


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

	Main Features	
	Application	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	19131
	Insulation code	19318

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

Energy efficiency class	C
Static loss	87 W
Storage volume	396 l

Technical data

Total thermal store volume	396 l
Fluid volume in thermal store	273 l
Immersed DHW tank volume	123 l
Max. working temperature in thermal store	95 °C
Max. working temperature in immersed DHW tank	95 °C
Max. working pressure in thermal store	3 bar
Max. working pressure in immersed DHW tank	6 bar
Thermal store diameter	550 mm
Thermal store diameter with insulation	750 mm
Thermal store overall height	1880 mm
Tipping height without insulation	1920 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	102 kg

Materials

Thermal store material	S235JR
Thermal store perimeter insulation	fleece
Immersed DHW tank	AISI 304
Thermal store outer surface insulation	PU leather
Top and bottom thermal store insulation	fleece

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

Accessories

Electric heating element	types ETT-C, F2, M, P, U
Heating element max. length	500 mm
Electronic anode rod	code 13793
Expansion vessel	type HW 8 l and larger

Spare parts (magnesium anode rods)

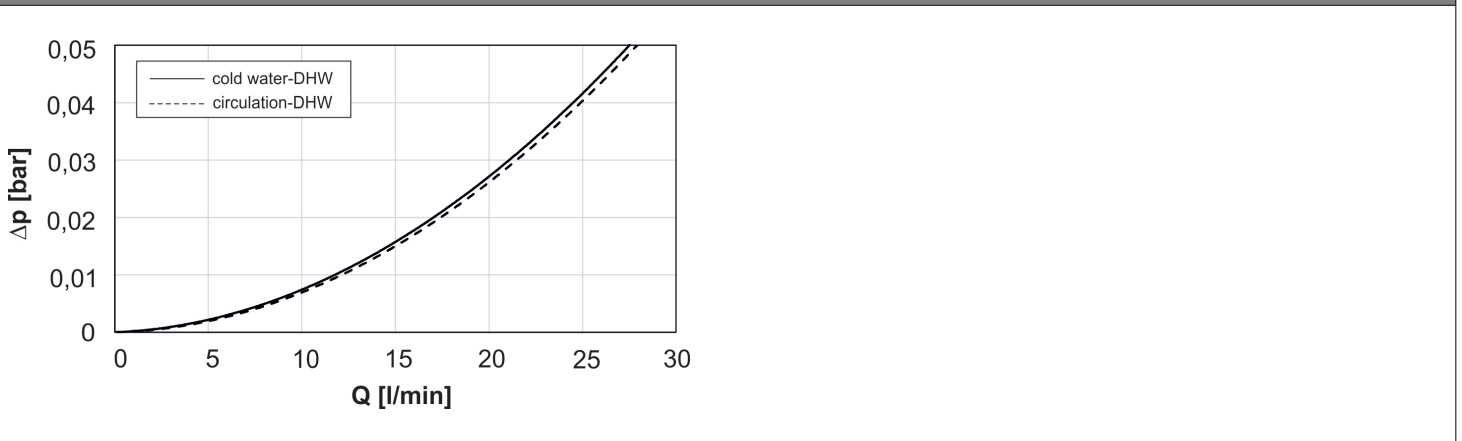
Magnesium anode rod	code 19152
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Volume of supplied DHW (heated from 10 °C to 40 °C)

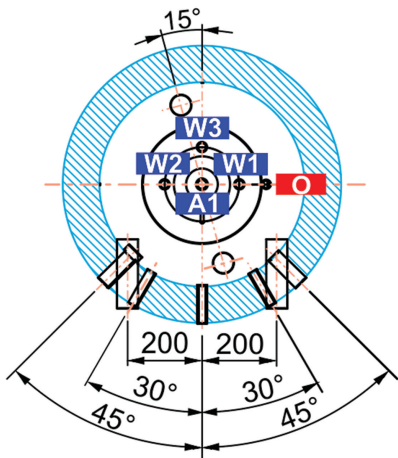
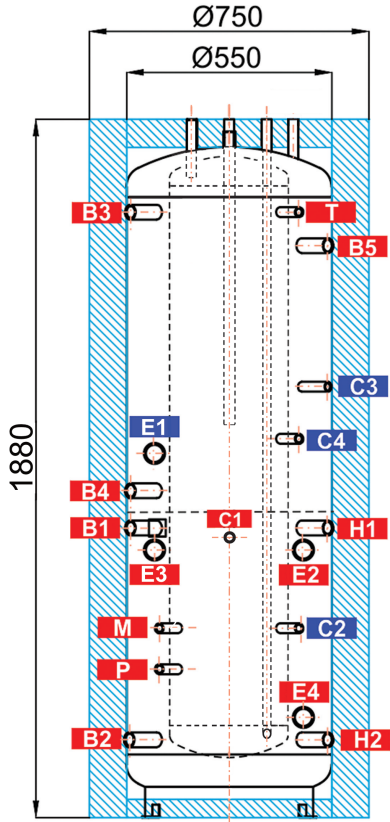
Heated volume	Temperature in thermal store	Backup heater	Flow rate [l/min]	Hot water volume [l]
Entire	60 °C	10 kW	8	331
			12	223
			20	174
Entire	60 °C	none	8	277
			12	254
			20	197
Above metal sheet	60 °C	10 kW	8	199
			12	176
			20	157
Entire	80 °C	none	8	487
			12	458
			20	351

DHW heat exchanger pressure drop graph



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Dimensions



CONNECTIONS

pos.	description	connection	height [mm]
Heat sources			
B1	Supply from heat source	G 1" F	780
B2	Return to heat source	G 1" F	210
B3	Supply from heat source	G 1" F	1630
B4	Return to heat source	G 1" F	880
B5	Supply from heat source	G 1" F	1540
Heating system			
H1	Flow to heating system	G 1" F	780
H2	Return from heating system	G 1" F	210
Electric heating element			
E1	El. heating element (DHW)	G 6/4" F	980
E2	El. heating element (space heating)	G 6/4" F	720
E3	El. heating element (space heating)	G 6/4" F	720
E4	El. heating element (for PV system)	G 6/4" F	270
DHW heating			
W1	Cold water	G 3/4" F	1880
W2	Domestic hot water	G 3/4" F	1880
W3	Recirculation	G 3/4" F	1880
A1	Anode	G 3/4" F	1855
Control and safety			
C1	Temperature sensor	G 1/2" F	750
C2	Temperature sensor	G 1/2" F	510
C3	Temperature sensor	G 1/2" F	1160
C4	Temperature sensor	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 discharge			
O	Air vent valve	G 1/2" F	1880