DATASHEET - NZM1-XU24AC



Undervoltage release, 24VAC

Part no. NZM1-XU24AC
Catalog No. 259434

Powering Business Worldwide

Delivery program

Product range			Accessories
Accessories			Undervoltage release
Accessories			Undervoltage releases
Standard/Approval			UL/CSA, IEC
Construction size			NZM1
Description			Non-delayed disconnection of NZM circuit-breaker or N switch-disconnector when the control voltage sinks below 35 – 70% U_S. 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. Undervoltage releases cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XA... shunt release.
Connection type			with terminal block on the left-hand switch side
Auxiliary contacts			without auxiliary contact
Rated control voltage	U_s	V	24 V 50/60 Hz
For use with			NZM1(-4), N(S)1(-4)

Technical data

Undervoltage release

Rated control voltage	U_s	V	
AC	U_s	V AC	24 - 24
Rated control voltage	U_s	V	24 V 50/60 Hz
Operating range			
Drop-out voltage		x U_s	0.35 - 0.7
Pick-up voltage	x Uc		0.85 - 1.1
Power consumption			
AC			
Pick-up AC		VA	1.5
Sealing AC		VA	1.5
DC		x U_s	
Pick-up DC		W	0.8
Sealing DC		W	0.8
Maximum opening delay (response time until opening of the main contacts)		ms	19
Minimum command time		ms	10 - 15

Terminal capacities

Solid or flexible conductor, with ferrule		mm^2	1 x (0,75 - 2,5) 2 x (0,75 - 2,5)
		AWG	1 x (18 … 14) 2 x (18 … 14)

Design verification as per IEC/EN 61439

IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
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 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric 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 Insulation properties			
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.

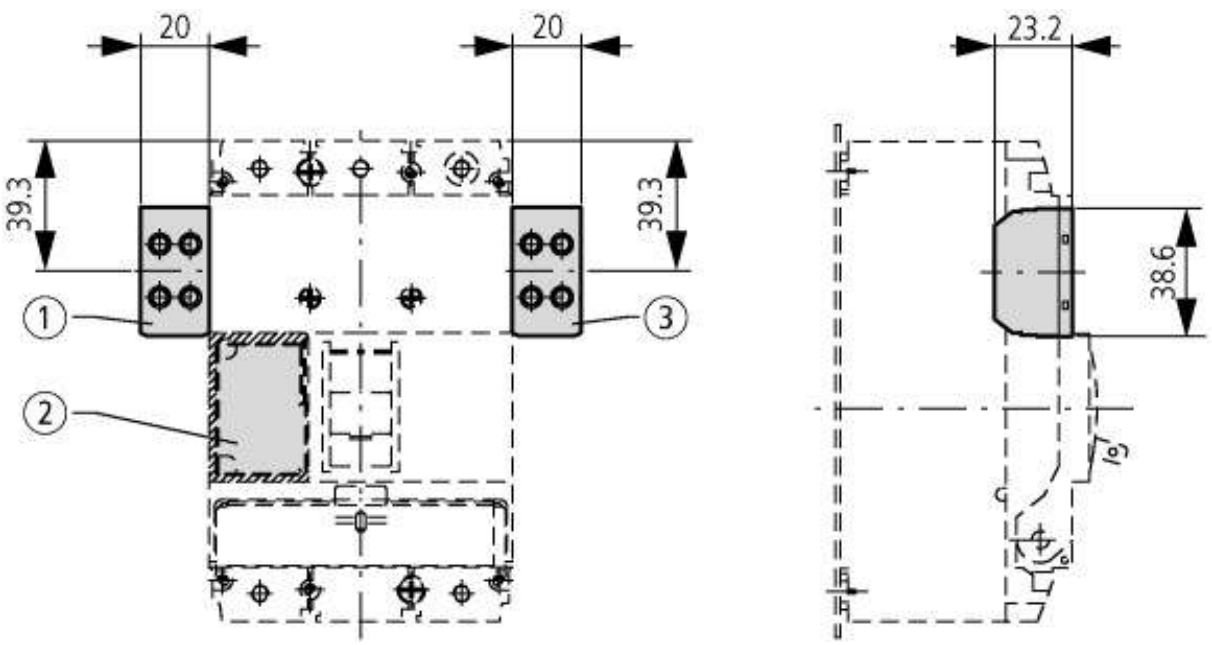
Technical data ETIM 7.0

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@ss10.0.1-27-37-04-17 [AKF015013])		
Rated control supply voltage Us at AC 50HZ	V	24 - 24
Rated control supply voltage Us at AC 60HZ	V	24 - 24
Rated control supply voltage Us at DC	V	0 - 0
Voltage type for actuating		AC
Type of electric connection		Screw connection
Number of contacts as normally open contact		0
Number of contacts as normally closed contact		0
Number of contacts as change-over contact		0
Delayed		No
Suitable for power circuit breaker		Yes
Suitable for off-load switch		Yes
Suitable for motor safety switch		No
Suitable for overload relay		No

Approvals

Product Standards	UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking
UL File No.	E140305
UL Category Control No.	DIHS
CSA File No.	022086
CSA Class No.	1437-01
North America Certification	UL listed, CSA certified

Dimensions



①
NZM1-XA(HIV)
NZM1-XU(HIV)(20)
NZM1-XHIV
②
NZM1-XA(HIV)(L)
NZM1-XU(V)(HIV)(L)(20)
NZM1-XHIV(L)
③
NZM1-XHIVR

Additional product information (links)

IL01203002Z (AWA1230-1914) Shunt release, Undervoltage release, Early-make auxiliary contact	
IL01203002Z (AWA1230-1914) Shunt release, Undervoltage release, Early-make auxiliary contact	https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/IL01203002Z2010_11.pdf

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