

Submersible Propeller Pump Type ABS VUP M8 and M9

SULZER

50 Hz

Submersible propeller pump type ABS VUP series are used where larger water volumes must be pumped up to relatively low heads (up to approx. 10 m).

They are ideal for storm water pumping stations, for polder dewatering, for storm water protection, for irrigation and dewatering, for cooling and process water and for a multitude of other applications.

Construction

- The water-tight fully flood-proof motor and the pump section form a compact and robust unit.
- Water pressure sealed connection chamber, with two stage cable entry, protected against excessive cable tension and bending.
- Bimetallic thermal sensors in the stator which open at 140 °C.
- Rotor and rotor shaft dynamically balanced, upper and lower bearings lubricated-for-life, maintenance-free.
- Optimum motor cooling by directing the medium being pumped over the motor.
- Double shaft sealing.
- Lower sealing by means of a silicon carbide mechanical seal, independent of the direction of rotation.
- Upper mechanical seal in carbon/chrome steel, independent of direction of rotation.
- Oil chamber with seal monitor sensor to indicate water leakage through mechanical seal.
- Hydraulic parts with axial propeller with 3 or 4 adjustable blades and inlet diffuser on discharge side.
- Gearbox available from 250 kW for VUP 1001 to VUP 1202.
- These pumps are available both in standard and explosion-proof versions in accordance with international standards e.g. ATEX II 2G Ex db IIB T4 Gb.

Motor

Water pressure sealed high efficiency motors, (3-phase, squirrel cage induction motors), from 160 to 650 kW and depending on hydraulic requirements as 4- to 12-pole versions.

Voltage: 400 V, 3~, 50 Hz (other voltages on request)

Insulation components: Class H (winding protection by 140 °C sensor)

Protection type: IP68

Start-up: DOL (direct on line), star-delta, or soft starter.

Pump selection

To access more detailed information like pump performance curves, dimensional drawings, product description and motor performance curves, please use our ABSEL program:

<http://absel.sulzer.com/> **Hydraulic selection:**

-> Enter: Duty point

-> Select: Hydraulics

-> Select: Motor



Hydraulics

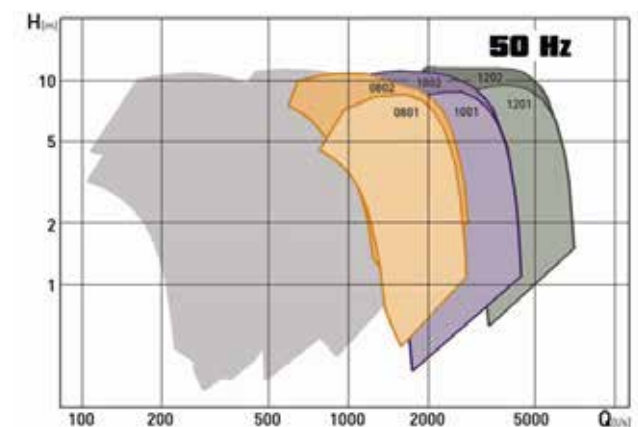
You have the choice of the following hydraulics for the nominal pipe diameter 1000 to 1400 mm.

For power demand beyond available range M8/M9 please refer to technical data sheet VUPX - PE4 to PE6 or VUPX - PE7.

Hydraulics / Propeller type

Hydraulics / Propeller type	
VUP 0801	3-blades, adjustable
VUP 0802	4-blades, adjustable
VUP 1001	3-blades, adjustable
VUP 1002	4-blades, adjustable
VUP 1201	3-blades, adjustable
VUP 1202	4-blades, adjustable

Performance field



Standard and options

Description	Standard	Option
Max. ambient temperature	40 °C	
Max. submergence depth	20 m	
Mains voltage	400 V/50 Hz	230 V (not all versions), 690 V/50 Hz
Voltage tolerance	± 10 %	
Insulation components	Class H (140° C)	Class H (160° C)
Start-up	DOL, star-delta, or soft starter	
Approval		Ex / ATEX
Cables	H07RN8-F	EMC shielded cables
Cable length	10 m	15 m, 20 m, other length on request
Mechanical seal (medium side)	SiC-SiC (NBR)	SiC-SiC (Viton execution)
Mechanical seal (motor side)	carbon / chrome steel	
O-rings	NBR	Viton
Preparation for lifting hoist	Eyelet bolts	Eyelet bolts in stainless steel
Protective coating	Two component coating epoxy resin	Special coatings on request
Cathodic protection		Zinc anodes on request
Installation	Wet-well in steel pipe or concrete sump	
Cooling	By surrounding medium	
Filling of the oil chamber	Lubrication oil ISO VG class 46	
Moisture sensor motor housing	DI (sensor for moisture detection)*	
Moisture sensor oil chamber	DI (sensor for moisture detection)**	External DI for Ex**

*For motors with Ex approbation the DI is part of the order; **Upon request for motors with Ex approbation the DI must be ordered additionally

Motor protection

M8 and M9		Standard	Ex / ATEX
Winding	Bi-metallic switch	X	X
	Thermistor (PTC)	O	O
	PT 100	O	-
Seal protection	Oil chamber	X	-
	Motor housing	X	X
	Connection chamber	X	X
Temperature bearing upper/lower	Bi-metallic switch	X	X
	Thermistor (PTC)	O	O
	PT 100	O	O

X = Standard; O = Option; - = not possible

Materials

Motor	Standard	Option	Lifting gear	Standard	Option
Connection chamber	EN-GJL-250	1.4470	Eyelet bolts	Galvanized steel	1.4401
Oil chamber	EN-GJL-250	1.4470	Chain	Galvanized steel	1.4401
Motor housing	EN-GJL-250	1.4470	Connection system		
Motor shaft	1.4021	1.4462	Coupling ring	1.0446	1.4408
Hydraulics					
Diffuser	EN-GJL-250	1.4470			
Inlet diffuser	EN-GJL-250	1.4470			
Wear ring	1.4008				
Propeller hub	EN-GJS-400-18	1.4581			
Propeller blades	1.4340	1.4581			
Propeller cap	PUR	1.4581			
Fasteners (medium contact)	1.4401				

Please contact your SULZER representative for proposal of an effective suction chamber design!

www.sulzer.com

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