



Circuit breaker Universal current 440 V DC 400 V AC 10kA, 2-pole, B, 50 A

| Model | |
|---|---------------------------------|
| product brand name | SENTRON |
| product designation | Miniature circuit breaker |
| General technical data | |
| number of poles | 2 |
| design of pole | 2P |
| tripping characteristic class | B |
| mechanical service life (operating cycles) typical | 5 000 |
| overvoltage category | 3 |
| degree of pollution | 3 |
| Voltage | |
| type of voltage of the operating voltage | AC/DC |
| insulation voltage (U _i) | |
| • at DC rated value | 250 V |
| • with single-phase operation at AC rated value | 440 V |
| • with multi-phase operation at AC rated value | 440 V |
| • operational current | |
| — at 40 °C rated value | 47.6 A |
| — at 50 °C rated value | 45.1 A |
| — at 55 °C rated value | 43.75 A |
| — at 60 °C rated value | 42.4 A |
| • operational current at AC rated value | 50 A |
| Supply voltage | |
| supply voltage | |
| • at AC | 400 V |
| • at DC rated value | 440 V |
| value range of the supply voltage frequency | 50/60 Hz |
| operating voltage at DC rated value maximum | 500 V |
| Protection class | |
| protection class IP | IP20, with connected conductors |
| Breaking Capacity | |
| switching capacity current | |
| • at DC according to IEC 60947-2 rated value | 15 kA |
| • according to EN 60898 rated value | 10 kA |
| energy limitation class | 3 |
| Dissipation | |
| power loss [W] for rated value of the current at AC in hot operating state per pole | 4.3 W |

| | |
|---|--|
| suitability for operation | Infrastructure / Industry / Mobility |
| Product details | |
| product feature touch protection | Yes |
| product component | |
| • combined terminal top | Yes |
| • combined terminal bottom | Yes |
| • neutral conductor switching | No |
| product feature properties for main switches in accordance with EN 60204-1 | Yes |
| product feature halogen-free | Yes |
| product feature sealable | Yes |
| product feature silicon-free | Yes |
| product extension installable supplementary devices | Yes |
| Short circuit | |
| short-circuit current breaking capacity (I_{cn}) | |
| • at DC according to EN 60898-2 | 10 kA |
| Connections | |
| connectable conductor cross-section solid | |
| • minimum | 0.75 mm ² |
| • maximum | 35 mm ² |
| connectable conductor cross-section stranded | |
| • minimum | 0.75 mm ² |
| • maximum | 35 mm ² |
| connectable conductor cross-section finely stranded with core end processing | |
| • minimum | 0.75 mm ² |
| • maximum | 25 mm ² |
| AWG number as coded connectable conductor cross section | |
| • minimum | 18 |
| • maximum | 4 |
| tightening torque [lbf-in] with screw-type terminals | |
| • minimum | 22 lbf-in |
| • maximum | 31 lbf-in |
| tightening torque with screw-type terminals | |
| • minimum | 2.5 N·m |
| • maximum | 3.5 N·m |
| position of power supply cord | AC as required, observe DC polarity |
| Mechanical Design | |
| height | 90 mm |
| width | 36 mm |
| depth | 76 mm |
| installation depth | 70 mm |
| number of modular width units | 2 |
| fastening method | DIN rail |
| mounting position | any |
| Net Weight | 339 g |
| Environmental conditions | |
| influence of the surrounding temperature | max. 95% RH up to 55°C, max. 55% RH up to 70°C, max. 35% RH up to 75°C |
| standard | IEC / EN 60898-2, UL1077 |
| vibration resistance according to IEC 60068-2-6 | ±1mm at 5 to 25Hz; 50m/s ² at 25 to 150Hz |
| ambient temperature during operation | |
| • minimum | -40 °C |
| • maximum | 70 °C |
| ambient temperature during storage | |
| • minimum | -40 °C |
| • maximum | 75 °C |
| number of test cycles for environmental testing according to IEC 60068-2-30 | 6 |
| Approvals Certificates | |

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last modified:

11/1/2025 

