



Spire Renewables

Simplifying Sustainable Heating

CTC400 Ecoheat: 6 – 12kW

The CTC Ecoheat is currently the most compact ground source heat pump system on the market. With a footprint of just 650 x 650 (allowing a little space for expansion vessels) the unit can be slotted into even the smallest property with ease.

With a peak flow temperature of 65°C satisfactory hot water temperatures can be achieved without the need for immersion support making for an extremely high overall efficiency.

With the compressor set at the bottom of the unit, above sits a 200lt buffer tank which contains a long indirect coil for DHW.

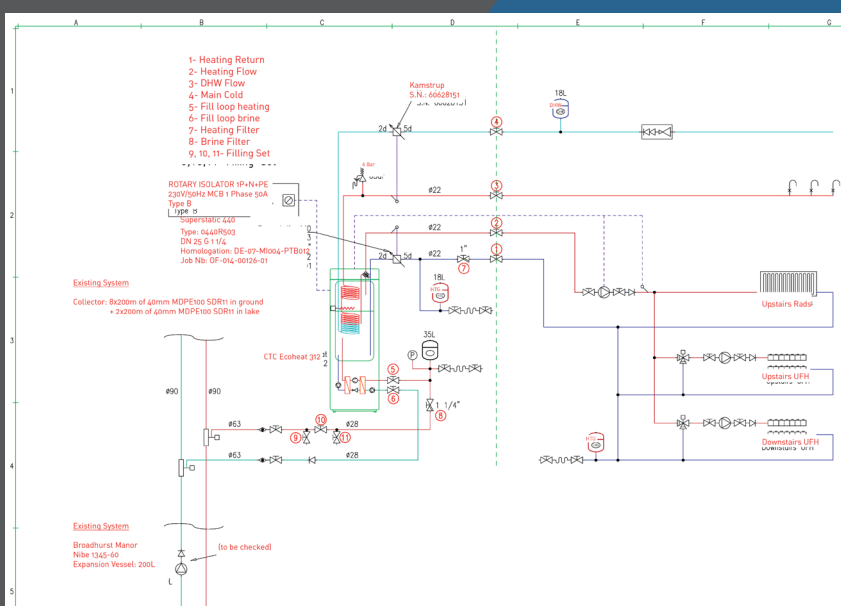
The result of this is that the unit can only produce a continuous 10-12l/min of 40°C hot water, making it best suited for properties with only 1-2 bathrooms as a replacement for a combi boiler.

Our kit is supplied with all the required plant room ancillaries including brine filter and fill set, heating return filter, suitably sized expansion vessels. These are supplied as separate components with a very detailed stage by stage installation manual.



Includes as a complete kit, requiring onsite assembly:

- Suitably sized CTC Ecoheat 400 series Unit
- Touch-screen controller for ease of control
- Brine Circulation Pump, Expansion Vessel, cold mains fill set, discharge, pressure gauge, flow testing point and filter
- Heating charge pump to buffer, Class A variable speed heating distribution pump, bypass, expansion vessel, cold mains set, pressure gauge and filter
- G3 regulation supply set for cold mains, potable expansion vessel, discharge valve and Tundish
- 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	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



The quietest geothermal heat pump we've ever developed.

4.3-inch colour touchscreen.

Built-in immersion heater.

Speed-controlled low-energy circulation pump.

Newly developed refrigerant circuit with electronic valve.



Mixing valve for even heat without noise.

New efficient insulation.

Cooling with a cool accessory.

Can control two different radiator systems.

Energyflex provides total flexibility to connect other heat sources.

Compressor and refrigeration components are enclosed in a separate, sound-insulated unit.