

Submersible Mixer Type ABS XRW 210

SULZER

50 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, with propeller and mounting bracket which allows for vertical and horizontal adjustment. A mounting kit for attachment to a square guide rail is also available. A flow ring is fitted on selected models. 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.

Motor:

Premium Efficiency IE3, three-phase, squirrel-cage motor; 400 V*; 50 Hz; 4-pole. Protection type IP 68, with stator insulation Class H. Start-up: direct on line (DOL).

Max. submergence 20 m.

* other voltages available

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 (non-Ex), motor and cable connection chambers.

Temperature monitoring:

Thermal sensors in the stator which open at 140 °C.

Cable:

10 m sewage-resistant material.

Optional lengths (m):

15, 20, 30, 40, 50.

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, guide rail bracket, vibration damper.

Weight:

XRW-PA 08/4 = 33 kg; XRW-PA 15/4 = 41 kg.

With flow ring add 5.2 kg.



Motor data

| Motor | PA 08/4 | PA 15/4 |
|----------------------------|---------|---------|
| Rated power (kW) | 0.8 | 1.5 |
| Rated current (A) at 400 V | 1.8 | 3.7 |
| Speed (min ⁻¹) | 1424 | 1437 |
| Motor efficiency (%) | 81.5 | 84.4 |
| Power factor | 0.75 | 0.70 |

Mixer performance

| Hydraulic No. | Mixer power P _p in kW | Motor kW |
|---------------|----------------------------------|----------|
| 2121 | 0.7 | 0.8 |
| 2131 | 0.9 | 1.5 |
| 2132 | 1.2 | 1.5 |
| 2133 | 1.4 | 1.5 |
| 2141* | 0.3 | 0.8 |
| 2151* | 0.5 | 1.5 |
| 2152* | 0.8 | 1.5 |
| 2153* | 0.9 | 1.5 |

*with flow ring

Materials

| Part | EC (cast iron) | CR (stainless steel) |
|---------------|--------------------|----------------------|
| Motor housing | EN-GJL-250 painted | 1.4404 (AISI 316L) |
| Motor shaft | 1.4021 (AISI 420) | 1.4401 (AISI 316) |
| Propeller | 1.4460 (AISI 329) | 1.4460 (AISI 329) |
| Fasteners | 1.4401 (AISI 316) | 1.4401 (AISI 316) |
| Lifting band | 1.4404 (AISI 316L) | 1.4404 (AISI 316L) |

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