CLAUDGEN

# Surface Ceiling Heaters
## Installation and Operating Manual

### Catalogue Numbers:
### HE7237SL,
### HE7237RX, HE7247RX, HE7267RX

All electrical appliances produced by the Company are guaranteed for one year against faulty materials or workmanship. This applies only if the appliance has been used for purposes in accordance with the instructions provided and has not been connected to an unsuitable electricity supply, or subject to misuse, neglect, damage or modified or repaired by any person not authorised by us. This guarantee is offered to you as an extra benefit and does not affect your legal rights.

The correct electricity supply voltage is shown on the rating label attached to the appliance.

Reasonable care has been taken to ensure that this guide is accurate at the time of printing. In the interest of progress the Company reserve the right to vary specifications from time to time without notice.

41001451 Iss 07

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# 1. General Information

## 1.1 Warnings

All installations must be in accordance with the regulations. These instructions must be handed to the user on completion of the installation. Installers and service engineers must be able to demonstrate competence and be suitably qualified in accordance with the regulations. To ensure continued and safe operation, it is recommended that the appliance is serviced annually. The heater's outlet/inlet grilles must not be obstructed during use. Any modifications made to the unit and not approved by Consort will void manufacturer's warranty and potentially create a hazard. The appliance is NOT intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience or knowledge unless they have been given instruction concerning use of the appliance by a person responsible for their safety.

## 1.2 Health and Safety

Please read these instructions thoroughly before installing the appliance. Sole liability rests with the installer to ensure that all site safety procedures are adhered to during installation. Sole liability rests with the installer to ensure that protective safety wear such as hand, eye, ear and head protection is used during installation of the product. Ensure that all anchorage points are suitable for the weight of the appliance. Do not rest anything, especially, ladders against the product.

## 1.3 Location

All units should be installed horizontally. It is recommended that the ceiling heater is suspended using four 10mm rods. Care must be taken to allow completely free air movement into the inlet grilles of the unit to ensure the correct working operation of the heater. If the HE7237SL/RX or HE7247RX heaters are mounted close to the wall or corner, the discharge opening should be facing the wall. The minimum distance from the wall or corner is 0.8m or 1.2m for the HE7267RX.

**WARNING:**

**THIS HEATER SHOULD NOT BE INSTALLED WHERE THERE IS A CORROSIVE ATMOSPHERE OR EXCESSIVE DUST.**

# 2. Introduction

## 2.1 Introduction

Surface ceiling heaters are suitable for supermarket and showroom areas or where heat is required locally. They are designed to be suspended via its integral anchorage points and with a completely enclosed housing ensuring ease of installation.

- 3kW SL/RX, 4.5kW RX or 6kW RX rating
- Quiet operation
- Fan only setting for air circulation (for RX models)
- Sealed heater box for improved energy efficiency
- LED indicator light
- Complete with white aluminium diffuser and surface mounting kit

**Controllers are NOT supplied with the heaters and have to be purchased separately.**

## 2.2 SL wireless controllers

The heater HE7237SL can be controlled by any CONSORT wireless controller. Each controller can control any number of heaters providing they are within the 10m RF range. For more details please follow the instructions supplied with the controller.

**The heaters will not work without a controller.**

## 2.3 RX wireless controllers

The heaters HE7237RX, HE7247RX and HE7267RX can be controlled by a CONSORT wireless RX controller. (CRXSL or HRXSL). Each RX controller can control any number of heaters providing they are within the RF range. For more details please follow the instructions supplied with the controller.

**The heaters will not work without a controller.**

## 2.4 Electrical connections

Electrical supply is 230/240V single phase, Neutral and Earth. The maximum cable inlet size is 4mm².

**The appliance shall be connected to the supply via an appropriate switched fused double pole isolator having a contact separation of greater than 3mm.**

**There are no exceptions.**

For connection to the mains supply it will be necessary to open the terminal cover at the side/ back of the unit. For safety reasons, a sound earth connection must always be made to the unit before it is put to use. The unit should be wired in accordance with IEE Regulations for the Electrical Equipment of Buildings.

Fig. 1.0 Heater with terminal cover open

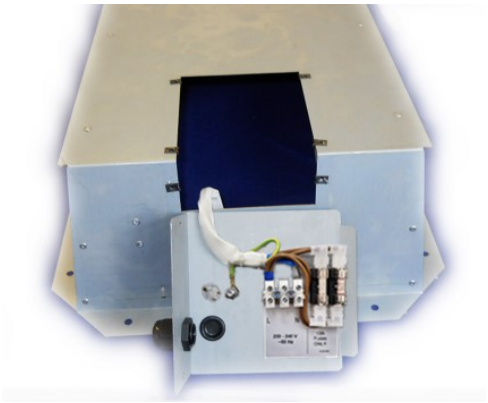
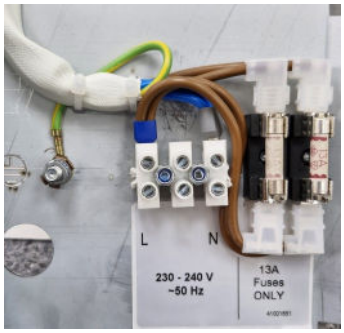


Fig. 1.1 Terminal cover detail



# 3. Dimensions & Fixing locations

It is acceptable for the heater to sit flush with the ceiling.

The minimum mounting height (floor to grille) is 2.2m for the HE7237SL/RX and HE7247RX and 2.5m for the HE7267RX.

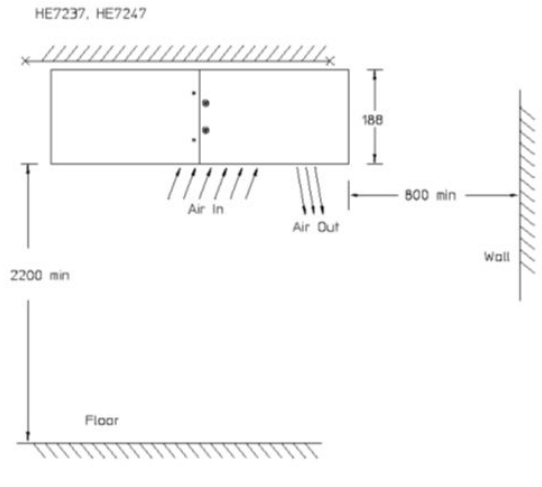



Fig. 2.0 HE7237 & HE7247 mounting specifications

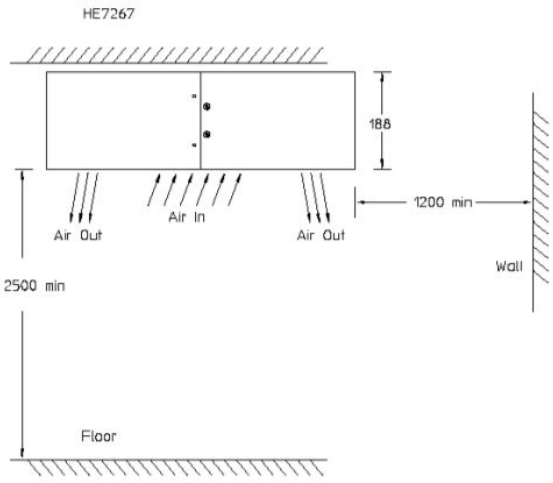



Fig. 2.1 HE7267 mounting specifications

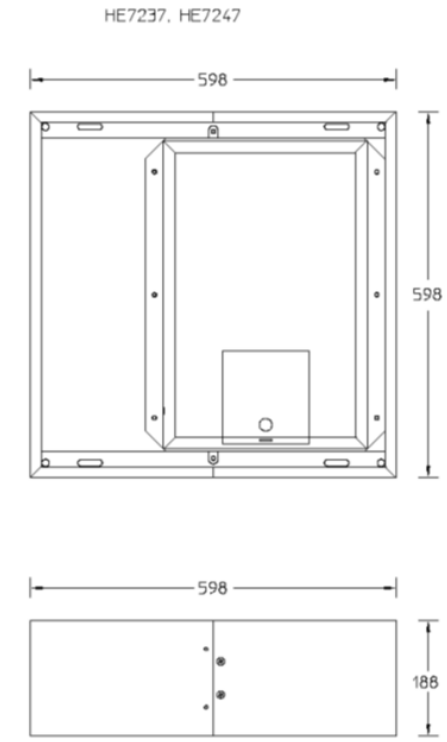



Fig. 2.2 HE7237 & HE7247 Dimensions

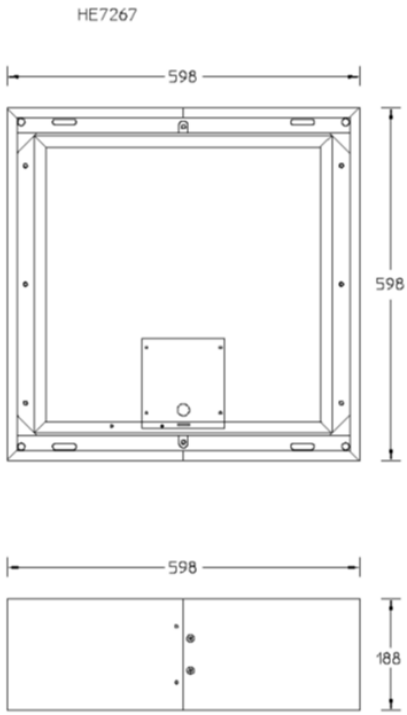



Fig. 2.3 HE7267 Dimensions

# 4. Installation Details

It is the sole responsibility of the installer to ensure that the points of attachment to the building are sound. Care must be taken to allow completely free air movement into the inlet grilles of the unit to ensure the correct working operation of the heater. Carefully unpack the unit. The unit is supplied with a length of self-adhesive foam strip. This can be cut into lengths and is to be laid on the 4 sides of the bottom of the heater casing. This will ensure that the unit assembly is free of vibration.

**The weight of the HE7237SL/RX, HE7247RX is 12kg.**
**The weight of the HE7267RX is 15kg.**

**- Split and remove shroud**

A pair of machine screws holds each shroud half together at each joint. A machine screw secures each shroud half to each appliance beam. Remove these machine screws and slide each shroud half off the appliance base panel. The base panel fits inside the shroud halves.
The diffuser is already clipped into and under the base panel and need not be removed.

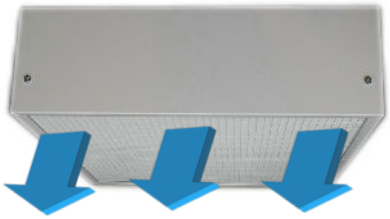
**- Hanging Rod Positions**

With the shroud removed, the two appliance beams reveal the holes/slots shown and dimensioned below. It is required that two 10 mm hanging rods (stud bars) support each appliance beam. The rods pass through and into each appliance beam. Support washers together with nuts locate and lock the appliance beams after adjustment to level the appliance.

**- Replace Shroud Halves**

The reverse of above. Slide shrouds beneath and around base panel. Secure each shroud half to each appliance beam with machine screws. Screw shroud halves together at each joint.

Fig. 3.0 Air discharge of HE7237SL/RX and HE7247RX



**ENSURE THE AIR OUTLET OF HE7237 AND HE7247 IS NEAREST TO THE WALL OR CORNER.**

Fig. 3.1 Air discharge of HE7267RX

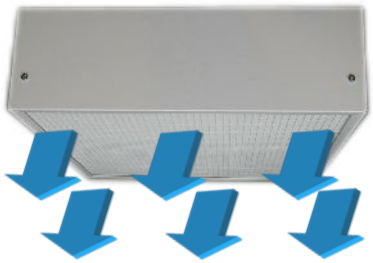
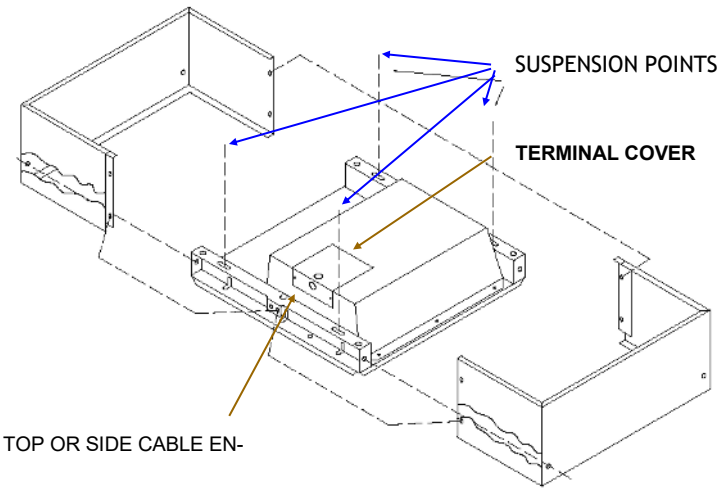


Fig. 3.2 Heater assembly



# 5. Heater operation and Status light

## 5.1 Difference between SL and RX models

The RX and SL models are similar in terms of performance. There are differences in RF range, controls and fault diagnostic. The type of the heater may be identified by status light.

Upon powering up the unit:

- A purple light LED will flash thrice for RX models.
- A cyan light LED will flash twice for SL models.

## 5.2 Controls

There is a significant difference in RF range when comparing RX and SL models due to the signal type they use. RX heaters have significantly better RF range so the controller can be installed further from the heater. All Consort controllers can control SL heaters, while only some will work with RX heaters. It is important to choose the correct model depending on the application. If the application is a room were the controller is at furthest 10m away from the heater, then SL models would be suitable. However, if it's a large room were the controller is further than 10m away from the heater then RX models would be more suitable. Each controller can control multiple heaters in the same zone.

## 5.3 SL models

The SL models can be controlled by any Consort RF controller but only basic functionality is available. Heaters can only be switched on and off by the controller. The status light shows status and faults.

## 5.4 Status lights on SL models

| Light colour | Heater status |
|---|---|
| | Heater is in stand-by mode/ not receiving signal from controller. Heater is ready for pairing with controller. |
| | Heater paired successfully - two cyan light flashes. |
| | Full power heat output. |
| | If the LED is flashing white, there is a fault. The unit will continue to function in restricted mode. However, in specific circumstances, the unit will stop running. |

## 5.5 RX models

The RX models can be controlled by CRXSL & HRXSL controllers with more sophisticated controls, specifically fan only and more heat setting options. The RX models use advanced electronics with self diagnostic and fault reporting functions.

## 5.6 Status lights on RX models

| Light colour | Heater status |
|---|---|
| | Heater is in stand-by mode/ not receiving signal from controller. Heater is ready for pairing with controller. |
| | Heater paired successfully - Pulsing Purple light for 5 seconds. |
| | Half heat output. |
| | Full power heat output. |
| | Heater is in fan only mode. |
| | If the LED is flashing white, there is a fault. The unit will continue to function in restricted mode. However, in specific circumstances, the unit will stop running. |

## 5.7 Pairing heater to controller

**Heaters have to be paired with the controller otherwise they will not work.**

To pair the SL or RX ceiling heaters to a controller will require cycling the power to the heater then, depending on the controller in use, the pairing sequence should be completed within 20 seconds.

1. Ensure controller is powered.
2. Cycle power to the heater (wait until status light disappears before re-energising the heater).
3. Within 20 seconds of powering the heater, depending on controller, press and hold the pairing button/buttons.
4. The heater status light should show.

   SL heaters - two cyan flashes followed by red light.

   RX heaters - pulsing purple light followed by red light.
5. Heater is now ready to use.

# 6. Fault detection / Indication

## 6.1 Fault indication

Heaters are equipped with electronic fault detection. In the event of a fault being detected, the heater will show the nature of the fault via a flashing white status light located at the front of the heater. The LED will flash one of the sequences shown in the table. The sequence is repeated every 5 seconds.

| Number of flashes | Fault |
|---|---|
| 1 | Overheating detected<br>Heater has detected overheating and is cooling down. After 10 minutes, it will return to normal operation. |
| 2 | Temperature measurement fault<br>Cause: Faulty temperature sensor.<br>Response: Will operate as normal. However, overheating protection will not work. |
| 3 | Low power detected<br>Cause: low supply voltage, TOC tripped, blow fuse, faulty heating element, faulty PCB, power measurement fault.<br>Response: Heater inoperative. |
| 4 | Problem with motor<br>Cause: Faulty motor, RPM sensor fault, low supply voltage (following power-cut).<br>Response: Heater inoperative. |
| 5 | High power detected<br>Cause: Stuck relay, overvoltage.<br>Response: Heater inoperative. |
| 6 **(RX ONLY)** | Motor slow<br>Response: Heat reduced. |

## 6.2 Fault Finding

If the heater will not operate, disconnect it from the mains and arrange for a certified electrician to attend and investigate the reason.
The units are protected by thermal cut-outs from overheating in the event of fan failure or an obstruction of the free airflow. If this happens the thermal cut-outs switch off the appliance. The appliance will not operate until the heater has been disconnected from the mains supply and it has cooled down for at least 10 minutes.

**THE CAUSE OF CUT-OUTS OPERATING SHOULD BE INVESTIGATED BEFORE RESETTING.**

## 6.3 Maintenance

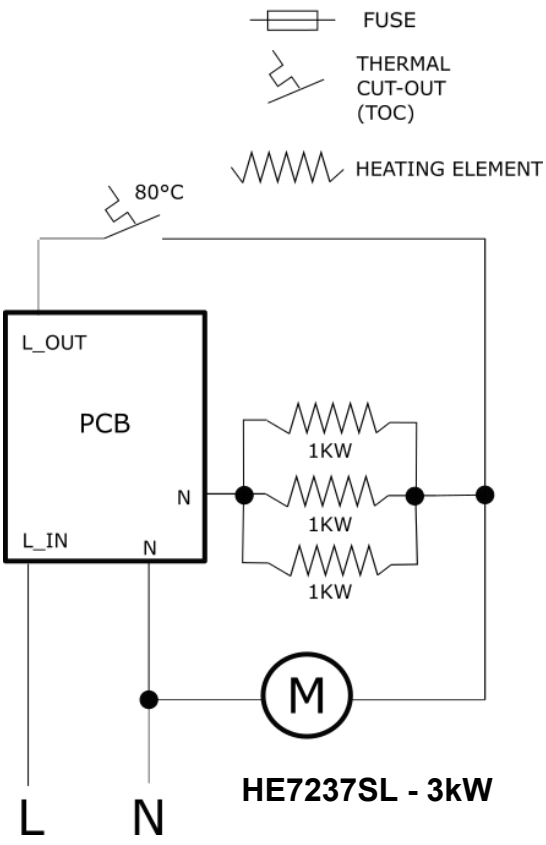
**ALWAYS ENSURE THAT THE MAIN EXTERNAL ELECTRICITY SUPPLY IS SWITCHED OFF BEFORE COMMENCING ANY MAINTENANCE ON THIS HEATER.**

To obtain the best results from the heater, it is essential to avoid the accumulation of dust and dirt within the unit on the air inlet and discharge grilles. For this reason regular cleaning is necessary. Cleaning of the fan is best carried out with a soft brush.
The product should be serviced annually.
Servicing shall be undertaken by a competent person.

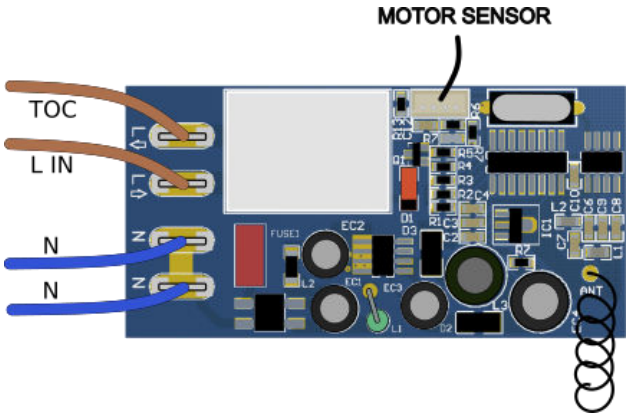
## 6.4 Replacing the Heater Fan

1. Split and remove shroud.
2. Remove the grille.
3. Disconnect the internal wiring from the blower.
4. Remove the four screws fixing the heater fan assembly to the back of the case.
5. The heater fan assembly can now be eased forward and removed from the heater case.
6. Fit replacement heater fan and reassemble in reverse order.

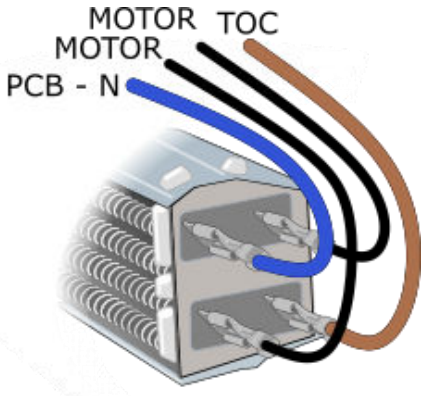
# 7.1 Wiring Diagrams - HE7237SL




**HE7237SL - 3kW**

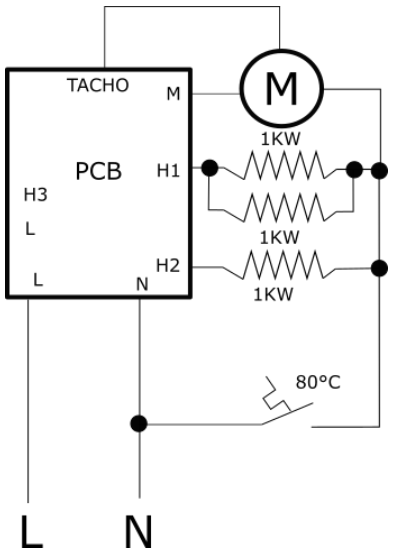



**EBSL PCB board**

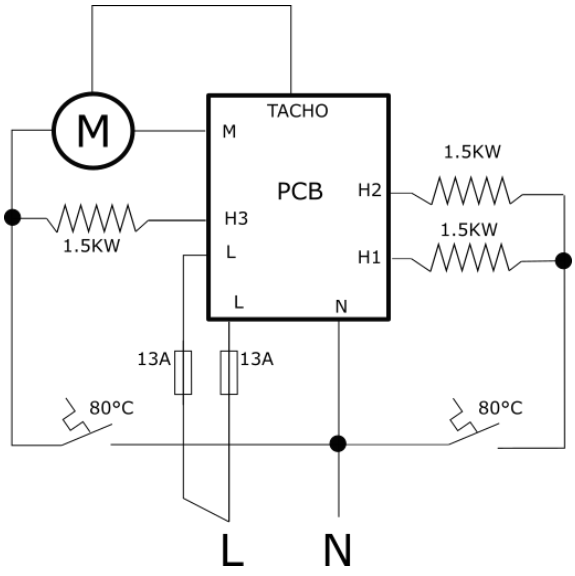



**Heater Connections**

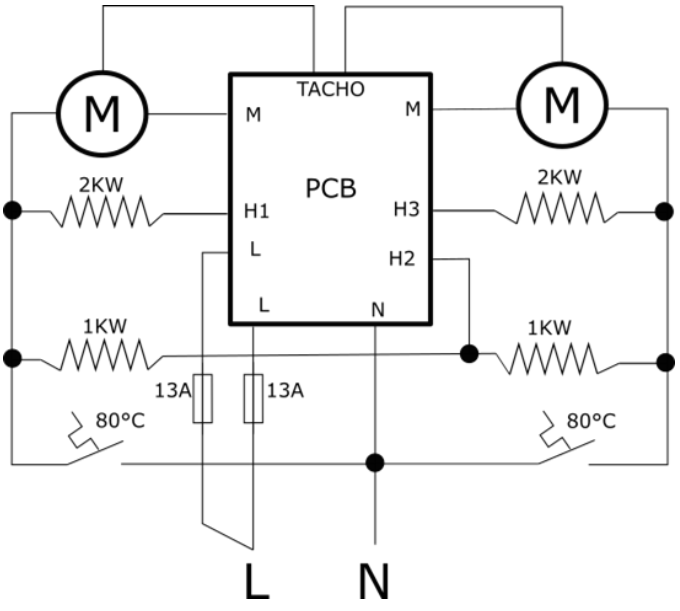
# 7.2 Wiring Diagrams - RX Models




**HE7237RX - 3kW**

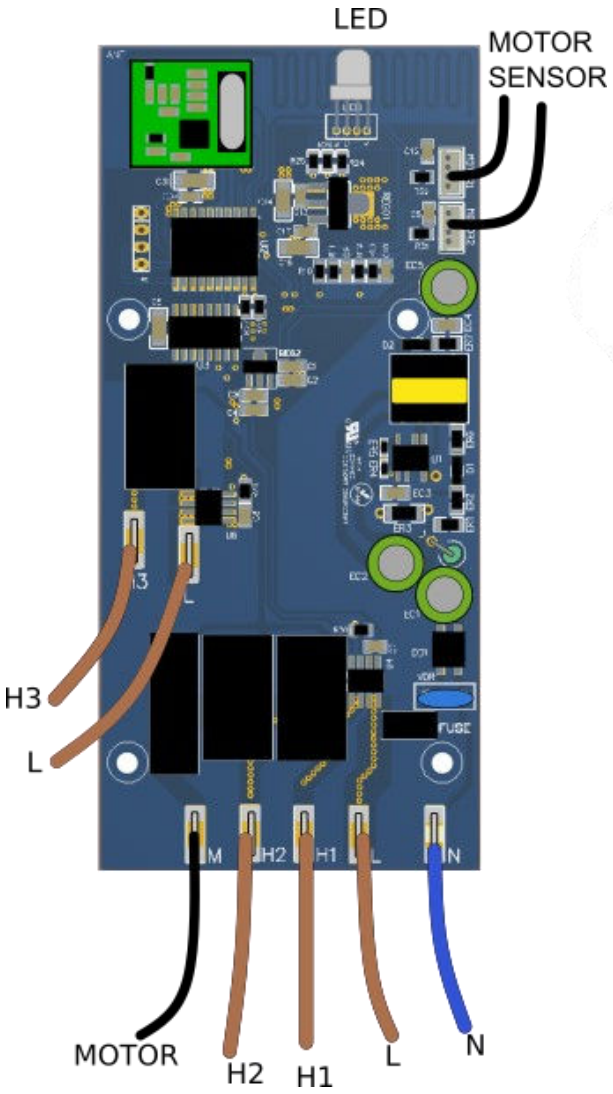



**HE7247RX - 4.5kW**

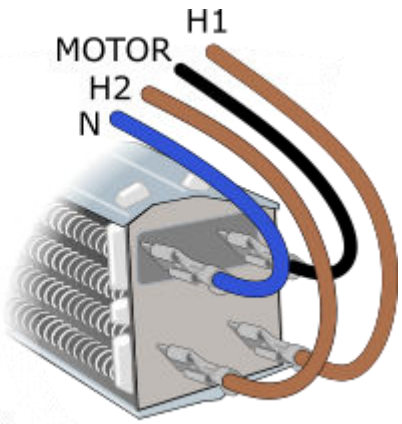



**HE7267RX - 6kW**

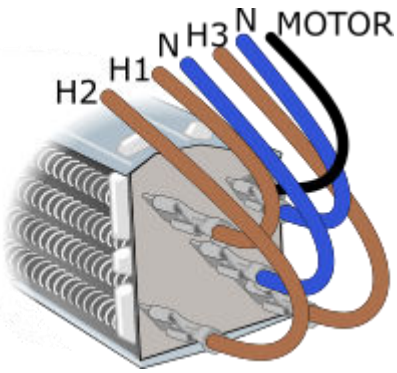
# 7.3 Heater Connections - RX Models



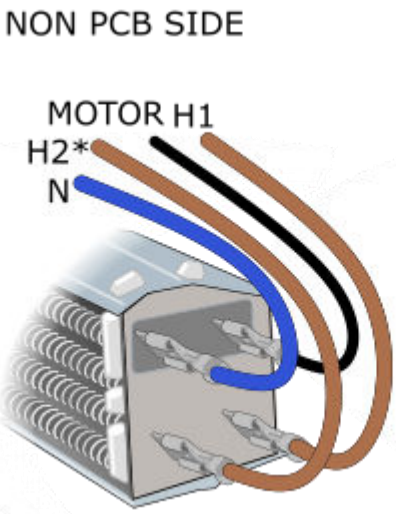

**EB02 PCB Board**



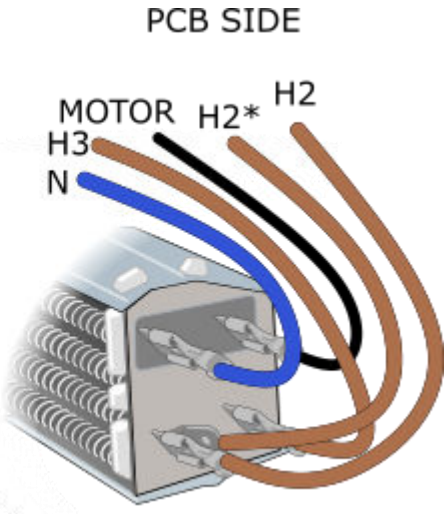

**HE7237RX - 3kW**




**HE7247RX - 4.5kW**




**HE7267RX - 6kW**




**HE7267RX - 6kW**

# Declaration Of Conformity

In accordance with UK Government Guidance.

WE HEREBY CERTIFY THAT THE APPLIANCES DETAILED HEREON HAVE BEEN INSPECTED AND TESTED, AND CONFORM TO THE REQUIREMENTS OF THE FOLLOWING UK STATUTORY INSTRUMENTS WHERE APPLICABLE:

**Electrical Equipment (Safety) Regulations 2016 SI. 2016 1101**

**Electromagnetic Compatibility Regulations 2016 SI. 2016 No. 1091**

**Radio Equipment Regulations 2017 SI. 2017 No. 1206**

**The Ecodesign for Energy Related Products and Energy Information (Amendment) (EU Exit) Regulations 2019. SI. 2010 2617**

**The Restriction of use of Certain Hazardous Substances. SI. 2012 No. 3032**

**The Waste Electrical and Electronic Equipment Regulations 2013. SI. 2013 No. 3113**

**Security Requirements for 'Connectable Products PTSI Act 2022**

**The Product Security and Telecommunications Infrastructure (Security Requirements for Relevant Connectable Products) Regulations 2023**

## Transposed standards used:

- **BS EN 55014 (2006)**
- **BS EN 301 489.1 & .3**
- **BS EN 300 220.1 & .2**
- **BS EN 60 730.2.9**
- **BS EN 60335.1 (2012 )**
- **BS EN 60335.2.30 (2009)**
- **ETSI BS EN 303645**
- **EN 50663 (2017)**
- **EN 60730-2-9 (2010)**
- **EN 60730-1 (2011)**
- **ETSI EN 300 220-1 V3.1.1 (2017-02)**
- **ETSI EN 300 220-2 V3.2.1 (2018-06)**
- **ETSI EN 301 489-1 V2.2.2 (2019)**
- **ETSI EN 301 489-3 V2.1.1 (2019)**

**PART NUMBER AND DESCRIPTION OF APPLIANCE:** **HE7237SL, HE7237RX, HE7247RX, HE7267RX**

**NAME OF RESPONSIBLE PERSON:** **DAVID O'SULLIVAN**
**POSITION:** **OPERATIONS MANAGER**
**DATE:** **12/08/25**

bsi ISO 9001 Quality Management Systems CERTIFIED FM 12671

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