

| DESCRIPTION |  |
|-------------|--|
| 1           | ISOLATION VALVES                       |
| 2           | Y STAINER                              |
| 3           | SAMSUNG ASHP                           |
| 4           | DHW HIGH STAT LIMIT                    |
| 5           | JOULE SMART PLUMB DHW/BUFFER CYLINDER  |
| 6           | 28 MM DHW 2 PORT ZONE VALVE            |
| 7           | HEAT EXPANSION VESSEL                  |
| 8           | 28 MM BUFFER 2 PORT ZONE VALVE         |
| 9           | PRIMARY PUMP FLOW                      |
| 10          | SAMSUNG HEAT PUMP FLOW SWITCH          |
| 11          | FLOW REGULATOR / FLUSH AND FILL UNIT   |
| 12          | HEATING ZONE CIRCULATING PUMP          |
| 13a         | 22 MM 2 PORT ZONE VALVE HEATING ZONE 1 |
| 13b         | 22 MM 2 PORT ZONE VALVE HEATING ZONE 2 |
| 13c         | 22 MM 2 PORT ZONE VALVE HEATING ZONE 3 |
| 14          | DHW IMMERSION                          |
| 15          | FLEXIBLE HOSE                          |

**SAMSUNG ASHP WITH SMARTPLUMB DHW WITH 2 HEATING ZONE 2XUFHs**

Front View of Unit & Cylinder

#### NOTES

##### POWER SUPPLY

- All electrical wiring must be carried out by a competent installer and be installed in accordance with current local Wiring Regulations.

##### PROTECTIVE EARTH

- All pre-installed components are earthed. The integrity of a protective earth system relies on its primary connection. It is the installers responsibility to ensure the rear of the MIM casing is earthed, therefore providing a protective earth connection to all system components.

##### COMMUNICATION CABLE

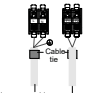
- The communication cable carries the signal between the outdoor unit and the MIM casing.
- Use a two-core cable connect the terminals F1 & F2 of the outdoor unit to the terminals F1 & F2 of the MIM casing.

##### FLOW SENSOR

- The flow sensor is a 4 pin push fit connector that connects to the MIM casing on the connection labelled 'CNS057'.
- The flow sensor cable is 2 meters in length. This can be extended however it is essential that the inner cable core colours are matched end to end.

##### IMPORTANT

- Applying a 230V switched live to the terminal 'Zone 1' S/L will activate 'Heating Zone Valve 1'.
- All external controls are 230V AC Connections
- You should connect the power cable into the power cable terminal and fasten it with a clamp like shown below

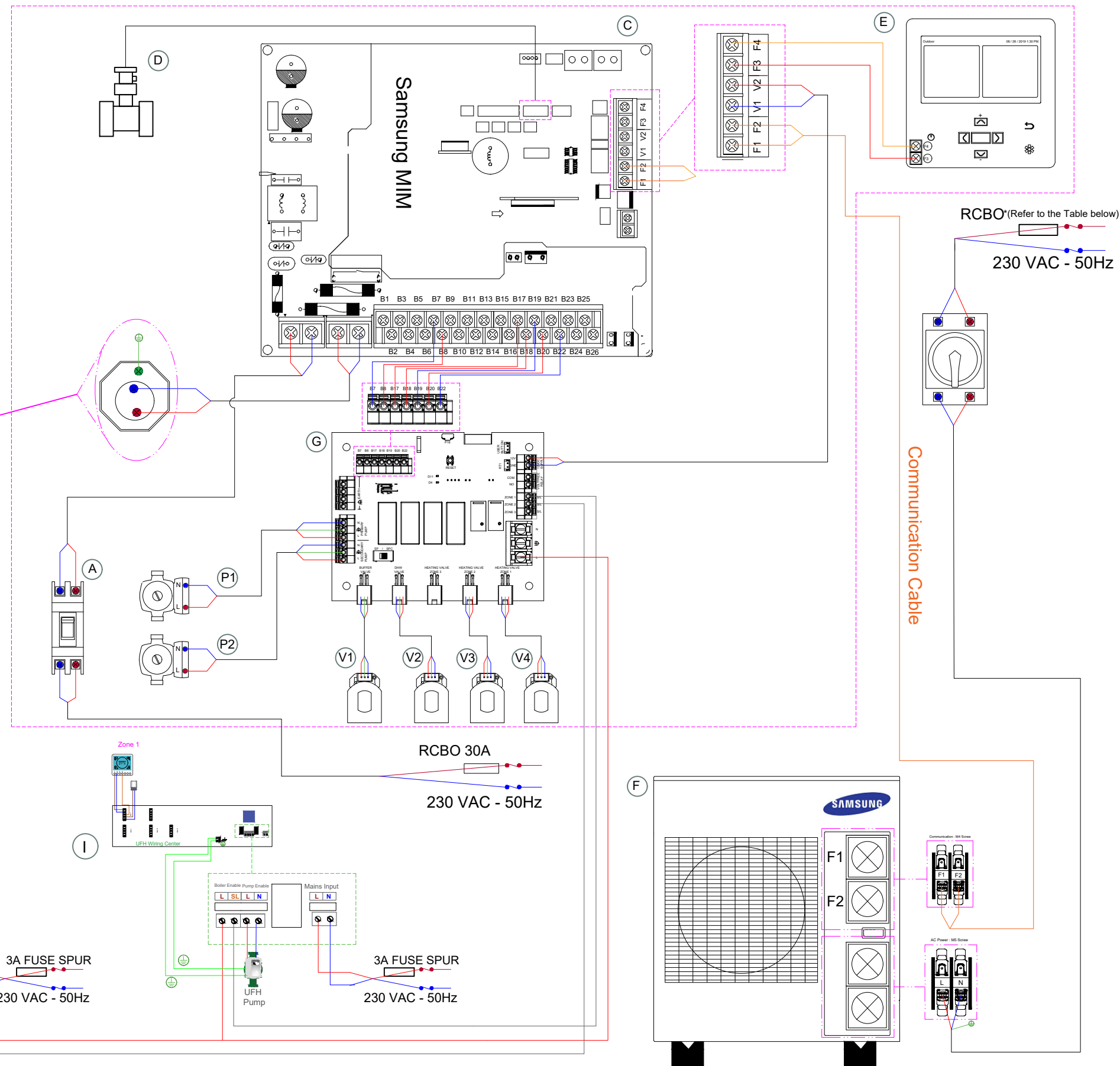


- To protect the product from water and possible shock, you should keep the power cable and the connection cord of the control kit and outdoor units within ducts. (with appropriate IP rating and material selection for your application)
- Ensure that main supply connection is made through a switch that disconnects all poles, with contact gap of a least 3 mm.
- Devices disconnected from the power supply should be completely disconnected in the condition of overvoltage category.
- Keep distances of 50mm or more between power cable and communication cable.

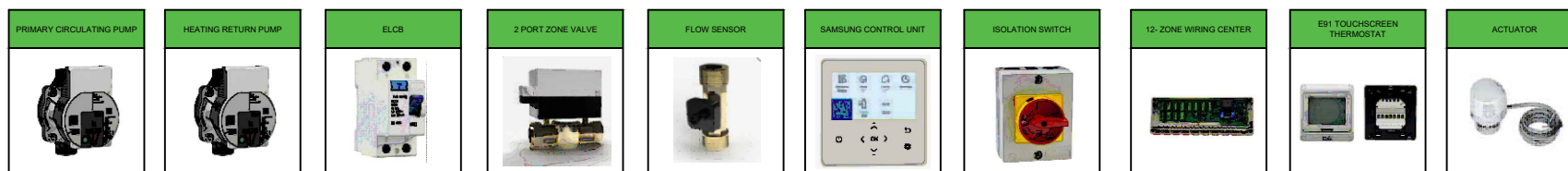
##### UFH

- The underfloor controller requires its own 3 core supply from a 5A supply using a 3 core 1.5mm cable.
- The controller must be located in close proximity to underfloor manifold.
- A 2 core 1.5mm cable is required to provide a run signal between the underfloor controller and the heat pump.
- When using 12 V temperature room stats CAT 5 /CAT 6 shielded cable between each room stat and its relevant underfloor controller.
- When using 230 V temperature room stats the cable should have at least 3 core 1.5mm cable between each room and its underfloor controller.
- Thermostat should be fitted between 1200mm and 1400mm above the finished floor.

| ITEM NO. | DESCRIPTION                        |
|----------|------------------------------------|
| A        | SAMSUNG 30 A ELCB                  |
| B        | SMART PLUMB CYLINDER               |
| C        | SAMSUNG MIM-E03CN/DN               |
| D        | SAMSUNG FLOW SENSOR                |
| E        | SAMSUNG TOUCH SCREEN CONTROLLER    |
| F        | SAMSUNG OUTDOOR UNIT               |
| G        | JOULE KODIAK PCB                   |
| P1       | WILO PRIMARY CIRCULATING PUMP      |
| P2       | WILO SECONDARY CIRCULATING PUMP    |
| I        | 230V UFH WIRING CENTER             |
| V1       | DHW - 2 PORT ZONE VALVE            |
| V2       | BUFFER - 2 PORT ZONE VALVE         |
| V3       | HEATING ZONE 1 - 2 PORT ZONE VALVE |



## SAMSUNG ASHP WITH SMARTPLUMB DHW WITH 2 HEATING ZONE 2XUFHs



| POWER CABLE SPECIFICATIONS |       |         |                                    |
|----------------------------|-------|---------|------------------------------------|
| OUTDOOR UNIT               | RATED |         | MCA<br>RECOMMENDED<br>CIRCUIT AMPS |
|                            | Hz    | VOLTS   |                                    |
| HHSM-G600005-1             | 50    | 220-240 | 20.0 A                             |
| HHSM-G600008-1             | 50    | 220-240 | 20.0 A                             |
| HHSM-G600012-1             | 50    | 220-240 | 32.0 A                             |
| HHSM-G600016-1             | 50    | 220-240 | 32.0 A                             |