

## Miniature circuit breaker (MCB), 13 A, 2p, characteristic: C

Part no. **FAZ-C13/2**  
**278758**  
 EL Number **1695167**  
 (Norway)

| General specifications  |  |  |
|---|--|--|
| Product name  |  | Eaton Moeller series xEffect - FAZ MCB   |
| Part no.  |  | FAZ-C13/2  |
| EAN   |  | 4015082787585  |
| Product Length/Depth  |  | 80 millimetre  |
| Product height  |  | 75.5 millimetre  |
| Product width   |  | 36 millimetre  |
| Product weight  |  | 0.222 kilogram   |
| Compliances   |  | UL CSA09 (with supplementary protector only)<br>RoHS conform   |
| Certifications  |  | UL (File No. E177451)<br>CSA-C22.2 No. 235<br>IEC/EN 60947-2<br>UL 1077<br>UL (Category Control Number QVNU2, QVNU8)<br>IEC/EN 60898<br>CSA (Class No. 3215-30)<br>CE marking<br>North America (UL recognized, CSA certified)<br>CSA (File No. 204453)<br>IEC 61373<br>EN45545-2 |
| Product Tradename   |  | xEffect - FAZ  |
| Product Type  |  | MCB  |
| Product Sub Type  |  | None   |
| Delivery program  |  |  |
| Application   |  | Branch circuits, not as BCPD<br>Switchgear for industrial and advanced commercial applications<br>xEffect - Switchgear for industrial and advanced commercial applications   |
| Number of poles   |  | Two-pole   |
| Number of poles (total)   |  | 2  |
| Number of poles (protected)                                     |  | 2  |
| Tripping characteristic   |  | C  |
| Release characteristic  |  | C  |
| Amperage Rating   |  | 13 A   |
| Type  |  | FAZ<br>Miniature circuit breaker   |
| Technical Data - Electrical                                     |  |  |
| Voltage type  |  | AC   |
| Voltage rating  |  | 240 V AC / 415 V AC  |
| Voltage rating at DC  |  | 60 V DC (per pole)   |
| Voltage rating (IEC/EN 60898-1)                                 |  | 415 V AC   |
| Voltage rating (UL)   |  | 480Y/277 V   |
| Voltage rating (UL CSA 13)                                      |  | 480 Y/277 V AC; 96 V DC  |
| Rated operational voltage (Ue) - max                            |  | 400 V  |
| Operational voltage (IEC/EN 60947-2) - max                      |  | 440 V AC   |
| 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) at max voltage rating |  | 10 kA  |
| Rated switching capacity (IEC/EN 60947-2)                       |  | 15 kA  |
| Rated switching capacity (IEC/EN 60898-1)                       |  | 10 kA  |
| Operational switching capacity                                  |  | 7.5 kA   |

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| Breaking capacity  |  | 10 kA (UL1077)   |
| Rated service short-circuit breaking capacity (IEC/EN 60898-1)                   |  | 7.5 kA   |
| Rated service short-circuit breaking capacity (IEC/EN 60947-2)                   |  | 7.5 kA   |
| Rated short-circuit breaking capacity (EN 60898) at 230 V                        |  | 10 kA  |
| Rated short-circuit breaking capacity (EN 60898) at 400 V                        |  | 10 kA  |
| Rated short-circuit breaking capacity (IEC 60947-2) at 230 V                     |  | 15 kA  |
| Rated short-circuit breaking capacity (IEC 60947-2) at 400 V                     |  | 15 kA  |
| Admissible back-up fuse - max  |  | 125 A gL/gG  |
| Selectivity class  |  | 3  |
| Lifespan, electrical   |  | 10000 operations   |
| Overvoltage category   |  | III  |
| Pollution degree   |  | 2  |
| Direction of incoming supply   |  | As required  |
| <b>Technical Data - Mechanical</b>   |  |  |
| Frame  |  | 45 mm  |
| Enclosure width  |  | 80 mm  |
| Width in number of modular spacings  |  | 2  |
| Built-in depth   |  | 70.5 mm  |
| Mounting width per pole  |  | 17.5 mm  |
| Mounting width   |  | 17.5 mm  |
| Mounting Method  |  | Top-hat rail IEC/EN 60715  |
| Mounting position  |  | As required  |
| Degree of protection   |  | IP40 (when fitted)<br>IP20 (IEC)<br>UL/CSA Type: -<br>IP20         |
| Terminals (top and bottom)   |  | Twin-purpose terminals   |
| Connectable conductor cross section (solid-core) - min                           |  | 1 mm <sup>2</sup>  |
| Connectable conductor cross section (solid-core) - max                           |  | 25 mm <sup>2</sup>   |
| Connectable conductor cross section (multi-wired) - min                          |  | 1 mm <sup>2</sup>  |
| Connectable conductor cross section (multi-wired) - max                          |  | 25 mm <sup>2</sup>   |
| Terminal capacity of screw terminals for main cable                              |  | 10 mm <sup>2</sup> (2x)  |
| Terminal capacity (control cable)  |  | 25 mm <sup>2</sup> (1x)  |
| Terminal protection  |  | Finger and hand touch safe, DGUV VS3, EN 50274                     |
| Busbar material thickness  |  | 0.8 mm - 2 mm  |
| <b>Design verification as per IEC/EN 61439 - technical data</b>                  |  |  |
| Rated operational current for specified heat dissipation (I <sub>n</sub> )       |  | 13 A   |
| Heat dissipation per pole, current-dependent                                     |  | 0 W  |
| Equipment heat dissipation, current-dependent                                    |  | 5.3 W  |
| Static heat dissipation, non-current-dependent                                   |  | 0 W  |
| Heat dissipation capacity  |  | 0 W  |
| Ambient operating temperature - min  |  | -25 °C   |
| Ambient operating temperature - max  |  | 75 °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. |

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| 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  |  | Miniature circuit breaker<br>FAZ   |

## Technical data ETIM 9.0

|   |                 |          |
|---|-----------------|----------|
| 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@ss13-27-14-19-01 [AAB905019]) |                 |          |
| Built-in depth  | mm              | 70.5     |
| Release characteristic  |                 | C        |
| Number of poles (total)   |                 | 2        |
| Number of protected poles   |                 | 2        |
| Rated current   | A               | 13       |
| Rated voltage   | V               | 400      |
| Rated insulation voltage $U_i$  | V               | 440      |
| Rated impulse withstand voltage $U_{imp}$   | kV              | 4        |
| Rated short-circuit breaking capacity $I_{cn}$ according to EN 60898 at 230 V   | kA              | 10       |
| Voltage type  |                 | AC       |
| Rated short-circuit breaking capacity $I_{cn}$ according to EN 60898 at 400 V   | kA              | 10       |
| Rated short-circuit breaking capacity $I_{cu}$ according to IEC 60947-2 at 230 V  | kA              | 15       |
| Rated short-circuit breaking capacity $I_{cu}$ according to IEC 60947-2 at 400 V  | kA              | 15       |
| Frequency   | Hz              | 50 - 60  |
| Power loss  | W               | 5.2      |
| 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   |                 | 2        |
| Degree of protection (IP)   |                 | IP20     |
| Ambient temperature during operating  | °C              | -25 - 75 |
| Connectable conductor cross section multi-wired   | mm <sup>2</sup> | 1 - 25   |
| Connectable conductor cross section solid-core  | mm <sup>2</sup> | 1 - 25   |
| Explosion-proof   |                 | No       |