ENERGY EFFICIENT ELECTRIC RADIATORS YOU CAN RELY ON

The professional heating solution
**HAVERLAND VALUES**

**Haverland Electric radiators: Quality since 1971**

**Best Components:** Haverland sources and combines the best components available to satisfy the highest standards of quality.

**Research and Development:** Established in 1971, we have over 50 years experience in manufacturing electric heaters and meeting the needs of our customers.

Our highly qualified R&D team is always developing new solutions to increase customer satisfaction, optimise comfort and reduce energy consumption.

**Production:** Our production process is automated and ISO certified to assure a sustainable quality level.

Our production system is based on Kaizen and Lean Manufacturing.

**Haverland Energy Management Technology**

**Built-in Energy Monitor**

- This feature enables the end user to monitor energy and obtain a better control of energy consumption.
- For each degree reduction, i.e. from 22°C to 21°C, you will save around 7-8% of the energy used.

**High Precision Digital Sensor**

- +/- 0.2 high precision sensor to optimise energy use.
- Accurate temperature measurement to comply with EN60675.
- Open window detection.
- Adaptive start function.
How our heat is distributed

The first step in choosing the most appropriate heating system for your property is to understand the differences in the way that heat is distributed. Here at Haverland, our electric radiators use a combination of both radiant and convection heat.

This method uses a radiant energy source to heat all objects, including people, within a room. At the same time, the surrounding air in the room is also heated thanks to natural convection of the distributed heat. In our radiators, the air naturally circulates through the aluminium elements, which allows it to rise and circulate.

Key benefits:

**Comfort:** Distributes heat directly to the people and objects in a room which leads to an optimum feeling of wellbeing.

**Installation Flexibility:** The location of the radiator can be a significant factor in achieving a comfortable temperature in a room. With our combination of radiant and conventional heating, our radiators are guaranteed to produce warmth within an appropriate space, no matter their location.

**Energy Efficient:** Our radiators use only the amount of heat that you require as the temperature sensor (thermostat) will sense when the desired temperature has been achieved and proceed to stop, only turning back on when the temperature of the room begins to decrease.

**Hygienic:** Our radiators produce a high level of radiant heat (similar to a central heating system) without the use of a fan. This means the surrounding air and particles are not disturbed, allowing the environment to be kept cleaner as there is less dust and pollutants dispersed.

**Stability:** By warming the objects and people in the room rather than solely the air, the overall heat loss in the room will be minimal if a door or window is opened.
LOT 20 explained (For our terms and conditions please visit our website.)

The European Ecodesign Directive (2009/125/EC) came into effect January 1st 2018. It was created to ensure that energy-using products (from electronic phone charging docks through to standard gas boilers) are as efficient and environmentally friendly as possible. Due to the many appliances and utilities covered by the directive, they have been split into different groups, called ‘lots’.

Lot 20 is the one that refers to local space heaters and includes products such as storage heaters, electric radiators, gas fireplaces and underfloor heating.

What does it mean in practice?

With the introduction of Lot 20 all manufacturers of local space heaters have to incorporate technologies that promote energy efficiency if they want to continue to produce the products after 1st January.

A simplified formula that allocates percentages to key benefits will be used to rate how effective heaters are. Electric heaters for example all begin with a base rating of 30%, yet must achieve a 38% efficiency rating (if they have a nominal heat output above 250W) to continue being produced in the EU.

The new rules place the cost of improving the efficiency of products solely with the manufacturer, explicitly stating that any eco-design improvements should not affect the functionality or affordability of local space heaters from the end-user’s perspective.

The Haverland range of heaters remains largely unchanged, as environmental efficiency has been built into our ranges from day one.

Open window function

The open window detector will automatically disconnect the radiator when it senses a fall in temperature within a short set time frame. When the radiator detects a quick temperature rise because door or window have been closed it will switch itself back on, and will heat up to the previous temperature. This feature will save a considerable amount of energy over time by avoiding unnecessary heating.

Adaptive start function

Thanks to the adaptive start function your electric radiator will learn when to turn itself on and heat up to ensure the desired temperature is achieved at the predetermined time, following your established weekly programme.
When it comes to property alterations to improve your overall Energy Performance Certificate (EPC) rating, it is crucial to look at the bigger picture.

If you are only focusing on your heating system, you will end up spending more money long-term on energy costs due to poor insulation, single glazed windows or open chimneys. Directing your attention to other areas of your property can create an incredible structure that will improve your heat retention, and in return, boost your EPC rating.

Below are priority areas to focus on in creating an energy efficient environment while keeping energy costs low and your EPC rating high!

**LIGHTING**

LED bulbs have energy savings of 80-90% over incandescent or halogen bulbs, and up to 50% when compared to fluorescent lamps. This can add a positive impact to your EPC rating and potentially save you up-to £70 per bulb over its lifespan.

**LOFT INSULATION**

Improving your insulation is one of the optimum things you can do to reduce heat loss and boost your EPC rating. For lofts, having 270 mm+ of insulation depth, could add up to 10 – 15 points to your EPC rating. This will also improve your energy costs due to limiting the heat that escapes through your loft.

**DOUBLE GLAZING**

Upgrading your windows to double glazing can improve your home energy’s performance and reduce noise too. Up to 10% of the heat in most homes escapes through the windows, so by increasing your glazing you can make a several point difference on your EPC rating!

**CHIMNEY**

Contain heat and reduce your energy bills by sealing open chimneys through permanent solutions. This will help continue to add points to your overall EPC rating.

In regard to your heating system, maintaining or installing electric radiators can have long-term benefits such as reliability, environmentally friendly, and offer better heating controls which are conducive to today’s modern lifestyles.

To learn more about the various electric radiator options and which one is best suited for your property, contact Haverland today!

**Resources:**
- [https://www.thegreenage.co.uk/top-10-tips-improving-domestic-epc-rating](https://www.thegreenage.co.uk/top-10-tips-improving-domestic-epc-rating)
- [https://www.london-epc.co.uk/will-loft-cavity insulation-affect-epc-rating](https://www.london-epc.co.uk/will-loft-cavity-insulation-affect-epc-rating)
- [https://www.britishgas.co.uk/the-source/your-home/improving/improve-your-homes-epc](https://www.britishgas.co.uk/the-source/your-home/improving/improve-your-homes-epc)

**Note:** Information provided are based on averages for domestic properties, but factors such as, age, construction and size of a building will impact the rating difference.
The ultra-smart electric radiator

A world-first radiant heating system that can intelligently programme itself.

For ultimate flexibility and comfort. Control via an app from anywhere in the world – or let it control itself, detecting presence in a room and adjusting its temperature, reducing energy consumption.

**Intelligent, self-programming capability**

Thanks to innovative, built-in motion sensing sensor technology, ULTRAD knows when someone is in the room and intelligently sets itself to the ideal temperature. If no movement has been detected for a predetermined period, ULTRAD automatically reduces the temperature to an economy setting, minimising energy consumption and reducing costs.

Setup is simple. There’s no need for programming. During its first week of operation, ULTRAD recognises patterns when each room is in use, creating daily programs and then automatically adjusting its settings so that each room is at the perfect temperature before each room is occupied. ULTRAD then learns continuously, repeating its automatic daily and weekly cycles, while adapting to changes in lifestyle.

ULTRAD offers ultimate flexibility with several programming options to choose from: including the options to control it from anywhere in the world using an app – or to simply let it learn and control itself!

* To control with our app, use Haverland’s Smart Box
MAIN FEATURES

- No set up, configuration or programming required!
- Multiple control options, plus smartphone, tablet or PC/Mac remote control thanks to the Haverland Smartbox (accessory)
- Detects movement: knows when you’re in a room and when you’re not
- Learns when you use a room within 1st week of installation and learns continuously
- Heats up automatically so the room is a comfortable temperature when you arrive
- Detects how long a room has been empty and lowers its temperature to an economy, then anti-frost setting
- Reduces energy, saves money
- Open window detection
- Safety thermal limiter
- Easy & quick installation
- Sealed for life - no maintenance required
- Complete with UK plug & power cord.

ULTRAD-6

<table>
<thead>
<tr>
<th>Reference</th>
<th>Elements</th>
<th>Output (W)</th>
<th>Voltage (V)</th>
<th>IP</th>
<th>Dimensions W x D x H (mm)</th>
<th>Weight</th>
<th>EAN Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>ULTRAD-3</td>
<td>3</td>
<td>500 W</td>
<td>230 V</td>
<td>24</td>
<td>422 x 100 x 582</td>
<td>5.5 kg</td>
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<tr>
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<td>5</td>
<td>750 W</td>
<td>230 V</td>
<td>24</td>
<td>622 x 100 x 582</td>
<td>8.0 kg</td>
<td>8423055003949</td>
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<td>24</td>
<td>722 x 100 x 582</td>
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<td>1250 W</td>
<td>230 V</td>
<td>24</td>
<td>922 x 100 x 582</td>
<td>13.0 kg</td>
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</tr>
<tr>
<td>ULTRAD-9</td>
<td>9</td>
<td>1500 W</td>
<td>230 V</td>
<td>24</td>
<td>1022 x 100 x 582</td>
<td>16.0 kg</td>
<td>8423055003970</td>
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<tr>
<td>SMARTBOX</td>
<td>Ethernet cable + UK power adapter</td>
<td>230 V</td>
<td>-</td>
<td>102 x 76 x 35</td>
<td>0.1 kg</td>
<td>8423055003673</td>
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</tr>
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</table>

www.haverland.co.uk
MAIN FEATURES

- Fully controllable digital thermostat
- Dynamic fluid with high thermal inertia
- Temperature settings: Comfort, Economy & Anti-freeze
- Built in energy monitor
- New daily, weekly and weekend programming options
- New boost option
- Open window detection
- Adaptative start control
- Easy to use keypad
- High precision electronics
- Safety thermal limiter
- Easy & quick installation
- Sealed for life - no maintenance required
- Complete with UK plug & power cord.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Elements</th>
<th>Output (W)</th>
<th>Voltage (V)</th>
<th>IP</th>
<th>Dimensions W x D x H (mm)</th>
<th>Weight</th>
<th>EAN Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC4TT</td>
<td>4</td>
<td>500 W</td>
<td>230 V</td>
<td>24</td>
<td>484 x 100 x 572</td>
<td>8.5 kg</td>
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<tr>
<td>RC6TT</td>
<td>6</td>
<td>750 W</td>
<td>230 V</td>
<td>24</td>
<td>617 x 100 x 572</td>
<td>11.5 kg</td>
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<td>RC8TT</td>
<td>8</td>
<td>1000 W</td>
<td>230 V</td>
<td>24</td>
<td>750 x 100 x 572</td>
<td>14.5 kg</td>
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<td>RC10TT</td>
<td>10</td>
<td>1250 W</td>
<td>230 V</td>
<td>24</td>
<td>903 x 100 x 572</td>
<td>18.0 kg</td>
<td>8423055002232</td>
</tr>
<tr>
<td>RC12TT</td>
<td>12</td>
<td>1500 W</td>
<td>230 V</td>
<td>24</td>
<td>1036 x 100 x 572</td>
<td>22.0 kg</td>
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<td>RC12.8TT</td>
<td>12</td>
<td>1800 W</td>
<td>230 V</td>
<td>24</td>
<td>1036 x 100 x 572</td>
<td>22.0 kg</td>
<td>8423055004694</td>
</tr>
</tbody>
</table>

www.haverland.co.uk
MAIN FEATURES

- Fully controllable digital thermostat
- Natural stone resistance with high thermal inertia
- Temperature settings: Comfort, Economy & Anti-freeze
- Built in energy monitor
- New daily, weekly and weekend programming options
- New boost option
- Open window detection
- Adaptative start control
- Easy to use keypad
- High precision electronics
- Safety thermal limiter
- Easy & quick installation
- Sealed for life - no maintenance required
- Complete with UK plug & power cord.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Elements</th>
<th>Output (W)</th>
<th>Voltage (V)</th>
<th>IP</th>
<th>Dimensions W x D x H (mm)</th>
<th>Weight</th>
<th>EAN Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC8TTinerzia</td>
<td>8</td>
<td>1000 W</td>
<td>230 V</td>
<td>20</td>
<td>750 x 100 x 572</td>
<td>19.0 kg</td>
<td>8423055002478</td>
</tr>
<tr>
<td>RC10TTinerzia</td>
<td>10</td>
<td>1500 W</td>
<td>230 V</td>
<td>20</td>
<td>903 x 100 x 572</td>
<td>23.5 kg</td>
<td>8423055002485</td>
</tr>
<tr>
<td>RC12TTinerzia</td>
<td>12</td>
<td>1800 W</td>
<td>230 V</td>
<td>20</td>
<td>1036 x 100 x 572</td>
<td>28.0 kg</td>
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</tr>
</tbody>
</table>
**MAIN FEATURES**

- Ultra slimline
- 2 towel rail supports for hanging towels
- Fully controllable remote RF digital thermostat
- Functions: Comfort, Eco, Auto, Stand-by & Programming
- ON/OFF switch
- 9 pre-set programs and 4 user programs
- Easy to install
- Wall brackets & fixings included
- Black power cord, no UK plug.

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### ELECTRICAL SPECIFICATION

<table>
<thead>
<tr>
<th>Reference</th>
<th>Colour</th>
<th>Output (W)</th>
<th>Voltage (V)</th>
<th>IP</th>
<th>Dimensions W x D x H (mm)</th>
<th>Weight</th>
<th>EAN Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTAL 4N</td>
<td>Black</td>
<td>400 W</td>
<td>230 V</td>
<td>34</td>
<td>480 x 140 x 840</td>
<td>12.5 kg</td>
<td>8423055002683</td>
</tr>
<tr>
<td>XTAL 4B</td>
<td>Aquamarine</td>
<td>400 W</td>
<td>230 V</td>
<td>34</td>
<td>480 x 140 x 840</td>
<td>12.5 kg</td>
<td>8423055002690</td>
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<tr>
<td>XTAL 6N</td>
<td>Black</td>
<td>600 W</td>
<td>230 V</td>
<td>34</td>
<td>580 x 140 x 1090</td>
<td>18.0 kg</td>
<td>8423055002706</td>
</tr>
<tr>
<td>XTAL 6B</td>
<td>Aquamarine</td>
<td>600 W</td>
<td>230 V</td>
<td>34</td>
<td>580 x 140 x 1090</td>
<td>18.0 kg</td>
<td>8423055002713</td>
</tr>
</tbody>
</table>

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**XTAL 4N**  **XTAL 4B**  **REMOTE CONTROL**
MAIN FEATURES

**TE425E / TE700E**
- Electronic thermostat
- 2 hours of forced heating operating mode
- Wall fixings included
- Ladder rail design
- 2 options of control
- Safety limiter
- White power cord, no UK plug.

**TE700i**
- Electronic thermostat
- LCD infrared remote programmer
- Daily temperature programming
- Wall fixings included
- Ladder rail design
- Safety limiter
- White power cord, no UK plug.

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<table>
<thead>
<tr>
<th>Reference</th>
<th>Colour</th>
<th>Output (W)</th>
<th>Voltage (V)</th>
<th>IP</th>
<th>Dimensions W x D x H (mm)</th>
<th>Weight</th>
<th>EAN Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>TE 425E</td>
<td>White</td>
<td>425 W</td>
<td>230 V</td>
<td>IP44</td>
<td>540 x 37 x 840</td>
<td>11.5 kg</td>
<td>8423055001761</td>
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<tr>
<td>TE 700E</td>
<td>White</td>
<td>700 W</td>
<td>230 V</td>
<td>IP44</td>
<td>540 x 37 x 1260</td>
<td>17.0 kg</td>
<td>8423055001778</td>
</tr>
<tr>
<td>TE 700i</td>
<td>White</td>
<td>700 W</td>
<td>230 V</td>
<td>IP44</td>
<td>540 x 37 x 1260</td>
<td>17.0 kg</td>
<td>8423055001785</td>
</tr>
</tbody>
</table>
MAIN FEATURES

- Specially designed for dwarf walls
- Digitally controlled electronic thermostat
- Dynamic fluid with high thermal inertia
- Temperature settings: Comfort, Economy & Anti-freeze
- Safety thermal limiter
- Seven pre-set lifestyle heating schedules and one bespoke option
- Weekly programming
- Manual programming function
- Easy & quick installation
- Sealed for life - no maintenance required
- Installation template, wall brackets & fixings included
- Energy monitoring feature
- Complete with UK plug & power cord.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Elements</th>
<th>Output (W)</th>
<th>Voltage (V)</th>
<th>IP</th>
<th>Dimensions W x D x H (mm)</th>
<th>Weight</th>
<th>EAN Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC11BL</td>
<td>11</td>
<td>1250 W</td>
<td>230 V</td>
<td>X2</td>
<td>1018 x 80 x 378</td>
<td>15.5 kg</td>
<td>8423055003987</td>
</tr>
<tr>
<td>RC13BL</td>
<td>13</td>
<td>1500 W</td>
<td>230 V</td>
<td>X2</td>
<td>1178 x 80 x 378</td>
<td>18.0 kg</td>
<td>8423055003994</td>
</tr>
</tbody>
</table>

www.haverland.co.uk
Introducing the Haverland Reward Scheme – the loyalty programme that gives INSTALLERS real rewards!

Get your prepaid Mastercard in five easy steps:

1. Buy Haverland products
2. Register at www.haverland-league.co.uk
3. Go to the ‘make a claim’ page
4. Put in all the purchase details and don’t forget to upload your proof of purchase!
5. Wait for your purchase to be approved.

Be rewarded flexibly with the Haverland Reward Scheme!

For further information please visit the Haverland Reward Scheme website at www.haverland-league.co.uk
Just like any heating system, there are a number of important factors that need to be taken into account to ensure the best performance of heating systems. This includes:

- **The building** – The age of the building, its size, number of external walls, and the quality of its insulation (if it has any) all affect efficiency of any heating system.

- **Room size** – If you get a radiator that is too small, you’ll struggle to get your room warm enough and if you get a radiator that is too big, you’ll waste money.

- **Insulation Levels** – If insulation values are very high then heat loss will be minimal and the radiator will reach the desired temperature sooner, which means it will consume less electricity and consequently be cheaper to run.

- **Lifestyle** – A young working couple may have different heating requirements compared with a retired couple.

- **Location** – The climate and subsequent heating demands will vary depending on where you are in the country.

- **Seasons** – All heating systems will work harder in winter compared with the British summer due to lower temperatures.

To ensure the correct heating system is selected for a specific environment, calculating the watts required is essential. This is achieved by multiplying the length of the room by its width to attain the number of square metres in a room.

### Recommended performance table

<table>
<thead>
<tr>
<th>UK Area</th>
<th>Not insulated</th>
<th>Normal Insulation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>North</td>
<td>South</td>
</tr>
<tr>
<td>Zone A</td>
<td>100</td>
<td>95</td>
</tr>
<tr>
<td>Zone B</td>
<td>105</td>
<td>100</td>
</tr>
<tr>
<td>Zone C</td>
<td>110</td>
<td>105</td>
</tr>
<tr>
<td>Zone D</td>
<td>115</td>
<td>110</td>
</tr>
</tbody>
</table>

*Figures are in watts per square metre

These calculations are based on a ceiling height of 3 metres. For any variations on that, either above or below, please contact Haverland UK for calculations.

N.B. These calculations should be considered as ‘average’ depending on climate zone, building fabrication and insulation quality.
HEATING CALCULATIONS

With a number of variables all influencing the effectiveness and efficiency of a heating system, estimating energy consumption can be challenging. We have produced an example to help.

The example calculates the energy consumption and total running cost of Haverland radiators in an 80m² three bed semi-detached house located within a cold area of the UK. The Haverland radiators are operated at various hours during the day and night to maintain a temperature of 21°C.

<table>
<thead>
<tr>
<th>Location</th>
<th>Maximum consumption (WH - set at 26°C)</th>
<th>Maximum consumption (WH - set at 21°C)</th>
<th>Hours of heat per day</th>
<th>Total electricity consumption (kwh) used per day</th>
<th>Total running cost per day (£0.115p kwh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lounge</td>
<td>RC12TT (1500W)</td>
<td>1500</td>
<td>9 Hours (7-9am and 3-10pm)</td>
<td>5.2</td>
<td>0.60</td>
</tr>
<tr>
<td></td>
<td>Kitchen</td>
<td>RC10TT (1250W)</td>
<td>8 Hours (6-10am and 5-9pm)</td>
<td>3.9</td>
<td>0.45</td>
</tr>
<tr>
<td></td>
<td>Hall</td>
<td>RC6TT (750W)</td>
<td>13 Hours (6-11am and 2-10pm)</td>
<td>3.8</td>
<td>0.44</td>
</tr>
<tr>
<td>Bed 1</td>
<td>RC10TT (1250W)</td>
<td>1250</td>
<td>8 Hours (6-9am and 5-10pm)</td>
<td>3.9</td>
<td>0.45</td>
</tr>
<tr>
<td>Bed 2</td>
<td>RC6TT (750W)</td>
<td>750</td>
<td>8 Hours (6-9am and 5-10pm)</td>
<td>2.3</td>
<td>0.26</td>
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<tr>
<td>Bed 3</td>
<td>RC6TT (750W)</td>
<td>750</td>
<td>9 Hours (6-9am and 5-10pm)</td>
<td>2.6</td>
<td>0.30</td>
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<tr>
<td>Bathroom</td>
<td>RC4TT (500W)</td>
<td>500</td>
<td>8 Hours (6-10am and 6-10pm)</td>
<td>1.5</td>
<td>0.17</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>6750</strong></td>
<td><strong>2630</strong></td>
<td><strong>63 Hours</strong></td>
<td><strong>23.2</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weekly running costs</th>
<th>Monthly running costs</th>
<th>Yearly running costs</th>
<th>Monthly direct debit</th>
</tr>
</thead>
<tbody>
<tr>
<td>£18.69</td>
<td>£74.76</td>
<td>£598.08</td>
<td>£49.84</td>
</tr>
</tbody>
</table>

*These are approximate figures based on running costs for 8 months of the year and should be considered as average. Haverland does not accept liability for the above calculations.

Thanks to advanced control features and innovative designs, Haverland radiators are an economical and energy-efficient way to heat a room. They allow users to program exact times and temperatures to minimise the usage and waste of electricity or heat and the rapid heat-up of the radiators means that when you want heat, you get heat.

The process of finding the ideal radiator isn’t always simple. We’re here to help. Please feel free to call us if you have any questions or queries or would like advice on the size of radiator you need to bring warmth to your rooms - email support@haverland.co.uk or call our Customer Support on 0330 3651940.

Please visit www.haverland.co.uk/btu-calculator to use our easy and interactive BTU calculator.

*Please note that the radiator calculators use industry standard formulas, however, the results are for guidance only and we make no guarantees as to the accuracy of individual results. For our interactive room calculator please visit www.haverland.co.uk/heating-calculator to find out more.