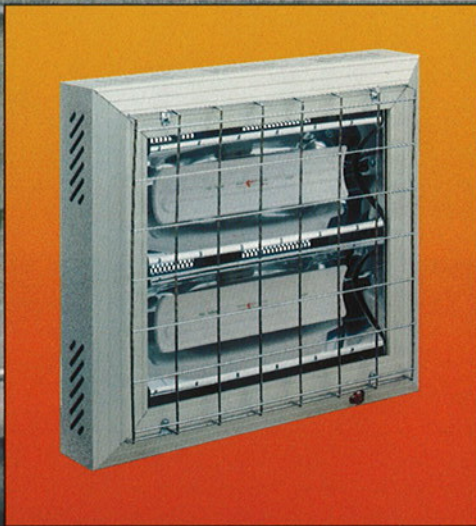
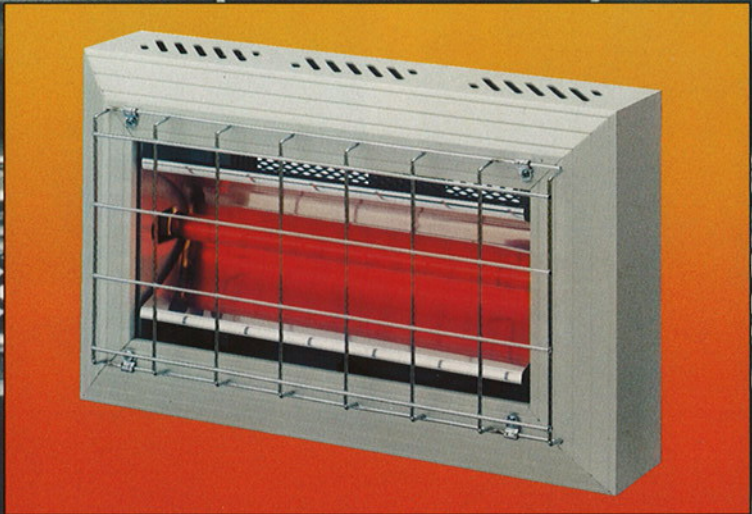


Electric Radiant Heaters



Electric Radiant Heaters

INTRODUCTION

Ambi-Rad Limited manufactures a complete range of high efficiency, environmentally friendly energy saving space heating systems to recognised and approved standards across the world. Established in 1979 in the West Midlands, Ambi-Rad is now one of Europe's largest

manufacturers of radiant heating systems, exporting to thirty-five countries worldwide.

Ambi-Rad offers the widest range of gas fired radiant tube systems, ceramic plaque heaters, the Nor-Ray-Vac 'LR' continuous radiant heating

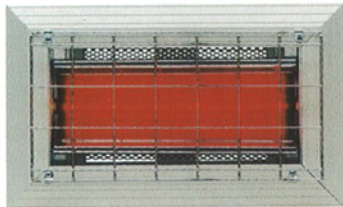
system, a range of gas fired balanced flue heaters, and now two newly developed ranges of electric radiant heaters – Quartz Halogen and Ceramic Plaque.

QUARTZ GLOW RANGE

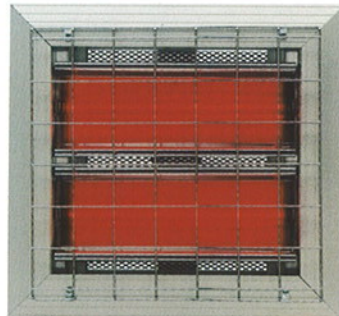
- Highly polished parabolic reflectors made from high quality anodised aluminium.
- Tungsten-halogen bulbs provide short wave infra-red heat energy at 1.2 microns which can be directed to the target area like a spotlight.

- Halogen bulbs create a warm glowing environment.
- 86% radiant efficient.
- Five lamp configurations allow a choice of radiant energy distribution patterns.

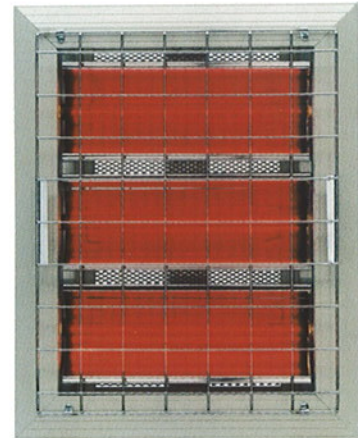
- Power options extend from 1 to 4.5 kW.
- Safety guards fitted as standard.
- Wall brackets included as standard.



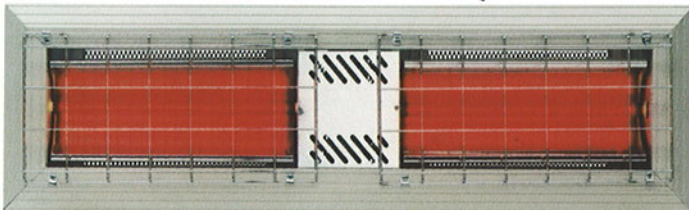
QH15



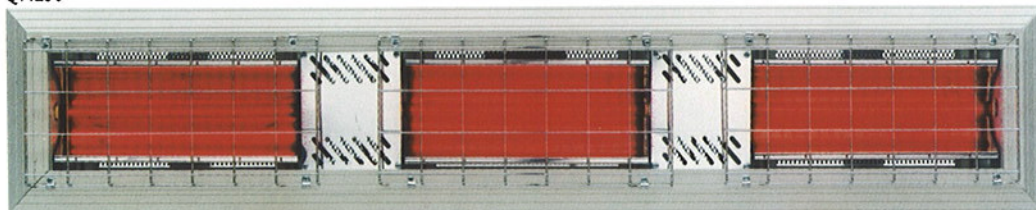
QH30



QH45



QHL30



QHL45

| HEATER SPECIFICATION | | | | | | | | |
|----------------------|-----------------|-------------------|---------|------------|-------------------------|----------|---------|-----------|
| Heater Model | Electric Rating | Electrical Supply | | MCB Rating | Heater Dimensions (min) | | | Weight kg |
| | | Amp. | Voltage | | Length L | Height H | Depth D | |
| QH15 | 1.5 kW | 6.25 | 240 | 15 | 420 | 225 | 115 | 2.25 |
| QH30 | 3.0 kW | 12.5 | 240 | 20 | 420 | 390 | 115 | 3.5 |
| QH45 | 4.5 kW | 18.75 | 240 | 30 | 420 | 525 | 115 | 4.0 |
| QHL30 | 3.0 kW | 12.5 | 240 | 20 | 855 | 225 | 115 | 4.5 |
| QHL45 | 4.5 kW | 18.75 | 240 | 30 | 1280 | 225 | 115 | 5.5 |

| MOUNTING GUIDE | | |
|----------------|---|--|
| Heater Model | Recommended min. mounting height metres (m) | Recommended min. distance from ceiling (m) |
| QH15 | 2.1 | 0.3 |
| QH30 | 3.0 | 0.5 |
| QH45 | 3.5 | 0.5 |
| QHL30 | 3.0 | 0.5 |
| QHL45 | 3.5 | 0.5 |

CONCEPT

The principle of electric radiant heating is like that of the sun. Infra-red energy is directed downwards concentrating heat where it is most needed. Radiant heat warms people and fixtures, not the air through which it passes, thereby turning these objects into secondary heat emitters resulting in improved comfort levels.

Ambi-Rad electric radiant heaters which are silent in operation and emit no atmospheric pollution are ideally suited for intermittently heated buildings and large volume low occupation buildings where doors are constantly in use.

aluminium and are supplied with a durable light ivory powder coated finish. (Colour to RAL 1015.) Special colours are available upon request to RAL specification.

Both the Quartz Glow and Electric Ceramic Plaque heaters are constructed from extruded

Applications are numerous and include: churches, village halls, squash courts, schools, workshops and garages.

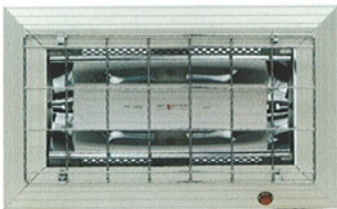
CERAMIC PLAQUE RANGE

- Long life ceramic emitters.
- 96.6% of electrical energy consumed into longwave infra-red head, eliminating light emission. 86% radiant efficiency.
- No visible light output.
- Longwave infra-red energy does not deplete oxygen levels and therefore alleviates feelings of drowsiness.
- Range includes stacked or linear configurations to improve flexibility and aesthetics.
- Power options extend from 1 to 3 kW.
- Manufactured to BS 3456, contains no glass components. Ideal for food industry applications.
- No restriction on minimum mounting heights. Heaters can be mounted in any position,

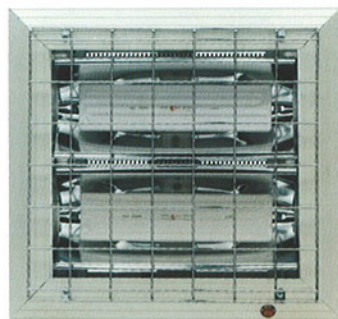
however a minimum air gap of 200mm is required when fixing to walls.

■ Safety – All electric plaque heaters are fitted with a hinged guard for easy cleaning and maintenance. A heat resistant neon light gives visual indication when on.

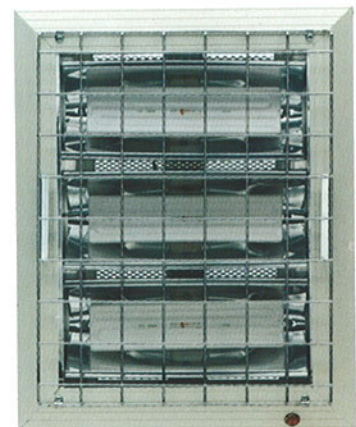
■ Wall brackets included as standard.



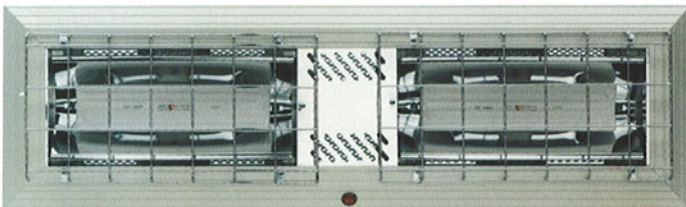
PH10



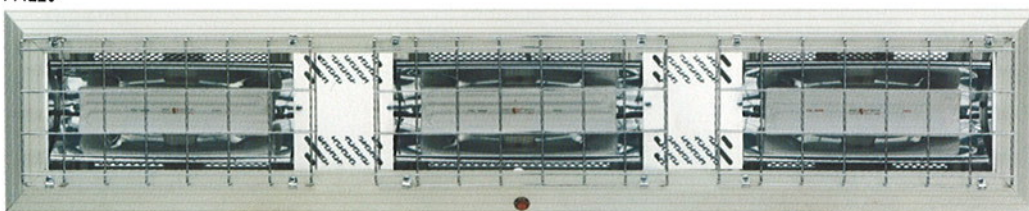
PH20



PH30



PHL20



PHL30

HEATER SPECIFICATION

| Heater Model | Electric Rating | Electrical Supply | | MCB Rating | Heater Dimensions (min) | | | Weight kg |
|--------------|-----------------|-------------------|---------|------------|-------------------------|----------|---------|-----------|
| | | Amp. | Voltage | | Length L | Height H | Depth D | |
| PH10 | 1 kW | 4.1 | 220/240 | 10 | 420 | 225 | 115 | 2.25 |
| PH20 | 2 kW | 8.2 | 220/240 | 15 | 420 | 390 | 115 | 3.5 |
| PH30 | 3 kW | 12.5 | 220/240 | 20 | 420 | 525 | 115 | 4.0 |
| PHL20 | 2 kW | 8.2 | 220/240 | 15 | 855 | 225 | 115 | 4.5 |
| PHL30 | 3 kW | 12.5 | 220/240 | 20 | 1280 | 225 | 115 | 11.0 |

DESIGN CRITERIA

The following notes have been based upon an internal comfort temperature of 16°C with an outside temperature of -1°C assuming a building air change rate of 1 when using lower heat intensity figures. High air velocities and air change rates will influence the heat intensity required.

Where possible the heat source should be directed from 2 opposing directions. The heat intensity figures are based upon daily use of building. Intermittent and weekly use of building will require an increased heat load as will draughty doorways, loading bays etc.

Length x Width of building = Total area
 Total area x Heat intensity = Total heat load
 Total heat load ÷ 1,000 = kW loading
 Check available mounting height to determine model heater.
 kW loading ÷ Output of chosen heater = Number of heaters required

| Average U Value (w/m ² /°C) | Construction of Building/Occupancy | Heat Intensity |
|--|--|--------------------------|
| 0.6 | Well insulated building/heavy manual work | 140-170 w/m ² |
| 2.0 | Average insulated building/heavy-medium work | 165-190 w/m ² |
| 3.5 | Poorly insulated building/medium-light work | 185-245 w/m ² |
| 6.0 | Uninsulated building/sedentary work | 240-350 w/m ² |
| | Spot Heating | 400+ |

CUSTOMER SERVICE & DESIGN

Electric Radiant Heaters are offered mainly on a supply only basis to contractors, professional bodies and premises managers. The Company provides a comprehensive customer service package which includes Computer Aided Design, building heat loss calculations, on-site support, including training and system commissioning. Ambi-Rad also offer a fast response after-sales/maintenance back up through experienced field service engineers.

QUALITY PROCESSES

Ambi-Rad is an ISO 9002 accredited Company. This certification has been independently achieved by the Company's CORGI registered Service Department, all members of which are trained to CITB standards and have gained ACOPS registration.

In accordance with the Company's on-going developing of Total Quality Management processes, a full Quality Plan and a Certificate of Conformity are available upon request for a nominal charge.

Due to continuous product innovation, AMBI-RAD reserve the right to change product specification without due notice.

AMBI-RAD®

Energy Efficient Heating System



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