# DATASHEET - AZ-3-B20

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

**Part no.** AZ-3-B20
**Catalog No.** 174506

Similar to illustration

## Delivery program

| | | | |
|---|---|---|---|
| Basic function | | | Miniature circuit-breakers |
| Number of poles | | | 3 pole |
| Tripping characteristic | | | B |
| Application | | | Switchgear for industrial and advanced commercial applications |
| Rated current | $I_n$ | A | 20 |
| Rated switching capacity acc. to IEC/EN 60947-2 | $I_{cu}$ | kA | 25 |
| Product range | | | AZ |

## Technical data

### Electrical

| | | | |
|---|---|---|---|
| Standards | | | EN 45545-2; IEC 61373 |
| Rated switching capacity acc. to IEC/EN 60947-2 | $I_{cu}$ | kA | 25 |

## Design verification as per IEC/EN 61439

| | | | |
|---|---|---|---|
| Technical data for design verification | | | |
| Rated operational current for specified heat dissipation | $I_n$ | A | 20 |
| Heat dissipation per pole, current-dependent | $P_{vid}$ | W | 0 |
| Equipment heat dissipation, current-dependent | $P_{vid}$ | W | 8.1 |
| 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 | 55 |
| | | | 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) | | | 3 |
| Number of protected poles | | | 1 |
| Rated current | | A | 20 |
| Rated voltage | | V | 400 |
| 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 | 0 |
| Rated short-circuit breaking capacity Icn EN 60898 at 400 V | | kA | 0 |
| Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V | | kA | 25 |
| Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V | | kA | 25 |
| 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 | | | 4.5 |
| Built-in depth | | mm | 75 |
| Degree of protection (IP) | | | IP20 |
| Ambient temperature during operating | | °C | -25 - 55 |
| Connectable conductor cross section multi-wired | | $mm^2$ | 2.5 - 50 |
| Connectable conductor cross section solid-core | | $mm^2$ | 2.5 - 50 |


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