## DATASHEET - PFIM-25/4/003-MW

## Residual current circuit breaker (RCCB), 25A, 4p, 30mA, type AC



Part no.

PFIM-25/4/003-MW 235406

| General specifications                      |   |
|---|---|
| Product name                                | Eaton Moeller series xPole - PFIM Type AC, A, U, R RCCB   |
| Part no.                                    | PFIM-25/4/003-MW  |
| EAN   | 4015082354060   |
| Product Length/Depth                        | 80 millimetre   |
| Product height                              | 76 millimetre   |
| Product width                               | 70 millimetre   |
| Product weight                              | 0.318 kilogram  |
| Compliances                                 | RoHS conform  |
| Certifications                              | IEC/EN 61008  |
| Product Tradename                           | xPole - PFIM Type AC, A, U, R   |
| Product Type                                | RCCB  |
| Product Sub Type                            |   |
|   | None  |
| Delivery program                            |   |
| Application                                 | 3-phase application without N (400V AC phase-phase) not allowed<br>Residual current circuit breaker for residential and commercial applications<br>xPole - Switchgear for residential and commercial applications |
| Number of poles                             | Four-pole   |
| Tripping time                               | Non-delayed   |
| Amperage Rating                             | 25 A  |
| Rated short-circuit strength                | 10 kA   |
| Fault current rating                        | 30 mA   |
| Sensitivity type                            | AC current sensitive  |
| Impulse withstand current                   | Partly surge-proof 250 A  |
| Туре  | PFIM<br>Residual current circuit breakers<br>Type AC  |
| Technical Data - Electrical                 |   |
| Voltage rating                              | 230 V AC / 400 V AC   |
| Rated operational voltage (Ue) - max        | 400 V   |
| Rated insulation voltage (Ui)               | 440 V   |
| Rated impulse withstand voltage (Uimp)      | 4 kV  |
| Rated fault current - min                   | 0.03 A  |
| Rated fault current - max                   | 0.03 A  |
| Frequency rating                            | 50 Hz   |
| Short-circuit rating                        | 63 A (max. admissible back-up fuse)   |
| Leakage current type                        | AC  |
| Rated residual making and breaking capacity | 500 A   |
| Admissible back-up fuse overload - max      | 25 A gG/gL  |
| Rated short-time withstand current (Icw)    | 10 kA   |
| Surge current capacity                      | 0.25 kA   |
| Test circuit range                          | 196 V AC - 264 V AC   |
| Pollution degree                            | 2   |
| Lifespan, electrical                        | 4000 operations   |
| Technical Data - Mechanical                 |   |
| Frame                                       | 45 mm   |
| Width in number of modular spacings         | 4   |
| Built-in width (number of units)            | 70 mm (4 SU)  |
| Built-in depth                              | 70.5 mm   |
| Mounting Method                             | DIN rail  |

|  | Quick attachment with 2 latch positions for DIN-rail IEC/EN 60715  |
|--|--|
| Degree of protection   | IP20   |
|  | IP20, IP40 with suitable enclosure   |
| Terminals (top and bottom)   | Open mouthed/lift terminals  |
| Terminal capacity (solid wire)   | 1.5 mm <sup>2</sup> - 35 mm <sup>2</sup>   |
| Connectable conductor cross section (solid-core) - min                           | 1.5 mm <sup>2</sup>  |
| Connectable conductor cross section (solid-core) - max                           | 35 mm <sup>2</sup>   |
| Terminal capacity (stranded cable)   | 16 mm² (2x)  |
| Connectable conductor cross section (multi-wired) - min                          | 1.5 mm <sup>2</sup>  |
| Connectable conductor cross section (multi-wired) - max                          | 16 mm <sup>2</sup>   |
| Terminal protection  | Finger and hand touch safe, DGUV VS3, EN 50274   |
| Busbar material thickness  | 0.8 mm - 2 mm  |
| Lifespan, mechanical   | 20000 operations   |
| Permitted storage and transport temperature - min                                | -35 °C   |
| Permitted storage and transport temperature - max                                | 60 °C  |
| Climatic proofing  | 25-55 °C / 90-95% relative humidity according to IEC 60068-2   |
| Design verification as per IEC/EN 61439 - technical data                         |  |
| Rated operational current for specified heat dissipation (In)                    | 25 A   |
| Heat dissipation per pole, current-dependent                                     | 0 W  |
| Equipment heat dissipation, current-dependent                                    | 3.1 W  |
| Static heat dissipation, non-current-dependent                                   | 0 W  |
| Heat dissipation capacity  | 0 W  |
| Ambient operating temperature - min  | -25 °C   |
| Ambient operating temperature - max  | 55 °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.   |
| 10.2.7 inscriptions 10.3 Degree of protection of assemblies                      | Does not apply, since the entire switchgear needs to be evaluated.   |
|  | Meets the product standard's requirements.   |
| 10.4 Clearances and creepage distances   |  |
| 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<br>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   |  |
| Accessories required   | Z-HK 248432  |
| Features   | Residual current circuit breaker<br>Additional equipment possible  |
| Fitted with:   | Interlocking device  |
| Special features   | Maximum operating temperature is 55 °C: Starting at 40 °C, the max. permissible continuous current decreases by 3% for every 1 °C Tripping signal contact for subsequent installation Z-NHK 248434 |

## **Technical data ETIM 9.0**

Circuit breakers and fuses (EG000020) / Residual current circuit breaker (RCCB) (EC000003)

| Electric engineering, automation, process control engineering / Electrical (ecl@ss13-27-14-22-01 [AAB906019]) | installation, device / Residual | l current protection system / Residual current circuit breaker (RCCB) |
|---|---------------------------------|---|
| Number of poles   |                                 | 4   |
| Rated voltage   | V                               | 400   |
| Rated current   | А                               | 25  |
| Rated fault current   | А                               | 0.03  |
| Rated insulation voltage Ui   | V                               | 440   |
| Rated impulse withstand voltage Uimp  | kV                              | 4   |
| Power loss  | W                               | 3.1   |
| Mounting method   |                                 | DIN rail  |
| Leakage current type  |                                 | AC  |
| Selective protection  |                                 | No  |
| Short-time delayed tripping   |                                 | No  |
| Short-circuit breaking capacity (Icw)   | kA                              | 10  |
| Surge current capacity  | kA                              | 0.25  |
| Voltage type  |                                 | AC  |
| With interlocking device  |                                 | Yes   |
| Frequency   |                                 | 50 Hz   |
| Additional equipment possible   |                                 | Yes   |
| Degree of protection (IP)   |                                 | IP20  |
| Width in number of modular spacings   |                                 | 4   |
| Built-in depth  | mm                              | 70.5  |
| Ambient temperature during operating  | °C                              | -25 - 55  |
| Pollution degree  |                                 | 2   |
| Connectable conductor cross section multi-wired   | mm²                             | <sup>2</sup> 1.5 - 16   |
| Connectable conductor cross section solid-core  | mm <sup>2</sup>                 | <sup>2</sup> 1.5 - 35   |
| RAL-number (similar)  |                                 | 7035  |
| Explosion-proof   |                                 | No  |