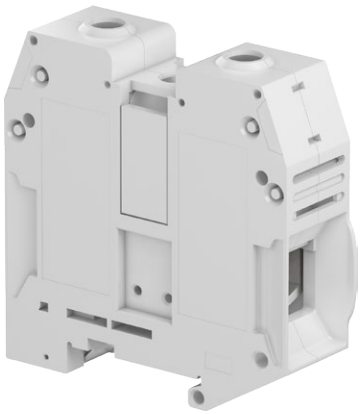
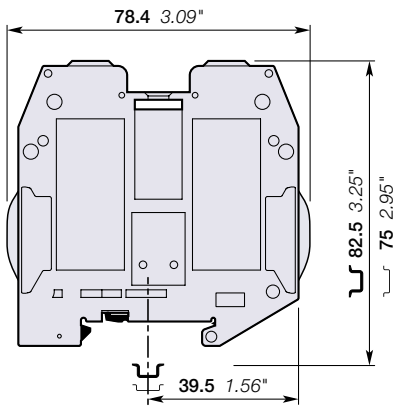
ZS70 screw clamp terminal blocks
Feed-through

Closed terminal block:
- No end section needed,
- Optimized rigidity,
- Perfectly adapted to solar applications: 1250 V DC (1000 V AC) IEC and 1000 V UL.





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

Ordering details

Color	Type	Order code	EAN code	Pkg qty	Weight (1 pce) g
Grey	ZS70	1SNK522010R0000	3472595220106	10	158.10
Blue	ZS70-BL	1SNK522020R0000	3472595220205	10	158.10
Yellow	ZS70-YL	1SNK522060R0000	3472595220601	10	158.10

Declarations and certificates

CE, CB, RoHS, USR CNR, CSA, EAC Ex, ATEX, IECEx, BV, UE / ATEX Declaration

Declarations and certificates

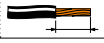
		Document Part Number
CE	UE	1SND225112U1003
CB	CB	1SND161034A0202
RoHS	RoHS	1SND230491F0206
USR CNR	USR CNR	1SND161040A0206
CSA	CSA	1SND161070A0209
EAC Ex	EAC Ex	1SND161010A1100
ATEX	ATEX	1SND162004A1708
IECEx	IECEx	1SND162005A1706
	BR-Ex e II	1SND161042A0203
	USR CNR Haz Loc	1SND161047A0203
BV	BV	1SND161073A0204
	DNV	1SND161087A0202
	RINA	1SND161088A0200
UE / ATEX Declaration	UE / ATEX Declaration	

Explosive atmosphere: ATEX classification

Group category	Protection method
IM2 II 2 GD Ex eb I/II/IIIC	Ex e: increased security
In the presence of explosive dust atmosphere, terminal blocks have to be installed in certified enclosure II 2D	

General information

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

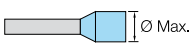
Protection	IEC 60947-1	IP10	*NEMA 1*				
Rail		TH 35-7.5, TH 35-15					
Wire stripping length		25 mm	*0.984 in*				

		Screw clamp		**Screw rail contact (Maximum value)**		**Disconnect device**	
Operating tool		Allen key					
		6 mm	*0.236 in*				
Torque		6.5 N.m ± 0.5					
		57.5 lb.in ± 4.43					

Material specifications

Insulating material		Polyamide
CTI		600 V
Flammability	UL94	V0
	Grey and dark grey color only NF F 16-101	I2F2
	Needle flame test IEC 60695-11-5	Compliant

Connecting capacity per clamp

		Screw clamp			
1 Rigid - Solid / Stranded conductor	Norme	IEC 60947-7-1	*UL1059*		
	Value	16 ... 95 mm²	*4 ... 00 AWG*		
1 Flexible conductor	Norme	IEC 60947-7-1			
	Value	16 ... 70 mm²			
1 Flexible conductor with non insulated ferrule	Norme	Manufacturer data			
	Value	16 ... 50 mm²			
1 Flexible conductor with insulated ferrule	Norme	Manufacturer data			
	Value	16 ... 50 mm²			
Gauge	Norme	IEC 60947-1			
	Value	B11			
Ferrule maximum outer diameter or conductor insulation maximum outer diameter					

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

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The information given is not contractual. For further details please contact the ABB company marketing these products in your country.

Multi connecting capacity per clamp

2 Rigid - Solid / Stranded conductors	Norme	IEC60947-7-1	*UL1059*		
	Value	16 ... 35 mm²	*4 ... 2 AWG*		
2 Flexible conductors	Norme	IEC60947-7-1			
	Value	16 ... 35 mm²			
2 Flexible conductors with twin ferrule	Norme	Manufacturer data	*Manufacturer data*		
	Value	16 mm²	*6 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		70 mm²		*00 AWG*
Maximum cross section	Manufacturer data	70 mm²	*Manufacturer data*	*00 AWG*

Electrical characteristics
Current

Rated current			192 A	
	Field and factory wiring Cat.2	UL 1059	159 A	
	Factory wiring Cat.1	UL 1059	159 A	
		CSA-C-22.2 n° 158		
Maximum Exe current		IEC/EN 60079-7	192 A	
Rated short-time withstand current 1 s (Icw)			8400 A	
Short-time withstand current	0.5 s	Manufacturer data	11800 A	
	5 s	Manufacturer data	3700 A	
	10 s	Manufacturer data	2600 A	
	30 s	Manufacturer data	1500 A	
	1 mn	Manufacturer data	1000 A	
Rated short-circuit withstand current		UL 1059		
Max. current (45° temperature increase) / Max. cross section (mm²)		Manufacturer data	192 A	70 mm²
Maximum short circuit current (1s)		Manufacturer data	8400 A	

Short Circuit Current Rating (SCCR) SA UL 1059 supplement

SCCR		UL 1059	100 kA	
With the following configurations:				
	Suitable conductor wire range		4 ... 00 AWG	
	Maximum voltage		600 V	
	Fuse class / Max. amp. Rating	J	250 A	
		T	250 A	
		RK1	200 A	
		RK5	100 A	
		G	60 A	
		CC	30 A	

Voltage

Rated voltage	IEC 60947-1	1000 V
Rated voltage	UL 1059	1000 V
Use Group	UL 1059	B, C
Rated voltage	CSA-C-22.2 n° 158	
Rated voltage Ex e	IEC/EN 60079-7	693 V
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

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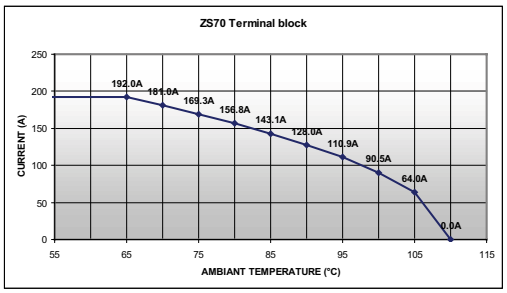
Temperature range

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*

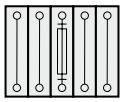
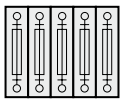
Current Derating curve for continuous service temperature



Dissipated power

Maximum dissipated power at rated current	IEC 60947-7-1	6.1 W
Maximum dissipated power at maximum Exe current	IEC 60079-7	6.1 W

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	
Separate arrangement/ Exclusive short-circuit protection		
Compound arrangement/ Overload and short-circuit protection	 5 fuse blocks	
Compound arrangement/ Exclusive short-circuit protection		

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

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

Vibrations and shocks

Sinusoidal vibrations		IEC 60068-2-6	Compliant
	Conditions	Frequency range	10 ... 55 Hz
		Number of cycles	10
		Acceleration	10 m/s^2

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ZS70 terminal block accessories compatibility

Some accessories may modify the terminal block's rating. See complete information in the accessories "Technical Datasheet".

Description	Color	Type	Order code		Pkg qty	Weight (1 pce) g
End stops	Dark grey	BAZH1	1SNK900102R0000		20	24.00
Jumper bars		JB22-2	1SNK922302R0000		5	27.00
		JB22-3	1SNK922303R0000		5	43.30
		JB22-5	1SNK922305R0000		5	76.10
		JB22-10	1SNK922310R0000		5	157.40
Terminal block markers	White	MC812	1SNK160000R0000		22	10.00
		MC812PA	1SNK169999R0000		20	14.00
	Grey	UMH	1SNK900611R0000		10	0.20
	White	MG-CPM 13 41791	1SNB041791R0612		1680	0.273

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