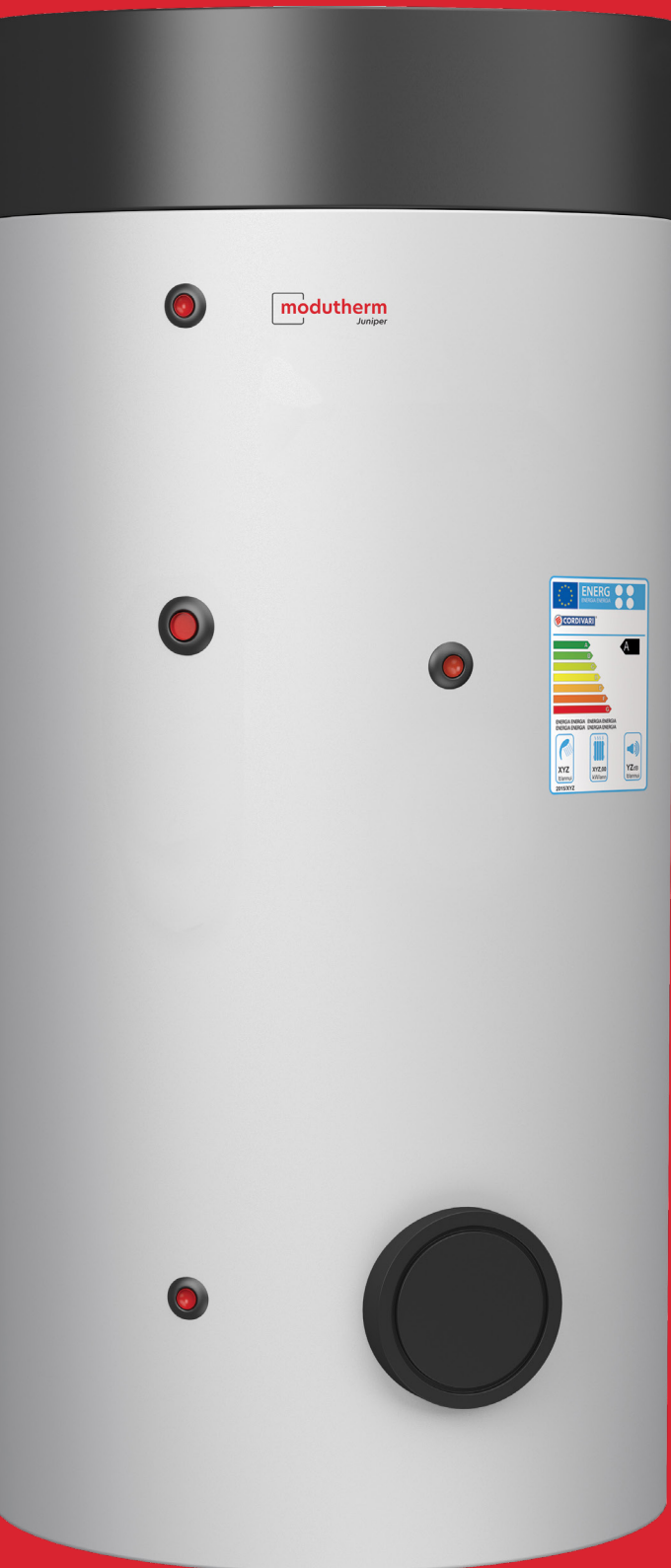


Juniper PDC

thermal exchange heat pump calorifier



MODELS

300

500

800

CAPACITY (litres)

300-800

Juniper PDC

The Juniper PDC heat pump calorifier is available in 3 models, with capacities ranging from 300-800 litres. Each calorifier has a Polywarm® coating with cathode protection.

The Juniper PDC heat pump calorifier is the result of continuous research and is the only patented system of thermal exchange on the market. The exchange and stratification system is designed to self balance only part of the heated water, proportionate to the temperature achieved during the thermal exchange. This allows for the water in the upper section to be at the maximum desired temperature when inserted, whilst fresh water coming from the lower section of the tank goes to the exchanger. This system helps increase the efficiency of the heat pump COP and is able to guarantee 30% higher performance compared to a traditional calorifier. Laboratory tests on the stratification process confirm 15% reduction of electrical consumption.

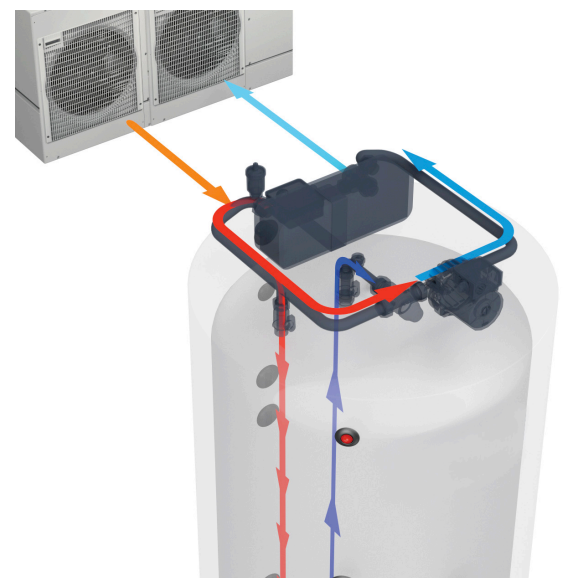


key features

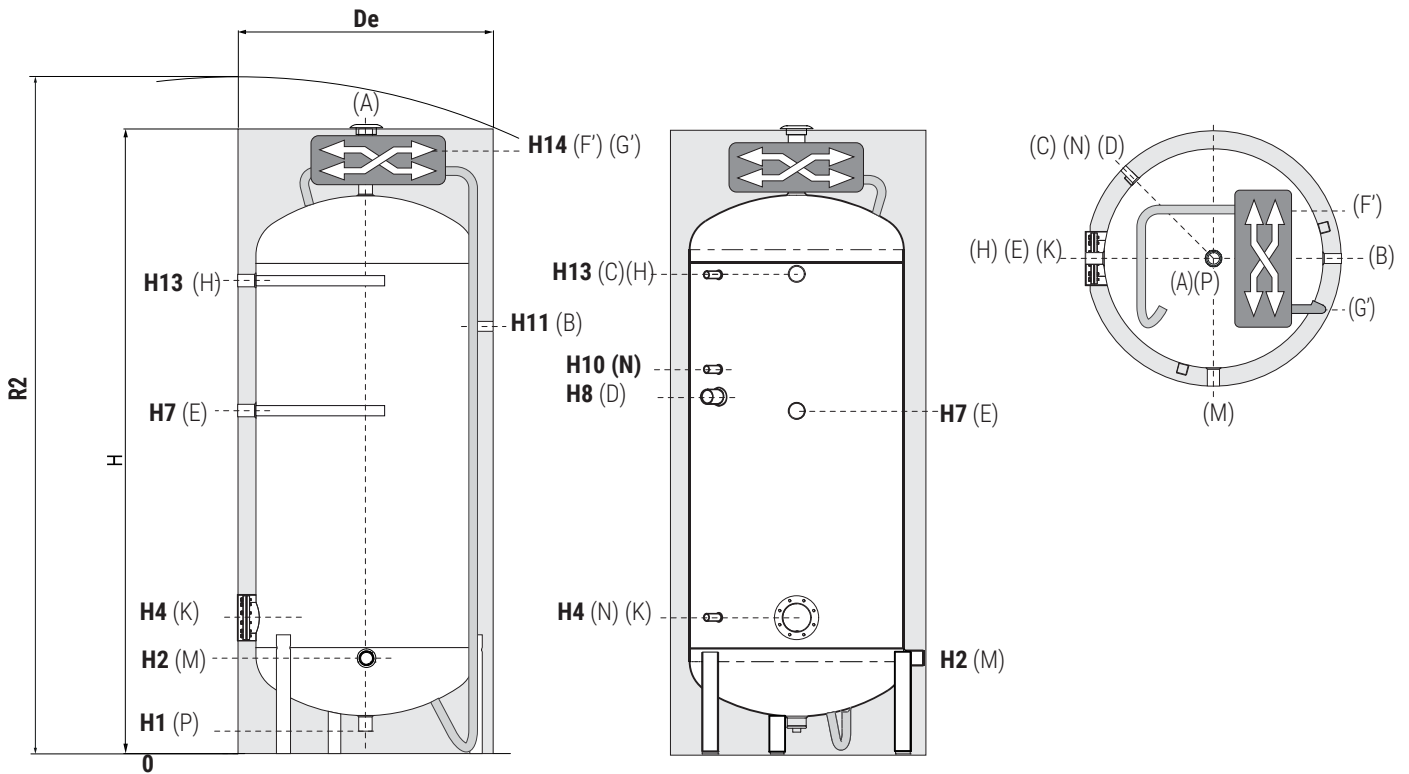
- Unique patented heat exchange system
- 300-800 litre capacity
- 30% reduction of DHW production time
- Unvented kits
- Cathode protection
- Optional electrical element

warranty

- 5 year warranty* on tank body
- 2 year warranty* on all other components



DIMENSIONS



- A domestic hot water outlet (1¼")/ T&P connection
- B recirculation (1")
- C connection for thermometer (½" F)
- D connection for electric immersion heater
- E connection for magnesium anode (1¼")
- F-F' primary circuit inlet
- G-G' primary circuit outlet
- H connection for 2nd magnesium anode (1¼" F) (≥800 lt.)
- K blind flange for inspection
- M domestic cold water circuit inlet (1" F)
- N connection for instrumentation (½" F)
- P drain

dimensions

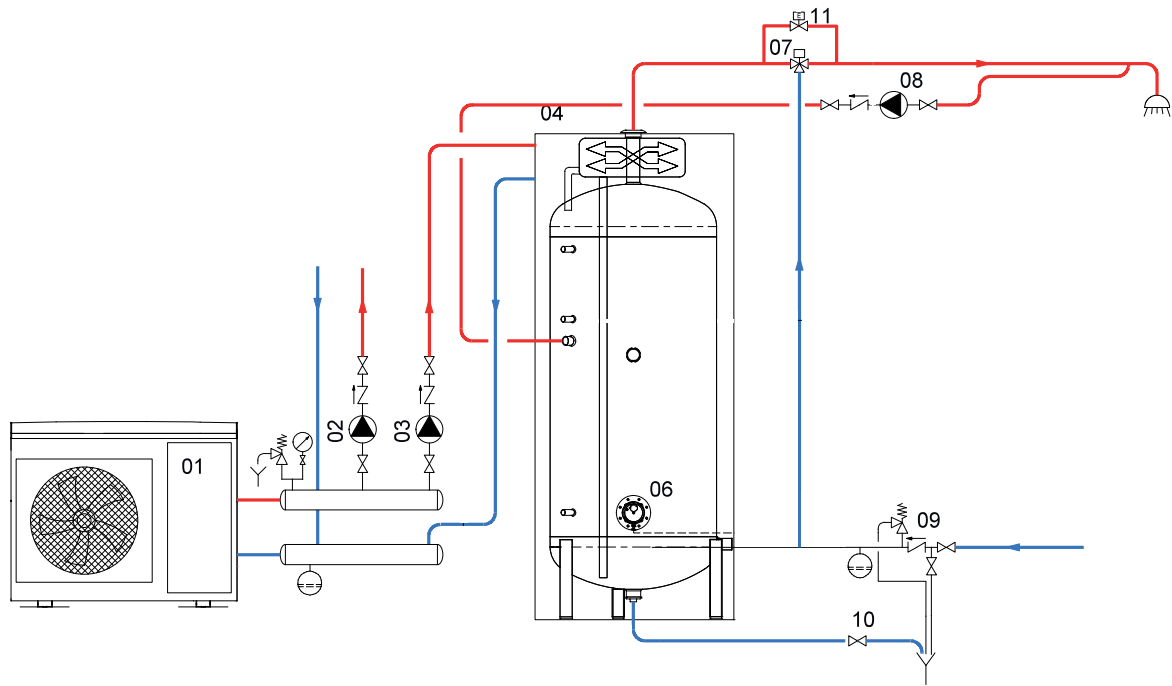
All dimensions are distances from the floor, except for R2 which is a lateral dimension.

MODEL	Capacity (litres)	De	H	R2	H1	H2	H4	H7	H8	H10	H11	H13	H14
		(mm)											
300	291	650	1680	1810	71	246	381	871	931	1076	1101	1221	1525
500	497	750	1970	2120	71	266	406	1071	1139	1291	1326	1471	1812
800	789	900	2360	2540	101	343	483	1243	1308	1573	1598	1788	2196
MODEL	P	K	D	F-G	F'-G'								
						F connections							
300	1¼"	øi74øe140	1½"	1"¼"	1"								
500	1¼"	øi74øe140	1½"	1"¼"	1"								
800	¾"	øi74øe140	2"	1"¼"	1"								

PERFORMANCE DATA

		MODEL		
		300	500	800
nominal storage capacity	litres	291	497	789
energy class		B	C	B
coil tube Ø	mm	32	32	42
coil surface area	m ²	1.2	1.8	2.7
coil max operating temperature/pressure	°C/bar	110/10	110/10	110/10
maximum working temperature/pressure, tank (secondary)	°C/bar	90/10	90/10	90/10
weight empty/full	kg	82/373	120/617	213/833
heat up time 50°CΔT (10-60 °C) immersion only	hr	6h 20'	11h 13'	18 h
immersion heater option power/phase	kW/ph	2/1	2/1	2/1
standby loss at 65°C	kWh/24hr	1.656	2.712	2.304
		PRIMARY FLOW RATE (m³/h)		
continuous DHW output @40°CΔT (10/50°C) with primary 55°C to PHE	litres/hour	2.58	3.78	4.47
10 minute peak DHW draw off @40°CΔT (10/50°C) with primary 55°C to PHE and tank warmed @ 50°C	litres	306	408	528
recovery time DHW @40°CΔT (10/50°C) full tank without draw off with primary 55°C to PHE	minutes	342	565	877
nominal heat transferred by PHE with primary 55°C and DHW @40°CΔT (10/50°C)	kW	57	73	89
PHE primary hydraulic resistance	kPa	15	22	26
mixer position		16.3	19.4	17.5
continuous DHW output @30°CΔT (20/50°C) with primary 55°C to PHE	litres/hour	2	2	2
10 minute peak DHW draw off @30°CΔT (20/50°C) with primary 55°C to PHE and tank warmed @ 50°C	litres	408	546	708
recovery time DHW @30°CΔT (20/50°C) full tank without draw off with primary 55°C to PHE	minutes	359	588	907
nominal heat transferred by PHE with primary 55°C and DHW @30°CΔT (20/50°C)	kW	43	55	67
PHE primary hydraulic resistance	kPa	15	22	26
mixer position		16.3	19.4	17.5
continuous DHW output @25°CΔT (25/50°C) with primary 55°C to PHE	litres/hour	2	2	2
10 minute peak DHW draw off @25°CΔT (25/50°C) with primary 55°C to PHE and tank warmed @ 50°C	litres	492	546	708
recovery time DHW @25°CΔT (25/50°C) full tank without draw off with primary 55°C to PHE	minutes	373	606	931
nominal heat transferred by PHE with primary 55°C and DHW @25°CΔT (25/50°C)	kW	36	46	56
PHE primary hydraulic resistance	kPa	15	22	26
mixer position		16.3	19.4	17.5
pump circulation speed (min/max)	rpm	2	2	2
pump power consumption (min/max)	W	1450/2450	1450/2450	1450/2450
pump current (min/max)	A	45/85	45/85	45/85
pump power supply	V/Ph/Hz	0.21/0.38	0.21/0.38	0.21/0.38
		230/1/50	230/1/50	230/1/50

SCHEMATIC



01	Alira (Heat Pump)	04	Juniper PDC	07	Thermostatic mixing valve	10	Blowdown valve
02	Heating system circulation group	05	Easy Control electronic display/thermostat	08	D.H.W. recirculation group	11	By-pass solenoid valve
03	D.H.W. circulation group	06	Electric immersion heater (optional)	09	Hydraulic safety group		



**Modutherm Limited,
Unit 4 Genesis
Endeavour Drive
Basildon, SS14 3WF**

modutherm.co.uk

**Tel: 0345 521 5666
enquiries@modutherm.co.uk**

A member of the Modular Heating Group.