
5" PULSAR BORE-HOLE PUMPS



GENERAL DATA

Applications

The PULSAR electric pumps are used in systems for lifting clear water from wells, collecting tanks, septic tanks, Roman wells and watercourses and are suitable for providing pressurised water in domestic systems, small-scale farming and sprinkler systems for gardens and vegetable gardens. The pump is particularly silent and is installed inside wells or tanks to prevent suction and turn-off problems.

Constructional features of the pump

Single-piece multi-stage bore-hole pump with hydraulic assembly positioned under the motor which is cooled by the pumped liquid. Impellers, diffusers, filter and oil sump in abrasion-proof thermoplastic. Pump liner, stator sleeve, upper head with sleeve and sealing ring in AISI 304 steel. Upper and lower bearing supports in dezincification-proof pressed brass. Rotor shaft extension in AISI 304. Elastomers in NBR. Stainless steel hardware. Double mechanical seal separated by an oil chamber, in ceramic/carbon on the motor side and carburundum/carburundum on the pump side. The sealing system ensures the motor remains airtight and the mechanical seal holds even after brief periods of no-water operation.

Constructional features of the motor

Continuous service asynchronous submersible motor. Stator incorporated in an AISI 304 stainless steel airtight casing with a cover housing the cables and capacitor. Rotor mounted on oversized ball bearings to ensure silent running and long life. Incorporated thermal current protection and permanently connected capacitor in the single-phase version. As regards three-phase protection, a motor overload cut out should be fitted, in accordance with current standards. Built to IEC 2-3 and IEC 61-69 (EN 60335-2-41).

Protection level of motor: IP 68

Insulation class: F

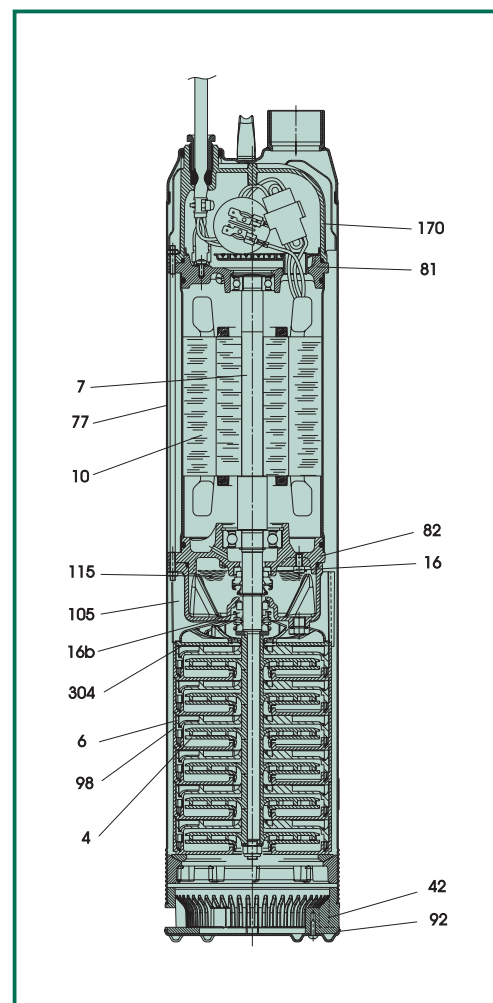
Standard voltage: Single-phase 220/240V - 50 Hz Three-phase 400V - 50 Hz

Standard cables: 20 m of HO7 RN F cable complete with SCHUKO EEC 7-VII-UNEL 47166-68 plug for the single-phase version. The single-phase versions can be supplied with or without floats for automatic operation.

TECHNICAL DATA

N.	PARTS	MATERIALS
4*	IMPELLER	TECHNOPOLYMER
6*	DIFFUSER	TECHNOPOLYMER
7*	SHAFT WITH ROTOR	AISI 304 (In contact with the liquid)
10*	MOTOR CASING WITH STATOR	AISI 304
16*	COMPLETE UPPER MECHANICAL SEAL	NBR/CERAMIC/CARBON
16b	COMPLETE LOWER MECHANICAL SEAL	NBR/SILICON/SILICON
42*	SUCTION FILTER	TECHNOPOLYMER
77*	PUMP LINER	AISI 304
81*	UPPER BEARING SUPPORT	BRASS
82*	LOWER BEARING SUPPORT	BRASS
92*	COVER FOR FILTER	AISI 304
98*	DIFFUSER BOX	TECHNOPOLYMER
105*	OIL SUMP	TECHNOPOLYMER
115	SEAL LUBRICANT	ESSO MARCOL 172 OIL
170*	CABLE SLOT COVER	TECHNOPOLYMER
304*	REAR DISK	TECHNOPOLYMER

* In contact with the liquid.

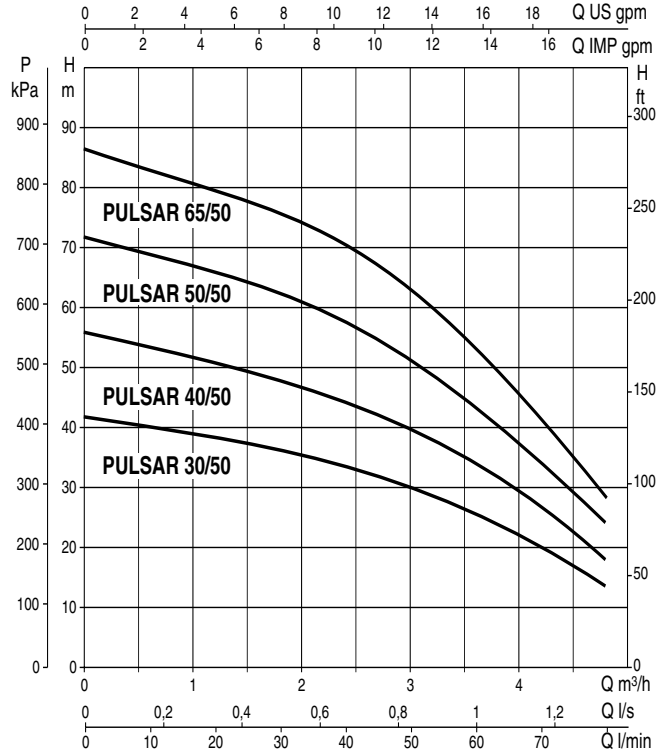
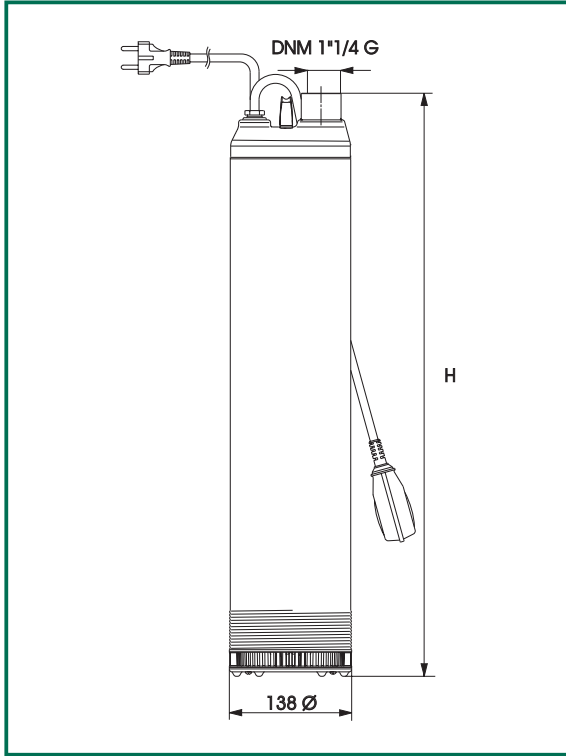


- Operating range: from 0.9 to 7.2 m³/h with a head of up to 86 m.
- Pumped liquid: clean, without solid or abrasive substances, not aggressive.
- Max. quantity of sand in water: 50 gr/m³
- Liquid temperature range: from 0°C to +40°C
- Maximum depth of immersion: 20 metres
- Protection level of motor: IP 68
- Protection class of motor: F
- Installation: fixed or portable, horizontal or vertical.
- Operation: manual or automatic (continuous operation with pump totally submerged)
- Diameter of delivery connection: 1" 1/4 GAS
- Maximum diameter of pump: 138 mm

The performance curves are based on the kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

PULSAR 50

Liquid temperature range: from 0°C to +40°C



MODEL	Ø (mm)	HEIGHT H	DNM	PACKING DIMENSIONS (mm)			VOLUME m ³	WEIGHT Kg		
				L/A	L/B	H		MA*	MNA*	TNA*
PULSAR 30/50	138	562	1" 1/4 G	690	220	165	0,025	17,3	16,7	17,3
PULSAR 40/50	138	562	1" 1/4 G	690	220	165	0,025	17,5	17	17,5
PULSAR 50/50	138	630	1" 1/4 G	690	220	165	0,025	18,5	18	18,5
PULSAR 65/50	138	657	1" 1/4 G	690	220	165	0,025	19,5	19	19,5

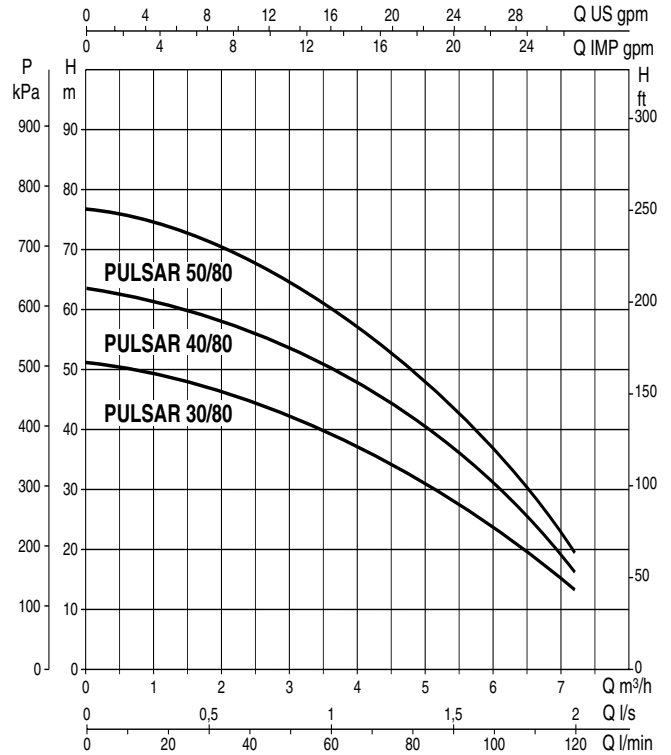
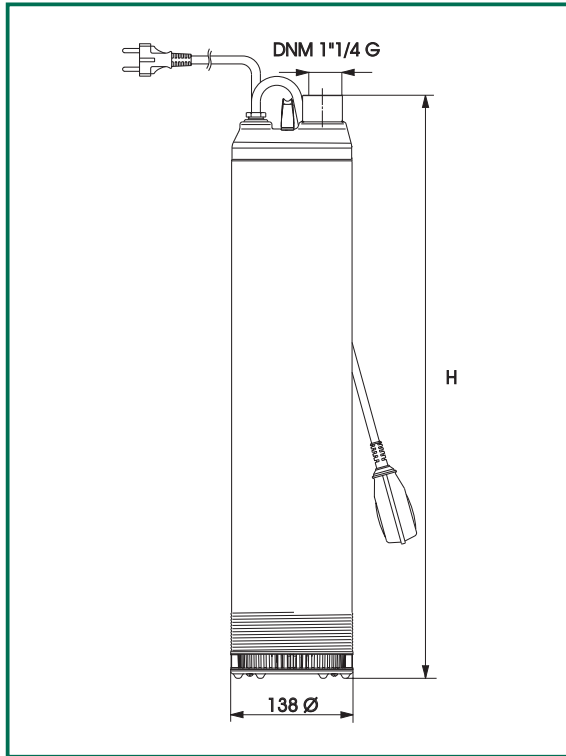
* The models are available with or without float.

MODEL	ELECTRICAL DATA						HYDRAULIC DATA					
	VOLTAGE 50 Hz	P1 W	P2		I _n A	CAPACITOR μF	Q m ³ /h	H (m)				
			kW	HP				0	1,2	2,4	3,6	4,8
PULSAR 30/50 M	220-240 V~	940	0,55	0,75	4,4	20	450	0	20	40	60	80
PULSAR 30/50 T	400 V~	870	0,55	0,75	1,65	-	-	42	38,2	33,8	24,8	13,5
PULSAR 40/50 M	220-240 V~	1120	0,75	1	5,2	20	450	56	51	45	33	18
PULSAR 40/50 T	400 V~	1035	0,75	1	1,85	-	-	72	65,5	58	43,6	24,5
PULSAR 50/50 M	220-240 V~	1450	1	1,36	6,5	25	450	86	78,5	70	52,8	29
PULSAR 50/50 T	400 V~	1350	1	1,36	2,4	-	-					
PULSAR 65/50 M	220-240 V~	1700	1,2	1,6	7,8	30	450					
PULSAR 65/50 T	400 V~	1600	1,2	1,6	2,9	-	-					

The performance curves are based on the kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

PULSAR 80

Liquid temperature range: from 0°C to +40°C



MODEL	Ø (mm)	HEIGHT H	DNM	PACKING DIMENSIONS (mm)			VOLUME m ³	WEIGHT Kg		
				L/A	L/B	H		MA*	MNA*	TNA*
PULSAR 30/80	138	562	1" 1/4 G	690	220	165	0,025	17,5	17	17,5
PULSAR 40/80	138	630	1" 1/4 G	690	220	165	0,025	18,5	18	18,5
PULSAR 50/80	138	657	1" 1/4 G	690	220	165	0,025	19,5	19	19,5

* The models are available with or without float.

MODEL	ELECTRICAL DATA							HYDRAULIC DATA							
	VOLTAGE 50 Hz	P1 W	P2		In A	CAPACITOR		Q m ³ /h l/min	0	1,2 20	2,4 40	3,6 60	4,8 80	6 100	7,2 120
			kW	HP		µF	Vc								
PULSAR 30/80 M	220-240 V~	1120	0,75	1	5,2	20	450	H (m)	51	48,2	44,8	39,2	32,4	23,5	13
PULSAR 30/80 T	400 V~	1035	0,75	1	1,85	-	-								
PULSAR 40/80 M	220-240 V~	1450	1	1,36	6,5	25	450								
PULSAR 40/80 T	400 V~	1350	1	1,36	2,4	-	-								
PULSAR 50/80 M	220-240 V~	1700	1,2	1,6	7,8	30	450								
PULSAR 50/80 T	400 V~	1600	1,2	1,6	2,9	-	-								