

# Submersible Drainage Pump J 604

**SULZER**

## Specification

Electric submersible pump.  
 Maximum submergence: 65 ft. Protection class IP 68.  
 Max temperature of pumped medium at max power input and continuous duty 104 °F.  
 Max medium density 0.0397 lbs/inch<sup>3</sup>. pH of the pumped medium 5-8.  
 Strainer hole: 1/2" x 2 3/8". Max number of starts 30/hour.

**J 604 ND** Medium head, 3-phase

**J 604 HD** High head, 3-phase

## Electric Motor

3-phase squirrel-cage induction motor, 60 Hz.  
 Service factor 1.1. Class F insulation.  
 Motor rating P<sub>2</sub>: 94 Hp. Speed: 1732 rpm.

Voltage, V	230	460	575
Nominal current, A	226	113	91

## Starting Method

D.O.L. start with built-in terminal block.  
 Star-Delta start with built-in terminal block.  
 When used with VFD, pump must be equipped with terminal block.

## Power Cable

Heavy duty power cable for submersible pump applications  
 100 ft 2 x AWG 2/3 GGC (UL, CSA, MSHA), 230 V  
 100 ft 1 x AWG 2/3 GGC (UL, CSA, MSHA), 460-575 V

Control cable: 100 ft 1 x AWG 16/7 SOOW (UL, CSA, MSHA).

## Motor Protection

Built-in thermal switches in the stator windings (284°F, ±5).  
 DI leakage sensor in the junction box, DI leakage sensor in the oil chamber, thermal sensors at upper (248°F) and lower (194°F) bearing all connected to a separate starter and control unit.

## Shaft Seal

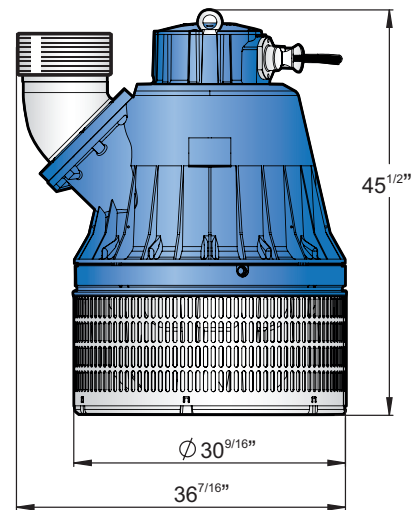
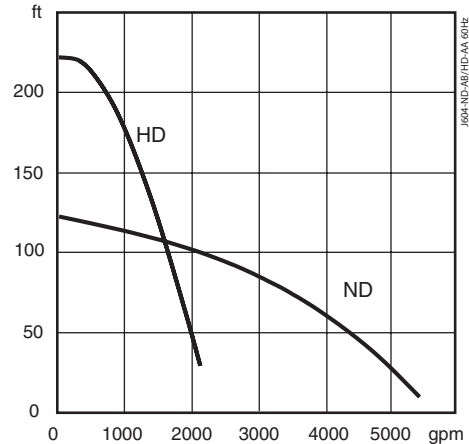
Double mechanical seal in oil bath.  
 Primary seal: Silicon carbide on silicon carbide.  
 Secondary seal: Carbon on stainless steel.

## Bearings

Upper bearing: Single-row deep groove ball bearing.  
 Lower bearing: Double angular contact ball bearing.

## Discharge Connections

6", 8", 10" hose connections.  
 6"(standard HD), 8", 10" (standard ND) NPT threaded connections.



## Weight

1157 lb (without cable)

## Options and Accessories

Zinc anodes. Surface protection coating.  
 Wear plate in polyurethane. Series connection (HD).  
 Starter and control units. Automatic level control unit.  
 Floatation system. Repair kit.  
 Discharge connection accessories and hose.

## Materials

Description	Material	ASTM
Casing / Castings	Aluminium	ASTM AISI10mg
Strainer / Fasteners	Stainless steel	AISI 304
Shaft	Stainless steel	AISI 420
Impeller	High-chrome alloy	ASTM A 532: Alloy III A
Wear parts / O-rings	Nitrile rubber	