

Submersible Sludge Pump JS 12

SULZER

Specification

Electric submersible pump.

Maximum submergence: 20 m. Protection class IP 68.

Max temperature of pumped medium at max power input and continuous duty 40 °C.

Max medium density 1100 kg/m³. pH of the pumped medium 5-8.

Free passage Ø 40 mm. Max no. of starts 30/hour.

Max impeller diameter requires half motor or more submersed for continuous duty. (Pump can operate lying down.)

JS 12 W/WKS* -104** single-phase

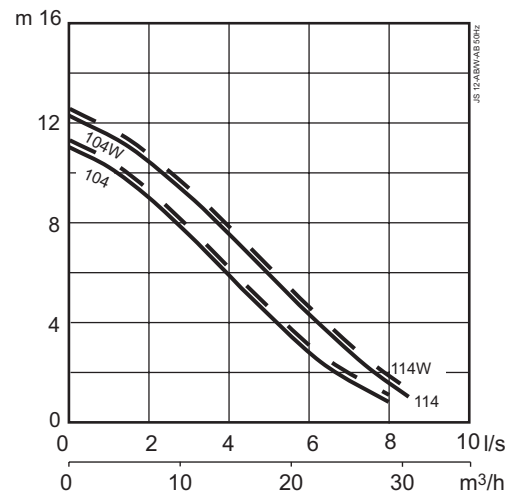
JS 12 W/WKS* -114 single-phase

JS 12 D/DKS* -104** 3-phase

JS 12 D/DKS* -114 3-phase

* option: built in float switch excl. 500 V

** Impeller diameter for duty with low water level or intermittent dry running.



Electric Motor

Single-phase motor with built-in capacitor, 50 Hz.

Service factor 1.1. Class F insulation.

Motor rating P₂: 0.9 kW. Speed: 2770 rpm

η: 65.2 (50 %), 71.1 (75 %), 69.0 (100 % load)

Voltage, V	230
Nominal current, A	5.5

3-phase squirrel-cage induction motor, 50 Hz.

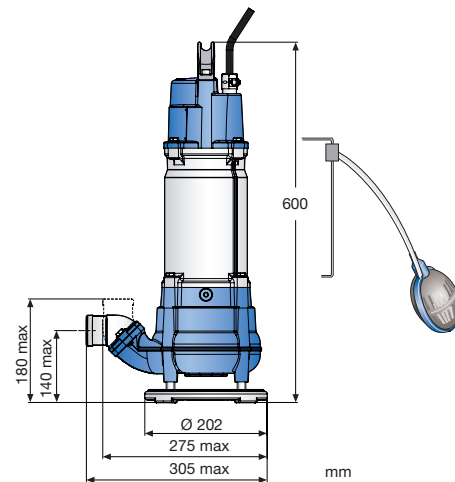
Service factor 1.1. Class F insulation.

Motor rating P₂: 0.9 kW. Speed: 2770 rpm

D.O.L. start with built-in contactor.

η: 78.0 (50 %), 76.0 (75 %), 70.5 (100 % load)

Voltage, V	230	400	500
Nominal current, A	3.8	2.2	1.8



Power Cable

20 m type H07RN8-F:

4 x 1.5 sq.mm. (3-phase)

3 x 1.5 sq.mm. (single-phase)

Discharge Connections

2" (standard), 2 ½", 3" hose connections.

2", 2 ½", 3" B.S.P. threaded connections.

Weight

D: 19 kg, W: 20 kg (without cable)

Options and Accessories

Zinc anodes. Surface protection coating.

Starter and control units. Floatation ring. Repair kit.

Discharge connection accessories and hose.

Motor Protection

Built-in thermal switches in the stator winding (140°C, ±5).

Shaft Seal

Double mechanical seal in oil bath.

Primary seal: Silicon carbide on silicon carbide.

Secondary seal: Silicon carbide on silicon carbide.

Bearings

Upper bearing: Single-row deep groove ball bearing.

Lower bearing: Single-row deep groove ball bearing.

Materials

Description	Material	EN	ASTM
Motor housing	Aluminium	EN 1706:AC-43100	ASTM AlSi10mg
Fasteners	Stainless steel	10088:X5CrNi18-10 (1.4301)	AISI 304
Rotor shaft	Stainless steel	10088:X20Cr13 (1.4021)	AISI 420
Volute / Impeller	Nodular cast iron	1563:ENGJS-HB150	ASTM A536-80:60-40-18
O-rings	Nitrile rubber		