

# Submersible Sewage Pump Type ABS XFP PE7

# SULZER

## 50 Hz



Submersible sewage pump type ABS XFP PE7 is designed for municipal and industrial wastewater equipped with Premium Efficiency IE3-level motor. Suitable for clean water and wastewater, sewage with fibrous material and high contain of rags, solids and sludge.

## Construction

- Premium Efficiency IE3 motors in accordance with IEC 60034-30. Tested 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 easy to service.
- Water pressure sealed connection chamber, with two stage cable entry, protected against excessive cable tension and bending.
- Insulation system: Class H.
- Thermal protection 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.
- Triple shaft sealing.
- Upper mechanical seal from SiC/SiC and lower mechanical seal from SiC/SiC, independent of the direction of rotation.
- Inspection chamber with sensor for moisture protection to indicate water leakage through mechanical seal.
- Blockage-free open cooling system. Cooled by the medium.
- Impeller types: 2-or 3-channel closed, skew- or mixed flow impeller.
- Option: Available in ATEX explosion-proof\* version in accordance with international standards e.g. ATEX II 2G Ex db IIB T4 Gb, FM see table "Motor power and pole overview".

## Motor

Water pressure sealed Premium Efficiency motors, (3-phase, squirrel cage induction motors), from 160 to 550 kW and depending on hydraulic requirements as 6- to 12-pole versions.

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

**Insulation system:** Class H

**Temperature rise:** According to NEMA class B.

**Protection type:** IP68

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

## Motor power and pole overview

pole	Motor Power $P_2$ in kW (50 Hz)						
6	250*	300*	350*	400	450	500	550
8	160*	200*	250*	300*	350	400	450
10	160*	200*	250	300	350		
12	160	200	250	300			

\*available in ATEX



## Pump selection

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

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

**Hydraulic selection**

-> Enter: Duty point -> Select: Hydraulics -> Select: Motor

## Hydraulics

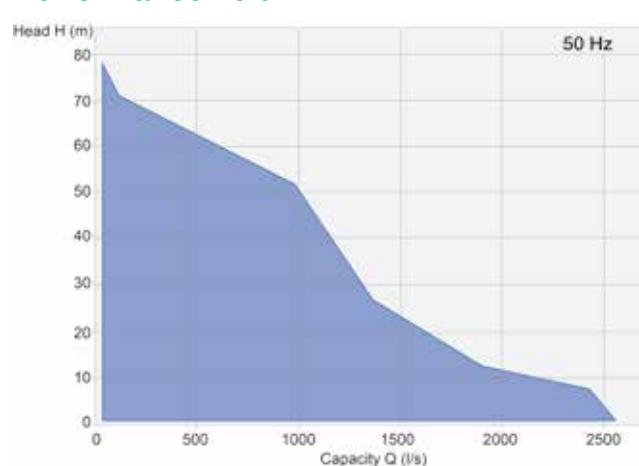
You have the choice of the following hydraulics in the range of DN 350 to DN 800 discharge:

For power demand beyond available range, please refer to technical data sheet XFP CB-Plus or XFP 105J-600X.

## Hydraulics / Impeller type

Hydraulics / Impeller type			
XFP 355V	CH2	XFP 600V	CH3
XFP 400T	CH3	XFP 600X	SK3
XFP 500U	CH3	XFP 800X	MX5
XFP 505V	CH2	XFP 801X	CH5

## Performance field



## Standard and options

Description	Standard	Option
Max. ambient temperature	40 °C	60 °C
Max. submergence depth	20 m	
Mains voltage	380...420 V/50 Hz	other voltage on request
Voltage tolerance	multi-voltage ± 5 %; 400 V ± 10 %	
Insulation system	Class H	Class H (160 °C) non ATEX
Start-up	DOL (direct on line), VFD or soft starter	star-delta
Approval	non Ex	Ex/ATEX according to table "Motor power and pole overview"
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 (NBR)	
O-rings	NBR	Viton
Preparation for lifting hoist	Lifting hoop	
Protective coating	Two component coating epoxy resin	Special coatings on request
Cathodic protection		Zinc anodes on request
Installation	Wet-well	Dry-well vertical/horizontal
Motor cooling	Blockage-free open cooling system	
Moisture sensor motor housing	DI (sensor for moisture detection)	
Moisture sensor connection chamber	DI (sensor for moisture detection)	
Moisture sensor inspection chamber	DI (sensor for moisture detection)	
Vibration sensor		on request

## Motor protection

PE7		Non-Ex	Ex/ATEX
Winding	Bi-metallic switch	○	○*
	Thermistor (PTC)	○	○*
	PT 100	○	○
Seal protection	Inspection chamber	○	○
	Motor housing	○	○
	Connection box	○	○
Temperature bearing upper/lower	Bi-metallic switch	○	○
	Thermistor (PTC)	○	○
	PT 100	○	○
Vibration sensor	0 - 20 mm/s	○	○

● = Standard; ○ = Option; \* PTC to be used when operated via VFD.

## Materials

Motor	Standard	Option
Connection chamber	EN-GJL-250	
Cooling chamber	EN-GJL-250	
Cooling jacket	1.0036	
Motor housing	EN-GJL-250	
Motor shaft	1.4021	1.4462
Fasteners (medium contact)	1.4401	
Lifting hoop	1.0553	1.4462
<b>Hydraulics</b>		
Volute	EN-GJL-250	1.4470
Impeller	EN-GJL-250	1.4470
Bottom plate	EN-GJL-250	1.4470
<b>Connection sys.(wet)</b>		
Pedestal	EN-GJL-250	Non sparking
Fastening elements	Stainless steel	
Guide rail	Galv.steel	Stainless steel
Pipe retainer	EN-GJS-400-18	1.4470
Protection coating	Epoxy resin based	
<b>Connection sys.(dry)</b>		
Support frame	1.0036	Galv.steel

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