

Multi-stage submersible pumps

-  Clean water
(Maximum sand content 150 g/m³)
-  Domestic use
-  Civil use
-  Agricultural use



PERFORMANCE RANGE

- Flow rate up to **180 l/min** (10.8 m³/h)
- Head up to **95 m**

APPLICATION LIMITS

- Maximum liquid temperature **+40 °C**
- Maximum sand content **150 g/m³**
- **20 m** maximum immersion depth (with a sufficiently long power cable)
- Vertical and horizontal installation
- Continuous service **S1**

CONSTRUCTION AND SAFETY STANDARDS

- **20 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 Pending n. PCT/IB2014/063126
- Patent Pending n. BO2015A000116
- Patent Pending n. PCT/EP2009/059855

CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY
ISO 14001: ENVIRONMENT AND SAFETY



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.

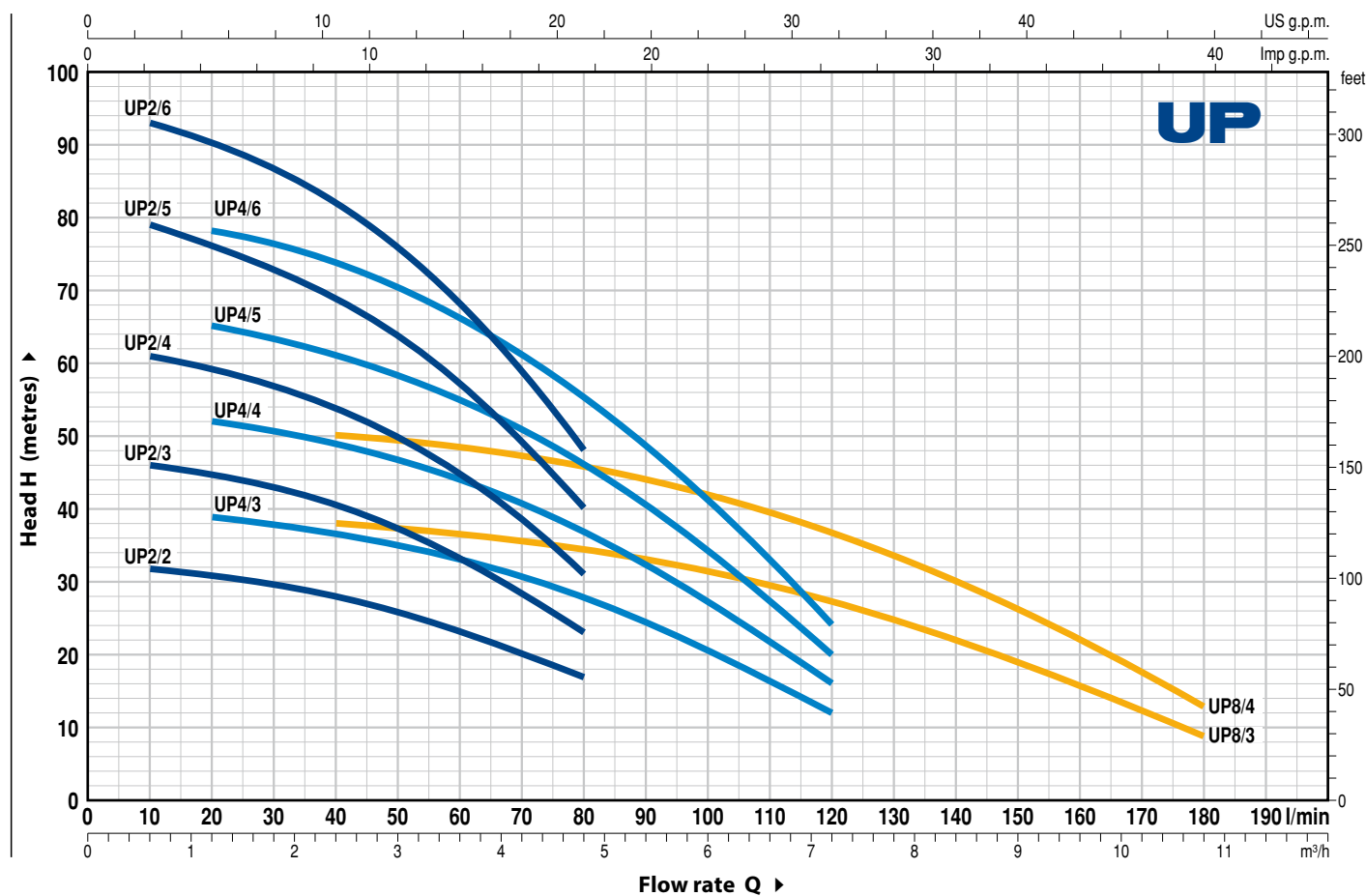
OPTIONS AVAILABLE ON REQUEST

- 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 rpm



MODEL		POWER (P ₂)		Q m³/h l/min	0	0.6	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6	10.8
Single-phase	Three-phase	kW	HP		0	10	20	40	60	80	100	120	140	160	180
UPm 2/2-GE	UP 2/2	0.37	0.5	H metres	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	–	–	38	36.5	34.5	31.5	27.5	22	16	9
UPm 8/4-GE	UP 8/4	1.5	2		52	–	–	50	48.5	46	42	36.5	29.5	21.5	13

Q = Flow rate H = Total manometric head

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

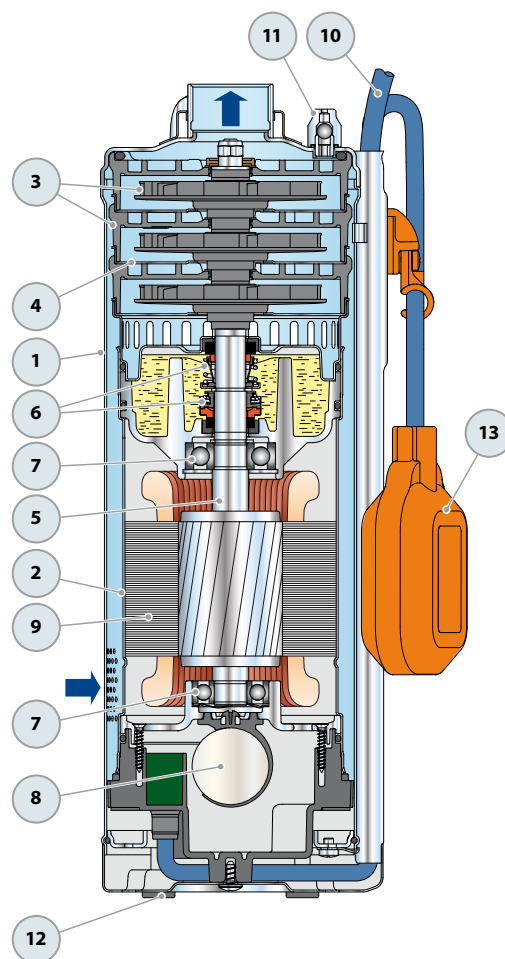
➡ Single-phase pumps without float switch on request

POS. COMPONENT

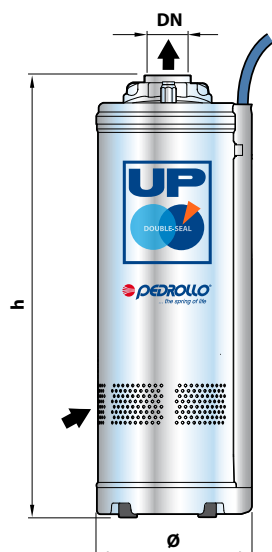
CONSTRUCTION CHARACTERISTICS

1	EXTERNAL SLEEVE	Stainless steel AISI 304 complete with threaded delivery port in compliance with ISO 228/1				
2	MOTOR SLEEVE	Stainless steel AISI 304				
3	IMPELLERS AND DIFFUSERS	Noryl FE1520PW				
4	DIAPHRAGMS	Stainless steel AISI 304				
5	MOTOR SHAFT	Stainless steel EN 10088-3 - 1.4104				
6	TWO MECHANICAL SEALS SEPARATED BY AN OIL CHAMBER					
Seal		Shaft	Position	Materials		
Model	Diameter			Stationary ring	Rotational ring	Elastomer
STA-17	Ø 17 mm	Motor side		Silicon carbide	Graphite	NBR
ST1-16	Ø 16 mm	Pump side		Silicon carbide	Graphite	NBR
7	BEARINGS	6303 2RS - C3 / 6203 ZZ - C3E				
8	CAPACITOR					
Pump		Capacitance				
Single-phase	(230 V or 240 V)	(110 V)				
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	ELECTRIC MOTOR					
UPm: single-phase 230 V - 50 Hz with thermal overload protector incorporated into the winding.						
UP: three-phase 400 V - 50 Hz.						
– Insulation: class F						
– Protection: IP X8						
10	POWER CABLE					
⇒ DRINCABLE® type approved for use in drinking water by “WRAS” in compliance with BS 6920, approval n. 7513 Standard length 20 metres						
11	AUTOMATIC VENT VALVE					
12	ANTI-VIBRATION SUPPORTS					
13	FLOAT SWITCH (only for single-phase versions)					

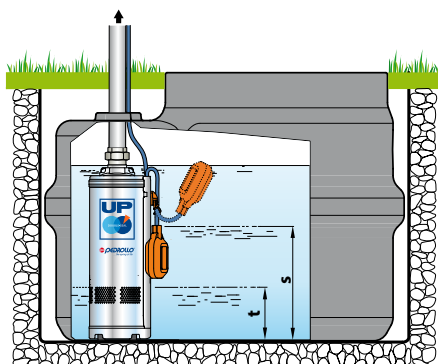
The diagram illustrates the internal components of a submersible pump assembly in a vertical cross-section. The components are numbered as follows: 1. Motor winding, 2. Motor sleeve, 3. Impeller/diffuser, 4. Diaphragm, 5. Motor shaft, 6. Stationary ring of the upper mechanical seal, 7. Rotational ring of the upper mechanical seal, 8. Stationary ring of the lower mechanical seal, 9. Rotational ring of the lower mechanical seal, 10. Automatic vent valve, 11. Anti-vibration support, 12. Float switch, and 13. Power cable. The pump is shown with a central shaft passing through the motor, seals, and impeller. The motor is at the top, and the impeller is at the bottom. The power cable is connected to the motor. The diagram also shows the internal oil chamber between the two mechanical seals.



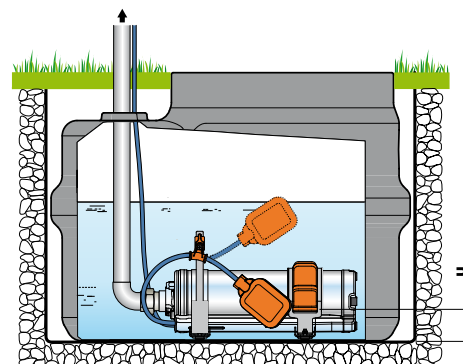
DIMENSIONS AND WEIGHT



Vertical installation



Horizontal installation



MODEL		PORT DN	N. 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	13.7	13.5
UPm 2/3-GE	UP 2/3		3		425	14.2	14.0
UPm 2/4-GE	UP 2/4		4		482	15.8	15.0
UPm 2/5-GE	UP 2/5		5		509	17.2	16.4
UPm 2/6-GE	UP 2/6		6		556	19.5	18.5
UPm 4/3-GE	UP 4/3		3		425	14.2	14.0
UPm 4/4-GE	UP 4/4		4		482	15.8	15.0
UPm 4/5-GE	UP 4/5		5		509	17.2	16.4
UPm 4/6-GE	UP 4/6		6		556	19.5	18.5
UPm 8/3-GE	UP 8/3		3		455	15.4	14.6
UPm 8/4-GE	UP 8/4		4		502	17.7	16.7

MODEL	LEVELS mm		
	s	t	u
UP 2/3 UP 4/3	320	135	55
UP 2/4 UP 2/5 UP 4/4 UP 4/5 UP 8/3	350		
UP 2/6 UP 4/6 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	4.3 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	12.4 A
UPm 2/5-GE	7.6 A	7.3 A	15.2 A
UPm 2/6-GE	8.8 A	8.5 A	17.6 A
UPm 4/3-GE	5.0 A	4.8 A	10.0 A
UPm 4/4-GE	6.2 A	6.0 A	12.4 A
UPm 4/5-GE	7.2 A	6.9 A	14.4 A
UPm 4/6-GE	8.7 A	8.4 A	17.4 A
UPm 8/3-GE	7.6 A	7.3 A	15.2 A
UPm 8/4-GE	8.8 A	8.5 A	17.6 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 n. pumps	CONTAINER n. pumps
Single-phase	Three-phase		
UPm 2/2-GE	UP 2/2	30	54
UPm 2/3-GE	UP 2/3	30	54
UPm 2/4-GE	UP 2/4	30	54
UPm 2/5-GE	UP 2/5	25	45
UPm 2/6-GE	UP 2/6	25	45

MODEL		GROUPAGE n. pumps	CONTAINER n. pumps
Single-phase	Three-phase		
UPm 4/3-GE	UP 4/3	30	54
UPm 4/4-GE	UP 4/4	30	54
UPm 4/5-GE	UP 4/5	25	45
UPm 4/6-GE	UP 4/6	25	45
UPm 8/3-GE	UP 8/3	30	54
UPm 8/4-GE	UP 8/4	30	54