
|            |                |            | Stationary ring | Rotational ring | Elastomer |
| STA-17     | Ø 17 mm        | Motor side | Ceramic         | Graphite        | NBR       |
| ST1-16     | Ø 16 mm        | Pump side  | Silicon carbide | Graphite        | NBR       |

|   |                 |                               |
|---|-----------------|-------------------------------|
| 7 | <b>BEARINGS</b> | 6303 2RS - C3 / 6203 ZZ - C3E |
|---|-----------------|-------------------------------|

|                     |                         |                |
|---------------------|-------------------------|----------------|
| 8                   | <b>CAPACITOR</b>        |                |
| <b>Pump</b>         | <b>Capacitance</b>      |                |
| <i>Single-phase</i> | <i>(230 V or 240 V)</i> | <i>(110 V)</i> |
| UPm 2/2-GE          |                         |                |
| UPm 2/3-GE          | 16 µF - 500 VL          | 30 µF - 250 VL |
| UPm 4/3-GE          |                         |                |
| UPm 2/4-GE          | 20 µF - 450 VL          | -              |
| UPm 4/4-GE          |                         |                |
| UPm 2/5-GE          |                         |                |
| UPm 4/5-GE          | 25 µF - 450 VL          | -              |
| UPm 8/3-GE          |                         |                |
| UPm 2/6-GE          |                         |                |
| UPm 4/6-GE          | 35 µF - 450 VL          | -              |
| UPm 8/4-GE          |                         |                |

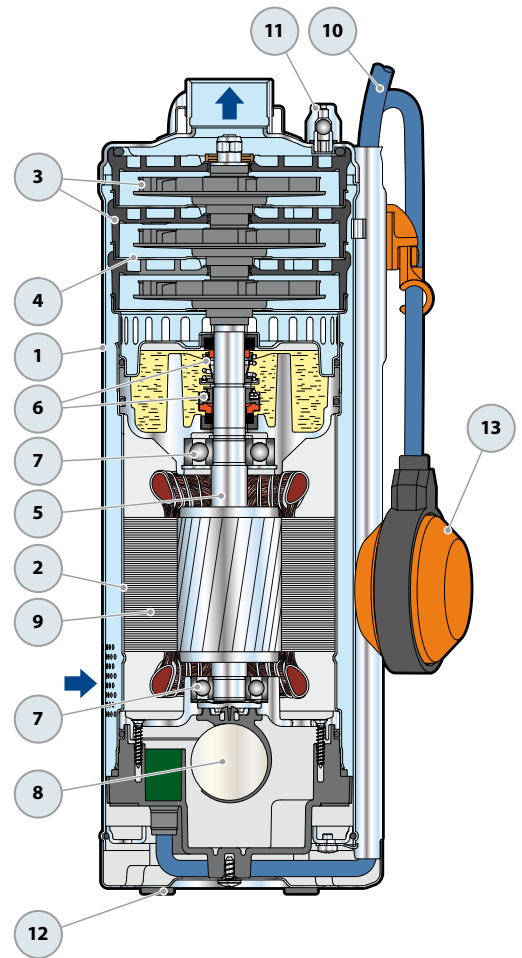
|  |                       |
|--|-----------------------|
| 9  | <b>ELECTRIC MOTOR</b> |
| <p><b>UPm:</b> single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.</p> <p><b>UP:</b> three-phase 400 V - 50 Hz.</p> <ul style="list-style-type: none"> <li>- Insulation: class F</li> <li>- Protection: IP X8</li> </ul> |                       |

|   |                    |
|---|--------------------|
| 10  | <b>POWER CABLE</b> |
| <p>⇒ <b>DRINCABLE® type</b> approved for use in drinking water by "WRAS" in compliance with BS 6920, approval n. 7513 Standard length 10 metres</p> |                    |

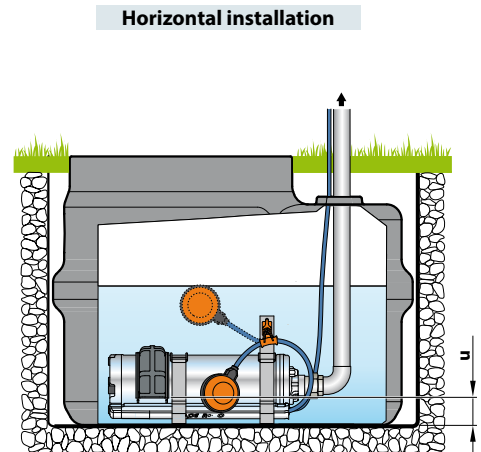
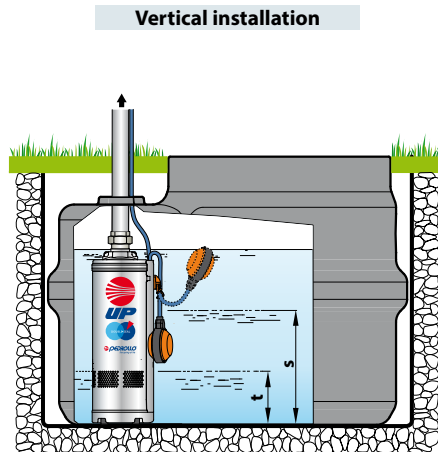
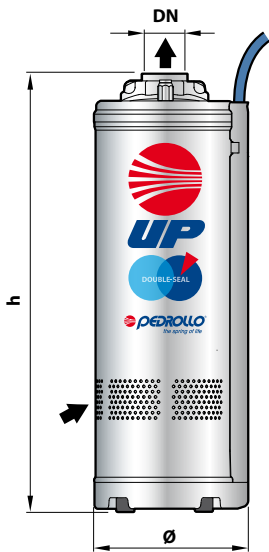
|    |                             |
|----|-----------------------------|
| 11 | <b>AUTOMATIC VENT VALVE</b> |
|----|-----------------------------|

|    |                                |
|----|--------------------------------|
| 12 | <b>ANTI-VIBRATION SUPPORTS</b> |
|----|--------------------------------|

|    |   |
|----|---|
| 13 | <b>FLOAT SWITCH</b><br>(only for single-phase versions) |
|----|---|



## DIMENSIONS AND WEIGHT



| MODEL        |             | PORT<br>DN | N.<br>STAGES | DIMENSIONS mm |      | kg   |      |
|--------------|-------------|------------|--------------|---------------|------|------|------|
| Single-phase | Three-phase |            |              | Ø             | h    | 1~   | 3~   |
| UPm 2/2-GE   | UP 2/2      | 1 1/4"     | 2            | 150           | 398  | 12.8 | 12.5 |
| UPm 2/3-GE   | UP 2/3      |            | 3            |               | 425  | 13.1 | 13.1 |
| UPm 2/4-GE   | UP 2/4      |            | 4            |               | 482  | 14.8 | 13.7 |
| UPm 2/5-GE   | UP 2/5      |            | 5            |               | 509  | 16.4 | 15.1 |
| UPm 2/6-GE   | UP 2/6      |            | 6            |               | 556  | 18.0 | 16.6 |
| UPm 4/3-GE   | UP 4/3      |            | 3            |               | 425  | 12.9 | 12.9 |
| UPm 4/4-GE   | UP 4/4      | 4          | 482          | 14.6          | 13.5 |      |      |
| UPm 4/5-GE   | UP 4/5      | 5          | 509          | 16.2          | 15.3 |      |      |
| UPm 4/6-GE   | UP 4/6      | 6          | 556          | 18.1          | 16.9 |      |      |
| UPm 8/3-GE   | UP 8/3      | 3          | 455          | 15.2          | 13.8 |      |      |
| UPm 8/4-GE   | UP 8/4      | 4          | 502          | 17.0          | 15.5 |      |      |

| MODEL  | LEVELS mm |     |    |
|--|-----------|-----|----|
|  | s         | t   | u  |
| UP 2/2<br>UP 2/3<br>UP 4/3                     | 320       | 135 | 55 |
| UP 2/4<br>UP 2/5<br>UP 4/4<br>UP 4/5<br>UP 8/3 | 350       |     |    |
| UP 2/6<br>UP 4/6<br>UP 8/4                     | 370       |     |    |

s = Minimum restarting level  
t = Emptying level  
u = Minimum operational level

## ABSORPTION

| MODEL      | VOLTAGE |       |        |
|------------|---------|-------|--------|
|            | 230 V   | 240 V | 110 V  |
| UPm 2/2-GE | 4.4 A   | 4.2 A | 8.8 A  |
| UPm 2/3-GE | 5.4 A   | 5.2 A | 10.8 A |
| UPm 2/4-GE | 6.2 A   | 6.0 A | -      |
| UPm 2/5-GE | 7.6 A   | 7.3 A | -      |
| UPm 2/6-GE | 8.8 A   | 8.5 A | -      |
| UPm 4/3-GE | 5.0 A   | 4.8 A | 10.0 A |
| UPm 4/4-GE | 6.2 A   | 5.9 A | -      |
| UPm 4/5-GE | 7.2 A   | 6.9 A | -      |
| UPm 4/6-GE | 8.7 A   | 8.4 A | -      |
| UPm 8/3-GE | 6.8 A   | 6.5 A | -      |
| UPm 8/4-GE | 8.5 A   | 8.4 A | -      |

| MODEL  | VOLTAGE |       |       |       |
|--------|---------|-------|-------|-------|
|        | 230 V   | 400 V | 240 V | 415 V |
| UP 2/2 | 2.8 A   | 1.6 A | 2.7 A | 1.5 A |
| UP 2/3 | 3.3 A   | 1.9 A | 3.2 A | 1.8 A |
| UP 2/4 | 4.0 A   | 2.3 A | 3.9 A | 2.2 A |
| UP 2/5 | 5.0 A   | 2.9 A | 4.9 A | 2.8 A |
| UP 2/6 | 5.7 A   | 3.3 A | 5.5 A | 3.2 A |
| UP 4/3 | 3.2 A   | 1.8 A | 3.1 A | 1.7 A |
| UP 4/4 | 3.8 A   | 2.2 A | 3.7 A | 2.1 A |
| UP 4/5 | 4.9 A   | 2.8 A | 4.7 A | 2.7 A |
| UP 4/6 | 5.6 A   | 3.2 A | 5.4 A | 3.1 A |
| UP 8/3 | 5.0 A   | 2.9 A | 4.9 A | 2.8 A |
| UP 8/4 | 5.7 A   | 3.3 A | 5.5 A | 3.2 A |

## PALLETIZATION

| MODEL        |             | GROUPAGE/CONTAINER<br>n. pumps |
|--------------|-------------|--------------------------------|
| Single-phase | Three-phase |                                |
| UPm 2/2-GE   | UP 2/2      | 30                             |
| UPm 2/3-GE   | UP 2/3      | 30                             |
| UPm 2/4-GE   | UP 2/4      | 30                             |
| UPm 2/5-GE   | UP 2/5      | 25                             |
| UPm 2/6-GE   | UP 2/6      | 25                             |

| MODEL        |             | GROUPAGE/CONTAINER<br>n. pumps |
|--------------|-------------|--------------------------------|
| Single-phase | Three-phase |                                |
| UPm 4/3-GE   | UP 4/3      | 30                             |
| UPm 4/4-GE   | UP 4/4      | 30                             |
| UPm 4/5-GE   | UP 4/5      | 25                             |
| UPm 4/6-GE   | UP 4/6      | 25                             |
| UPm 8/3-GE   | UP 8/3      | 30                             |
| UPm 8/4-GE   | UP 8/4      | 30                             |