Assembly and operating manual

Fire protection enclosure

PRIOELEC ESL91*plus*

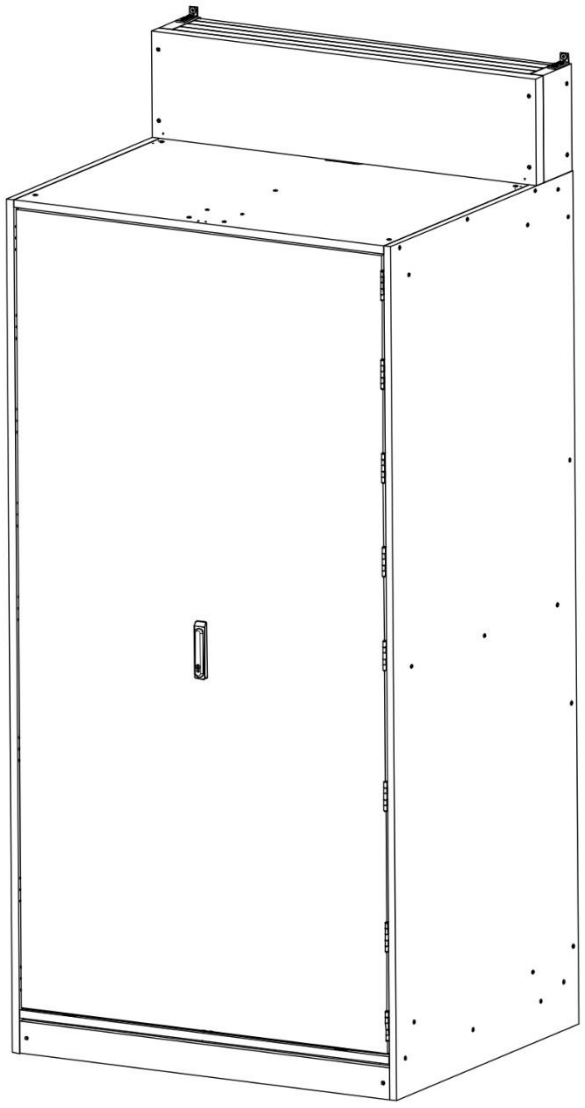

Figure 1, PRIOELEC 91plus isometric drawing

EP.A.10762EN-9
Last updated 11/2023

Dear customer,

Thank you for purchasing a high-quality PRIORIT product.

To ensure we can guarantee that the entire system will function free from errors, please carefully observe the following operating manual.

Failure to observe this manual will void any warranty guarantees.

We expressly reserve the right to make technical changes for the purpose of improving our product, or as required by changes to the law – including without any separate notification.

PRIORIT AG

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1. Contents

2. General information

2.1 Information in this manual

- This manual is not a manufacturer's declaration, nor is it considered a usability certificate under building approval regulations.
- The information in this manual applies to a wide range of different products. Binding technical information, and information related to technical certifications, is only provided on the proof of usability under building approval law, the manufacturers' declarations submitted by the constructing company, and our order confirmation, which is considered part of the purchasing agreement upon signing by our contractual partner.

2.2 Important notes

- The product must be fitted flush and level!
- When storing individual parts, do not place them on the corners and cover the storage area with soft material beforehand, e.g. with a packing blanket!
- The product may only be installed by trained technicians who have received product training!

Warning 230 V AC

- Dangerous voltage can cause death, serious injury or considerable material damage. Disconnect all poles of the unit from the power supply before disassembling/assembling or supplemejting the internal installation. Observe VDE 0100 for 230 V mains connection.

2.3 General safety information

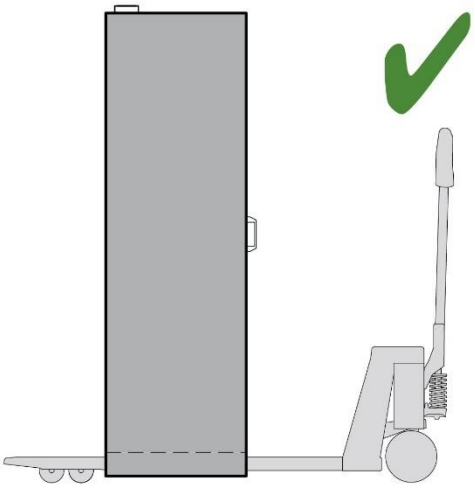
- The operating/installation manual can be accessed online via the QR code on the rating plate
- Legally required safety information must be posted in an area visible to users.
- All safety and hazard notices and the type plate must be kept in legible condition.
- Observe the relevant VDE regulations.
- Only use products that are in proper working order. Damaged parts must not be used.
- Ensure that the required safety checks are carried out by personnel authorised by us.
- Damage and malfunctions that are possible due to improper transport and installation can only be safely avoided by specialist personnel trained and authorised by Priorit AG.
- The swivel range of the door must always be kept clear.
- Observe the technical information in our catalogue or data sheet for the respective product.
- Note the sum of the power losses of the installed devices and wiring compared to the specified power loss of the enclosure. The indicated power losses are idealised values, they are based on average ambient values such as temperature, humidity, mounting surface, uniform arrangement of the switching elements, etc.
- Furthermore, please note that depending on the placement of the installed elements, "heat pockets" can form, therefore ensure that the installations are distributed as evenly as possible; if necessary, this should be checked by means of a control measurement in the interior.
- Unauthorised persons must not be allowed access to the enclosures.
- The doors of the enclosures must be kept closed during operation.
- Improper installation may impair the protective function.
- Observe all instructions in these operating and maintenance instructions.
- The enclosures must not be glued, painted or otherwise coated.
- The enclosures must not be damaged on the body (e.g. holes, screws).
- The locking systems must not be changed or replaced.

2.4 Intended use

- The products described in these operating/assembly instructions are manufactured in accordance with the state of the art and the recognised safety regulations.
- They may only be used as intended and when they are safe and in good working order
- When handling the products and for the correct handling of the cable entry, please follow these operating instructions precisely.
- Any other use is not deemed proper use. PRIORIT AG is not liable for the resulting damage and consequential damage.

2.5 Transport

- The enclosures are shipped packed upright on the pallet. Partially assembled enclosures are also delivered on a pallet.
- If the packaging is damaged, then the freight carrier must be notified of this in writing on the delivery slip – a “simple acknowledgement” provided to the delivering freight company will exclude recognition of damage in transit. The same applies if any packages are missing according to the delivery slip.
- The pallet must always be picked up from the narrow side with forks inserted fully to the end of the pallet.
- Only open the pallet at the installation site, in order to prevent damage during transportation to the installation site.
- Do not use pointed or sharp objects such as knives when opening the pallet, as they may damage the enclosure.
- Dispose of packaging materials in an environmentally appropriate manner or reuse them
- If the fire protection enclosure is not used or installed immediately, it must be stored in a suitable location
- Do not store outdoors and protect from moisture ingress
- The fire protection enclosure has a base that can be driven under. The front panel must be unscrewed for use.
- Transport must be carried out in compliance with the safety regulations.
- Do not undo the strapping until you reach the installation site.
- When delivered assembled, the doors must be locked.
- Please keep in mind that the fire protection enclosure is very heavy.
- Transport and assembly work must generally be carried by at least 3 people.
- The outer edges must be protected accordingly.
- Follow the accident prevention regulations!
- The enclosure must be secured accordingly.



- The PRIOELEC ESL91*plus* can be transported to the installation position with a pallet truck
- The base panel must be removed for this purpose

Figure 2, Use of a pallet truck

2.6 Basic principles

- Do not install damaged components, as this will immediately void the warranty and usability certificate.
- Unless it is fitted fully and appropriately, the enclosure does not bear the required usability certificate under building approval regulations.
- As the installing technician, you should only issue an unrestricted manufacturer's declaration of compliance with the building approval if installation was completed in a compliant manner.
- A deviation that is not material is also deemed to be compliant.
- The lock must be kept closed during intended use. It may only be opened briefly for installation and maintenance work!
- The functionality and operational readiness of existing ventilation systems must be ensured at all times. The ventilation systems must be checked twice a year.

2.7 Installation conditions of fire protection enclosures

- The subsurface must be flat.
- Only suitable for indoor installation
- The installation site must be frost-free and dry, ambient temperature +5°C to +30°C
- Surface/wall must be suitable (load-bearing capacity, classification)
- Observe the power loss of the installed devices and wiring compared to the specified power loss of the distributor (VDE 0660, part 500/504).
- The enclosure must be aligned at the final installation site. For this purpose, the enclosure can be lifted using suitable lifting equipment and the height adjusted using non-combustible shims. The enclosure must then stand horizontally.
- Check that the fire protection and smoke seals are undamaged.
- Check that the door is properly locked when closing the enclosure.

2.8 Scope of delivery

- PRIOIELEC ESL91*plus* floor standing enclosure
- Door can be unhinged
- Door locking in the active leaf via swivelling lever with double-bit actuation
- Cable entry from above and below through a cable bulkhead suitable for individual entry
- Door opens into the enclosure, 180° opening angle
- Fan unit with smoke detector and fusible link. Smoke detector switches off ventilation if smoke develops inside the enclosure
- C-rails for direct mounting of mounting plates or equipment racks
- The scope of delivery includes all the necessary fasteners required for assembly
- The fire protection enclosures are delivered as described in the brochure. Please refer to the brochure for optional ordering options.

2.9 Warranty, transfer declaration

- In order to ensure the optimal function of our products, the assembly instructions must always be observed.
- PRIORIT's warranty applies to the delivered products.
- Any modifications or changes to the design are permitted only following prior consultation with PRIORIT; otherwise the approval/warranty will be null and void.
- The installer/setup technician must provide a guarantee for all assembly work.
- Any warranty or liability claims for personal injury or property damage are excluded if they were caused by one or more of the following:

1) Improper assembly, commissioning, operation, and maintenance,
2) Failure to observe the instructions on transportation, storage, operation, and assembly.
3) Improper repairs or disasters caused by third parties or force majeure.

2.10 Industrial property rights

In order to protect innovations and the design, utility model specifications have been submitted to the German Patent Office.

3. Preparation for site assembly

3.1 Positioning the suspension brackets and the intumescent

-Place the suspension brackets on the back of the housing using fasteners
-Screws provided
Countersunk head screws 4.5 x 20m (10x)
and
Countersunk head screws 6.0x120mm (2x)

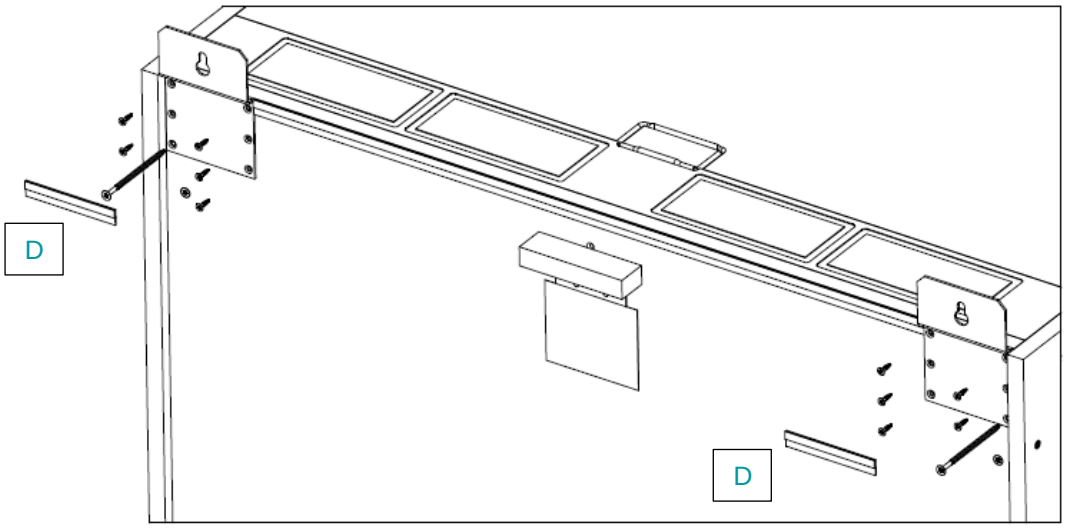


Figure 3, Position of suspension brackets and intumescent

-Position of the intumescent (D)
see Figure 3 above
3 pcs per bracket

4. PRIOELEC ESL91plus assembly

4.1 Positioning at the installation site

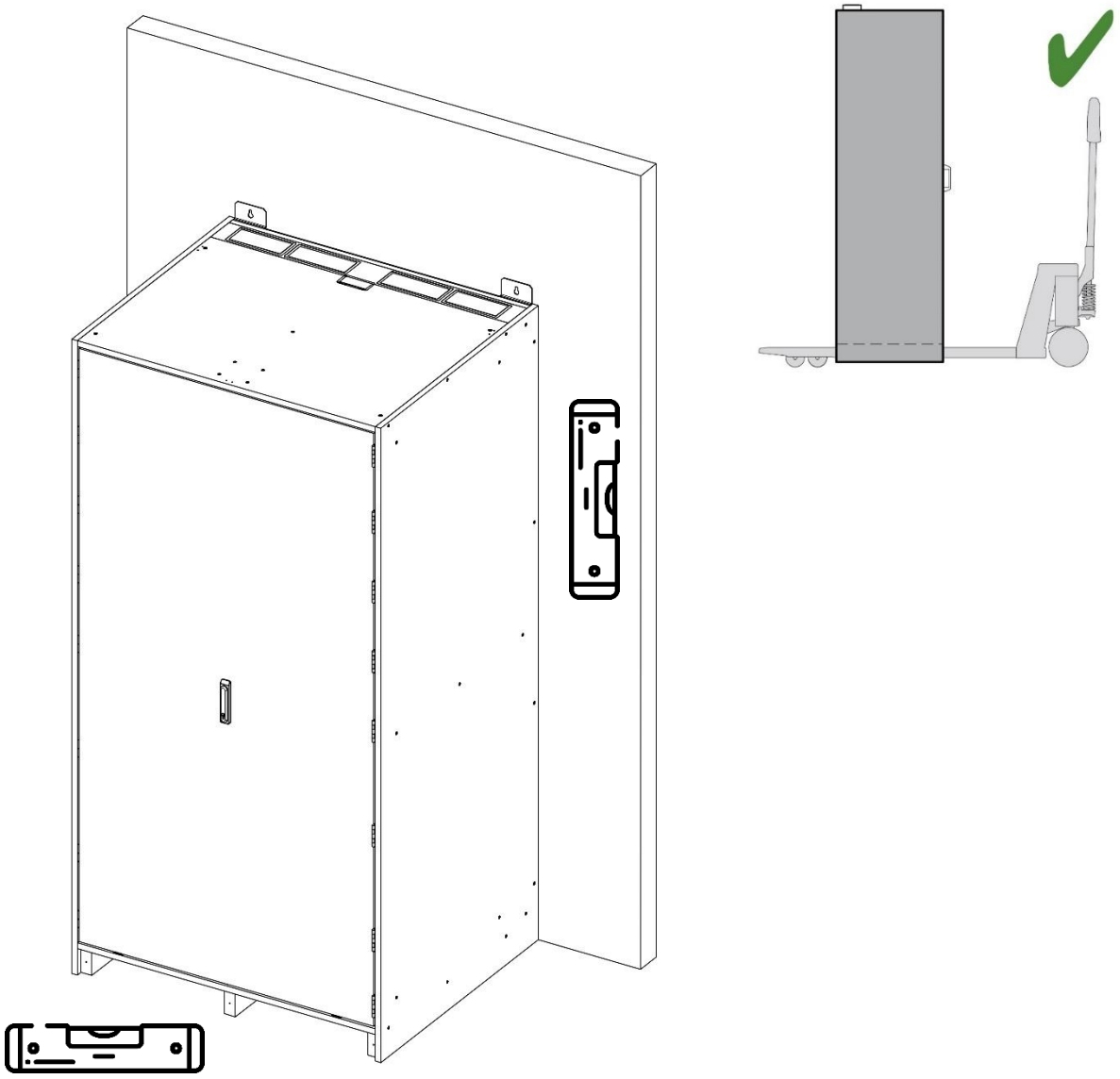
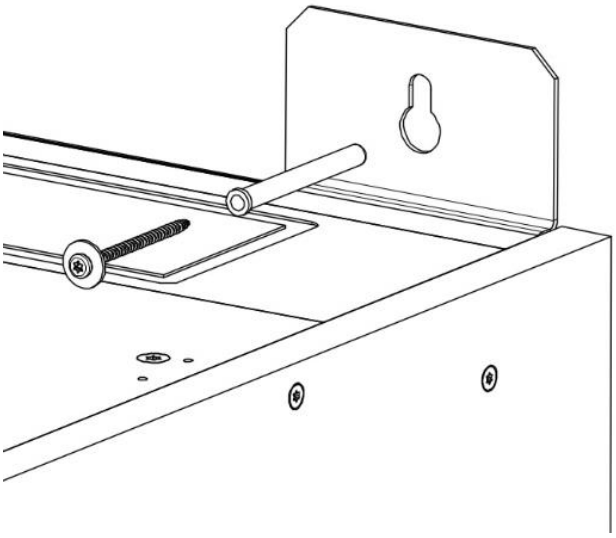


Figure 4 Positioning at the installation site

- Position and align the PRIOELEC ESL91*plus* at the installation site
- The floor element can be relined under the floor element
- Correct levelling is absolutely essential, otherwise the fire protection enclosure will not function properly and damage may occur

4.2 Wall mounting



-Drill the holes and insert an anchor suitable for the connecting wall

Figure 5; Detail lug fastening

4.3 Base panel assembly

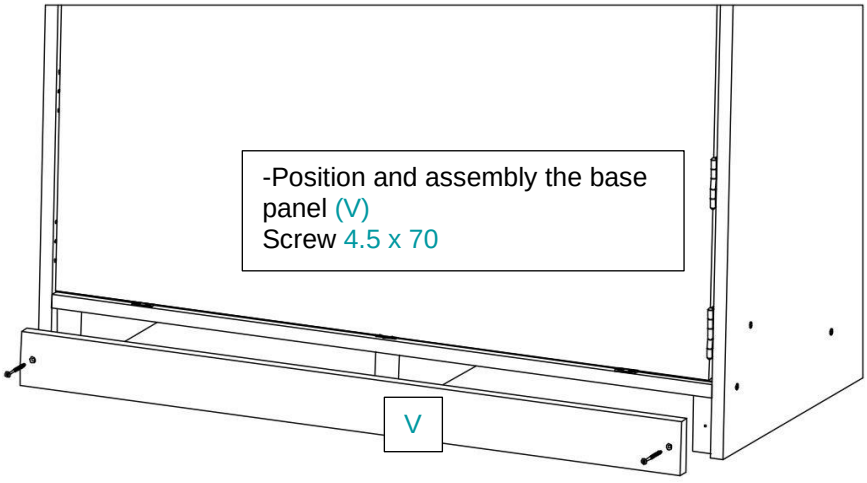
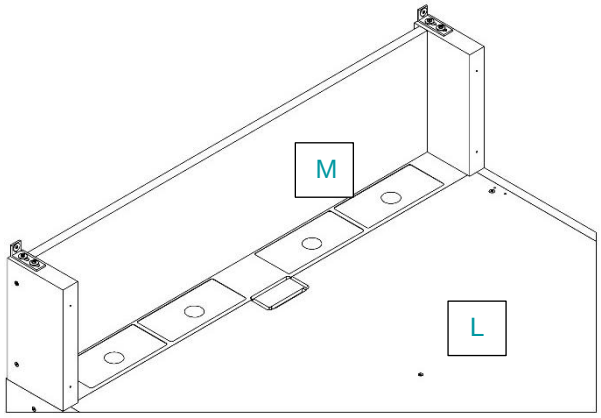


Figure 6 Base panel assembly

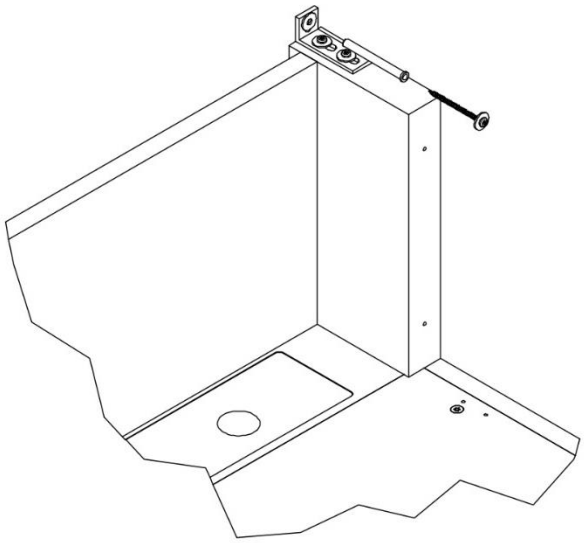
4.4 Cable cooling duct assembly; EABK

a)



- Dismantle the front panel of the EABK and remove the insulating strips
- Position the back panel with the side panels on the ceiling element
- Drill the required holes in the cable gland

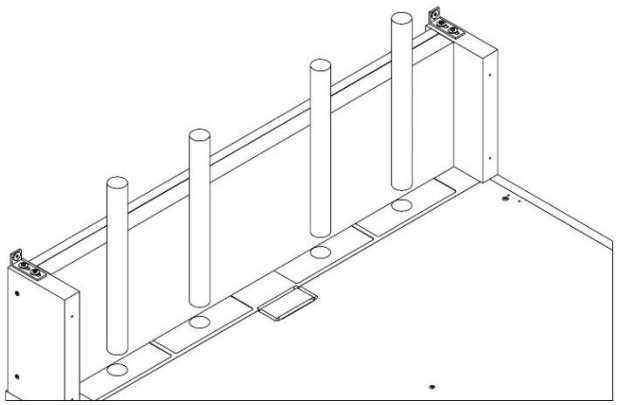
Figure 7 Cable cooling duct assembly; step a)



Create a cable entry
- Drill the wall mounting holes in the installation wall and
screw through the Varifix angle brackets using suitable fasteners
Accessory pack 9

Figure 8 Detail of cable cooling duct assembly; EABK

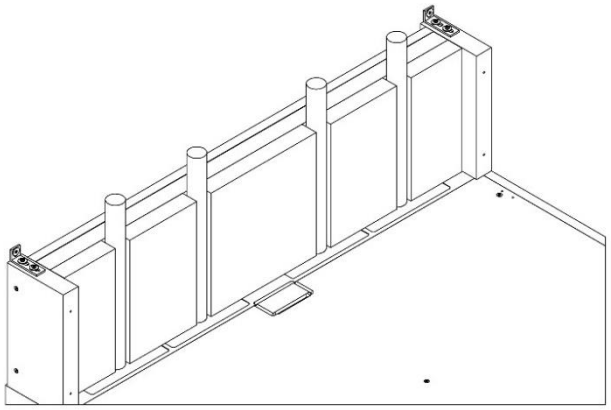
b)



- Insert the required cables and connect them to the cut-to-size
Fill insulation material tightly

Figure 9 Cable cooling duct assembly; step b

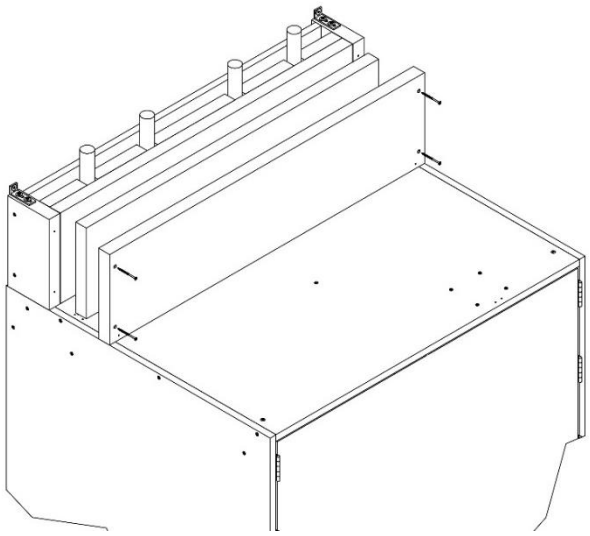
c)



- Fill all gaps tightly with the cut insulation material

Figure 10 Cable cooling duct assembly; step c

d

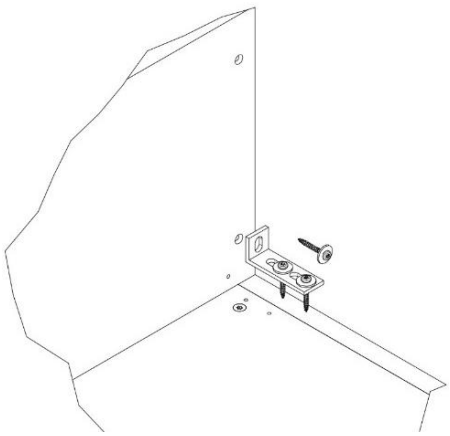


- Screw the front panel of the cable cooling duct into the sides using 4.5 x 70 mm Spax screws
- The insulation material must be pressed firmly against the inserted cables
- Screw the Varifix angle brackets into the ceiling element and the front panel

Accessory pack 9
-Panhead screws 4.5 x 35 mm with washers Ø 6.4

Figure 11 Cable cooling duct assembly; step d

e)



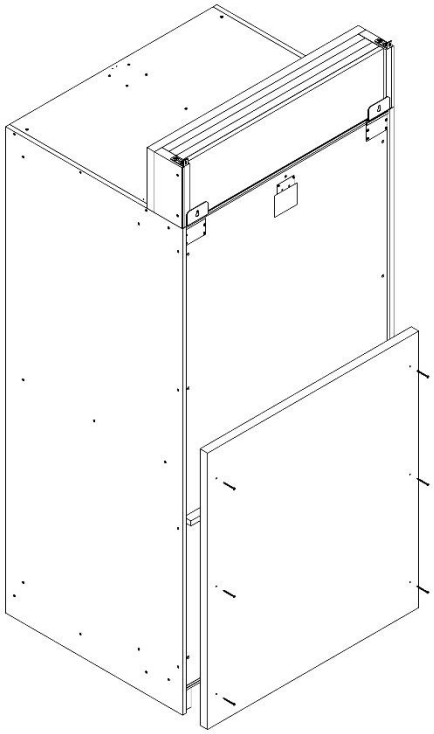
- Mount the front panel on the ceiling element using the Varifix angle brackets

Accessory pack 9
-Panhead screws 4.5 x 35 mm with washers Ø 6.4

Figure 12 Cable cooling duct assembly; step e

5. PRIOELEC ESL91*plus*, free-standing version
- Version with additional rear panel

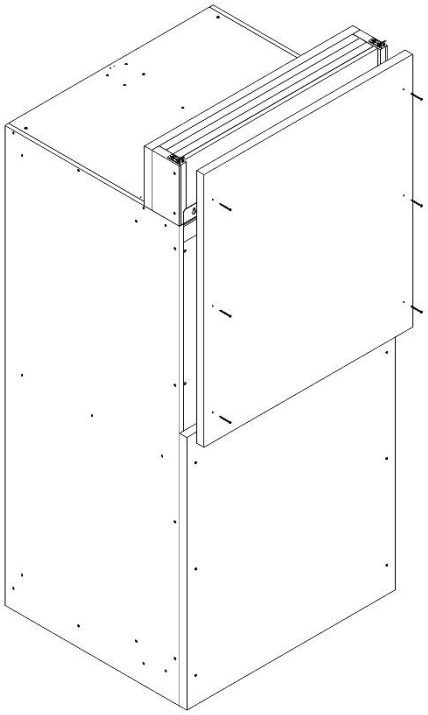
a)



- Position the bottom rear panel
- With a D=3.5 mm drill bit drill through the holes in the back panel
- Max. drilling depth 18 mm
- Screw tight with screws 4.5 x 55 mm
.

Figure 13, Additional rear panel assembly, step a

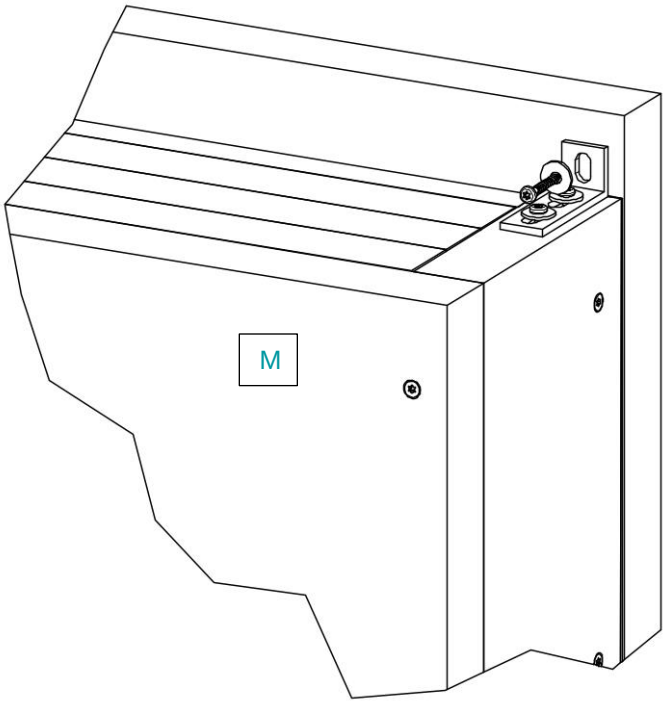
b)



- Position the top rear panel
- With a D=3.5 mm drill bit drill through the holes in the back panel
- Max. drilling depth 18 mm
- Screw tight with screws 4.5 x 55 mm
.

Figure 14, Additional rear panel assembly, step b

c)



-The EABK is screwed to the top rear panel using the Varifix angle bracket
-Panhead screws 4.5 x 35 mm with washers Ø 6.4
- Pre-drill the holes in the rear panel with a D=3.5 mm drill bit
- Max. drilling depth 30 mm

Figure 15, Additional rear panel assembly, step c

6. PRIOELEC ESL91*plus* operation and maintenance

6.1 Opening and closing the door

Open:

- Insert the key into the lock.
- Turn the key a quarter turn clockwise and pull out the swivelling lever.
- Turn the swivelling lever 180° anticlockwise upwards.
- Open the door.

Close:

- Close the door, making sure that the swivelling lever is in the open position.
- Press the door slightly and turn the swivelling lever 180° clockwise downwards.
- Allow the swivelling lever to audibly engage in the swivelling lever holder again.
- Remove the key.

6.2 Note on unhooking the door

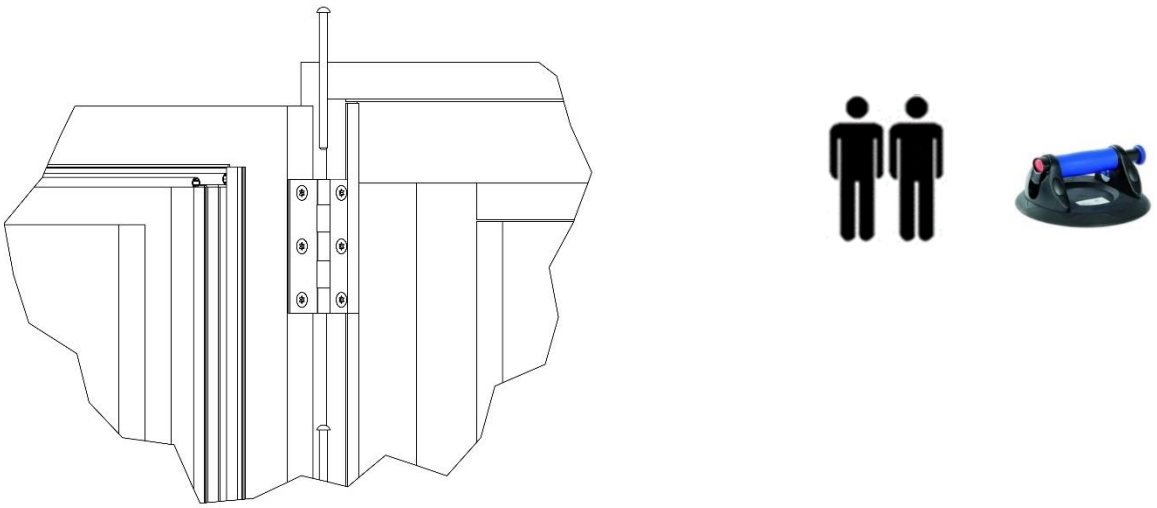


Figure 16 Note on unhooking the doors

- To unhook the door, push the pin out of the hinges!
- For safety reasons, the door leaves should always be unhooked by at least 2-3 people. The weight of the door leaf can be up to 120 kg

6.3 Fan unit: EBEL-VENT-L230R2; technical specifications

Power supply	
Working voltage	20…24…30 Vdc
Power consumption (operation / alarm)	0.44 A/0.014 A
Description of work	Max 11 W
Fan	
Speed	3100 r/min
Air flow	234 m^3/h
Static pressure	9.14 mm H_2O
Noise level	48 dB(A)
Operating temperature	-10…70 °C
Thermal fuse	
Safety level	77 °C
Output relay	
Contact load	Max 230 Vac /1 A 24 V/ 3 A

Smoke detector	
Type	SPD-3.1 M
Manufacturer	Arton UA
Light signalling	Red LED
Connection method	2-wire line
Power supply	10…30 Vdc
Monitoring current	95 uA
Electricity for alarm	6…30 mA
Average life	10 years
Degree of protection	IP32
Operating temperature	-30…+55 °C
Compliance with standards	EN 54-7

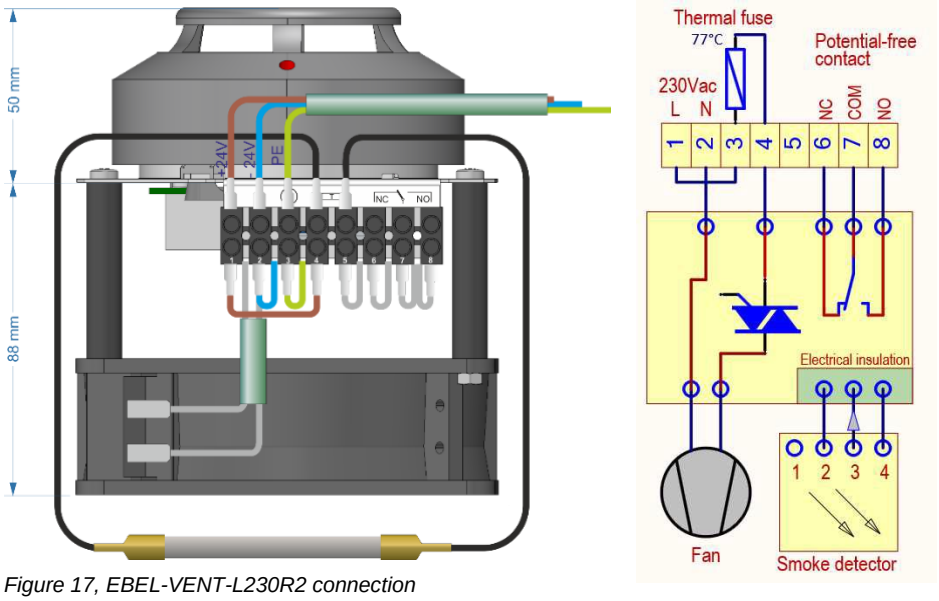


Figure 17, EBEL-VENT-L230R2 connection

6.4 EBEL-VENT-L230R2 wiring diagram

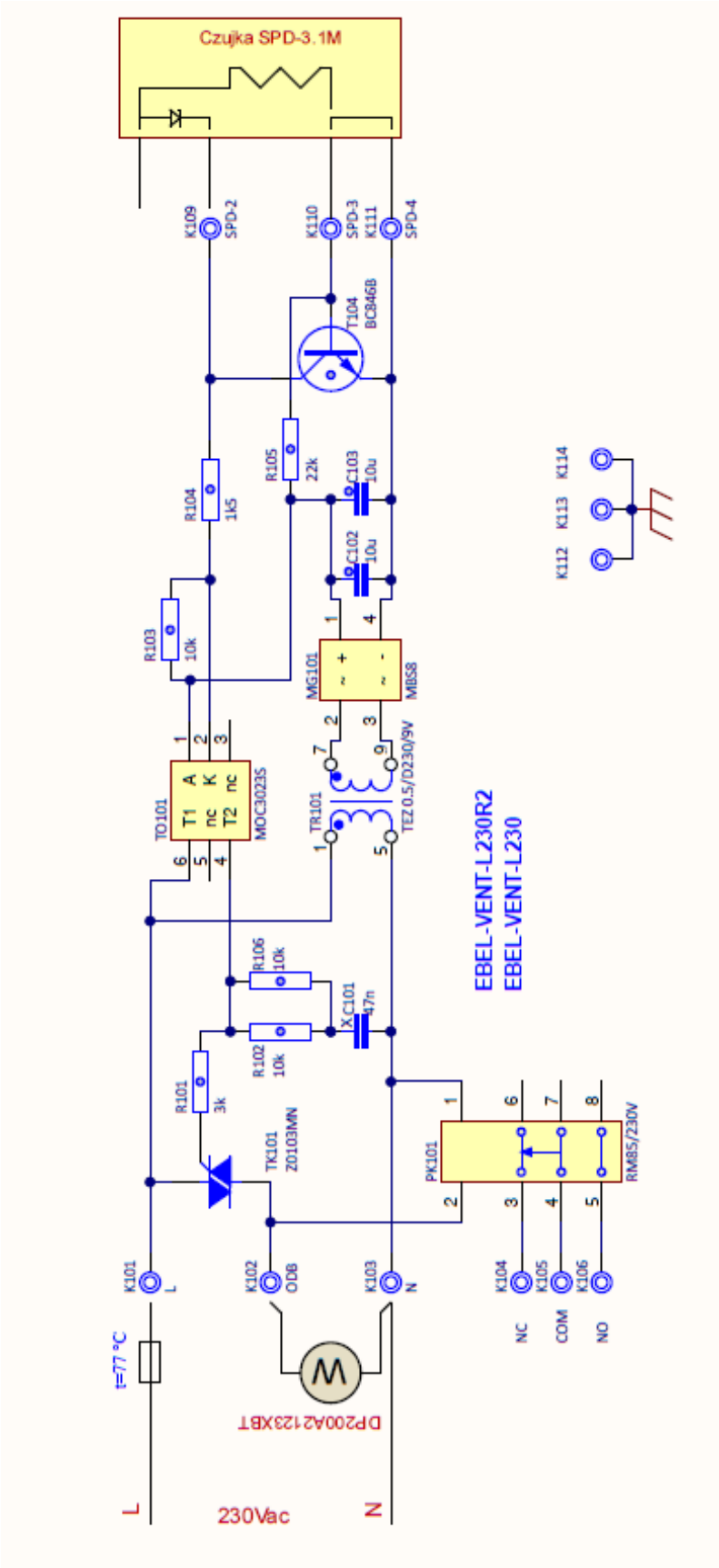


Figure 18, EBEL-VENT-L230R2 wiring diagram

6.5 Functional test, safety check, care and maintenance

- The fire protection enclosure should be maintained at least once annually and checked for proper function. We recommend that you complete a functional check (visual inspection). The safety check can only be carried out with the necessary level of care and attention by a qualified employee, as sufficient experience and a comprehensive level of knowledge are indispensable for this.
- Commonly available, mild household cleaners can be used for external cleaning of the fire protection enclosure.
- The door locking mechanism should be oiled 2 x per year.
- The fire protection enclosure must be protected against water, moisture penetration, or water spray.
- The smoke detector must be checked at least once a year
- If safety-relevant damage is detected, the fire protection enclosures must be repaired with original parts before further use.
- The function of the ventilation system must be checked at least twice a year.

7. List of figures