


DATA SHEET
PSWF 500 N+ Thermal Store

|  | Main Features | |
|---|-------------------|--|
| | Application | Storage and subsequent distribution of thermal energy from solid-fuel boilers, heat pumps or other heat sources; the tank is fitted with 2 flanged openings that can permit installation of a DHW tube heat exchanger or connecting a solar thermal system |
| | Working fluid | water, water-glycol mixture (max. 1:1), water-glycerine mixture (max. 2:1), thermal oil |
| | Storage tank code | 14735 |
| | Insulation code | 19332 |

Energy Efficiency Data (as per EC Regulation No. 812/2013)

| | |
|-------------------------|----------------------------------|
| | valid for a tank with insulation |
| Energy efficiency class | C |
| Static loss | 106 W |
| Storage volume | 461 l |

Technical data

| | |
|---|--------------------|
| Total storage tank volume | 472 l |
| Fluid volume in tank | 461 l |
| Heat exchanger volume | 11.0 l |
| Heat exchanger surface area | 2.0 m ² |
| Max. working temperature in storage tank | 95 °C |
| Max. working temperature in heat exchanger | 110 °C |
| Max. working pressure in storage tank | 4 bar |
| Max. working pressure in heat exchanger | 10 bar |
| Storage tank diameter | 600 mm |
| Storage tank diameter with insulation | 800 mm |
| Storage tank overall height | 1915 mm |
| Tipping height without insulation | 1950 mm |
| Storage tank perimeter insulation thickness | 100 mm |
| Storage tank bottom insulation thickness | 50 mm |
| Storage tank top insulation thickness | 100 mm |
| Empty weight without insulation | 118 kg |

Materials

| | |
|--|------------------|
| Storage tank material | S235JR |
| Storage tank perimeter insulation | fleece |
| Storage tank outer surface insulation | hard polystyrene |
| Top and bottom storage tank insulation | fleece |
| Solar heat exchanger | S235JR+N |

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| Accessories | |
|---------------------------------|-------------------------------|
| Electrical heating element | ETT-A, C, D, F, P, M |
| Heating element max. length | 680 mm |
| Blind flange | code 6230 |
| Blind flange for heat exchanger | code 6231 / 6232 |
| Tube heat exchanger | max. area 3.15 m ² |

| Dimensions | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|-------------|-------------|-------------|-------------|---------------------|--|--|--|-----------|-------------------------|----------|------|-----------|-----------------------|----------|-----|-----------------------|--|--|--|-----------|---------------------|----------|------|-----------|-----------------------|----------|-----|---------------------------|--|--|--|-----------|--------------------|----------|------|-----------|--------------------|----------|-----|-----------|--------------------|----------|------|----------|-------------|----------|------|----------|--------------|----------|-----|-------------------------------|--|--|--|-----------|------------------------|----------|------|-----------|------------------------|----------|-----|-----------|------------------------|----------|------|-----------|------------------------|----------|-----|-----------|------------------------|----------|------|-----------------------------|--|--|--|-----------|------------------------------------|--------|-----|-----------|-----------------------------------|--------|-----|----------------|--|--|--|-----------|--------------|----------|------|
| | <h3>TAPPINGS</h3> <table border="1"> <thead> <tr> <th>pos.</th> <th>description</th> <th>connection</th> <th>height [mm]</th> </tr> </thead> <tbody> <tr> <td colspan="4">Heat sources</td> </tr> <tr> <td>B1</td> <td>Supply from heat source</td> <td>G 6/4" F</td> <td>1615</td> </tr> <tr> <td>B2</td> <td>Return to heat source</td> <td>G 6/4" F</td> <td>225</td> </tr> <tr> <td colspan="4">Heating system</td> </tr> <tr> <td>H1</td> <td>Supply to heat sink</td> <td>G 6/4" F</td> <td>1915</td> </tr> <tr> <td>H2</td> <td>Return from heat sink</td> <td>G 6/4" F</td> <td>225</td> </tr> <tr> <td colspan="4">Control and safety</td> </tr> <tr> <td>C1</td> <td>Temperature sensor</td> <td>G 1/2" F</td> <td>1630</td> </tr> <tr> <td>C2</td> <td>Temperature sensor</td> <td>G 1/2" F</td> <td>585</td> </tr> <tr> <td>C3</td> <td>Temperature sensor</td> <td>G 1/2" F</td> <td>1270</td> </tr> <tr> <td>T</td> <td>Thermometer</td> <td>G 1/2" F</td> <td>1400</td> </tr> <tr> <td>P</td> <td>Safety valve</td> <td>G 1/2" F</td> <td>450</td> </tr> <tr> <td colspan="4">Universal inlet/outlet</td> </tr> <tr> <td>U1</td> <td>Universal inlet/outlet</td> <td>G 6/4" F</td> <td>1615</td> </tr> <tr> <td>U2</td> <td>Universal inlet/outlet</td> <td>G 6/4" F</td> <td>435</td> </tr> <tr> <td>U3</td> <td>Universal inlet/outlet</td> <td>G 6/4" F</td> <td>1155</td> </tr> <tr> <td>U4</td> <td>Universal inlet/outlet</td> <td>G 6/4" F</td> <td>685</td> </tr> <tr> <td>U5</td> <td>Universal inlet/outlet</td> <td>G 6/4" F</td> <td>1385</td> </tr> <tr> <td colspan="4">Solar thermal system</td> </tr> <tr> <td>X1</td> <td>Inlet from solar thermal collector</td> <td>G 1" F</td> <td>765</td> </tr> <tr> <td>X2</td> <td>Return to solar thermal collector</td> <td>G 1" F</td> <td>225</td> </tr> <tr> <td colspan="4">Flanges</td> </tr> <tr> <td>L1</td> <td>Upper flange</td> <td>12 x M12</td> <td>1515</td> </tr> </tbody> </table> | pos. | description | connection | height [mm] | Heat sources | | | | B1 | Supply from heat source | G 6/4" F | 1615 | B2 | Return to heat source | G 6/4" F | 225 | Heating system | | | | H1 | Supply to heat sink | G 6/4" F | 1915 | H2 | Return from heat sink | G 6/4" F | 225 | Control and safety | | | | C1 | Temperature sensor | G 1/2" F | 1630 | C2 | Temperature sensor | G 1/2" F | 585 | C3 | Temperature sensor | G 1/2" F | 1270 | T | Thermometer | G 1/2" F | 1400 | P | Safety valve | G 1/2" F | 450 | Universal inlet/outlet | | | | U1 | Universal inlet/outlet | G 6/4" F | 1615 | U2 | Universal inlet/outlet | G 6/4" F | 435 | U3 | Universal inlet/outlet | G 6/4" F | 1155 | U4 | Universal inlet/outlet | G 6/4" F | 685 | U5 | Universal inlet/outlet | G 6/4" F | 1385 | Solar thermal system | | | | X1 | Inlet from solar thermal collector | G 1" F | 765 | X2 | Return to solar thermal collector | G 1" F | 225 | Flanges | | | | L1 | Upper flange | 12 x M12 | 1515 |
| | pos. | description | connection | height [mm] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heat sources | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B1 | Supply from heat source | G 6/4" F | 1615 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B2 | Return to heat source | G 6/4" F | 225 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heating system | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| H1 | Supply to heat sink | G 6/4" F | 1915 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| H2 | Return from heat sink | G 6/4" F | 225 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control and safety | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C1 | Temperature sensor | G 1/2" F | 1630 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C2 | Temperature sensor | G 1/2" F | 585 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C3 | Temperature sensor | G 1/2" F | 1270 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T | Thermometer | G 1/2" F | 1400 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P | Safety valve | G 1/2" F | 450 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Universal inlet/outlet | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U1 | Universal inlet/outlet | G 6/4" F | 1615 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U2 | Universal inlet/outlet | G 6/4" F | 435 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U3 | Universal inlet/outlet | G 6/4" F | 1155 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U4 | Universal inlet/outlet | G 6/4" F | 685 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U5 | Universal inlet/outlet | G 6/4" F | 1385 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Solar thermal system | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| X1 | Inlet from solar thermal collector | G 1" F | 765 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| X2 | Return to solar thermal collector | G 1" F | 225 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flanges | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L1 | Upper flange | 12 x M12 | 1515 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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Heat exchanger pressure drop graph

