

DUO 1700/200 N PR Thermal Store with immersed DHW tank

		Main Features
		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.
Application	Water, water/glycol mixture (max. 1:1) or water/glycerine mixture (max. 2:1) (thermal store), water (immersed DHW tank).	
Working fluid	19145	
Thermal store code	19357	
Insulation code		

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

Energy efficiency class	N/A
Static loss	173 W
Storage volume	1660 l

Technical data

Total thermal store volume	1682 l
Fluid volume in thermal store	1486 l
Immersed DHW tank volume	174 l
Fluid volume in solar heat exchanger	22.0 l
Solar heat exchanger surface area	4.0 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	1100 mm
Thermal store diameter with insulation	1300 mm
Thermal store overall height	2055 mm
Tipping height without insulation	2175 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	268 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 λ ≤ 0.037 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				955 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	1238		
			12	562		
			20	347		
Entire	60 °C	none	8	791		
			12	468		
			20	326		
Above metal sheet	60 °C	10 kW	8	271		
			12	242		
			20	220		
Entire	80 °C	none	8	1410		
			12	1077		
			20	667		
DHW heat exchanger pressure drop graph						
Solar heat exchanger pressure drop						

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Dimensions			
CONNECTIONS			
pos.	description	connection	height [mm]
Heat sources			
B1	Supply from heat source	G 6/4" F	1150
B2	Return to heat source	G 6/4" F	235
B3	Supply from heat source	G 6/4" F	1675
B4	Return to heat source	G 6/4" F	1255
B5	Supply from heat source	G 1" F	1610
B6	Supply from heat source	G 6/4" F	820
Heating system			
H1	Flow to heating system	G 1" F	1195
H2	Return from heating system	G 1" F	325
Solar thermal system			
X1	Supply from solar collectors	G 1" F	935
X2	Return to solar collectors	G 1" F	335
Electric heating element			
E1	El. heating element (DHW)	G 6/4" F	1295
E2	El. heating element (space heating)	G 6/4" F	1055
E3	El. heating element (space heating)	G 6/4" F	1055
DHW heating			
W1	Cold water	G 3/4" F	2055
W2	Domestic hot water	G 3/4" F	2055
W3	Recirculation	G 3/4" F	2055
A1	Anode	G 3/4" F	2025
Control and safety			
C1	Temperature sensor	G 1/2" F	1165
C2	Temperature sensor	G 1/2" F	775
C3	Temperature sensor	G 1/2" F	1425
C4	Temperature sensor	G 1/2" F	1335
T	Thermometer	G 1/2" F	1675
M	Pressure gauge	G 1/2" F	510
P	Safety valve	G 1/2" F	400
O	Air vent valve	G 1/2" F	2055
Air discharge			
F1	Pump station support – upper	M6	1700
F2	Pump station support – lower	M6	1540