



## ZS4-SF1 Screw Clamp Terminal Block Fuse

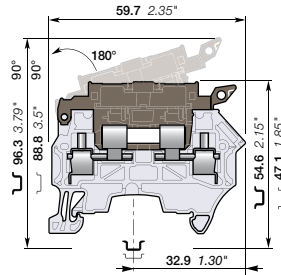


**4 mm<sup>2</sup>**  
10 AWG

8 mm 0.315 in Spacing

### Features and Benefits

- Protect your circuit with 5x25 and 5x20 fuse terminal blocks, compliant with IEC 60947-7-3 standard (fuse not supplied with the terminal blocks).



3D CAD outline drawings available on "Control Product 3D" portal

Ordering Details	Type	Order Code	EAN Code	Pack <sup>(ing)</sup>	Weight g (1 pce)
Grey-Dark Grey		ZS4-SF1	1SNK 508 410 R0000	3472595084104	50 13.30

Declarations and Certificates		Document Part Number
	UE Directive	1SND 225 098 C1002
	Third Party Certificate	1SND 161 030 A0200
	RoHS	1SND 230 491 F0203

### General Information

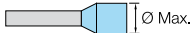
The following information must be strictly adhered to in order to guarantee the terminal block electrical, mechanical and environmental performance.

Protection		IP 20	NEMA 1		
Rail		DIN3-TH35			
Wire stripping length		11 mm	0.433 in		
Operating tool		Screw clamp		Screw rail contact (Maximum value)	
		Flat screwdriver			
Torque		3.5 mm	0.138 in		
		0.6 Nm ± 0.1 Nm	5.31 lb.in ± 0.885 lb.in		± 0.1 Nm ± 0.885 lb.in
Mechanical endurance of disconnect system					

## Material Specifications

Insulating material		<b>Polyamide</b>
IRC		<b>600 V</b>
Flammability	UL94	<b>V0</b>
	NF F 16 101	<b>I2F2</b>
	Needle flame test IEC 60695-11-5	<b>Compliant</b>

## Connecting capacity per clamp

1 Rigid conductor		<b>0.2-4 mm<sup>2</sup></b>		24-10 AWG
1 Flexible conductor without ferrule		<b>0.22-4 mm<sup>2</sup></b>		24-10 AWG
1 Flexible conductor with ferrule		<b>0.22-4 mm<sup>2</sup></b>		24-12 AWG
Ferrule maximum outer diameter		<b>5.5 mm</b>		0.216 in

## Multi Connecting capacity per clamp

2 Rigid conductors		<b>0.2-1 mm<sup>2</sup></b>		24-18 AWG
2 Flexible conductors without ferrule		<b>0.22-1 mm<sup>2</sup></b>		24-18 AWG
2 Flexible conductors with twin ferrule		<b>0.22-1.5 mm<sup>2</sup></b>		24-16 AWG

Don't mix **solid and flexible** conductors **in the same clamp**

Don't mix **solid or flexible** conductors of different sizes **in the same clamp**

The "Connecting capacity with ferrule " data is guaranteed with ABB crimping tool PS-3

## Cross section

Rated cross section		<b>4 mm<sup>2</sup></b>		10 AWG
Maximum Cross section	<b>Manufacturer data</b>	<b>4 mm<sup>2</sup></b>	Manufacturer data	10 AWG

Gauge **A3-B3 / 3 mm / 0.118 in / IEC 60947-7-1**

## Electrical characteristics

### Current

Rated current		IEC 60947-7-1	<b>6.3 A</b>
	Field and factory wiring Cat.2	UL 1059	<b>6.3 A</b>
	Factory wiring Cat.1	UL 1059	<b>6.3 A</b>
		CSA-C-22.2 n° 158	<b>6.3 A</b>
Rated short-time withstand current 1 s (I <sub>cw</sub> )			<b>480 A</b>
Short-time withstand current	0.5 s	Manufacturer data	
	5 s	Manufacturer data	
	10 s	Manufacturer data	
	30 s	Manufacturer data	
	1 mn	Manufacturer data	
Rated short circuit withstand		CSA-C-22.2 n° 158	
Max. current (45° temperature increase) / Max. cross section (mm <sup>2</sup> )		Manufacturer data	<b>6.3 A    4 mm<sup>2</sup></b>
Maximum short circuit current (1s)		Manufacturer data	<b>480 A</b>

## Short Circuit Current Rating (SCCR) SA UL 1059 supplement

SCCR UL 1059

With the following configurations:

Maximum voltage	
Suitable conductor wire range	
Fuse rating	
Fuse designation	
Fuse manufacturer name	
Fuse type	
Short circuit current	

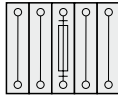
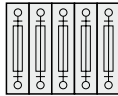
## Voltage

Rated voltage	IEC 60947-1	<b>250 V</b>
Rated voltage	UL 1059	<b>300 V</b>
Use Group	UL 1059	<b>D</b>
Rated voltage	CSA-C-22.2 n° 158	<b>300 V</b>
Rated voltage Ex e	IEC/EN 60079-11	
Rated impulse withstand voltage		<b>8000 V</b>
Dielectric test voltage		<b>2200 V</b>
Pollution degree	IEC 60947-1	<b>3</b>
Overtoltage category	IEC 60947-1	<b>III</b>

## Dissipated power

Maximum dissipated power at rated current	IEC	
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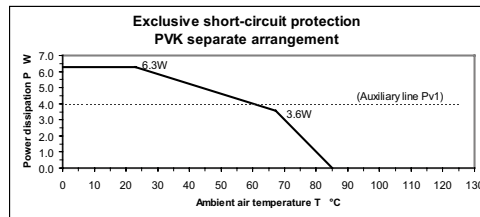
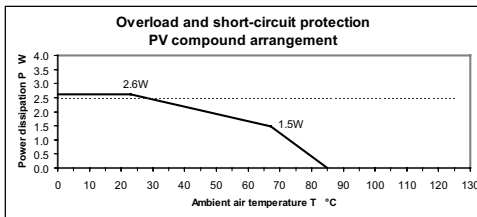
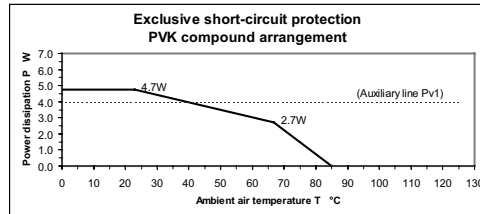
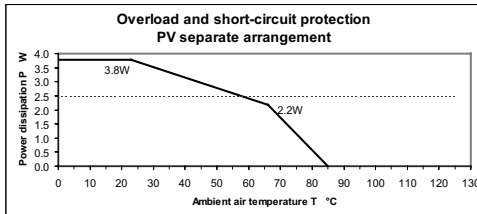
## Rated power dissipation at an ambient temperature of 23 °C - IEC 60947-7-3

Overload and short-circuit protection Separate arrangement		<b>2.5 W</b>
Exclusive short-circuit protection Separate arrangement	1 fuse and 4 feed-through blocks	<b>4 W</b>
Overload and short-circuit protection Compound arrangement		<b>1.6 W</b>
Exclusive short-circuit protection Compound arrangement	5 fuse blocks	<b>4 W</b>

## Temperature range

Ambient temperature min/max	Storage	<b>-55 +110 °C</b>	<i>-67 +230 F</i>
	Installing	<b>-5 +40 °C</b>	<i>-23 +104 F</i>
	Service	IEC 60068-2-1 <b>-55 +110 °C</b>	<i>-67 +230 F</i>
		EN 60079-7	

Current Derating curve for continuous service temperature



## Environmental Characteristics

### Additional climatic tests

Dry heat	Conditions	IEC 60068-2-2	<b>Compliant</b>	
		Temperature	<b>+100 °C</b>	
		Duration of test	<b>96 h</b>	
Cyclic damp heat	Conditions	IEC 60068-2-30	<b>Compliant</b>	
		Temperature	<b>+55 °C</b>	
		Number of cycles	<b>2</b>	
Cold	Conditions	IEC 60068-2-1	<b>Compliant</b>	
		Temperature	<b>-40 °C</b>	
		Duration of test	<b>96 h</b>	
Z/ABDM climatic sequence	Conditions	IEC 60068-2-61	<b>Compliant</b>	
		Dry heat Duration of test / Temperature	<b>16 h</b>	<b>+85 °C</b>
		Cyclic damp heat Number of cycles / Temperature	<b>1</b>	<b>+55 °C</b>
		Cold Duration of test / Temperature	<b>2 h</b>	<b>-25 °C</b>

### Corrosion

Salt mist	Conditions	IEC 60068-2-11	<b>Compliant</b>	
		Duration of test	<b>96 h</b>	
		Concentration	<b>5 %</b>	
SO <sub>2</sub>	Conditions	ISO 6988	<b>Compliant</b>	
		Duration of test	<b>48 h</b>	
		Concentration	<b>0.2 dm<sup>3</sup></b>	
Sulfur dioxide	Conditions	IEC 60068-2-42		
		Duration of test		
Hydrogen sulfur	Conditions	IEC 60068-2-43		
		Duration of test		
Flowing mixed gas corrosion test	Conditions	IEC 60068-2-60		
		Number of the test method		
		Duration of test		

### Vibrations

Vibrations	Conditions	IEC 60068-2-6	<b>Compliant</b>	
		Frequency range	<b>10-55 Hz</b>	
		Number of cycles	<b>10</b>	
		Amplitude		
		Acceleration	<b>10 m/s<sup>2</sup></b>	
Random vibrations and climatic sequence	Conditions	IEC 60068-2-64		
		Duration of test		
		Frequency range		
		Acceleration		
	Climatic cycles			
	Step 1 -> Temperature / Duration of test			
	Step 2 -> Temperature / Duration of test			
	Temperature variation per minute			

## ZS4-SF1 Terminal Block Accessories Compatibility

Description	Type	Order Code	Pack <sup>(ing)</sup> pieces	Weight g (1 pce)	Technical Datasheet PDF
1 End Stops	<b>BAM3</b>	<b>1SNK 900 001 R0000</b>	50	13.80	<b>1SNK 160 026 D0201</b>
2 End Sections	<b>ES4-SF</b>	<b>1SNK 508 960 R0000</b>	20	1.82	<b>1SNK 160 019 D0201</b>
3 Protecting Covers	<b>CO</b>	<b>1SNK 900 604 R0000</b>	1	300.00	<b>1SNK 160 020 D0201</b>
4 Protecting Cover Kits	<b>KCO</b>	<b>1SNK 900 624 R0000</b>	1	47,8	<b>1SNK 160 028 D0201</b>
5 Tools	<b>PS-3</b>	<b>1SNK 900 650 R0000</b>	1	380.00	<b>1SNK 160 024 D0201</b>
6 Terminal Block Markers	<b>MC812</b>	<b>1SNK 160 000 R0000</b>	22	0.09	<b>1SNK 160 009 D0201</b>
	<b>UMH</b>	<b>1SNK 900 611 R0000</b>	10	0.20	<b>1SNK 160 001 D0201</b>
	<b>PROCAP8</b>	<b>1SNK 900 613 R0000</b>	20	1.00	<b>1SNK 160 013 D0201</b>
	<b>SAT8</b>	<b>1SNK 900 616 R0000</b>	5	6.00	<b>1SNK 160 013 D0201</b>