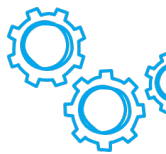




Flexible Power-D-Modules DC

The flexible **Power-D-Module** is a sophisticatedly designed power distribution system for DC applications in a 19" aluminium rack with 3 HE for installation in the control cabinet via mounting plate. Thanks to its many configuration options, the respective version can be perfectly matched to your application. You can choose between the pluggable 2210 thermal-magnetic 2210 circuit breaker as 1-pole or 2-pole versions or the electronic ESS30 circuit protectors as protective element. For optimal use of the available installation space, different group signalling options and terminal versions are available, as well as a flexibly configurable system redundancy. The terminals are at the front. Optionally, a cable organizer (1 HE) can be added below the terminals.



TYPICAL FEATURES

- Compact 19" rack with 3 HE
- Rated voltage up to DC 65 V
- Option for 2-pole protection
- Max. 50 A per supply unit
- For 24 or 2 x 12 pluggable 2210 circuit breakers 1-pole or ESS30, alternatively 12 or 2 x 6 2210 circuit breakers 2-poles
- Max. load current up to 16 A
- Redundant or non-redundant set-up
- Group signalling

YOUR BENEFITS

- Compact, space-saving, clear design through efficient utilisation of installation space and PCB technology
- Increased machine uptime through resettable circuit breakers
- Increased operational availability by means of group signalling
- Significantly reduced number of individual components through pre-assembly
- Facilitated system extension through pluggable circuit protectors even during operation
- Optional cable management below the terminals for more convenient connection and transparency

PREFERRED TYPES

Preferred types are E-T-A products, which are most frequently used by our customers. We manufacture these preferred types in substantial quantities. [You can find an overview of our preferred types here \(Page 3\).](#)

TYPICAL APPLICATIONS

Automation technology, chemical industry, oil and gas, renewable energies, DC 24 V power plant technology, pharmaceuticals and foodstuffs, telecommunications & datacom

COMPLIANCE



WEB LINKS

Further information, [Mounting instructions \(ESS30\)](#), [Mounting instructions \(2210\)](#), [International approvals](#), [Technical basics](#), [REACH](#), [RoHS](#), [Contact](#)

GENERAL INFORMATION

FURTHER INFORMATION



DC Power Distribution Module for ESS30 electronic circuit breakers
https://www.e-t-a.de/pdm_p_ess30.pdf



DC Power Distribution Module for 2210 mechanical circuit breakers
https://www.e-t-a.de/pdm_p_2210.pdf

TECHNICAL DATA

ELECTRICAL DATA

Rated voltage U_n	DC 24 V (DC 10...65 V depending on version)
Protected pole	1-pole plus 2-poles plus and minus
Circuit breakers / circuit protectors	Plug-in type 2210-S circuit breakers (1 & 2-pole), ESS30, more upon request
Redundancy	Optionally according to ordering number key

MECHANICAL DATA

Mounting dimensions (WxHxD)	Width: 84 HP (426.72 mm) x Height: 3 HE (133.35 mm) / 4 HE (177.9 mm) x Depth: 146 mm
Mass	3.09...3.75 kg
Material	Aluminium
Enclosure grounding	Available for each supply
Cable strain relief	Optional

SUPPLY

Total current per supply	Max. 50 A
Terminals / Cable cross section	Spring-loaded terminals up to 10 mm ²

LOADS

Rated current per load channel	Max. 16 A
Terminals / Cable cross section	Spring-loaded terminals up to 2.5 mm ²

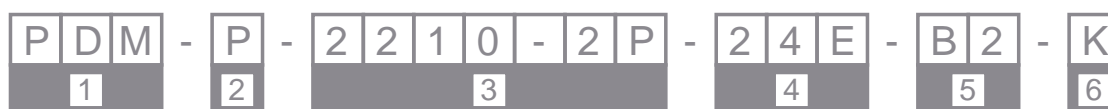
GROUP SIGNALLING

Series connection	Make contacts of the auxiliary contacts are connected in series Max. 0.5 A, max. 2.5 mm ²
Parallel connection	Break contacts of the auxiliary contacts are connected in parallel, with decoupling relay Max. 0.5 A, max. 2.5 mm ²

AMBIENT CONDITIONS

Ambient temperature	0...+50 °C
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ORDERING NUMBER CODE



1 TYPE NUMBER

PDM	Power Distribution Module
-----	---------------------------

2 VOLTAGE TYPE

P	Max. 65 V DC voltage (2210 only, B1 signalling), plus-protected
---	-----------------------------------------------------------------

3 DEVICE TYPES

ESS30	ESS30 or ESX10 circuit breakers, 1-pole (DC +24 V only)
2210	Thermal-magnetic 2210 or 3600 circuit breakers, 1-pole
2210-2P	Thermal-magnetic 2210 circuit breaker, 2-pole, plus and minus protected

4 NUMBER OF LOADS AND DESIGN VERSION

24E	Non-redundant, 1 x 24 channels 1-pole / 1 x 12 channels 2-pole protected
24R	Redundant, 2 x 12 channels 1-pole / 2 x 6 channels 2-pole protected

5 SIGNALLING

B1	Group signalling series connection
B2	Group signalling parallel connection (DC 24 V only)

6 TERMINAL POSITION

K	With cable organizers (1 HU)
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Looking for a customer-specific version you cannot find in our ordering number code? Please get in touch with us.
Circuit protectors are not included in the delivery scope.

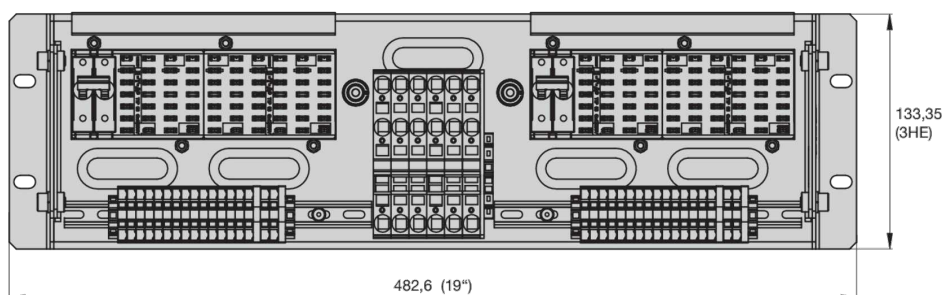
PREFERRED TYPES

Preferred types	Short description
PDM-P-2210-24E-B2-K	2210, 1-pole protected, non-redundant, DC 24 V, with cable organizer
PDM-P-2210-2P-24E-B2-K	2210, 2-pole protected, non-redundant, DC 24 V, with cable organizer
PDM-P-2210-2P-24R-B1-K	2210, 2-pole protected, redundant, with cable organizer
PDM-P-ESS30-24E-B2-K	ESS30, 1-pole protected, non-redundant, DC 24 V, with cable organizer

DIMENSIONS

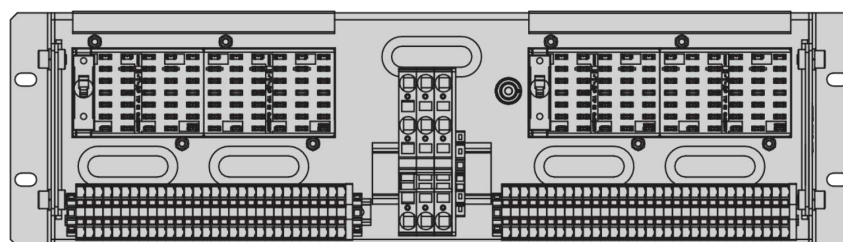
DIMENSIONAL DRAWING

Front view/example: 2210, 2 pole, redundant



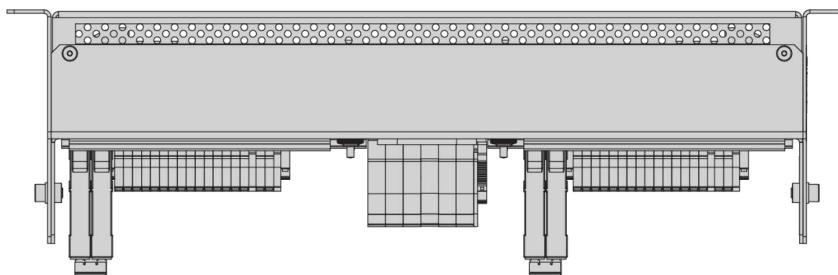
DIMENSIONAL DRAWING

Front view / example: 2210, 1 pole, not redundant



DIMENSIONAL DRAWING

Top view (open cover)/example: 2210, 2 pole, redundant



DIMENSIONAL DRAWING

Side view/version: PDM-P-2210-2P-24R-B2-K

Example, redundant, 2pole-protected, with optional cable organizer (... -K)

Figure for mounting plate installation
(snap-on fixture at the back)

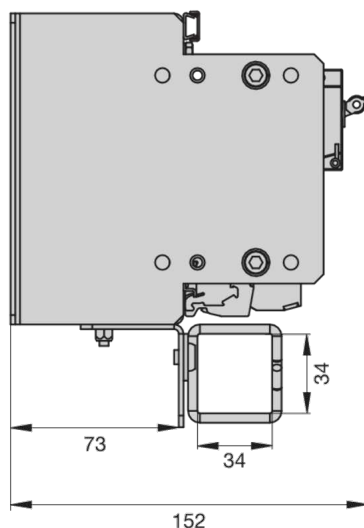
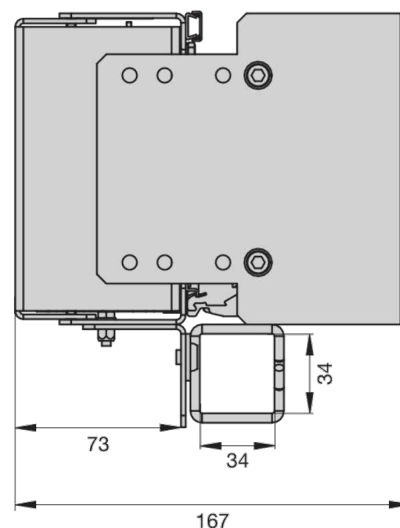


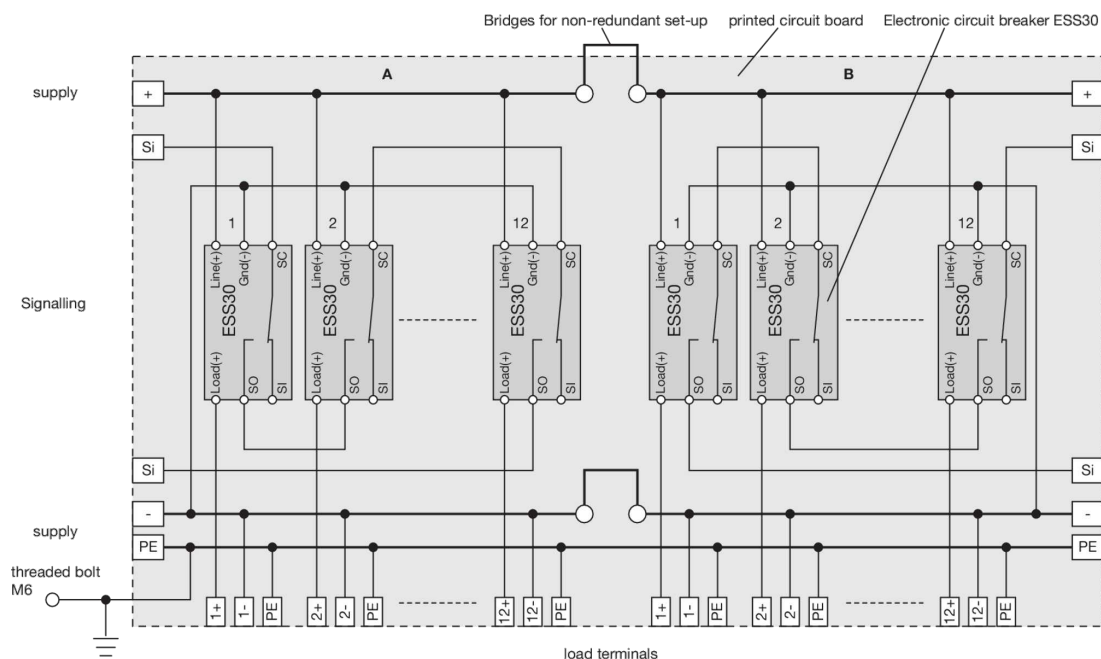
Figure for 19" rack installation
(snap-on fixtures at the front)



SCHEMATIC DIAGRAMS

SCHEMATIC DIAGRAMS

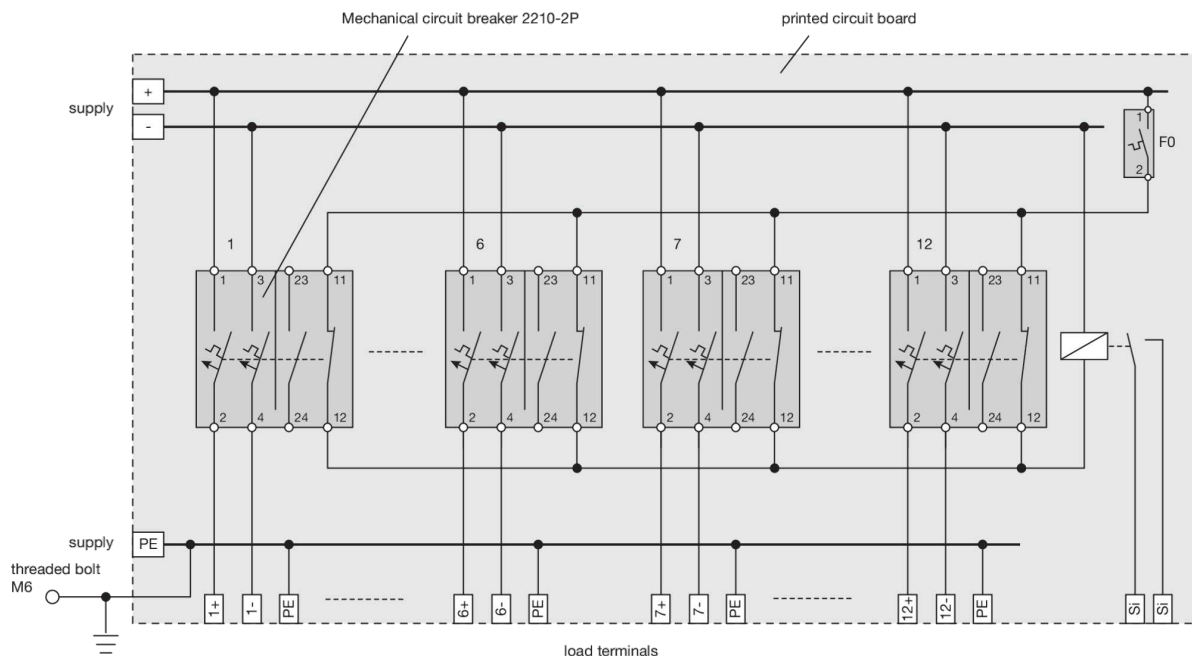
Power-Distribution-Modul DC schematic diagram (ESS30, redundant)



Note: Depending on the version, the schematic diagram may vary in detail. This diagram shows the general options. You can find further information for version-specific installation instructions at the end of the document.

SCHEMATIC DIAGRAMS

Power-Distribution-Modul DC schematic diagram (2210 2 pole)



Note: Depending on the version, the schematic diagram may vary in detail. This diagram shows the general options. You can find further information for version-specific installation instructions at the end of the document.

ACCESSORIES

OPTIONAL ACCESSORIES

OSB000001125

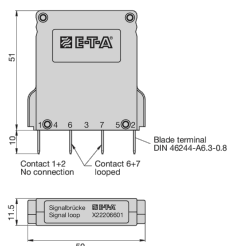
SB-S11-P1-01-1-1A jumper
optional instead of using the slide Si on the SVS14
(for empty slots F1...F10)

X22206601 C	Bridging of the looped-through auxiliary contacts via jumper instead of circuit breakers (series connection)	
Y31283501	Transparent cover PDM	

FURTHER INFORMATION ABOUT ACCESSORIES (DRAWINGS)

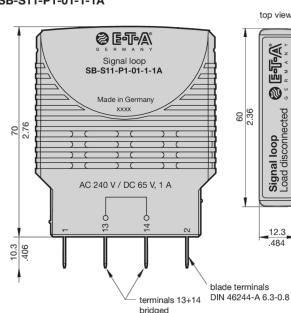
ACCESSORIES

Signal loop
Plug-in module for circuit breakers
to bridge the looped auxiliary contacts
(series connection)
Part no. X 222 066 01
for 2210 and 3600



ACCESSORIES

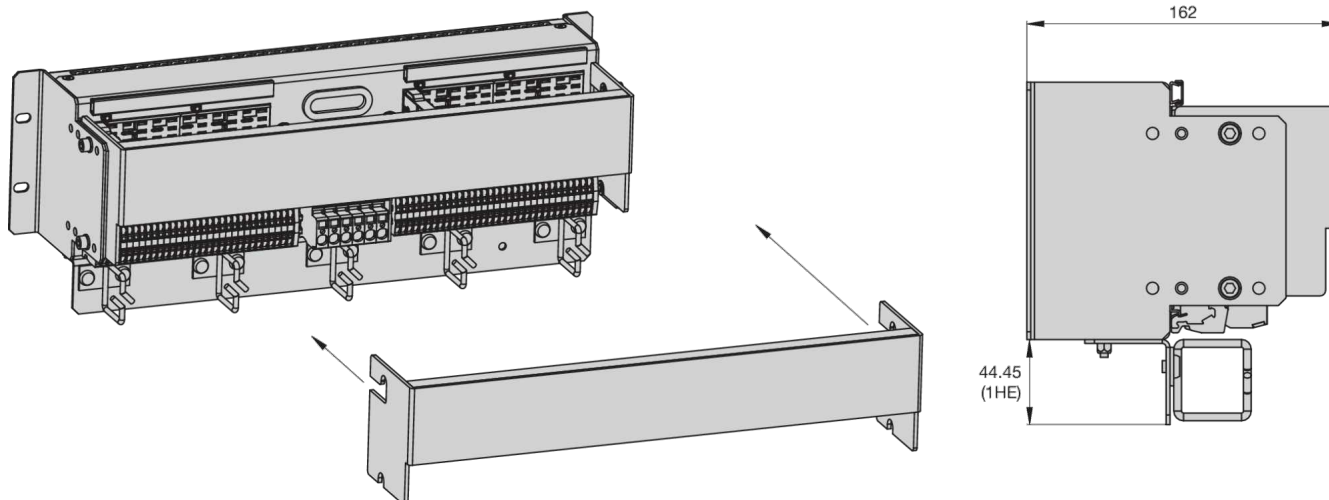
Jumper
SB-S11-P1-01-1-1A



ACCESSORIES



Acrylic glass and Signal loop

PDM-AC-2210-24E-B2-K with acrylic glass cover (Ordering no. Y31283501)
for retrofit mounting as actuation protection



FURTHER PRODUCTS

RELATED PRODUCTS

<p><u>2210-S2</u></p>	<p>Single- or multi-pole thermal-magnetic circuit breaker with toggle actuation, panel or terminal block mounting, independent trip-free mechanism, various characteristic curves, disconnection of all poles. Optionally available with auxiliary contacts and intermediate positions. Special version of the auxiliary contacts for industrial atmosphere and low voltage equipment (e.g. 5 V) upon request.</p> <p>They meet the requirements of the circuit breaker standard EN 60934 (IEC 60934): S-type, TM.</p> <p>Suitable for the use in power distribution systems - see power distribution systems product group - customer-specific solutions.</p>	
<p><u>ESS30-S</u></p>	<p>The electronic circuit protector ESS30-S with physical isolation is the globally unique electronic overcurrent protection for DC 24 V applications as a "low energy breaker". For the use in decentralised and centralised power supply units, it meets the requirements according to the standards DIN EN 60934, UL1077 as a Supplementary Protector and UL 1310 as "Class2 power unit" (NEC class2). The compact device can be plugged into the terminal blocks 17plus and 18plus and into the SVS power distribution systems and ensures quick and easy installation.</p>	

All information and data given on our products are accurate and reliable to the best of our knowledge, but E-T-A does not accept any responsibility for the use in applications which are not in accordance with the present specification. E-T-A reserves the right to change specifications at any time in the interest of technical improvement. Dimensions are subject to change without notice. Please enquire for the latest dimensional drawing with tolerances if required. All dimensions, data, pictures and descriptions are for information only and are not binding. Amendments, errors and omissions excepted. Ordering part numbers may differ from the device marking.