

Eaton 167688

Eaton Moeller series NZM - Molded Case Circuit Breaker. Switch-disconnector 4p 160A 1500VDC

PRODUCT NAME	Eaton Moeller series NZM switch-disconnector
CATALOG NUMBER	167688
PRODUCT LENGTH/DEPTH	149 mm
PRODUCT HEIGHT	184 mm
PRODUCT WIDTH	140 mm
PRODUCT WEIGHT	3.5 kg
COMPLIANCES	RoHS conform
CERTIFICATIONS	IEC

AMPERAGE RATING	160 A
VOLTAGE RATING	1500 V - 1500 V
CIRCUIT BREAKER FRAME TYPE	N2
FEATURES	Motor drive optional Version as emergency stop installation Version as main switch Remote operation with shunt releases / remote operator Version as maintenance-/service switch
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)	Meets the product standard's requirements.

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RADIATION	
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.
POLLUTION DEGREE	2
MOUNTING METHOD	Built-in device fixed built-in technique Fixed Distribution board installation Ground mounting Intermediate mounting
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	27 W
UTILIZATION CATEGORY	DC-22 A
RATED SHORT-TIME WITHSTAND CURRENT (ICW)	3.6 kA
DEGREE OF PROTECTION	Other

ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
AMBIENT OPERATING TEMPERATURE - MAX	70 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
AMBIENT STORAGE TEMPERATURE - MAX	70 °C
AMBIENT STORAGE TEMPERATURE - MIN	40 °C
CURRENT RATING (IU) AT 40°C WITH TERMINAL JUMPERS	160 A
CURRENT RATING (IU) AT 65°C WITH TERMINAL JUMPERS	160 A
NUMBER OF AUXILIARY CONTACTS (CHANGE- OVER CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	0
RATED INSULATION VOLTAGE (UI)	1500 V
RATED OPERATING POWER AT AC-23, 400 V	0 kW
RATED OPERATING POWER AT AC-3, 400 V	0 kW
SWITCH POSITIONS	I, +, 0
LIFESPAN, MECHANICAL	20000 operations
OVERVOLTAGE CATEGORY	III
RATED OPERATIONAL CURRENT	160 A (DC 22-A)
DEGREE OF PROTECTION (IP), FRONT SIDE	IP20
NUMBER OF POLES	Four-pole
TERMINAL CAPACITY (COPPER STRIP)	Min. 2 segments of 9 mm x 0.8 mm at box terminal Max. 8 segments of 15.5 mm x 0.8 mm (2x) at box terminal Max. 10 segments of 24 mm x 0.8 mm at rear-side connection (punched)

	Max. 10 segments of 16 mm x 0.8 mm at box terminal Min. 2 segments of 16 mm x 0.8 mm at rear-side connection (punched)
HANDLE COLOR	Black
FUNCTIONS	Voltage release optional Photovoltaic applications Disconnectors/main switches Interlockable
TYPE	DC switch-disconnector

SPECIAL FEATURES

- IEC/EN 60947-3
- CCC China Compulsory Certificate
- Main switch characteristics including positive drive to IEC/EN 60204 and VDE 0113.
- Isolating characteristics to IEC/EN 60947-3 and VDE 0660.
- N switch-disconnectors can, in addition, be combined with NZM...-XU, NZM...-XA shunt releases and auxiliary contacts as well as with NZM...-XR... remote operator.
- For DC switching, all 4 contacts must be connected in series. Refer to the information on jumper kit accessories.
- Supplied as standard: Screw connection
- box terminal optional.
- When working with ungrounded systems (e.g., IT), the installation must ensure that a

- double ground fault will be impossible.
- Switch can not be combined with plug-in/withdrawable units and/or connection on rear.
 - Lifespan, mechanical: of which max. 50 % trip by shunt/undervoltage release
 - Rated current = rated uninterrupted current: 160 A
 - Values for rated uninterrupted current at 65 °C include jumpers.

APPLICATION	• Open areas • Utility buildings
NUMBER OF SWITCHES	1
RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ)	0 kA
RATED OPERATING VOLTAGE (UE) AT AC - MAX	0 V
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	160 A
RATED PERMANENT CURRENT AT AC-21, 400 V	0 A
RATED PERMANENT CURRENT AT AC-23, 400 V	0 A
RATED SHORT-TIME WITHSTAND CURRENT (T = 1 S)	3.6 kA
SWITCHING POWER AT 400 V	0 kW
HANDLE TYPE	Rocker lever
NUMBER OF OPERATIONS PER HOUR - MAX	120
STANDARD TERMINALS	Screw terminal

TERMINAL CAPACITY (COPPER BUSBAR)	M8 at rear-side screw connection Min. 16 mm x 5 mm direct at switch rear-side connection Max. 24 mm x 8 mm direct at switch rear-side connection
TERMINAL CAPACITY (COPPER SOLID CONDUCTOR/CABLE)	16 mm ² (1x) at tunnel terminal 10 mm ² - 16 mm ² (1x) direct at switch rear-side connection 4 mm ² - 16 mm ² (2x) direct at switch rear-side connection 4 mm ² - 16 mm ² (1x) at box terminal 4 mm ² - 16 mm ² (2x) at box terminal
TERMINAL CAPACITY (ALUMINUM SOLID CONDUCTOR/CABLE)	16 mm ² (1x) at tunnel terminal
TERMINAL CAPACITY (COPPER STRANDED CONDUCTOR/CABLE)	25 mm ² - 70 mm ² (2x) at box terminal 25 mm ² - 185 mm ² (1x) at box terminal 25 mm ² - 185 mm ² (1x) at tunnel terminal 25 mm ² - 70 mm ² (2x) direct at switch rear-side connection 25 mm ² - 185 mm ² (1x) direct at switch rear-side connection
TERMINAL CAPACITY (ALUMINUM STRANDED CONDUCTOR/CABLE)	25 mm ² - 185 mm ² (1x) at tunnel terminal

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

:



Eaton House
30 Pembroke Road
Dublin 4,
Eaton.com

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