

Description

Together with the bus controller CPC10 and the electronic circuit protector ESX50D-S1xx the power distribution board type SVS201-PWR-xx forms the intelligent power distribution system **ControlPlex®Board** SVS201-CP.

Its consistent communication capabilities help to meet the requirements of automation technology with regard to reliable overcurrent protection and optimised current distribution on the DC 24 V level.

The power distribution board SVS201-PWR-xxx for rail mounting is available in a number of versions from 8 to 24 slots. The total possible current of the system is max. 40 A and the connected loads are selectively protected by means of the electronic circuit protector type ESX50D-S1xx. The max. load current per slot is 10 A and is made available to the user with two protected »+« load outputs each and just as many minus terminals. The positive effect is a significant reduction of wiring time and efforts.

The status of the circuit protectors and their parameters and unit data are transmitted cyclically and non-cyclically to the connected bus controller CPC10 via the proprietary bus system **ELBus®**. This allows a continuous analysis of system data and thus a corresponding reaction in the event of anomalies or disruptions.

The line entry for the DC 24 V supply as well as the load output terminals are designed as push-in terminals so that the entire system can be wired quickly and cost-effectively.

Suitable for the following types:

Electronic circuit protectors	ESX50D-S100 ESX50D-S110
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Features and Benefits

- Intelligent power distribution system for bus-capable circuit protectors type ESX50D-S
- Systematic integration of protection and distribution functions
- Power distribution and selective protection of DC 24 V load circuits all in one
- Clearly laid-out distribution concept
- Profitability through considerably reduced wiring time
- Reduction of planning, design and installation time
- Ease of maintenance, diagnosis and system extension
- Compact power distribution for compact control cabinets
- 2 plus and 2 minus terminals per slot

Order numbering code

Type

SVS201-PWR power distribution system for ESX50D-S

- for short-circuit limited DC 24 V applications
- max. 40 A cont. load
- communication to CPC10 and ESX50D-S via **ELBus®**
- Incl. 2 terminals Y31154801, 3-pole for **ELBus®**

Max. number of circuit protectors on the distribution system

08	8 circuit protectors (F1...F8)
16	16 circuit protectors (F1...F16)
24	24 circuit protectors (F1...F24)

Population, load output, minus signalling terminals

001 completely fitted with push-in terminals (max. 2.5 mm², without wire end ferrule)

SVS201-PWR - 08 - 001 ordering example

Accessories: see page "accessories"



SVS201-PWR-16-001, unpopulated

Technical data (T_{amb} = 25 °C, U_B = DC 24 V)

Application:

Modular power distribution system for short circuit current limited DC 24 V applications

Supply

Rated voltage:	DC 24 V (18 ... 30 V)		
Total current	max. 40 A		
	DC 24 V (+) = X31	1+ / 2+	
	DC 24 V (-) = X31	1- / 2-	
	PE = X31	PE	

Terminals	5-pole push-in terminals max. 10 mm ² , for power supplies integral loop-through, for sub-wiring cable cross section flexible with wire end ferrule (with plastic sleeve) 0.75 – 10 mm ² stripped length 18 mm
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F-slots

up to 24 slots for circuit protectors, prepared for types ESX50D-S100 and ESX50D-S110
F1...F4 = terminals X1 ... X24

Load outputs, load output (+) and load output (-) per way (X1...X24)

Rated voltage	DC 24 V (18 ... 30 V)
Current	max. 10 A per terminal block (1 to 24)
Load terminals:	up to 24 x 1+ and 2+ protected per slot F1...F24 ¹⁾
Minus terminals:	up to 24 x 1+ and 2- per slot F1...F24
Terminals:	Push-in terminal block, 2 x 2-pole max. cable cross section flexible with wire end ferrule (with plastic sleeve) 0.25 – 1.5 mm ² flexible with wire end ferrule (without plastic sleeve) 0.25 – 2.5 mm ² stripping length 8 mm

¹⁾ When mounted side-by-side and when fully populated with circuit protectors ESX50D-S rated 10 A, the devices can only carry 80% of their rated load continuously.

Technical data (T_{amb} = 25 °C, U_B = DC 24 V)

ELBus® connection for connecting with the bus controller CPC...

X50 COM-1 Connection for the bus controller CPC... (-X51, -X52, -X63, -X54)
 Cable length max. 2m
 typically H07V-K 1.5mm²
 connector 1: **ELBus®** ELB data line
 connector 2: **ELBus®** DC +24V
 connector 3: **ELBus®** GND

Terminals push-in, 3-pole (2 pcs included)
 max. cable cross section
 flexible with wire end ferrule
 (with plastic sleeve) 0.25 – 0.5 mm²
 flexible with wire end ferrule
 (without plastic sleeve) 0.25 – 1.5 mm²
 stripping length 9 mm

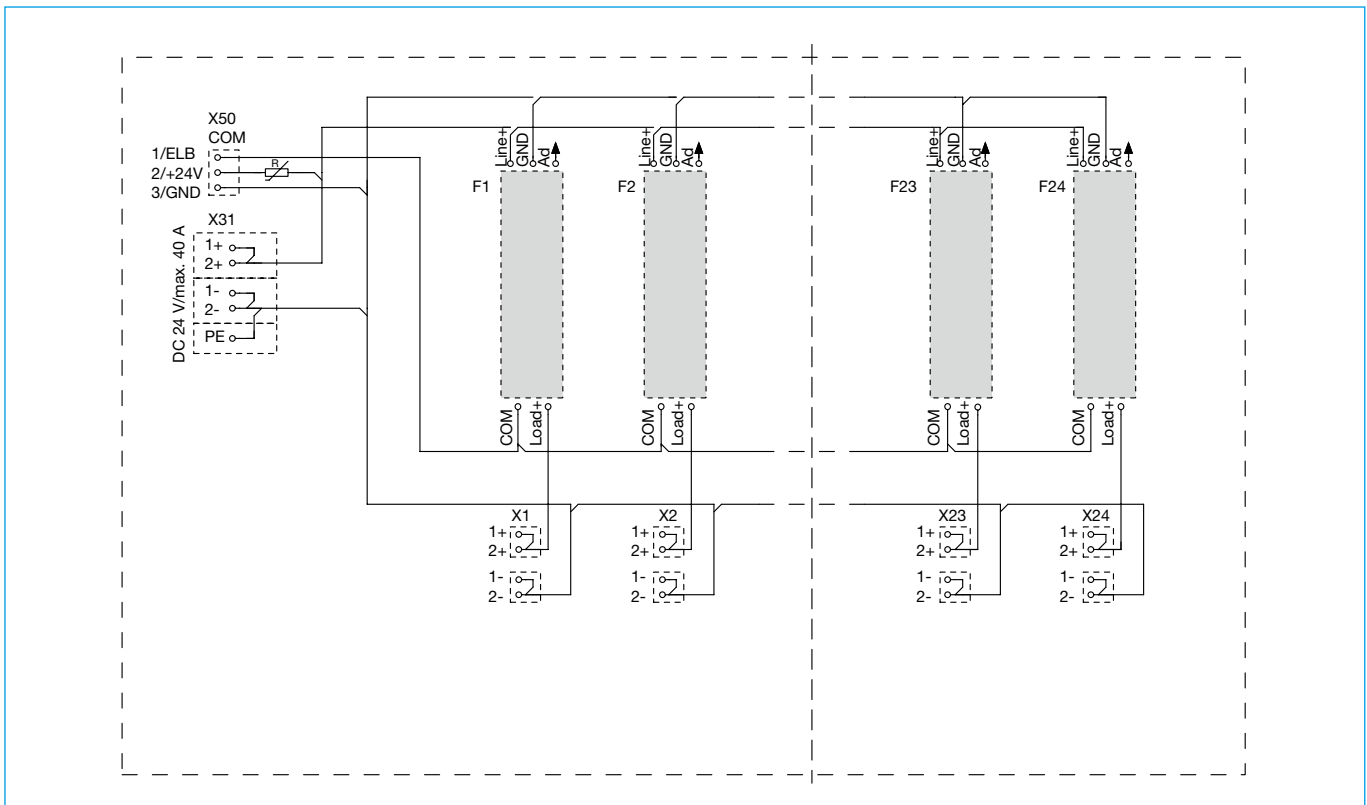
The plus path is protected separately by a PTC (R). In the event of a short circuit this will cause a disconnection of the circuit. The disruption will automatically be revoked at the end of the cooling period.

Mounting of housing	symmetrical rail to EN 60715 - 35 x 7.5	
Temperature range	0...50 °C (without condensation)	
Storage temperature	-20...+70 °C	
Housing material	moulded	
Degree of protection	terminals	IP20 DIN 40050
	printed circuit board	IP00 DIN 40050 (double coating)
Insulation voltage	DC 250 V (pcb)	
Dimensions	see dimensions (tolerances to DIN ISO 286 part 1 IT13)	
Mass	SVS201-PWR-08-001	approx. 390 g
	SVS201-PWR-16-001	approx. 675 g
	SVS201-PWR-24-001	approx. 960 g

Notes for installation

- The max. total current of 40A per way must not be exceeded
- The user has to ensure that the cable cross section of the load circuit in question complies with the current rating of the used load or circuit protector.
- Please observe the technical data of the circuit protectors and the corresponding manual for **ControlPlex®** systems.
- In addition special precautions must be taken in the system or machine (e.g. use of a safety PLC) which reliably prevent an automatic re-start of parts of the system (cf. Machinery Directive 98/37/EG and EN 60204-1, Safety of Machinery). In the event of a failure (short circuit/overload) the load circuit will be disconnected by the circuit protector.
- The power distribution system must only be installed by qualified personnel.
- It is only intended for use with safety extra-low voltage (=24 V DC).
- Only after expert installation must the device be supplied with power.
- After tripping of the circuit protector, before reset, the cause of short circuit or overload has to be remedied.
- The national standards (e.g. for Germany DIN VDE 0100) have to be observed for installation and selection of feed and return cables.
- Connection to a higher or not reliably disconnected voltage can cause hazardous conditions or damages.

Schematic diagram SVS201-PWR-xx-001



Power distributor SVS201-PWR-08-001



Please order the required population option separately.



without equipment

Power distributor SVS201-PWR-16-001



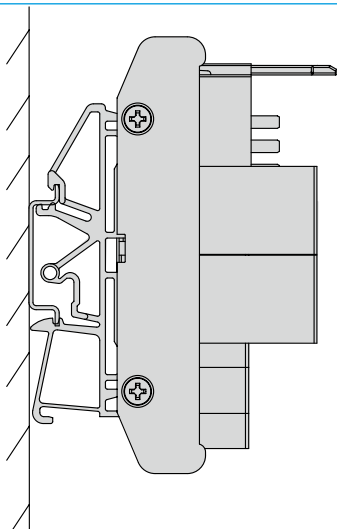
Please order the required population option separately.

Power distributor SVS201-PWR-24-001

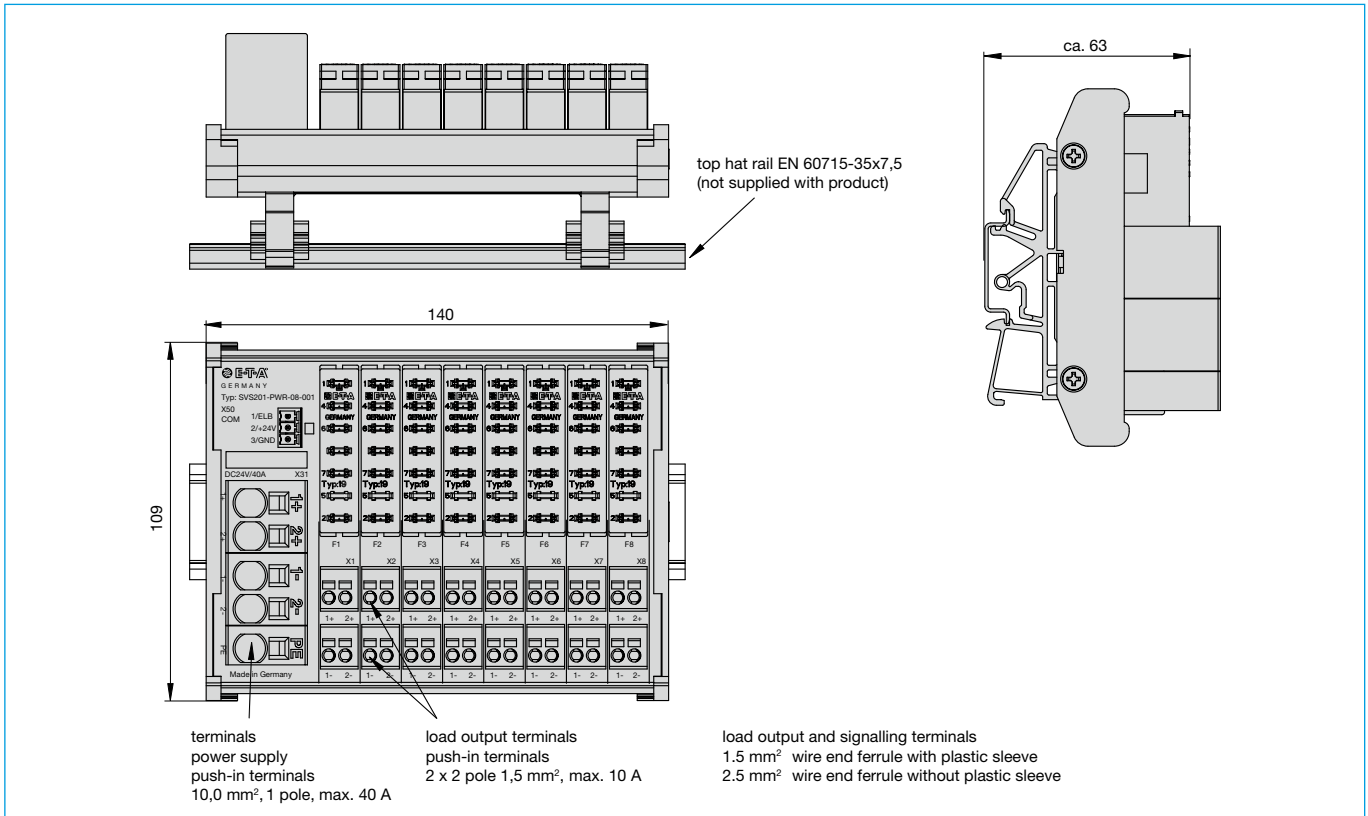


without equipment

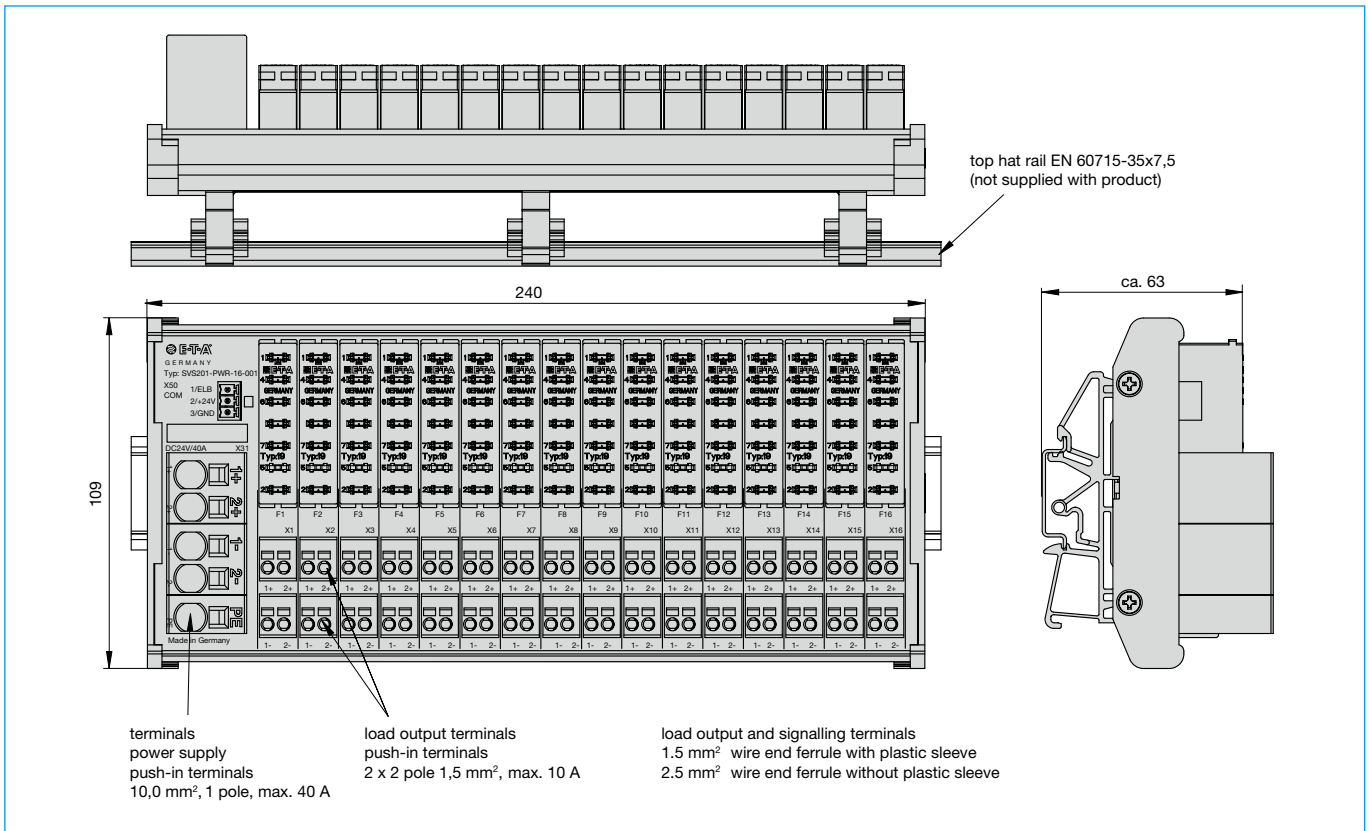
Mounting position



Dimensions SVS201-PWR-08-001



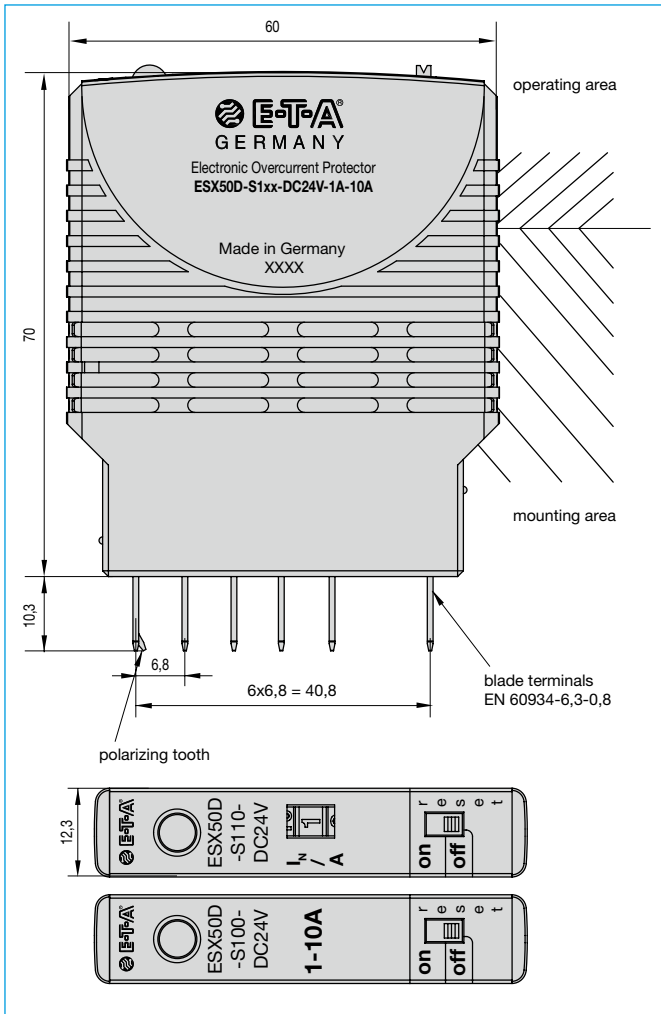
Dimensions SVS201-PWR-16-001



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Accessories

Electronic circuit protector ESX50D-S1xx



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All dimensions without tolerances are for reference only. E-T-A reserves the right change specifications at any time in the interest of improved design, performance and cost effectiveness, the right to make changes in these specifications without notice is reserved. Product markings may not be exactly as the ordering codes. Errors and omissions excepted.