

Installation and Operating Instructions

Electrical Partial Thermal-Storage Heater for mounting on walls



Types

- TT-KS S
- TT-KS S LT
- TT-KS N
- TT-KS H



Please read attentively and keep in a safe place!

Subject to alterations!

Id_no. 911 361 923

Issue 04/18

1. General information about our surface storage heaters

With our variety of electric surface storage heaters, you can find the right solution for your needs any spatial situation. The TECHNOTHERM surface storage heaters are available as additional or transitional heating for all rooms in the living area, with the exception of the special cases stated in the safety instructions. They are designed for continuous operation. Prior to dispatch, all our products undergo an extensive function, safety and quality test. We guarantee a constructive design complying with all currently applicable international, European and German safety standards and rules. You can see this in the labelling of our products with the well-known certification marks: “TÜV-GS”, “SLG-GS”, “Keymark”, and “CE”. Our heaters are evaluated in accordance with the internationally applicable IEC-regulations. The manufacture of our heaters is constantly supervised by a state-accredited test centre.

This heater can be used by children aged from 8 years and above and by physically, sensory or mentally restricted persons if they are supervised or given instructions on safe use and understand the hazards involved as it does not require any experience or knowledge.

This device is not a toy for children to play with! Cleaning and user maintenance shall not be carried out by children without supervision. The use of heat radiators is to be given a particular duty of care by supervisors.

Children under the age of 3 are to be kept away unless they are continually supervised. Children between the age of 3 and 8 are only allowed to switch the heater on or off if they are supervised or given instructions on safe use and understand the hazards involved, provided that it has been placed or installed in its intended normal operating position. Children between the age of 3 and 8 shall not plug in, regulate and clean the heater or perform user maintenance.

Caution: Some parts of the product can become very hot and cause burns. Pay particular attention when children and vulnerable people are present. (With the exception of LT series - see separate Instructions!)

2. Directions for use

As soon as the heater is completely assembled and installed by an authorized electrician, you can start using it.

3. Important safety instructions

3.1 Surface storage heaters for dry rooms

The heating devices should only be installed by an authorized and certified electrician in accordance with the applicable provisions of DIN VDE 0100.

Pay particular attention to our warning “Do not cover heater!” Please do not put any flammable objects onto the heater or near it!

The heaters must not be operated in rooms where there is a risk of fire or explosion caused by dust, gases, or vapours. Avoid humid surroundings!

When connecting the heater to a power outlet, select only a safety-socket installed by a certified electrician, because the heaters are protection class I devices that cannot be installed directly in front of or under a wall power outlet.

If the power cable of the heater is damaged, it must be replaced by the manufacturer or its after-sales service or a similarly qualified person, in order to avoid hazards.

In the event of a fixed connection, an all-pole separator with a minimum 3mm contact opening width must be built in.

If you detect damage or an improper function, disconnect the heater from the mains supply. Report the case to our customer service department as soon as possible.

To avoid a fire hazard, keep the following safety distances when mounting the heater:

From the each side wall of the heater to any masonry:	5 cm
From the each side wall of the heater to flammable materials:	10 cm
Distance from the heater to the floor:	8 cm
Distance from the upper edge of the heater to the building component or covers above it(e.g. window sill):	
	flammable 15 cm
	non-flammable 10 cm

3.2 Bathroom heaters

- Statutory provisions applicable for use of electrical equipment in rooms with tubs or showers are much stricter than in dry rooms. In addition to the already above-mentioned provisions of DIN VDE 0100, they have also comply with VDE 0100-701. Our bathroom radiators must be installed exclusively by an authorized and certified electrician. All the instructions given in 3.1 shall be adhered to in full. Exception: Our bathroom heaters are additionally protected against expected moisture.
- To avoid a fire hazard, keep a minimum distance of 40cm from the ceiling or a panel above the heater, when mounting it. What to do in the event of a fault? If the heater does not heat properly, please check first of all whether there is a proper power supply (device plug, if exists, and mains fuse). If the heater sill does not wok properly, disconnect the device from the power supply and inform our customer service department. Interventions and repairs on the device may only be done by authorized agents.

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4. Technical data:

Our surface storage heaters are designed for protection class I and a mains voltage of 230V, 50Hz. For all heater types listed in the table, internal electronic temperature regulators or remote-controlled room temperature regulators are optionally available. Our various products of 34 cm or 63 cm overall height are available in the IP24 version. All other heaters have protection class IP20. Please see the information given on the nameplate of the heater.

Table: Allocation of the heaters to the respective fastening systems and distances between drill holes:

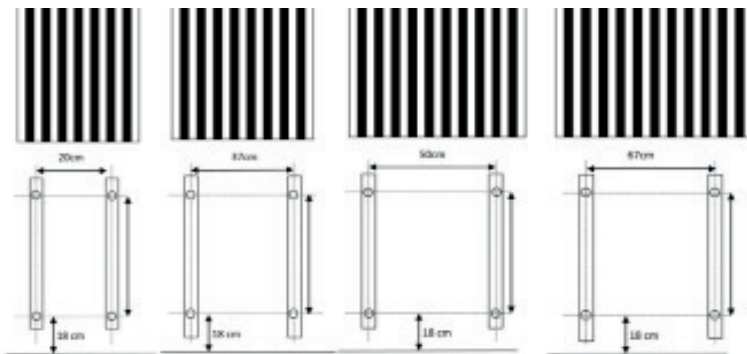
Types	Power [Watt]	Dimensions [cm]	Distances / drill holes [cm]	Protection class	Special featurea
TT-KS 500 S	500	38 x 63 x 7	20	IP 20	
TT-KS 600 S	600	38 x 63 x 7	20	IP 20	
TT-KS 1000 S	1000	68 x 63 x 7	50	IP 20	
TT-KS 1200 S	1200	68 x 63 x 7	50	IP 20	
TT-KS 1500 S	1500	98 x 63 x 7	80	IP 20	
TT-KS 1800 S	1800	98 x 63 x 7	80	IP 20	
TT-KS 2000 S	2000	128 x 63 x 7	110	IP 20	
TT-KS 2400 S	2400	128 x 63 x 7	110	IP 20	
TT-KS 2800 S	2800	158 x 63 x 7	140	IP 20	
TT-KS 700 S LT*	700	68 x 63 x 7	50	IP 20	about 60°C surface temperature
TT-KS 1200 S LT*	1200	98 x 63 x 7	80	IP 20	about 60°C surface temperature
TT-KS 1500 S LT*	1500	128 x 63 x 7	110	IP 20	about 60°C surface temperature
TT-KS 1800 S LT*	1800	158 x 63 x 7	140	IP 20	about 60°C surface temperature
TT-KS 500 S X4	500	38 x 63 x 7	20	IP 24	
TT-KS 1000 S X4	1000	68 x 63 x 7	50	IP 24	
TT-KS 1200 S X4	1200	68 x 63 x 7	50	IP 24	
TT-KS 1500 S X4	1500	98 x 63 x 7	80	IP 24	
TT-KS 800 N	800	68 x 34 x 7	50	IP 20	
TT-KS 1200 N	1200	98 x 34 x 7	80	IP 20	
TT-KS 1600 N	1600	128 x 34 x 7	110	IP 20	
TT-KS 2000 N	2000	158 x 34 x 7	140	IP 20	
TT-KS 800 N X4	800	68 x 34 x 7	50	IP 24	
TT-KS 1200 N X4	1200	98 x 34 x 7	80	IP 24	
TT-KS 1200 H	1200	38 x 124 x 7	20	IP 20	
TT-KS 1800 H	1800	55 x 124 x 7	37	IP 20	
TT-KS 2200 H	2200	68 x 124 x 7	50	IP 20	
TT-KS 1200 H X4	1200	38 x 124 x 7	20	IP 24	
HR 1200 KSB	1200	38 x 124 x 7	20	IP 24	
*) See special Installation Instructions and Directions for Use OT = surface temperature is to be adjusted by an internal regulator					
N = low LT = low temperatur X4 = Splash protection					

5. Installation instructions

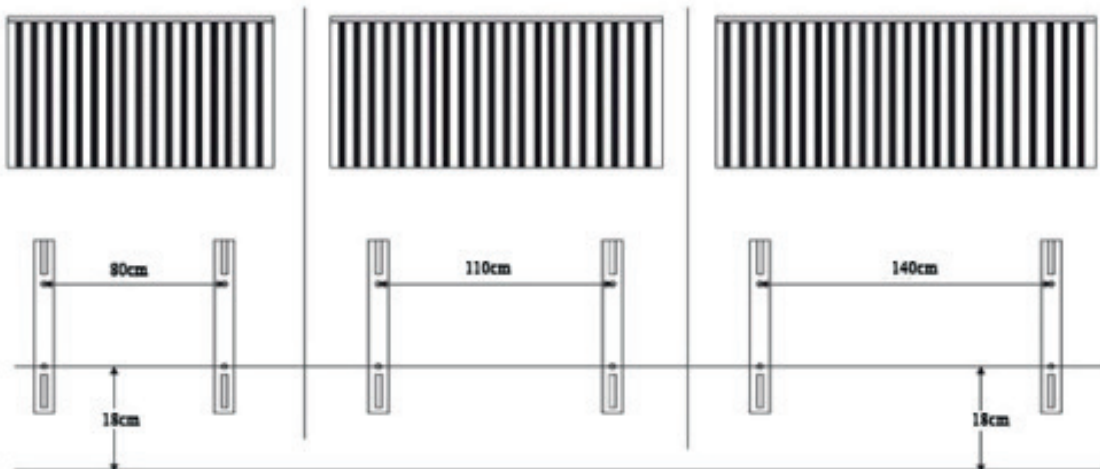
Please observe the safety instructions given on page 3!

- Our electric partial surface thermal-storage heaters shall be preferably mounted under a window or close to a room load-bearing wall (please absolutely keep the minimum clearances as shown on page 4).
- The respective fastening components and aids are an integral part of the delivery.
- The room thermostat shall be placed at half of the room height and not closer than 1 meter from the heaters. The thermostat is to be installed between the power source and the electric storage heater. Remove the packaging. Heed that no packaging residues stick on the heater! Using the Table on page 5, please select the fastening system appropriate for the dimensions of your heater! The table and the sketches below show the distances of the drill holes to be made (Ø 8mm, depth 45mm). Mount U-rails on the wall!

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Heater body length [cm]	Distance [cm]
38	20
55	37
68	50
85	67
98	80
128	110
158	140



5.1 Fitting the surface storage heater TT-KS*

1. Fit the two bottom suspension hooks (1) into the slots on the U-rails
2. Hook in the heater (2) and hold it inclined to the front.
3. Insert the two top suspension hooks (3) and pull them up.
4. Position the heater (2) vertically.
5. Press the top hooks (3) downwards.
6. Put on the heater cover



Please note: You recognize the device bottom by a protruding power supply cable.

6. Report the case to the after-sales service

Your surface storage heater was carefully manufactured and checked repeatedly before dispatch. If you should nevertheless encounter a problem or have questions concerning handling, feel free to contact us.

From Jan 1st 2018, the EU-conformity of these devices is additionally bound to fulfilment of the Eco-Design Requirements 2015 /1188.

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Installation and starting up of the equipment is only permitted in conjunction with external room temperature controllers which fulfil the following functions:

- electronic room temperature control depending on the weekday

and, at least, has one of the following characteristics:

- Room temperature control with detection of an opened window
- With remote control option
- With adaptive start control

The following room temperature control systems supplied by Technotherm

- RF receiver in conjunction with the thermostat TPF Eco (Product No.: 750 000 641) and the Eco interface (product no.750 000 640).
- DSM thermostat
- TDI thermostat
- PLUS thermostat

fulfil the following requirements and thus the ErP Directive:

- electronic room temperature control depending on the weekday (RF/DSM/TDI/plus)
- with remote control option (RF/DSM)
- with detection of an opened window (DSM/TDI/plus)
- adaptive control of the heating start (DSM/Plus)

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The use of the standard TT-KS series (without an external thermostat regulating) is only permitted with castors or on feet.

For installation and use of the Technotherm thermostats and interfaces, please refer to a separate manual. The manual can be requested at the Customer Service - see the last page.

If this requirement is not fulfilled, the device will lose its CE marking.

7. Guideline

Information requirements for electrical room heaters

Type: TT-KS S DSM / TT-KS N DSM / TT-KS H DSM (interface: optionally) TT-KS TDI/TT-KS- N TDI / TT-KS H TDI / TT-KS S plus / TT-KS N plus / TT-KS H plus												
Designation	Symbol	Rate								Unit	Designation	Unit
Heating capacity											Type of heat supply, only for electrical storage heaters in rooms (select one type)	
Nominal thermal output	P_{nom}	0.5	1.0	1.2	1.5	1.8	2.0	2.4	2.8	kW	Manual thermal charge control, with integrated thermostat	NO
Minimal thermal output (indicative)	P_{min}	0.5	1.0	1.2	1.5	1.8	2.0	2.4	2.8	kW	Manual thermal charge control with acknowledgement of the room inside and /or outside temperature	NO
Maximum continuous thermal performance	$P_{max,c}$	0.5	1.0	1.2	1.5	1.8	2.0	2.4	2.8	kW	Electronic charge control with acknowledgement of the room inside and /or outside temperature	NO
Auxiliary current consumption											Heating power supported with a fan	NO
At nominal thermal output	$e_{l,max}$	0.5	1.0	1.2	1.5	1.8	2.0	2.4	2.8	kW	Type of heating power / room temperature Control (select one type)	
At the minimum heating capacity	$e_{l,min}$	0.8	0.8	0.8	0.8	0.8	0.8	0.8		Watt	Single-stage heating capacity; no room temperature control	NO
At the standby mode	$e_{l,SB}$	0.8	0.8	0.8	0.8	0.8	0.8	0.8		Watt	Two or more manual stages, no room temperature control	NO
											With mechanical room temperature control	NO
											With electronic room temperature control	NO
											Electronic temperature control in the room, depending on the time of day	NO
											Electronic temperature control in the room, depending on the weekday	YES
Other control options (multiple choice is possible)												
											Room temperature control with presence detection	NO
											Room temperature control with detection of an opened window	YES
											With remote control option	NO
											With adaptive start control	YES
											With limitation of heating time	NO
											With a black lamp sensor	NO
Contact information:	Lucht LHZ Elektroheizung GmbH & Co. KG Reinhard-Schmidt-Str.1 D-09217 Burgstädt, Germany											

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Information requirements for electrical room heaters

Type: TT-KS S RF / TT-KS N RF / TT-KS H RF (additional thermostat TPF-Eco and Eco interface is required)													
Designation	Symbol	Rate									Unit	Designation	Unit
Heating capacity											Type of heat supply, only for electrical storage heaters in rooms (select one type)		
Nominal thermal output	P_{nom}	0.5	1.0	1.2	1.5	1.8	2.0	2.4	2.8	2.8	kW	Manual thermal charge control, with integrated thermostat	NO
Minimal thermal output (indicative)	P_{min}	0.5	1.0	1.2	1.5	1.8	2.0	2.4	2.8	2.8	kW	Manual thermal charge control with acknowledgement of the room inside and /or outside temperature	NO
Maximum continuous thermal performance	$P_{max,c}$	0.5	1.0	1.2	1.5	1.8	2.0	2.4	2.8	2.8	kW	Electronic charge control with acknowledgement of the room inside and /or outside temperature	NO
Auxiliary current consumption												Heating power supported with a fan	NO
At nominal thermal output	$e_{l,max}$	0.5	1.0	1.2	1.5	1.8	2.0	2.4	2.8	2.8	kW	Type of heating power / room temperature Control (select one type)	
At the minimum heating capacity	$e_{l,min}$	2	2	2	2	2	2	2	2		W	Single-stage heating capacity; no room temperature control	NO
At the standby mode	$e_{l,SB}$	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47		W	Two or more manual stages, no room temperature control	NO
												With mechanical room temperature control	NO
												With electronic room temperature control	NO
												Electronic temperature control in the room, depending on the time of day	NO
												Electronic temperature control in the room, depending on the weekday	YES
												Other control options (multiple choice is possible)	
												Room temperature control with presence detection	NO
												Room temperature control with detection of an opened window	NO
												With remote control option	YES
												With adaptive start control	NO
												With limitation of heating time	NO
												With a black lamp sensor	NO
Contact information:	Lucht LHZ Elektroheizung GmbH & Co. KG Reinhard-Schmidt.Str.1 D-09217 Burgstädt, Germany												

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TECHNOTHERM After-sales service:
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