



## Miniature circuit breaker (MCB), 10A, 3Np, B-Char, AC

**Part no.** FAZ-B10/3N  
**Catalog No.** 278945  
**Eaton Catalog No.** FAZ-B10/3N  
**EL-Nummer (Norway)** 1691051

Similar to illustration

### Delivery program

|   |       |    |  |
|---|-------|----|--|
| Basic function                                  |       |    | Miniature circuit-breakers                                     |
| Number of poles                                 |       |    | 3 pole+N   |
| Tripping characteristic                         |       |    | B  |
| Application                                     |       |    | Switchgear for industrial and advanced commercial applications |
| Rated current                                   | $I_n$ | A  | 10   |
| Rated switching capacity acc. to IEC/EN 60947-2 |       | 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 switching capacity acc. to IEC/EN 60947-2 |            | kA      | 15                             |
| 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  | Operations |         | > 10000                        |
| Direction of incoming supply                    |            |         | as required                    |

#### Mechanical

|                              |  |                 |   |
|------------------------------|--|-----------------|---|
| Standard front dimension     |  | mm              | 45                                      |
| Enclosure height             |  | mm              | 80                                      |
| Terminal protection          |  |                 | Finger and back-of-hand proof to BGV A2 |
| 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 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  | 10  |
| Heat dissipation per pole, current-dependent             | $P_{vid}$  | W  | 0   |
| Equipment heat dissipation, current-dependent            | $P_{vid}$  | W  | 6.1 |
| Static heat dissipation, non-current-dependent           | $P_{vs}$   | W  | 0   |
| Heat dissipation capacity                                | $P_{diss}$ | W  | 0   |
| Operating ambient temperature max.                       |            | °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 6.0

|  |    |  |         |
|--|----|--|---------|
| 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) (ecI@ss8.1-27-14-19-01 [AAB905011]) |    |  |         |
| Release characteristic   |    |  | B       |
| Number of poles (total)  |    |  | 4       |
| Number of protected poles  |    |  | 4       |
| Nominal rated current  | A  |  | 10      |
| Nominal rated voltage  | V  |  | 400     |
| Rated short-circuit breaking capacity I <sub>cn</sub> EN 60898 at 230 V  | kA |  | 10      |
| Rated short-circuit breaking capacity I <sub>cn</sub> EN 60898 at 400 V  | kA |  | 10      |
| Rated short-circuit breaking capacity I <sub>cu</sub> IEC 60947-2 at 230 V   | kA |  | 15      |
| Rated short-circuit breaking capacity I <sub>cu</sub> IEC 60947-2 at 400 V   | kA |  | 15      |
| Voltage type   |    |  | AC      |
| Current limiting class   |    |  | 3       |
| Frequency  | Hz |  | 50 - 60 |
| Concurrently switching N-neutral   |    |  | Yes     |
| Suitable for flush-mounted installation  |    |  | No      |
| Over voltage category  |    |  | 3       |
| Pollution degree   |    |  | 2       |
| Width in number of modular spacings  |    |  | 4       |
| Built-in depth   | mm |  | 70.5    |
| Additional equipment possible  |    |  | Yes     |
| Degree of protection (IP)  |    |  | IP20    |

# Characteristics



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



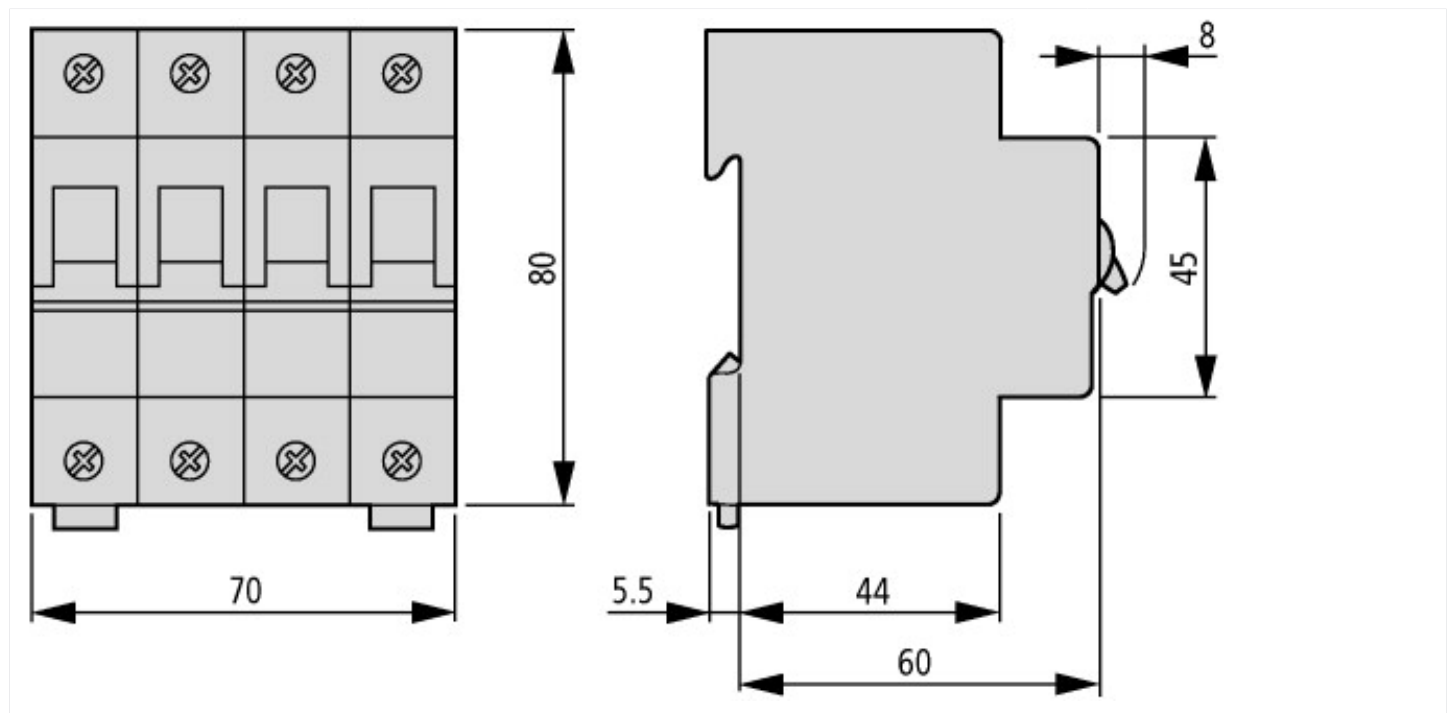






Tripping characteristic at 30 °C:  
 B, C, D to IEC/EN 60898

## Dimensions



## Additional product information (links)

AWA1220-1755 Circuit-breaker

AWA1220-1755 Circuit-breaker

[ftp://ftp.moeller.net/DOCUMENTATION/AWA\\_INSTRUCTIONS/17550701.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/17550701.pdf)