

## Description

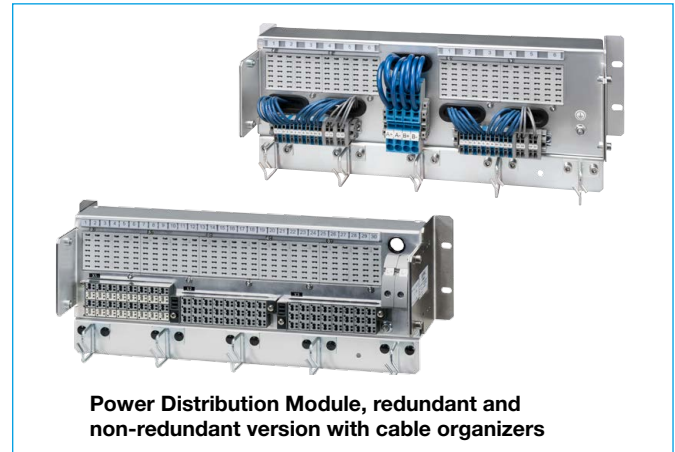
The Power Distribution Module with printed circuit board is a compact power distribution system, designed as a rack made of profiled aluminium sheet for direct mounting, e.g. on the rear wall of a control cabinet. By rotating the flanges, the module can alternatively be mounted in a 19" rack.

Plug-in type thermal-magnetic circuit breakers type 2210 or 3600 or electronic overcurrent circuit breakers ESS20/30 or the electronic circuit protectors ESX10 can be plugged into the terminal block system with a basic height of 3U. 24 or 30 single pole ways are available as a redundant or non-redundant system. The integral group signalling works as series connection of the make contacts or parallel connection of the break contacts. The entire internal circuitry is designed as a printed circuit board. The unprotected pole is also being patched in the distribution. Connections is from the front via terminals. Upon request, decoupling diodes can be added to join two redundant supply feeds.

A 1U wiring unit with guiding holes helps to manage the horizontal cable arrangement and makes an additional cable conduct superfluous. When mounting into a 19" system, which is open from the rear, an additional rear wall is available as a protection against brush contact (see accessories).

## Benefits

- Reduced wiring time through printed circuit board design
- Space-saving, compact dimensions of 482 (19") x 133 (3U) x 146 ... 244 mm
- 30 slots for thermal-magnetic circuit breakers or electronic circuit protectors in a Power Distribution Module
- Available as a fully redundant version with 2 x 12 channels
- Available with redundant line entry via de-coupling diodes for 24 channels
- Flexible start-up and maintenance through circuit breakers to be plugged in later (with the system live)
- Convenient spring-loaded terminals (push-in technology) for load and signal terminals
- Supply up to 25 mm<sup>2</sup> or 2 x 16 mm<sup>2</sup> redundant
- Supply up to 100 A or 2 x 80 A redundant
- Load terminals up to 2.5 mm<sup>2</sup>
- Load terminals up to 16 A
- Group signalling through integral potential-free auxiliary contacts, either make contacts connected in series or break contacts connected in parallel
- Signalling available separately per group in the event of redundancy
- Optional cable arrangement below the module (replacing an external cable duct)
- Protection against brush contact of all live parts
- Mounting in a 19" rack optional or on a mounting plate in the control cabinet by turning the reversible flanges by 180°
- Special versions are available upon request



**Power Distribution Module, redundant and non-redundant version with cable organizers**

## Technical data

|                              |                                                                                                                                                                                    |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Distribution Module    | length: 84 HP (482 mm)<br>height: 3U (133.2 mm)<br>4U (177.6 mm) with cable management<br>depth: 146 ... 244 mm<br>material: aluminium, passivated                                 |
| Voltage ratings:             | AC 50 V; DC 65 V; DC 24 V with electronic circuit breakers                                                                                                                         |
| Supply at A0:                | screw terminals up to 25 mm <sup>2</sup> , max. 100 A, tightening torque 4 ... 4.5 Nm                                                                                              |
| Supply at R0:                | spring-loaded terminals up to 16 mm <sup>2</sup> , max. 80 A, de-coupling diodes on the rear with heat sink (-D)                                                                   |
| Load terminals at A0:        | 30 channels 1-pole protected, spring-loaded terminals up to 2.5 mm <sup>2</sup> , placed as wiring block separated for plus and minus                                              |
| Load terminals at R0:        | 2 x 12 channels 1-pole protected (version R0), 24 channels 1-pole protected (version R0...-D) spring-loaded terminals up to 2.5 mm <sup>2</sup> , plus and minus arranged in pairs |
| Group signalling:            | make contacts connected in series (version B1)<br>break contacts connected in parallel (version B2) DC 30V, I <sub>max.</sub> = 0.5 A, min. 10 V / 10 mA                           |
| Grounding of enclosure:      | via terminal studs M6 on the front tightening torque 4.5 ... 5 Nm                                                                                                                  |
| Operating temperature range: | 0 ... 50 °C                                                                                                                                                                        |

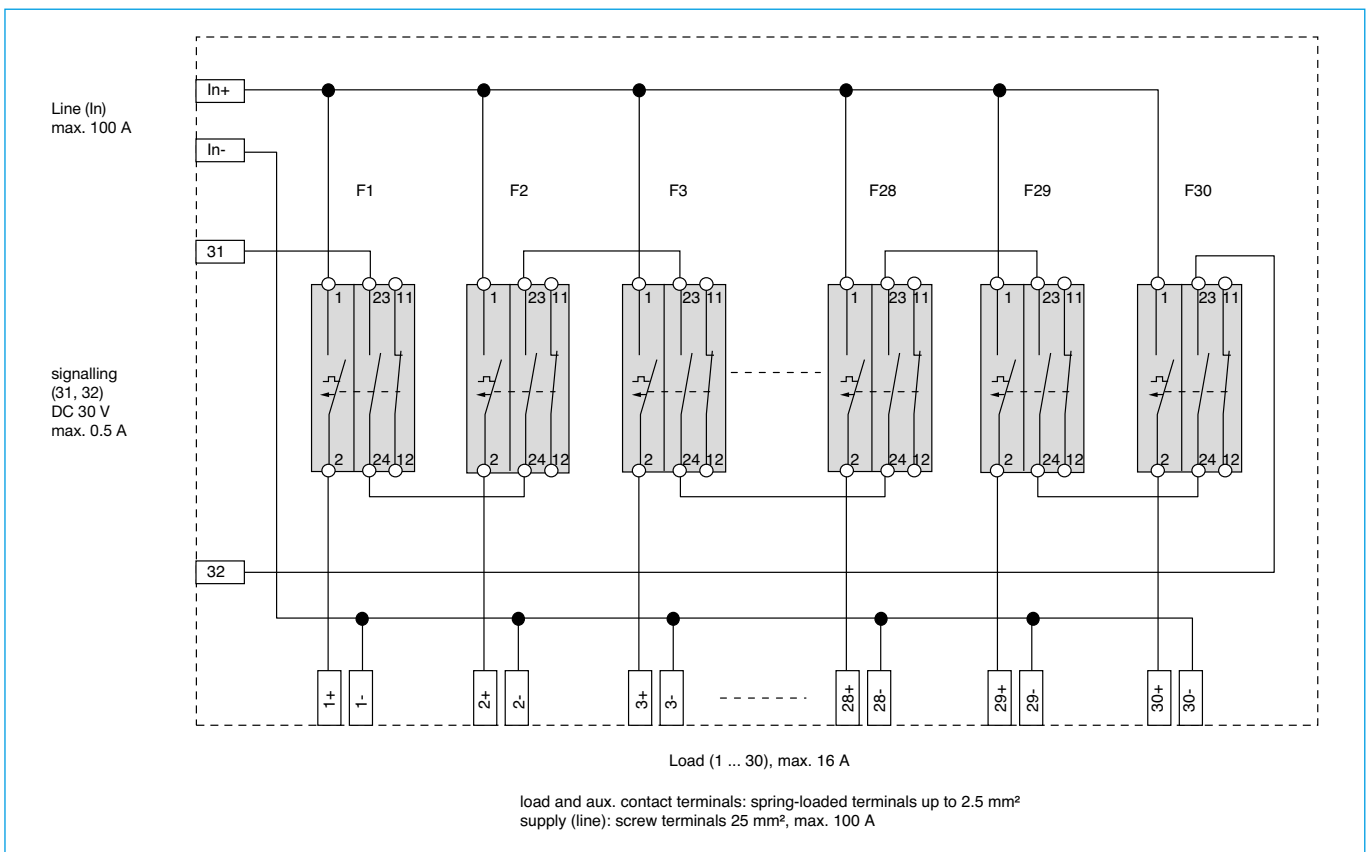
**Preferred types**

| for 2210 circuit breaker type  |                                                                          |
|--------------------------------|--------------------------------------------------------------------------|
| PDM-P-L-2210-30A0-B1-K         | Non-redundant, group signalling make contact                             |
| PDM-P-L-2210-30A0-B2-K         | Non-redundant, group signalling break contact                            |
| PDM-P-L-2210-24R0-B1-D-K       | Redundant line entry, de-coupling diodes, group signalling make contacts |
| for ESS30 circuit breaker type |                                                                          |
| PDM-P-L-ESS30-30A0-B1          | Non-redundant, group signalling make contact                             |
| PDM-P-L-ESS30-24R0-B1-K        | Redundant line entry, de-coupling diodes, group signalling make contacts |

**Order numbering code**

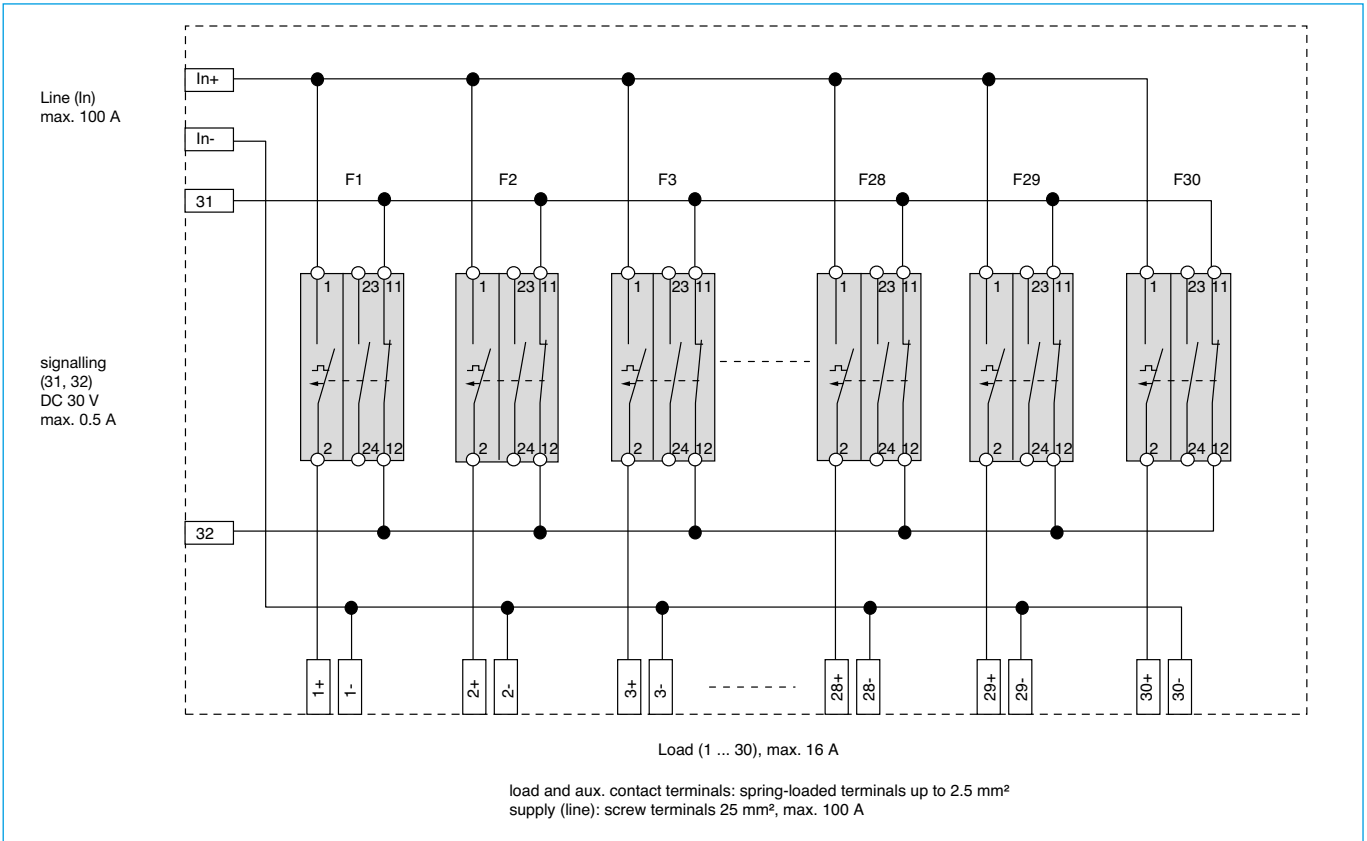
|                                                       |                                                                                                                                                                            |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Type No.</b>                                       | <b>PDM-P-L</b> Power Distribution Module with pcb, positive pole protected (3U)                                                                                            |
| <b>Suitable types</b>                                 | <b>2210</b> mechanical circuit breaker 2210 or 3600 or 3900<br><b>ESX10</b> electronic circuit protector ESX10<br><b>ESS30</b> electronic circuit breaker ESS30 (or ESS20) |
| <b>Version, number of load circuits</b>               | <b>30A0</b> 30 channels non-redundant, 1 line entry<br><b>24R0</b> 12 + 12 units, redundant, 2 line entries                                                                |
| <b>Signalling</b>                                     | <b>B1</b> group signalling, series connection of make contacts<br><b>B2</b> group signalling, parallel connection of break contacts                                        |
| <b>Options</b>                                        | <b>D</b> decoupling diodes (only with 24R0)<br><b>K</b> with cable organizers (1U additionally)<br><b>Sxxxx</b> special version upon customer's request                    |
| <b>PDM-P-L-ESS30-24R0-B1 - D - K</b> ordering example |                                                                                                                                                                            |

**Schematic diagrams for non-redundant version (A0) with 2210 (or 3600/3900), signalling as series connection (B1)**

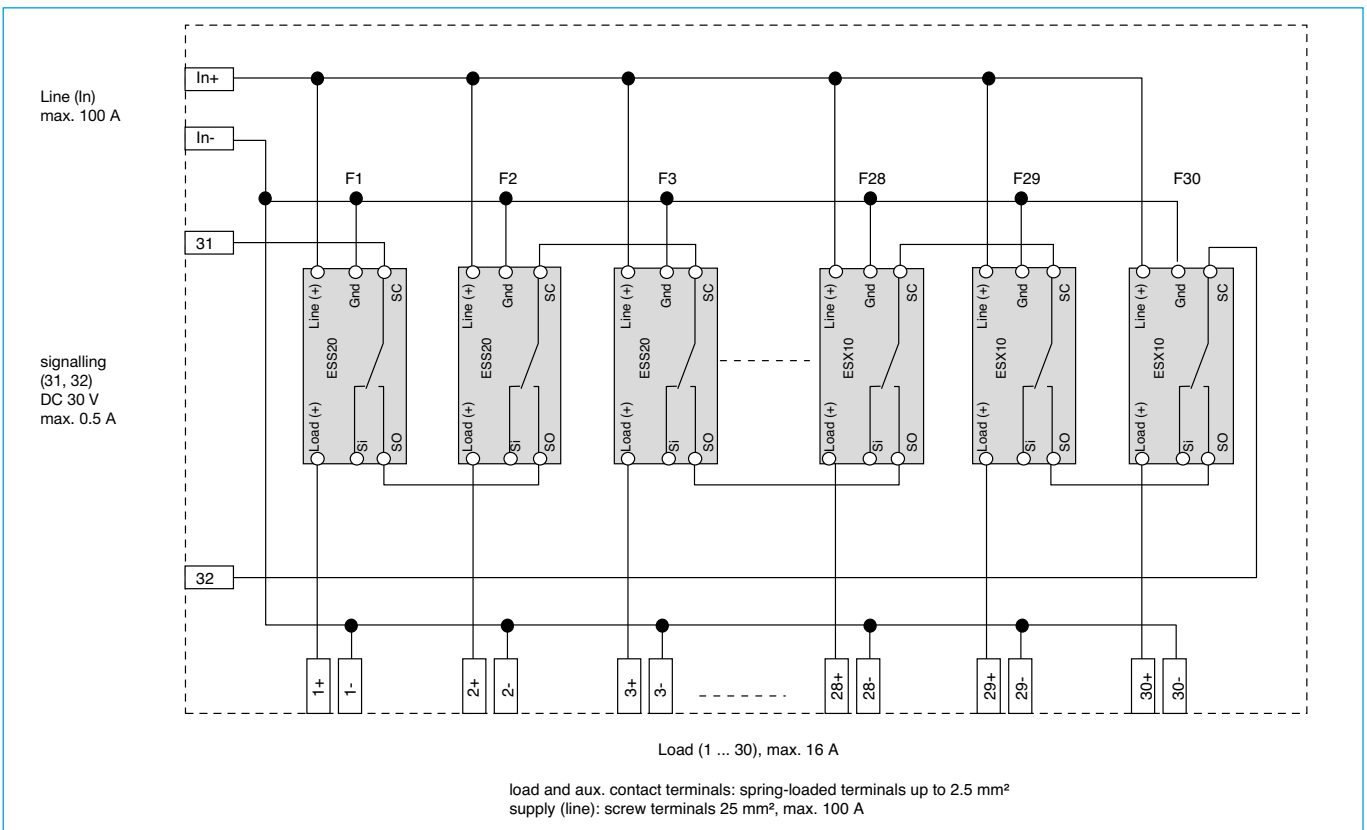


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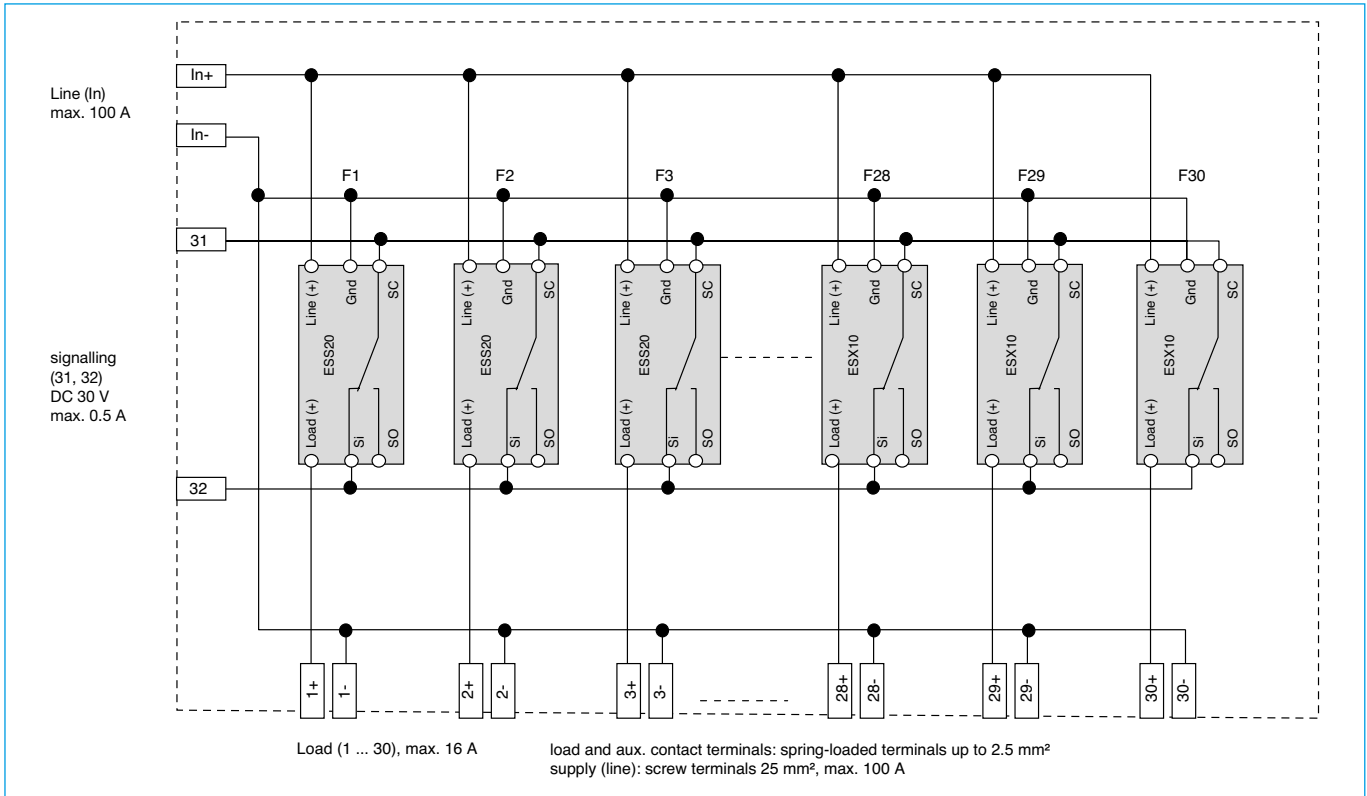
**Schematic diagrams for non-redundant version (A0) with 2210 (or 3600/3900), signalling as parallel connection connection (B2)**



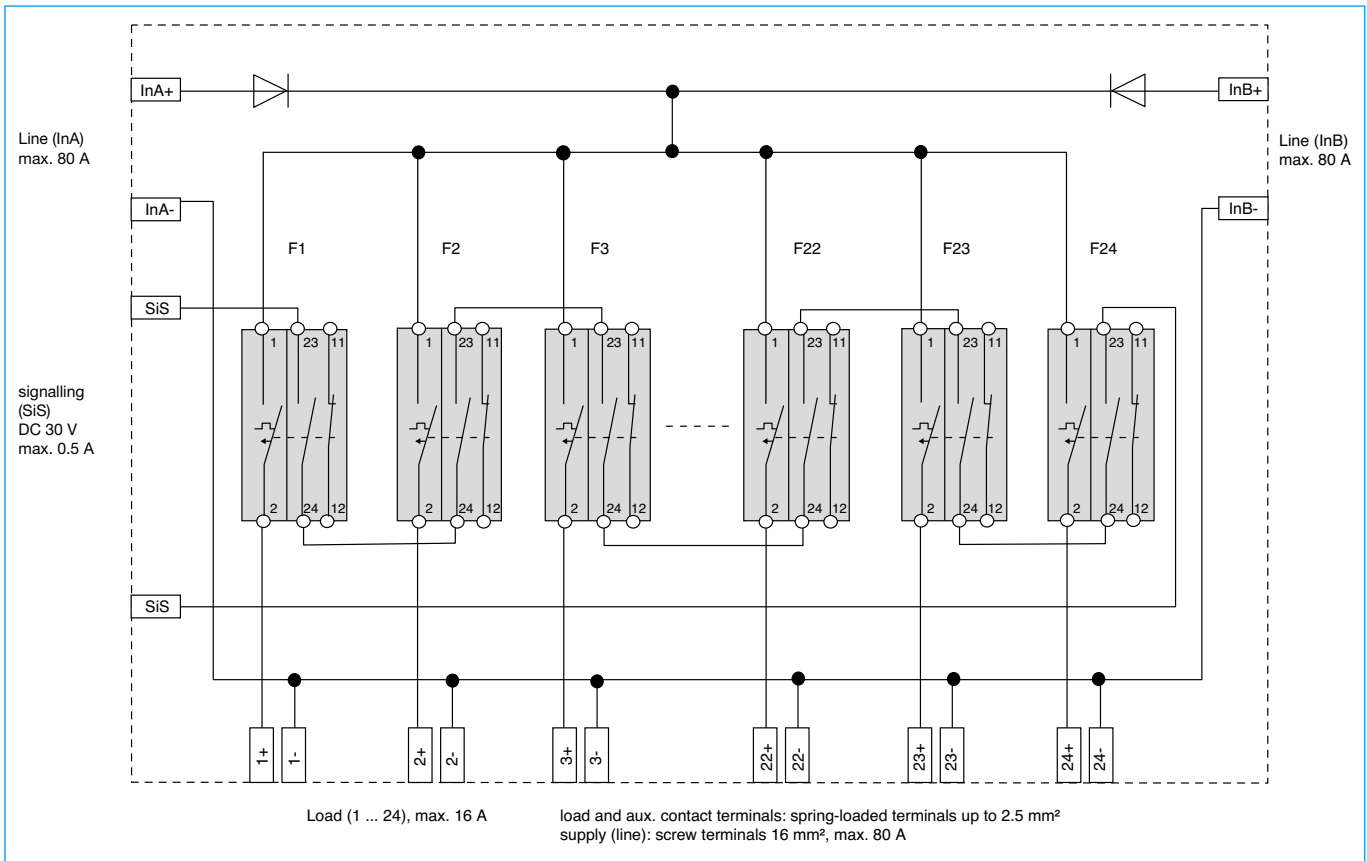
**Schematic diagrams for non-redundant version (A0) with ESS20 -003 (or ESS30 -003/ESX10-103), signalling as series connection (B1)**



Schematic diagrams for non-redundant version (A0) with ESS20 -003 or ESS30 -003/ESX10-103), signalling as parallel connection connection (B2)

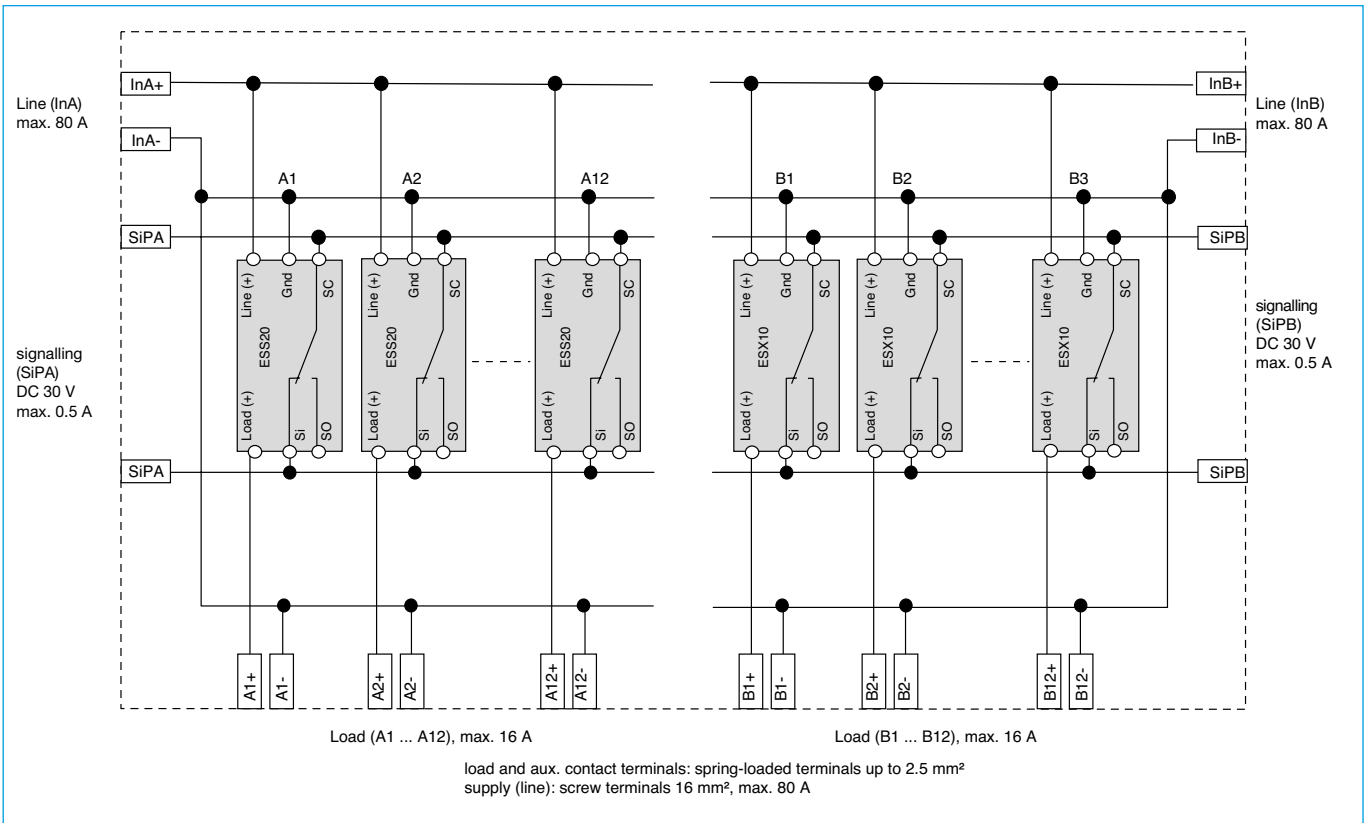


Schematic diagrams for redundant version de-coupling diodes with (R0...-D) with 2210, signalling as series connection (B1)



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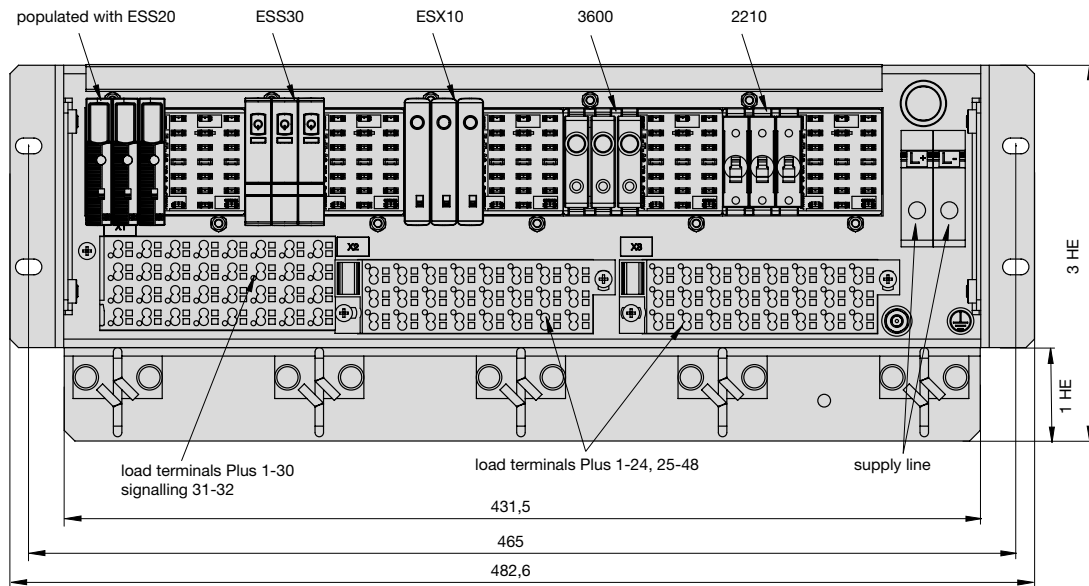
Schematic diagrams for redundant version (R0) with ESS20-003, signalling as parallel connection (B2)



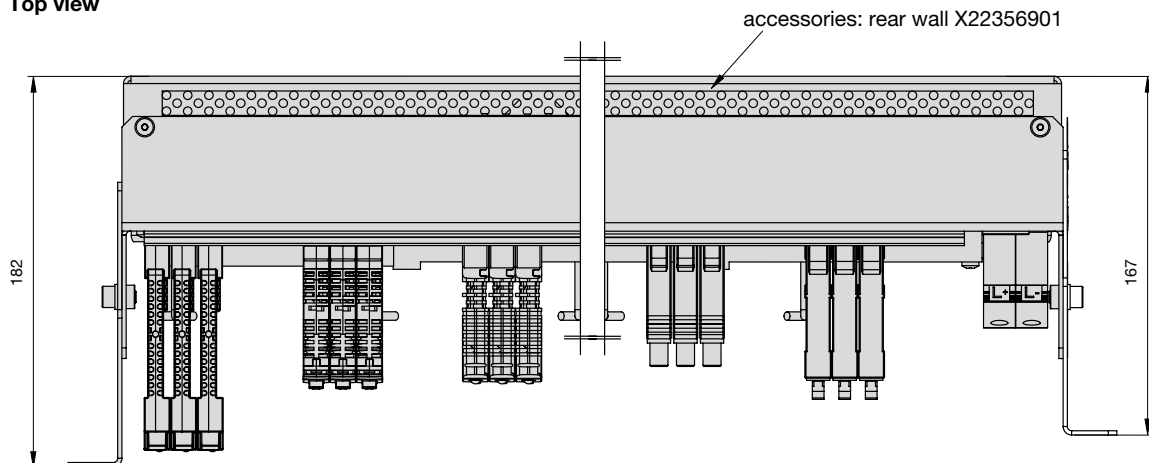
**Dimensions**

**Front view**

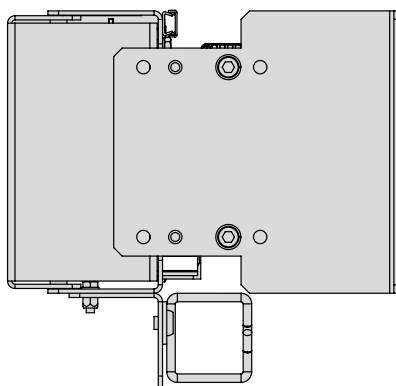
Non-redundant version, for 19" rack installation, accommodating various circuit breaker types



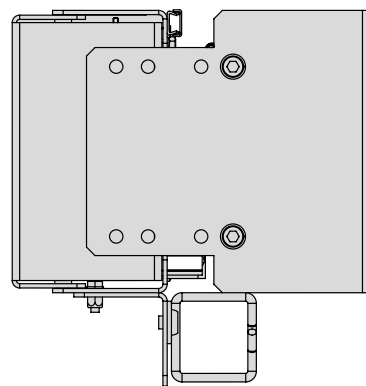
**Top view**



**side view**



flanges mounted suitable for ESS20



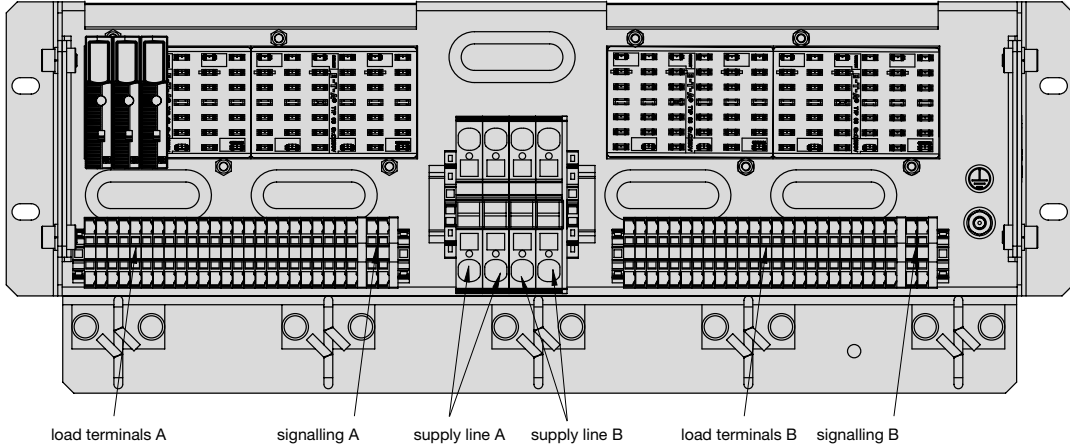
flanges mounted suitable for 2210 etc.

Part number: PDM-P-L-xxxx-30A0-By-K (xxxx = circuit breaker type, y = signalling)

**Dimensions**

**Front view**

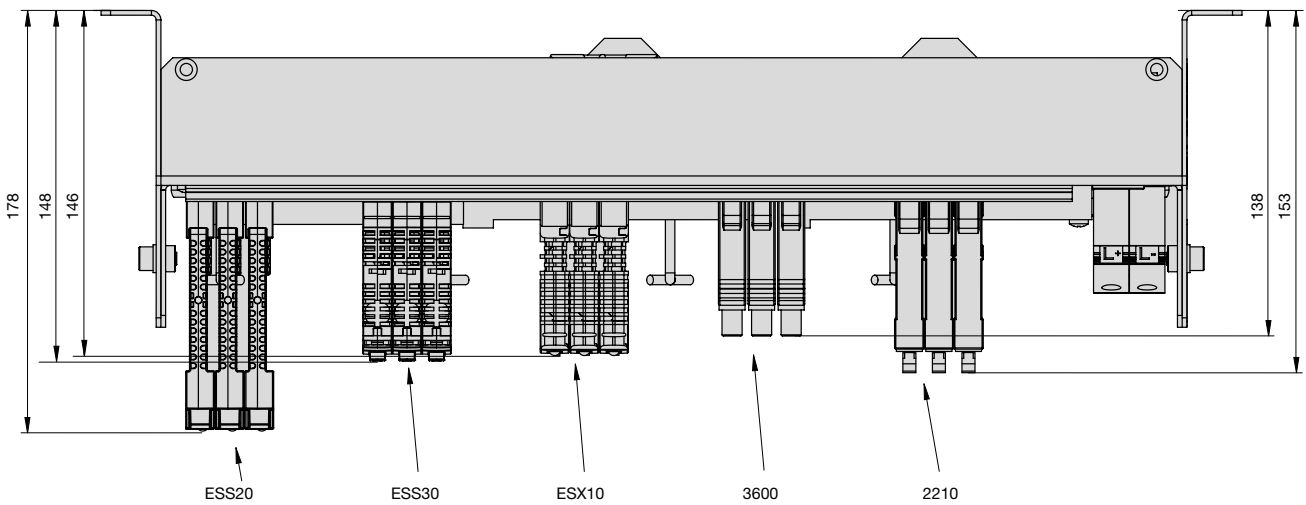
redundant version, rear wall mounting on mounting plate in control cabinet, fitted with ESS20



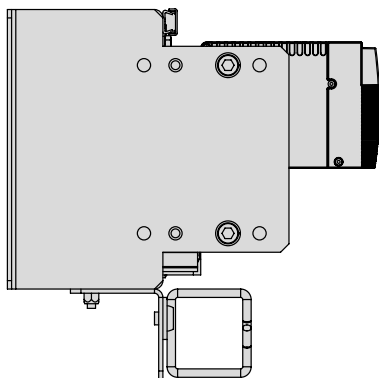
Part number: PDM-P-L-xxxx-24R0-By-K (without de-coupling diodes, xxxx = circuit breaker type, y = signalling)  
 PDM-P-L-xxxx-24R0-By-D-K (with de-coupling diodes, xxxx = circuit breaker type, y = signalling)

**Top view**

non-redundant version, rear wall mounting on mounting plate in control cabinet, accommodating various circuit breaker types



**side view**

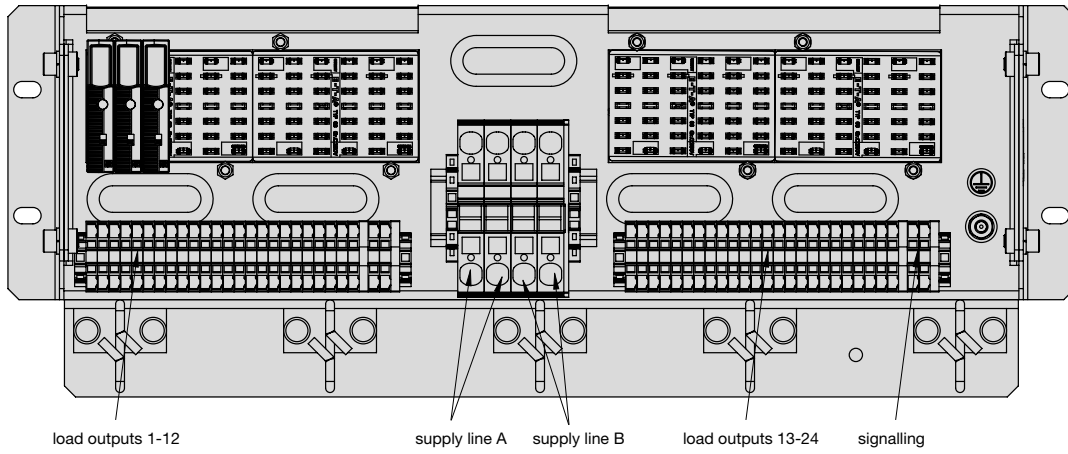


Part number: PDM-P-L-xxxx-30A0-By-K  
 (xxxx = circuit breaker type, y = signalling)

## Dimensions

### Front view

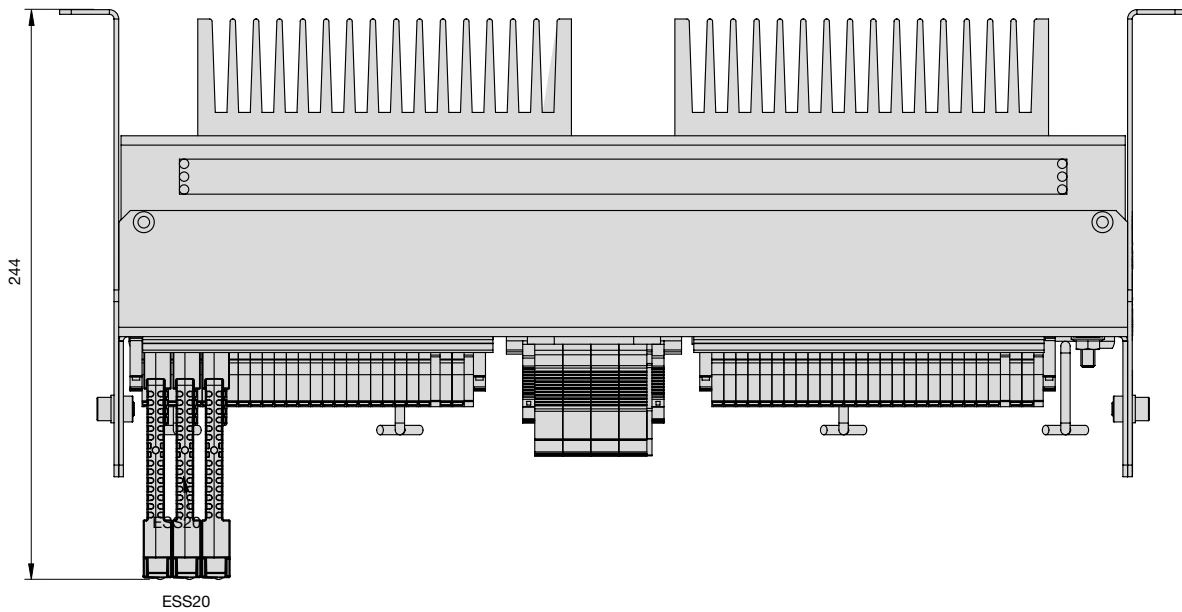
redundant version, rear wall mounting on mounting plate in control cabinet, fitted with ESS20



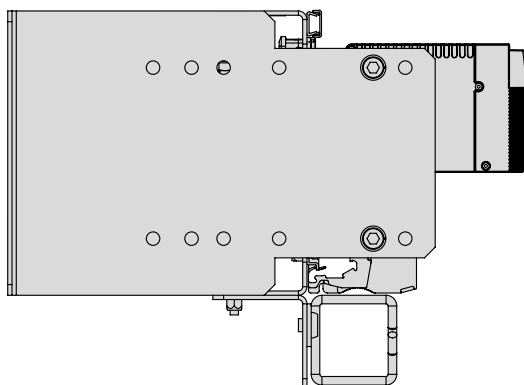
Part number: PDM-P-L-xxxx-24R0-By-D-K (with de-coupling diodes, xxxx = circuit breaker type, y = signalling)

### Top view

redundant version with de-coupling diodes, rear wall mounting on mounting plate in control cabinet, fitted with ESS20



### side view

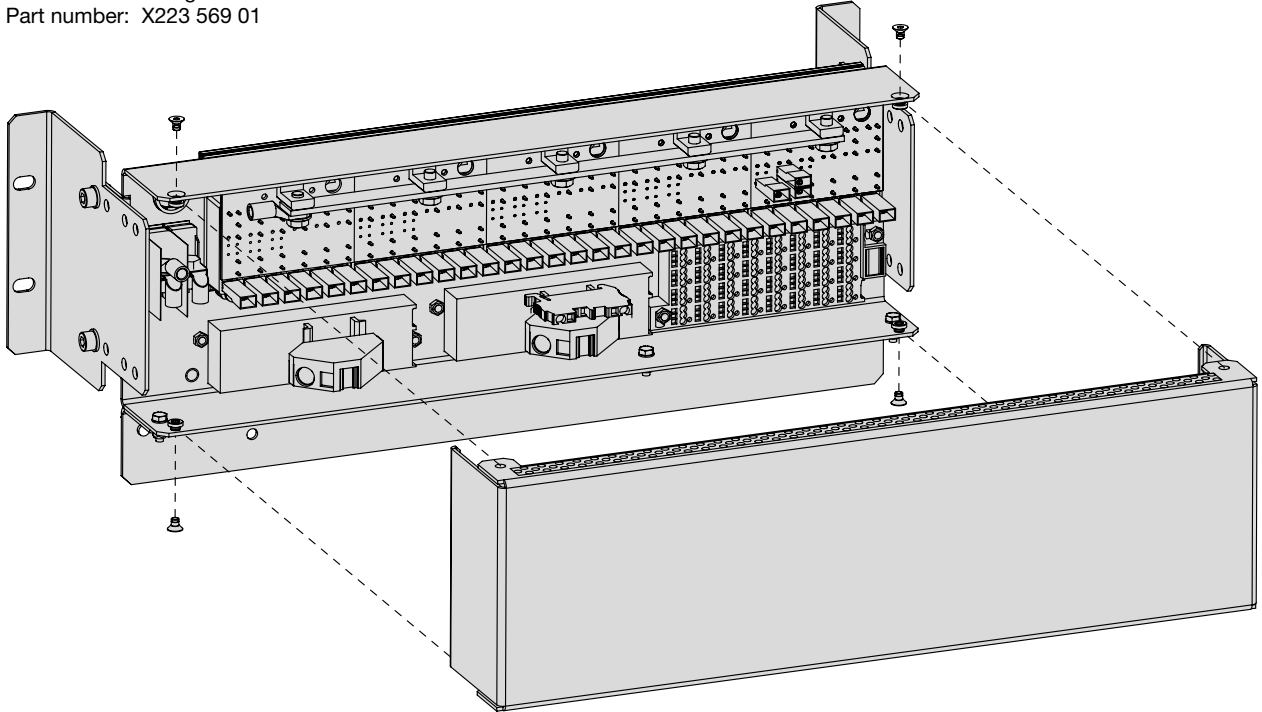




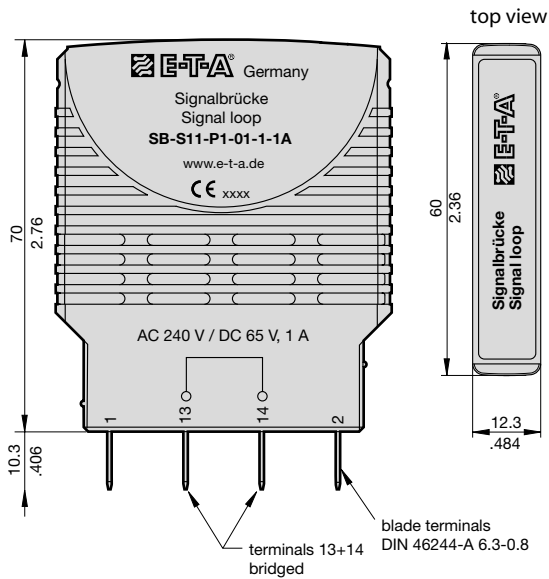
Accessories

Rear wall as protection against brush contact for later installation when mounted in a 19" rack, non-redundant version PDM-P-L-xxxx-30A0-By-K

Set with 4 mounting screws  
Part number: X223 569 01



**Jumper**  
**SB-S11-P1-01-1-1A**



All dimensions without tolerances are for reference only. E-T-A reserves the right to change specifications at any time in the interest of improved design, performance and cost effectiveness. Dimensions are subject to change without notice. Please enquire for the latest dimensional drawing with tolerances if required. without notice is reserved. Amendments, errors and omissions excepted. Ordering codes of the products may differ from their marking.