

NZM2 PXR20 circuit breaker, 90A, 3p, Screw terminal, UL/CSA



**Part no.**                      **NZMN2-MX90-NA**  
**192523**

Product name	Eaton Moeller series NZM molded case circuit breaker electronic
Part no.	NZMN2-MX90-NA
EAN	4015081932511
Product Length/Depth	149 millimetre
Product height	195 millimetre
Product width	105 millimetre
Product weight	2.509 kilogram
Compliances	RoHS conform
Certifications	CSA (Class No. 1432-01) IEC UL (File No. E31593) IEC 60947-2 UL/CSA CSA (File No. 22086) UL listed UL (Category Control Number DIVQ) CSA certified UL 489 Specially designed for North America UL508 CSA-C22.2 No. 5-09 CE marking
Product Tradename	NZM
Product Type	Molded case circuit breaker
Product Sub Type	Electronic
Application	Branch circuits, feeder circuits
Type	Circuit breaker
Circuit breaker frame type	NZM2
Number of poles	Three-pole
Amperage Rating	90 A
Release system	Electronic release
Special features	Rated current = rated uninterrupted current: 90 A Switches conform to UL/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate.
Fitted with:	Thermal protection
Voltage rating	690 V - 690 V
Rated operating voltage Ue (UL) - max	480 V
Rated insulation voltage (Ui)	690 V
Instantaneous current setting (Ii) - min	180 A
Instantaneous current setting (Ii) - max	1260 A
Overload current setting (Ir) - min	36 A
Overload current setting (Ir) - max	90 A
Short-circuit release non-delayed setting - min	180 A
Short-circuit release non-delayed setting - max	1260 A
Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 400/415 V, 50/60 Hz	150 kA
Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 440 V, 50/60 Hz	150 kA
Rated operating power at AC-3, 230 V	22 kW
Rated operating power at AC-3, 400 V	45 kW
Electrical connection type of main circuit	Screw connection
Handle type	Rocker lever
Mounting Method	Fixed

		Built-in device fixed built-in technique
Degree of protection		IP20
Switch off technique		Electronic
Special features		Rated current = rated uninterrupted current: 90 A Switches conform to UL/CSA as well as the IEC regulations. IEC switching performance values are contained on the rating plate.
Rated operational current for specified heat dissipation (In)		90 A
Equipment heat dissipation, current-dependent		6.68 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
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.
Functions		Phase failure sensitive Current limiting circuit breaker Motor protection

## Technical data ETIM 8.0

Low-voltage industrial components (EG000017) / Motor protection circuit-breaker (EC000074)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Motor protection circuit-breaker (ecl@ss10.0.1-27-37-04-01 [AGZ529016])			
Overload release current setting	A		36 - 90
Adjustment range undelayed short-circuit release	A		180 - 1,260
With thermal protection			Yes
Phase failure sensitive			Yes
Switch off technique			Electronic
Rated operating voltage	V		690 - 690
Rated permanent current Iu	A		90
Rated operation power at AC-3, 230 V	kW		22
Rated operation power at AC-3, 400 V	kW		45
Type of electrical connection of main circuit			Screw connection
Type of control element			Rocker lever

Device construction			Built-in device fixed built-in technique
With integrated auxiliary switch			No
With integrated under voltage release			No
Number of poles			3
Rated short-circuit breaking capacity I <sub>cu</sub> at 400 V, AC		kA	150
Degree of protection (IP)			IP20
Height		mm	195
Width		mm	105
Depth		mm	149