### **DATASHEET - FAZ-C1,6/3N**



Miniature circuit breaker (MCB), 1.6 A, 3p+N, characteristic: C

Powering Business Worldwide\*

Part no. FAZ-C1,6/3N Catalog No. 278962 Alternate Catalog FAZ-C1.6/3N

No.

EL-Nummer 0001691121

(Norway)

Similar to illustration

| Delivery program                                |                 |    |  |
|---|-----------------|----|--|
| Basic function                                  |                 |    | Miniature circuit-breakers                                     |
| Number of poles                                 |                 |    | 3 pole+N   |
| Tripping characteristic                         |                 |    | C  |
| Application                                     |                 |    | Switchgear for industrial and advanced commercial applications |
| Rated current                                   | In              | Α  | 1.6  |
| Rated switching capacity acc. to IEC/EN 60947-2 | I <sub>cu</sub> | kA | 15   |
| Product range                                   |                 |    | FAZ  |

## **Technical data**

| iconinical data   |                 |         |                                |
|---|-----------------|---------|--------------------------------|
| Electrical  |                 |         |                                |
| Standards   |                 |         | IEC/EN 60947-2<br>IEC/EN 60898 |
| Rated operational voltage   | U <sub>e</sub>  | V       |                                |
|   | U <sub>e</sub>  | 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   | Icu             | 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 <sub>cu</sub> | kA      | 10                             |
| Rated service short-circuit breaking capacity according to IEC/EN 60947-2 (max operational voltage) | I <sub>cs</sub> |         | 7,5 kA                         |
| Rated voltage according to IEC/EN 60898-1   | Un              | V AC    | 415                            |
| Rated switching capacity according to IEC/EN 60898-1  | I <sub>cn</sub> | kA      | 10                             |
| Rated service short-circuit breaking capacity according to IEC/EN 60898-1                           | Ics             |         | 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                             |

| 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> |   |
|                              | $\text{mm}^2$   | 1 x 25                                  |
|                              | $\mathrm{mm}^2$ | 2 x 10                                  |
|                              |                 |   |

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

# Design verification as per IEC/EN 61439

| Design verincation as per ille/liv 01433   |                   |    |  |
|--|-------------------|----|--|
| Technical data for design verification   |                   |    |  |
| Rated operational current for specified heat dissipation   | In                | Α  | 1.6  |
| Heat dissipation per pole, current-dependent   | P <sub>vid</sub>  | W  | 0  |
| Equipment heat dissipation, current-dependent  | P <sub>vid</sub>  | W  | 4.9  |
| 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 switch<br>gear must be observed. $\label{eq:specification}$    |
| 10.13 Mechanical function  |                   |    | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed. $\label{eq:continuous}$ |
|  |                   |    | ,,   |

#### **Technical data ETIM 7.0**

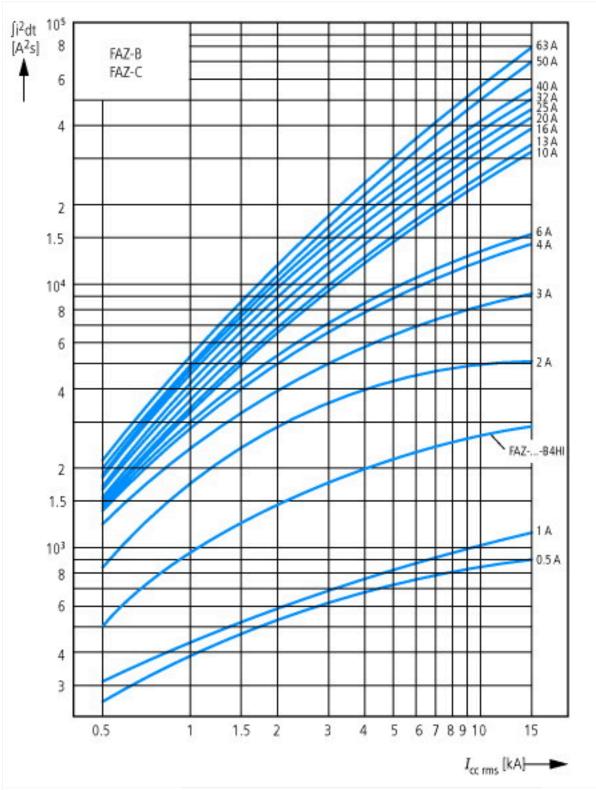
Circuit breakers and fuses (EG000020) / Miniature circuit breaker (MCB) (EC000042)

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   |    | С    |  |  |
| Number of poles (total)  |    | 4    |  |  |
| Number of protected poles                                      |    | 3    |  |  |
| 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 | A 10 |  |  |
| Rated short-circuit breaking capacity Icn EN 60898 at 400 V    | kA | A 10 |  |  |
| Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V | kA | A 15 |  |  |

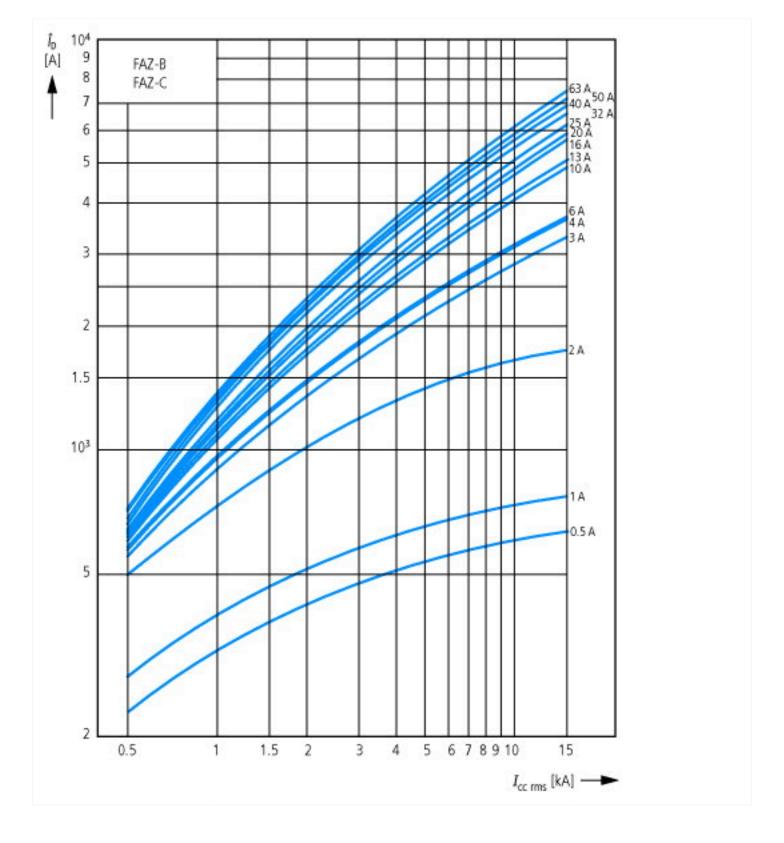
| Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V | kA  | 15       |
|--|-----|----------|
| Voltage type   |     | AC       |
| Frequency  | Hz  | 50 - 60  |
| Current limiting class   |     | 3        |
| Suitable for flush-mounted installation                        |     | No       |
| Concurrently switching N-neutral                               |     | Yes      |
| Over voltage category  |     | 3        |
| Pollution degree   |     | 2        |
| Additional equipment possible                                  |     | Yes      |
| Width in number of modular spacings                            |     | 4        |
| 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   |

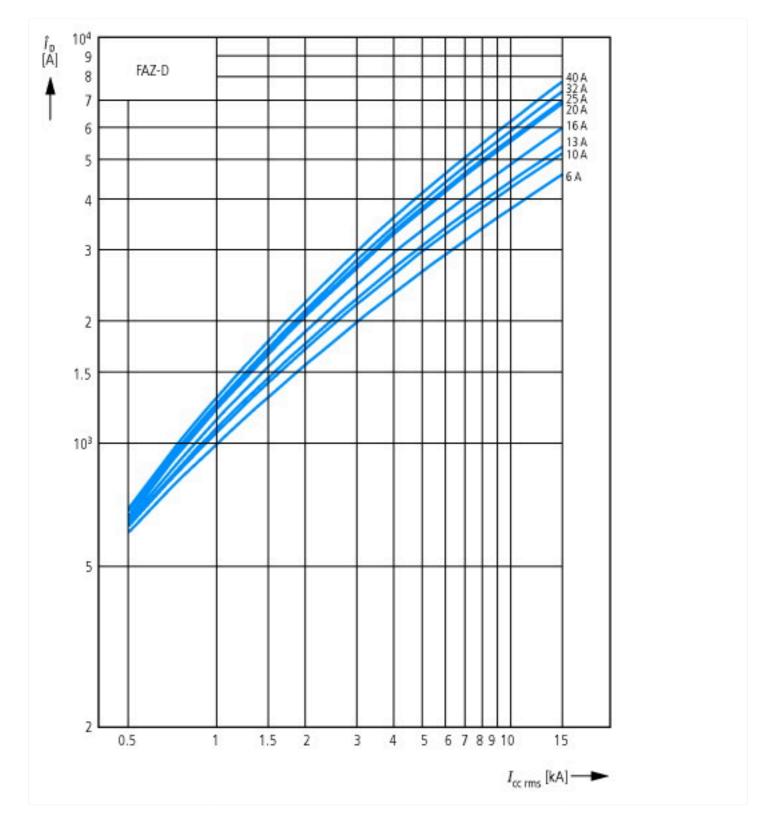
### **Characteristics**

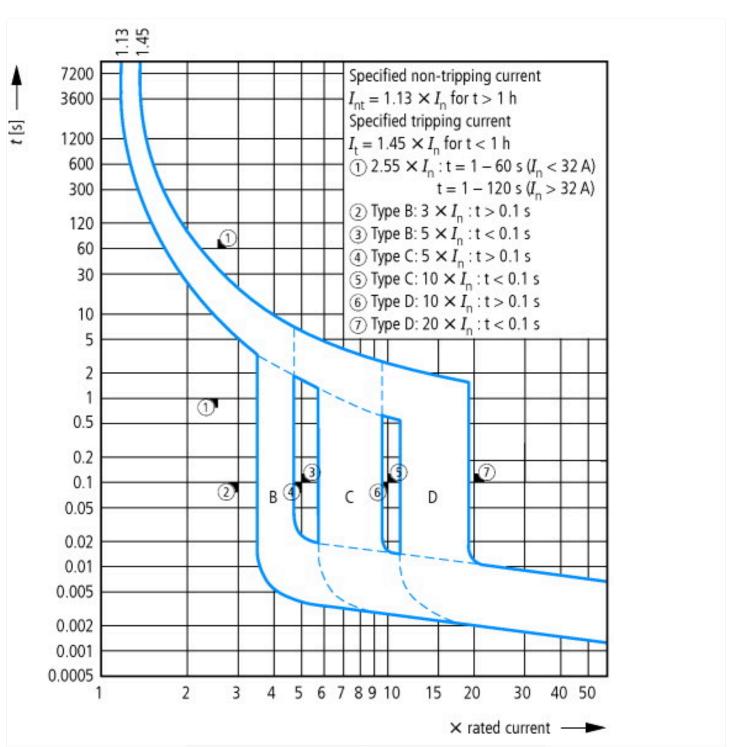


Let-through energy I<sup>2</sup>t According to IEC/EN 60898



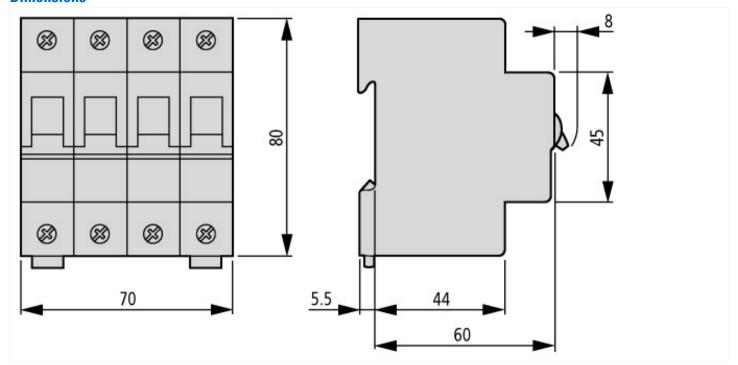






Tripping characteristic at 30 °C: B, C, D to IEC/EN 60898

## **Dimensions**



# **Additional product information (links)**

| AWA1220-1755 Circiut-breaker     |   |
|----------------------------------|---|
| AWA1220-1755 Circiut-breaker     | https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/17550701.pdf                                     |
| Temperature dependency, derating | https://www.eaton.com/content/dam/eaton/technicaldocumentation/technical-data-tables/Derating table FAZ.pdf |