

## LAB 3 ELECTRIC BURNER

### TECHNICAL DOCUMENT



CE CERTIFICATION



The LAB 3 electric laboratory heater is a device for heating test tubes or other flat-bottomed containers for various chemical experiments that were previously done with a Bunsen burner.

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- EU DECLARATION OF CONFORMITY - CE Mark **CE**

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1. LAB 3
2. Name and address of the manufacturer : **K-FACTORY**  
3 rue Denis Papin – 14840 – Démouville
3. This declaration of conformity is issued under the sole responsibility of K-FACTORY.
- 4.



5. The object of the declaration described in point 4 is in conformity with the relevant Union harmonisation legislation :
  - Directive 2011/65/UE (RoHS)
  - Directive 2014/35/UE (LVD)
  - Directive 2014/30/UE (EMC)
6. References to the relevant harmonised standards used or references to the order technical specifications in relation to which conformity is declared :
  - Reference of standard like EN 62321-1
  - Reference of standard like EN 61010-1:2010
  - Reference of standard like EN 61326-1:2013
7. Démouville, le 01/03/2023

## 1. SAFETY INFORMATION

### WARNING

- Heating device, high-temperature gloves mandatory.
- Do not touch heating elements during use. Do not handle the device or touch metal surfaces during heating.
- Observe good laboratory practice when using the device, as well as company safety procedures.
- Heating certain substances may release hazardous or highly flammable gases. Take all necessary precautions, such as using an air extraction system.
- Follow the company's guidelines when heating products with explosion risk.
- A container must be used to heat any substance or material, otherwise the device may be damaged. There must be no physical contact between the heating elements and the substance to be heated.
- Use a suitable container, resistant to high temperatures (800° C).

- Allow containers to cool for 10 minutes after use. Use heat-resistant gloves.
- Do not fill containers on the device while it is connected to the mains.
- The device produces a vertical column of hot air over more than 20 centimetres.
- Take care not to cover the device, as it cools with the ambient air.
- Never leave the device to heat up without the supervision of an operator.
- Do not remove rivets from the metal casing.

NOTE : the device must be used in accordance with the above instructions to avoid compromising safety.

## 2. COMMISSIONING AND INSTALLATION

The device has a Class II installation category according to protection against electric shock.

Environmental conditions :

- Indoor use only
- Temperature from + 5°C to + 40°C
- Max. relative humidity : 80%

Mains connection in compliance with standard NFC 15-100. This recommends the use of a 30 mA high-sensitivity differential circuit breaker.

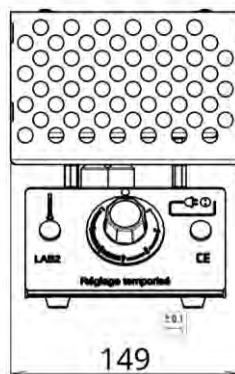
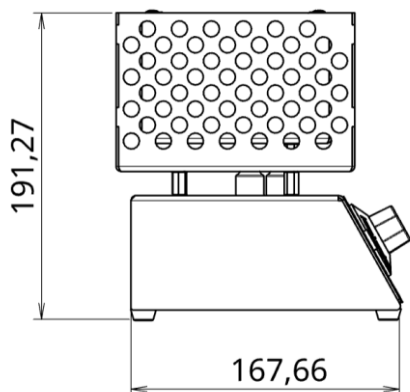
Operating voltage : 230 V 50-60 Hz; rated power : 900 W

## 3. TECHNICAL CHARACTERISTICS

WEIGHT	3.160 KG
DIMENSIONS (mm)	See below
POWER	900 W
POWER SUPPLY	230 V 50 Hz
RAPID FUSE PROTECTION	6.3 A
POWER ON INDICATOR	red
TEMPERATURE INDICATOR	green
TEMPERATURE ADJUSTABLE FROM	70 to 750 °C

## LAB 3 increments:

Increment	Temperature in °C
1	70
2	210
3	280
4	420
5	490
6	630
7	750



Millimeter

Maximum use room temperature : 40°C

Protection from overheating

-----Accessories not provided-----

## 4. INSTRUCTIONS

When starting up for the first time, or after a long period of storage, we recommend that you gradually warm up the device to eliminate any storage moisture and prevent the differential circuit breaker from tripping.

- Place the appliance on a flat, stable surface.
- Connect the appliance to a 230 V earthed mains socket.
- Turn the control knob to the required temperature (0 to MAX).

The **red** LED lights up as soon as the power is switched on. The appliance is now in operation. **The protective casing always remains cold.**

The **green** temperature light stays on until the desired temperature is reached, then goes off (except when set to **MAX**).

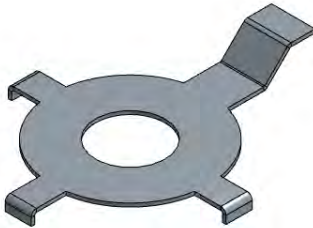
To switch off the appliance: turn the control knob back to O. The **red** light will go out. The appliance is now completely switched off.





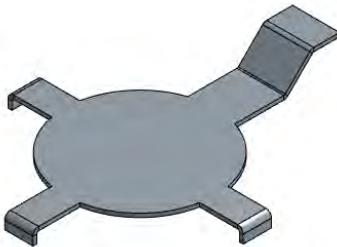
## ACCESSORIES

- ✓ A 105T plate must be used for the **combustion of metal powders**.



REF. 105 T

- ✓ A 107 P plate must be used for the **combustion of solids**.



REF. 107 P

- ✓ To **produce a flame**, place an ECOFLAM pellet (presented on the K-FACTORY website) on the grid of the electric heater. The pellet will ignite spontaneously for around 2 minutes.



REF. ECOFLAM

✓ For **flat-bottomed containers** (flasks, beakers, etc.) : place directly onto the support plate. The container surface must not be larger than 11 cm, the size of the protective casing.

✓ For **test tubes** : hold the tube with wooden tongs or place it in our glassware holder 505 S.

✓ For a **round-bottomed flask** : place the flask in our 505 S glassware holder.



REF. 505 S



✓ For **microbiology manipulations** in a sterile environment, use the 202 MI plate to enable the sterility cone generated by the apparatus to be used.



REF. 202 MI

- ✓ To heat a container, use the 35 cm long metal rod, to which you can add a laboratory clamp (not sold by K-Factory).



REF. 601 ST

## To heat the liquid in a test tube - WITHOUT SPLASHING

- Set to MAX ; the air column expands along the entire length of the tube. Boiling is achieved without splashing.
- If the appliance is cold, set the temperature to MAX for 45 seconds before use to create the heat column, then set to the desired temperature.

**IMPORTANT :** To avoid splashes, place the tube in its holder in the centre of the appliance and take care not to shake it (if using wooden tongs).

## MAINTENANCE

The appliance does not require periodic maintenance. In the event of pollution, the following precautions should be taken when cleaning :

- The appliance must be switched off and disconnected from mains.
- Cleaning should only be carried out when the appliance is cold. No maintenance of the electrical part is required.

## REPLACING THE FUSE

1. The fuse must be replaced only with the device disconnected from its power source, and only by a competent electrician under the direction of the person in charge.
2. Remove the screw holding the fuse.
3. Remove and replace the fuse with an approved type F.6.3 A.H 250 V fuse.
4. Reinsert the fuse, then close the flap and secure it.

## 5. TROUBLESHOOTING

If the **red** power light does not come on :

- a) Set the control knob to OFF.
- b) Disconnect from the mains.
- c) Turn the device over.
- d) Change the fuse (see REPLACING THE FUSE)  
6.3-amp quick-blow fuse with high breaking capacity (250 volts)

If the appliance still does not work, please contact us.

**Please note that any use of the appliance that does not comply with the manufacturer's instructions may compromise the LAB 3's safety.**

----- 3 YEAR WARRANTY-----