

Specifications



Photo is representative

Eaton 152552

Eaton Moeller series NZM - Molded Case Circuit Breaker. Switch-disconnector 4p 1600A 1000VDC

General specifications

PRODUCT NAME	Eaton Moeller series NZM switch-disconnector
CATALOG NUMBER	152552
MODEL CODE	N4-4-1600-S1-DC
EAN	4015081492985
PRODUCT LENGTH/DEPTH	401 mm
PRODUCT HEIGHT	207 mm
PRODUCT WIDTH	280 mm
PRODUCT WEIGHT	22 kg
COMPLIANCES	RoHS conform
CERTIFICATIONS	IEC
GLOBAL CATALOG	152552



Powering Business Worldwide

Product specifications

AMPERAGE RATING	1600 A
VOLTAGE RATING	1000 V - 1000 V
CIRCUIT BREAKER FRAME TYPE	N4
FEATURES	Version as emergency stop installation Motor drive optional Version as main switch Version as maintenance- /service switch Remote operation with shunt releases / remote operator
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) RADIATION	Meets the product standard's requirements.
10.2.5 LIFTING	Does not apply, since the

Resources

BROCHURES	eaton-digital-nzm-brochure-br013003en-en-us.pdf eaton-feerum-the-whole-grain-solution-success-story-en-us.pdf
CATALOGS	eaton-digital-nzm-catalog-ca013003en-en-us.pdf
DECLARATIONS OF CONFORMITY	eaton-switch-disconnector-declaration-of-conformity-eu250131en.pdf
DRAWINGS	eaton-circuit-breaker-nzm-switch-disconnector-dimensions.eps eaton-circuit-breaker-terminals-nzm-switch-disconnector-3d-drawing.eps eaton-circuit-breaker-nzm-switch-disconnector-3d-drawing.eps eaton-circuit-breaker-cable-nzm-mccb-3d-drawing-004.eps eaton-circuit-breaker-terminals-nzm-switch-disconnector-3d-drawing-002.eps eaton-circuit-breaker-terminals-nzm-switch-disconnector-3d-drawing-003.eps
ECAD MODEL	DA-CE-ETN.N4-4-1600-S1-DC
INSTALLATION VIDEOS	Introduction of the new digital circuit breaker NZM The new digital NZM Range
MCAD MODEL	DA-CS-nzm4_4p DA-CD-nzm4_4p
PEP ECO-PASSPORT	eaton-switch-disconnectors-pep-eato-00191-v0101-en.pdf
TECHNICAL DATA SHEETS	eaton-nzm-technical-information-sheet

	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	3
MOUNTING METHOD	Distribution board installation Fixed Ground mounting Intermediate mounting Built-in device fixed built-in technique
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	379 W
UTILIZATION CATEGORY	DC-22 A
RATED SHORT-TIME WITHSTAND CURRENT (ICW)	34 kA
DEGREE OF PROTECTION	IP20
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	1600 A
CURRENT RATING (IU) AT 65°C WITH TERMINAL JUMPERS	1500 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)	1250 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	10000 operations
OVERVOLTAGE CATEGORY	III
RATED OPERATIONAL CURRENT	1400 CSA (DC-21B) 1600 A (DC 22-A)
DEGREE OF PROTECTION (IP), FRONT SIDE	IP20
NUMBER OF POLES	Four-pole
TERMINAL CAPACITY (COPPER STRIP)	<p>10 segments of 50 mm x 1 mm (2x) at 1-hole module plate</p> <p>10 segments of 80 mm x 1 mm (2x) at rear-side width extension</p> <p>Max. 10 segments of 50 mm x 1 mm (2x) at rear-side connection (punched)</p> <p>Min. 6 segments of 16 mm x 0.8 mm at flat conductor terminal</p> <p>Min. 10 segments of 50 mm x 1 mm (2x) at rear-side connection (punched)</p>

	Max. 10 segments of 32 mm x 1 mm (2x) at flat conductor terminal
HANDLE COLOR	Black
FUNCTIONS	Interlockable Disconnectors/main switches Photovoltaic applications Voltage release optional
TYPE	DC switch-disconnector 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 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. N4-4-...-S15-DC feeder unit and outgoer from the bottom only. Lifespan, mechanical: of which max. 50 % trip by shunt/undervoltage release Rated current = rated uninterrupted current: 1600 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)	1600 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 = 0.1 S)	34 kA
SWITCHING POWER AT 400 V	0 kW
HANDLE TYPE	Rocker lever
NUMBER OF OPERATIONS PER HOUR - MAX	60
STANDARD TERMINALS	Screw terminal
TERMINAL CAPACITY (COPPER BUSBAR)	<p>Min. 25 mm x 5 mm direct at switch rear-side connection</p> <p>Min. 60 mm x 10 mm at rear-side width extension</p> <p>Max. 50 mm x 10 mm (2x) direct at switch rear-side connection</p> <p>Max. 50 mm x 10 mm (2x) at rear-side 1-hole module plate</p> <p>Max. 10 mm x 80 mm (2x) at rear-side width extension</p> <p>Max. 80 mm x 10 mm (2x) direct at switch rear-side connection</p> <p>Min. 25 mm x 5 mm at rear-side 1-hole module plate</p> <p>50 mm x 10 mm (2x) at rear-side 2-hole module plate</p> <p>M10 at rear-side screw connection</p>
TERMINAL CAPACITY (COPPER SOLID CONDUCTOR/CABLE)	<p>50 mm² - 240 mm² (4x) at 4-hole tunnel terminal</p> <p>300 mm² (4x) at rear-side width extension</p> <p>120 mm² - 300 mm² (1x) at rear-side 1-hole module plate</p>

35 mm² - 185 mm² (4x) at rear-side 2-hole module plate
95 mm² - 240 mm² (6x) at rear-side width extension
95 mm² - 300 mm² (2x) at rear-side 1-hole module plate
95 mm² - 185 mm² (2x) at rear-side 2-hole module plate

**TERMINAL CAPACITY
(COPPER STRANDED
CONDUCTOR/CABLE)**

50 mm² - 185 mm² (4x) direct at switch rear-side connection
120 mm² - 185 mm² (1x) direct at switch rear-side connection

**TERMINAL CAPACITY
(ALUMINUM STRANDED
CONDUCTOR/CABLE)**

25 mm² - 240 mm² (4x) at 4-hole tunnel terminal

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE:



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