

# INSTRUCTIONS FOR:INDUSTRIAL SPACE HEATER OUH2-3W Series

Thank you for purchasing a BNThermic product. Manufactured to a high standard, this product will, if used according to these instructions and properly maintained, give you years of trouble free performance. To make sure that you have selected the correct heater for your application, please read Section 8 on the back page before installation.



# **REGISTER**: PLEASE REGISTER THIS PRODUCT ONLINE TO ACTIVATE YOUR GUARANTEE AT www.bnthermic.co.uk





IMPORTANT: PLEASE READ THESE INSTRUCTIONS, NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS, AND CAUTIONS. USE THIS PRODUCT CORRECTLY, AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY.

#### 1. SAFETY INSTRUCTIONS

#### 1.1 ELECTRICAL SAFETY

WARNING! It is the responsibility of the owner and the operator to read, understand and comply with the following:

You must check all electrical products, before use, to ensure that they are safe. You must inspect power cables, plugs, sockets and any other connectors for wear or damage. You must ensure that the risk of electric shock is minimised by the installation of appropriate safety devices. A Residual Current Circuit Breaker (RCCB) should be incorporated in the main distribution board. If in any doubt consult a qualified electrician.

You must also read and understand the following instructions concerning electrical safety.

- The Health & Safety at Work Act 1974 makes owners of electrical appliances responsible for the safe condition of those appliances and the safety of the appliance operators. If in any doubt about electrical safety, contact a qualified electrician.
- Installation should always be carried out by a qualified electrician or a competent person in accordance with current electrical regulation.
- Ensure that the insulation of all the cables on the appliance is undamaged and safe, before connecting it to the power supply.
- Ensure that the cables are always protected against short circuit and overload.
- Regularly inspect the power supply cables and plugs etc. for wear or damage and check all connections to ensure that none are loose.
- Important: Ensure that the voltage marked on the appliance matches the power supply to be used and that a correctly rated fuse is fitted.
- DO NOT use worn or damaged cables, plugs or connectors. Immediately have any faulty item repaired or replaced by a qualified electrician.
- The unit should be protected by a suitably rated isolator and fuse or MCB.
- This heater is IP20 rated and is suitable for indoor use only.
- The controls and heaters may be fed from a different source and it is essential that all circuit breakers feeding the heating system are isolated prior to any work being carried out on any of the heaters in the system.
- Do not attach this heater to an extension cord it must be hard wired in position.

# 1.2 GENERAL SAFETY INSTRUCTIONS

- Remove all packaging and store it away from children, check the package and heater for visible damage or tampering.
- ✓ Familiarise yourself with the applications and limitations of the heater.
- Ensure the heater is in good order and condition both physically and electrically before use. If in any doubt, do not use the unit and contact your supplier.
- Only use recommended attachments and parts. To use unauthorised parts may be dangerous and will invalidate your warranty.
- ✓ Keep tools and other items away from the heater when it is in use.
- Keep children and unauthorised persons away from the heater, as it gets hot.
- Disconnect from mains and allow to cool before attempting any cleaning or maintenance
- X **DO NOT** use in areas where hazardous gasses or dusts may be present.
- X **DO NOT** locate the heater directly below the power outlet.
- X DO NOT disassemble the heater for any reason. This heater must be checked by qualified personnel only.
- X **DO NOT** use this heater to perform a task for which it has not been designed.
- WARNING! Ensure you observe the safety distances and mounting heights and there is no possibility of inflammable materials coming into contact.



# 2. INTRODUCTION & SPECIFICATION

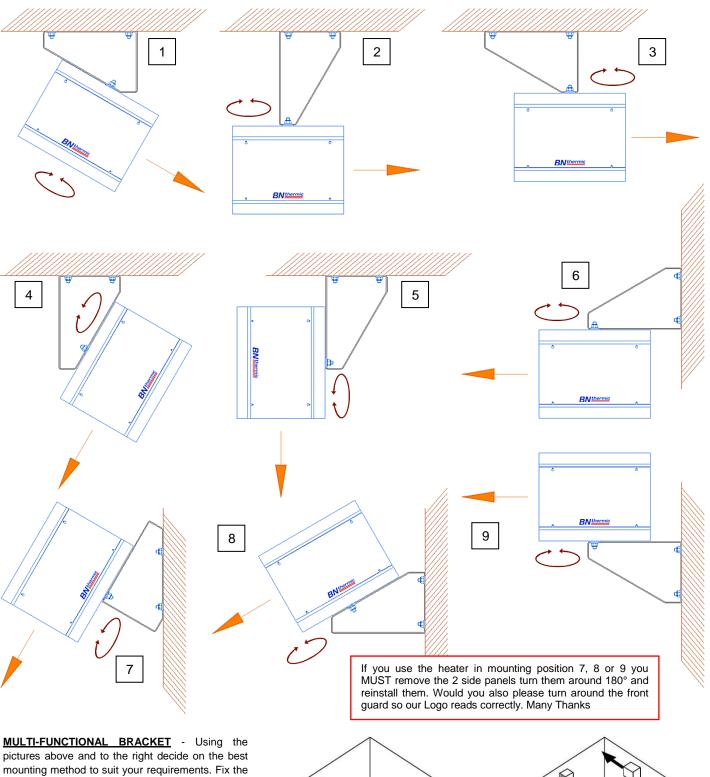
This heater produces a totally dry heat, no condensation, no gas, no fumes. It reaches maximum heat output within a few minutes of being turned on. It is quick and easy to install reducing installation costs. Air temperature can be controlled by the heater's built-in thermostat (if ordered with heater) or alternatively by a remote thermostat. All the 3W range of heaters are designed to operate without requiring a Neutral connection. A "T" on the end of the model number indicates that an internal thermostat has been factory fitted e.g. OUH2-05-3WT.

Model	OUH2-03-3W	OUH2-05-3W	OUH2-07-3W	OUH2-10-3W	OUH2-15-3W	OUH2-20-3W	OUH2-25-3W
Power	3kW	5kW	7.5kW	10kW	15kW	20kW	25kW
Input supply (No Neutral)	400v ac 3Phase						
Dimensions W x D x H (mm)	435 x 405 x 320	565 x 485 x 445	565 x 485 x 445	565 x 485 x 445			
Weight	19kg	19kg	19kg	19.5kg	39.5kg	40kg	41kg
Recommended Mounting Height	2.4m	2.4m	2.4m	2.4m	2.8m	2.8m	2.8m
Safety Distance from Heater	2.0m						

# 3. MOUNTING INSTALLATION

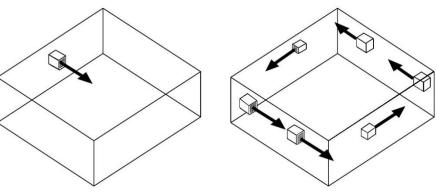
The heater is supplied with a multi-functional mounting bracket and 4 x M8 ring hooks if you wish to hang the heater.

<u>LOCATION</u> - For best results, do not mount higher than 2.4m (small models) and 2.8m (large Models). If you need to exceed this height either mount on the multi-functional bracket so the heater is at an angle facing downwards or use the hanging hooks supplied. Direct air flow away from occupants, posts, and columns, including equipment. Ideally allow the warm air to travel parallel to the outside walls, along the most exposed part of the building, which is normally subjected to the prevailing winds (see pictures at bottom of page).



MULTI-FUNCTIONAL BRACKET - Using the pictures above and to the right decide on the best mounting method to suit your requirements. Fix the bracket to the wall or roof making sure you use suitable bolts for the surface you are fixing the bracket too and ensure it will take the weight of the heater. Place the stud on the heater through the bracket, add the washer and secure in place using the nyloc nut supplied.

<u>HANGING HOOKS</u> – Place the nut onto each hook first then fully screw them into the heater, finally tighten the nuts against the heater body to stop them rotating.



Single heater location

Multi heater locations

# 4. ELECTRICAL CONNECTIONS

#### All Heaters MUST BE EARTHED.

Due to the heater having "Fan Over Run" circuitry the heater must not be turned ON and OFF using the mains supply isolator. The mains supply isolator should only be used in an emergency or if you need to turn off the heater (once cooled down) for long periods. The heater should be turned off using the thermostat on the back or any other control device. See Section 5 for further information on the fan over run.

On small units there are 4 x 20mm and 1 x 25mm knockouts on the top or bottom of the heater and an additional 4 x 20mm and 1 x 25mm knockouts on the back of the heater, if you require a 32mm hole gently open out a 25mm hole using a taper drill or step drill. Be careful you do not touch the internal electrics when opening up the holes.

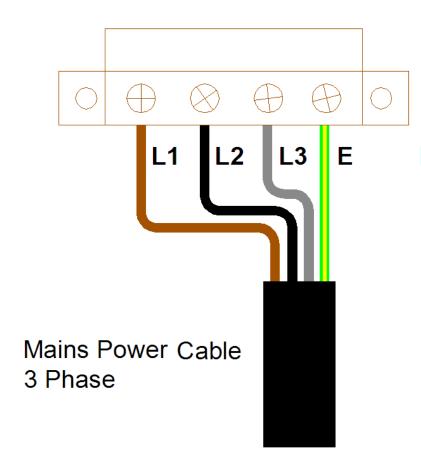
On large units there are  $3 \times 20$ mm,  $1 \times 25$ mm and  $1 \times 32$ mm knockouts on the top or bottom of the heater and an additional  $3 \times 20$ mm,  $1 \times 25$ mm and  $1 \times 32$ mm knockouts on the back of the heater.

#### 4.1 400V 3Phase (No Neutral)

Please make sure you have read the Safety instructions and that you are a suitably qualified electrician before continuing.

Please Note:- Specified cable sizes are for typical installations, correction factors may need to be used when determining actual cable sizes.

Do NOT use power tools to undo or do up terminal screws.



# Cable Sizes

OUH2-03-3W 3kW - Mains Cable - Use minimum 1.5mm² 4 Core Mains Cable (see note above).

OUH2-05-3W 5kW - Mains Cable - Use 1.5mm<sup>2</sup> 4 Core Mains Cable (see note above).

OUH2-07-3W 7.5kW - Mains Cable - Use 1.5mm<sup>2</sup> 4 Core Mains Cable (see note above).

OUH2-10-3W 10kW - Mains Cable - Use 2.5mm<sup>2</sup> 4 Core Mains Cable (see note above).

OUH2-15-3W 15kW - Mains Cable - Use 4mm<sup>2</sup> 4 Core Mains Cable (see note above).

OUH2-20-3W 20kW - Mains Cable - Use 4mm<sup>2</sup> 4 Core Mains Cable (see note above).

OUH2-25-3W 25kW - Mains Cable - Use 6mm<sup>2</sup> 4 Core Mains Cable (see note above).

Connect Brown / Phase 1 Wire – Terminal L1 of Heater

Connect Black / Phase 2 Wire – Terminal L2 of Heater

Connect Grey / Phase 3 Wire – Terminal L3 of Heater

PLEASE CHECK ALL CONNECTIONS BEFORE TURNING ON AS INCORRECT WIRING IS NOT COVERED BY THE GUARANTEE

#### 5. FAN OVER RUN

The heater incorporates a fan over run device that ensures that when the elements turn off the heater case temperature or internal components do not increase significantly. This may either work by allowing the fan to continue running for a while when the elements turn off or by turning the fan back on if the temperature rises when the heater elements and fan turn off. This will normally only occur for a couple of minutes after the heating elements turn off. It is for the above reason that you must turn off the heater using a control device or the internal thermostat (if fitted) and NOT by isolating the mains power. Continuous turning on and off of the heater using the mains supply isolator whilst it is running can damage the heater and is not covered by the guarantee.

#### 6. MAINTENANCE

**Note:** Before examining or carrying out any maintenance ensure the heater has cooled down and is disconnected from the mains supply. Due to the design of this heater there may be two different feeds ensure if so both are disconnected from the mains supply. The heaters are intended to operate for many years, problem free. All moving parts are factory lubricated and therefore should require no service. Maintenance is limited to keeping both the inlet and outlet areas free from any accumulation of dust or any other foreign materials. This is especially important immediately before the heating season. Any dust build up can be loosened using a brush and a vacuum cleaner applied to the airways to ensure completed removal of any dust. When the heater is first turned on after cleaning an unusual odour may be noted this is due to the dust particles which inevitably will be disturbed and will be burnt off from the heating element.

If in any doubt always consult a qualified electrician for advice.

# 7. AUTO CUT OUT

This heater is fitted with a semi-automatic safety device to prevent overheating. The device will isolate the heating elements while the fan continues to operate. Should this occur, disconnect the heater from the mains supply for a minimum of 5 minutes, check and remove any foreign materials around the airways. If the heater fails to operate or the safety cut out operates again, turn off the heater and contact a qualified electrician.

#### 8. IMPORTANT NOTES REGARDING SPACE HEATING - PLEASE READ BEFORE INSTALLING

# Total output

It is vital that the combined output of the heaters exceeds the heat losses from the entire area you are heating. If you are in any doubt, please contact BN Thermic and we can carry out a quick check for you.

#### Temperature rise

OUH2 industrial fan heaters warm a space by circulating large volumes of air. The temperature rise across the heater is often barely detectable. This is normal for this style of heater and does not indicate a fault. Our customer service advisers would be happy to talk through this characteristic of industrial fan heaters if clarification is needed.

Now you have read and accepted the above points, please continue with your installation by reading through the instructions first. Any questions you may have call our customer service advisors who will be delighted to help you.

**NOTE:** It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.



This product conforms to EU Directive 2002/96/EC.

This appliance bears the symbol of the crossed waste bin. This indicates that, at the end of its useful life, it must not be disposed of as domestic waste, but must be taken to a collection centre for waste electrical and electronic equipment. It is the user's responsibility to dispose of this appliance through the appropriate channels. Failure to do so may incur penalties established by laws governing waste disposal.

**IMPORTANT:** No liability is accepted for incorrect use of this product.

**WARRANTY:** Your BN Thermic product is guaranteed for a period of one year from date of purchase. We will repair or replace at our discretion any part found to be defective. Our warranty does not cover corrosion. We cannot assume any consequential liability. This guarantee in no way prejudices your rights under common law and is offered as an addition to consumer liability rights.

**REGISTER:** Activate your warranty by registering online at www.bnthermic.co.uk and retain this installation data for future reference.

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