# DATASHEET - NZM2-XR24-30DC



Remote operator, 24-30VDC, for size 2

Part no. Catalog No.

NZM2-XR24-30DC 259836



Similar to illustration

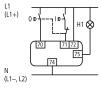
Delivery program		
Product range	Accessories	
Accessories	Remote operator, can be synchronized	
Rated operating frequency	DC	
Standard/Approval	UL/CSA, IEC	
Construction size	NZM2	
Description	For remote switching of circuit-breakers and switch-disconnectors.	

For remote switching of circuit-breakers and switch-disconnectors. ON and OFF switching and resetting by means of two-wire or three-wire control. Local switching by hand possible.

Lockable in the 0 position of the remote operator with up to 3 padlocks (hasp thickness:  $4-8\mbox{ mm})$ 

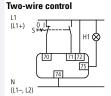
## Can be synchronized

### Three-wire control



Please note during engineering: Terminal 70/71: NZM-XR: Contact loading according to technical data NZM2-XRD: Full current flows through the contact during make and break! RMQ series contact elements can be used for the NZM2(3.4)-XR(D)...remote operators.

#### Termi



Terminal 75:

NZM-XR: Operational readiness signal when cover closed and not locked.

NZM2-XRD: Operational readiness signal when sliding switch set to Auto.

Sliding switch with three positions: Manual/Auto/Locked for reliable differentiation of connected positions. AC-15: 400 V; 2 A DC-13: 220 V; 0.2 A

Three-wire control with automatic reset to the 0 position after the switch has tripped



Switching cycle:
$NZM2-XR \underbrace{\begin{bmatrix} 0 \stackrel{\text{60 ms}}{\rightarrow} \mathbf{I} \\ \text{OFF} & \text{ON} \end{bmatrix}}_{\text{OFF}} \rightarrow \underbrace{\begin{bmatrix} \mathbf{I} \rightarrow 0 \\ \text{ON} & \text{OFF} \end{bmatrix}}_{\text{OFF}} \underbrace{\begin{bmatrix} 0 \stackrel{\text{60 ms}}{\rightarrow} \mathbf{I} \\ \text{OFF} & \text{ON} \end{bmatrix}}_{\text{OFF}}$
$NZM3-XR \underbrace{\begin{bmatrix} 0^{80} \text{ms} \\ 0 \text{ff} \\ 0 \text{ff} \end{bmatrix}}_{OFF ON} \rightarrow \underbrace{\begin{bmatrix} 1 \rightarrow 0 \\ 0 \\ 0 \text{off} \end{bmatrix}}_{OFF} \underbrace{\begin{bmatrix} t > 3 \text{ s} \\ 0 \\ 0 \\ 0 \text{ff} \end{bmatrix}}_{OFF ON}$
NZM4-XR $[ \overset{100 \text{ ms}}{\overset{\circ}{\rightarrow} \mathbf{I}} ] \rightarrow [ \underset{\text{ON}}{\mathbf{I} \rightarrow \mathbf{O}} ] \overset{t>3s}{\overset{\circ}{=}} [ \overset{100 \text{ ms}}{\overset{\circ}{\rightarrow} \mathbf{I}} ]_{\text{OFF}}$

The time interval between OFF and ON is 3 seconds. On commands received during the time interval are ignored within the first 3 seconds after switch off.

### Parallel remote operator connection

Closing delay		ms	60
Break time		ms	300
Rated control voltage	Us	V	24 - 30 V DC
Number of poles			3/4 pole

	with

Project planning information

Engineering information (sheet catalog)

## NZM2(-4) N(S)2(-4)

Cannot be combined with switch-disconnector PN... Do not install M22-CK11(20/02) dual auxiliary contacts in the center auxiliary contact slot in NZM2-XRD

2/3-wire control and circuit diagrams

# Technical data

Remote operator			
Rated control voltage	Us	V	
DC	Us	V DC	24 - 30
Operating range			
AC		x U <sub>s</sub>	0.85 - 1.1
DC		x U <sub>s</sub>	0.85 - 1.1
Motor rating			
DC			
24 V 30 V DC	Ρ	W	250
Minimum signal duration			
with switch on		ms	30
with switch off		ms	150
Lifespan, mechanical	Operations		20000
Maximum operating frequency		Ops./h	
Max. operating frequency		Ops/h	120
Terminal capacities		mm <sup>2</sup>	
Solid or flexible conductor, with ferrule		mm <sup>2</sup>	0,75 - 2,5
		AWG	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) / Motor operator for power circuit-breaker (EC001030)

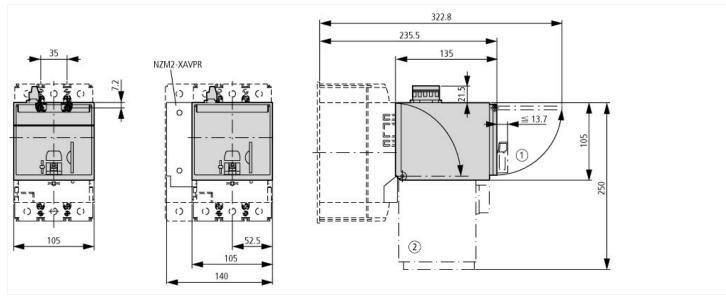
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Electrical drive for circuit breakers (ecl@ss10.0.1-27-37-04-12 [AKF010013])

Type of switch drive		Motor drive
Rated control supply voltage Us at AC 50HZ	V	0 - 0
Rated control supply voltage Us at AC 60HZ	V	0 - 0
Rated control supply voltage Us at DC	V	24 - 30
Voltage type for actuating		DC

## **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**



# Additional product information (links)

IL01206002Z (AWA1230-1984) NZM2 remote ope	prator
IL01206002Z (AWA1230-1984) NZM2 remote operator	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL01206002Z2019_05.pdf
2/3-wire control and circuit diagrams	http://ecat.moeller.net/flip-cat/?edition=HPLEN&startpage=17.153