# DATASHEET - NZM4-XA2A24AC/DC



Shunt release for NZM4, configurable relays, 2NO, 24AC/DC, Push-in terminals



Part no. Catalog No. NZM4-XA2A24AC/DC 189744

Similar to illustration

#### **Delivery program** Product range Accessories Accessories Shunt release Shunt release with two relays Accessories UL/CSA, IEC Standard/Approval Construction size NZM4 Description The breakers are actuated by a voltage pulse or by applying a no-break current. 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. If the shunt trip is live, contact with the circuit breaker's primary contacts is prevented when switched on. Only for use in combination with circuit-breakers with electronic trips. Shunt trip relay modules cannot be installed simultaneously with make-beforebreak auxiliary contact NZM...-XHIV, under-voltage trip NZM...-XU... or shunt trip NZM ... - XA. Relay coil is controlled by trip unit. 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) NZM4(-4)-..X... Number of relays 2 Contact sequence 3.33 3.43

# **Technical data**

Shunt release			
Rated control voltage	Us	V	
2A	Us	V AC	24 - 24
DC	Us	V DC	24 - 24
Operating range			
AC	x U <sub>s</sub>		0.7 - 1.1
DC	x U <sub>s</sub>		0.7 - 1.1
Power consumption			
Pick-up AC/DC		VA/W	2.5
Power consumption Pick-up = Sealing		VA/W	2.5
Maximum opening delay (response time until opening of the main contacts)		ms	Approx. 22
Maximum duty factor		ms	~
Minimum command time		ms	Approx. 10 15
Terminal capacity			
Solid		mm <sup>2</sup>	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 <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)
Relay contacts			
Rated control voltage	Us	V	
AC	Us	V AC	24 - 240
DC	Us	V DC	24 - 24
Contacts			
Rated impulse withstand voltage	U <sub>imp</sub>	V AC	6000
Rated insulation voltage	Ui	V	250
Overvoltage category/pollution degree			111/3
Switching capacity		kA <sub>rms</sub>	
Rated operational current			
AC-1			
24 V	le	А	1
110 V	I <sub>e</sub>	А	1
230 V	I <sub>e</sub>	А	1
DC-1			
24 V	I <sub>e</sub>	А	1
Min. switching capacity (reference value)			10 ma / 12 V
Connection			
Stripping length		mm	8
Terminal capacity			
Solid		mm <sup>2</sup>	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 <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)

# 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.

The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

### **Technical data ETIM 8.0**

Low-voltage industrial components (EG000017) / Shunt release (for power circuit breaker) (EC001023)

Electric engineering, automation, process control engineering / Low-voltage swite	ch technology / Ci	ircuit bro	aker (I V < 1 kV) / Full load current trin (acl@ss10.0.1-27-37-04-18 [AKE016013])
Rated control supply voltage Us at AC 50HZ	١	V	24 - 24
Rated control supply voltage Us at AC 60HZ	١	V	24 - 24
Rated control supply voltage Us at DC	١	V	24 - 24
Voltage type for actuating			AC
Initial value of the undelayed short-circuit release - setting range	/	A	0
End value adjustment range undelayed short-circuit release	/	A	0
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
Suitable for power circuit breaker			No
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

# **Additional product information (links)**

IL01210005Z shunt trip, under-voltage trip, make-before-break auxiliary breaker

IL01210005Z shunt trip, under-voltage trip, make-before-break auxiliary breaker

https://es-assets.eaton.com/DOCUMENTATION/AWA\_INSTRUCTIONS/IL01210005Z2010\_10.pdf