

## Electrical connections

- Electrical installation should be done only by a licensed electrician who carries out the work according to the relevant regulations for electrical safety and wiring.
- Follow the wiring rules for the breaker rating and the thickness of the electrical wiring.
- Verify that the tank unit is full of water and the water stop cocks are open before turning on the power.

## System operation if connected to continuous power

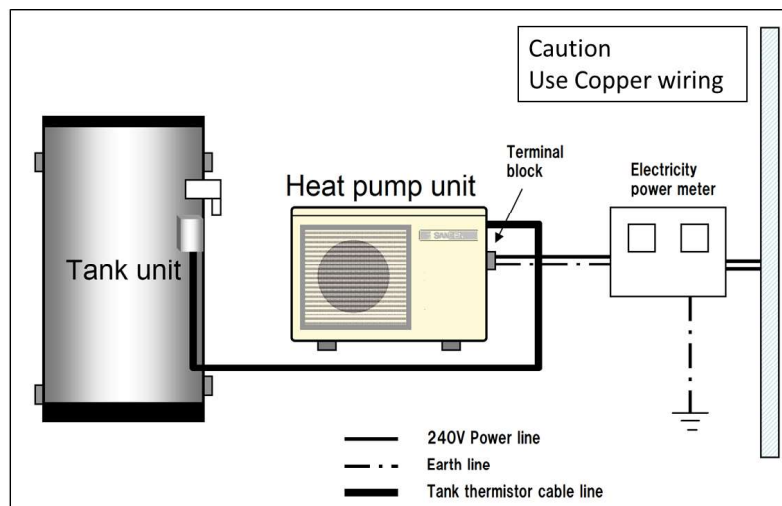
- The system runs its water heating cycle once a day to fill up the storage tank unit with heated water.
- If the block out time function is selected (setting is covered on page 16) the unit will not operate during the block out times – this function is typically used on installations that have time of use electricity tariffs
- The water heating cycle operation starts automatically when the residual hot water in the tank unit decreases.
- The system will not run if the electrical power supply is cut off. However, the system will automatically start operation, once the electricity becomes available.

## System operation if connected to off-peak electricity

- There are no special settings for the off-peak connection. The system will run once the power becomes available and the temperature in the tank drops below the set point of the tank thermistor. If connecting the unit to off peak ensure that the off-peak tariff provides a minimum of 5 hours continuous power, as it can take at least four hours to fill the tank unit with hot water at installation. If the ambient temperature is lower than 10°C this can be longer.
- If the unit is connected to off peak power and hot water consumption has been exceptionally high, hot water may not be available until the next power supply cycle.
- Daily frequency and amount of hot water consumption may also affect the duration of the heating cycle operation.

**Select the electrical supply mode that best suits the customer's hot water consumption. The type of off-peak connection may need to be changed if hot water supply is not maintained as required.**

**Figure 9: Outline of electrical system connections**



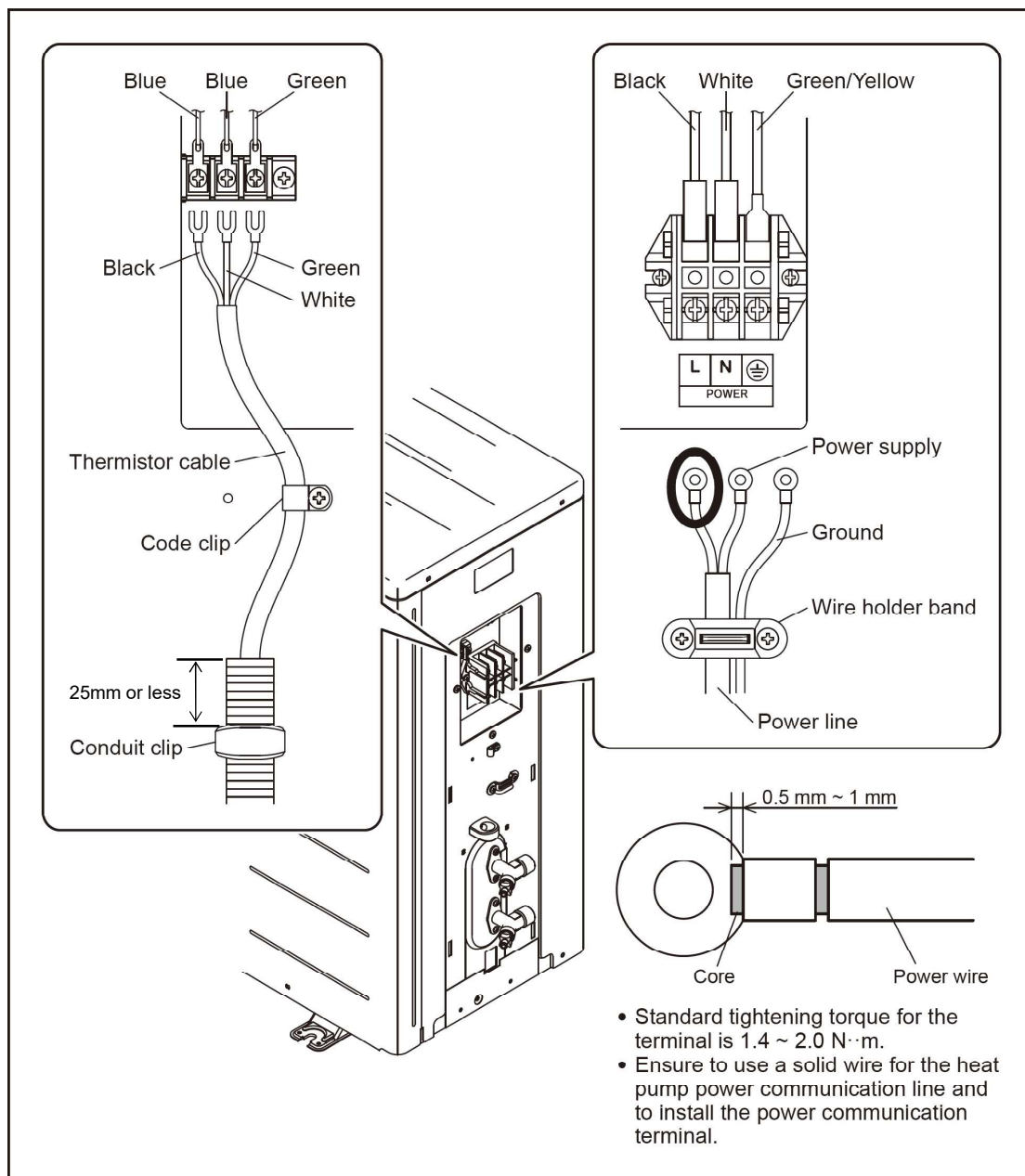
## How to connect power line and thermistor cable

Please note :

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- Remove the piping cover and screw clamp fitting.
- Connect the power supply line to the terminal block.
- Hold the power supply line below the terminal block with the screw clamp fitting.
- Connect the thermistor cable line to the terminal block.
- Fix the thermistor cable with the code clip and conduit clip.
- Attach the piping cover back on the heat pump unit.

**Figure 10: Connect power cables**



## How to connect tank unit thermistor cable

- The terminal block & sensor cover are attached to the tank. Use a hex driver or socket to remove screws & sensor cover.
- Cut the thermistor cable and conduit to the required lengths. The thermistor cable and conduit length are designed to cover the maximum allowable distance between the tank unit and heat pump unit (four meters). If the units are located closer than four meters the thermistor cable and conduit may be cut to the desirable length (Figure 11).
- Reveal the grey cable inside the black conduit. Expose the 2 thermistor wires (black & white).
- Note that wires from thermistor in tank are black & black.
- Strip the 2 wires ready for the terminal block & remove the fine mesh shield (or tape over).
- Place the wires into the terminal block (in either direction), tighten screws & pull wires to make sure they're firm in the block.
- Please put the terminal block cover back onto the tank unit and tighten the screws.
- Fit a 15mm saddle on conduit where it enters base of cover to prevent conduit being removed from box.
- Cable ties the conduit to the hot line coming to the tank from side of heat pump unit.

Figure 11: Connect tank unit thermistor cable

