



Earth-fault release, 300mA, 4p, right

Part no. **NZM1-4-XFI300R**  
**104607**

| General specifications                                    |  |
|---|--|
| Product name  | Eaton Moeller series NZM - Molded case circuit breaker   |
| Part no.  | NZM1-4-XFI300R   |
| EAN   | 4015081044177  |
| Product Length/Depth                                      | 220 millimetre   |
| Product height  | 80 millimetre  |
| Product width   | 135 millimetre   |
| Product weight  | 1.6 kilogram   |
| Compliances   | IEC<br>RoHS conform  |
| Certifications  | IEC/EN 60947-2<br>IEC/EN 60947-2 annex B   |
| Product Tradename   | NZM  |
| Product Type  | Molded case circuit breaker  |
| Product Sub Type  | None   |
| Delivery program  |  |
| Application   | In three-phase systems   |
| Type  | Accessory Earth-fault releases   |
| Number of poles   | Four-pole  |
| Special features  | Earth-fault release to IEC/EN 60947-2 Not UL/CSA approved Suitable for use in three-phase systems Pulse-current sensitive type A according to core-balance principle For 4 pole NZM1-4 circuit-breakers and N1-4 switch-disconnectors Supply voltage-dependent $U_e = 200 - 415 \text{ V } 50/60 \text{ Hz}$ Control knobs, sealable. Fitted on the right side up to $I_n = 160 \text{ A}$ at $I_{Cu} = 50 \text{ kA}$ |
| Frame   | 45 mm<br>NZM1  |
| Used with   | NZM1-4<br>Four-pole<br>N1-4  |
| Technical Data - Electrical                               |  |
| Sensitivity type  | Pulse-current sensitive as per core-balance principle (type A)   |
| Voltage rating  | 200 - 415 V AC, min. 80 V AC for detection of fault currents type A/AC (dependent on mains voltage)  |
| Rated operating voltage ( $U_e$ ) - max                   | 415 V  |
| Rated control supply voltage ( $U_s$ ) at AC, 50 Hz - min | 200 V  |
| Rated control supply voltage ( $U_s$ ) at AC, 50 Hz - max | 415 V  |
| Rated control supply voltage ( $U_s$ ) at AC, 60 Hz - min | 200 V  |
| Rated control supply voltage ( $U_s$ ) at AC, 60 Hz - max | 415 V  |
| Rated control supply voltage ( $U_s$ ) at DC - min        | 0 V  |
| Rated control supply voltage ( $U_s$ ) at DC - max        | 0 V  |
| Current rating - min                                      | 15 A   |
| Current rating - max                                      | 160 A  |
| Rated fault current - min                                 | 0.3 A  |
| Rated fault current - max                                 | 0.3 A  |
| Fault current detection range                             | 50/60 Hz   |
| Frequency rating  | 50 Hz / 60 Hz  |
| Power on-delay time - min                                 | 300 ms   |
| Power on-delay time - max                                 | 300 ms   |
| Technical Data - Mechanical                               |  |
| Mounting Method   | On the right side  |
| Mounting position   | Vertical and 90° in all directions   |
| Degree of protection                                      | IP20 (operating component area)  |

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| Shock resistance   |  | 20 g (half-sinusoidal shock 20 ms)  |
| Special features   |  | Earth-fault release to IEC/EN 60947-2 Not UL/CSA approved Suitable for use in three-phase systems Pulse-current sensitive type A according to core-balance principle For 4 pole NZM1-4 circuit-breakers and N1-4 switch-disconnectors Supply voltage-dependent $U_e = 200 - 415$ V 50/60 Hz Control knobs, sealable. Fitted on the right side up to $I_n = 160$ A at $I_{Cu} = 50$ kA |
| Lifespan, mechanical   |  | 20000 operations  |
| <b>Technical Data - Mechanical - Terminals</b>                                   |  |   |
| Terminal capacity (solid/flexible conductor)                                     |  | As NZM1 standard terminal with ferrules<br>As NZM1 standard terminal without ferrules   |
| <b>Design verification as per IEC/EN 61439 - technical data</b>                  |  |   |
| Ambient operating temperature - min  |  | -5 °C   |
| Ambient operating temperature - max  |  | 40 °C   |
| <b>Design verification as per IEC/EN 61439</b>                                   |  |   |
| 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.  |

## Technical data ETIM 9.0

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| Low-voltage industrial components (EG000017) / Residual current release for power circuit breaker (EC001021)   |    |  |           |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Fault current switch for circuit breakers (ecl@ss13-27-37-04-11 [AKF009018]) |    |  |           |
| Rated control supply voltage AC 50 Hz  | V  |  | 200 - 415 |
| Rated control supply voltage AC 60 Hz  | V  |  | 200 - 415 |
| Rated control supply voltage DC  | V  |  | 0 - 0     |
| Rated fault current  | A  |  | 0.3 - 0.3 |
| Max. power on-delay time   | ms |  | 300       |
| Delay adjustable   |    |  | No        |
| Max. rated operation voltage $U_e$   | V  |  | 415       |