

Description

Single pole thermal-magnetic circuit breakers with tease-free, trip-free, press-to-reset, snap action mechanism (R-type TM CBE to EN 60934; M-type with manual release (-H)). Available with fast acting and standard magnetic tripping characteristics - types 3300 and 3400 - both with threadneck panel mounting. Options include auxiliary contacts, a separate shunt tap terminal (-A3), and pull-to-trip manual release (-H). Approved to CBE standard EN 60934 (IEC 60934).

Typical applications

Control systems, instrumentation, medical equipment, machine tools, robotics.

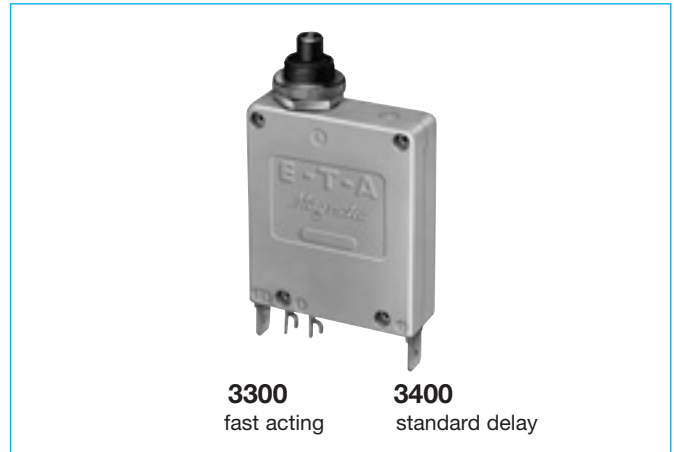
Ordering information

| | |
|--|--|
| Type No. | |
| 3300 | fast acting |
| 3400 | standard delay |
| Mounting | |
| iG2 | moulded threadneck M12x1 (bulk-shipped), not with -H; |
| ... | leave blank for metal threadneck, required for -H |
| Terminal design | |
| P10 | blade terminals 6.3-0.8 (QC .250) |
| K20 | screw terminals M3.5x5.5 with clamp (not for -Si and -A3) |
| Shunt terminal (optional) | |
| A3 | same as main terminals, up to $I_N=7$ A max. load 5 A |
| Manual release (optional) | |
| H | manual release facility (pull), without reinforced insulation in operating area, for M12x1 metal threadneck only. Metal threadneck version for -H is not approved. |
| Auxiliary contacts (optional) | |
| Si | with silver-plated solder terminals (N/O and N/C) |
| Push button marking (optional) | |
| 1 | without |
| Current ratings | |
| 0.05...16 A | |
| 3400 - iG2 - P10 - ... - Si - ... - 10 A | |
| ordering example, without manual release and with moulded threadneck | |
| 3400 - ... - P10 - ... - H - Si - ... - 10 A | |
| ordering example, with manual release and metal threadneck | |

The exact part number required can be built up from the table of choices shown above. Ordering references for optional features should be omitted if not required.

Standard current ratings and typical internal resistance values

| Current ratings (A) | Internal resistance (Ω) | | Current ratings (A) | Internal resistance (Ω) | |
|---------------------|----------------------------------|------|---------------------|----------------------------------|-------------|
| | 3300 | 3400 | | 3300 | 3400 |
| 0.05 | 447 | 211 | 3 | 0.18 | 0.19 |
| 0.1 | 131 | 131 | 4 | 0.109 | 0.090 |
| 0.2 | 41 | 40 | 5 | 0.066 | 0.061 |
| 0.3 | 19.6 | 19.3 | 6 | 0.046 | 0.041 |
| 0.4 | 10.4 | 10.4 | 7 | 0.032 | 0.034 |
| 0.5 | 7.2 | 7.1 | 8 | 0.02 | ≤ 0.02 |
| 0.6 | 4.8 | 4.3 | 10 | ≤ 0.02 | ≤ 0.02 |
| 0.8 | 2.5 | 2.5 | 12 | ≤ 0.02 | ≤ 0.02 |
| 1 | 1.93 | 1.67 | 13 | ≤ 0.02 | ≤ 0.02 |
| 1.5 | 0.81 | 0.61 | 14 | ≤ 0.02 | ≤ 0.02 |
| 2 | 0.44 | 0.38 | 15 | ≤ 0.02 | ≤ 0.02 |
| 2.5 | 0.27 | 0.24 | 16 | ≤ 0.02 | ≤ 0.02 |



3300
fast acting

3400
standard delay

Technical data

For further details please see chapter: Technical Information

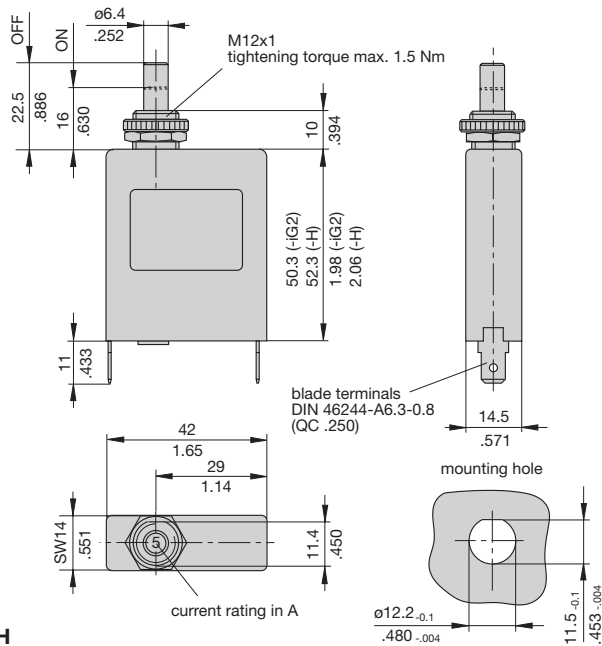
| | | |
|---|---|--|
| Voltage rating | AC 240 V, 50/60 Hz; DC 65 V (UL: AC 250 V; DC 80 V) | |
| Current ratings | 0.05...16 A | |
| Auxiliary circuit | 1 A, AC 240 V / DC 65 V | |
| Typical life | with -H: 5,000 operations at $1 \times I_N$, inductive 5,000 operations at $2 \times I_N$, resistive without -H: 0.05...8 A > 8 A 5,000 operations at $2 \times I_N$, inductive 1,500 operations at $2 \times I_N$, inductive | |
| Ambient temperature | -30...+60 °C (-22...+140 °F) | |
| Insulation co-ordination (IEC 60664 and 60664 A) operating area | rated impulse withstand voltage 2.5 kV | pollution degree 2 reinforced insulation in operating area |
| Dielectric strength (IEC 60664 and 60664A) operating area | test voltage AC 3,000 V double insulation | |
| main circuit/aux. circuit | AC 1,500 V | |
| aux. circuit 4-5/6-7 | AC 840 V | |
| Insulation resistance | > 100 M Ω (DC 500 V) | |
| Interrupting capacity I_{cn} | 0.05...0.8 A 1...2 A 2.5...16 A | self-limiting 200 A 400 A |
| Interrupting capacity (UL 1077) | I_N 0.05...16 A 0.05...16 A | U_N AC 250 V 1,000 A DC 80 V 1,000 A |
| Degree of protection (IEC 60529/DIN 40050) | operating area IP40 terminal area IP00 | |
| Vibration | 5 g (57-500 Hz), ± 0.38 mm (10-57 Hz) to IEC 60068-2-6, test Fc 10 frequency cycles/axis | |
| Shock | 25 g (11 ms) to IEC 60068-2-27, test Ea | |
| Corrosion | 96 hours at 5 % salt mist to IEC 60068-2-11, test Ka | |
| Humidity | 240 hours at 95 % RH, to IEC 60068-2-3, test Ca | |
| Mass | 3300: approx. 55 g 3400: approx. 50 g | |

Approvals

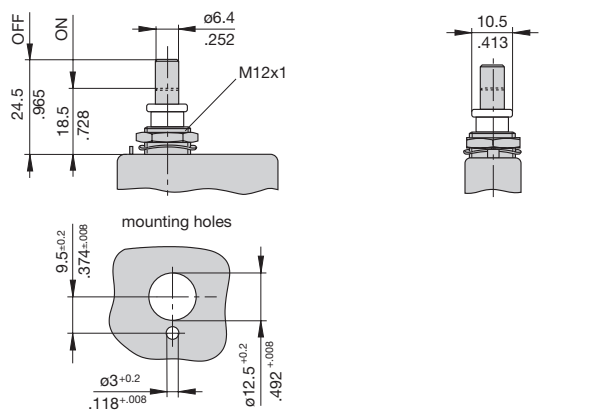
| Authority | Voltage ratings | Current ratings |
|--------------------|-------------------|-----------------|
| VDE (EN 60934) | AC 240 V; DC 65 V | 0.05...16 A |
| CSA, UL | AC 250 V; DC 80 V | 0.05...16 A |
| UL: only type 3400 | DC 65 V | 0.05...25 A |

Dimensions

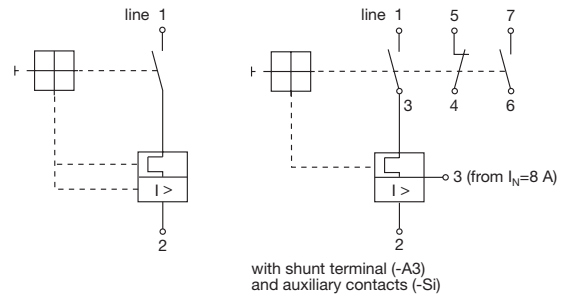
-iG2-P10



-H

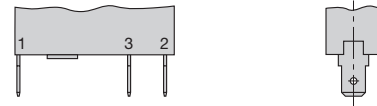


Internal connection diagrams

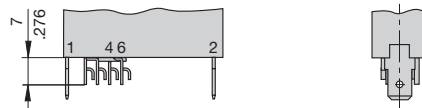


Terminal design

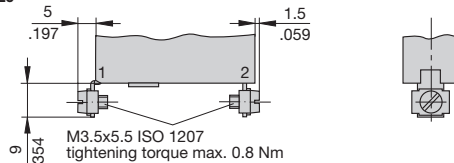
-P10-A3



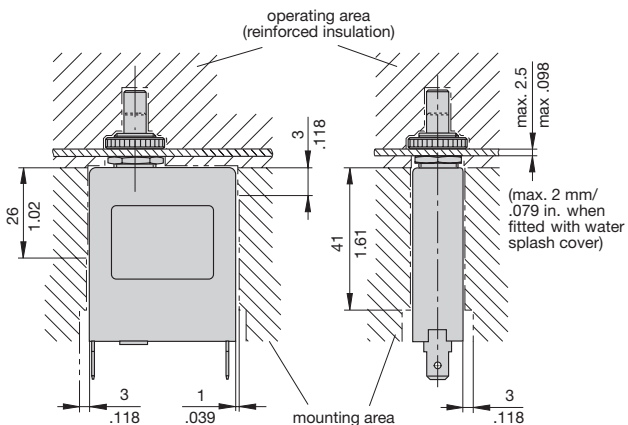
-P10-Si



-K20



Installation drawing



This is a metric design and millimeter dimensions take precedence ($\frac{\text{mm}}{\text{inch}}$)