#### DATASHEET - NZM2/3-XU2A208-240AC



Undervoltage release for NZM2/3, configurable relays, 2NO, 208-240AC, **Push-in terminals** 

Powering Business Worldwide

Part no. NZM2/3-XU2A208-240AC Catalog No. 189727

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Delivery program	
Product range	Accessories
Accessories	Undervoltage release
Accessories	Undervoltage release with two relays
Standard/Approval	UL/CSA, IEC
Construction size	NZM2/3
Description	Instantaneous shut-off of the NZM circuit breaker when the control voltage drops below 35 - 70% Us.  For use with emergency-stop devices in connection with an emergency-stop button.  For signalizing commands or different states of the circuit-breaker. Two relays per unit.  The activation criteria can be configured in the trip unit.  Configuration via communication or circuit breaker display or front USB port and Eaton Power Xpert Protection Manager.  When the under-voltage trip is switched off, accidental contact with the circuit breaker's primary contacts is prevented when switched on.  Only for use in combination with circuit-breakers with electronic trips.  Under-voltage trip relay modules cannot be installed simultaneously with make-before-break auxiliary contact NZMXHIV, under-voltage trip NZMXU or shunt trip NZMXA.  Relay contacts for control wiring.  Relays can be used for controlling remote operator with Us=208-204 V AC.  Control wiring on push-in clamps.  Cannot be used with the PXR10 NZM-AX electronic trip.
Connection type	with push in terminal
Auxiliary contacts	without auxiliary contact
For use with	PXR20(25) NZM2(-4)X PXR20(25) NZM3(-4)X
Number of relays	2
Contact sequence	<b>+</b> \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \

#### **Technical data** Undervoltage release

$U_s$	V	
Us	V AC	208 - 240
	$x  U_s$	0.35 - 0.7
x Uc		0.85 - 1.1
	VA	1.5
	VA	1.5
	$x  U_s$	
	W	0.8
	W	0.8
	U <sub>s</sub>	U <sub>S</sub> VAC  x U <sub>S</sub> x Uc  VA  VA  VA  VA  VA  VA  VA  VA  VA  V

Minimum command time		ms	10 - 15
Terminal capacity			
Solid		$\text{mm}^2$	1 x (0.2 – 1.5)
Stranded		mm <sup>2</sup>	1 x (0.25 – 1.5)
		AWG	1 x (24 - 16)
with insulated end sleeve in accordance with DIN46224 / 4		$mm^2$	1 x (0,25 - 1,5)
with uninsulated end sleeve in accordance with DIN46228 / 1		mm <sup>2</sup>	1 x (0,25 - 0,75)
Relay contacts			
Rated control voltage	$U_s$	V	
AC	$U_{s}$	V AC	24 - 240
DC	Us	V DC	24 - 24
Contacts			
Rated impulse withstand voltage	U <sub>imp</sub>	V AC	4000
Rated insulation voltage	$U_{i}$	V	250
Overvoltage category/pollution degree			11/2
Switching capacity		$kA_{rms}$	
Rated operational current			
AC-1			
24 V	I <sub>e</sub>	Α	1
110 V	I <sub>e</sub>	Α	1
230 V	I <sub>e</sub>	Α	1
DC-1			
24 V	I <sub>e</sub>	Α	1
Min. switching capacity (reference value)			0.1 mA / 0.1 VDC
Connection			
Stripping length		mm	8
Terminal capacity			
Solid		$mm^2$	1 x (0.2 – 1.5)
Stranded		$\text{mm}^2$	1 x (0.25 – 1.5)
		AWG	1 x (24 - 16)
with insulated end sleeve in accordance with DIN46224 / 4		mm <sup>2</sup>	1 x (0,25 - 1,5)
with uninsulated end sleeve in accordance with DIN46228 / 1		mm <sup>2</sup>	1 x (0,25 - 0,75)

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# Design verification as per IEC/EN 61439

Maximum opening delay (response time until opening of the main contacts)

EC/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	208 - 240
Rated control supply voltage Us at AC 60HZ	V	208 - 240
Rated control supply voltage Us at DC	V	0 - 0
Voltage type for actuating		AC
Type of electric connection		Spring clamp 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		Yes
Suitable for off-load switch		Yes
Suitable for motor safety switch		Yes
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