




**String circuit-breaker, DC current, 2p, 20A**

**Part no.** PKZ-SOL20  
**Catalog No.** 120938  
**Alternate Catalog No.** PKZ-SOL20  
**EL-Nummer (Norway)** 4300317

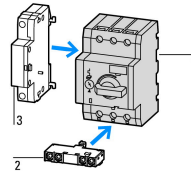
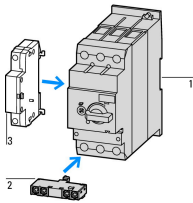
**Delivery program**

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	20
Admissible short-circuit current for solar modules	$I_{SC}$	A	9 - 15

**Setting range**

Overload releases			
			
Overload release, min.	$I_r$	A	16
Overload release max.		A	20
Connection technique			Screw terminals
Design			open

**Notes**



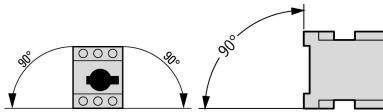
**Accessories**  
 2 auxiliary contacts NHI-E  
 3 shunt releases A-PKZ0  
 3 undervoltage releases U-PKZ0

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**Technical data**

Rated operational current at DC-21A	$I_e$	A	20
Number of poles			2 pole
Rated operational voltage	$U_e$	V	900
Thermal trip			$1.05 - 1.3 \times I_e$
Electromagnetic trip block			$6 \times I_e$
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
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Height	mm	93
Depth	mm	76

Top-hat rail		35 mm
Weight	kg	0.32

### Terminal capacities

Flexible with ferrule	mm <sup>2</sup>	1 x (1 - 6) 2 x (1 - 6)
Solid or stranded	AWG	18 - 14
Internal resistance	mΩ	12

## Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I <sub>n</sub>	A	20
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	1.6
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	4.8
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	0
Heat dissipation capacity	P <sub>diss</sub>	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 (ec@ss10.0.1-27-37-04-09 [AJZ716013])		
Rated permanent current I <sub>u</sub>	A	20
Rated voltage	V	900 - 900
Rated short-circuit breaking capacity I <sub>cu</sub> at 400 V, 50 Hz	kA	0
Overload release current setting	A	14 - 20

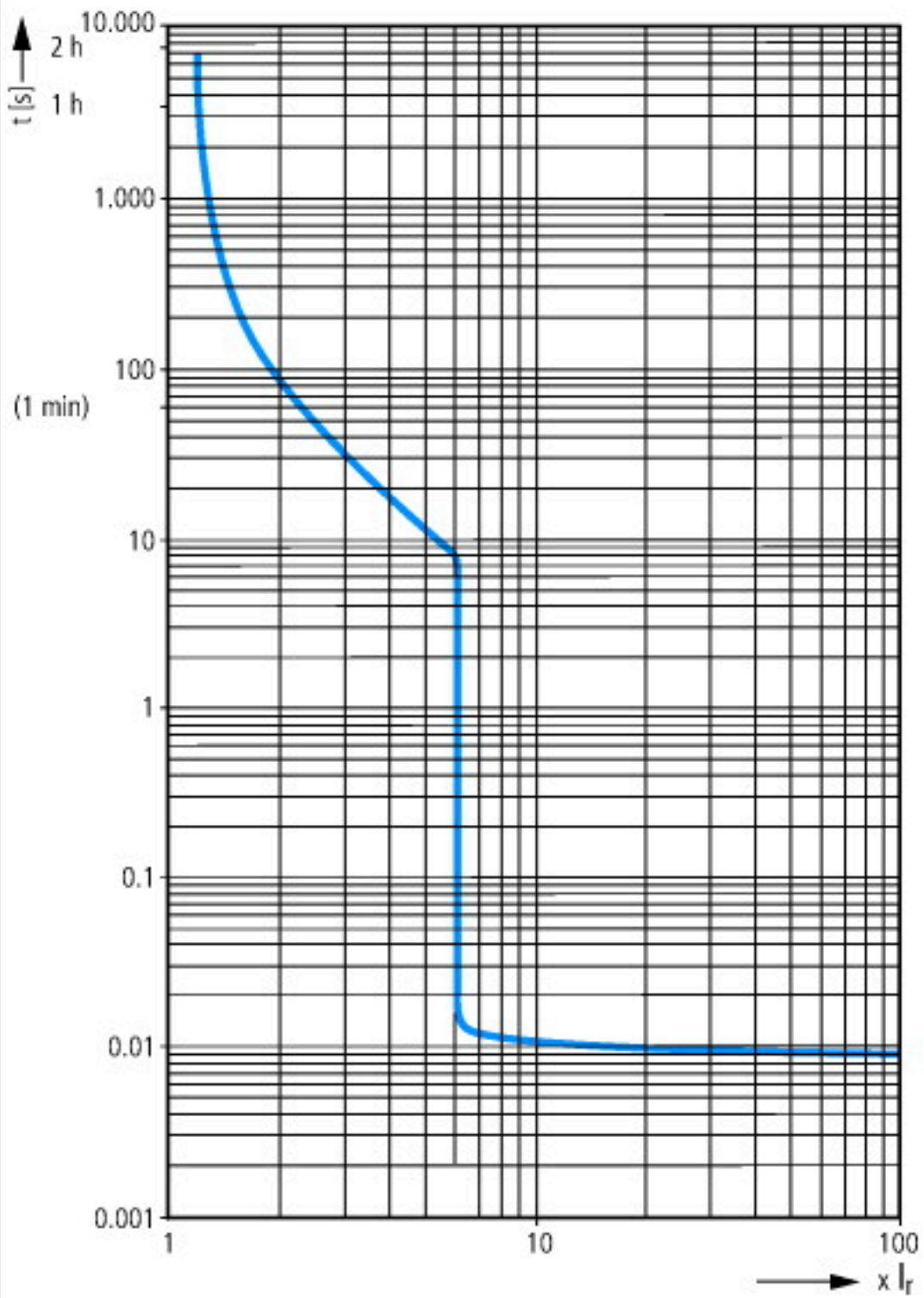
Adjustment range short-term delayed short-circuit release	A	0 - 0
Adjustment range undelayed short-circuit release	A	120 - 120
Integrated earth fault protection		No
Type of electrical connection of main circuit		Screw connection
Device construction		Built-in device fixed built-in technique
Suitable for 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)		IP00

## Approvals

Specially designed for North America		No
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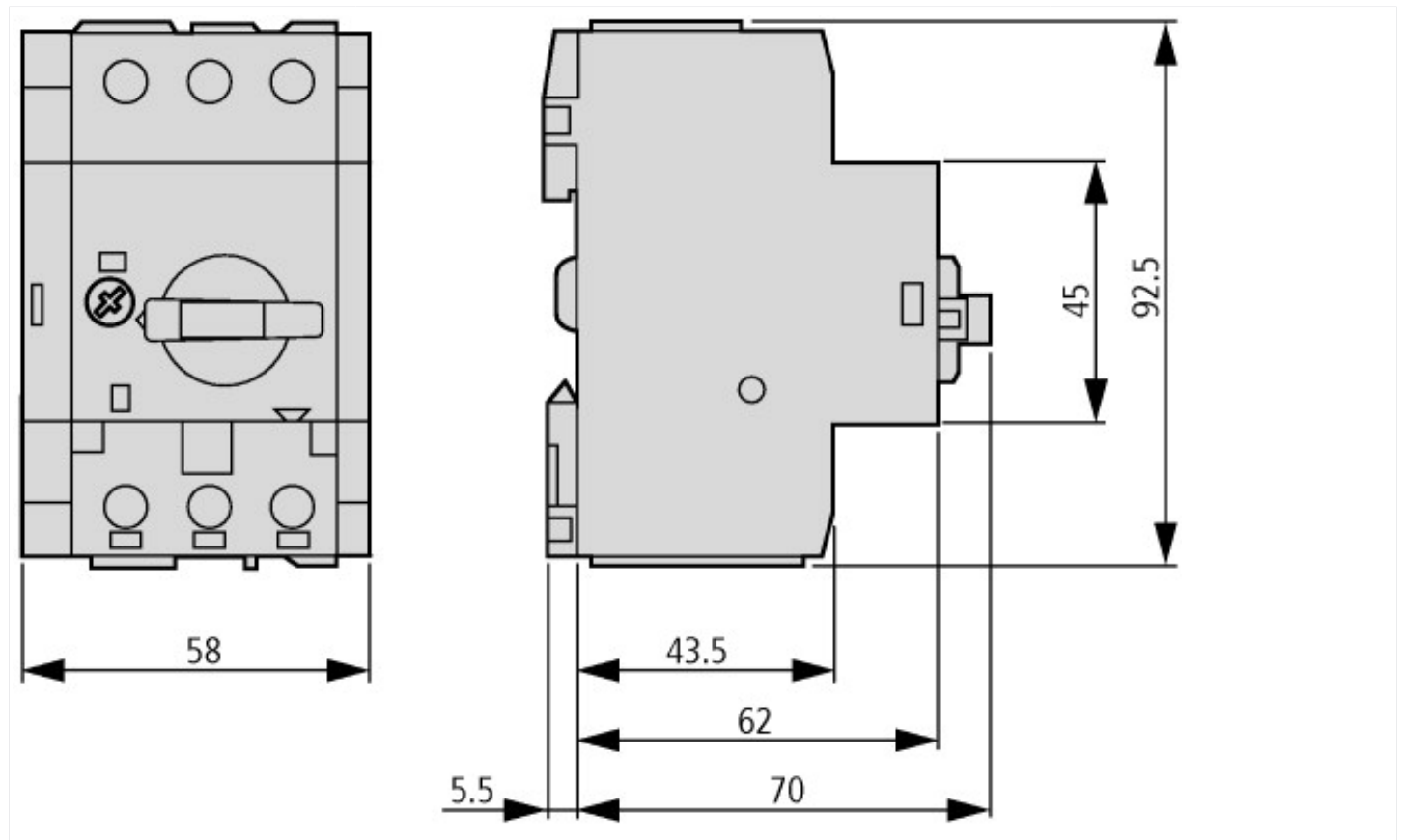
## Characteristics

Characteristic curves		
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tripping characteristics

## Dimensions



## Additional product information (links)

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](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](http://www.moeller.net/binary/ver_techpapers/ver960en.pdf)