

Company name: Created by:

|   | GRUNDFOS X   | Deter              | 05/11/2020                                      |
|---|--|--------------------|---|
|   | Description  | Date:              | 05/11/2020                                      |
|   | SP 14-4  |                    |   |
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|   |  |                    |   |
|   | Note! Product pictur   | re may differ from | actual product                                  |
|   | Product No.: 98699353  | -                  | -   |
|   | Submersible borehole pump, suitable for pumping cl   | ean water. Car     | he installed vertically or horizontally. All st |
|   | components are made in stainless steel, EN 1.4301  | (AISI 304), that   | t ensures high corrosive resistance. This pu    |
|   | carries drinking water approval.<br>The pump is fitted with a 1.1 kW MS402 motor with s                            | sand shield lin    | seal water-lubricated journal bearings and      |
|   | volume compensating diaphragm. The motor is a cal  | nned type subn     | nersible motor offering good mechanical         |
|   | stability and high efficiency. Suitable for temperature<br>The motor is not fitted with a temperature sensor. If t | •                  | onitoring is desired, a Pt1000 sensor can be    |
|   | fitted.  |                    |   |
|   | The motor is for direct-on-line starting (DOL).  |                    |   |
|   | Further product details  |                    |   |
|   | The pump is suitable for applications similar to the for   | ollowing:          |   |
|   | - raw-water supply   |                    |   |
|   | <ul> <li>irrigation</li> <li>groundwater lowering</li> </ul>   |                    |   |
|   | - pressure boosting  |                    |   |
|   | - fountain applications.   | ionay and alree    | dy complice with the requirements of the        |
|   | The Grundfos SP pump is renowned for its high effic<br>Minimum Efficiency Index, and therefore Grundfos is         | amongst the b      | best in class within submersible pumps.         |
|   | EUP  |                    |   |
|   | READY  |                    |   |
|   | TECHNOLOGY   |                    |   |
|   |  |                    |   |
|   | Pump   |                    |   |
|   | All pump surfaces that are in contact with pumped lic<br>and wear-resistant. The corrosion diagram below sho       |                    |   |
| 1 | temperature in Celsius (y-axis) and the concentration  | n of chloride in   | ppm (x-axis).                                   |
|   | 100EN 1.4301100  |                    | EN 1.4301                                       |
|   | 90 - 90 -  |                    |   |
|   |  |                    |   |
|   | 80   |                    |   |
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|   | $\begin{array}{c} 70 \\ - \\ 60 \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ $                                  |                    |   |

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Qty. | Description

The elastomer parts in the pump offer good wear resistance and long service intervals. The bearings are made of LSR (Liquid Silicone Rubber), sealing rings are made of TPU (Thermoplastic Poly-Urethane) and the non-return valve is made of NBR (Nitrile-Butadiene Rubber). The special elastomer material of the bearings offers increased resistance to sand and other abrasive particles (from 50 to 150 mg/l).

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In case the pump is used for pumping water with high content of hydrocarbons or solvents, Grundfos offers FKM rubber parts (Fluorocarbon) which are oil and temperature-resistant up to 90 °C.

The pump is built with octagonal bearings with sand flush channels that minimise wear. As wear of the pump is inevitable, the pump design allows for easy replacement of all internal wear parts (bearings, impeller, wear rings and seal rings) to maintain high performance and a long lifetime.

The suction interconnector is fitted with a strainer to prevent large particles from entering the pump. The suction interconnector is designed to comply with NEMA standards for motor mounting/dimensions.

## Motor

The stator is hermetically encapsulated in stainless steel and the windings are embedded in polymer compound. This results in high mechanical stability, optimum cooling and reduces the risk of short circuits in the windings. The shaft seal is of the lip seal type characterised by low friction against the rotor shaft. The NBR elastomer offers good wear resistance, good elasticity and resistance to particles. The rubber material is approved for use in potable water.

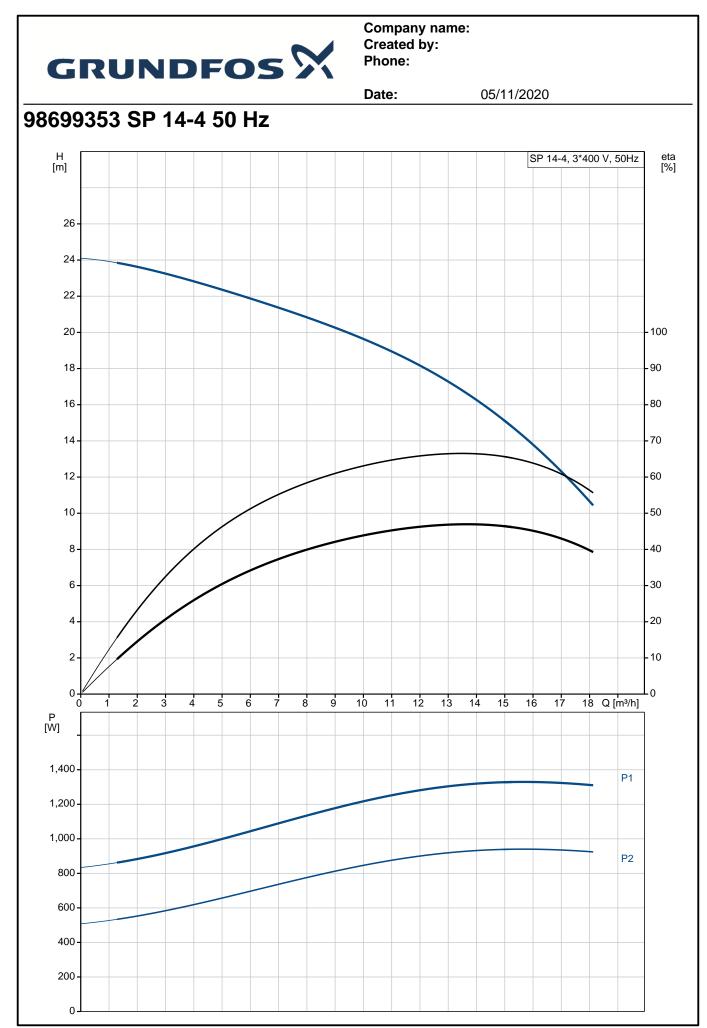
The motor can be fitted with a Pt100 or Pt1000 sensor that together with a control unit ensures that the maximum operating temperature conditions are not exceeded.

| Liquid:<br>Pumped liquid:<br>Maximum liquid temperature:<br>Max liquid t at 0.15 m/sec:<br>Selected liquid temperature:<br>Density:                                | Water<br>40 °C<br>40 °C<br>20 °C<br>998.2 kg/m³  |
|--|--|
| Technical:<br>Pump speed on which pump dat<br>Rated flow:<br>Rated head:<br>Shaft seal for motor:<br>Approvals on nameplate:<br>Curve tolerance:<br>Motor version: | a are based: 2900 rpm<br>14 m <sup>3</sup> /h<br>16.5 m<br>LIPSEAL<br>CE,EAC<br>ISO9906:2012 3B<br>T40 |
| Materials:<br>Pump:  | Stainless steel<br>EN 1.4301<br>AISI AISI 304  |
| Impeller:<br>Motor:  | Stainless steel<br>EN 1.4301<br>AISI AISI 304<br>Stainless steel<br>DIN WNr. 1.4301<br>AISI 304        |
| Installation:<br>Pump outlet:<br>Motor diameter:   | Rp2<br>4 inch  |
| Electrical data:<br>Motor type:<br>Rated power - P2:<br>Power (P2) required by pump:<br>Mains frequency:<br>Rated voltage:<br>Rated current:<br>Starting current:  | MS402<br>1.1 kW<br>1.1 kW<br>50 Hz<br>3 x 380-400-415 V<br>3.25-3.40-3.65 A<br>480-480-470 %           |



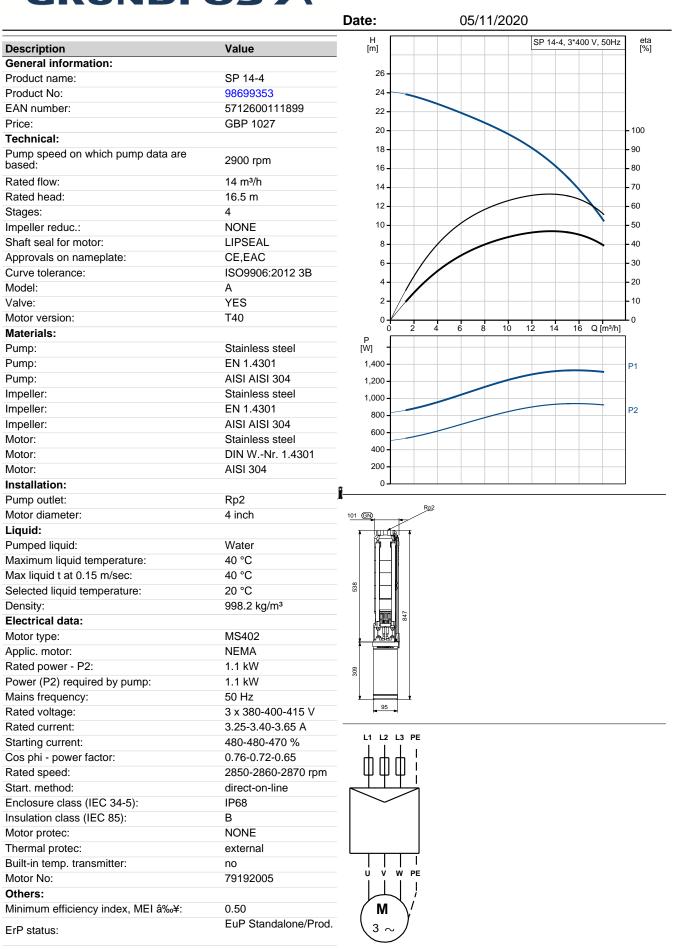
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|------------------------------|----------------------|-------|------------|--|
| Description                  |                      |       |            |  |
| Cos phi - power factor:      | 0.76-0.72-0.65       |       |            |  |
| Rated speed:                 | 2850-2860-2870 rpm   |       |            |  |
| Start. method:               | direct-on-line       |       |            |  |
| Enclosure class (IEC 34-5):  | IP68                 |       |            |  |
| Insulation class (IEC 85):   | В                    |       |            |  |
| Built-in temp. transmitter:  | no                   |       |            |  |
| Motor No:                    | 79192005             |       |            |  |
| Others:                      |                      |       |            |  |
| Minimum efficiency index, ME | â% X: 0.50           |       |            |  |
|                              |                      |       |            |  |
| ErP status:                  | EuP Standalone/Proc  | 1.    |            |  |
| Net weight:                  | 16.5 kg              |       |            |  |
| Gross weight:                | 18.6 kg              |       |            |  |
| Shipping volume:             | 0.016 m <sup>3</sup> |       |            |  |
| Danish VVS No.:              | 388482004            |       |            |  |
| Finnish LVI No.:             | 4762705              |       |            |  |
| Country of origin:           | GB                   |       |            |  |
| Custom tariff no.:           | 84137029             |       |            |  |
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