

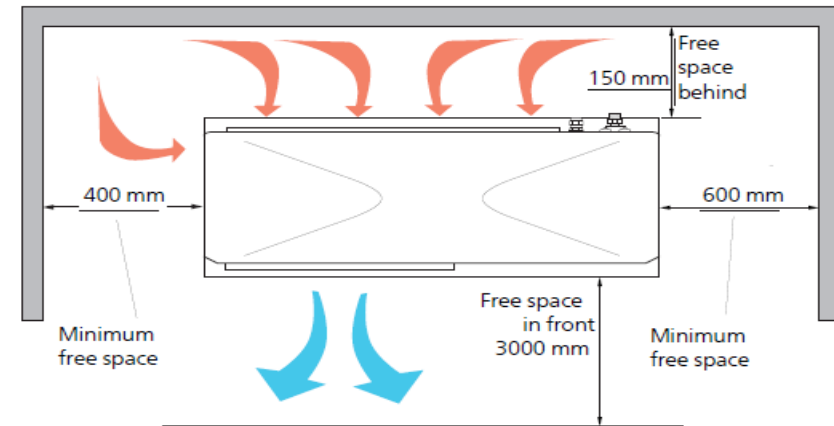
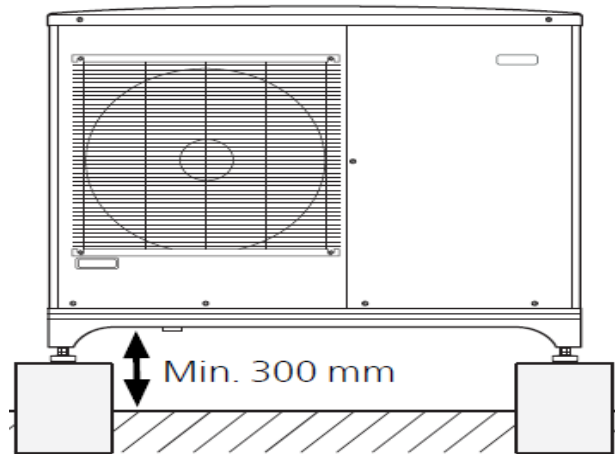
## INSTALLATION GUIDE + PRE-COMMISSIONING CHECKLIST



F2040 6/8/12KW + VVM320

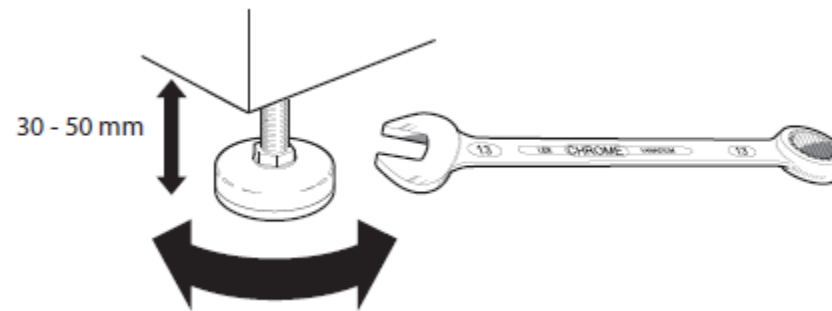
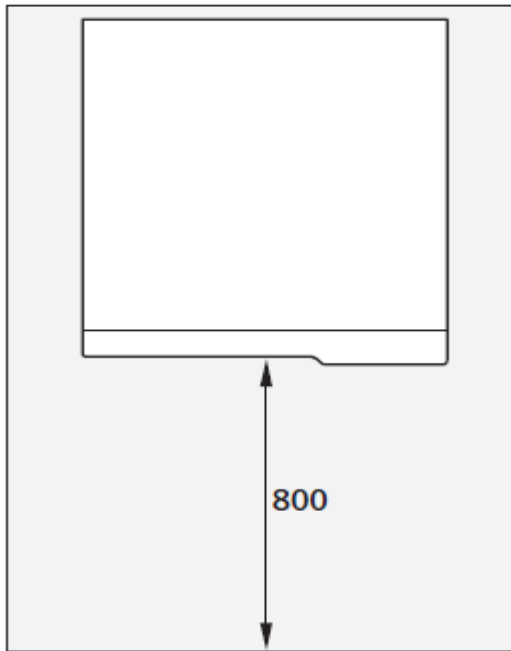
NB. This reference guide is supplementary to the NIBE installation manual and is not intended to replace it.

### Positioning of F2040 (outdoor unit)



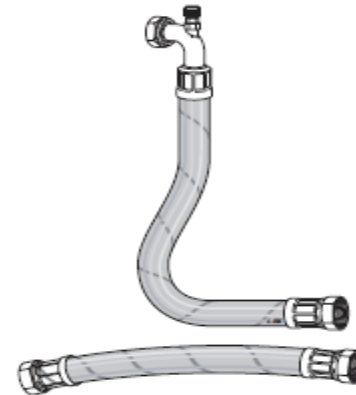
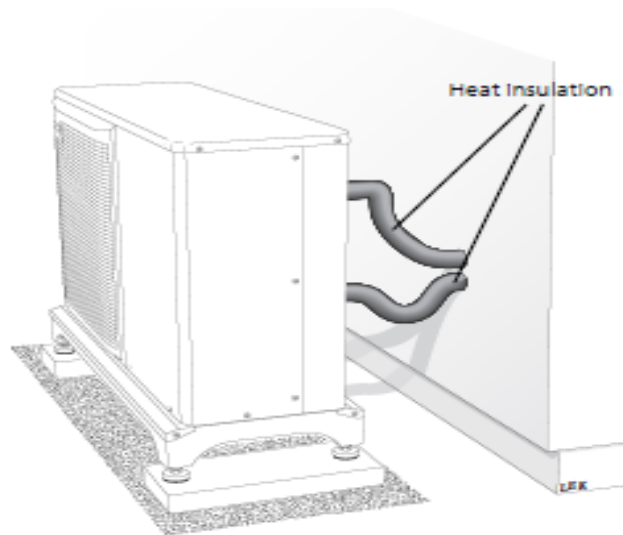
- Position the F2040 as close as practically possible to the VVM320, a Maximum of ten metres between units is recommended to minimize heat loss and reduce running costs.
- Install on a solid Base or wall bracket (second story height not recommended).
- Leave space around unit for to ensure good air circulation. (Distances specified are minimum not a target)
- Avoid installation adjacent to sensitive areas e.g. bedrooms; noise levels are lower than most oil or gas boilers.
- 300mm clearance below unit is specified by NIBE due to frequent snowfalls in Sweden. UNIPipe Ireland leave the minimum clearance to the discretion of the plumber, however, if left below 300mm and snow damage is encountered, UNIPipe will not accept responsibility for any damage incurred.

### Positioning of VVM320 (indoor unit)



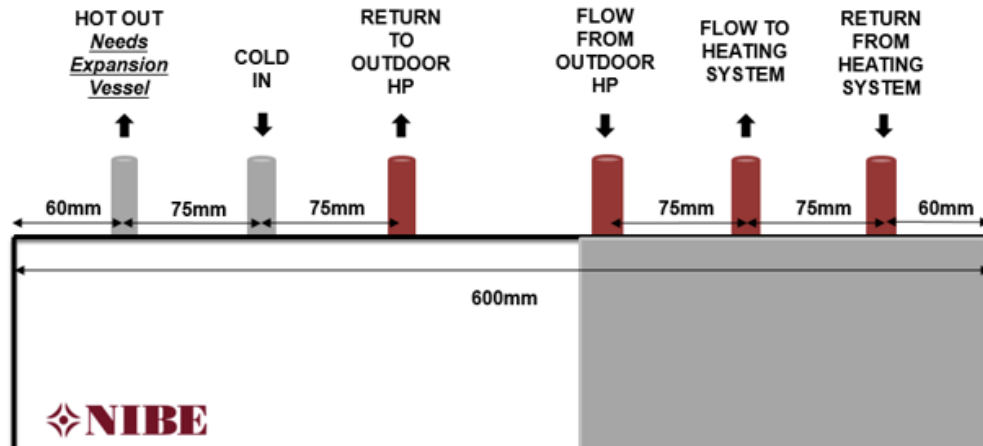
- Leave sufficient space in front of the unit for servicing as per the manual.
- Leave minimum 25mm behind unit for pipes/cables.
- Use adjustable feet to level the unit.
- Leave access to filters/valves for servicing.

## Mechanical Connection of F2040



- Connect to the unit using the supplied flexible hoses with minimum use of elbows.
- The Flexible hose incorporating a Manual air vent must be on the flow pipe (top connection).
- Flexis/pipework must be insulated and weatherproofed with a UV stable product.
- Exposed pipework must be kept to a minimum.
- Pipework routed below ground must be low heat loss and kept to the minimum possible length.
- Condensation will be produced by and drip from below the unit. This must be safely routed to a drain/soakaway, avoiding ingress on walkways.

## Mechanical Connection of VVM320



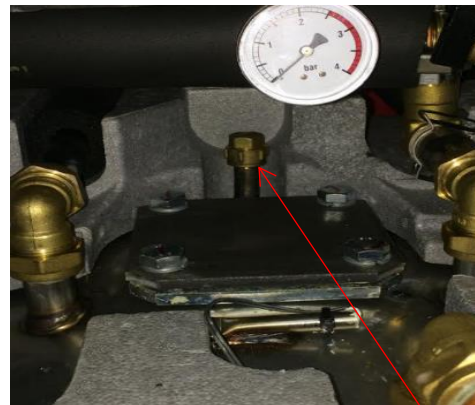
Pipe connections (22mm)



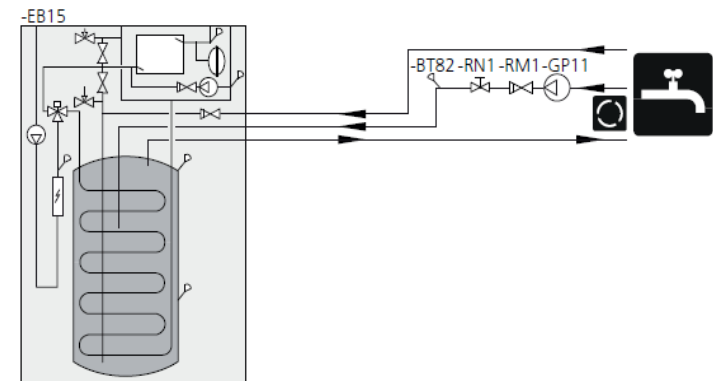
Strainer Valve



Tundish at rear of unit



Secondary return connection inside unit (15mm)



### Mechanical Connection of VVM320

- Pipework Between the F2040 and VVM 320 must be sized by the installer. Minimum 32mm multilayer pipe or one-inch copper recommended.
- Other Pipework To/From VVM320 must be sized by the installer and equivalent to the connections at a minimum.
- All High points on the heating side should incorporate venting facilities. (Flamco auto air vents recommended)
- Elbows should only be used when necessary, 90 Degree pull bends are recommended.
- Pipe runs should be designed to consist of minimum bends and fittings reducing pressure/flow losses.
- Pipes should be installed and bracketed neatly for aesthetic purposes.
- The strainer valve supplied should be installed on the return pipe to the F2040 to protect the internal heat exchanger. The direction of flow is indicated on the valve body and must be adhered to. It should be installed to allow easy removal of the centre nut for cleaning purposes. This should be cleaned after the initial operation.
- The Tundish may release water under certain conditions and must be piped to a drain or soakaway. A resealable trap is recommended to prevent sewer smells if applicable.
- A filling valve and pressure gauge is incorporated within the unit and is not required externally.
- A ten-litre heating expansion vessel is incorporated within the unit and should be pre-set to the required (cold fill) pressure.
- An additional heating expansion vessel should be fitted if required relative to the system volume.
- A potable expansion vessel must be fitted on the hot pipe leaving the VVM320 (non-return valve on cold inlet)
- If connecting to an existing heating system, the system must be flushed and cleansed prior to interconnection.

# Plumbers Schematic



## Supplied



Circulating Pump



Filter Ball Valve



1" Flex connector x2

## Not Supplied



Isolation Valves



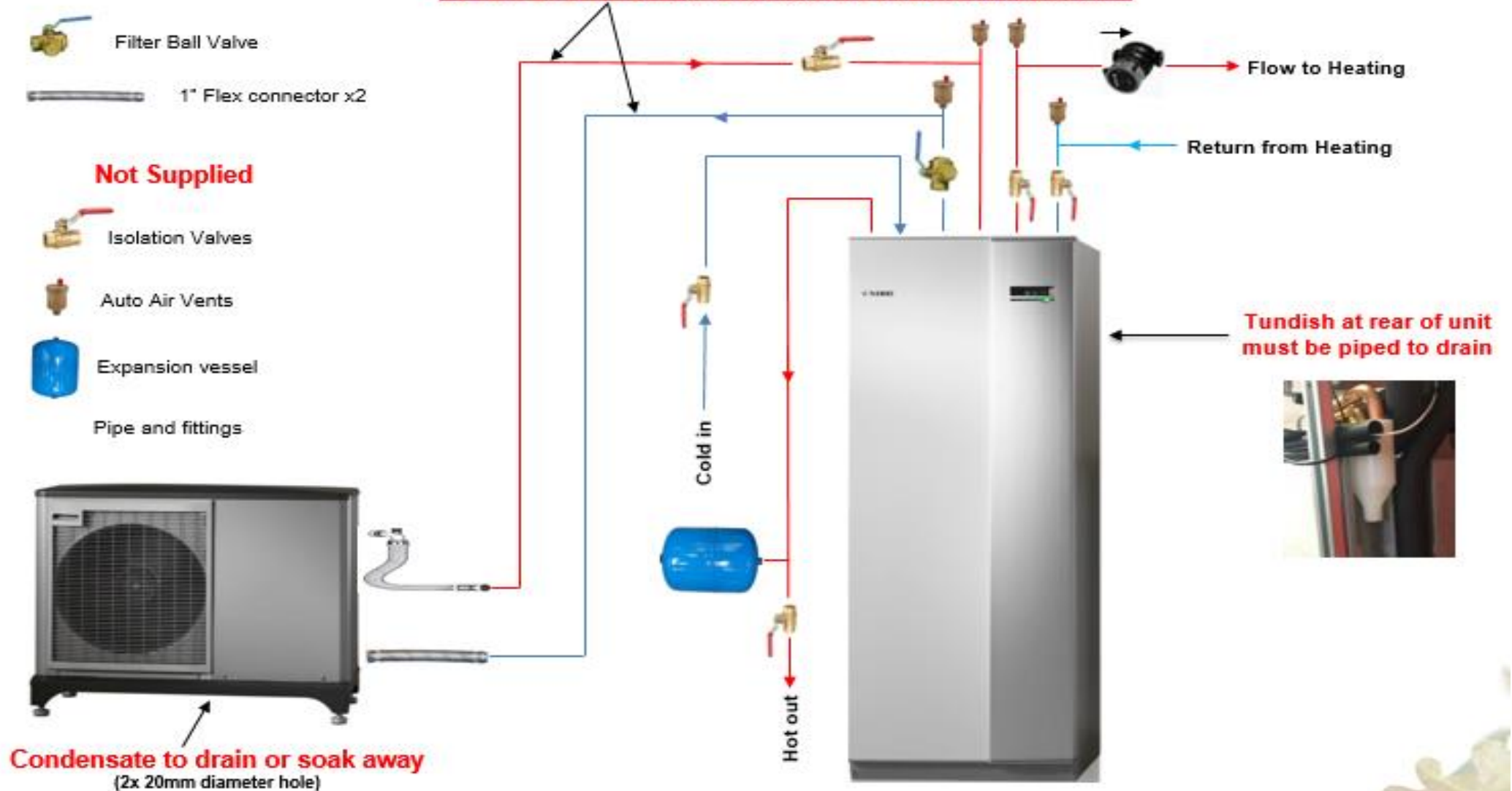
Auto Air Vents



Expansion vessel

Pipe and fittings

**32mm PRT or 1" Copper (kept as short as practically possible)**



**NB. All outdoor pipework must be insulated and waterproofed!**

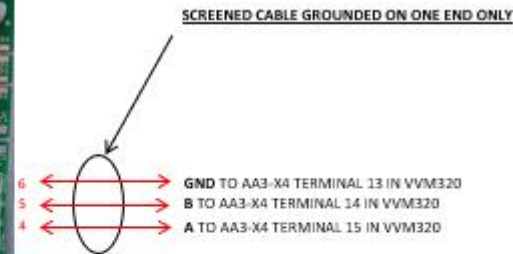
## Electrical Connection of F2040



F2040



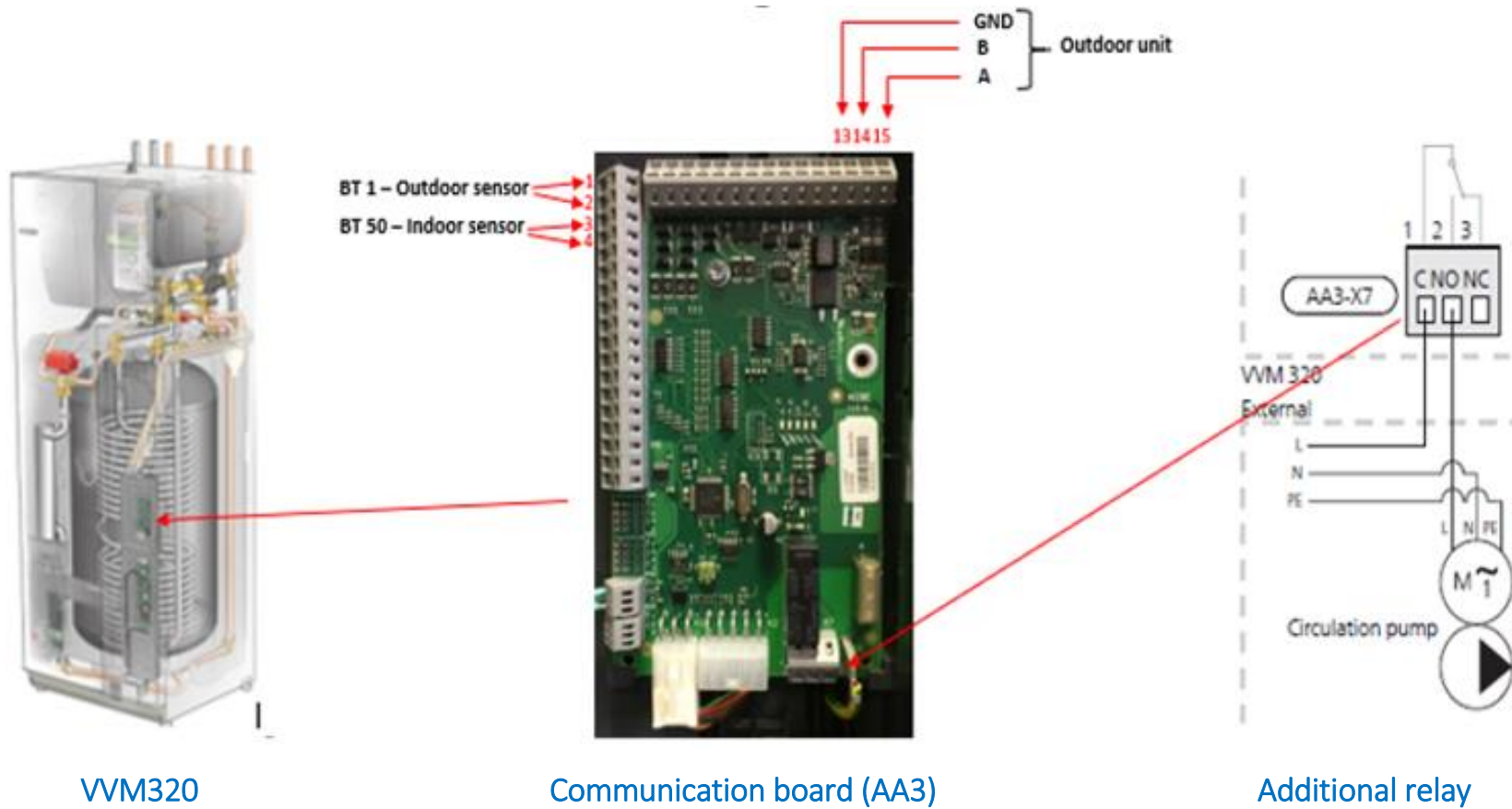
Communication board (AA23)



- The mains cable is pre-wired in the unit and must be terminated in a local rotary isolator. (not a cooker switch)
- The rotary isolator must be supplied by 6 or 10 Square cable back to the Fuse board. (dependent on distance and sized by the electrician)
- The circuit breaker must be 25 Amp "motor" rated.
- The communication (comms) cable must be screened cat5 or equivalent. It must also be separated from power supply runs and the foil screen grounded on one end only.



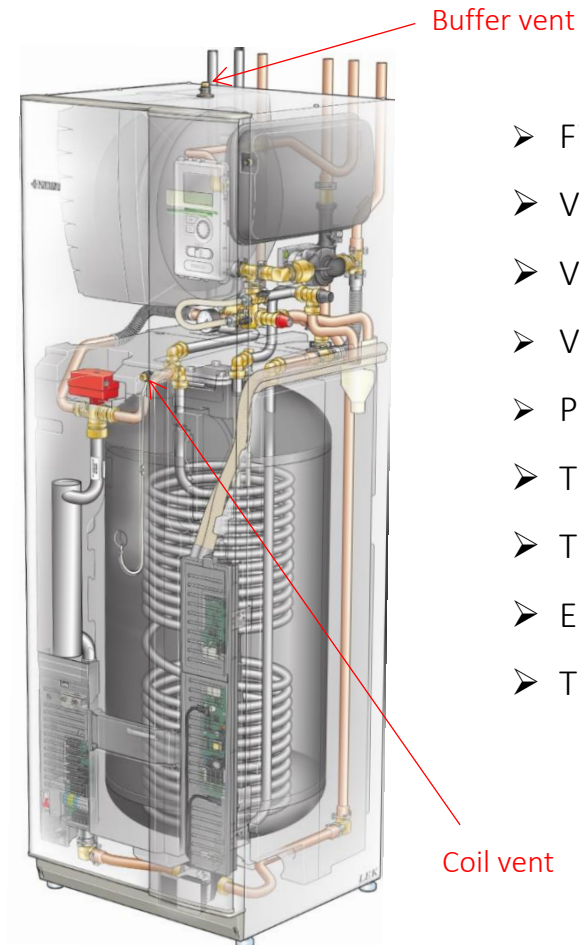
## Electrical Connection of VVM320



### Electrical Connection of VVM320

- The mains cable is pre-wired in the unit and must be terminated in a local rotary isolator.
- The rotary isolator must be supplied by 6 or 10 Square cable back to the fuse board. (dependant on distance and sized by the electrician)
- The circuit breaker must be rated for 32 Amps.
- The communication (comms) cable must be screened cat5 or equivalent. It must also be grounded in the outdoor unit only.
- All sensor cables must be screened cat5 or equivalent.
- The additional relay is a volt free contact used to power the external pump. The power supply for the pump is sourced externally with the live cable routed through the additional relay (X7) allowing control by the VVM320.
- The outdoor sensor must be positioned on a north/ north west facing surface to avoid direct sunlight interference. Ideally located under a soffit for water protection. Kept at a serviceable height if possible.
- Install the indoor sensor in a central position. A suitable location is on a free inner wall in a hall approx. 1.5 m above the floor. If the room sensor is used in a room with underfloor heating, it should only have an indicatory function, not control of the room temperature.

## Filling and venting the system



- Fill the central heating side through the filling loop in the VVM320
- Vent the hot water coil via the coil vent
- Vent the buffer via the buffer vent
- Vent all high points on pipework
- Pressurise the system to the required cold fill pressure (typically 1-1.5 bar).
- The hot water cylinder must be filled prior to turn on.
- The cylinder is filled via the cold-water supply as any standard cylinder.
- Ensure under floor heating/radiators are filled and vented correctly.
- There should be no gurgling sounds from the system.

**NB. The Outdoor Unit Must be powered up a minimum of 6 hours before the indoor unit.**

## NIBE uplink



- Connect the VVM to the router with Cat5e UTP straight with male to male RJ45 connectors.
- A planet earth symbol will appear on the main menu screen if the connection is ok.
- Follow the connection instructions on [www.nibeuplink.com](http://www.nibeuplink.com)