

Submersible Sewage Pump Type ABS XFP CB Plus SX

SULZER
50 Hz

High grade stainless steel submersible sewage pump type ABS XFP CB Plus SX is designed for seawater, aggressive liquids, wastewater, for sewage with sludge containing solids and fibrous material. Equipped with premium efficiency IE3-level motor.

Construction

- All material in contact with liquid in high grade stainless steel.
- Premium efficiency IE3 motors in accordance with IEC 60034-30. Testing in accordance with IEC60034-2-1.
- Premium efficiency motors designed for VFD operation in accordance with IEC/TS 60034-25 A ($U_{peak} < 1300$ V).
- The water-tight fully flood-proof motor and the pump section form a compact and robust unit, easy to clean and to service.
- 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 shaft dynamically balanced.
- Upper and lower bearings lubricated-for-life, maintenance-free.
- Insulated upper bearing for VFD operation standard for PE6 and optional for PE5.
- Triple shaft sealing.
- Upper and lower sealing by means of a silicon carbide/silicon carbide mechanical seal, independent of the direction of rotation.
- Inspection chamber with sensor for moisture protection to indicate water leakage through mechanical seal.
- Hydraulic parts with 2-channel Contrablock Plus impeller.
- Option: Available in ATEX explosion-proof version in accordance with international standards e.g. Ex d IIB T4/ATEX II 2Gk, FM or CSA.

Motor

Water pressure sealed premium efficiency motors, (3-phase, squirrel cage induction motors), from 15 to 350 kW and, depending on hydraulic requirements as 4- to 8-pole versions.

Voltage: 380...420 V, 3~, 50 Hz (other voltages on request).

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

Temperature rise: According to NEMA class A up to 110 kW and class B above.

Protection type: IP68.

Start-up: DOL (direct on line), star-delta, VFD 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 programme:

<http://absel.sulzer.com/>

Hydraulic selection -> Enter: Duty point

-> Select: Hydraulics -> Select: Motor



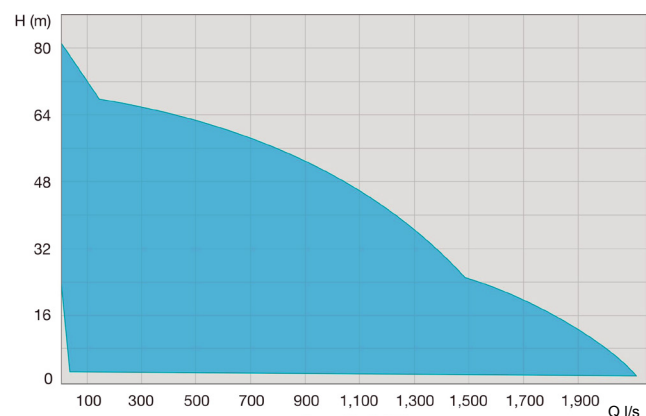
Hydraulics

You have the choice of the following hydraulics in the range of DN 100 to DN 400 discharge: For power demand beyond available range, please refer to technical data sheet XFP 150J-600X.

Hydraulics / Impeller type			
XFP 105J SX	CB2	XFP 205M SX	CB2
XFP 155J SX	CB2	XFP 305M SX	CB2
XFP 205J SX	CB2	XFP 306M SX	CB2
XFP 206J SX*	CB2	XFP 356M SX	CB2
XFP 255J SX	CB2	XFP 405M SX	CB2
XFP 305J SX	CB2		

* on request

Performance field



Standard and options

Description	Standard	Option
Max. ambient temperature	40 °C	
Max. liquid temperature	25 °C in seawater and material Duplex	30 °C in seawater and material Super Duplex
Max. submergence depth	20 m	
Mains voltage	380...420 V/50 Hz	other voltage on request
Voltage tolerance	± 10 %	
Insulation components	Class H (140°C)	Class H (160°C) (not for explosion-proof)
Start-up	DOL, star-delta, VFD or soft starter	
Approval	non Ex	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)	SiC-SiC	
O-rings	NBR	Viton
Preparation for lifting hoist	Lifting hoop in stainless steel	
Cathodic protection		sacrificial anodes on request
Installation	Wet-well	Dry-well vertical/horizontal
Motor cooling	Closed loop cooling system	
Moisture sensor motor housing		DI (sensor for moisture detection)*
Moisture sensor inspection chamber	DI (sensor for moisture detection)	
Vibration sensor		on request

* standard for PE6 motor range

Motor protection

PE4* to PE6		non Ex or Ex/ATEX	Ex/ATEX+VFD drive
Winding	Bi-metallic switch	X	-
	Thermistor (PTC)	O	X
	PT 100	O	O
Seal protection	Inspection chamber	X	X
	Motor housing	O (X for PE6)	O
	Connection box	O (X for PE6)	O
Temperature bearing upper/lower	Bi-metallic switch	O (X for PE6)	O
	Thermistor (PTC)	O	O
	PT 100	O	O
Vibration sensor	4.....20mA	O	O

X = Standard; O = Option; * PE4 on request

Materials

Motor	Standard	Option
Connection chamber	1.4470 (ASTM A 890 4A)	1.4469
Cooling chamber	1.4470 (ASTM A 890 4A)	1.4469
Cooling jacket	1.4571 (AISI 316 Ti)	1.4501
Motor housing (not in contact with liquid)	EN-GJL-250	
Motor shaft	1.4462	1.4501
Fasteners (in contact with liquid)	1.4401 (AISI 316)	1.4462, 1.4501
Lifting hoop (PE4 & PE5)	1.4470 (ASTM A 890 4A)	1.4469
Lifting hoop (PE6)	1.4462	1.4501
Hydraulics		
Volute	1.4470 (ASTM A 890 4A)	1.4469
Impeller	1.4470 (ASTM A 890 4A)	1.4469
Bottom plate	1.4470 (ASTM A 890 4A)	1.4469
Connection sys.(wet)		
Pedestal	1.4470 (ASTM A 890 4A)	1.4469
Fastening elements	1.4401 (AISI 316)	1.4462, 1.4501
Pipe retainer	1.4470 (ASTM A 890 4A)	1.4469
Connection sys.(dry)		
Support frame	1.4571	1.4462, 1.4501

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