



**Miniature circuit breaker (MCB), 40A, 1Np, B-Char, AC**

**Part no.** FAZT-B40/1N  
**Catalog No.** 142510  
**Alternate Catalog No.** FAZT-B40/1N  
**EL-Nummer (Norway)** 0001666068

Similar to illustration

**Delivery program**

|   |          |    |  |
|---|----------|----|--|
| Basic function                                  |          |    | Miniature circuit-breakers                                     |
| Number of poles                                 |          |    | 1 pole+N   |
| Tripping characteristic                         |          |    | B  |
| Application                                     |          |    | Switchgear for industrial and advanced commercial applications |
| Rated current                                   | $I_n$    | A  | 40   |
| Rated switching capacity acc. to IEC/EN 60947-2 | $I_{cu}$ | kA | 20   |
| Product range                                   |          |    | FAZ-T  |

**Technical data**

**Electrical**

|   |            |      |                |
|---|------------|------|----------------|
| Standards   |            |      | IEC/EN 60947-2 |
| Rated voltage according to IEC/EN 60947-2   | $U_n$      | V AC | 415            |
| Rated switching capacity acc. to IEC/EN 60947-2   | $I_{cu}$   | kA   | 20             |
| Rated service short-circuit breaking capacity according to IEC/EN 60947-2                           | $I_{cs}$   |      | 10 kA          |
| Max operational voltage according to IEC/EN 60947-2   |            | V AC | 254            |
| Rated switching capacity according to IEC/EN 60947-2 (max operational voltage)                      | $I_{cu}$   | kA   | 15             |
| Rated service short-circuit breaking capacity according to IEC/EN 60947-2 (max operational voltage) | $I_{cs}$   |      | 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  | $I_{cn}$   | kA   | 10             |
| Rated service short-circuit breaking capacity according to IEC/EN 60898-1                           | $I_{cs}$   |      | 7,5 kA         |
| Rated insulation voltage  | $U_i$      | 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        |

**Mechanical**

|                                    |  |                 |   |
|------------------------------------|--|-----------------|---|
| 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 <sup>2</sup> | 1 - 25  |
| Tightening torque of fixing screws |  | N/m             | max. 2.4  |
| Thickness of busbar material       |  | mm              | 0.8 (except N 0.5 SU)   |
| Mounting position                  |  |                 | As required   |

**Design verification as per IEC/EN 61439**

|  |  |  |  |
|--|--|--|--|
| Technical data for design verification |  |  |  |
|--|--|--|--|

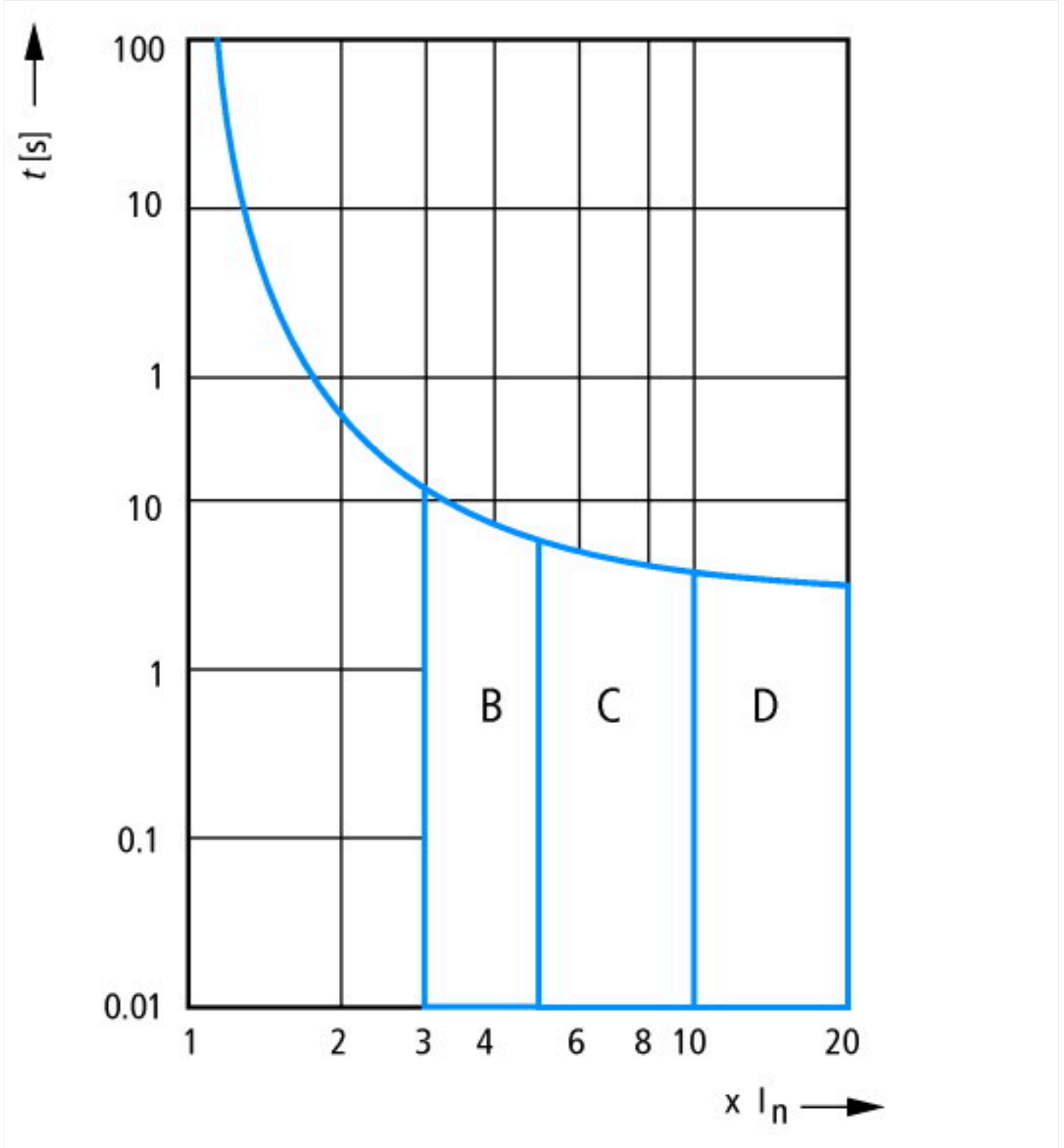
|  |            |    |  |
|--|------------|----|--|
| Rated operational current for specified heat dissipation   | $I_n$      | A  | 40   |
| Heat dissipation per pole, current-dependent   | $P_{vid}$  | W  | 0  |
| Equipment heat dissipation, current-dependent  | $P_{vid}$  | W  | 4.1  |
| Static heat dissipation, non-current-dependent   | $P_{vs}$   | W  | 0  |
| Heat dissipation capacity  | $P_{diss}$ | 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  |  |    | B       |
| Number of poles (total)   |  |    | 2       |
| Number of protected poles   |  |    | 1       |
| Rated current   |  | A  | 40      |
| Rated voltage   |  | V  | 230     |
| Rated insulation voltage $U_i$  |  | V  | 440     |
| Rated impulse withstand voltage $U_{imp}$   |  | kV | 4       |
| Rated short-circuit breaking capacity $I_{cn}$ EN 60898 at 230 V  |  | kA | 10      |
| Rated short-circuit breaking capacity $I_{cn}$ EN 60898 at 400 V  |  | kA | 10      |
| Rated short-circuit breaking capacity $I_{cu}$ IEC 60947-2 at 230 V   |  | kA | 15      |
| Rated short-circuit breaking capacity $I_{cu}$ 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             |                 | 1.5      |
| 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  | mm <sup>2</sup> | 1 - 25   |

## Characteristics



## Dimensions



## Additional product information (links)

Temperature dependency, derating

[https://www.eaton.com/content/dam/eaton/technicaldocumentation/technical-data-tables/Derating table FAZ\\_T.pdf](https://www.eaton.com/content/dam/eaton/technicaldocumentation/technical-data-tables/Derating table FAZ_T.pdf)