DATA SHEET

DUO 390/130 N PR Thermal Store with immersed DHW tank

Main Features	
Application	Storage of thermal energy for DHW and space heating.
Description	Combination Thermal Store with immersed stainless steel DHW tank; a tight separating plate increases seasonal performance factor of a heat pump.
Working fluid	Water, water/glycol mixture (max. 1:1) or water/glycerine mixture (max. 2:1) (thermal store), water (immersed DHW tank).
Thermal store Code	**19139**
Insulation Code	**19293**

Energy Efficiency Data (as per EC Regulation No. 812/2013)	
	with insulation
Energy efficiency class	C
Standing loss	86 W
Storage volume	387 l

Technical Data	
Total volume	396 l
Fluid volume in thermal store	264 l
Immersed DHW tank volume	123 l
Heat exchanger (HX) volume	9 l
Heat exchanger surface area	1.5 m²
Max. working temp. in thermal store	95 °C
Max. working temp. in DHW tank	95 °C
Max. working temperature in heat exchanger	95 °C
Max. working pressure in thermal store	3 bar
Max. working pressure in DHW tank	6 bar
Max. working pressure in HX	10 bar

Materials	
Thermal store material	S235JR
DHW tank material	AISI 304
Exchanger material	S235JR+N
Tank perimeter insulation	fleece
Perimeter insulation’s outer surface	hard polystyrene
Top and bottom tank insulation	fleece

Dimensions, tipping height, insulation thickness, weight	
Tank diameter	550 mm
Tank diameter with insulation	750 mm
Tank overall height	1910 mm
Tipping height without insulation	1950 mm
Tank perimeter insulation thickness	100 mm
Bottom insulation thickness	50 mm
Top insulations thickness	120 mm
Empty weight without insulation	117 kg

Accessories	
El. heating elements	types ETT-C, F, M, P
Heating elements max. lenght	3 x 500 mm
Electronic anode rod	code 13793
Expansion vessel (drinking water)	type HW 8 l and larger

Spare Parts	
Magnesium anode rod	code 19152

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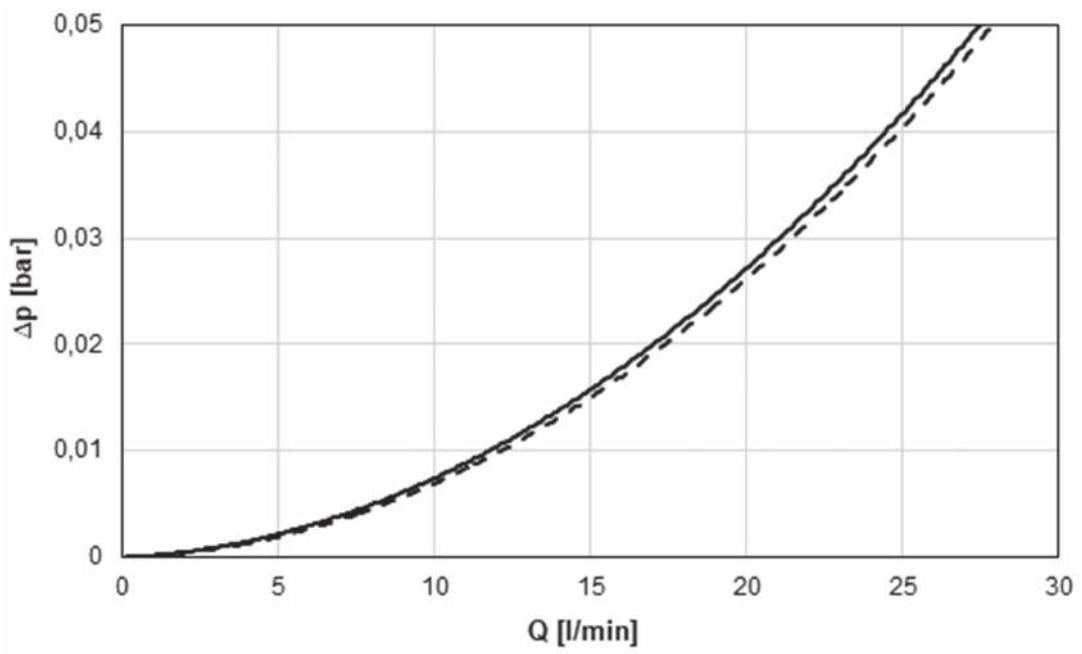
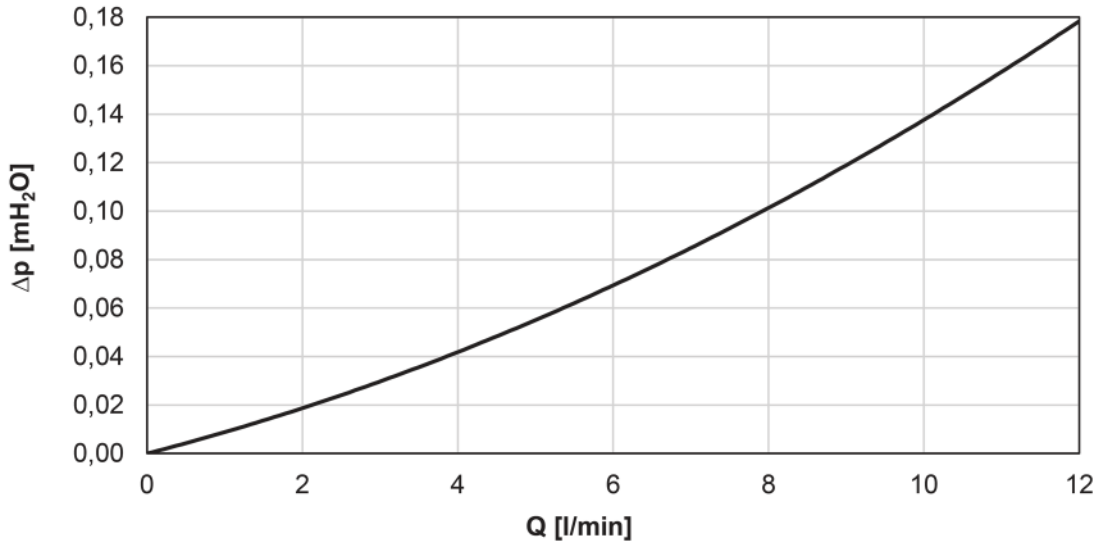
Volume of supplied DHW (heated from 10 °C to 40 °C)												
Heated volume	entire			entire			above separating plate			entire		
Temperature in tank	60 °C			60 °C			60 °C			80 °C		
Backup heater	10 kW			none			10 kW			none		
Flow rate [l/min]	8	12	20	8	12	20	8	12	20	8	12	20
Hot water volume [l]	**331**	**223**	**174**	**277**	**254**	**197**	**199**	**176**	**157**	**487**	**458**	**351**

Graph of pressure drop versus flow in the DHW tank



Graph of solar exchanger pressure losses



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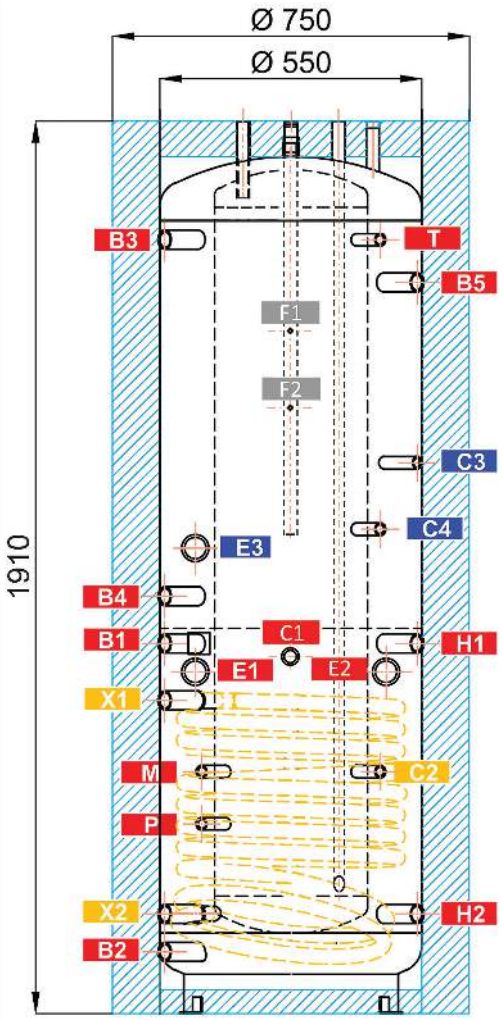
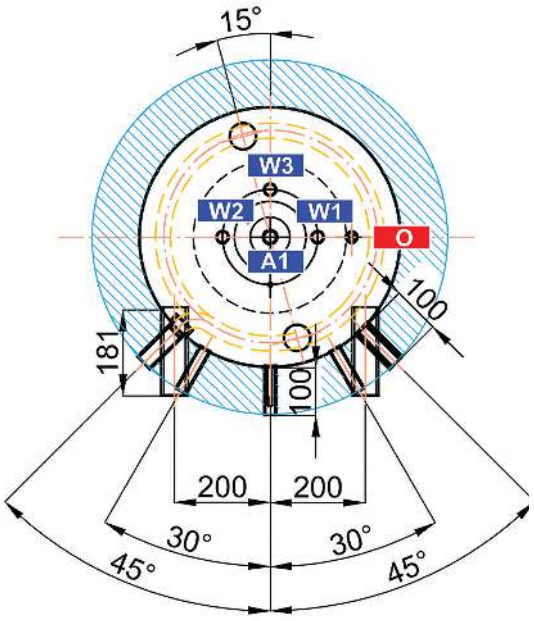
Dimensions

Tipping height without insulation 1950 mm





CONNECTIONS			
pos.	**descriptions**	**connection**	**height [mm]**
Heat sources			
B1	Incoming from heat source	G 1" F	780
B2	Return to heat source	G 1" F	130
B3	Incoming from heat source	G 1" F	1630
B4	Return to heat source	G 1" F	880
B5	Incoming from heat source	G 1" F	1540
Heating system			
H1	Outlet to the heating circuit	G 1" F	780
H2	Return from the heating circuit	G 1" F	210
Solar system			
X1	Incoming from solar collectors	G 1“ F	660
X2	Return to solar collectors	G 1“ F	210
Electric heating elements			
E1	Electric heating element for space heating	G 6/4" F	720
E2	Electric heating element for space heating	G 6/4" F	720
E3	Electric heating element for DHW heating	G 6/4" F	980
DHW heating			
W1	Cold water	G 3/4" M	1910
W2	Hot water	G 3/4" M	1910
W3	Recirculation	G 3/4" M	1910
A1	Anode	G 3/4" F	1855
Control and safety			
C1	Temperature sensor – space heating	G 1/2" F	750
C2	Temperature sensor – solar	G 1/2" F	510
C3	Temperature sensor – DHW heating	G 1/2" F	1160
C4	Temperature sensor – DHW heating	G 1/2" F	1020
T	Thermometer	G 1/2" F	1630
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	1885
Other			
F1	Attaching the pump station	M 6	1430
F2	Attaching the pump station	M 6	1270