

Submersible Recirculation Pump Type ABS XRCP 250

SULZER

60 Hz

Compact, submersible, recirculation pump type XRCP is designed for pumping activated sludge in treatment plants during the nitrification and denitrification process, as well as for pumping of storm, surface and river water.

Construction

The submersible recirculation pump type XRCP is designed as a compact, water-pressure-tight unit, including propeller and bracket with well proven automatic coupling system using a single guide rail. The single guide rail coupling system guarantees quick and economical installation to DIN-flange. The XRCP is available in cast iron (EC) and stainless steel (CR) versions.

Maximum allowable temperature of the medium for continuous operation is 40 °C (104 °F).

Motor:

Premium Efficiency IE3, three-phase, squirrel-cage motor; 480 V*; 60 Hz; 6-pole. Protection type IP 68, with stator insulation Class H.

* other voltages available.

Start-up:

direct on line (DOL) Max. submergence 20 m (66 ft).

Propeller:

Technically optimized, axially operating 2- or 3-blade propeller, designed to achieve high thrust and therefore a high flow capacity in an axial direction. The propeller is self-cleaning and so ensures vibration-free operation.

Solids deflection ring:

The patented solids deflection ring protects the mechanical seal from damage by ingress of solid or fibrous matter.

Bearings:

All bearings are lubricated-for-life and maintenance-free, with a calculated lifetime of more than 100,000 h.

Shaft sealing:

Sic-Sic mechanical seal at medium side. NBR O-rings and lip seals.

Seal monitoring:

DI-system with sensors in the oil, motor and cable connection chambers. Only one single control wire.

Temperature monitoring:

Thermal sensors in the stator which open at 140 °C (284 °F).

Cable:

10 m (33 ft) sewage-resistant material.

Optional lengths (m):

15 (39 ft), 20 (66 ft), 30 (98 ft), 40 (131 ft), 50 (164 ft).

Options:

Explosion-proof version, additional seal (Sic-C) at motor side, seals in viton, EMC cable, PTC thermistor in stator.

Weight (kg):

XRCP-PA 18/6 = 85 kg (187 lbs);

XRCP-PA 35/6 = 107 kg (235 lbs)



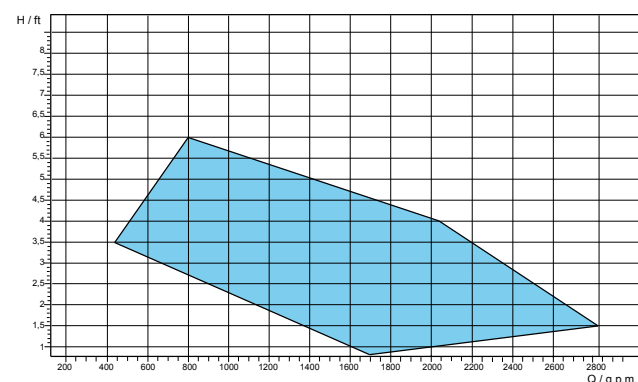
Materials

Part	EC material	CR material
Motor housing	EN-GJL-250 painted (ASTM A48; Class 35B)	1.4404 (AISI 316L)
Connection chamber	EN-GJL-250 painted (ASTM A48; Class 35B)	1.4408 (CF-8M)
Motor shaft	1.4021 (AISI 420)	1.4401 (AISI 316)
Propeller	1.4460 (AISI 329)	1.4460 (AISI 329)
Fasteners / Motor	1.4401 (AISI 316)	1.4401 (AISI 316)
Bracket	galv.steel or 1.4571 (AISI 316Ti)	1.4571 (AISI 316Ti)

Motor data

Motor	PA 18/6	PA 35/6
Rated power (kW/hp)	1.8 / 2.4	3.5 / 4.7
Rated current (A) at 480 V	3.4	6.9
Speed (min ⁻¹)	1153	1169
Motor efficiency (%)	82.9	84.8
Power factor	0.77	0.72

Performance curve



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