

# PULSAR DRY

## SUBMERSIBLE PUMPS



### TECHNICAL DATA

- Flow rate maximum:** from 0,9 m<sup>3</sup>/h to 7,2 m<sup>3</sup>/h
- Head up to:** 88 m
- Maximum immersion depth:** 20 m
- Type of pumped liquid:** clean, free from solid or abrasive substances, non-viscous, non-aggressive, non-crystallized and chemically neutral
- Sand quantity:** 50 g/m<sup>3</sup>
- Liquid temperature range:** from 0°C to +40°C
- Flanges, thread:** 1" 1/4 GAS
- Pump maximum diameter:** 138 mm
- Impeller/s material:** technopolymer
- Maximum number of starts:** 20/h
- Protection class:** IP 68
- Motor insulation class:** F
- Single phase power input:** 230 V 50 Hz
- Three phase power input:** 3x230 V 50 Hz / 3x400 V 50 Hz
- Power cable (m) and plug:** 15 m H07RN-F with power plug
- Possible type of installation:** fixed or removable, in vertical position
- Special versions on request:** different voltages and frequencies, different cable length

5" Submersible or surface pump, monobloc multi-impeller with pump body in stainless steel, for pressurization, gardening and irrigation in residential building service.

### CONSTRUCTION FEATURES OF THE PUMP

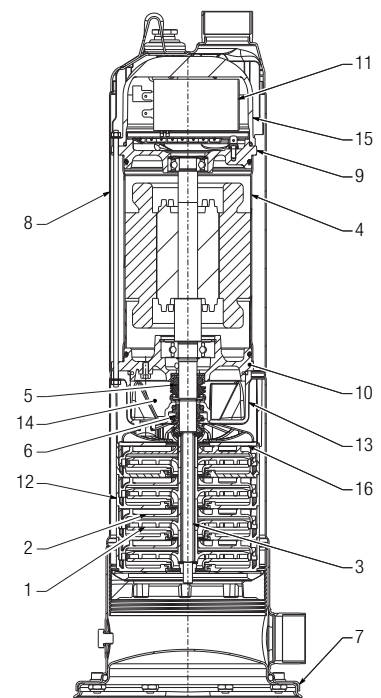
Pump body in AISI 304 stainless steel. Technopolymer impellers, diffusers, filter and oil chamber. Hydraulic part positioned under the motor. Double mechanical seal with interposed oil chamber, ceramic-carbon on the motor side and silicon carbide on the pump side. The applied sealing system guarantees the watertight seal of the motor and the good functioning of the mechanical seal even in case of short dry running. Side suction through threaded fitting (1" 1/4 GAS) and vertical delivery.

### CONSTRUCTION FEATURES OF THE MOTOR

Continuous duty asynchronous submersible motor, cooled by the pumped liquid. Rotor mounted on oversized ball bearings. Motor shaft in AISI 303 stainless steel. Stator inserted in an airtight stainless steel casing and covered by a lid that contains wiring and capacitor. Thermo-amperometric protection and permanent capacitor included in the standard single-phase version. Protection by the user in the three-phase version and CB version.

## MATERIALS

N.	PARTS*	MATERIALS
1	IMPELLER	TECHNOPOLYMER
2	DIFFUSER	TECHNOPOLYMER
3	ROTOR SHAFT	AISI 303
4	STATOR SLEEVE	AISI 304
5	UPPER MECHANICAL SEAL	NBR / ALUMINA / CARBON
6	LOWER MECHANICAL SEAL	NBR / SILICON / CARBON
7	PUMP BASE	AISI 304
8	EXTERNAL SLEEVE	AISI 304
9	UPPER BEARING SUPPORT	COPPER ALLOY
10	LOWER BEARING SUPPORT	COPPER ALLOY
11	CAPACITOR	-
12	DIFFUSER HOUSING	TECHNOPOLYMER
13	OIL COVER	TECHNOPOLYMER
14	LUBRIF.OIL	OIL ESSO MARCOL 172
15	COVER ELECTRICAL BOX	TECHNOPOLYMER
16	REAR DISC	TECHNOPOLYMER



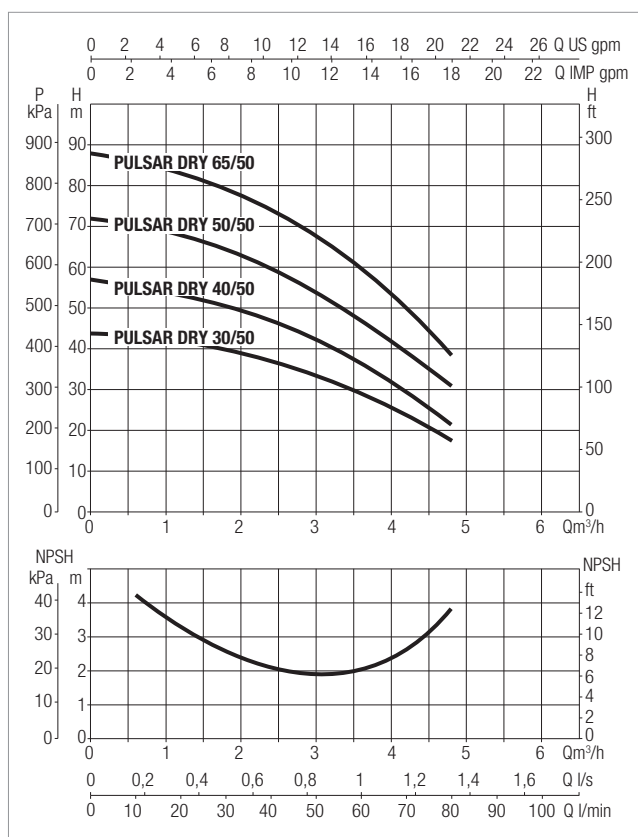
\* In contact with the pumped liquid.

# PULSAR DRY

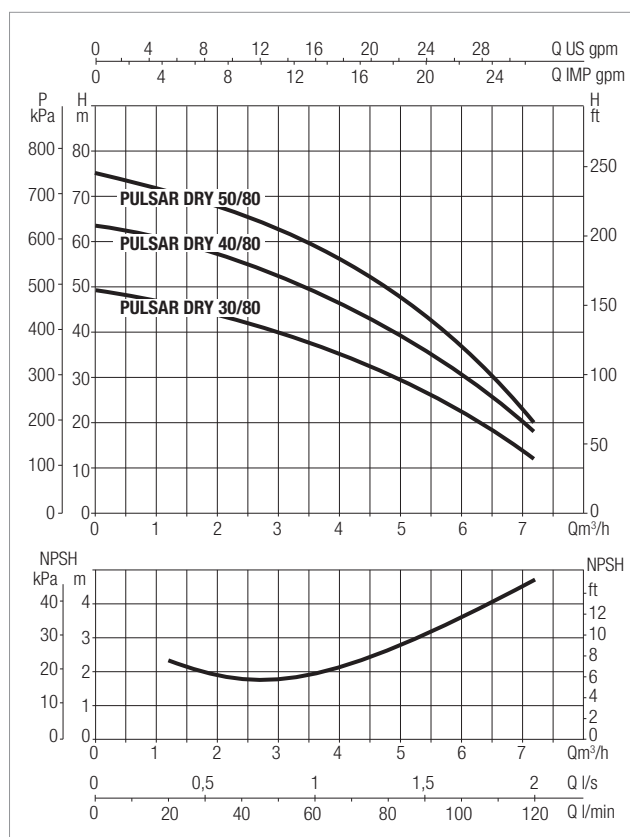
## SUBMERSIBLE PUMPS

### PERFORMANCE AT 50 Hz

MODEL	HYDRAULIC DATA							
	Q=m <sup>3</sup> /h	0	1,2	2,4	3,6	4,8	6	7,2
	Q=l/min	0	20	40	60	80	100	120
PULSAR DRY 30/50	H (m)	44	42	37	29	18	-	-
PULSAR DRY 40/50		57	53	48	36	22	-	-
PULSAR DRY 50/50		72	68	60	46,5	31	-	-
PULSAR DRY 65/50		88	83	74	60	38,5	-	-
PULSAR DRY 30/80		49	46	43	37	31	22,5	12
PULSAR DRY 40/80		64	60	56	48	41	31	18
PULSAR DRY 50/80		75	71	66	60	50	37	20



The performance curves are based on kinematic viscosity values = 1 mm<sup>2</sup>/s and density equivalent to 1000 kg/m<sup>3</sup>. Curve tolerance according to ISO 9906.



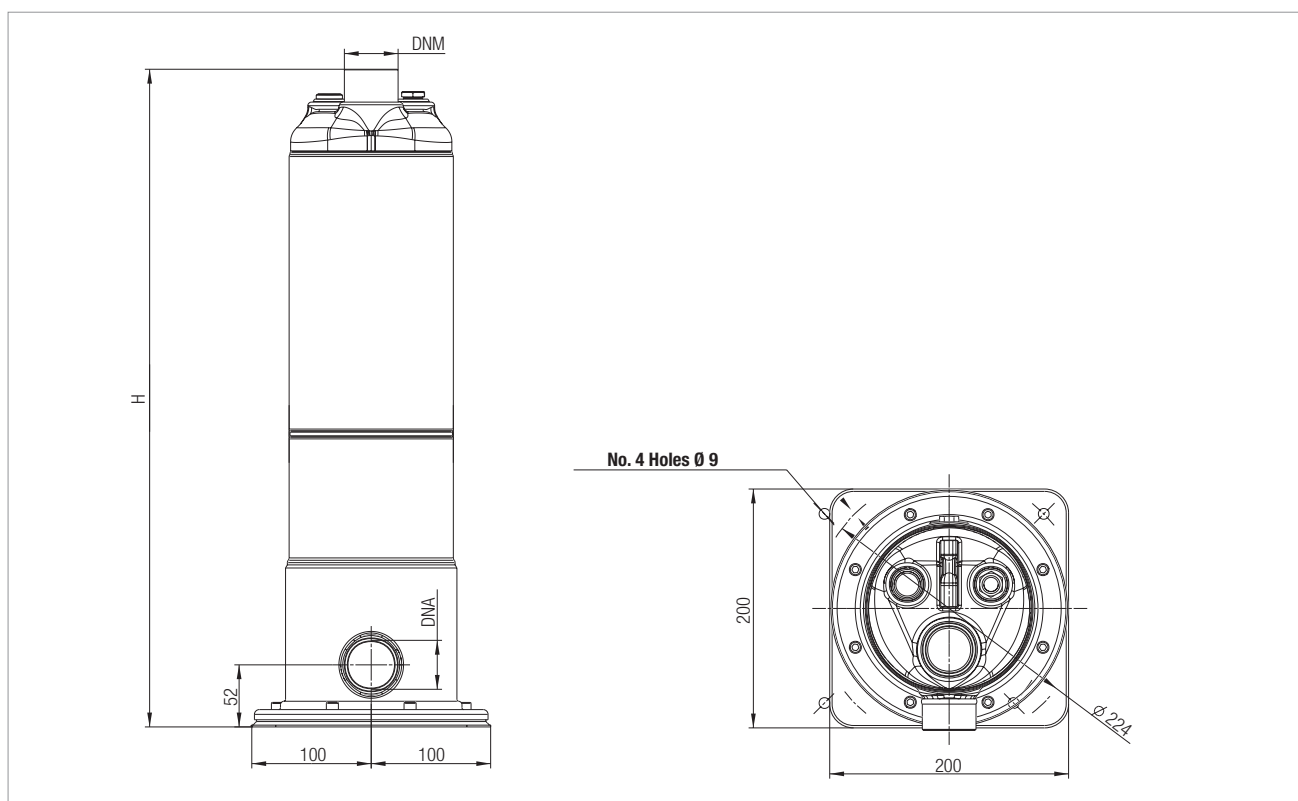
The performance curves are based on kinematic viscosity values = 1 mm<sup>2</sup>/s and density equivalent to 1000 kg/m<sup>3</sup>. Curve tolerance according to ISO 9906.

### ELECTRICAL DATA AND DIMENSIONS - PULSAR DRY 50

MODEL	ELECTRICAL DATA							H mm	PACKING DIMENSIONS			VOLUME PACKING m <sup>3</sup>	Q.TY X PALLET	WEIGHT Kg
	POWER INPUT 50 Hz	P1 kW	P2 NOMINAL		I <sub>n</sub> A	CAPACITOR			L/A	L/B	H			
			kW	HP		μF	Vc							
PULSAR DRY 30/50 M-NA	1 x 230 V ~	1	0,65	0,87	4,5	20	420	602	745	232	250	0,043	15	16,7
PULSAR DRY 30/50 T-NA	3 x 230 V ~	1	0,64	0,86	3,4	-	-	602	745	232	250	0,043	15	17,3
	3 x 400 V ~	1	0,64	0,86	2	-	-	602	745	232	250	0,043	15	17,3
PULSAR DRY 40/50 M-NA	1 x 230 V ~	1,2	0,77	1	5,4	20	420	602	745	232	250	0,043	15	17,3
PULSAR DRY 40/50 T-NA	3 x 230 V ~	1,2	0,79	1,1	3,9	-	-	602	745	232	250	0,043	15	17
	3 x 400 V ~	1,2	0,79	1,1	2,2	-	-	602	745	232	250	0,043	15	17
PULSAR DRY 50/50 M-NA	1 x 230 V ~	1,6	1,13	1,5	7,35	25	420	670	745	232	250	0,043	15	18
PULSAR DRY 50/50 T-NA	3 x 230 V ~	1,5	1,12	1,5	4,85	-	-	670	745	232	250	0,043	15	18,5
	3 x 400 V ~	1,5	1,12	1,5	2,8	-	-	670	745	232	250	0,043	15	18,5
PULSAR DRY 65/50 M-NA	1 x 230 V ~	1,9	1,3	1,7	8,3	30	420	697	745	232	250	0,043	15	19
PULSAR DRY 65/50 T-NA	3 x 230 V ~	1,8	1,3	1,7	6,1	-	-	697	745	232	250	0,043	15	19,5
	3 x 400 V ~	1,8	1,3	1,7	3,5	-	-	697	745	232	250	0,043	15	19,5

### ELECTRICAL DATA AND DIMENSIONS - PULSAR DRY CB 50

MODEL	ELECTRICAL DATA							H mm	PACKING DIMENSIONS			VOLUME PACKING m <sup>3</sup>	Q.TY X PALLET	WEIGHT Kg
	POWER INPUT 50 Hz	P1 kW	P2 NOMINAL		I <sub>n</sub> A	CAPACITOR			L/A	L/B	H			
			kW	HP		μF	Vc							
PULSAR DRY CB 30/50 M-NA	1 x 230 V ~	1	0,65	0,87	4,5	-	-	602	745	232	250	0,043	15	16,7
PULSAR DRY CB 40/50 M-NA	1 x 230 V ~	1,2	0,77	1	5,4	-	-	602	745	232	250	0,043	15	17,3
PULSAR DRY CB 50/50 M-NA	1 x 230 V ~	1,6	1,13	1,5	7,35	-	-	670	745	232	250	0,043	15	18
PULSAR DRY CB 65/50 M-NA	1 x 230 V ~	1,9	1,3	1,7	8,3	-	-	697	745	232	250	0,043	15	19



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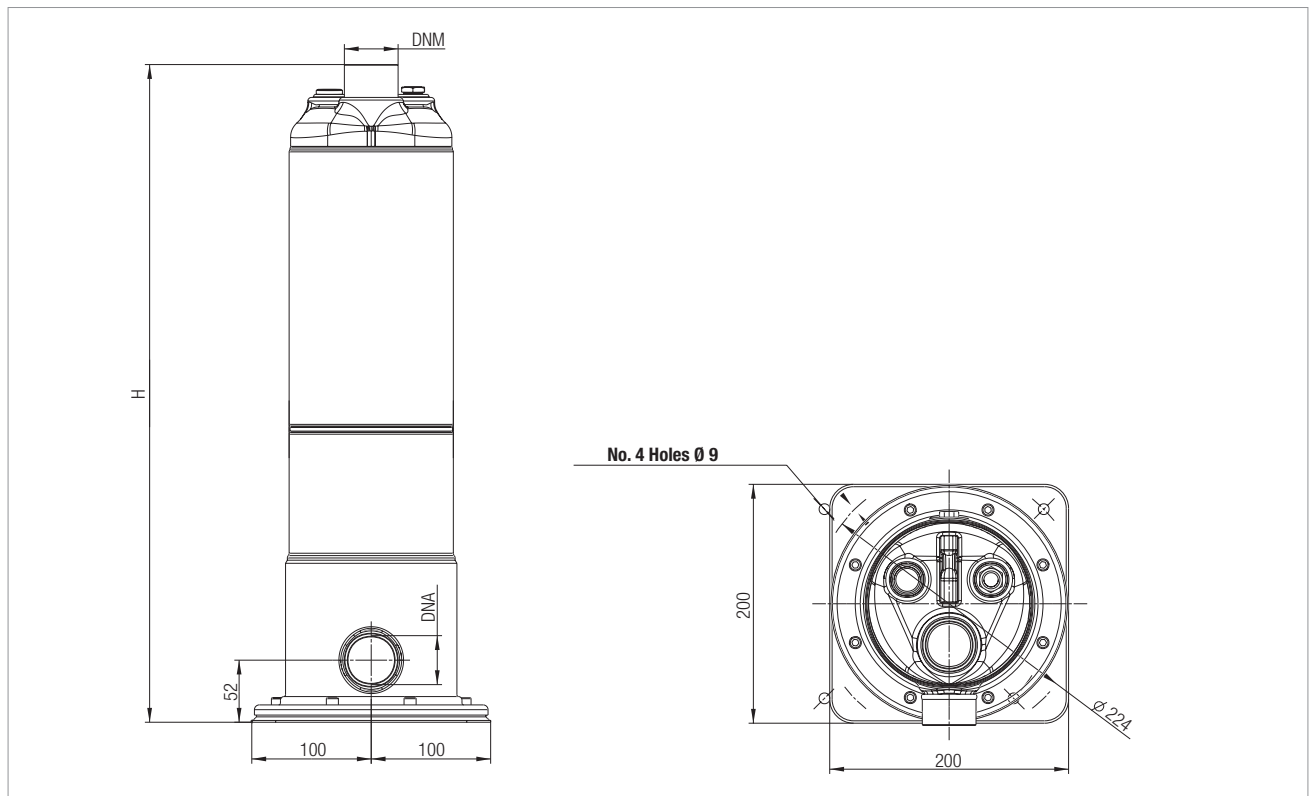
## SUBMERSIBLE PUMPS

### ELECTRICAL DATA AND DIMENSIONS - PULSAR DRY 80

MODEL	ELECTRICAL DATA							H mm	PACKING DIMENSIONS			VOLUME PACKING m <sup>3</sup>	Q.TY X PALLET	WEIGHT Kg
	POWER INPUT 50 Hz	P1 kW	P2 NOMINAL		In A	CAPACITOR			L/A	L/B	H			
			kW	HP		μF	Vc							
PULSAR DRY 30/80 M-NA	1 x 230 V ~	1,2	0,78	1,05	5,5	20	420	602	745	232	250	0,043	15	17
PULSAR DRY 30/80 T-NA	3 x 230 V ~	1,2	0,78	1,1	4	-	-	602	745	232	250	0,043	15	17,5
	3 x 400 V ~	1,2	0,78	1,1	2,3	-	-	602	745	232	250	0,043	15	17,5
PULSAR DRY 40/80 M-NA	1 x 230 V ~	1,6	1,1	1,5	7,4	25	420	670	745	232	250	0,043	15	18
PULSAR DRY 40/80 T-NA	3 x 230 V ~	1,5	1,1	1,5	4,85	-	-	670	745	232	250	0,043	15	18,5
	3 x 400 V ~	1,5	1,1	1,5	2,8	-	-	670	745	232	250	0,043	15	18,5
PULSAR DRY 50/80 M-NA	1 x 230 V ~	1,9	1,3	1,7	8,3	30	420	697	745	232	250	0,043	15	19
PULSAR DRY 50/80 T-NA	3 x 230 V ~	1,8	1,3	1,7	5,9	-	-	697	745	232	250	0,043	15	19,5
	3 x 400 V ~	1,8	1,3	1,7	3,4	-	-	697	745	232	250	0,043	15	18,5

### ELECTRICAL DATA AND DIMENSIONS - PULSAR DRY CB 80


MODEL	ELECTRICAL DATA							H mm	PACKING DIMENSIONS			VOLUME PACKING m <sup>3</sup>	Q.TY X PALLET	WEIGHT Kg
	POWER INPUT 50 Hz	P1 kW	P2 NOMINAL		In A	CAPACITOR			L/A	L/B	H			
			kW	HP		μF	Vc							
PULSAR DRY CB 30/80 M-NA	1,2	0,78	1,05	5,5	5,5	-	-	602	745	232	250	0,043	15	17
PULSAR DRY CB 40/80 M-NA	1,6	1,1	1,5	7,4	7,4	-	-	670	745	232	250	0,043	15	18
PULSAR DRY CB 50/80 M-NA	1,9	1,3	1,7	8,3	8,3	-	-	697	745	232	250	0,043	15	19



### CONTROL BOX PULSAR DRY

Electrical control box for operation of single-phase submersible electric pumps, containing manually resettable thermal protection, capacitor, and terminals for the connection of a pressure switch/float switch.

Complete with 1,5 m cable. Wall-mounting box in self-extinguishing thermoplastic.

	SINGLE-PHASE MODEL	MOTOR POWER kW	OVERLOAD PROTECTION AMP	CAPACITOR $\mu$ F	WEIGHT Kg
	<b>CONTROL BOX PULSAR 0.9</b>	0,65	6	20	1,7
	<b>CONTROL BOX PULSAR 1</b>	0,75	7	20	1,7
	<b>CONTROL BOX PULSAR 1.5</b>	1,1	9	25	1,7
	<b>CONTROL BOX PULSAR 1.75</b>	1,3	10	30	1,7