120938
PKZ-SOL20

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]
20 A

Admissible short-circuit current for solar modules
[I_{SC}]
9 - 15 A

Setting range

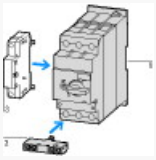
Overload releases [I_r]
Overload release, min. [I_r]
16 A

Overload releases [I_r]
Overload release max.
20 A

Connection technique
Screw terminals

Design
open

Notes



Accessories	Page
2 auxiliary contacts NHI-E	082882
3 shunt releases A-PKZ0	073187
3 undervoltage releases U-PKZ0	073135

TECHNICAL DATA

Rated operational current at DC-21A [I_e]
20 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) mm^2

Solid or stranded
18 - 14 AWG

Internal resistance
12 mΩ

DESIGN VERIFICATION AS PER IEC/EN 61439

Technical data for design verification

Rated operational current for specified heat dissipation [I_n]
20 A

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

Equipment heat dissipation, current-dependent [P_{vid}]
4.8 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 [AJZ716013])

Rated permanent current Iu
20 A

Rated voltage
900 - 900 V

Rated short-circuit breaking capacity Icu at 400 V, 50 Hz
0 kA

Overload release current setting
14 - 20 A

Adjustment range short-term delayed short-circuit release
0 - 0 A

Adjustment range undelayed short-circuit release
120 - 120 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