

Light Wastewater Pump Type ABS MF 154HW

SULZER

Compact submersible pump for the removal of domestic and commercial high temperature wastewater that can contain solids up to 20 mm.

Applications

The MF 154HW submersible pump has been designed to cover a wide range of internal and external dewatering applications, but primarily where the temperature of the medium exceeds the standard upper limit (40 °C) to a maximum allowable temperature of 80 °C.

- Pumping of high temperature discharge water from laundries, commercial dishwashers and washing machines.
- Filling and emptying of containers to the drainage of flooded cellars and removal of rainwater.
- Suitable for use in septic tanks and pumping effluent from locations below the backwash level in accordance with EN 12056.
- The vortex hydraulics are particularly suitable for the pumping of fluids containing gaseous or abrasive particles.
- The compact shape of the MF, fittings for easy mounting, and small sump requirements ensure a quick and cost-effective installation of the pump.
- The MF 154HW pump is designed for short term (S2) and intermittent (S3) operation only, operating in 8-minute / 10% cycles i.e. 0.8 minutes ON / 7.2 minutes OFF.
- Maximum allowable temperature of the pumped medium is 80 °C (intermittent only).

Construction

The water-tight, fully flood-proof cast iron motor and the hydraulics section comprise a compact, robust, unit construction.

Bearings

The stainless steel motor shaft is supported in lubricated-for-life ball bearings.

Shaft sealing

Between motor and hydraulic section by means of a high quality mechanical seal of carbon / silicon carbide. Seal at motor side is an oil-lubricated NBR lip seal. Both are independent of direction of rotation and resistant to temperature shock.

Temperature monitoring

Thermal sensors in the stator to switch off the pump in the case of overheating and switch on automatically after cooling down.

Hydraulic section with vortex impeller

Free solids passage 20 mm.

Materials

Description	Material
Upper lid	Stainless steel 1.4301 (AISI 304)
Motor housing	Cast iron EN-GJL-250
Rotor shaft	Stainless steel 1.4021 (AISI 420)
Volute	Cast iron EN-GJL-250
Impeller	Polyamide
Cable	Neoprene
Fasteners	Stainless steel 1.4401 (AISI 316)



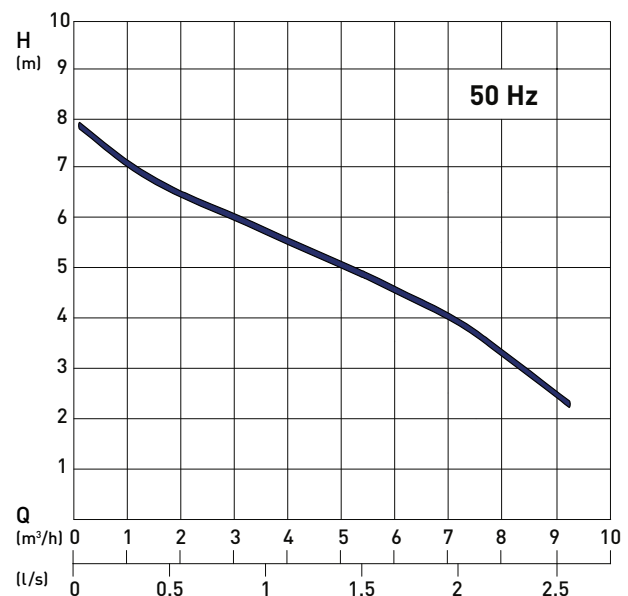
Features

- Simple, cost-effective, pump installation.
- Vortex hydraulics for blockage-free pumping in critical applications.
- Free-standing on legs or pedestal mounted.
- Discharge connections G 1½" internal - 1¼" adaptor.
- Mechanical and lip seals on rotor shaft.
- Thermal sensors to protect motor against overheating.
- Option of automatic level control by switchgear (purchased separately) or integrated float switch (with KS pump version).
- EasyFit plug-in cable connection.
- Fitted with Schuko plug.

Motor

Single-phase 220-240 V, 50 Hz, 2-pole (2900 r/min) motor. Insulation class F; protection type IP68.

Performance curve



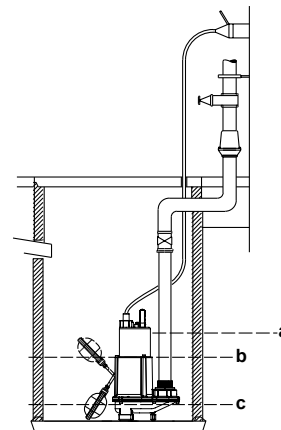
H = Total Head; Q = Discharge Volume. Curves to ISO 9906.

Technical data

MF 154HW		
Discharge connection		G 1½"-1¼"
Motor power [kW]*	P ₁	0.65
	P ₂	0.42
Speed [r/min]		2900
Rated voltage [V]		220-240 1~
Rated current [A]		2.8
Cable type [H07RN-F, enhanced version]		3G1.0
Cable length [m]		10
Weight [kg]		8.5
Solids size [mm]		20

* P₁ = Power taken from mains. P₂ = Power at motor shaft
 According to VDE regulations submersible pumps for use externally must have a fixed cable connection with a length of at least 10 m. Regulations vary by country.

Installation example

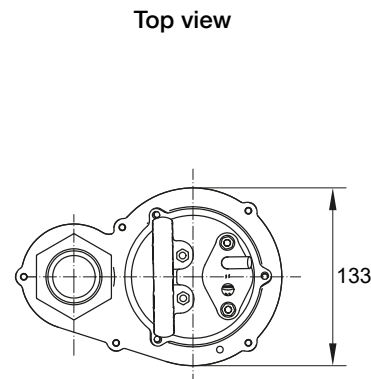
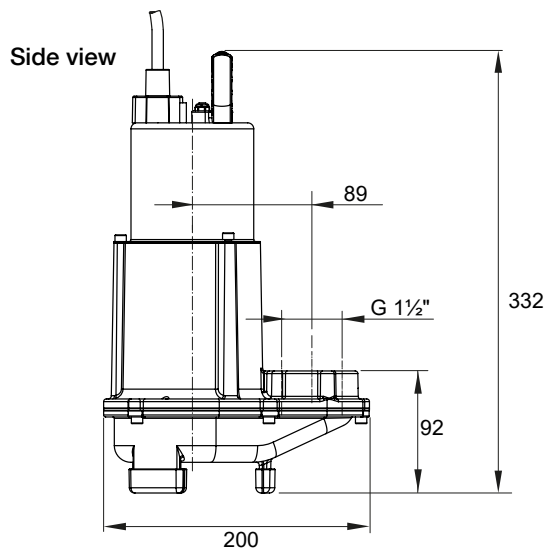


a: Max. submergence level when the medium temperature is above 60 °C

b: Switch on

c: Switch off

Dimensions (mm)



Accessories

	Description	Size	Part no.
Fixed installation	Pedestal (cast iron EN-GJL-250) vertical discharge, without bend	G 1¼"	62325012
	Bracket Kit vertical discharge	G 1¼"	62325014
	Guide Rail (galvanized steel)	1¼" x 1 m	31380007
		1¼" x 2 m	31380008
		1¼" x 3 m	31380009
1¼" x 4 m		31380010	
Chain Kit (stainless steel) including shackle	1¼" x 5 m	31380011	
	3 m	310101236013	
	4 m	310101236014	
General	Non-return Valve (EN-GJL-250) ball valve with internal thread	6 m	310101236016
		7 m	310101236017
		G 1¼"	61400525
	Gate Valve (brass) with internal thread	G 1½"	61400526
		G 1¼"	14040005
		G 1½"	14040006
		G 1½"	14040006