Eaton 189667

NZMH4-4-PX800/VAR-AVE. NZM4 PXR25 circuit breaker - integrated energy measurement class 1, 800A, 4p, variable, Screw terminal, withdrawable unit

PRODUCT NAME	Eaton Moeller series NZM molded case circuit breaker electronic
CATALOG NUMBER	189667
PRODUCT LENGTH/DEPTH	501 mm
PRODUCT HEIGHT	280 mm
PRODUCT WIDTH	330 mm
PRODUCT WEIGHT	35.5 kg
COMPLIANCES	RoHS conform
CERTIFICATIONS	IEC/EN 60947 IEC

Powering Business Worldwide

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AMPERAGE RATING	800 A
VOLTAGE RATING	690 V - 690 V
CIRCUIT BREAKER FRAME TYPE	NZM4
FEATURES	Motor drive optional Protection unit
ACCESSORIES REQUIRED	NZM4-4-XAVS
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 entire switchgear needs to be evaluated.
10.2.6 MECHANICAL IMPACT	Does not apply, since the entire switchgear needs to be evaluated.

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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
LIFESPAN, MECHANICAL	10000 operations
UTILIZATION CATEGORY	B (IEC/EN 60947-2)
MOUNTING METHOD	Built-in device slide-in technique (withdrawable) Withdrawable
CLIMATIC PROOFING	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	79 W
ISOLATION	500 V AC (between auxiliary contacts and main contacts) 300 V AC (between the auxiliary contacts)
AMBIENT OPERATING TEMPERATURE - MAX	70 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
AMBIENT STORAGE TEMPERATURE - MAX	70 °C
AMBIENT STORAGE	40 °C

TEMPERATURE - MIN	
NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	0
PROTECTION AGAINST DIRECT CONTACT	Finger and back-of-hand proof to DIN EN 50274/VDE 0106 part 110
DEGREE OF PROTECTION	IP20 (basic degree of protection, in the operating controls area) IP20
DIRECTION OF INCOMING SUPPLY	As required
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Other
CURRENT RATING OF NEUTRAL CONDUCTOR	0 - 60% - 100% of phase conductor
OVERVOLTAGE CATEGORY	III
DEGREE OF PROTECTION (IP), FRONT SIDE	IP40 (with insulating surround) IP66 (with door coupling rotary handle)
DEGREE OF PROTECTION (TERMINATIONS)	IP00 (terminations, phase isolator and strip terminal) IP10 (tunnel terminal)
NUMBER OF POLES	Four-pole
TERMINAL CAPACITY (COPPER STRIP)	Min. 5 segments of 25 mm x 1 mm at rear-side connection (punched) 10 segments of 80 mm x 1 mm (2x) at rear-side width extension Max. 10 segments of 32 mm x 1 mm (2x) at flat conductor terminal Min. 6 segments of 16 mm x 0.8 mm at flat conductor terminal 10 segments of 50 mm x 1 mm (2x) at 1-hole module plate Max. 10 segments of 50 mm x 1 mm (2x) at rear-side connection (punched)
LIFESPAN, ELECTRICAL	3000 operations at 400 V

	AC-1 3000 operations at 415 V AC-1 2000 operations at 690 V AC-1
FUNCTIONS	Systems, cable, selectivity and generator protection
TYPE	Circuit breaker
SPECIAL FEATURES	• LSI overload protection and delayed and non-delayed short-circuit protective device • Class 1 energy measurement, r.m.s. value measurement, and "thermal memory" • USB interface for configuration and test function with Power Xpert Protection Manager software • Interface module in equipment supplied. • Optionally communication-capable with internal Modbus RTU module or CAM • 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 Icn) • Rated current = rated uninterrupted current: 800 A
APPLICATION	Use in unearthed supply systems at 690 V
SHOCK RESISTANCE	15 g (half-sinusoidal shock 11 ms)
POSITION OF CONNECTION FOR MAIN	Connection at separate chassis part

CURRENT CIRCUIT	
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	800 A
RELEASE SYSTEM	Electronic release
SHORT-CIRCUIT TOTAL BREAKTIME	< 25 ms (415 V); < 35 ms (> 415 V)
RATED SHORT-TIME WITHSTAND CURRENT (T = 0.3 S)	19.2 kA
RATED SHORT-TIME WITHSTAND CURRENT (T = 1 S)	19.2 kA
SHORT-CIRCUIT RELEASE DELAYED SETTING - MAX	8000 A
SHORT-CIRCUIT RELEASE DELAYED SETTING - MIN	640 A
SHORT-CIRCUIT RELEASE NON-DELAYED SETTING - MAX	14400 A
SHORT-CIRCUIT RELEASE NON-DELAYED SETTING - MIN	1600 A
TERMINAL CAPACITY (CONTROL CABLE)	0.75 mm² - 2.5 mm² (1x) 0.75 mm² - 1.5 mm² (2x)
TERMINAL CAPACITY (COPPER BUSBAR)	Max. 50 mm x 10 mm (2x) at rear-side 1-hole module plate Min. 60 mm x 10 mm at rear-side width extension Max. 50 mm x 10 mm (2x) direct at switch rear-side connection Max. 80 mm x 10 mm (2x) at rear-side width extension Min. 25 mm x 5 mm at rear-side 1-hole module plate 50 mm x 10 mm (2x) at rear-side 2-hole module plate Min. 25 mm x 5 mm direct at switch rear-side connection M10 at rear-side screw connection
TERMINAL CAPACITY (COPPER SOLID CONDUCTOR/CABLE)	50 mm² - 240 mm² (4x) at 4-hole tunnel terminal 95 mm² - 185 mm² (2x) at rear-side 2-hole module plate 95 mm² - 240 mm² (6x) at rear-side width extension 120 mm² - 300 mm² (1x) at

	rear-side 1-hole module plate 35 mm² - 185 mm² (4x) at rear-side 2-hole module plate 300 mm² (4x) at rear-side width extension 95 mm² - 300 mm² (2x) at rear-side 1-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)	50 mm² - 240 mm² (4x) at 4-hole tunnel terminal
HANDLE TYPE	Rocker lever
SHORT DELAY CURRENT SETTING (ISD) - MAX	10 A
SHORT DELAY CURRENT SETTING (ISD) - MIN	2 A
INSTANTANEOUS CURRENT SETTING (II) - MAX	18 A
INSTANTANEOUS CURRENT SETTING (II) - MIN	2 A
NUMBER OF OPERATIONS PER HOUR - MAX	60
OVERLOAD CURRENT SETTING (IR) - MAX	800 A
OVERLOAD CURRENT SETTING (IR) - MIN	320 A
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 230 V, 50/60 HZ	63 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 400/415 V, 50/60 HZ	50 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 440 V, 50/60 HZ	50 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 525 V, 50/60 HZ	37 kA
RATED SHORT-CIRCUIT	37 kA

BREAKING CAPACITY ICS (IEC/EN 60947) AT 690 V, 50/60 HZ	
RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 400/415 V, 50/60 HZ	187 kA
RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 440 V, 50/60 HZ	187 kA
RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 525 V, 50/60 HZ	143 kA
RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 690 V, 50/60 HZ	100 kA
STANDARD TERMINALS	Screw terminal
OPTIONAL TERMINALS	Connection on rear. Strip terminal. Tunnel terminal
RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 240 V, 50/60 HZ	275 kA
RATED IMPULSE WITHSTAND VOLTAGE (UIMP) AT AUXILIARY CONTACTS	6000 V
RATED IMPULSE WITHSTAND VOLTAGE (UIMP) AT MAIN CONTACTS	8000 V
RATED INSULATION VOLTAGE (UI)	1000 V AC

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