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



#### Miniature circuit breaker (MCB), 1, 6A, 3Np, C-Char, AC

Powering Business Worldwide\*

Part no. FAZ-C1,6/3N Catalog No. 278962 Eaton Catalog No. FAZ-C1.6/3N EL-Nummer 0001691121 (Norway)

Similar to illustration

# Technical 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   | I <sub>cu</sub> | 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   | $U_{n}$         | 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                           | I <sub>cs</sub> |                 | 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 | 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           | $P_{vs}$         | W | 0   |

| Operating ambient temperature min.  Operating ambient temperature max.  EC/EN 61439 design verification                        |   | °C | -40<br>75  |
|--|---|----|--|
|  |   | °C | 75   |
| EC/EN 61439 design verification  |   |    |  |
| C/EN 61439 design verification   |   |    | linear, per +1 °C, results in a 0.5% reduction of current carrying capacity  |
|  |   |    |  |
| 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.   |
| ${\bf 10.2.3.2\ Verification\ of\ resistance\ of\ insulating\ materials\ to\ normal\ heat}$                                    |   |    | Meets the product standard's requirements.   |
| $10.2.3.3\mbox{Verification}$ of resistance of insulating materials to abnormal heat and fire due to internal electric effects | t |    | 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**

Over voltage category

Additional equipment possible

Width in number of modular spacings

Pollution degree

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

С Release characteristic Number of poles (total) 4 Number of protected poles 3 Rated current 1.6 Rated voltage 400 Rated insulation voltage Ui 440 Rated impulse withstand voltage Uimp kV 4 kA Rated short-circuit breaking capacity Icn EN 60898 at 230  $\rm V$ 10 Rated short-circuit breaking capacity Icn EN 60898 at 400  $\rm V$ kA 10 Rated short-circuit breaking capacity Icu IEC 60947-2 at 230  $\rm V$ kΑ 15 Rated short-circuit breaking capacity Icu IEC 60947-2 at 400  $\rm V$ kΑ 15 Voltage type AC Frequency Hz 50 - 60 **Current limiting class** 3 Suitable for flush-mounted installation No Yes Concurrently switching N-neutral

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])

3

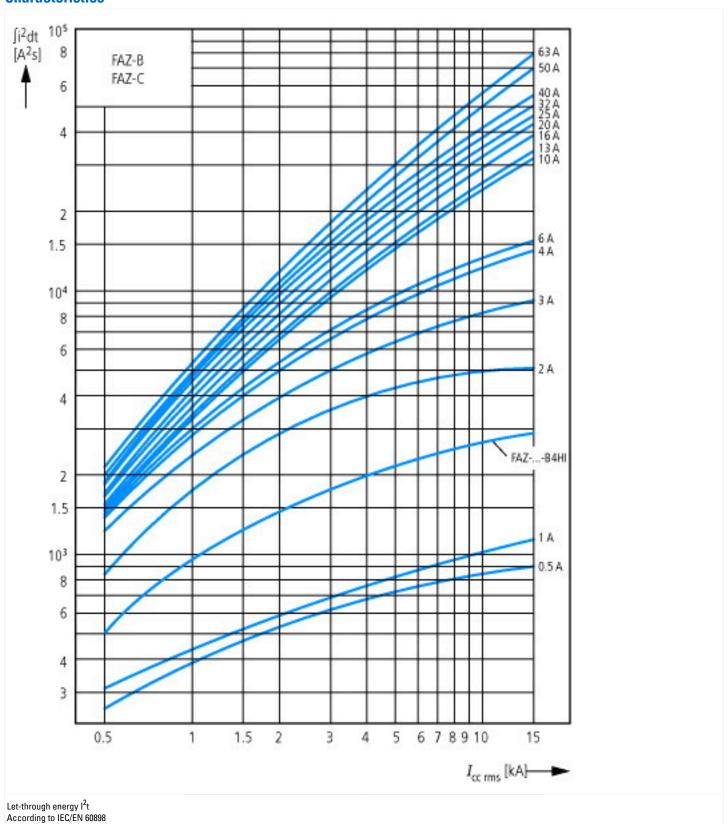
2

Yes

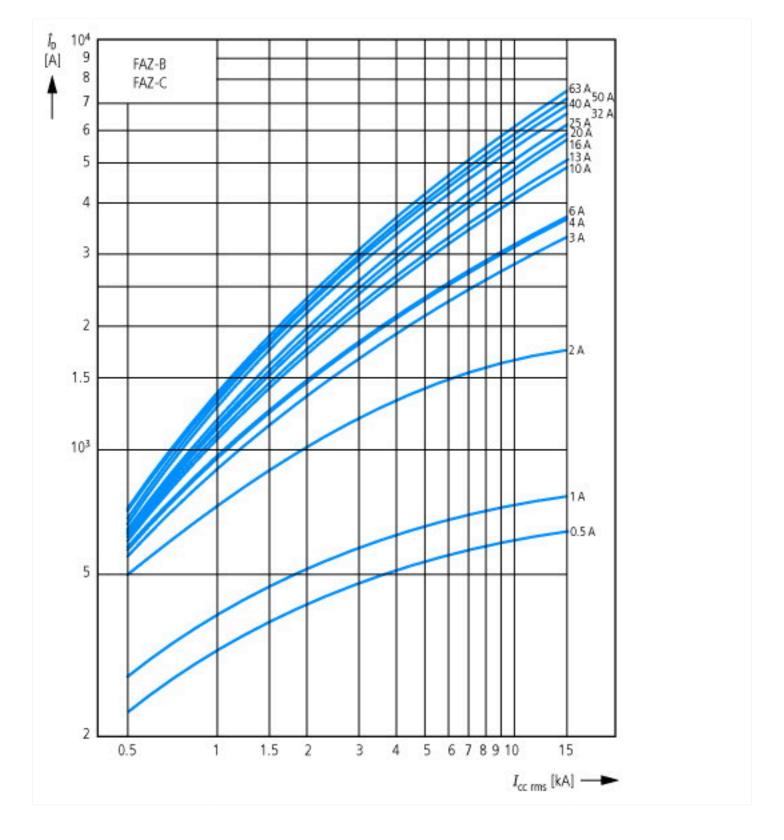
4

| 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   |

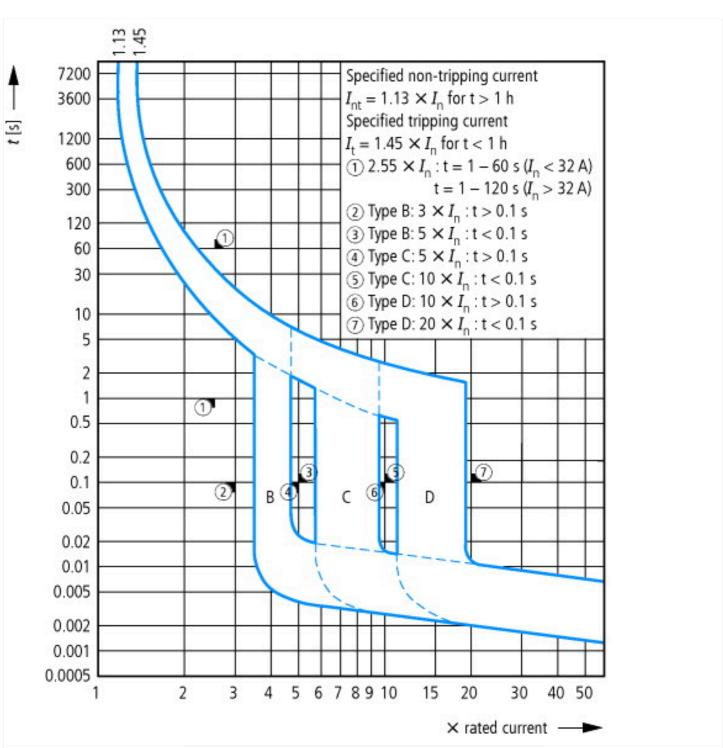
### **Characteristics**











## **Dimensions**

