

**199168****PKZM0-1,6-T-PI**[Overview](#)[Specifications](#)[Resources](#)[Delivery program](#)[Technical data](#)[Design verification as  
per IEC/EN 61439](#)[Technical data ETIM8.0](#)[Dimensions](#)

## DELIVERY PROGRAM

Product range  
PKZM0...T transformer-protective circuit-breakers  
up to 25 A

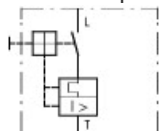
Basic function  
Transformer protection



Notes  
Also suitable for motors with efficiency class IE3.

Connection technique  
Push in terminals


Contact sequence



Rated uninterrupted current [ $I_u$ ]  
1.6 A

### Setting range

Overload releases  [ $I_r$ ]  
1 - 1.6 A

short-circuit release  [ $I_{rm}$ ]  
max. [ $I_{rm}$ ]  
32 A

Phase-failure sensitivity  
IEC/EN 60947-4-1, VDE 0660 Part 102

### Notes

For the protection of transformers with a high inrush current.  
Can be snapped on to IEC/EN 60715 top-hat rail with 7.5 or 15 mm height.

## TECHNICAL DATA

### General

Standards  
IEC/EN 60947, VDE 0660

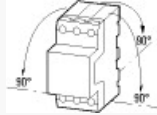
Climatic proofing  
Damp heat, constant, to IEC 60068-2-78  
Damp heat, cyclic, to IEC 60068-2-30

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  
IP20

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  
25 g

Altitude  
Max. 2000 m

Terminal capacity main cable  
Push-in terminals  
Solid  
1 x (1 - 6)  
2 x (1 - 6) mm<sup>2</sup>

Terminal capacity main cable  
Push-in terminals  
flexible  
1 x (1 - 6)  
2 x (1 - 6) mm<sup>2</sup>

Terminal capacity main cable  
Push-in terminals  
flexible with ferrules  
1 x (1 - 6)  
2 x (1 - 4) mm<sup>2</sup>

Terminal capacity main cable  
Push-in terminals

flexible with ultrasonic welded busbar end  
1 x (1 - 10)  
2 x (1 - 6) mm<sup>2</sup>

Terminal capacity main cable  
Push-in terminals  
flexible with uninsulated wire end ferrule  
1 x (1 - 10)  
2 x (1 - 6) mm<sup>2</sup>

Terminal capacity main cable  
Push-in terminals  
Solid or stranded  
18 - 8 AWG

Terminal capacity main cable  
Push-in terminals  
Stripping length  
12 mm

Terminal capacity main cable  
Push-in terminals  
Standard screw driver  
3.0 x 0.5

## 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 [ $I_u = I_e$ ]  
1.6 A

Rated frequency [f]  
40 - 60 Hz

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

Lifespan, mechanical [Operations]

0.1 x 10<sup>6</sup>

Lifespan, electrical (AC-3 at 400 V)  
Lifespan, electrical [Operations]  
0.1 x 10<sup>6</sup>

Max. operating frequency  
40 Ops/h

Short-circuit rating  
DC  
Short-circuit rating  
60 kA

Motor switching capacity  
AC-3 (up to 690V)  
1.6 A

## Trip blocks

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

Temperature compensation  
Operating range  
- 25...55 °C

Temperature compensation residual error for T >  
40 °C  
☐ 0.25 %/K

Setting range of overload releases  
0.6 - 1 x I<sub>N</sub>

short-circuit release  
Basic device, fixed: 20 x I<sub>N</sub>

Short-circuit release tolerance  
± 20%

Phase-failure sensitivity  
IEC/EN 60947-4-1, VDE 0660 Part 102

# DESIGN VERIFICATION AS PER IEC/EN 61439

Operating ambient temperature min.  
-25 °C

Operating ambient temperature max.  
+55 °C

## TECHNICAL DATA ETIM 8.0

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 I<sub>u</sub>  
1.6 A

Rated voltage  
690 - 690 V

Rated short-circuit breaking capacity I<sub>cu</sub> at 400 V,  
50 Hz  
150 kA

Overload release current setting  
1.6 - 1.6 A

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

Adjustment range undelayed short-circuit release  
32 - 32 A

Integrated earth fault protection  
No

Type of electrical connection of main circuit  
Spring clamp 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  
Yes

Number of poles  
3

Position of connection for main current circuit  
Other

Type of control element  
Turn button

Complete device with protection unit  
Yes

Mbtor drive integrated  
No

Mbtor drive optional  
No

Degree of protection (IP)  
IP20

# DIMENSIONS

