

Description – Power-D-Box® CP

The **Power-D-Box® CP** is a modular power distribution system. Thanks to reversible mounting flanges, it can easily and quickly be installed in 19" or ETSI cabinets. The compact 2RU enclosure can accommodate the system components ESX300-S, RSI10, RC110 or EAI300, depending on the application. User friendliness is of top priority in the event of a system extension with the system live without causing downtimes. All sub-assemblies are hot-swappable without affecting neighbouring components. Depending on the application, termination can be placed both on the front or on the rear. Major application of the **ControlPlex® Rack** system are plants in communication engineering both in the negative (DC -48 V or DC -60 V) and in the positive voltage range (DC 24 V, 48 V, 60 V).



Features

- 19" power distribution system, made of aluminium
- Compact design, protected against brush contact (2RU)
- Designed for plug-in type circuit protectors (ESX300-S)
- Slot for signalling sub-assembly (RSI10) or control interface sub-assembly (RC110)
- Various preferred types with front side or rear side load outputs

Your benefits

- Ease of system extension without shutdown thanks to plug-in type circuit protectors (ESX300-S)
- Maximum system protection through electronic current limitation and load disconnection
- Maximum system availability through selective protection
- System stability in the event of a short circuit through avoidance of voltage dips
- Power supplies of the entire system be reduced in rating thanks to the electronic circuit protectors

Preferred types – for further details regarding all product versions please see ordering number code

Preferred types are those E-T-A products that are most frequently used by our customers. We manufacture these preferred types in substantial quantities.

Preferred types	Short description	Supply current (A)			
		100	150	2 x 150	200
Minus version	DC -48 V or DC -60 V				
PDB-N-CP 09 A-RR-A2	Load current max. 30A with 9 load channels	-	•	-	-
PDB-N-CP 09 A-FF-A2	Load current max. 30A with 9 load channels	•	-	-	-
PDB-N-CP 09 A-RF-A2	Load current max. 30A with 9 load channels	-	•	-	-
PDB-N-CP 19 A-RR-A2	Load current max. 30A with 19 load channels	-	-	-	•
PDB-N-CP 18 R-RR-A2	Load current max. 30A with 2 x 9 load channels	-	-	•	-
Plus version	DC 24 V, 48 V, 60 V				
PDB-P-CP 09 A-RR-A2	Load current max. 30A with 9 load channels	-	•	-	-
PDB-P-CP 09 A-FF-A2	Load current max. 30A with 9 load channels	•	-	-	-
PDB-P-CP 09 A-RF-A2	Load current max. 30A with 9 load channels	-	•	-	-
PDB-P-CP 19 A-RR-A2	Load current max. 30A with 19 load channels	-	-	-	•
PDB- P-CP 18 R-RR-A2	Load current max. 30A with 2 x 9 load channels	-	-	•	-

Further information

The current data sheet as well as other relevant documents are available on our website: www.e-t-a.de/d850

Preferred types

Preferred types are those E-T-A products that are most frequently used by our customers. We manufacture these preferred types in substantial quantities.

Preferred types	Short description	Supply current (A)			
		100	150	2 x 150	200
Minus version	DC -48 V or DC -60 V				
PDB-N-CP 09 A-RR-A2	Load current max. 30A with 9 load channels	-	•	-	-
PDB-N-CP 09 A-FF-A2	Load current max. 30A with 9 load channels	•	-	-	-
PDB-N-CP 09 A-RF-A2	Load current max. 30A with 9 load channels	-	•	-	-
PDB-N-CP 19 A-RR-A2	Load current max. 30A with 19 load channels	-	-	-	•
PDB-N-CP 18 R-RR-A2	Load current max. 30A with 2 x 9 load channels	-	-	•	-
Plus version	DC 24 V, 48 V, 60 V				
PDB-P-CP 09 A-RR-A2	Load current max. 30A with 9 load channels	-	•	-	-
PDB-P-CP 09 A-FF-A2	Load current max. 30A with 9 load channels	•	-	-	-
PDB-P-CP 09 A-RF-A2	Load current max. 30A with 9 load channels	-	•	-	-
PDB-P-CP 19 A-RR-A2	Load current max. 30A with 19 load channels	-	-	-	•
PDB-P-CP 18 R-RR-A2	Load current max. 30A with 2 x 9 load channels	-	-	•	-

Order numbering code

PDB Power-D-Box 19" (supplied standard), with ETSI interchangeable flange – 19"

Protected pole	
N Negative pole protected	
P Positive pole protected	
Module	
CP ControlPlex-Rack	
xx Number of load channels (total)	
A non-redundant design	
R redundant design (two supply entries, with main and load terminals on the rear)	
Main terminals	
R on the rear	
F on the front	
Load terminals	
R on the rear	
F on the front	
Version	
A BUS	
2 Revision 2	

PDB - N - CP 18 R - R R - A 2 ordering example

Customer-specific solutions

Looking for a version you cannot find in our order numbering code? Please get in touch.

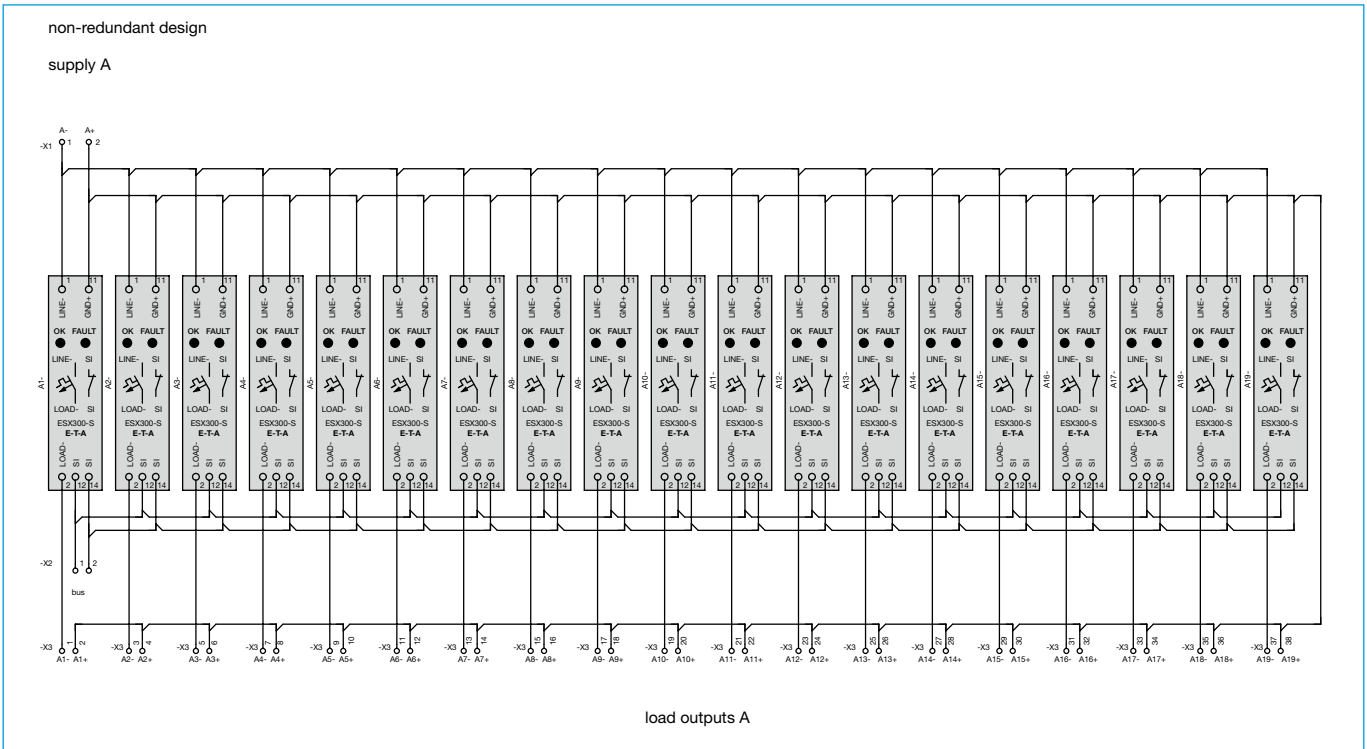
Technical data (T_{amb} = 25 °C, U_B = DC -48 V)

Voltage ratings	minus: DC -38 V to DC -72 V DC 18 V to 72 V
Total current	- 2x150 A with redundant design and line entry on the rear - 200 A with non-redundant design and double line entry on the rear - 100 A with non-redundant design and line entry on the front
Supply terminals	terminal on the rear: screw terminals, cable cross section 16 mm ² ... 50 mm ² terminals on the front: screw terminals, cable cross section 4 mm ² ... 25 mm ²

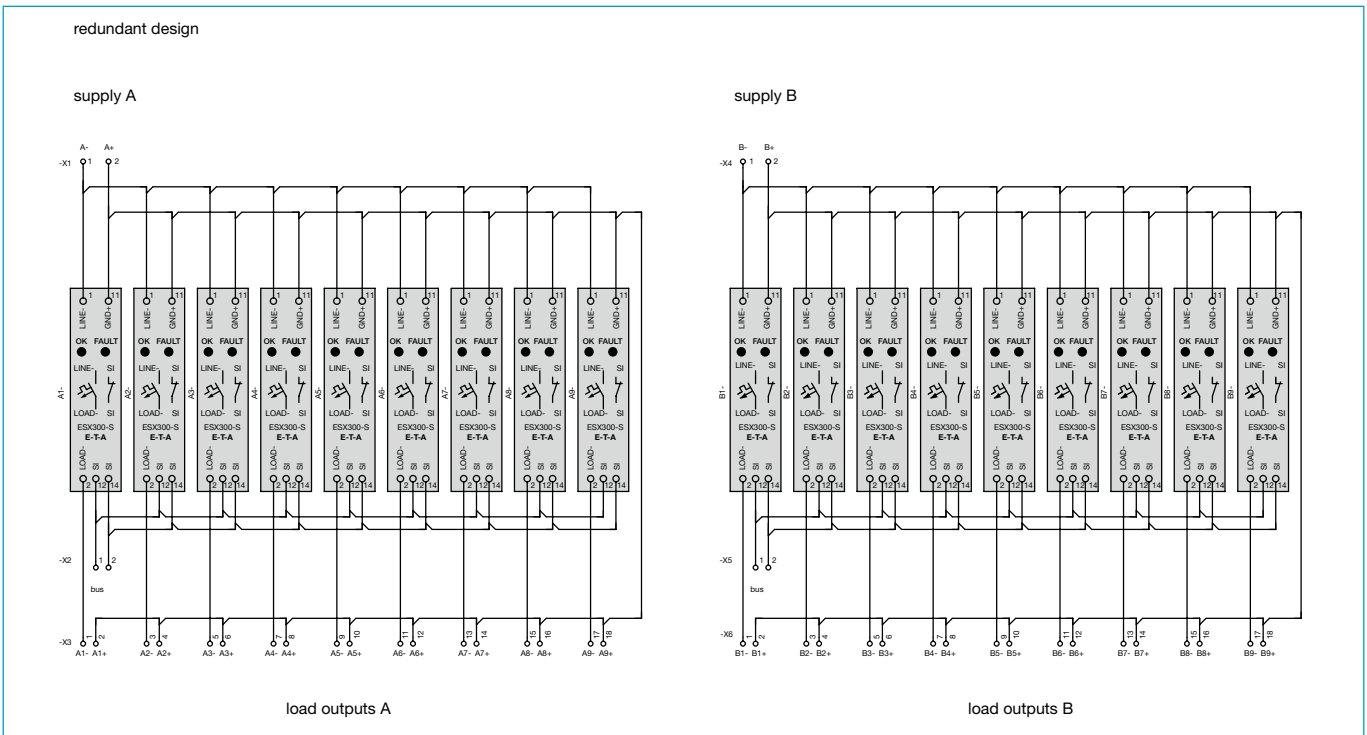
Technical data (T_{amb} = 25 °C, U_B = DC -48 V)

Load terminals	terminal on the rear: plug-in type 2-pole screw terminals with mating connector, cable cross section 0.5 mm ² ... 6 mm ² terminals on the front: plug-in type 3-pole high current SUB-D connector, cable cross section 2.5 mm ² ... 10 mm ² 2, mating connector (not supplied with product): see accessories
Ground terminal	M6 studs, always on the rear
Technical data	
Dimensions 19"	width: 84 HP (462.72 mm) height: 2RU (88.90 mm) depth: 205 mm (rear-side supply) depth: 175 mm (front-side supply)
Power-D-Box®	
Enclosure	material: aluminium
Degree of protection	IP20 protected against brush contact
Mass	approx. 2.5 kg
Environmental conditions	
Ambient temperature	-20 °C to +60 °C (without condensation)
Humidity	96 hours at 95% RH, 40 °C, to IEC 60068-2-78, climate class 3K3 to EN60721
Marking and approvals	
EMC	EN 61000-6-2 / EN 61000-6-3
Vibration resistance	3 g to IEC 60068-2-6,
Marking	CE in accordance with EMC directive (in connection with ESX300-S <i>plus</i> / with ESX300-S <i>minus</i>)
Conformity	EN60950-1 / UL60950-1 compliant
Optional plug-in type sub-assemblies	
Plug-in type circuit protectors	ESX300-S <i>minus</i> ESX300-S <i>plus</i>
Plug-in type external alarm interface	EAI300
Plug-in type group signal interface	RSI10
Plug-in type remote control interface	RCI10

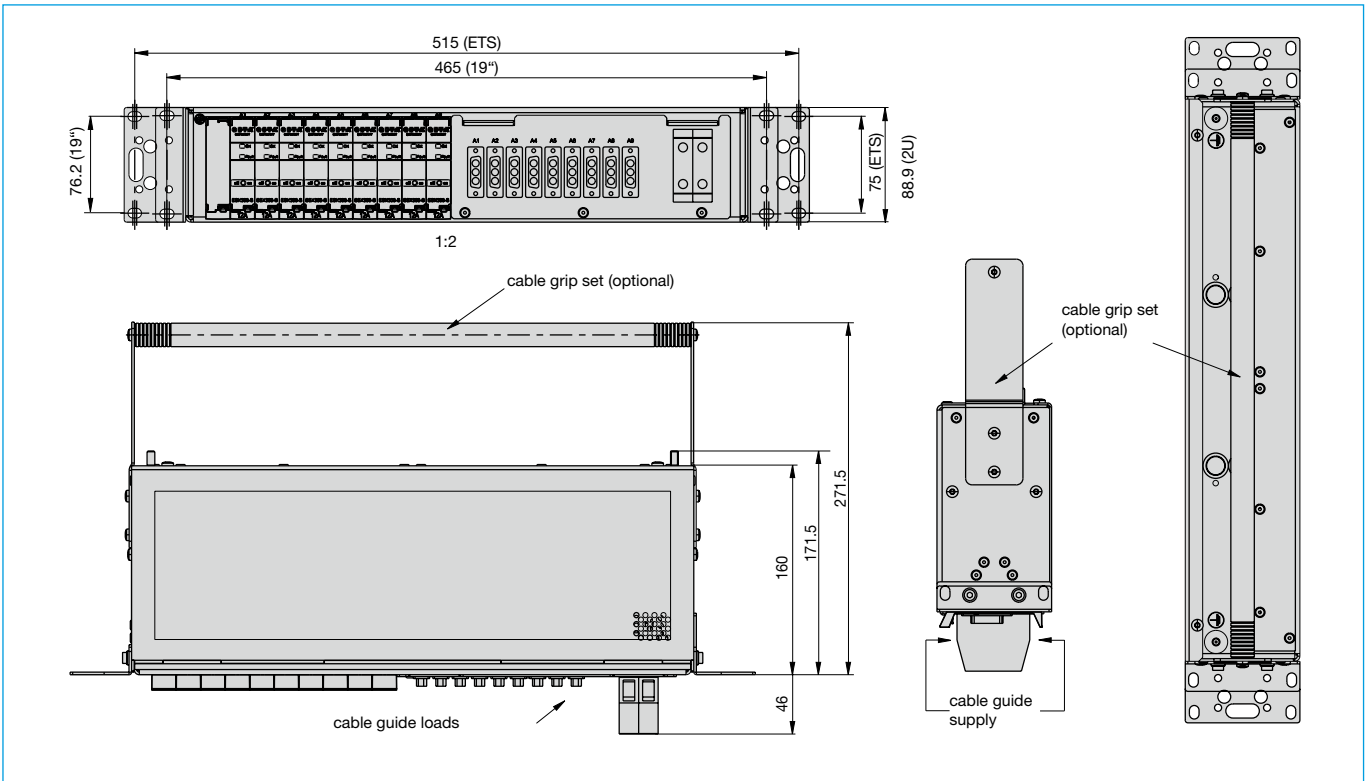
Schematic diagram - non-redundant design – example of protected minus pole



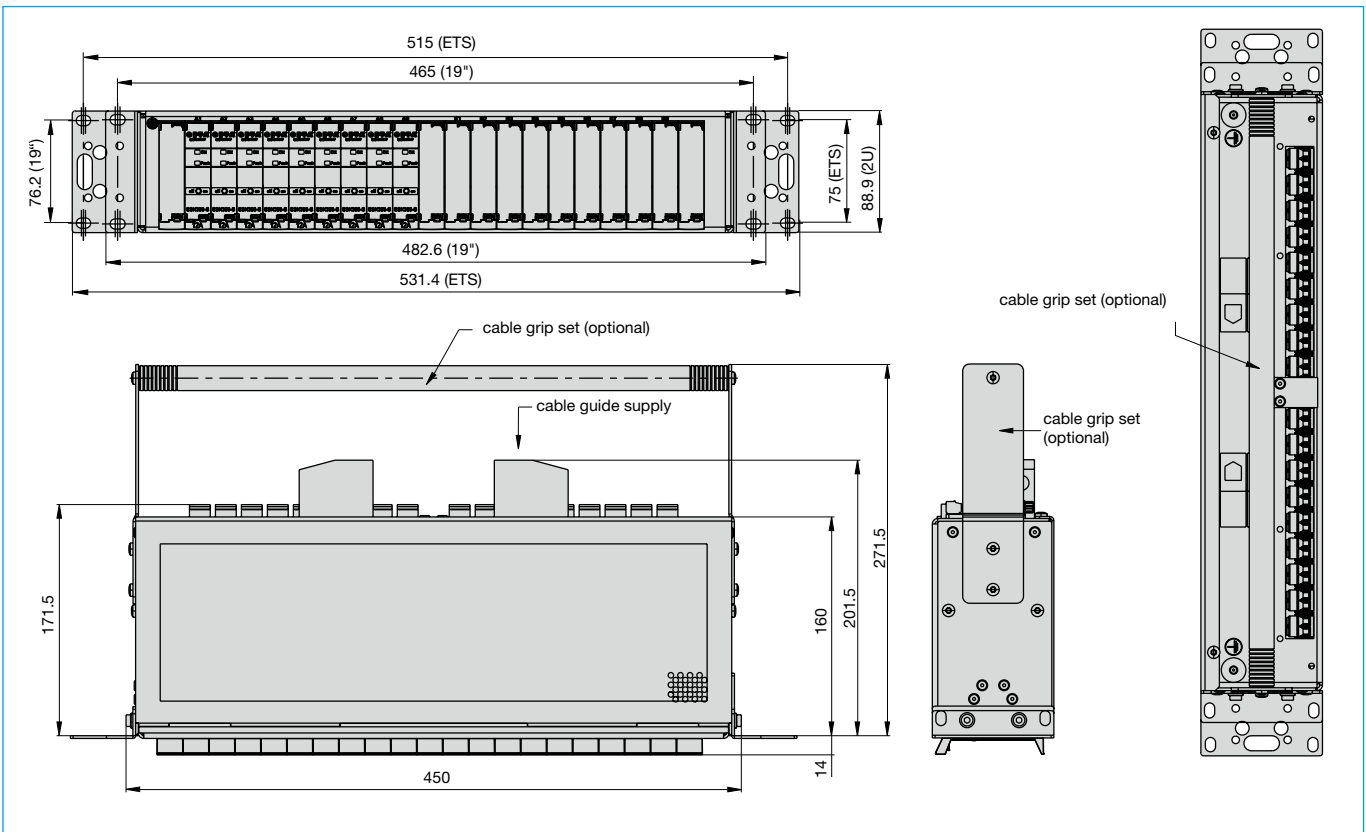
Schematic diagram – redundant design – example of protected minus pole



Dimensions - connection from the front (PDB-N-CP 09A-FF-x)



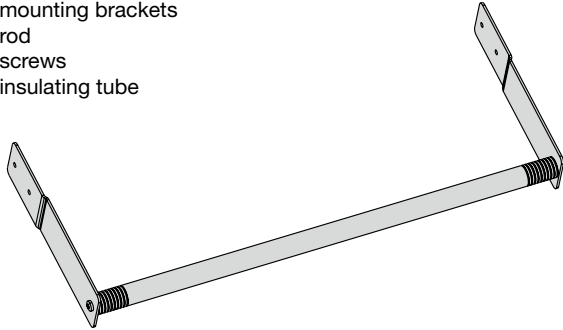
Dimensions - connection from the rear (PDB-N-CP xxy-RR-x)



Accessories

Cable grip

X 223 260 11
 consisting of:
 2 mounting brackets
 1 rod
 6 screws
 1 insulating tube



Load SUB-D connector (suitable for front connection)

X 223 189 01
 consisting of:
 - enclosure
 - 3 contacts

Marking band 0.5U X 223 575 01

Consisting of:
 1 0.5U stainless steel marking band
 with marking strips
 2 screws with washers
 24 moulded labels



1U marking band with cable gland X 223 576 01

Consisting of:
 1 1U stainless steel marking band
 with marking strips and cable gland
 4 screws with washers
 24 moulded labels



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 improved design, performance and cost effectiveness. 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 codes of the products may differ from their marking.

Load terminals

Minus version	Load terminals				Supply cable	
	terminal type	max. current load	on the rear	on the front	terminal 50 mm ² 150 A	front terminal 25 mm ² 100A
PDB-N-CP09A-RR-A2	6 mm ²	30 A	0.5... 0,8 Nm		6...8 Nm	
PDB-N-CP09A-RF-A2	10 mm ²	30 A		crimp terminal	6...8 Nm	
PDB-N-CP09A-FF-A2	10 mm ²	30 A		crimp terminal		4... 4.5 Nm
PDB-N-CP19A-RR-A2	6 mm ²	30 A	0.5...0.8 Nm		6...8 Nm (double supply terminal, max. 200 A)	
PDB-N-CP18R-RR-A2	6 mm ²	30 A	0.5...0.8 Nm		6...8 Nm (double supply terminal max. 200 A)	
Plus version						
PDB-P-CP09A-RR-A2	6 mm ²	30 A	0.5...0.8 Nm		6...8 Nm	
PDB-P-CP09A-RF-A2	10 mm ²	30 A		crimp terminal	6...8 Nm	
PDB-P-CP 09 A-FF-A2	10 mm ²	30 A		crimp terminal		4... 4.5 Nm
PDB-P-CP19A-RR-A2	6 mm ²	30 A	0.5...0.8 Nm		6...8 Nm (double supply terminal, max. 200 A)	
PDB-P-CP18R-RR-A2	6 mm ²	30 A	0.5...0.8 Nm		6...8 Nm (double supply terminal max. 200 A)	

Ground studs M6 / 6 Nm