

Submersible Mixer Type ABS XRW 400

SULZER

50 Hz

Compact, submersible, stainless steel mixer, designed to achieve an optimum flow pattern in a wide range of mixing and stirring applications, in large tanks and open waters.

Construction

The submersible mixer is designed as a compact, water-pressure-tight unit, including propeller and integrally casted installation bracket for attachment to a square guide tube. Maximum allowable temperature of the medium for continuous operation is 40 °C.

Motor:

Premium Efficiency, IE3 equivalent, sensorless permanent-magnet motor with high overload capacity; 50 Hz; 10-pole; 400 V* using variable frequency drive (VFD) control. Protection type IP 68, with stator insulation Class F. Start-up: variable frequency drive (VFD) Max. submergence 20 m. * other voltages available

Propeller:

Technically optimized, axially operating 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:

Enhanced solids deflection ring design. 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, covered 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.

Temperature monitoring:

Overtemperature protection using a PTC thermistor in the stator at 140 °C.

Cable:

10 m sewage-resistant EMV-FC S1BC4N8-F ..G.. 0,6/1 kV

Optional lengths (m):

15, 20, 30, 40, 50.

Options:

Explosion-proof version, additional seal (C-Cr) at motor side, flow ring, seals in viton, vertical angle adjustment, vortex shield, vibration damper, lifting hoop.

Weight: 80 kg. With flow ring add 10 kg.

** not in Ex version.

Materials

Part	
Motor housing	1.4404 (AISI 316 L)
Sliding bracket	1.4470 (AISI 329) / polyamide (CF-8M)
Motor shaft	1.4401 (AISI 316)
Propeller	1.4571 (AISI 316 Ti)
Fasteners	1.4401 (AISI 316)
Lifting band	1.4571 (AISI 316 Ti)



System data

Motor	PM 30/10	PM 50/10
Rated power (kW)	3.0	5.0
Motor efficiency (%)	90.7	88.9

Variable Frequency Drive (VFD)	A	B
Rated power (kW)	4.0	5.5
Rated current (A) at 400 V	9.9	12.9

Total system efficiency (%) **88.0** **86.5**

Mixer performance

Hydraulic No.	Mixer power P _p in kW	Motor kW
4031 A	1.2	3.0
4032 A	1.5	3.0
4033 A	1.8	3.0
4034 A	2.2	3.0
4035 A	2.6	3.0
4031 B	3.0	5.0
4032 B	3.5	5.0
4033 B	4.0	5.0
4034 B	4.5	5.0
4051 A*	1.2	3.0
4052 A*	1.5	3.0
4053 A*	1.8	3.0
4054 A*	2.2	3.0
4055 A*	2.6	3.0
4051 B*	3.0	5.0
4052 B*	3.5	5.0
4053 B*	4.0	5.0
4054 B*	4.5	5.0

*with flow ring

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