



**Miniature circuit breaker (MCB), 100A, 1p, D-Char**

**Part no.** AZ-D100  
**Catalog No.** 211826  
**Alternate Catalog No.** AZ-D100

Similar to illustration

**Delivery program**

|   |          |    |  |
|---|----------|----|--|
| Basic function                                  |          |    | Miniature circuit-breakers                                     |
| Number of poles                                 |          |    | 1 pole   |
| Tripping characteristic                         |          |    | D  |
| Application                                     |          |    | Switchgear for industrial and advanced commercial applications |
| Rated current                                   | $I_n$    | A  | 100  |
| Rated switching capacity acc. to IEC/EN 60947-2 | $I_{cu}$ | kA | 15   |
| Product range                                   |          |    | AZ   |

**Technical data**

**Electrical**

|   |          |            |                              |
|---|----------|------------|------------------------------|
| Standards                                       |          |            | IEC/EN 60947-2               |
| Rated operational voltage                       | $U_e$    | V          |                              |
|   |          | V AC       | 230/400                      |
|   |          | V DC       | 60 (per pole)                |
| Rated switching capacity acc. to IEC/EN 60947-2 | $I_{cu}$ | kA         | 15                           |
|   |          | kA         | 20                           |
| Operational switching capacity                  |          | kA         | 20                           |
| Characteristic                                  |          |            | Similar: D, C                |
| Max. back-up fuse                               |          | A gL/gG    | 200                          |
| Selectivity Class                               |          |            | Compliant with Class 3       |
| lifespan  | Lifespan | Operations | > 10000                      |
|   |          |            | Direction of incoming supply |

**Mechanical**

|                          |  |        |   |
|--------------------------|--|--------|---|
| Standard front dimension |  | mm     | 45                                      |
| Enclosure height         |  | mm     | 90                                      |
| Mounting width per pole  |  | mm     | 27                                      |
| Mounting                 |  |        | IEC/EN 60715 top-hat rail               |
| Degree of Protection     |  |        | IP20, IP40 (when fitted)                |
| Terminals top and bottom |  |        | Lift terminals                          |
| Terminal protection      |  |        | Finger and back-of-hand proof to BGV A2 |
| Terminal capacities      |  | $mm^2$ |   |
|                          |  | $mm^2$ | 2.5 ... 50                              |

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

|  |            |    |     |
|--|------------|----|-----|
| Technical data for design verification                   |            |    |     |
| Rated operational current for specified heat dissipation | $I_n$      | A  | 100 |
| Heat dissipation per pole, current-dependent             | $P_{vid}$  | W  | 0   |
| Equipment heat dissipation, current-dependent            | $P_{vid}$  | W  | 9.1 |
| 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.                         |

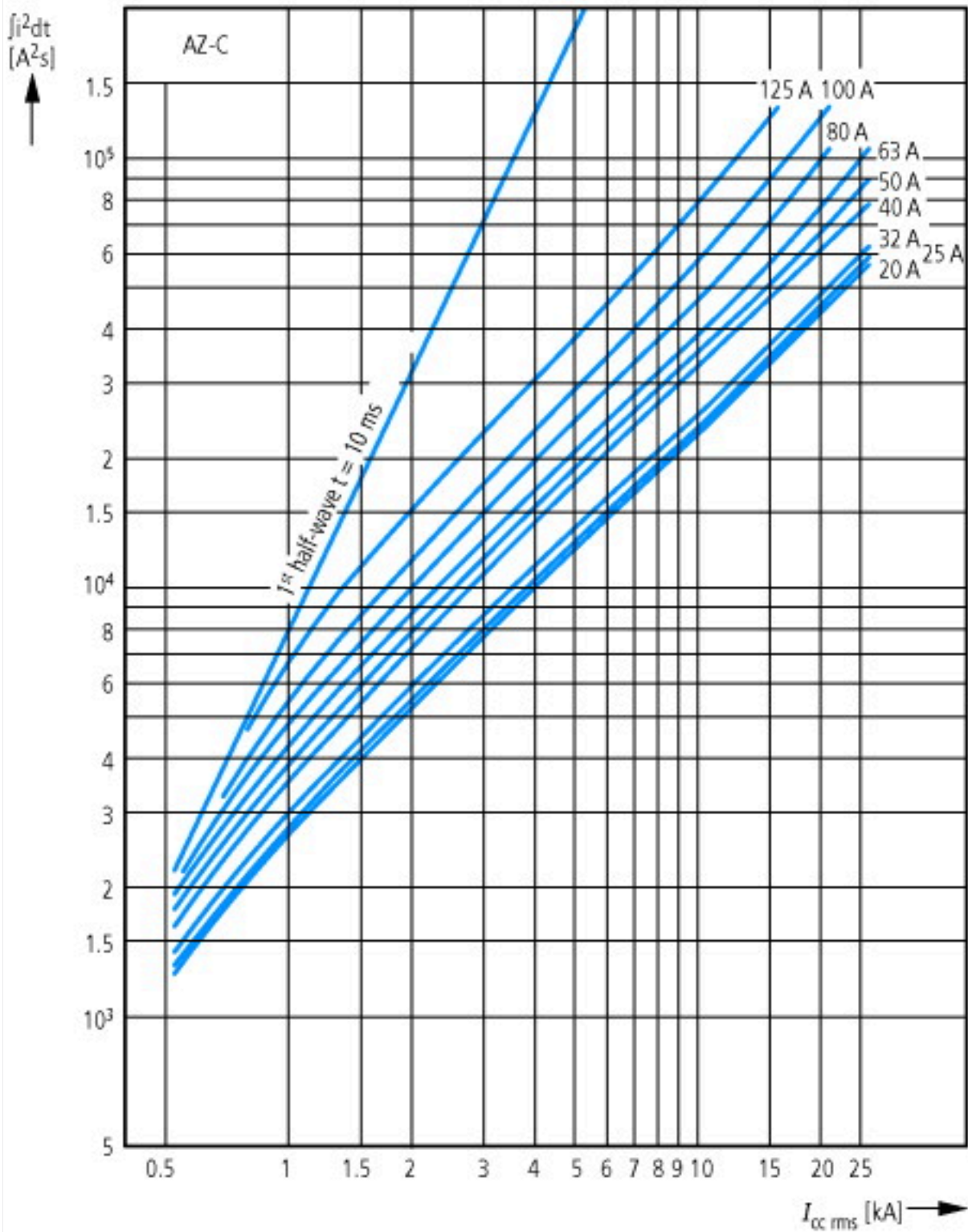
## Technical data ETIM 7.0

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  |    | D        |
| Number of poles (total)   |    | 1        |
| Number of protected poles   |    | 1        |
| Rated current   | A  | 100      |
| 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 | 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                                 |    | 1.5      |
| Built-in depth  | mm | 75       |
| Degree of protection (IP)   |    | IP20     |
| Ambient temperature during operating                                | °C | -25 - 55 |

### Characteristics



Let-through energy  $I^2t$





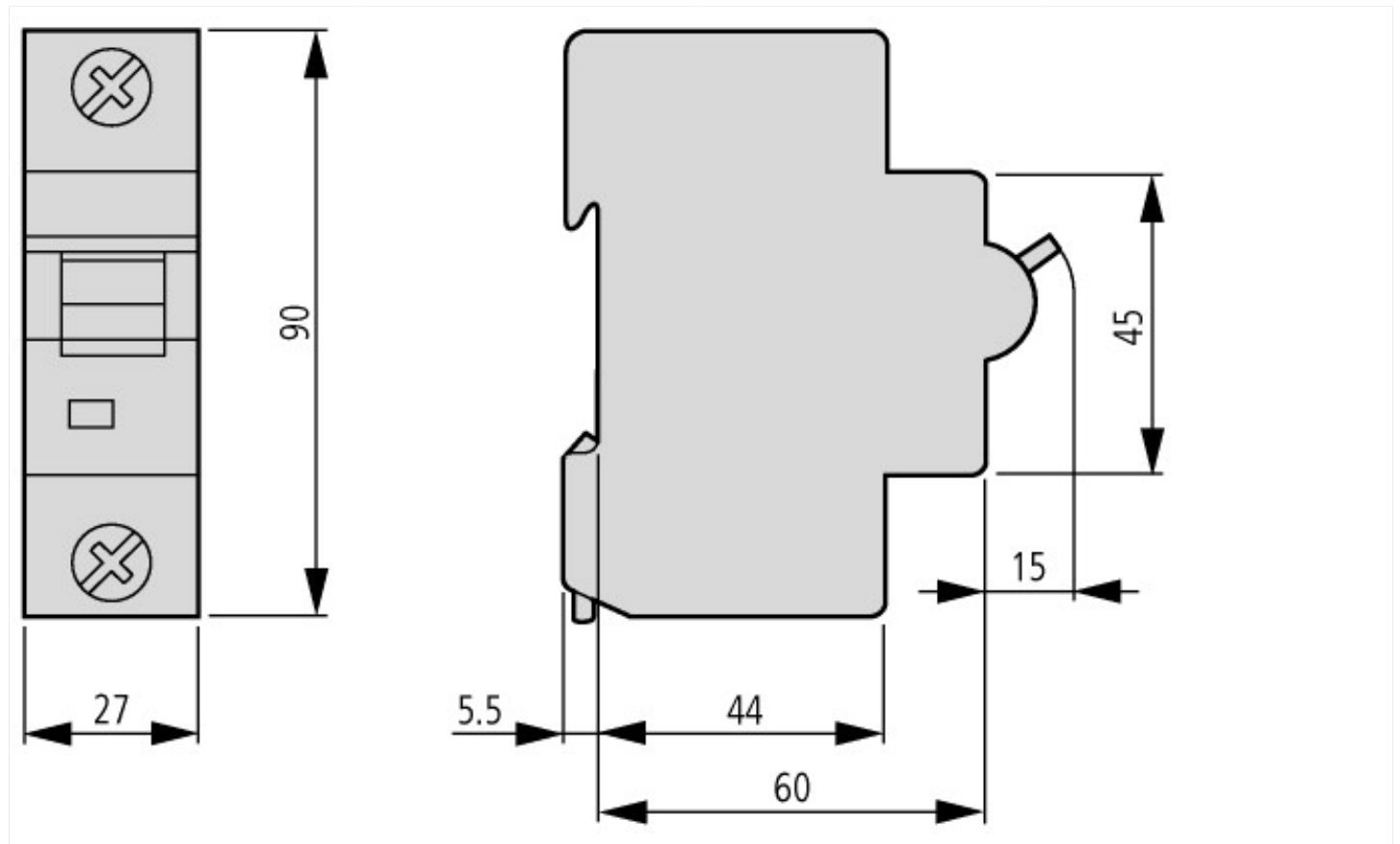
Let-through current  $i_D$





Tripping characteristic at 30 °C:  
 C, D according to IEC/EN 60898

## Dimensions



## Additional product information (links)

**AWA1220-1755 Miniature circuit-breakers**

AWA1220-1755 Miniature circuit-breakers

[ftp://ftp.moeller.net/DOCUMENTATION/AWA\\_INSTRUCTIONS/17550701.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/17550701.pdf)