ELKATHERM®

Power of comfort

Electric heating systems since 1954

IP24
SPLASH-PROOF

CENELEC

MADE IN GERMANY

ELKATHERM sets new standards

Discover the outstanding features of our electric storage heaters

- VDE-tested and certified
- Efficient top-quality chamotte core with 25-year warranty
- Housing protected against water ingress, made in 1.25 mm sheet steel in the colour of your choice
- Controlled and programmed through app from anywhere at any time
- Ideal replacement for night storage heaters
- Quality made in Germany

ELKATHERM®

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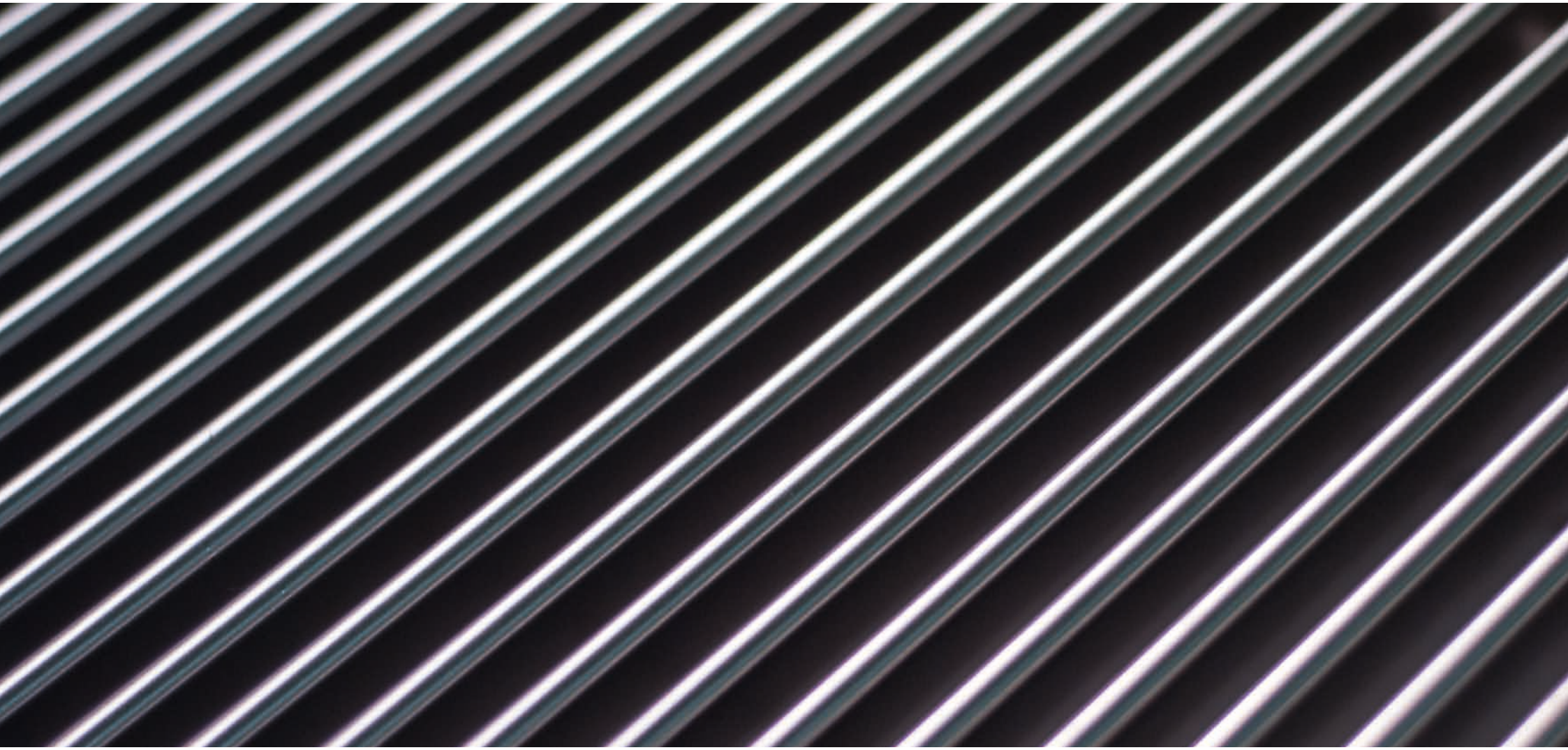
Look inside
Construction of our electric storage heaters

1.0



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Construction of our electric storage heaters
Look inside

1.1

Your safety
The temperature inside the electric heaters is constantly controlled by single-segment shut-off, preventing overheating for instance when the heater is covered.

Customised control technology
Choose from a wide range of manual and digital thermostats or opt for our innovative Comfort Control app.

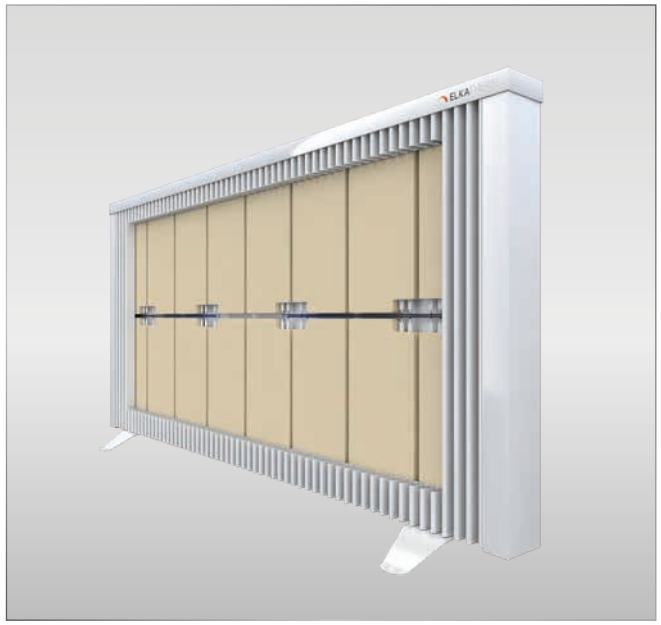
Efficient chamotte core
Heat is stored for a long time and gradually released to the ambient air.

Optimised rib design
The extra large surface area of the heater ensures optimised heat radiation.

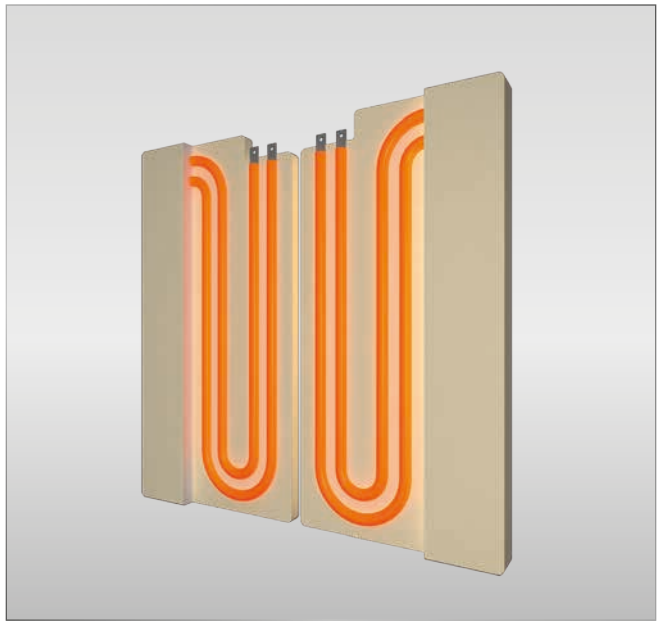
Quality in every detail
The quality of our products is certified by VDE. Both the heaters and all materials used in their production have been tested and approved by the relevant equipment testing and certification body.

Chamotte core
Efficient and lasting heat

1.2



Chamotte core extending across entire surface
Chamotte blocks store heat for a long period of time, distribute it evenly across the entire heating surface and release it when required, at minimum energy consumption.

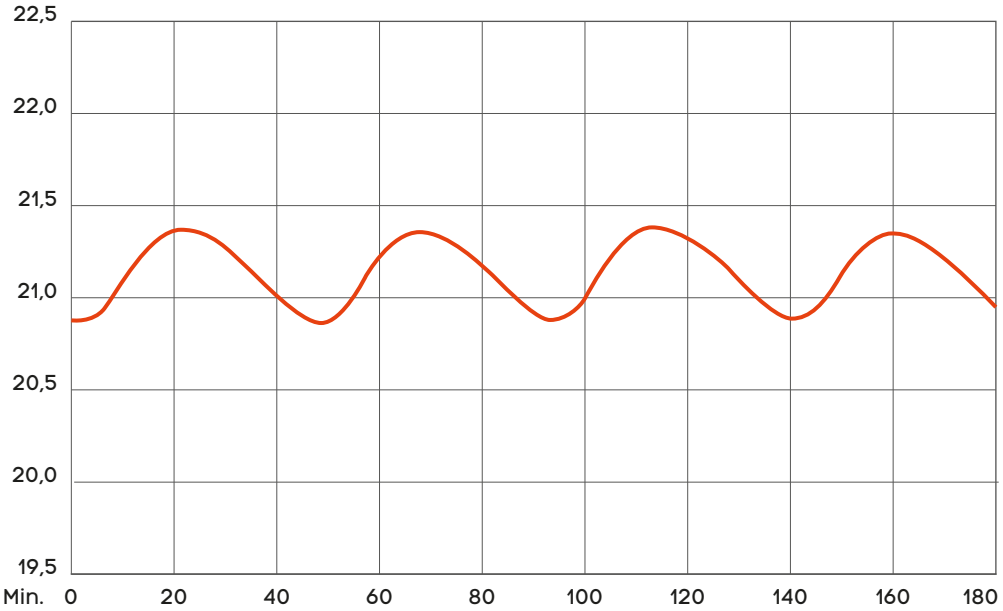


Fully sealed heating conductors
The airtight sealed heating conductors release heat to the chamotte blocks without depleting the oxygen concentration in the ambient air.

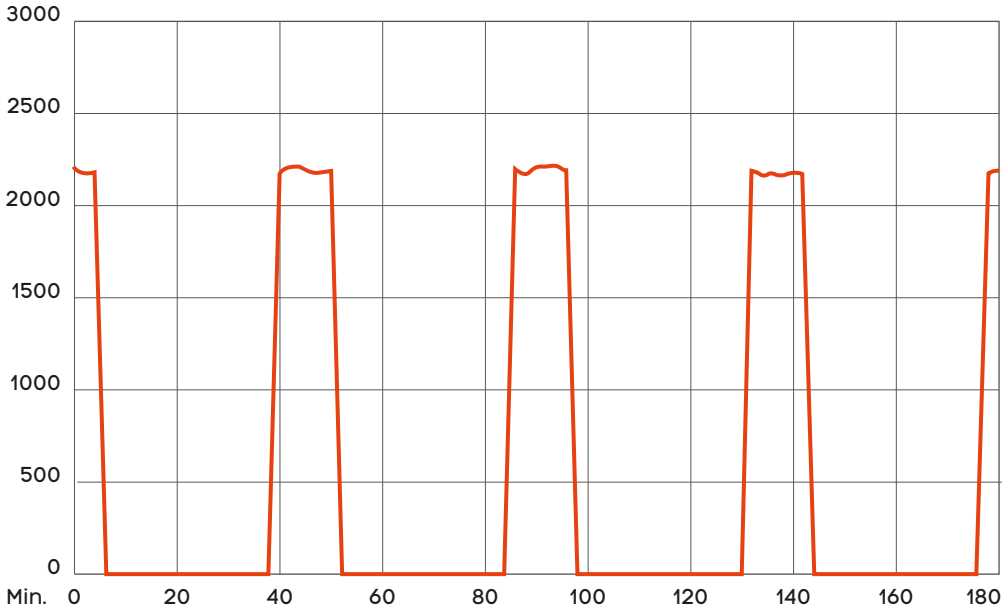
Impregnated chamotte blocks
Impregnation makes the chamotte blocks water-repellent, so that ELKATHERM electric storage heaters can be safely used in bathrooms.

Chamotte core
Efficient and lasting heat

1.2



Temperature diagram
At a constant outdoor temperature of -20.8 °C, a room measuring 16 m² is heated to an average temperature of 21 °C.



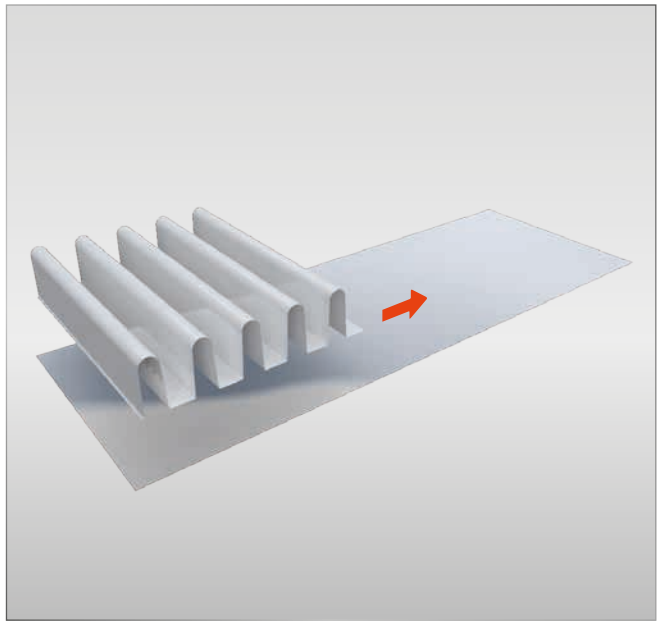
Energy consumption diagram
During a 3-hour test run, the total energy consumption of the ELKATHERM S 201 2000 W electric storage heater was 1.578 kW.

Auszug aus dem BSRIA Final Report 5616/1

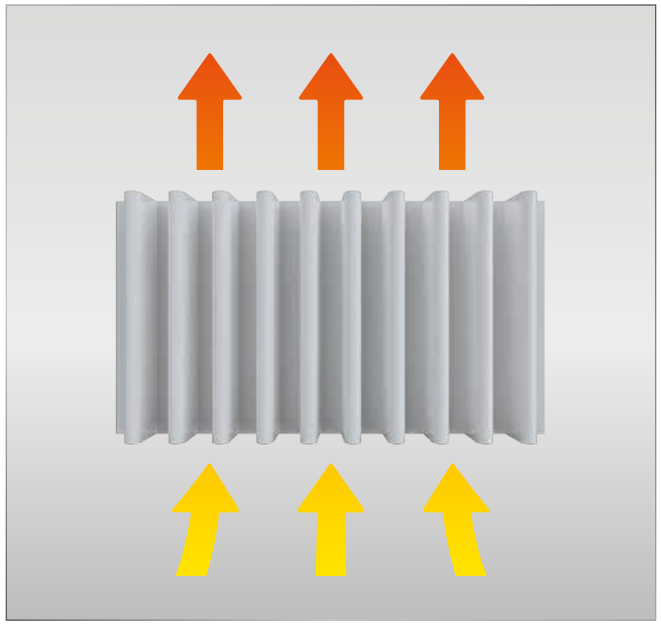
Heater fin design

Optimised surface for enhanced heat release

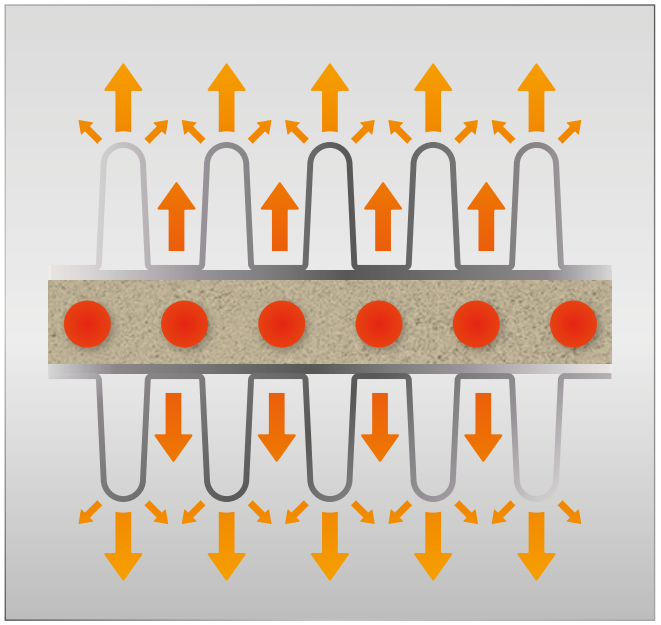
1.3



Large surface area
For optimised heat release and distribution across the entire heating surface.



Fins with flue effect
Cold air is taken up from the bottom and convection heat is released at the top to the room.



Radiation heat
The rounded fins ensure optimised heat release to all objects in the room – to the relief of people suffering from house-dust allergies.

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Heater fin design

Optimised surface for enhanced heat release

1.3

Ideal heat distribution

Electric storage heaters from ELKATHERM produce a perfect combination of radiation and convection heat for balanced heat distribution of up to 99.7 % across the entire room.

ELKATHERM

Certified quality
Certificates and approvals

1.4

- VDE-tested and certified
- Manufactured according to stringent quality standards and thoroughly tested
- Made in Germany

VDE and “Tested Safety” (GS) mark

CE mark

Cenelec certified

IP protection class

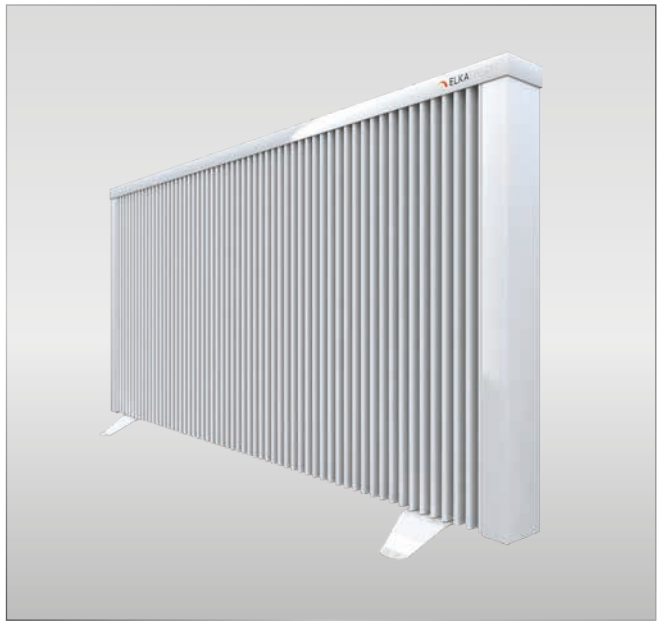
Tested by BSRIA

Technical data and consumption rating
Facts and figures

2.0

BSRIA power consumption study
Electric storage heater

2.1



The renowned, independent BSRIA Institute carried out power consumption tests with the S 201 2000 W electric storage heater.

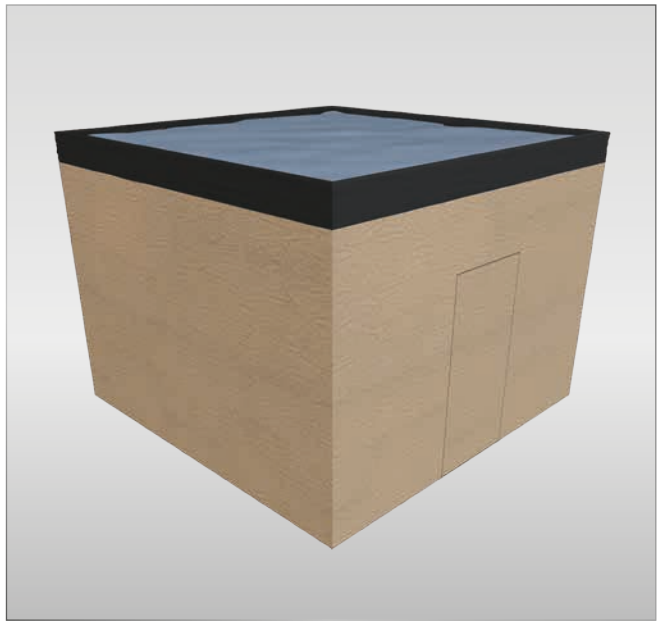
Power rating	LS B16 circuit breaker:	Weight:	Dimensions (H/W/D):
2000 W	16 A	73 kg	63 | 162.5 | 8 cm

Excerpt from BSRIA Final Report 5616/1

BSRIA power consumption study

Test setup

2.1



The power consumption test was performed in a climate chamber with a floor area of 16 m² and a heat transfer coefficient of 0.19 W/m²K. The heat permeable surface measured 75.2 m². A water-cooled roof tank of 4.8 m³ was installed for permanent cooling.

Floor area:	Heat permeable area:	Heat transfer coefficient:	Water-cooled roof tank:
16 m²	75.2 m²	0.19 W/m²K	4.8 m³

Excerpt from BSRIA Final Report 5616/1

BSRIA power consumption study

1st consumption test series

2.1

At a constant outdoor temperature of -50.9 °C, the room is heated to an average temperature of 21 °C. During the 16-hour test, the total energy consumption was 16.416 kW and the measured heat equalization rate was 99.7 % across a room height of 2.2 m.

Constant outdoor temperature:	Duration of test:	Average indoor temperature:	Average energy consumption:	Total consumption over 16 hours:	Heat equalization rate over 2.2 m:
-50.9 °C	16 h	21 °C	1.0266 kW	16.416 kW	99.7 %

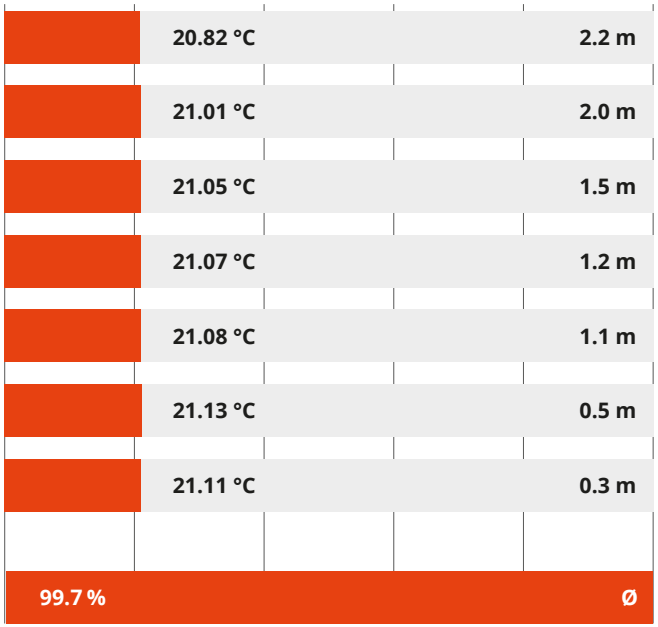
Excerpt from BSRIA Final Report 5616/1

BSRIA power consumption study

Diagrams of 1st consumption test series

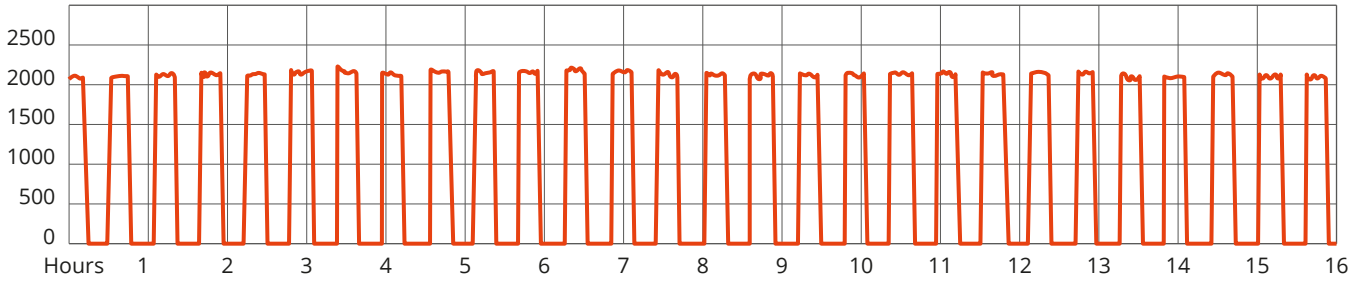
2.1

The curves represent the energy consumption and the temperature distribution over 16 hours in a pre-heated room. The temperature curve shows the temperatures measured at a height of 1.2 m.

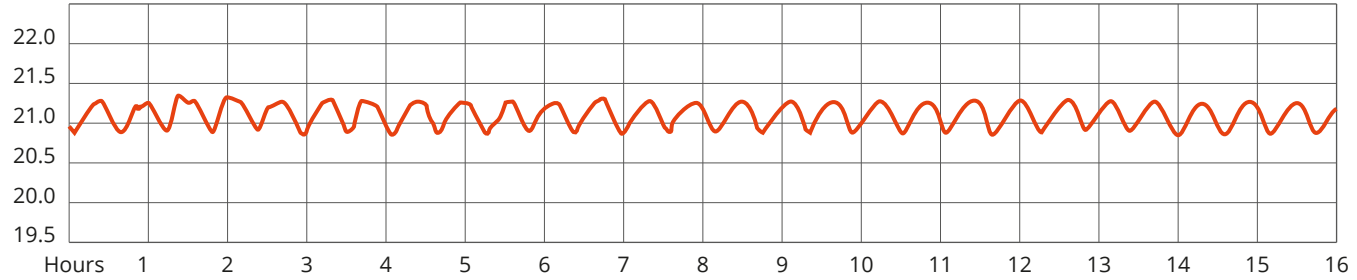


Heat distribution measured at 7 points, distributed at height of 2.2 m

Energy consumption in W



Temperature in C°



Excerpt from BSRIA Final Report 5616/1

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BSRIA power consumption study

2nd consumption test series

2.1

At a constant outdoor temperature of -14.1 °C, the room is heated to an average temperature of 16 °C. During the 8-hour test, the total energy consumption was 3.440 kW and the measured heat equalization rate was 99.7 % across a room height of 2.2 m.

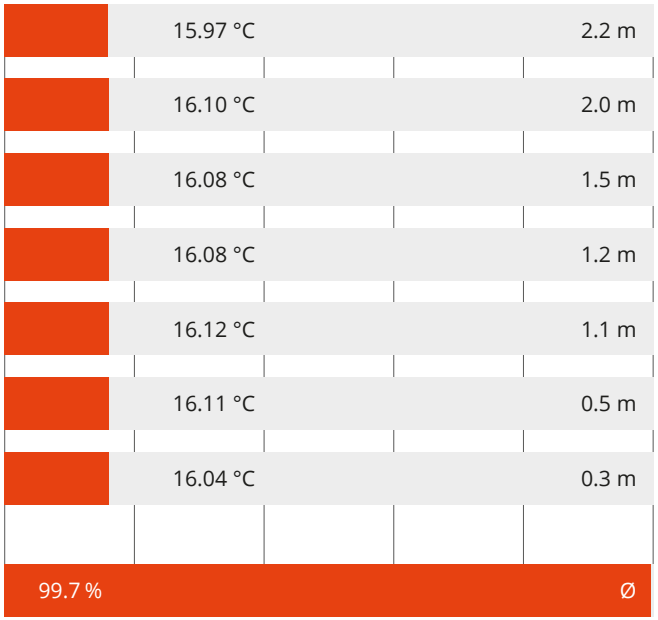
Constant outdoor temperature:	Duration of test:	Average indoor temperature:	Average energy consumption:	Total consumption over 8 hours:	Heat equalization rate over 2.2 m:
-14.1 °C	8 h	16 °C	0.4299 kW	3.440 kW	99.7 %

Excerpt from BSRIA Final Report 5616/1

BSRIA power consumption study
Diagrams of 2nd consumption test series

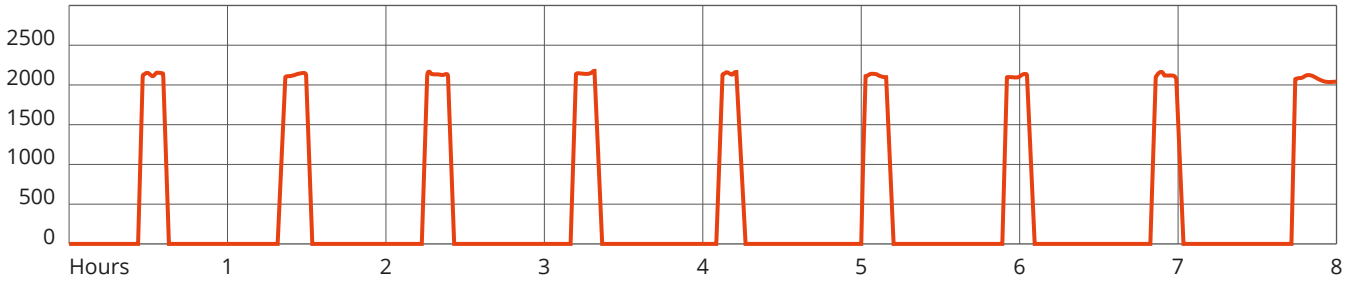
2.1

The curves represent the energy consumption and the temperature distribution over 8 hours in a pre-heated room. The temperature curve shows the temperatures measured at a height of 1.2 m.

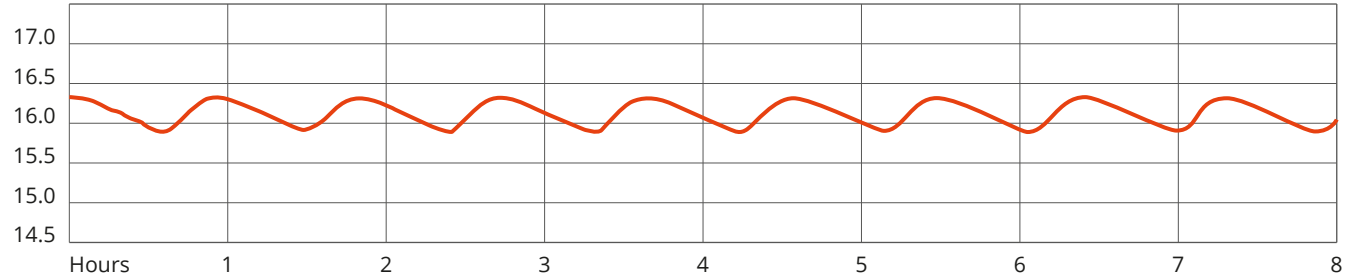


Heat distribution measured at 7 points, distributed at height of 2.2 m

Energy consumption in W



Temperature in C°



Excerpt from BSRIA Final Report 5616/1

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BSRIA power consumption study
3rd consumption test series

2.1

At a constant outdoor temperature of -20.8 °C, the room is heated to an average temperature of 21 °C. During the 3-hour test, the total energy consumption was 1.578 kW and the measured heat equalization rate was 99.0 % across a room height of 2.2 m.

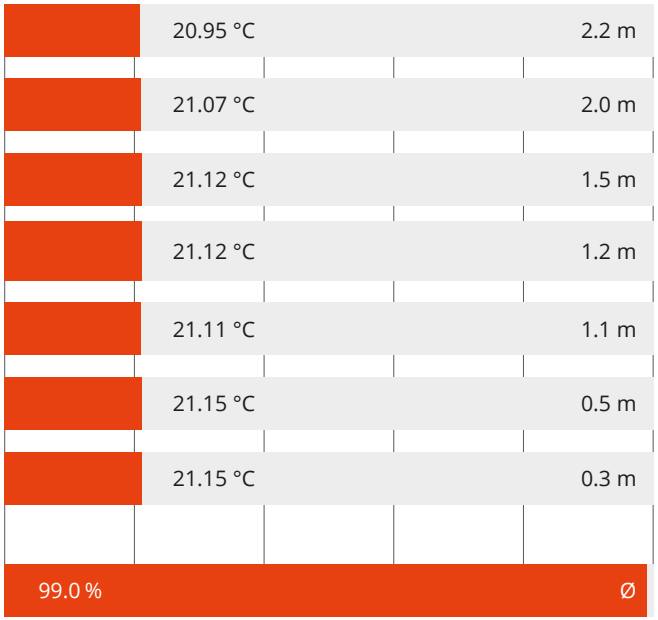
Constant outdoor temperature:	Duration of test:	Average indoor temperature:	Average energy consumption:	Total consumption over 3 hours:	Heat equalization rate over 2.2 m:
-20.8 °C	3 h	21 °C	0.5264 kW	1.578 kW	99.0 %

Excerpt from BSRIA Final Report 5616/1

BSRIA power consumption study
Diagrams of 3rd consumption test series

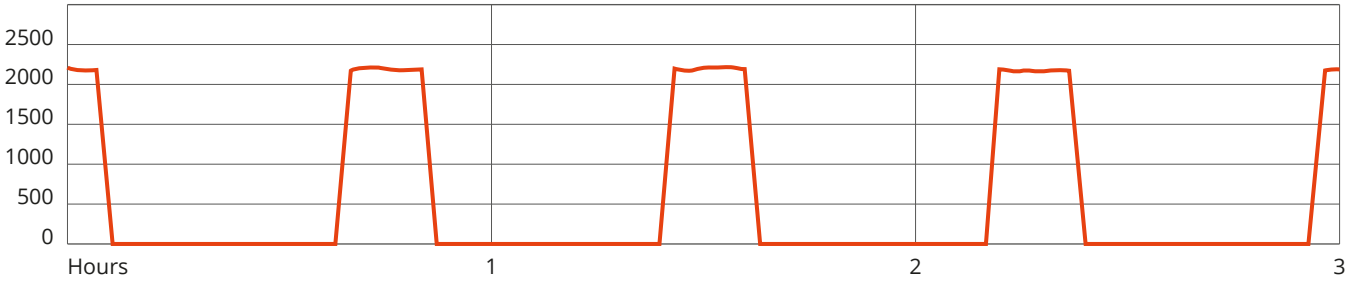
2.1

The curves represent the energy consumption and the temperature distribution over 3 hours in a pre-heated room. The temperature curve shows the temperatures measured at a height of 1.2 m.

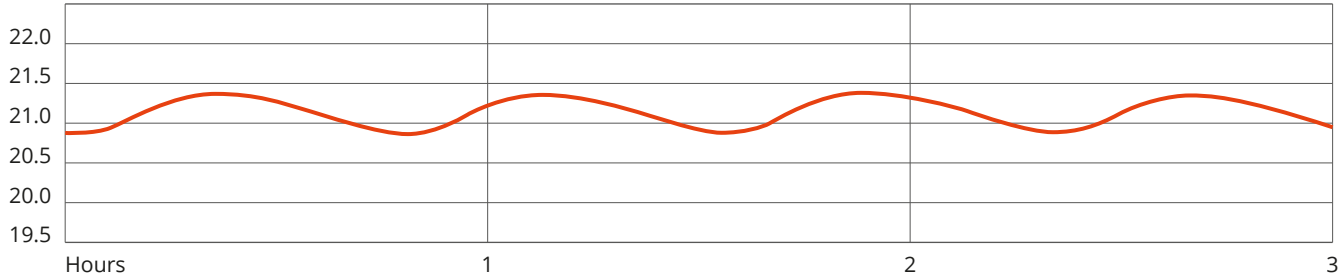


Heat distribution measured at 7 points, distributed at height of 2.2 m

Energy consumption in W



Temperature in C°

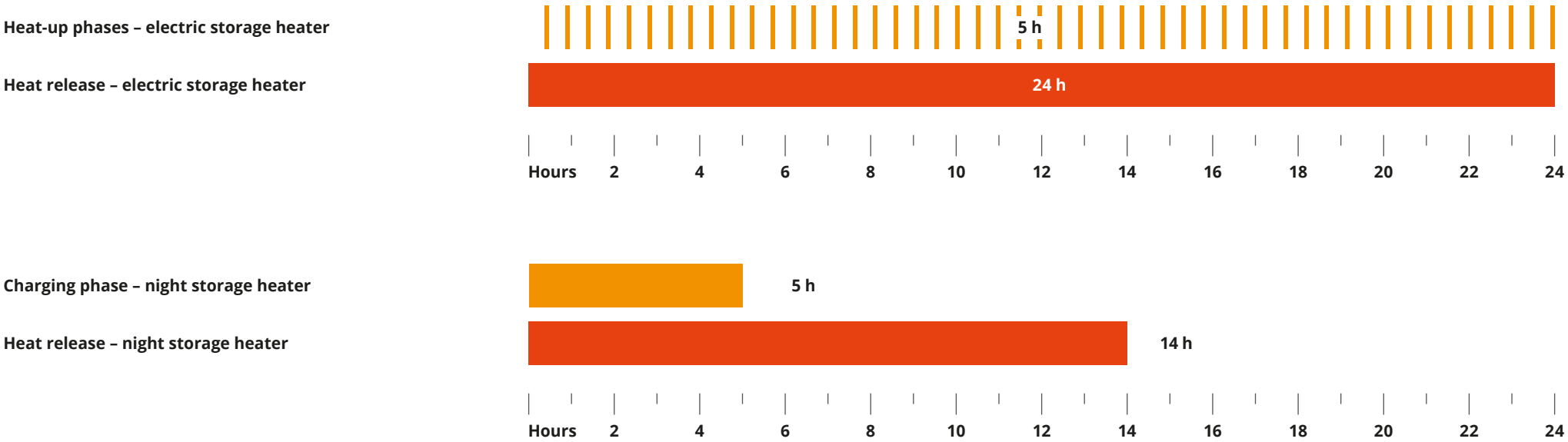


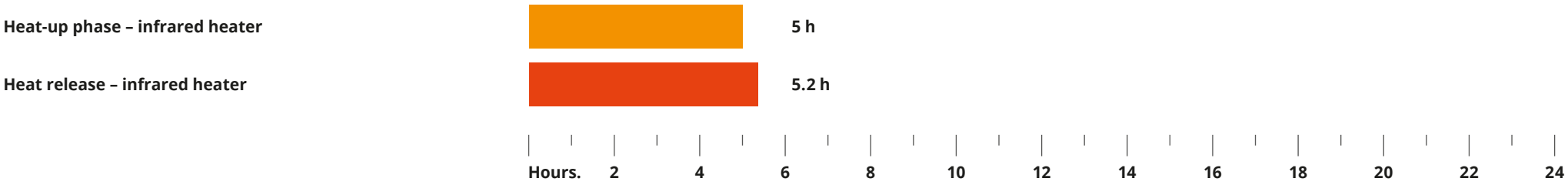
Excerpt from BSRIA Final Report 5616/1

Comparison of different electric heating systems

Heat-up phases and heat release of different electric heating systems

2.2





Comparison of different electric heating systems

Advantages and disadvantages of different electric heating systems 2.2

Property	Electric storage heater	Night storage heater	Infrared heater
Low energy consumption	✓	✗	✓
Chamotte storage heater	✓	✓	✗
Flat design, flexibility with castors and fixed feet	✓	✗	✓
Healthy room climate thanks to balanced ratio between radiation and convention heat	✓	✗	✗
Low surface temperature	✓	✗	✗
Minimum air recirculation, thus suitable for people suffering from allergies	✓	✗	✓
Noise-free operation	✓	✗	✓
Demand-based control	✓	✗	✓
Heating output depending on sunlight	✓	✗	✓
Use of low-tariff electricity	✓	✗	✓
Use of night-tariff electricity	✗	✓	✗
Extended heating surface	✓	✗	✗
Wide range of models and designs	✓	✗	✓
Available in various panel finishes and designs	✓	✗	✓

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