


**HSK 750 PV Combination Thermal Store**

	Main Features	
	Application	This combination Thermal Store utilizes a heat pump with PV panels as a heat source for both space and DHW heating; DHW is being prepared in 2 integrated stainless-steel heat exchangers; a tightly fitting separating metal plate increases the heat pump's seasonal coefficient of performance, a dedicated PV heating element is placed in the lower tank section; more electric heating elements can be installed if needed.
	Working fluid	Water (heat exchanger), water; water-glycol mixture (max. 1:1) or water/glycerine mixture (max. 2:1 (thermal store)).
	Thermal store code	16177
	Insulation code	18842

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

	valid for a thermal store with insulation
Energy efficiency class	N/A
Static loss	117 W
Storage volume	757 l

**Technical data**

Total thermal store volume	757 l
Fluid volume in thermal store	725 l
Fluid volume above separating plate	304 l
Fluid volume below separating plate	421 l
Fluid volume of DHW heat exchanger above the separating plate	21.0 l
Fluid volume of DHW heat exchanger below the separating plate	11.0 l
Surface area of DHW heat exchanger above the separating plate	6.0 m <sup>2</sup>
Surface area of DHW heat exchanger below the separating plate	3.0 m <sup>2</sup>
Max. working temperature in thermal store	95 °C
Max. working temperature in DHW heat exchanger	95 °C
Max. working pressure in thermal store	4 bar
Max. working pressure in DHW heat exchanger	10 bar
Thermal store diameter	750 mm
Thermal store diameter with insulation	950 mm
Thermal store overall height	1975 mm
Tipping height without insulation	2120 mm
Thermal store perimeter insulation thickness	100 mm
Thermal store bottom insulation thickness	50 mm
Thermal store top insulation thickness	100 mm
Empty weight without insulation	134 kg

**Accessories**

Electric heating element	types ETT-C, P, F2, M, U
Heating element max. length	700 mm

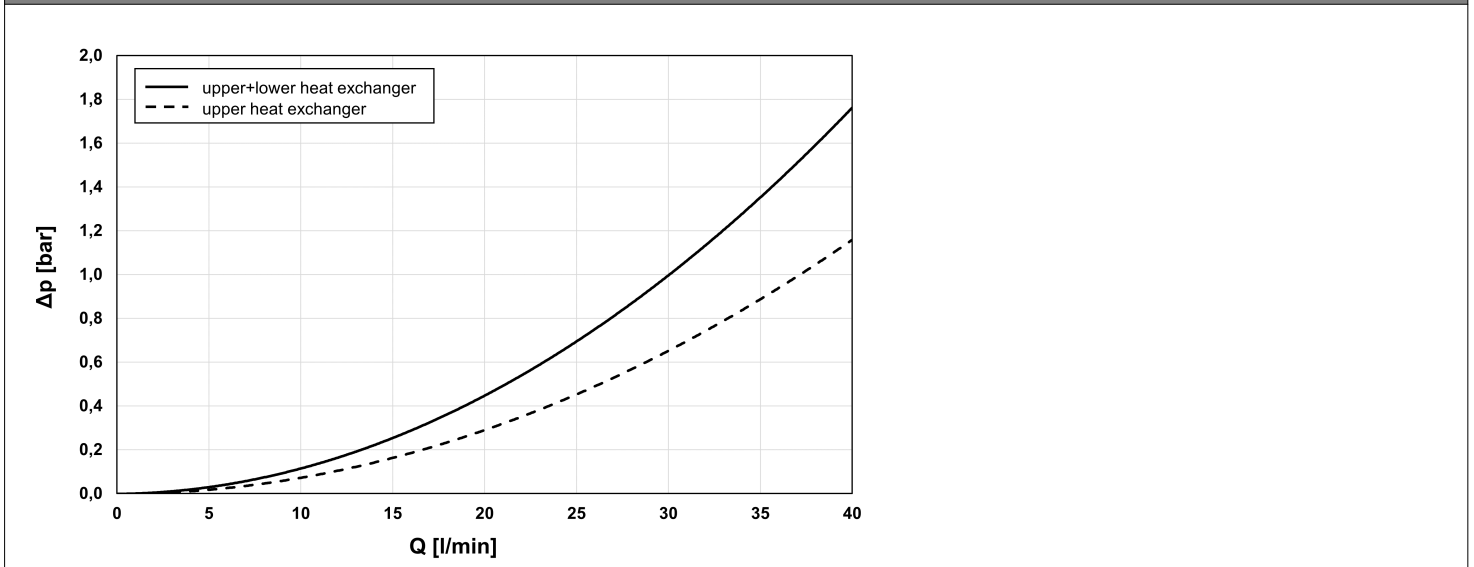
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Materials	
Thermal store material	S235JR
Thermal store perimeter insulation	fleece
Thermal store outer surface insulation	hard polystyrene
Top and bottom thermal store insulation	fleece
DHW heat exchanger	AISI 316 L

Insulation thermal conductivity  $\lambda \leq 0.037 \text{ W/mK}$ , thermal resistance (short/long term) 150/100 °C, fire class E.

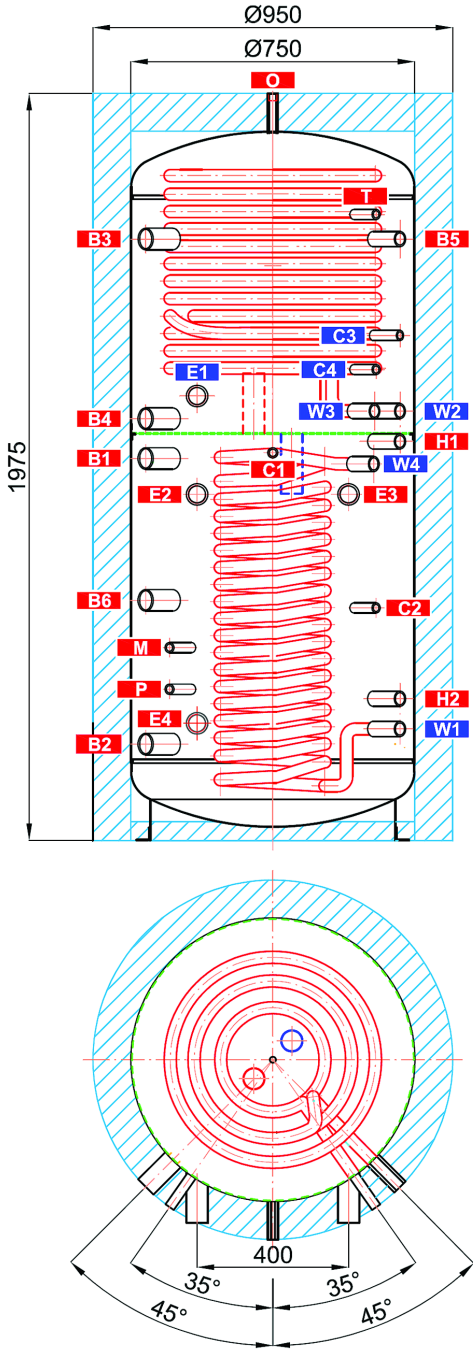
Volume of supplied DHW (heated from 10 °C to 40 °C)				
Heated volume	Temperature in thermal store	Backup heater	Flow rate [l/min]	Hot water volume [l]
Entire	50 °C	10 kW	8	394
			12	366
			20	271
Entire	50 °C	none	8	353
			12	311
			20	231
Above metal sheet	50 °C	10 kW	8	209
			12	167
			20	110
Entire	60 °C	10 kW	8	1212
			12	965
			20	739
Entire	60 °C	none	8	784
			12	720
			20	677
Above metal sheet	60 °C	10 kW	8	489
			12	335
			20	286
Entire	80 °C	none	8	1238
			12	1186
			20	1076

**DHW heat exchanger pressure drop graph**



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Dimensions



CONNECTIONS

pos.	description	connection	height [mm]
<b>Heat sources</b>			
B1	Supply from heat source	G 6/4" F	1010
B2	Return to heat source	G 6/4" F	255
B3	Supply from heat source	G 6/4" F	1590
B4	Return to heat source	G 6/4" F	1115
B5	Supply from heat source	G 1" F	1590
B6	Supply from heat source	G 6/4" F	635
<b>Heating system</b>			
H1	Flow to heating system	G 1" F	1055
H2	Return from heating system	G 1" F	375
<b>Electric heating element</b>			
E1	El. heating element (DHW)	G 6/4" F	1175
E2	El. heating element (space heating)	G 6/4" F	915
E3	El. heating element (space heating)	G 6/4" F	915
E4	El. heating element (for PV system)	G 6/4" F	310
<b>DHW heating</b>			
W1	Cold water	G 1" M	295
W2	Domestic hot water	G 1" M	1135
W3	Recirculation	G 1" M	1135
W4	Domestic hot water	G 1" M	995
<b>Control and safety</b>			
C1	Temperature sensor	G 1/2" F	1025
C2	Temperature sensor	G 1/2" F	615
C3	Temperature sensor	G 1/2" F	1335
C4	Temperature sensor	G 1/2" F	1245
T	Thermometer	G 1/2" F	1655
M	Pressure gauge	G 1/2" F	510
P	Safety valve	G 1/2" F	400
<b>Air discharge</b>			
O	Air vent valve	G 1/2" F	1975