

Submersible sludge pump JS 12

SULZER

Specification

Electric submersible pump.
 Maximum submergence: 20 m (65 ft). Protection class IP 68.
 Max temperature of pumped medium at max power input and continuous duty 40 °C (104 °F).
 Max medium density 1100 kg/m³ (0.0397 lbs/inch³).
 pH of the pumped medium 5-8.
 Free passage Ø 40 mm (1 9/16").
 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* -95** single-phase

JS 12 W/WKS* -104 single-phase

JS 12 D/DKS* -95** 3-phase

JS 12 D/DKS* -104 3-phase

* option: built in float switch excl. 575 V

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

Electric motor

Single-phase motor with built-in capacitor, 60 Hz.
 Service factor 1.1. Class F insulation.
 Motor rating P₂: 1.1 kW (1.5 Hp). Speed: 3360 rpm
 η: 59.1 (50 %), 66.3 (75 %), 69.5 (100 % load)

Voltage, V	230
Nominal current, A	6.9

3-phase squirrel-cage induction motor, 60 Hz.
 Service factor 1.1. Class F insulation.
 Motor rating P₂: 1.1 kW (1.5 Hp). Speed: 3380 rpm
 D.O.L. start with built-in contactor.
 η: 74.6 (50 %), 75.3 (75 %), 72.3 (100 % load)

Voltage, V	230	380	460	575
Nominal current, A	4.3	2.6	2.1	1.7

Power cable

20 m/65 ft type H07RN8-F:
 3 x 1.5 sq.mm. (single-phase)
 4 x 1.5 sq.mm. (3-phase)

Motor protection

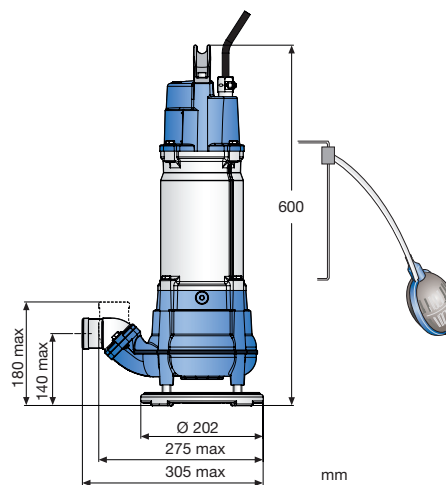
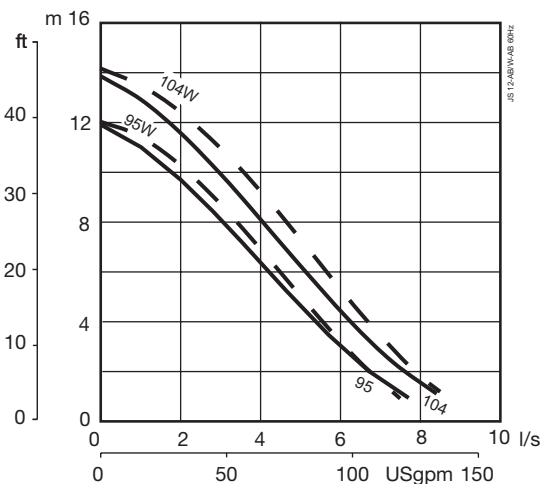
Built-in thermal switches in the stator windings (140°C/284°F, ±5).

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.



Discharge connections

2" (standard), 2 ½", 3" hose connections.
 2", 2 ½", 3" B.S.P. threaded connections.
 2", 3" NPT thread.

Weight

D: 19 kg (42 lb)
 W: 20 kg (44 lb)
 (without cable)

Options and accessories

Zinc anodes. Surface protection coating.
 Starter and control units. Floatation ring. Repair kit.
 Discharge connection accessories and hose.

Materials

Description	Material	EN	ASTM
Motor housing	Aluminium	EN 1706:AC-43100	ASTM AISi10mg
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		