

Part no. **NZMH3-PX250-NA**
192589

General specifications	
Product name	Eaton Moeller series NZM molded case circuit breaker electronic
Part no.	NZMH3-PX250-NA
EAN	4015081933174
Product Length/Depth	166 millimetre
Product height	297 millimetre
Product width	140 millimetre
Product weight	6.34 kilogram
Compliances	RoHS conform
Certifications	CSA (Class No. 1432-01) Specially designed for North America CSA certified IEC 60947-2 CE marking CSA (File No. 22086) UL (Category Control Number DIVQ) IEC UL 489 UL (File No. E31593) CSA-C22.2 No. 5-09 UL listed IEC/EN 60947 UL/CSA
Product Tradename	NZM
Product Type	Molded case circuit breaker
Product Sub Type	Electronic
Delivery program	
Application	Branch circuits, feeder circuits
Type	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: 250 A Switches conform to UL/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate.
Circuit breaker frame type	NZM3
Number of poles	Three-pole
Amperage Rating	250 A
Release system	Electronic release
Features	Motor drive optional Protection unit
Special features	Circuit breaker
Technical Data - Electrical	
Voltage rating	690 V - 690 V
Rated operating voltage Ue (UL) - max	600 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	630 A (380/400 V AC-1, making and breaking capacity) 630 A (690 V AC-1, making and breaking capacity) 450 A (660-690 V AC-3, making and breaking capacity) 500 A (415 V AC-1, making and breaking capacity)
Rated short-time withstand current (t = 0.3 s)	3.3 kA
Rated short-time withstand current (t = 1 s)	3.3 kA
Instantaneous current setting (Ii) - min	2 A
Instantaneous current setting (Ii) - max	18 A
Overload current setting (Ir) - min	100 A
Overload current setting (Ir) - max	250 A

Short delay current setting (I _{sd}) - min		500 A
Short delay current setting (I _{sd}) - max		2500 A
Short-circuit release delayed setting - min		200 A
Short-circuit release delayed setting - max		2500 A
Short-circuit release non-delayed setting - min		500 A
Short-circuit release non-delayed setting - max		4500 A
Rated short-circuit breaking capacity I _{cs} (IEC/EN 60947) at 230 V, 50/60 Hz		150 kA
Rated short-circuit breaking capacity I _{cs} (IEC/EN 60947) at 400/415 V, 50/60 Hz		150 kA
Rated short-circuit breaking capacity I _{cs} (IEC/EN 60947) at 440 V, 50/60 Hz		130 kA
Rated short-circuit breaking capacity I _{cs} (IEC/EN 60947) at 525 V, 50/60 Hz		33 kA
Rated short-circuit breaking capacity I _{cs} (IEC/EN 60947) at 690 V, 50/60 Hz		9 kA
Rated short-circuit making capacity I _{cm} at 240 V, 50/60 Hz		330 kA
Rated short-circuit making capacity I _{cm} at 400/415 V, 50/60 Hz		330 kA
Rated short-circuit making capacity I _{cm} at 440 V, 50/60 Hz		286 kA
Rated short-circuit making capacity I _{cm} at 525 V, 50/60 Hz		143 kA
Rated short-circuit making capacity I _{cm} at 690 V, 50/60 Hz		74 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		2000 operations at 690 V AC-3 2000 operations at 400 V AC-3 2000 operations at 415 V AC-3 3000 operations at 690 V AC-1 5000 operations at 400 V AC-1
Direction of incoming supply		As required
Technical Data - Mechanical		
Mounting Method		Built-in device fixed built-in technique Fixed
Degree of protection		IP20 (basic degree of protection, in the operating controls area) IP20
Degree of protection (IP), front side		IP66 (with door coupling rotary handle) IP40 (with insulating surround)
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, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Special features		Circuit breaker
Lifespan, mechanical		15000 operations
Technical Data - Mechanical - Terminals		
Standard terminals		Screw terminal
Terminal capacity (copper busbar)		M10 at rear-side screw connection
Design verification as per IEC/EN 61439 - technical data		
Rated operational current for specified heat dissipation (I _n)		250 A
Equipment heat dissipation, current-dependent		18.75 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
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 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.
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

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 I _u	A	250
Rated voltage	V	690 - 690
Rated short-circuit breaking capacity I _{cu} at 400 V, 50 Hz	kA	150
Overload release current setting	A	100 - 250
Adjustment range short-term delayed short-circuit release	A	500 - 2500
Adjustment range undelayed short-circuit release	A	2 - 18
Power loss	W	
Device construction		Built-in device fixed built-in technique
Integrated earth fault protection		No
Type of electrical connection of main circuit		Screw connection
Suitable for DIN rail (top hat rail) mounting		No
DIN rail (top hat rail) mounting optional		No
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

