



## Scope of works – Electrical/Plumbing Requirements:

### For installation of Clivet Heat Pumps:

For installation of Air Source Heat Pump (“ASHP”) and Domestic Hot Water Cylinder (“DHW”) to meet the Approved Document G Part 3 and Wiring Regulations BS7671.

The details of the work to be carried out by you (the customer) and provided to us (Ultimate Renewables Supplies Ltd). The details of which are confirmed as below. All electrical work listed within this scope of work is to be completed by the client or their electrical contractor.

Ultimate Renewables Supplies Ltd do not offer electrical services.

All items listed in this scope of works are to aid your installation to be as smooth as possible.

### First Fix Plumbing:

All flow and return pipework to each manifold must be a minimum of 28mm copper or 32mm MLCP.

All primary pipework (up to 12m) from the outdoor to the plant room/airing cupboard must be a minimum of 28mm copper or 32mm MLCP and fully insulated throughout its entire length.

For any underground pipework, twin pre insulated pipe must be used min 32mm, we can supply this.

All hot services and secondary hot water must be fully insulated throughout its entire length.

### Electrical – For Heat Pump and Associated Controls:

Circuits and wiring required for installation of Heat Pump units and associated controls, immersion heater etc.

- **1x Dedicated 16A immersion supply** from consumer unit to area where hot water cylinder/control box is to be located, terminated with the Time Guard 7 day time switch that is part of the supplied cylinder kit.
- **1x 0.75mm 5 Core control cable** to be routed from Heat Pump outside to heat pump controller position.
- **1x Dedicated supply** from the consumer unit to the proximity of outdoor unit below, terminated with IP65 rotary isolation. As rated of the unit below.
- **1x 0.75mm 5 Core cable** from the outdoor unit to the airing cupboard/plant room where the 3 port valve is located.
- **1x 0.75mm 3 Core cable** from the outdoor unit to the airing cupboard/plant room for extra circulating pump is needed.
- **1x 0.75mm 2 Core cable** from the outdoor unit to the airing cupboard/plant room to be used as the cylinder sensor cable.



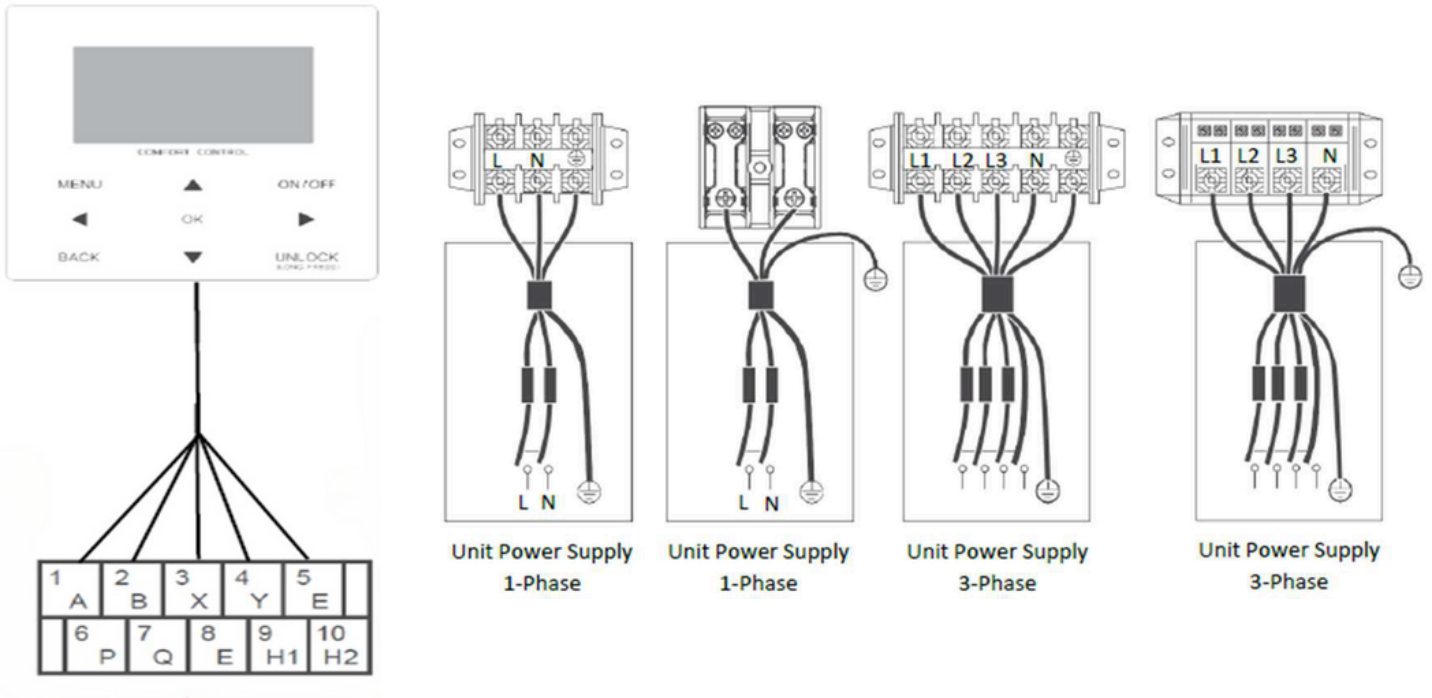


### Heat Pump models and their ratings:

The Monobloc requires one Power supply, the details of the power supply are detailed below. Without IBH

Outdoor unit	4kW	6kW	8kW	10kW	12kW	14kW	16kW	12kW 3-PH	14kW 3-PH	16kW 3-PH
Maximum overcurrent protector (MOP)(A)	18	18	19	19	30	30	30	14	14	14
Wiring size (mm <sup>2</sup> )	4.0	4.0	4.0	4.0	6.0	6.0	6.0	2.5	2.5	2.5

\*The above sizing are for the guidance only, correct cable sizing should be undertaken by a suitably qualified engineer. All electrical connections should be completed by a competent electrician

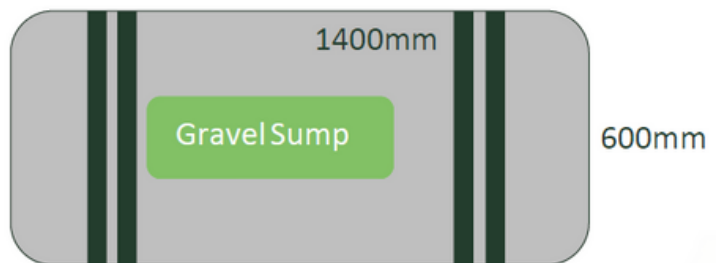
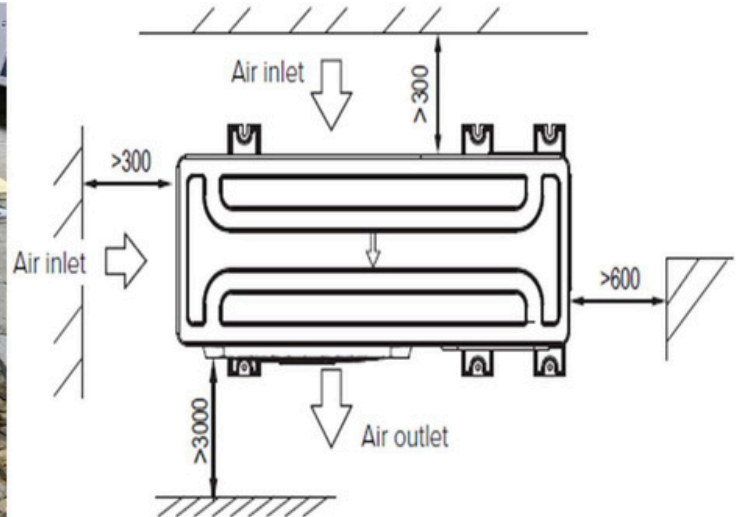
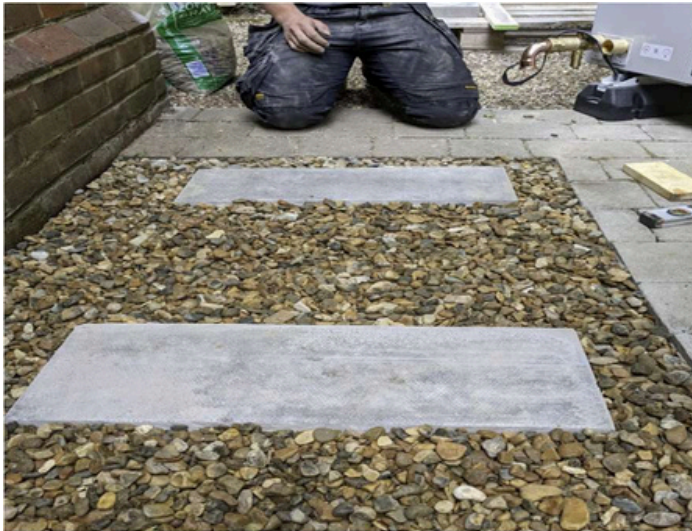




### Heat Pump Base Requirements:

A purpose-built base is required with means of a soak away for the installation of the heat pump.

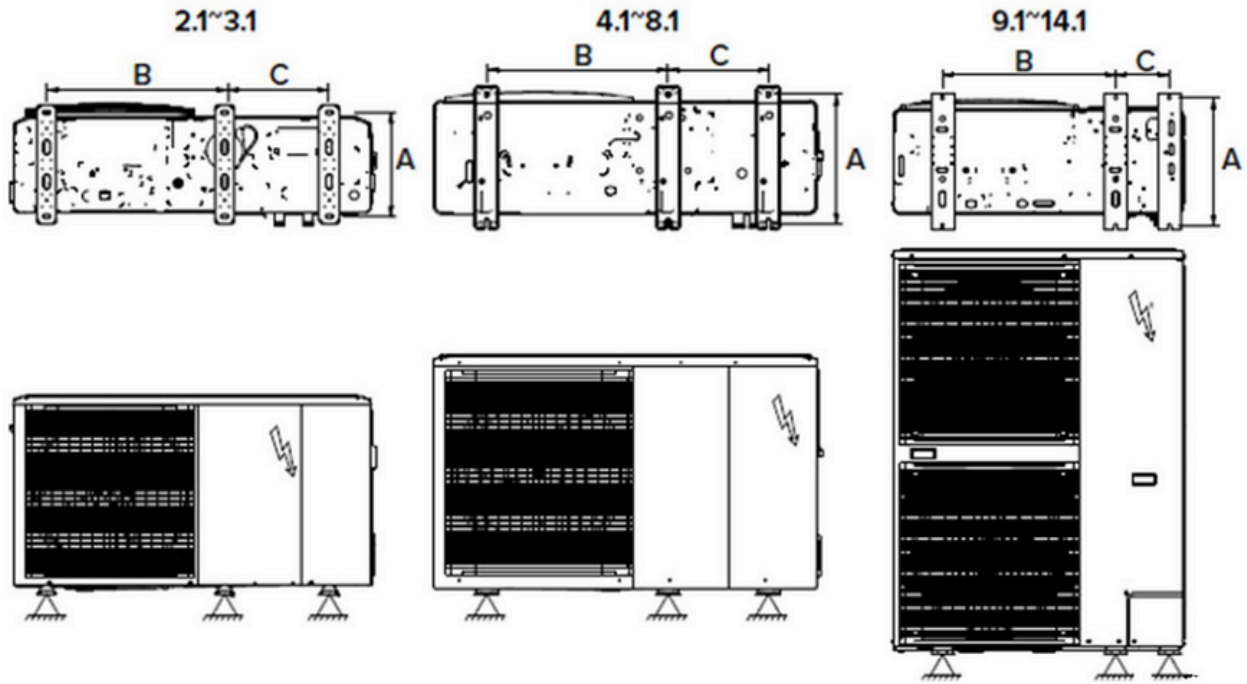
Position the outdoor unit so that the air flows into an open area, where there are no plants and animals. If the unit is to be installed within a mile from the sea, you may need to have the unit coated.



Install the outdoor unit on a flat stable surface/concrete base, 100mm of gravel bed works well, there must always be provision for soakaway drainage as the unit can produce up to 6 L /Hour of condensate.

If being installed onto an existing patio, some slabs should be removed and filled with gravel to meet drainage requirements.





		Size										
		2.1	3.1	4.1	5.1	6.1	7.1	8.1	9.1	10.1	12.1	14.1
<b>A</b>	<b>mm</b>	375		656						494		
<b>B</b>	<b>mm</b>	644		656						688		
<b>C</b>	<b>mm</b>	379		363						206		

The installation of an Air Source Heat Pumps (“ASHP”) and Domestic Hot Water Cylinders (“DHW”) should meet the requirements of BS7671; Wiring Regulations and Approved Document G Part 3.

The details of the work to be carried out by you (the customer) and provided to us (Ultimate Renewables Supplies Ltd) are confirmed below.

The details of which are confirmed as below. All electrical work listed within this scope of work is to be completed by the client or their electrical contractor. Ultimate Renewables Supplies Ltd do not offer electrical services other than the connection of controls and our specified equipment.

\*Note\* UFH system and Radiator circuits installed by you should be fully completed, wired and ready. Actuator wiring or control wiring if not completed as required by Ultimate Renewables Supplies Ltd will delay the and commissioning and will incur further charges at our standard day rates.

By signing this scope of work, you accept and acknowledge all areas of work and this work will be completed prior to the commissioning of Ultimate Renewables Supplies Ltd Heat Pump and Cylinder.





**Lagging of pipework:**

This is one of the most important elements of a heat pump project.

Below I have both good and bad examples of lagging.

**Non-rated UV lagging, the taped joints will soon come apart, even though these are antifreeze valves, they still can be lagged.**



**The use of our supplied Condensate Pro lagging, all valve and antifreeze valves are lagged and sealed with the supplied silicone.**



Please contact Ken Bone –Technical Manager for clarification on any area regarding this Scope of Works

Sign .....

Client  
Contractor

Date .....

