**Description**

Single pole, miniaturised, aircraft style thermal circuit breaker with ease-free, trip-free, snap action mechanism and push/pull on/off manual actuation (M-type TO CBE to EN 60934). An indicator band on the push button clearly shows the tripped/off position. Threadneck panel mounted, available in metric and US (MS 3320) configurations. Advanced two-chamber design contributes to fail-safe operation. Temperature compensated from -55 °C to +125 °C, with optional auxiliary contacts, and fully approved for use on a wide range of aircraft and equipment. Full specification ensures suitability for the most demanding applications. For three pole version see type 583.

**Typical applications**

Aircraft systems and equipment (fixed wing and helicopters); other extra low voltage wiring applications; defence equipment; communications systems.

**Standard current ratings and typical volt drop values**

<table>
<thead>
<tr>
<th>Current rating (A)</th>
<th>Volt drop (mV)</th>
<th>Current rating (A)</th>
<th>Volt drop (mV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>750</td>
<td>10</td>
<td>190</td>
</tr>
<tr>
<td>2</td>
<td>520</td>
<td>15</td>
<td>190</td>
</tr>
<tr>
<td>2.5</td>
<td>400</td>
<td>20</td>
<td>200</td>
</tr>
<tr>
<td>3</td>
<td>360</td>
<td>25</td>
<td>170</td>
</tr>
<tr>
<td>4</td>
<td>350</td>
<td>30</td>
<td>160</td>
</tr>
<tr>
<td>5</td>
<td>260</td>
<td>35</td>
<td>150</td>
</tr>
<tr>
<td>7.5</td>
<td>230</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Technical data**

- **Voltage rating**: AC 115 V (300 Hz to 800 Hz); DC 28 V (higher voltage ratings upon request)
- **Current rating range**: 1...35 A
- **Auxiliary circuit**: 0.5 A, DC 28 V
- **Typical life**: 20,000 operations mechanical or 10,000 operations at I_N (≤ 25 A) 5,000 operations at I_N (30 + 35 A)
- **Ambient temperature**: -55...+125 °C (-67...+257 °F)
- **Insulation co-ordination**: rated impulse withstand voltage 1.5 kV, pollution degree 3
- **Dielectric strength**: test voltage AC 1,500 V, AC 1,500 V
- **Insulation resistance**: > 100 MΩ (DC 500 V)
- **Interrupting capacity I_{CN}**: AC 115 V (400 Hz): 5 A, 2,000 A 7.5...35 A 2,500 A
- **Degree of protection**: operating area IP40, terminal area IP00
- **Vibration (sinusoidal)**: 15 g (70-2000 Hz), ± 0.76 mm (5-70 Hz) to VG 95210, sheet 19, IEC 60068-2-6, test Fc/ISO 7137
- **Vibration (random)**: 16.4 g rms, 0.2 g/Hz ± 1.5 dB to VG 95210, sheet 29, ISO 7137
- **Acceleration**: 17 g, to ISO 2669
- **Shock**: 75 g (11 ms) to VG 95210, sheet 28, IEC 60068-2-27, test Ea/ISO 7137
- **Corrosion**: 96 hours at 5 % salt mist, severity A 48 hours at 20 % salt mist, severity B to VG 95210, sheet 2, IEC 60068-2-11, test Ka/ISO 7137
- **Humidity**: 240 hours at 95 % RH, to VG 95210, sheet 7, IEC 60068-2-3, test C/ISO 7137
- **Explosion**: to VG 95210, sheet 10, MIL-STD-202, meth. 109
- **Altitude**: ≤ 25,000 m above sea level
- **Mass**: max. 29 g with auxiliary contact, max. 25 g without auxiliary contact
- **Weight reduction through aluminium threadneck**: approx. 3 g

**Approvals**

- **Authority**
  - UL
  - CSA
  - Bw
  - QPL Canada
  - QPL Sweden
  - QPL UK
- **Standard**
  - UL 1077
  - C22.2 No 235
  - VG 95345, part 6
  - LN 29886
  - VG 95345, part 6
  - LN 29886
  - MS 3320
  - LN 29886
  - MS 3320 (V)
- **Rated voltage**
  - AC 250 V DC 75 V
  - AC 250 V DC 75 V
  - AC 115 V, 400 Hz DC 28 V
  - AC 115 V, 400 Hz DC 28 V
  - AC 115 V, 400 Hz DC 28 V
  - AC 115 V, 400 Hz DC 28 V
- **Current ratings**
  - 1 A...25 A 1 A...35 A
  - 1 A...25 A 1 A...35 A
  - 1 A...25 A
  - 1 A...25 A
  - 1 A...25 A 1 A...25 A
- **Authority**
  - Dep. of National Defence
  - Defence Material Admin.
  - Ministry of Defence
  - Dep. of the Navy
- **Standard**
  - LN 29886 MS 3320
  - MS 3320 (V)
- **Rated voltage**
  - AC 115 V, 400 Hz DC 28 V
  - AC 115 V, 400 Hz DC 28 V
  - AC 115 V, 400 Hz DC 28 V
- **Current ratings**
  - 1 A...25 A
  - 1 A...25 A
  - 1 A...20 A 1 A...20 A
### Ordering information

**Type No.**
483 - single pole, with temperature compensation

**Mounting**
G - threadneck panel mounting, standard

**Threadneck design**
1 M12x1,8,4x8.8 dia. with mounting plate (aux. contact version)
3 MJ12x6,4x8.8 dia. (without aux. contact)
4 M12x1,8,4x8.8 dia. (without aux. contact)
5 7/16-32UNSx6,4x7,8 dia. (without aux. contact)
6 M12x1,9,4x8.8 dia. (without aux. contact)

**Hardware for threadneck (washers)**
5 without hardware
1 wave washer 12/15 - mounted
2 mounted washer 12/17,2 - mounted
3 mounted washer 11,3/14,9 - mounted
4 (threadneck design 5,7 only)

**Hardware for threadneck (nuts)**
0 without hardware
1 hex nut M12x1 (threadneck design 1, 4, 6 only)
3 hex nut 7/16-32UNS (threadneck design 5, 7 only)
4 hex nut MJ12x1, aluminium, fitted (threadneck design 8 only)
5 hex nut MJ12x1 (only with threadneck design 3)

**Terminal design (main terminals)**
K - screws terminals with metric thread
1 K14 (M4, MJ4)
2 J14 (8-32UNC-2B)
3 J25 (6-32UNC-2B)

**Characteristic curve**
M1 - thermal, 1.15-1.38 Iper

**Terminal screws**
A - Phillips screw M4x6
B - Phillips screw 8-32UNC-2Ax6 (MS 51957-41)
C - Phillips screw 6-32UNC-2Ax6 (MS 51957-26)
D - slotted flat head screw M4x6
E - hex screw with Phillips head 8-32UNC-3A-9,5
L - Phillips screw MJ4x6
Z - without accessories

**Terminal washers**
0 - without lock washer
1 - lock washer B4
2 - lock washer 4.3 (MS 35338-137)
4 - lock washer 3.7 (MS 35338-136)

**Auxiliary contact**
S0 - without auxiliary contact
S1 - with auxiliary contact (N/C) connector to EN3155-016M2018, size 20
S5 - with polarized auxiliary contact (N/C)

**Barrier**
Z - without barrier (standard)

**Colour of the push button**
blank: black (standard) (e. g. 7,5)
N - black, marking to EN (e. g. 7 1/2)

**Current ratings**
1...35 A

---

### Ordering information for approved devices

**483-G411-K1M1-A1S0ZN**
Metric threadneck M12x1 and terminal design -K14 (M4x6), listed by the German Materialamt der Bundeswehr to VG 95345 T06.

**483-G533-J1M1-B2S0ZN (MS 3320)**
Threadneck size 7/16-32UNSx6.4 and terminal design -J14 (inch thread 8-32), approved to MS 3320.

**483-G539-J3M1-C4S0Z (483-TC-G11-J25)**
Threadneck size 7/16-32UNSx6.4 and terminal design -J25 (inch thread 6-32), listed by the German Materialamt der Bundeswehr to VG 95345, part 6.

### Internal connection diagrams

**with auxiliary contact**

**with polarized auxiliary contact**

---

### Preferred types

<table>
<thead>
<tr>
<th>Preferred types</th>
<th>Standard current ratings (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>483-G411-K1M1-A1S0ZN</td>
<td>1 2 2.5 3 5 6 7.5 10 15 20 25 30 35</td>
</tr>
<tr>
<td>483-G411-K1M1-A1S0ZN (VG 95345 T06)</td>
<td>x x x x x x x x x x x</td>
</tr>
</tbody>
</table>

---

---
High Performance Thermal Circuit Breaker 483-...

**Dimensions 483-G411-K1M1-A1S02ZN (VG 95345 T06)**

- **Terminal Screw ISO 7045-M4x6**
  - **Mounting Torque Max. 4 Nm**

**Dimensions 483-G533-J1M1-B2S02ZN (MS 3320)**

- **Terminal Screw MS 51967-41 (8-32 UNC-2A)**
  - **Mounting Torque Max. 1.7 Nm**

**Mounting**

- **Location Pin**
  - **Current Rating in A**
  - **Mounting Holes**
  - **Thick. 1.5 - 3 mm**

This is a metric design and millimeter dimensions take precedence (mm).
Other main terminal and threadneck designs

**Terminal design - J2**
Terminal distances to:
- MS 14 105 (a, b)
- MS 14 153 (a, b)
- MS 22 073 (a)
- MS 25 074 (a)
- MS 25 373 (a, b)

**Terminal design - J3**
Terminal distances to:
- MS 26 574 (a, b)

**Mounting - G6**

Accessories

**Identification collar** to be snapped on the push button
- Y 307 004 01 black
- Y 307 004 02 white
- Y 307 004 03 red
- Y 307 004 04 green
- Y 307 004 05 blue

**Lock out ring** to block the push button in OFF position
- Y 307 005 01 red
- Y 307 005 02 black

Typical time/current characteristics

<table>
<thead>
<tr>
<th>Trip time in seconds</th>
<th>... times rated current</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>40</td>
<td>60</td>
</tr>
<tr>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>100</td>
<td>200</td>
</tr>
<tr>
<td>400</td>
<td>600</td>
</tr>
<tr>
<td>800</td>
<td>1000</td>
</tr>
<tr>
<td>1000</td>
<td>2000</td>
</tr>
<tr>
<td>10000</td>
<td>...</td>
</tr>
</tbody>
</table>

Accessories

**Splash cover/hex nut assembly with O ring (IP54)**
- (approved to VG 95345, T23)
- X 200 801 06 nickel plated nut, transparent cover
- X 200 801 08 nickel plated nut, transparent cover
- X 200 801 09 matt black finish nut, black cover
- X 200 801 12 with blackened nut and transparent cover

**Splash cover/hex nut assembly with O ring (IP66 and IP67)**
- (approved to VG 95345, T23)
- X 200 801 03 matt black finish nut, black cover
- X 200 801 09 matt black finish nut 7/16-32, black cover
- X 200 801 12 with blackened nut and transparent cover

**Actuator extension (black)** to be fitted on the push button
- (approved to VG 95345, T23)
- X 200 803 01

This is a metric design and millimeter dimensions take precedence (mm).

All dimensions without tolerances are for reference only. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without notice is reserved. Product markings may not be exactly as the ordering codes. Errors and omissions excepted.