## DATASHEET - NZMH3-4-AX630



NZM3 PXR10 circuit breaker, 630A, 4p, screw terminal

Part no. NZMH3-4-AX630 191389 EL Number 4362772 (Norway)



## **General specifications**

| Product name  | Eaton Moeller series NZM molded case circuit breaker electronic  |
|---|--|
| Part no.  | NZMH3-4-AX630  |
| EAN   | 4015081919017  |
| Product Length/Depth  | 166 millimetre   |
| Product height  | 275 millimetre   |
| Product width   | 185 millimetre   |
| Product weight  | 8.4 kilogram   |
| Compliances   | RoHS conform   |
| Certifications  | IEC<br>IEC/EN 60947  |
| Product Tradename   | NZM  |
| Product Type  | Molded case circuit breaker  |
| Product Sub Type  | Electronic   |
| Delivery program  |  |
| Application   | Use in unearthed supply systems at 690 V   |
| Туре  | Circuit breaker  |
| Circuit breaker frame type  | NZM3   |
| Number of poles   | Four-pole  |
| Amperage Rating   | 630 A  |
| Release system  | Electronic release   |
| Features  | Protection unit<br>Motor drive optional  |
| Special features  | Maximum back-up fuse, if the expected short-circuit currents at the installation<br>location exceed the switching capacity of the circuit breaker (Rated short-circuit<br>breaking capacity Icn)<br>Overload and short-circuit protection LI<br>R.m.s. value measurement and "thermal memory"<br>USB interface for configuration and test function with Power Xpert Protection<br>Manager software<br>Rated current = rated uninterrupted current: 630 A<br>Terminal capacity hint: Up to 240 mm <sup>2</sup> can be connected depending on the cable<br>manufacturer. |
| Technical Data - Electrical   |  |
| Voltage rating  | 690 V - 690 V  |
| Rated insulation voltage (Ui)   | 690 V AC   |
| Rated impulse withstand voltage (Uimp) at auxiliary contacts                    | 6000 V   |
| Rated impulse withstand voltage (Uimp) at main contacts                         | 8000 V   |
| Current rating of neutral conductor   | 200% of phase conductor  |
| Rated short-time withstand current (t = 0.3 s)                                  | 3.3 kA   |
| Rated short-time withstand current (t = 1 s)                                    | 3.3 kA   |
| Instantaneous current setting (li) - min  | 2 A  |
| Instantaneous current setting (li) - max  | 800 A  |
| Overload current setting (Ir) - min   | 252 A  |
| Overload current setting (Ir) - max   | 630 A  |
| Short delay current setting (Isd) - min   | 0 A  |
| Short delay current setting (Isd) - max   | 0 A  |
| Short-circuit release non-delayed setting - min                                 | 1260 A   |
| Short-circuit release non-delayed setting - max                                 | 5040 A   |
| Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 230 V, 50/60 Hz     | 150 kA   |
| Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 400/415 V, 50/60 Hz | 150 kA   |
| Rated short-circuit breaking capacity Ics (IEC/EN 60947) at 440 V, 50/60 Hz     | 130 kA   |
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| Production: event making search (no. 400419 / 3000 in content of a second se   |  |   |
| Red short-orient making sapeshy lona 49 V 3950 hz Bank discontration in a sapeshy lona 49 V 3950 hz   Red short-orient making sapeshy mark 49 V 3950 hz FA A   Stand short-orient train brakes FA A   Sector around train brakes FA A   Valuation creaters FA A   Number of capacity per from - max FA   Number of per from - max FA   Descer of per from - max FA   Number of per from - max FA   Descer of per form - max FA   Descer of per form - max FA   Morring Sector Descer of per form - max FA   Descer of per form - max FA   Descer of per   |  |   |
| Abscir direct matting capacity (orm at SN V, SNN Pre     NA       Basci durity circuit mining capacity (orm at SN V, SNN Pre     NA       Sector class at the mathine.     Circuits       Decision durity canabity (orm at SN V, SNN Pre     SNN V/A (backwork exality) contract of main circuits       Decision durity canabity (orm at SNN V, SNN Pre     SNN V/A (backwork exality) contract of main circuits       Machan of granupating preform at SNN V, SNN Pre     SNN V/A (backwork exality) contract of main circuits       Machan of granupating preform at SNN V, SNN Pre     SNN V/A (backwork exality) contract of MI   |  |   |
| Red dot creat making appacy (on a GBV 1,000 Hz FULA   Sheed dots creat making appacy (on a GBV 1,000 Hz) CUM on Security Contracts   Retrict at canance traps of a back the contract of a c   | Rated short-circuit making capacity Icm at 440 V, 50/60 Hz | 286 kA  |
| Short-intruit truit breaktive     It is in a status of the intruit     It is in a status of the intruit is intruit       Binderic connector type of min circuit     300 VC (Excerves excelling vortices and man context)       Number of digrations perform max     300 VC (Excerves excelling vortices and man context)       Utiliation context of grations perform max     300 VC (Excerves excelling vortices and man context)       Utiliation context of grations perform max     300 VC (Excerves excelling vortices and man context)       Utiliation context of grations perform max     300 VC (Excerves excelling vortices and man context)       Point of factor inpact of the inpact of grating vortices and max     300 VC (Excerves excelling vortices and man context)       Point of factor inpact of the inpact of grating vortices and max     300 vortices and SV AD (Excerves excelling vortices and max)       Directing of the information of the informa  | Rated short-circuit making capacity Icm at 525 V, 50/60 Hz | 143 kA  |
| Flectical cannection type of main circuit     Serve connection       Isolation     Serve connection       Number of controlsing perform max.     9       Number of controlsing perform max.     9       Number of controlsing perform max.     9       Ubination category     ALRCENV6000-71       Demonstration category     ALRCENV6000-71       Demonstration category     10       Demonstration category     10       Demonstration category     10       Demonstration gaugety     ALRCENV6000-71       Demonstration gaugety     ALRCENV6000-71       Demonstration gaugety     ALRCENV6000-71       Demonstration gaugety     Field       Munning Machad     Field       Degree of protection (PL from old     Field       Degree of protection (PL from old     Field       Degree of protection (PL from old     Protection gradie data or da   | Rated short-circuit making capacity Icm at 690 V, 50/60 Hz | 70 kA   |
| Isolation     Set V 20 Detractions and any contexted       Number of operations per hour - max     00       Oversitting category     00       Patient of operations per hour - max     00       Decision of incenting apply     00       Decision of incenting apply     0000 operations at 600 VAC1       Decision of incenting apply     0000 operations at 600 VAC1       Decision of incenting apply     0000 operations at 600 VAC1       Decision of incenting apply     0000 operations at 600 VAC1       Degree of protection     Statisf device for de built-in technique       Degree of protection (PII, front sale     PPD (right instairing arrand)       Degree of protection (NIII, front sale     PPD (right instairing arrand)       Protection applies of instation (NIII, front sale     PPD (right instairing arrand)       Protection applies of instation (NIII, front sale     PPD (right instairing arrand)       Protection applies of instation (NIIII)     0     PPD (right instairing arrand)       Protection applies of instation (NIIII)     0     PPD (right instairing  | Short-circuit total breaktime                              | < 10 ms   |
| Number of operations per hour - nax     Productions per hour - nax       Handle type     Productions per hour - nax       Handle type     Productions conservery       Utilization - conservery     Production Conservery       Production Conservery     Production Conservery   | Electrical connection type of main circuit                 | Screw connection  |
| Handa type Rockar lever   Muticinic estepsy A HECK M85-73   Deversing exception III   Palation diagree 3   Linpage, electrical 3   Direction of incoming supply 3   Direction of incoming supply 4   Technical Data - Mechanical Field   Muuting Method 10   Derive of protection 100 (or interacting supply)   Derive of protection IIPL, torix ide 100 (or interacting supply)   Protection against direct contact 100 (or interacting supply)   Protection against direct contact 100 (or interacting supply)   Protection against direct contact 0   Number of auxiliary contacts (hornamily contact contact) 0   Position a contact method 0   Position a contact contact<   | Isolation  |   |
| Ubitation category     A GEC PN 6649-2;       Derivations category     III       Publication groups     III       Publication groups     IIII       Direction of teamings upply     A sequined       Charling Method     A sequined       Marting Method     Freed       Marting Method     IPP (basis degree of protection, in the sperialing controls at 415 V AC-1       Degree of protection (IP), how side     IPP (basis degree of protection, in the sperialing controls area)       Degree of protection (IP), how side     IPP (basis degree of protection, in the sperialing controls area)       Degree of protection (IP), how side     IPP (basis degree of protection, in the sperialing controls area)       Degree of protection (IP), how side     IPP (basis degree of protection)       Degree of protection (IP), how side     IPP (basis degree of protection)       Degree of protection (IP), how side     IPP (basis degree of protection)       Number of axaliary contracts (hormally controls)     IPP (basis degree of protection)       Number of axaliary contracts (hormally contracts)     IPP (basis degree of protection)       Number of axaliary contracts (hormally contracts)     IPP (basis degree of protection)       Number of axaliary contracts (hormally contracts)     IPP (basis   | Number of operations per hour - max                        | 60  |
| Oversellage caragery III   Puttion degree III   Puttion degree III   Uttepse, dectrical IIII   Binetin or lacaming supply IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII  | Handle type  | Rocker lever  |
| Polisien degree     Image and the second se  | Utilization category                                       | A (IEC/EN 60947-2)  |
| Likepan, werticul S00 operations at 800 VAC1<br>S00 operations at 810 VAC1<br>S00 operations at 800 VAC1<br>S00 VAC1<br>S00 operations at | Overvoltage category                                       | III   |
| Subsciences   | Pollution degree   | 3   |
| Technical Data - Mechanical     Mounting Method     Find     Mounting Method       Degree of protection     Find     Find <td>Lifespan, electrical</td> <td>3000 operations at 690 V AC-1</td>  | Lifespan, electrical                                       | 3000 operations at 690 V AC-1   |
| Maunting Method     Find       Durges of protection     Protection       Degree of protection (IP), front side     Protection (IP), front side       Degree of protection (IP), front side     Protection (IP), front side       Degree of protection (IP), front side     Protection (IP), front side       Protection squints direct context     Protection squints direct context       Number of auxiliary contacts (change-over contects)     Protection (IP), front side       Number of auxiliary contacts (change-over contects)     Protection (IP), front side       Position of concents     Protection (IP), front side       Clinatic proofing     IP       Position of concents for main current circuit     IP       Clinatic proofing     IP       Special features     IP </td <td>Direction of incoming supply</td> <td>As required</td>  | Direction of incoming supply                               | As required   |
| Degree of protection     Billet in device fixed built in device fixed built in device bring built in device fixed built in devilt devind built in device fixed built in devind built in   | Technical Data - Mechanical                                |   |
| Pagee of protection (IP), frant side     IP30       Degree of protection (IP), frant side     IP30       Degree of protection (IP), frant side     IP30       Potection against direct contact     Fige and back-of-hand proof to DIN EN 50274/UE 0106 part 110       Shock resistance     Tog that insuidial support to DIN EN 50274/UE 0106 part 110       Number of auxiliary contacts (hornally closed contacts)     0       Number of auxiliary contacts (hornally closed contacts)     0       Position of canacitor for main current circuit     0       Clinatic proofing     Dam heat, contant, to IEC 50088-2-78       Bamp heat, contant, to IEC 50088-2-78     Dam heat, contant, to IEC 50088-2-78       Bam heat, cyclits, the IEC 50088-2-78     Dam heat, contant, to IEC 50088-2-78       Bam heat, cyclits, the IEC 50088-2-78     Dam heat, contant, to IEC 50088-2-78       Bam heat, cyclits, the IEC 50088-2-78     Dam heat, contant, to IEC 50088-2-78       Bam heat, cyclits, the IEC 50088-2-78     Dam heat, contant, to IEC 50088-2-78       Bam heat, cyclits, the IEC 50088-2-78     Dam heat, cyclits, the IEC 50088-2-78       Bam heat, cyclits, the IEC 50088-2-78     Dam heat, cyclits, the IEC 50088-2-78       Bam heat, cyclits, the IEC 50088-2-78     Dam heat, cyclits, the IEC 50088-2-78   | Mounting Method  |   |
| Pagee of protection terminations)   Page (with doer couping rouph handle)     Portection against direct contact   Fing terminal     Protection against direct contact   Fing and back of hand proof to DIN EN 50274/UE DIOS part 10     Shock resistance   Q g (half-sinusoidal shock 20 ms)     Number of auxiliary contacts (hormally closed contacts)   Q     Number of auxiliary contacts (normally closed contacts)   Q     Position of connection for main current circuit   First side     Dimain cancets   Damp heat, contact, to ES 08082-278     Damp heat, contact, to formally open contacts)   Damp heat, contact, to ES 08082-278     Damp heat, contact, to ES 08082-278   Damp heat, contact, to ES 08082-278     Damp heat, contact, to ES 08082-278   Damp heat, contact, to ES 08082-278     Damp heat, contact, to ES 08082-278   Damp heat, contact, to ES 08082-278     Damp heat, contact, to ES 08082-278   Damp heat, contact, to ES 08082-278     Damp heat, contact, to ES 08082-278   Damp heat, contact, to ES 08082-278     Damp heat, contact, to ES 08082-278   Damp heat, contact, to ES 08082-278     Damp heat, contact, to ES 08082-278   Damp heat, contact, to ES 08082-278     Damp heat, contact, to ES 08082-278   Damp heat, contact, to ES 08082-278     Damp heat, contact, to ES 08082-  | Degree of protection                                       |   |
| Protoction against direct context   Finder and back-of-hand proof to DIN EN S0274/VE 0106 part 110     Protoction against direct context   20 g (hell-sinusoidal shock 20 ms)     Number of auxiliary contacts (change-over contacts)   0     Number of auxiliary contacts (normally closed contacts)   0     Position of connection for main current circuit   Font side     Climatic proofing   Font side     Special features   Barp heat, cryclic, to IEC 80088-2-30     Special features   Special features     Values   Special features     Va   | Degree of protection (IP), front side                      |   |
| Shock resistance     20 g (half-sinusoidal shock 20 ms)       Number of auxiliary contacts (hange-over contacts)     0       Number of auxiliary contacts (normally closed contacts)     0       Number of auxiliary contacts (normally closed contacts)     0       Position of connection formain current circuit     0       Climatic proofing     0       Special features     Damp heat, constant, to IEC 60082-278       Damp heat, constant, to IEC 60082-278     Damp heat, constant, to IEC 60082-278       Damp heat, constant, to IEC 60082-278     Damp heat, constant, to IEC 60082-278       Damp heat, constant, to IEC 60082-278     Damp heat, constant, to IEC 60082-278       Damp heat, constant, to IEC 60082-278     Damp heat, constant, to IEC 60082-278       Damp heat, constant, to IEC 60082-278     Damp heat, constant, to IEC 60082-278       Damp heat, constant, to IEC 60082-278     Damp heat, constant, to IEC 60082-278       Damp heat, constant, to IEC 60082-278     Damp heat, constant, to IEC 60082-278       Damp heat, constant, to IEC 60082-278     Damp heat, constant, to IEC 60082-278       Damp heat, constant, to IEC 60082-278     Damp heat, constant, to IEC 60082-278       Damp heat, constant, to IEC 60082-278     Damp heat, constant, to IEC 60082-278       Damp heat, consta  | Degree of protection (terminations)                        |   |
| Number of auxiliary contacts (hange-over contacts)     Image: contact (hange-over contacts)     Image: contacts (hange-over contacts)     Image: contact (hange-over contacts) <thimage: (hange-over="" contact="" contacts)<="" t<="" td=""><td>Protection against direct contact</td><td>Finger and back-of-hand proof to DIN EN 50274/VDE 0106 part 110</td></thimage:>  | Protection against direct contact                          | Finger and back-of-hand proof to DIN EN 50274/VDE 0106 part 110   |
| Number of auxiliary contacts (normally closed contacts)     0       Number of auxiliary contacts (normally open contacts)     0       Position of connection for main current circuit     0       Climatic proofing     Front side       Special features     Damp heat, cyclic, to IEC 60082-278       Damp heat, cyclic, to IEC 60082-278     Damp heat, cyclic, to IEC 60082-278       Damp heat, cyclic, to IEC 60082-278     Damp heat, cyclic, to IEC 60082-278       Damp heat, cyclic, to IEC 60082-278     Damp heat, cyclic, to IEC 60082-278       Damp heat, cyclic, to IEC 60082-278     Damp heat, cyclic, to IEC 60082-278       Damp heat, cyclic, to IEC 60082-278     Damp heat, cyclic, to IEC 60082-278       Damp heat, cyclic, to IEC 60082-278     Damp heat, cyclic, to IEC 60082-278       Damp heat, cyclic, to IEC 60082-278     Damp heat, cyclic, to IEC 60082-278       Damp heat, cyclic, to IEC 60082-278     Damp heat, cyclic, to IEC 60082-278       Damp heat, cyclic, to IEC 60082-278     Damp heat, cyclic, to IEC 60082-278       Damp heat, cyclic, to IEC 60082-208     Damp heat, cyclic, to IEC 60082-278       Damp heat, cyclic, to IEC 60082-208     Damp heat, cyclic, to IEC 60082-278       Damp heat, cyclic, to IEC 60082-208     Damp heat, cyclic, to IEC 60082-208       Damp heat, c  | Shock resistance   | 20 g (half-sinusoidal shock 20 ms)  |
| Number of auxiliary contacts (normally open contacts)     Image: Contacts (normally open contacts)     Image: Contacts (normally open contacts)       Position of connection for main current circuit     Image: Contacts (normally open contacts)     Image: Contacts (normally open contacts)       Climatic proofing     Image: Contacts (normally open contacts)     Image: Contacts (normally open contacts)     Image: Contacts (normally open contacts)       Special features     Maximum back, up (use, if the expected short-circuit protection LI main memory" (USB interface for configuration and test function with Power Xpert Protection Manager software     Rms. value measurement and "Image: Contact (USB A)       Itespan, mechanical     Image: Contact (USB A)     Image: Contact (USB A)       Standard tarminals     Image: Contact (USB A)     Image: Contact (USB A)       Optional terminal capacity (control cable)     Corf (USB A)     Image: Contact (USB A)       Terminal capacity (control cable)     Corf (USB A)     Image: Contact (USB A)       Terminal capacity (control cable)     Corf (USB A)     Image: Contact (USB A)       Terminal capacity (control cable)     Corf (USB A)     Image: Contact (USB A)       Terminal capacity (control cable)     Corf (USB A)     Corf (USB A)     Image: Contact (USB A)       Terminal capacity (control cable)     Corf (USB A) </td <td>Number of auxiliary contacts (change-over contacts)</td> <td>0</td>   | Number of auxiliary contacts (change-over contacts)        | 0   |
| Position of connection for main current circuit   Image: Circuit current circuit   Fort side     Climatic proofing   Damp heat, constant, to IEC 60068-2-78     Special features   Damp heat, constant, to IEC 60068-2-30     Maximum back-up fuse, if the expected short-circuit currents at the installation location exceed the switching capacity of the circuit breaker (Rated short-circuit breaker  | Number of auxiliary contacts (normally closed contacts)    | 0   |
| Climatic proofing   Damp heat, constant, to IEC 60068-2-78     Special features   Damp heat, cyclic, to IEC 60068-2-78     Special features   Damp heat, cyclic, to IEC 60068-2-78     Description   Description     Terminal capacity (control cable)   Description     De   | Number of auxiliary contacts (normally open contacts)      | 0   |
| Special features   Damp heat, cyclic, to IEC 60068-2-30     Special features   Maximum back-up fuse, if the expected short-circuit currents at the installation location exceed the switching capacity of the circuit breaker (Rated short-circuit breaker) (Rated short-circuit protection LI R.m.s. value measurement and "thermal memory"     Lifespan, mechanical   Image: Standard terminals     Standard terminals   Image: Standard terminal     Optional terminals   Image: Standard terminal     Optional terminal capacity (aluminum solid conductor/cable)   Image: Standard terminal     Terminal capacity (aluminum stranded conductor/cable)   Image: Standard terminal     Terminal capacity (copper busbar)   Image: Standard terminal     Terminal capacity (copper solid conductor/cable)   Image: Standard terminal     Terminal capacity (control cable)   Image: Standard terminal     Terminal capacity (aluminum stranded conductor/cable)   Image: Standard terminal     Terminal capacity (control cable)   Image: Standard terminal     Terminal capacity (control cable)   Image: Standard terminal     Terminal capacity (control cable)   Image: Standard terminal     Terminal capacity (aluminum stranded conductor/cable)   Image: Standard terminal     Terminal capacity (copper busbar)   Image: Standard terminal     Terminal capacity (co   | Position of connection for main current circuit            | Front side  |
| Special features   Maximum back-up fuse, if the expected short-circuit urrents at the installation location exceed the switching capacity of the circuit breaker (Rated short-circuit Decadon ad short-circuit protection LI Rameavy" USB interface for configuration and test function with Power Xpert Protection Manager software Rated current capacity (Inti Up to 240 mm² can be connected depending on the cable manufacturer.     Lifespan, mechanical   Image: Software Rated current - rated uninterrupted current: 630 A Terminal capacity (Inti Up to 240 mm² can be connected depending on the cable manufacturer.     Standard terminals   Image: Software Rated current: 630 A Terminal capacity (Inti Up to 240 mm² can be connected depending on the cable manufacturer.     Optional terminals   Image: Software Rated current: 630 A Terminal capacity (control cable)     Terminal capacity (control cable)   Image: Software Rated current: 630 A Terminal Connection on rear. Tunnel terminal     Terminal capacity (control cable)   Image: Software Rated current: 630 A Terminal Connection on rear. Tunnel terminal     Terminal capacity (control cable)   Image: Software Rated current: 630 A Terminal Connection on rear. Tunnel terminal     Terminal capacity (control cable)   Image: Software Rated current: 630 A Terminal Connection on rear. Tunnel terminal Connection (table)     Terminal capacity (control cable)   Image: Software Rate and the main and ta terminal   | Climatic proofing  | Damp heat, constant, to IEC 60068-2-78  |
| Technical Data - Mechanical - Terminals   Standard terminals     Optional terminals   Screw terminal     Deptional terminals   Box terminal. Connection on rear. Tunnel terminal     Terminal capacity (control cable)   0.75 mm² - 2.5 mm² (1x)<br>0.75 mm² - 1.5 mm² (2x)     Terminal capacity (aluminum solid conductor/cable)   16 mm² (1x) at tunnel terminal     Terminal capacity (aluminum stranded conductor/cable)   50 mm² - 240 mm² (1x) at 2-hole tunnel terminal     Terminal capacity (copper busbar)   Min. 20 mm x 5 mm direct at switch rear-side connection<br>Max. 30 mm x 10 mm x 5 mm direct at switch rear-side connection<br>Max. 10 mm x 5 mm (2x) at rear-side width extension     Terminal capacity (copper solid conductor/cable)   300 mm² (2x) at rear-side width extension<br>16 mm² (2x) direct at switch rear-side connection<br>Max. 10 mm x 50 mm (2x) at rear-side connection<br>Max. 10 mm x 50 mm (2x) at rear-side connection<br>16 mm² (2x) direct at switch rear-side connection  | Special features   | Maximum back-up fuse, if the expected short-circuit currents at the installation<br>location exceed the switching capacity of the circuit breaking capacity Icn)<br>Overload and short-circuit protection LI<br>R.m.s. value measurement and "thermal memory"<br>USB interface for configuration and test function with Power Xpert Protection<br>Manager software<br>Rated current = rated uninterrupted current: 630 A<br>Terminal capacity hint: Up to 240 mm <sup>2</sup> can be connected depending on the cable |
| Standard terminals   Screw terminal     Optional terminals   Box terminal. Connection on rear. Tunnel terminal     Terminal capacity (control cable)   0.75 mm² - 2.5 mm² (1x) 0.75 mm² - 1.5 mm² (2x)     Terminal capacity (aluminum solid conductor/cable)   16 mm² (1x) at tunnel terminal     Terminal capacity (aluminum stranded conductor/cable)   50 mm² - 240 mm² (1x) at 2-hole tunnel terminal 50 mm² - 240 mm² (1x) at 2-hole tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal     Terminal capacity (copper busbar)   Min. 20 mm x 5 mm direct at switch rear-side connection Max. 30 mm x 10 mm x 50 mm direct at switch rear-side connection Max. 10 mm x 50 mm (2x) at rear-side width extension     Terminal capacity (copper solid conductor/cable)   300 mm² (2x) at rear-side connection Max. 10 mm x 50 mm (2x) direct at switch rear-side connection 16 mm² (2x) direct at switch rear-side con  |  | 15000 operations  |
| Optional terminalsBox terminal. Connection on rear. Tunnel terminalTerminal capacity (control cable)0.75 mm² - 2.5 mm² (1x)<br>0.75 mm² - 1.5 mm² (2x)Terminal capacity (aluminum solid conductor/cable)16 mm² (1x) at tunnel terminalTerminal capacity (aluminum stranded conductor/cable)50 mm² - 240 mm² (1x) at 2-hole tunnel terminal<br>50 mm² - 240 mm² (2x) at 2-hole tunnel terminal<br>25 mm² - 185 mm² (1x) at tunnel terminalTerminal capacity (copper busbar)Min. 20 mm x 5 mm direct at switch rear-side connection<br>Max. 30 mm x 10 mm x 5 mm direct at switch rear-side connection<br>Max. 10 mm x 50 mm (2x) at rear-side width extensionTerminal capacity (copper solid conductor/cable)300 mm² (2x) at rear-side width extension<br>16 mm² (1x) direct at switch rear-side connection<br>Max. 10 mm x 50 mm (2x) at rear-side connection<br>Max. 10 mm x 50 mm (2x) at rear-side connection<br>Max. 10 mm x 50 mm (2x) at rear-side connection<br>Max. 10 mm² (1x) direct at switch rear-side connection<br>16 mm² (1x) direct at switch rear-side connection   |  |   |
| Terminal capacity (control cable)   0.75 mm² - 2.5 mm² (1x)     Terminal capacity (aluminum solid conductor/cable)   16 mm² (1x) at tunnel terminal     Terminal capacity (aluminum stranded conductor/cable)   50 mm² - 240 mm² (1x) at 2-hole tunnel terminal     Terminal capacity (copper busbar)   50 mm² - 240 mm² (1x) at 2-hole tunnel terminal     Terminal capacity (copper busbar)   50 mm² - 240 mm² (1x) at tunnel terminal     Terminal capacity (copper busbar)   Min. 20 mm x 5 mm direct at switch rear-side connection<br>Max. 30 mm x 10 mm + 30 mm x 5 mm direct at switch rear-side connection<br>Max. 10 mm x 50 mm (2x) at rear-side width extension<br>16 mm² (2x) direct at switch rear-side connection<br>16 mm² (2x) direct at switch rear-side connection<br>16 mm² (2x) at rear-side connection<br>16 mm² (2x) at tear-side connection<br>16 mm² (2x) at box terminal   | Standard terminals   |   |
| Terminal capacity (aluminum solid conductor/cable)   Image: 0.75 mm² - 1.5 mm² (2x)     Terminal capacity (aluminum stranded conductor/cable)   Image: 0.75 mm² - 1.5 mm² (2x)     Terminal capacity (aluminum stranded conductor/cable)   Image: 0.75 mm² - 1.5 mm² (1x) at tunnel terminal 50 mm² - 240 mm² (1x) at 2-hole tunnel terminal 25 mm² - 240 mm² (2x) at 2-hole tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tear-side connection Max. 30 mm x 10 mm x 50 mm (2x) at rear-side width extension     Terminal capacity (copper solid conductor/cable)   Image: 0.45 mm² (2x) at cars - side width extension 16 mm² (2x) at rear-side connection 16 mm² (2x) at pox terminal  | Optional terminals   |   |
| Terminal capacity (aluminum stranded conductor/cable)   50 mm² - 240 mm² (1x) at 2-hole tunnel terminal 50 mm² - 240 mm² (2x) at 2-hole tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tunnel terminal 25 mm² - 185 mm² (1x) at tear-side connection Max. 30 mm x 10 mm x 5 mm direct at switch rear-side connection Max. 10 mm x 50 mm (2x) at rear-side width extension     Terminal capacity (copper solid conductor/cable)   6444     Terminal capacity (copper solid conductor/cable)   700 mm² (2x) at rear-side width extension 16 mm² (2x) at rear-side connection 16 mm² (2x) at rear-side connection 16 mm² (2x) at tox terminal  | Terminal capacity (control cable)                          |   |
| So mm² - 240 mm² (2x) at 2-hole tunnel terminal     25 mm² - 185 mm² (1x) at tunnel terminal     Terminal capacity (copper busbar)     Min. 20 mm x 5 mm direct at switch rear-side connection     Max. 30 mm x 10 mm + 30 mm x 5 mm direct at switch rear-side connection     Min. 20 mm x 5 mm direct at switch rear-side connection     Max. 30 mm x 10 mm + 30 mm x 5 mm direct at switch rear-side connection     Min. 20 mm x 5 mm direct at switch rear-side connection     Max. 10 mm x 50 mm (2x) at rear-side width extension     Terminal capacity (copper solid conductor/cable)   300 mm² (2x) at rear-side width extension     16 mm² (2x) direct at switch rear-side connection   16 mm² (2x) direct at switch rear-side connection     16 mm² (2x) at box terminal   16 mm² (2x) at box terminal  | Terminal capacity (aluminum solid conductor/cable)         | 16 mm² (1x) at tunnel terminal  |
| Max. 30 mm x 10 mm + 30 mm x 5 mm direct at switch rear-side connection<br>M10 at rear-side screw connection<br>Max. 10 mm x 50 mm (2x) at rear-side width extension     Terminal capacity (copper solid conductor/cable)   300 mm² (2x) at rear-side width extension<br>16 mm² (2x) direct at switch rear-side connection<br>16 mm² (1x) direct at switch rear-side connection<br>16 mm² (2x) at box terminal  | Terminal capacity (aluminum stranded conductor/cable)      | 50 mm <sup>2</sup> - 240 mm <sup>2</sup> (2x) at 2-hole tunnel terminal   |
| 16 mm² (2x) direct at switch rear-side connection<br>16 mm² (1x) direct at switch rear-side connection<br>16 mm² (2x) at box terminal   | Terminal capacity (copper busbar)                          | Max. 30 mm x 10 mm + 30 mm x 5 mm direct at switch rear-side connection<br>M10 at rear-side screw connection  |
|   | Terminal capacity (copper solid conductor/cable)           | 16 mm² (2x) direct at switch rear-side connection<br>16 mm² (1x) direct at switch rear-side connection<br>16 mm² (2x) at box terminal   |

| Terminal capacity (copper stranded conductor/cable)                              | 25 mm <sup>2</sup> - 240 mm <sup>2</sup> (2x) direct at switch rear-side connection<br>35 mm <sup>2</sup> - 240 mm <sup>2</sup> (1x) at box terminal<br>16 mm <sup>2</sup> - 185 mm <sup>2</sup> (1x) at 1-hole tunnel terminal<br>25 mm <sup>2</sup> - 120 mm <sup>2</sup> (2x) at box terminal<br>25 mm <sup>2</sup> - 240 mm <sup>2</sup> (1x) direct at switch rear-side connection                                  |
|--|--|
| Terminal capacity (copper strip)   | Max. 10 segments of 24 mm x 1 mm + 5 segments of 24 mm x 1 mm<br>10 segments of 50 mm x 1 mm (2x) at rear-side width extension<br>Max. 10 segments of 32 mm x 1 mm + 5 segments of 32 mm x 1 mm at rear-side<br>connection (punched)<br>Max. 8 segments of 24 mm x 1 mm (2x) at box terminal<br>Min. 6 segments of 16 mm x 0.8 mm at box terminal<br>Min. 6 segments of 16 mm x 0.8 mm at rear-side connection (punched) |
| Design verification as per IEC/EN 61439 - technical data                         |  |
| Rated operational current for specified heat dissipation (In)                    | 630 A  |
| Equipment heat dissipation, current-dependent                                    | 178.61 W   |
| Ambient operating temperature - min  | -25 °C   |
| Ambient operating temperature - max  | 70 °C  |
| Ambient storage temperature - min  | 40 °C  |
| Ambient storage temperature - max  | 70 °C  |
| Design verification as per IEC/EN 61439  |  |
| 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 Resist. of insul. mat. to abnormal heat/fire by internal elect. 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.   |
| 10.9.2 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.   |
| Additional information   |  |
| Functions  | System and cable protection  |

## **Technical data ETIM 9.0**

Low-voltage industrial components (EG000017) / Power circuit-breaker for trafo/generator/installation protection (EC000228)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Circuit breaker for power transformer, generator and system protection (ecl@ss13-27-37-04-09 [AJZ716018]) Rated permanent current lu А 630 v 690 - 690 Rated voltage Rated short-circuit breaking capacity Icu at 400 V, 50 Hz kA 150 Overload release current setting А 252 - 630 0 - 0 Adjustment range short-term delayed short-circuit release А Adjustment range undelayed short-circuit release А 2 - 800 w Power loss Device construction Built-in device fixed built-in technique Integrated earth fault protection No

| Type of electrical connection of main circuit           | Screw connection |
|---|------------------|
| Suitable for DIN rail (top hat rail) mounting           | No               |
| DIN rail (top hat rail) mounting optional               | No               |
| Number of auxiliary contacts as normally closed contact | 0                |
| Number of auxiliary contacts as normally open contact   | 0                |
| Number of auxiliary contacts as change-over contact     | 0                |
| With switched-off indicator                             | No               |
| With integrated under voltage release                   | No               |
| Number of poles   | 4                |
| Position of connection for main current circuit         | Front side       |
| Type of control element                                 | Rocker lever     |
| Complete device with protection unit                    | Yes              |
| Motor drive integrated                                  | No               |
| Motor drive optional                                    | Yes              |
| Degree of protection (IP)                               | IP20             |
|   |                  |