

Undervoltage release, 12 V DC, +2early N/O



Part no. **NZM2/3-XUHIV12DC**
259600

General specifications	
Product name	Eaton Moeller series NZM - Molded Case Circuit Breaker
Part no.	NZM2/3-XUHIV12DC
EAN	4015082596002
Product Length/Depth	42 millimetre
Product height	90 millimetre
Product width	30 millimetre
Product weight	0.074 kilogram
Compliances	IEC UL/CSA RoHS conform
Certifications	CSA (File No. 22086) CSA (Class No. 1437-01) UL (Category Control Number DIHS) UL (File No. E140305) CSA certified CE marking UL489 IEC60947 UL listed CSA-C22.2 No. 5-09
Product Tradename	NZM
Product Type	Molded Case Circuit Breaker
Product Sub Type	None
Delivery program	
Type	Accessory Undervoltage release Undervoltage release with early-make auxiliary contact
Special features	Undervoltage release with 2 early-make auxiliary contacts, e.g., for early-make connection of undervoltage release in main switch applications, as well as for interlock and load shedding circuits. For use with emergency-stop devices in connection with an emergency-stop button. When the under-voltage trip is switched off, accidental contact with the circuit breaker's primary contacts is prevented when switched on. Early make of auxiliary contacts on switching on and off (manual operation): approx. 20 ms Undervoltage releases cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XA... shunt release. Cannot be used in conjunction with NZM...-XR... remote operator.
Frame	NZM2/3
Fitted with:	Two early-make auxiliary contacts
Suitable for	Off-load switch
Used with	NZM3(-4), N(S)3(-4) NZM2(-4), N(S)2(-4)
Technical Data - Electrical	
Voltage type	DC
Rated control voltage (relay contacts)	12 V DC
Rated control supply voltage	12 V DC
Rated control supply voltage (Us) at AC, 50 Hz - min	0 V
Rated control supply voltage (Us) at AC, 50 Hz - max	0 V
Rated control supply voltage (Us) at AC, 60 Hz - min	0 V
Rated control supply voltage (Us) at AC, 60 Hz - max	0 V
Rated control supply voltage (Us) at DC - min	12 V
Rated control supply voltage (Us) at DC - max	12 V
Voltage tolerance - min	0.85
Voltage tolerance - max	1.1
Drop-out voltage of undervoltage release AC/DC - min	0.35 x Us
Drop-out voltage of undervoltage release AC/DC - max	0.7 x Us
Power consumption	1.5 VA (sealing AC) 0.8 W (sealing DC)

Pick-up power consumption at AC (undervoltage release)		1.5 V-A
Pick-up power consumption at DC (undervoltage release)		0.8 W
Reaction time		19 ms
Minimum command time - min		10 ms
Minimum command time - max		15 ms
Electric connection type		Screw connection
Technical Data - Mechanical		
Number of contacts (change-over contacts)		0
Number of contacts (normally closed contacts)		0
Number of contacts (normally open contacts)		2
Connection type		With bolt connection
Special features		Undervoltage release with 2 early-make auxiliary contacts, e.g., for early-make connection of undervoltage release in main switch applications, as well as for interlock and load shedding circuits. For use with emergency-stop devices in connection with an emergency-stop button. When the under-voltage trip is switched off, accidental contact with the circuit breaker's primary contacts is prevented when switched on. Early make of auxiliary contacts on switching on and off (manual operation): approx. 20 ms Undervoltage releases cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XA... shunt release. Cannot be used in conjunction with NZM...-XR... remote operator.
Technical Data - Mechanical - Terminals		
Terminal capacity (solid/flexible conductor)		0.75 mm ² - 2.5 mm ² (2x) at shunt release with ferrule 0.75 mm ² - 2.5 mm ² (1x) for undervoltage releases, off-delayed with ferrule 18 - 14 AWG (2x) for undervoltage releases, off-delayed 0.75 mm ² - 2.5 mm ² (1x) at shunt release with ferrule 18 - 14 AWG (1x) at shunt release 0.75 mm ² - 2.5 mm ² (2x) for undervoltage releases, off-delayed with ferrule 18 - 14 AWG (1x) for undervoltage releases, off-delayed 18 - 14 AWG (2x) at shunt release
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.

Technical data ETIM 9.0

Low-voltage industrial components (EG000017) / Under voltage coil (EC001022)		
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Undervoltage trip (ecl@ss13-27-37-04-17 [AKF015018])		
Rated control supply voltage AC 50 Hz	V	0 - 0
Rated control supply voltage AC 60 Hz	V	0 - 0
Rated control supply voltage DC	V	12 - 12
Voltage type for actuating		DC

Type of electric connection			Screw connection
Number of contacts as normally open contact			2
Number of contacts as normally closed contact			0
Number of contacts as change-over contact			0
Delayed			No
Suitable for power circuit breaker			No
Suitable for off-load switch			Yes
Suitable for motor safety switch			No
Suitable for overload relay			No