# **国际** High Performance Thermal Circuit Breaker 483-...

# **Description**

Single pole, miniaturised, aircraft style thermal circuit breaker with tease-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° 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

Current rating (A)	Volt drop (mV)	Current rating (A)	Volt drop (mV)	
1	750	10	190	
2	520	15	190	
2.5	400	20	200	
3	360	25	170	
4	350	30	160	
5	260	35	150	
7.5	230			

# **Approvals**

Authority	Voltage ratings	Current ratings
LN 29886		-
VG 95345 T06		
MS 3320, MS 3320 V		
QPL		
UL	AC 250 V, 50/60 Hz DC 75 V	125 A 135 A



Technical data		
Voltage rating	AC 115 V (400 Hz); DC 28 V (higher voltage ratings upon request)	
Current rating range	135 A	
Auxiliary circuit	0.5 A, DC 28 V	
Typical life	20,000 operations mechanical or 10,000 operations at $I_N (\le 25 \text{ A})$ 5,000 operations at $I_N (30 + 35 \text{ A})$	
Ambient temperature	-55+125 °C (-67+257 °F)	
Insulation co-ordination (IEC 60664 and 60664A)	rated impulse pollution withstand voltage degree 1.5 kV 3	
Dielectric strength (IEC 60664 and 60664A) operating area main to aux. circuit	test voltage AC 1,500 V AC 1,500 V	
Insulation resistance	> 100 MΩ (DC 500 V)	
Interrupting capacity I <sub>cn</sub> AC 115 V (400 Hz): DC 28 V:	5 A 2,000 A 7.535 A 2,500 A	
DC 26 V:	125 A 6,000 A 30 + 35 A 4,000 A	
Degree of protection (IEC 60529/DIN 40050)	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 g²/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 throug	h aluminium threadneck: approx. 3 g	

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# **Ordering information**

### single pole, with temperature compensation G threadneck panel mounting, standard threadneck panel mounting, high vibration performance 1 M12x1x6.4x8.8 dia. with mounting plate (aux. contact version) 2 15/32-32UNx6.4x7.8 dia. (without aux. contact) 3 MJ12x6.4x8.8 dia. (without aux. contact) 4 M12x1x6.4x8.8 dia. (without aux. contact) 5 7/16-32UNx6.4x7.8 dia. (without aux. contact) 6 M12x1x9.4x8.8 dia. (without aux. contact) 7 7/16-32 UNx6.4x7.8 dia.with mounting plate (aux.contact version) 8 as 483-G1...but with aluminium threadneck (only mounting -G and aux. contact versions S1, S5) Hardware for threadneck (washers) without hardware wave washer 12/15 - mounted 2 mounted washer 12.1/17.2 - mounted 3 mounted washer 11.3/14.9 - mounted (threadneck design 5,7 only) 4 mounted washer 12/15 - mounted 5 tooth washer 12.1/17.2, bulk shipped Hardware for threadneck (nuts) without hardware hex nut M12x1 (threadneck design 1, 4, 6 only) hex nut 15/32-32UN (threadneck design 2 only) hex nut 7/16-32UN (threadneck design 5, 7 only) hex nut M12x1, aluminium, fitted (threadneck design 8 only) hex nut MJ12x1 (only with threadneck design 3) hex nut M12x1, bulk shipped (threadneck design 1,4,6) Terminal design (main terminals) K screws terminals with metric thread 1 K14 (M4, MJ4) J screw terminals with inch thread 1 J14 (8-32UNC-2B) 2 J17 (8-32UNC-2B) J25 (6-32UNC-2B) Characteristic cur M1 thermal, 1.15-1.38 I Terminal screws A Phillips screw M4x6 B Phillips screw 8-32UNC-2Ax6 (MS 51957-41) C Phillips screw 6-32UNC-2Ax6 (MS 51957-26) slotted flat head screw M4x6 E hex screw with Phillips head 8-32UNC-3A-9.5 K hex screw with Phillips head 8-32UNC-3Ax7.6 L Phillips screw MJ4x6 M as "K" but bulk shipped without accessories without lock washer 1 lock washer B4 lock washer 4.3 (MS 35338-137) 3 lock washer B4 and washer 4.4/9.5 4 lock washer 3.7 (MS 35338-136) 5 lock washer 4.3/9 **Auxiliary contact** so without auxiliary contact \$1 with auxiliary contact (N/C) connector to EN3155-016M2018, size 20 \$5 with polarized auxiliary contact (N/C) without barrier (standard) Colour of the push button blank: black (standard) (e. g. 7.5) green (e. g. 7.5) green, marking to EN (e. g. 7 1/2) black, marking to EN (e. g. 7 1/2) **Current ratings** 483 - G 4 1 1 - K 1 M1 - A 1 S0 Z . - 5 A ordering example

# 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-G111-K1M1-A1S1ZN

Metric threadneck M12x1 and terminal design -K14 (M4x6) and auxiliary contact -Si, 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-V533-J1M1-B2S0ZN (MS 3320-V)

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

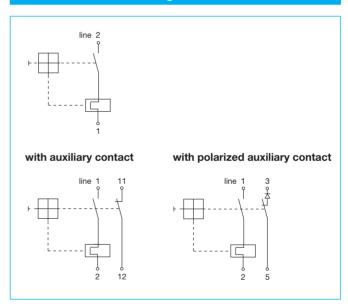
### 483-G533-J3M1-C4S0Z (483-TC-G11-J25)

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.

### 483-G814-K1M1-A1S1ZN

Aluminium threadneck M12x1x6.4x8.8 dia.

### **Internal connection diagrams**

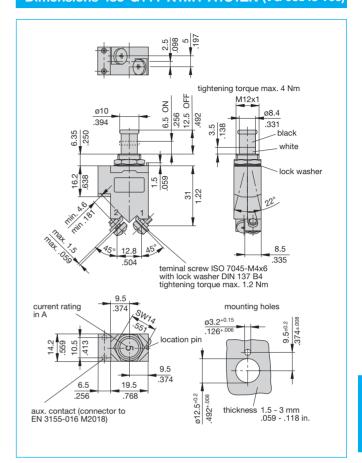


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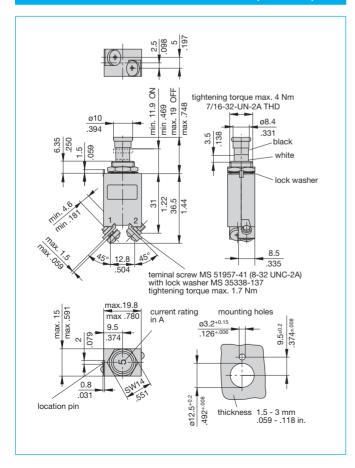
# Dimensions 483-G411-K1M1-A1S0ZN (VG 95345 T06)

# tightening torque max. 4 Nm M12x1 08.4 08.4 08.4 08.5 12.8 08.5 12.8 19.5 10.8

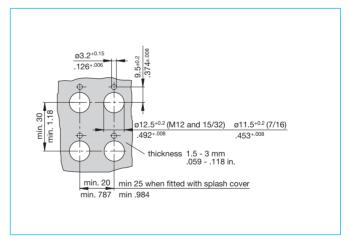
# Dimensions 483-G111-K1M1-A1S1ZN (VG 95345 T06)



# Dimensions 483-G533-J1M1-B2S0ZN (MS 3320)



# Mounting



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