

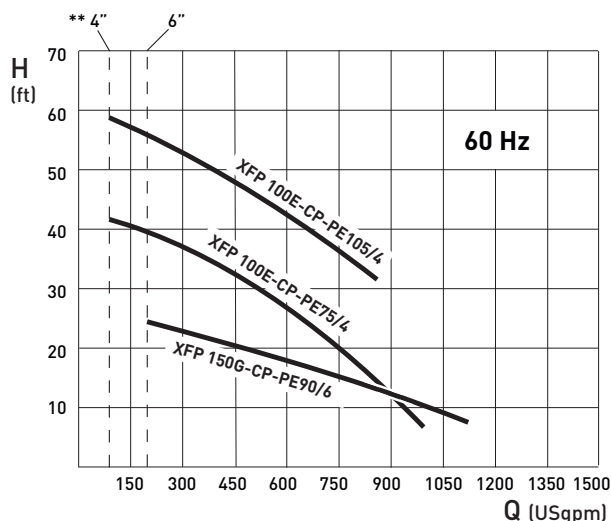
Submersible Chopper Pump Type ABS XFP 100E & 150G

Robust, reliable, submersible chopper pumps, with Premium Efficiency motors from 10.0 to 14.0 hp. For the pumping in wet well installations of heavily contaminated commercial, industrial, municipal and agricultural wastewater, sewage and sludge.

Features

- The water-pressure-tight, encapsulated, flood-proof motor and the pump section form a compact, robust, modular construction.
- NEMA Class A temperature rise.
- Premium Efficiency motors in accordance with IEC 60034-30 level IE3 with testing in accordance with IEC60034-2-1.
- Continuously rated motor.
- Double mechanical seals; SiC-SiC at the medium side, SiC-C at the motor. All seals are independent of rotation direction and resistant to temperature shock.
- Anti-wicking cable plug solution (100E), or water-pressure-sealed connection chamber (150G).
- Hardened chopper impeller and cutter plate efficiently reduces large solids or fibrous materials to ensure optimum blockage-free pumping.
- Lubricated-for-life bearings with a calculated lifetime of minimum 50,000 hrs. (100E), and 100,000 hrs. (150G).
- Stainless steel shaft. Designed with high safety factor to prevent fatigue fracture.
- Temperature monitoring using bi-metallic thermal sensors in the stator windings that open at 140 °C (284 °F).
- Seal monitoring by a moisture probe (DI) in the seal chamber (100E), or dry chamber (150G), which signals an inspection alert if there is leakage at the shaft seals.
- Smooth outer design to reduce rag build-up.
- Stainless steel lifting hoop.
- 4" and, 6" radial slot ANSI flange discharge.
- Maximum allowable temperature of the medium for continuous operation is 104 °F.
- Maximum submergence depth of 65 ft.
- Available in explosion-proof version in accordance with international standards FM / CSA.

Performance curves



* Minimum flow rate Q

Please use the ABSEL program as the only valid selection tool.



Motor

Premium Efficiency IE3, three-phase, squirrel-cage motor, 460 V, 60 Hz, 4-pole (1750 rpm) and 6-pole (1180).
Voltage tolerance: ± 10%
Protection type IP 68.
Stator insulation: Class H.
Start-up: DOL (direct on line).
Cooling: 100E self-cooling, 150G by the medium.
Service factor: 1.3

Motors with other operating voltages and frequencies are also available.

Identification Code: e.g. XFP 100E CP.4 PE75/4-E-60

Hydraulics:

XFP Product range
10 Discharge outlet DN (cm)
0 Hydraulic type
E Volute opening (dia. ins)
CP Chopper impeller
4 Impeller size
Motor:
PE Premium Efficiency
75 Motor power $P_2 \times 10$ hp
4 Number of poles
E Volute opening (dia. ins)
60 Frequency

Materials

Description	Material
Motor housing	Cast iron EN-GJL-250
Volute	Cast iron EN-GJL-250
Impeller	Cast iron EN-GJS-600-3
Bottom plate	Cast iron EN-GJL-300
Motor shaft	Stainless steel 1.4021 (AISI 420)
O-rings	NBR
Lifting hoop	Stainless steel 1.4401 (AISI 316)
Fasteners	Stainless steel 1.4401 (AISI 316)

Material comparison

Europe	USA
EN-GJL-250	ASTM A48; Class 40B
1.4021	ASTM / AISI 420
1.4401	ASTM / AISI 316

Technical Data

XFP	Motor	Impeller size	Rated voltage (V)	Motor power*		Rated current (A)	Speed (rpm)	Cable size	Weight** (lbs)
				P ₁ (kW)	P ₂ (hp)				
100E-CP	PE 75/4	4	460 3~	8.2	10.1	13.8	1750	S00W 12/7	375
	PE 105/4	2	460 3~	11.4	14.1	17.7	1750	S00W 10/7	419
150G-CP	PE 90/6	1	460 3~	9.9	12.1	18.8	1180	S00W 10/7	772

* P₁ = power at mains. P₂ = power at motor shaft. **Includes 49 ft cable. Data for alternative voltages available on request.

Standard and Options

Description	Standard	Option
Mains voltage	460 V 3~	208, 220, 380, 600, 220/380, 380/660 V
Start-up	Direct on line	Star delta
Cables	CSA	EMC
Mechanical seal (at medium side)	SiC-SiC-NBR	SiC-SiC-Viton
O-rings	NBR	Viton (external seals)
Cable length (ft)	49	33, 66, 99, 131, 164
Protective coating	2k Epoxy 120 µm	2k Epoxy 400 µm

Monitoring

Description	Standard	Option
Motor (temperature)	Bi-metallic switch in windings PTC thermistor in windings	X -
Seals (leakage)	Moisture sensor (DI) in oil chamber (XFP 100E) Moisture sensor (DI) in dry chamber (XFP 150G) Moisture sensor (DI) in connection chamber (XFP 150G)	X X -
		- - X

Accessories

Description	Size	XFP	Part no.	
Fixed installation - wet well with Sulzer Automatic Coupling System	Pedestal* (cast iron EN-GJL-250)	100E	62320652	
	90° cast bend (single guide rail) - DIN flange connection	150G	62320655	
	90° cast bend (single guide rail) - plug/clamp connection	DN 100 (pipe Ø109 mm)	100E	62320653
		DN 100 (pipe Ø115 mm)	100E	62320654
		DN 150 (pipe Ø160 mm)	150G	62320656
	90° cast bend (twin guide rail) - DIN flange connection	DN 100	100E	62325026
		DN 150	150G	62325027
	Pedestal bracket fasteners	single guide rail version (galvanised steel)	100E	62610633
			150G	62610635
		single guide rail version (stainless steel)	100E	62610637
			150G	62610639
	Pedestal base anchor bolts	twin guide rail version (galvanised steel)	100E	62615054
			150G	62615055
	single and twin guide rail (galvanised steel)		100E	62610775
			150G	62610784
Chain Kit (galvanized steel) including shackle	10 ft	100E & 150G	61265065	
	13 ft		61265093	
	20 ft		61265069	
	23 ft		61265096	
Chain Kit (stainless steel) including shackle	10 ft	100E & 150G	61265081	
	13 ft		61265099	
	20 ft		61265085	
	23 ft		61265102	
Transportable	Ground Support Stand	100E	61355018	
		150G	61355025	
General	Cathodic Protection (zinc anodes)	100E & 150G	13905000	

* Guide rail not included