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Worldwide English



PKZ-SOL30 - String circuit-breaker, DC current, 2p, 30A



120939 PKZ-SOL30

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120939 PKZ-SOL30

String circuit-breaker, DC current, 2p, 30A

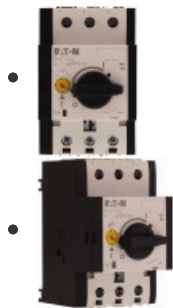
Alternate Catalog No.

PKZ-SOL30

EL-Nummer (Norway)

4300318

String circuit-breakers PKZ-SOL are the fuseless alternative for the protection of photovoltaic modules against short-circuit currents. With their variable tripping range, they can be optimally adjusted to the actual short-circuit current of a string. Using the optional delayed undervoltage release P-SOL-XUV, remote switching, for example, for the fire brigade is possible.



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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]
900 V
Protection class
2
Number of conductors

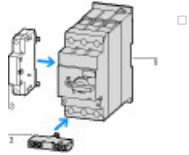
2 pole
Rated operational current at DC-21A [I_e]
30 A
Admissible short-circuit current for solar modules [I_{sc}]
15 - 22 A

Setting range

Overload releases  [I_r] Overload release max.

30 A
Connection technique
Screw terminals
Design
open

Notes



Accessories

Page

2 auxiliary contacts NH-E 082882
3 shunt releases A-PKZO 073187
3 undervoltage releases U-PKZO 073135

Technical data

Rated operational current at DC-21A [I_e]
30 A

Number of poles

2 pole

Rated operational voltage [U_e]

900 V

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

-25 - +60 °C

Mounting position



Dimensions

Width

58 mm

Height

93 mm

Depth

76 mm

Top-hat rail

35 mm

Weight

0.32 kg

Terminal capacities

Flexible with ferrule

1 x (1 - 6)

2 x (1 - 6) mm²

Solid or stranded

18 - 14 AWG

Internal resistance

7 mΩ

Design verification as per IEC/EN 61439

Technical data for design verification

Rated operational current for specified heat dissipation [I_r]

30 A

Heat dissipation per pole, current-dependent [P_{vid}]

2.1 W

Equipment heat dissipation, current-dependent [P_{vid}]

6.3 W

Static heat dissipation, non-current-dependent [P_{vs}]

0 W

Heat dissipation capacity [P_{diss}]

0 W

Operating ambient temperature min.

-25 °C

Operating ambient temperature max.

+60 °C

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 Strength of materials and parts 10.2.3.1 Verification of thermal stability of enclosures

Meets the product standard's requirements.

10.2 Strength of materials and parts 10.2.3.2 Verification of resistance of insulating materials to normal heat

Meets the product standard's requirements.

10.2 Strength of materials and parts 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 Strength of materials and parts 10.2.4 Resistance to ultra-violet (UV) radiation

Meets the product standard's requirements.

10.2 Strength of materials and parts 10.2.5 Lifting

Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts 10.2.6 Mechanical impact

Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts 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 Insulation properties 10.9.3 Impulse withstand voltage

Is the panel builder's responsibility.

10.9 Insulation properties 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 [A.JZ716013])

Rated permanent current I_n

30 A
Rated voltage
900 - 900 V
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz
0 kA
Overload release current setting
23 - 30 A
Adjustment range short-term delayed short-circuit release
0 - 0 A
Adjustment range undelayed short-circuit release
180 - 180 A
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

Characteristics

Characteristic curves
Characteristic curve

tripping characteristics

Dimensions

CAD data

- [Product-specific CAD data](#)
(Web)
- [3D Preview](#)
(Web)

DWG files

- [DA-CD-p_sol20](#)
File
(Web)

edz files


- [DA-CE-ETN.PKZ-SOL30](#)
File
(Web)


Step files

- [DA-CS-p_sol20](#)
File
(Web)

Product presentation

- 
[FKZ-SOL_C](#)
Photo
String circuit-breaker
(Web)

- 
[FKZ-SOL_L](#)
Photo
String circuit-breaker
(Web)

- 
[FKZ-SOL_R](#)
Photo
String circuit-breaker
(Web)

Additional product information

- [Motor starters and "Special Purpose Ratings" for the North American market](#)
(PDF)
- [Busbar Component Adapters for modern Industrial control panels](#)
(PDF)

Product photo

- [1210PIC-425](#)
Photo

3D drawing

- [1210DRW-359](#)
Line drawing

Characteristic curve

- [1210DIA-8](#)
Coordinate visualization

Instruction Leaflet

- [DC switch-disconnector, DC-String circuit-breaker \(IL03402020Z\)](#)
Asset
former AWA1210-2516
(PDF, 07/2021, multilingual)

Declaration of Conformity

EU

- [PKZ-SOL \(DA-DC-00004069\)](#)
Asset
(PDF)

Dimensions single product


- [1210DIM-28](#)
Line drawing
- [121N001](#)
Line drawing
Mounting position
- [210N015](#)
Line drawing
Mounting position

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