



Spire Renewables

Simplifying Sustainable Heating

CTC400 Compact Series : 6 – 12kW

The CTC 400 series are a robust and highly efficient range of heat pumps with outputs ranging from 6-14kW on a single phase. They come fitted with a Copeland scroll compressor module which has a reputation across the industry for being both extremely reliable and producing currently unmatched efficiency. The units are able to output a 65°C flow temperature, allowing them to produce 50-55°C of hot water in the tank and reducing the need for any immersion use with the exception of legionella cycling. The new user-friendly touch screen ecologic controller gives the functionality to control independent temperatures for multiple heating circuits along with swimming pools.

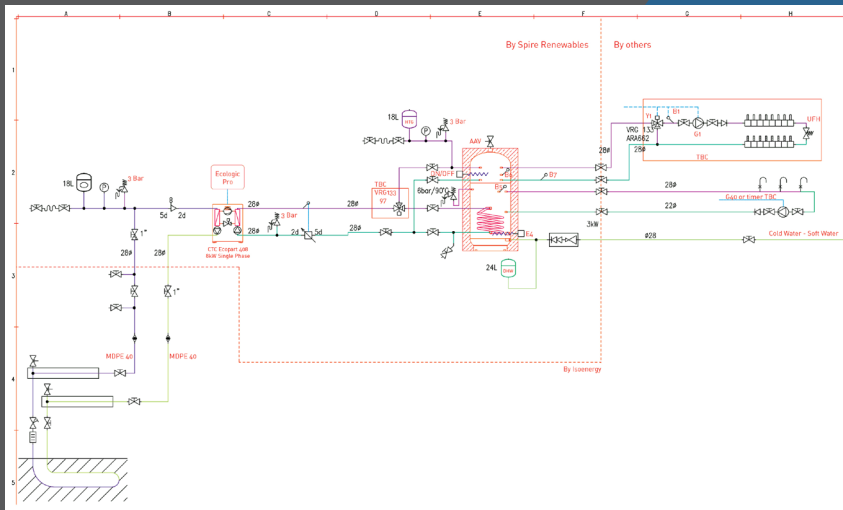
Our compact version of the rig comes with a well insulated Joule 300lt Hot water cylinder with a 3.3m² coil able to transfer 12kW at any one time. It also has a 90l buffer tank built on top of the hot water cylinder. This creates a compact installation requiring just 1700mm of wall space.

The controller interface enables quick and easy changes to your heating and hot water temperature as well as providing a detailed fault finding system. It has a very high COP of 4.6, tested at a Brine Temperature of 0°C, Water temperature of 35°C.



Includes as a complete kit :

- ✔ Suitably sized CTC 400 series Unit
- ✔ Brine Circulation Pump, Expansion Vessel, cold mains fill set, discharge, pressure gauge, flow testing point and filter.
- ✔ Joule 90l steel over-buffer vessel suitable for unvented systems, heating expansion vessel incl pressure gauge, discharge and cold mains fill set, 28mm connections and an easily cleanable heating filter. Buffer charge pump also supplied inside unit.
- ✔ 300lt Joule cylinder with Potable water connections for cold water, hot water and secondary return in 28mm copper pipework, suitably sized potable expansion vessel, T&P relief valve and Tundish. This includes a built in 3kW immersion which can be both manually and automatically controlled.
- ✔ Complete distribution board incl. quick connect electrical plugs to all non-attached electrical components. Electric meter included as part of the distribution board to monitor consumption. North facing sensor pack.
- ✔ All of the above mounted on a durable melamine board for easy installation.
- ✔ Complete CTC & Spire Renewables installation manuals, taking you step by step through installation and commissioning.



	406	408	410	412
Maximum Heating Output (At EN14511 Brine 0°C, Water 35°C)	5.9kW	8.19kW	9.97kW	11.75kW
Sound effect according to EN12102 (dB[A])	43.0	42.5	48.5	50.3
COP (At EN14511 Brine 0°C, Water 35°C)	4.57	4.58	4.6	4.6
Refrigerant	R407C	R407C	R407C	R407C
Refrigerant Charge	2.1kg	2.1kg	2.1kg	2.5kg
Dimensions (heat pump only – space requirements below)	673D, 600W, 763H			
Weight (Heat Pump Only)	138kg	143kg	148kg	164kg
Primary Circuit (Brine)				
Nominal Flow Rate (L/s) ($\Delta T^{\circ}C = 3$)	0.37	0.51	0.64	0.73
Max Flow Temp from ground (°C)	20	20	20	20
Min Flow Temp from ground (°C)	-5	-5	-5	-5
Secondary Circuit (Heating)				
Nominal Flow Rate (L/s)	0.28	0.39	0.48	0.56
Max Flow temperature from Compressor (°C)	65	65	65	65
Max Hot Water temperature from Tank (°C)	55	55	55	55
Max Heating temperature from Buffer (°C)	60	60 </td <td>60</td> <td>60</td>	60	60
Electrical Specifications				
Sedes dual thermostat Immersion (1/N/PE 230V/50Hz B16A MCB)	3kW	3kW	3kW	3kW
Rated Running Current (Compressor)	14A	19.5A	21.6A	27.1A
Starting Current	⋈ 45A	⋈ 45A	⋈ 45A	⋈ 60A
MCB Size for Compressor (1/N/PE 230V/50Hz)	C16A	C20A	C25A	C32A

