

Submersible Recirculation Pump Type ABS XRCP 250

SULZER

50 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.

Motor:

Premium Efficiency IE3, three-phase, squirrel-cage motor; 400 V*; 50 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.

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.

** not in Ex version.

Temperature monitoring:

Thermal sensors in the stator which open at 140 °C.

Cable:

10 m sewage-resistant material.

Optional lengths (m):

15, 20, 30, 40, 50.

Options:

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

Weight (kg):

XRCP-PA 15/6 = 85 kg;

XRCP-PA 29/6 = 107 kg



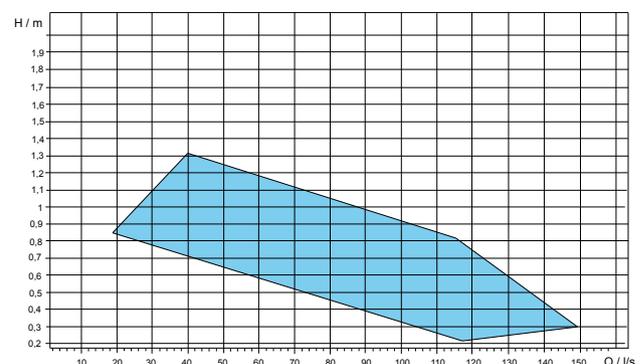
Materials

| Part | EC material | CR material |
|--------------------|----------------------|---------------------|
| Motor housing | EN-GJL-250 painted | 1.4404 (AISI 316L) |
| Connection chamber | EN-GJL-250 painted | 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 | 1.4571 (AISI 316Ti) |

Motor data

| Motor | PA 15/6 | PA 29/6 |
|----------------------------|---------|---------|
| Rated power (kW) | 1.5 | 2.9 |
| Rated current (A) at 400 V | 3.5 | 7.3 |
| Speed (min ⁻¹) | 958 | 971 |
| Motor efficiency (%) | 81.3 | 83.7 |
| Power factor | 0.77 | 0.72 |

Performance curve



www.sulzer.com

XRCP 250 50 Hz en (11.2019), Copyright © Sulzer Ltd 2019

This document does not provide a warranty or guarantee of any kind. Please contact us for a description of the warranties and guarantees offered with our products. Directions for use and safety will be given separately. All information herein is subject to change without notice.