



LAVA[®] FRAME

Infrared heating device for wall and ceiling installation

Specification
Installation
Instructions

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GENERAL

ETHERMA LAVA® FRAME infrared heaters are versatile direct heating devices. They are characterised, in particular, by their elegant design, ease of installation and operation, high reliability and maximum radiation power with minimal convection.

These instructions provide important information on safety, installation, use and maintenance of the device. Please read the information provided in these instructions carefully and keep for reference in case you will have questions at a later occasion.

The manufacturer shall not be held liable if these instructions are not complied with. Devices may not be used improperly, i.e. for purposes other than the intended use.

The packaging of your high-quality LAVA® FRAME infrared heater is made from recyclable materials.

THESE INSTRUCTIONS MUST

- › be given to the operator following installation. The operator must also be instructed in the infrared heater's functionality.
- › be kept safe and transferred to the new owner in case of a change in ownership.



WARNING: Covering the surface creates a danger of overheating. Overheating may occur and the heating element may be damaged by covering the front of the device, e.g. with a hand towel.

WARNING: The infrared heating may not be used if the front of the device is damaged.

OVERHEATING AND OVERLOAD PROTECTION

All heaters have overheating protection which is activated in the event of overheating. The device only resumes operation automatically again after having cooled down to below 45 °C.



ATTENTION: Hot surfaces on the device may cause burn injuries. Switch off the device and let it cool down before carrying out maintenance and service works.



ATTENTION: On the surface of the LAVA® FRAME infrared heating environmental influences such as direct sunlight, heavy smoke, open fireplaces, etc. may cause discoloration of the hue.

This heating device is not intended for the use by persons (including children) with a limited physical, sensory or mental capacity or with a lack of experience and knowledge. Such individuals must be supervised by a person responsible for their safety or instructed on use of the device. Children should be supervised in order to ensure that they do not play with the device.

This device can be used by children of 8 years and older and by persons with reduced physical, sensory or mental abilities and with a lack of experience or knowledge if they are supervised or have been instructed on safe use of the device and understand the resulting risks. Children may not play with the device. Children may not clean the device or perform maintenance on it without supervision.

Children under the age of 3 should be kept away unless under constant supervision. Children between the ages of 3 and 8 may only switch the device on and off if they are supervised or have been instructed regarding safe use of the device and understand the resulting risks, as long as the device is placed or installed at its intended place of use. Children between the ages of 3 and 8 must not plug in the device, control the device, clean it and/or carry out maintenance.

The device may only be operated once installed. This heater may not be used in the immediate vicinity of a bath, shower or swimming pool. When installing the device in a bathroom, the device must be mounted so that switches or other regulators cannot be touched by persons in a bathtub or shower. The heater may not be used in small rooms occupied by persons who cannot leave the room independently, except where constant supervision is guaranteed.

Some product parts can become very hot and cause burns. Particular caution is required when children or vulnerable persons are present.



ATTENTION: Strain of any kind on the surface, whether from persons or objects leaning against it or from other forces, must be avoided!

OVERVIEW OF TYPES AND VERSIONS

LAVA® FRAME

The LAVA® FRAME is an infrared heating device with a high intensity of radiation for wall or ceiling installation. The device is characterised by its homogeneous temperature distribution and its fast heating response. Due to the internal insulation, it heats the room with a maximum radiation intensity. As a standard, the LAVA® FRAME infrared heating device comes with only one connecting cable.

CONTROL SYSTEM

Radio-controlled thermostats avoid complex demolition and plaster work for cable routing and allow easy installation of heaters.

ET-111A - Radio receiver: The radio receiver is fixed to the rear side of the LAVA® FRAME. In connection with an ET-14A, the ET-111A radio receiver provides for easy switching of up to 10 LAVA® infrared heaters.

The **E-14A** is a radio-controlled room temperature regulator with a freely programmable weekly programme, frost protection, manual operation and on/off function.

Wired room thermostats:

Ideal for new buildings and renovation.

SCOPE OF DELIVERY | PACKAGING

The LAVA® FRAME infrared heating device must be mounted exclusively using the fixing components included in the scope of delivery.

Screws and dowels (not included in the scope of delivery) must correspond to the construction material of the wall or ceiling (masonry, concrete, plasterboard, etc.). The surface of the ceiling and wall must be even.

STANDARD SCOPE OF DELIVERY LAVA® FRAME:

- › 1 LAVA® FRAME Infrared heating unit
- › Mounting frame, 1 unit
- › Lifting tool, 1 unit
- › Screw terminals, 2 pieces
- › Steel cable, 1 piece



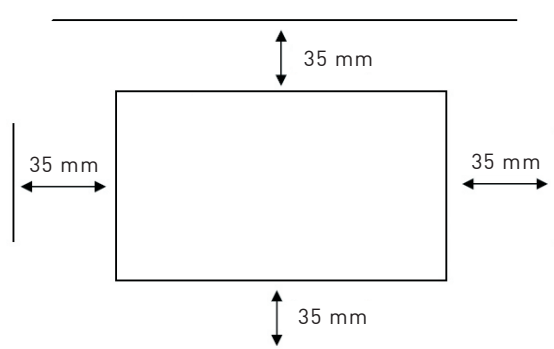
Lifting tool

USE AND INSTALLATION INFORMATION FOR THE INSTALLER

- › LAVA® FRAME infrared heating devices comply with the relevant safety requirements.
- › Installation and initial start-up, as well as repairs and servicing, may be carried out by a licensed specialist or qualified individual only. All safety regulations must be observed. This person must verify first whether the electrical in-house system complies with the relevant standards. The responsibility of the manufacturer is limited to supply of the device.
- › Comply with country-specific safety regulations.
- › Comply with local safety precautions.
- › The devices are suitable for the installation on walls and on ceilings.
- › Protective areas must be observed in accordance with DIN VDE 0100, part 701, when installing the device in bathrooms.
- › Minimum distances must be adhered to.

INSTALLATION AND MINIMUM DISTANCES:

LAVA® FRAME infrared heating devices have to be mounted so that flammable objects cannot catch fire. Be absolutely sure to comply with minimum clearances, in particular to highly combustible objects such as curtains, upholstered furniture, etc. Please also make sure that the infrared heater can radiate freely into the room.



Dimensional drawing: minimum mounting clearances



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HOLE CUT-OUT FOR THE WALL/CEILING INSTALLATION FRAME

Type	Art. no.	Output (W)	Cut-out dimensions (mm)	Dimensions without frame (mm)		Weight without frame (kg)
				Length	Width	
LAVA-FRAME-350	40505	350	634 x 634 x 75	620	620	7.5
LAVA-FRAME-500	40506	500	634 x 914 x 75	900	620	12
LAVA-FRAME-750	40507	750	634 x 1259 x 75	1245	620	16
LAVA-FRAME-1000	40508	1000	634 x 1614 x 75	1600	620	21



INSTALLATION INSTRUCTIONS FLUSH WALL AND CEILING INSTALLATION

Please inspect the power supply cord to the heater and the surface before installation. These must not show any signs of damage.

For wall mounting, pay attention to the direction arrows on the back of the LAVA® before installation.



1. Unpack the device and accessories and check that they are complete and undamaged. Please place the infrared heating device only on clean, level surfaces so that no dirt can get into the panel surface or the surface can be damaged.



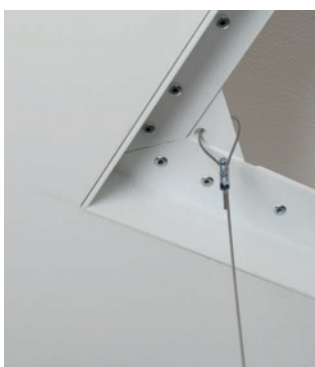
2. Remove the panel from the mounting frame. Only use the enclosed lifting tool.



3. Please note that in order to secure the frame with screws, mounting aids (e.g. an aluminium profile or squared lumber firmly connected to the ceiling) must be mounted on all 4 sides of the cut-out.



4. Insert the mounting frame into the cut-out. The click lock must point forward.



5. Make sure that the frame is flush with the ceiling or wall. Check all sides with a spirit level.



6. Next, fix the frame to the mounting aid with the screws in the holes provided for this purpose.

7. Check again that the frame has not warped during installation and is installed at a right angle.



7a. Once the frame is mounted, the safety rope for the infrared panel must be fitted. One end of the rope is already fixed to one corner of the frame at the factory. Now pull the loose side of the rope through the two eyelets on the back of the panel and fix it to the opposite corner of the frame.



7b. Use the enclosed screw terminal and fix the cable. The infrared heating device is secured to the frame by a steel cable.



7. Now you can connect the panel.



8. Finally, carefully press the panel into the frame. Once the click locks are engaged, you can release the panel.

9. In addition, the tightness of the panel of the click locks can be adjusted slightly. With a screwdriver you can tighten the mounting brackets by turning it to the right so that the panel is tighter. This helps to avoid expansions of the device.



10. If a gap is created between the mounting frame and the ceiling or wall during installation, it can be repaired and painted over with acrylic.

ELECTRICAL CONNECTION

The heater is intended for the fixed connection to a ceiling or wall socket.

The device is connected to the AC mains system with a power cord connected and a connection socket on the installation side.

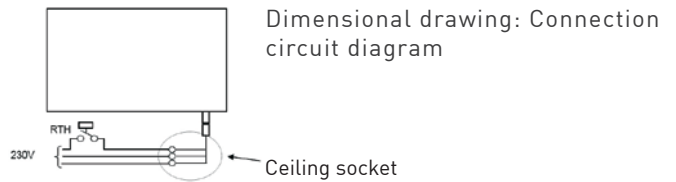
NOTE

The connecting cable can be extended using a cable of the SIHF-J3G1.5 mm² type. A direct connection to the device cannot be implemented. The length of the connecting cable must be between 1.0 and 1.9 m.

An all-pole disconnecting device with a minimum contact opening width of 3 mm has to be mounted into the fixed electrical installation in compliance with the installation regulations.

HEATING MODE

The heater is operated by means of direct connection via switch, via an external room thermostat (eTOUCH eco), or via a radio receiver (ET-111A) in connection with a radio-controlled room thermostat (ET-14A). These items can be ordered as accessories. Please observe the operating instructions of the respective product.



ATTENTION: If the mains cable to the device is damaged, it must be replaced immediately by a specialist.

USER MANUAL

HEATING MODE

Depending on the thermal insulation standard, you require a heating power between 30 and 200 W/m² living space. The LAVA® infrared heating device has a very large radiation component and a very small convective component of the heating power. For reasons of safety, the surface temperature is max. approx. 120 °C, therefore the total power of the devices is limited.

The LAVA® infrared heating device by ETHERMA mainly heats solid objects and, only to a lesser extent, directly heats the room air. Therefore, these devices are ideal for additional temperature control. But they can also be used as stand-alone system. In order to achieve the same feeling of comfort as with a convection heating, the room air temperature can be reduced by approx. 2–3 °K. Each degree that the heating is reduced can save up to approx. 6 % of the heating costs, depending on the heating performance and thermal insulation standard. Depending on the size of the device, the LAVA® infrared heating device requires a certain time until the operating temperature is reached. Only then the radiation can take its full effect.



ATTENTION: Depending on the output and size of the device, these can deform slightly during heating operation.

MAINTENANCE AND CARE

The LAVA® infrared heating device is designed so that it gives off its heat via the surface in the form of radiation. The device does not contain any parts requiring special maintenance. We recommend commercially available glass cleaners for the care of your infrared heating. Please do not use scouring agents, as these can cause scratches both on the glass and on the painted surfaces.



ATTENTION: When you want to clean the LAVA® infrared heating, the heating device must be cold!



ATTENTION: Strain of any kind on the surface, whether from persons or objects leaning against it or from other forces, must be avoided!

TECHNICAL DATA LAVA® FRAME

> Rated voltage:	230 V	> Device depth:	22 mm
> Power consumption:	350, 500, 750, 1000 Watt	> Depth:	75 mm
> Surface temperature:	max. 120°C	> Protection rating:	IP 21
> Surface:	Structured surfaces	> Connection line:	1 m, 3 x 1.5 mm² without plug
> Frame:	Steel housing, white, RAL 9016	> Factory warranty:	5 years

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LAVA® FRAME DEVICE RATING PLATES

The rating plate contains the type-specific technical data. Depending on the arrangement, the rating plate of the device is placed vertically or horizontally, at the top or on the left on the device.

ETHERMA®

Landesstraße 16
A-5302 Henndorf
Made in Austria

LAVA-FRAME-350
350 W | IP 21
230 V | 50 Hz
■ 7.5 kg



Do not cover!
Nicht abdecken!

Example image: Nameplate LAVA® FRAME

ETHERMA®

Made in Austria



9120013721675

LAVA-FRAME-1000

ETH-Nr: 40508

Serial-Nr: 79804001

1000,00 W

230,00 V

Etherma Elektrowärme GmbH, A 5302-Henndorf, Landesstrasse 16

Example image: Serial number

INFORMATION ABOUT ENERGY CONSUMPTION

In combination with an Ecodesign-compliant thermostat, the product data complies with the EU regulations on the Ecodesign Directive (2009/125/EC) for energy-related products (ErP).

Faults

Device does not heat:

- > Has the fuse been triggered or is it defective?
- > Is the external switch in the supply line switched off?
- > Is the setpoint temperature of the room temperature controller set lower than the actual temperature of the room?

Radiation heat too low:

- > Is the distance between the radiation heater and the person too long?
- > Has the device size been selected too small?
- > Are there objects placed between the radiation heater and the person?

GENERAL WARRANTY CONDITIONS

Dear customer,
please observe our general terms and conditions. Country-specific legal entitlements apply to warranty claims; please assert such rights directly through your distributor.



ATTENTION: Many old electrical and electronic devices contain valuable materials. However, they can also contain harmful substances which were required for their operation and safety. Such substances may damage the environment if disposed of in residual waste or handled incorrectly. Please help us to protect the environment. Do not place your old devices in the residual refuse. Dispose of your old device in accordance with applicable local regulations. Properly dispose of packaging material, future replaced parts and/or components.

RESERVATION: We reserve the right to make technical changes. Modifications, errors and misprints shall not constitute grounds for damages.



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