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Creda HEATING

NOBO HEATING

Product Directory **Autumn 2010**

Heating Solutions

NOW INCORPORATING NOBO HEATING

www.credaheating.co.uk

Index

Creda Heating

For over 40 years Creda Heating has been dedicated to heating the nation. And in the future, low carbon electricity will make electric heating the first choice for a lower carbon footprint and low lifetime cost of ownership.

Our heating technology has been developed with today's lifestyles in mind, so attention to style as well as efficiency and economy are paramount. As pioneers in electric heating, we continue to lead the field with innovative and contemporary product design, backed by nationwide after-sales support and a dedicated sales team.

Low carbon electricity provides low carbon heating from electric panel and storage heaters. Creda Heating is at the forefront of these developments with the latest technology, advanced energy-saving controls and contemporary styling to suit the homes of today.

As electricity generation gets ever greener, the world is turning to electric heating. Low carbon electricity, generated here in the UK and not imported from around the world, also gives us security of energy supplies and contributes to reducing the devastating impact of climate change. Our heating products are designed to comply with Part L of the Building Regulations which focuses on reducing carbon emissions and the conservation of fuel and power and our advanced heating control options assist in achieving the best possible SAP ratings (please see pages 6 and 7 for more details).

Electric heating products cost less to buy than a gas boiler system and are quick and easy to installer or upgrade. They offer total flexibility in the building design, with no complicated pipe runs, which can also leave gaps in the building fabric – a problem when air-tightness is a key factor in improving the carbon footprint of a building for Part L compliance.

At Creda Heating we also never forget that safety is also a major concern. Once installed, electric heating requires virtually no maintenance and unlike gas, there is no legal requirement for an annual landlord safety certificate.

And now Creda Heating also incorporates the NOBO heating range of panel heaters and controllers to give you even further choice (see pages 8-13 for full details).

Year in year out, electric heating provides instant, responsive and safe heating on demand. So whatever your requirements are – from new built to refurbishment, single room or whole development, domestic or commercial – we are here to help you develop the most effective, economical and environmentally friendly heating solution.

TPRIII Electronic pilot plus panel heaters with plug-in timer options or 4 zone central control.

Proline II Ladder style electric towel rails with fast response heating technology.

Eco-Response storage radiant heaters offer advanced heating technology with rapid response, touch temperature control.

Design application support

Application design

We have over 40 years experience in designing and supporting electrical heating installations. We are able to offer an expert application design service for all our products, helping new and existing customers alike to specify Creda products into real buildings and live projects, either off-plan, commenced new-build or refurbishments.

Our team of consultants will provide a clear and detailed specification of the products required for each property, together with a clear and simple summary of the total products for the project.

To take advantage of this service, simply complete the form on page 5 and send with a set of plan and elevation drawings to:

Creda Design
Millbrook House
Grange Drive
Hedge End
Southampton
SO30 2DF

Alternatively, information can be emailed to design@credaheating.co.uk

If you only need to know how much heat you need for one or two rooms please use our sizing table on page 47 which will give you an indication of the kilowatt loading required for a specific room. Alternatively we have an on-line calculator, which can be found at www.credaheating.co.uk*

Part L

In recent times, the proliferation of environmental legislation and ongoing revisions to the Building Regulations, all designed to reduce carbon intensity and improve energy efficiency, have made the design process more complex. However, we are able to offer advice on this as well.

Please see pages 6 and 7 for an overview of how to comply with the main regulation affecting heating – Part L. However, if you need specific advice on a project please speak to one of our heating design consultants or your Creda regional manager.

Creda on the Web

All of the information contained in this brochure is also available on our website www.credaheating.co.uk.

In addition to standard product information, you will also find details of wholesalers and contractors who sell and install the Creda Heating range, installation and operating instructions, brochure downloads, online heating calculator and a wealth of other self help information.*

*Updated website due to go live autumn 2010.

Heating design request form

Scheme No. _____ (GD only)

Fax back to: 01489 773067

Completed form to be returned to Design Department: Creda NOBO, Millbrook House, Grange Drive, Hedge End, Southampton SO30 2DF

Please note: We are unable to complete the scheme unless full name and address details are included

Company _____ Telephone _____

Address _____ Fax _____

_____ Email _____

_____ Contact _____

Site name _____

Address _____

Details

Type of property **(for a flat, please tick 'semi detached' unless there are other flats on both sides, in which case, tick 'terrace')**

House ☐ Bungalow ☐ Flat ☐ Other ☐ (please specify) _____ Detached ☐ Semi-detached ☐ Terraced ☐

Type of construction

Cavity wall Yes ☐ No ☐ With insulation Yes ☐ No ☐ Solid walls Yes ☐ No ☐ Floor Solid ☐ Timber ☐ Roof Pitched ☐ Flat ☐

Insulation None ☐ 100mm ☐ 150mm ☐ 200mm ☐ Glazing Single ☐ Double ☐ Approximate age of the property _____

Products to be specified

Please list below the product ranges you would like us to base the scheme on. Alternatively leave blank and we will match the right products to your property.

Type/usage of room (ie living room)	Area (m^2)	Floor to ceiling height	External wall length	Window area (m^2)	External door area (m^2)	Internal wall length to unheated areas	Is room above heated?	Roof above?	Open fireplace?

Please include a scaled/sketched drawing showing the relative position of the rooms.

Meeting Part L
The quick start guide!

Part L of the Building Regulations deals with the Conservation of Fuel and Power and is the regulation that affects electric heating systems in both new build and existing dwellings.

The Government has now confirmed that the implementation date for revisions of Part L will be 1st October 2010. However, at the time of going to press detailed information on how the new regulations will affect electric heating is still unclear, but there will be transitional provisions that allow building work to be completed after this date using the current 2006 edition of Part L.

These transitional provisions require a Building Regulation Application to be lodged before 1st October 2010 and work to start on site before 1st October 2011. There is no requirement to gain an unconditional Plans Approval within this 12 months period and for this reason the transitional provisions are not onerous to utilise.

Because of the lack of clarity on the 2010 changes and the fact that there is a transitional period, we have continued to provide information on how to comply with Part L 2006 as we believe this is the regulation that most organisations will be building to during the life of this brochure.

What changed in 2006?

All the old methods of compliance were abolished and replaced with a Target Carbon Emission Rate (TER).

Whatever fuel type you choose for the heating and hot water of your new building – gas, oil, LPG or electric – you have to show that the overall carbon emission rate is less than the target for that building type.

There are also minimum standards for U-values and air-tightness, which must be tested on completion of the building. However, even meeting all the minimum standards will not guarantee a pass.

The biggest change is that under the new rules the whole building is taken into consideration. Every factor that can influence carbon emissions is relevant and it's the whole building that must pass. So just building to minimum standards may not guarantee a pass because the whole building may still exceed the target carbon emission rate.

What's my target?

The target is set in terms of Kilograms of carbon dioxide for every square metre of the building, over the course of a year ($KgCO_2/m^2/yr$).

A range of sample buildings is used to set the target, which is then adjusted for the size and shape of the actual design and the heating and hot water plan.

The complex calculation of both the target and the actual score of your new building can be performed within special SAP 2005 approved software. (The government's adopted Standard Assessment Procedure). An accredited SAP assessor is required to complete this.

The targets created under Part L 2006 demand a 20% reduction in carbon emissions compared with the previous rules. This new tougher target was set to improve the country's energy efficiency and dependence on imported fuel and to reduce the devastating effects of climate change.

The tougher target applies to all relevant buildings, all products and all fuel types. It's the whole building that must comply, not any given product or building service.

Block Assessment

Part L 2006 has important rules for setting and achieving the targets in flats and apartments. So called '**Block Assessment**' allows for all the flats or apartments in a building to be assessed in one go.

Each flat or apartment can be dealt with as the developer or specifier feels appropriate for meeting the overall TER, across the different floors and sides of the building. Any given flat or apartment does not have to meet an individual TER as long as the whole building does.

This allows the developer or specifier flexibility in how to achieve the target. For example, solar thermal to selected flats or mechanical ventilation with heat recovery may be installed which would create carbon savings that can be shared out across the whole building. It also reduces running costs and becomes a major selling feature. For more advice on saving energy see the guide at the back of this brochure.

Can you comply using electric heating and hot water?

Yes.

The only test for compliance is that the building does not exceed the target carbon emission rate. We continue to supply electric heating and hot water solutions into fully compliant buildings. Electric heating has also been shown to have lower lifetime costs of ownership than gas, is easier and quicker to install, is maintenance free, offers great design flexibility and has lower initial capital costs.

Electric heating is the fuel of the future. Low carbon electricity from UK sources produces low carbon heating only with electric products.

How do I reduce the carbon emission rate of a building?

There are a number approaches that are proving most effective at reducing the carbon emission rate of a building. We recommend you consider the following options. In isolation or in combination, all of these options have been used in conjunction with modern electric heating.

1 Improve the air-tightness:

It is now mandatory to test the air-tightness of a building on its completion. There are minimum levels required under the new regulations but improving on these has been shown to be one of the best ways to reduce the carbon emission rate and therefore comply with Part L. Electric heating is helpful in this regard as it results in less holes and gaps in the building fabric than gas heating systems. The regulations require a minimum air-tightness of 10 cubic metres per hour per square metre of floor area at 50 Pascals of pressure. ($10m^3/h/m^2$ @ 50Pa). Many developments can now achieve 7 or 5 and some even $3m^3/h/m^2$ @ 50Pa.

2 Install mechanical ventilation with heat recovery:

Used in conjunction with improved air-tightness, so called MVHR recovers otherwise wasted heat and is a great advantage to the ventilation strategy. There are specific provisions within SAP (Appendix Q) which show how using MVHR can reduce the carbon emissions rate and help compliance with Part L.

3 Improve the building fabric:

There are minimum U-values for all elements of the building fabric. U-values are a measure of how much heat energy can escape through a given element of a building. However, simply meeting these alone does not guarantee compliance. By exceeding the minimum requirement significant improvements can be made on the carbon emission rate. It is possible to show compliance with Part L just by improving building fabric U-values. However, a combination of improved air-tightness, MVHR and modest improvements in building fabric U-values has proved most cost effective in many building developments. Consider reducing U-values for roofs to 0.14, walls to 0.3, floors to 0.2 and glazing to 1.8 but, generally speaking, the lower the better.

4 Consider glazing as a percentage of the building floor area:

The regulations assume that glazing coverage is equivalent to 25% of the floor area, which is more than most developments. Where this can be sensibly reduced it will improve the carbon emission rate of the building. If the specification of glazing is also improved the impact is increased. Consider gas filled or triple glazing.

5 Go renewable:

The installation of solar thermal hot water systems, heat-pumps or micro wind-turbines can have a number of major benefits. Often the installation of some of these products can turn an otherwise non-compliant building into a fully compliant one. However, many developers now also see this as the preferred route to meeting other planning requirements or aspirational targets for the use of micro-generation technologies. They can significantly reduce running costs and can be a great selling point. Please contact your Creda regional manager for more information.

6 Improve the lighting plan:

In some buildings the carbon impact of the lighting can be significant and expert advice can assist in demonstrating compliance with Part L. Modular lighting strategies should be considered. The traditional rules of thumb based on the number of rooms should give way to a recommended number of lighting points by square metre of floor area. It is good practice to install low energy fittings as standard indoors, with consideration given to highly effective control. Externally the regulations require a maximum 150W with automatic switch-off via PIR, photocell and timers.

7 Controllability reduces emissions:

It has been shown that easy to use, highly responsive heating systems actually reduce carbon emissions. When heating responds quickly it tends, in practice, to be used more effectively. Where controls are simple to use, people make better use of them. Modern electric heating is highly controllable and responsive. This is recognised within SAP. We offer leading edge electric heating with our Eco-Response technology. Integrated and sensitive thermostats within Creda electric heating products allow precise control room by room, ensuring solar gain is taken into account in maintaining a desired temperature and reducing carbon emissions.

8 Background heat:

By ensuring there is a low level background heat throughout the common walkways, like stairwells and landings in apartment blocks, adjoining walls are only considered semi-exposed for calculation purposes, reducing heat losses and improving the carbon emission rate. We offer modern electric heating solutions designed for this purpose.

9 Size the cylinder:

The regulations now assume a 170l water cylinder. By ensuring the cylinder is not oversized for its application, heat losses are reduced. If the cylinder size is reduced below 170l then the carbon emission rate is improved.

For more information on the new regulations go to www.communities.gov.uk/planningandbuilding

The NOBO range

New to Creda Heating, the NOBO range of panel heaters and controls.

NOBO Heating, recognised for its Norwegian manufactured electric panel heaters and energy control systems has now been integrated within Creda Heating.

For over 30 years NOBO products have built a reputation amongst professional specifiers, architects, designers and property developers who need a comprehensive solution to their electric heating needs. From a single, reliable panel to a multi-zone programmable network of heaters, NOBO can bring warmth and comfort to any environment.

Built in Norway, the NOBO heating range has a strong manufacturing heritage and is renowned for its design ethos, high technical performance and reliability.

NOBO heating products have been specified worldwide across a diverse range of applications and temperature conditions.

A panel heating system from the NOBO range puts the user in complete control of their energy needs, either through individual time and temperature controls or a range of central systems, including the Orion 700 RF multi-zone controller.

NOBO Electro in Norway has also been the market leader in the development of the LST heater concept and today, NOBO Heating is widely recognised as the preferred supplier of these highly technical and safety critical convector heaters.

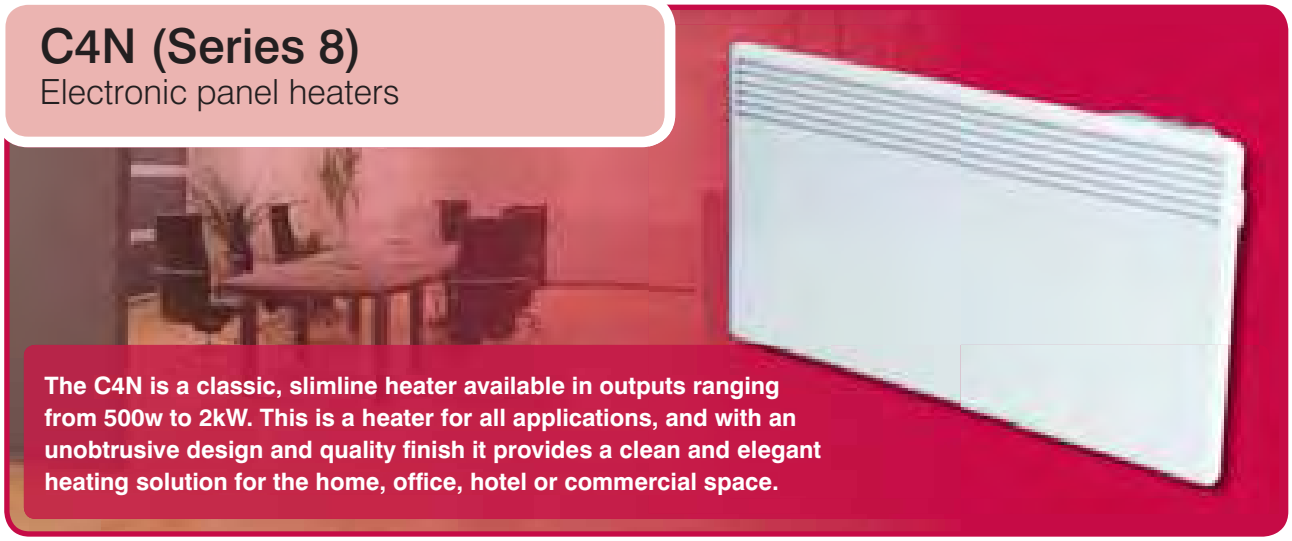
The C4N is a classic, slimline heater available in outputs ranging from 500w to 2kW.

The LST meets the NHS Estates Health Guidance Notes on 'Safe Hot Water and Surface Temperature'.

Total control of your heating system, when and where you need it with the Orion 700 wireless programmer.

E4EU (Series 14) Simple, understated, practical, economical. Admired for their unfaltering reliability, unprecedented heating options and cost effectiveness.

C4N (Series 8)
Electronic panel heaters



The C4N is a classic, slimline heater available in outputs ranging from 500w to 2kW. This is a heater for all applications, and with an unobtrusive design and quality finish it provides a clean and elegant heating solution for the home, office, hotel or commercial space.

Key features

- Extensive range of outputs
- Low capital costs
- Totally silent electronic thermostats
- Extremely shallow depth
- Minimal maintenance
- Tamperproof capability
- Complete range of custom designed thermostat control modules
- Pure White to RAL 9010

Control options

- RDC 700 (compatible with the Orion 700 RF control unit)
- GER T10 (dual electronic thermostat and timer)
- GE (single electronic thermostat)
- GCL (dual electronic thermostat and runback timer, PIR or key card timers)
- GCO (dual electronic thermostat and pilot wire for central timer, PIR or key card timers)
- GCH (dual electronic thermostat and pilot wire for central timer, PIR or key card timers)
- ZSE (single electronic thermostat with fixed economy setting and pilot wire)

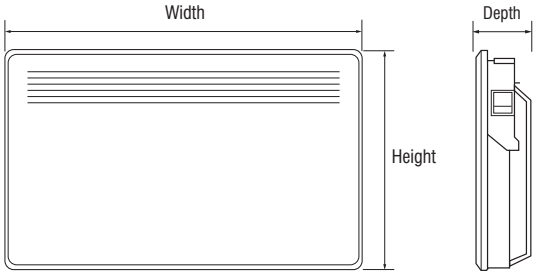
(Please see page 13 for more details)

PW PILOT WIRE

SH SINGLE HEATER

Technical Specification

- Thermostat – See 'Control options' opposite
- Finish – Pure White to RAL 9010
- Protection – Locking covers for controls are available
- IP rating – Splash proof to IP24
- Supply – 230/240V AC single phase



Accessories:

- Tamperproof switch cover ASB PL
- Tamperproof thermostat cover AOB PL

Product selector

Model	Rating (kW)	Height (mm)	Width (mm)	Depth (mm from wall)	Weight (kg)
C4N-0500	0.5	400	425	78	3.1
C4N-0750	0.75	400	525	78	3.7
C4N-1000	1	400	675	78	4.6
C4N-1250	1.25	400	825	78	5.6
C4N-1500	1.5	400	975	78	7.0
C4N-2000	2	400	1325	78	8.7

LST (Series 8)

Low surface temperature panel heaters

The LST meets the NHS Estates Health Guidance Notes on 'Safe Hot Water and Surface Temperature', as the surface temperature does not exceed 43°C at full output.

Key features

- Range of outputs
- Maximum surface temperature of 43°C
- Safe air leaving temperature
- Minimal maintenance
- Tamperproof capability
- Wide range of control options
- Stylish design

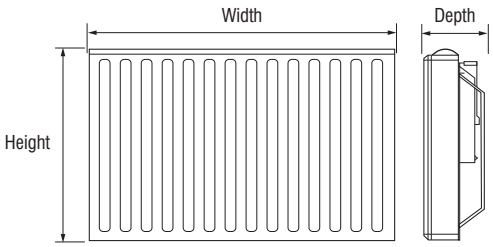
Control Options

- NOBO Orion 700 (EC 700)
- GCH module
- GCO module

(Please see pages 12 and 13 for more details)

Technical Specification

- Thermostat – See 'Control options' above
- Finish – Pure White to RAL 9010
- Protection – Locking covers for controls are available
- IP rating – Splash proof to IP24
- Supply – 230/240V AC single phase



This stylish convector heater incorporates a safety cut-out, totally silent electronic thermostat and creates no hot-spots, which can be a major weakness of other brands. The thermostat controls can also be fitted with locking covers making them tamperproof. All of these features ensure safe operation within certain sectors of the community, such as:

- Nursing homes
- Nurseries
- Hotels
- Public buildings
- Hospitals
- Doctors' surgeries
- Schools
- Residential homes
- Public waiting areas

The heater utilises the proven electronic plug-in proportional thermostats with temperature scales designed to achieve optimum warmth and comfort with maximum safety. Typically, the range will be 14°C – 24°C and where control management is required the NOBO Orion 700 wireless RF controller or the pilot wire controlled GCH and GCO modules can be used for the management of economy and safety levels.

Please see page 13 for more information on control options.

Product selector

Model	Rating (kW)	Height (mm)	Width (mm)	Depth from wall (mm)	Weight (kg)
LST-5N05	0.5	515	775	145	6.3
LST -5N08	0.8	515	1275	145	9.25
LST -5N010	1	515	1575	145	11.25

E4EU (Series 14)

Electric panel heaters with integral timer

Simple, understated, practical, economical. Admired for their unfaltering reliability, unprecedented heating options and cost effectiveness, this robust and stylish range of products is used extensively across both domestic and commercial applications.

Key features

- Splash proof to IP24
- Fully programmable 24 hour and 7 day digital timer with Auto On, Auto Off and Manual modes
- Power failure memory backup of 150 hours using internal Ni-cad rechargeable battery
- Easy cleaning hinged wall brackets
- Extremely shallow depth
- Minimal maintenance
- Available in 500, 750, 1000, 1250, 1500 and 2000 watt outputs
- Variable temperature control from 5°C to 30°C
- Over heat safety cut-out
- Top air outlets
- Rounded corners

Control options

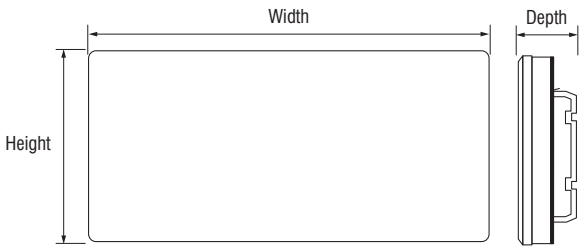
- E4EU thermostatic controller supplied as standard

PW PILOT WIRE

SH SINGLE HEATER

Technical Specification

- Thermostat – See 'Control options' opposite
- Finish – Pure White to RAL 9010
- Protection – Locking covers for controls are available
- IP rating – Splash proof to IP24
- Supply – 230/240V AC single phase



Accessories:

- Tamperproof thermostat cover for Series 14 – S-14

Product selector

Model	Rating (kW)	Height (mm)	Width (mm)	Depth from wall (mm)	Weight (kg)
E4EU-0500	0.5	400	475	71	3.4
E4EU-0750	0.75	400	625	71	4.3
E4EU-1000	1	400	775	71	5.2
E4EU-1250	1.25	400	975	71	6.4
E4EU-1500	1.5	400	1125	71	7.5
E4EU-2000	2	400	1525	71	9.9

Multi zone control

Wireless and pilot wire programmers

Total control of your heating system, when and where you need it. Amidst growing interest in energy conservation, the NOBO multi zone controls provide the ability to reduce energy use and achieve optimal comfort.

Orion 700 (EC 700) Wireless RF programmer

The Orion 700 is stylish, easy to use and ingenious in its technical capabilities. This unique system can automatically control a wide range of individual zones in living rooms, bedrooms and bathrooms.

Heating zones are created by giving them a name, a named zone may then be given a programme. Programmes consist of seven individual and separate days, (Monday to Sunday) and each day is divided up into 48 half-hourly periods which may be set on either (on) or (off). Individual or group override facility for holidays and frost protection is provided.

Key features

- Designed to provide 24/7 cost effective zone controlled heating
- Ancillary function control
- Fully compatible with the acclaimed NOBO C4N and LST heaters
- Elegant, contemporary design in smooth black finish
- Capable of controlling up to 100 zones
- Automatically relays signals on to other receivers
- Daily or weekly individual control options
- Simple installation
- Full programme retention in the event of a power failure

Receivers

RDC 700

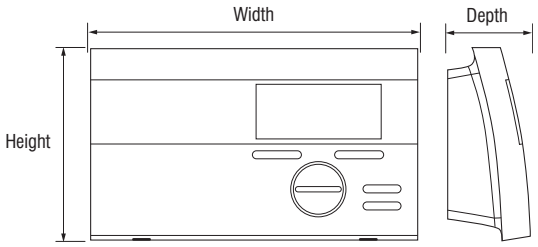
The RDC 700 models have built-in receivers for the C4N panel heaters, which can interpret commands and relay signals back to the control unit.

RS 700

For control of small appliances up to 10 amps, typically towel rails.

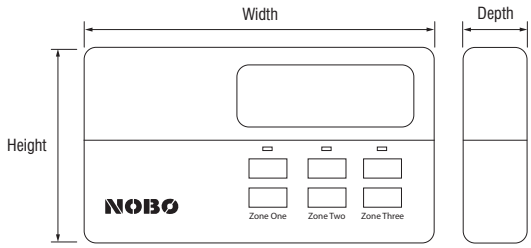
RSX 700

For control of fixed appliances up to 16 amps. DIN rail mounting, typically for hot water.



2 and 3 Zone Control Systems

The 2 and 3 zone pilot wire control systems are electronic 7-day heating and hot water programmers that can save energy and create a comfortable environment. Compatible with C4N and E4EU heaters, this system can be used to control separate heating zones or heating and hot water.



Key features

- Designed to provide 24/7 cost effective zone controlled heating
- Fully compatible with the NOBO E4EU, C4N and LST heaters
- Simple installation
- Holiday advance option
- An 'advance' button allowing instant switch from ON to OFF, or OFF to ON
- A 'boost' facility providing a one or two hour boost of extra heating or hot water when required

Product selector

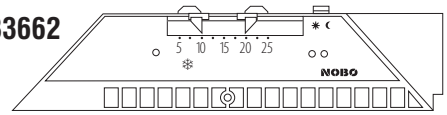
Model	Enclosure	Voltage (v)	Consumption (ma)	Height (mm)	Width (mm)	Depth (mm)
EC 700	IP20	230 – 240	80	180	113	46
RSX 700	IPX0	230 – 250	20	70	54	57
RS 700	IPX0	230 – 240	20	57	53	28
H272	IP30	230 – 240	-	101	163	33
H372	IP30	230 – 240	-	101	163	33

Control options

The performance and economy of NOBO panel heaters can be further enhanced by the use of control options which are specifically designed for different lifestyle requirements.

Thermostat modules for LST range

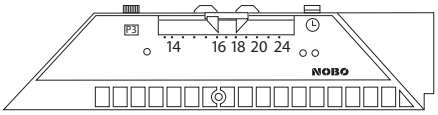
RDC 700 LST 8833662



Application
- Hospitals
- Nurseries
- Offices
- Various applications

Specification
- Double electronic thermostat
- Proportional temperature regulation
- Radio frequency control
- Adjustable set-back temperature setting

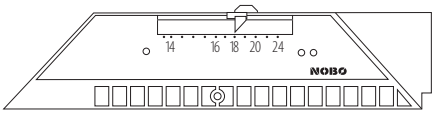
LST-T9 8833224



Application
- Public areas
- Domestic applications
- Office disabled facilities
- Various applications

Specification
- Double electronic thermostat
- Proportional temperature regulation
- Integral timer with 9 pre-set programmes
- Frost protection setting

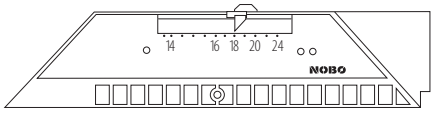
GCH 8833227



Application
- Nursing homes
- Sitting areas
- Children's play areas
- Various applications

Specification
- Double electronic thermostat
- Proportional temperature regulation
- LST temperature scale
- Fixed set-back temperature setting

GCO 8833233

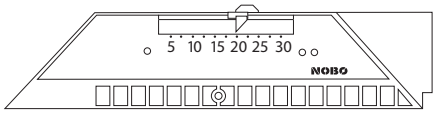


Application
- Doctors surgeries
- Hospitals
- Office disables facilities
- Various application

Specification
- Double electronic thermostat
- Proportional temperature regulation
- LST temperature scale
- Fixed frost protection setting

Thermostat modules for C4N range

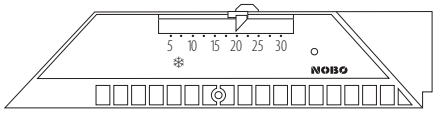
ZSE 8833211



Application
- Apartments
- Standard applications
- Domestic

Specification
- Double electronic thermostat
- Proportional temperature regulation
- Fixed set-back temperature setting

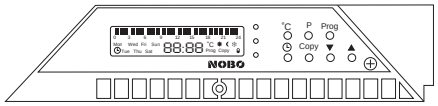
GE 8833215



Application
- Standard applications

Specification
- Single electronic thermostat
- Proportional temperature regulation

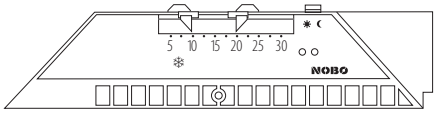
GER T10 8833221



Application
- Standard applications
- Domestic
- Commercial

Specification
- Double electronic thermostat
- Proportional temperature regulation
- Integral programmable timer
- Fixed frost protection setting

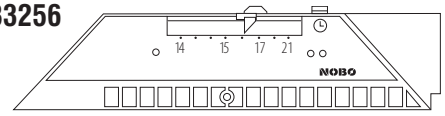
RDC 700 8833661



Application
- Central control applications
- Domestic
- Commercial

Specification
- Double electronic thermostat
- Proportional temperature regulation
- Radio frequency control
- Fixed frost protection setting

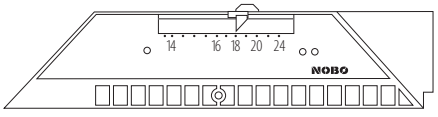
GCL 8833431/8833256



Application
- Student applications
- Occasional occupation

Specification
- Double electronic thermostat
- Proportional temperature regulation
- Integral single shot run-back timer
- Fixed set-back temperature setting

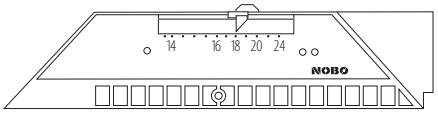
GCH 8833227



Application
- Hotels
- Nursing homes
- Various applications

Specification
- Double electronic thermostat
- Proportional temperature regulation
- Cable connection for remote control
- Fixed set-back temperature setting

GCO 8833233



Application
- Hotels
- Nursing homes
- Various applications

Specification
- Double electronic thermostat
- Proportional temperature regulation
- Cable connection for remote control
- Fixed set-back temperature setting

Eco-Response

Intelligent heating technology

Warmth where it's needed, when it's needed in a single room or across the home. A constant low level of background heat prevents the fabric of the building from cooling. On demand, this fast-acting appliance raises the temperature to meet your needs, providing total control and low running costs.

Key features

- Economical use of energy utilising the best of stored and direct acting heating technologies
- Contemporary design – looks good in any home
- Unobtrusive – takes up no more space than a traditional wet radiator
- Simple one-touch electronic controls with child lock facility
- Rapid response to changing temperature demands
- Designed for rapid assembly to keep installation costs down
- Requires no annual maintenance
- Optional central controller for 4 zone pilot wire linked heating system

Stored heat – maintains low level background heat to keep the fabric of the building warm, utilising economy off-peak electricity.

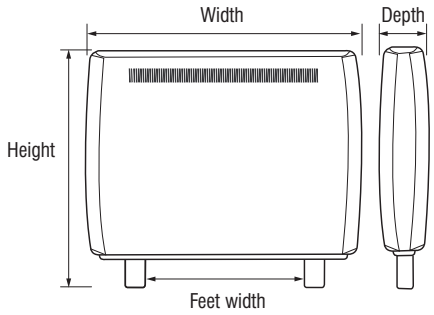
Simple integral control on top of the heater – allows easy adjustment to achieve the user's preferred comfort temperature.

Radiant heat – rapidly raises temperature to required comfort level on demand.

PW PILOT WIRE

Technical Specification

- Elements (Storage) – 650W incoloy sheathed, mineral filled elements
- Element (Direct Acting) – cable-on-foil thin facia panel
- Thermostat (Input) – integral electronic charge limiter. Maximum core temperature 670°C/690°C at full charge
- Thermostat (Output) – integral electronic thermostat with child lock facility
- Thermal Insulation – Carbowool 128kg/m², Microtherm G and calcium silicate
- Energy Retention Cells – high density bonded magnetite
- Protection (Storage) – automatic reset core limit thermostat and manual over-temperature cut out
- Protection (Direct Acting) – automatic reset limit thermostat and automatic reset over-temperature cut out
- Finish – white polyester and zinc coated steel with grey base
- Cable (Storage) – 1.6m 2.5mm² 3 core
- Cable (Direct Acting) – 1.6m 0.75mm² 2 core
- Supply – 230/240V AC single phase



Minimum clearance required

- 75mm either side of heater
- 150mm in front of the heater
- 250mm directly above the heater

Product selector

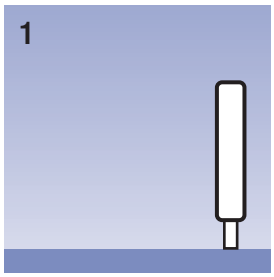
Model	Nominal Output (kW)	Charge Acceptance (kWh)	Input Rating, Off Peak (kW)	Input Rating, Radiant Elt. (kW)	Number of Elements	Number of Bricks	Weight (kg)	Height (mm)	Width (mm)	Depth (mm)	Feet position (mm)
ER300	0.7	9.1	1.3	0.28	2	8	65	712	600	130+10	295
ER400	1	13.65	1.95	0.34	3	12	94	712	830	130+10	523
ER500	1.4	18.2	2.6	0.39	4	16	124	712	1060	130+10	751

PW E4ZC 4 zone pilot wire central controller

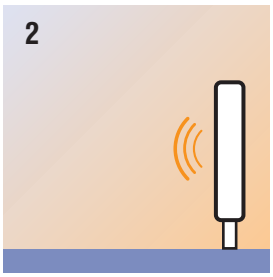
Eco-Response
Storage radiant heaters

Why Eco-Response?

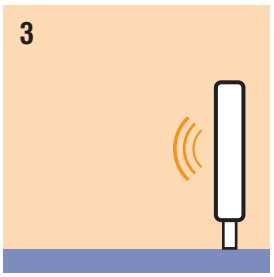
Conventional heater



With a conventional 'wet' heating system, when heating goes off, building shell cools.

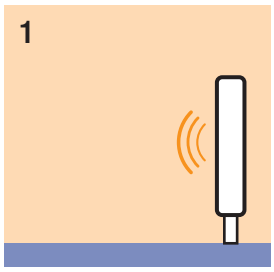


The building shell has to then be warmed again before room feels comfortable.

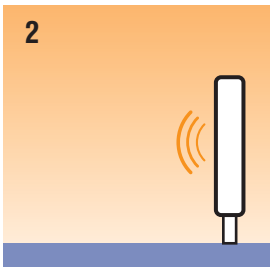


This takes time and energy – slow response.

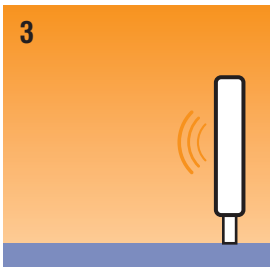
Eco-Response



It is smarter to maintain low level background heat.



The room temperature can be raised quickly and efficiently when needed.



Economical.
Responsive.
Intelligent.

PART L and SAP 2005

The Creda Eco-Response has been developed to help meet the needs of Part L 2006 Building Regulations and provides enhanced SAP scores.

Specifiers will benefit from the 'integrated storage/direct acting heater' category within table 4a of SAP 2005 which rewards the enhanced controllability of Eco-Response with a 100% efficiency rating, placing this leading technology in heating type 2 with a responsiveness weighting of 0.75.

Control options

4 zone pilot wire central controller

Allows 7 day programming of comfort/setback time settings of multiple pilot wire linked heaters in up to 4 separate zones. See pages 22-23 for more details.

Model PW E4ZC

Matching TPRIII E Electronic panel heaters also available for pilot wire linked heating systems (See pages 22-23).

Contour100
Electronic panel heater

The Contour100 panel heater range offers high quality build and panel finish with contemporary radiator styling. Contour100 panel heaters incorporate electronic thermostatic controls which allow very precise regulation of room temperatures.

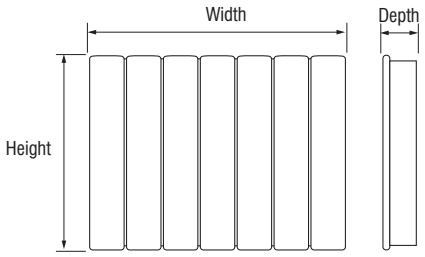
Key features

- Contemporary radiator styling
- Electronic thermostatic control, accurate to +/-0.3°C
- Convected heat for rapid warm up
- Silent operation
- Pre-set background temperature at 5°C below thermostat setting (when connected to a programming unit supporting setback feature)
- Hidden thermostat range limiter feature – for additional economy
- Range of optional plug-in electronic timer modules, including:
  - 24 hour digital timer (Model TPR E24T)
  - Single zone 7 day pilot wire programmer (Model TPR E7DT)
  - Runback timer (Model TPR ERBT)
- Compatible with Creda 4 zone pilot wire central controller

PW PILOT WIRE SH SINGLE HEATER

Technical Specification

- Elements – finned, mineral-filled sheath type
- Thermostat – electronic with 5°C setback control capability
- Finish – white powder coated steel and thermoplastic
- Protection – auto reset thermal cutout
- Cable – 1.2 metres, 4 core (live, neutral, pilot and earth)
- IP rating – IPX4 (splashproof)
- Supply – 230/240V AC single phase

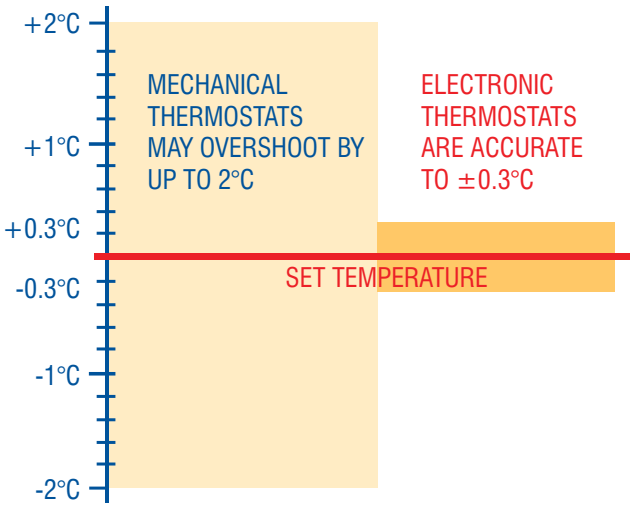


Product selector

Model	Rating (kW)	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
CEP 500E	0.5	536	503	104	12
CEP 750E	0.75	536	503	104	12
CEP 1000E	1	536	671	104	15
CEP 1500E	1.5	536	741	104	17.5
CEP 2000E	2	536	911	104	22

Contour100
Electronic panel heater

Contour100 Electronic Thermostat



The Contour100 electronic panel heaters feature highly accurate electronic thermostats (+/-0.3°C), providing superior comfort and operating efficiency.

As the room temperature nears the desired set point, power to the elements is reduced. The room temperature is closely monitored to an accuracy of less than 0.3°C, minimising overshoot and temperature drift, resulting in better energy efficiency and user comfort.

Control options

A range of optional plug-in control modules, which can be removed from the heater for easy programming, provide the flexibility for TPRIII to meet a wide range of control specifications:

- TPR E24T 24 hour digital timer. Provides 24 hour programmable on/off control.

- TPR E7DT single zone, pilot wire programmer controls up to 10 slave heaters. Provides 7 day programmable on/off control.

- TPR ERBT runback timer. Provides installer programmable runback time up to 4 hours (in 30 minute increments). Can be locked into heater.

Control Options

4 zone pilot wire central controller

Allows 7 day programming of comfort/setback time settings of multiple pilot wire linked heaters in up to 4 separate zones. See page 22 for more details.

Model PW E4ZC

Product selector

Model	Product Description	Height (mm)	Width (mm)	Depth (mm)
TPR E24T	24 hour plug-in timer module	50	70	145
TPR E7DT	7 day single zone plug-in timer module	50	70	145
TPR ERBT	4 hour run back timer plug-in module	50	70	145
PW E16A	16 amp pilot wire interface unit	86	86	22
PW E4ZC	4 zone pilot wire central controller	132	86	38

TPRIII E

Electronic Pilot Plus panel heaters

TPRIII Electronic Pilot Plus panel heaters incorporate electronic thermostatic controls to allow precise regulation of room temperatures – essential when comfort, economy and energy efficiency need to be considered in equal measure.

Key features

- Front facing grille for efficient heat projection
- Styling to complement Eco-Response radiators with pure white finish
- Electronic thermostatic control +/-0.3ºC, completely silent operation
- Pre-set background temperature at 5ºC below thermostat setting (when connected to a programming unit supporting setback feature)
- Optional plug-in electronic timer modules, including:
  - 24 hour digital timer (Model TPR E24T)
  - Single-zone pilot wire programmer (Model TPR E7DT)
  - Runback timer (Model TPR ERBT)
- Compatible with Creda 4 zone, wall mounted pilot wire signalling multi-heater programmers
- Hidden thermostat range limiter feature – for additional economy
- Simple detachable wall bracket for easy installation

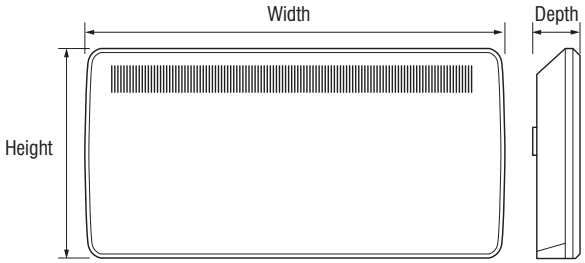
PW PILOT WIRE SH SINGLE HEATER

TPRIII E Electronic rotary thermostat

Improved economy may be achieved by limiting the thermostat rotational range, by means of the mechanical 'peg and hole' feature hidden beneath a removable cap on the thermostat knob.

Technical Specification

- Element – finned, mineral-filled sheathed type
- Thermostat – electronic with fixed 5ºC setback facility
- Finish – white powder coated steel and thermoplastic
- Protection – auto reset thermal cut-out
- IP rating – IPX4 (splashproof)
- Cable – 1.2 metres, 4 core cable (live, neutral, pilot and earth)
- Supply – 230/240V AC single phase

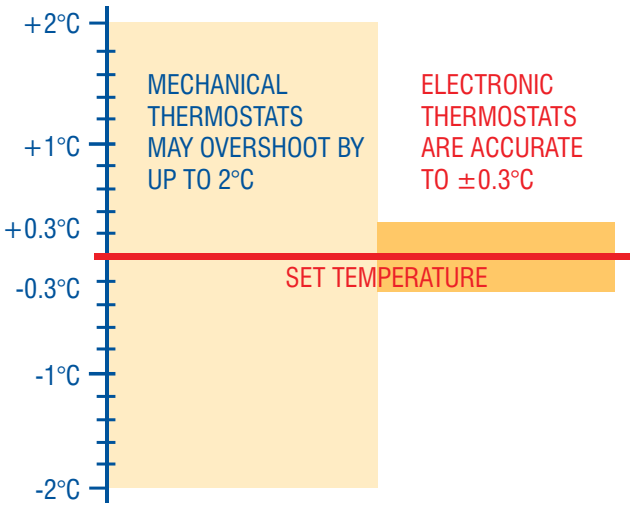


Product selector

Model	Loading (kW)	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
TPRIII 500E	0.5	430	450	108	5.2
TPRIII 750E	0.75	430	620	108	6.6
TPRIII 1000E	1	430	620	108	6.6
TPRIII 1250E	1.25	430	690	108	7.1
TPRIII 1500E	1.5	430	690	108	7.1
TPRIII 2000E	2	430	860	108	8.5

TPRIII E
Electronic Pilot Plus panel heaters

TPRIII E Electronic Thermostat



The TPRIII E electronic panel heaters feature highly accurate electronic thermostats (+/-0.3°C), providing superior comfort and operating efficiency.

As the room temperature nears the desired set point, power to the elements is reduced. The room temperature is closely monitored to an accuracy of less than 0.3°C, minimising overshoot and temperature drift, resulting in better energy efficiency and user comfort.

Control options

A range of optional plug-in control modules, which can be removed from the heater for easy programming, provide the flexibility for TPRIII to meet a wide range of control specifications:

- TPR E24T 24 hour digital timer. Provides 24 hour programmable on/off control.

- TPR E7DT single zone, pilot wire programmer controls up to 10 slave heaters. Provides 7 day programmable on/off control.

- TPR ERBT runback timer. Provides installer programmable runback time up to 4 hours (in 30 minute increments). Can be locked into heater.

Control Options

4 zone pilot wire central controller

Allows 7 day programming of comfort/setback time settings of multiple pilot wire linked heaters in up to 4 separate zones. See page 22 for more details.

Model PW E4ZC

Product selector

Model	Product Description	Height (mm)	Width (mm)	Depth (mm)
TPR E24T	24 hour plug-in timer module	50	70	145
TPR E7DT	7 day single zone plug-in timer module	50	70	145
TPR ERBT	4 hour run back timer plug-in module	50	70	145
PW E16A	16 amp pilot wire interface unit	86	86	22
PW E4ZC	4 zone pilot wire central controller	132	86	38

Newera Style

Electronic panel heaters

Safety and comfort feature highly in the design of the Newera Style, manufactured from composite material to provide a lower surface temperature without loss of convected heat with a unique outlet grille design.

Key features

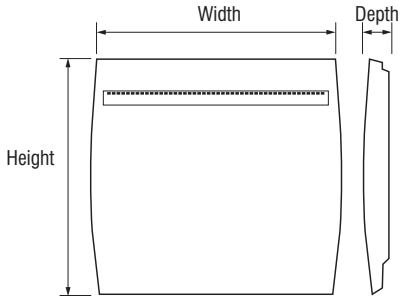
- Unique grille design
- Composite construction for lower surface temperature without loss of convected heat
- Twin electronic thermostats for comfort and setback
- Mains borne and pilot wire control options

PW PILOT WIRE MB MAINS BORNE

Integral twin electronic thermostats for setting comfort and setback temperatures.

Technical Specification

- Elements – finned, metal sheathed mineral filled type
- Thermostats – twin electronic
- Protection – two level thermal safety overheat
- Supply – 230/240V AC single phase
- IP Rating – IPX4 (splashproof)



Control options

Newera Style and Newera Electronic panel heaters may be connected as a centrally controlled system using the optional mains borne accessories.

The MB programmer communicates with the heaters and controls a comfort or setback thermostat as per the times set in the programmer.

MB Programmer Model MBPRG
MB Interface Model MBIF

Allows 7 day programming of comfort/setback time settings of multiple pilot wire linked heaters in up to 4 separate zones.

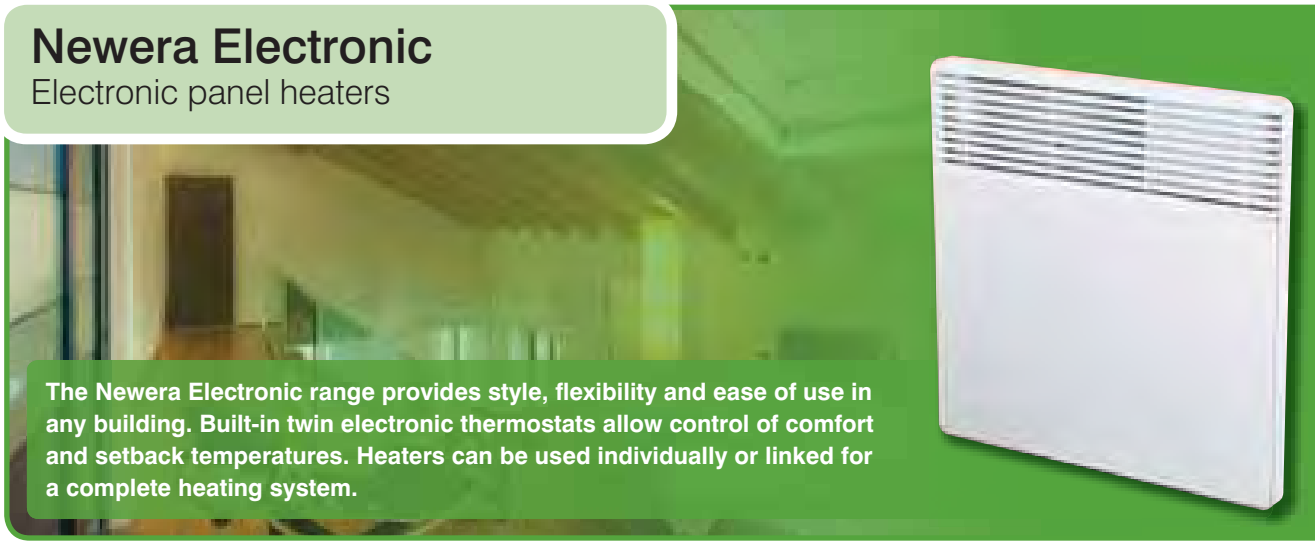
4 zone pilot wire central controller Model PW E4ZC

Product selector

Model	Rating (kW)	Height (mm)	Width (mm)	Depth (mm)
PPH750	0.75	615	497	135
PPH1000	1	615	645	135
PPH1500	1.5	615	941	135
PPH2000	2	615	1163	135
MBPRG	Newera MB programmer			
MBIF	Newera MB interface			
PW E4ZC	4 zone pilot wire central controller			

Newera Electronic

Electronic panel heaters



The Newera Electronic range provides style, flexibility and ease of use in any building. Built-in twin electronic thermostats allow control of comfort and setback temperatures. Heaters can be used individually or linked for a complete heating system.

Key features

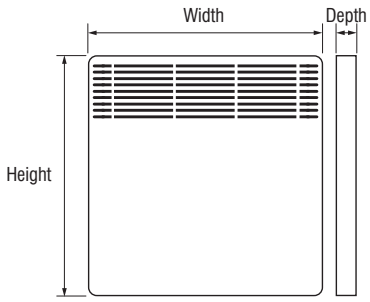
- Twin electronic thermostats for comfort and setback
- Compact, attractive design occupying minimum wall space
- Mains borne and pilot wire control options
- Hinged wall mounting bracket to allow easy access for cleaning and decorating

PW PILOT WIRE MB MAINS BORNE

Integral twin electronic thermostats for setting comfort and setback temperatures.

Technical Specification

- Elements – finned, metal sheathed mineral filled type
- Thermostats – twin electronic
- Protection – two level thermal safety overheat
- Supply – 230/240V AC single phase
- IP Rating – IPX4 (splashproof)



Control options

Newera Style and Newera Electronic panel heaters may be connected as a centrally controlled system using the optional mains borne accessories.

The MB programmer communicates with the heaters and controls a comfort or setback thermostat as per the times set in the programmer.

MB Programmer Model MBPRG
MB Interface Model MBIF

Allows 7 day programming of comfort/setback time settings of multiple pilot wire linked heaters in up to 4 separate zones.

4 zone pilot wire central controller Model PW E4ZC

Product selector

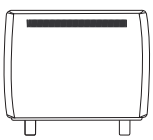
Model	Rating (kW)	Height (mm)	Width (mm)	Depth (mm)
EPH500	0.5	450	370	78
EPH1000	1	450	445	78
EPH1250	1.25	450	520	78
EPH1500	1.5	450	590	78
EPH2000	2	450	740	78
PW E4ZC	4 zone pilot wire central controller			
MBPRG	Newera MB Programmer			
MBIF	Newera MB Interface			

Control options

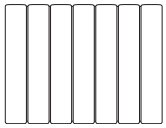
The performance and economy of Creda heating products can be further enhanced by the use of control options best suited to the type of installation and lifestyle requirements.

Wall mounted controller for 4 zone pilot wire linked heating system

Pilot Wire Controller
Model PW E4ZC

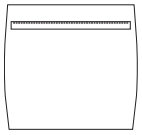


Eco-Response Storage Radiant Heaters

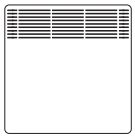


Contour100 Electronic Panel Heaters

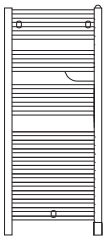
TPRIII E Electronic Panel Heaters



Newera Style Electronic Panel Heaters



Newera Electronic Panel Heaters



Outline Thermostatic Towel Rails

Note: Pilot wire installations are appropriate for single phase connection only.

Pilot wire signalling – ideal control system option for new build applications

4 zone wall mounted central controller – mains powered with 4hr backup

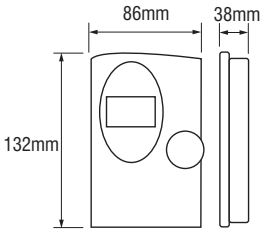
Number of heaters – up to 20 in the same zone

Controller features:
TIME – individual 7 day programming of multiple time periods MODES – on/off, comfort/setback or comfort/frost. Also with manual override selection and holiday functions

Panel Heater features – integral electronic thermostat for comfort temperature selection with a fixed 5ºC setback from comfort, and frost protection at 5ºC

Online towel rails feature – integral thermostat for comfort temperatures, fixed 3-4ºC setback from comfort and frost at 7ºC. Also has manual override, 2hr boost and thermostat range restriction options

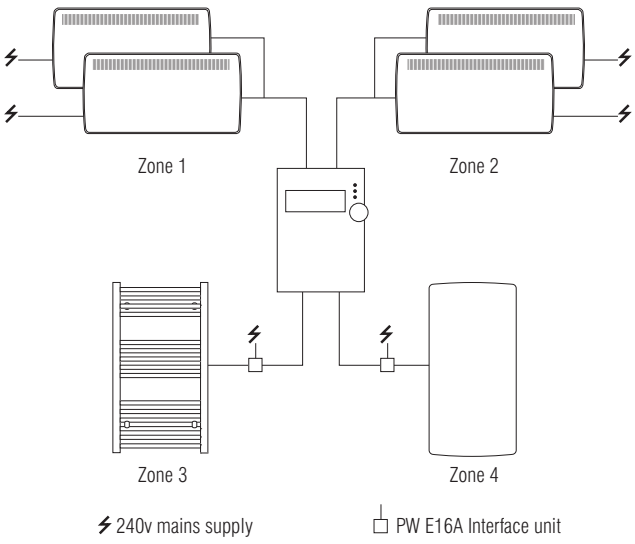
Dimensions



Pilot wire heating system

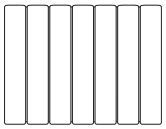
The PW E4ZC central controller allows 7 day programming for comfort and setback temperature periods of multiple pilot wire linked heaters in up to four separate zones.

- 4 separate heating zones
- Heater modes – Comfort/Setback, Comfort/Frost or Comfort/Off
- Wall mounted mains powered controller with capacitor back up (approx. 4hrs)



Plug-in 7 day heater module for single zone pilot wire linked system

7 Day Timer
Pilot Wire
Model TPR E7DT



Contour100 Electronic Panel Heaters

TPRIII E Electronic Panel Heaters

Pilot wire signalling – ideal control system option for new build applications

Single zone plug-in module controller – mains powered by panel with 12hr backup

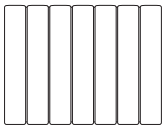
Number of heaters – up to 10 slave panels pilot wire linked in a single zone

Timer features:
4 on/off time periods for weekdays and 4 for weekends

Additional features: key lock and 'advance to next programme' functions

Plug-in 24 hour timer module for single heater control

24 Hour Timer
Model TPR E24T



Contour100 Electronic Panel Heaters

TPRIII E Electronic Panel Heaters

Single heater control – not system linked

24hr plug-in timer module – mains powered by panel with 12hr backup

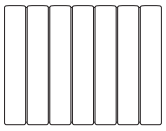
Number of heaters – single heater control only

Timer features:
4 on/off time periods in 24hr

Additional features: key lock and 'advance to next programme' functions

Plug-in runback timer module for single heater control

Run Back timer
Model TPR ERBT



Contour100 Electronic Panel Heaters

TPRIII E Electronic Panel Heaters

Single heater control – not system linked

Runback plug-in timer module – mains powered by panel

Number of heaters – single heater control only

Timer features:
on/off fixed runback time from 1/2hr up to a 4hr period (1/2hr increments selected at installation)

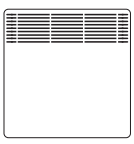
Special function – an alternative selection that switches from comfort to setback for an initial 24hr period, then switches to frost protect mode

Plug-in timer for single zone mains borne panel heating system

MB Programmer
Model MBPRG

MB Receiver interface
Model MBIF

Newera Style Electronic Panel Heaters



Newera Electronic Panel Heaters

Mains borne signalling – no additional signal cabling required ideal for retro fit installations

Single zone plug-in programmer – powered by panel with battery backup

Number of heaters – any number of panels each with a receiver interface unit fitted

Controller features – 3 separate time clocks with hourly on/off period selection over 24hrs. Each can be allocated to one or more days of the week

Panel heater features – integral twin linked electronic comfort and setback thermostats

TPRIII M/MT

Mechanical thermostatic panel heaters

Designed to complement Creda storage heaters, TPRIII mechanical thermostatic panels are ideal for any areas which require heating for short periods of the day. Cost effective, they offer an efficient way to extend existing heating systems and come with various control options to suit different applications.

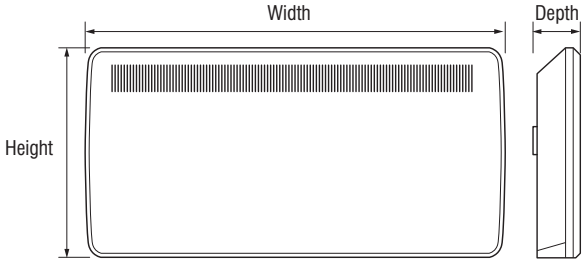
Key features

- TPRIII (MT) models have programmable 24 hour timers
- TPRIII (MT7) model has a programmable 7 day timer
- Full or half power output selection
- Adjustable thermostat (5-30°C)
- Convected heat for rapid warm-up. Suitable for domestic or commercial use
- Frost protection setting
- Front heat outlet grille for efficient heat circulation
- Lockable dust cover
- Detachable hinged wall mounting bracket for fast installation and easy cleaning

SH SINGLE HEATER

Technical Specification

- Element – mineral-filled sheathed type
- Thermostat – capillary type
- Finish – white powder coated steel
- Protection – auto reset thermal cut-out
- IP rating – IPX4 (splashproof)
- Supply – 230/240V AC single phase



Range options

TPRIII M mechanical thermostat (all ratings).

TPRIII MT mechanical thermostat and 24hr timer (all ratings).

TPRIII MT7 mechanical thermostat with 7day timer (2kW model only).

Product selector

Model	Rating (kW)	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
Thermostat only models					
TPRIII 500M	0.5	430	450	108	4.8
TPRIII 750M	0.75	430	620	108	6.2
TPRIII 1000M	1	430	620	108	6.2
TPRIII 1250M	1.25	430	690	108	6.6
TPRIII 1500M	1.5	430	690	108	6.6
TPRIII 2000M	2	430	860	108	8.0
Timer models 24hr					
TPRIII 500MT	0.5	430	450	108	4.8
TPRIII 750MT	0.75	430	620	108	6.2
TPRIII 1000MT	1	430	620	108	6.2
TPRIII 1250MT	1.25	430	690	108	6.6
TPRIII 1500MT	1.5	430	690	108	6.6
TPRIII 2000MT	2	430	860	108	8.0
Timer model 7 day					
TPRIII 2000MT7	2	430	860	108	8.0

TPRIII NC
No controls panel heaters

A range of panel heaters without any integral controls for use in applications where external control of temperature and time programming is required.

Key features

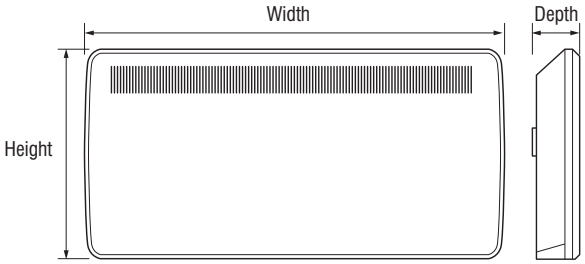
- Convected heat for rapid warm-up
- Suitable for domestic or commercial use
- Front heat outlet grille for efficient heat circulation
- Detachable hinged wall mounting bracket for fast installation and easy cleaning

SH SINGLE HEATER

No built-in controls to enable external time and temperature control.

Technical Specification

- Element – mineral-filled sheathed type
- Finish – white powder coated steel
- Protection – auto reset thermal cut-out
- IP rating – IPX4 (splashproof)
- Supply – 230/240V AC single phase



Product selector

Model	Rating (kW)	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
No controls models					
TPRIII 500NC	0.5	430	450	108	4.8
TPRIII 750NC	0.75	430	620	108	6.2
TPRIII 1000NC	1	430	620	108	6.2
TPRIII 1250NC	1.25	430	690	108	6.6
TPRIII 1500NC	1.5	430	690	108	6.6
TPRIII 2000NC	2	430	860	108	8.0

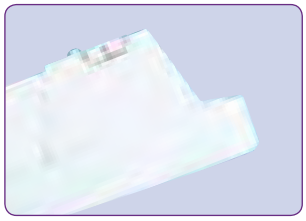
Newera Plus

Panel heaters

A simple robust stand alone thermostatic panel heater. The Newera Plus range offers a low cost heating solution ideal for hotels or student accommodation.

Key features

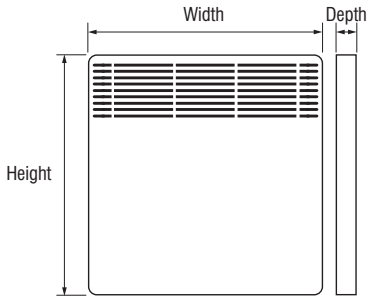
- Single mechanical thermostat, stand alone heating
- Excellent value and simple to operate
- Robust construction and easy to install
- Compact – takes up minimal wall space
- Hinged wall mounting bracket to allow easy access for cleaning and decorating
- Ideal for conservatories, extensions, hotels and student accommodation



Single mechanical thermostat.

Technical Specification

- Elements – finned, metal sheathed mineral filled type
- Thermostat – single mechanical
- Protection – two level thermal safety overheat
- Supply – 230/240V AC single phase



Product selector

Model	Rating (kW)	Height (mm)	Width (mm)	Depth (mm)
HPH750	0.75	450	370	78
HPH1000	1	450	445	78
HPH1250	1.25	450	520	78
HPH1500	1.5	450	590	78

TSR Sensor Plus & Slimline

Electric storage heaters

The multi-sense system in the TSR Sensor Plus* automatically controls heat storage to maintain the desired room temperature.

TSR Sensor Plus (AW models)

Working on any low-cost tariff, these heaters monitor the room temperature and energy stored within the heater core to avoid overcharging. This can save up to 15% of the energy used by ordinary storage heaters.

Key features

- Multi-sense two thermostatic sensor control system for heat storage and room temperature control
- The only storage heater available that automatically monitors and controls heat output through a thermostatic sensor
- Controls couldn't be simpler – one for input and one for output
- Multi-sense system enables energy savings of up to 15%
- Automatic control means little if any control adjustment – just set and forget
- All multi-sense sensors are mounted within the heater
- Lockable controls cover

TSR Slimline (MW models)

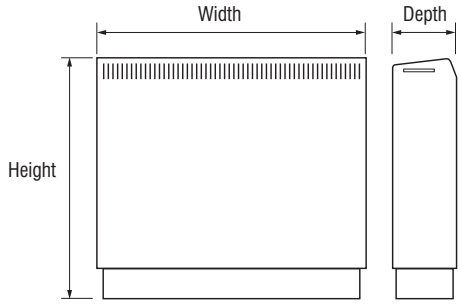
TSR Slimline models offer the same range of sizes and outputs but with simple manual input and output controls.

Key features

- Simple controls – one for input and one for output
- Lockable controls cover
- Manual control adjustment

Technical Specification

- Elements (storage) – mineral insulated stainless steel sheathed
- Insulation – opacified silicaceous aerogel and mineral fibre mat
- Storage core – high density iron oxide compound
- Controls** (Output) – manually adjustable thermostat controlling output damper.
- Controls (Input) – hydraulic charge control thermostat, manually adjustable
- Protection – two level thermal safety overheat
- Supply – 230/240V AC single phase



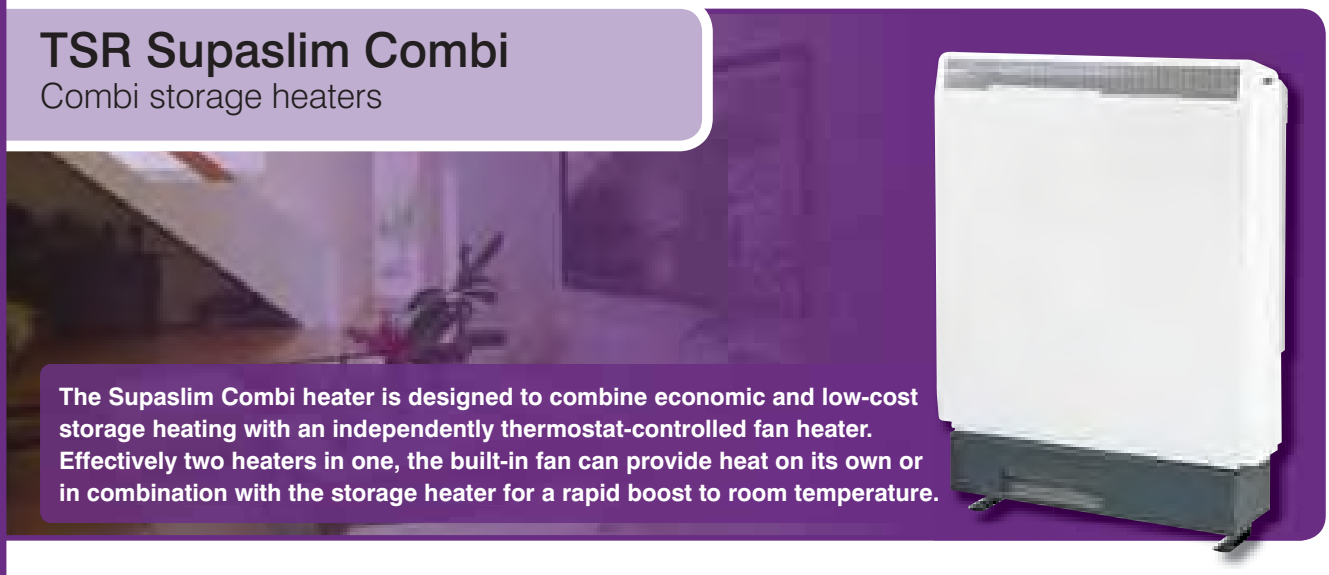
*AW models only.
**TSR6AW/MW have no user controls and are IPX2 rated (drip-proof)

Product selector

Model	Rating Storage (kW)	Charge Acceptance (7 hrs) (kWh)	Number of Elements	Number of Core Bricks	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
TSR6AW	0.9	6.3kWh	1	4	705	335	170	41
TSR12AW	1.68	11.8kWh	2	8	705	560	170	77
TSR18AW	2.5	17.6kWh	3	12	705	788	170	110
TSR24AW	3.4	23.5kWh	4	16	705	1016	170	145
TSR6MW	0.9	6.3kWh	1	4	705	335	170	41
TSR12MW	1.68	11.8kWh	2	8	705	560	170	77
TSR18MW	2.5	17.6kWh	3	12	705	788	170	110
TSR24MW	3.4	23.5kWh	4	16	705	1016	170	145

TSR Supaslim Combi

Combi storage heaters



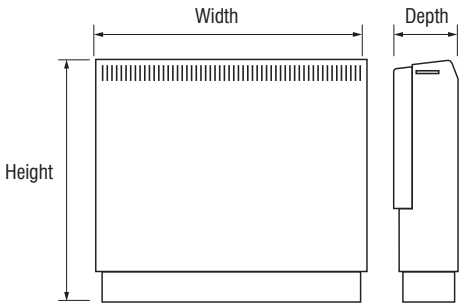
The Supaslim Combi heater is designed to combine economic and low-cost storage heating with an independently thermostat-controlled fan heater. Effectively two heaters in one, the built-in fan can provide heat on its own or in combination with the storage heater for a rapid boost to room temperature.

Key features

- Combines economic tariff rate storage heater with a fast and responsive Warmflow fan heater for instant room heating
- The slimmest storage combination heater available
- Sensamatic fully automatic storage heater output ensures room comfort levels are maintained throughout the day without user intervention
- The Warmflow fan heater has manually adjustable room temperature sensing thermostatic control accurate to within 0.5°C
- Quiet, low velocity Warmflow fan
- All controls are concealed behind a lockable flap
- Hydraulic input charge control thermostat provides auto-set input charge control
- Fan heater ratings can be set on full or half load (installation option)
- Automatic fan heater switch-off during off-peak tariff periods (installation override option)

Technical Specification

- Elements (storage) – mineral insulated stainless steel sheathed
- Insulation – opacified silicaceous aerogel and mineral fibre mat
- Storage core – high density iron oxide compound
- Fan unit – crossflow
- Controls – hydraulic head temperature compensated, room and storage core temperature sensitive, auto-set charge control
- Protection – two level thermal safety overheat
- Supply – 230/240V AC single phase

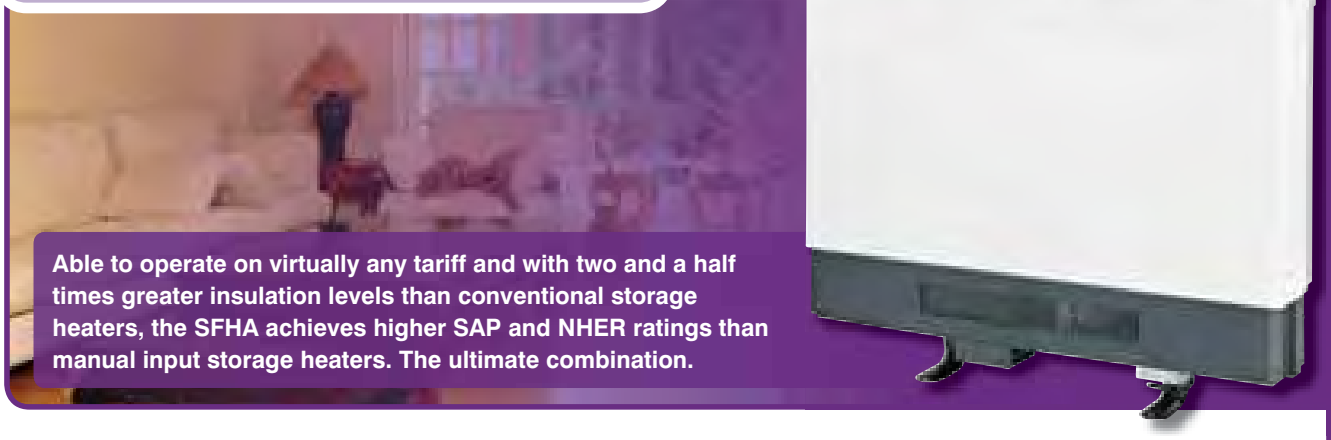


Product selector

Model	Rating Storage (kW)	Direct Acting (kW)	Charge Acceptance (7 hrs) (kWh)	Number of Elements	Number of Core Bricks	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
TSR12ACW	1.7	1/0.5	11.8	2	8	760	560	170	78
TSR18ACW	2.5	1.5/0.75	17.6	3	12	760	788	170	114
TSR24ACW	3.4	2/1	23.5	4	16	760	1016	170	149

SFHA Sensair Automatic

Storage fan heaters



Able to operate on virtually any tariff and with two and a half times greater insulation levels than conventional storage heaters, the SFHA achieves higher SAP and NHER ratings than manual input storage heaters. The ultimate combination.

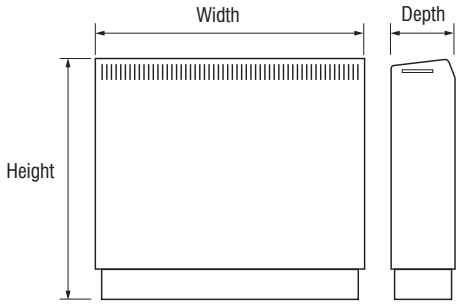
Key features

- Combines electric storage heating, direct acting heating and fanned heat output with simple controls
- Fully automatic heat storage – no user adjustment required on input controls
- High performance insulation works more effectively than a conventional storage heater
- Heat output is via a quiet two speed fan
- Boost setting for high speed room heat up
- Fan can be switched off without altering thermostat setting
- Operates on virtually any tariff and takes better advantage of extended or split tariffs
- Fanned heating avoids heat stratification
- Lockable controls cover
- Negative pressure air movement through the storage core avoids hotspots and heat leakage
- Fan operation can be controlled by an external timer, such as the RFRTK7

The incorporation of high performance insulation means that stored heat is effectively retained by the heater, meaning that more useful heat is available for later in the day. The heat output is then regulated by a simple, thermostatically controlled fan providing economical heat when and where you want it.

Technical Specification

- Elements (storage) – mineral insulated stainless steel sheathed
- Insulation – opacified silicaceous aerogel and mineral fibre mat
- Storage Core – high density iron oxide compound
- Fan Unit – two speed crossflow fan
- Controls (Output) – regulated by fan, activated by integral adjustable thermostat
- Controls (Input) – hydraulic head temperature compensated, room and storage core temperature sensitive, auto-set charge control
- Protection – two level thermal safety overheat
- Supply – 230/240V AC single phase



Control options

RFRTK7 RF remote thermostat and programmer kit.

Enables programmable time and temperature control using wireless signalling between the remote wall mounted thermostat and the receiver unit at the appliance.

Product selector

Model	Rating Storage (kW)	Direct Acting (kW)	Charge Acceptance (7 hrs) (kWh)	Number of Elements	Number of Core Bricks	Remaining Useful Heat After 17hrs (Static) Discharge (Fan off) (%)	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
SFHA18AW	2.5	1.5	17.6	3	12	40	705	788	187	121
SFHA24AW	3.4	1.5	23.5	4	16	40	705	1016	187	158

Storage heater
Accessories

A choice of heater accessories to complement the storage heater ranges. Useful shelves for utilising space above the heater and rail attachment to warm towels and clothes.

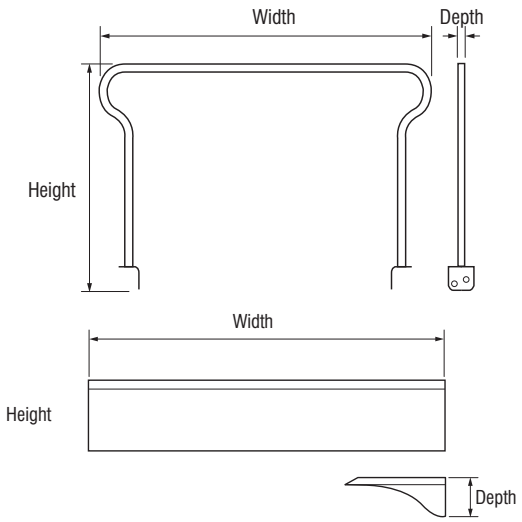
TSR towel rails

- Available for TSR 6, TSR 12 and TSR18 auto and manual models
- Warms and drys towels safely
- Matching white finish
- Quick and easy to fit
- Supplied complete with fixings

Storage heater shelves

- Available in four widths to cover all sizes of TSR storage heaters and SFHA storage fan heaters
- Matching white finish
- Quick and easy to fit
- Supplied complete with fixings

Rail and shelf dimensions

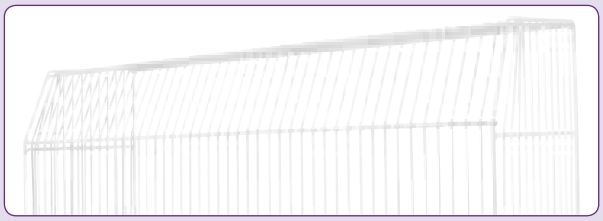


Heater guard options

A range of guards, designed to protect against accidental contact with the hot surface of the heater, is available for Creda heaters from our suppliers:

Norfolk Industries, 95 Oak Street, Norwich NR3 3BP

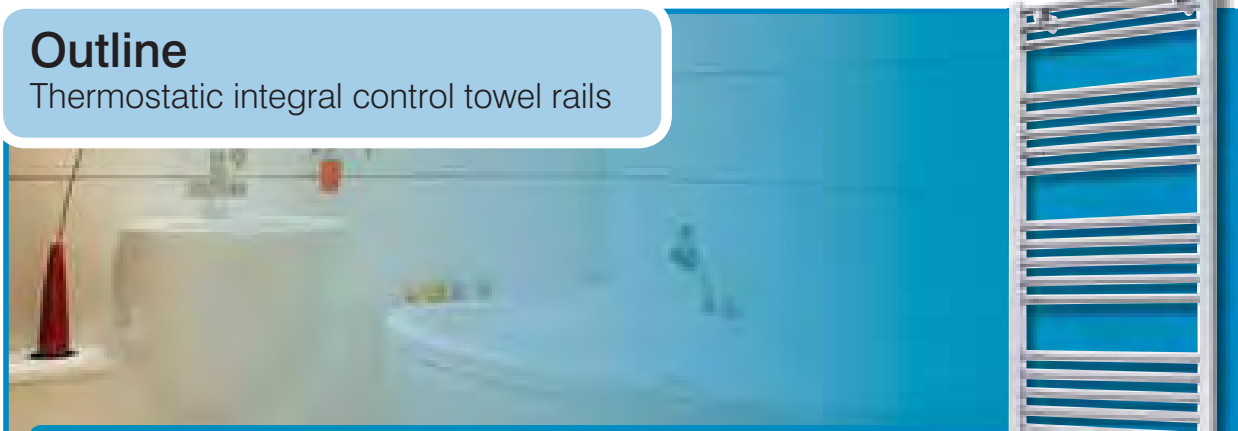
Please contact them direct:
Tel: 01603 667957 Fax: 01603 624265



Product selector

Model	Product Description	Compatible Products	Height (mm)	Width (mm)	Depth (mm)
TR6	Storage heater towel rail attachment	TSR6A and TSR6M	226	391	Ø10
TR12	Storage heater towel rail attachment	TSR12A and TSR12M	226	618	Ø10
TR18	Storage heater towel rail attachment	TSR18A and TSR18M	226	826	Ø10
SHS6	Storage heater shelf	TSR6	140	405	93
SHS12	Storage heater shelf	TSR12	140	630	93
SHS18	Storage heater shelf	TSR18 and SFHA18	140	858	93
SHS24	Storage heater shelf	TSR24 and SFHA24	140	1086	93

Outline
Thermostatic integral control towel rails



Popular ladder style range of towel rails able to provide background heating as well as warm dry towels.

Key features

- 300W, 500W and 750W output rails
- High quality white or chrome finish
- Integral controls (controls must be positioned outside of zones 0, 1 & 2)
- Digital electronic thermostat
- Pilot wire control compatible
- IPX4 rated (splashproof)

PW PILOT WIRE

Integral control features (White finish only)

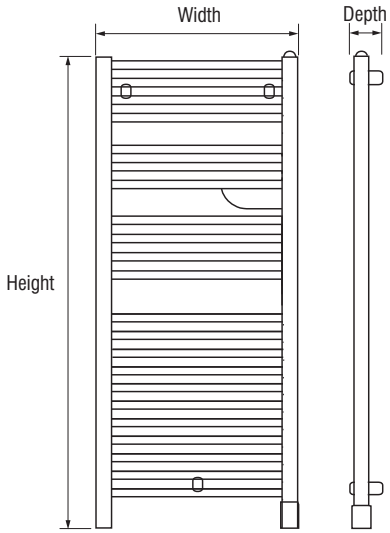
- Push button – On/off with neon indicator
- Rotary – Thermostat with frost protection setting
- Rotary – Variable boost – time set 15 minutes, 30 minutes, 1 hour or 2 hours

Integral control features (Chrome finish only)

- Push button – On/off with neon indicator
- Rotary – Thermostat with frost protection setting
- 2 hour boost setting
- Eco setting

Technical Specification

- Element – cartridge type
- Control – digital electronic thermostat with boost facility
- Protection – thermal cut-out
- Supply – 230/240V AC single phase
- IP Rating – IPX4 (splashproof)



Control options

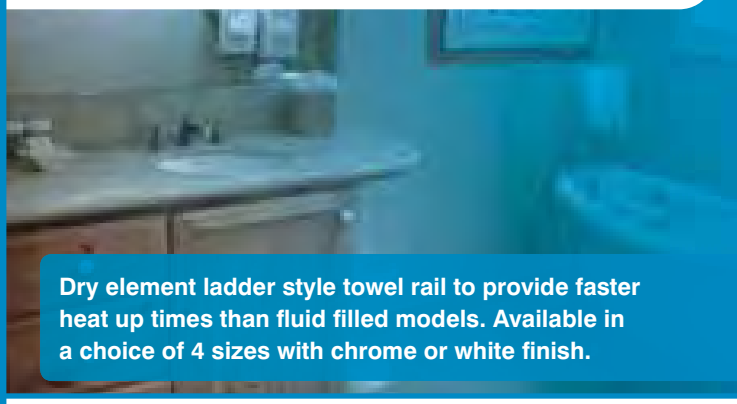
Outline towel rails can be pilot wire linked to a central controller as part of a complete heating system. (See page 34 for more details).

Product selector

Model	Product Description	Rating (Watts)	Height (mm)	Width (mm)	Depth (mm)
OTRC300	Outline 30 (chrome)	300	855	500	85
OTRC500	Outline 50 (chrome)	500	1300	500	85
OTRW500	Outline 50 (white)	500	815	550	85
OTRW750	Outline 75 (white)	750	1225	550	85
PW E4ZC	4 zone pilot wire central controller				

Proline II PL

Fast response electric ladder towel rails



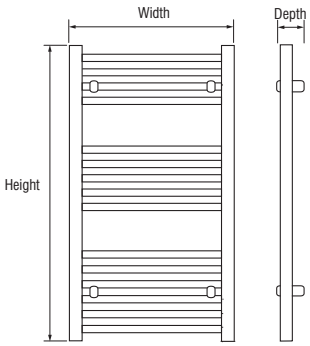
Dry element ladder style towel rail to provide faster heat up times than fluid filled models. Available in a choice of 4 sizes with chrome or white finish.

Key features

- Patented fast response technology for a quicker warm up than conventional towel rails
- Provides more effective heat from a lower output so more energy efficient
- Even heat distribution – no cold spots
- Compact, slimline design
- Dry element technology – no leakage, no rusting
- Lightweight for faster, easier installation
- IPX4 rated (splashproof)
- Can be mounted for left or right cable entry

Technical Specification

- Element – silicone coated dry element type
- Control – cycling cutout
- Protection – Two auto re-set temperature limiters
- Supply – 230/240V AC single phase
- IP Rating – IPX4 (splashproof)



Control options

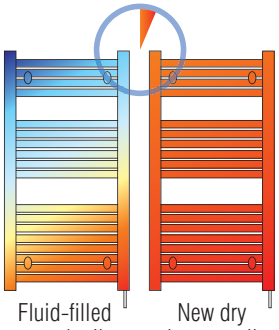
RFRTK7 RF remote thermostat and programmer kit.

Enables thermostatic and time control using wireless signalling between the remote wall mounted thermostat and the receiver unit at the appliance (Also available thermostat kit only see page 34).

PW E16A Pilot wire auxiliary interface unit

Enables heaters without electronic controls to be centrally programmed, for on/off time periods only, as part of a pilot wire linked heating system (see page 34).

Fast even heat distribution in minutes



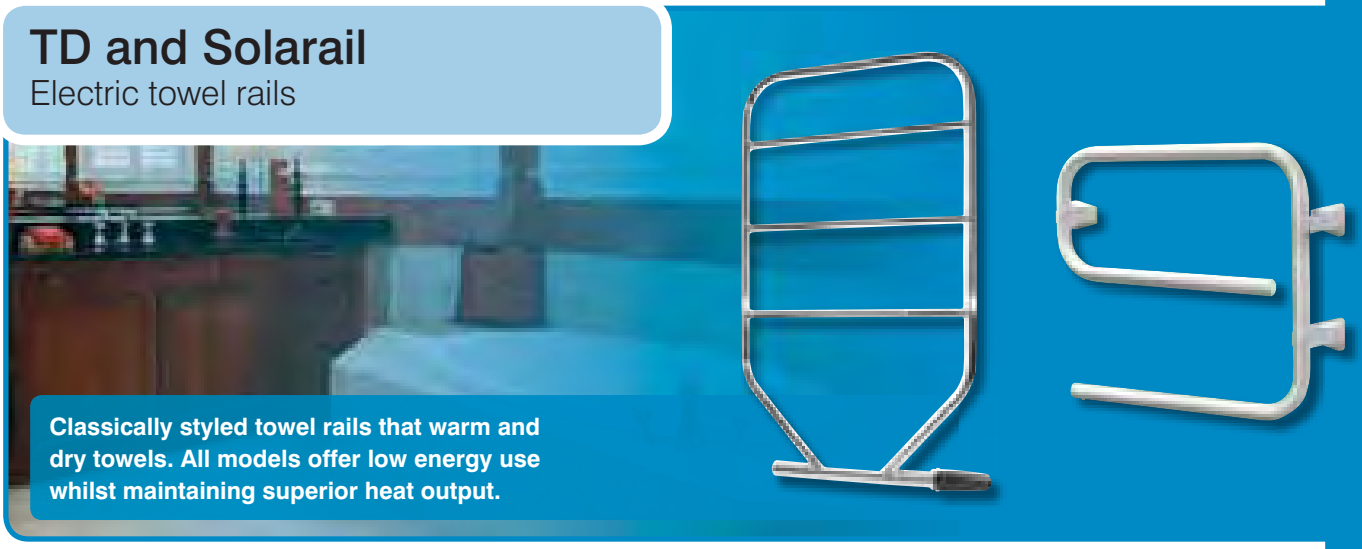
Fluid-filled towel rail

New dry element rails

Product selector

Model	Description	Rating (Watts)	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
PL180SW	Straight white	180	610	453	80	5.5
PL220SW	Straight white	220	843	453	80	6.9
PL260SW	Straight white	260	610	602	80	7.8
PL360SW	Straight white	360	843	602	80	9.5
PL180SC	Straight chrome	180	610	453	80	5.5
PL220SC	Straight chrome	220	843	453	80	6.9
PL260SC	Straight chrome	260	610	602	80	7.8
PL360SC	Straight chrome	360	843	602	80	9.5
RF Thermostat kits						
RFRTK	RF remote thermostat kit	2000				
RFRTK7	RF thermostat and programmer	2000				
RFRI	RF additional receiver unit only	2000				
Pilot wire interface unit						
PW E16A	Pilot wire auxiliary interface unit	3000				

TD and Solarail
Electric towel rails



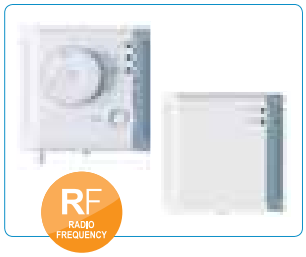
Classically styled towel rails that warm and dry towels. All models offer low energy use whilst maintaining superior heat output.

TD towel rail range

Permanently liquid filled for maintenance free operation the TD towel rail range offers chrome and white options, ideal for drying and airing small towels in areas such as kitchens, cloakrooms and ensuite bathrooms. The TD towel rail can be left switched on indefinitely with the low wattage cartridge element providing economical operation.

Key features

- 60W or 90W models
- Available in white or chrome finishes
- Oil filled for even heat transfer
- Mains neon indicator
- Supplied with wall mounting brackets as standard
- Durable white stove enamel or chrome plated
- Can be mounted for left or right hand cable entry



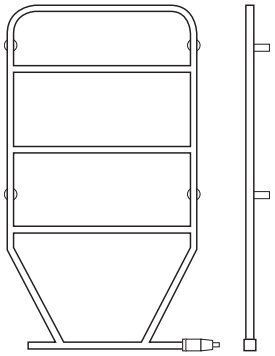
Control options

RFRTK RF remote thermostat kit.

Enables thermostatic control of electric towel rails using wireless signalling between the remote wall mounted thermostat and the receiver unit at the appliance (see page 34).

TD Technical Specification

- Element – cartridge type
- Cycling thermostat
- Protection – thermofuse
- Supply – 230/240V AC single phase
- IP Rating – IPX4 (splashproof)



Solarail dry element towel rail range

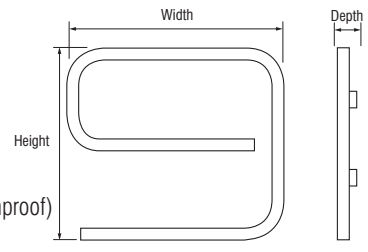
Designed for towel drying in the bathroom, shower room or even kitchen areas, Solarails are compact enough to fit in the smallest of spaces.

Key features

- 50W dry element towel rails
- Supplied with mains cable and mounting brackets for easy installation
- Finished in white or chrome
- Low running cost

Solarail Technical Specification

- Flexible cable type
- Cycling thermostat
- Protection – thermofuse
- Supply – 230/240V AC single phase
- IP Rating – IPX4 (splashproof)



Product selector

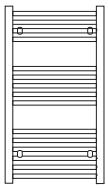
Model	Product Description	Rating (Watts)	Height (mm)	Width (mm)	Depth (mm)
TD60W	TD towel rail (white)	60	616	533	93
TD60C	TD towel rail (chrome)	60	616	533	93
TD90W	TD towel rail (white)	60	851	533	93
TD90C	TD towel rail (chrome)	90	851	533	93
RFRTK	RF remote thermostat kit	-	-	-	-
CSR50W	Solarail 50 (white)	50	518	518	85
CSR50C	Solarail 50 (chrome)	50	518	518	85

Control options

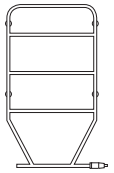
The performance and economy of Creda heating products can be further enhanced by use of control options best suited to the type of installation and lifestyle requirements.

Auxiliary heater interface for pilot wire linked heating system

Pilot Wire Interface
Model PWE16A



Proline II PL Electric Ladder Towel Rails



TD Traditional Style Electric Towel Rails

Solarail Electric Towel Rails

Pilot wire signalling – ideal control system option for new build applications

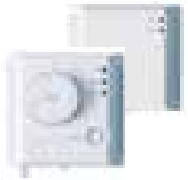
16amp interface unit – for auxiliary heaters without any integral controls

Number of heaters – single unit with up to 3kW maximum loading

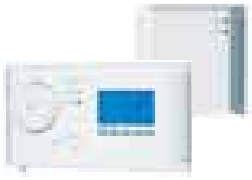
Interface features:
on/off switching only as signalled by the central controller

Installation – requires a 46mm deep single gang metal back box for flush mounting

RF remote thermostat/programmer kits for auxiliary appliances

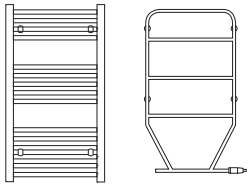


RF Thermostat & Receiver Kit
Model RFRTK



RF Thermostat & Programmer Receiver
Model RFRTK7

RF Receiver
Model RFRI



Towel rails and other heaters without controls. RFRTK7 can also provide time control for SFHA fan unit

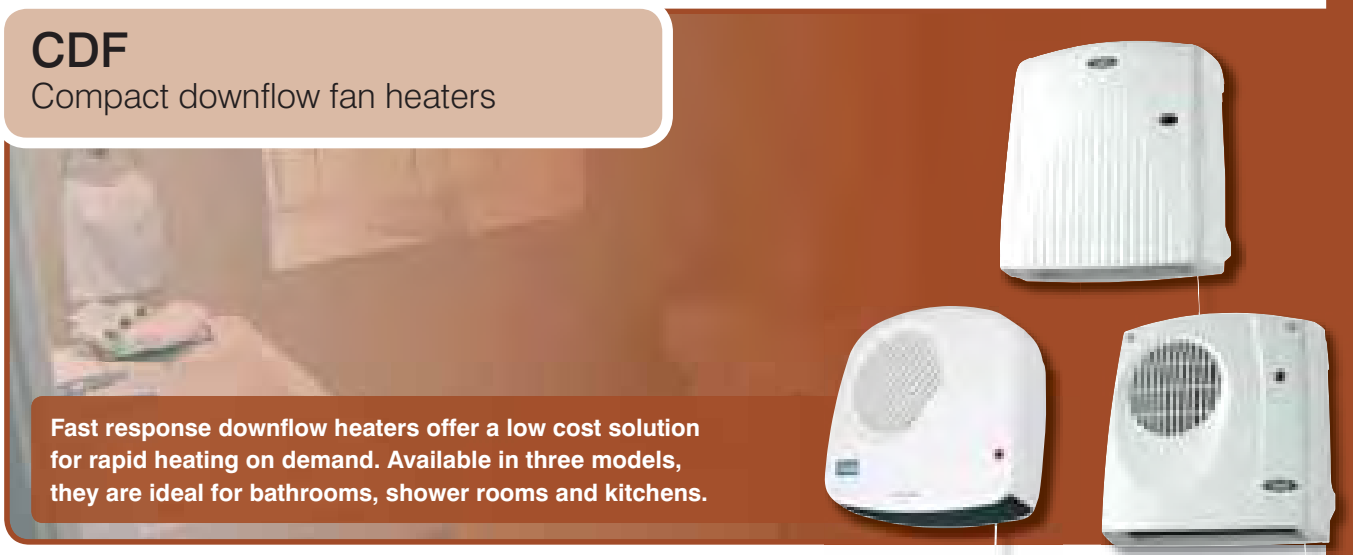
Radio frequency signalling – wireless signalling between thermostat/programmer unit and the receiver at the heater

Number of heaters – multiple heaters with receivers fitted up to a maximum total loading of 2kW

Thermostat unit features:
push on/off rotary control (5ºC-30ºC) with 30 minute boost

Thermostat with programmer unit – 4 programmable on/off time periods for weekdays and weekends. LCD display with 12hr backup memory

CDF
Compact downflow fan heaters



Fast response downflow heaters offer a low cost solution for rapid heating on demand. Available in three models, they are ideal for bathrooms, shower rooms and kitchens.

Key features

- 1kW constant heat only (Model CDF1)
- 2kW steps back to 1kW after warm up (Models CDF2N & CDF2IPX4)
- Pull cord operated
- Power on neon indicator
- Two integral safety devices
- CDF2IPX4 is IPX4 rated for use in Zone 2 of a bathroom

Range options

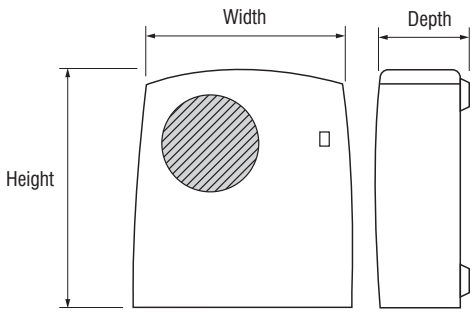
CDF1

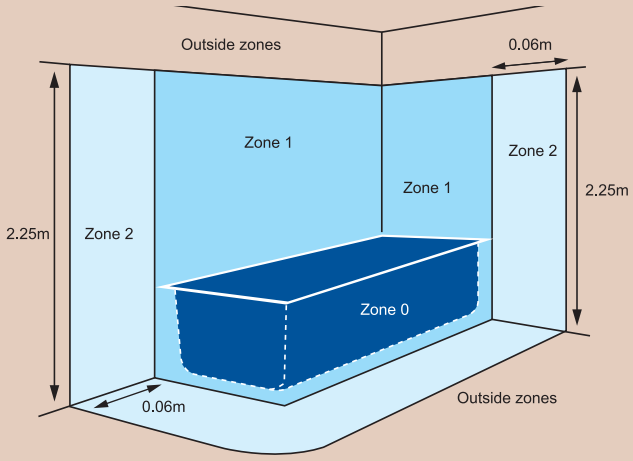
CDF2IPX4

CDF2N

Technical Specification

- Element – stitched type
- Protection – thermal cut-off and safety overheat
- Weight 1.45kg
- Supply – 230/240V AC single phase
- CDF1 and CDF2N – IPX2 rated
- CDF2IPX4 – IPX4 rated





Electrical products installed in bathrooms

Heating products installed in Zone 2 of a bathroom must carry an IP rating of at least IPX4 (IPX5 if water jets are going to be used in that area).

All electrical products must be connected in compliance with IEE wiring regulations (17th edition) and the circuit protected by an RCD.

Product selector

Model	Product Description	Rating (kW)	Height (mm)	Width (mm)	Depth (mm)
CDF1	Compact downflow (constant)	1	240mm	235mm	135mm
CDF2N	Compact downflow (step down)	2	242mm	229mm	109mm
CDF2IPX4	IPX4 rated downflow (step down)	2	267mm	250mm	131mm

SolPlinth

Electric plinth heaters for base units

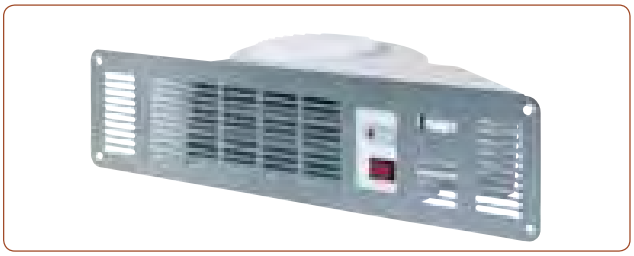
Small and compact, plinth heaters heat a room much faster than a traditional radiator many times its size but do not occupy valuable wall space. The heater sits neatly in kitchen base units, reception desks, shop counters and even stair risers to provide an unobtrusive flow of warm air at floor level.

Manual model (white fascia fitted)

Key features

- Choice of 3 models: manual, remote or no controls
- Each model comes complete with white, brown and silver fascias
- Automatic over temperature cut out
- Maximum output of 2kW (1kW on TM and TR models)
- Low noise fan only option for cool air circulation (on TM models)
- Easy slot in profile (no metal sleeve required)

No controls model (brown fascia fitted)



Remote model (silver fascia fitted)

PH2TR supplied complete with hand held on/off infra-red remote control.

Technical Specification

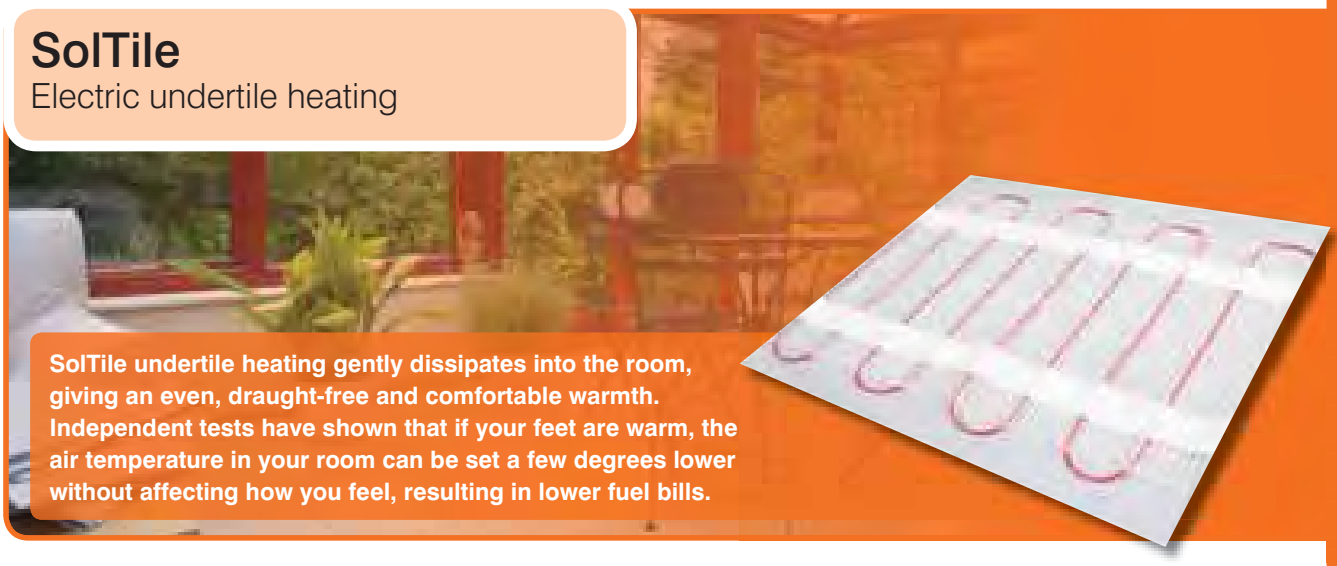
- Element – stitched 'black heat' type
- Fan – crossflow type
- Thermoplastic body
- Powder coated fascias white, brown and silver
- Weight 2.5kg
- Supply – 230/240V AC single phase

Product selector

Model	Rating (kW)	Product Description	Height (mm)	Width (mm)	Depth (mm)
PH2TM	2	Plinth heater 2kW thermostatic manual	100	400	200
PH2TR	2	Plinth heater 2kW thermostatic remote	100	400	200
PH2NC*	2	Plinth heater 2kW no controls	100	400	200

*while stocks last

SolTile
Electric undertile heating



SolTile undertile heating gently dissipates into the room, giving an even, draught-free and comfortable warmth. Independent tests have shown that if your feet are warm, the air temperature in your room can be set a few degrees lower without affecting how you feel, resulting in lower fuel bills.

With a low capital cost and easy installation, undertile heating can be a very attractive proposition. But combine this with the clean, even and draught free heat produced and no unsightly radiators to collect dust and hamper future redecoration, then the arguments in favour of SolTile become very attractive. Ideal for bathrooms, kitchens and conservatories.

Typical undertile installation

Control options

Multi-controller (optional)

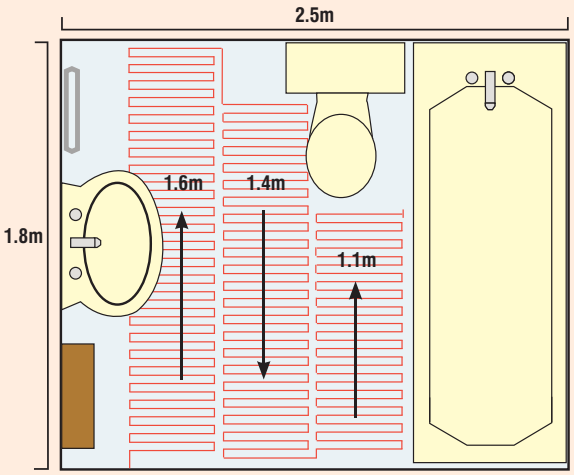
Advanced multi-controller allows 7 day programming of 'on/off' times, comfort and set-back temperatures.

Model CSGMC

What size heating mat?

Making sure the correct sized mat is ordered is essential. Undertile heating does not go under permanent furniture.

The bathroom below is 1800mm long by 2500mm wide, this equals 4.5m^2 of floor area but the actual amount of undertile heating required is only 2m^2.



Add the lengths of runs i.e. 1.6 + 1.4 + 1.1 = 4.1 metres. Calculate the m^2, multiply overall length (4.1) by mat width (0.5m), 4.1m x 0.5m = 2.05m^2.

Never select a mat larger than this area. In this case you would select the 2.0m^2 mat.

Product selector

Model*	Rating (Watts)	Area (m^2)	Length (mm)	Width (mm)	Depth (mm)
CSG1	160	1	2,000	500	3
CSG1.5	240	1.5	3,000	500	3
CSG2	320	2	4,000	500	3
CSG3	480	3	6,000	500	3
CSG4	640	4	8,000	500	3
CSG5	800	5	10,000	500	3
CSG6	960	6	12,000	500	3
CSGMC	SolTile Multi-Controller (7 day programmer)		83	79	22 (44 total)

*Always use a standard electrical junction box when connecting more than two mats.

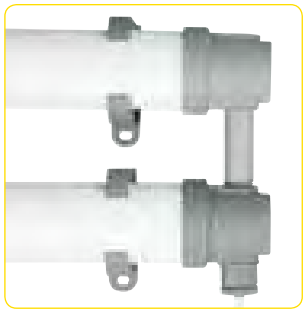
SolTube
Tubular heaters

SolTubes are ideal where energy efficient gentle background warmth and frost protection is needed in both domestic and commercial applications. They are highly effective as window demisters and for horticultural use, providing invaluable, effective heating and frost protection in greenhouses and conservatories.

Key features

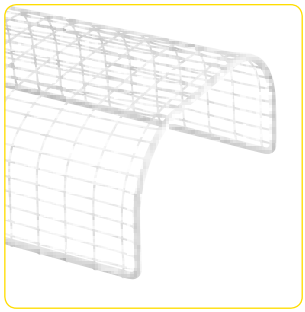
- 60-360W outputs
- A range of 4 lengths and loadings
- Complete with universal mounting brackets for floor or wall fixing and 1.5m white cable with fitted plug

Optional accessories



Interlinking kit

Available for multiple installations (100mm mounting centres).

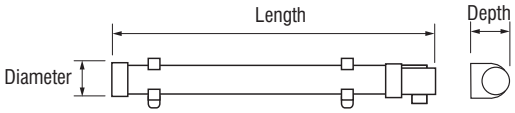


STG guards*

We recommend the use of guards for additional security in sensitive areas such as schools, hospitals and care homes. These can be obtained from C.Ainao Ltd.
Tel: 020 7987 1184

Technical Specification

- Mineral filled sheathed throughout
- Polyester epoxy powder coated aluminium body
- High temperature glass filled nylon end caps and brackets
- Supply – 230/240V AC single phase
- IPX4 rated



Product selector

Model	*Guard short code	Rating (Watts)	Diameter (mm)	Length (mm)	Depth (mm)
CST1	STG1	60	70	350	95
CST2	STG2	120	70	655	95
CST4	STG4	240	70	1265	95
CST6	STG6	360	70	1875	95

Tubular linking kit – Compatible for all above models

TSF Turbo

Commercial storage fan heaters

The TSF Turbo storage fan heaters provide controlled output space heating with maximum economy and flexibility. It retains up to 40% of its total stored heat after 17 hours, making it one of the most energy efficient storage heaters on the market today.

Key features

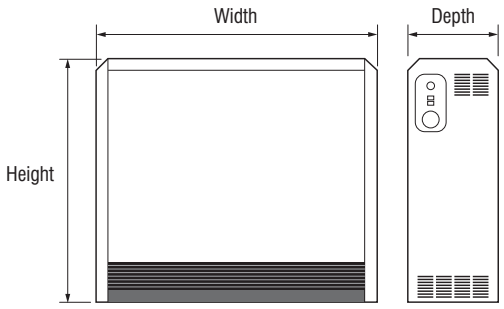
- Smooth, rounded, modern appearance, compatible with today's home and office décor
- TSF Turbo uses economy tariff electricity, operating particularly well on special daytime economy periods
- Available in 3.4kW, 4.6kW and 5.7kW models
- More controllable, providing heat quickly when required
- In-built direct element for out of season heating using day rate electricity
- Fanned heat is faster and more even in distribution, particularly near ground level
- Easy to use manual controls for room thermostat and economy charge
- Single or 3 phase installation capability

User controls

- Charge input control – used to control the length of time the heater charges for
- Neon switch for fan – easy indication that the heater is energised
- Neon switch for direct acting element – gives user access to additional heat when needed
- Heat output control – precise control over heat released to the room

Technical Specification

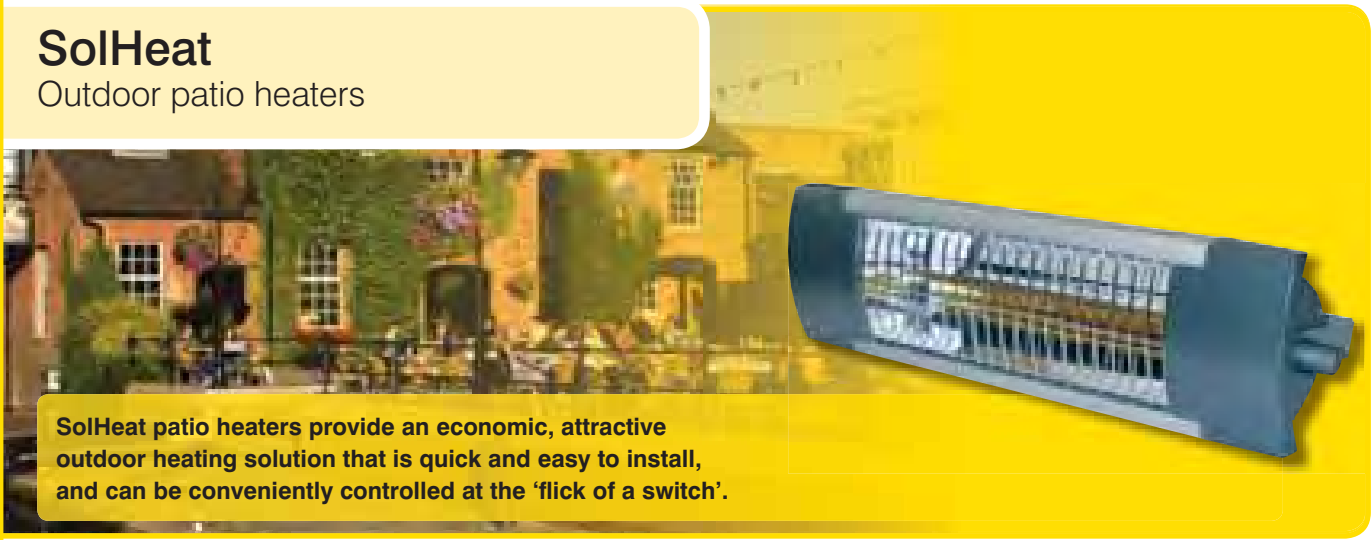
- Insulation – opacified silicaceous aerogel and mineral fibre mat
- Storage core – high density iron oxide compound
- Storage elements – mineral insulated stainless steel sheathed
- Protection – two level thermal safety overheat
- Supply – 230/240V AC single phase or 400V AC three phase



Product selector

Model	Rating (kW)	Direct Acting Element Load (kW)	Charge Acceptance (7 hrs) (kWh)	Weight (kg)	Number of Core Bricks	Height (mm)	Width (mm)	Depth (mm)
TSF24K	3.4	0.7	23.8	137	18	672	776	250
TSF32K	4.6	1.1	32.2	176	24	672	926	250
TSF42K	5.7	1.5	39.9	215	30	672	1076	250

SolHeat
Outdoor patio heaters



SolHeat patio heaters provide an economic, attractive outdoor heating solution that is quick and easy to install, and can be conveniently controlled at the 'flick of a switch'.

Key features

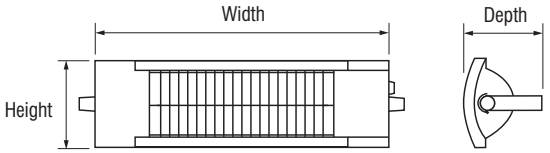
- Low running costs as radiant heat heats people directly not the air
- Instant heat cuts the cost of outdoor heating overall
- Silent running with no moving parts or noisy naked flames
- Convenient – no need to refill gas bottles
- Safe – no flammable gas bottles to be knocked over
- Low capital cost as these heaters allow you to select fewer heaters, but place them exactly where the heating need is
- When used with PIR sensors, further energy savings are available

Gold finish halogen lamp

The gold quartz halogen lamp fitted to the SolHeat runs at up to 2,200°C and offers extended performance and 15% greater transmission.

Technical Specification

- Element – 2kW gold quartz halogen lamp
- Finish – high quality aluminium case in silver
- Reflector – high performance polished reflector
- Fitted guard included
- IP rating – IPX4
- Supply – 230/240V AC single phase



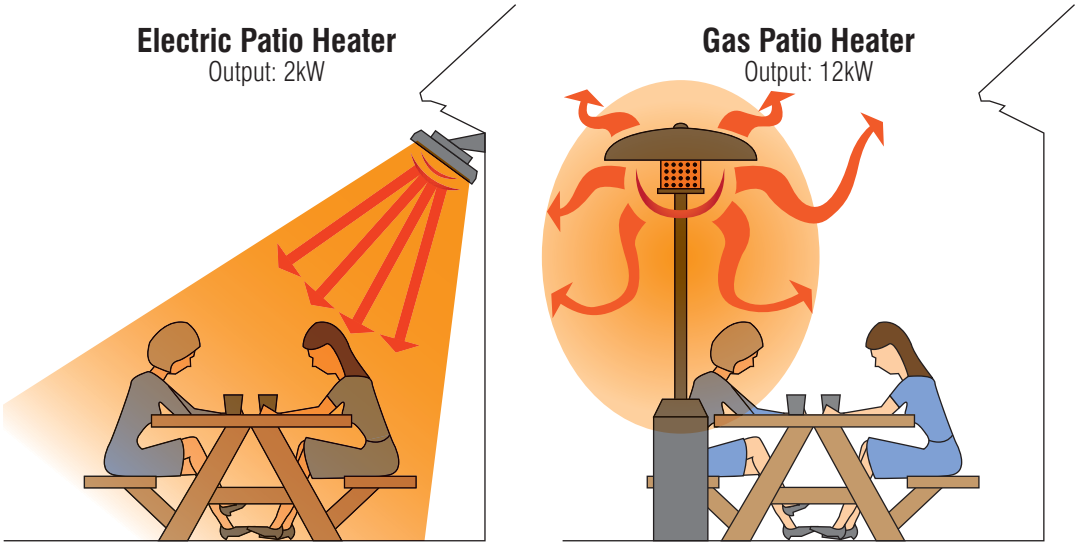
Patio heating – why choose electric?

Electric patio heaters provide the only viable method of heating an outdoor space without wasting heat to the atmosphere.

Unlike gas heaters, their electric counterparts use infra-red lamps designed to allow outdoor heating without significant wasted heat.

Electric outdoor heaters heat people directly, rather than heating the surrounding air, making them the most suitable solution for outdoor heating. They can also be linked to automatic switches and PIR sensors for further savings in energy.

The diagram shows the differences between the two technologies and the comfort they provide.



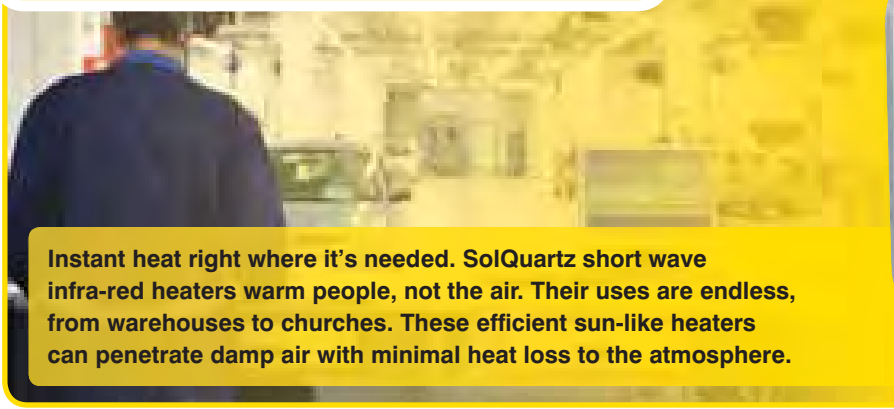
Direct efficient heating | **Wasteful inefficient heating**

Product selector

Model	Rating (kW)	Product Description	Height (mm)	Width (mm)	Depth (mm)
CSP2	2	SolHeat outdoor patio heater	159	594	144

SolQuartz

Shortwave infra-red radiant heaters



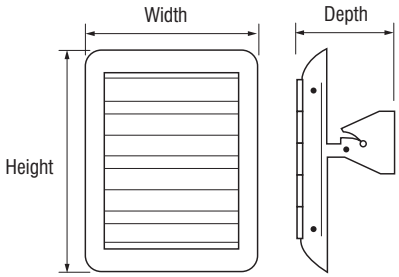
Instant heat right where it's needed. SolQuartz short wave infra-red heaters warm people, not the air. Their uses are endless, from warehouses to churches. These efficient sun-like heaters can penetrate damp air with minimal heat loss to the atmosphere.

Key features

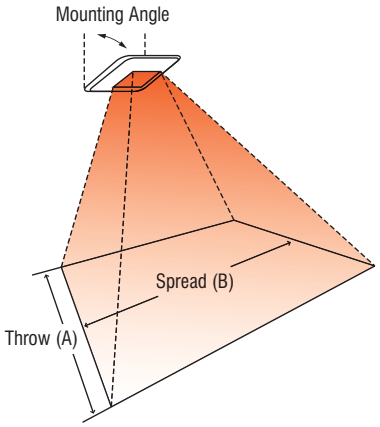
- Up to 90% efficient at converting electricity into heat
- Instant sensation of heat with visible glow at switch on
- Absolutely silent in operation
- Long range heat projection
- Lightweight and silent
- Universal mounting bracket
- All models can be connected to single phase 230v supply
- CSQ45 model can also be connected to 3 phase supply

Technical Specification

- Infra-red shortwave radiant heating
- Tungsten halogen lamps, with ruby red quartz outer sleeve
- Steel case with aluminium reflector
- Adjustable wall mounting bracket included
- Satin silver paint finish
- Type 3 or C MCB with 7-10 tripping co-efficient



Coverage



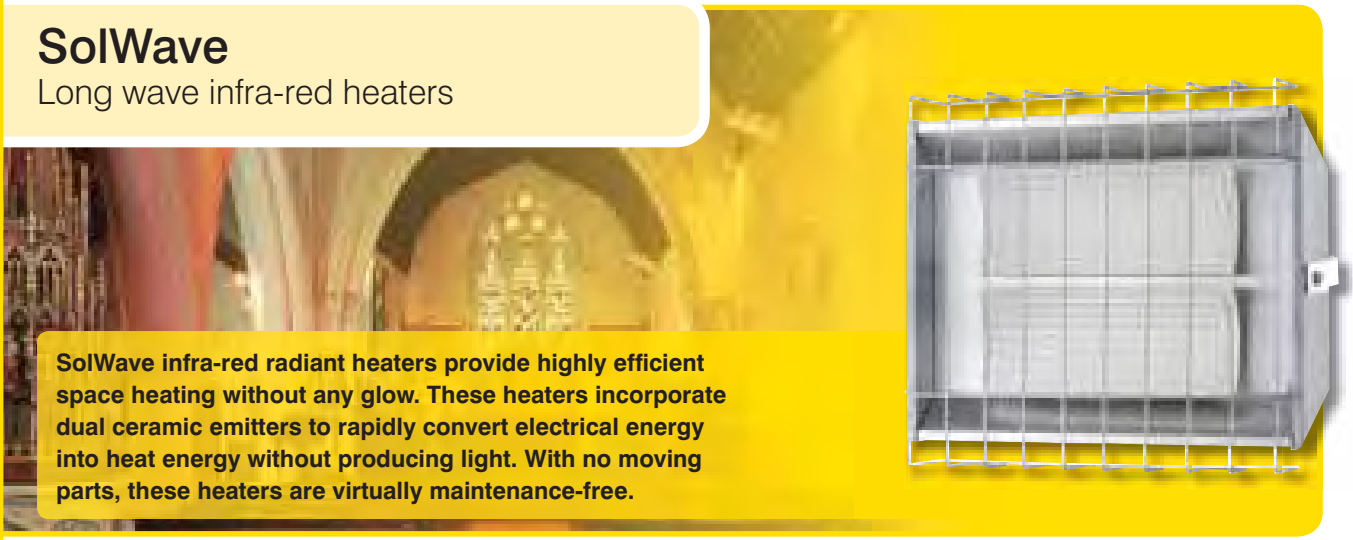
Product selector

Model	Rating (kW)	Number of lamps	Recommended height (m)	Coverage At Recommended height* (Throw(A) x Spread(B)) (m)	Height (mm)	Width (mm)	Depth (mm)
CSQ15	1.5	1	2.5	3.4 x 3.7	256	440	310
CSQ30	3	2	3.5	5.7 x 5.7	380	440	310
CSQ45	4.5	3	4.0	7.1 x 6.9	506	440	310

*Calculated at 95w/m² mounted at 45°

SolWave

Long wave infra-red heaters



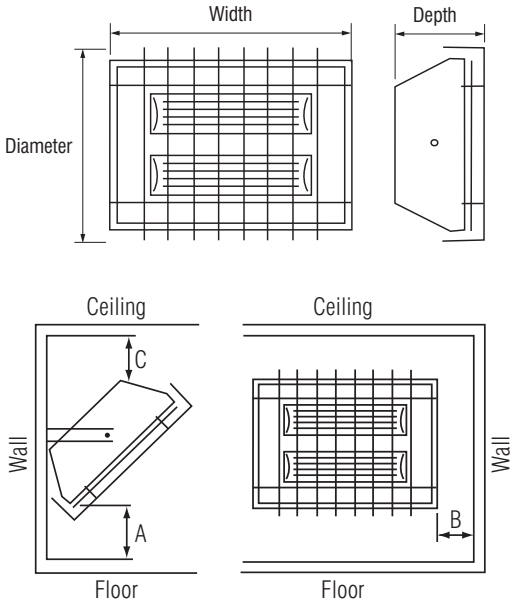
SolWave infra-red radiant heaters provide highly efficient space heating without any glow. These heaters incorporate dual ceramic emitters to rapidly convert electrical energy into heat energy without producing light. With no moving parts, these heaters are virtually maintenance-free.

Key features

- Durable ceramic emitters which rapidly convert electrical energy into heat energy
- Available in 2, 3 and 4.5kW versions
- No fans or moving components, so no dust contamination to the environment
- Low maintenance
- Good vibration resistance
- Fitted with wire safety guards
- Robust fitting brackets
- Ideal for commercial and industrial application where glare free heat is required

Technical Specification

- Element – ceramic encased aluminium
- Grey painted steel casing
- Supply – 230/240V AC single phase



Area of coverage at minimum mounting height

Heating index	Applications	2kW (m²)	3kW (m²)	4.5kW (m²)
130-150W/m²	Shops, meeting halls	7.2	12.0	18.8
150-170W/m²	Offices, canteens	6.8	11.3	17.7
170-200W/m²	Workshops, garages	6.0	10.0	15.7
220-240W/m²	Churches	4.7	7.8	12.3

Product selector

Model	Rating (kW)	Height (mm)	Width (mm)	Depth (mm)	Minimum Mounting Distance A	Minimum Mounting Distance B	Minimum Mounting Distance C
CCR2	2	340	376	140	1800	300	200
CCR3	3	340	376	140	2500	300	300
CCR45	4.5	440	376	140	3000	500	500

SolSlim
Commercial radiant heaters

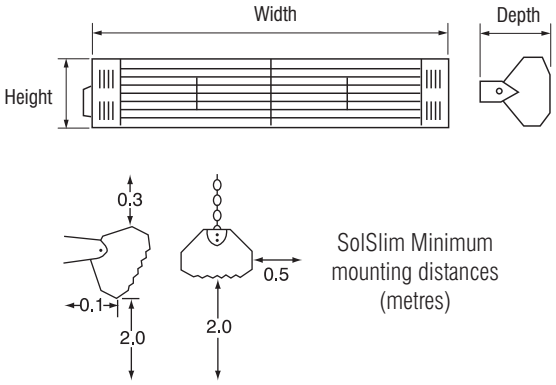
SolSlim is a low cost, robust and easy to install radiant heater with tilt mounting to allow heat to be localised or directed to a general area. The SolSlim can be wall-mounted or ceiling hung, making it ideal for larger commercial or industrial premises.

Key features

- Instant, directional radiant heat
- Available in 2kW and 3kW versions
- Suitable for bracket or chain mounting
- Completely silent in operation
- Lightweight and robust
- Corrosion resistant
- Easy to install
- Ideal for localised heating in large covered areas such as factories and workshops

Technical Specification

- Element – metal sheathed
- Zinc coated steel body/matt black end caps
- Chrome plated steel guards
- Anodised aluminium reflector
- Supply – 230/240V AC single phase



SolSlim Minimum mounting distances (metres)

When planning a radiant heating installation, refer to Table 1 to select the application and type of environment you wish to heat. Table 2 shows the area that can be heated by a single SolSlim radiant heater in 3kW and 2kW variants.

Note: Heating areas can be overlapped to achieve the necessary heating index.

Table 1 – SolSlim heating index

Applications:	Heating Index
Offices, canteens, waiting rooms, entrance halls, dressing rooms	10-14
Shops, meeting halls, recreation rooms, clubs	12-16
Workshops, garages, public buildings	14-18
Warehouses, loading bays, hangars	16-20
Churches	18-20

Table 2 – SolSlim heated area

Heating index	3kW			2kW		
	H	L	W	H	L	W
10	4.0	5.24	5.49	3.3	4.11	4.53
12	3.6	4.88	4.94	3.0	3.84	4.12
14	3.2	4.51	4.39	2.7	3.57	3.70
16	3.5	4.33	4.12	2.5	3.38	3.43
18	2.8	4.14	3.84	-	-	-

H = mounting height (determined by on-site requirements) **L** = length of the heated area **W** = width of the heated area

Product selector

Model	Rating (kW)	Height (mm)	Width (mm)	Depth (mm)	Minimum Clearance To Floor (mm)	Minimum Clearance To Ceiling (mm)	Minimum Clearance To Each Side (mm)
CSL2*	2	108	1,215	71	2000	300	500
CSL3*	3	108	1,671	71	2000	300	500

*While stocks last

SolFan

High level fan heater

The SolFan is a rapid response fan heater designed for heating in smaller commercial installations and can be used for air circulation in summer.

Key features

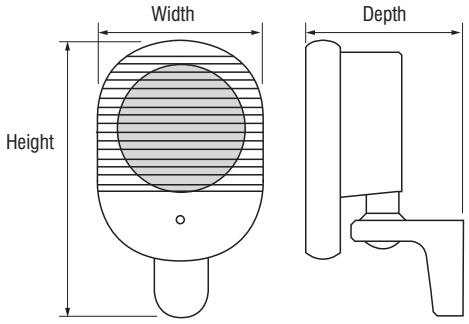
- Compact design for smaller installations
- Multi-angle bracket with single screw locking for easy airflow adjustment
- Thermostatic temperature control as standard
- Air circulation mode for summer use
- Wall remote control with thermostat supplied as standard
- Red neon indicating heater energised

Controls

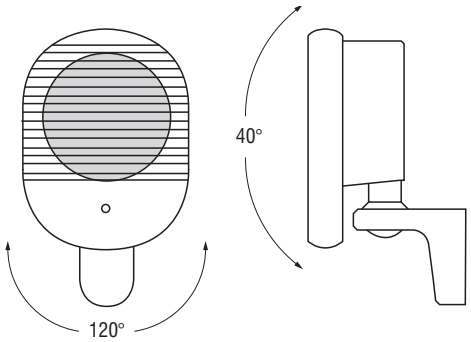
Thermostatic controller (included). For remote switching on/off and variable thermostatic control.

Technical Specification

- Nylon heater case
- Axial fan
- Thermostat range 5°C - 35°C
- Wire strung element
- Grey finish
- Protection – Electrical reset
- Supply – 230V AC single phase



Flexible Adjustment



Product selector

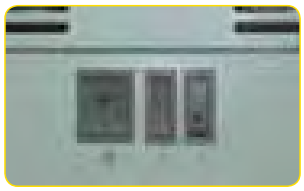
Model	Rating (kW)	Noise level @1m (dBA)	Height (mm)	Width (mm)	Depth (mm)
CSF3	3kW	24	378	230	226
Remote	-	-	60	170	102

SolScreen
Warm air curtains

The SolScreen range provides a welcoming flow of warmed air close to open entrances and is often chosen to help encourage shoppers in through open entrances.

Key features

- 3kW or 4.5kW models available
- Full heat, half heat and fan modes
- CSS3 can be set to output 3kW or 1.5kW
- CSS45 can be set to output 4.5kW or 2.25kW
- Fan only mode for summer air circulation
- Can be fixed to the ceiling or wall mounted using the included bracket
- Bracket allows adjustment over air direction
- Central front panel switches for clear indication of operation mode
- Quiet running motor

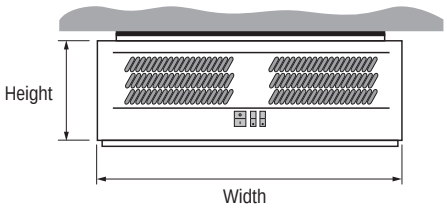


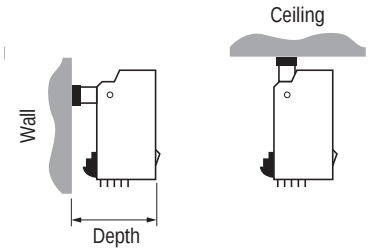
Controls

Operation is clear to see with front mounted controls.

Technical Specification

- Tangential blower
- Wire stitched element
- Powder coated steel body white/black
- Protection – electrical reset
- Supply – 230/240V AC single phase





Product selector

Model	Rating (kW)	Recommended Mounting Height (m)	Height (mm)	Width (mm)	Depth (mm)
CSS3	3	1.8 - 2.25	214	605	135
CSS45	4.5	1.8 - 2.25	214	605	135

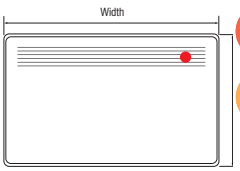
Technical information

Cable and connection points

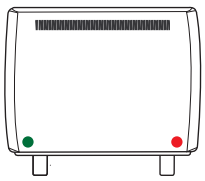
Off peak cable

Direct acting cable

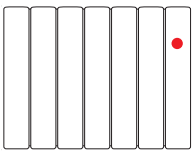
NOBO Range - C4N, LST, E4EU
Electronic panel heater



Eco-Response
Intelligent heating technology

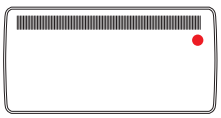


Contour100
Electronic panel heaters



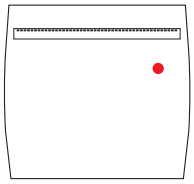
4 core cable (pilot wire capability).

TPRIII E
Electronic pilot plus panels



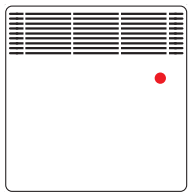
4 core cable (pilot wire capability).

Newera Style
Panel heaters



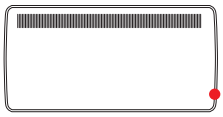
3 core cable (pilot wire capability).

Newera Electronic
Panel heaters

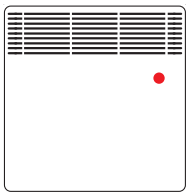


3 core cable (pilot wire capability).

TPRIII M / NC Mechanical thermostatic panel heaters

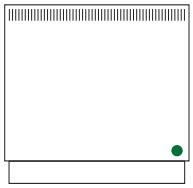


Newera Plus
Panel heaters

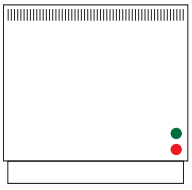


3 core cable (pilot wire capability).

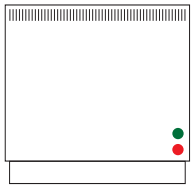
TSR Slimline and Sensor Plus
Electric storage heaters



TSR Supaslim Combi
Storage heaters



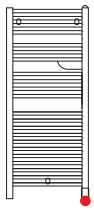
SFHA Sensair Automatic
Electric storage fan heaters



Outline
Thermostatic towel rails

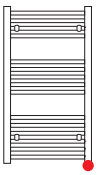
Right hand connection only (Cannot be left hand connection mounted).

3 core cable (pilot wire capability).



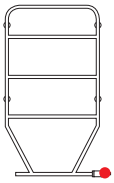
Proline II PL Fast response electric ladder towel rails

Straight rail models may be left hand or right hand connection mounted.

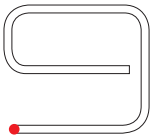


TD Traditional style electric towel rails

May be left hand or right hand connection mounted.

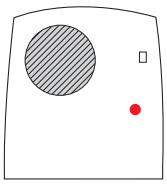


Solarail
Electric towel rails

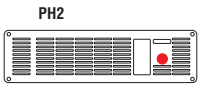


May be left hand or right hand connection mounted.

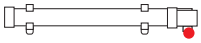
Compact Downflow
Fan heater



Plinth
Electric base unit fan heaters

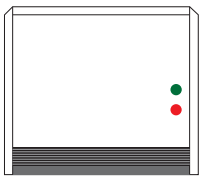


SolTube
Tubular heaters

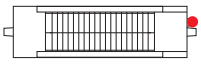


May be left hand or right hand connection mounted.

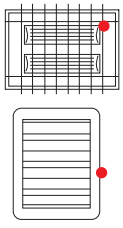
TSF Turbo
Commercial storage fan heaters



SolHeat
Outdoor patio heater



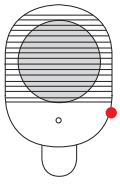
SolWave Radiant heaters
SolQuartz Heaters



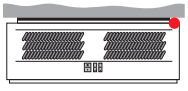
SolSlim Radiant heaters

May be left hand or right hand connection mounted.

SolFan
High level fan heater



SolScreen
Warm air curtains



Sizing guide
Storage and panel heaters

To use these tables, select the type of heater and the appropriate sizing guide table. Then read across from the nearest floor area and appropriate external wall length to where the columns intersect.

There are two temperature options given in each table:

- Comfort – approximately 21ºC for living areas
- Background – approximately 18ºC, typically required in bedrooms

Choose either comfort or background heating for the suggested heater size.

These tables are based on conventionally constructed single or two storey dwellings within:

- Ceiling heights of 2.5m (8ft) • Roof insulation of 25mm (1in) thick
- Brick cavity walls with no insulation • An external temperature of -1ºC

Technical Specification

Tables for storage and storage fan heaters also assume the use of 7 hour economy tariff electricity. Please check your tariff and metering requirements with your electricity supplier.

Product selector

Extra Small (XS) = TSR6 = 0.9kW Small (S) = TSR12 = 1.7kW Medium (M) = TSR18 =2.5kW Large (L) = TSR24 = 3.4kW

Model		Total Length of Outside Wall (m)																		
Area m²	Options	1.5m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
Storage heaters																					
Up to 3m²	Comfort	S/XS	S	S	M	M	M														
	Background	S/XS	S/XS	S	S	S	M														
Up to 6m²	Comfort	S	M	M	M	L	L	L	L												
	Background	S	S	S	S	M	M	M	M												
Up to 9m²	Comfort	S	M	M	L	L	L	L	MS	SM	2M										
	Background	S	S	M	M	M	M	M	L	L	L										
Up to 12m²	Comfort	M	M	L	L	L	MS	MS	MS	2M	2M	2M	LM								
	Background	S	M	M	M	M	L	L	L	L	MS	MS	MS								
Up to 15 m²	Comfort	L	L	L	L	MS	MS	2M	2M	2M	LM	LM	2L	2L							
	Background	M	M	M	M	L	L	L	MS	MS	MS	2M	2M	LM							
Up to 18m²	Comfort	L	L	L	MS	MS	2M	2M	2M	LM	LM	2L	2L	2L	3M	3M					
	Background	M	M	M	L	L	L	MS	MS	MS	MS	2M	2M	2M	2M	LM					
Up to 21m²	Comfort	L	L	MS	MS	2M	2M	2M	LM	LM	2L	2L	2L	3M	3M	3M	2L+S				
	Background	M	M	L	L	L	MS	MS	MS	MS	2M	2M	2M	2M	LM	LM	LM				
Up to 24m²	Comfort	L	MS	MS	2M	2M	2M	LM	LM	2L	2L	2L	3M	3M	3M	2L+S	2L+S	2L+S			
	Background	M	L	L	L	MS	MS	MS	MS	2M	2M	2M	LM	LM	ML	2L	2L	2L			
Up to 27m²	Comfort	MS	MS	2M	2M	2M	LM	LM	2L	2L	2L	2L	3M	3M	3M	2L+S	2L+S	2L+M	2L+M		
	Background	L	L	L	MS	MS	MS	MS	2M	2M	2M	LM	LM	LM	2L	2L	2L	2L	2L		
Up to 30m²	Comfort	2M	2M	2M	LM	LM	2L	2L	2L	2L	2L+S	2L+S	2L+S	2L+S	2L+M	2L+M	2L+M	2L+M	3L	3L	3L
	Background	L	L	MS	MS	MS	2M	2M	2M	2M	2M	LM	LM	2L	2L	2L	2L	2L	3M	3M	3M
Storage fan heaters																					
Up to 3m²	Comfort	18	18	18	18	18	18														
	Background	18	18	18	18	18	18														
Up to 6m²	Comfort	18	18	18	18	24	24	24	24												
	Background	18	18	18	18	18	18	18	18												
Up to 9m²	Comfort	18	18	18	24	24	24	24	18+S	18+S	18+S										
	Background	18	18	18	18	18	18	18	24	24	24										
Up to 12m²	Comfort	18	18	24	24	24	18+S	18+S	18+S	18+M	18+M	18+M	18+M								
	Background	18	18	18	18	18	24	24	24	24	18+S	18+S	18+S								
Up to 15m²	Comfort	24	24	24	24	18+S	18+S	18+S	18+S	18+M	24+M	24+M	24+M	24+L							
	Background	18	18	18	18	24	24	24	24	18+S	18+S	18+S	18+M	18+M							
Up to 18m²	Comfort	24	24	24	18+S	18+S	18+S	18+M	18+M	24+M	24+M	24+L	24+L	24+L	24+L	24+L					
	Background	18	18	18	24	24	24	24	18+S	18+S	18+S	18+M	18+M	18+M	18+M	24+M					
Up to 21m²	Comfort	24	24	18+S	18+S	18+S	18+S	18+M	18+M	18+M	24+M	24+M	24+L	24+L	24+L	18+2M	18+2M				
	Background	18	18	24	24	24	24	18+S	18+S	18+S	18+M	18+M	18+M	24+M	24+M	24+M	24+M				
Up to 24m²	Comfort	24	24	18+S	18+S	18+S	18+M	18+M	24+M	24+M	24+L	24+L	24+L	18+2M	18+2M	24+2M	24+2M	24+2M			
	Background	18	24	24	24	24	18+S	18+S	18+S	18+M	18+M	18+M	24+M	24+M	24+M	24+L	24+L	24+L			
Up to 27m²	Comfort	18+S	18+S	18+S	18+M	18+M	18+M	24+M	24+M	24+L	24+L	24+L	18+2M	18+2M	18+2M	18+2M	24+2M	24+2M			
	Background	24	24	24	24	18+S	18+S	18+S	18+M	18+M	18+M	24+M	24+M	24+M	24+L	24+L	24+L	24+L	24+L		
Up to 30m²	Comfort	18+M	18+M	18+M	24+M	24+M	24+L	24+L	24+L	24+L	18+2M	18+2M	18+2M	18+2M	18+2M	24+2M	24+2M	24+2M	24+2L	24+2L	24+2L
	Background	24	24	24	18+S	18+S	18+M	18+M	18+M	18+M	18+M	24+M	24+M	24+L	24+L	24+L	24+L	24+L	18+2M	18+2M	18+2M
Panel heaters																					
Up to 3m²	Comfort	600	600	1000	1000	1250	1250														
	Background	600	600	600	1000	1000	1000														
Up to 6m²	Comfort	600	1000	1000	1250	1250	1500	1500	2000												
	Background	600	600	1000	1000	1000	1250	1250	1500												
Up to 9m²	Comfort	1000	1000	1250	1250	1500	1500	2000	2000	2000	2250										
	Background	1000	1000	1000	1250	1250	1250	1500	1500	2000	2000										
Up to 12m²	Comfort	1250	1250	1250	1500	1500	2000	2000	2000	2250	2500	2500	2500								
	Background	1000	1000	1250	1250	1250	1500	1500	1500	2000	2000	2000	2000								
Up to 15m²	Comfort	1250	1250	1500	1500	2000	2000	2250	2250	2500	2500	2750	3000	3000							
	Background	1000	1250	1250	1500	1500	1500	2000	2000	2000	2250	2500	2500	2500							
Up to 18m²	Comfort	1500	1500	2000	2000	2000	2250	2500	2500	2500	2750	3000	3000	3250	3500	3500					
	Background	1250	1250	1250	1500	1500	1500	2000	2000	2250	2250	2500	2500	2500	2500	2750					
Up to 21m²	Comfort	1500	2000	2000	2000	2250	2250	2500	2500	2750	3000	3000	3250	3500	3500	4000	4000				
	Background	1250	1500	1500	1500	2000	2000	2000	2000	2250	2250	2500	2500	2750	2750	3000	3000				
Up to 24m²	Comfort	2000	2000	2000	2250	2500	2500	2750	2750	3000	3000	3250	3500	3500	4000	4000	4000	4000			
	Background	1500	1500	2000	2000	2000	2000	2250	2250	2500	2500	2500	2750	2750	3000	3000	3250	3250			
Up to 27m²	Comfort	2000	2000	2250	2500	2500	2750	3000	3000	3250	3500	3500	4000	4000	4000	4100	4400	4400	4750		
	Background	1500	1500	2000	2000	2000	2000	2250	2500	2500	2500	2750	2750	3000	3000	3250	3250	3500	3500		
Up to 30m²	Comfort	2250	2500	2500	2500	2750	3000	3000	3250	3250	3500	3500	4000	4000	4000	4100	4400	4400	4750	4750	5000
	Background	2000	2000	2000	2000	2000	2250	2500	2500	2500	2750	2750	3000	3000	3250	3250	3500	3500	4000	4000	4000

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Waste Electrical and Electronic Equipment Directive

We confirm that all our responsibilities under the Waste Electrical and Electronic Equipment Directive will be fulfilled in accordance with the law. As required within its provisions we are members of an accredited WEEE recycling scheme for all product categories within the scope of the directive.

WEEE product registration number: GE0057TS

The BEAB Approved Mark is the electrical safety mark of the UK's leading independent approvals specialists. It confirms to all in the supply chain that all products displaying the mark have been evaluated to the highest European and International safety standards.

CE

All Creda Heating products are CE marked to certify that the product fulfils the requirements of all relevant European product directives.

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C005/October 2010

FSC Mixed Sources

All Creda NOBO products, unless otherwise stated, are covered by a full parts and labour guarantee for 1 year from the date of purchase, so should the product become faulty within the guarantee period, it will be replaced with a new product or repaired by our service engineers, totally free of charge.

We reserve the right to alter product specification or appearance without prior notice. All finishes in the brochure are as accurate as printing processes allow.