

Specifications

| Electrical Ratings | | | |
|--|---|---|--------------|
| Poles | 1, 2, 3, 1+N, 3+N | | |
| Tripping characteristics | B, C, D | | |
| Rated current (In) | 0.5...63 A | | |
| Rated frequency (f) | 50/60 Hz | | |
| Rated insulation voltage Ui acc. to IEC/EN 60664-1 | 250 V AC (phase to ground), 440V AC (phase to phase) | | |
| Overvoltage category | III | | |
| Pollution degree | 3 | | |
| Data acc. to UL/CSA | | | |
| Rated voltage | 1-pole | AC | 277V AC |
| | | DC | 48V DC |
| | 2-pole | AC | 480Y/277V AC |
| | | DC | 96V DC |
| | 3-pole | AC | 480Y/277V AC |
| | Rated interrupting capacity acc. to UL 1077 | ≤ 32 A: 10 kA (AC); > 32 A: 5 kA (AC); 0.5...63 A: 10 kA (DC) | |
| Application | Supplementary Protector for general use; application codes: TC1, OL0, SC: U2 (AC), SC: U2 (DC), FW3 ♣ | | |
| Reference temperature for tripping characteristics | 40 °C | | |
| Electrical endurance | 6,000 ops (AC), 6,000 ops. (DC) 1 cycle (1s - ON, 9s - OFF) | | |
| Data acc. to IEC/EN 60947-2 | | | |
| Rated operational voltage (Ue) | 1-pole, 1+N | 230V AC | |
| | 2-pole, 3-pole, 3+N | 400V AC | |
| Highest supply or utilization voltage (Umax) | AC | 1-pole, 1+N | 253V AC |
| | | 2-pole, 3-pole, 3+N | 440V AC |
| | DC ★ | 1-pole | 48V DC |
| | | 2-pole | 96V DC |
| Min. operating voltage | 12V AC/ DC | | |
| Rated ultimate short-circuit breaking capacity (Icu) | 15 kA | | |
| Rated service short-circuit breaking capacity (Ics) | ≤40 A: 11.25 kA >40 A: 7.5 kA | | |
| Rated impulse withstand voltage Uimp. (1.2/50µs) | 4 kV (test voltage 6.2kV at sea level, 5kV at 2,000m) | | |
| Dielectric test voltage | 2 kV (50/60Hz, 1 min.) | | |
| Reference temperature for tripping characteristics | 30 °C | | |
| Electrical endurance | In < 30A: 20,000 ops (AC) In ≥ 30A: 10,000 ops. (AC) 1 cycle (2s - ON, 13s - OFF, In ≤ 32A), 1 cycle (2s - ON, 28s - OFF, In > 32A) 1,000 ops. (DC) | | |

★ IEC DC ratings self-declared.

♣ 2-pole/3-pole single pole load: TC2.

| Mechanical Data | | |
|--|--|--|
| Housing | Insulation group II, RAL 7035 | |
| Indicator window | red ON/green OFF | |
| Protection degree acc. to EN 60529 | IP20, IP40 in enclosure with cover | |
| Mechanical endurance | 20,000 operations | |
| Shock resistance acc. to IEC/EN 60068-2-27 | 25 g - 2 shocks - 13 ms | |
| Vibration resistance acc. to IEC/EN 60068-2-6 | 5g - 20 cycles at 5...150...5 Hz with load 0.8In | |
| Environmental | | |
| Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30 | 28 cycles with 55°C/90-96% and 25°C/95-100% | |
| Ambient temperature Δ | -25...+55 °C | |
| Storage temperature | -40...+70 °C | |
| Installation | | |
| Terminal | Dual terminal | |
| Cross-section of conductors (top/bottom) solid, stranded ♦ | mm ² 35/35 mm ² | |
| Flexible | mm ² | 25/25 mm ² |
| | AWG | 18 - 4 AWG |
| Cross-section of busbars (top/bottom) | mm ² | 10/10 mm ² |
| | AWG | 14 - 8 AWG |
| Tightening torque | N·m | 2.8 N·m |
| | in·lb. | AWG 18-16: 8.85 in·lb. AWG 14-10: 17.7 in·lb. AWG 8-4: 39.8 in·lb. |
| Screwdriver | No. 2 Pozidrive | |
| Mounting | DIN rail (EN 60715, 35mm) with fast clip | |
| Mounting position | Any | |
| Supply | Optional | |
| Approximate Dimensions and Weight | | |
| Pole dimension (H x D x W) | 88 x 69 x 17.5 mm | |
| Pole weight | 115 g (4.1 oz.) | |
| Combination with Auxiliary Elements | | |
| Auxiliary contact | Yes | |
| Signal contact | Yes | |
| Shunt trip | Yes | |

♦ 35mm² self-declared, not included in IEC/EN approval.

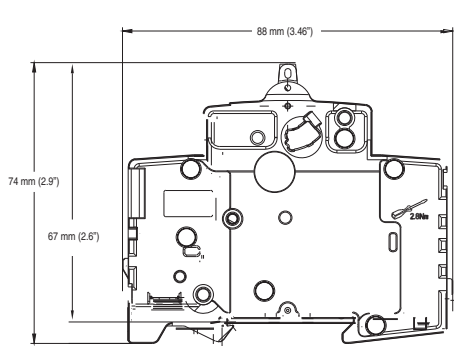
Δ Refer to the Ambient Temperature Derating tables.

Power Loss Due to Current

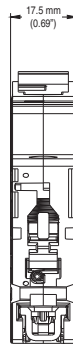
| Rated Current [A] | Power Loss Per Pole [W] | Rated Current [A] | Power Loss Per Pole [W] |
|-------------------|-------------------------|-------------------|-------------------------|
| 0.5 | 1.4 | 13 | 2.3 |
| 1 | 1.4 | 15 | 2.4 |
| 2 | 1.8 | 16 | 2.5 |
| 3 | 1.6 | 20 | 2.5 |
| 4 | 1.8 | 25 | 3.2 |
| 5 | 1.9 | 30 | 3.5 |
| 6 | 2.0 | 32 | 3.7 |
| 7 | 1.1 | 40 | 4.5 |
| 8 | 1.5 | 50 | 4.5 |
| 10 | 2.1 | 63 | 5.4 |

Approximate Dimensions

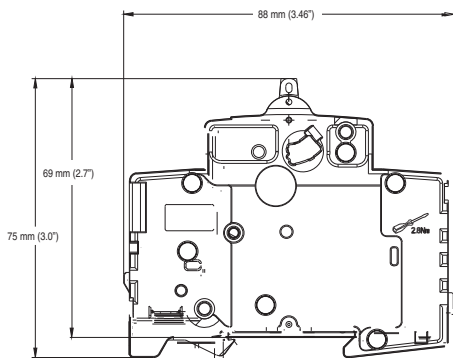
Note: Dimensions are shown in millimeters (inches). Dimensions are not intended for manufacturing purposes.



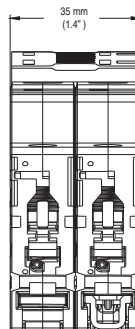
1-Pole



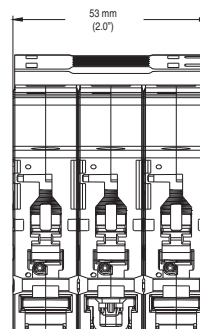
1-Pole



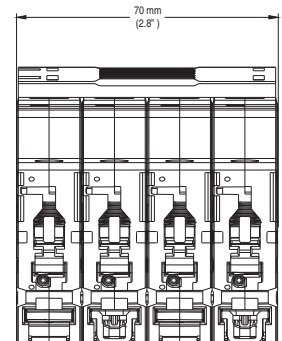
2-, 3-, 4-Pole



2-Pole



3-Pole



4-Pole

Ambient Temperature Derating

Note: Application below 0° C is for non-condensing atmosphere. Care should be taken for applications below 0 °C. These devices are not certified to operate correctly in the presence of ice.

Bulletin 1492-SP

Temperature Derating, UL

Reference temperature = 40 °C

| Current Rating [A] | Ambient temperature (°C) | | | | | | | | | |
|--------------------|--------------------------|------|------|------|------|------|------|-----|------|------|
| | -25 | -20 | -10 | 0 | 10 | 20 | 30 | 40 | 50 | 55 |
| 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| 1 | 1.2 | 1.2 | 1.2 | 1.1 | 1.1 | 1.1 | 1.0 | 1 | 1.0 | 0.9 |
| 2 | 2.5 | 2.4 | 2.4 | 2.3 | 2.2 | 2.1 | 2.1 | 2 | 1.9 | 1.9 |
| 3 | 3.7 | 3.7 | 3.6 | 3.4 | 3.3 | 3.2 | 3.1 | 3 | 2.9 | 2.8 |
| 4 | 5.0 | 4.9 | 4.7 | 4.6 | 4.4 | 4.3 | 4.1 | 4 | 3.9 | 3.8 |
| 5 | 6.2 | 6.1 | 5.9 | 5.7 | 5.6 | 5.4 | 5.2 | 5 | 4.8 | 4.7 |
| 6 | 7.4 | 7.3 | 7.1 | 6.9 | 6.7 | 6.4 | 6.2 | 6 | 5.8 | 5.7 |
| 7 | 8.7 | 8.6 | 8.3 | 8.0 | 7.8 | 7.5 | 7.3 | 7 | 6.7 | 6.6 |
| 8 | 9.9 | 9.8 | 9.5 | 9.2 | 8.9 | 8.6 | 8.3 | 8 | 7.7 | 7.6 |
| 10 | 12.4 | 12.2 | 11.9 | 11.5 | 11.1 | 10.7 | 10.4 | 10 | 9.6 | 9.4 |
| 13 | 16.1 | 15.9 | 15.4 | 14.9 | 14.4 | 14.0 | 13.5 | 13 | 12.5 | 12.3 |
| 15 | 18.6 | 18.3 | 17.8 | 17.2 | 16.7 | 16.1 | 15.6 | 15 | 14.4 | 14.2 |
| 16 | 19.8 | 19.6 | 19.0 | 18.4 | 17.8 | 17.2 | 16.6 | 16 | 15.4 | 15.1 |
| 20 | 24.8 | 24.4 | 23.7 | 23.0 | 22.2 | 21.5 | 20.7 | 20 | 19.3 | 18.9 |
| 25 | 31.0 | 30.6 | 29.6 | 28.7 | 27.8 | 26.9 | 25.9 | 25 | 24.1 | 23.6 |
| 30 | 37.2 | 36.7 | 35.6 | 34.4 | 33.3 | 32.2 | 31.1 | 30 | 28.9 | 28.3 |
| 32 | 39.7 | 39.1 | 37.9 | 36.7 | 35.6 | 34.4 | 33.2 | 32 | 30.8 | 30.2 |
| 40 | 49.6 | 48.9 | 47.4 | 45.9 | 44.4 | 43.0 | 41.5 | 40 | 38.5 | 37.8 |
| 50 | 62.0 | 61.1 | 59.3 | 57.4 | 55.6 | 53.7 | 51.9 | 50 | 48.2 | 47.2 |
| 63 | 78.2 | 77.0 | 74.7 | 72.3 | 70.0 | 67.7 | 65.3 | 63 | 60.7 | 59.5 |

Bulletin 1492-SP

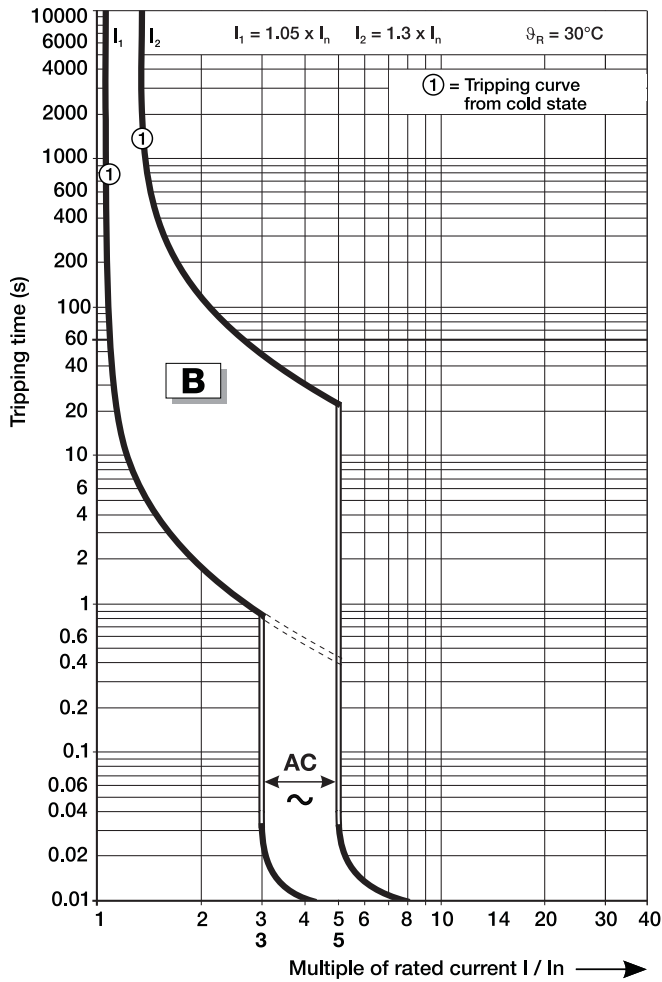
Temperature Derating, IEC

Reference temperature = 30 °C

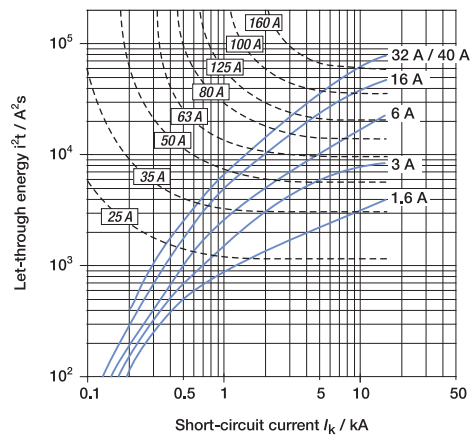
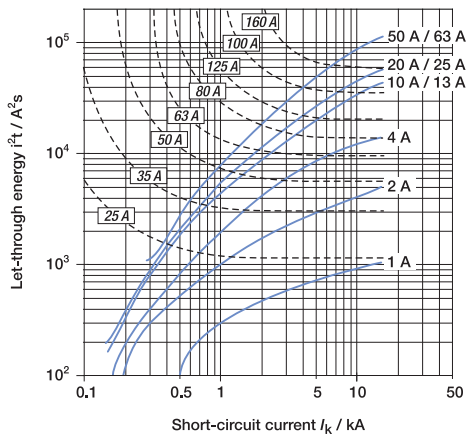
| Current Rating [A] | Ambient temperature (°C) | | | | | | | | | |
|--------------------|--------------------------|------|------|------|------|------|-----|------|------|------|
| | -25 | -20 | -10 | 0 | 10 | 20 | 30 | 40 | 50 | 55 |
| 0.5 | 0.6 | 0.6 | 0.6 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| 1 | 1.2 | 1.2 | 1.1 | 1.1 | 1.1 | 1.0 | 1 | 1.0 | 0.9 | 0.9 |
| 2 | 2.3 | 2.3 | 2.2 | 2.2 | 2.1 | 2.1 | 2 | 1.9 | 1.9 | 1.9 |
| 3 | 3.5 | 3.5 | 3.4 | 3.3 | 3.2 | 3.1 | 3 | 2.9 | 2.8 | 2.8 |
| 4 | 4.7 | 4.6 | 4.5 | 4.4 | 4.2 | 4.1 | 4 | 3.9 | 3.8 | 3.7 |
| 5 | 5.8 | 5.8 | 5.6 | 5.5 | 5.3 | 5.2 | 5 | 4.9 | 4.7 | 4.6 |
| 6 | 7.0 | 6.9 | 6.7 | 6.5 | 6.4 | 6.2 | 6 | 5.8 | 5.6 | 5.6 |
| 7 | 8.2 | 8.1 | 7.8 | 7.6 | 7.4 | 7.2 | 7 | 6.8 | 6.6 | 6.5 |
| 8 | 9.3 | 9.2 | 9.0 | 8.7 | 8.5 | 8.2 | 8 | 7.8 | 7.5 | 7.4 |
| 10 | 11.7 | 11.5 | 11.2 | 10.9 | 10.6 | 10.3 | 10 | 9.7 | 9.4 | 9.3 |
| 13 | 15.1 | 15.0 | 14.6 | 14.2 | 13.8 | 13.4 | 13 | 12.6 | 12.2 | 12.0 |
| 15 | 17.5 | 17.3 | 16.8 | 16.4 | 15.9 | 15.5 | 15 | 14.6 | 14.1 | 13.9 |
| 16 | 18.6 | 18.4 | 17.9 | 17.4 | 17.0 | 16.5 | 16 | 15.5 | 15.0 | 14.8 |
| 20 | 23.3 | 23.0 | 22.4 | 21.8 | 21.2 | 20.6 | 20 | 19.4 | 18.8 | 18.5 |
| 25 | 29.1 | 28.8 | 28.0 | 27.3 | 26.5 | 25.8 | 25 | 24.3 | 23.5 | 23.1 |
| 30 | 35.0 | 34.5 | 33.6 | 32.7 | 31.8 | 30.9 | 30 | 29.1 | 28.2 | 27.8 |
| 32 | 37.3 | 36.8 | 35.8 | 34.9 | 33.9 | 33.0 | 32 | 31.0 | 30.1 | 29.6 |
| 40 | 46.6 | 46.0 | 44.8 | 43.6 | 42.4 | 41.2 | 40 | 38.8 | 37.6 | 37.0 |
| 50 | 58.3 | 57.5 | 56.0 | 54.5 | 53.0 | 51.5 | 50 | 48.5 | 47.0 | 46.3 |
| 63 | 73.4 | 72.5 | 70.6 | 68.7 | 66.8 | 64.9 | 63 | 61.1 | 59.2 | 58.3 |

Tripping Characteristics

B Curve

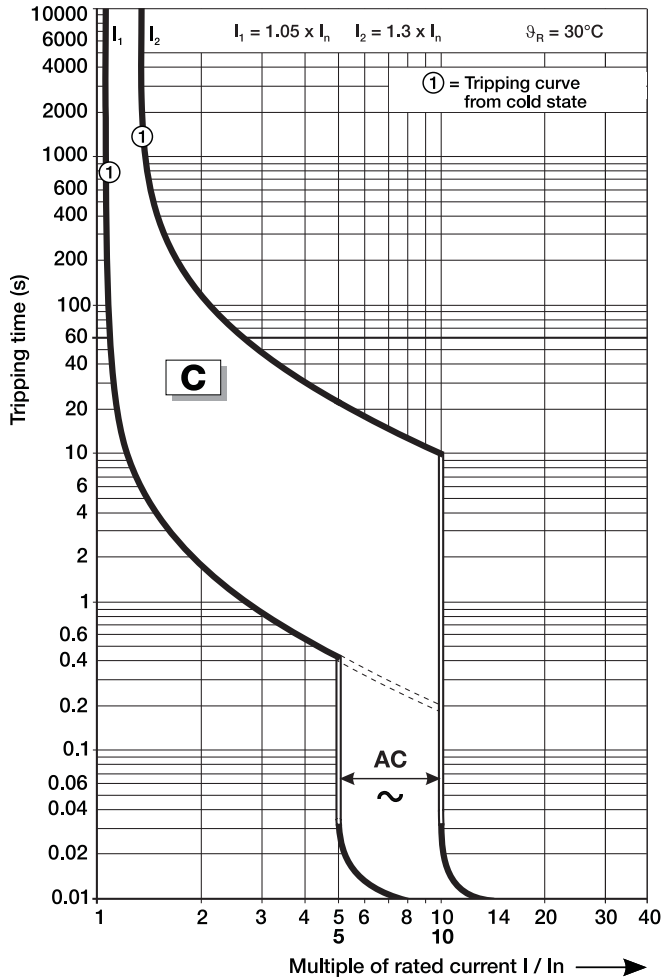


B and C Curve - 230/400V AC Let-through Energy

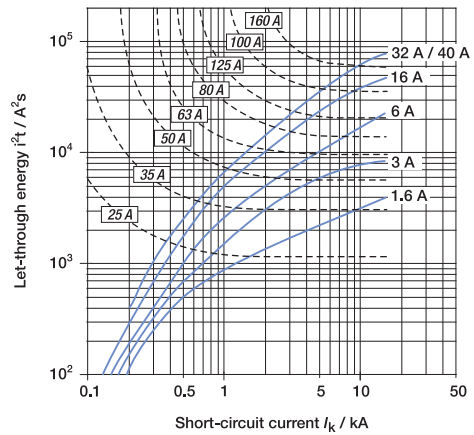
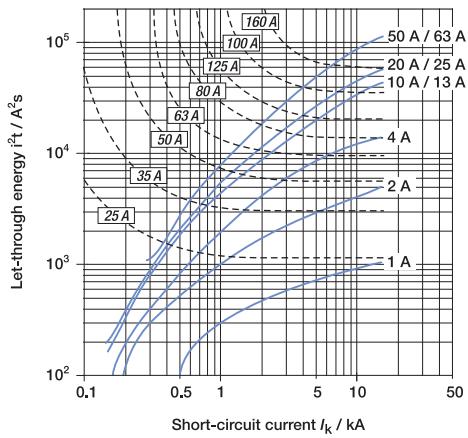


Tripping Characteristics

C Curve

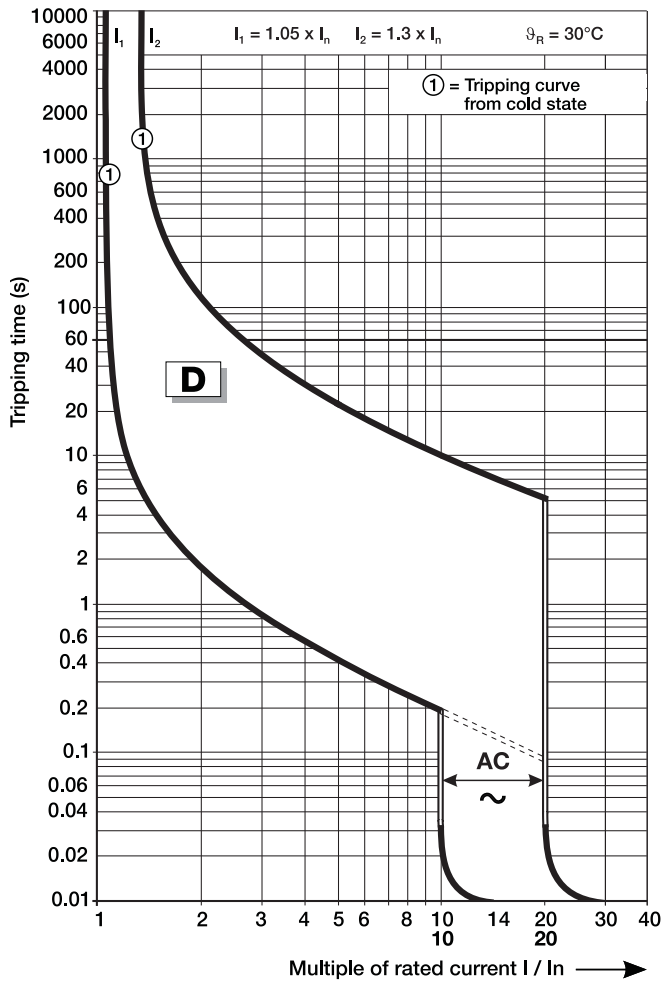


B and C Curve - 230/400V AC Let-through Energy



Tripping Characteristics

D Curve



D Curve - 230/400V AC Let-through Energy

