


## CSE SOL G SRS1 T-E HDO Solar Pump Station

v1.0\_07/2021

	<b>Main Features</b>
	<p><b>Application</b></p> <p>Solar Pump Station involves all necessary components for everyday efficient operation, incl. complete electrical wiring. Only the collector temperature sensor needs to be connected. A 2-3 kW electric heating element can be connected to the pump station for backup heat. For this purpose, the pump station is equipped with a dedicated electrical socket. The heating element is power supplied through a separate cable that is included in the pump station. This cable connects to the Ripple control switched power input. The Ripple control contactor that blocks this input during high tariff periods must be sized to safely exceed the output of the installed heating element. Neither the heating element nor the Ripple control contactor are included in supply.</p>
<p><b>Description</b></p> <p>It consists of a Grundfos UPM3 Hybrid 25-70 pump, SRS1 T controller, check and safety valves, 2 ball valves, pressure gauge, thermometer, el. wiring, insulation and installation kit. After the control element with end stops is removed and the gland nut released, the ball valves enable easy replacement of O-rings without the need of draining the solar thermal system.</p> <p>The pump station further involves:</p> <ul style="list-style-type: none"> <li>• outlet for expansion vessel connection</li> <li>• outlet from safety valve, incl. extension piping led below the pump station for an easy connection</li> <li>• solar thermal system filling, draining and topping-up valves</li> <li>• special socket to connect a heating element of max. 3 kW / 230 V output</li> <li>• connected 2 temperature sensor for a consumer (4 m cable)</li> <li>• solar temperature sensor (2 m cable)</li> <li>• power cable for input switched by Ripple control (3 m long, 3 x 1,5 mm<sup>2</sup> cross section)</li> <li>• 230 V power supply cable w. el. plug (3 m long, 3 x 1,5 mm<sup>2</sup> cross section)</li> </ul>	
<p><b>Installation</b></p> <p>on a tank or wall using the installation kit</p>	
<p><b>Working fluid</b></p> <p>water-glycol mixture (max. 1:1)</p>	
<p><b>Code</b></p> <p><b>18968</b> - G 3/4" M connection, flowmeter 2-12 l/min  <b>18964</b> - G 1" M connection, flowmeter 8-28 l/min</p>	

Pump Station Data	
Max. fluid working temperature	110 °C
Max. working pressure	6 bar
Min. system pressure	1.3 bar with the pump stopped
Max. switched current	13 A / 230 V
Power supply	230 V, 50 Hz
Ambient temperature	5-40 °C
Max. relative humidity	85% at 25 °C
Insulation material	EPP RG 60 g/l
IP rating	IP20
Overall dimensions	470 x 265 x 120 mm
Total weight	7.1 kg

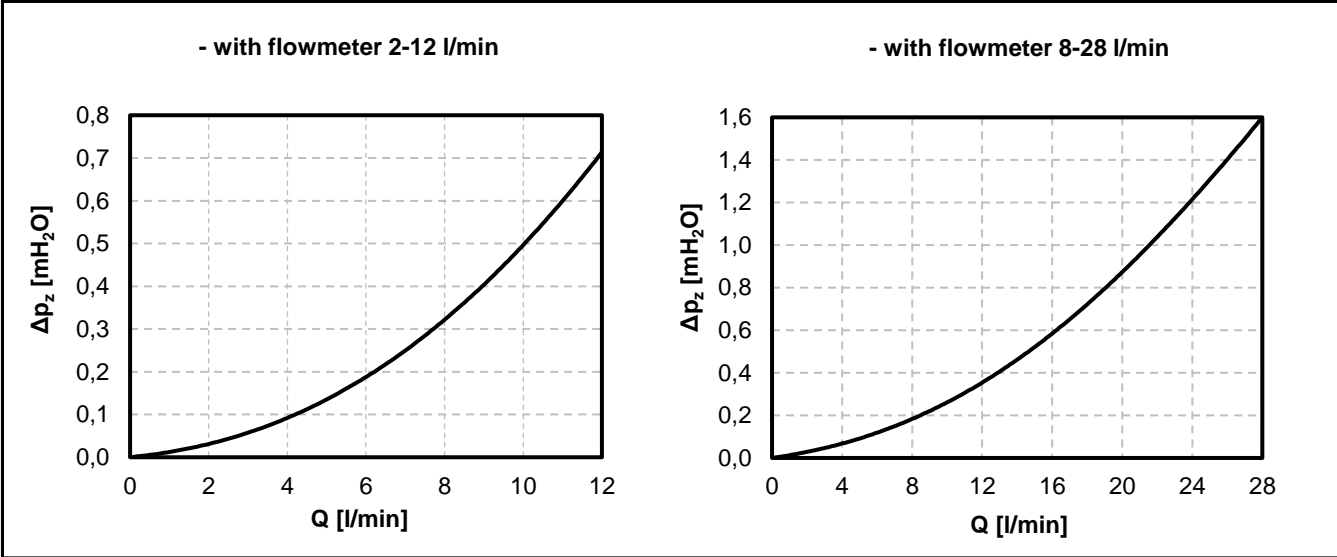
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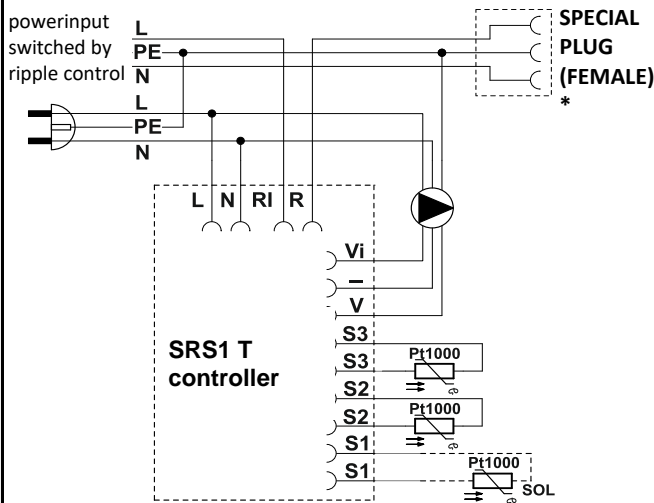
### Accessories

Code 16942	ETT-N heating element, 2 kW
Code 16943	ETT-N heating element, 3 kW
Code 16940	el. plug for CSE SOL W SRS1 T-E
Code 7629	pipe union Cu 22 x Cu 22, straight, to connect a waste pipe to the safety valve
Code 13695	pipe union Cu 22 x G 3/4" M, straight, to connect a waste pipe to the safety valve

### Pump Station Pressure Drop Graph



### Internal Wiring



- L** live
- N** neutral
- RI, R** potential-free switching contact
- Vi** iPWM signal input
- GND PWM
- V** PWM signal output
- S3** sensor 3 (backup heat)
- S2** sensor 2 (solar consumer)
- S1** sensor 1 (collector)

\* in the pump station, to connect a heating element of max. 3 kW output

### Pump Performance Curves

