### **DATASHEET - FAZT-B20/3**



Miniature circuit breaker (MCB), 20 A, 3p, characteristic: B

Powering Business Worldwide\*

Part no. FAZT-B20/3 Catalog No. 240884 Alternate Catalog FAZT-B20/3

No.

**EL-Nummer** 1605629

(Norway)

Similar to illustration

**Delivery program** 

| Delivery program                                |                 |    |  |
|---|-----------------|----|--|
| Basic function                                  |                 |    | Miniature circuit-breakers                                     |
| Number of poles                                 |                 |    | 3 pole   |
| Tripping characteristic                         |                 |    | В  |
| Application                                     |                 |    | Switchgear for industrial and advanced commercial applications |
| Rated current                                   | In              | Α  | 20   |
| Rated switching capacity acc. to IEC/EN 60947-2 | I <sub>cu</sub> | kA | 25   |
| Product range                                   |                 |    | FAZ-T  |

### **Technical data**

#### Electrical

| Standards   |                 |      | IEC/EN 60947-2 |
|---|-----------------|------|----------------|
| Rated voltage according to IEC/EN 60947-2   | Un              | V AC | 415            |
| Rated switching capacity acc. to IEC/EN 60947-2   | I <sub>cu</sub> | kA   | 25             |
| Rated service short-circuit breaking capacity according to IEC/EN 60947-2                           | I <sub>cs</sub> |      | 12,5 kA        |
| 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   | 15             |
| Rated service short-circuit breaking capacity according to IEC/EN 60947-2 (max operational voltage) | I <sub>cs</sub> |      | 7,5 kA         |
| Max operational voltage DC according to IEC/EN 60947-2  |                 | V DC | 60/pole        |
| 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   | 15             |
| Rated service short-circuit breaking capacity according to IEC/EN 60898-1                           | I <sub>cs</sub> |      | 7,5 kA         |
| Rated insulation voltage  | Ui              | V    | 440            |
| Rated frequency   | f               | Hz   | 50/60          |
| Characteristic  |                 |      | B, C, D        |
| Direction of incoming supply  |                 |      | as required    |
| lifespan  |                 |      |                |
| Electrical  | Operations      |      | ≧ 4000         |
| Mechanical  | Operations      |      | ≧ 10000        |
| Miles In a street   |                 |      |                |

#### Mechanical

| Wechanical                         |        |   |
|------------------------------------|--------|---|
| Standard front dimension           | mm     | 45  |
| Enclosure height                   | mm     | 80  |
| Mounting width per pole            | mm     | 17.5  |
| Mounting                           |        | Quick attachment with 3 latch positions for top-hat rail IEC/EN 60715 |
| Degree of Protection               |        | IP20  |
| Terminals top and bottom           |        | Twin-purpose terminals  |
| Terminal protection                |        | Finger- and back-of-hand proof according to BGV A3 and ÖVE-EN 6       |
| Terminal capacities                | $mm^2$ | 1 - 25  |
| Tightening torque of fixing screws | N/m    | max. 2.4  |
| Thickness of busbar material       | mm     | 0.8 (exept N 0.5 SU)  |
| 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  | 20   |
|--|-------------------|----|--|
| Heat dissipation per pole, current-dependent   | $P_{\text{vid}}$  | W  | 0  |
| Equipment heat dissipation, current-dependent  | P <sub>vid</sub>  | W  | 9.8  |
| 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**

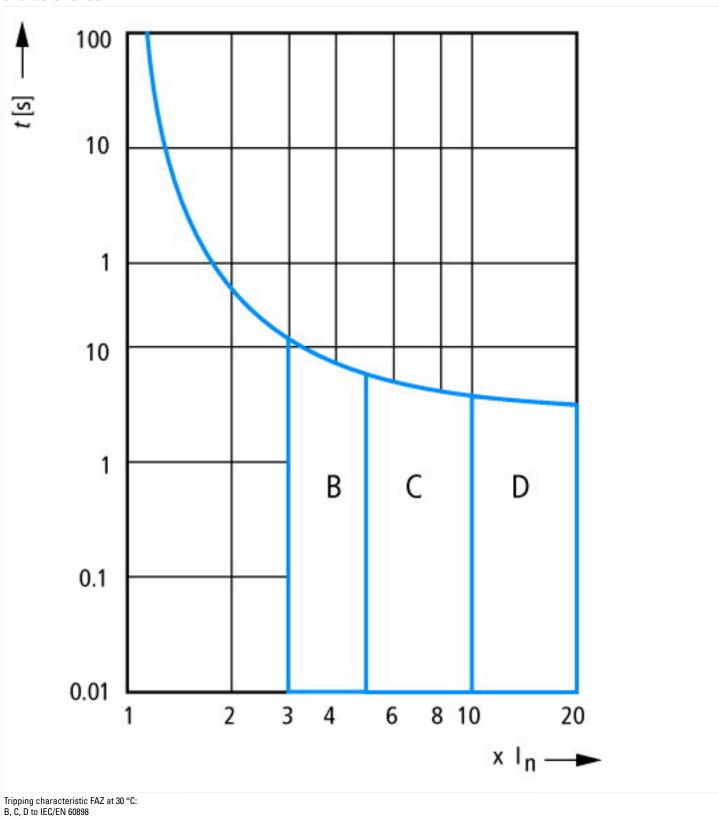
Circuit breakers and fuses (EG000020) / Miniature circuit breaker (MCB) (EC000042)

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])

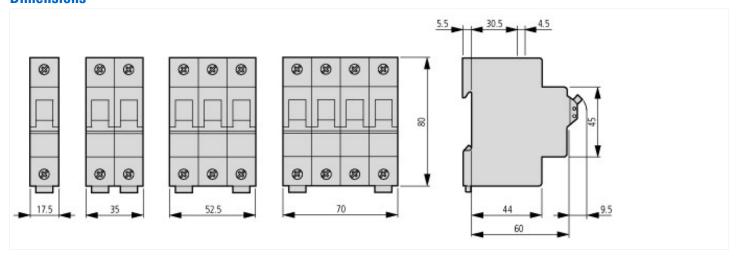
| (ecl@ss10.0.1-27-14-19-01 [AAB905014])                         |    |         |
|--|----|---------|
| Release characteristic   |    | В       |
| Number of poles (total)  |    | 3       |
| Number of protected poles                                      |    | 3       |
| Rated current  | Α  | 20      |
| Rated voltage  | V  | 230     |
| 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 | 15      |
| Rated short-circuit breaking capacity Icn EN 60898 at 400 V    | kA | 15      |
| Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V | kA | 20      |
| Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V | kA | 20      |
| 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  | mm²             | 1 - 25   |

## **Characteristics**



## **Dimensions**



# **Additional product information (links)**

Temperature dependency, derating

 $https://www.eaton.com/content/dam/eaton/technical documentation/technical-data-tables/Derating\ table\ FAZ\_T.pdf$