



**Miniature circuit breaker (MCB), 16 A, 3p, characteristic: B**

**Part no.** FAZ-B16/3  
**Catalog No.** 278847  
**Alternate Catalog No.** FAZ-B16/3  
**EL-Nummer (Norway)** 0001695123

Similar to illustration

**Delivery program**

|   |          |    |  |
|---|----------|----|--|
| Basic function                                  |          |    | Miniature circuit-breakers                                     |
| Number of poles                                 |          |    | 3 pole   |
| Tripping characteristic                         |          |    | B  |
| 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    | 480Y/277                       |
| 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    | 440                            |
| Rated switching capacity according to IEC/EN 60947-2 (max operational voltage)                      | $I_{cu}$   | kA      | 10                             |
| 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    | 415                            |
| 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  |            |         |                                |
| 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                                  |

|                              |  |    |             |
|------------------------------|--|----|-------------|
| Thickness of busbar material |  | mm | 0.8 ... 2   |
| Mounting position            |  |    | As required |

## Design verification as per IEC/EN 61439

| Technical data for design verification   |            |    |  |
|--|------------|----|--|
| Rated operational current for specified heat dissipation   | $I_n$      | A  | 16   |
| Heat dissipation per pole, current-dependent   | $P_{vid}$  | W  | 0  |
| Equipment heat dissipation, current-dependent  | $P_{vid}$  | W  | 6.9  |
| Static heat dissipation, non-current-dependent   | $P_{vs}$   | W  | 0  |
| Heat dissipation capacity  | $P_{diss}$ | 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 7.0

| 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]) |  |    |     |
| Release characteristic  |  |    | B   |
| Number of poles (total)   |  |    | 3   |
| Number of protected poles   |  |    | 3   |
| Rated current   |  | A  | 16  |
| Rated voltage   |  | V  | 400 |
| Rated insulation voltage $U_i$  |  | V  | 440 |
| Rated impulse withstand voltage $U_{imp}$   |  | kV | 4   |
| Rated short-circuit breaking capacity $I_{cn}$ EN 60898 at 230 V  |  | kA | 10  |
| Rated short-circuit breaking capacity $I_{cn}$ EN 60898 at 400 V  |  | kA | 10  |
| Rated short-circuit breaking capacity $I_{cu}$ IEC 60947-2 at 230 V   |  | kA | 15  |

|  |                 |          |
|--|-----------------|----------|
| Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V | kA              | 15       |
| Voltage type   |                 | AC       |
| Frequency  | Hz              | 50 - 60  |
| Current limiting class   |                 | 3        |
| Suitable for flush-mounted installation                        |                 | No       |
| Concurrently switching N-neutral                               |                 | No       |
| Over voltage category  |                 | 3        |
| Pollution degree   |                 | 2        |
| Additional equipment possible                                  |                 | Yes      |
| Width in number of modular spacings                            |                 | 3        |
| Built-in depth   | mm              | 70.5     |
| 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   |

## Approvals

|                                  |  |   |
|----------------------------------|--|---|
| Product Standards                |  | IEC/EN 60947-2; IEC/EN 60898; EN 45545-2; IEC 61373; UL 1077; CSA-C22.2 No. 235; CE marking |
| UL File No.                      |  | E177451   |
| UL Category Control No.          |  | QVNU2, QVNU8  |
| CSA File No.                     |  | 204453  |
| CSA Class No.                    |  | 3215-30   |
| North America Certification      |  | UL recognized, CSA certified  |
| Conditions of Acceptability      |  | Supplementary Protector only  |
| Suitable for                     |  | Branch Circuits; not as BCPD  |
| Current Limiting Circuit-Breaker |  | No  |
| Max. Voltage Rating              |  | 480Y/277 VAC  |
| Degree of Protection             |  | IEC: IP20; UL/CSA Type: -   |

# Characteristics



Let-through energy  $i^2t$   
According to IEC/EN 60898









Tripping characteristic at 30 °C:  
 B, C, D to IEC/EN 60898



## Dimensions

