# DATASHEET - FBHMV-125/4/05-A

## Residual-current circuit breaker trip block for AZ, 125A, 4p, 500mA, type A

**Part no.** FBHMV-125/4/05-A
170134

| | |
|---|---|
| **General specifications** | |
| Product name | Eaton Moeller series xEffect - FBHmV RCCB add-on unit |
| Part no. | FBHMV-125/4/05-A |
| EAN | 4015081666355 |
| Product Length/Depth | 94.5 millimetre |
| Product height | 80 millimetre |
| Product width | 90 millimetre |
| Product weight | 0.528 kilogram |
| Compliances | RoHS conform |
| Certifications | IEC/EN 60947-2<br>IEC 61373<br>EN45545-2 |
| Product Tradename | FBHmV |
| Product Type | RCCB add-on unit |
| Product Sub Type | None |
| **Delivery program** | |
| Application | xEffect - Switchgear for industrial and advanced commercial applications<br>Switchgear for industrial and advanced commercial applications |
| Number of poles | Four-pole |
| Tripping time | Non-delayed |
| Amperage Rating | 125 A |
| Rated short-circuit strength | Same as connected AZ |
| Fault current rating | 500 mA |
| Sensitivity type | Pulse-current sensitive |
| Impulse withstand current | Partly surge-proof 250 A |
| Type | Ambient temperature hint: Starting at 40 °C, the max. permissible continuous current decreases by 3% for every 1 °C |
| **Technical Data - Electrical** | |
| Voltage rating - min | 240 V |
| Voltage rating - max | 415 V |
| Rated operational voltage (Ue) - max | 415 V |
| Rated insulation voltage (Ui) | 440 V |
| Rated impulse withstand voltage (Uimp) | 4 kV |
| Rated fault current - min | 0.5 A |
| Rated fault current - max | 0.5 A |
| Frequency rating | 50 Hz |
| Leakage current type | A |
| Rated short-time withstand current (Icw) | 10 kA<br>0 kA |
| Surge current capacity | 0.25 kA |
| Pollution degree | 2 |
| Lifespan, electrical | 1000 operations |
| **Technical Data - Mechanical** | |
| Frame | 45 mm |
| Width in number of modular spacings | 5.5 |
| Built-in width (number of units) | 95 mm (5.5 SU) |
| Built-in depth | 70 mm |
| Mounting Method | Screwed onto AZ 2-, 3-, 4-pole; Z-BHASA<br>DIN rail |
| Degree of protection | IP20 |

| | | | |
|---|---|---|---|
| | | | IP20, IP40 with suitable enclosure |
| Terminals (top and bottom) | | | Lift terminals |
| Connectable conductor cross section (solid-core) - min | | | 2.5 $mm^2$ |
| Connectable conductor cross section (solid-core) - max | | | 50 $mm^2$ |
| Connectable conductor cross section (multi-wired) - min | | | 2.5 $mm^2$ |
| Connectable conductor cross section (multi-wired) - max | | | 50 $mm^2$ |
| Terminal protection | | | Finger and hand touch safe, DGUV VS3, EN 50274 |
| Lifespan, mechanical | | | 8000 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) | | | 125 A |
| Heat dissipation per pole, current-dependent | | | 0 W |
| Equipment heat dissipation, current-dependent | | | 39.7 W |
| Heat dissipation capacity | | | 0 W |
| Ambient operating temperature - min | | | -25 °C |
| Ambient operating temperature - max | | | 40 °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. |
| 10.2.5 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. |
| 10.6 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** | | | |
| Features | | | Add-on residual current protection unit<br>Additional equipment possible |
| Fitted with: | | | Interlocking device |
| Special features | | | Type A<br>FBHmV<br>Add-on residual current protection unit |
| Used with | | | FBHmV<br>Add-on residual current protection unit<br>Type A |

## Technical data ETIM 9.0

Circuit breakers and fuses (EG000020) / Residual current circuit breaker (RCCB) module (EC002297)

Electric engineering, automation, process control engineering / Electrical installation, device / Residual current protection system / Residual current circuit breaker (RCCB) module (ecl@ss13-27-14-22-10 [ACN357016])

| | | | |
|---|---|---|---|
| Nominal voltage | | V | 240 - 415 |
| Nominal current | | A | 125 |

| | | | |
|---|---|---|---|
| Rated fault current adjustable | | | No |
| Rated fault current | | A | 0.5 - 0.5 |
| Max. delay time | | ms | 0 |
| Delay adjustable | | | No |
| Number of poles | | | 4 |
| Leakage current type | | | A |
| Surge current capacity | | kA | 0.25 |
| Frequency | | | 50 Hz |
| Rated insulation voltage Ui | | V | 440 |
| Rated impulse withstand voltage Uimp | | kV | 4 |
| Power loss | | W | |
| Connectable conductor cross section solid-core | | $mm^2$ | 2.5 - 50 |
| Connectable conductor cross section multi-wired | | $mm^2$ | 2.5 - 50 |
| Anti-nuisance tripping version | | | No |
| With interlocking device | | | Yes |
| Degree of protection (IP) | | | IP20 |
| Pollution degree | | | 2 |
| Ambient temperature during operating | | °C | -25 - 40 |


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