



Remote operator, 48-60VDC, for size 2

Part no. **NZM2-XR48-60DC**
 Catalog No. **259838**



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			<p>For remote switching of circuit-breakers and switch-disconnectors.</p> <p>ON and OFF switching and resetting by means of two-wire or three-wire control.</p> <p>Local switching by hand possible.</p> <p>Lockable in the 0 position of the remote operator with up to 3 padlocks (hasp thickness: 4 – 8 mm)</p> <p>Can be synchronized</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Three-wire control</p> <p>Two-wire control</p> <p>Three-wire control with automatic reset to the 0 position after the switch has tripped</p> </div> <div style="width: 45%;"> <p>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.</p> <p>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</p> </div> </div> <p>Switching cycle:</p> <p>NZM2-XR: OFF → ON (60ms) → ON → OFF (t > 3s) → OFF → ON (60ms)</p> <p>NZM3-XR: OFF → ON (60ms) → ON → OFF (t > 3s) → OFF → ON (60ms)</p> <p>NZM4-XR: OFF → ON (60ms) → ON → OFF (t > 3s) → OFF → ON (60ms)</p> <p>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.</p> <p>Parallel remote operator connection</p>
Closing delay		ms	60
Break time		ms	300
Rated control voltage	U _s	V	48 - 60 V DC
Number of poles			3/4 pole

For use with		NZM2(-4) N(S)2(-4)
Project planning information		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
Engineering information (sheet catalog)		2/3-wire control and circuit diagrams

Technical data

Remote operator

Rated control voltage	U _s	V	
DC	U _s	V DC	48 - 60
Operating range			
AC		x U _s	0.85 - 1.1
DC		x U _s	0.85 - 1.1
Motor rating			
DC			
24 V ... 30 V DC	P	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 ²	
Solid or flexible conductor, with ferrule		mm ²	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)

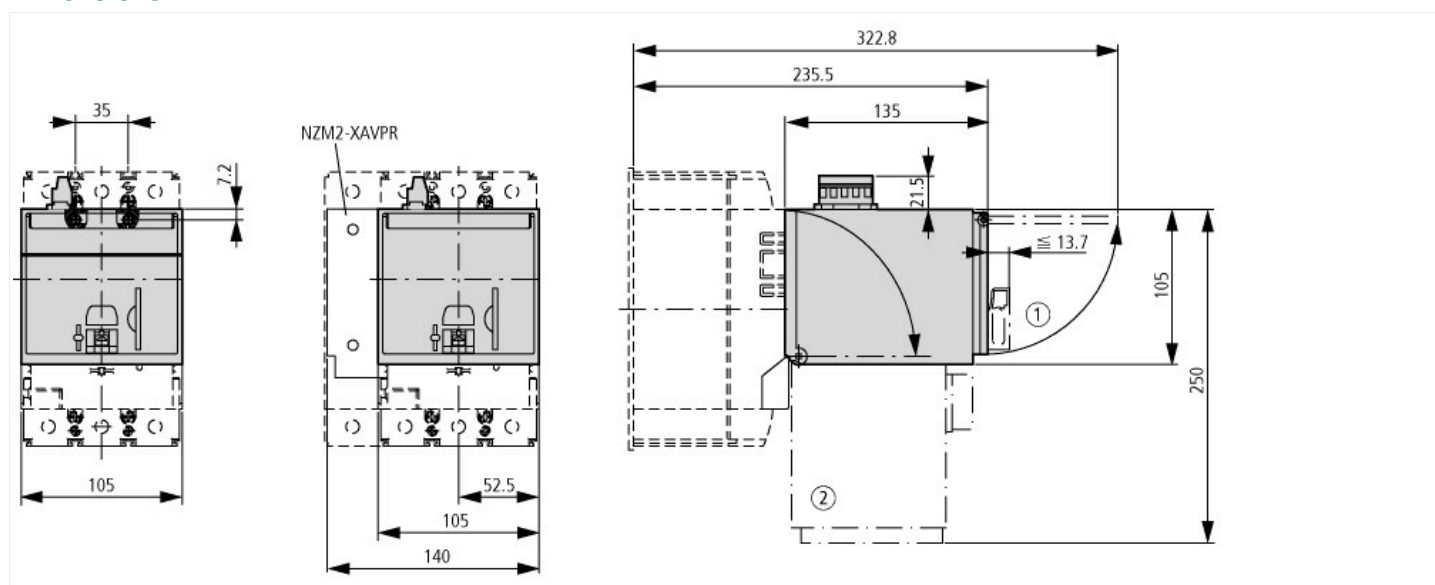
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Electrical drive for circuit breakers (ec1@ss10.0.1-27-37-04-12 [AKF010013])

Type of switch drive		Motor drive
Rated control supply voltage U_s at AC 50HZ	V	0 - 0
Rated control supply voltage U_s at AC 60HZ	V	0 - 0
Rated control supply voltage U_s at DC	V	48 - 60
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)

2/3-wire control and circuit diagrams

<http://ecat.moeller.net/flip-cat/?edition=HPLEN&startpage=17.153>