

HN Series Shortwave Infrared Halogen Heaters



HN-1500G 1.5kW Shortwave Heater



HN-3000G 3kW Shortwave Heater



HN-4500G 4.5kW Shortwave Heater

- Providing instant comfort heat in a variety of commercial and industrial buildings.
- Especially suited to irregularly used buildings where conventional space heating is impractical.
- Ideally suited to spot heating a defined area within an otherwise unheated space
- Low running costs by selecting from a range of control options

Typical Applications

- Community halls
- Churches
- Workshops
- Packing areas
- Squash courts

Features Common to all Models

- Aluminium construction with closely spaced safety grille
- High quality halogen lamp with 7000 hours average operating life
- Halogen lamp is easily replaceable
- High quality ivory paint finish
- Wall mounting bracket providing 'up and down' and 'side to side' angle adjustment
- Optional suspension kit
- Gold lamp with soft pink glow

Controlling HN Heaters

As HN shortwave infrared halogen heaters are 100% effective the instant they are switched on, we recommend a control system that will de-energise a heater when heating is not required. This can be achieved by means of a Push Button Timer or a Movement Detector.

Push Button Timer – TS-3 pre-programmed time delay

The BN Thermic TS-3 is a compact, surface mount, weatherproof device conforming to IP66. A simple push button will energise a heater or heaters for a pre-programmed period between 2 minutes and 2 hours. Once this period has elapsed the heating will be automatically switched off until the button is pushed again. The device is vandal resistant and tamperproof meaning only authorised personnel can adjust the time settings. For full details of the TS-3 see page 68

The TS-3 has a switching capacity of 16A. It can therefore directly switch a combined load of up to 3kW. Larger loads or 3-phase loads can be switched via a suitably rated contactor (see page 64).



TS-3 Energy - saving timer with tamperproof adjustment of time delay



TS-4 Energy - saving timer allowing easy adjustment of time delay

Push Button Timer – TS-4 user selectable time delay

The BN Thermic TS-4 is designed for installation into a standard single-gang back box. A simple push button provides 15 minute/ 30 minute / 1 hour / 2 hour settings. Once the selected period has elapsed the heating will be automatically switched off until the button is pushed again. The time setting can be changed at any point during the cycle and the timer also provides a means of switching the heating off. For full details of the TS-4 see page 68.

The TS-4 has a switching capacity of 13A. It can therefore directly switch a combined load of up to 3kW. Larger loads or 3-phase loads can be switched via a suitably rated contactor (see page 64).

Movement Sensor

The BN Thermic WH-402 is a compact, surface mount, weatherproof device conforming to IP55. The WH-402 will detect movement in an area up to 12m from its mounting position in a 180° arc. Both distance and angle of detection can be reduced if required. Once movement has been detected, the heating will be switched on. If no further movement is detected within a pre-programmed time period (5 seconds to 18 minutes) the heating will be automatically switched off. For full details of the WH-402 see page 69.

The WH-402 has a switching capacity of 16A. It can therefore directly switch a combined load of up to 3kW. Larger loads or 3-phase loads can be switched via a suitably rated contactor (see page 64).



WH-402
Energy saving device ensuring that heating is switched off when an area is unoccupied

Dimmer

In specific applications there may be a need to adjust the intensity of the heat output from a Shortwave Infrared Halogen Heater. The BN Thermic VR-1 provides adjustment between 0% and 100% of heater output. It also has a definite 'click' to off allowing it to be used as an on/off switch. For full details of the VR-1 see page 69.

The VR-1 has a switching capacity of 13A. It can therefore directly switch a combined load of up to 3kW. For larger loads more than one VR-1 dimmer will be required.



VR-1
Dimmer switch for fine adjustment of heater output

Heat Requirements

Use **Table 1** to determine the total kW output required. The W/m² applicable to the type of activity and the nature of the building should be multiplied by the total area in m². The 'spot heating' figure should be used when heating a section of an otherwise unheated building.

The output, position and mounting height of the heaters can be determined using **Table 2**. We suggest that the areas covered by individual heaters are allowed to overlap by 10% to 15% to ensure even coverage.

Table 1

	W/m ² required		
	Heavy Work	Light Work	Spot Heating
Highly Insulated	150	200	250
Insulated	175	225	250
Un-Insulated	200	250	275
Light Cladding	250	300	300
Badly insulated/damp	300	300	300

Spot Heating

As an additional guide to spot heating, we would also recommend heating from two directions, to cover the area from opposite sides. This will ensure an overall feeling of comfort and warmth. A heat loading of 250 -300 W/m² can be considered as a guide for this type of area.

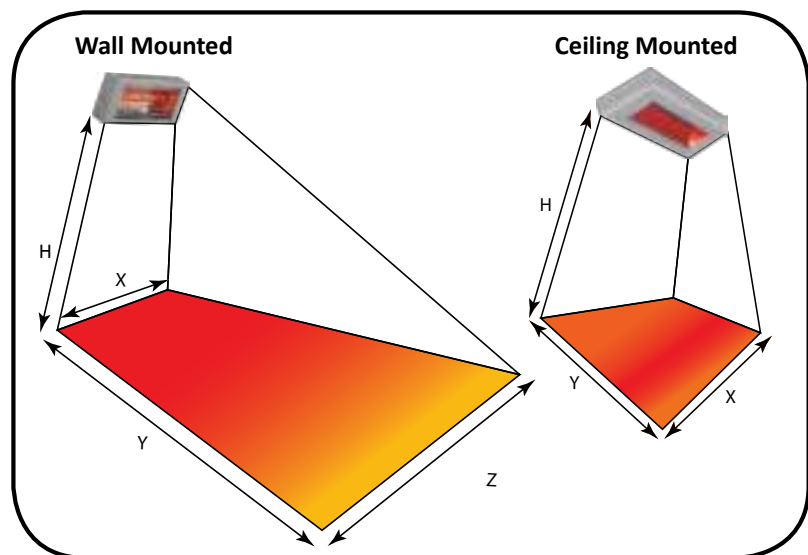


Table 2

	Wall Mounted				Area Covered (m ²)	Overhead Mounted (m)			Area Covered (m ²)
	H	X	Y	Z		H	X	Y	
HN-1500G or HN-2000G	2.5	3.2	2.6	6.0	11.9	3.0	3.0	2.0	6.0
	3.0	3.4	3.6	6.7	18.2	3.5	3.3	2.3	7.6
HN-3000G	3.0	3.7	3.6	7.0	19.2	3.5	3.3	2.6	8.6
	3.5	4.0	4.2	7.9	25.0	4.0	5.0	3.1	15.5
HN-4500G or HN-6000G	3.5	4.0	4.2	8.1	25.4	4.0	5.0	3.4	17.0
	4.0	4.3	4.5	8.4	28.6	5.0	5.3	3.7	19.6

Heater Selection

HN Series Shortwave Infrared Halogen Heaters - Specifications and Prices

Model	Volts	kW	Dimensions (mm)			Weight (kg)	List Price
			H	W	D		
HN-1500G	230	1.5	275	430	140	3.8	£152.00
HN-2000G	230	2.0	275	430	140	3.8	£162.00
HN-3000G	230	3.0	430	430	140	5.5	£231.00
HN-4500G	230/400	4.5	590	430	140	6.5	£401.00
HN-6000G	230/400	6.0	590	430	140	6.5	£447.00
RL15GF	230	1.5	Replacement Gold Lamp for 1.5, 3 & 4.5 kW heaters				£49.00
RL20GF	230	2.0	Replacement Gold Lamp for 2 & 6 kW heaters				£46.00
HSK	Suspension Kit (chain not supplied)						£5.00

Optional Remote Mounted Control Devices

Model	Description	Full Details on Page	List Price
WH-402	Movement sensor (16A)	69	£83.00
TS-3	Push button timer (16A)	68	£76.00
TS-4	Push button timer - user selectable time delay (13A)	68	£39.00
VR-1	Dimmer (13A)	69	£126.00



HN-3000G shortwave heaters providing instant economical heating in St Stephen's Church Barnet



HN-Shortwave Infrared Halogen Heater with long life gold lamps