Uniclass L7522 EPIC L22







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# **Creda Heating**

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

As pioneers in electric heating, Creda Heating continues to lead the field with innovative and contemporary product design — all backed by nationwide after-sales support and a dedicated sales team.

All Creda electric heating products:

- are designed to comply with Part L of the Building Regulations
- feature advanced heating controls to help achieve the best possible SAP ratings
- have a lower capital and maintenance cost than a gas boiler system
- · offer total flexibility in design
- · are quick and easy to install or upgrade
- are virtually maintenance-free and require no annual landlord safety certificate

Whatever the requirement – from new build to refurbishment, a single room to a whole development, whether domestic or commercial – Creda Heating offers the most effective, economical and environmentally-friendly heating solution.

Now Creda Heating is proud to introduce Quantum, an electric heating system like no other. Quantum is up to 27% cheaper to run and uses up to 22% less energy than comparable static storage heaters.

Quantum: Controlling heat like never before.

## The Green Deal

Quantum has been accepted as a Green Deal 'measure' by the department of Energy and Climate Change.

The Green Deal is an innovative government-backed financing mechanism that lets householders pay for energy-efficient improvements through savings on their energy bills.

As the 'golden rule' of the scheme is that the expected energy savings must be greater than the cost of the improvements, by installing Quantum householders should save energy and money — as well as helping the environment.

See the following for further information: www.gov.uk/greendeal



# 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 50 and send with a set of plan and elevation drawings to:

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

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

#### Part I

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.

If you need specific advice on a project please speak to one of our heating design consultants or your Creda regional manager.

#### Need a quick guide?

If you only need to know how much heat you need for one or two rooms please use our sizing tables on pages 48 and 49 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



#### 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.

# As electricity turns green, the world is turning to Quantum



As electricity generation turns ever greener, the world is turning to electric heating. Nationally-supplied, low-carbon electricity provides security of energy supplies and low-carbon heating, while helping to reduce the devastating impact of climate change.

The product of three years' research and development, the Quantum energy system combines the very latest in electric heating with an economical demand response management tool. The result: the world's most advanced electric space and water heating system.

State-of-the-art electric heating



An economical demand response management tool

Quantum: the world's most advanced electric space and water heating management system



#### Quantum in a nutshell

The Quantum energy system is designed to use low-carbon energy from renewable sources – such as hydro electric generation and wind – and converts this into heat. When demand is low, the smart system stores this green energy up in the form of heat to be used when it's needed.

Quantum: the smart electric heating system that stores green energy.

#### The Quantum energy system offers homeowners:

- a low-cost, low-carbon, electric heating system
- an electric heating system whose carbon use will decrease over time
- optimal efficiency, comfort and control

# A closer look at the Quantum energy system

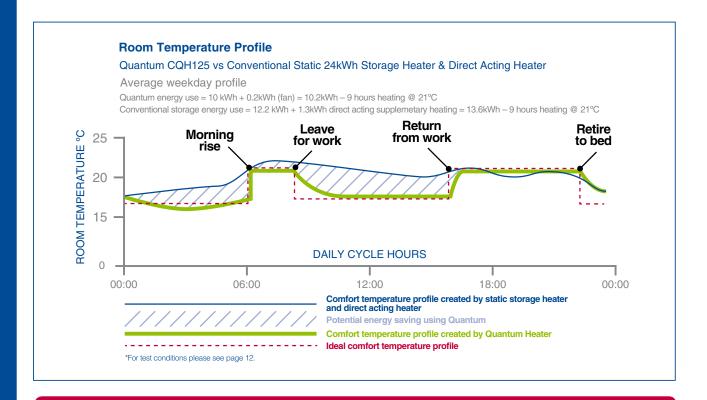
The Quantum energy system consists of three elements which can work as a system or be purchased individually:



#### The Quantum Room Heater: an ultra-efficient heater

- Achieves low running costs by utilising off-peak tariffs.
   On a room-by-room basis, 90% of the heating requirement is anticipated to be met by off-peak energy
- Automatically adjusts to, and matches, the user's needs/lifestyle through dynamic storage capacity
- Has an easy-to-use electronic user interface with LCD display, featuring a room temperature setting with seven-day programmer
- · Provides extremely rapid heat-up through fan-assisted output

- Ensures heat is always readily available thanks to its boost element
- Has an attractive, state-of-the-art and compact design (no deeper than a double wet radiator)
- Covers previous 'fixing marks' of most comparably sized traditional storage heaters
- Has facility for an optional communications link for demand side management to help stabilise the grid



The Quantum Room Heater operates on any off-peak tariff for low running costs.



# The Quantum Cylinder\*: smart energy water storage

- Provides a long-life, low-maintenance, economical hot water supply
- Delivers fast-filling baths and powerful showers through mains pressure hot water
- Is manufactured from stainless steel and comes complete with a 25 year warranty on the cylinder
- Is available in five sizes from 125 to 300 litres, both vented and unvented
- Features advanced controls with electronic user interface with LCD display, providing feedback on hot water temperature and availability
- Has a hard-wearing, black insulation outer shell made from recycled materials, giving class-leading heat retention capability
- Has demand side management capability through bi-directional communications to energy supplier

#### The Quantum Hub\*: optional system manager

- Enables two-way communications potential between Quantum products and the energy supplier
- Is future-proofed to support upcoming changes in energy supply
- Can be mounted discreetly anywhere in the property thanks to its compact size, which is approximately half the size of this page
- Allows the Quantum Room Heater and Quantum Cylinder to be connected to a permanently live electrical circuit — and still benefit from off-peak rate costs
- · Communicates with each Quantum appliance via a transceiver







\*Available Autumn 2013

The Quantum Cylinder provides smart energy water storage and a long-life, low-maintenance, economical hot water supply.

The Quantum Hub enables two-way communications between Quantum and the energy supplier.



# Low-carbon and low-cost too

The Quantum Room Heater is up to 27% cheaper to run and uses up to 22% less energy\* than other comparable electric heaters. How? It's all thanks to new developments in insulation technology and controllability.

\*Ratified by comparative energy and running cost data using SAP 2012 (issued May 2013).

#### Here's how the Quantum Room Heater's running costs stay so low:

#### 1. Off peak tariffs

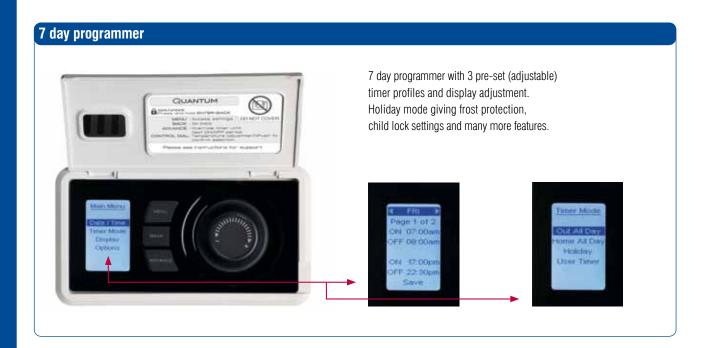
Quantum utilises off-peak tariffs whenever possible to keep costs to a minimum. So end users get the benefits associated with electric heating at running costs unachievable with other 'direct-acting' electric heating systems.

#### 2. New insulation technology

The Quantum Room Heater uses the very latest insulation material — one with a thermal conductivity even lower than that of still air. This prevents heat being lost or wasted.

#### 3. Installation and maintenance

The Quantum Room Heater is easy to install and maintenance free.



End users get the benefits associated with electric heating at running costs unachievable with other 'direct-acting' electric heating systems.



# Controlling heat like never before

Part of the beauty of the Quantum Room Heater is its controllability. The heater monitors and adapts to its environment – that is, climate conditions and usage patterns – and delivers heat accordingly. Should the end user wish to adjust heat levels manually, they can do that too!

#### The Quantum Room Heater will:

- Monitor weather and usage patterns, learning from and adapting to these to deliver precisely the right amount of heat, when required
- Respond to any changes in climate and/or room temperature conditions, altering configurations automatically
- Monitor the target room temperature and intuitively adjust output to maintain this – using a thermostat that is accurate to within a fraction of a °C
- Work seamlessly with the grid, using off-peak tariffs when possible to minimise user costs and maximise efficiency

#### The end user can:

- Use the built-in electronic interface with LCD display and rotary 'click' selector to manually adjust the temperature
- Choose from a preset programme menu, complete with options such as 'Home All Day' or 'Holiday Mode', then relax as the Quantum Room Heater takes control

#### **Controls**





Target temperature display is colour coded to assist visually impaired. Heater will maintain selected temperature using a thermostat accurate to within  $\pm -0.3$ °C.

Rotary click selection adjusts target temperature and enables menu scrolling and selection.

The Quantum Room Heater will monitor the target room temperature and intuitively adjust output to maintain this – to within a fraction of a °C.



# The Quantum energy system. How will you benefit?

Quantum has a number of benefits, whether you are a specifier, end user, energy supplier or installer, so get ready to reap the rewards of the Quantum energy system.

#### For the specifier:

- ✓ An aesthetically-pleasing, state-of-the-art design
- ✓ A compact system, no deeper than a double wet radiator
- ✓ Full coverage of the 'fixing marks' of most comparably-sized traditional storage heaters
- ✓ A wide range of heater sizes, allowing flexibility in project specification
- ✓ Simple specification within SAP
- ✓ Technology that's low-cost, low-carbon and future proofed
- ✓ A virtually maintenance-free system

#### For the end user:

- ✓ An aesthetically-pleasing, state-of-the-art design
- ✓ Use of a nationally-supplied and future-proofed fuel source
- ✓ A system that's economical to run helping to alleviate fuel poverty
- ✓ A greater level of comfort, delivering heat only when required
- ✓ Greater accuracy in room temperature control
- ✓ A system that's highly responsive to external temperature changes
- ✓ Low-maintenance and high reliability
- ✓ A fully automatic system (after initial set-up)





Technology that's low-cost, low-carbon and future proofed.

A system that's economical to run and highly responsive to external temperature changes.





#### For the energy supplier:

- ✓ Multiple communication options
- ✓ Off-peak tariff market protection
- ✓ Economical demand response management tool
- ✓ Low-cost, low-carbon and flexible energy storage it's entirely up to the utilities how much energy they store and when they store it
- ✓ Better use of wind generation so helping to decarbonise the grid
- ✓ Greater supply-demand balance
- ✓ Higher system reliability and security
- Reduced need for investment in networks
- ✓ Lower standby generation cost

#### For the installer:

- ✓ Easy installation, minimising time on site
- ✓ Electronic controller preset with the time and date, as well as user programmes
- Reversible cable entry points and coverage of all previous 'fixing marks' of most comparably sized storage heaters
- ✓ Minimised user confusion thanks to easy-to-use controls





Low-cost, low-carbon and flexible energy storage — it's entirely up to the utilities how much energy they store and when they store it.

Easy-to-use controls mean there's less chance of user confusion.



# The Quantum Room Heater

Model No.	CQH070	CQH100	CQH125	CQH150
Height	730mm	730mm	730mm	730mm
Depth	185mm	185mm	185mm	185mm
Width	703mm	865mm	1069mm	1069mm
Installed Weight	83kg	107kg	135kg	155kg
Output Rating (stored energy)	700W	1000W	1250W	1500W
Input Rating	1560W	2200W	2760W	3300W
Max. Storage Capacity	10.9kWh	15.4kWh	19.3kWh	23.1kWh
<b>Boost Element Rating</b>	630W	880W	1130W	1300W

#### ENERGY CELL PACKS - packaged separately, required in the following quantities:

Model No.	CQH070	CQH100	CQH125	CQH150
Energy cell packs required	6	8	10	12

#### Controls

Electronic user interface with LCD display offering room temperature setting, 7 day programmer, installer settings, 3 preset timer profiles, holiday setting and more.

#### **Charge Controller**

Fully automatic charge controller incorporates self learning algorithms to optimise daily energy storage, using multiple sensors to automatically adjust the charge taken based on recent energy use patterns and future programmed requirements.

#### Thermostat

Electronic – accurate to  $\pm -0.3$ °C.

#### **Safety Devices**

Electromechanical limit thermostat (self resetting).

Electromechanical cut-out (manual reset).

Electromechanical over temperature limit thermostat for fan.

#### Fan

Storage Core

High density bonded

magnetite energy cells.

Low rev/low noise heat circulation fan with variable speed and soft start.

#### microporous silica.

**Thermal Insulation** 

Base – calcium silicate slab.

Front, rear top and ends -

#### Colour/Finish

White.

#### **Battery Backup**

3.3V coin cell battery to backup real time clock. Battery life > 5 years.

#### Supply

230-240V/50Hz. Off-peak + 24 hour supply required.

#### **Approvals**

BEAB/EN60335/EMC/CE.

#### Warranty

2 years.

#### Climate Room Test Chamber – conditions for Room Temperature Profile graph on page 6.

A climate room was built to accurately replicate a room from typical UK housing stock. It has two external walls and two internal walls, and the temperatures outside all walls, ceiling and floor are accurately controlled.

The U values of walls, windows and door are as follows:

Daniel dimensions	
Room dimensions	4m x 3m x 2.4m
U values:	
Double layer solid brick outer walls	2.0
Insulated internal walls and ceiling	0.34
Insulated floor	0.25
UPVC double glazed window	3.3
UPVC double glazed door	3.0
Air change rate	1 A/C per hour

#### The Test

A daily temperature profile was set up outside the two external walls to simulate an average heating day in a property based in Sheffield, England.

Minimum outside temperature  $+4^{\circ}$ C Maximum outside temperature  $+11^{\circ}$ C

The heating periods were set at 07:00 to 09:00 and 16:00 to 23:00.

The target room temperature was 21°C during these times.

The following heaters were tested under these conditions:

- 3.4kW (input) static storage heater with manual charge control
  - supplemented with a direct acting heater
- 2.8kW (input) Quantum Heater (CQH125)

For results please see graph on page 6.



# The Quantum Cylinder

Cylinder Model	CQCD 125-580	CQCD 150-580	CQCD 210-580	CQCD 250-580	CQCD 300-580
Volume	1251	1501	2101	2501	3001
Height	945mm	1115mm	1490mm	1765mm	2065mm
Diameter	580mm	580mm	580mm	580mm	580mm
T&P Valve	720mm	890mm	1265mm	1540mm	1840mm
Immersion 1	208mm	208mm	208mm	208mm	208mm
Immersion 2	570mm	650mm	820mm	1265mm	1495mm

#### Type

Vented and unvented systems.

Direct cylinders.

#### Colour/Finish

Black.

#### **Controls**

Highly intuitive ergonomically designed electronic control system.

Modern, easy-to-read display.

User adjustable cylinder water temperature to +/- 1°C.

"Boost" immersion heater for rapid response short-term use.

Hot water volume availability display.

User can set normal water temperature and boost water temperature.

Boost element automatically disengages upon reaching target temperature.

Holiday set back function.

#### **Technical features**

Class-leading insulation levels.

Bi-directional communication to power utility of specific control and configuration parameters.

High level energy management system will interact with external (Wide Area) Networks and local (Home Area) Networks.

Communicates stored water volume and temperature.

Automatic sterilisation function.

Algorithm specifically calculates:

- Hot water volume
- How much more energy can be stored in the tank until the maximum set temperature is reached
- Water and energy consumption over a defined period

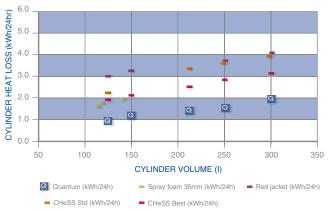
Heat loss over 24 hours (∆T 45k): Storage capacity @ 65°C water (∆T 55k)

10EL 0.0ELAND 7.1IAND

1251:	U.95KWN	7.IKVVN
150I:	1.1kWh	8.8kWh
2101:	1.4kWh	12.7kWh
250I:	1.55kWh	15.3kWh
3001	1 96kWh	18 4kWh

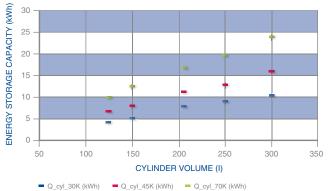
#### **Cylinder Heat Loss Comparison**

This graph illustrates the standing heat loss of a range of Quantum Cylinders against a range of references.



#### **Energy Storage Capacity Water Cylinders**

This graph illustrates the energy storage capacity of the Quantum Cylinder across a range of temperatures.



#### **Notes**

- Creda Quantum values measured for direct electric cylinder in accordance with EN12897 at a temperature difference between water (65°C) and ambient (20°C) of 45K.
- CHeSS standard and best values in accordance with central heating system specification CE 51 2008, and Energy Saving Trust publication.
- Red Jacket calculation based on 80mm fibre glass insulation.
- Spray foam cylinder heat loss data taken from competitor product range. The stated insulation thickness is 35mm.
- It should also be considered that cylinder replacements are covered under Part L1B of building regulations (conservation of fuel and energy). Part L1B refers to the Domestic Building Compliance Guide which calls for cylinders to have a heat loss of no more than the high level products as specified in CE 51 2008.



# The NOBO range

NOBO Heating, recognised for its Norwegian manufactured electric panel heaters and energy control systems, is an integral part of the Creda Heating range.

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.

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

There are three NOBO ranges:

- E4EU Slim, flat fronted panel heater with top air outlet and built in 7 day timer.
- C4N Slimline panel heater with front air outlet and a range of control modules.
- LST Low Surface Temperature panel heater with a range of control modules.

#### **E4EU Range**

A slim 500W - 2kW panel heater with built-in, fully programmable digital 7 day timer. These are 'all-in-one', stand alone units and will not operate as part of a central control system or with any of the other NOBO control modules that are available. Panel heaters in the range have  $5^{\circ}\text{C} - 30^{\circ}\text{C}$  temperature scale and are ideal for homes, offices and commercial applications.

#### C4N Range

A versatile, slimline 500W – 2kW panel heater supplied without controls. C4N heaters will not operate unless a control module is purchased separately and installed with the heater. These heaters are ideal for homes, offices, commercial applications, hotels and student accommodation.

#### **LST Range**

A 500W, 800W or 1kW panel heater which complies with the NHS guidelines on safe surface temperatures. This heater is larger than other NOBO panel heaters so that no part of the heater will exceed 43°C during operation, even at full output. This means that prolonged contact with the heater will not result in physical harm, making the heaters safe for use in areas with children, the elderly and infirm. LST heaters will not operate unless a control module is purchased separately and installed with the heater. These heaters are ideal for sheltered accommodation, retirement homes, healthcare, public waiting areas, hospitals, nurseries and schools.

#### **Specification**

To find out which system best suits your requirements, simply choose your application from the left-hand column of the table below, then decide how you would like to control the system by moving across the four control columns. Please note that the NOBO range is extensive, and this is only a guide to the most common applications.

		Control					
Application	Onboard Timer	Central Control	Remote Control				
		Radio Frequency	Pilot Wire				
Domestic	E4EU	C4N with EC700 & RDC700	C4N with ZSE				
	C4N with GERT9	and towel rail – RS700 Water heater – RSX700					
Commercial	E4EU	C4N with EC700	C4N with				
	C4N with GERT9	and RDC700	ZSE or GCO				
Hotel	Ask for details	Ask for details	C4N with GCH				
Education and Healthcare	LST with LST-T9	LST with EC700 & RDC 700 LST and towel rail – RS700 Water heater – RSX700	LST with GCH or GCO				
Student Accommodation	C4N with GCL	Ask for details	Ask for details				

To confirm that your specification is correct, or for further information, please contact your Creda NOBO Heating Regional Manager.

#### **Useful Tips**

- No power cable is supplied with the C4N & LST heaters, it comes in the packet with the control module
- Tamperproof covers are available for all models

#### E4EU

Electric panel heaters with integral timer



of products is used extensively across both domestic and commercial applications.

#### **Key features**

- 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

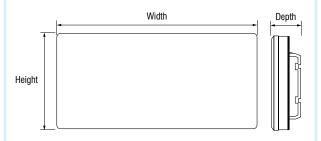
#### **Control options**

• E4EU thermostatic controller supplied as standard



#### **Technical Specification**

- Thermostat see 'Control options'
- Finish pure white to RAL 9010
- Protection locking covers for controls are available
- IP rating splashproof to IP24



#### Accessories:

• Tamperproof thermostat cover S14 (2170614)

Product Selector							
Model	Rating (kW)	Height (mm)	Width (mm)	Depth from wall (mm)	Weight (kg)		
E4EU0500	0.5	400	475	71	3.4		
E4EU0750	0.75	400	625	71	4.3		
E4EU1000	1	400	775	71	5.2		
E4EU1250	1.25	400	975	71	6.4		
E4EU1500	1.5	400	1125	71	7.5		
E4EU2000	2	400	1525	71	9.9		



- · Extensive range of outputs
- · Low capital costs
- · Virtually silent electronic thermostats
- · Extremely shallow depth
- · Tamperproof capability
- Complete range of custom designed thermostat control modules

#### **Control options**

- RDC 700 (compatible with the Orion 700 RF control unit)
- GER T9 (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 (dual electronic thermostat with fixed economy setting and pilot wire)

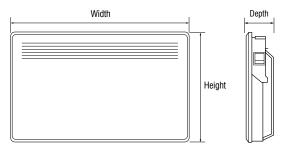
Please see pages 18 and 19 for more details





#### **Technical Specification**

- Thermostat see 'Control options'
- Finish pure white to RAL 9010
- Protection locking covers for controls are available
- IP rating splashproof to IP24



#### Accessories:

- 2170611 B ASB plastic cover for on/off switch
- 2170613 AOB R80-PL plastic cover for thermostat slider

Product Selector							
Model	Rating (kW)	Height (mm)	Width (mm)	Depth (mm from wall)	Weight (kg		
C4N0500	0.5	400	425	78	3.1		
C4N0750	0.75	400	525	78	3.7		
C4N1000	1	400	675	78	4.6		
C4N1250	1.25	400	825	78	5.6		
C4N1500	1.5	400	975	78	7.0		
C4N2000	2	400	1325	78	8.7		

#### LST

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 43tC
- Safe air leaving temperature
- · Tamperproof capability
- · Wide range of control options

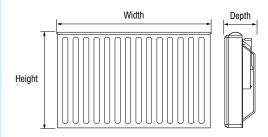
#### **Control options**

- RDC 700 LST (compatible with the Orion 700 RF control unit)
- LST T9 (dual electronic thermostat with timer)
- GCH (dual electronic thermostat and pilot wire for central timer, PIR or key card timers)
- GCO (dual electronic thermostat and pilot wire for central timer, PIR or key card timers)

Please see pages 18 and 19 for more details

#### **Technical Specification**

- Thermostat see 'Control options'
- Finish pure white to RAL 9010
- Protection locking covers for controls are available
- IP rating splashproof to IP24



#### Accessories:

- 2170611 B ASB plastic cover for on/off switch
- 2170613 AOB R80-PL plastic cover for thermostat slider

This stylish convector heater incorporates a safety cut-out, virtually 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  $14^{\circ}C-24^{\circ}C$  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.





Product Selector						
Model	Rating (kW)	Height (mm)	Width (mm)	Depth from wall (mm)	Weight (kg)	
LST5N05	0.5	515	775	145	6.3	
LST5N08	0.8	515	1275	145	9.25	
LST5N010	1	515	1575	145	11.25	

#### 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 also provided.

#### **Key features**

- Designed to provide 24/7 cost effective zone controlled heating
- · Ancillary function control
- Fully compatible with the acclaimed 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**

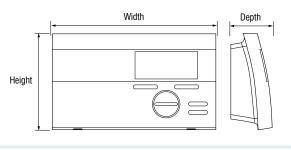
The RDC 700 models have built-in receivers for the C4N panel heaters, which can interpret commands and relay signals back to the control unit.

#### **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.



Product Selector							
Model	Enclosure	Voltage (v)	Consumption (ma)	Height (mm)	Width (mm)	Depth (mm)	
EC700	IP20	230 - 240	80	180	113	46	
RSX700	IPX0	230 - 250	20	70	54	57	
RS700	IPX0	230 – 240	20	57	53	28	

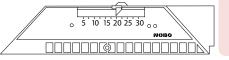
## Control options - C4N and LST Only

The C4N and LST ranges of panel heaters require a control module to operate.

#### Thermostat modules for C4N

#### ZSE 8833211

 $5^{\circ}\text{C} - 30^{\circ}\text{C}$ 



#### Application

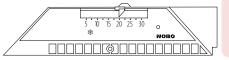
- Apartments Standard applications
- Domestic

#### Specification

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

#### GE 8833215

 $5^{\circ}\text{C} - 30^{\circ}\text{C}$ 



#### **Application**

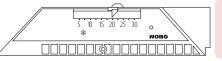
Standard applications

#### Specification

- Single electronic thermostat
- · Proportional temperature regulation

#### **GER T9 8833225**

 $5^{\circ}C - 30^{\circ}C$ 



#### Application

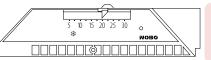
- Standard applications
- Domestic
- Commercial

#### Specification

- · Double electronic thermostat
- Proportional temperature regulation
- Integral programmable timerFixed frost protection setting

#### RDC 700 8833661

 $5^{\circ}C - 30^{\circ}C$ 



#### Application

- Central control applications
- Domestic
- Commercial

Application

#### Specification

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

#### GCL 8833431/8833256

14°C - 24°C



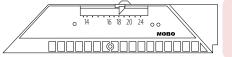
- Student applications
- · Occasional occupation

#### Specification

- Double electronic thermostat
- Proportional temperature regulation · Integral single shot runback timer
- Fixed setback temperature setting

#### GCH 8833227E

14°C - 24°C



#### Application

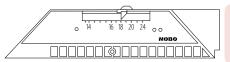
- Hotels
- Nursing homes Various applications

#### Specification

- · Double electronic thermostat
- Proportional temperature regulation
   Cable connection for remote control
- · Fixed setback temperature setting

GCO 8833233

14°C - 24°C



#### **Application**

- Hotels
- Nursing homes
- · Various applications

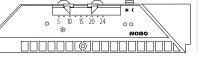
#### Specification

- · Double electronic thermostat
- Proportional temperature regulation
- · Cable connection for remote control · Fixed setback temperature setting

#### Thermostat modules for LST

#### RDC 700 LST 8833662

5°C - 24°C



#### Application

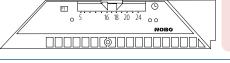
- Hospitals Nurseries
- Offices
- Various applications

#### Specification

- Double electronic thermostat
- Proportional temperature regulation
- · Radio frequency control
- Adjustable setback temperature setting

#### LST-T9 8833224

 $5^{\circ}C - 24^{\circ}C$ 



#### Application

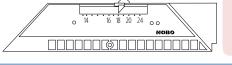
- · Public areas
- Domestic applications Office disabled facilities
- · Various applications

#### Specification

- · Double electronic thermostat
- Proportional temperature regulation • Integral timer with 9 preset programmes
- · Frost protection setting

#### GCH 8833227E

14°C - 24°C



#### Application

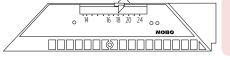
- Nursing homes
- · Sitting areas
- · Children's play areas · Various applications

#### Specification

- · Double electronic thermostat
- · Proportional temperature regulation · LST temperature scale
- · Fixed setback temperature setting

#### GCO 8833233

14°C - 24°C



#### Application

- Doctors surgeries
- Hospitals
- · Office disabled facilities
- Various applications

#### Specification

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

## 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**

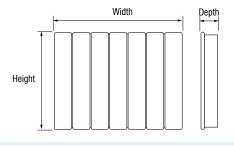
- · Contemporary radiator styling
- Electronic thermostatic control, accurate to +/-0.3°C
- · Convected heat for rapid warm up
- · Virtually silent operation
- Pre-set background temperature at 5°C below thermostat setting (when connected to a programming unit supporting setback feature)
- Hidden thermostat range limiter feature for additional economy
- Range of optional plug-in electronic timer modules, including:
   24 hour digital timer (Model TPR E24T)
  - 24 nour digital timer (Model TPR E241)
     Single zone 7 day pilot wire programmer (Model TPR E7DT)
  - Runback timer (Model TPR ERBT)
- Compatible with Creda 4 zone pilot wire central controller (Model PWE4ZC)







- 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 Sel	ector				
Model	Rating (kW)	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
CEP500E	0.5	536	503	104	12
CEP750E	0.75	536	503	104	12
CEP1000E	1	536	671	104	15
CEP1500E	1.5	536	741	104	17.5
CEP2000E	2	536	911	104	22

#### **Controls**

#### Electronic panel heaters

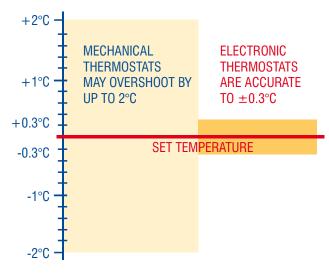
#### **Control options**

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



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

#### **Electronic Thermostat**



The 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.



• 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). Čan 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 20 for more details.

Model PW E4ZC

Product Se	lector			
Model	Product description	Height (mm)	Width (mm)	Depth (mm)
TPRE24T	24 hour plug-in timer module	50	70	145
TPRE7DT	7 day single zone plug-in timer module	50	70	145
TPRERBT	4 hour run back timer plug-in module	50	70	145
PWE16A	16 amp pilot wire interface unit	86	86	22
PWE4ZC	4 zone pilot wire central controller	132	86	38



- · Front facing grille for efficient heat projection
- · Styling to complement Eco-Response radiators with pure white finish
- Electronic thermostatic control +/-0.3°C, completely silent operation
- Preset background temperature at 5°C 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





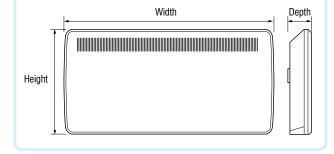
#### **TPRIII E Electronic rotary thermostat**

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.



 $\label{eq:control} \textbf{For more control options, please see page 23.}$ 

- Element finned, mineral-filled sheathed type
- Thermostat electronic with fixed 5°C 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 Sele	ector				
Model	Loading (kW)	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
TPRIII500E	0.5	430	450	108	5.2
TPRIII750E	0.75	430	620	108	6.6
TPRIII1000E	1	430	620	108	6.6
TPRIII1250E	1.25	430	690	108	7.1
TPRIII1500E	1.5	430	690	108	7.1
TPRIII2000E	2	430	860	108	8.5



- · 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



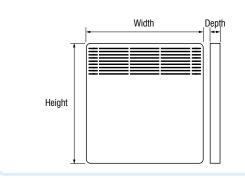




Integral twin electronic thermostats for setting comfort and setback temperatures.

#### **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						
PWE4ZC	4 zone pilot wire central controller									
MBPRG	Newera MB Programmer									
MBIF	Newera MB Interface									

## **Control options**

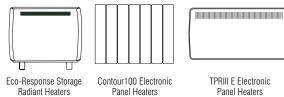
The performance and economy of Creda heating products can be further enhanced by the use of control options best suited to the type of installation and lifestyle requirements.

#### Wall mounted controller for 4 zone pilot wire linked heating system





Pilot Wire Controller Model PW E4ZC





Newera Electronic Panel Heaters

**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 5°C setback from comfort, and frost protection at 5°C.

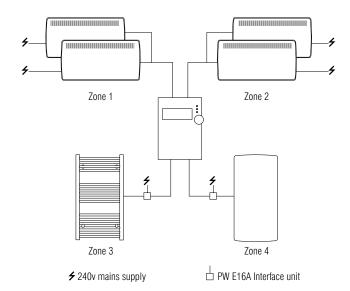
Note: Pilot wire installations are appropriate for single phase connection only.

# Dimensions 86mm 38mm

#### 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

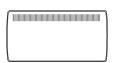




24 hour timer Model TPR E24T



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





Runback 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 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 (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



#### **Range options**

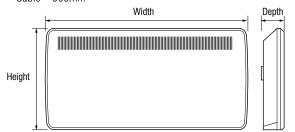


TPRIII M mechanical thermostat (all ratings).



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

- 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
- Cable 900mm





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

<b>Product Select</b>	or				
Model	Rating (kW)	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
Thermostat only models					
TPRIII500M	0.5	430	450	108	4.8
TPRIII750M	0.75	430	620	108	6.2
TPRIII1000M	1	430	620	108	6.2
TPRIII1250M	1.25	430	690	108	6.6
TPRIII1500M	1.5	430	690	108	6.6
TPRIII2000M	2	430	860	108	8.0
Timer models 24hr					
TPRIII500MT	0.5	430	450	108	4.8
TPRIII750MT	0.75	430	620	108	6.2
TPRIII1000MT	1	430	620	108	6.2
TPRIII1250MT	1.25	430	690	108	6.6
TPRIII1500MT	1.5	430	690	108	6.6
TPRIII2000MT	2	430	860	108	8.0
Timer model 7 day					
TPRIII2000MT7	2	430	860	108	8.0



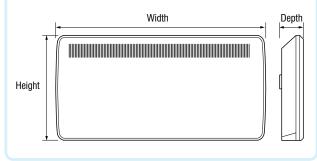
- · Convected heat for rapid warm-up
- · Suitable for domestic or commercial use
- Front heat outlet grille for efficient heat circulation
- Detachable hinged wall mounting bracket for fast installation and easy cleaning





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

- 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
- Cable 900mm



<b>Product Select</b>	or				Product Selector										
Model	Rating (kW)	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)										
No controls models															
TPRIII500NC	0.5	430	450	108	4.8										
TPRIII750NC	0.75	430	620	108	6.2										
TPRIII1000NC	1	430	620	108	6.2										
TPRIII1250NC	1.25	430	690	108	6.6										
TPRIII1500NC	1.5	430	690	108	6.6										
TPRIII2000NC	2	430	860	108	8.0										



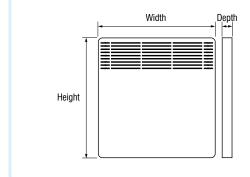
- · Single mechanical thermostat, stand alone heating
- Excellent value and simple to operate
- · Robust construction and easy to install
- Compact takes up minimal wall space
- Hinged wall mounting bracket to allow easy access for cleaning and decorating
- Ideal for conservatories, extensions, hotels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



Single mechanical thermostat.



- Elements finned, metal sheathed mineral-filled type
- Thermostat single mechanical
- $\bullet \ \ \text{Protection} \text{two level thermal safety overheat} \\$
- Supply 230/240V AC single phase
- IP rating IPX4 (splashproof)



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 (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.

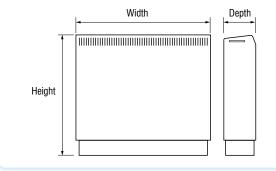
#### **Key features**

- 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



\*\*TSR6AW/MW have no user controls and are IPX2 rated (drip-proof)



Product Selector												
Model	Rating storage (kW)	Charge acceptance (7hrs) (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				

#### **Eco-Response**

Storage radiant heaters



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.

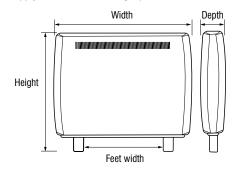
Simple integral control on top of the heater — allows easy adjustment to achieve the user's preferred comfort temperature.

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



#### **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 2.5mm<sup>2</sup> 3 core
- Cable (direct acting) 1.6m 0.75mm<sup>2</sup> 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

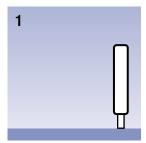
Prod	Product Selector											
Model	Designed heat loss (kW)	Charge acceptance (kWh)	Input rating, off-peak (kW)	Input rating, radiant elt. (kW)	Number of elements	Number of bricks	Weight (kg)	Height (mm)	Width (mm)	Depth (mm)	Feet position (mm)	
ER300	0.7	9.1	1.3	0.28	2	8	65	712	600	130+10	295	
ER400	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	
PWE4ZC	4 zone	pilot wire central cor	ntroller									

# **Eco-Response**

Storage radiant heaters

#### Why Eco-Response?

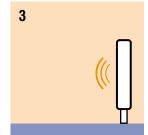
#### **Conventional heater**



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

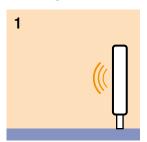


The building shell has to then be warmed again before room feels comfortable.

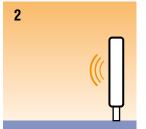


This takes time and energy – slow response.

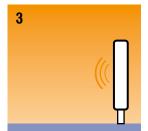
#### **Eco-Response**



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 24–25 for more details. Model PW E4ZC



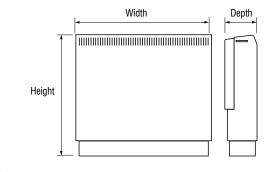
Matching TPRIII E electronic panel heaters also available for pilot wire linked heating systems (See pages 24–25). Use Eco-Response in living areas and TPRIII's in bedrooms, conservatories etc. with a 4 zone control.



- 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
- Quiet, low velocity Warmflow fan
- The Warmflow fan heater has manually adjustable room temperature sensing thermostatic control accurate to within 0.5°C
- 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)



- 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



Produc	ct Selector								
Model	Rating storage (kW)	Direct acting (kW)	Charge acceptance (7hrs) (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



- 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

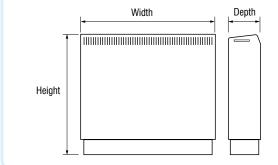
The incorporation of high performance insulation means that stored heat is effectively retained by the heater, meaning that more useful heat is available for later in the day. The heat output is then regulated by a simple, thermostatically controlled fan providing economical heat when and where you want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





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.

Prod	uct Sele	ctor								
Model	Rating storage (kW)	Direct acting (kW)	Charge acceptance (7hrs) (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)
SFHA18	AW 2.5	1.5	17.6	3	12	40	705	788	187	121
SFHA24	AW 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

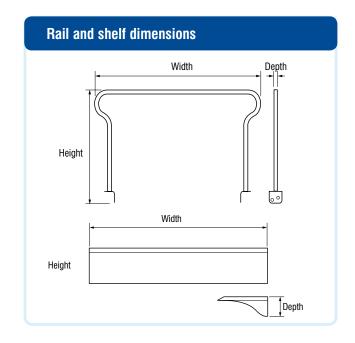
- Available for TSR 6, TSR 12 and TSR 18 auto and manual models
- · Warms and dries towels safely
- · Matching white finish
- · Quick and easy to fit
- Supplied complete with fixings



#### 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





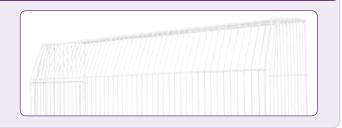
#### **Heater guard options**

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:

C. Aiano Ltd.

Please contact them direct:

Tel: 020 7987 1184 Web: www.aianos.co.uk



Produc	t 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



- Even heat distribution no cold spots
- Compact, slimline design
- Can be mounted for left or right cable entry
- Oil-filled for even heat transfer

#### **Control options**



# RFRTK7 RF remote thermostat and programmer kit

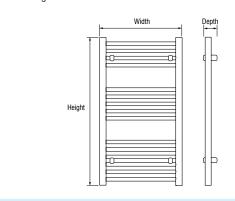
Enables thermostatic and time control using wireless signalling between the remote wall mounted thermostat and the receiver unit at the appliance (also available thermostat kit only see page 37).



# PW E16A pilot wire auxiliary interface unit

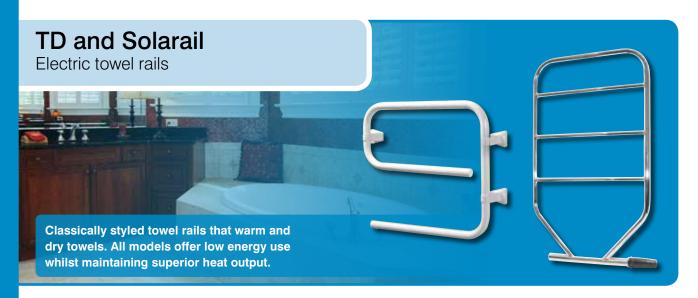
Enables heaters without electronic controls to be centrally programmed, for on/off time periods only, as part of a pilot wire linked heating system (see page 37).

- Control cycling cutout
- Protection two auto reset temperature limiters
- Supply 230/240V AC single phase
- IP rating IPX5





Product Selec	tor					
Model	Description	Rating (Watts)	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
TPL180SW	Straight white	180	610	453	80	6.0
PL220SW	Straight white	220	843	453	80	6.9
PL260SW	Straight white	260	610	602	80	7.8
TPL360SW	Straight white	360	843	602	80	11.0
TPL180SC	Straight chrome	120	610	453	80	6.0
PL220SC	Straight chrome	220	843	453	80	6.9
PL260SC	Straight chrome	260	610	602	80	7.8
TPL360SC	Straight chrome	260	843	602	80	11.0
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						
PWE16A	Pilot wire auxiliary interface uni	t 3000				



#### 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, 90W & 175W models available
- · 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



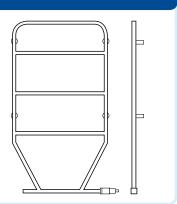
#### **Control options**

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 37).

#### **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

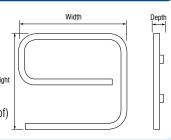
Designed for towel drying in the bathroom, shower room or even kitchen areas, Solarails are compact enough to fit in the smallest of spaces.

#### **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)
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
TD120W	TD towel rail (white)	120	616§	533	93
TD175W	TD towel rail (white)	175	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 T 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



& Programmer Receiver

RF Thermostat

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 (5°C-30°C) with 30 minute boost.

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

**Installation** – must be mounted in a single, recessed metal dock-box.



### **Key features**

- 2kW steps back to 1kW after warm up
- · 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



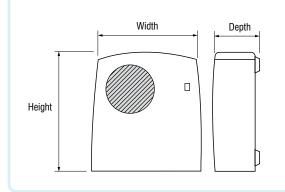


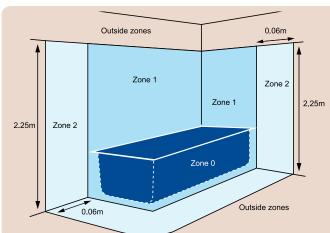
CDF2IPX4

CDF2N

### **Technical Specification**

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





### **Electrical products installed in bathrooms**

Heating products installed in zone 2 of a bathroom must 2.25m 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 the current IEE wiring regulations and the circuit protected by an RCD.

Product S	Product Selector								
Model	Product description	Rating (kW)	Height (mm)	Width (mm)	Depth (mm)				
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





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 (TM can be 1kW or 2kW)
- 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)



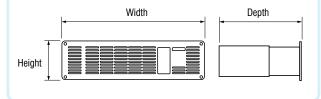
Remote model (silver fascia fitted)



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				

<sup>\*</sup>While stocks last



**Tubular heaters** 





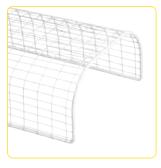
- 60-360W outputs
- A range of 4 lengths and loadings
- Complete with universal mounting brackets for floor or wall fixing and 1.5m white cable with fitted plug

### **Optional accessories**



### Interlinking kit

Available for multiple installations (100mm mounting centres).

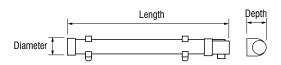


### STG guards\*

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 www.aianos.co.uk

### **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



Produc	t 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 linkir	ng kit – Compatible for all above mode	S			

## **TSF Turbo**

Commercial fan storage heaters





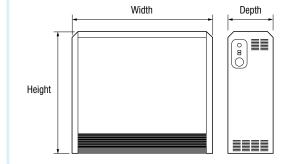
### **Key features**

- Smooth, rounded, modern appearance, compatible with commercial interiors
- TSF Turbo can be used on all economy electricity tariffs
- Available in 3.4kW, 4.6kW and 5.7kW models
- · Highly controllable with enhanced insulation for better performance
- 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
- Optional foot kit SHF25i (fits all models)



## 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



#### **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

Product Selector											
Model	Rating (kW)	Direct acting element load (kW)	Charge acceptance (7hrs) (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			



### **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.

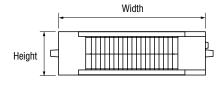
### Patio heating - why choose electric?

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.

### **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





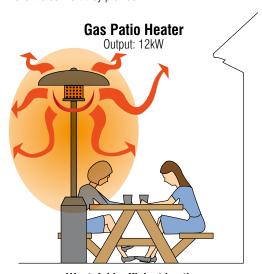
Electric outdoor heaters heat people directly, rather than heating the surrounding air, making them the most suitable solution for outdoor heating. They can also be linked to automatic switches and PIR sensors for further savings in energy.

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

### Electric Patio Heater Output: 2kW



**Direct efficient heating** 

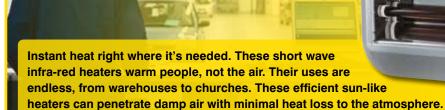


Wasteful inefficient heating

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

## SolQuartz/SunQuartz

Shortwave infra-red radiant heaters



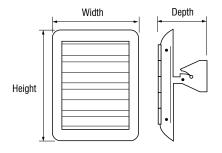
### **Key features**

- 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

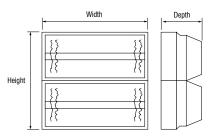
## **SolQuartz Technical Specification**

- · 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



### **SunQuartz Technical Specification**

- Tungsten halogen lamps, 230/240V with ruby red quartz outer sleeve
- Reflectors bright rolled, specular 99.8% aluminium, electro-chemically brightened
- · Electro zinc coated steel casing
- High pressure die cast aluminium end castings
- Epoxy polyester powder paint finish white/grey
- Supply 230/240V AC single phase (3 lamp units can be connected to a 380/415V 3 phase supply)



Prod	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					

<sup>\*</sup>Calculated at 95w/m² mounted at 45°

Product S	Product Selector										
Model	Rating (kW)	Number of lamps	Height (mm)	Width (mm)	Depth (mm)						
SQ1.5	1.5	1	185	390	115						
SQ2.0	2	1	185	390	115						
SQ3.0	3	2	370	390	115						
SQ4.0	4	2	370	390	115						
SQ4.5	4.5	3	555	390	115						
SQ6.0	6	3	555	390	115						

## SolFan

High level fan heater





### **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

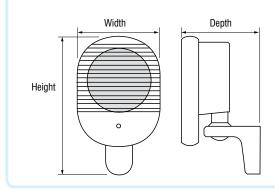


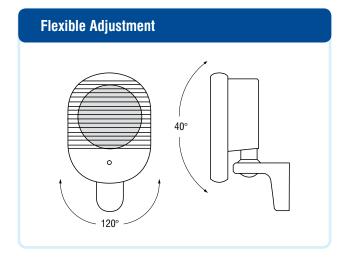
#### **Controls**

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





Product 9	Product Selector									
Model	Rating (kW)	Noise level @1m (dBA)	Height (mm)*	Width (mm)	Depth (mm)					
CSF3	3	24	378	230	226					
Remote	-	-	60	170	102					

<sup>\*</sup>with bracket

## SunFan

Wall mounted fan heater





### **Key features**

- High air volume throughput of 300m3/hour
- Quiet running, totally enclosed motor
- Wall mounted with 2 part self supporting bracket

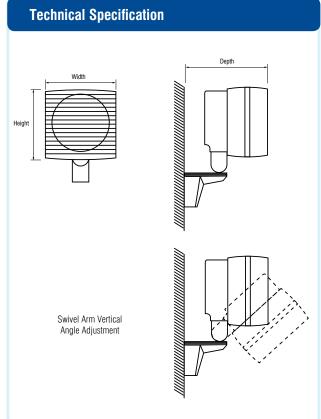
or cool air circulation in summer.

- Multi-directional adjustment of 45° vertically and 150° horizontally with single screw locking
- Remote control switch available as an option to provide a cool air circulation facility
- 1 year guarantee (UK)
- · BEAB and CE approved
- · Two tone grey



### **Accessories**

The dual control switch can be used to control the SunFan remotely, switching it both on and off and to fan only, for cool air circulation in the summer.



Product Sele	Product Selector										
Product reference	Short code	Rating (kW)	Noise level@1m (dBA)	Height (mm)	Width (mm)	Depth (mm)					
SunFan	SF3	3	47.9	229*	267	260**					
Dual Control Switch	DCS	-	-	-	-						

<sup>\*</sup>excluding bracket \*\*to wall

## 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

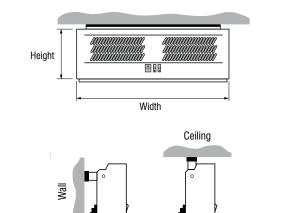


#### **Controls**

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



Depth

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				

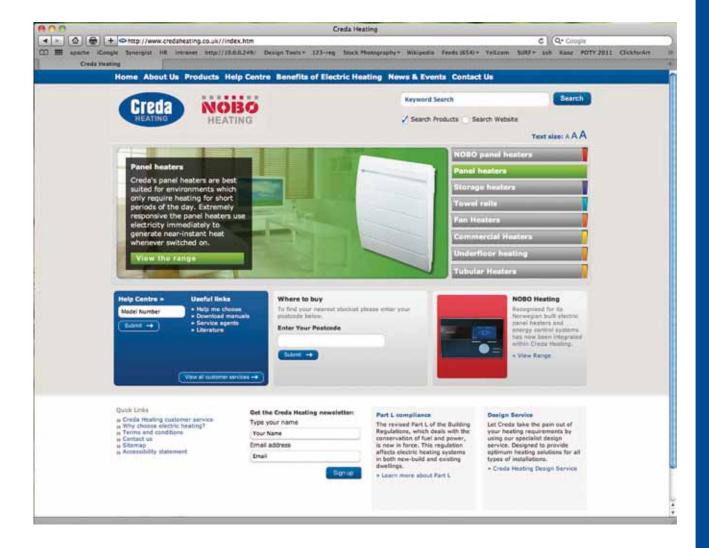
## Website

Our website includes a wealth of additional information to help you make the right choice of heating system and to find your local supplier of Creda products.

As well as the product information featured in this brochure, the site has a comprehensive Help Centre which features:

- Calculate heating requirements to ensure you select the right Creda products for your heating requirements, simply type a few details of your room into this online calculator
- Heating design service let us take the pain out of your heating design requirements if you need a heating solution for multiple properties. We offer a number of service levels, all graded according to customer deadlines and complexity of the scheme
- Where to buy type in your postcode and details of your nearest suppliers including phone number and map is returned
- Installation/Operation instructions for quick access to installation instructions for one of our products any time of the day or night
- Request a repair if you do need a repair for a product, visit this page for advice on what the procedure is for products in and out of warranty

Visit www.credaheating.co.uk



## Heater sizing table

Creda provides a number of options, to meet different property and timescale requirements. If you need to obtain an indication of the heating requirements for estimating or if you need heating for one or two rooms, please use the selection guide below.

Alternatively use our online calculator at www.credaheating.co.uk For single properties, please complete the form on page 50 and send it with a sketch plan to our heating design department. We aim to provide an accurate assessment within 7 working days.

For multiple properties, please send us comprehensive scale drawings (scale 1:50 or 1:100) together with construction details and any other relevant information. We offer a 14 working day service for this type of assessment.

## How to use this selection guide

The tables below provide heater sizing guidance for traditional electric heating systems, including Quantum, storage heaters and panel heaters. For traditional electric heating the preferred options for living and dining rooms are Quantum or TSRACW combination storage heaters.

Knowing the floor area, the wall construction and the number of outside walls, the heater loading in kilowatts is indicated in the

appropriate table. These tables do not take into account particularly old properties or those built very recently. If your property fits into one of these classifications, please complete the form on page 50 so that we can provide a more accurate assessment. For sizing guidance for Eco-Response radiators please refer to page 49.

**Living or dining room:** Quantum or panel heaters. Heater loading in kW. Temperature 21°C

Floor area	Solid walls no. of outside walls			Cavity walls no. of outside walls			Insulated cavity walls no. of outside walls		
m²	1	2	3	1	2	3	1		3
12	1.84	2.16	2.88	1.60	1.92	2.48	1.12	1.28	1.68
16	2.08	2.48	3.20	1.84	2.32	2.88	1.36	1.60	1.92
20	2.64	3.12	3.92	2.32	2.72	3.44	1.68	1.92	2.32
24	2.96	3.44	4.32	2.64	3.12	3.76	2.08	2.32	2.64
28	3.28	3.92	4.80	2.96	3.44	4.24	2.16	2.48	2.96
32	3.52	4.32	5.28	3.28	3.76	4.72	2.40	2.72	3.20

For TSRAW and MW heaters multiply loading by 2, for TSRACW multiply by 1.25.

**Bedrooms:** For bedrooms panel heaters are recommended. Heater loading in kW. Temperature 18°C

Floor area	Solid walls no. of outside walls			Cavity walls no. of outside walls			Insulated cavity walls no. of outside walls		
m <sup>2</sup>	1	2		1	2		1		
8	8.0	1.3	1.7	0.8	1.0	1.4	0.8	0.9	1.4
12	0.9	1.8	2.3	0.9	1.4	2.1	0.8	1.4	1.8
16	1.2	2.1	2.7	1.0	1.7	2.2	0.9	1.6	2.1
20	1.4	2.2	3.1	1.2	2.0	2.6	1.0	1.8	2.4
24	1.5	2.3	3.4	1.2	2.1	2.9	1.0	1.9	2.5

For TSRAW and MW heaters multiply loading by 1.5.

**Kitchen:** Quantum or panel heaters. Heater loading in kW. Temperature 18°C

· · · · · · · · · · · · · · · · · · ·													
	Floor area	Solid wal	ls tside walls	:	Cavity wa	alls tside walls	:	Insulated cavity walls no. of outside walls					
	m²	1	2	3	1	2	3	1		3			
	10	1.28	1.68	2.32	1.12	1.60	1.92	_	For all kitchens				
	12	1.52	2.16	2.64	1.36	1.84	2.32	For all kitchens wit					
	14	1.68	2.40	2.88	1.60	2.08	2.48	cavity wall insulation direct heating is preferre					
	16	1.92	2.64	3.12	1.68	2.32	2.72	uncornoaling is preferre					

For TSRAW and MW heaters multiply loading by 2, for TSRACW multiply by 1.25.

**Commercial heating** For greater control and economy of operation Quantum heaters are recommended. Sizing is based on a single storey with a ceiling height of 3m and a minimum of 75mm of roof insulation.

**Office:** Quantum or panel heaters. Heater loading in kW. Temperature 21°C

Floor area	Solid walls No. of outside walls			Cavity wa	alls tside walls	S	Insulated cavity walls No. of outside walls			
m <sup>2</sup>	1	2		1	2		1			
15	2.16	2.96	4.08	2.00	2.56	3.52	1.68	2.08	2.64	
20	2.64	3.52	4.48	2.40	3.12	4.00	2.08	2.56	3.12	
25	2.96	4.08	5.20	2.72	3.68	4.56	2.40	3.04	3.60	
30	3.52	4.72	5.84	3.36	4.24	5.20	2.88	3.52	4.16	
40	4.80	5.92	7.68	4.40	5.36	6.72	3.92	4.48	5.36	
50	5.28	6.80	8.40	4.96	6.24	7.44	4.48	5.28	6.08	

For TSRAW and MW heaters multiply loading by 2, for TSRACW multiply by 1.25.

## Heater sizing table

## **Eco-Response radiator sizing – replacement systems**

For sizing of Eco-Response radiators to replace existing storage heater systems, replace the existing heater with a similarly sized Eco-Response radiator, as indicated below. Due to the consistency of heat output from Eco-Response radiators, this will provide a significant improvement in room comfort levels throughout the course of the day.

Existing heater	Eco-Response				
TSR12AW/MW	ER300				
TSR18AW/MW	ER400				
TSR24AW/MW	ER500				

When considering the correct replacement for a combination storage heater, the frequency with which the convector component is used should be taken into consideration (i.e. if it is used often, the heater may already be undersized). Therefore it is recommended that combination storage heaters are replaced with a larger size of Eco-Response radiator, to ensure there is sufficient capacity within the system to match the capability of the convector heater being replaced. In the case of a 24kW combination storage heater, it is recommended that an additional appliance — either a second Eco-Response radiator or Creda NOBO panel heater is added:

Existing heater	Eco-Response radiator				
TSR12ACW	ER400				
TSR18ACW	ER500				
TSR24ACW	2 x ER400, or ER500 + panel heater or ER500 + flame effect fire				

# How to use this selection guide

The tables on this page are for use with Eco-Response radiators only — for other products please refer to our selection charts on page 48. Unlike the charts on page 48, these tables cover all applications — living room, dining room, kitchen and hallway — and are designed to provide for an internal temperature of 21°C.

Eco-Response radiators are designed to provide primary heating in main living areas, including living rooms, dining rooms, kitchen/diners and hallways/landings. This should be supplemented in other rooms, such as bedrooms and bathrooms, with Creda electronic panel heaters.

### **Eco-Response radiator sizing – first time installations**

The following chart provides guidance on radiator sizing for first time installations in key living areas for existing buildings. Simply select the floor area of your room from the left hand column, and choose the correct number of outside walls from either the cavity or insulated cavity wall columns.

These tables do not take into account particularly old properties or those built very recently. If your property fits into one of these classifications, please complete the form on page 50 so that we can provide a more accurate assessment.

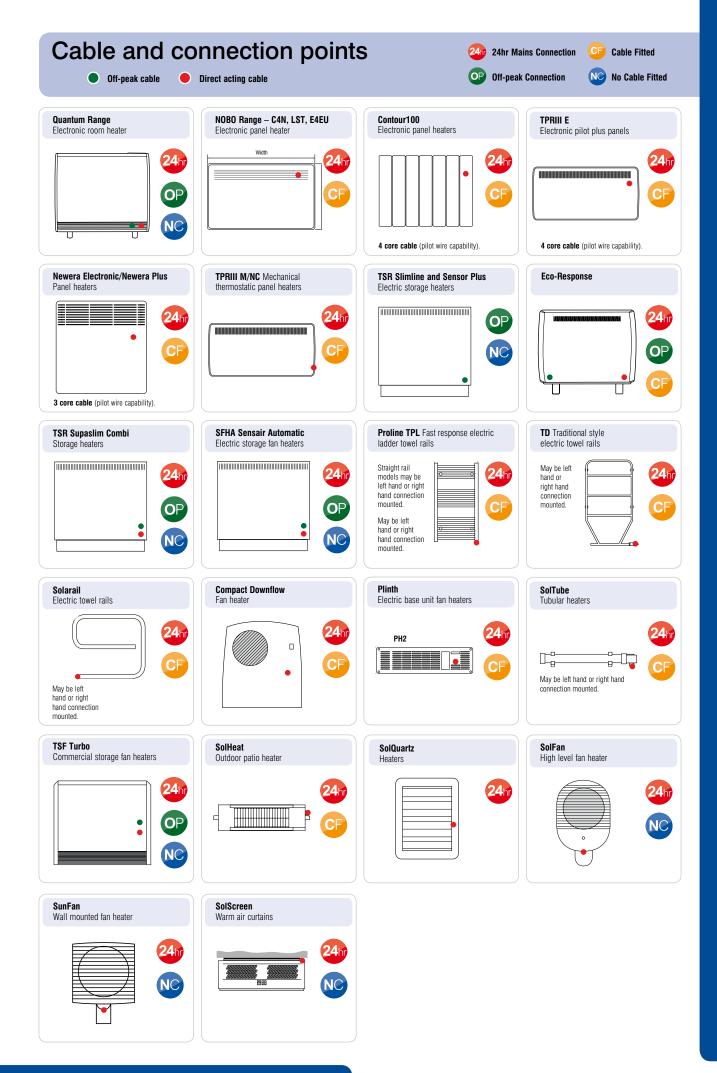
Floor area	Cavity walls			Insulated cavity walls					
m²	Number of out	side walls		Number of outside walls					
	1		3	1	2	3			
12m²	ER500	ER500	ER400 + 400n	ER400	ER400	ER500			
16m²	ER500	ER400 +400n	ER400 +500n	ER400	ER500	ER400 +300n			
20m²	ER400 +400n	ER400 +400n	ER500 +500n	ER500	ER400 +300n	ER400 +400n			
24m²	ER400 +400n	ER400 +500n	ER400 +400n +400n	ER400 +300n	ER400 +400n	ER400 +400n			
28m²	ER400 +500n	ER500 +500n	ER400 +400n +500n	ER400 +300n	ER400 +400n	ER500 +400n			
32m²	ER500 +500n	ER400 + 400n + 400n	ER400 +500n +500n	ER400 +400n	ER400 + 400n	ER500 +500n			

Note: A ceiling height of 2.4m and a minimum of 75mm of roof insulation is assumed.

# Heating design request form

Scheme No.	(	GD only)			Fax	back to: 0°	1489 77306	57	
Completed form to be retu Millbrook House, Grange E									
Please note: We are unable to comp	plete the scheme un	less full name a	nd address details	are included					
Company					Telo	ephone			
Address					Fax				
					<u>Em</u>	ail			
					Cor	ntact			
Site name									
Address									
Details									
Type of property (for a flat, plot House Bungalow				on both sides, in w		rrace') Detached	Comi d	etached 🗌	Terraced
Type of construction	_ Fiai [	Other	(piease spe	-CIIY)		Detached [_]	Semi-u	etacrieu 🔝	rerraced [
Cavity wall Yes No Insulation None 100mm		ion Yes 🔲 N		lid walls Yes [ zing Single [		Floor Solid Ann		Roof Pit of the property	ched Flat
Products to be specified			dia	Zing omgro		ЛРР	Toximato ago	or the propert	<u> </u>
Please list below the product	ranges you would	d like us to ba	ase the scheme	on. Alternative	y leave blank	and we will mat	tch the right p	roducts to you	r property.
Type/usage of room (i.e. living room)	Area (m²)	Floor to ceiling height	External wall length	Window area (m²)	External door area (m²)	Internal wall length to unheated areas	Is room above heated?	Roof above?	Open fireplace?
								1	

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



#### Web:

www.credaheating.co.uk

### Sales:

Fax: 0844 879 3581

Email: salesorders@credaheating.co.uk

### **Trade Enquiries:**

0844 879 3587 Tel:

Email: customer.services@credaheating.co.uk

## **Consumer Enquiries:**

0844 879 3588

Email: customer.services@credaheating.co.uk

#### 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.



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

### Creda NOBO

Millbrook House, Grange Drive Hedge End, Southampton S030 2DF

www.credaheating.co.uk

C015/0513



All Creda NOBO products, unless otherwise stated, are covered by a full parts and labour guarantee for one 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.