

Submersible Mixer Type ABS XRW 650

SULZER

60 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 (104 °F).

Motor:

Premium Efficiency, IE3 equivalent, sensorless permanent-magnet motor with high overload capacity; 60 Hz; 24-pole; 480 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 (66 ft).

Propeller:

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

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 (284 °F).

Cable:

10 m (33 ft) sewage-resistant, shielded, VFD power cable type 37-102VFD.

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, vertical angle adjustment, vortex shield, vibration damper, lifting hoop.

Weight:

150 kg (331 lbs). With flow ring 165 kg (364 lbs).



* other voltages available

System data

Motor	PM 55/24	PM 75/24	PM 100/24
Rated power (kW/hp)	5.5 / 7.4	7.5 / 10.0	10.0 / 13.4
Motor efficiency (%)	94.0	93.3	91.7
Variable Frequency Drive (VFD)	A	B	C
Rated power (kW/hp)	5.5 / 7.4	7.5 / 10.0	11.0 / 14.8
Rated current (A) at 480 V	10.9	14.3	20.9

Total system efficiency (%) **91.5** **90.9** **89.3**

Mixer performance

Hydraulic No.	Mixer power P _p in kW (hp)	Motor kW (hp)
6531A / 6551A*	2.0 / 2.7	5.5 / 7.4
6532A / 6552A*	2.5 / 3.4	5.5 / 7.4
6533A / 6553A*	3.0 / 4.0	5.5 / 7.4
6534A / 6554A*	3.5 / 4.7	5.5 / 7.4
6535A / 6555A*	4.0 / 5.4	5.5 / 7.4
6536A / 6556A*	4.5 / 6.0	5.5 / 7.4
6530B / 6550B*	5.0 / 6.7	7.5 / 10.1
6531B / 6551B*	5.5 / 7.4	7.5 / 10.1
6532B / 6552B*	6.0 / 8.1	7.5 / 10.1
6533B / 6553B*	6.5 / 8.7	7.5 / 10.1
6530C / 6550C*	7.0 / 9.4	10.0 / 13.4
6531C / 6551C*	7.5 / 10.1	10.0 / 13.4
6532C / 6552C*	8.0 / 10.7	10.0 / 13.4

*with flow ring

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)

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