

# Specifications



Photo is representative



## Eaton 211791

Eaton Moeller series xEffect - AZ MCB.  
Miniature circuit breaker (MCB) AZ, 3 pole,  
Tripping characteristic: C, Rated current In:  
50 A

### General specifications

|                         |                                          |
|-------------------------|------------------------------------------|
| PRODUCT NAME            | Eaton Moeller series<br>xEffect - AZ MCB |
| CATALOG NUMBER          | 211791                                   |
| MODEL CODE              | AZ-3-C50                                 |
| EAN                     | 4015082117917                            |
| PRODUCT<br>LENGTH/DEPTH | 90 mm                                    |
| PRODUCT HEIGHT          | 75 mm                                    |
| PRODUCT WIDTH           | 81 mm                                    |
| PRODUCT WEIGHT          | 0.678 kg                                 |
| COMPLIANCES             | RoHS conform                             |
| CERTIFICATIONS          | IEC/EN 60947-2<br>EN45545-2<br>IEC 61373 |
| GLOBAL CATALOG          | 211791                                   |
| PRODUCT TYPE            | MCB                                      |

## Product specifications

|                                                                                         |                                                                                                                                  |
|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>USED WITH</b>                                                                        | Miniature circuit breaker AZ                                                                                                     |
| <b>AMPERAGE RATING</b>                                                                  | 50 A                                                                                                                             |
| <b>VOLTAGE RATING</b>                                                                   | 230 V AC / 400 V AC                                                                                                              |
| <b>FEATURES</b>                                                                         | Additional equipment possible                                                                                                    |
| <b>10.10 TEMPERATURE RISE</b>                                                           | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| <b>10.11 SHORT-CIRCUIT RATING</b>                                                       | Is the panel builder's responsibility. The specifications for the switchgear must be observed.                                   |
| <b>10.12 ELECTROMAGNETIC COMPATIBILITY</b>                                              | Is the panel builder's responsibility. The specifications for the switchgear must be observed.                                   |
| <b>10.13 MECHANICAL FUNCTION</b>                                                        | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.                         |
| <b>10.2.2 CORROSION RESISTANCE</b>                                                      | Meets the product standard's requirements.                                                                                       |
| <b>10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES</b>                         | Meets the product standard's requirements.                                                                                       |
| <b>10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT</b>       | Meets the product standard's requirements.                                                                                       |
| <b>10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS</b> | Meets the product standard's requirements.                                                                                       |
| <b>10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION</b>                                 | Meets the product standard's requirements.                                                                                       |
| <b>10.2.5 LIFTING</b>                                                                   | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| <b>10.2.6 MECHANICAL IMPACT</b>                                                         | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| <b>10.2.7 INSCRIPTIONS</b>                                                              | Meets the product standard's requirements.                                                                                       |

## Resources

|                               |                                                                                                                                                                                                                        |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| APPLICATION NOTES             | <a href="#">eaton-maximum-cable-lengths-for-eatons-protective-devices-brochure-br034006en-en-us.pdf</a><br><br><a href="#">eaton-quality-standards-for-railway-applications-application-paper-ap003005en-en-us.pdf</a> |
| BROCHURES                     | <a href="#">eaton-pdd-railrolling-stock-brochure-br011002en-en-us.pdf</a>                                                                                                                                              |
| DECLARATIONS OF CONFORMITY    | <a href="#">eaton-mcb-declaration-of-conformity-eu250431en.pdf</a>                                                                                                                                                     |
| DRAWINGS                      | <a href="#">eaton-az-mcb-dimensions.jpg</a>                                                                                                                                                                            |
| ECAD MODEL                    | <a href="#">ETN.AZ-3-C50</a>                                                                                                                                                                                           |
| INSTALLATION INSTRUCTIONS     | <a href="#">IL019148ZU</a><br><br><a href="#">DA-CS-az_3p</a>                                                                                                                                                          |
| MCAD MODEL                    | <a href="#">eaton-non-selective-mcb-mcad-drawings-az-3p.dwg</a><br><br><a href="#">eaton-non-selective-universal-mcb-mcad-3d-models-az-plht-3p.stp</a>                                                                 |
| PEP ECO-PASSPORT              | <a href="#">eaton-non-selective-universal-mcb-pep-eato-00259-v0101-en.pdf</a>                                                                                                                                          |
| SPECIFICATIONS AND DATASHEETS | <a href="#">Eaton Specification Sheet - 211791</a>                                                                                                                                                                     |

|                                                                 |                                                                    |
|-----------------------------------------------------------------|--------------------------------------------------------------------|
| <b>10.3 DEGREE OF PROTECTION OF ASSEMBLIES</b>                  | Does not apply, since the entire switchgear needs to be evaluated. |
| <b>10.4 CLEARANCES AND CREEPAGE DISTANCES</b>                   | Meets the product standard's requirements.                         |
| <b>10.5 PROTECTION AGAINST ELECTRIC SHOCK</b>                   | Does not apply, since the entire switchgear needs to be evaluated. |
| <b>10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS</b>   | Does not apply, since the entire switchgear needs to be evaluated. |
| <b>10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS</b>        | Is the panel builder's responsibility.                             |
| <b>10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS</b>                 | Is the panel builder's responsibility.                             |
| <b>10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH</b>                 | Is the panel builder's responsibility.                             |
| <b>10.9.3 IMPULSE WITHSTAND VOLTAGE</b>                         | Is the panel builder's responsibility.                             |
| <b>10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL</b> | Is the panel builder's responsibility.                             |
| <b>FRAME</b>                                                    | 45 mm                                                              |
| <b>POLLUTION DEGREE</b>                                         | 2                                                                  |
| <b>MOUNTING METHOD</b>                                          | Top-hat rail IEC/EN 60715                                          |
| <b>DEGREE OF PROTECTION</b>                                     | IP40 (when fitted)<br>IP20                                         |
| <b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT</b>            | 15.4 W<br>15.3 W                                                   |
| <b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>                   | 4 kV                                                               |
| <b>ADMISSIBLE BACK-UP FUSE - MAX</b>                            | 200 A gL/gG                                                        |
| <b>TERMINAL PROTECTION</b>                                      | Finger and hand touch safe, DGUV VS3, EN 50274                     |
| <b>TERMINALS (TOP AND BOTTOM)</b>                               | Lift terminals                                                     |
| <b>TRIPPING CHARACTERISTIC</b>                                  | C                                                                  |
| <b>AMBIENT OPERATING TEMPERATURE - MAX</b>                      | 55 °C                                                              |
| <b>AMBIENT OPERATING TEMPERATURE - MIN</b>                      | -25 °C                                                             |
| <b>BUILT-IN DEPTH</b>                                           | 75 mm                                                              |
| <b>CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED)</b>        | 50 mm <sup>2</sup>                                                 |

|                                                                |                                                                                                           |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| <b>- MAX</b>                                                   |                                                                                                           |
| <b>CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MIN</b> | 2.5 mm <sup>2</sup>                                                                                       |
| <b>CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MAX</b>  | 50 mm <sup>2</sup>                                                                                        |
| <b>CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MIN</b>  | 2.5 mm <sup>2</sup>                                                                                       |
| <b>CURRENT LIMITING CLASS</b>                                  | 3                                                                                                         |
| <b>ENCLOSURE WIDTH</b>                                         | 90 mm                                                                                                     |
| <b>FREQUENCY RATING - MAX</b>                                  | 60 Hz                                                                                                     |
| <b>FREQUENCY RATING - MIN</b>                                  | 50 Hz                                                                                                     |
| <b>HEAT DISSIPATION CAPACITY</b>                               | 0 W                                                                                                       |
| <b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT</b>            | 5.1 W                                                                                                     |
| <b>DIRECTION OF INCOMING SUPPLY</b>                            | As required                                                                                               |
| <b>WIDTH IN NUMBER OF MODULAR SPACINGS</b>                     | 4.5                                                                                                       |
| <b>VOLTAGE RATING AT DC</b>                                    | 60 V DC (per pole)                                                                                        |
| <b>VOLTAGE TYPE</b>                                            | AC                                                                                                        |
| <b>OVERVOLTAGE CATEGORY</b>                                    | III                                                                                                       |
| <b>NUMBER OF POLES</b>                                         | Three-pole                                                                                                |
| <b>LIFESPAN, ELECTRICAL</b>                                    | 10000 operations                                                                                          |
| <b>RELEASE CHARACTERISTIC</b>                                  | C                                                                                                         |
| <b>TYPE</b>                                                    | <ul style="list-style-type: none"> <li>• AZ</li> <li>• Miniature circuit breaker</li> </ul>               |
| <b>SPECIAL FEATURES</b>                                        | Ambient temperature hint: a 1 °C increase results in a 0.5% linear reduction of current carrying capacity |
| <b>APPLICATION</b>                                             | <ul style="list-style-type: none"> <li>• Switchgear for industrial and advanced commercial</li> </ul>     |

- applications
- xEffect - Switchgear for industrial and advanced commercial applications

|                                                                          |                                          |
|--------------------------------------------------------------------------|------------------------------------------|
| <b>MOUNTING WIDTH</b>                                                    | 27 mm                                    |
| <b>SELECTIVITY CLASS</b>                                                 | 3                                        |
| <b>MOUNTING WIDTH PER POLE</b>                                           | 27 mm                                    |
| <b>NUMBER OF POLES (PROTECTED)</b>                                       | 3                                        |
| <b>NUMBER OF POLES (TOTAL)</b>                                           | 3                                        |
| <b>OPERATIONAL SWITCHING CAPACITY</b>                                    | 20 kA                                    |
| <b>RATED INSULATION VOLTAGE (UI)</b>                                     | 440 V                                    |
| <b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b>     | 50 A                                     |
| <b>RATED OPERATIONAL VOLTAGE (UE) - MAX</b>                              | 400 V                                    |
| <b>RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC 60947-2)- ICU AT 230 V</b> | 25 kA                                    |
| <b>RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC 60947-2)- ICU AT 400 V</b> | 25 kA                                    |
| <b>RATED SWITCHING CAPACITY (IEC/EN 60947-2)</b>                         | 25 kA                                    |
| <b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT</b>                    | 0 W                                      |
| <b>TERMINAL CAPACITY (CONTROL CABLE)</b>                                 | 2.5 mm <sup>2</sup> - 50 mm <sup>2</sup> |

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



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