



**Miniature circuit breaker (MCB), 25 A, 3p, characteristic: D**



**Part no.** FAZ-D25/3-NA  
**Catalog No.** 102272  
**Alternate Catalog No.** FAZ-D25/3-NA  
**EL-Nummer (Norway)** 1691677

Similar to illustration

**Delivery program**

|   |          |    |  |
|---|----------|----|--|
| Basic function                                  |          |    | Miniature circuit-breakers                         |
| Number of poles                                 |          |    | 3 pole   |
| Tripping characteristic                         |          |    | D  |
| Application                                     |          |    | Switchgear for export to North America (UL-listed) |
| Rated current                                   | $I_n$    | A  | 25   |
| Rated switching capacity acc. to IEC/EN 60947-2 | $I_{cu}$ | kA | 15   |
| Product range                                   |          |    | FAZ-NA   |

**Technical data**

**Electrical**

|   |          |            |  |
|---|----------|------------|--|
| Standards                                       |          |            | UL 489, CSA C22.2 No. 5<br>IEC 60947-2 |
| Rated operational voltage                       | $U_e$    | V          |  |
|   |          | V AC       | 277/480 Y                              |
|   |          | V DC       | 60                                     |
| Rated voltage according to IEC/EN 60947-2       | $U_n$    | V AC       | 415                                    |
| Rated voltage according to UL                   | $U_n$    | V AC       | 480Y/277                               |
| Rated switching capacity acc. to IEC/EN 60947-2 | $I_{cu}$ | kA         | 15                                     |
| Characteristic                                  |          |            | B, C, D                                |
| Selectivity Class                               |          |            | 3                                      |
| lifespan  | Lifespan | Operations | > 20000                                |
|   |          |            |  |

**Mechanical**

|                                    |  |     |   |
|------------------------------------|--|-----|---|
| Standard front dimension           |  | mm  | 45  |
| Enclosure height                   |  | mm  | 105   |
| Mounting width per pole            |  | mm  | 17.7  |
| 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   |
| Tightening torque of fixing screws |  | N/m | max. 2.4<br>UL:<br>#18-12 AWG: 2.4 Nm (21 lb-in)<br>#10-8 AWG: 2.8 Nm (25 lb-in)<br>#6 AWG: 4 Nm (36 lb-in) |
| 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 | 25  |
| Heat dissipation per pole, current-dependent             | $P_{vid}$  | W | 0   |
| Equipment heat dissipation, current-dependent            | $P_{vid}$  | W | 7.7 |
| Static heat dissipation, non-current-dependent           | $P_{vs}$   | W | 0   |
| Heat dissipation capacity                                | $P_{diss}$ | W | 0   |

|  |    |  |
|--|----|--|
| Operating ambient temperature min.   | °C | -25  |
| 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])

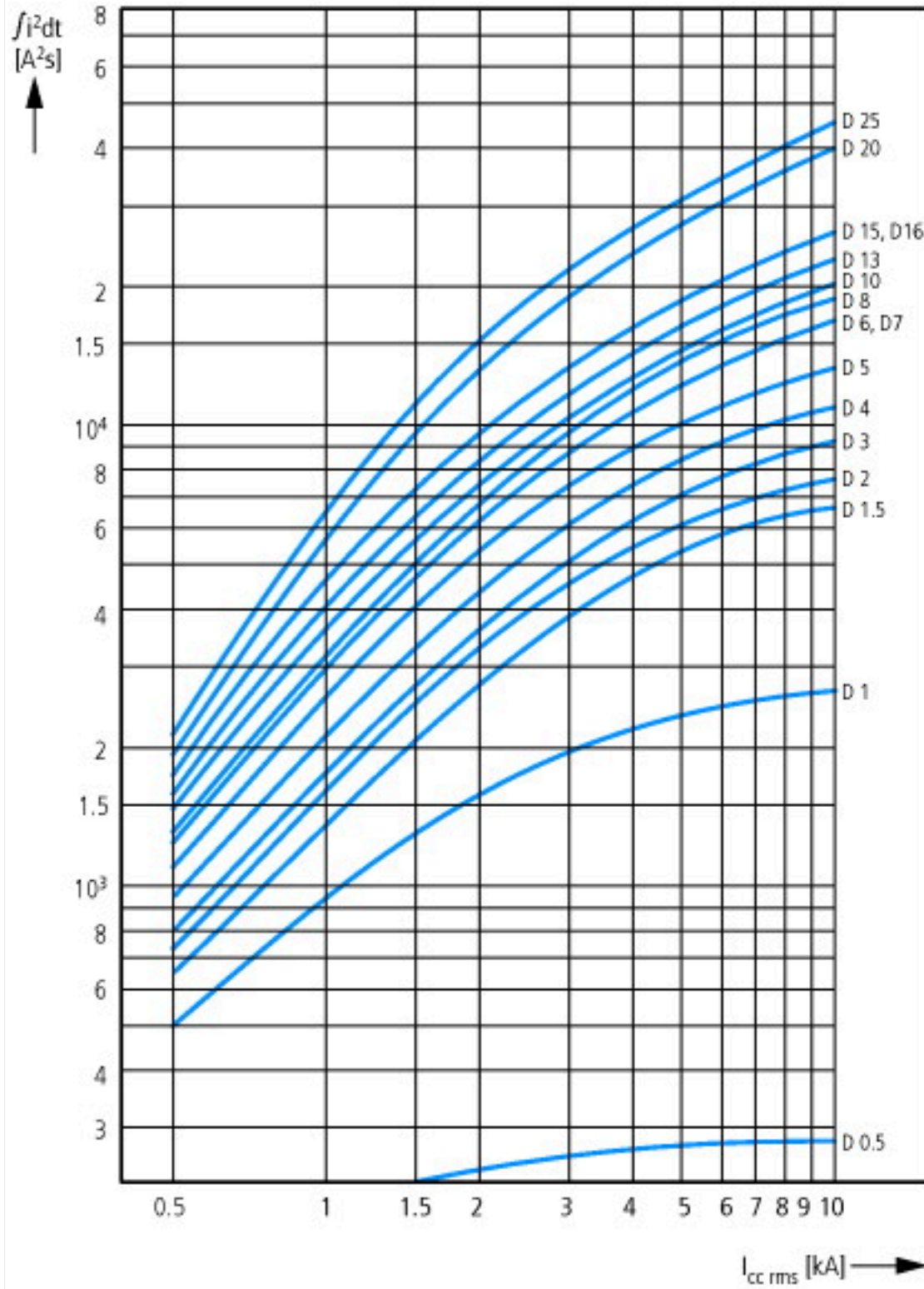
|   |    |         |
|---|----|---------|
| Release characteristic  |    | D       |
| Number of poles (total)   |    | 3       |
| Number of protected poles   |    | 3       |
| Rated current   | A  | 25      |
| Rated voltage   | V  | 415     |
| Rated insulation voltage $U_i$                                      | V  | 440     |
| Rated impulse withstand voltage $U_{imp}$                           | kV | 4       |
| Rated short-circuit breaking capacity $I_{cn}$ EN 60898 at 230 V    | kA | 0       |
| Rated short-circuit breaking capacity $I_{cn}$ EN 60898 at 400 V    | kA | 0       |
| 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                                    |    | 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  | mm <sup>2</sup> | 1 - 25   |

## Approvals

|                                      |  |   |
|--------------------------------------|--|---|
| Product Standards                    |  | IEC/EN 60947-2; EN 45545-2; IEC 61373; UL 489; CSA-C22.2 No. 5-09; CE marking |
| UL File No.                          |  | E235139   |
| UL Category Control No.              |  | DIVQ  |
| CSA File No.                         |  | 204453  |
| CSA Class No.                        |  | 1432-01   |
| North America Certification          |  | UL listed, CSA certified  |
| Specially designed for North America |  | Yes, suitable as BCPD   |
| Suitable for                         |  | Feeder circuits, branch circuits  |
| Current Limiting Circuit-Breaker     |  | Yes   |
| Max. Voltage Rating                  |  | ≤ 32 A  |
| Degree of Protection                 |  | IEC: IP20, UL/CSA Type: -   |

# Characteristics



Let-through energy  $\int i^2 dt$   
 Characteristic D (0.5 - 20 A), 277 V



Characteristic D (25 - 40 A), 240 V

### Additional product information (links)

Temperature dependency, derating

<https://www.eaton.com/content/dam/eaton/technicaldocumentation/technical-data-tables/Derating table FAZ-NA-RT.pdf>