

## Residual current circuit-breaker; 100 A; 2-pole; 30mA; Type AC



**Part no.** **EAM1002RH**  
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|   |  |
|---|--|
| Product name                                | Eaton Moeller series xPole UK - EAM RCCB               |
| Part no.                                    | EAM1002RH  |
| EAN   | 5019586133342  |
| Product Length/Depth                        | 80 millimetre  |
| Product height                              | 71 millimetre  |
| Product width                               | 35 millimetre  |
| Product weight                              | 0.22 kilogram  |
| Compliances                                 | RoHS conform   |
| Certifications                              | IEC/EN 61008   |
| Product Tradename                           | xPole UK - EAM   |
| Product Type                                | RCCB   |
| Product Sub Type                            | None   |
| Application                                 | Switchgear for residential and commercial applications |
| Number of poles                             | Two-pole   |
| Tripping time                               | Non-delayed  |
| Amperage Rating                             | 100 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                               |
| Type  | EAM<br>Residual current circuit breakers<br>Type AC    |
| Voltage rating                              | 230 V AC   |
| Rated operational voltage (Ue) - max        | 230 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 | 1000 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  |
| Frame                                       | 45 mm  |
| Width in number of modular spacings         | 2  |
| Built-in width (number of units)            | 35 mm (2 SU)   |
| Built-in depth                              | 70.5 mm  |
| Mounting Method                             | IEC/EN 60715 top-hat rail<br>DIN rail                  |
| Degree of protection                        | IP20<br>IP40, IP54 (with moisture-proof enclosure)     |

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| Terminals (top and bottom)   |  | Box clamp   |
| 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>  |
| 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, DGVV 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  |
|  |  |   |
| Rated operational current for specified heat dissipation (In)                    |  | 100 A   |
| Heat dissipation per pole, current-dependent                                     |  | 0 W   |
| Equipment heat dissipation, current-dependent                                    |  | 13.6 W  |
| Static heat dissipation, non-current-dependent                                   |  | 0 W   |
| Heat dissipation capacity  |  | 0 W   |
| Ambient operating temperature - min  |  | -25 °C  |
| Ambient operating temperature - max  |  | 60 °C   |
|  |  |   |
| 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.                          |
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| Features   |  | Additional equipment possible<br>Residual current circuit breaker   |
| Fitted with:   |  | Interlocking device   |
| Special features   |  | Maximum operating temperature is 60 °C: Starting at 40 °C, the max. permissible continuous current decreases by 3% for every 1 °C |
| Used with  |  | Residual current circuit breakers<br>EAM<br>Type AC   |

## Technical data ETIM 8.0

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

|   |  |                 |          |
|---|--|-----------------|----------|
| Number of poles                                 |  |                 | 2        |
| Rated voltage                                   |  | V               | 230      |
| Rated current                                   |  | A               | 100      |
| Rated fault current                             |  | A               | 0.03     |
| Rated insulation voltage Ui                     |  | V               | 440      |
| Rated impulse withstand voltage Uimp            |  | kV              | 4        |
| 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             |  |                 | 2        |
| Built-in depth                                  |  | mm              | 70.5     |
| Ambient temperature during operating            |  | °C              | -25 - 60 |
| Pollution degree                                |  |                 | 2        |
| Connectable conductor cross section multi-wired |  | mm <sup>2</sup> | 1.5 - 16 |
| Connectable conductor cross section solid-core  |  | mm <sup>2</sup> | 1.5 - 35 |
| Explosion-proof                                 |  |                 | No       |