

Miniature circuit breaker (MCB), 16 A, 1p, characteristic: C



**Part no.** FAZ-C16/1  
**Catalog No.** 278561  
**Alternate Catalog No.** FAZ-C16/1  
**EL-Nummer (Norway)** 1695154

Similar to illustration

**Delivery program**

|   |          |    |  |
|---|----------|----|--|
| Basic function                                  |          |    | Miniature circuit-breakers                                     |
| Number of poles                                 |          |    | 1 pole   |
| Tripping characteristic                         |          |    | C  |
| Application                                     |          |    | Switchgear for industrial and advanced commercial applications |
| Rated current                                   | $I_n$    | A  | 16   |
| Rated switching capacity acc. to IEC/EN 60947-2 | $I_{cu}$ | kA | 15   |
| Product range                                   |          |    | FAZ  |

**Technical data**

**Electrical**

|   |            |         |                                |
|---|------------|---------|--------------------------------|
| Standards   |            |         | IEC/EN 60947-2<br>IEC/EN 60898 |
| Rated operational voltage   | $U_e$      | V       |                                |
|   | $U_e$      | V AC    | 240/415                        |
|   |            | V DC    | 60 (per pole)                  |
| Rated voltage according to UL   | $U_n$      | V AC    | 277                            |
| Rated insulation voltage  | $U_i$      | V       | 440                            |
| Rated switching capacity acc. to IEC/EN 60947-2   | $I_{cu}$   | kA      | 15                             |
| Breaking capacity according to UL   |            | kA      | 10 (UL1077)                    |
| Max operational voltage according to IEC/EN 60947-2   |            | V AC    | 254                            |
| Rated switching capacity according to IEC/EN 60947-2 (max operational voltage)                      | $I_{cu}$   | kA      | 15                             |
| Rated service short-circuit breaking capacity according to IEC/EN 60947-2 (max operational voltage) | $I_{cs}$   |         | 7,5 kA                         |
| Rated voltage according to IEC/EN 60898-1   | $U_n$      | V AC    | 240                            |
| Rated switching capacity according to IEC/EN 60898-1  | $I_{cn}$   | kA      | 10                             |
| Rated service short-circuit breaking capacity according to IEC/EN 60898-1                           | $I_{cs}$   |         | 7,5 kA                         |
| Operational switching capacity  |            | kA      | 7.5                            |
| Characteristic  |            |         | B, C, D, K, S, Z               |
| Max. back-up fuse   |            | A gL/gG | 125                            |
| Selectivity Class   |            |         | 3                              |
| lifespan  |            |         |                                |
| Electrical  | Operations |         | ≥ 4000                         |
| Mechanical  | Operations |         | ≥ 10000                        |
| Lifespan  | Operations |         | > 10000                        |
| Direction of incoming supply  |            |         | as required                    |

**Mechanical**

|                          |  |    |   |
|--------------------------|--|----|---|
| Standard front dimension |  | mm | 45                                      |
| Enclosure height         |  | mm | 80                                      |
| Mounting width per pole  |  | mm | 17.5                                    |
| Mounting                 |  |    | IEC/EN 60715 top-hat rail               |
| Degree of Protection     |  |    | IP20, IP40 (when fitted)                |
| Terminals top and bottom |  |    | Twin-purpose terminals                  |
| Terminal protection      |  |    | Finger and back-of-hand proof to BGV A2 |

|                                    |                 |   |
|------------------------------------|-----------------|---|
| Terminal capacities                | mm <sup>2</sup> |   |
|                                    | mm <sup>2</sup> | 1 x 25  |
|                                    | mm <sup>2</sup> | 2 x 10  |
| Tightening torque of fixing screws | N/m             | max. 2.4<br>UL:<br>#18-12 AWG: 2.4 Nm (21 lb-in)<br>#10-8 AWG: 2.8 Nm (25 lb-in)<br>#6 AWG: 4 Nm (36 lb-in) |
| Thickness of busbar material       | mm              | 0.8 ... 2   |
| Mounting position                  |                 | As required   |
| Contact position indicator         |                 | red / green   |

## Design verification as per IEC/EN 61439

|  |                   |    |  |
|--|-------------------|----|--|
| Technical data for design verification   |                   |    |  |
| Rated operational current for specified heat dissipation   | I <sub>n</sub>    | A  | 16   |
| Heat dissipation per pole, current-dependent   | P <sub>vid</sub>  | W  | 0  |
| Equipment heat dissipation, current-dependent  | P <sub>vid</sub>  | W  | 2.2  |
| Static heat dissipation, non-current-dependent   | P <sub>vs</sub>   | W  | 0  |
| Heat dissipation capacity  | P <sub>diss</sub> | W  | 0  |
| Operating ambient temperature min.   |                   | °C | -40  |
| Operating ambient temperature max.   |                   | °C | 75   |
|  |                   |    | linear, per +1 °C, results in a 0.5% reduction of current carrying capacity  |
| IEC/EN 61439 design verification   |                   |    |  |
| 10.2 Strength of materials and parts   |                   |    |  |
| 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 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric 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 Insulation properties   |                   |    |  |
| 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.                         |

## 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 | 70.5 |
| Release characteristic  |    | C    |

|   |                 |          |
|---|-----------------|----------|
| Number of poles (total)   |                 | 1        |
| Number of protected poles   |                 | 1        |
| Rated current   | A               | 16       |
| Rated voltage   | V               | 230      |
| 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              | 10       |
| Voltage type  |                 | AC       |
| Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V    | kA              | 10       |
| Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V | kA              | 15       |
| Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V | kA              | 15       |
| 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 - 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       |