

Fan Convactor Brochure  
& Technical Guide



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## More technology. More choice.

Compact in size and suitable for use with traditional boilers and heat pumps, fan convectors give high outputs where space is limited. Accurate, responsive and controllable heat is ensured through integral thermostats on wall mounted products and a selection of fan speeds on plinth heater models.

**MYSON'S** range of fan convectors has also been designed with ease of installation in mind. They can be installed as easily as a normal radiator with the simple addition of an electrical connection. One person alone can do the work quickly. There is no need to seek assistance!

Our fan convectors provide original and practical solutions to modern heating requirements by offering features and advantages that are not always available from traditional emitters.



heating through innovation.

## Energy efficient comfort.

Vast quantities of energy are used in buildings across the UK. Over 25% of national CO<sub>2</sub> emissions result from the power used to light, heat and operate our buildings. It is clear, therefore, that the heating industry has a large role to play in helping achieve energy conservation.

Designing and installing energy efficient heating solutions are essential parts of reducing energy consumption in buildings and, ultimately, achieving national targets for reducing CO<sub>2</sub> emissions. As an innovative and responsible company, **MYSON** fully supports this commitment to reducing CO<sub>2</sub> by providing efficient products that are capable of operating effectively at lower flow temperatures.



# Four steps to energy efficiency.

**MYSON** recommends a 'four step' approach to designing an energy efficient heating solution.



## Insulation Check

Around 50% of the heat lost in a typical building is through the walls and loft. An essential starting point is always to ensure that sensible insulation decisions have been taken. Is loft and cavity wall insulation in place? Are doors and windows double glazed?



## Heat Loss Calculation

The likely heat loss in a room, based on the size of walls and windows plus number of doors etc., should be calculated for every room in a building. The amount of heat loss will vary and, therefore, the same size of heat emitter will not be ideal for every room!



## Heat Source Choice

The list of potential heat sources is growing rapidly and includes the following options:



Heat pump



Biomass/wood



Local/district  
heating



Oil



Gas

Individual choices need to be made, based on personal values and the costs and benefits associated with each available heat source.



## Heat Emitter Selection

Only **MYSON** offer a complete selection of heat emitters and controls. Whatever your choice of heat source, **MYSON** can supply a wide choice of radiators, towel warmers, underfloor heating, fan convectors and electric heaters that will work efficiently and reliably with your system.

# General specifications.

**Approval and certification:** All **MYSON** fan convectors are manufactured to the requirements of BS EN ISO 9001 and the factory is certified to the environmental standard BS EN ISO 14001. All products are tested to comply with European safety standards and are CE marked as well as carrying national approval marks, where appropriate.

**MYSON** fan convectors carry a 2 year parts and labour warranty.

**Effective heating:** To achieve the best possible results, the correct output requirement needs to be calculated. For optimal positioning and size of heat emitter please consult a qualified plumber or heating installer for advice. A heatloss manager CD can be ordered free of charge from Customer Services.

**Performance:** All **MYSON** fan convector heat outputs are tested to BS 4856 Part 1 for heating and Part 2 for cooling performance. Noise levels are independently tested by Sound Research Laboratories to EN 23741.

**Paint finish:** Wall mounted fan convectors are finished with a White (RAL 9016) powder coating, while the **KICKSPACE**<sup>®</sup> grilles are available in White (supplied with the unit) or Brown, Black, Brushed Stainless Steel, Chrome and Aluminium which can be purchased separately.

**Packaging:** All fan convectors are packed in robust cardboard packaging specially designed to ensure the product reaches you in perfect condition.

**Accessories:** At **MYSON** we take care of every detail and there is a variety of accessories available for the fan convector range of products, including wall switches and **KICKSPACE**<sup>®</sup> fascia grilles. For further details, please consult the technical section of this brochure.



heatingthrough

# System design for fan convectors.

Fan convectors are intended to be connected to central heating systems in the same way as radiators, and offer advantages and benefits not available from traditional emitters. To ensure optimum fan convector performance, great care must be taken to ensure that the choice of unit and the heating system design are considered. The following factors must be taken into consideration:

- Fan convectors should only be used on closed circulation, two pipe, pump assisted central heating systems.
- Fan convectors should be correctly sized to match the heat loss requirement of the room with the unit operating at its lowest fan speed.
- The heating system must be capable of providing sufficient hot water through the heat exchanger. This means that:
  - The minimum pipe size should be 15mm.
  - Fan convectors are not suitable for use on microbore pipe-work.
  - Fan convectors are not suitable for one-pipe systems.
- Where the unit is fitted onto a system with other emitters, a separate circuit for the fan convector should be considered to ensure an adequate water flow through it.
- The heating system water temperature must be greater than  $\geq 32^{\circ}\text{C}$  for heating mode and  $\leq 15^{\circ}\text{C}$  for cooling mode. All wall mounted fan convectors can operate at lower temperatures suitable for heat pump applications.
- Optimum performance of the fan convector will require effective balancing of the whole system.
- Fan convectors should not be used to replace radiators in existing systems unless pipe-work sizing, system design and system balancing can guarantee an adequate flow of water through the fan convector.
- The maximum working pressure through the heat exchanger is 10 bar (150 lb/in<sup>2</sup>). The maximum allowable water temperature through the heat exchanger is 90°C, except **iVECTOR**, which is 85°C.
- Wall mounted units should be mounted on a flat wall, and stud or partition walls should be avoided to minimise the possibility of noise transmission.



innovation.



## The space saving solution.

Clever by design, the **KICKSPACE®** unit fits neatly within a unit plinth or floor cavity providing a fresh thinking, innovative heating solution. Where traditional radiators take up precious wall space and restrict design possibilities, the **KICKSPACE®** heater allows freedom to tailor your home around your lifestyle. Central heating, electric and duo models available. **All units are now supplied complete with a white grille.**



Before - great heat, less kitchen.



After - great heat, more kitchen.

### Model details

| Central Heating | Electric | Duo<br>(Central Heating /Electric) |
|-----------------|----------|------------------------------------|
| 500             | 500E     | 500 Duo                            |
| 600             | 600E     |                                    |
| 800             |          |                                    |
| Floor           |          |                                    |
| 600-12V         |          |                                    |

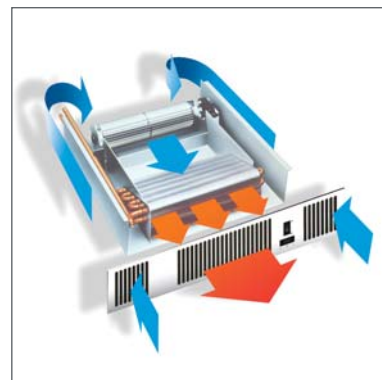
The **KICKSPACE®** works very effectively with low water temperature systems, such as heat pumps. It can also be used alongside the **MYSON INNOKO** towel rail to provide the perfect drying and heating solution for any kitchen. For information on the **MYSON** range of towel warmers please contact Customer Services.





## Effective climate control.

**KICKSPACE®** works by drawing room air over the heated fins of the unit heat exchanger and projecting warm air back into the room. Controls are situated on the front grille, with the unit having a choice of heating fan speeds (winter setting) as well as a fan-only (summer setting) operation. Alternatively, a remote control wall switch can be fitted to central heating and duo models for extra control and convenience.





## KICKSPACE® Applications.

The kitchen is often where space is most at a premium and the **KICKSPACE®** can deliver the most benefits but equally, the bathroom or hallway can offer alternative applications. All versions, except the floor model, are designed to be installed horizontally into recessed locations. They require an adequate supply of inlet air and the axis of the motor must remain horizontal.



KICKSPACE® Floor model.

## Accessories.

The unit grille and remote wall switch can be customised to suit any room décor with a variety of metallic and colour finish options. The remote room thermostat is supplied white as standard and is suitable for the 500, 600 & 800 hydronic models.



Grilles.



Remote wall switch.



Remote room thermostat.

## KICKSPACE® Product Range

### Hydronic Product Range

| Model            | Flexible Hoses* | Isolating Valves (15mm) | Electric Cable          | Transformer | Fan Only Option |
|------------------|-----------------|-------------------------|-------------------------|-------------|-----------------|
| KICKSPACE® 500   | Supplied        | Supplied                | 2 metres (mains fitted) | N/A         | Yes             |
| KICKSPACE® 600   | Supplied        | Supplied                | 2 metres (mains fitted) | N/A         | Yes             |
| KICKSPACE® 800   | Supplied        | Supplied                | 2 metres (mains fitted) | N/A         | Yes             |
| KICKSPACE® Floor | Supplied        | Supplied                | 2 metres (mains fitted) | N/A         | Yes             |

### Low Voltage Hydronic Product Range

| Model              | Flexible Hoses* | Isolating Valves (15mm) | Electric Cable   | Transformer                      | Fan Only Option |
|--------------------|-----------------|-------------------------|--|----------------------------------|-----------------|
| KICKSPACE® 600-12V | Supplied        | Supplied                | 1 metre (low voltage fitted)<br>1 metre (mains fitted) | Supplied (external from product) | Yes             |

### Duo (Hydronic-Electric) Product Range

| Model              | Flexible Hoses* | Isolating Valves (15mm) | Electric Cable          | Transformer | Fan Only Option |
|--------------------|-----------------|-------------------------|-------------------------|-------------|-----------------|
| KICKSPACE® 500 Duo | Supplied        | Supplied                | 2 metres (mains fitted) | N/A         | Yes             |

### Electric Product Range

| Model           | Flexible Hoses* | Isolating Valves (15mm) | Electric Cable           | Transformer | Fan Only Option |
|-----------------|-----------------|-------------------------|--------------------------|-------------|-----------------|
| KICKSPACE® 500E | N/A             | N/A                     | 2 metres (mains fitted)  | N/A         | Yes             |
| KICKSPACE® 600E | N/A             | N/A                     | 2½ metres (mains fitted) | N/A         | Yes             |

\*750mm x 10mm bore, EPDM hoses, sheathed in AISI 304 stainless steel braid.

Please note that KICKSPACE® 600E grilles are an integral part of the product and can not be changed.

## KICKSPACE® Controls

### Hydronic (KICKSPACE® 500, 600, 800, 600-12V)

**Fan Speed** - Normal/off/boost.

**Summer/Winter** - Fan only/heating option.

### Hydronic Electric (KICKSPACE® 500 Duo)

**Summer/Off/Winter** - Fan only/off/heating options.

**System Selector** - Central heating/electric heating.

**Fan Speed** - Normal/boost.

### Electric (KICKSPACE® 500E)

**Summer/Off/Winter** - Fan only/off/heating option.

**Power Selector** - 1kW or 2kW.

**Fan Speed** - Normal/boost.

### Electric (KICKSPACE® 600E)

**Summer/Winter/Output.**

**KICKSPACE® Performance Data**

**Hydronic Models**

It is preferable to select the model with an output capable of maintaining the calculated heat losses of the room when operating at normal speed. This will enable the boost fan speed and the higher temperature differences to be used to greater advantage for rapid warming of the room from cold in excessive conditions.

When establishing the temperature difference, i.e. mean water to room temperature, allowance should be made for temperature drop in the system. It is the water temperature at the convector which dictates the output.

**Hydronic Heating Performance Data**

| Model | Fan Speed | Temperature Difference (°C) |      |      |      |      |                     |      |      |      |      |
|-------|-----------|-----------------------------|------|------|------|------|---------------------|------|------|------|------|
|       |           | Heat Output (watts)         |      |      |      |      | Heat Output (Btu/h) |      |      |      |      |
|       |           | 20°                         | 30°  | 40°  | 50°  | 60°  | 20°                 | 30°  | 40°  | 50°  | 60°  |
| 500   | Normal    | 393                         | 566  | 733  | 896  | 1056 | 1340                | 1930 | 2501 | 3057 | 3603 |
|       | Boost     | 447                         | 683  | 923  | 1166 | 1412 | 1524                | 2331 | 3150 | 3980 | 4817 |
| 600   | Normal    | 467                         | 729  | 1000 | 1278 | 1562 | 1592                | 2486 | 3412 | 4361 | 5330 |
|       | Boost     | 607                         | 939  | 1279 | 1625 | 1977 | 2072                | 3203 | 4363 | 5545 | 6744 |
| 800   | Normal    | 747                         | 1077 | 1396 | 1707 | 2012 | 2550                | 3675 | 4763 | 5824 | 6864 |
|       | Boost     | 845                         | 1289 | 1738 | 2192 | 2649 | 2885                | 4397 | 5930 | 7478 | 9039 |
| Floor | Normal    | 283                         | 448  | 622  | 802  | 987  | 965                 | 1530 | 2122 | 2736 | 3366 |
|       | Boost     | 483                         | 755  | 1035 | 1322 | 1615 | 1650                | 2574 | 3531 | 4510 | 5510 |

Heat outputs tested in accordance with BS 4856 Part 1.

**Low Voltage Hydronic Heating Performance Data**

| Model     | Fan Speed | Temperature Difference (°C) |     |      |      |      |                     |      |      |      |      |
|-----------|-----------|-----------------------------|-----|------|------|------|---------------------|------|------|------|------|
|           |           | Heat Output (watts)         |     |      |      |      | Heat Output (Btu/h) |      |      |      |      |
|           |           | 20°                         | 30° | 40°  | 50°  | 60°  | 20°                 | 30°  | 40°  | 50°  | 60°  |
| 600 - 12V | Normal    | 467                         | 729 | 1000 | 1278 | 1562 | 1592                | 2486 | 3412 | 4361 | 5330 |
|           | Boost     | 607                         | 939 | 1279 | 1625 | 1977 | 2072                | 3203 | 4363 | 5545 | 6744 |

Heat outputs tested in accordance with BS 4856 Part 1.

**Duo (Hydronic/Electric) Heating Performance Data - Electric Mode**

The unit will operate on either fan speed to provide 1kW of heating.

**Duo (Hydronic/Electric) Heating Performance Data - Hydronic Mode**

| Model   | Fan Speed | Temperature Difference (°C) |     |     |      |      |                     |      |      |      |      |
|---------|-----------|-----------------------------|-----|-----|------|------|---------------------|------|------|------|------|
|         |           | Heat Output (watts)         |     |     |      |      | Heat Output (Btu/h) |      |      |      |      |
|         |           | 20°                         | 30° | 40° | 50°  | 60°  | 20°                 | 30°  | 40°  | 50°  | 60°  |
| 500 Duo | Normal    | 273                         | 447 | 636 | 835  | 1043 | 930                 | 1527 | 2169 | 2849 | 3560 |
|         | Boost     | 372                         | 597 | 835 | 1083 | 1340 | 1269                | 2037 | 2849 | 3696 | 4571 |

Heat outputs tested in accordance with BS 4856 Part 1.

**Flow Rate:** 340 ltr/h (75 gal/h).

**Flow Rate Correction Factors:**

- 455 ltr/h (100 gal/h) multiply output by 1.03.
- 227 ltr/h (50 gal/h) multiply output by 0.96.
- 113 ltr/h (25 gal/h) multiply output by 0.85.

**Approximate Hydraulic Resistance**

| ltr/h | mm wg |      |     |       |         |         | kPa |      |     |       |         |         |
|-------|-------|------|-----|-------|---------|---------|-----|------|-----|-------|---------|---------|
|       | 500   | 600  | 800 | Floor | 600-12V | 500 Duo | 500 | 600  | 800 | Floor | 600-12V | 500 Duo |
| 455   | 788   | 1046 | 911 | 448   | 1046    | 652     | 7.7 | 10.3 | 8.9 | 4.4   | 10.3    | 6.4     |
| 340   | 488   | 625  | 544 | 258   | 625     | 380     | 4.8 | 6.1  | 5.3 | 2.5   | 6.1     | 3.7     |
| 227   | 231   | 326  | 258 | 136   | 326     | 204     | 2.3 | 3.2  | 2.5 | 1.3   | 3.2     | 2.0     |
| 113   | 82    | 95   | 82  | 54    | 95      | 68      | 0.8 | 0.9  | 0.8 | 0.5   | 0.9     | 0.7     |

**KICKSPACE® Performance Data (continued)**

**Air Flow**

| Model   | Air Flow (m³/h) |       | Air Flow (ft³/h) |       |
|---------|-----------------|-------|------------------|-------|
|         | Normal          | Boost | Normal           | Boost |
| 500     | 70              | 90    | 2471             | 3177  |
| 600     | 106             | 138   | 3742             | 4872  |
| 800     | 139             | 210   | 4908             | 7415  |
| Floor   | 76              | 169   | 2684             | 5968  |
| 600-12V | 106             | 138   | 3742             | 4872  |
| 500 Duo | 70              | 90    | 2471             | 3117  |

**Weight, Water Content and Motor Power**

| Model   | Motor Power (W) | Water Content (l) | Unit Weight (kg) |
|---------|-----------------|-------------------|------------------|
| 500     | 25              | 0.26              | 4.3              |
| 600     | 40              | 0.30              | 5.0              |
| 800     | 40              | 0.34              | 5.5              |
| Floor   | 28              | 0.15              | 5.5              |
| 600-12V | 40              | 0.30              | 7.9*             |
| 500 Duo | 25              | 0.26              | 4.5              |

\* Includes transformer

**Noise Levels**

| Model   | Sound Pressures at 2.5m (dBA) |       |
|---------|-------------------------------|-------|
|         | Normal                        | Boost |
| 500     | 25.7                          | 38.1  |
| 600     | 26.4                          | 37.2  |
| 800     | 28.5                          | 49.8  |
| Floor   | 27.4                          | 56.1  |
| 600-12V | 29.4                          | 39.0  |
| 500 Duo | 25.7                          | 38.1  |

Noise levels tested in accordance with EN 23741.

**Electric Models**

**Electric Heating Performance Data**

| Model | Heat Output (watts) |        |      |
|-------|---------------------|--------|------|
|       | Low                 | Medium | High |
| 500E  | 1000                | N/A    | 2000 |
| 600E  | 1000                | 2000   | 3000 |

**Weight**

| Model | Unit Weight (kg) |
|-------|------------------|
| 500E  | 3.0              |
| 600E  | 3.5              |

**Air Flow**

| Model | Air Flow (m³/h) |      | Air Flow (ft³/h) |      |
|-------|-----------------|------|------------------|------|
|       | Low             | High | Low              | High |
| 500E  | 70              | 90   | 2471             | 3177 |
| 600E  | 210             | N/A  | 7560             | N/A  |

**Noise Levels**

| Model | Sound Pressures at 2.5m (dBA) |      |
|-------|-------------------------------|------|
|       | Low                           | High |
| 500E  | 27.2                          | 40.2 |
| 600E  | 38.0                          | N/A  |

Noise levels tested in accordance with EN 23741.

**KICKSPACE® Remote Wall Switch (optional)**

**Available Finishes:** White, Chrome, Brass, Brushed Stainless.  
 All remote wall switches are supplied with 3 metres of cable. All models are equipped to facilitate direct wiring.  
 Suitable for uses with standard single gang surface or recessed mounting box (not supplied). The switch must only be used to operate a single KICKSPACE® unit.

**For use on Hydronic and Hydronic-Electric (Duo) models only. Not suitable for Electric only models.**

**N.B:** When a remote wall switch is fitted, the fan speed control switch on the KICKSPACE® fascia grille becomes inoperable and must be disconnected.

**KICKSPACE® Remote Thermostat**

The remote room thermostat is supplied white as standard and is suitable for 500, 600 & 800 **Hydronic** models.

**KICKSPACE® Grille Colour Options**

KICKSPACE® models 500, 600, 800, 600-12V, 500 Duo and 500E are supplied with a White (RAL 9003) grille. All these models are also available in Brown (RAL 8017), Black (RAL 9011), Chrome, Brushed Stainless Steel and Aluminium. The 600E fascia grille is an integral part of the product and can not be removed and is supplied with either a White or Brown grille. The floor unit model is only available with a Beige grille.

**KICKSPACE® Electrical Data**

All KICKSPACE® models require an electrical supply of 220-240V-50Hz. All models can be used in conjunction with a room thermostat, however it is essential that the thermostat used is capable of carrying the electrical load.

**N.B:** Low voltage models comply with BS 7671 section 601 (IEE Safety Extra Low Voltage wiring regulations for bathrooms). The transformer complies with BS 3535. Where a remote switch or thermostat is used, the line voltage to both is 12 volts maximum.

**Hydronic (KICKSPACE® 500, 600 & 800)**

Supplied with 2 metres of cable (0.75mm<sup>2</sup>).  
Requires a supply fused at 3A.

**Hydronic Electric (KICKSPACE® 500 Duo)**

Supplied with 2 metres of cable (0.75mm<sup>2</sup>).  
Requires a supply fused at 5A.

**Low Voltage Hydronic (KICKSPACE® 600-12V)**

Supplied with 2 metres of cable (0.75mm<sup>2</sup>).  
Requires a supply fused at 3A.

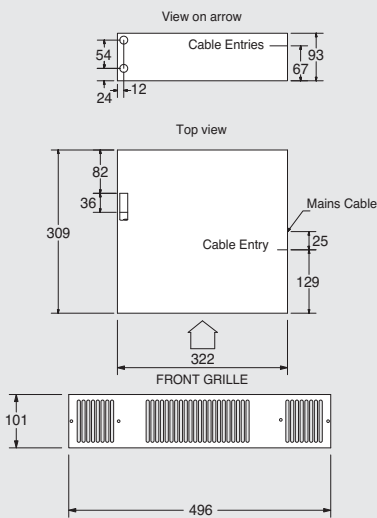
**Electric (KICKSPACE® 500E & 600E)**

500E supplied with 2 metres of cable (1.0mm<sup>2</sup>).  
Requires a supply fused at 10A.

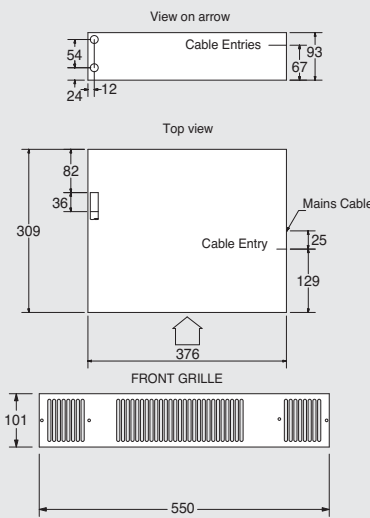
600E supplied with 2½ metres of cable (1.0mm<sup>2</sup>).  
Requires a supply fused at 13A.

**KICKSPACE® Dimensions**

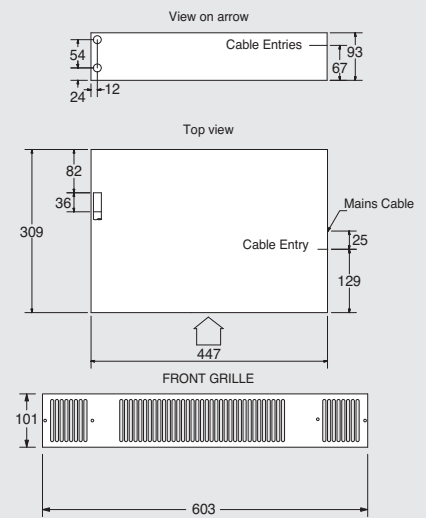
**KICKSPACE® 500**



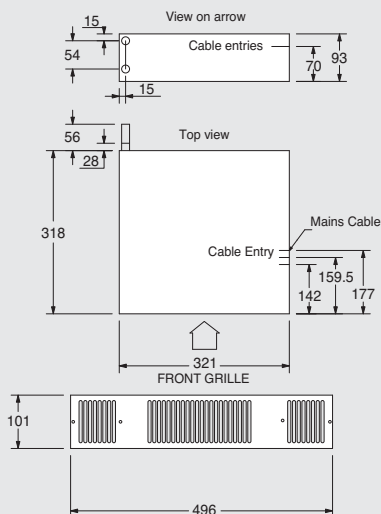
**KICKSPACE® 600**



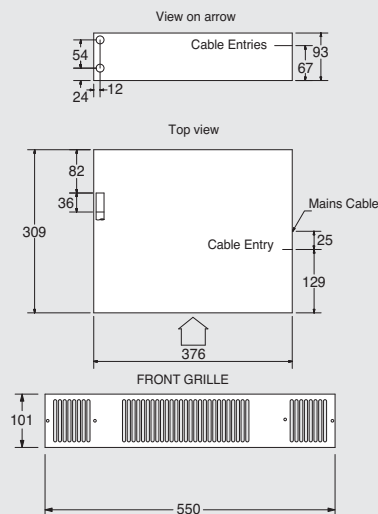
**KICKSPACE® 800**



**KICKSPACE® 500 Duo**



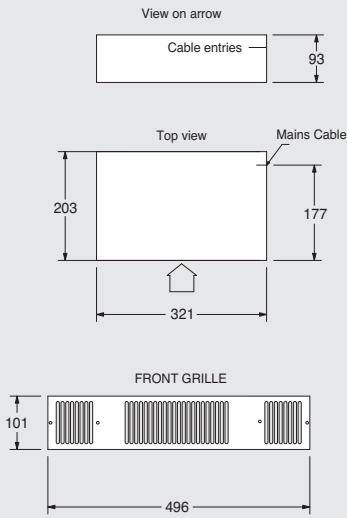
**KICKSPACE® 600-12V**



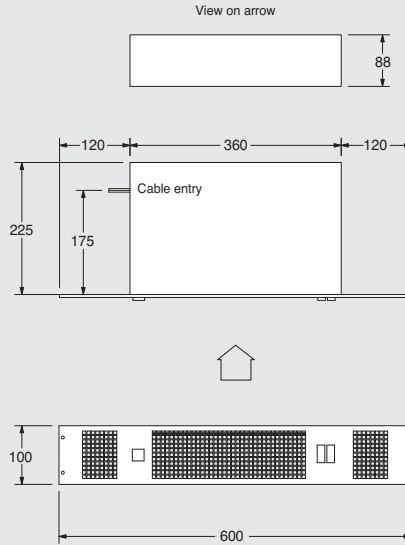
**N.B:** Add 4.5mm to the chassis height of the above models to allow for rubber mountings and screws.

**KICKSPACE® Dimensions (continued)**

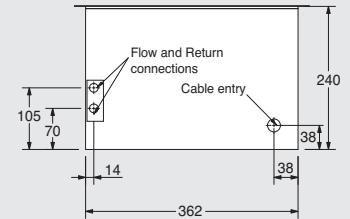
**KICKSPACE® 500E**



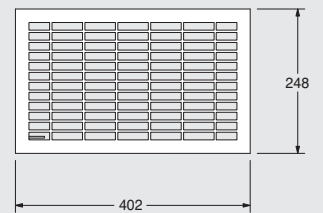
**KICKSPACE® 600E**



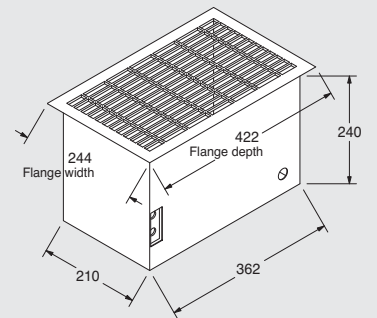
**KICKSPACE® Floor**



**Connections**



**Dimensional View**

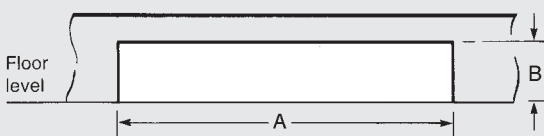


**N.B:** KICKSPACE® 500E: Add 4.5mm to the chassis height of the above models to allow for rubber mountings and screws.

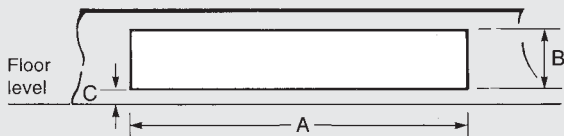
**N.B:** All connections accessible from the top of unit.

**KICKSPACE® Kickboard Dimensions**

**Option A (Excluding 500E)**



**Option B (Excluding 600E)**



**Dimensions of opening to be cut in Kickboard - KICKSPACE® 500, 600, 600-12V, 800, 500 Duo, 500E, 600E**

| Model              | Dimensions (mm) |    |     |
|--------------------|-----------------|----|-----|
|                    | A               | B  | C   |
| 500, 500 Duo, 500E | 466             | 93 | 17  |
| 600, 600-12V       | 520             | 93 | 17  |
| 800                | 573             | 93 | 17  |
| 600E               | 540             | 88 | N/A |

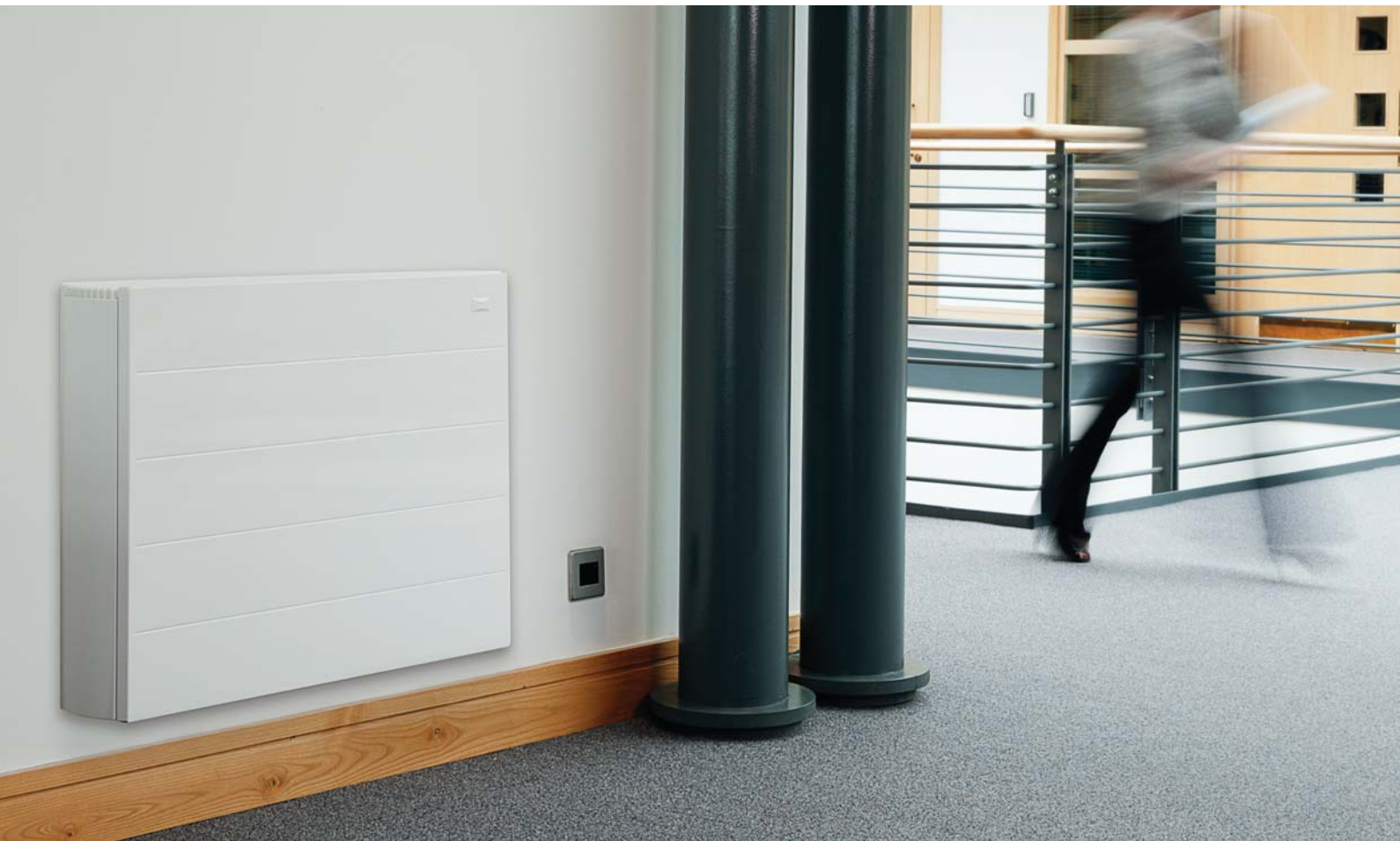
NEW!

iVECTOR.

## Fast and accurate response.

The **iVECTOR**, **MYSON's** latest product innovation, is designed specifically to emit high outputs even when operating with low water temperatures.

With the large surface area of its heat exchanger, and its low water content, the **iVECTOR** provides a fast, efficient response to any building's heating or cooling requirement.







## MYSON'S NEW silent fan convector\*

- Ideal for use with traditional boilers and renewable heat sources
- High outputs, even at lower water temperatures
- \*Operates silently at low speeds
- Rapid response time
- Integral intelligent controls
- Flexible connection options
- Range of filter options
- Compact size, due to large surface area of heat exchanger
- Low water content (between 5-10% of the amount used in a traditional radiator)
- Heating and cooling option
- Suitable for both new build and renovation





## Intelligent and easy to use controls.

The intelligent, electronic control system in every **iVECTOR** provides a wide range of easy to use heating and cooling operating options. Its two-tier level of programming incorporates an **'easy'** mode for everyday operation and a **'full'** mode for more advanced functions.

- Each **iVECTOR** is individually programmable
- 24/7 programmer with 1 hour time periods
- Lockable LCD backlit display
- Automatic and manual options for control of fan speeds
- Option to link to building management systems
- Night set-back function



## iVECTOR Performance Data

The unit must be sized to match the calculated heat loss requirement of the room with the unit operating at normal fan speed. The higher fan speeds will be used automatically when the room temperature is significantly lower than the preset temperature.

When establishing the temperature difference, i.e. mean water to room temperature, allowance should be made for temperature drop in the system. It is the temperature at the convector which dictates the output.

### Heating Performance Data

| Model    | Fan Speed | Temperature Difference (°C) |                 |                     |                 |
|----------|-----------|-----------------------------|-----------------|---------------------|-----------------|
|          |           | Heat Output (watts)         |                 | Heat Output (Btu/h) |                 |
|          |           | ΔT50 (75-65-20)             | ΔT20 (45-35-20) | ΔT50 (75-65-20)     | ΔT20 (45-35-20) |
| iV60x080 | Normal    | 1824                        | 704             | 6223                | 2402            |
|          | Medium    | 2556                        | 935             | 8721                | 3190            |
|          | Boost     | 3682                        | 1358            | 12563               | 4633            |
| iV60x100 | Normal    | 2606                        | 905             | 8892                | 3088            |
|          | Medium    | 3632                        | 1283            | 12392               | 4378            |
|          | Boost     | 5149                        | 1883            | 17568               | 6425            |
| iV60x120 | Normal    | 3224                        | 1086            | 11000               | 3705            |
|          | Medium    | 4448                        | 1804            | 15177               | 6155            |
|          | Boost     | 6521                        | 2376            | 22250               | 8107            |
| iV60x140 | Normal    | 3842                        | 1267            | 13109               | 4323            |
|          | Medium    | 5265                        | 2324            | 17964               | 7929            |
|          | Boost     | 7894                        | 2869            | 26934               | 9789            |
| iV60x160 | Normal    | 4460                        | 1448            | 15218               | 4941            |
|          | Medium    | 6082                        | 2845            | 20752               | 9707            |
|          | Boost     | 9266                        | 3363            | 31616               | 11475           |

### Cooling Performance Data

| Model    | Fan Speed | Temperature Difference (°C) |          |                             |          |
|----------|-----------|-----------------------------|----------|-----------------------------|----------|
|          |           | Cooling Performance (watts) |          | Cooling Performance (Btu/h) |          |
|          |           | Condition 7-12-27           |          |                             |          |
|          |           | Total                       | Sensible | Total                       | Sensible |
| iV60x080 | Normal    | 707                         | 527      | 2412                        | 1798     |
|          | Medium    | 1126                        | 829      | 3842                        | 2829     |
|          | Boost     | 1648                        | 1227     | 5623                        | 4187     |
| iV60x100 | Normal    | 1011                        | 753      | 3450                        | 2569     |
|          | Medium    | 1600                        | 1178     | 5459                        | 4019     |
|          | Boost     | 2304                        | 1716     | 7861                        | 5855     |
| iV60x120 | Normal    | 1250                        | 931      | 4265                        | 3177     |
|          | Medium    | 1960                        | 1442     | 6688                        | 4920     |
|          | Boost     | 2918                        | 2173     | 9956                        | 7414     |
| iV60x140 | Normal    | 1490                        | 1110     | 5084                        | 3787     |
|          | Medium    | 2320                        | 1707     | 7916                        | 5824     |
|          | Boost     | 3533                        | 2631     | 12055                       | 8977     |
| iV60x160 | Normal    | 1729                        | 1288     | 5899                        | 7395     |
|          | Medium    | 2679                        | 1972     | 9141                        | 6728     |
|          | Boost     | 4147                        | 3088     | 14150                       | 10536    |

Relative Humidity: Sensible cooling at 50%.

**iVECTOR Performance Data (continued)**

For combined heating and cooling applications, a suitable chilled water source and associated controls must be provided and installed, in accordance with the recommendations of the chiller manufacturer.

Provision must be made for condensate disposal, in accordance with any local regulations. A condensate collection tray is fitted

and a suitable drain pipe should be connected to the spigot (15mm) at the base of the condensate tray.

Thermostatic control for cooling may be achieved by connection of a thermostat into the mains supply to the unit.

All pipework must be wrapped with anti-condensate material 5-10mm thick.

**Weight, Water Content and Motor Power**

| Model    | Motor Power (w) | Water Content (l) | Unpacked Weight (kg) |
|----------|-----------------|-------------------|----------------------|
| iV60x080 | 32              | 0.66              | 22.8                 |
| iV60x100 | 35              | 0.92              | 27.7                 |
| iV60x120 | 44              | 1.19              | 32.5                 |
| iV60x140 | 53              | 1.45              | 37.5                 |
| iV60x160 | 65              | 1.72              | 42.6                 |

**Noise Levels**

| Model    | Sound Power LwA (dB) |        |       | Sound Pressure at 2.5m (dBA) |        |       |
|----------|----------------------|--------|-------|------------------------------|--------|-------|
|          | Normal               | Medium | Boost | Normal                       | Medium | Boost |
| iV60x080 | 31.9                 | 44.8   | 55    | 24.8                         | 37.7   | 47.9  |
| iV60x100 | 34.1                 | 42.9   | 55    | 27                           | 35.8   | 47.9  |
| iV60x120 | 31.1                 | 44.7   | 58.8  | 24                           | 40.5   | 51.7  |
| iV60x140 | 32                   | 42.6   | 61.9  | 24.9                         | 35.5   | 54.8  |
| iV60x160 | 34.1                 | 42.1   | 63.4  | 27                           | 35     | 56.3  |

Noise levels tested in accordance with ISO 3741.

**iVECTOR Controls**

- Automatic room temperature control.
- Fan only option for ambient air circulation.
- Three fan speeds.
- Unit mounted controls and display.
- Unit control panel tamper proof lock.

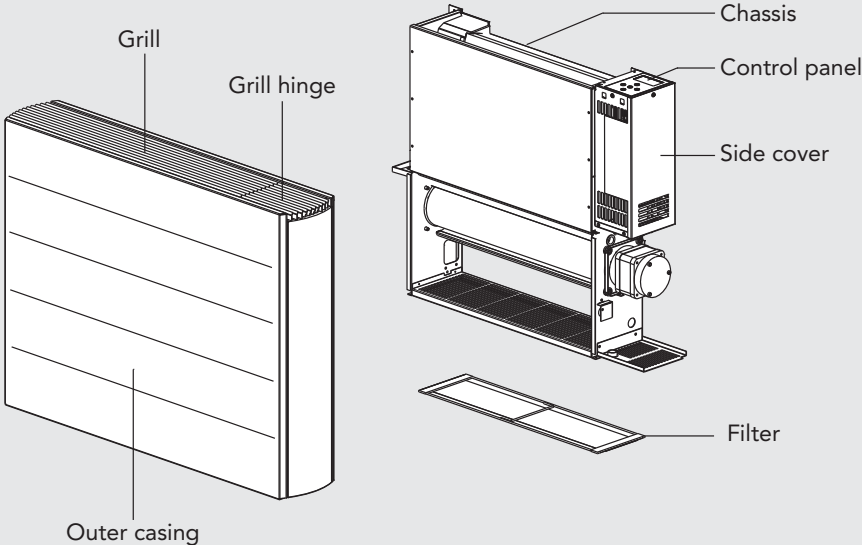
**iVECTOR Water Connections**

Water connections (3/4" BSP) are on the left-hand side and the system pipework may be brought in from underneath or the rear.

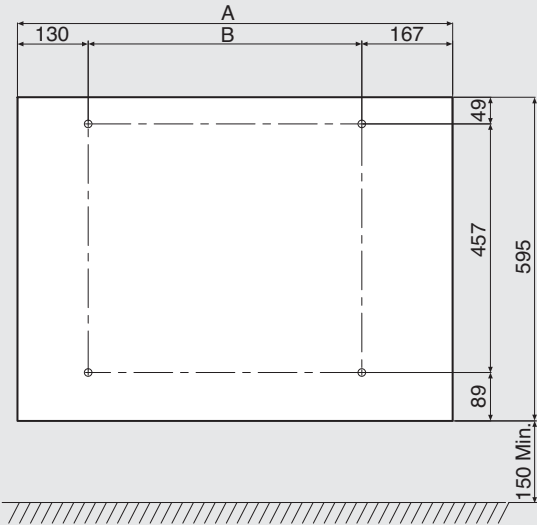
**iVECTOR Electrical Data**

All **iVECTOR** models require an electrical supply of 220-240V – 50Hz fused at 3A.

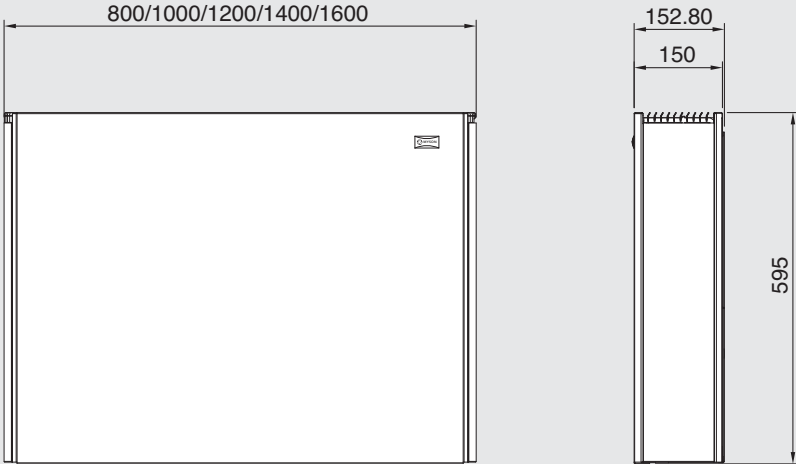
**iVECTOR Exploded View**



**iVECTOR Dimensions and Fixings**



| Model    | Dimensions (mm) |                    |
|----------|-----------------|--------------------|
|          | Casing Size (A) | Fixing Centres (B) |
| iV60x080 | 800             | 503                |
| iV60x100 | 1000            | 703                |
| iV60x120 | 1200            | 903                |
| iV60x140 | 1400            | 1103               |
| iV60x160 | 1600            | 1303               |





**HI-LINE.**

## Heat from above.

The **HI-LINE** range offers creative use of wall space whilst keeping the heat source safely out of reach. All models are designed for ease of fitting and can be positioned above doorways for effective heating. The units are easy to install, control and maintain, therefore providing a simple yet effective method of heating. All RC models have a fan only option for cool air circulation.

Also available as a heater/cooler model



## HI-LINE RC

Engineered predominantly with the domestic market in mind, the re-modelled and very discreet **HI-LINE RC** unit is the only remote control version of this kind that is currently available for hot water products. The heater/cooler model, meanwhile, requires water chilling equipment as well as connection to the central heating system, which allows year-round application. A range of models are available giving effective heating for various room sizes and are ideal for use with heat pumps.



Remote control supplied.



## HI-LINE Super RC.

For larger and often commercial applications such as bars, restaurants, retail outlets and offices, the **HI-LINE Super RC** delivers higher outputs from 5kW up to 8.5kW. Suitable for use in areas with a maximum ceiling height of 3 meters. The **HI-LINE Super RC** also comes with the benefit of remote control.



## HI-LINE LV.

The **HI-LINE LV** is a low-voltage unit designed specifically for a variety of applications where safety matters most, for example, installation in bathrooms. The innovative engineering of the 12V unit ensures that effective and efficient outputs are not compromised.



HI-LINE LV single switch function.

**HI-LINE RC Performance Data**

The unit must be sized to match the calculated heat loss requirement of the room with the unit operating at normal fan speed. The higher fan speeds will be used automatically when the room temperature is significantly lower than the preset temperature.

When establishing the temperature difference, i.e. mean water to room temperature, allowance should be made for temperature drop in the system. It is the temperature at the convector which dictates the output.

**Heating Performance Data**

| Model | Fan Speed | Temperature Difference (°C) |      |      |      |      |                     |      |       |       |       |
|-------|-----------|-----------------------------|------|------|------|------|---------------------|------|-------|-------|-------|
|       |           | Heat Output (watts)         |      |      |      |      | Heat Output (Btu/h) |      |       |       |       |
|       |           | 20°                         | 30°  | 40°  | 50°  | 60°  | 20°                 | 30°  | 40°   | 50°   | 60°   |
| 20-14 | Normal    | 1313                        | 2018 | 2737 | 3468 | 4207 | 4479                | 6884 | 9339  | 11831 | 14354 |
|       | Medium    | 1658                        | 2548 | 3457 | 4380 | 5314 | 5657                | 8695 | 11796 | 14944 | 18130 |
|       | Boost     | 1882                        | 2889 | 3917 | 4959 | 6014 | 6421                | 9858 | 13364 | 16921 | 20519 |
| 15-10 | Normal    | 931                         | 1431 | 1941 | 2459 | 2984 | 3176                | 4881 | 6622  | 8390  | 10180 |
|       | Medium    | 1054                        | 1620 | 2197 | 2783 | 3376 | 3596                | 5526 | 7496  | 9496  | 11519 |
|       | Boost     | 1397                        | 2147 | 2913 | 3690 | 4477 | 4767                | 7327 | 9939  | 12590 | 15274 |
| 10-6  | Normal    | 610                         | 937  | 1271 | 1610 | 1953 | 2081                | 3197 | 4337  | 5493  | 6664  |
|       | Medium    | 742                         | 1140 | 1546 | 1959 | 2376 | 2530                | 3889 | 5276  | 6683  | 8108  |
|       | Boost     | 954                         | 1467 | 1990 | 2521 | 3059 | 3256                | 5005 | 6790  | 8602  | 10437 |
| 7-4   | Normal    | 352                         | 541  | 734  | 930  | 1128 | 1200                | 1845 | 2504  | 3172  | 3849  |
|       | Medium    | 489                         | 752  | 1020 | 1292 | 1568 | 1669                | 2565 | 3480  | 4410  | 5350  |
|       | Boost     | 645                         | 991  | 1344 | 1702 | 2065 | 2199                | 3380 | 4585  | 5808  | 7046  |

Heat outputs tested in accordance with BS 4856 Part 1.

**Flow Rate:** 340 ltr/h (75 gal/h).

**Flow Rate Correction Factors:**

- 455 ltr/h (100 gal/h) multiply output by 1.06.
- 227 ltr/h (50 gal/h) multiply output by 0.96.
- 113 ltr/h (25 gal/h) multiply output by 0.85.

**Cooling Performance Data (Heater/Cooler Model Only)**

| Model | Fan Speed | Temperature Difference (°C) |       |      |       |      |       |                             |       |      |       |       |       |
|-------|-----------|-----------------------------|-------|------|-------|------|-------|-----------------------------|-------|------|-------|-------|-------|
|       |           | Cooling Performance (watts) |       |      |       |      |       | Cooling Performance (Btu/h) |       |      |       |       |       |
|       |           | 15°                         |       | 20°  |       | 25°  |       | 15°                         |       | 20°  |       | 25°   |       |
|       |           | Tot.                        | Sens. | Tot. | Sens. | Tot. | Sens. | Tot.                        | Sens. | Tot. | Sens. | Tot.  | Sens. |
| 20-14 | Normal    | 1256                        | 1034  | 1922 | 1291  | 2676 | 1421  | 4285                        | 3528  | 6558 | 4405  | 9131  | 4848  |
|       | Medium    | 1510                        | 1241  | 2312 | 1597  | 3220 | 1759  | 5152                        | 4234  | 7889 | 5449  | 10987 | 6002  |
|       | Boost     | 1601                        | 1363  | 2449 | 1770  | 3408 | 1879  | 5463                        | 4651  | 8356 | 6039  | 11628 | 6411  |
| 15-10 | Normal    | 886                         | 761   | 1355 | 1002  | 1886 | 1091  | 3023                        | 2597  | 4623 | 3419  | 6435  | 3722  |
|       | Medium    | 958                         | 815   | 1466 | 1058  | 2041 | 1123  | 3269                        | 2781  | 5002 | 3610  | 6964  | 3832  |
|       | Boost     | 1276                        | 1093  | 1953 | 1434  | 2719 | 1549  | 4354                        | 3729  | 6664 | 4893  | 9277  | 5285  |
| 10-6  | Normal    | 578                         | 490   | 884  | 635   | 1230 | 668   | 1972                        | 1672  | 3016 | 2167  | 4197  | 2279  |
|       | Medium    | 646                         | 545   | 988  | 704   | 1375 | 736   | 2204                        | 1860  | 3371 | 2402  | 4692  | 2511  |
|       | Boost     | 780                         | 638   | 1194 | 867   | 1662 | 1098  | 2661                        | 2177  | 4074 | 2958  | 5671  | 3746  |
| 7-4   | Normal    | 318                         | 274   | 487  | 362   | 678  | 396   | 1085                        | 935   | 1662 | 1235  | 2313  | 1351  |
|       | Medium    | 473                         | 405   | 725  | 531   | 1009 | 574   | 1614                        | 1382  | 2474 | 1812  | 3443  | 1958  |
|       | Boost     | 574                         | 459   | 878  | 623   | 1222 | 790   | 1958                        | 1566  | 2996 | 2126  | 4169  | 2695  |

Cooling performance tested in accordance with BS 4856 Part 2.

**Flow Rate:** 340 ltr/h.

**Relative Humidity:** 50%.

**Flow Rate Correction Factors:**

- 455 ltr/h (100 gal/h) multiply output by 1.06.
- 227 ltr/h (50 gal/h) multiply output by 0.96.
- 113 ltr/h (25 gal/h) multiply output by 0.85.



**HI-LINE RC Performance Data (continued)**

For combined heating and cooling applications, a suitable chilled water source and associated controls must be provided and installed, in accordance with the recommendations of the chiller manufacturer.

Provision must be made for condensate disposal, in accordance with any local regulations. A condensate collection tray is fitted

and a suitable drain pipe should be connected to the spigot (15mm) at the base of the condensate tray.

Thermostatic control for cooling may be achieved by connection of a thermostat into the mains supply to the unit.

All pipework must be wrapped with anti-condensate material 5-10mm thick.

**Approximate Hydraulic Resistance**

| Litres/h | mm wg |      |       |       | kPa |       |       |       |
|----------|-------|------|-------|-------|-----|-------|-------|-------|
|          | 7-4   | 10-6 | 15-10 | 20-14 | 7-4 | 10-6  | 15-10 | 20-14 |
| 455      | 1084  | 1240 | 1500  | 1774  | 9.4 | 12.12 | 14.7  | 17.42 |
| 340      | 798   | 657  | 905   | 1140  | 7.7 | 6.42  | 8.9   | 11.2  |
| 227      | 350   | 327  | 450   | 565   | 3.5 | 3.25  | 4.37  | 5.5   |
| 113      | 134   | 105  | 157   | 221   | 1.4 | 1.1   | 1.57  | 2.1   |

**Weight, Water Content and Motor Power**

| Model | Motor Power (W) | Water Content (l) | Unpacked Weight (kg) |
|-------|-----------------|-------------------|----------------------|
| 20-14 | 80              | 0.77              | 14.7                 |
| 15-10 | 62              | 0.56              | 11.3                 |
| 10-6  | 35              | 0.32              | 8.9                  |
| 7-4   | 35              | 0.30              | 7.4                  |

**Noise Levels**

| Model | Sound Pressures at 2.5m (dBA) |        |       |
|-------|-------------------------------|--------|-------|
|       | Normal                        | Medium | Boost |
| 20-14 | 33.3                          | 38.7   | 45.4  |
| 15-10 | 28.8                          | 35.4   | 45.6  |
| 10-6  | 23.5                          | 30.8   | 37.2  |
| 7-4   | 23.4                          | 32.5   | 43.3  |

Noise levels tested in accordance with EN 23741.

**Air Flow**

| Model | Air Flow (m <sup>3</sup> /h) |        |       | Air Flow (ft <sup>3</sup> /h) |        |       |
|-------|------------------------------|--------|-------|-------------------------------|--------|-------|
|       | Normal                       | Medium | Boost | Normal                        | Medium | Boost |
| 20-14 | 285                          | 371    | 431   | 10061                         | 13096  | 15214 |
| 15-10 | 207                          | 276    | 333   | 7307                          | 9743   | 11755 |
| 10-6  | 143                          | 171    | 220   | 5048                          | 6036   | 7766  |
| 7-4   | 81                           | 105    | 133   | 2859                          | 3707   | 4695  |

**HI-LINE LV Performance Data**

This model should only be selected if the normal fan speed output is capable of maintaining the calculated heat losses of the room at the chosen operating conditions. This will enable the boost fan speed and the higher temperature differences to be used to greater advantage for rapid warming of the room from cold in excessive conditions.

When establishing the temperature difference, i.e. mean water to room temperature, allowance should be made for temperature drop in the system. It is the temperature at the convector which dictates the output.

**Heating Performance Data**

| Model | Fan Speed | Temperature Difference (°C) |     |      |      |      |                     |      |      |      |      |
|-------|-----------|-----------------------------|-----|------|------|------|---------------------|------|------|------|------|
|       |           | Heat Output (watts)         |     |      |      |      | Heat Output (Btu/h) |      |      |      |      |
|       |           | 20°                         | 30° | 40°  | 50°  | 60°  | 20°                 | 30°  | 40°  | 50°  | 60°  |
| 7-4   | Normal    | 352                         | 541 | 734  | 930  | 1128 | 1201                | 1846 | 2504 | 3173 | 3849 |
|       | Boost     | 645                         | 991 | 1344 | 1702 | 2065 | 2201                | 3381 | 4586 | 5807 | 7046 |

Heat outputs tested in accordance with BS 4856 Part 1.

**Flow Rate:** 340 ltr/h (75 gal/h).

**Flow Rate Correction Factors:**

455 ltr/h (100 gal/h) multiply by 1.06.

227 ltr/h (50 gal/h) multiply by 0.96.

113 ltr/h (25 gal/h) multiply by 0.85.

**HI-LINE LV Performance Data (continued)**

**Approximate Hydraulic Resistance**

| Litres/h | mm wg | kPa |
|----------|-------|-----|
| 455      | 1084  | 9.4 |
| 341      | 798   | 7.7 |
| 227      | 350   | 3.5 |
| 113      | 134   | 1.4 |

**Noise Levels**

| Fan Speed | Sound Pressures at 2.5m (dBA) |
|-----------|-------------------------------|
| Normal    | 16.6                          |
| Boost     | 32.5                          |

Noise levels tested in accordance with EN 23741.

**Weight, Water Content and Motor Power**

| Motor Power (W) | Water Content (l) | Unpacked Weight (kg) |
|-----------------|-------------------|----------------------|
| 30              | 0.3               | 7.4                  |

**Air Flow**

| Fan Speed | Air Flow (m <sup>3</sup> /h) | Air Flow (ft <sup>3</sup> /h) |
|-----------|------------------------------|-------------------------------|
| Normal    | 81                           | 2859                          |
| Boost     | 133                          | 4695                          |

**HI-LINE Super RC Performance Data**

The unit must be sized to match the calculated heat loss requirement of the room with the unit operating at normal fan speed. The higher fan speeds will be used automatically when the room temperature is significantly lower than the preset temperature.

When establishing the temperature difference, i.e. mean water to room temperature, allowance should be made for temperature drop in the system. It is the temperature at the convector which dictates the output.

**Heating Performance Data**

| Model | Fan Speed | Temperature Difference (°C) |      |      |      |      |                     |       |       |       |       |
|-------|-----------|-----------------------------|------|------|------|------|---------------------|-------|-------|-------|-------|
|       |           | Heat Output (watts)         |      |      |      |      | Heat Output (Btu/h) |       |       |       |       |
|       |           | 20°                         | 30°  | 40°  | 50°  | 60°  | 20°                 | 30°   | 40°   | 50°   | 60°   |
| 29-20 | Normal    | 1858                        | 2870 | 3906 | 4962 | 6033 | 6339                | 9791  | 13328 | 16930 | 20584 |
|       | Medium    | 2234                        | 3462 | 4723 | 6011 | 7319 | 7622                | 11811 | 16116 | 20508 | 24972 |
|       | Boost     | 2599                        | 4040 | 5526 | 7045 | 8591 | 8867                | 13785 | 18854 | 24037 | 29313 |
| 25-18 | Normal    | 1709                        | 2563 | 3417 | 4270 | 5123 | 5833                | 8746  | 11658 | 14569 | 17481 |
|       | Medium    | 1962                        | 3030 | 4124 | 5238 | 6369 | 6695                | 10339 | 14072 | 17873 | 21730 |
|       | Boost     | 2172                        | 3454 | 4800 | 6200 | 7600 | 7411                | 11785 | 16378 | 21154 | 25931 |

Heat outputs tested in accordance with BS 4856 Part 1.

**Flow Rate Correction Factors:**

455 ltr/h (100 gal/h) multiply output by 1.03.  
 227 ltr/h (50 gal/h) multiply output by 0.98.  
 113 ltr/h (25 gal/h) multiply output by 0.85.

**Approximate Hydraulic Resistance**

| ltr/h | mm wg |       | kPa   |       |
|-------|-------|-------|-------|-------|
|       | 25-18 | 29-20 | 25-18 | 29-20 |
| 455   | 2095  | 2551  | 20.5  | 24.6  |
| 340   | 1282  | 1530  | 12.6  | 15.0  |
| 227   | 620   | 850   | 6.1   | 8.3   |
| 113   | 234   | 245   | 2.3   | 2.4   |

**HI-LINE Super RC Performance Data (continued)**

**Air Flow**

| Model | Air Flow (m <sup>3</sup> /h) |        |       | Air Flow (ft <sup>3</sup> /h) |        |       |
|-------|------------------------------|--------|-------|-------------------------------|--------|-------|
|       | Normal                       | Medium | Boost | Normal                        | Medium | Boost |
| 29-20 | 390                          | 470    | 540   | 13772                         | 16597  | 19069 |
| 25-18 | 350                          | 430    | 500   | 12360                         | 15185  | 17657 |

**Weight, Water Content and Motor Power**

| Model | Motor Power (W) | Water Content (l) | Unpacked Weight (kg) |
|-------|-----------------|-------------------|----------------------|
| 29-20 | 80              | 0.85              | 21.0                 |
| 25-18 | 80              | 0.63              | 18.0                 |

**HI-LINE Controls**

**HI-LINE RC & HI-LINE Super RC**

Units are supplied with an electronic infra-red remote control system with the following features:

- Automatic room temperature control.
- Fan only option for ambient air circulation.
- Three fan speeds.
- Unit mounted controls and display.
- Unit control panel electronic tamper proof lock.
- Displayed temperature calibration system.

**HI-LINE LV**

Units are fitted with a switch offering high and low fan speed and off selection. A low limit thermostat is fitted to the unit to ensure that the fan stops after the heating system is switched off and the water flow stops.

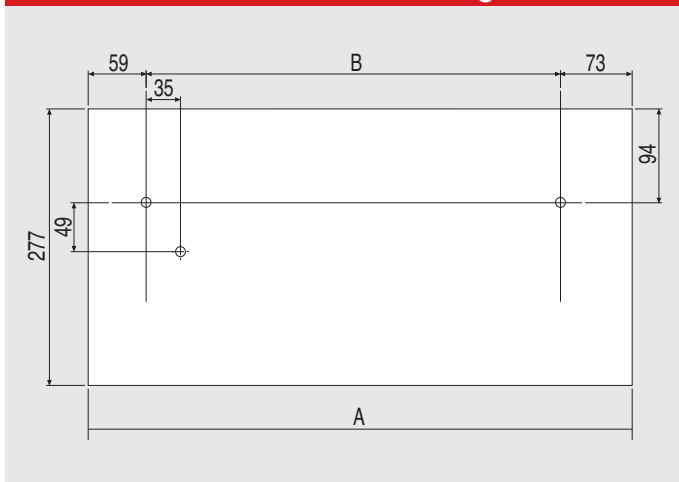
**HI-LINE Water Connections**

Water connections (15mm compression) are on the right-hand side and the system pipework may be brought in from above or the rear. Supplied with isolating valves.

**HI-LINE Electrical Data**

All HI-LINE models require an electrical supply of 220-240V – 50Hz fused at 3A.

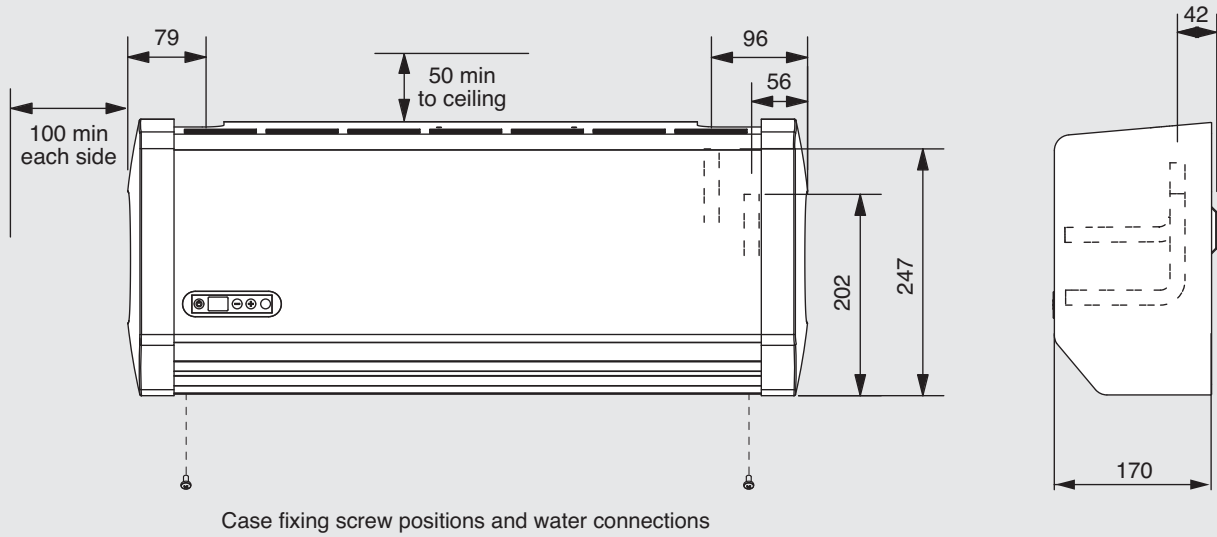
**HI-LINE RC Dimensions and Fixings**



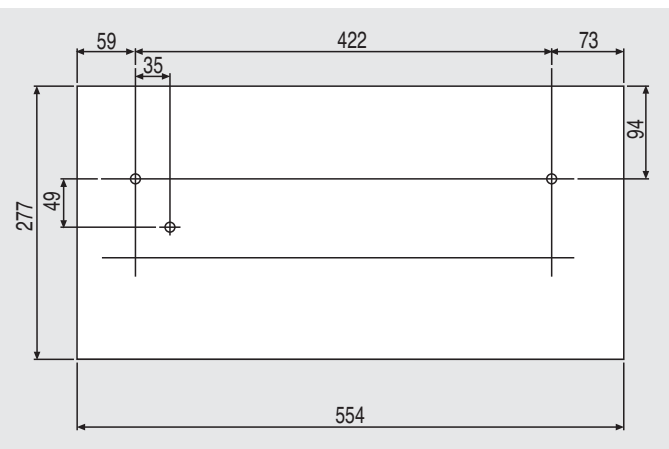
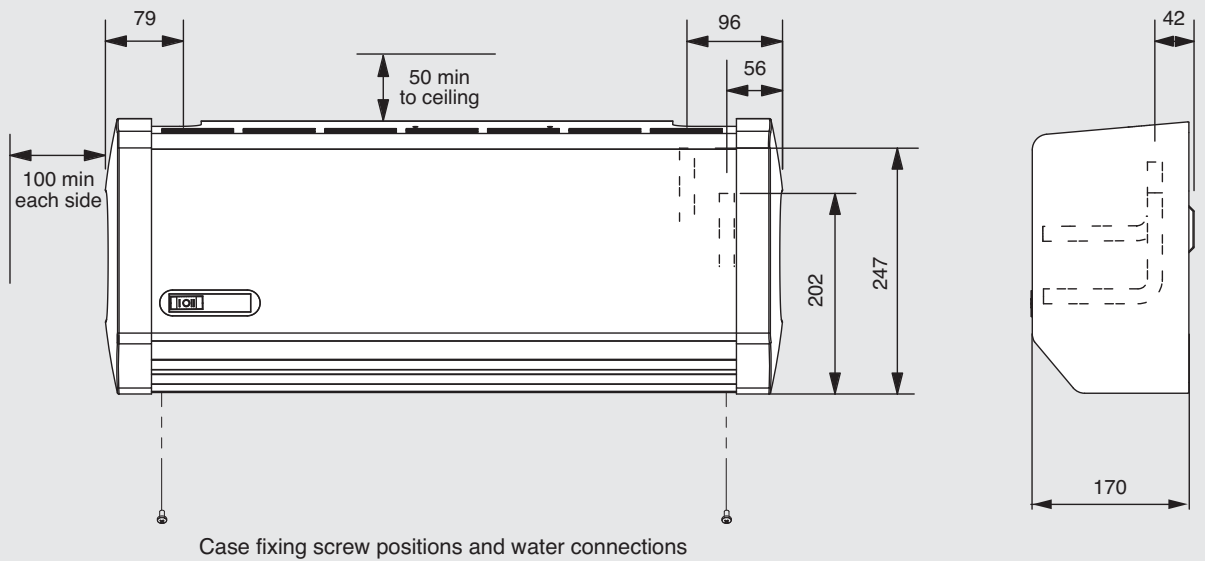
| Model | Dimensions (mm) |      |
|-------|-----------------|------|
|       | A               | B    |
| 20-14 | 1171            | 1039 |
| 15-10 | 886             | 754  |
| 10-6  | 682             | 550  |
| 7-4   | 554             | 422  |

- Maximum installation height is 2.13m to the underside of the unit.
- Minimum installation height is 1.8m to the underside of the unit.
- Maximum ceiling height is 3m.
- Minimum clearance each side is 100mm.
- Minimum top clearance is 50mm.

**HI-LINE RC Dimensions and Fixings (continued)**



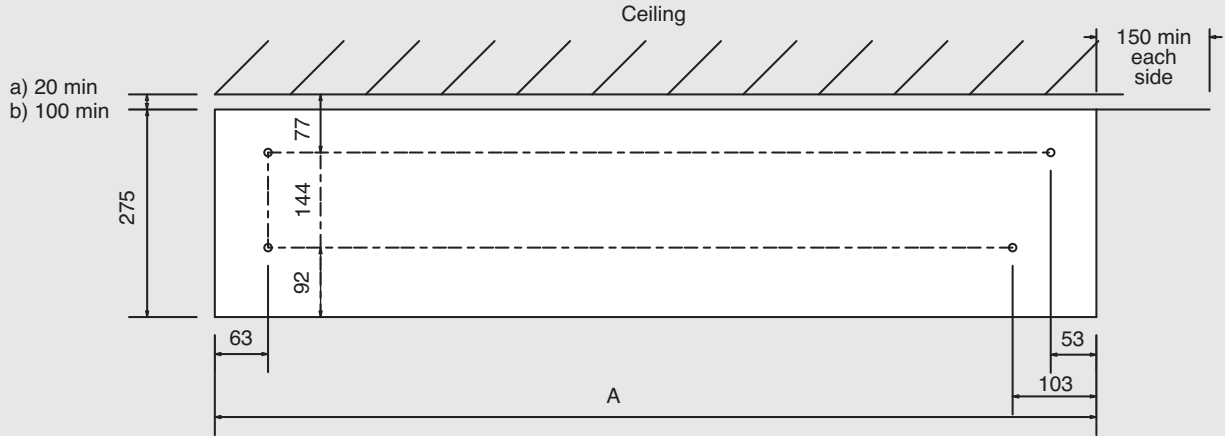
**HI-LINE LV Dimensions and Fixings**



| Dimensions (mm) |       |       |
|-----------------|-------|-------|
| Height          | Width | Depth |
| 277             | 554   | 170   |

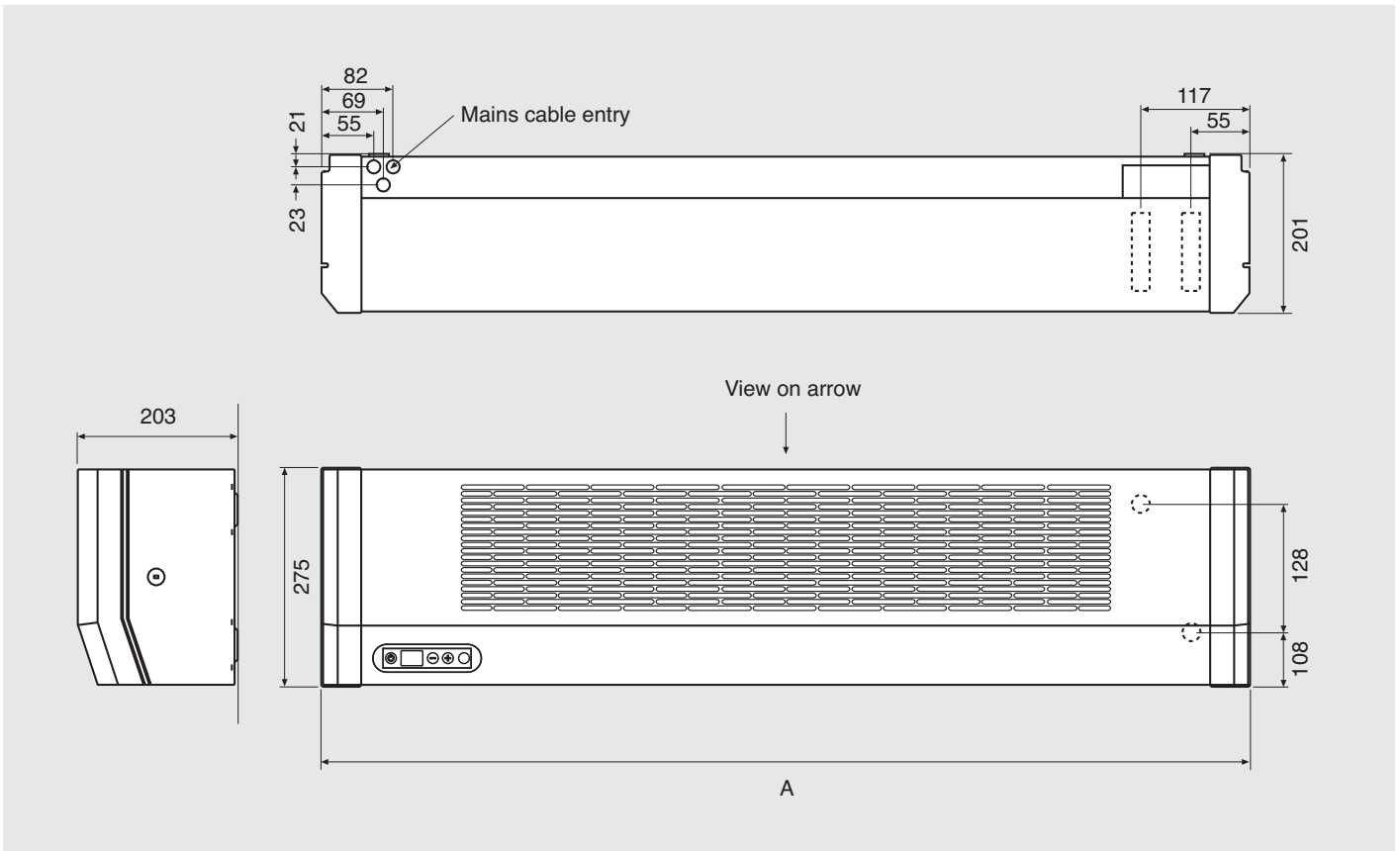
- Maximum installation height is 2.13m to the underside of the unit.
- Minimum installation height is 1.8m to the underside of the unit.
- Maximum ceiling height is 3m.
- Minimum clearance each side is 100mm.
- Minimum top clearance is 50mm.
- Please note the transformer can be mounted internally or external to the unit.

HI-LINE Super RC Dimensions and Fixings



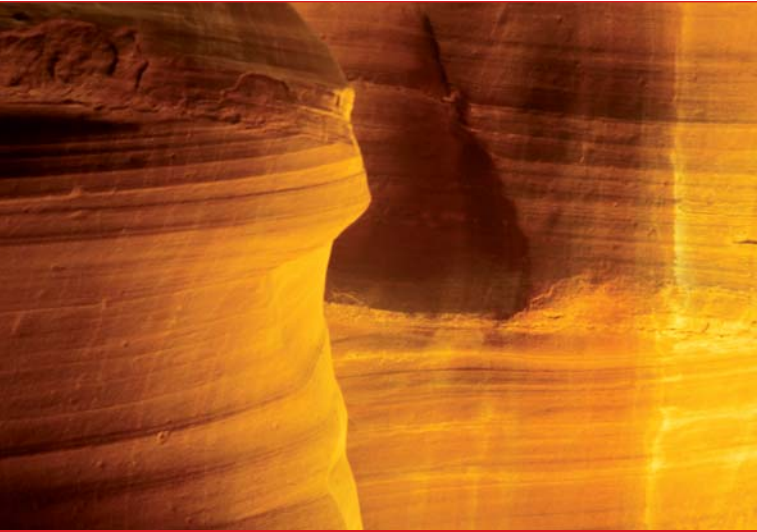
| Model | Dimensions (mm) |  |
|-------|-----------------|--|
|       | A               |  |
| 29-20 | 1360            |  |
| 25-18 | 1150            |  |

a = rear entry pipework  
b = top entry pipework



| Model | Dimensions (mm) |  |
|-------|-----------------|--|
|       | A               |  |
| 29-20 | 1378            |  |
| 25-18 | 1168            |  |

- Maximum installation height is 3m to the underside of the unit.
- Minimum installation height is 1.8m to the underside of the unit.
- Maximum ceiling height is 3.5m.
- Minimum side clearance is 150mm.



## LO-LINE RC.

### Instant warmth and cooling.

The **LO-LINE RC** fan convector is quick to heat giving convenient and instant warmth just when you need it, as well as a refreshing cooling option with the heater/cooler model for the summer months. **LO-LINE RC** units connect to the central heating system (water chilling equipment is also required for the heater/cooler model) and are fitted at a similar height to a standard radiator. The accompanying remote control offers maximum control and flexibility.

Also available as a heater/cooler model



Remote control supplied.



For technical information please refer to pages 32-33.



## SLIM-LINE RC.

### The compact heat source.

The elegant **SLIM-LINE RC** is designed with space in mind. The range of models fit comfortably onto lower sections of the wall and can be easily slotted into narrow areas, such as on a pillar or in an alcove, where space is at a premium. Compact in size, the unit is ideal for use in offices and conservatories, offering high outputs for all your heating needs. The accompanying remote control offers maximum control and flexibility.



Remote control supplied.



For technical information please refer to pages 34-35.

**LO-LINE RC Performance Data**

It is preferable to select the model with an output capable of maintaining the calculated heat losses of the room when operating at normal speed. The higher fan speeds will be used automatically when the room temperature is significantly lower

than the preset temperature. When establishing the temperature difference, i.e. mean water to room temperature, allowance should be made for temperature drop in the system. It is the temperature at the convector which dictates the output.

**Heating Performance Data**

| Model | Fan Speed | Temperature Difference (°C) |      |      |      |      |                     |      |       |       |       |
|-------|-----------|-----------------------------|------|------|------|------|---------------------|------|-------|-------|-------|
|       |           | Heat Output (watts)         |      |      |      |      | Heat Output (Btu/h) |      |       |       |       |
|       |           | 20°                         | 30°  | 40°  | 50°  | 60°  | 20°                 | 30°  | 40°   | 50°   | 60°   |
| 19-15 | Normal    | 1509                        | 2221 | 2921 | 3613 | 4298 | 5150                | 7578 | 9967  | 12327 | 14665 |
|       | Medium    | 1731                        | 2548 | 3351 | 4144 | 4930 | 5907                | 8692 | 11432 | 14140 | 16822 |
|       | Boost     | 1938                        | 2852 | 3751 | 4640 | 5520 | 6613                | 9731 | 12799 | 15831 | 18834 |
| 14-10 | Normal    | 993                         | 1461 | 1922 | 2377 | 2828 | 3388                | 4986 | 6558  | 8111  | 9649  |
|       | Medium    | 1223                        | 1800 | 2367 | 2928 | 3483 | 4173                | 6140 | 8076  | 9989  | 11884 |
|       | Boost     | 1448                        | 2131 | 2803 | 3467 | 4124 | 4942                | 7272 | 9564  | 11829 | 14073 |
| 9-6   | Normal    | 567                         | 834  | 1098 | 1358 | 1615 | 1935                | 2847 | 3745  | 4633  | 5512  |
|       | Medium    | 743                         | 1093 | 1437 | 1777 | 2114 | 2534                | 3728 | 4903  | 6064  | 7213  |
|       | Boost     | 936                         | 1377 | 1811 | 2240 | 2665 | 3194                | 4699 | 6180  | 7643  | 9092  |
| 6-4   | Normal    | 383                         | 564  | 741  | 916  | 1090 | 1307                | 1923 | 2528  | 3126  | 3718  |
|       | Medium    | 436                         | 641  | 843  | 1043 | 1241 | 1486                | 2187 | 2876  | 3558  | 4233  |
|       | Boost     | 600                         | 883  | 1162 | 1437 | 1710 | 2049                | 3014 | 3965  | 4904  | 5834  |

Heat outputs tested in accordance with BS 4856 Part 1.

**Flow Rate:** 340 ltr/h (75 gal/h).

For combined heating and cooling applications, a suitable chilled water source and associated controls must be provided and installed, in accordance with the recommendations of the chiller manufacturer.

Provision must be made for condensate disposal, in accordance with any local regulations. A condensate collection tray is fitted

**Flow Rate Correction Factors:**

- 455 ltr/h (100 gal/h) multiply output by 1.06.
- 227 ltr/h (50 gal/h) multiply output by 0.96.
- 113 ltr/h (25 gal/h) multiply output by 0.85.

and a suitable drain pipe should be connected to the spigot (15mm) at the base of the condensate tray.

Thermostatic control for cooling may be achieved by connection of a thermostat into the mains supply to the unit.

All pipework must be wrapped with anti-condensate material 5-10mm thick.

**Cooling Performance Data (Heater/Cooler Model Only)**

| Model | Fan Speed | Temperature Difference (°C) |       |      |       |      |       |                             |       |      |       |       |       |
|-------|-----------|-----------------------------|-------|------|-------|------|-------|-----------------------------|-------|------|-------|-------|-------|
|       |           | Cooling Performance (watts) |       |      |       |      |       | Cooling Performance (Btu/h) |       |      |       |       |       |
|       |           | 15°                         |       | 20°  |       | 25°  |       | 15°                         |       | 20°  |       | 25°   |       |
|       |           | Tot.                        | Sens. | Tot. | Sens. | Tot. | Sens. | Tot.                        | Sens. | Tot. | Sens. | Tot.  | Sens. |
| 19-15 | Normal    | 1340                        | 1104  | 2002 | 1345  | 2734 | 1452  | 4572                        | 3767  | 6831 | 4589  | 9328  | 4954  |
|       | Medium    | 1464                        | 1203  | 2187 | 1511  | 2987 | 1632  | 4995                        | 4105  | 7462 | 5156  | 10192 | 5568  |
|       | Boost     | 1533                        | 1305  | 2291 | 1656  | 3128 | 1725  | 5231                        | 4453  | 7817 | 5650  | 10673 | 5886  |
| 14-10 | Normal    | 877                         | 754   | 1310 | 969   | 1788 | 1034  | 2992                        | 2573  | 4470 | 3306  | 6101  | 3528  |
|       | Medium    | 1032                        | 878   | 1542 | 1113  | 2106 | 1159  | 3521                        | 2996  | 5261 | 3798  | 7186  | 3955  |
|       | Boost     | 1228                        | 1052  | 1835 | 1347  | 2505 | 1427  | 4190                        | 3589  | 6261 | 4596  | 8547  | 4869  |
| 9-6   | Normal    | 499                         | 423   | 745  | 535   | 1018 | 553   | 1703                        | 1443  | 2542 | 1825  | 3473  | 1887  |
|       | Medium    | 600                         | 507   | 896  | 639   | 1223 | 655   | 2047                        | 1730  | 3057 | 2180  | 4173  | 2235  |
|       | Boost     | 710                         | 581   | 1061 | 770   | 1448 | 957   | 2423                        | 1982  | 3620 | 2627  | 4941  | 3565  |
| 6-4   | Normal    | 321                         | 277   | 480  | 357   | 655  | 383   | 1095                        | 945   | 1638 | 1218  | 2235  | 1307  |
|       | Medium    | 391                         | 335   | 585  | 429   | 798  | 454   | 1334                        | 1143  | 1996 | 1464  | 2723  | 1549  |
|       | Boost     | 496                         | 397   | 741  | 526   | 1012 | 654   | 1692                        | 1355  | 2528 | 1795  | 3453  | 2231  |

Cooling performance tested in accordance with BS 4856 Part 2.

**Flow Rate:** 340 ltr/h (75 gal/h).

**Relative Humidity:** 50%.

**Flow Rate Correction Factors:**

- 455 ltr/h (100 gal/h) multiply output by 1.06.
- 227 ltr/h (50 gal/h) multiply output by 0.96.
- 113 ltr/h (25 gal/h) multiply output by 0.85.



**LO-LINE RC Performance Data (continued)**

**Approximate Hydraulic Resistance**

| Litres | mm wg |     |       |       | kPa  |      |       |       |
|--------|-------|-----|-------|-------|------|------|-------|-------|
|        | 6-4   | 9-6 | 14-10 | 19-15 | 6-4  | 9-6  | 14-10 | 19-15 |
| 455    | 910   | 998 | 1240  | 1670  | 8.98 | 9.85 | 12.20 | 16.40 |
| 340    | 514   | 520 | 719   | 954   | 5.06 | 5.10 | 7.00  | 9.40  |
| 227    | 235   | 121 | 324   | 469   | 2.35 | 1.18 | 3.20  | 4.60  |
| 113    | 47    | 97  | 75    | 77    | 0.45 | 0.97 | 0.75  | 0.82  |

**Weight, Water Content and Motor Power**

| Model | Motor Power (W) | Water Content (l) | Unpacked Weight (kg) |
|-------|-----------------|-------------------|----------------------|
| 19-15 | 80              | 0.75              | 15.7                 |
| 14-10 | 62              | 0.56              | 12.7                 |
| 9-6   | 35              | 0.32              | 9.1                  |
| 6-4   | 35              | 0.3               | 7.7                  |

**LO-LINE RC Controls**

Units are supplied with an electronic infra-red remote control system with the following features:

- Automatic room temperature control.
- Fan only option for ambient air circulation.
- Three fan speeds.
- Unit mounted controls and display.
- Unit control panel electronic tamper proof lock.
- Displayed temperature calibration system.

**Noise Levels**

| Model | Sound Pressures at 2.5m (dBA) |        |       |
|-------|-------------------------------|--------|-------|
|       | Normal                        | Medium | Boost |
| 19-15 | 27.2                          | 31.8   | 38.6  |
| 14-10 | 23.1                          | 28.5   | 40.1  |
| 9-6   | 21.6                          | 29.6   | 38    |
| 6-4   | 23.7                          | 31.7   | 40.7  |

Noise levels tested in accordance with EN 23741.

**Air Flow**

| Model | Air Flow (m <sup>3</sup> /h) |        |       | Air Flow (ft <sup>3</sup> /h) |        |       |
|-------|------------------------------|--------|-------|-------------------------------|--------|-------|
|       | Normal                       | Medium | Boost | Normal                        | Medium | Boost |
| 19-15 | 241                          | 288    | 335   | 8507                          | 10166  | 11826 |
| 14-10 | 160                          | 200    | 288   | 5648                          | 7060   | 10166 |
| 9-6   | 112                          | 129    | 175   | 3954                          | 4554   | 6178  |
| 6-4   | 65                           | 86     | 122   | 2295                          | 3036   | 4307  |

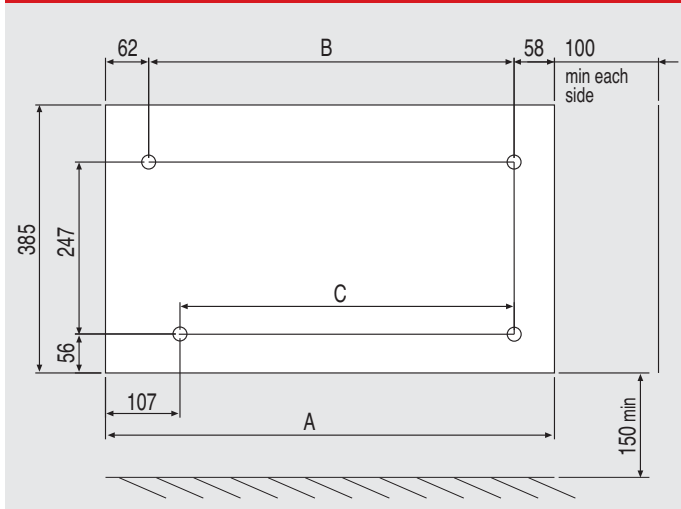
**LO-LINE RC Water Connections**

Water connections (15mm compression) are on the left-hand side and the system pipework may be brought in from underneath or the rear.

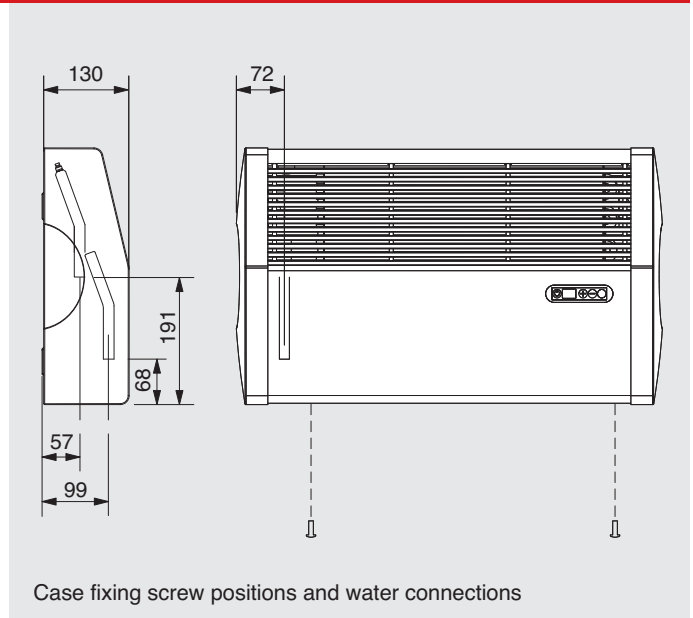
**LO-LINE RC Electrical Data**

All LO-LINE models require an electrical supply of 220-240V – 50Hz fused at 3A.

**LO-LINE RC Dimensions and Fixings**



| Model | Dimensions (mm) |      |     |
|-------|-----------------|------|-----|
|       | A               | B    | C   |
| 19-15 | 1138            | 1018 | 974 |
| 14-10 | 854             | 733  | 681 |
| 9-6   | 645             | 526  | 481 |
| 6-4   | 523             | 404  | 359 |



Case fixing screw positions and water connections

- Minimum installation height is 150mm to the underside of the unit.
- Maximum ceiling height is 3m.
- Minimum side clearance is 100mm.

## SLIM-LINE RC Performance Data

The unit must be sized to match the calculated heat loss requirement of the room with the unit operating at normal fan speed. The higher fan speeds will be used automatically when the room temperature is significantly lower than the preset temperature.

When establishing the temperature difference, i.e. mean water to room temperature, allowance should be made for temperature drop in the system. It is the temperature at the convector which dictates the output.

### Heating Performance Data

| Model        | Fan Speed | Temperature Difference (°C) |      |      |      |      |                     |      |       |       |       |
|--------------|-----------|-----------------------------|------|------|------|------|---------------------|------|-------|-------|-------|
|              |           | Heat Output (watts)         |      |      |      |      | Heat Output (Btu/h) |      |       |       |       |
|              |           | 20°                         | 30°  | 40°  | 50°  | 60°  | 20°                 | 30°  | 40°   | 50°   | 60°   |
| SLIM-LINE RC | Normal    | 860                         | 1340 | 1820 | 2290 | 2770 | 2934                | 4572 | 6210  | 7813  | 9451  |
|              | Medium    | 1130                        | 1710 | 2280 | 2870 | 3460 | 3856                | 5835 | 7779  | 9792  | 11806 |
|              | Boost     | 1470                        | 2220 | 2960 | 3720 | 4460 | 5016                | 7575 | 10100 | 12693 | 15218 |

Heat outputs tested in accordance with BS 4856 Part 1.

**Flow Rate:** 340 ltr/h (75 gal/h).

#### Flow Rate Correction Factors:

455 ltr/h (100 gal/h) multiply output by 1.06.

227 ltr/h (50 gal/h) multiply output by 0.96.

113 ltr/h (25 gal/h) multiply output by 0.85.

### Approximate Hydraulic Resistance

| Litres/h | mm wg | kPa  |
|----------|-------|------|
| 455      | 1771  | 17.4 |
| 340      | 1161  | 11.4 |
| 227      | 561   | 5.5  |
| 113      | 201   | 2.0  |

### Noise Levels

| Fan Speed | Sound Pressures at 2.5m (dBA) |
|-----------|-------------------------------|
| Normal    | 21.9                          |
| Medium    | 30.6                          |
| Boost     | 39.7                          |

Noise levels tested in accordance with EN 23741.

### Weight, Water Content and Motor Power

| Motor Power (W) | Water Content (l) | Unpacked Weight (kg) |
|-----------------|-------------------|----------------------|
| 125             | 0.51              | 14.5                 |

### Air Flow

| Air Flow (m <sup>3</sup> /h) |        |       | Air Flow (ft <sup>3</sup> /h) |        |       |
|------------------------------|--------|-------|-------------------------------|--------|-------|
| Normal                       | Medium | Boost | Normal                        | Medium | Boost |
| 164                          | 216    | 316   | 5789                          | 7625   | 11155 |

## SLIM-LINE RC Controls

Units are supplied with an electronic infra-red remote control system with the following features:

- Automatic room temperature control.
- Fan only option for ambient air circulation.
- Three fan speeds.
- Unit mounted controls and display.

- Unit control panel electronic tamper proof lock.
- Displayed temperature calibration system.

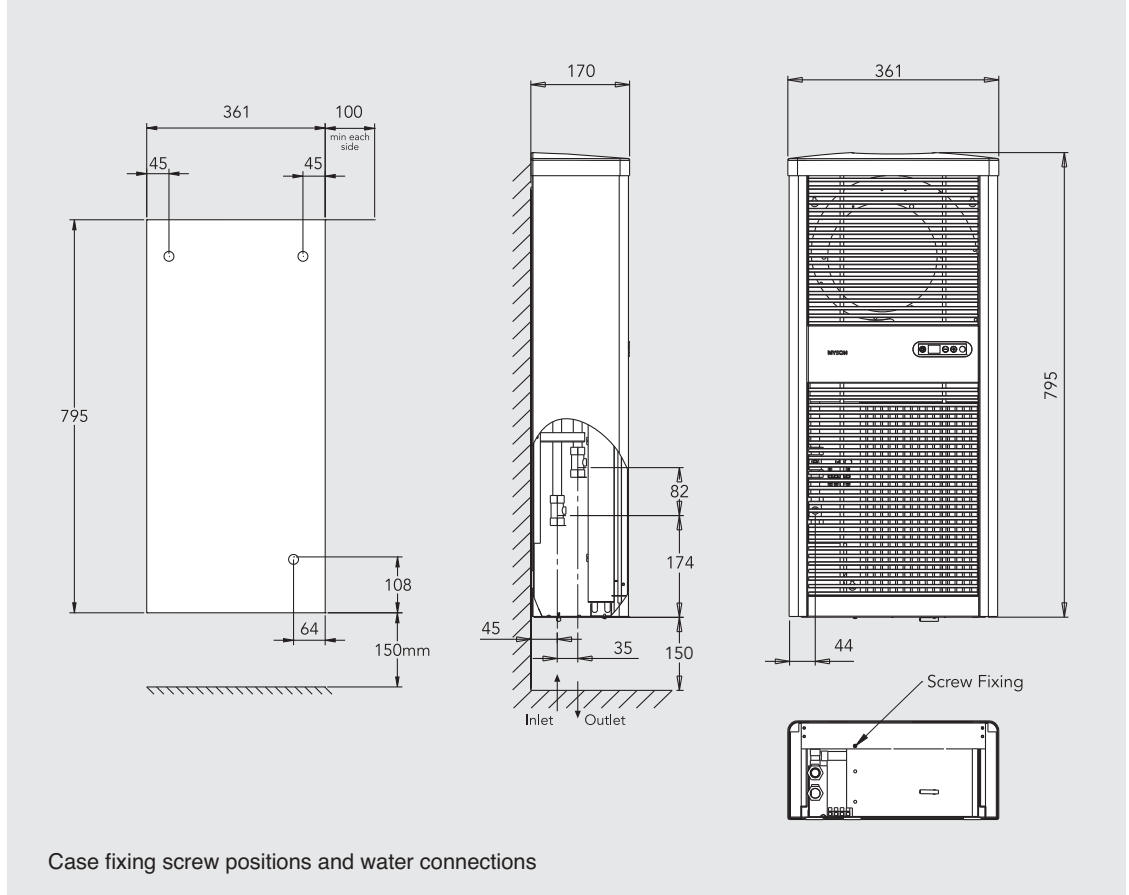
## SLIM-LINE RC Water Connections

Water connections (15mm compression) are on the left-hand side and the system pipework may be brought in from underneath or the rear.

## SLIM-LINE RC Electrical Data

All SLIM-LINE RC fan convectors require an electrical supply of 220-240V – 50Hz fused at 3A.

SLIM-LINE RC Dimensions and Fixings



| Dimensions (mm) |       |       |
|-----------------|-------|-------|
| Height          | Width | Depth |
| 795             | 361   | 170   |

- Maximum ceiling height is 3.5m.
- Minimum installation height is 150mm to the underside of the unit.



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