

## Miniature circuit breaker (MCB), 100A, 1p, type B characteristic



Part no. **AZ-B100**  
**174487**

| General specifications  |  |
|---|--|
| Product name  | Eaton Moeller series xEffect - AZ MCB  |
| Part no.  | AZ-B100  |
| EAN   | 4015081709434  |
| Product Length/Depth  | 75 millimetre  |
| Product height  | 90 millimetre  |
| Product width   | 27 millimetre  |
| Product weight  | 0.23 kilogram  |
| Compliances   | RoHS conform   |
| Certifications  | EN45545-2<br>IEC 61373   |
| Product Tradename   | xEffect - AZ MCB   |
| Product Type  | MCB  |
| Product Sub Type  | None   |
| Delivery program  |  |
| Application   | Switchgear for industrial and advanced commercial applications<br>xEffect - Switchgear for industrial and advanced commercial applications |
| Number of poles   | Single-pole  |
| Number of poles (total)                                       | 1  |
| Number of poles (protected)                                   | 1  |
| Tripping characteristic                                       | B  |
| Release characteristic  | B  |
| Amperage Rating   | 10 A   |
| Type  | AZ<br>Miniature circuit breaker  |
| Technical Data - Electrical                                   |  |
| Voltage type  | AC<br>AC/DC  |
| Rated operational voltage (Ue) - max                          | 400 V  |
| Rated insulation voltage (Ui)                                 | 440 V  |
| Rated impulse withstand voltage (Uimp)                        | 4 kV   |
| Frequency rating - min  | 50 Hz  |
| Frequency rating - max  | 60 Hz  |
| Rated switching capacity (IEC/EN 60947-2)                     | 20 kA  |
| Rated short-circuit breaking capacity (EN 60898) at 230 V     | 6 kA   |
| Rated short-circuit breaking capacity (EN 60898) at 400 V     | 6 kA   |
| Rated short-circuit breaking capacity (IEC 60947-2) at 230 V  | 0 kA   |
| Rated short-circuit breaking capacity (IEC 60947-2) at 400 V  | 0 kA   |
| Oversupply category   | III  |
| Pollution degree  | 2  |
| Technical Data - Mechanical                                   |  |
| Width in number of modular spacings                           | 1  |
| Built-in depth  | 75 mm  |
| Degree of protection  | IP20   |
| Connectable conductor cross section (solid-core) - min        | 2.5 mm <sup>2</sup>  |
| Connectable conductor cross section (solid-core) - max        | 50 mm <sup>2</sup>   |
| Connectable conductor cross section (multi-wired) - min       | 2.5 mm <sup>2</sup>  |
| Connectable conductor cross section (multi-wired) - max       | 50 mm <sup>2</sup>   |
| Design verification as per IEC/EN 61439 - technical data      |  |
| Rated operational current for specified heat dissipation (In) | 100 A  |

|  |  |
|--|--|
| Heat dissipation per pole, current-dependent                                     | 0 W  |
| Equipment heat dissipation, current-dependent                                    | 9.1 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  |
| <b>Design verification as per IEC/EN 61439</b>                                   |  |
| 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.                         |
| <b>Additional information</b>  |  |
| Current limiting class   | 3  |
| Features   | Additional equipment possible  |
| Special features   | Ambient temperature hint: a 1 °C increase results in a 0.5% linear reduction of current carrying capacity                        |
| Used with  | AZ<br>Miniature circuit breaker  |

## Technical data ETIM 8.0

|   |            |
|---|------------|
| Circuit breakers and fuses (EG000020) / Miniature circuit breaker (MCB) (EC000042)  |            |
| Electric engineering, automation, process control engineering / Electrical installation, device / Miniature circuit breaker system (MCB) / Miniature circuit breaker (MCB) (ecl@ss10.0.1-27-14-19-01 [AAB905014]) |            |
| Built-in depth  | mm 75      |
| Release characteristic  | B          |
| Number of poles (total)   | 1          |
| Number of protected poles   | 1          |
| Rated current   | A 10       |
| Rated voltage   | V 400      |
| Rated insulation voltage Ui   | V 440      |
| Rated impulse withstand voltage Uimp  | kV 4       |
| Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V  | kA 6       |
| Voltage type  | AC         |
| Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V  | kA 6       |
| Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V   | kA 0       |
| Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V   | kA 0       |
| Frequency   | Hz 50 - 60 |

|   |                 |          |
|---|-----------------|----------|
| Current limiting class                          |                 | 3        |
| Flush-mounted installation                      |                 | No       |
| Concurrently switching neutral conductor        |                 | No       |
| Over voltage category                           |                 | 3        |
| Pollution degree                                |                 | 2        |
| Additional equipment possible                   |                 | Yes      |
| Width in number of modular spacings             |                 | 1        |
| Degree of protection (IP)                       |                 | IP20     |
| Ambient temperature during operating            | °C              | -25 - 55 |
| Connectable conductor cross section multi-wired | mm <sup>2</sup> | 2.5 - 50 |
| Connectable conductor cross section solid-core  | mm <sup>2</sup> | 2.5 - 50 |
| Explosion-proof                                 |                 | No       |