

**Undervoltage release, 380-440VAC, +2early N/O**

Part no. **NZM2/3-XUHIV20380-440AC**
259653

General specifications

Product name	Eaton Moeller series NZM release
Part no.	NZM2/3-XUHIV20380-440AC
EAN	4015082596538
Product Length/Depth	42 millimetre
Product height	90 millimetre
Product width	30 millimetre
Product weight	0.144 kilogram
Compliances	RoHS conform IEC UL/CSA
Certifications	CSA (Class No. 1437-01) UL489 CSA certified IEC60947 UL (Category Control Number DIHS) CSA-C22.2 No. 5-09 CE marking UL listed UL (File No. E140305) CSA (File No. 22086)
Product Tradename	NZM
Product Type	Accessories
Product Sub Type	Release

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 Cannot be used in conjunction with NZM...-XR... remote operator. Undervoltage releases cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XA... shunt release.
Frame	NZM2/3
Fitted with:	Two separate 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	AC
Rated control voltage (relay contacts)	440 V AC 380 V AC
Rated control supply voltage	380 - 440 V 50/60 Hz
Rated control supply voltage (Us) at AC, 50 Hz - min	380 V
Rated control supply voltage (Us) at AC, 50 Hz - max	440 V
Rated control supply voltage (Us) at AC, 60 Hz - min	380 V
Rated control supply voltage (Us) at AC, 60 Hz - max	440 V
Rated control supply voltage (Us) at DC - min	0 V
Rated control supply voltage (Us) at DC - max	0 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	0.8 W (sealing DC) 1.5 VA (sealing AC)

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	Contacts 3.23 and 3.24 with separate 3 m connection cables
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 Cannot be used in conjunction with NZM...-XR... remote operator. Undervoltage releases cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XA... shunt release.
Technical Data - Mechanical - Terminals	
Terminal capacity (solid/flexible conductor)	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 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 (2x) at shunt release 0.75 mm ² - 2.5 mm ² (2x) at shunt release with ferrule 18 - 14 AWG (1x) for undervoltage releases, off-delayed 0.75 mm ² - 2.5 mm ² (1x) at shunt release with ferrule
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	380 - 440
Rated control supply voltage AC 60 Hz	V	380 - 440
Rated control supply voltage DC	V	0 - 0
Voltage type for actuating		AC

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