

Eaton 288893

Catalog Number: 288893

Eaton Moeller® series PKZM01 Motor-protective circuit-breaker, 660 V 690 V: 22 kW, Ir= 20 - 25 A, IP20 PKZM01-25



Photo is representative

General specifications

Product Name	Catalog Number
Eaton Moeller® series PKZM01 Motor-protective circuit-breaker	288893
	Model Code
	PKZM01-25
EAN	Product Length/Depth
4015082888930	93 mm
Product Height	Product Width
90 mm	45 mm
Product Weight	Certifications
0.299 kg	CSA File No.: 165628
	UL Category Control No.: NLRV
	IEC/EN 60947
	UL
	UL 60947-4-1
	CE
	CSA
	CSA Class No.: 3211-05
	IEC/EN 60947-4-1
	CSA-C22.2 No. 60947-4-1-14
	UL File No.: E36332
	VDE 0660

Features

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

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.

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

Catalogs

Product Range Catalog Switching and protecting motors

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

[eaton-motor-starters-system-xstart-brochure-br03407001en-en-us.pdf](#)

Switching and protecting motors - catalog

[eaton-link-module-for-motor-starters-pkz-flyer-fl034003en-en-us.pdf](#)

Characteristic curve

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

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

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

Declarations of conformity

[DA-DC-00004914.pdf](#)

[DA-DC-00004884.pdf](#)

Drawings

[eaton-manual-motor-starters-circuit-breaker-pkzm01-dimensions.eps](#)

[eaton-manual-motor-starters-circuit-breaker-pkzm01-3d-drawing-002.eps](#)

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

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

[eaton-manual-motor-starters-circuit-breaker-pkzm01-3d-drawing.eps](#)

eCAD model

[ETN.288893.edz](#)

Installation instructions

[IL03402034Z](#)

[IL03407011Z.pdf](#)

[IL122012ZU](#)

Installation videos

[WIN-WIN with push-in technology](#)

Manuals and user guides

[IL122023ZU](#)

mCAD model

[DA-CD-pkzm01](#)

[DA-CS-pkzm01](#)

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.

Operating frequency

25 Operations/h

Pollution degree

3

Climatic proofing

Damp heat, cyclic, to IEC 60068-2-30

Damp heat, constant, to IEC 60068-2-78

Actuator type

Push button

Tripping characteristic

Overload trigger: tripping class 10 A

Adjustment range undelayed short-circuit release - max

388 A

Adjustment range undelayed short-circuit release - min

388 A

Ambient operating temperature - max

55 °C

Ambient operating temperature - min

-25 °C

Ambient operating temperature (enclosed) - max

40 °C

Ambient operating temperature (enclosed) - min

25 °C

Ambient storage temperature - max

80 °C

Ambient storage temperature - min

40 °C

Assigned motor power at 115/120 V, 60 Hz, 1-phase

2 HP

Assigned motor power at 230/240 V, 60 Hz, 3-phase

7.5 HP

Assigned motor power at 460/480 V, 60 Hz, 3-phase

15 HP

Assigned motor power at 575/600 V, 60 Hz, 3-phase

20 HP

Equipment heat dissipation, current-dependent P_{vid}

7.04 W

Heat dissipation capacity P_{diss}

0 W

Heat dissipation per pole, current-dependent P_{vid}

2.35 W

Internal resistance

4 mΩ

Rated impulse withstand voltage (U_{imp})

6000 V AC

Altitude

Max. 2000 m

Device construction

Built-in device fixed built-in technique

Connection

Screw terminals

Electrical connection type of main circuit

Screw connection

Mounting position

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

Lifespan, mechanical

50,000 Operations (Main conducting paths)

Overvoltage category

III

Degree of protection

IP20

Terminals: IP00

Number of poles

Three-pole

Lifespan, electrical

50,000 operations (at 400V, AC-3)

Shock resistance

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

Functions

Motor protection

Phase failure sensitive

Terminal capacity (solid/stranded AWG)

18 - 10

Switching capacity

25 A (3 contacts in series), DC-5 up to 250V

25 A, AC-3 up to 440 V

Overload release current setting - max

25 A

Overload release current setting - min

20 A

Rated frequency - max

60 Hz

Rated frequency - min

50 Hz

Rated operational voltage (Ue) - max

440 V

Rated operational voltage (Ue) - min

440 V

Rated operational current for specified heat dissipation (In)

25 A

Rated operational power at AC-3, 220/230 V, 50 Hz

5.5 kW

Rated operational power at AC-3, 380/400 V, 50 Hz

12.5 kW

Rated uninterrupted current (I_u)

25 A

Static heat dissipation, non-current-dependent P_{vs}

0 W

Stripping length (main cable)

10 mm

Product category

Motor 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-3, 440 V, 50 Hz

12.5 kW

Rated short-circuit breaking capacity I_{cu} at 400 V AC

50 kA

Suitable for

Also motors with efficiency class IE3

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

Short-circuit release

Basic device fixed 15.5 x I_u, Trip Blocks

388 A, I_{rm}, Setting range max.

± 20% tolerance, Trip blocks

Rated operational current (I_e)

25 A

Temperature compensation

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

-25 - 55 °C, Operating range

-5 - 40 °C to IEC/EN 60947, VDE 0660

Short-circuit current

60 kA DC, up to 250 V DC, Main conducting paths

Short-circuit current rating (group protection)

10 kA, 600 V High Fault, Fuse, SCCR (UL/CSA) with 150 A, 600 V High Fault, Fuse, SCCR (UL/CSA)

10 kA, 600 V High Fault, CB, SCCR (UL/CSA) with 125 A, 600 V High Fault, CB, SCCR (UL/CSA)

18 kA, 600 V High Fault, Fuse with CL, SCCR (UL/CSA) with 600 A, 600 V High Fault, Fuse with CL, SCCR (UL/CSA)

18 kA, 600 V High Fault, CB with CL, SCCR (UL/CSA) with 600 A, 600 V High Fault, CB with CL, SCCR (UL/CSA)
18 kA, 480 V High Fault, CB, SCCR (UL/CSA) with 600 A, 480 V High Fault, CB, SCCR (UL/CSA)
18 kA, 480 V High Fault, Fuse, SCCR (UL/CSA) with 600 A, 480 V High Fault, Fuse, SCCR (UL/CSA)

Tightening torque

1.7 Nm, Screw terminals, Main cable

Switch off technique

Thermomagnetic

Terminal capacity (flexible with ferrule)

2 x (1 - 6) mm², ferrule to DIN 46228

1 x (1 - 6) mm², ferrule to DIN 46228

Terminal capacity (solid)

1 x (1 - 6) mm²

2 x (1 - 6) mm²

Power loss

7.04 W



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