Specifications

Eaton 179591

Eaton Moeller series NZM - Molded Case Circuit Breaker. Molded Case Switch 4p 1100A 1000VDC UL

General specifications

PRODUCT NAME	Eaton Moeller series NZM switch-disconnector
CATALOG NUMBER	179591
MODEL CODE	N4-4-1100-S1-PV-NA
EAN	4015081746774
PRODUCT LENGTH/DEPTH	401 mm
PRODUCT HEIGHT	207 mm
PRODUCT WIDTH	280 mm
PRODUCT WEIGHT	22 kg
COMPLIANCES	RoHS conform
CERTIFICATIONS	UL489B UL 489B CE IEC 60947-3 CE marking UL listed CCC UL (File No. E471671)

Powering Business Worldwide

Product specifications

AMPERAGE RATING	1100 A
VOLTAGE RATING	1000 V - 1000 V
CIRCUIT BREAKER FRAME TYPE	N4
FEATURES	Motor drive optional Version as emergency stop installation Version as maintenance-/service switch Optionally with XR remote operator. Can be optionally controlled remotely with XU/XA shunt release. Version as main 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	Meets the product

Resources

BROCHURES	eaton-feerum-the-whole-grain-solution-success-story-en-us.pdf eaton-digital-nzm-brochure-br013003en-en-us.pdf
CATALOGUES	eaton-digital-nzm-catalog-ca013003en-en-us.pdf
DECLARATIONS OF CONFORMITY	eaton-switch-disconnector-declaration-of-conformity-eu250128en.pdf
DRAWINGS	eaton-circuit-breaker-nzm-switch-disconnector-dimensions.eps eaton-circuit-breaker-cable-nzm-mccb-3d-drawing-004.eps eaton-circuit-breaker-nzm-moulded-case-switch-3d-drawing.eps eaton-circuit-breaker-nzm-moulded-case-switch-3d-drawing-002.eps eaton-circuit-breaker-nzm-switch-disconnector-3d-drawing-002.eps eaton-circuit-breaker-terminals-nzm-switch-disconnector-3d-drawing.eps
ECAD MODEL	DA-CE-ETN.N4-4-1100-S1-PV-NA
INSTALLATION INSTRUCTIONS	eaton-molded-case-switch-n4-4-s1-s15-pv-na-il012055zu.pdf
INSTALLATION VIDEOS	Introduction of the new digital circuit breaker NZM The new digital NZM Range
MCAD MODEL	n4_4_pv_na.dwg n4_4_pv_na.stp
PEP ECO-PASSPORT	eaton-switch-disconnectors-pep-eato-00201-v0101-en.pdf

ULTRA-VIOLET (UV) RADIATION	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.
POLLUTION DEGREE	3
MOUNTING METHOD	Intermediate mounting Built-in device fixed built-in technique Distribution board installation Ground mounting Fixed
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	213 W
UTILIZATION CATEGORY	DC-22 A
RATED SHORT-TIME WITHSTAND CURRENT (ICW)	34 kA

TECHNICAL DATA SHEETS	eaton-nzm-technical-information-sheet

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	1100 A
CURRENT RATING (IU) AT 65°C WITH TERMINAL JUMPERS	1100 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	1100 A (DC 22-A)
DEGREE OF PROTECTION (IP), FRONT SIDE	IP20
NUMBER OF POLES	Four-pole
TERMINAL CAPACITY (COPPER STRIP)	Min. 6 segments of 16 mm x 0.8 mm at flat conductor terminal Max. 10 segments of 32 mm x 1 mm (2x) at flat conductor terminal

	10 segments of 50 mm x 1 mm (2x) at 1-hole module plate Min. 10 segments of 50 mm x 1 mm (2x) at rear-side connection (punched) Max. 10 segments of 50 mm x 1 mm (2x) at rear-side connection (punched) 10 segments of 80 mm x 1 mm (2x) at rear-side width extension NA: same as for IEC
HANDLE COLOR	Black
LIFESPAN, ELECTRICAL	500 operations
FUNCTIONS	Photovoltaic applications Disconnectors/main switches Interlockable Voltage release optional
TYPE	DC switch-disconnector Switch-disconnector
SPECIAL FEATURES	Max. 50 % trip by shunt/undervoltage release of mechanical life span Main switch characteristics including positive drive to IEC/EN 60204, 0113. Isolating characteristics to IEC/EN 60947-3, 0660. N switch-disconnectors can be combined with NZM...-XU, NZM...-XA shunt releases, auxiliary contacts and NZM...-XR... remote operator. For DC switching, all 4 contacts must be connected in series -see information on jumper kit accessories Operating with ungrounded systems (e.g., IT), the installation must prevent a double ground fault Switch can not be combined with plug-in/withdrawable units and/or connection on rea, neither with connection width extensions, module plates, or band terminals in UL489B applications N4-4-...-S15-DC feeder unit and outgoer from the bottom only. Suitable for 100%-rated application with

	enclosure minimum WxHxD of 1200 x 600 x 275 mm Does not provide any overcurrent protection. Rated current = rated uninterrupted current: 1100 A include jumpers at 65 °C
APPLICATION	Branch circuits, feeder circuits 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)	1100 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 connection,Optional:Tunnel terminal,Rear-side connection,Strip connection
RATED OPERATING VOLTAGE UE (UL) - MAX	1000 V DC
TERMINAL CAPACITY (COPPER BUSBAR)	M10 at rear-side screw connection Min. 25 mm x 5 mm direct at switch rear-side connection Max. 50 mm x 10 mm (2x) direct at switch rear-side connection

	Min. 25 mm x 5 mm at rear-side 1-hole module plate Max. 50 mm x 10 mm (2x) at rear-side 1-hole module plate 50 mm x 10 mm (2x) at rear-side 2-hole module plate Min. 60 mm x 10 mm at rear-side width extension Max. 80 mm x 10 mm (2x) at rear-side width extension NA: same as for IEC
TERMINAL CAPACITY (COPPER STRANDED CONDUCTOR/CABLE)	126 mm^2 - 185 mm^2 (1x) direct at switch rear-side connection 50 mm^2 - 185 mm^2 (4x) direct at switch rear-side connection Min. 120 mm^2 - 300 mm^2 (1x) at rear-side 1-hole module plate Max. 95 mm^2 - 300 mm^2 (2x) at rear-side 1-hole module plate Min. 95 mm^2 - 185 mm^2 (2x) at rear-side 2-hole module plate Max. 35 mm^2 - 185 mm^2 (4x) at rear-side 2-hole module plate 50 mm^2 - 240 mm^2 (4x) at 4-hole tunnel terminal 300 mm^2 (4x) at rear-side width extension 95 mm^2 - 240 mm^2 (6x) at rear-side width extension NA: kcmil 250 - kcmil 350 (1x) direct at switch rear-side connection NA: AWG 0 - kcmil 350 (4x) direct at switch rear-side connection NA: min. kcmil 250 - kcmil 600 (1x) at rear-side 1-hole module plate NA: max. AWG 3/0 - kcmil 600 (2x) at rear-side 1-hole module plate NA: min. AWG 3/0 - kcmil 350 (2x) at rear-side 2-hole module plate NA: max. AWG 2 - kcmil 350 (4x) at rear-side 2-hole

	module plate NA: AWG 0- kcmil 500 (4x) at 4-hole tunnel terminal NA: kcmil 600 mm² (4x) at rear-side width extension NA: AWG 3/0 - kcmil 500 (6x) at rear-side width extension
TERMINAL CAPACITY (ALUMINUM STRANDED CONDUCTOR/CABLE)	Min. 185 mm² - 240 mm² (1x) at rear-side 1-hole module plate Max. 70 mm² - 185 mm² (2x) at rear-side 1-hole module plate 50 mm² (4x) at rear-side 2-hole module plate 240 mm² (2x) at rear-side width extension 70 mm² - 240 mm² (6x) at rear-side width extension NA: aluminum conductor not applicable

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
DATE:	

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

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