

# Eaton 189906

Catalog Number: 189906

Eaton Moeller® series PKZM0 Motor-protective circuit-breaker, 3p, Ir=16-20A, screw connection



## General specifications

<b>Product Name</b>	<b>Catalog Number</b>
Eaton Moeller® series PKZM0 Motor-protective circuit-breaker	189906
	<b>Model Code</b>
	PKZM0-20-EA
<b>EAN</b>	<b>Product Length/Depth</b>
4015081879021	76 mm
<b>Product Height</b>	<b>Product Width</b>
93 mm	45 mm
<b>Product Weight</b>	<b>Compliances</b>
0.296 kg	CE Marked
	RoHS conform

## Features

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

### Operating frequency

40 Operations/h

### Pollution degree

3

### Climatic proofing

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

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

### Actuator type

Turn button

### Adjustment range undelayed short-circuit release - max

310 A

### Adjustment range undelayed short-circuit release - min

310 A

### Ambient operating temperature (enclosed) - min

-25 °C

### Ambient storage temperature - max

80 °C

### Ambient storage temperature - min

-40 °C

### Assigned motor power at 230/240 V, 60 Hz, 1-phase

3 HP

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

15 HP

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

5.82 W

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

0 W

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

1.9 W

### Rated impulse withstand voltage (U<sub>imp</sub>)

6000 V AC

### Device construction

Built-in device fixed built-in technique

## Brochures

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

## Catalogs

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

[Switching and protecting motors - catalog](#)

[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-pkz-characteristic-curve-003.eps](#)

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

## Declarations of conformity

[DA-DC-00004890.pdf](#)

## Drawings

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

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

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

[eaton-manual-motor-starters-circuit-breaker-pkzm0-3d-drawing.eps](#)

[eaton-manual-motor-starters-pkzm0-3d-drawing-008.eps](#)

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

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

## eCAD model

[ETN.189906.edz](#)

## Installation instructions

[IL034046ZU](#)

## Installation videos

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

## mCAD model

[DA-CD-pkzm0](#)

[DA-CS-pkzm0](#)

## Sales notes

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

## Wiring diagrams

[eaton-manual-motor-starters-transformer-pkzm0-wiring-diagram.eps](#)

#### 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

100,000 Operations

#### Overvoltage category

III

#### Degree of protection

IP20

#### Number of poles

Three-pole

#### Lifespan, electrical

100,000 operations

#### Shock resistance

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

#### Functions

Phase failure sensitive

#### Switching capacity

20 A, AC-3 up to 690 V

#### Overload release current setting - max

20 A

#### Overload release current setting - min

16 A

#### 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)

20 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

9 kW

Rated uninterrupted current (I<sub>u</sub>)

20 A

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

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

11 kW

Rated operational power at AC-3, 500 V, 50 Hz

12.5 kW

Rated operational power at AC-3, 690 V, 50 Hz

15 kW

Rated short-circuit breaking capacity I<sub>cu</sub> at 400 V AC

50 kA

Rated short-circuit breaking capacity I<sub>cs</sub> at 400 V AC

38 kA

Rated short-circuit breaking capacity I<sub>cu</sub> at 440 V AC

10 kA

Rated short-circuit breaking capacity I<sub>cs</sub> at 440 V AC

3 kA

Rated short-circuit breaking capacity I<sub>cu</sub> at 500 V AC

3 kA

Rated short-circuit breaking capacity I<sub>cs</sub> at 500 V AC

3 kA

Rated short-circuit breaking capacity I<sub>cu</sub> at 690 V AC

3 kA

Rated short-circuit breaking capacity I<sub>cs</sub> at 690 V AC

1 kA

#### Suitable for

Branch circuit: Suitable for group installations, (UL/CSA)

Also motors with efficiency class IE3

#### Short-circuit release

310 A,  $I_{rm}$ , Setting range max.

± 20% tolerance, Trip blocks

Basic device fixed 15.5 x  $I_u$ , Trip Blocks

#### Rated operational current ( $I_e$ )

20 A

#### Temperature compensation

-5 - 40 °C to IEC/EN 60947, VDE 0660

-25 - 55 °C, Operating range

≤ 0.25 %/K, residual error for  $T > 40^\circ$

#### 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)

#### Switch off technique

Thermomagnetic

#### Terminal capacity (flexible with ferrule)

2 x (1 - 6) mm<sup>2</sup>, ferrule to DIN 46228

1 x (1 - 6) mm<sup>2</sup>, ferrule to DIN 46228

#### Power loss

5.82 W



Eaton Corporation plc  
Eaton House  
30 Pembroke Road  
Dublin 4, Ireland  
Eaton.com  
© 2024 Eaton. All Rights Reserved.

Eaton is a registered trademark.

All other trademarks are property of their respective owners.



[Eaton.com/socialmedia](https://Eaton.com/socialmedia)