Specyfikacje



Zdjęcie jest reprezentatywne

Eaton 110876

Eaton Moeller series NZM - Molded Case Circuit Breaker. Circuit-breaker, 4p, 400A, withdrawable unit, NZMN3-4-VE400-AVE

General specifications

PRODUCT NAME	Eaton Moeller series NZM molded case circuit breaker electronic
CATALOG NUMBER	110876
EAN	4015081104055
PRODUCT LENGTH/DEPTH	260 mm
PRODUCT HEIGHT	346 mm
PRODUCT WIDTH	230 mm
PRODUCT WEIGHT	22.964 kg
COMPLIANCES	RoHS conform
CERTIFICATIONS	IEC/EN 60947 IEC
MODEL CODE	NZMN3-4-VE400-AVE

Powering Business Worldwide

Delivery program

APPLICATION	Use in unearthed supply systems at 690 V
TYPE	Circuit breaker
CIRCUIT BREAKER FRAME TYPE	NZM3
ACCESSORIES REQUIRED	NZM3-4-XAVS
NUMBER OF POLES	Four-pole
AMPERAGE RATING	400 A
RELEASE SYSTEM	Electronic release
FEATURES	Motor drive optional Protection unit
SPECIAL FEATURES	• 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) • R.m.s. value measurement and “thermal memory” • Adjustable time delay setting to overcome current peaks tr at 6 x Ir also infinity (without overload releases) • Adjustable delay time tsd • i^2t constant function: switchable • Rated current = rated uninterrupted current: 400 A • Terminal capacity hint: Up to 240 mm^2 can be connected depending on the cable manufacturer.

Technical Data - Electrical

VOLTAGE RATING	690 V - 690 V
RATED IMPULSE WITHSTAND VOLTAGE (UIMP) AT AUXILIARY CONTACTS	6000 V
RATED IMPULSE WITHSTAND VOLTAGE (UIMP) AT MAIN CONTACTS	8000 V
CURRENT RATING OF NEUTRAL CONDUCTOR	200% of phase conductor
RATED SHORT-TIME WITHSTAND CURRENT (T = 0.3 S)	3.3 kA
RATED SHORT-TIME WITHSTAND CURRENT (T = 1 S)	3.3 kA
AMPERAGE RATING	400 A
INSTANTANEOUS CURRENT SETTING (II) - MIN	800 A
INSTANTANEOUS CURRENT SETTING (II) - MAX	4400 A
OVERLOAD CURRENT SETTING (IR)	200 A - 400 A
OVERLOAD CURRENT SETTING (IR) - MIN	200 A
OVERLOAD CURRENT SETTING (IR) - MAX	400 A
SHORT DELAY CURRENT SETTING (ISD) - MIN	400 A
SHORT DELAY CURRENT SETTING (ISD) - MAX	4000 A
SHORT-CIRCUIT RELEASE DELAYED SETTING - MIN	400 A
SHORT-CIRCUIT RELEASE DELAYED SETTING - MAX	4000 A
SHORT-CIRCUIT RELEASE NON-DELAYED SETTING - MIN	800 A
SHORT-CIRCUIT RELEASE NON-DELAYED SETTING - MAX	4400 A
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 230 V, 50/60 HZ	85 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS	50 kA

(IEC/EN 60947) AT 400/415 V, 50/60 HZ	
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 440 V, 50/60 HZ	35 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 525 V, 50/60 HZ	13 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY ICS (IEC/EN 60947) AT 690 V, 50/60 HZ	5 kA
RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 240 V, 50/60 HZ	187 kA
RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 400/415 V, 50/60 HZ	105 kA
RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 440 V, 50/60 HZ	74 kA
RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 525 V, 50/60 HZ	53 kA
RATED SHORT-CIRCUIT MAKING CAPACITY ICM AT 690 V, 50/60 HZ	40 kA
SHORT-CIRCUIT TOTAL BREAKTIME	< 10 ms
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
ISOLATION	500 V AC (between auxiliary contacts and main contacts) 300 V AC (between the auxiliary contacts)
NUMBER OF OPERATIONS PER HOUR - MAX	60
HANDLE TYPE	Rocker lever
UTILIZATION CATEGORY	A (IEC/EN 60947-2)
OVERVOLTAGE CATEGORY	III
POLLUTION DEGREE	3
LIFESPAN, ELECTRICAL	5000 operations at 415 V AC-1 3000 operations at 690 V AC-1 5000 operations at 400 V AC-1

	2000 operations at 415 V AC-3 2000 operations at 400 V AC-3 2000 operations at 690 V AC-3
DIRECTION OF INCOMING SUPPLY	As required

Technical Data - Mechanical

MOUNTING METHOD	Withdrawable Built-in device slide-in technique (withdrawable)
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DEGREE OF PROTECTION	IP20 IP20 (basic degree of protection, in the operating controls area)
DEGREE OF PROTECTION (IP), FRONT SIDE	IP40 (with insulating surround) IP66 (with door coupling rotary handle)
DEGREE OF PROTECTION (TERMINATIONS)	IP10 (tunnel terminal) IP00 (terminations, phase isolator and strip terminal)
PROTECTION AGAINST DIRECT CONTACT	Finger and back-of-hand proof to DIN EN 50274/VDE 0106 part 110
SHOCK RESISTANCE	20 g (half-sinusoidal shock 20 ms)
NUMBER OF AUXILIARY CONTACTS (CHANGE-OVER CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS)	0
NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS)	0
POSITION OF CONNECTION FOR MAIN CURRENT CIRCUIT	Front side
CLIMATIC PROOFING	Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78
SPECIAL FEATURES	• 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) • R.m.s. value

Technical Data - Mechanical - Terminals

STANDARD TERMINALS	Screw terminal
OPTIONAL TERMINALS	Box terminal. Connection on rear. Tunnel terminal
TERMINAL CAPACITY (CONTROL CABLE)	0.75 mm² - 1.5 mm² (2x) 0.75 mm² - 2.5 mm² (1x)
TERMINAL CAPACITY (ALUMINUM SOLID CONDUCTOR/CABLE)	16 mm² (1x) at tunnel terminal
TERMINAL CAPACITY (ALUMINUM STRANDED CONDUCTOR/CABLE)	50 mm² - 240 mm² (1x) at 2-hole tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 50 mm² - 240 mm² (2x) at 2-hole tunnel terminal
TERMINAL CAPACITY (COPPER BUSBAR)	Max. 10 mm x 50 mm (2x) at rear-side width extension M10 at rear-side screw connection Max. 30 mm x 10 mm + 30 mm x 5 mm direct at switch rear-side connection Min. 20 mm x 5 mm direct at switch rear-side connection
TERMINAL CAPACITY (COPPER SOLID CONDUCTOR/CABLE)	16 mm² (2x) at box terminal 300 mm² (2x) at rear-side width extension 16 mm² (1x) direct at switch rear-side connection 16 mm² (1x) at tunnel terminal 16 mm² (2x) direct at switch rear-side connection
TERMINAL CAPACITY (COPPER STRANDED CONDUCTOR/CABLE)	25 mm² - 240 mm² (1x) direct at switch rear-side connection 16 mm² - 185 mm² (1x) at 1-hole tunnel terminal 25 mm² - 240 mm² (2x) direct at switch rear-side connection 35 mm² - 240 mm² (1x) at box terminal 25 mm² - 120 mm² (2x) at box terminal
TERMINAL CAPACITY (COPPER STRIP)	Max. 10 segments of 24 mm x 1 mm + 5 segments of 24 mm x 1 mm Min. 6 segments of 16 mm

	measurement and “thermal memory” • Adjustable time delay setting to overcome current peaks tr at 6 x Ir also infinity (without overload releases) • Adjustable delay time tsd • i^2t constant function: switchable • Rated current = rated uninterrupted current: 400 A • Terminal capacity hint: Up to 240 mm^2 can be connected depending on the cable manufacturer.
LIFESPAN, MECHANICAL	15000 operations

Design verification as per IEC/EN 61439 - technical data

RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	400 A
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	72 W
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
AMBIENT OPERATING TEMPERATURE - MAX	70 °C
AMBIENT STORAGE TEMPERATURE - MIN	40 °C
AMBIENT STORAGE TEMPERATURE - MAX	70 °C

	x 0.8 mm at box terminal Max. 8 segments of 24 mm x 1 mm (2x) at box terminal Min. 6 segments of 16 mm x 0.8 mm at rear-side connection (punched) Max. 10 segments of 32 mm x 1 mm + 5 segments of 32 mm x 1 mm at rear-side connection (punched) 10 segments of 50 mm x 1 mm (2x) at rear-side width extension

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	Does not apply, since the

PROTECTION OF ASSEMBLIES	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 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.

Additional information

FUNCTIONS	Systems, cable, selectivity and generator protection

Do pobrania

CHARACTERISTIC CURVE	eaton-circuit-breaker-nzm-mccb-characteristic-curve-046.eps

	eaton-circuit-breaker-let-through-current-nzm-mccb-characteristic-curve.eps eaton-circuit-breaker-nzm-mccb-characteristic-curve-057.eps eaton-circuit-breaker-nzm-mccb-characteristic-curve-017.eps
DEKLARACJE ZGODNOŚCI	eaton-molded-case-circuit-breaker-declaration-of-conformity-eu250293en.pdf
MODELE MCAD	DA-CD-nzm3_4_xave DA-CS-nzm3_4_xave
PEP ECO-PASSPORT	eaton-molded-case-switches-pep-eato-00244-v0101-en.pdf
RYSUNKI	eaton-circuit-breaker-switch-nzm-mccb-dimensions-016.eps eaton-circuit-breaker-withdrawable-unit-nzm-mccb-dimensions-002.eps eaton-circuit-breaker-nzm-mccb-dimensions-021.eps

NAZWA PROJEKTU:	
NUMER PROJEKTU:	
PRZYGOTOWANE PRZEZ:	
DATA:	

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