# DATASHEET - FAZ-D40/4

**Miniature circuit breaker (MCB), 40 A, 4p, characteristic: D**

| | |
|---|---|
| **Part no.** | **FAZ-D40/4** |
| | **279088** |
| **EL Number (Norway)** | **1695244** |

Powering Business Worldwide™

## General specifications

| | |
|---|---|
| Product name | Eaton Moeller series xEffect - FAZ MCB |
| Part no. | FAZ-D40/4 |
| EAN | 4015082790882 |
| Product Length/Depth | 80 millimetre |
| Product height | 75.5 millimetre |
| Product width | 72 millimetre |
| Product weight | 0.467 kilogram |
| Compliances | RoHS conform |
| Certifications | IEC/EN 60898<br>IEC/EN 60947-2<br>IEC 61373<br>EN45545-2 |
| Product Tradename | xEffect - FAZ |
| Product Type | MCB |
| Product Sub Type | None |

## Delivery program

| | |
|---|---|
| Application | Switchgear for industrial and advanced commercial applications<br>xEffect - Switchgear for industrial and advanced commercial applications |
| Number of poles | Four-pole |
| Number of poles (total) | 4 |
| Number of poles (protected) | 4 |
| Tripping characteristic | D |
| Release characteristic | D |
| Amperage Rating | 40 A |
| Type | FAZ<br>Miniature circuit breaker |

## Technical Data - Electrical

| | |
|---|---|
| Voltage type | AC |
| Voltage rating | 240 V AC / 415 V AC |
| Voltage rating at DC | 60 V DC (per pole) |
| Rated operational voltage (Ue) - max | 400 V |
| Rated insulation voltage (Ui) | 440 V |
| Rated impulse withstand voltage (Uimp) | 4 kV |
| Frequency rating - min | 50 Hz |
| Frequency rating - max | 60 Hz |
| Rated switching capacity (IEC/EN 60947-2) | 15 kA |
| Operational switching capacity | 7.5 kA |
| Rated short-circuit breaking capacity (EN 60898) at 230 V | 10 kA |
| Rated short-circuit breaking capacity (EN 60898) at 400 V | 10 kA |
| Rated short-circuit breaking capacity (IEC 60947-2) at 230 V | 15 kA |
| Rated short-circuit breaking capacity (IEC 60947-2) at 400 V | 15 kA |
| Admissible back-up fuse - max | 125 A gL/gG |
| Selectivity class | 3 |
| Lifespan, electrical | 10000 operations |
| Overvoltage category | III |
| Pollution degree | 2 |
| Direction of incoming supply | As required |

## Technical Data - Mechanical

| | |
|---|---|
| Frame | 45 mm |
| Enclosure width | 80 mm |
| Width in number of modular spacings | 4 |
| Built-in depth | 70.5 mm |
| Mounting width per pole | 17.5 mm |
| Mounting width | 17.5 mm |
| Mounting Method | Top-hat rail IEC/EN 60715 |
| Mounting position | As required |
| Degree of protection | IP20<br>IP40 (when fitted) |
| Terminals (top and bottom) | Twin-purpose terminals |
| Connectable conductor cross section (solid-core) - min | 1 $mm^2$ |
| Connectable conductor cross section (solid-core) - max | 25 $mm^2$ |
| Connectable conductor cross section (multi-wired) - min | 1 $mm^2$ |
| Connectable conductor cross section (multi-wired) - max | 25 $mm^2$ |
| Terminal capacity of screw terminals for main cable | 10 $mm^2$ (2x) |
| Terminal capacity (control cable) | 25 $mm^2$ (1x) |
| Terminal protection | Finger and hand touch safe, DGUV VS3, EN 50274 |
| Busbar material thickness | 0.8 mm - 2 mm |

## Design verification as per IEC/EN 61439 - technical data

| | |
|---|---|
| Rated operational current for specified heat dissipation (In) | 40 A |
| Heat dissipation per pole, current-dependent | 0 W |
| Equipment heat dissipation, current-dependent | 12.8 W |
| Static heat dissipation, non-current-dependent | 0 W |
| Heat dissipation capacity | 0 W |
| Ambient operating temperature - min | -25 °C |
| Ambient operating temperature - max | 75 °C |

## Design verification as per IEC/EN 61439

| | |
|---|---|
| 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 Resist. of insul. mat. to abnormal heat/fire by internal elect. 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. |
| 10.9.2 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. |

## Additional information

| | |
|---|---|
| Current limiting class | 3 |
| Features | Additional equipment possible<br>Concurrently switching N-neutral |

| | | | |
|---|---|---|---|
| Special features | | | Ambient temperature hint: a 1 °C increase results in a 0.5% linear reduction of current carrying capacity |
| Used with | | | FAZ<br>Miniature circuit breaker |

## Technical data ETIM 9.0

| | | | |
|---|---|---|---|
| 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@ss13-27-14-19-01 [AAB905019]) | | | |
| Built-in depth | | mm | 70.5 |
| Release characteristic | | | D |
| Number of poles (total) | | | 4 |
| Number of protected poles | | | 4 |
| Rated current | | A | 40 |
| Rated voltage | | V | 400 |
| Rated insulation voltage Ui | | V | 440 |
| Rated impulse withstand voltage Uimp | | kV | 4 |
| Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V | | kA | 10 |
| Voltage type | | | AC |
| Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V | | kA | 10 |
| Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V | | kA | 15 |
| Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V | | kA | 15 |
| Frequency | | Hz | 50 - 60 |
| Power loss | | W | 10.6 |
| Current limiting class | | | 3 |
| Flush-mounted installation | | | No |
| Concurrently switching neutral conductor | | | Yes |
| Over voltage category | | | 3 |
| Pollution degree | | | 2 |
| Additional equipment possible | | | Yes |
| Width in number of modular spacings | | | 4 |
| 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 |
| Explosion-proof | | | No |


© 04/2023 by Eaton Industries GmbH