DATA SHEET

HSK 1000 PV Combination Thermal Store

HSK 1000 PV

HSK 1000 PV with insulation

Main features	
Application	accumulation of thermal energy for space and DHW heating
Description	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 (DHW heat exchanger) water; water/glycol mixture (max. 1:1) or water/glycerine mixture (max. 2:1) (thermal store)

Code	
Thermal Store	**16180**
Insulation	**18845**

Energy Efficiency Data (as per EC Regulation No. 812/2013)	
	HSK 1000 PV with insulation
Energy efficiency class	N/A
Standing loss	129 W
Storage volume	922 l

Technical Data	
Total tank volume	922 l
Fluid volume in tank	890 l
Fluid volume above the separating plate	314 l
Fluid volume below the separating plate	576 l
Upper DHW heat exchanger volume	21 l
Lower DHW heat exchanger volume	11 l
DHW heat exchanger surface area	6 m^2
Plocha výměníku TV pod dělicím plechem	3 m^2
Max. working temperature in Thermal Store	95 °C
Max. working temperature in DHW HE	95 °C
Max. working pressure in Thermal Store	4 bar
Max. working pressure in DHW HE	10 bar

Tank Materials	
Tank material	S235JR
DHW heat exchanger material	AISI 316 L

Insulation Materials	
Tank perimeter insulation	fleece
Tank perimeter insulation outer surface	hard polystyrene
Top and bottom tank insulation	fleece

Dimensions, Tipping height, Insulation thickness, Weight	
Tank diameter	800 mm
Tank diameter with insulation	1000 mm
Tank overall height	2080 mm
Tipping height without insulation	2230 mm
Tank perimeter insulation thickness	100 mm
Bottom insulation thickness	50 mm
Top insulation thickness	120 mm
Empty weight without insulation	192 kg

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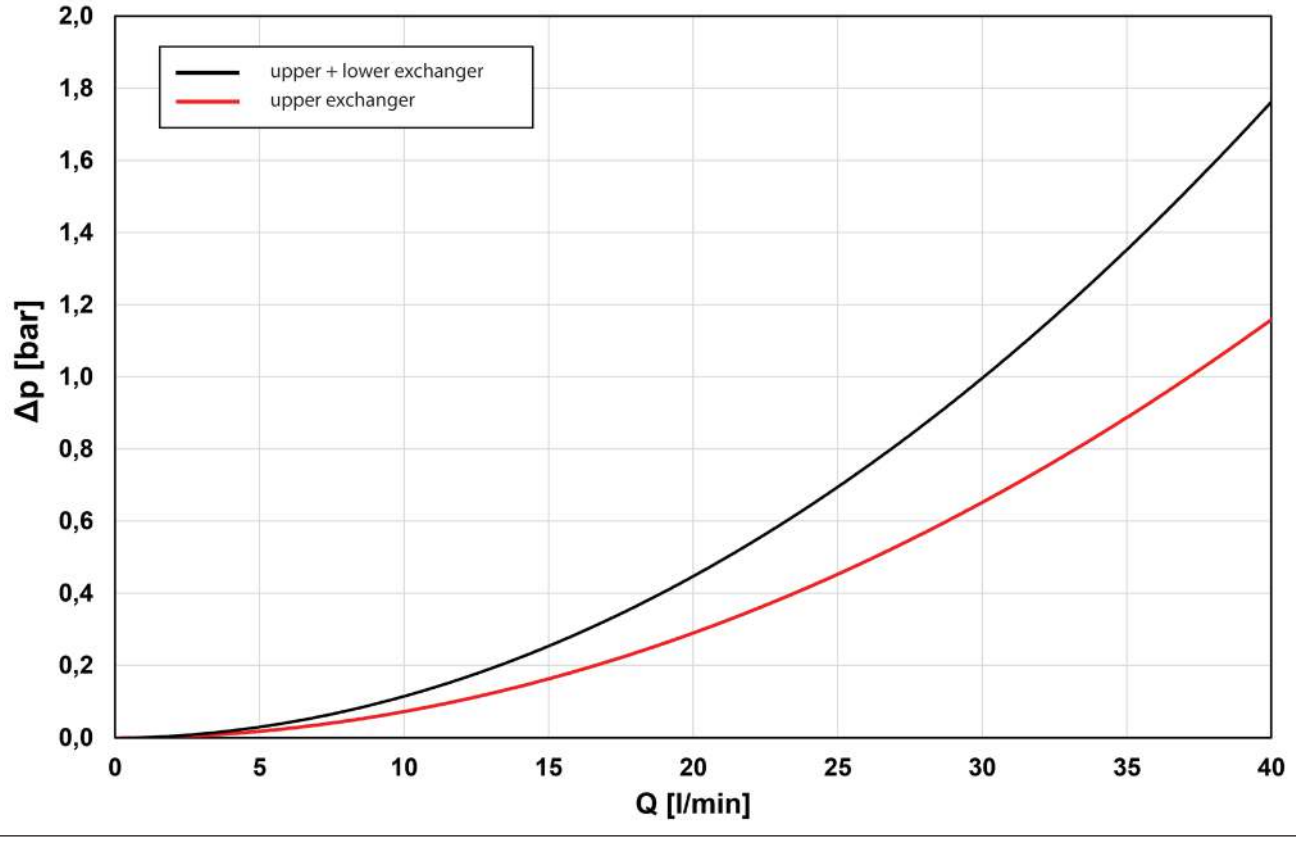
Accessories	
El. heating element (models)	ETT-C, P, M
Heating elem. max. length / output	4x 755 mm / 9 kW

Volume of supplied DHW (heated from 10 °C to 40 °C)

Heated volume	entire			entire			above metal sheet			entire			entire			above metal sheet			entire		
Temperature in tank	50 °C			50 °C			50 °C			60 °C			60 °C			60 °C			80 °C		
Backup heater	10 kW			none			10 kW			10 kW			none			10 kW			none		
Flow rate [l/min]	8	12	20	8	12	20	8	12	20	8	12	20	8	12	20	8	12	20	8	12	20
Hot water volume [l]	**451**	**391**	**287**	**414**	**370**	**253**	**218**	**199**	**118**	**1381**	**1008**	**796**	**846**	**749**	**697**	**423**	**301**	**270**	**1406**	**1365**	**1173**

DHW heat exchanger pressure drop graph



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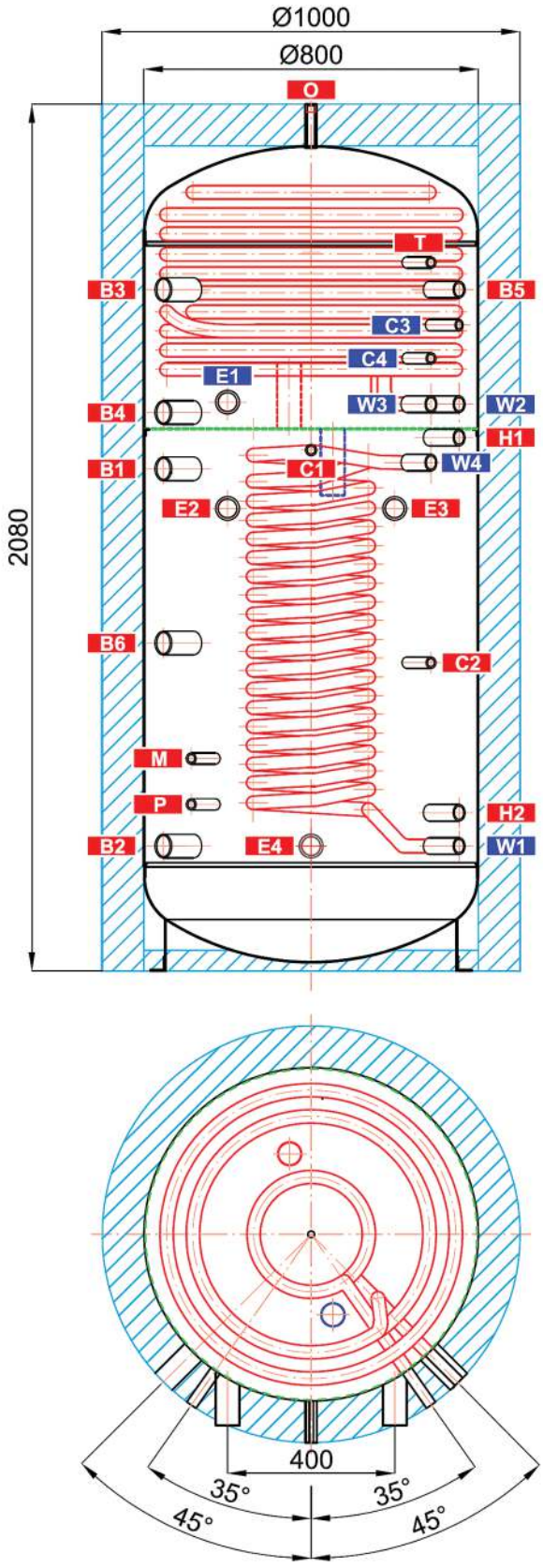
Dimensions

Tipping height without insulation 2230 mm



TAPPINGS			
pos.	description	connec-tion	height [mm]
Heat sources			
B1	Incoming from heat source	G 6/4“ F	1205
B2	Return to heat source	G 6/4“ F	200
B3	Incoming from heat source	G 6/4“ F	1635
B4	Return to heat source	G 6/4“ F	1340
B5	Incoming from heat source	G 1“ F	1635
B6	Incoming from heat source	G 6/4“ F	787
Heating system			
H1	Supply to the heating circuit	G 1“ F	1280
H2	Returnable from the heating circuit	G 1“ F	380
El . heating elements			
E1	Electric heating element for DHW heating	G 6/4“ F	1365
E2	Electric heating element for space heating	G 6/4“ F	1110
E3	Electric heating element for space heating	G 6/4“ F	1110
E4	Electric heating element for PV system	G 6/4“ F	300
DHW heating			
W1	Cold water	G 1“ M	300
W2	Hot water	G 1“ M	1360
W3	Circulation	G 1“ M	1360
W4	Hot water	G 1“ M	1220
Control and safety			
C1	Temperature sensor	G 1/2“ F	1250
C2	Temperature sensor	G 1/2“ F	740
C3	Temperature sensor	G 1/2“ F	1550
C4	Temperature sensor	G 1/2“ F	1470
T	Thermometer	G 1/2“ F	1700
M	Pressure gauge	G 1/2“ F	510
P	Safety valve	G 1/2“ F	400
Air release			
O	Air vent valve	G 1/2“ F	2080

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