

## Description

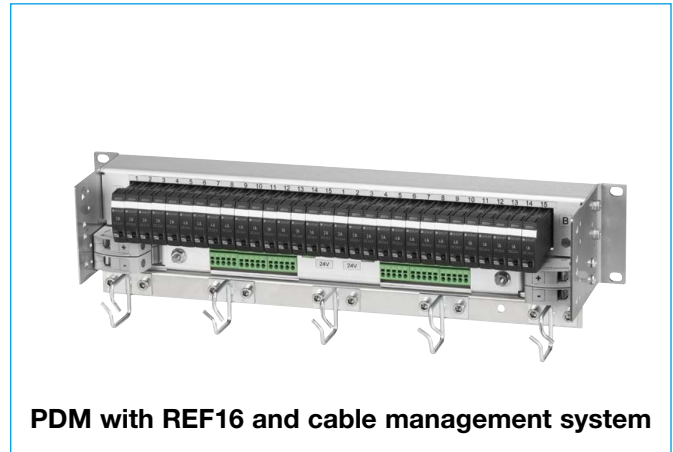
The Power Distribution Module with printed circuit board is a compact power distribution system, designed as a rack made of profiled aluminium sheet for direct mounting, e.g. on the rear wall of a control cabinet.

Plug-in type thermal-magnetic circuit breakers type 2216 or electronic overcurrent protectors type REF16 (for DC 24 V) can be plugged into the terminal block system with a basic height of 2U. 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. The entire internal circuitry is designed as a printed circuit board. The unprotected pole is also being patched in the distribution. Connection is on the front via terminals directly on the pcb.

Status indication (green LED) coupled with one relay output per group is available as an option. Upon request it is also possible to add the junction of two redundant entry lines via decoupling diodes. A 1U patching unit with patching lugs manages the horizontal cable routing without additional cable ducts.

## Benefits

- Reduced wiring time through printed circuit board design
- Compact dimensions of 482 (19") x 89 (2U) x 110 mm for applications where space is at a premium
- 30 slots for thermal-magnetic or electronic overcurrent protectors in a Power Distribution Module
- Redundant design optional with 2 x 15 ways
- Circuit breakers can be plugged in later (also with the system live)
- Spring-loaded terminals directly on the pcb (positive and negative pole)
- Line entry for cables up to 25 mm<sup>2</sup>
- Line entry up to 2 x 50 A (redundant)
- Load terminals for cables up to 2.5 mm<sup>2</sup>
- Load terminals up to 16 A (10 A with electronic protection)
- Group signalling through integral potential-free auxiliary contacts, make contacts connected in series
- Signalling available separately per group in the event of redundancy
- Voltage monitoring with relay contacts optional
- Optional cable patching below the module
- Protection against brush contact of all live parts
- Interchangeable flanges for assembly in 19" racks or on mounting plate in the control cabinet
- Customer-specific versions, e.g. with back-up fuses, de-coupling diodes, separate circuits, AC and/or DC, customised marking etc., are available upon request.



**PDM with REF16 and cable management system**

## Technical Data

Power Distribution Module	length:	84 HP (482 mm)
	height:	2U (88.90 mm) 3U (137 mm) with cable management
	depth:	110 mm
	material:	aluminium, passivated
Rated voltage:	AC 50 V; DC 50 V; DC 24 V with REF16	
Supply:	screw terminals max. 50 A per group	
Load terminals:	30 ways 1-pole protected (version A0) 2 x 15 ways 1-pole protected (version R0) spring-loaded terminals $I_{max} = 16$ A (depending on circuit breaker rating, please observe derating factor)	
Group signalling:	Make contacts connected in series (all versions) per group spring-loaded terminal, $I_{max} = 0.5$ A	
Voltage monitoring:	optional signalling LED green = voltage applied relay contacts (changeover) with spring-loaded terminals, $I_{max} = 0.5$ A	
Grounding of enclosure:	via 2 terminal studs M6	
Ambient temperature range:	0 ... 50 °C	

## Order numbering code

### Type No.

**PDM-P-L** Power Distribution Module with pcb, positive pole protected

### Suitable types

**2216** thermal-magnetic circuit breaker

**REF16** electronic overcurrent protector (DC 24 V only)

### Supply and load terminals on pcb

**30A0** 1 x 30 types, non-redundant, 1 line entry

**30A0** 2 x 15 types, non-redundant, 2 line entries

### Signalling, terminals on pcb

**B1** make contacts connected in series

**B7** make contacts connected in series, with voltage monitoring (DC 24 V only)

### Options

**D** decoupling diodes

**K** cable management system fitted

**PDM-P-L-2216-30R0-B7 - D - K** ordering example

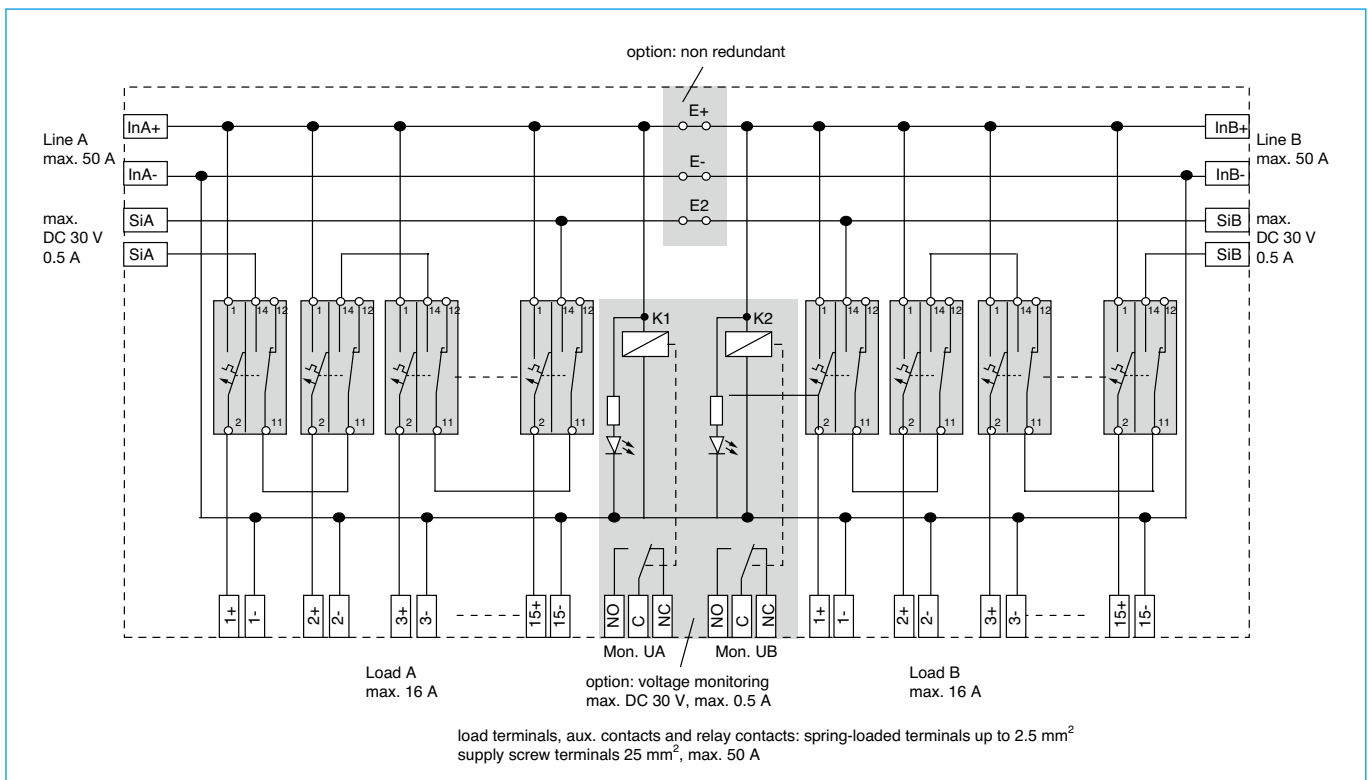
## Versions and terminal designs

Version for	supply terminals			load terminals		signalling/ voltage monitoring	
	terminals on	cable size	tightening torque	cable size	tightening torque	cable size	tightening torque
<b>Circuit Breaker Type 2216</b>							
PDM-P-L-2216-30A0-B1 (-K)	Printed circuit board	25 mm <sup>2</sup>	4.0 – 4.5 Nm	2.5 mm <sup>2</sup>	spring force	2.5 mm <sup>2</sup>	spring force
PDM-P-L-2216-30R0-B1 (-K)	printed circuit board	25 mm <sup>2</sup>	4.0 – 4.5 Nm	2.5 mm <sup>2</sup>	spring force	2.5 mm <sup>2</sup>	spring force
PDM-P-L-2216-30A0-B7 (-K)	printed circuit board	25 mm <sup>2</sup>	4.0 – 4.5 Nm	2.5 mm <sup>2</sup>	spring force	2.5 mm <sup>2</sup>	spring force
PDM-P-L-2216-30R0-B7 (-K)	printed circuit board	25 mm <sup>2</sup>	4.0 – 4.5 Nm	2.5 mm <sup>2</sup>	spring force	2.5 mm <sup>2</sup>	spring force
<b>Overcurrent Protector Type REF16</b>							
PDM-P-L-REF16-30A0-B1 (-K)	printed circuit board	25 mm <sup>2</sup>	4.0 – 4.5 Nm	2.5 mm <sup>2</sup>	spring force	2.5 mm <sup>2</sup>	spring force
PDM-P-L-REF16-30R0-B1 (-K)	printed circuit board	25 mm <sup>2</sup>	4.0 – 4.5 Nm	2.5 mm <sup>2</sup>	spring force	2.5 mm <sup>2</sup>	spring force
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Ground studs

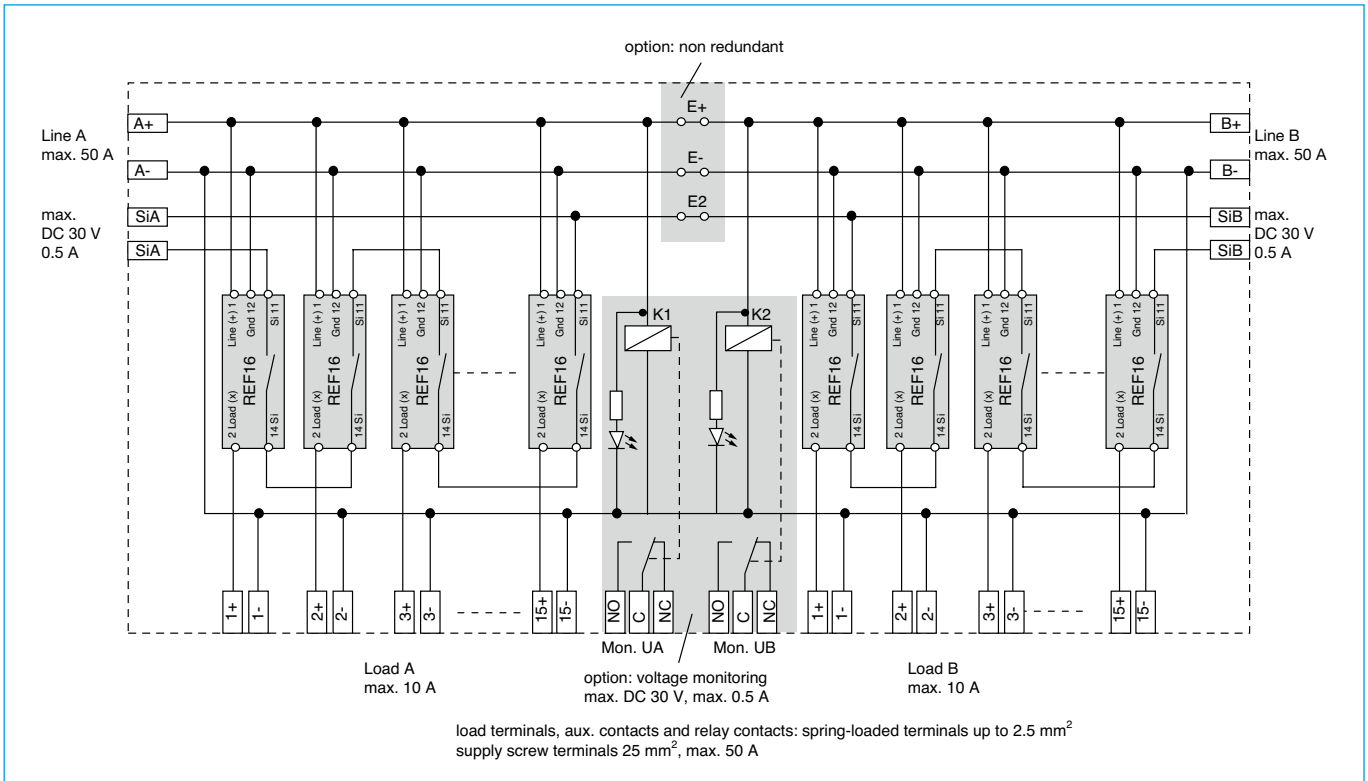
M6 3.7 - 4.3 Nm

## Schematic diagram for version with 2216



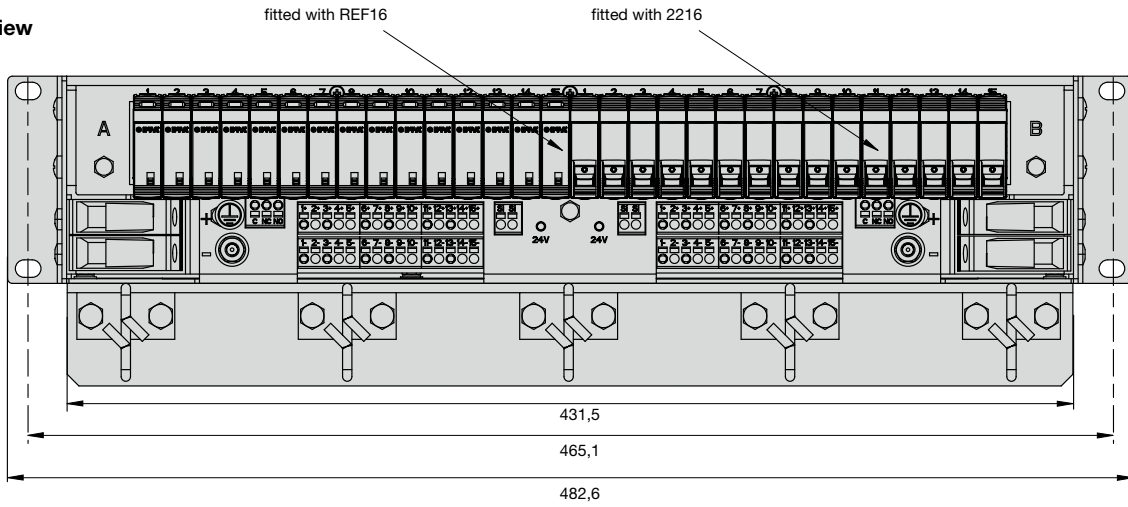
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**Schematic diagram for version with REF16**

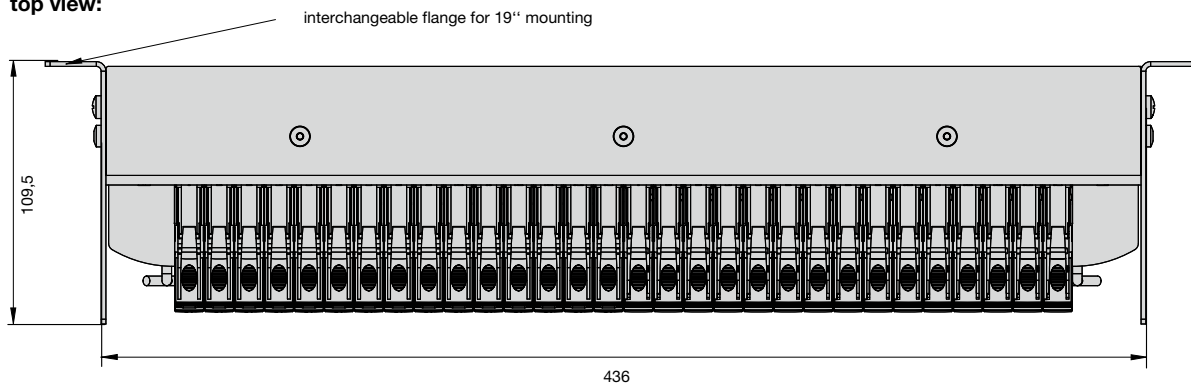


**Dimensions**

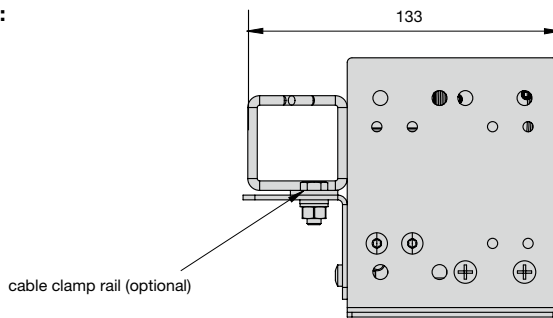
**top view**



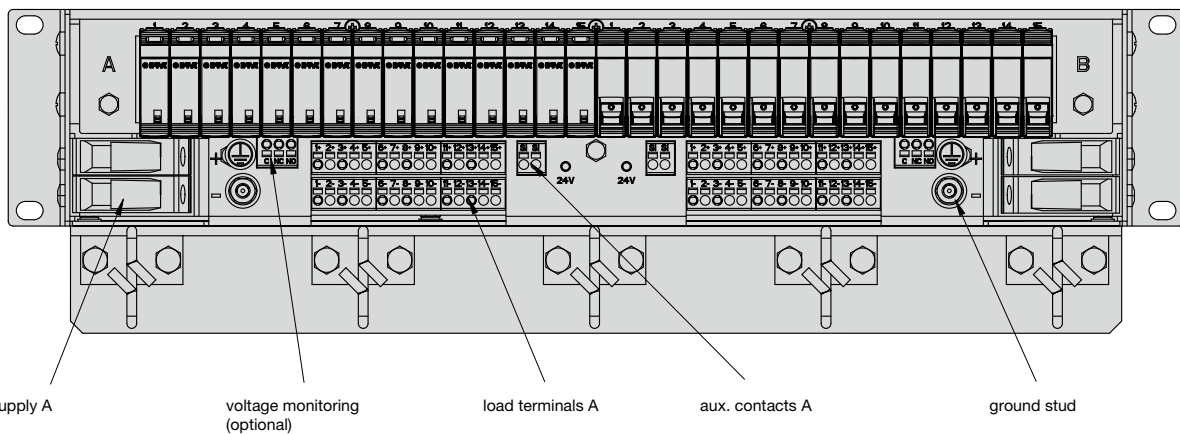
**top view:**



**side view:**



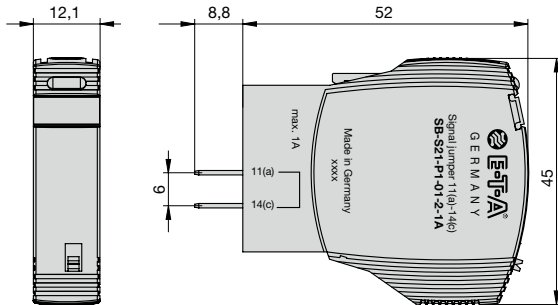
**connections:**



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## Accessories

**Jumper:**  
for insertion in empty slots instead of circuit breakers for bridging  
the looped-through auxiliary contacts (series connection)  
**SB-S21-P1-01-2-1A**



## Schematic diagram

