

# Specifications



Photo is representative



## Eaton 286081

Eaton Moeller® series PKZM01 Motor-protective circuit-breaker, 440 V: 0.18 kW,  $I_r = 0.4 - 0.63$  A, IP65

### General specifications

<b>PRODUCT NAME</b>	Eaton Moeller® series PKZM01 Motor-protective circuit-breaker
<b>CATALOG NUMBER</b>	286081
<b>EAN</b>	4015082860813
<b>PRODUCT LENGTH/DEPTH</b>	158 mm
<b>PRODUCT HEIGHT</b>	80 mm
<b>PRODUCT WIDTH</b>	117 mm
<b>PRODUCT WEIGHT</b>	0.568 kg
<b>COMPLIANCES</b>	CE Marked
<b>CERTIFICATIONS</b>	IEC 60947-4-1 CSA Std. C22.2 No. 14 UL 508 VDE VDE 0660 IEC/EN 60947
<b>MODEL CODE</b>	PKZM01-0,63-G



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## Features & Functions

<b>ACTUATOR TYPE</b>	Push button
<b>FEATURES</b>	Phase-failure sensitivity (according to IEC/EN 60947-4-1, VDE 0660 Part 102)
<b>FITTED WITH:</b>	Operating membrane
<b>FUNCTIONS</b>	Motor protection Phase failure sensitive
<b>NUMBER OF POLES</b>	Three-pole

## Climatic environmental conditions

<b>ALTITUDE</b>	Max. 2000 m
<b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN</b>	-25 °C
<b>AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX</b>	40 °C
<b>AMBIENT STORAGE TEMPERATURE - MIN</b>	-40 °C
<b>AMBIENT STORAGE TEMPERATURE - MAX</b>	80 °C

## General

<b>LIFESPAN, ELECTRICAL</b>	50,000 operations (at 400V, AC-3)
<b>LIFESPAN, MECHANICAL</b>	50,000 Operations (Main conducting paths)
<b>MOUNTING POSITION</b>	Can be snapped on to IEC/EN 60715 top-hat rail with 7.5 or 15 mm height.
<b>OPERATING FREQUENCY</b>	25 Operations/h
<b>OVERVOLTAGE CATEGORY</b>	III
<b>POLLUTION DEGREE</b>	3
<b>PRODUCT CATEGORY</b>	Motor protective circuit breaker
<b>PROTECTION</b>	Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)
<b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>	6000 V AC
<b>SHOCK RESISTANCE</b>	25 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms
<b>SUITABLE FOR</b>	Also motors with efficiency class IE3

## Terminal capacities

<b>TERMINAL CAPACITY (SOLID/STRANDED AWG)</b>	18 - 10
<b>STRIPPING LENGTH (MAIN CABLE)</b>	10 mm
<b>TIGHTENING TORQUE</b>	1.7 Nm, Screw terminals, Main cable

## Electrical rating

<b>RATED FREQUENCY - MIN</b>	50 Hz
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<b>RATED FREQUENCY - MAX</b>	60 Hz
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<b>RATED OPERATIONAL POWER AT AC-3, 220/230 V, 50 HZ</b>	0.09 kW
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<b>RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ</b>	0.12 kW
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<b>RATED OPERATIONAL VOLTAGE (UE) - MIN</b>	440 V
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<b>RATED OPERATIONAL VOLTAGE (UE) - MAX</b>	440 V
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<b>RATED UNINTERRUPTED CURRENT (IU)</b>	0.63 A
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## Communication

<b>CONNECTION</b>	Screw terminals
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## Short-circuit rating

<b>SHORT-CIRCUIT CURRENT</b>	60 kA DC, up to 250 V DC, Main conducting paths
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	Basic device fixed 15.5 x Iu
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<b>SHORT-CIRCUIT RELEASE</b>	± 20% tolerance 9.8 A, I <sub>rm</sub>
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## Trip blocks

<b>OVERLOAD RELEASE CURRENT SETTING - MIN</b>	0.4 A
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<b>OVERLOAD RELEASE CURRENT SETTING - MAX</b>	0.63 A
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<b>TRIPPING CHARACTERISTIC</b>	Overload trigger: tripping class 10 A
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## Design verification

<b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID</b>	5.16 W
<b>HEAT DISSIPATION CAPACITY PDISS</b>	0 W
<b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID</b>	1.72 W
<b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b>	0.63 A
<b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS</b>	0 W
<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 ASSEMBLIES</b>	Does not apply, since the entire switchgear needs to 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.

## Resources

<b>BROCHURES</b>	<a href="#">eaton-motor-starters-system-xstart-brochure-br03407001en-en-us.pdf</a>
<b>CATALOGUES</b>	<a href="#">eaton-switching-and-protecting-motors-product-range-catalog-ca034001en-en-us.pdf</a> <a href="#">Product Range Catalog Switching and protecting motors</a> <a href="#">eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf</a>
<b>CHARACTERISTIC CURVE</b>	<a href="#">eaton-manual-motor-starters-characteristic-characteristic-curve-009.eps</a> <a href="#">eaton-manual-motor-starters-characteristic-characteristic-curve-004.eps</a> <a href="#">eaton-manual-motor-starters-characteristic-characteristic-curve-008.eps</a>
<b>DECLARATIONS OF CONFORMITY</b>	<a href="#">DA-DC-00004914.pdf</a> <a href="#">DA-DC-00004884.pdf</a>
<b>DRAWINGS</b>	<a href="#">eaton-manual-motor-starters-circuit-breaker-pkzm01-dimensions.eps</a> <a href="#">eaton-general-ie-ready-dilm-contactor-standards.eps</a>
<b>ECAD MODEL</b>	<a href="#">ETN.286081.edz</a>
<b>INSTALLATION VIDEOS</b>	<a href="#">WIN-WIN with push-in technology</a>
<b>MCAD MODEL</b>	<a href="#">DA-CS-pkzm0</a> <a href="#">DA-CD-ci_pkz01_g</a> <a href="#">DA-CD-pkzm0</a> <a href="#">DA-CS-ci_pkz01_g</a>
<b>SALES NOTES</b>	<a href="#">eaton-link-module-for-motor-starters-pkz-flyer-fl034003en-en-us.pdf</a>

<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>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.

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
DATE:



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