

# Eaton 072737

Catalog Number: 072737

Eaton Moeller® series PKZM0 Motor-protective circuit-breaker, 1.5 kW, 2.5 - 4 A, Screw terminals



## General specifications

Product Name	Catalog Number
Eaton Moeller® series PKZM0 Motor-protective circuit-breaker	072737
	Model Code
	PKZM0-4
EAN	Product Length/Depth
4015080727378	76 mm
Product Height	Product Width
93 mm	45 mm
Product Weight	Certifications
0.284 kg	CSA
	UL 60947-4-1
	CE
	CSA Class No.: 3211-05
	IEC/EN 60947-4-1
	IEC/EN 60947
	UL Category Control No.: NLRV
	CSA File No.: 165628
	UL File No.: E36332
	VDE 0660
	UL
	CSA-C22.2 No. 60947-4-1-14

## Features & Functions

Actuator type

Turn button

### Features

Phase-failure sensitivity (according to IEC/EN 60947-4-1, VDE 0660 Part 102)

### Functions

Phase failure sensitive

Motor protection

### Number of poles

Three-pole

## General

Explosion safety category for dust

ATEX dust-ex-protection, PTB 10, ATEX 3013, Ex II(2) GD

Lifespan, electrical

100,000 operations

Lifespan, mechanical

100,000 Operations

### Mounting position

Can be snapped on to IEC/EN 60715 top-hat rail with 7.5 or 15 mm height.

Operating frequency

40 Operations/h

Overvoltage category

III

Pollution degree

3

Product category

Motor protective circuit breaker

### Protection

Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)

Rated impulse withstand voltage (Uiimp)

6000 V AC

Shock resistance

25 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms

### Suitable for

Branch circuit: Manual type E if used with terminal, or suitable for group installations, (UL/CSA)

Also motors with efficiency class IE3

Temperature compensation

-5 - 40 °C to IEC/EN 60947, VDE 0660

-25 - 55 °C, Operating range

≤ 0.25 %/K, residual error for T > 40°

## Climatic environmental conditions

Altitude

## Terminal capacities

Terminal capacity (flexible with ferrule)

Max. 2000 m	2 x (1 - 6) mm <sup>2</sup> , ferrule to DIN 46228
Ambient operating temperature - min	1 x (1 - 6) mm <sup>2</sup> , ferrule to DIN 46228
-25 °C	<b>Terminal capacity (solid)</b>
Ambient operating temperature - max	1 x (1 - 6) mm <sup>2</sup>
55 °C	2 x (1 - 6) mm <sup>2</sup>
Ambient operating temperature (enclosed) - min	<b>Terminal capacity (solid/stranded AWG)</b>
25 °C	18 - 10
Ambient operating temperature (enclosed) - max	<b>Stripping length (main cable)</b>
40 °C	10 mm
Ambient storage temperature - min	<b>Tightening torque</b>
40 °C	1.7 Nm, Screw terminals, Main cable
Ambient storage temperature - max	1 Nm, Screw terminals, Control circuit cables
80 °C	

#### Climatic proofing

Damp heat, cyclic, to IEC 60068-2-30	<b>Rated frequency - min</b>
Damp heat, constant, to IEC 60068-2-78	50 Hz

#### Electrical rating

<b>Rated frequency - max</b>	60 Hz
<b>Rated operational current (Ie)</b>	4 A
<b>Rated operational power at AC-3, 220/230 V, 50 Hz</b>	0.75 kW
<b>Rated operational power at AC-3, 380/400 V, 50 Hz</b>	1.5 kW
<b>Rated operational voltage (Ue) - min</b>	690 V
<b>Rated operational voltage (Ue) - max</b>	690 V
<b>Rated uninterrupted current (Iu)</b>	4 A

#### Short-circuit rating

Short-circuit current	Assigned motor power at 115/120 V, 60 Hz, 1-phase
60 kA DC, up to 250 V DC, Main conducting paths	0.125 HP
Short-circuit current rating (group protection)	Assigned motor power at 200/208 V, 60 Hz, 3-phase
600 A, 600 V High Fault, max. CB, SCCR (UL/CSA)	0.75 HP
50 kA, 600 V High Fault, CB, SCCR (UL/CSA)	

#### Motor rating

Assigned motor power at 115/120 V, 60 Hz, 1-phase
0.125 HP
Assigned motor power at 200/208 V, 60 Hz, 3-phase
0.75 HP

50 kA, 600 V High Fault, Fuse, SCCR (UL/CSA)	Assigned motor power at 230/240 V, 60 Hz, 1-phase
600 A, 600 V High Fault, max. Fuse, SCCR (UL/CSA)	0.33 HP
<b>Short-circuit current rating (type E)</b>	<b>Assigned motor power at 230/240 V, 60 Hz, 3-phase</b>
65 kA, 480 Y/277 V, SCCR (UL/CSA)	0.75 HP
65 kA, 240 V, SCCR (UL/CSA)	
Accessories required BK25/3-PKZ0-E	Assigned motor power at 460/480 V, 60 Hz, 3-phase
50 kA, 600 Y/347 V, SCCR (UL/CSA)	2 HP
<b>Short-circuit release</b>	<b>Assigned motor power at 575/600 V, 60 Hz, 3-phase</b>
± 20% tolerance, Trip blocks	3 HP
Basic device fixed 15.5 x I <sub>u</sub> , Trip Blocks	
62 A, I <sub>rm</sub> , Setting range max.	

## Communication

### Connection

Screw terminals

## Trip blocks

Overload release current setting - min

2.5 A

Overload release current setting - max

4 A

**Tripping characteristic**

Overload trigger: tripping class 10 A

## Design verification

Equipment heat dissipation, current-dependent P<sub>vid</sub>

5.33 W

Heat dissipation capacity P<sub>diss</sub>

0 W

Heat dissipation per pole, current-dependent P<sub>vid</sub>

1.78 W

Rated operational current for specified heat dissipation (I<sub>n</sub>)

4 A

Static heat dissipation, non-current-dependent P<sub>vs</sub>

0 W

### 10.2.2 Corrosion resistance

Meets the product standard's requirements.

### 10.2.3.1 Verification of thermal stability of enclosures

Meets the product standard's requirements.

### 10.2.3.2 Verification of resistance of insulating materials to normal heat

Meets the product standard's requirements.

### 10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects

Meets the product standard's requirements.

### 10.2.4 Resistance to ultra-violet (UV) radiation

Meets the product standard's requirements.

## 10.2.5 Lifting

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

## 10.2.6 Mechanical impact

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

## 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.

## 10.9.2 Power-frequency electric strength

Is the panel builder's responsibility.

## 10.9.3 Impulse withstand voltage

Is the panel builder's responsibility.

## 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.

## Resources

### Brochures

Save time and space thanks to the new link module PKZM0-XDM32ME  
Motor Starters in System xStart - brochure

### Catalogues

Product Range Catalog Switching and protecting motors  
Switching and protecting motors - catalog

### Characteristic curve

eaton-manual-motor-starters-characteristic-characteristic-curve-008.eps  
eaton-manual-motor-starters-characteristic-characteristic-curve-009.eps  
eaton-manual-motor-starters-characteristic-characteristic-curve-011.eps

### Drawings

eaton-manual-motor-starters-pkzm0-dimensions-003.eps  
eaton-manual-motor-starters-pkz-dimensions-002.eps  
eaton-manual-motor-starters-pkz-dimensions.eps  
eaton-general-ie-ready-dilm-contactor-standards.eps  
eaton-manual-motor-starters-pkzm0-3d-drawing-008.eps  
eaton-manual-motor-starters-pkzm0-3d-drawing-004.eps  
eaton-manual-motor-starters-mounting-3d-drawing-002.eps

### eCAD model

DA-CE-ETN.PKZM0-4

### Installation instructions

IL03407011Z

IL03402034Z

### Installation videos

WIN-WIN with push-in technology

### mCAD model

DA-CD-pkzm0

DA-CS-pkzm0

### User guides

IL122023ZU

eaton-motor-protective-circuit-breaker-pkzm0-overload-monitoring-executive-manual-mn03402003z-de-de-en-us.pdf

### Wiring diagrams

eaton-manual-motor-starters-starter-nzm-mccb-wiring-diagram.eps  
eaton-manual-motor-starters-transformer-pkzm0-wiring-diagram.eps

#### 10.13 Mechanical function

The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

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