

### Shunt release, 110-130VAC/DC, +1early N/O

Powering Business Worldwide\*

Part no. NZM1-XAHIVL110-130AC/DC Article no. 259798

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Product range			Accessories
Accessories			Shunt release
Accessories			Shunt releases
Standard/Approval			UL/CSA, IEC
Construction size			NZM1
Description			Cannot be used in conjunction with NZMXR remote operator. When the shunt release is energized, accidental contact with the main contacts of the switch during attempts to switch on is safely prevented. Early make of auxiliary contact on switching on and off (manual operation): approx. 20 ms. Undervoltage releases cannot be installed simultaneously with NZMXHIV early-make auxiliary contact or NZMXU shunt release.
Connection type			with 3 m connection cable instead of screw termination
Auxiliary contacts			with early-make auxiliary contact
Rated control voltage	$U_s$	V	110 - 130 V AC/DC
For use with			NZM1(-4), N(S)1(-4)

#### **Technical data**

#### Shunt release

AC Us VAC 12 - 440  DC V DC 12 - 440  Frequency range  Operating range  AC XUs VBC VBC VBC  AC XUs VBC VBC  TOPOWER consumption  Pick-up AC/DC  Sealing AC/DC  Maximum opening delay (response time until opening of the main contacts)  Maximum duty factor  Minimum command time  VAC 12 - 440  12 - 440  12 - 440  13 - 440  14 - 40  15 - 440  16 - 40  17 - 1.1  18 - 40  18 - 40  19 -				
DC Frequency range Operating range AC  X U <sub>S</sub>	Rated control voltage	Us	V	
Frequency range  Operating range  AC	AC	$U_{s}$	V AC	12 - 440
Operating range  AC  AC  XUs  0.7 - 1.1  DC  XUS  0.7 - 1.1  Power consumption  Pick-up AC/DC  Sealing AC/DC  VA/W  Sealing AC/DC  Maximum opening delay (response time until opening of the main contacts)  Maximum duty factor  Minimum command time  Terminal capacities  Solid or flexible conductor, with ferrule  Maximum opening delay (response time until opening of the main contacts)  Maximum duty factor  ms  20  ms  10 15  mm²  1x (0.75 - 2.5) 2x (0.75 - 2.5) 2x (0.75 - 2.5) AWG  1x (18 14)	DC	$U_s$	V DC	12 - 440
AC $\times U_{S}$ 0.7 - 1.1  DC $\times U_{S}$ 0.7 - 1.1  Power consumption  Pick-up AC/DC $\times V_{A}$ 2.5  Sealing AC/DC $\times V_{A}$ 2.5  Maximum opening delay (response time until opening of the main contacts)  Maximum duty factor $\times V_{A}$ 2.5  Minimum command time $\times V_{A}$ 10 15  Terminal capacities $\times V_{A}$ 1x (0.75 - 2.5)  2x (0.75 - 2.5)  AWG 1x (18 14)	Frequency range		Hz	50/60/200/400, DC
DC  x U <sub>s</sub> Power consumption  Pick-up AC/DC  Sealing AC/DC  Maximum opening delay (response time until opening of the main contacts)  Maximum duty factor  Minimum command time  Solid or flexible conductor, with ferrule  x U <sub>s</sub> x U <sub>s</sub> 0.7 - 1.1  x U <sub>s</sub> x U <sub>s</sub> 0.7 - 1.1  x U <sub>s</sub> x (0,75 - 2,5)  x (1,8 14)	Operating range			
Power consumption  Pick-up AC/DC  Sealing AC/DC  Maximum opening delay (response time until opening of the main contacts)  Maximum duty factor  Minimum command time  Terminal capacities  Solid or flexible conductor, with ferrule  More and the service of the se	AC	x U <sub>s</sub>		0.7 - 1.1
Pick-up AC/DC  Sealing AC/DC  VA/W  2.5  Maximum opening delay (response time until opening of the main contacts)  Maximum duty factor  ms  ∞  Minimum command time  ms  10 15  Terminal capacities  mm²  Solid or flexible conductor, with ferrule  mm²  1x (0,75 - 2,5) 2x (0,75 - 2,5) 4WG  1x (18 14)	DC	x U <sub>s</sub>		0.7 - 1.1
Sealing AC/DC  VA/W  2.5  Maximum opening delay (response time until opening of the main contacts)  ms  20  Maximum duty factor  ms  ∞  Minimum command time  ms  10 15  Terminal capacities  mm²  Solid or flexible conductor, with ferrule  mm²  1x (0,75 - 2,5) 2x (0,75 - 2,5)  AWG  1x (18 14)	Power consumption			
Maximum opening delay (response time until opening of the main contacts)  Maximum duty factor  ms  ∞  Minimum command time  ms  10 15  Terminal capacities  mm²  Solid or flexible conductor, with ferrule  mm²  1 x (0,75 - 2,5) 2 x (0,75 - 2,5)  AWG  1 x (18 14)	Pick-up AC/DC		VA/W	2.5
Maximum duty factor ms ∞  Minimum command time ms 10 15  Terminal capacities mm²  Solid or flexible conductor, with ferrule mm² 1 x (0,75 - 2,5) 2 x (0,75 - 2,5)  AWG 1 x (18 14)	Sealing AC/DC		VA/W	2.5
Minimum command time ms 10 15  Terminal capacities mm²  Solid or flexible conductor, with ferrule mm² 1 x (0,75 - 2,5) 2 x (0,75 - 2,5)  AWG 1 x (18 14)	Maximum opening delay (response time until opening of the main contacts)		ms	20
Terminal capacities mm <sup>2</sup> Solid or flexible conductor, with ferrule mm <sup>2</sup> 1 x (0,75 - 2,5) 2 x (0,75 - 2,5)  AWG 1 x (18 14)	Maximum duty factor		ms	∞
Solid or flexible conductor, with ferrule mm <sup>2</sup> 1 x (0,75 - 2,5) 2 x (0,75 - 2,5)  AWG 1 x (18 14)	Minimum command time		ms	10 15
2 x (0,75 - 2,5)  AWG 1 x (18 14)	Terminal capacities		mm <sup>2</sup>	
	Solid or flexible conductor, with ferrule		mm <sup>2</sup>	
			AWG	

## 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.

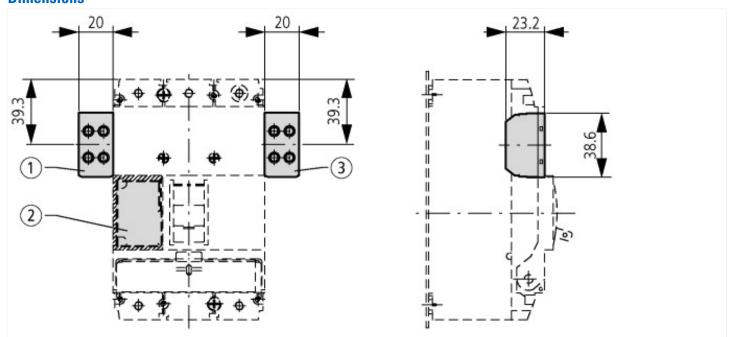
### **Technical data ETIM 6.0**

Low-voltage industrial components (EG000017) / Shunt release (for power circuit breaker) (EC001023)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Full load current trip (ecl@ss8.1-27-37-04-18 [AKF016010])			
Rated control supply voltage Us at AC 50HZ		V	110 - 130
Rated control supply voltage Us at AC 60HZ		V	110 - 130
Rated control supply voltage Us at DC		V	110 - 130
Voltage type for actuating			AC/DC
Initial value of the undelayed short-circuit release - setting range		Α	0
End value adjustment range undelayed short-circuit release		Α	0
Type of electric connection			Screw connection
Number of contacts as normally open contact			1
Number of contacts as normally closed contact			0
Number of contacts as change-over contact			0
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 ftp://ftp.moeller.net/DOCUMENTATION/AWA\_INSTRUCTIONS/IL01203002Z2010\_11.pdf