



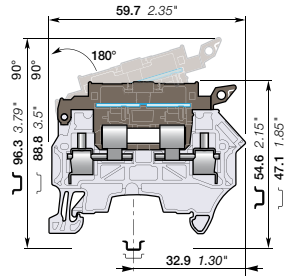
ZS4-SF1-R Screw Clamp Terminal Block
Fuse



4 mm²
10 AWG

8 mm 0.315 in Spacing

Features and Benefits



- Protect your circuit with 5x25 and 5x20 fuse terminal blocks (fuse not supplied with the terminal blocks),
- Compliant with IEC 60947-7-3 standard,
- Quickly identify the defective circuit thanks to the blown fuse indicator (with leakage current < 0.5 mA).

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

Ordering Details	Type	Order Code	EAN Code	Pack ^(ing)	Weight g (1 pce)	
Grey-Dark Grey		ZS4-SF1-R1	1SNK 508 412 R0000	3472595084128	50	13.30
Grey-Dark Grey		ZS4-SF1-R3	1SNK 508 414 R0000	3472599097247	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

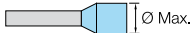
The following information must be strictly adhered to in order to guarantee the terminal block electrical, mechanical and environmental performance.

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

Material Specifications

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

Connecting capacity per clamp

1 Rigid conductor		0.2-4 mm²		24-10 AWG
1 Flexible conductor without ferrule		0.22-4 mm²		24-10 AWG
1 Flexible conductor with ferrule		0.22-4 mm²		24-12 AWG
Ferrule maximum outer diameter		5.5 mm		0.216 in

Multi Connecting capacity per clamp

2 Rigid conductors		0.2-1 mm²		24-18 AWG
2 Flexible conductors without ferrule		0.22-1 mm²		24-18 AWG
2 Flexible conductors with twin ferrule		0.22-1.5 mm²		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		4 mm²		10 AWG
Maximum Cross section	Manufacturer data	4 mm²	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	6.3 A
	Field and factory wiring Cat.2	UL 1059	6.3 A
	Factory wiring Cat.1	UL 1059	6.3 A
		CSA-C-22.2 n° 158	6.3 A
Rated short-time withstand current 1 s (I _{cw})			480 A
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 ²)		Manufacturer data	6.3 A 4 mm²
Maximum short circuit current (1s)		Manufacturer data	480 A

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	

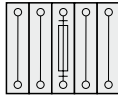
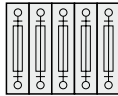
Voltage

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

Dissipated power

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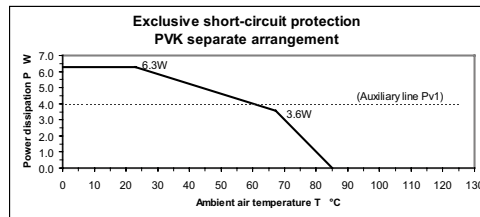
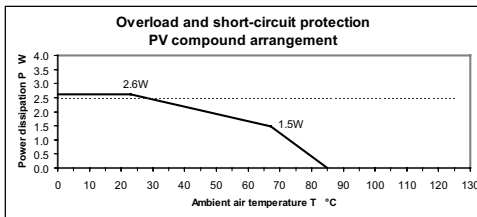
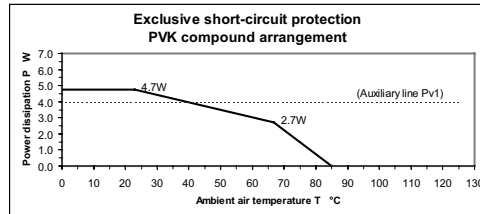
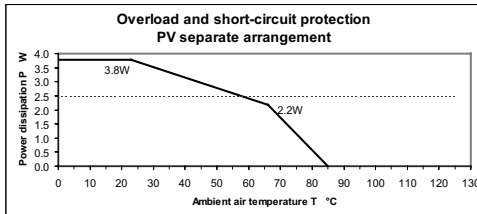
Rated power dissipation at an ambient temperature of 23 °C - IEC 60947-7-3

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

Temperature range

Ambient temperature min/max	Storage	-55 +110 °C	<i>-67 +230 F</i>
	Installing	-5 +40 °C	<i>-23 +104 F</i>
	Service	IEC 60068-2-1 -55 +110 °C	<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	Compliant	
		Temperature	+100 °C	
		Duration of test	96 h	
Cyclic damp heat	Conditions	IEC 60068-2-30	Compliant	
		Temperature	+55 °C	
		Number of cycles	2	
Cold	Conditions	IEC 60068-2-1	Compliant	
		Temperature	-40 °C	
		Duration of test	96 h	
Z/ABDM climatic sequence	Conditions	IEC 60068-2-61	Compliant	
		Dry heat Duration of test / Temperature	16 h	+85 °C
		Cyclic damp heat Number of cycles / Temperature	1	+55 °C
		Cold Duration of test / Temperature	2 h	-25 °C

Corrosion

Salt mist	Conditions	IEC 60068-2-11	Compliant	
		Duration of test	96 h	
		Concentration	5 %	
SO ₂	Conditions	ISO 6988	Compliant	
		Duration of test	48 h	
		Concentration	0.2 dm³	
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	Compliant	
		Frequency range	10-55 Hz	
		Number of cycles	10	
		Amplitude		
		Acceleration	10 m/s²	
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-R Terminal Block Accessories Compatibility

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