168974
PKE65/XTUCP-65

DELIVERY PROGRAM

Delivery program

Technical data

Product range
Circuit-breakers PKE up to 65 A

Design verification as per IEC/EN 61439

Basic function
System protection
Line and cable protection

Technical data ETIM 7.0

Single unit/Complete unit
Complete device with standard knob

Approvals

Connection technique
Screw terminals

Characteristics

Setting range of overload releases [I_r]
30 - 65 A

Dimensions

Function
With overload release

Rated uninterrupted current = rated operational current [$I_u = I_e$]

65 A

TECHNICAL DATA

General

Standards
IEC/EN 60947, VDE 0660

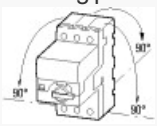
Climatic proofing
Damp heat, constant, to IEC 60068-2-78
Damp heat, cyclic, to IEC 60068-2-30

Ambient temperature
Storage
- 40 - 80 °C

Ambient temperature
Open
-25 - +55 °C

Ambient temperature
Enclosed
- 25 - 40 °C

Mounting position



Direction of incoming supply
as required

Degree of protection
Device
IP20

Degree of protection
Terminations
IP00

Protection against direct contact when actuated
from front (EN 50274)

Finger and back-of-hand proof

Mechanical shock resistance half-sinusoidal shock
10 ms to IEC 60068-2-27
15 g

Altitude
Max. 2000 m

Terminal capacity main cable
Screw terminals
Solid
1 x (0.75 - 16)
2 x (0.75 - 16) mm^2

Terminal capacity main cable
Screw terminals
Flexible with ferrule to DIN 46228
1 x (0.75 - 35)
2 x (0.75 - 25) mm^2

Terminal capacity main cable
Screw terminals
Stripping length
14 mm

Specified tightening torque for terminal screws
Main cable
3.3 Nm

Specified tightening torque for terminal screws
Control circuit cables
1 Nm

Main conducting paths

Rated impulse withstand voltage [U_{imp}]
6000 V AC

Overvoltage category/pollution degree
III/3

Rated operational voltage [U_e]
690 V AC

Rated uninterrupted current = rated operational current [$I_u = I_e$]

65 A

Rated frequency [f]
40 - 60 Hz

Current heat loss (3 pole at operating temperature)
21.6 W

Lifespan, mechanical [Operations]
0.05×10^6

Lifespan, electrical (AC-3 at 400 V)
Lifespan, electrical [Operations]
0.05×10^6

Max. operating frequency
60 Ops/h

AC-4 cycle operation
Minimum current flow times
500 (Class 5)
700 (Class 10)
900 (Class 15)
1000 (Class 20) ms

AC-4 cycle operation
Minimum cut-out periods
500 ms

AC-4 cycle operation
Note
In AC-4 cycle operation, going below the minimum current flow time can cause overheating of the load (motor).
For all combinations with an SWD activation, you need not adhere to the minimum current flow times and minimum cut-out periods. ms

Trip blocks

Temperature compensation
to IEC/EN 60947, VDE 0660
- 5…40 °C

Temperature compensation
Operating range
- 25…55 °C

Setting range of overload releases
0.42 - 1 x I_u

short-circuit release
Basic device, fixed: 15.5 x I_u
Trip block, adjustable: 5 - 8 x I_r
delayed approx. 60 ms

Short-circuit release tolerance
± 20%

Phase-failure sensitivity
no (with PKE-XTU(A)CP-...)

DESIGN VERIFICATION AS PER IEC/EN 61439

Technical data for design verification

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

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

Equipment heat dissipation, current-dependent [P_{vid}]
21.6 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.
+55 °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.

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
65 A

Rated voltage
690 - 690 V

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

Overload release current setting
30 - 65 A

Adjustment range short-term delayed short-circuit release
150 - 150 A

Adjustment range undelayed short-circuit release
1008 - 1008 A

Integrated earth fault protection
No

Type of electrical connection of main circuit
Screw connection

Device construction
Other

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
3

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

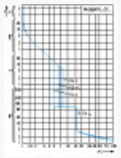
Degree of protection (IP)
IP20

APPROVALS

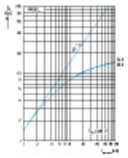
Specially designed for North America
No

CHARACTERISTICS

Characteristic curve



Characteristic curve



Let-through current

Characteristic curve

1 half-cycle
Let-through energy

DIMENSIONS

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