

Part no.

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

NZM2/3-XUHIV380-440AC Article no. 259594



Similar to illustration

**Delivery program** 

Donvoly program			
Product range			Accessories
Accessories			Undervoltage release
Accessories			Undervoltage release with early-make auxiliary contact
Standard/Approval			UL/CSA, IEC
Construction size			NZM2/3
Description			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 switching off devices in conjunction with Emergency switching off button.  When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on is safely prevented.  Early make of auxiliary contacts on switching on and off (manual operation): approx. 20 ms  Undervoltage releases cannot be installed simultaneously with NZMXHIV early-make auxiliary contact or NZMXA shunt release.  Cannot be used in conjunction with NZMXR remote operator.
Connection type			With bolt connection
Auxiliary contacts			with 2 early-make auxiliary contacts
Rated control voltage	$U_{s}$	V	380 - 440 V 50/60 Hz
For use with			NZM2(-4), N(S)2(-4) NZM3(-4), N(S)3(-4)

### **Technical data** Undervoltage release

Undervoltage release			
Rated control voltage	$U_s$	V	
AC	$U_s$	V AC	24 - 600
DC	$U_s$	V DC	12 - 250
Rated control voltage	$U_s$	V	380 - 440 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 <sup>2</sup>	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**

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 b 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) / Under voltage coil (EC001022)				
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Undervoltage trip (ecl@ss8.1-27-37-04-17 [AKF015010])				
Rated control supply voltage Us at AC 50HZ	V	380 - 440		
Rated control supply voltage Us at AC 60HZ	V	380 - 440		
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		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		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

### **Additional product information (links)**

IL01208005Z (AWA1230-1915) Shunt release, Undervoltage release, Early-make auxiliary contact

IL01208005Z (AWA1230-1915) Shunt release, Undervoltage release, Early-make auxiliary contact ftp://ftp.moeller.net/DOCUMENTATION/AWA\_INSTRUCTIONS/IL01208005Z2011\_08.pdf