

Eaton 111940

Catalog Number: 111940

Eaton Moeller series Power Defense - Molded Case Circuit Breaker. Circuit-breaker LZM, 3 p, 250A, C2-A250-I



General specifications

Product Name

Eaton Moeller series Power Defense
molded case circuit-breaker

Catalog Number

111940

Model Code

LZMC2-A250-I

EAN

4015081114887

Product Length/Depth

142 mm

Product Height

185 mm

Product Width

105 mm

Product Weight

2.345 kg

Compliances

RoHS conform

Certifications

VDE 0660
IEC/EN 60947
IEC

Product specifications

Rated operational current for specified heat dissipation (I_n)

250 A

10.11 Short-circuit rating

Is the panel builder's responsibility. The specifications for the switchgear must be observed.

10.4 Clearances and creepage distances

Meets the product standard's requirements.

10.12 Electromagnetic compatibility

Is the panel builder's responsibility. The specifications for the switchgear must be observed.

Mounting Method

Built-in device fixed built-in technique

Fixed

DIN rail (top hat rail) mounting optional

Amperage Rating

250 A

10.2.5 Lifting

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

Handle type

Rocker lever

10.2.3.1 Verification of thermal stability of enclosures

Meets the product standard's requirements.

Protection against direct contact

Finger and back-of-hand proof to DIN EN 50274/VDE 0106 part 110

Terminal capacity (copper busbar)

M8 at rear-side screw connection

10.8 Connections for external conductors

Is the panel builder's responsibility.

Special features

Maximum back-up fuse, if the expected short-circuit currents at the installation location exceed the switching capacity of the circuit breaker (Rated short-circuit breaking capacity I_{cn}) Rated current = rated uninterrupted current: 250 A

Position of connection for main current circuit

Front side

Resources

Characteristic curve

[eaton-circuit-breaker-characteristic-power-defense-mccb-characteristic-curve-031.eps](#)

[eaton-circuit-breaker-characteristic-power-defense-mccb-characteristic-curve-035.eps](#)

[eaton-circuit-breaker-nzm-mccb-characteristic-curve-050.eps](#)

Drawings

[eaton-circuit-breaker-nzm-mccb-dimensions-019.eps](#)

[eaton-circuit-breaker-switch-nzm-mccb-dimensions-017.eps](#)

Installation instructions

[IL01206012Z](#)

Installation videos

[Power Defense EMEA](#)

Rated insulation voltage (Ui)

690 V AC

Climatic proofing

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

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

Features

Motor drive optional

Protection unit

Lifespan, electrical

7500 operations at 690 V AC-1

10000 operations at 400 V AC-1

7500 operations at 415 V AC-1

5000 operations at 690 V AC-3

6500 operations at 415 V AC-3

Electrical connection type of main circuit

Screw connection

Short-circuit total breaktime

< 10 ms

Rated impulse withstand voltage (Uimp) at main contacts

8000 V

Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 400/415 V, 50/60 Hz

36 kA

10.9.3 Impulse withstand voltage

Is the panel builder's responsibility.

Utilization category

A (IEC/EN 60947-2)

Number of poles

Three-pole

10.6 Incorporation of switching devices and components

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

10.5 Protection against electric shock

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

Equipment heat dissipation, current-dependent

58.13 W

Instantaneous current setting (Ii) - min

1500 A

10.13 Mechanical function

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

10.2.6 Mechanical impact

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

10.9.4 Testing of enclosures made of insulating material

Is the panel builder's responsibility.

Rated operational current

250 A (415 V AC-3, making and breaking capacity)

250 A (660-690 V AC-3, making and breaking capacity)

300 A (380/400 V AC-1, making and breaking capacity)

300 A (415 V AC-1, making and breaking capacity)

300 A (690 V AC-1, making and breaking capacity)

Rated short-circuit breaking capacity I_{cs} (IEC/EN 60947) at 230 V, 50/60 Hz

55 kA

Application

Use in unearthed supply systems at 690 V

10.3 Degree of protection of assemblies

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

Rated short-circuit making capacity I_{cm} at 240 V, 50/60 Hz

121 kA

Rated short-circuit breaking capacity I_{cs} (IEC/EN 60947) at 440 V, 50/60 Hz

22.5 kA

Degree of protection (IP), front side

IP40 (with insulating surround)

IP66 (with door coupling rotary handle)

Rated short-circuit making capacity I_{cm} at 525 V, 50/60 Hz

24 kA

Rated short-circuit making capacity I_{cm} at 690 V, 50/60 Hz

14 kA

Instantaneous current setting (I_i) - max

2500 A

Overload current setting (I_r) - min

200 A

Short delay current setting (I_{sd}) - min

0 A

Number of auxiliary contacts (normally closed contacts)

0

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.

Lifespan, mechanical

20000 operations

Overload current setting (I_r) - max

250 A

Voltage rating

690 V - 690 V

Terminal capacity (copper solid conductor/cable)

16 mm² (1x) at tunnel terminal

Degree of protection (terminations)

IP10 (tunnel terminal)

IP00 (terminations, phase isolator and band terminal)

10.9.2 Power-frequency electric strength

Is the panel builder's responsibility.

Short-circuit release non-delayed setting - min

1500 A

Degree of protection

In the area of the HMI devices: IP20 (basic protection type)

IP20

Overvoltage category

III

Short delay current setting (I_{sd}) - max

0 A

Rated impulse withstand voltage (U_{imp}) at auxiliary contacts

6000 V

Number of auxiliary contacts (change-over contacts)

0

Release system

Thermomagnetic release

Rated short-circuit breaking capacity I_{cs} (IEC/EN 60947) at 525 V, 50/60 Hz

6 kA

Pollution degree

3

10.7 Internal electrical circuits and connections

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.

Functions

System and cable protection

Short-circuit release non-delayed setting - max

2500 A

Rated short-circuit making capacity Icm at 400/415 V, 50/60 Hz

76 kA

Standard terminals

Screw terminal

Type

Circuit breaker

10.2.2 Corrosion resistance

Meets the product standard's requirements.

10.2.4 Resistance to ultra-violet (UV) radiation

Meets the product standard's requirements.

10.2.7 Inscriptions

Meets the product standard's requirements.

Rated short-circuit making capacity Icm at 440 V, 50/60 Hz

63 kA

Number of auxiliary contacts (normally open contacts)

0

Isolation

300 V AC (between the auxiliary contacts)

500 V AC (between auxiliary contacts and main contacts)

Number of operations per hour - max

120

Circuit breaker frame type

LZM2

Direction of incoming supply

As required

Shock resistance

20 g (half-sinusoidal shock 20 ms)



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