

Submersible Recirculation Pump Type ABS RCP 400

50 Hz

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

Maximum allowable temperature of the medium for continuous operation is 40 °C.

Motor

Squirrel cage, 3-phase, 8-pole 50 Hz.

Protection type IP 68, with stator insulation Class F (155 °C), max. submergence 20 m.

Propeller

Technically optimized, axially operating 2- 3-blade propellers with very good self-cleaning effect for vibration-free operation. The propellers are designed to achieve high thrusts and therefore a high flow capacity in axial direction.

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 life time of more than 100,000 h.

Shaft sealing

Mechanical seal: Silicon carbide / Silicon carbide.
O-Rings / lip seals: NBR.

Seal monitoring

DI-system with sensors in the oil**, motor and cable connection chambers.

Temperature monitoring

TCS-Thermo-Control-System with thermal sensors in the stator which open at 140 °C.

Cable

10 m sewage resistant CSM material. Type: S1BN8-F.
Optional lengths (m): 15, 20, 30, 40, 50.

Options: Explosion-proof version, seals in viton, cable protection sleeve, PTC or PT 100 in the stator.

Weight: : 118 kg.

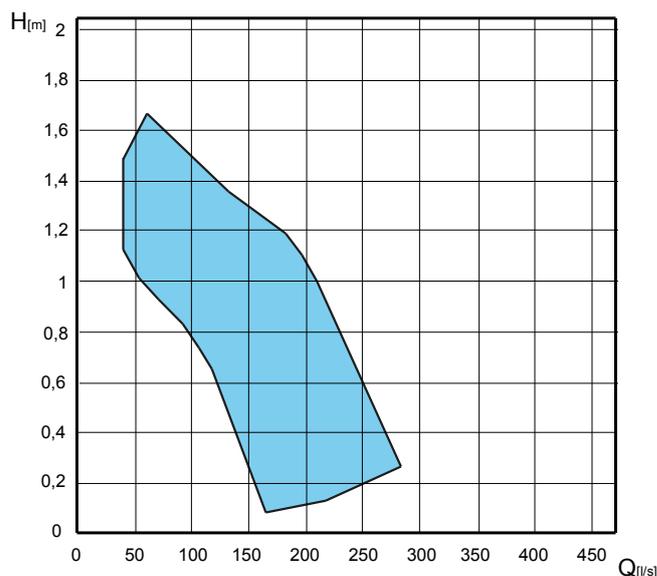
** not in Ex version.



Motor data

Motor	A 30/8	A 40/8
Rated power (kW)	3.0	4.0
Rated current at 400 V (A)	9.3	10.9
Speed (min ⁻¹)	703	680
Motor efficiency (%)	72	71
Power factor	0.65	0.74

Performance field



Materials

Part	EC (cast iron)	CR (stainless steel)
Motor housing	EN-GJL-250, painted	1.4571 (AISI 316 Ti)
Connection chamber	EN-GJL-250/EN-GJS-400-18 painted	1.4408 (CF-8M)
Motor shaft	1.4021 (AISI 420)	1.4404 (AISI 316)
Propeller	1.4571 (AISI 316 Ti)	1.4571 (AISI 316 Ti)
Fasteners / Motor	1.4401 (AISI 316)	1.4401 (AISI 316)
Bracket	galv.steel or 1.4571 (AISI 316 Ti)	1.4571 (AISI 316 Ti)

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