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DYNAMIC

The only electronically controlled Electric Radiator with dynamic looks, dynamic performance and dynamic efficiency.





Heatstore has been the driving force in the UK heating market for nearly 50 years.

We know the climate.

We know construction techniques.

We know the building regulations and legislation inside out.

And we know what customers want. Heating that is energy efficient, controllable, cost-effective, reliable and easily installed.

All our products undergo rigorous research and design to ensure they are the very best solution. The Heatstore name guarantees that specifiers, contractors and end-users can be confident that our products won't let them down.



THE HEATSTORE DYNAMIC

“Designed and developed by the specialists”

Heatstore is a specialist company involved in the electric heating, shower and water heating markets. We provide customers with the highest quality range of products incorporating the latest technological developments. Our pedigree stretches back nearly 50 years and we have a well-earned reputation for providing quality solutions in all these markets.

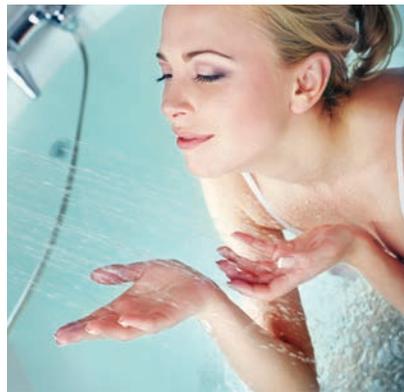
Today, our customer service levels are second to none. Customer enquiries, order processing, nationwide deliveries and after sales service are handled quickly and efficiently. Our strengthened technical team are on hand to assist more customers with design advice, options and recommendations. All this and more has led to the company's continued success.

Dynamic and more from Heatstore:



HEATING

Our heating range is ideal for domestic and commercial use and features storage, panel and fan heaters as well as air curtains, high level fan and quartz heaters.



SHOWERS

We offer a wide range of electric showers, from budget to luxury, including the market-leading Aqua Profile range.



WATER HEATING

A great choice of water heaters for the commercial, industrial and domestic markets.

MARKET AND ENVIRONMENTAL CONDITIONS

An independent study published by AMA Research in 2011, entitled the **UK space and water heating market**, highlighted a number of key trends including:

In recent years, the UK space and water heating market has benefited from **increasing health, safety and energy efficiency legislation**, revised Building Regulations and environmental legislation. This has stimulated product innovation and development.

Factors which have limited opportunities for growth in both the domestic and non-domestic sectors include **higher levels of insulation**, driven by the **Building Regulations**, which contribute to a reduction in the overall heating load requirement.

Changing demographics and social profile of the population has had some impact on the type of domestic heating systems that are in demand. With an increasing UK population and a smaller average household size, there is a growing need for more dwellings. Consequently there has been a greater emphasis on building flats and apartments that are ideally suited to electric space heating and unvented hot water storage.

With the push for zero carbon in new housing by 2016, house builders are starting to look towards electric space heating to satisfy the improving thermal efficiency of new houses. European examples of low to zero carbon housing often use electric space heating in some form.

Did you know...?

15 million households in the UK have some sort of space heater in addition to their primary heating system. Just the job for the Dynamic. As well as being the ideal solution for primary heating, the Heatstore Dynamic can be installed as a stand-alone, energy efficient and economical space heater. Wherever and whenever it's needed.

DYNAMIC AND THE ENVIRONMENT

Some people may not want to admit it, but the world is slowly moving towards an energy crisis and finding solutions for energy consumption is part of the new generation.

As a responsible company, we are continually looking at ways we can minimise our impact on the environment and help reduce the real and damaging effects of global warming. Our research and development teams look at every aspect of the life-cycle of a product, which is why the Dynamic range scores so highly in environmental terms.

Manufactured using steel, which is 100% recyclable, the Dynamic is 60% more efficient than the aluminium used by some other manufacturers. Steel is also very energy efficient to produce, helping reduce our carbon footprint.

“The Dynamic is a shining example of energy efficiency. The facts speak for themselves.”

The Heatstore Dynamic is the latest in our range of electronically controlled electric radiators.

Developed for the UK, made in the UK and perfectly suited to the lifestyles and homes of people in the UK, it is designed to not only perform well, but to look good too.

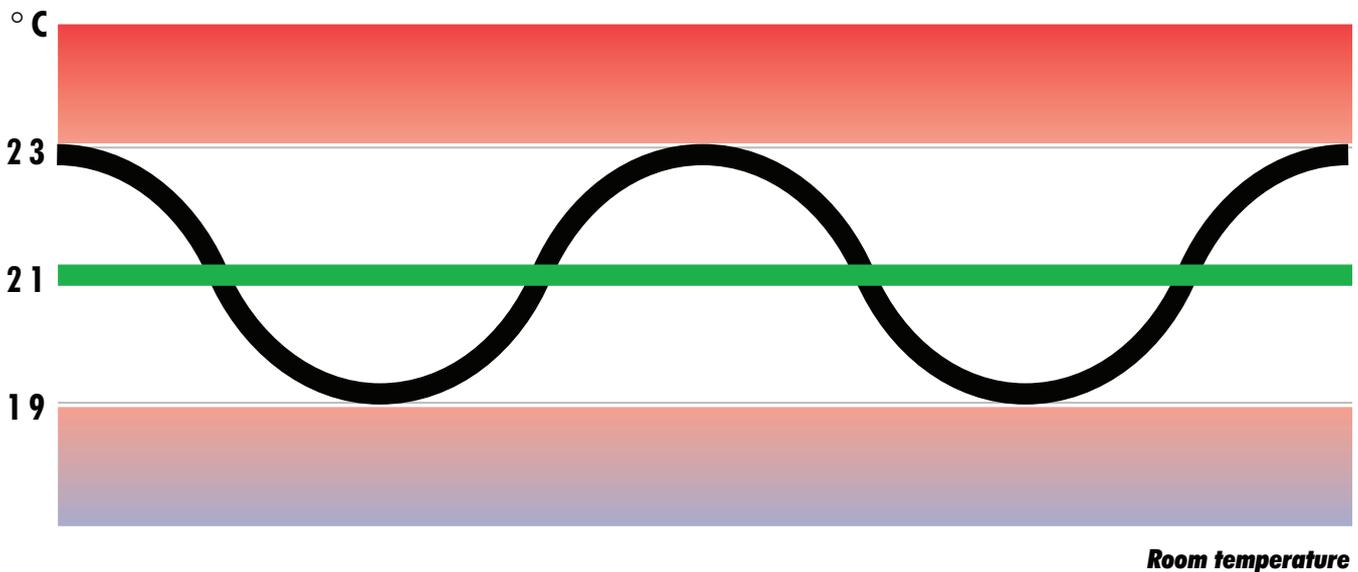
We've added style and controllability to the classic metal radiator design to create a range which offers sophisticated control features and electronic energy management options, making energy wastage a thing of the past and Part L compliance straightforward.





Dynamic Efficiency+

Heatstore  Other heating brands



DYNAMIC EFFICIENCY +

Heatstore has developed Dynamic Efficiency + technology to create total efficiency. Put simply, it means as the room temperature nears the desired set point, the electronic processor within the heater constantly monitors the power to the elements giving an accuracy of +/- 0.3°C. This minimises overshoot and temperature drift resulting in complete user comfort and total energy efficiency.

To substantiate the accuracy, the Heatstore Dynamic was sent to BSRIA (Building Services Research and Information Association) Laboratories in Bracknell, Berkshire for testing.

The heater was installed in the micro climate laboratory where controlled tests over 24 hours were performed. Set at 21°C, the Dynamic maintained the accuracy to +/- 0.3°C using the minimum amount of energy required.

The Dynamic results exceeded our expectations in the micro climate energy consumption tests. The full BSRIA test report is available upon request to Specifiers and Contractors. To make comparisons to other heaters tested the results would need to be calculated per 1000w of applied cooling load (see page 18).

“Easily installed.
Controllable.
Efficient.
Heating how it should be.”

Everything about the Heatstore Dynamic has been carefully thought through. From the initial research into the concept through to the finishing touches on the final design, every detail was tested.

Our teams of designers and technicians worked closely with not only specifiers and contractors but also homeowners, landlords and tenants to create the most advanced energy-efficient electric radiator on the market today. We wanted to ensure that the Heatstore Dynamic lived up to its name. Rigorous testing by BSRIA, the leading independent UK laboratory for testing, certification and performance variation, confirmed it.

DYNAMIC RANGE

The Heatstore Dynamic is available in a choice of five heating outputs:

500W

750W

1000W

1500W

2000W

The Dynamic is designed for wall mounting using the bracket supplied. Unlike some other manufacturers, all Dynamic heaters are splash proof (IPX4 rated) allowing them to be installed in bathrooms and other wet areas.



DYNAMIC OPERATION

Like all Heatstore products, the Dynamic is designed with the user in mind. Particular attention has been paid to make it easy to use and easy to programme.

Easy to operate:

All the operating controls are located on the right hand side on top of the appliance underneath a contoured flap.

Easy to programme:

Soft touch button operation and slider electronic thermostat using Dynamic Efficiency \pm allows temperature setting to an accuracy of $\pm 0.3^{\circ}\text{C}$.

Easy to control:

If you want to limit the heat selection slider you can simply remove two pins from the rear of the thermostat and insert them in the preferred holes to limit the slider movement and temperature control.



DYNAMIC PROGRAMMING



Each Dynamic is fitted as standard with an electronic 7 day 24 hour timer / programming module and back lit LCD with power-save mode. The programmer can also be removed from the heater, if required, to make it even easier to programme.

With four programmable time periods per day, programme advance and manual override features and a quick start user guide printed on the reverse of the programmer, it offers exceptional levels of controllability from the comfort of an armchair.



Whether you have the Dynamic as a stand-alone heater or as part of a multi-room system, the Dynamic also features as standard a 'pilot wire' system. On multi heater installation the installer can run a pilot wire to each of the Dynamic heaters up to a maximum of 10 heaters. By removing the timers from the remaining 9 heaters and leaving in just one, this allows for all 10 heaters to be programmed for identical on -off periods on the same circuit. Room comfort temperature levels can be set individually.

SPECIFICATION & SIZING

Multi room control set from one heater

Dynamic Efficiency +

Electronic accurate to $\pm 0.3^{\circ}\text{C}$.

Element

Compact, finned, mineral-filled sheathed type, providing silent operation.

Thermal Cut-out

Auto reset type.

Construction

Durable epoxy-polyester powder coated steel casing, with upward facing grille. Temperature resistant PBT thermoplastic moulded parts.

Colour/Finish

White front, back, grille and plastic parts.

Installation

Detachable wall mounting bracket.

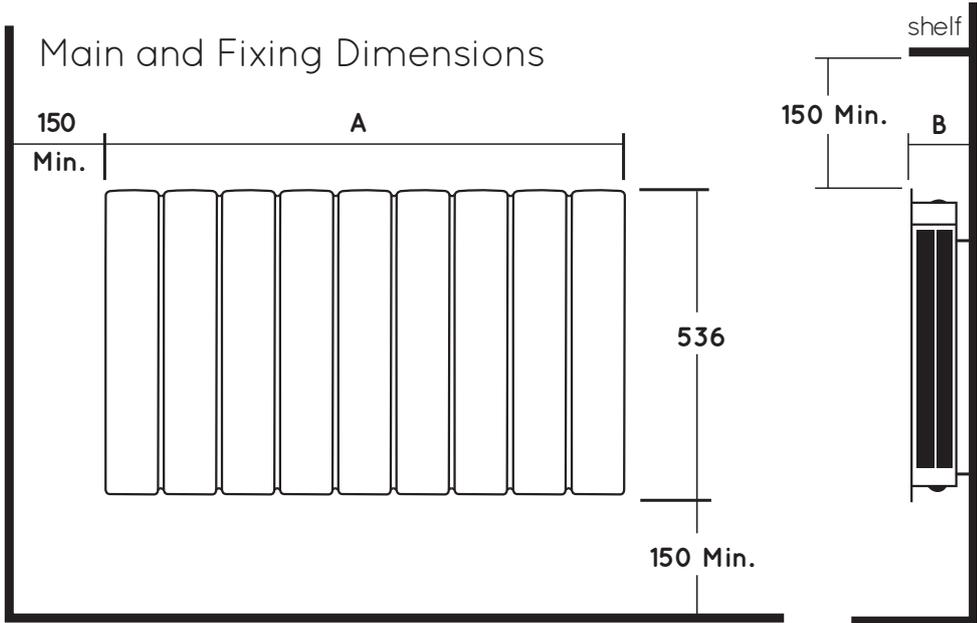
Electrical Connections

1.2m, 4 core cable (live, neutral, earth, pilot) supplied fitted to each heater.

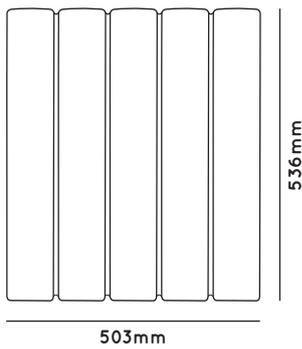
IP Rating.

Splashproof IPX4.

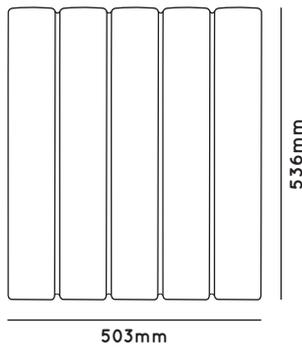




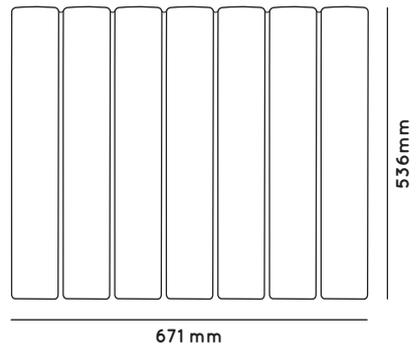
HSDR500T



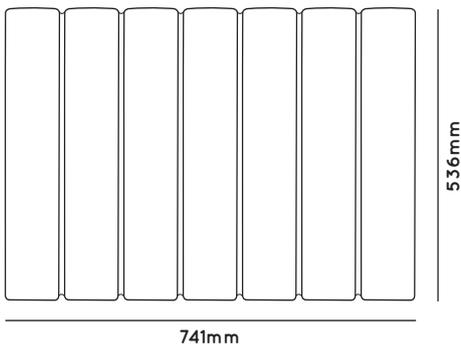
HSDR750T



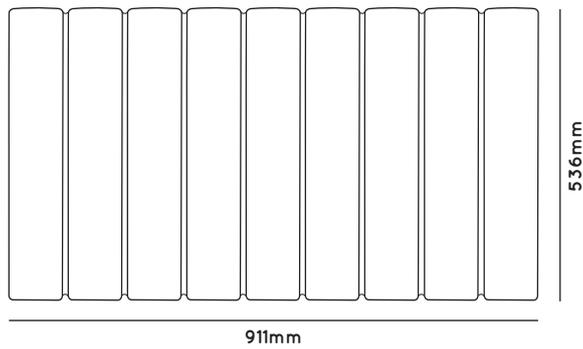
HSDR1000T



HSDR1500T



HSDR2000T



MODEL NO.	COLOUR	LOADING	HEIGHT	WIDTH (A)	DEPTH (B)	WEIGHT
HSDR500T	White	0.5kW	536mm	503mm	104mm	12kg
HSDR750T	White	0.75kW	536mm	503mm	104mm	12kg
HSDR1000T	White	1.0kW	536mm	671mm	104mm	15kg
HSDR1500T	White	1.5kW	536mm	741mm	104mm	17.5kg
HSDR2000T	White	2.0kW	536mm	911mm	104mm	22kg

“Reliable. Versatile and extendible. Ideal for any situation.”

Dynamic for everyone

Electric heating is cheaper to install, maintain and lasts an average of 50% longer than a gas system. With its advanced controls, rapid response to sudden changes in room temperature and state-of-the-art design, the Dynamic also offers energy-efficiency, making the true cost of ownership of electric heating highly cost-effective in many situations.

Dynamic for developers

The Heatstore Dynamic offers developers and specifiers the opportunity to incorporate a sleek, cost-efficient heating system into any new build or retrofit, no matter where you are in the UK.

Dynamic for householders

The Dynamic can be used as a standalone radiator - ideal when you want additional heat in a conservatory, bathroom or cloakroom - or can be used as a complete heating system.

Dynamic for landlords and tenants

The Dynamic is extremely reliable and safe. It doesn't burn fuel internally to generate heat so there are none of the safety risks such as carbon monoxide poisoning or explosions. And there are no moving parts to wear out or break down, putting an end to midnight call-outs.





PERFORMANCE TESTS

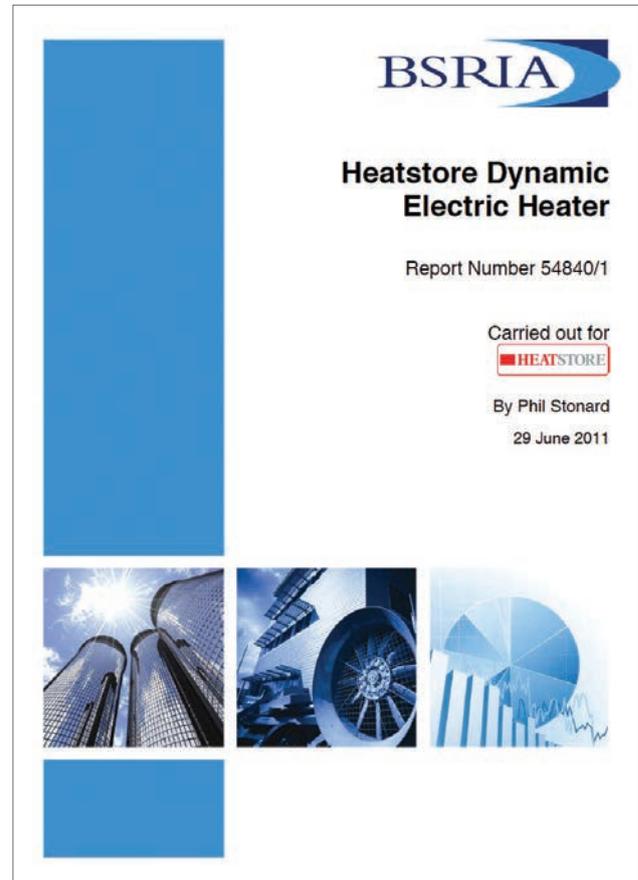


BSRIA

Report no: 54840/1. Date: 29/06/2011

BSRIA's engineering, technical and market research experts provide independent, objective and practical help in design, construction and occupancy of the built environment.

A member association with over 50 years experience supporting industry through advice, testing, instruments, research and guidance to promote energy and water efficiency, best practice in construction and effective operation of buildings.



Performance Test

This report details tests carried out on a Heatstore Dynamic Electric Radiator, part reference HSDR1500T. The tests were requested by Heatstore and were conducted during the period 20th February to 2nd March 2011.

The objectives were to determine stability of temperature control when subjected to cooling loads of 50% of nominal maximum heater output and measure the power consumption over a 24 hour period.

APPROVALS



The Heatstore Dynamic range is also BEAB approved

The British Electrotechnical Approvals Board is an electrical safety organisation currently owned by Intertek Group. The BEAB Mark of Approval is the main symbol used in the UK for domestic appliances deemed to be safely manufactured.



Green spot

“Designed with the environment in mind”

Our Green Spot products are designed and manufactured with the environment in mind, offering energy savings and efficiencies over the life of the product.



IPX₄ Rated



Part L Compliant

ENERGY CONSUMPTION

The power the heater consumed over 24 hours can be summarised as:

Energy consumption = 1026 Watts per 1000Watts applied cooling.

Control stability, based on the room globe temperature, gave amplitude of 0.26°C.

APPROXIMATE RUNNING COSTS FOR HEATING SEASON

Based on a 9 month heating season from October to June as used in S.A.P. (Standard Assessment Procedure) Calculation Software.

Average winter temperatures were taken for a 5 year period from 2005 to 2010:

Average temperature over this period = 7.4°C

Allowances have been made for topographical, coastal and urban effects where relationships are found to exist. Information taken from www.metoffice.gov.uk.

CASE STUDY - OLD INFIRMARY DEVELOPMENT, CARMARTHEN

Heat Loss calculated at 7.4°C External Air Temperature

kW Installed calculated at -3.0°C External Air Temperature

Design Temperatures:

Living/Dining/Kitchen = 21°C, Bedrooms = 18°C, Hall/Landing = 18°C, Bathroom = 22°C

	HEAT LOSS kW	kW INSTALLED	% OF HEAT LOSS TO kW INSTALLED
FLATS 1, 4, 8 & 9	1.872	5.750	32.56
FLATS 2, 3, 7 & 10	1.715	5.250	32.67
FLATS 5 & 6	1.910	5.750	33.22
FLATS 11 & 13	2.176	6.500	33.48
FLATS 14 & 19	1.636	5.500	29.75
FLATS 15 & 18	1.826	5.750	31.76
FLATS 16 & 17	1.842	5.750	32.03

RUNNING COSTS BASED ON 5.75 kW INSTALLED

NOMINAL POWER		% Of Heat Loss At 7.4°C		EFFECTIVE POWER
5.75 kW	X	33%	=	1.898 kW

CALCULATION OF DAILY RUNNING COSTS

EFFECTIVE POWER		HOURS OF HEATING		PRICE OF ELECTRICITY		DAILY PRICE
1.898 kW	X	12 hours	X	£ 0.115	=	£ 2.62

Note: The daily running cost is calculated from average figures. Therefore lower or higher actual temperatures will result in higher or lower costs.

Dynamic Heating schemes design and warranty

The Dynamic heating design service is part of Heatstore's commitment to electrical contractors and their customers providing specialist product and technical support.

From drawings supplied by the contractor, the technical team will develop a design solution providing a scheme, listing the number and size of the Heatstore Dynamic radiators required. This will be calculated taking into account "U" values and construction details such as walls, floor, windows and roof, whether these are insulated, cavity or solid walls, timber or solid floor, pitched or flat roof and level of glazing for the windows.

From this information the Dynamic heating team can create an accurate heating scheme quoting the number of Dynamic heaters required, the total KW loading required and the KW heat loss expected.

Warranty

At Heatstore we are so confident in the quality of our installed products – including storage and panel heaters, showers, commercial heating and water heating – that they carry a full two-year, no quibble service warranty at the customers address. Heatstore's portable heating products – including towel rails – carry a one-year exchange warranty. A 10-year warranty applies to some commercial water heating products and an exceptional 15-year warranty is offered on our underfloor heating products.

If for any reason you or your customer are not entirely satisfied we will exchange the product concerned without question.

DYNAMIC GUARANTEE

Once our technical team have designed a heating solution and scheme, we are so confident that the Dynamic will meet all your requirements that, in addition to the two-year service warranty at the customers address, we offer Dynamic customers more; the **Dynamic Guarantee**.

If for any reason the property does not achieve and hold the designed specified room temperature after installation, we will offer free of charge Dynamic heaters to ensure the design temperature of the scheme is achieved.



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Heatstore reserve the right to alter specifications without notice.

All specification and performance data is correct at the time of printing. Issue 2 03/12