Circuit-breaker, 3p, 160A, box terminals



Part no. NZMB2-A160-BT-NA 107782

General specifications	
Product name	Eaton Moeller series NZM molded case circuit breaker thermo-magnetic
Part no.	NZMB2-A160-BT-NA
EAN	4015081074297
Product Length/Depth	149 millimetre
Product height	195 millimetre
Product width	105 millimetre
Product weight	2.345 kilogram
Compliances	RoHS conform
Certifications	IEC 60947-2 UL 489 CSA certified UL listed UL (File No. E31593) CSA-C22.2 No. 5-09 CE marking UL (Category Control Number DIVQ) CSA (File No. 22086) UL/CSA IEC/EN 60947 IEC CSA (Class No. 1432-01) Specially designed for North America
Product Tradename	NZM
Product Type	Molded case circuit breaker
Product Sub Type	Thermo-magnetic
Delivery program	
Application	Branch circuits, feeder circuits Use in unearthed supply systems at 440 V
Туре	Circuit breaker
Circuit breaker frame type	NZM2
Number of poles	Three-pole
Amperage Rating	160 A
Release system	Thermomagnetic release
Features	Protection unit Motor drive optional
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) Rated current = rated uninterrupted current: 160 A Switches conform to UL/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate. Adjustable overload releases Ir
Technical Data - Electrical	
Voltage rating	440 V - 440 V
Rated operating voltage Ue (UL) - max	600Y/347 V, 480 V
Rated insulation voltage (Ui)	690 V AC
Rated impulse withstand voltage (Uimp) at auxiliary contacts	6000 V
Rated impulse withstand voltage (Uimp) at main contacts	8000 V
Rated operational current	300 A (380/400 V AC-1, making and breaking capacity) 160 A (660-690 V AC-3, making and breaking capacity) 300 A (415 V AC-1, making and breaking capacity)
Instantaneous current setting (li) - min	960 A
Instantaneous current setting (li) - max	1600 A
Overload current setting (Ir) - min	125 A
Overload current setting (Ir) - max	160 A
Short delay current setting (Isd) - min	0 A
Short delay current setting (Isd) - max	0 A

Short-circuit release non-delayed setting - min	960 A
Short-circuit release non-delayed setting - max	1600 A
Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 230 V, 50/60 Hz	30 kA
Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 400/415 V, 50/60 Hz	25 kA
Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 440 V, 50/60 Hz	18.5 kA
Rated short-circuit making capacity Icm at 240 V, 50/60 Hz	63 kA
Rated short-circuit making capacity Icm at 400/415 V, 50/60 Hz	53 kA
Rated short-circuit making capacity Icm at 440 V, 50/60 Hz	53 kA
Short-circuit total breaktime	< 10 ms
Low-voltage HBC fuse - max	355 A gG/gL
Electrical connection type of main circuit	Frame clamp
Isolation	500 V AC (between auxiliary contacts and main contacts)
	300 V AC (between the auxiliary contacts)
Number of operations per hour - max	120
Handle type	Rocker lever
Utilization category	A (IEC/EN 60947-2)
Overvoltage category	
Pollution degree	3
Lifespan, electrical	6500 operations at 415 V AC-3 7500 operations at 400 V AC-1
Direction of incoming supply	As required
Technical Data - Mechanical	
Mounting Method	DIN rail (top hat rail) mounting optional Built-in device fixed built-in technique Fixed
Degree of protection	IP20 IP20 (basic degree of protection, in the operating controls area)
Degree of protection (IP), front side	IP66 (with door coupling rotary handle) IP40 (with insulating surround)
Degree of protection (terminations)	IP00 (terminations, phase isolator and strip terminal) IP10 (tunnel 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) Rated current = rated uninterrupted current: 160 A Switches conform to UL/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate. Adjustable overload releases Ir
Lifespan, mechanical	20000 operations
Technical Data - Mechanical - Terminals	
Standard terminals	Box terminal
Terminal capacity (control cable)	16 mm² - 18 mm² (2x) 14 mm² - 18 mm² (1x)
Terminal capacity (aluminum solid conductor/cable)	16 mm² (1x) at tunnel terminal
Terminal capacity (copper busbar)	M8 at rear-side screw connection Max. 20 mm x 5 mm direct at switch rear-side connection Min. 16 mm x 5 mm direct at switch rear-side connection
Terminal capacity (copper solid conductor/cable)	6 mm² - 11 mm² (1x) direct at switch rear-side connection 6 mm² - 12 mm² (1x) at box terminal 16 mm² (1x) at tunnel terminal
Terminal capacity (copper stranded conductor/cable)	4 mm² - 350 mm² (1x) at box terminal 4 mm² - 350 mm² (1x) at tunnel terminal 4 mm² - 3/0 mm² (1x) direct at switch rear-side connection
Terminal capacity (copper strip)	Min. 2 segments of 9 mm x 0.8 mm at box terminal Max. 10 segments of 16 mm x 0.8 mm at box terminal Min. 2 segements of 16 mm x 0.8 mm at rear-side connection (punched) Max. 10 segments of 16 mm x 0.8 mm at rear-side connection (punched)

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10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function Additional information Functions Is the panel builder's responsibility. The specifications for the switchgear must observed. The panel builder's responsibility. The specifications for the switchgear must observed. The device meets the requirements, provided the information in the instruction leaflet (IL) is observed. System and cable protection	10.9.2 Power-frequency electric strength	Is the panel builder's responsibility.
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Additional information Functions System and cable protection	10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
Functions System and cable protection	10.13 Mechanical function	
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Current limiting circuit breaker	Functions	System and cable protection Current limiting circuit breaker

Technical data ETIM 9.0

Low-voltage industrial components (EG000017) / Power circuit-breaker for trafo/generator/installation protection (EC000228)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Circuit breaker for power transformer, generator and system protection (ecl@ss13-27-37-04-09 [AJZ716018])

Rated permanent current lu	A	160
Rated voltage	V	440 - 440
Rated short-circuit breaking capacity Icu at 400 V, 50 Hz	kA	25
Overload release current setting	Α	125 - 160
Adjustment range short-term delayed short-circuit release	A	0 - 0
Adjustment range undelayed short-circuit release	А	960 - 1600
Power loss	W	38.4
Device construction		Built-in device fixed built-in technique
Integrated earth fault protection		No
Type of electrical connection of main circuit		Frame clamp
Suitable for DIN rail (top hat rail) mounting		No
DIN rail (top hat rail) mounting optional		Yes
Number of auxiliary contacts as normally closed contact		0
Number of auxiliary contacts as normally open contact		0
Number of auxiliary contacts as change-over contact		0
With switched-off indicator		No

With integrated under voltage release	No
Number of poles	3
Position of connection for main current circuit	Front side
Type of control element	Rocker lever
Complete device with protection unit	Yes
Motor drive integrated	No
Motor drive optional	Yes
Degree of protection (IP)	IP20