BN<u>thermic</u>

INSTRUCTIONS FOR:-

26A RELAY ENCLOSURE RB26

Thank you for purchasing a BN Thermic 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.



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.

1.1 ELECTRICAL SAFETY

SAFETY INSTRUCTIONS

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 regulations.
- The relay must not be used as an isolator and a separate isolator must be provided between the fuse board and the relay box.
- This relay box is IP21 rated. It is suitable for indoor use. It can also be used outdoors if protected from water e.g. under cover.
- Not suitable for Halogen Heaters.
- Important: Ensure that the voltage marked on the rating label matches the power supply to be used.
- The unit should be protected by a suitably rated isolator and an MCB.

1.2 GENERAL SAFETY INSTRUCTIONS

- ✓ Remove all packaging and store it away from children, check the package and controller for visible damage or tampering.
- ✓ Familiarise yourself with the applications and limitations of the controller.
- ✓ Isolate from mains before removing the cover.

2. INTRODUCTION & SPECIFICATION.

The RB26 electronic waterproof relay is used instead of traditional contactors when controlling or switching heaters. Relays by their nature are quieter than contactors so are used where noise of a contactor may be an issue. Up to six relay boxes may be connected together in a daisy chain format.

This controller must NOT be used as a safe way of isolating heaters from the mains supply and additional isolation must be used.

Model:-	RB26	Dimensions (W x H x D):-	124 x 124 x 78mm Deep
Max Power:-	6000W	IP Rating:-	IP21
Input supply:-	230V AC 50Hz 26A	Weight:-	350g

3. MOUNTING / ELECTRICAL CONNECTIONS.

- 1. Remove front cover by undoing four corner screws.
- 2. Use the 4 holes in the corners to attach the controller to a suitable surface as these will maintain the IP65 rating.
- 3. Drill box to accept cable glands. We supply 2 x M20 cable glands with each controller these require a 20mm hole to be drilled for them. If installed outside it is not recommended that holes are drilled in the top of the enclosure and it must be situated under cover away from rain.



4. CONNECTING TO A B16C OR RT16 THERMOSTAT.

The thermostat can be powered from the relay box. Thermostat is then protected by the relays internal 1A fuse. See drawing below.

Below is shown the B16C or RD16 Thermostat but most thermostats can be used in a similar





Using 0.75mm² 4 core cable.

- 1. Connect terminal 4 (L) of the thermostat to Terminal 4 of the relay box.
- 2. Connect terminal 3 (N) of the thermostat to Terminal 3 of the relay box.
- 3. Add a link wire between terminal 2 and 3 of the relay box.
- 4. Connect terminal 1 (Switched L) of the thermostat to Terminal 1 of the relay box.
- 5. Ensure you suitably earth the thermostat and relay boxes.

5. CONNECTING TO A PROSTAT2 THERMOSTAT.

Using 0.75mm² 3 core cable. 1. Connect terminal 2 of the thermostat to Terminal 4 (L)

of the Relay box.

2. Connect terminal 3 of the thermostat to Terminal 1 of the relay box.

3. Add a link wire between terminal 2 and 3 of the relay box.

4. Ensure you suitably earth the thermostat and relay boxes.



6. CONNECTING TO AN B16C OR RT16 THERMOSTAT FED FROM A SEPARATE SOURCE.

The relay box may be connected to an existing thermostat or timer that is already fed from a different source. Follow the drawings below to connect.



Using 0.75mm² 3 core cable.

- 1. Connect terminal 2 (N) of the thermostat / timer to Terminal 2 (N) of the Relay box.
- 2. Connect terminal 1 (Switched L) of the thermostat / timer to Terminal 1 (L) of the relay box.
- 3. Ensure you suitably earth the thermostat / timer and relay boxes.

7. ADDING ADDITIONAL RELAY BOXES

Up to 5 additional relay boxes may be connected together.

Connect as per diagram below





Using 0.75mm² 3 core cable.

- 1. Connect terminal SL (L) of the first relay box to Terminal 1 (L) of the second relay box.
- 2. Connect terminal SN (N) of the first relay box to Terminal 2 (N) of the second relay box.
- 3. Ensure you suitably earth the relay boxes.
- 4. Repeat the above steps if connecting additional relay boxes up to a maximum of 6 in total.

8. CONNECTING MAINS POWER AND HEATERS.

Mains power connections are made to the green terminal blocks labelled "Terminals A".

- 1. Supply and output are 230V 50Hz and output is rated 6 kW maximum
- 2. Connect power wiring as shown in diagram to the right.
- 3. Ensure Mains Supply cable is capable of carrying total load.
- Do NOT use power tools to tighten up the terminal screws but ensure the screws are correctly tightened before replacing the lid.



Please Note:- You can switch one load of 6kW or a load of 2kW + a load of 4kW or any permutation up to a total load of 6kW (26A).

Note:- Total Load MUST NOT exceed 26A

9. FUSE.

Before removing the cover to the relay box make sure you have isolated all sources of power.

Please Note: There may be more than one power source entering the enclosure.

The relay box control circuit is protected by a 1A fuse this is positioned underneath the clear plastic cover. Fuse size is 5mm x 20mm long.



WEEE REGULATIONS:

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.

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.

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

WARRANTY: Your BN Thermic product is guaranteed for one year from date of purchase. We will repair or replace at our discretion any part found to be defective. 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.

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