



## Scope of works – Electrical/Plumbing Requirements:

### For installation of Samsung:

For installation of Air Source Heat Pump (“ASHP”) and Domestic Hot Water Cylinder (“DHW”) to meet the G3 and Electrical Regulations.

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 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 on this scope of work 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.

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 Samsung Heat Pump units and associated controls, immersion heater etc.

- **1x Dedicated 16A Immersion supply** from the consumer unit to the area where the 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.
- **Optionally a single socket** is also required if installed on a Homely device, this should be near the Samsung MIM Control box.
- **1x 0.75mm<sup>2</sup> 5 Core CY Control Cable Screened cable** to be routed from Heat Pump to the Samsung Control box position.
- **1x 0.75mm<sup>2</sup> 5 Core CY Control Cable Screened cable** to be routed from MIM control box to the Samsung Controller position, hallway/lounge etc.
- **1x Dedicated supply from the consumer unit** to the proximity of the outdoor unit below, terminated with IP-rated rotary isolation. As rating of the unit is below.
- **Optional 2x Consumer unit DIN rail slots** ready for MID Electrical Meters, to meter both the Heat Pump and Immersion heater power consumptions, (but needed if third-party Monitoring is required).

### Heat Pump models and their ratings:

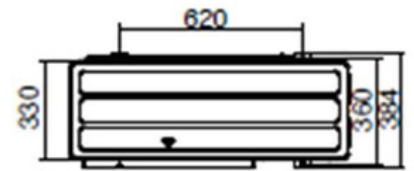
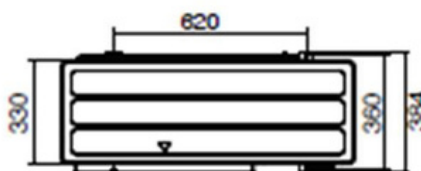
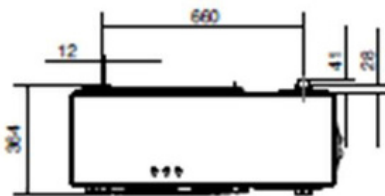
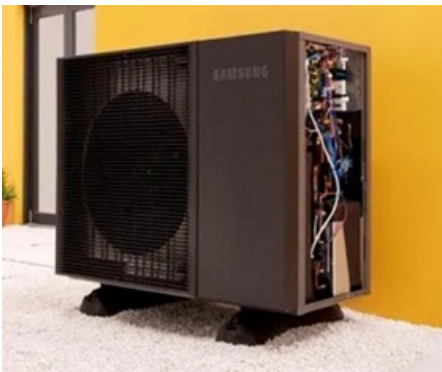
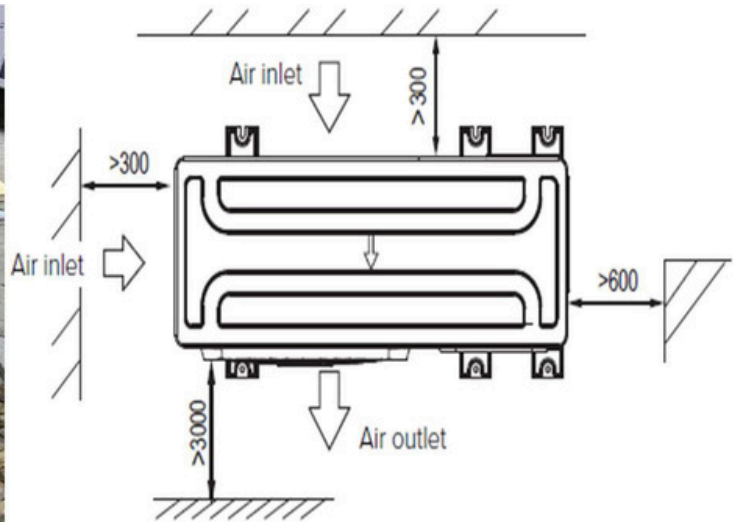
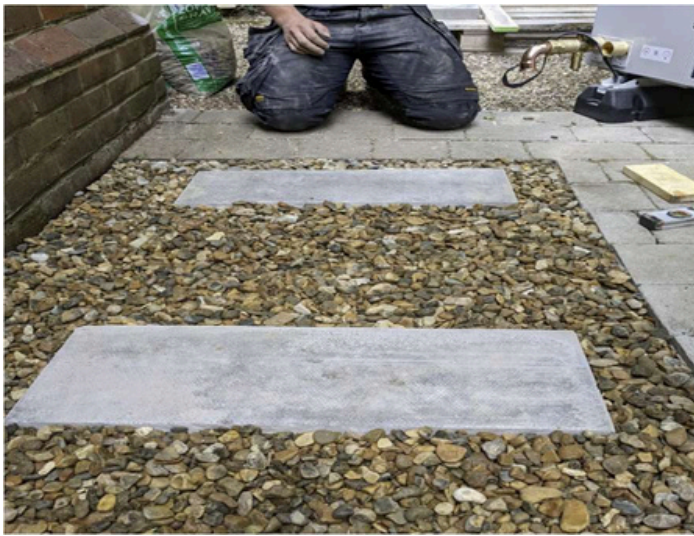
Outdoor unit	Rated		Voltage Range		MCA	MFA
	Hz	Volts	Min	Max	Min. Circuit Amps.	Max. Fuse Amps.
HHSM-G600005-1	50	220-240	198	264	16A	20A
HHSM-G600008-1	50	220-240	198	264	22A	27.5A
HHSM-G600012-1	50	220-240	198	264	28A	35A
HHSM-G600016-1	50	220-240	198	264	32A	40A





### 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 of 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.





For installation of Air Source Heat Pump (“ASHP”) and Domestic Hot Water Cylinder (“DHW”) must meet the G3 Part P Regulations.

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The details of which are confirmed 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 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 before 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 .....

