# Specifications




**Photo is representative**







## Eaton 187180

Eaton Moeller series xPole - AFDD+ Arc Fault Detection Device, 2 poles, B13A, 30mA, type A

| General specifications | |
|---|---|
| **PRODUCT NAME** | Eaton Moeller series xPole - AFDD+ Arc fault detection device |
| **CATALOG NUMBER** | 187180 |
| **MODEL CODE** | AFDD-13/2/B/003-A |
| **EAN** | 4015081822294 |
| **PRODUCT LENGTH/DEPTH** | 80 mm |
| **PRODUCT HEIGHT** | 73 mm |
| **PRODUCT WIDTH** | 52.5 mm |
| **PRODUCT WEIGHT** | 0.277 kg |
| **COMPLIANCES** | CE Marked<br>RoHS conform |
| **CERTIFICATIONS** | CE |

## Additional information

| | |
|---|---|
| **ADDITIONAL EQUIPMENT ATTACHED AT DELIVERY** | Fire protection switch |
| **CURRENT LIMITING CLASS** | 3 |
| **TYPES CONFORM TO** | IEC/EN 61009<br>IEC/EN 62606 |

## Delivery program

| | |
|---|---|
| **APPLICATION** | Switchgear for residential and commercial applications |
| **BASIC FUNCTION** | Arc fault circuit interrupter |
| **FAULT CURRENT RATING** | 0.03 A |
| **NUMBER OF POLES** | Two-pole |
| **NUMBER OF POLES (PROTECTED)** | 2 |
| **NUMBER OF POLES (TOTAL)** | 2 |
| **PRODUCT APPLICATION** | Switchgear for residential and commercial applications |
| **PRODUCT RANGE** | AFDD |
| **RATED CURRENT** | 13 A |
| **RATED CURRENT OF PRODUCT RANGE** | 10-40 Ampere |
| **RELEASE CHARACTERISTIC** | B |
| **SENSITIVITY TYPE** | Type A<br>Pulse-current sensitive |
| **TRIPPING CHARACTERISTIC** | B |
| **TYPE** | AFDD+ |

## Design verification as per IEC/EN 61439

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|---|---|
| **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. |
| **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. |

## Design verification as per IEC/EN 61439 - technical data

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|---|---|
| **AMBIENT OPERATING TEMPERATURE - MAX** | 40 °C |
| **AMBIENT OPERATING TEMPERATURE - MIN** | -25 °C |
| **EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT** | 6 W |
| **RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)** | 13 A |

| | |
|---|---|
| **10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH** | Is the panel builder's responsibility. |
| **10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL** | Is the panel builder's responsibility. |

## Technical data - electrical

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|---|---|
| **CONTROL VOLTAGE TYPE AUXILIARY EQUIPMENT** | AC |
| **CURRENT TEST MARKS** | As per inscription |
| **FREQUENCY RATING** | 50 Hz |
| **IMPULSE WITHSTAND CURRENT** | Partly surge-proof, 250 A |
| **LEAKAGE CURRENT TYPE** | A |
| **LIFESPAN, ELECTRICAL** | 4000 operations |
| **POLLUTION DEGREE** | 2 |
| **RATED IMPULSE WITHSTAND VOLTAGE (UIMP)** | 4 |
| **RATED SHORT-CIRCUIT BREAKING CAPACITY** | 10 Kilo Ampere |
| **RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 61009-1)** | 10 kA |
| **RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 61009)** | 10 kA |
| **RATED SWITCHING CAPACITY (IEC/EN 61009)** | 10 kA |
| **RATED VOLTAGE AUXILIARY DEVICE** | 230 V |
| **TEST CIRCUIT AC** | 170 - 264 Voltage AC |
| **TRIPPING** | Non-delayed |
| **VOLTAGE RATING** | 230 V |
| **FREQUENCY** | 50 Hz |

## Technical data - mechanical

| | |
|---|---|
| **BUILT-IN DEPTH** | 67 mm |
| **BUILT-IN WIDTH** | 54 mm |
| **CLIMATIC PROOFING** | IEC/EN 61009 |
| **CONTACT POSITION INDICATOR** | red / green |
| **DEGREE OF PROTECTION** | IP20 |
| **DEGREE OF PROTECTION (BUILT IN)** | IP40 |
| **DEVICE HEIGHT** | 80 mm |
| **FRAME** | 45 mm |
| **LIFESPAN, MECHANICAL** | 20000 operations |
| **MOUNTING STYLE** | Tri-stable slide catch - enables removal from existing busbar combination |
| **PERMISSIBLE STORAGE AND TRANS TEMP. MAX** | 60 °C |
| **TERMINAL PROTECTION** | Busbar tag shroud as per VBG4, ÖVE-EN 6 |
| **TERMINALS (TOP AND BOTTOM)** | Twin-purpose |
| **THICKNESS OF BUSBAR MATERIAL** | 0.8 - 2 Square Millimeter |
| **WIDTH IN NUMBER OF MODULAR SPACINGS** | 3 |
| **PERMISSIBLE STORAGE AND TRANS TEMP. MIN** | -35 °C |

## Resources

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|---|---|
| **DECLARATIONS OF CONFORMITY** | eaton-arc-fault-device-declaration-of-conformity-eu260213en.pdf<br><br>eaton-arc-fault-detection-device-declaration-of-conformity-uk251445en.pdf |
| **ECAD MODEL** | ETN.AFDD-13_2_B_003-A |
| **INSTALLATION INSTRUCTIONS** | eaton-afdd-instruction-leaflet-il019125zu-150501491-en-us.pdf<br><br>IL019126ZU |
| **INSTALLATION VIDEOS** | Arc Fault Detection Device - AFDD+ |
| **MCAD MODEL** | eaton-afdd-in-combination-with-rcbos-mcad-drawings-afdd.dwg<br><br>eaton-afdd-in-combination-with-rcbos-3d-models-afdd.stp |
| **TECHNICAL DATA SHEETS** | eaton-afdd-catalog-tech-en-us.pdf |

| | |
|---|---|
| **PROJECT NAME:** | |
| **PROJECT NUMBER:** | |
| **PREPARED BY:** | |
| **DATE:** | |

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