CONVENTIONAL POWER DISTRIBUTION SYSTEMS
Flexible *Power-D-Box*® DC (PDB-N)

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The flexible ***Power-D-Box***® system is a sophisticatedly designed power distribution system for DC applications in a 19" rack with only 2 HU. Thanks to its many configuration options, the respective version can be perfectly matched to your application. With the therm. magnetic 2210 circuit breakers as a protective element, the available installation space is optimally utilised. Different group signalling options and terminal versions are available, as well as a flexibly configurable system redundancy.

TYPICAL FEATURES

- 19" power distribution system, made of aluminium
- Rated voltage up to DC 65 V
- Minus-pole protected
- Max. 100 A per supply unit
- For 30 or 2 x 15 pluggable 2210 circuit breakers, more upon request
- Max. load current up to 16 A
- 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
- No additional installation space required for minimum bending radius of the connection cable

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 & gas, pharmaceuticals and foodstuffs, renewable energies, telecommunications & data centres

COMPLIANCE

REACH RoHS CE

WEB LINKS

Further information, Mounting instructions (2210), REACH, RoHS, Contact

GENERAL INFORMATION

FURTHER INFORMATION

Mounting instructions for flexible***Power-D-Box***®
for 2210 thermal-magnetic circuit breakers (negative pole protected)
https://www.e-t-a.com/datei/15642

TECHNICAL DATA

ELECTRICAL DATA

Rated voltage U_n	DC -24 V, DC -48 V DC (DC 10…65 V depending on version)
Protected pole	1-pole minus
Circuit breakers / circuit protectors	Plug-in type 2210-S circuit breakers (1-pole)
Number of loads	Up to 30
Redundancy	Optionally according to ordering number key

MECHANICAL DATA

Mounting dimensions (WxHxD)	Width: 482.6 mm (19“ mounting) Height: 88.9 mm (2 HE) Depth: 256 mm
Mass	3.18...4.75 kg
Material	Aluminium
Enclosure grounding	Available for each supply
Cable strain relief	Integrated

SUPPLY

Total current per supply	Max. 100 A (1-pole)
Terminals / Cable cross section	Screw terminals up to 35 mm^2

LOADS

Rated current per load channel	Max. 16 A
Terminals / Cable cross section	Screw terminals up to 4 mm^2

GROUP SIGNALLING

Series connection	Make contacts of the auxiliary contacts are connected in series. Max. 0.5 A, max. 1.5 mm^2
Parallel connection	Break contacts of the auxiliary contacts are connected in parallel, with decoupling relay Max. 0.5 A, max. 1.5 mm^2

AMBIENT CONDITIONS

Ambient temperature	0...+50 °C

ORDERING NUMBER CODE

P	D	B	-	N	-	2	2	1	0	-	3	0	R	-	B	4	-	Z
1				2		3					4				5			6

1 TYPE NUMBER

PDB	19“ ***Power-D-Box***® with printed circuit board

2 PROTECTED POLE	
N	Minus-pole protected

3 DEVICE TYPES	
2210	Thermal-magnetic 2210 circuit breakers

4 NUMBER OF LOADS AND DESIGN VERSION	
30E	1 x 30 load circuits (1-pole protected), non-redundant
30R	2 x 15 load circuits (1-pole protected), redundant

5 SIGNALLING	
B4	Make contact connected in series and break contact connected in parallel

6 TERMINAL POSITION	
Z	Additional terminals on rear mounting rail

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
PDB-N-2210-30R-B4-Z	2210, redundant, series/parallel connection signalling, with additional terminals
PDB-N-2210-30E-B4-Z	2210, not redundant, series/parallel connection signalling, with additional terminals

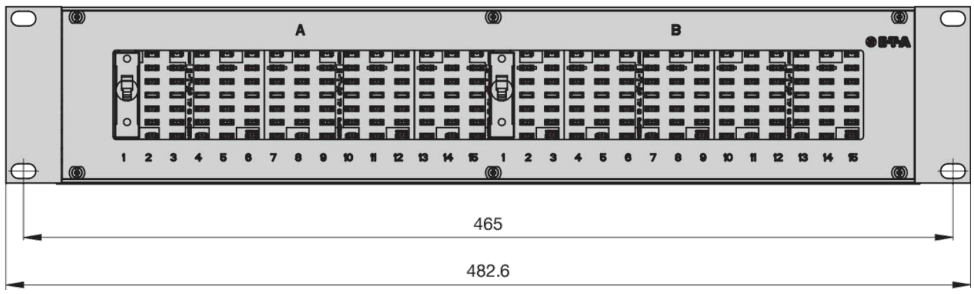
COMPLIANCE

Compliance according to	EN 62368-1

DIMENSIONS

DIMENSIONAL DRAWING

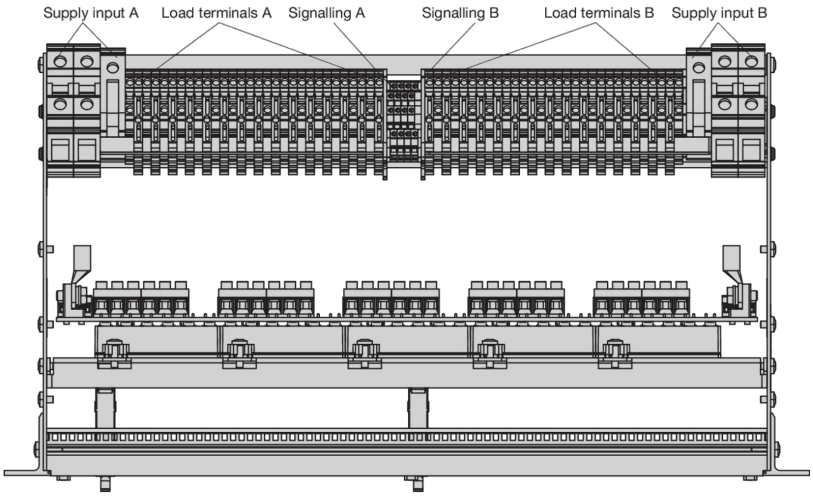
Front view/example: 2210, 1pole, non-redundant



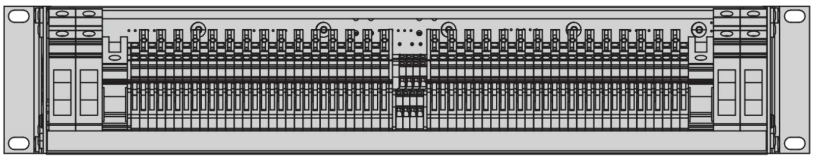
DIMENSIONAL DRAWING

Example: PDB-N-2210-30R-B1

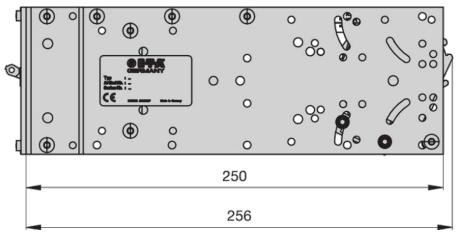
Top view (open cover)/example: additional terminals on DIN rail



Rear view/example: terminal position on DIN rail



Side view/example: additional terminals on DIN rail



SCHEMATIC DIAGRAMS

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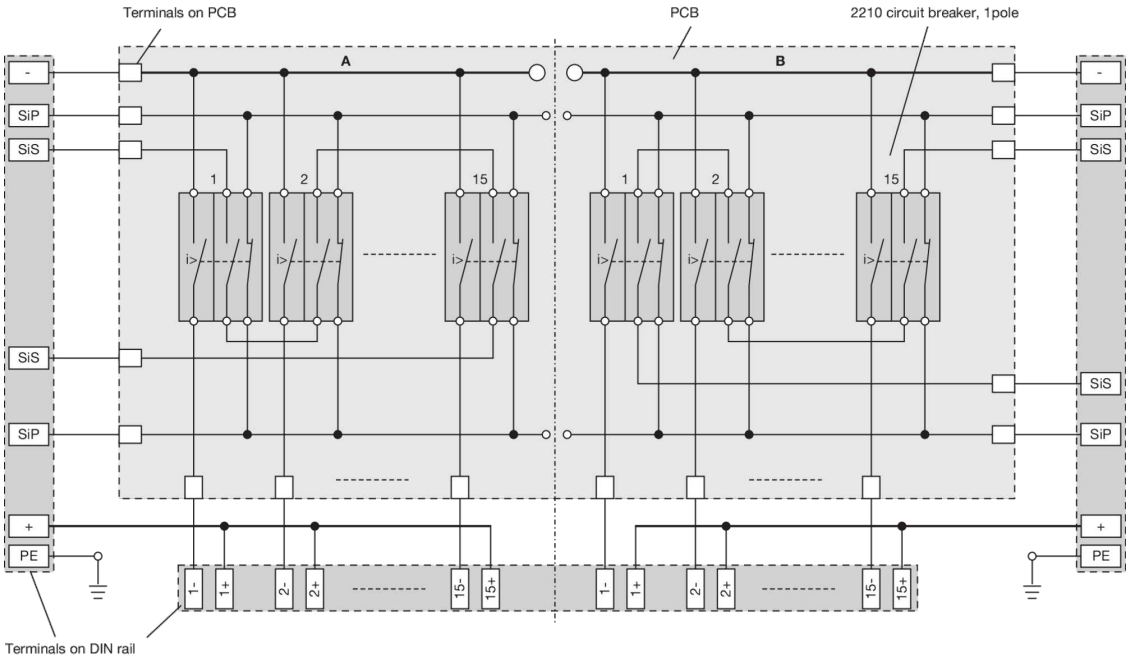
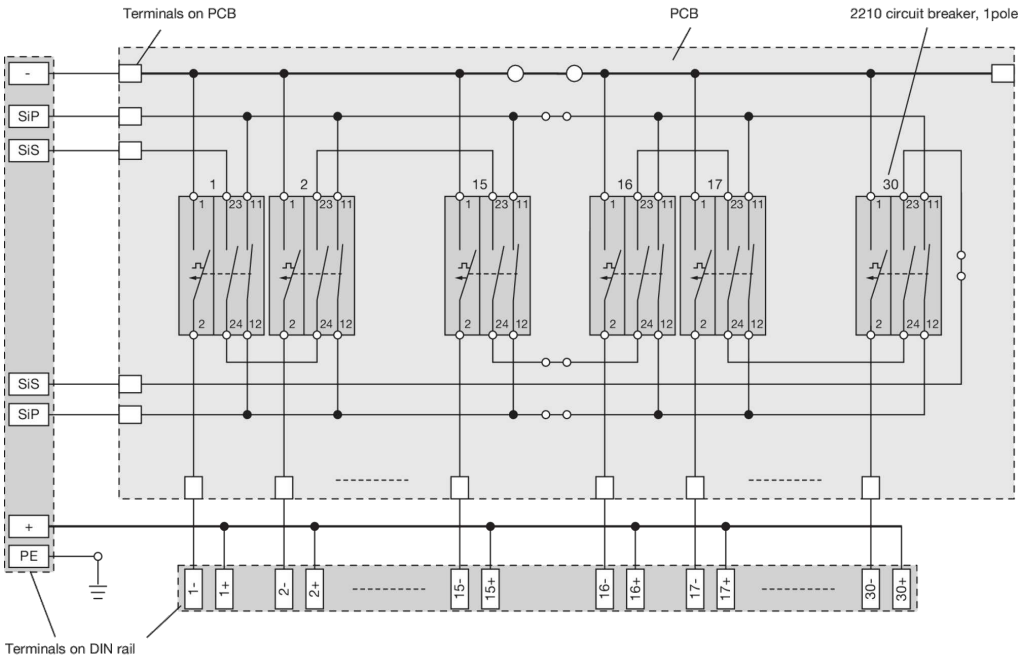
Flexible *Power-D-Box*® DC schematic diagram (redundant)



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

Flexible *Power-D-Box*® DC schematic diagram (non-redundant)



Note: Depending on the version, the schematic diagram may vary in detail. This diagram shows the general options.
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ACCESSORIES

OPTIONAL ACCESSORIES

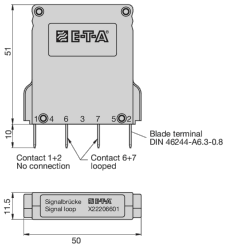
X22206601 C	Bridging of the looped-through auxiliary contacts via jumper instead of circuit breakers (series connection)	

Y30856301	Blind cover for***Power-D-Box***® (Device types 3600/3900, 2210)	

FURTHER INFORMATION ABOUT ACCESSORIES (DRAWINGS)

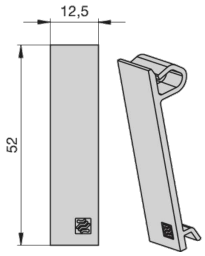
ACCESSORIES

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

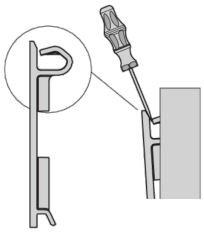


ACCESSORIES

Blind cover for Power-D-Box
(circuit breaker types 3600/3900, 2210)
Y 308 563 01



Removal of the blind cover:
Use the screw driver to snap off at the lever edge



FURTHER PRODUCTS

RELATED PRODUCTS

2210-S2	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. They meet the requirements of the circuit breaker standard EN 60934 (IEC 60934): S-type, TM. **Suitable for the use in power distribution systems - see power distribution systems product group - customer-specific solutions.**	

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.