Thank you for your interest in our products
Please contact us for more information, or visit our website

info@lenntech.com
tel. +31-15-261.09.00
fax. +31-15-261.62.89
Non-self-priming, single-stage, centrifugal pump designed for handling wastewater, process water and unscreened raw sewage.

The pump is designed for intermittent and continuous operation. The liquidless and maintenance-free cooling system ensures that the pump can be used for submerged or dry installation. The efficient SuperVortex impeller provides passage of long fibres and solids up to 80 mm and is suitable for wastewater with a dry matter content of up to 5%.

A unique stainless-steel clamp assembling system enables quick and easy disassembly of the pump from the motor unit for service and inspection. No special tools are required. Pipework connection is via a DIN flange.

**Further product details**

- Typical application is transfer of liquid, such as:
  - large quantities of drainage and surface water
  - domestic wastewater with discharge from toilets
  - wastewater from commercial buildings without discharge from toilets
  - sludge-containing industrial wastewater.

The pump is ideal for pumping of the above liquids from for instance:

- municipal network pumping stations
- public buildings
- blocks of flats
- factories/industry.

The pump is suitable for both temporary and permanent installation either as free-standing on ring stand, on base stand, on brackets or on an auto-coupling system.

**Pump**

The pump is fitted with an easy-to-clean stainless-steel motor sleeve (EN 1.4401) that is extremely robust and impact-resistant. The entire pump is made of stainless steel (EN 1.4408).

The SuperVortex impeller is a symmetrical multivane winglet impeller. The design ensures a flow entirely outside the impeller providing limited contact between the impeller and the pumped liquid. This ensures that long fibres, rags and more passes freely through the pump without getting caught and without causing clogging or jamming.

The shaft seal consists of two mechanical seals that ensure a reliable sealing between the pumped liquid and motor. The shaft seals are incorporated in a single-unit cartridge shaft seal system that is easy to replace in the field without use of special tools.

The combination of the primary and secondary seals in a cartridge shaft seal system results in a shorter assembly length compared to conventional shaft seals.

- Primary seal: Silicon carbide/silicon carbide (SiC/SiC)
- Secondary seal: Carbon/Ceramics
<table>
<thead>
<tr>
<th>Position</th>
<th>Qty.</th>
<th>Description</th>
</tr>
</thead>
</table>

The shaft seal is bidirectional, meaning it operates correctly in case of backflow through the pump.

![ Shaft Seal Image ]

The pump is approved according to EN12050-1.

**Motor**

The motor is a watertight, totally encapsulated motor supplied with a 10 m power cable. The stainless steel plug is fastened with a union nut. This nut and the O-rings provide sealing against ingress of the liquid.

The plug is polyurethane-embedded, ensuring a watertight and durable seal around the leads of the cable. This prevents the ingress of water into the motor through the cable in case of cable breakage or adverse handling in connection with installation or service.

A compact motor construction with a short shaft reduces vibrations, resulting in an increased efficiency and lifetime of the shaft seal and ball bearings.

The motor features built-in thermal protection to protect the motor against overheating and ensure the reliability.

A solid-block stator housing with built-in cooling conduits, efficiently transfers excess heat to the pumped liquid via a solid cast intermediate cooling flange, that is in direct contact with the pumped liquid. This allows for continuous operation even in a dry installation. An extremely robust impact-resistant stainless-steel jacket with an easy-to-clean smooth surface is fitted on the top of the solid-block stator housing.

The motor is equipped with the following sensor(s):

- A digital moisture switch that is fitted in the motor chamber monitors whether water enters the motor chamber. If moisture is detected in the motor chamber, the switch will trip and send a warning to the sensor module.
- A Pt1000 sensor in motor windings for stator temperature measurements.
- An analog sensor that is fitted in the oil chamber monitors whether water enters the pump from the liquid side. It sends a signal if the water content is outside the normal range (warning), or if there is air in the oil chamber (alarm).

All sensor signals are incorporated in the power cable and connected to the Grundfos IO 113 sensor module which is delivered together with the pump.

The pump is designed for speed-controlled operation to keep the energy consumption at a minimum. To avoid the risk of sedimentation in the pipes, we recommend that you operate the speed-controlled pump within a speed range of 30 % to 100 % and at a flow rate above 1 m/s.

**Controls:**

- Moisture sensor: with moisture sensors
- Water-in-oil sensor: with water-in-oil sensor
- Temp. sensor: Y

**Liquid:**

- Liquid temperature range: 0 .. 40 °C
- Density: 998.2 kg/m³

**Technical:**

- Type of impeller: SUPER VORTEX
- Maximum particle size: 80 mm
- Primary shaft seal: SIC/SIC
- Secondary shaft seal: CARBON/CERAMICS
- Max. hydraulic efficiency: 33 %
- Approvals on nameplate: EN12050-1

**Materials:**

- Pump housing: EN 1.4408
- Impeller: Stainless steel

**Installation:**

- Maximum ambient temperature: 40 °C
- Maximum operating pressure: 6 bar
- Flange standard: DIN
<table>
<thead>
<tr>
<th>Position</th>
<th>Qty.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Pump outlet: DN 80</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pressure rating: PN 10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maximum installation depth: 20 m</td>
</tr>
</tbody>
</table>

**Electrical data:**
- Power input - P1: 7.1 kW
- Rated power - P2: 6 kW
- Mains frequency: 50 Hz
- Rated voltage: 3 x 380-415 V
- Voltage tolerance: +6/-10%
- Max starts per. hour: 20
- Rated current: 13.7-14.2 A
- Rated current at 3/4 load: 11.3 A
- Rated current at 1/2 load: 9.7 A
- Starting current: 148 A
- Rated current at no load: 7.8 A
- Cos phi - power factor: 0.78
- Cos phi - p.f. at no load: 0.14
- Cos phi - p.f. at 3/4 load: 0.7
- Cos phi - p.f. at 1/2 load: 0.58
- Rated speed: 2945 rpm
- Locked-rotor torque: 80 Nm
- Breakdown torque: 112 Nm
- Moment of inertia: 0.019 kg m²
- Motor efficiency at full load: 84.1%
- Motor efficiency at 3/4 load: 82.2%
- Motor efficiency at 1/2 load: 77.5%
- Number of poles: 2
- Start. method: star/delta
- Enclosure class (IEC 34-5): IP68
- Insulation class (IEC 85): F
- Explosion proof: no
- Length of cable: 10 m
- Cable type: LYNIFLEX
- Type of cable plug: NO PLUG

**Others:**
- Net weight: 141 kg
### General information:

- **Product name:** SEV.80.80.60.A.2.51D R
- **Product No:** 96962198
- **EAN number:** 5700314901462

### Technical:

- **Max flow:** 25 l/s
- **Head max:** 27.5 m
- **Type of impeller:** SUPER VORTEX
- **Maximum particle size:** 80 mm
- **Primary shaft seal:** SIC/SIC
- **Secondary shaft seal:** CARBON/CERAMICS
- **Max. hydraulic efficiency:** 33 %
- **Approvals on nameplate:** EN12050-1
- **Curve tolerance:** ISO9906:2012 3B2
- **Cooling jacket:** with cooling jacket

### Materials:

- **Pump housing:** EN 1.4408
- **Impeller:** Stainless steel

### Installation:

- **Maximum ambient temperature:** 40 °C
- **Maximum operating pressure:** 6 bar
- **Flange standard:** DIN
- **Pump outlet:** DN 80
- **Pressure rating:** PN 10
- **Maximum installation depth:** 20 m
- **Inst dry/wet:** DRY/SUBMERGED
- **Installation:** horizontal or vertical

### Liquid:

- **Liquid temperature range:** 0 .. 40 °C
- **Density:** 998.2 kg/m³

### Electrical data:

- **Power input - P1:** 7.1 kW
- **Rated power - P2:** 6 kW
- **Mains frequency:** 50 Hz
- **Rated voltage:** 3 x 380-415 V
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- **Enclosure class (IEC 34-5):** IP68
- **Insulation class (IEC 85):** F
- **Explosion proof:** no
- **Motor protec:** THERMAL SWITCH
- **Thermal protec:** internal
- **Length of cable:** 10 m
- **Cable type:** LYNIFLEX
- **Type of cable plug:** NO PLUG

### Controls:

- **Description** | **Value**
- **Liquid temperature range:** | 0 .. 40 °C
- **Density:** | 998.2 kg/m³
- **Power input - P1:** | 7.1 kW
- **Rated power - P2:** | 6 kW
- **Mains frequency:** | 50 Hz
- **Rated voltage:** | 3 x 380-415 V
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<td>Control box</td>
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<tr>
<td>Moisture sensor</td>
<td>with moisture sensors</td>
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<tr>
<td>Water-in-oil sensor</td>
<td>with water-in-oil sensor</td>
</tr>
<tr>
<td>Temp. sensor</td>
<td>Y</td>
</tr>
<tr>
<td>Others:</td>
<td></td>
</tr>
<tr>
<td>Net weight</td>
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96962198 SEV.80.80.60.A.2.51D R 50 Hz

Note! All units are in [mm] unless others are stated.
Disclaimer: This simplified dimensional drawing does not show all details.
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