

# 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/m<sup>3</sup>. 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 P<sub>2</sub>: 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 P<sub>2</sub>: 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)

## Motor Protection

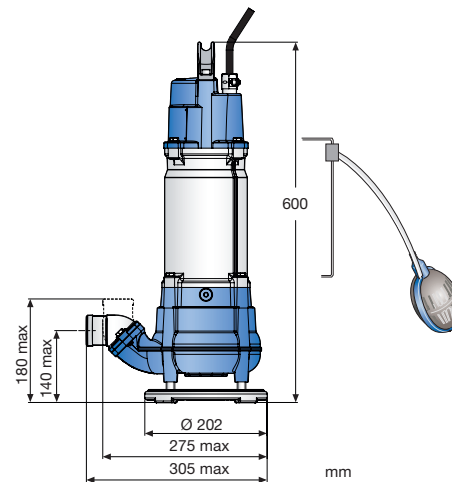
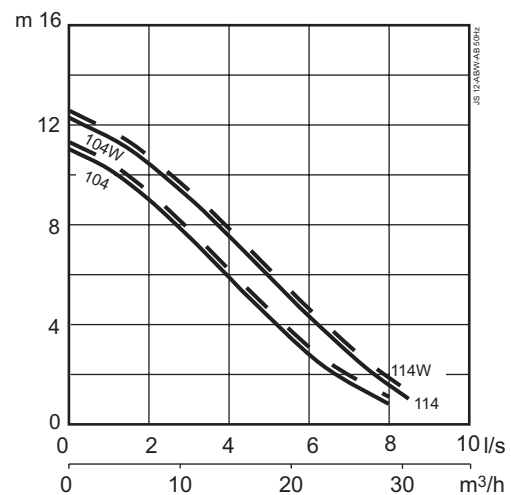
Built-in thermal switches in the stator winding (140°C, ±5).

## 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.



## 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.

## 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		