SRSP3 . . .

Voltage conroller

Characteristics

- Constant output voltage
- Analog input 4-20 mA
- Easy installation
- Setpoint value switchable

These devices provide voltage regulation, preferably for 3-wire technology for heating circuits with not accessible or not available neutral point. By use of the voltage controller the effective current for the heating is adjusted. The adjustment is controlled at the ampèremeter and if necessary monitored at min. current via a TRB-P. Only the current of one phase can be adjusted, the two other adjust itself.

- Constant output voltage by control to the adjusted setpoint value
- Activation and deactivation via optocoupler (VDE)
- Stromwandlerausgang (nach VDE 0551)
- Effective value display
- Regulating variable input (Ex-i signal or standard)
- Effective constant current transmitter
- For increased ambient temperature

TYPE CODE

SRSP3 _ 1 _ 2 _ 3 _ 4 _ 5

1	-	Standard
	y	Regulating variable 4 - 20 mA
	ey	Regulating variable 4 - 20 mA eigensicher
2	-	Nominal voltage 400 V
	2	Nominal voltage 230 V
	5	Nominal voltage 500 V
3	-	Nominal current 25 A (for plug-in devices max. 20 A continuous load)
	50	Nominal current 50 A
4	S	Plug-in device
	K	Compact unit
5	-	Standard versuib
	G	Constand current transmitter
	B	Current limiter

Example:
Standard device with nominal voltage 400 V, nominal current 25 A, as plug-in device without constant current transmitter:

SRSP3 _ - 2 25 3 S 4 - 5

2.0 TECHNICAL DATA

Nominal voltage	400 V~ (230 V~; 500 V~)
Nominal current	25 A (50 A) (for SRSP3...S 20 A)
Setting ranges voltage	40 - 400 V~ (20 - 230 V~) depends on design
Max. current load of the semiconductor	0,2 s; 200 A - 500 A
Built-in fuses	2 x 80 mA; 6 x 50 mA
Upstreaming fuses	≤ 25 A (50 A (only for SRSP3K)), 20 A (only for SRSP3S)
Current transformer output	25/1 A (6/1; 15/1; 50/1; 2,5/1) R_i 0 - 1,5 Ω
Input optocoupler	3 V R_i = 2 kΩ; 15 - 24 V R_i =5 kΩ; 110 - 230 V R_i = 82 kΩ Disconnection according to VDE 0700
Auxiliary voltage	-15 V = R_i = 2 kΩ
Dimensions	
Plug-in unit (b x h x t)	24 TE x 3 HE x 266 mm (for installation racks 175, 3 low printed circuit boards 100 x 160)
Compact unit (b x h x t in mm)	213 x 155 (125) x 350 Anchor point ∅ 4,5; 203 x 145 mm
Connections	
Plug-in unit	Load unit (left plug) DIN 41612 H 15 Controller (right plug, 180° rotated) DIN 41612 F 32 b + z
Compact unit Output ON switch	4 mm^2 to 25 A 10 mm^2 50 A load terminals U_{max} = 15 V I_{max} = 0,5 mA
Additional facilities	
Input buffer amplifier	
Test voltage	4 kV~
y- signal	4 - 20 mA; 5 Ri 10 Ω
Ex - i - y- signal	4 - 20 mA; Riz 10 Ω EEx ib IIC Ex - 90.C.2029
Minimum resistance of the heating for 25 A design	230 V~ ≥ 5,5 Ω 400 V ~ ≥ 9,5 Ω

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TECHNICAL DESCRIPTION

Display
Depending on the requirements the display device can, for the purpose of improved reading of the operating current, be delivered with measuring range end value 50 A*, 25 A*, 15 A, 10 A, 6 A, 4 A or 2,5 A (*via current transformer „/1)

Switching input
The preferential position is the function „on“. If a function „on“ is predetermined, the device can not be switched off by the other functions. Exception: y-regulating variable input. The voltage regulation always takes place on the maximum phase voltage between the load terminals (no overload at lack of one phase).
Fuses
The voltage controller SRSP3 has 8 fuses for the internal current supply. The overload protection must be carried out extern.

Constant current transmitter
By means of an additional facility this device can also be delivered as constant current transmitter, that means the current that starts to flow is independant from the load as far as possible. It is, however, only controlled on the current of phase 1. The load voltage is in this connection symmetrically to the greatest possible extent. The max. output voltage can be limited by the setpoint poti.

Current transformer output
The current transformer output is designed as transmitter for the current input of the temperature controller TRB-P. Standard 25/1 A or rather 50/1 A. If desired, also the current values 10/1 A, 6/1 A, 2,5/1 Aund 1/1 A can be delivered.

y-regulating variable input
Devices, which are equipped with this buffer amplifier, serve as actuator for analog controllers. The output voltage must be limited with the setpoint pot with voltage scale to the desired max. value (serves as overload protection or as limiter of the overshoots during the adjustment.

VOLTAGE CONTROLLER WITH CURRENT LIMITER

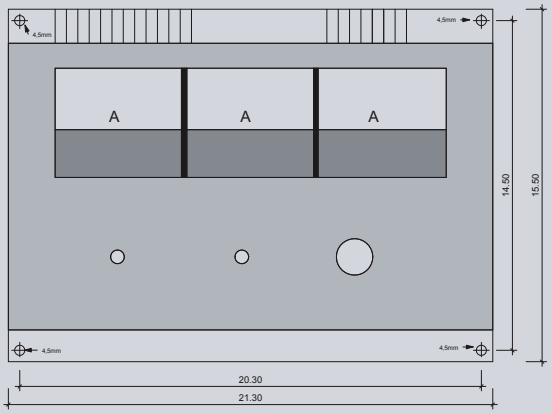
Type SRSP3....B

This device has an additionally integrated device which monitores the current of all 3 phases. The monitoring value is adjusted during the commissioning. Limiter release at 10% above the nominal current.

Additional technical data:
Fault signalling relay: 250 V~, 3 A (closed current principle)

Current transformer output:
At this device the current transformer output is not applicable. It is used for the internal current monitoring. Special version with external output for remote indication of the current on request.

MOUNTING DIMENSIONS



Please take further information from the operating manual.
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