

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

		Main Features
		<p>Application Combination thermal store with immersed stainless-steel DHW tank, 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, with a solar heat exchanger in the lower tank section below the plate.</p>
		<p>Working fluid Water, water/glycol mixture (max. 1:1) or water/glycerine mixture (max. 2:1) (thermal store), water (immersed DHW tank).</p>
Thermal store code	19139	
Insulation code	19293	
Energy Efficiency Data (as per EC Regulation No. 812/2013)		
Energy efficiency class	C	
Static loss	86 W	
Storage volume	387 l	
Technical data		
Total thermal store volume	396 l	
Fluid volume in thermal store	264 l	
Immersed DHW tank volume	123 l	
Fluid volume in solar heat exchanger	9.0 l	
Solar heat exchanger surface area	1.5 m ²	
Max. working temperature in thermal store	95 °C	
Max. working temperature in immersed DHW tank	95 °C	
Max. working temperature in solar heat exchanger	95 °C	
Max. working pressure in thermal store	3 bar	
Max. working pressure in immersed DHW tank	6 bar	
Max. working pressure in solar heat exchanger	10 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	117 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	
Solar heat exchanger	S235JR+N	

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

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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																								
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	130
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
Solar thermal system			
X1	Supply from solar collectors	G 1" F	660
X2	Return to solar collectors	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
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
Pump station support			
F1	Pump station support – upper	M6	1430
F2	Pump station support – lower	M6	1270