

Submersible Mixer Type ABS XRW 300

SULZER

60 Hz

Compact submersible 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. The mixer 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.

Temperature monitoring:

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

Cable:

10 m (33 ft) sewage-resistant material.

Optional lengths:

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

Options:

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

Weight:

XRW-PA 18/6 = 62 kg (137 lbs);

XRW-PA 35/6 = 82 kg (181 lbs).

With flow ring add 11 kg (25 lbs).



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	0.71

Mixer performance

Hydraulic No.	Mixer power P _p in kW/hp	Motor kW/hp
3021	1.6 / 2.2	1.8 / 2.4
3022	2.1 / 2.8	3.5 / 4.7
3023	2.4 / 3.2	3.5 / 4.7
3031	2.8 / 3.8	3.5 / 4.7
3041*	1.0 / 1.3	1.8 / 2.4
3042*	1.3 / 1.7	3.5 / 4.7
3043*	1.6 / 2.2	3.5 / 4.7
3051*	2.1 / 2.8	3.5 / 4.7

*with flow ring

Materials

Part	EC (cast iron)	CR (stainless steel)
Motor housing	EN-GJL-250 painted	1.4404
Sliding bracket	EN-GJL-250 painted/polyamide	1.4408 / polyamide
Motor shaft	1.4021	1.4401
Propeller	1.4460	1.4460
Fasteners	1.4401	1.4401
Lifting band	1.4404	1.4404

Material comparison	
Europe	USA
EN 1561; EN-GJL-250	ASTM A48; Class 35 B
1.4021	ASTM / AISI 420
1.4401	AISI 316
1.4404	AISI 316 L
1.4408	ASTM A351 CF8M
1.4460	AISI 329

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