DATA SHEET

HSK 600 PR Combination Thermal Store

Main Features	
Application	Combination thermal store with DHW heating in an integrated stainless-steel heat exchanger, fitted with a tight separating metal plate that increases seasonal coefficient of performance (SCOP) of a heat pump and the efficiency of a solar thermal system, wiht a solar heat exchanger in the lower tank section below the plate. Thermal stores are supplied uninsulated. Thermal insulation is available as a separate item, see the codes below. "
Working fluid	Water (heat exchanger), water; water–glycol mixture (max. 1:1) or water/glycerine mixture (max. 2:1 (thermal store).
Thermal store code	21188
Insulation code	18838

Energy Efficiency Data (as per EC Regulation No. 812/2013)	
	valid for a thermal store with insulation
Energy efficiency class	N/A
Static loss	98 W
Storage volume	540 l

Technical data	
Total thermal store volume	553 l
Fluid volume in thermal store	508 l
Fluid volume above separating plate	235 l
Fluid volume below separating plate	273 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
Fluid volume in solar heat exchanger	13.0 l
Surface area of DHW heat exchanger above the separating plate	6.0 m²
Surface area of DHW heat exchanger below the separating plate	3.0 m²
Solar heat exchanger surface area	2.4 m²
Max. working temperature in thermal store	95 °C
Max. working temperature in DHW heat exchanger	95 °C
Max. working temperature in solar heat exchanger	95 °C
Max. working pressure in thermal store	4 bar
Max. working pressure in DHW heat exchanger	10 bar
Max. working pressure in solar heat exchanger	10 bar
Thermal store diameter	650 mm
Thermal store diameter with insulation	850 mm
Thermal store overall height	1935 mm
Tipping height without insulation	1970 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	136 kg

Accessories	
Electric heating element	ETT-C, P, M, U
Heating element max. length	555 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
Solar heat exchanger	S235JR+N

Insulation thermal conductivity λ ≤ 0.037 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	315
			12	287
			20	213
Entire	50 °C	none	8	283
			12	247
			20	175
Above metal sheet	50 °C	10 kW	8	167
			12	152
			20	105
Entire	60 °C	10 kW	8	1094
			12	835
			20	406
Entire	60 °C	none	8	669
			12	651
			20	567
Above metal sheet	60 °C	10 kW	8	320
			12	287
			20	257
Entire	80 °C	none	8	1037
			12	1007
			20	924

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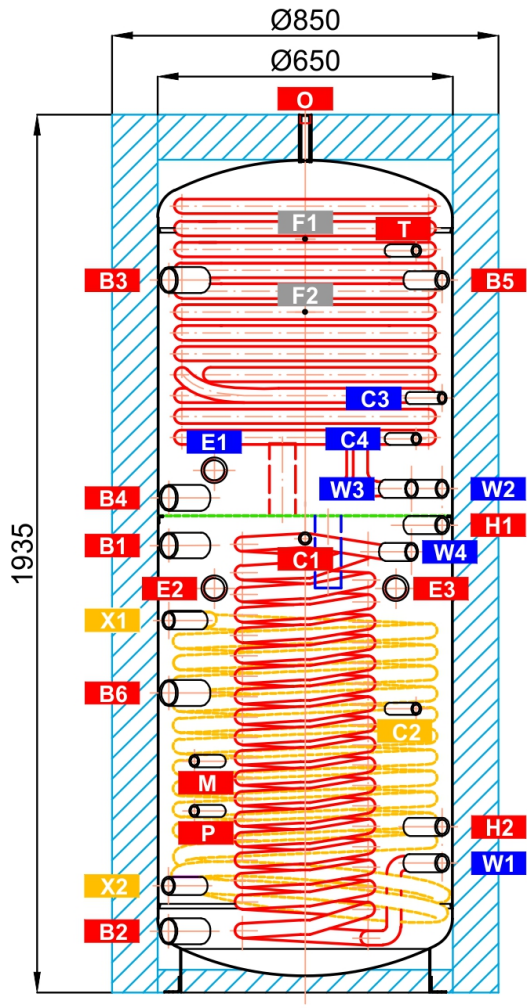
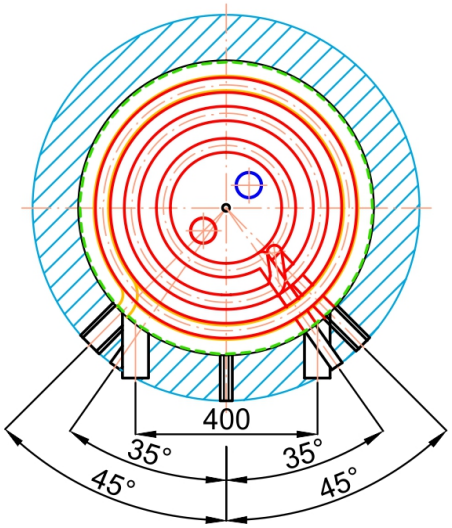
Dimensions





CONNECTIONS

pos.	description	connection	height [mm]
Heat sources			
B1	Supply from heat source	G 6/4" F	985
B2	Return to heat source	G 6/4" F	135
B3	Supply from heat source	G 6/4" F	1570
B4	Return to heat source	G 6/4" F	1090
B5	Supply from heat source	G 1" F	1570
B6	Supply from heat source	G 6/4" F	660
Heating system			
H1	Flow to heating system	G 1" F	1030
H2	Return from heating system	G 1" F	365
Solar thermal system			
X1	Supply from solar collectors	G 1" F	820
X2	Return to solar collectors	G 1" F	235
Electric heating element			
E1	El. heating element (DHW)	G 6/4" F	1150
E2	El. heating element (space heating)	G 6/4" F	890
E3	El. heating element (space heating)	G 6/4" F	890
DHW heating			
W1	Cold water	G 1" M	285
W2	Domestic hot water	G 1" M	1110
W3	Recirculation	G 1" M	1110
W4	Domestic hot water	G 1" M	970
Control and safety			
C1	Temperature sensor	G 1/2" F	1000
C2	Temperature sensor	G 1/2" F	625
C3	Temperature sensor	G 1/2" F	1310
C4	Temperature sensor	G 1/2" F	1220
T	Thermometer	G 1/2" F	1635
M	Pressure gauge	G 1/2" F	510
P	Safety valve	G 1/2" F	400
Air discharge			
O	Air vent valve	G 1/2" F	1935
Pump station support			
F1	Pump station support – upper	M6	1660
F2	Pump station support – lower	M6	1500

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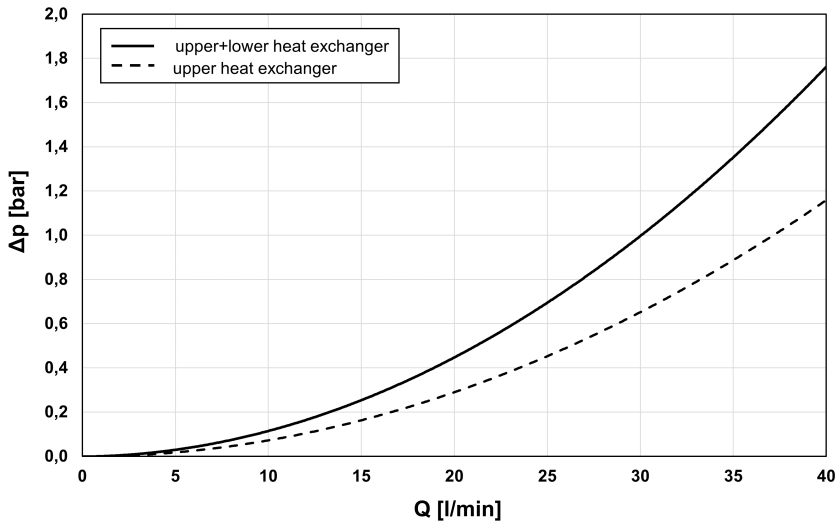
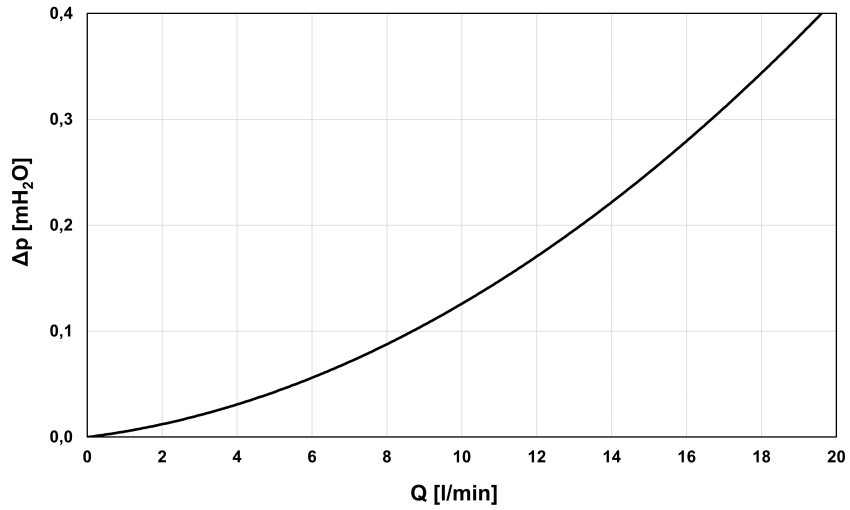
DHW heat exchanger pressure drop graph



Solar heat exchanger pressure drop