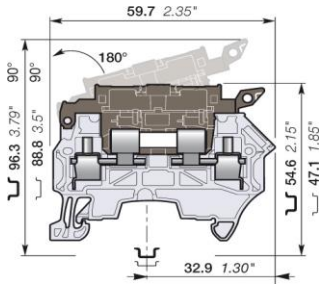
ZS4-SF1 Screw Clamp Terminal Blocks
For 5 x 20 and 5 x 25 fuses

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

		**4 mm²**
		10 AWG
8 mm	*0.315 in*	**Spacing**

Ordering Details

Color	Type	Order Code	EAN Code	Pack[ing]	Weight (1 pce) g
Grey, Dark Grey	ZS4-SF1	1SNK508410R0000	3472595084104	50	13.30

Declarations and Certificates

CE	CB	RoHS	USR CNR			EAC			
		BV	Rina	DNV					

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Declarations and Certificates

	CE	1SND225103U10*
	CB	1SND161030A02*
RoHS	RoHS	1SND230491F02*
	USR CNR	1SND161040A02*
	CSA	1SND161070A02*
EAC	EAC	1SND161009A11*
	BV	1SND161073A02*
	RINA	1SND161088A02*
	DNV	1SND161087A02*

General Information

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

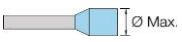
Protection	IEC 60947-1	IP20		*NEMA 1*				
Rail		TH 35-7.5, TH 35-15						
Wire stripping length		11 mm	*0.432 in*					

		Screw clamp		Screw rail contact (Maximum value)		Disconnect device		
Operating tool		Flat screwdriver						
		3.5 mm	*0.138 in*					
Torque		0.6 N.m	*5.31 N.m*					
		± 0.1 N.m	*± 0.885 N.m*					

Material Specifications

Insulating material		Polyamide
CTI		600 V
Flammability	UL94	V0
	NF F 16101	I2F2
	Needle flame test IEC 60615-11-5	Compliant

Connecting capacity per clamp

		Screw clamp			
1 Rigid - Solid / Stranded conductor	Norme				
	Value	0.2 ... 4 mm²	24 ... 10 AWG		
1 Flexible conductor	Norme				
	Value	0.22 ... 4 mm²			
1 Flexible conductor with non insulated ferrule	Norme	Manufacturer data	Manufacturer data		
	Value	0.22 ... 4 mm²	24 ... 12 AWG		
1 Flexible conductor with insulated ferrule	Norme	Manufacturer data	Manufacturer data		
	Value	0.22 ... 4 mm²	24 ... 12 AWG		
Gauge		A3-B3	3 mm		
		IEC 60947-1	*0.118 in*		
Ferrule maximum outer diameter or conductor insulation maximum outer diameter			Manufacturer data	5.5 mm	0.216 in

The "Connecting capacity with ferrule" data is guaranteed with ABB crimping tool PS-3 (crimping capacity up to 10 mm²).

Multi Connecting capacity per clamp

2 Rigid - Solid / Stranded conductors	Norme				
	Value	0.2 ... 2.5 mm²	24 ... 14 AWG		
2 Flexible conductors	Norme				
	Value	0.2 ... 2.5 mm²			
2 Flexible conductors with twin ferrule	Norme	Manufacturer data	Manufacturer data		
	Value	0.22 ... 2.5 mm²	24 ... 14 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 (crimping capacity up to 10 mm²)

Cross section

Rated cross section		4 mm²		10 AWG
Maximum Cross section	Manufacturer data	4 mm²	Manufacturer data	*10 AWG*

Electrical characteristics

Current

Rated current				6.3 A	
	Field and factory wiring Cat.2		UL 1059	10 A	
	Factory wiring Cat.1		UL 1059	10 A	
			CSA-C-22.2 n°158	6.3 A	
Maximum Exe current			IEC/EN 60079-7		
Rated short-time withstand current 1 s (Icw)					
Short-time withstand current		0.5 s	Manufacturer data		
		5 s	Manufacturer data		
		10 s	Manufacturer data		
		30 s	Manufacturer data		
		1 min	Manufacturer data		
Rated short-circuit withstand current			UL 1059		
Max. current (45° temperature increase) / Max. cross section (mm²)			Manufacturer data	6.3 A	4 mm²
Maximum short circuit current (1s)			Manufacturer data		

Short Circuit Current Rating (SCCR) SA UL 1059 supplement

SCCR			UL 1059	
With the following configurations:				
	Suitable conductor wire range			
	Maximum voltage			
	Fuse class / Max. amp. Rating		J	
			T	
			RK1	
			RK5	
			G	
			CC	

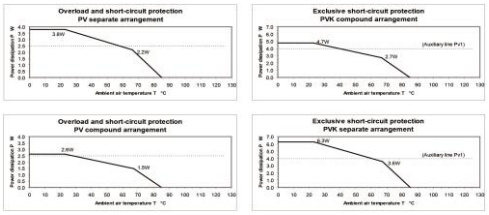
Voltage

Rated voltage	IEC 60947-1	630 V
Rated voltage	UL 1059	300 V
Use Group	UL 1059	B, C, D
Rated voltage	CSA-C-22.2 n°158	300 V
Rated voltage Ex e	IEC/ EN 60079-7	
Rated impulse withstand voltage	IEC 60947-1	8000 V
Dielectric test voltage	IEC 60947-1	2200 V
Pollution degree	IEC 60947-1	3
Overvoltage category	IEC 60947-1	III

Temperature range

Ambient temperature min/max	Storage	-55 ... +110 °C	*-67 ... +230 °F*
	Installing	-5 ... +40 °C	*+23 ... +104 °F*
	Service	-55 ... +110 °C	*-67 ... +230 °F*

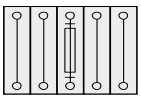
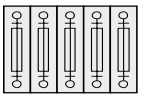
Current Derating curve for continuous service temperature



Dissipated power

Maximum dissipated power at rated current	IEC 60947-1	
Maximum dissipated power at maximum Exe current	IEC 60079-7	

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

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

Environmental Characteristics
Additional climatic tests

Dry heat		IEC 60068-2 2	Compliant
	Conditions	Temperature	+100 °C
		Duration of test	96 h
Cyclic damp heat		IEC 60068-2 30	Compliant
	Conditions	Temperature	+55 °C
		Relative humidity	
		Number of cycles (1 cycle = 24h)	2
Cold		IEC 60068-2 1	Compliant
	Conditions	Temperature	-40 °C
		Duration of test	96 h
Damp heat steady state		IEC 60068-2-78	
	Conditions	Temperature	
		Relative humidity	
		Duration of test	

Corrosion

Salt mist		IEC 60068-2 11	Compliant
	Conditions	Duration of test	96 h
		Concentration	5 %
SO2		ISO 6988	Compliant
	Conditions	Duration of test	48 h
		Concentration	0.2 dm^3
Flowing mixed gas corrosion test		IEC 60068-2 60	
	Conditions	Number of the test method	
		Duration of test	

Vibrations and shocks

Sinusoidal vibrations		IEC 60068-2-6	Compliant
	Conditions	Frequency range	10 ... 55 Hz
		Number of cycles	10
		Acceleration	10 m/s²
Functional random vibrations		IEC 61373	
Category 1 Class B 3 axes	Conditions	Duration of test	
		Frequency range	
		Acceleration	
Long life testing at increased random vibrations		IEC 61373	
Category 1 Class B 3 axes	Conditions	Duration of test	
		Frequency range	
		Acceleration	
Shock		IEC 61373	
Category 1 Class B 3 axes	Conditions	Duration of test	
		Acceleration	

ZS4-SF1 Terminal Block Accessories Compatibility

Some accessories may modify the terminal block's rating. See complete information in the accessories catalog page.

	Description	Type	Order Code	Pack(ing) pieces	Weight g (1 pce)	
1	Terminal Block Markers	**MG-CPM 13**	**1SNB041791R0612**	1680	0.273	
		MC812	**1SNK160000R0000**	22	10.00	
		MC812-YL	**1SNK160004R0000**	22	10.00	
		MC812PA	**1SNK169999R0000**	20	14.00	
		UMH	**1SNK900611R0000**	10	0.20	
		PROCAP8	**1SNK900613R0000**	20	1.00	
		SAT8	**1SNK900616R0000**	5	6.00	
2	Mounting Rails	**PR3.G2**	**1SNA164800R0300**	2	718.00	
		PR4	**1SNA168500R1200**	2	915.00	
		PR5	**1SNA168700R2200**	2	700	
		PR30	**1SNA173220R0500**	2	328.00	
		PR3.Z2	**1SNA174300R1700**	2	718.00	
3	End Sections	**ES4-SF**	**1SNK508960R0000**	20	1.80	
4	End Stops	**BAM4**	**1SNK900001R0000**	50	14.00	
		BAZ1	**1SNK900002R0000**	50	5.30	
5	Protecting Covers	**CO**	**1SNK900604R0000**	1	300.00	
6	Protecting Cover Kits	**KCO**	**1SNK900624R0000**	1	47.80	
7	Tools	**PS-3**	**1SNK900650R0000**	1	380.00	
8	Lateral Jumper Bars	**PC81-10**	**1SNA173523R1100**	10	5.00	
9	Fuses	**FU520**	**1SNA008288R1500**	10	2.00	
		FU520	**1SNA008289R1600**	10		
		FU520	**1SNA008290R1300**	10		
		FU520	**1SNA008291R0000**	10		
		FU520	**1SNA008292R0100**	10		
		FU525	**1SNA167546R2200**	10		
		FU525	**1SNA167547R2300**	10		
		FU525	**1SNA167548R0400**	10		
		FU525	**1SNA167549R0500**	10		
		FU525	**1SNA167550R0200**	10		
10	Assembly Rods	**TGA8**	**1SNA168672R1100**	10	1.00	
		TGA8	**1SNA168673R1200**	10	1.50	
		TGA8	**1SNA168674R1300**	10	2.00	
11	Spring Retaining Rings	**ANT**	**1SNA168675R1400**	10		

Contact us

ABB France
Electrification Products Division
PG Connection
3, rue Jean Perrin
F-69687 Chassieu cedex / France
Tel. +33 (0)4 7222 1722
Fax +33 (0)4 7222 1935

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