



259854

NZM3-XR24-30DC

Overview

Specifications

Resources







DELIVERY PROGRAM

Delivery program

Product range Accessories

Technical data

Accessories

Design verification as per IEC/EN 61439

Remote operator, can be synchronized

Technical data ETIM 7.0

Rated operating frequency

Standard/Approval

UL/CSA, IEC

Approvals

Construction size

Dimensions NZM3

Description

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 mm)

Can be synchronized

Please note during engineering:

Three-wire control

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.

Two-wire control

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:

$$\begin{split} & NZM2-XR \underbrace{\left[\begin{smallmatrix} \sigma^{\alpha} \sigma_1 \\ \sigma^{\alpha} \sigma_2 \end{smallmatrix} \right]}_{\left[\begin{smallmatrix} \sigma \sigma_1 \\ \sigma^{\alpha} \sigma_2 \end{smallmatrix} \right]} \Rightarrow \underbrace{\left[\begin{smallmatrix} \sigma \sigma_1 \\ \sigma^{\alpha} \sigma_2 \end{smallmatrix} \right]}_{\left[\begin{smallmatrix} \sigma \sigma_1 \\ \sigma^{\alpha} \sigma_2 \end{smallmatrix} \right]} \\ & NZM3-XR \underbrace{\left[\begin{smallmatrix} \sigma^{\alpha} \sigma_1 \\ \sigma^{\alpha} \sigma_2 \end{smallmatrix} \right]}_{\left[\begin{smallmatrix} \sigma \sigma_1 \\ \sigma^{\alpha} \sigma_2 \end{smallmatrix} \right]} \Rightarrow \underbrace{\left[\begin{smallmatrix} \sigma \sigma_1 \\ \sigma^{\alpha} \sigma_2 \end{smallmatrix} \right]}_{\left[\begin{smallmatrix} \sigma \sigma_1 \\ \sigma^{\alpha} \sigma_2 \end{smallmatrix} \right]} \\ & NZM4-XR \underbrace{\left[\begin{smallmatrix} \sigma^{\alpha} \sigma_1 \\ \sigma^{\alpha} \sigma_2 \end{smallmatrix} \right]}_{\left[\begin{smallmatrix} \sigma \sigma_1 \\ \sigma^{\alpha} \sigma_2 \end{smallmatrix} \right]} \Rightarrow \underbrace{\left[\begin{smallmatrix} \sigma \sigma_1 \\ \sigma^{\alpha} \sigma_2 \end{smallmatrix} \right]}_{\left[\begin{smallmatrix} \sigma \sigma_1 \\ \sigma^{\alpha} \sigma_2 \end{smallmatrix} \right]} \end{aligned}$$

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 80 ms

Break time 1000 ms

Rated control voltage [U_s] 24 - 30 V DC V

Number of poles 3/4 pole

For use with NZIVB(-4) N(S)3(-4)

Project planning information
Cannot be combined with switch-disconnector
PN...
M22-CK11(20/02) dual auxiliary switch cannot be
combined with NZMB-XR... remote operator

Engineering information (sheet catalog) 2/3-wire control and circuit diagrams

TECHNICAL DATA

Remote operator

Rated control voltage [U_s] DC [U_s] 24-30 V DC

Operating range AC 0.85 - 1.1 x U_s

Operating range DC

Motor rating DC 24 V ... 30 V DC [P] 250 W

Mnimum signal duration with switch on 30 ms

Mnimum signal duration with switch off 250 ms

Lifespan, mechanical [Operations] 15000

Maximum operating frequency Max. operating frequency 60 Ops/h

Terminal capacities Solid or flexible conductor, with ferrule 0,75 - 2,5 mm²

Terminal capacities 18 ... 14 AWG

DESIGN VERIFICATION AS PER IEC/EN 61439

IEC/EN 61439 design verification

10.2 Strength of materials and parts10.2.2 Corrosion resistanceMeets the product standard's requirements.

10.2 Strength of materials and parts 10.2.3.1 Verification of thermal stability of enclosures Meets the product standard's requirements.

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10.2 Strength of materials and parts10.2.3.2 Verification of resistance of insulating

materials to normal heat

Meets the product standard's requirements.

10.2 Strength of materials and parts
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 Strength of materials and parts 10.2.4 Resistance to ultra-violet (UV) radiation Weets the product standard's requirements.

10.2 Strength of materials and parts10.2.5 LiftingDoes not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts10.2.6 Mechanical impactDoes not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts10.2.7 InscriptionsMeets the product standard's requirements.

10.3 Degree of protection of ASSEVBLIES 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 Insulation properties 10.9.3 Impulse withstand voltage Is the panel builder's responsibility.

10.9 Insulation properties10.9.4 Testing of enclosures made of insulating materialIs 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 Bectromagnetic 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)

Bectric engineering, automation, process control engineering / Low-voltage switch technology / Orcuit breaker (LV < 1 kV) / Bectrical 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 60HZ

Rated control supply voltage Us at DC 24 - 30 V

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









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