

Specyfikacje



Eaton 112001

Eaton Moeller series Power Defense - Molded Case Circuit Breaker. Switch-disconnector, 4 p, 160A, frame size 1

General specifications

PRODUCT NAME	Eaton Moeller series Power Defense molded case circuit-breaker
CATALOG NUMBER	112001
EAN	4015081115495
PRODUCT LENGTH/DEPTH	88 mm
PRODUCT HEIGHT	145 mm
PRODUCT WIDTH	120 mm
PRODUCT WEIGHT	1.164 kg
COMPLIANCES	RoHS conform
CERTIFICATIONS	IEC
MODEL CODE	LN1-4-160-I



Powering Business Worldwide

Delivery program

CIRCUIT BREAKER FRAME TYPE LN1

APPLICATION Use in unearthed supply systems at 690 V

AMPERAGE RATING 160 A

NUMBER OF POLES Four-pole

Technical data - electrical

VOLTAGE RATING 690 V - 690 V

RATED OPERATING VOLTAGE (UE) AT AC - MAX 400 V

RATED IMPULSE WITHSTAND VOLTAGE (UIMP) AT AUXILIARY CONTACTS 6000 V

RATED IMPULSE WITHSTAND VOLTAGE (UIMP) AT MAIN CONTACTS 6000 V

RATED OPERATIONAL CURRENT
 160 A (690 V AC-1, making and breaking capacity)
 160 A (415 V AC-1, making and breaking capacity)
 160 A (415 V AC-22/23A, making and breaking capacity)
 160 A (690 V AC-22/23A, making and breaking capacity)

RATED CONDITIONAL SHORT-CIRCUIT CURRENT WITH BACK-UP FUSE
 PN1(N1)-63...125: 125 AgGgL; PN1(N1)-160: 160 AgGgL
 100 kA at 400/415 V
 80 kA at 690 V

RATED CONDITIONAL SHORT-CIRCUIT CURRENT WITH DOWNSTREAM FUSE
 100 kA at 400/415 V
 10 kA at 690 V
 PN1(N1)-63...125: 125 AgGgL; PN1(N1)-160: 160 AgGgL

RATED SHORT-TIME WITHSTAND CURRENT (ICW) 2 kA

RATED SHORT-TIME WITHSTAND CURRENT (T = 0.3 S) 2 kA

RATED SHORT-TIME WITHSTAND CURRENT (T = 1 S) 2 kA

RATED PERMANENT CURRENT AT AC-21, 400 V 0 A

RATED OPERATING FREQUENCY 50 Hz

RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 690 V, 50/60 HZ 2.8 kA

RATED OPERATING POWER AT AC-3, 400 V 0 kW

RATED OPERATING POWER AT AC-23, 400 V 90 kW

SWITCHING POWER AT 400 V	0 kW
SHORT-CIRCUIT TOTAL BREAKTIME	< 10 ms
SHORT-CIRCUIT PROTECTIVE DEVICE FUSES - MAX	160 A gL
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Frame clamp
OVERVOLTAGE CATEGORY	III
POLLUTION DEGREE	3
LIFESPAN, ELECTRICAL	7500 operations at 400 V AC-3 10000 operations at 400 V AC-1 5000 operations at 690 V AC-3 7500 operations at 690 V AC-1 10000 operations at 415 V AC-1 7500 operations at 415 V AC-3

Technical data - mechanical

TYPE	Switch-disconnector
MOUNTING METHOD	Distribution board installation Intermediate mounting Ground mounting Built-in device fixed built-in technique Fixed
DEGREE OF PROTECTION (IP), FRONT SIDE	IP20
SWITCH POSITIONS	I, +, 0
NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	0
NUMBER OF OPERATIONS PER HOUR - MAX	120
HANDLE TYPE	Rocker lever
HANDLE COLOR	Gray
STANDARD TERMINALS	Box terminal
TERMINAL CAPACITY (CONTROL CABLE)	0.75 mm ² - 2.5 mm ² (1x) 0.75 mm ² - 1.5 mm ² (2x)
TERMINAL CAPACITY (ALUMINUM SOLID CONDUCTOR/CABLE)	16 mm ² (1x) at tunnel terminal
TERMINAL CAPACITY (COPPER BUSBAR)	Min. 12 mm x 5 mm direct at switch rear-side connection M6 at rear-side screw connection Max. 16 mm x 5 mm direct at switch rear-side connection
TERMINAL CAPACITY (COPPER SOLID CONDUCTOR/CABLE)	6 mm ² - 16 mm ² (2x) direct at switch rear-side connection 10 mm ² - 16 mm ² (1x) direct at switch rear-side connection 6 mm ² - 16 mm ² (2x) at box terminal 10 mm ² - 16 mm ² (1x) at box terminal 16 mm ² (1x) at tunnel terminal
TERMINAL CAPACITY	25 mm ² (2x) at box

Design verification as per IEC/EN 61439 - technical data

RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	160 A
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	29.18 W

(COPPER STRANDED CONDUCTOR/CABLE)	terminal 25 mm ² (2x) direct at switch rear-side connection 25 mm ² - 70 mm ² (1x) at box terminal 25 mm ² - 95 mm ² (1x) at tunnel terminal 25 mm ² - 70 mm ² (1x) direct at switch rear-side connection
TERMINAL CAPACITY (COPPER STRIP)	Max. 9 segments of 9 mm x 0.8 mm at box terminal Min. 2 segments of 9 mm x 0.8 mm at box terminal
LIFESPAN, MECHANICAL	20000 operations

Design verification as per IEC/EN 61439

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 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.
10.10 TEMPERATURE RISE	The panel builder is responsible for the

Additional information

FEATURES	Version as maintenance- /service switch Version as emergency stop installation Motor drive optional Version as main switch
FUNCTIONS	Voltage release optional Disconnectors/main switches Interlockable
SPECIAL FEATURES	Main switch characteristics including positive drive to IEC/EN 60204 and VDE 0113. Isolating characteristics to IEC/EN 60947-3 and VDE 0660. Busbar tag shroud to VDE 0160 Part 100. Rated current = rated uninterrupted current: 160 A

	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.

Do pobrania

DEKLARACJE ZGODNOŚCI

[eaton-molded-case-switch-disconnector-declaration-of-conformity-eu250137en.pdf](#)

MODELE MCAD

[DA-CD-nzm1_4p](#)

[DA-CS-nzm1_4p](#)

RYSUNKI

[eaton-circuit-breaker-nzm-mccb-dimensions-018.eps](#)

[eaton-circuit-breaker-switch-nzm-mccb-dimensions-014.eps](#)

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATA:



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