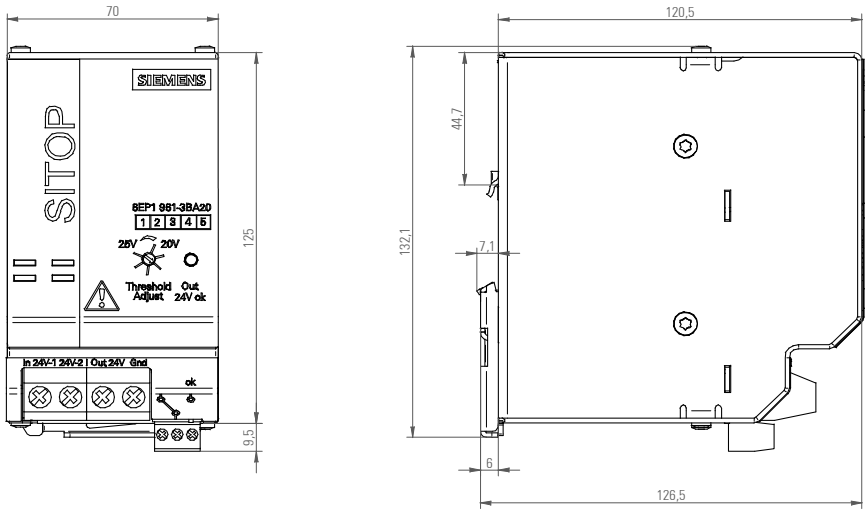
SIEMENS

SITOP modular **6EP1961-3BA20**
Redundanzmodul
Redundance module

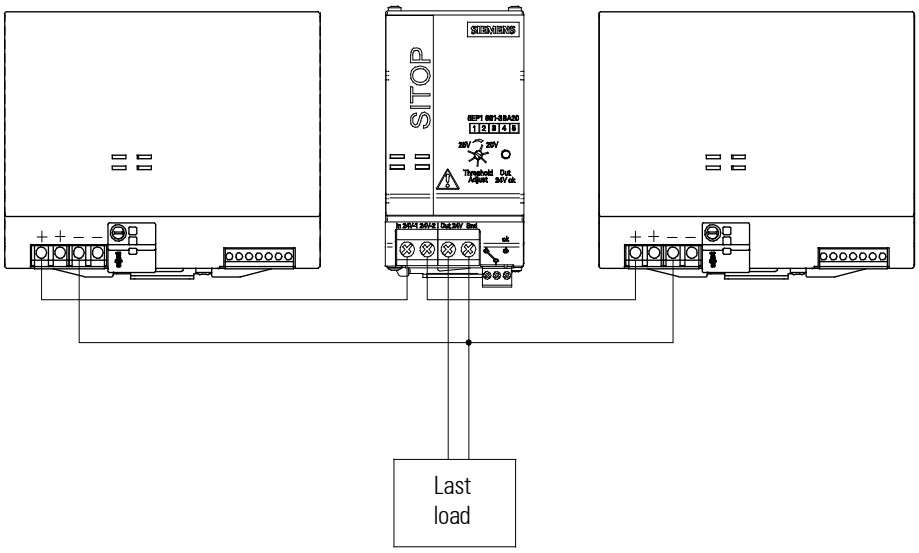
Betriebsanleitung Best. Nr.: C98130-A7556-A1-05-6419
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Instructions
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Note
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Nota
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Nota
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WARNING

Hazardous voltages are present in certain parts of this electrical equipment during operation.Incorrect handling of the equipment can result in death, severe personal injury or substantial property damage. Only qualified personnel are allowed to work on or around this equipment. The successful and safe operation of this equipment is dependent on proper transport, storage and installation.

Before installation or maintenance work is carried out, the mains switch must be switched off and locked to prevent it from being switched on again. If these rules are not adhered to, contact with live parts or improper use can result in death or severe personal injury.



CAUTION

The device may only be opened by qualified personnel. **Electrostatically sensitive devices (ESD)**

Description

The additional module for redundant mode of 2 supplies is a built-in device belonging to the SITOP series.

The device must be installed taking into account all relevant DIN/VDE specifications and other national standards.

It is used in combination with two stabilized 24V load power supply units to implement a redundant 24V supply. If one of the power supplies fails, the other will supply the load.

For this purpose the redundance module is connected in parallel mode with the SITOP load power supply units. The "In 24V-1" and “In 24V-2" inputs of the redundance module must be connected to the "+" outputs of the power supply units, and the "Gnd" input of the redundance module to the "-" outputs of the power supply units. The “Out 24V” output must be connected with the load (see wiring information on page 2). The output cable of the redundancy module has to be wired up in a wire cross-section that can carry the maximum total current of both infeeding power supplies.

The failure of one of the 24V power supplies will be signalized via an LED and a relay contact. The response threshold of this signaling system can be set using a potentiometer on the redundance module in the range from 20V to 25V.

⚠ **Caution**: The redundance module is suitable for the redundant setup of two SITOP power supplies up to a rated output current of 20A each! For the redundant setup of 2 power supplies with 30A or 40A rated output current, two redundance modules will be necessary. In this case one redundance module is assigned to one power supply respectively and the terminals “In 24V-1” and “In 24-2” need to be interconnected on each module.

Technical data

Input variables

Rated input voltage U_e:
24V DC

Operating voltage range:
22...28.8V DC

Output variables

Output DC voltage U_a:
U_e – approx. 0,5V

Output DC current I_a:
0…40 A

Max.Output sum current I_a:
40A

Signaling

Green LED:
both Input voltages > switching threshold

Red LED:
at least one input voltage < switching threshold

Floating relay contact:
message o.k. if both Input voltages > switching threshold,
contact rating: 6 A / 240 V~

Setting range of threshold:
20V ± 0.5V... 25V ± 0.5V

Ambient

Temperature
Storage and transport: -25 to +85°C [-13 to 185°F]
Operation: 0 to +60°C [32 to 140°F]

Humidity rating corresponds to climatic category 3K3 acc. to EN 60721 Part 3, no condensation

Natural air cooling

Specifications

Degree of protection: IP20 acc. to IEC 529

Safety class 1 acc. to IEC 536

Safety acc. to VDE 0160 and VDE 0805 (EN 60950): SELV

Emitted interference acc. to EN 50081-1
Radio interference suppression acc. to EN 55022, limit curve B

Noise immunity acc. to EN 61000-6-2

cULus (UL 508, CSA 22.2 No.14-M95), File E197259

ATEX (Ex) II 3 G, Ex nAC IIC T4 U

Weight

1,0kg [2,2 lb.]

Installation

Mounting on a DIN EN 50022-35x15/7.5 standard rail. To ensure adequate cooling, the device must be installed vertically, with the terminals at the bottom. Be sure to leave a minimum clearance of 50mm above and below the device.

In Ex - applications must be guaranteed that installation is according to protection class IP 54.

Connections and terminal assignment

Terminals	Function	Terminal range	Remarks
In 24V-1	Max. output summation current :	0.33 to 10mm^2 [AWG 22 to 8]	Screw-type terminals. Use a screw driver with a blade width of 5mm. Recommended tightening torque 1,2Nm.
In 24V-2	Input 24V supply voltage from power supply 2		
Out 24V	Output 24V supply voltage to the load		
Gnd	0V connection to the internal supply		
ok	Floating relay contact (changeover contact)	0,5 to 2,5mm^2 [AWG 24 to 12]	Screw-type terminals. Use a screw driver with a blade width of 3mm. Recommended tightening torque 0,5…0,6Nm