

# Specifications



Photo is representative

## Eaton 111967

Eaton Moeller series Power Defense - Molded Case Circuit Breaker. Circuit-breaker, 3 p, 400A, N, 3

### General specifications

<b>PRODUCT NAME</b>	Eaton Moeller series Power Defense molded case circuit-breaker
<b>CATALOG NUMBER</b>	111967
<b>MODEL CODE</b>	LZMN3-A400-I
<b>EAN</b>	4015081115150
<b>PRODUCT LENGTH/DEPTH</b>	166 mm
<b>PRODUCT HEIGHT</b>	275 mm
<b>PRODUCT WIDTH</b>	140 mm
<b>PRODUCT WEIGHT</b>	5.8 kg
<b>COMPLIANCES</b>	RoHS conform
<b>CERTIFICATIONS</b>	VDE 0660 IEC/EN 60947 IEC



Powering Business Worldwide

## Delivery program

<b>CIRCUIT BREAKER FRAME TYPE</b>	LZM3
<b>APPLICATION</b>	Use in unearthed supply systems at 690 V
<b>AMPERAGE RATING</b>	400 A
<b>NUMBER OF POLES</b>	Three-pole

## Technical data - electrical

<b>VOLTAGE RATING</b>	690 V - 690 V
<b>RATED INSULATION VOLTAGE (UI)</b>	1000 V AC
<b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP) AT AUXILIARY CONTACTS</b>	6000 V
<b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP) AT MAIN CONTACTS</b>	8000 V
<b>RATED OPERATIONAL CURRENT</b>	500 A (500 V DC-1, making and breaking capacity) 400 A (415 V AC-3, making and breaking capacity) 500 A (415 V AC-1, making and breaking capacity) 500 A (500 V DC-3, making and breaking capacity) 500 A (750 V DC-1, making and breaking capacity) 500 A (750 V DC-3, making and breaking capacity) 630 A (690 V AC-1, making and breaking capacity) 400 A (660-690 V AC-3, making and breaking capacity) 630 A (380/400 V AC-1, making and breaking capacity)
<b>RATED SHORT-TIME WITHSTAND CURRENT (T = 0.3 S)</b>	3.3 kA
<b>RATED SHORT-TIME WITHSTAND CURRENT (T = 1 S)</b>	3.3 kA
<b>INSTANTANEOUS CURRENT SETTING (II) - MIN</b>	2400 A
<b>INSTANTANEOUS CURRENT SETTING (II) - MAX</b>	4000 A
<b>OVERLOAD CURRENT SETTING (IR) - MIN</b>	320 A
<b>OVERLOAD CURRENT SETTING (IR) - MAX</b>	400 A
<b>SHORT DELAY CURRENT SETTING (ISD) - MIN</b>	0 A
<b>SHORT DELAY CURRENT</b>	0 A

<b>SETTING (ISD) - MAX</b>	
<b>SHORT-CIRCUIT RELEASE NON-DELAYED SETTING - MIN</b>	2400 A
<b>SHORT-CIRCUIT RELEASE NON-DELAYED SETTING - MAX</b>	4000 A
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 230 V, 50/60 HZ</b>	85 kA
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 400/415 V, 50/60 HZ</b>	50 kA
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 440 V, 50/60 HZ</b>	35 kA
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 525 V, 50/60 HZ</b>	13 kA
<b>RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 240 V, 50/60 HZ</b>	187 kA
<b>RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 400/415 V, 50/60 HZ</b>	105 kA
<b>RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 440 V, 50/60 HZ</b>	74 kA
<b>RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 525 V, 50/60 HZ</b>	53 kA
<b>RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 690 V, 50/60 HZ</b>	40 kA
<b>SHORT-CIRCUIT TOTAL BREAKTIME</b>	< 10 ms
<b>ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT</b>	Screw connection
<b>ISOLATION</b>	500 V AC (between auxiliary contacts and main contacts) 300 V AC (between the auxiliary contacts)
<b>OVERVOLTAGE CATEGORY</b>	III

<b>UTILIZATION CATEGORY</b>	A (IEC/EN 60947-2)
<b>POLLUTION DEGREE</b>	3
<b>LIFESPAN, ELECTRICAL</b>	2000 operations at 690 V AC-3 2000 operations at 415 V AC-3 2000 operations at 500 V DC-3 5000 operations at 400 V AC-1 5000 operations at 500 V DC-1 5000 operations at 415 V AC-1 2000 operations at 400 V AC-3 2000 operations at 750 V DC-3 3000 operations at 690 V AC-1 5000 operations at 750 V DC-1

## Technical data - mechanical

<b>TYPE</b>	Circuit breaker
<b>RELEASE SYSTEM</b>	Thermomagnetic release
<b>MOUNTING METHOD</b>	Fixed Built-in device fixed built-in technique
<b>DEGREE OF PROTECTION</b>	IP20 In the area of the HMI devices: IP20 (basic protection type)
<b>DEGREE OF PROTECTION (IP), FRONT SIDE</b>	IP66 (with door coupling rotary handle) IP40 (with insulating surround)
<b>DEGREE OF PROTECTION (TERMINATIONS)</b>	IP00 (terminations, phase isolator and band terminal) IP10 (tunnel terminal)
<b>PROTECTION AGAINST DIRECT CONTACT</b>	Finger and back-of-hand proof to DIN EN 50274/VDE 0106 part 110
<b>SHOCK RESISTANCE</b>	20 g (half-sinusoidal shock 20 ms)
<b>NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)</b>	0
<b>NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)</b>	0
<b>NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)</b>	0
<b>NUMBER OF OPERATIONS PER HOUR - MAX</b>	60
<b>HANDLE TYPE</b>	Rocker lever
<b>POSITION OF CONNECTION FOR MAIN CURRENT CIRCUIT</b>	Front side
<b>DIRECTION OF INCOMING SUPPLY</b>	As required
<b>STANDARD TERMINALS</b>	Screw terminal
<b>TERMINAL CAPACITY (COPPER BUSBAR)</b>	M10 at rear-side screw connection
<b>TERMINAL CAPACITY (COPPER SOLID CONDUCTOR/CABLE)</b>	16 mm <sup>2</sup> - 185 mm <sup>2</sup> (1x) at tunnel terminal
<b>CLIMATIC PROOFING</b>	Damp heat, cyclic, to IEC

## Design verification as per IEC/EN 61439 - technical data

**RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)** 400 A

**EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT** 72.48 W

---

60068-2-30  
Damp heat, constant, to  
IEC 60068-2-78

---

<b>LIFESPAN, MECHANICAL</b>	15000 operations
-----------------------------	------------------

---

## Design verification as per IEC/EN 61439

<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.
<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</b>	Is the panel builder's responsibility.

## Additional information

<b>FEATURES</b>	Protection unit Motor drive optional
<b>FUNCTIONS</b>	Photovoltaic applications System and cable protection
<b>SPECIAL FEATURES</b>	<ul style="list-style-type: none"> <li>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 <math>I_{cn}</math>)</li> <li>Rated current = rated uninterrupted current: 400 A</li> </ul>

---

**INSULATING MATERIAL**

---

**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.

---



## Resources

### CHARACTERISTIC CURVE

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

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

[eaton-circuit-breaker-nzm-mccb-characteristic-curve-034.eps](#)

### DECLARATIONS OF CONFORMITY

[DA-DC-03 N3](#)

### DRAWINGS

[eaton-circuit-breaker-nzm-mccb-dimensions-020.eps](#)

[eaton-circuit-breaker-switch-nzm-mccb-dimensions-016.eps](#)

[eaton-circuit-breaker-switch-nzm-mccb-3d-drawing-002.eps](#)

### INSTALLATION INSTRUCTIONS

[eaton-circuit-breaker-basic-unit-lzm3-il01208013z.pdf](#)

### INSTALLATION VIDEOS

[Power Defense EMEA](#)

### MCAD MODEL

[DA-CS-nzm3 3p](#)

[DA-CD-nzm3 3p](#)

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE:



#### Eaton Corporation plc

Eaton House  
30 Pembroke Road  
Dublin 4, Ireland  
Eaton.com

© 2025 Eaton. All Rights Reserved.

Follow us on social media to get the latest product and support information.

