

Compact Fire-Resistant Cabinet Type DualGuard-S ESF30 KV

Mounting and Operating Instructions compact Fire-resistant cabinet type DualGuard-S ESF30 KV

E 0105 Part 1



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1 Important notes

1.1 General information

Installation work may only be carried out by qualified electricians (cf. DIN VDE 0105 part 1, the accident prevention regulation Accident Prevention Regulation BGV A3 of the main of the Employer's Liability Insurance Associations or analogous regulations and directives of the country in which the system is installed and operated). Other persons may carry out the activities described in this manual only if they have been properly and professionally instructed, and have received proper instruction,

- their tasks and activities have been precisely defined and understood.
- the activities are carried out under the supervision and control of
- competent personnel.

Observe:

- the requirements of the usability certificates
- the regulations of the MLAR, MBO, technical building regulations
- the extended documentation obligations resulting from the amendment of the MBO.
- all instructions for maintenance contracts!
- the instructions in the safety data sheets for building materials!
- Keep the swivel area of the door free and always keep the door closed!
- Only use the system when it is in proper condition!
- For installation, operation and maintenance, the respective accident prevention and DIN/VDE regulations must be observed.
- The area of application of the products e.g. according to the proof of usability must be checked by the customer.
- Impairment of the stability of the system when doors are open if the system has not yet been screwed to the building structure.

IMPORTANT NOTE:

- The operator is required by the applicant of a general building authority approval/general type approval
- general building approval must inform the operator in writing that the fire protection system
- that the fire protection system only meets the requirements of fire resistance only when closed. This has been done herewith.
- Improper installation may impair the protective function.
- Screw connections to the building may only be made with approved, suitable screws/dowels.
- The suitability of the screws/dowels must be checked depending on the building.
- The enclosures must not be glued, painted or otherwise coated.
- They must not be damaged (holes, screws) on the corpus. (holes, screws). The locking systems must not be changed or exchanged.
- When working with these assembly and installation instructions the following instructions, marked with an attention symbol and a symbol and a password, the following instructions to be observed.

1.2 Explanation of symbols

Important safety instructions in these operating instructions are marked with symbols.

NOTE:

Gives important tips and advice on the procedure or handling of the described devices or system parts.

ATTENTION!

Indicates sources of danger that may be the cause of damage to plants or plant damage to installations or parts of installations as well as environmental can be.

WARNING!

Draws attention to sources of danger that can cause injury to persons or persons or serious damage to installations or parts of installations and serious environmental damage.

DANGER!

Draws attention to sources of danger that may cause life-threatening injuries to persons or serious damage, which indirectly pose a danger to persons or the environment.

WARNING!

The illustrations in these assembly and installation instructions are only intended to illustrate the described circumstances.

Wherever

- work is carried out with dimensional accuracy or
- precise drawings adapted to the special features on site, the drawings are required, the drawings that have been drawings that have been specially prepared for the installation.

WARNING!

Only carry out work for which you have sufficient professional and have been instructed in the local and operational conditions!

In the case of extensions, conversions, repairs or work that is work that is not described in these instructions are to be carried out by specially trained specialist and service personnel (of the manufacturer CEAG or sales and service companies authorised by CEAG)!

2 Safety

1.3 Information on the assembly and installation instructions

These installation and operating instructions are intended for practical use and must be made available to the user/installer at the place of use of the fire protection system. They do not release the installer from the obligation to comply with all details and specifications of the usability and to use the systems immediately at the check the delivery. Keep these installation and operating instructions inside the fire protection system. Safe and proper functioning of the system is only guaranteed if the following instructions and safety information are followed. A warranty with regard to the IP class is only possible with proper installation. Please keep these assembly and installation instructions carefully, as they are an integral part of the supplied electrical distribution board. Safe and approved function is only ensured if these instructions are observed.

1.4 Other applicable documents

In addition to the assembly and installation instructions the installation and operating instructions of the central battery systems DualGuard-S must be observed.

1.5 Liability, warranty and declaration of surrender

- In order to ensure optimal functioning of our products the installation instructions must be observed.
- CEAG's warranty extends to the products supplied.
- Modifications or alterations to the design may only be carried out after consultation with CEAG, otherwise the approval/warranty will expire.
- The warranty for installation services is to be assumed by the installer.
- Warranty and liability claims for personal injury and are excluded if they are due to one or more of the following causes:
 - Fire protection enclosures are not used as intended.
 - Improper installation, commissioning, operation and maintenance.
 - Non-observance of the instructions regarding transport, storage, operation and assembly.
 - Unauthorised structural modifications to the fire protection enclosures.
 - Inadequate monitoring of the safety devices to be installed. improper repairs.
 - catastrophes caused by third parties and force majeure.

Property rights

To safeguard innovation and design utility models have been deposited.

General

We expressly reserve the right to make technical changes that serve to improve the enclosures or that are caused by legal changes- even without separate notification.

All information and notes in these assembly and installation instructions have been compiled taking into account the applicable regulations, the state of the art and our many years of knowledge and experience. The assembly and installation instructions must be kept in the immediate vicinity of the unit

and accessible at all times to all persons working on or with the unit. These assembly and installation instructions must be read carefully before starting any work on or with the unit!

1.6 Copyright protection

The assembly and installation instructions are to be treated confidentially. They are intended exclusively for persons working on and with the unit. All information regarding content, texts, drawings, pictures and other illustrations are protected in the sense of the copyright law.

1.7 Spare parts

Only use original spare parts from the manufacturer. Incorrect or faulty spare parts can lead to damage, malfunctions or total failure of the unit. If unapproved spare parts are used, the following will be forfeited all warranty, service, compensation and liability claims.

1.8 Disposal

Unless a take-back or disposal agreement has been disassembled components for recycling after proper disassembly.

2 Safety

At the time of its development and manufacture, the appliance in accordance with the applicable, recognised rules of technology and is considered safe to operate. However, hazards may arise from this unit if it is used by untrained personnel, improperly or not or if it is not used for the intended purpose. The special regulations in this manual must be observed. Observe the standards and regulations of the VDE, the DIN.

Make sure

- that the requirements of the fire protection authorities are observed and are complied with,
- that the requirements of the building supervisory authorities are observed and are complied with,
- that the conditions of the technical building regulations for your for your federal state are complied with, take into account the Model Cable Systems Directive (MLAR).
- that the installation of the enclosure increases the fire resistance duration and the stability of the fire wall to which the enclosure has been reduced.
- that the enclosure does not show any damage, e.g. cracks or displacements in the insulation,
- that the enclosure is always closed during operation,
- that the swivel area of the door is always free,

2.1 Intended use

The electrical distribution board with function maintenance type DualGuard-S ESF30 is used for the battery-supported monitoring and power supply for emergency lighting. It may only be:

- used as intended and
- be used in a safe and proper condition.

used in a safe condition. When handling the products and for the correct the cable entry, please follow these operating instructions exactly. Any other use is considered improper. CEAG Notlichtsysteme is not liable for any damage or consequential damage resulting from this.

2.2 Contents of the assembly and installation instructions

Every person who is assigned to carry out work on or with the unit must have read and understood the operating instructions before starting work on the unit. This also applies if the person concerned has already worked with such a device or similar devices or has been trained by the manufacturer.

2.3 Modifications and conversions to the unit

To avoid hazards and to ensure optimum performance, no modifications, additions or conversions may be made to the unit that have not been expressly approved by the manufacturer..

2.4 Responsibility of the operator

These operating instructions must be kept in the immediate vicinity of the unit and must be accessible at all times to persons working on and with the unit. The unit may only be operated if it is in a technically perfect and operationally safe condition. The unit must be checked for integrity before each start-up. The information in the operating instructions must be followed completely and without restriction!

2.5 Requirements for the personnel

These operating instructions must be read and understood in the immediate vicinity of the appliance and only authorised and trained personnel may work with the appliance. The personnel must have received instruction on any hazards that may occur. Qualified personnel are those who, on the basis of their technical training, knowledge and experience as well as knowledge of the relevant regulations, are able to assess the work assigned to them and recognise possible dangers.

2.6 Occupational safety

By following the safety information and instructions in this manual can prevent personal injury and damage during work with and on the unit can be avoided.

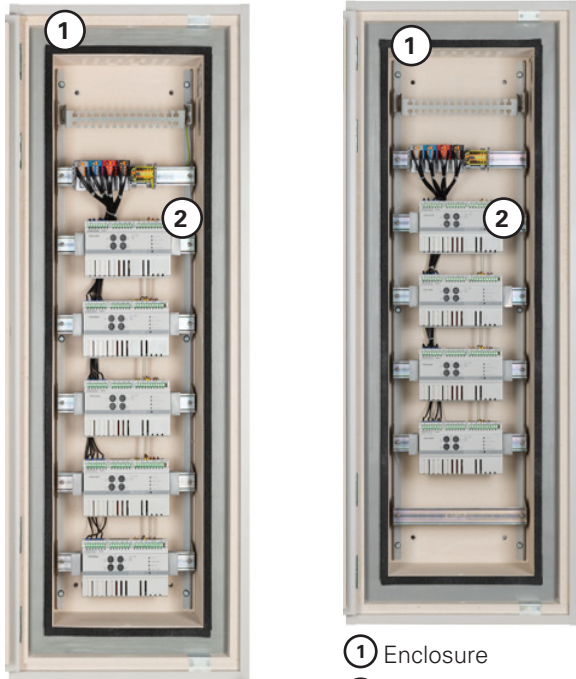
3 Technical data

Type	DualGuard-S ESF30 SOU5	DualGuard-S ESF30 SOU4 IO	DualGuard-S ESF30 SOU3	DualGuard-S ESF30 SOU2	DualGuard-S ESF30 SOU1
Certificates Empty enclosure	DIBT	DIBT	DIBT	DIBT	DIBT
Fire exposure from outside (min)	30	30	30	30	30
Housing data					
Housing	Fire protection panels	Fire protection panels	Fire protection panels	Fire protection panels	Fire protection panels
Degree of protection	IP54	IP54	IP54	IP54	IP54
Protection class	II	II	II	II	II
Dimensions (H x W x D in mm)	1228 x 478 x 295	1228 x 478 x 295	928 x 478 x 295	778 x 478 x 295	628 x 478 x 295
Weight (kg) Raw cabinet	103	103	80	69	60
Closing	Swivelling lever with Double pin	Swivelling lever with Double pin	Swivelling lever with Double pin	Swivelling lever with Double pin	Swivelling lever with Double pin
Electrical data					
Rated voltage	230 V 50/60 Hz	230 V 50/60 Hz	230 V 50/60 Hz	230 V 50/60 Hz	230 V 50/60 Hz
Number of module slots	5	4	3	2	1
Max. Cable cross-section End circuits (mm ²)	4	4	4	4	4
Max. Individual conductor cross-section (mm ²)	10	10	10	10	10
Max. Total conductor cross-section (mm ²)	143	248	113	98	83

4 Layout

4.1 DualGuard-S ESF30 SOU5 and SOU4

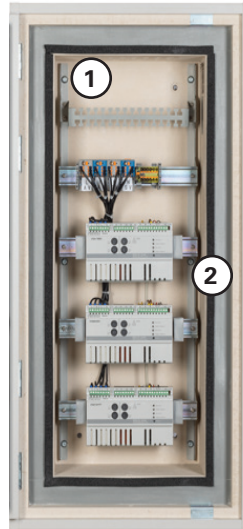
4.1.1 Components DualGuard-S ESF30 SOU5 and SOU4



- ① Enclosure
- ② Switch-over modules
SOU CG-S 2 x 4 A

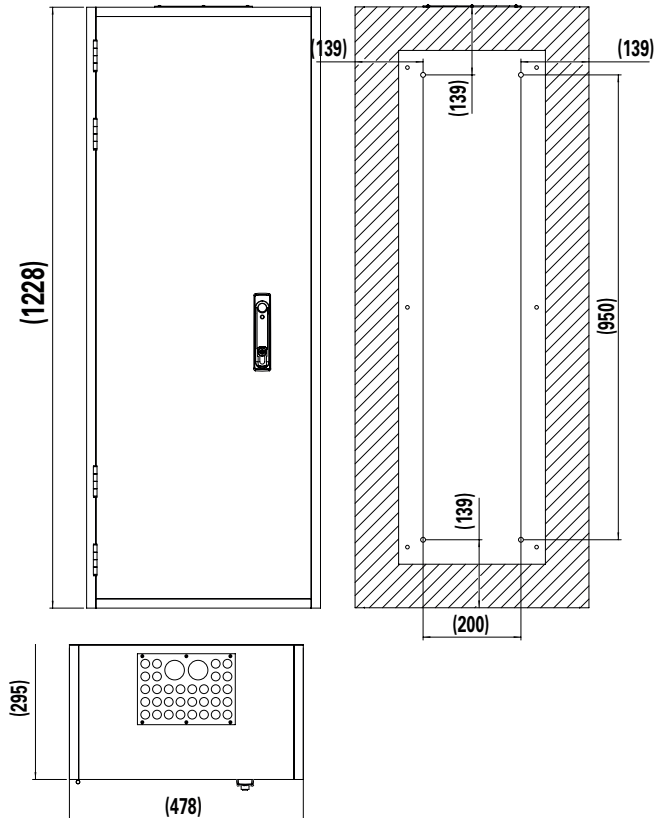
4.2 DualGuard-S ESF30 SOU3

4.2.1 Components DualGuard-S ESF30 SOU3

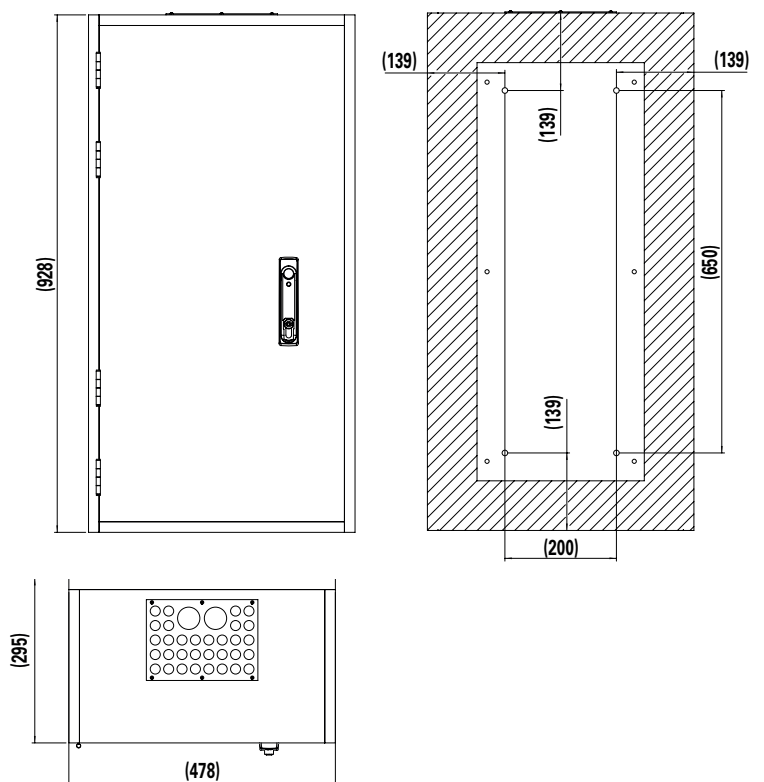


- ① Enclosure
- ② Switch-over modules
SOU CG-S 2 x 4 A

4.1.2 Drawings DualGuard-S ESF30 SOU5 and SOU4



4.2.2 Drawings DualGuard-S ESF30 SOU3

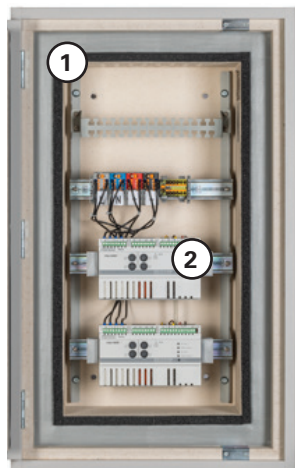


4.3 DualGuard-S ESF30 SOU2

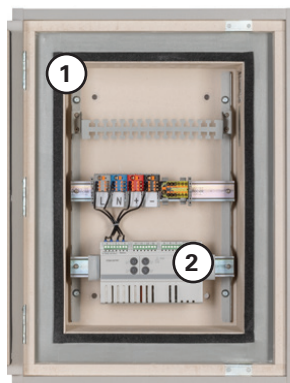
4.4 DualGuard-S ESF30 SOU1

4.3.1 Components DualGuard-S ESF30 SOU2

4.4.1 Components DualGuard-S ESF30 SOU1



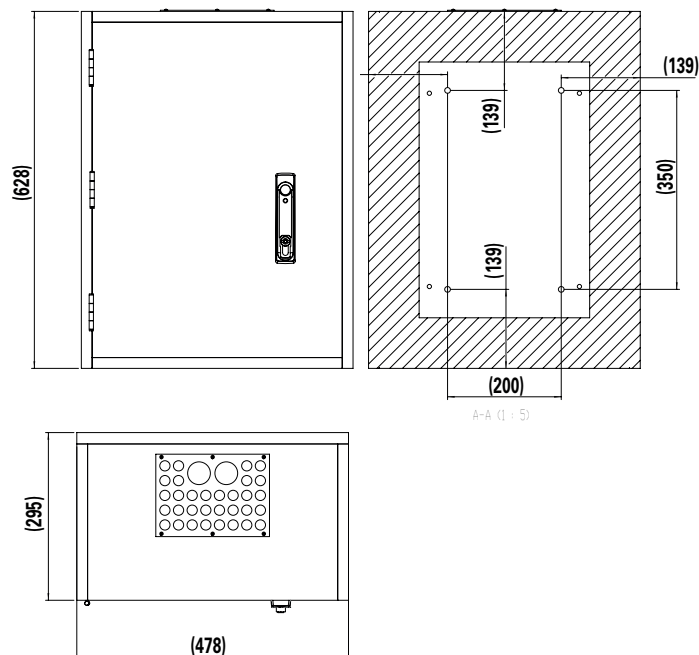
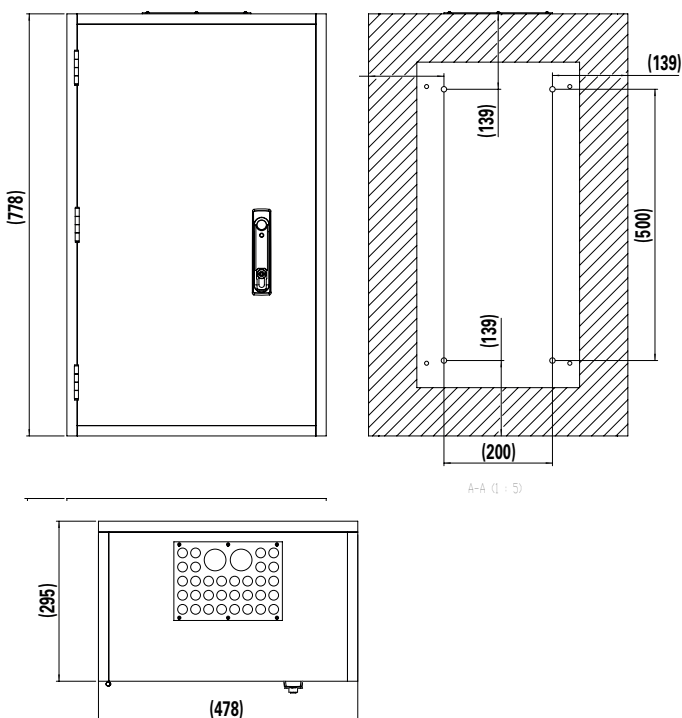
- ① Enclosure
- ② Switch-over modules
SOU CG-S 2 x 4 A



- ① Enclosure
- ② Switch-over modules
SOU CG-S 2 x 4 A

4.3.2 Drawings DualGuard-S ESF30 SOU2

4.4.2 Drawings DualGuard-S ESF30 SOU1

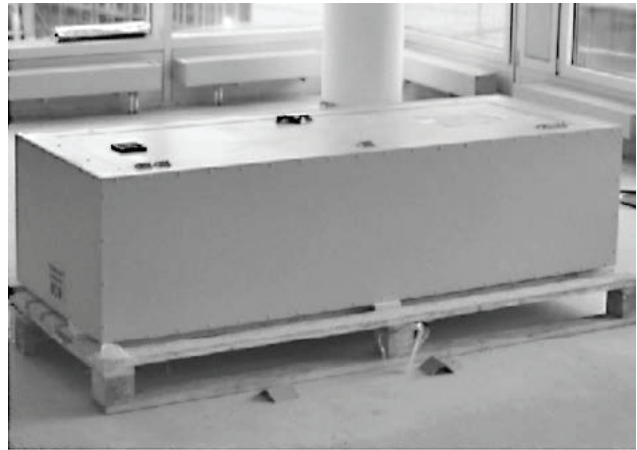


5 Transport

5 Transport

5.1 The most important aspects of transport in brief

- Delivery of the fire protection system on a transport pallet
- The systems must be inspected immediately upon delivery and any visible defects must be noted immediately on the consignment note.
- Defects must be reported in writing (no later than 5 working days after delivery).
- The transfer of risk is upon delivery. Defects which have arisen due to onward transport of the systems, are excluded from subsequent fulfilment.
- Transport of the fire protection system to the place of use with a suitable forklift truck on a transport pallet, protective corners and strapping
- Improper transport (hard knocks, transport without air suspension, repeated reloading, one-sided loading when loading on one side during installation, etc.) can have an effect on the fire protection function (damage to the fire protection panels or their connections).
- If the system has to be moved, this must be done only be carried out evenly and over the entire surface.
- The system must be closed off.



6 Assembly and installation

DualGuard-S ESF30 SOU5, SOU4, SOU3, SOU2, SOU1

6.1 Wall mounting

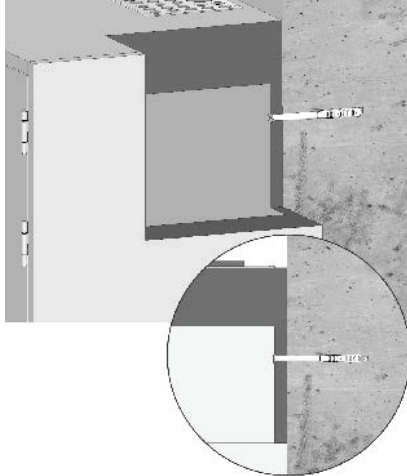
General notes

Uneven wall surfaces that are not touched by the fire protection system, are to be (Crystal-CEL), provided that these have a gap of more than 5 mm or if smoke is likely to escape in the event of a fire. Walls must be level and plumb.

Normal tolerances of the walls/plaster must be compensated for in such a way that smoke- and fire-proof installation is possible.

For the installation on the wall, only the materials described in the the „General Building Inspectorate Approval“ may be used. The wall on which the distributor is to be mounted must have sufficient load-bearing capacity. The fire resistance of the supporting walls should be at least as high as that of the distributor. With the help of the enclosed screw anchors, DualGuard-S ESF30 can be easily screwed on via the fastening holes in the housing - in both cracked and non-cracked concrete. A distance of at least one metre from neighbouring installations such as gas or water is required. In the vicinity of doors, a distance corresponding to the door must be maintained.

1. Check the accessories for completeness:



- 4 x fasteners
 - 1 x double bit key
 - 1 x instruction manual
 - 1 x maintenance checklist (
2. Lift the system with a suitable lifting device e.g. scissor lift truck to the specified installation height.
 3. Align the manifold vertically on the wall and secure it with the the pre-drilled holes in the back panel/fixing lug. Observe the diagonal dimension. Do not drill into the rear wall! Caution: Danger of breakage!
 4. Component thickness

The exact drilling depth depends on the dowel length and is to be determined as follows: Required drilling depth = anchor length

- component thickness + 10 mm
- Minimum anchoring depth of the enclosed dowels: 70 mm;
- Drill diameter: 10 mm

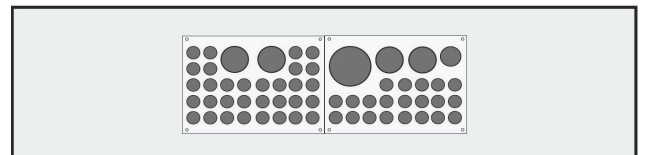
5. Suck out the drill dust, drive in the dowel- through-fixing (screw head flush) and tighten the screw screw with a suitable wrench/screwdriver- do not overtighten! tighten - do not overtighten! Do not countersink the screw head into the into the material.
6. Push the plastic caps onto the fastening anchors and press them firmly. and press firmly. (optional)
7. Spray the plastic caps of the fastening anchors with fire protection putty to around the plastic caps of the fastening anchors to ensure the protection class. (optional)

6.2 Inserting the cables

The cable entry as a system component of the electrical enclosure consists of:

- a) a metal cover,
- b) the intumescent and

endothemic areas The metal cover with different dimensions, depending on the type of distribution board, is provided with holes. The cables are to be inserted through these holes. To do this, the insulation layer visible through the holes must be removed with a drill (with a drill bit approx. 2 mm smaller than the diameter of the cable). This makes it easier to insert the cable. When piercing the red or blue intumescent, make sure that the the red or blue intumescent must be guided straight. To achieve strain relief for the cables, a cable rail is to be mounted on the equipment support inside the cabinet and directly in front of the cable inlet outside the cabinet and attach the cables to it.



Notes

A large grid of graph paper for taking notes, consisting of 20 columns and 30 rows of small squares.

The aim of Eaton is to provide a reliable, efficient and safe power supply where it is needed most. Eaton's experts have comprehensive in-depth specialist knowledge in the area of energy management in the most diverse of sectors and therefore they are able to provide customer-specific, integrated solutions to meet the most challenging demands of its customers.

It is our highest priority always to find the right solution for every application. Our stakeholders therefore expect more than just innovative products. Companies turn to Eaton because they know that individual support and the success of our customers is always our top priority. For more information visit **www.eaton.com**.

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