# DATASHEET - FAZ-D4/4-RT

**Miniature circuit breaker (MCB), 4 A, 4p, characteristic: D, ring tongue**

Powering Business Worldwide™

**Part no.** FAZ-D4/4-RT
**Catalog No.** 190888

Similar to illustration

## Delivery program

| | | | |
|---|---|---|---|
| Basic function | | | Miniature circuit-breakers |
| Number of poles | | | 4 pole |
| Tripping characteristic | | | D |
| Application | | | Switchgear for export to North America (UL-listed) |
| Rated current | $I_n$ | A | 4 |
| Rated switching capacity acc. to IEC/EN 60947-2 | $I_{cu}$ | kA | 15 |
| Product range | | | FAZ-RT |

## Technical data

### Electrical

| | | | |
|---|---|---|---|
| Standards | | | UL 489, CSA C22.2 No. 5<br>IEC 60947-2 |
| Rated operational voltage | $U_e$ | V | |
| | $U_e$ | 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 insulation voltage | $U_i$ | V | 440 |
| Rated switching capacity acc. to IEC/EN 60947-2 | $I_{cu}$ | kA | 15 |
| Operational switching capacity | | kA | 7.5 |
| Characteristic | | | B, C, D |
| Max. back-up fuse | | A gL/gG | 125 |
| Selectivity Class | | | 3 |
| lifespan | | | |
| Electrical | Operations | | ≧ 1500 |
| electrical UL | Operations | | ≧ 6000 |
| Mechanical | Operations | | ≧ 10000 |
| Lifespan | Operations | | > 10000 |
| Direction of incoming supply | | | as required |

### References

| | | | |
|---|---|---|---|
| Auxiliary switch for subsequent installation | | | Z-IHK-NA 113895 |
| Tripping signal contact for subsequent installation | | | Z-NHK 248434 |
| Switching interlock | | | Z-IS/SPE-1TE 274418 |
| Shunt trip release | | | FAZ-XAA-NA110-415V AC 102036<br>FAZ-XAA-NA12-110V AC 102037 |

### 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 | | | lift terminal / ring-tongue |
| Terminal protection | | | finger and hand touch safe, DGUV VS3, EN 50274 |
| Terminal capacities | | $mm^2$ | |
| | | $mm^2$ | 1 x 25 |
| | | $mm^2$ | 2 x 10 |

| | | | |
|---|---|---|---|
| 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 |
| Contact position indicator | | | red / green |
| Internal resistance (at room temperature, single-pole, 50 Hz) | | | |
| single pole | $R_i$ | mΩ | 87 |
| Operating ambient temperature min. (UL) | | °C | -5 |
| Operating ambient temperature max. (UL) | | °C | + 40 |

## Design verification as per IEC/EN 61439

| | | | |
|---|---|---|---|
| Technical data for design verification | | | |
| Rated operational current for specified heat dissipation | $I_n$ | A | 4 |
| Heat dissipation per pole, current-dependent | $P_{vid}$ | W | 0 |
| 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. |
| 10.11 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) | | | 4 |
| Number of protected poles | | | 4 |
| Rated current | | A | 4 |
| Rated voltage | | V | 240 |

| | | |
|---|---|---|
| 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 | 10 |
| 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 | 10 |
| Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V | kA | 14 |
| Voltage type | | AC |
| Frequency | Hz | 50 - 50 |
| Current limiting class | | 3 |
| Suitable for flush-mounted installation | | Yes |
| Concurrently switching N-neutral | | No |
| Over voltage category | | 3 |
| Pollution degree | | 2 |
| Additional equipment possible | | Yes |
| Width in number of modular spacings | | 70.8 |
| Built-in depth | mm | 60 |
| Degree of protection (IP) | | IP20 |
| Ambient temperature during operating | °C | -25 - 75 |
| Connectable conductor cross section multi-wired | $mm^2$ | 1 - 25 |
| Connectable conductor cross section solid-core | $mm^2$ | 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

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|---|
| Let-through energy I2t \| Characteristic C (0.5 - 20 A), 277 V |
| Characteristic C (25 - 40 A), 240 V |

## Additional product information (links)

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|---|---|
| Temperature dependency, derating | https://www.eaton.com/content/dam/eaton/technicaldocumentation/technical-data-tables/Derating table FAZ-NA-RT.pdf |


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