## DATASHEET - FAZ-Z1,6/2

Miniature circuit breaker (MCB), 1.6 A, 2p, characteristic: Z





Part no.FAZ-Z1,6/2Catalog No.278818Alternate CatalogFAZ-Z1.6/2No.EL-Nummer(Norway)0001695263

Similar to illustration

### **Delivery program**

| Basic function                                  |                 |    | Miniature circuit-breakers                                     |
|---|-----------------|----|--|
| Number of poles                                 |                 |    | 2 pole   |
| Tripping characteristic                         |                 |    | Z  |
| Application                                     |                 |    | Switchgear for industrial and advanced commercial applications |
| Rated current                                   | In              | А  | 1.6  |
| Rated switching capacity acc. to IEC/EN 60947-2 | l <sub>cu</sub> | kA | 10   |
| Product range                                   |                 |    | FAZ  |

## **Technical data**

| Electrical                                      |                 |                 |   |
|---|-----------------|-----------------|---|
| Standards                                       |                 |                 | IEC/EN 60947-2<br>IEC/EN 60898          |
| Rated operational voltage                       | Ue              | V               |   |
|   | Ue              | V AC            | 240/415                                 |
|   |                 | V DC            | 60 (per pole)                           |
| Rated switching capacity acc. to IEC/EN 60947-2 | l <sub>cu</sub> | kA              | 10                                      |
| 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 × 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 | In               | А | 1.6 |
| Heat dissipation per pole, current-dependent             | P <sub>vid</sub> | W | 0   |
| Equipment heat dissipation, current-dependent            | P <sub>vid</sub> | W | 5.3 |

| 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 7.0**

Circuit breakers and fuses (EG000020) / Miniature circuit breaker (MCB) (EC000042)

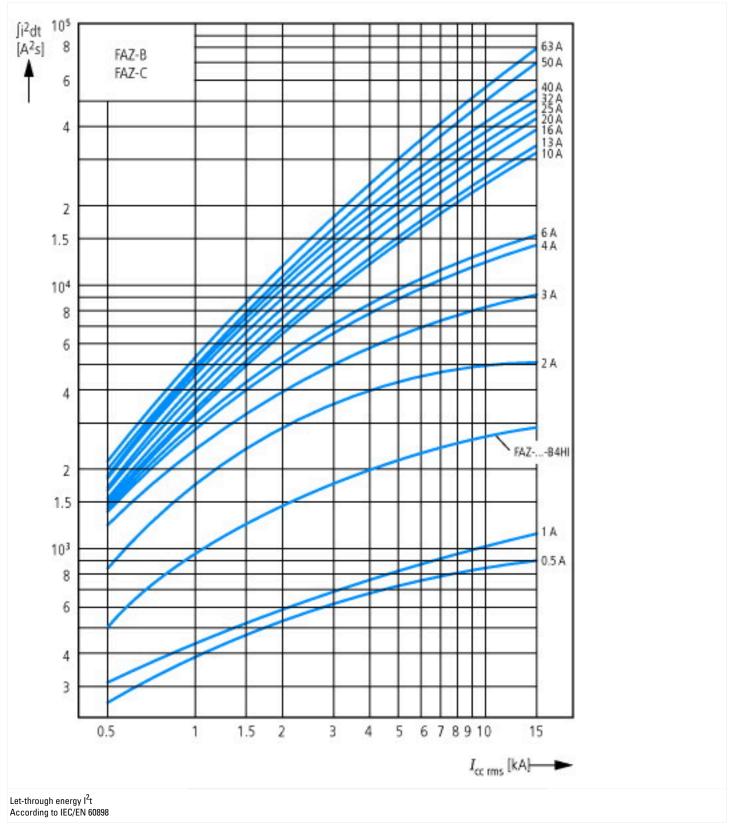
Electric engineering, automation, process control engineering / Electrical installation, device / Miniature circuit breaker system (MCB) / Miniature circuit breaker (MCB) (ecl@ss10.0.1-27-14-19-01 [AAB905014])

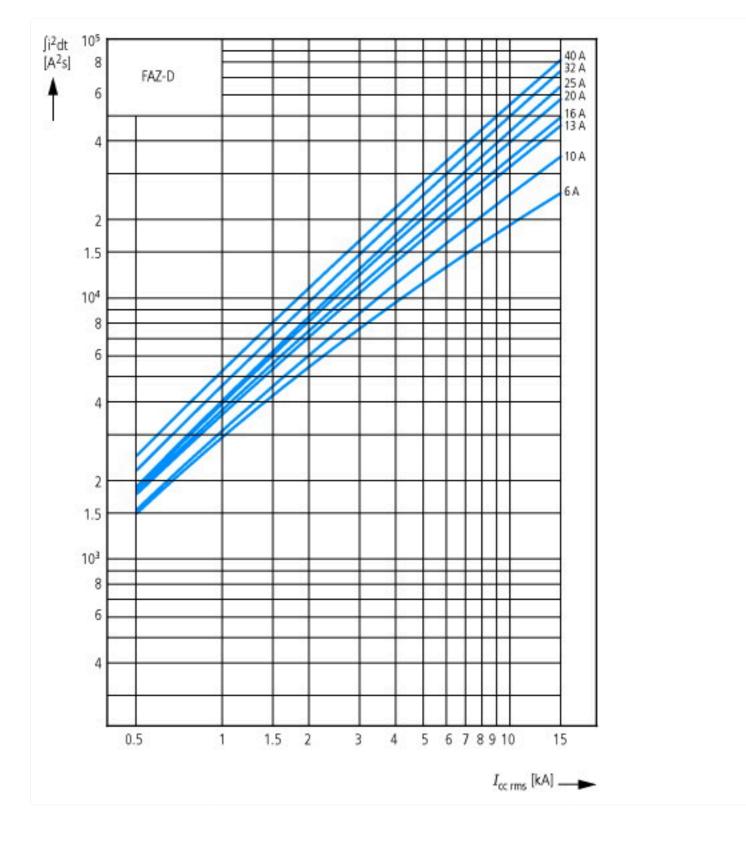
| Release characteristic   |    | Z       |
|--|----|---------|
| Number of poles (total)  |    | 2       |
| Number of protected poles                                      |    | 2       |
| Rated current  | А  | 1.6     |
| Rated voltage  | V  | 400     |
| Rated insulation voltage Ui                                    | V  | 440     |
| Rated impulse withstand voltage Uimp                           | kV | 4       |
| Rated short-circuit breaking capacity Icn EN 60898 at 230 V    | kA | 0       |
| Rated short-circuit breaking capacity Icn EN 60898 at 400 V    | kA | 0       |
| Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V | kA | 10      |
| Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V | kA | 10      |
| 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       |
|  |    |         |

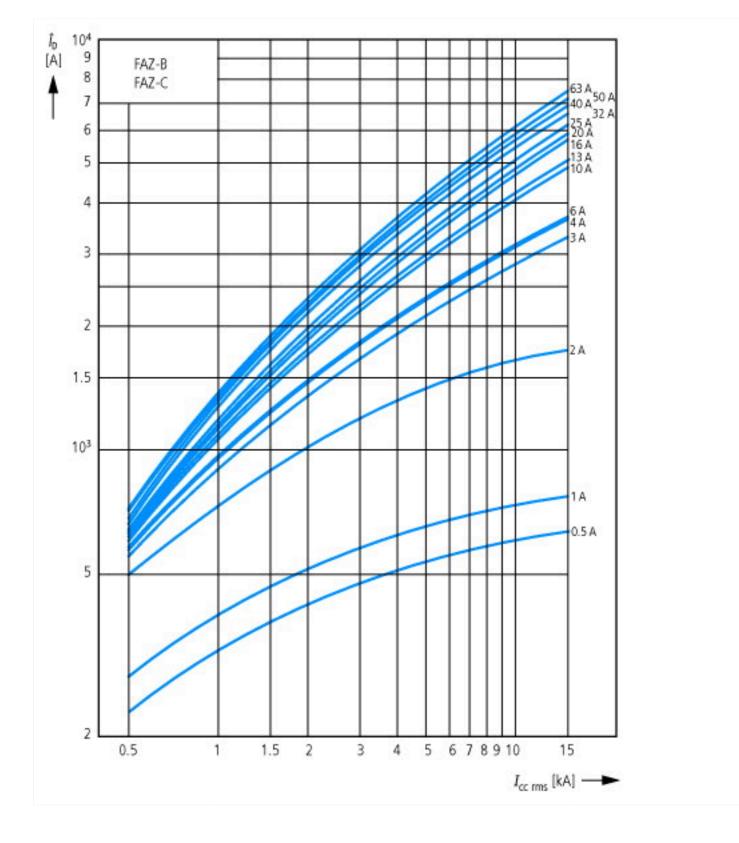
| Additional equipment possible                   |     | Yes      |
|---|-----|----------|
| Width in number of modular spacings             |     | 2        |
| Built-in depth                                  | mm  | 70.5     |
| Degree of protection (IP)                       |     | IP20     |
| Ambient temperature during operating            | °C  | -25 - 75 |
| Connectable conductor cross section multi-wired | mm² | 1 - 25   |
| Connectable conductor cross section solid-core  | mm² | 1 - 25   |

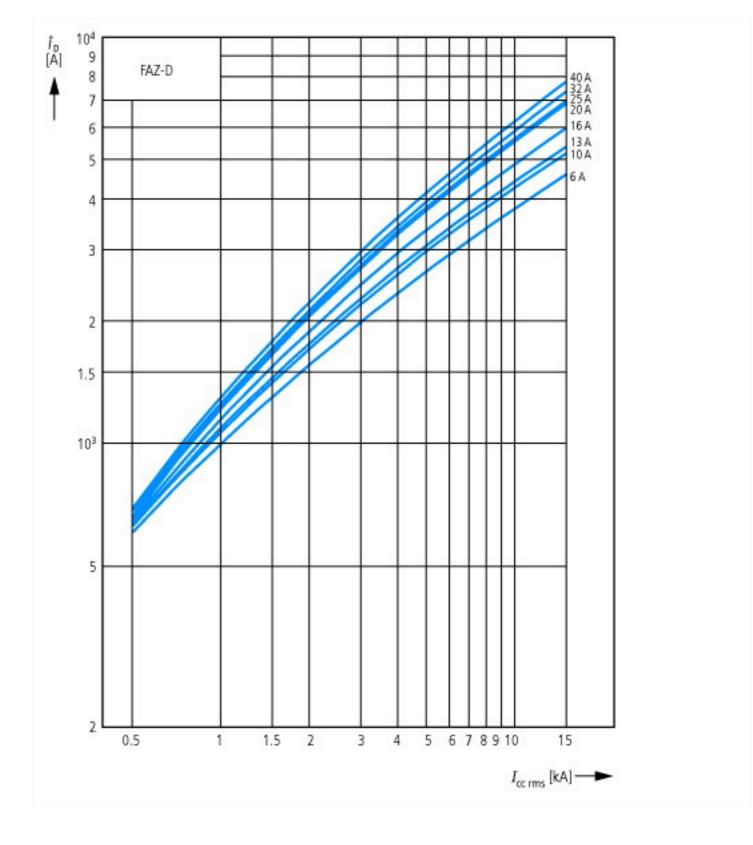
#### **Approvals** Product Standards IEC/EN 60947-2; IEC/EN 60898; UL 1077; CSA-C22.2 No. 235; CE marking UL File No. E177451 QVNU2, QVNU8 UL Category Control No. 204453 CSA File No. CSA Class No. 3215-30 North America Certification UL recognized, CSA certified Conditions of Acceptability Supplementary Protector only Suitable for Branch Circuits; not as BCPD Current Limiting Circuit-Breaker No Max. Voltage Rating 480Y/277 VAC; 96 VDC Degree of Protection IEC: IP20; UL/CSA Type: -

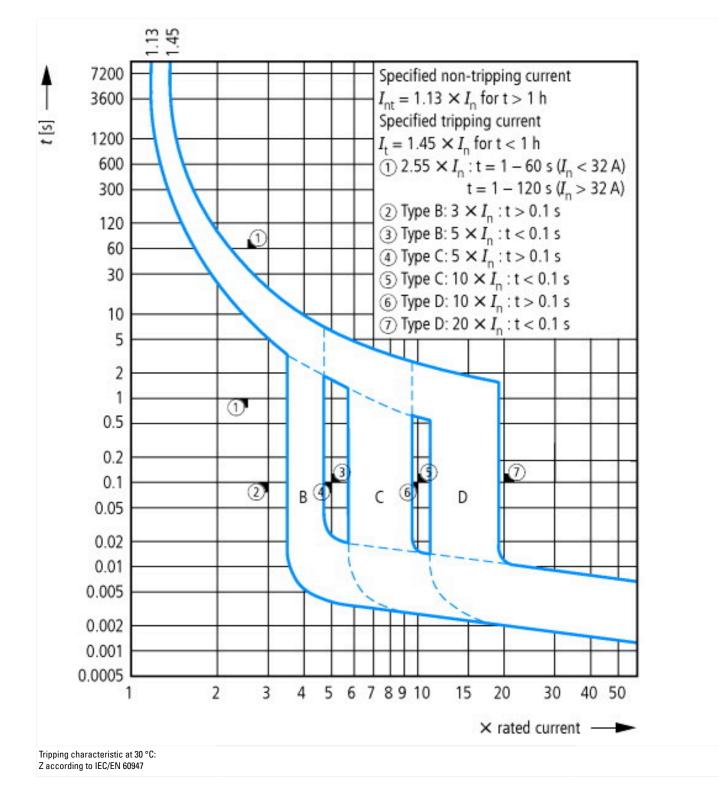
## **Characteristics**



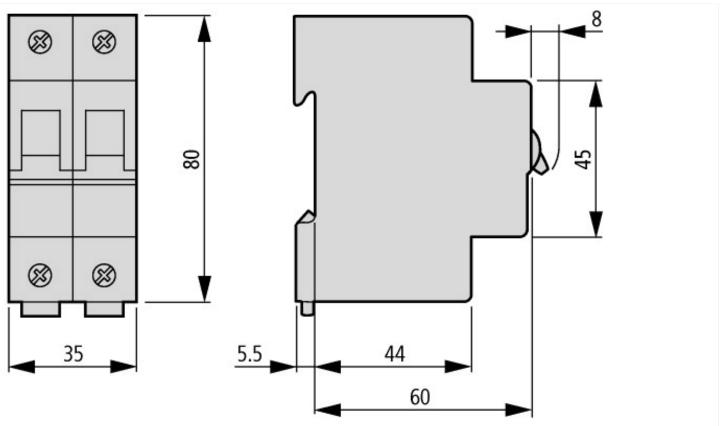








## **Dimensions**



## Additional product information (links)

Temperature dependency, derating

 $\label{eq:https://www.eaton.com/content/dam/eaton/technicaldocumentation/technical-data-tables/Derating table FAZ.pdf$