

# Submersible Recirculation Pump Type ABS XRCP 800 PE

**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 standard material versions cast iron (EC).

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

### Motor:

Premium Efficiency IE3, squirrel cage, 3-phase, 4-pole, 60 Hz, insulation class H (motor winding protected by temperature sensor 140 °C (284 °F)), max. submergence 20 m (66 ft).

### Propeller:

Technically optimized, axially operating 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.

### Bearings:

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

### Gearbox:

High-efficiency planetary gearbox, fatigue strength with a calculated life time 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. Only one single control wire.

### Temperature monitoring:

TCS-Thermo-Control-System with thermal sensors in the stator which open at 140 °C (284 °F).

### Cable:

10 m (33 ft), sewage-resistant material.

### Optional lengths:

15m (49 ft), 20m (66 ft), 30m (98 ft), 40m (131 ft), 50m (164 ft).

### Options:

Seals in viton, PTC or PT 100 in the stator, EMC cable, insulation class H \*.

\* not in FM version.

### Weight:

XRCP 800-PE 350/4 = 675 kg (1488 lbs).



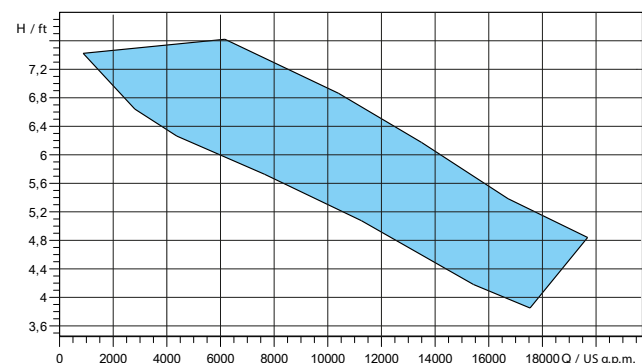
## Motor data

Motor	PE 350/4
Rated power (kW/hp)	35.0 / 47
Rated current (A) at 480 V)	52.8
Speed (min <sup>-1</sup> )	1783
Motor efficiency (%)	94.5
Power factor	0.84

## Materials

Part	Europe material	USA material
Motor housing	EN-GJL-250 painted	ASTM A48; Class 35 B
Connection chamber	EN-GJL-250 painted	ASTM A48; Class 35 B
Motor shaft / Propeller shaft	1.4021 / 42CrMo4V	ASTM / AISI 420 / 42CrMo4V
Propeller	2.0975.01	
Fasteners / Motor	1.4401	ASTM / AISI 316
Bracket	1.4470 / 1.4571 (AISI 316 Ti))	ASTM A 890 4A (CD 3MN) / AISI 316 Ti

## Performance curve



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