

# Specifications

## Eaton 088909

Eaton Moeller® series PKZM0 Transformer-protective circuit-breaker, 3p, Ir=0.25-0.4A, screw connection

### General specifications

<b>PRODUCT NAME</b>	Eaton Moeller® series PKZM0 Transformer- protective circuit-breaker
<b>CATALOG NUMBER</b>	088909
<b>MODEL CODE</b>	PKZM0-0,4-T
<b>EAN</b>	4015080889090
<b>PRODUCT LENGTH/DEPTH</b>	76 mm
<b>PRODUCT HEIGHT</b>	93 mm
<b>PRODUCT WIDTH</b>	45 mm
<b>PRODUCT WEIGHT</b>	0.249 kg
<b>CERTIFICATIONS</b>	IEC/EN 60947 VDE 0660 CE UL CSA IEC/EN 60947-4-1 CSA Class No.: 3211-05 CSA File No.: 165628 CSA-C22.2 No. 60947-4-1- 14 UL 60947-4-1 UL Category Control No.: NLRV UL File No.: E36332
<b>GLOBAL CATALOG</b>	088909
<b>PRODUCT TYPE</b>	Transformer-protective circuit-breaker

## Product specifications

<b>FEATURES</b>	Phase-failure sensitivity (according to IEC/EN 60947-4-1, VDE 0660 Part 102)
<b>10.10 TEMPERATURE RISE</b>	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
<b>10.11 SHORT-CIRCUIT RATING</b>	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
<b>10.12 ELECTROMAGNETIC COMPATIBILITY</b>	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
<b>10.13 MECHANICAL FUNCTION</b>	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
<b>10.2.2 CORROSION RESISTANCE</b>	Meets the product standard's requirements.
<b>10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES</b>	Meets the product standard's requirements.
<b>10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT</b>	Meets the product standard's requirements.
<b>10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS</b>	Meets the product standard's requirements.
<b>10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION</b>	Meets the product standard's requirements.
<b>10.2.5 LIFTING</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.2.6 MECHANICAL IMPACT</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.2.7 INSCRIPTIONS</b>	Meets the product standard's requirements.
<b>10.3 DEGREE OF PROTECTION OF</b>	Does not apply, since the entire switchgear needs to

## Resources

### BROCHURES

[eaton-push-in-technology-product-overview-brochure-br034012-en-us.pdf](#)

### CATALOGS

[Product Range Catalog  
Switching and protecting motors](#)

[eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf](#)

### CHARACTERISTIC CURVE

[eaton-manual-motor-starters-characteristic-characteristic-curve-009.eps](#)

[eaton-manual-motor-starters-characteristic-characteristic-curve-008.eps](#)

### DECLARATIONS OF CONFORMITY

[eaton-transformer-protective-circuit-breaker-declaration-of-conformity-eu250689en.pdf](#)

[eaton-transformer-protective-circuit-breaker-declaration-of-conformity-uk251172en.pdf](#)

### DRAWINGS

[eaton-manual-motor-starters-pkz-dimensions-002.eps](#)

[eaton-manual-motor-starters-pkz-dimensions.eps](#)

[eaton-manual-motor-starters-pkzm0-characteristic-curve-de.eps](#)

[eaton-manual-motor-starters-pkzm0-dimensions-003.eps](#)

[eaton-general-ie-ready-dilm-contactor-standards.eps](#)

[eaton-manual-motor-starters-mounting-3d-drawing-002.eps](#)

<b>ASSEMBLIES</b>	be evaluated.
<b>10.4 CLEARANCES AND CREEPAGE DISTANCES</b>	Meets the product standard's requirements.
<b>10.5 PROTECTION AGAINST ELECTRIC SHOCK</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS</b>	Is the panel builder's responsibility.
<b>10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS</b>	Is the panel builder's responsibility.
<b>10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH</b>	Is the panel builder's responsibility.
<b>10.9.3 IMPULSE WITHSTAND VOLTAGE</b>	Is the panel builder's responsibility.
<b>10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL</b>	Is the panel builder's responsibility.
<b>FITTED WITH:</b>	Switched-off indicator
<b>OPERATING FREQUENCY</b>	40 Operations/h
<b>POLLUTION DEGREE</b>	3
<b>LIFESPAN, MECHANICAL</b>	100,000 Operations
<b>MOUNTING METHOD</b>	DIN rail (top hat rail) mounting optional
<b>CLIMATIC PROOFING</b>	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
<b>ACTUATOR TYPE</b>	Turn button
<b>ADJUSTMENT RANGE UNDELAYED SHORT-CIRCUIT RELEASE - MAX</b>	6.8 A
<b>ADJUSTMENT RANGE UNDELAYED SHORT-CIRCUIT RELEASE - MIN</b>	6.8 A
<b>AMBIENT OPERATING TEMPERATURE - MAX</b>	55 °C
<b>AMBIENT OPERATING TEMPERATURE - MIN</b>	-25 °C
<b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX</b>	40 °C
<b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN</b>	-25 °C
<b>AMBIENT STORAGE TEMPERATURE - MAX</b>	80 °C

<b>ECAD MODEL</b>	<a href="#">ETN.088909.edz</a>
<b>INSTALLATION INSTRUCTIONS</b>	<a href="#">IL03407011Z.pdf</a>
<b>INSTALLATION VIDEOS</b>	<a href="#">WIN-WIN with push-in technology</a>
<b>MANUALS AND USER GUIDES</b>	<a href="#">IL122023ZU</a>
<b>MCAD MODEL</b>	<a href="#">DA-CS-pkzm0</a> <a href="#">DA-CD-pkzm0</a>
<b>PEP ECO-PASSPORT</b>	<a href="#">eaton-motor-protective-circuit-breakers-pep-eato-00326-v0101-en.pdf</a>
<b>SALES NOTES</b>	<a href="#">eaton-link-module-for-motor-starters-pkz-flyer-fl034003en-en-us.pdf</a>
<b>WIRING DIAGRAMS</b>	<a href="#">eaton-manual-motor-starters-transformer-pkzm0-wiring-diagram.eps</a>

<b>AMBIENT STORAGE TEMPERATURE - MIN</b>	-40 °C
<b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID</b>	4.76 W
<b>HEAT DISSIPATION CAPACITY PDISS</b>	0 W
<b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID</b>	1.59 W
<b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>	6000 V AC
<b>ALTITUDE</b>	Max. 2000 m
<b>DEVICE CONSTRUCTION</b>	Built-in device fixed built-in technique
<b>CONNECTION</b>	Screw terminals
<b>ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT</b>	Screw connection
<b>MOUNTING POSITION</b>	Can be snapped on to IEC/EN 60715 top-hat rail with 7.5 or 15 mm height.
<b>OVERVOLTAGE CATEGORY</b>	III
<b>DEGREE OF PROTECTION</b>	IP20 Terminals: IP00
<b>NUMBER OF POLES</b>	Three-pole
<b>LIFESPAN, ELECTRICAL</b>	100,000 operations
<b>SHOCK RESISTANCE</b>	25 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms
<b>FUNCTIONS</b>	Transformer protection For the protection of transformers with a high inrush current
<b>POSITION OF CONNECTION FOR MAIN CURRENT CIRCUIT</b>	Other
<b>SWITCHING CAPACITY</b>	0.4 A (3 contacts in series), DC-5 up to 250V 0.4 A, AC-3 up to 690 V
<b>NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)</b>	0
<b>NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)</b>	0
<b>NUMBER OF AUXILIARY CONTACTS (NORMALLY</b>	<b>CONTACTS</b>

**OPEN CONTACTS)****OVERLOAD RELEASE** 0.4 A  
**CURRENT SETTING - MAX****OVERLOAD RELEASE** 0.25 A  
**CURRENT SETTING - MIN****RATED FREQUENCY - MAX** 60 Hz**RATED FREQUENCY - MIN** 50 Hz**RATED OPERATIONAL VOLTAGE (UE) - MAX** 690 V**RATED OPERATIONAL VOLTAGE (UE) - MIN** 690 V**RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)** 0.4 A**RATED OPERATIONAL POWER AT AC-3E, 220/230 V, 50 Hz** 0.06 kW**RATED OPERATIONAL POWER AT AC-3E, 380/400 V, 50 Hz** 0.09 kW**RATED UNINTERRUPTED CURRENT (IU)** 0.4 A**STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS** 0 W**STRIPPING LENGTH (MAIN CABLE)** 10 mm**PRODUCT CATEGORY** Transformer protective circuit breaker**PROTECTION** Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)**RATED OPERATIONAL POWER AT AC-3E, 440 V, 50 Hz** 0.12 kW**RATED OPERATIONAL POWER AT AC-3E, 500 V, 50 Hz** 0.12 kW**RATED OPERATIONAL POWER AT AC-3E, 690 V, 50 Hz** 0.18 kW**RATED SHORT-CIRCUIT BREAKING CAPACITY ICU AT 400 V AC** 150 kA**RATED SHORT-CIRCUIT BREAKING CAPACITY ICS AT 400 V AC** 150 kA

**RATED SHORT-CIRCUIT  
BREAKING CAPACITY ICU** 150 kA  
**AT 440 V AC**

**RATED SHORT-CIRCUIT  
BREAKING CAPACITY ICS** 150 kA  
**AT 440 V AC**

**RATED SHORT-CIRCUIT  
BREAKING CAPACITY ICU** 150 kA  
**AT 500 V AC**

**RATED SHORT-CIRCUIT  
BREAKING CAPACITY ICS** 150 kA  
**AT 500 V AC**

**RATED SHORT-CIRCUIT  
BREAKING CAPACITY ICU** 150 kA  
**AT 690 V AC**

**RATED SHORT-CIRCUIT  
BREAKING CAPACITY ICS** 150 kA  
**AT 690 V AC**

**SUITABLE FOR**  
DIN rail (top hat rail)  
mounting  
Also motors with efficiency  
class IE3

**SHORT-CIRCUIT RELEASE**  
Basic device, fixed 20 x lu  
± 20% tolerance  
6.8 A, Irm

**TERMINAL CAPACITY  
(SOLID)** 1 x (1 - 6) mm<sup>2</sup>  
2 x (1 - 6) mm<sup>2</sup>

**RATED OPERATIONAL  
CURRENT (IE)** 0.4 A

**TEMPERATURE  
COMPENSATION**  
-5 - 40 °C to IEC/EN 60947,  
VDE 0660  
-25 - 55 °C, Operating  
range  
≤ 0.25 %/K, residual error  
for T > 40°

**SHORT-CIRCUIT CURRENT** 60 kA DC, up to 250 V DC,  
Main conducting paths

**SHORT-CIRCUIT CURRENT  
RATING (GROUP  
PROTECTION)**  
50 kA, 600 V High Fault,  
Fuse, SCCR (UL/CSA) with  
600 A, 600 V High Fault,  
Fuse, SCCR (UL/CSA)  
50 kA, 600 V High Fault,  
CB, SCCR (UL/CSA) with  
600 A, 600 V High Fault,  
CB, SCCR (UL/CSA)

**SWITCH OFF TECHNIQUE** Thermomagnetic

**POWER LOSS** 4.76 W

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**PROJECT NAME:**

**PROJECT NUMBER:**

**PREPARED BY:**

**DATE:**

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