DATASHEET - PKZ-SOL12



String circuit-breaker, DC current, 2p, 12A

Part no.	**PKZ-SOL12**
Catalog No.	**120937**
Alternate Catalog No.	**PKZ-SOL12**
EL-Nummer (Norway)	**4300316**

Powering Business Worldwide™

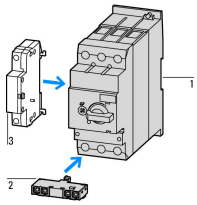
Delivery program

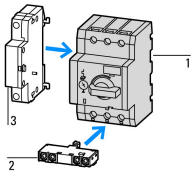
Product range			Switchgear for photovoltaic systems
Subrange			String circuit-breakers
Product range			String circuit-breakers
Application field			Utility buildings Open areas
Rated operational voltage	U_e	V	900
Protection class			2
Number of conductors			2 pole
Rated operational current at DC-21A	I_e	A	12
Admissible short-circuit current for solar modules	I_{SC}	A	5 - 9 A

Setting range

Overload releases			
Overload release, min.	I_r	A	8
Overload release max.		A	12
Design			open

Notes





Accessories

2 auxiliary contacts NHI-E
3 shunt releases A-PKZ0
3 undervoltage releases U-PKZ0

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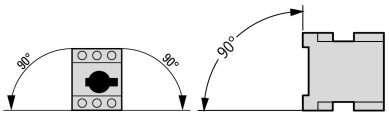
Technical data

Rated operational current at DC-21A	I_e	A	12
Number of poles			2 pole
Rated operational voltage	U_e	V	900
Thermal trip			1.05 - 1.3 x I_e
Electromagnetic trip block			6 x I_e
Standards			IEC/EN 60947-2 TÜV-certified
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30

Ambient temperature

Open		°C	-25 - +60
Mounting position			

Dimensions

Width		mm	58
Height		mm	93

Depth		mm	76

Top-hat rail			35 mm
Weight		kg	0.32

Terminal capacities

Flexible with ferrule		mm^2	1 x (1 - 6) 2 x (1 - 6)
Solid or stranded		AWG	18 - 14
Internal resistance		mΩ	31

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I_n	A	12
Heat dissipation per pole, current-dependent	P_{vid}	W	0
Equipment heat dissipation, current-dependent	P_{vid}	W	4.5
Static heat dissipation, non-current-dependent	P_{vs}	W	0
Heat dissipation capacity	P_{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	60
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat			Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation			Meets the product standard's requirements.
10.2.5 Lifting			Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact			Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions			Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES			Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances			Meets the product standard's requirements.
10.5 Protection against electric shock			Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components			Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections			Is the panel builder's responsibility.
10.8 Connections for external conductors			Is the panel builder's responsibility.
10.9 Insulation properties			
10.9.2 Power-frequency electric strength			Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage			Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material			Is the panel builder's responsibility.
10.10 Temperature rise			The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 7.0

Low-voltage industrial components (EG000017) / Power circuit-breaker for trafo/generator/installation protection (EC000228)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Circuit breaker for power transformer, generator and system protection (ecl@ss10.0.1-27-37-04-09 [AJZ716013])

Rated permanent current Iu		A	12
Rated voltage		V	900 - 900
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz		kA	0
Overload release current setting		A	8 - 12
Adjustment range short-term delayed short-circuit release		A	0 - 0

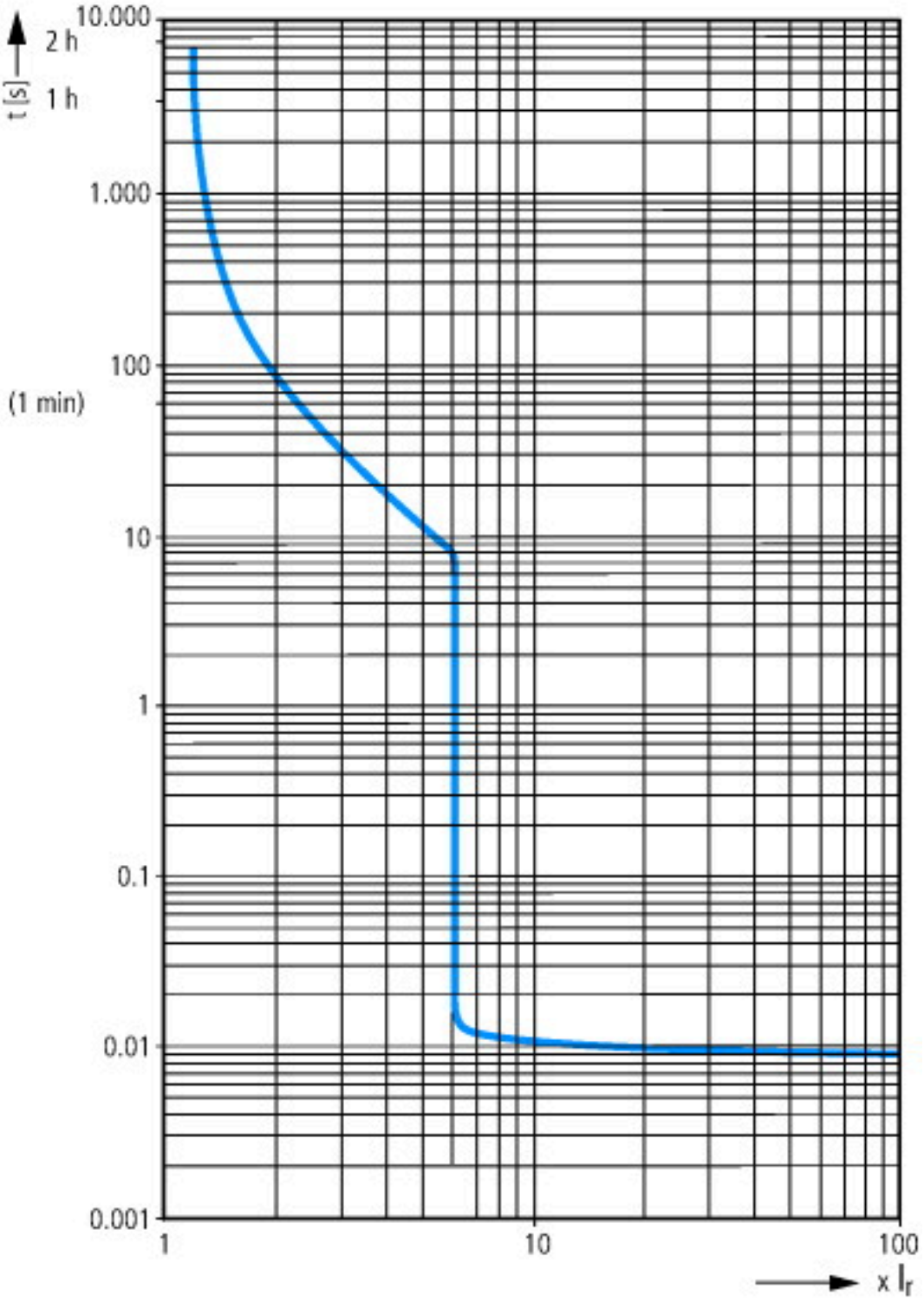
Adjustment range undelayed short-circuit release	A	72 - 72
Integrated earth fault protection		No
Type of electrical connection of main circuit		Screw connection
Device construction		Built-in device fixed built-in technique
Suitable for DIN rail (top hat rail) mounting		Yes
DIN rail (top hat rail) mounting optional		Yes
Number of auxiliary contacts as normally closed contact		0
Number of auxiliary contacts as normally open contact		0
Number of auxiliary contacts as change-over contact		0
With switched-off indicator		No
With under voltage release		No
Number of poles		2
Position of connection for main current circuit		Other
Type of control element		Turn button
Complete device with protection unit		Yes
Motor drive integrated		No
Motor drive optional		No
Degree of protection (IP)		IP20

Approvals

Specially designed for North America		No

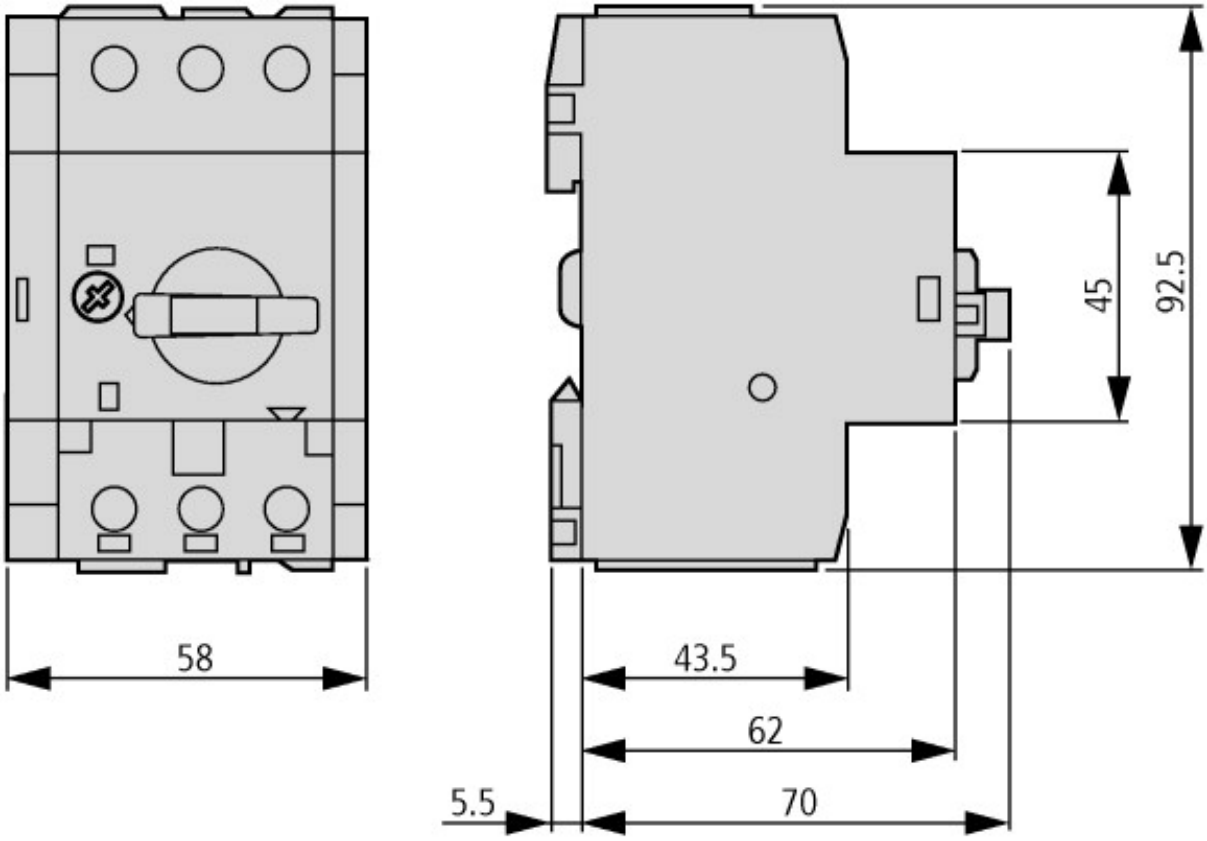
Characteristics

Characteristic curves		



tripping characteristics

Dimensions



Assets (links)

Declaration of CE Conformity

00002828

Instruction Leaflets

IL03402020Z2018_06

Additional product information (links)

IL03402020Z DC switch-disconnector, DC-String circuit-breaker	
IL03402020Z DC switch-disconnector, DC-String circuit-breaker	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03402020Z2018_06.pdf
Motor starters and "Special Purpose Ratings" for the North American market	http://www.eaton.eu/ecm/groups/public/@pub/@europe/@electrical/documents/content/pct_3258146.pdf
Busbar Component Adapters for modern Industrial control panels	http://www.moeller.net/binary/ver_techpapers/ver960en.pdf

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