E-T-A High Performance Thermal Circuit Breaker 482-...

Description

Single pole compact high performance 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 in tracked vehicle and aircraft/general purpose versions, with optional auxiliary contacts.

Typical applications

Applications in land and water vehicles, aerospace industry suppliers, and industrial plant engineering.

Ordering information

Type No.
482 single pole thermal circuit breaker
Mounting
G threadneck panel mounting
Threadneck design
1 M 12x1 nickel plated
2 M 12x1 black
Hardware - washer for threadneck
0 without hardware
1 corrugated washer 12/15, fitted
Hardware - hex nut for threadneck
0 without hardware
1 hex nut M12x1 nickel plated
2 hex nut M12x1 black
Terminal design (main terminals)
K1 screw terminals with metric thread M4
Characteristic curve
M1 thermal 1.15-1.4 I_N
Terminal screws
A Pan head screw with Pozidriv (PZ) recess, M4×6 (ISO 7045), assembled
F Pan head screw with Pozidriv (PZ) recess (ISO 7045), bulk shipped
M Slotted pan head screw, M4×6 (ISO 1580), assembled
Z without
Terminal washers
0 without lock washer
1 lock washer DIN 137-B4, fitted
6 lock washer DIN 137-B4, bulk shipped
Auxiliary contact
S0 without auxiliary contacts
S1 with auxiliary contact (NC)
Current ratings
0.1...50 A

482 - G 1 1 1 - K1 M1 - A 1 S1 - 10 A ordering example

Please note that minimum order quantities apply.

Preferred types

Preferred types	Standard current ratings (A)												
	1	3	5	6	8	10	15	20	25	30	35	40	50
482-G111-K1M1-A1S0-	x	x	x	x	x	x	x	x	x	x	x	x	x
482-G212-K1M1-A1S0-	x		x			x	x	x	x	x	x	x	x

Approvals

Authority	Standard	Rated voltage	Current ratings
UL	UL 1077	DC 72 V	0.1 A...50 A
CSA	C22.2 No 235	DC 72 V	0.1 A...50 A
Bw	VG 95345, part 21	DC 28 V	15 A...50 A

without aux. contacts

482

with aux. contacts

Technical data

For further details please see: www.e-t-a.de/ti_e

Voltage rating	AC 115 V (400 Hz); DC 28 V AC 230 (50/60 Hz) to special order
Current rating range	0.1...50 A
Auxiliary circuit	0.5 A, DC 28 V
Typical life	10,000 operations mechanical 5,000 operations at I_N
Ambient temperature	-55...+75 °C (-67...+167 °F)
Insulation co-ordination (IEC 60664 and 60664A)	rated impulse withstand voltage 1.5 kV; pollution degree 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_{cn}	0.1...2.5 A 15 x I_N 3...3.5 A 250 A DC / 150 A AC 4...7 A 500 A 7.5...50 A 6,000 A DC / 1,000 A AC 35...50 A with auxiliary contact: 3,000 A DC / 1,000 A AC
Interrupting capacity (UL 1077)	I_N U_N 0.1...50 A DC 72 V 5,000 A
Degree of protection (IEC 60529/DIN 40050)	operating area IP40 terminal area IP00
Vibration	10 g (55-2000 Hz), ± 0.76 mm (10-55 Hz) to VG 95210, sheet 19/IEC 60068-2-6, test Fc
Shock	50 g (11 ms) to VG 95210, sheet 28/IEC 60068-2-27, test Ea
Corrosion	48 hours at 5 % salt mist to VG 95210, sheet 2/IEC 60068-2-11, test Ka
Humidity	240 hours at 95 % RH to VG 95210, sheet 7/IEC 60068-2-3, test C
Explosion	to VG 95210, sheet 10/MIL-STD-202, meth. 109
Mass	approx. 43 g without auxiliary contact approx. 46 g with auxiliary contact

Previous ordering codes:
482-N-MS = 482-G111-K1M1-A1S0-...A
482-MS = 482-G212-K1M1-A1S0-...A

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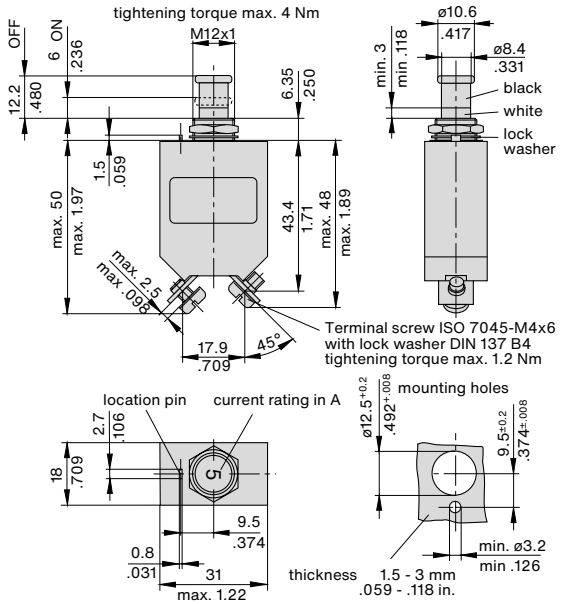
Standard current ratings and typical volt drop values

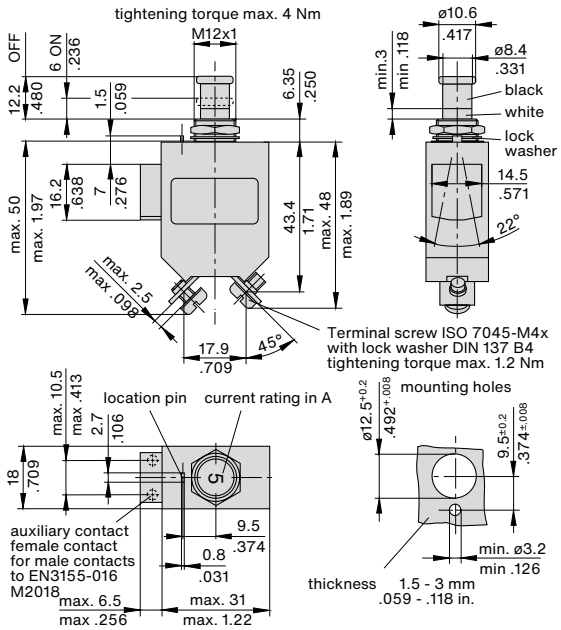
Current rating (A)	Volt drop (mV)	Current rating (A)	Volt drop (mV)
0.1	16,000	5	350
0.2	8,000	7.5	230
0.5	3,000	10	< 200
0.8	2,000	15	< 200
1	1,500	20	< 200
1.2	1,200	25	< 200
1.5	1,000	30	< 200
1.8	850	35	< 200
2	800	40	< 200
2.5	700	45	< 200
3	600	50	< 200
4	430		

Dimensions 482-G1...

482-G111-K1M1-A1S0 (VG 95345 T21)

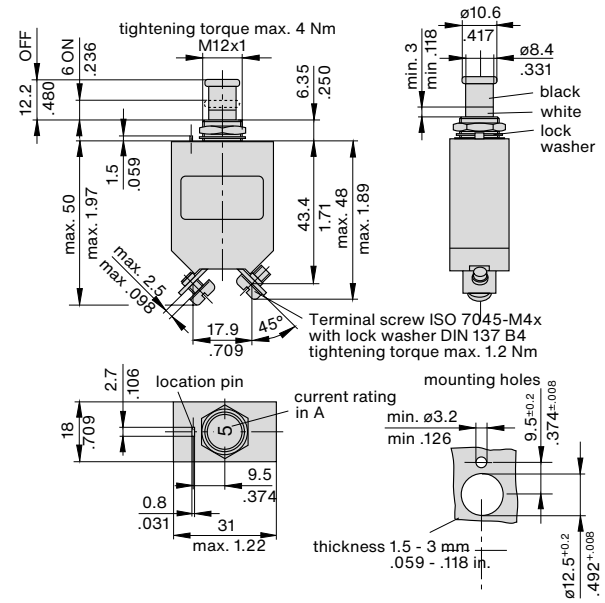


482-G111-K1M1-A1S1 (VG 95345 T21)



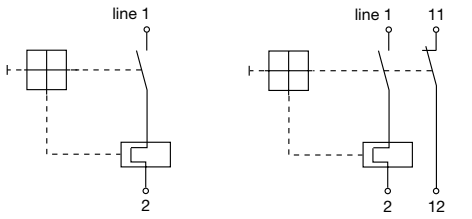
Dimensions 482-G2../-G6../-G7...

482-G212-K1M1-A1S0 (VG 95345 T21)



Internal connection diagrams

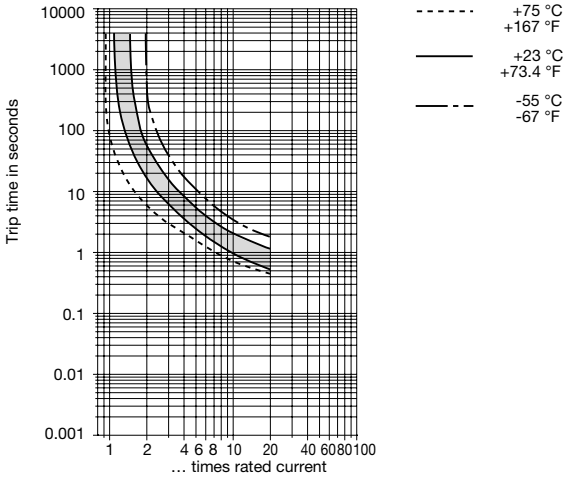
with auxiliary contact



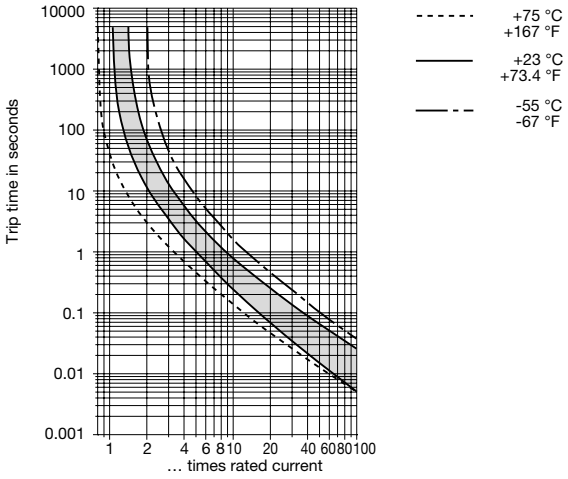
This is a metric design and millimeter dimensions take precedence (mm / inch)

Typical time/current characteristics

0.1...2.5 A



3...50 A



Mounting instructions

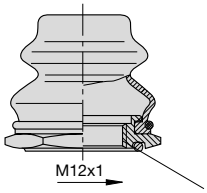
The devices must not be aligned in tightened state! There is a risk of permanent damage at the circuit mechanics and the housing may break! The devices must be countered during mounting on the threadneck!

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

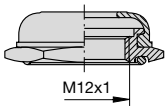
All dimensions without tolerances are for reference only. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without notice is reserved.Product markings may not be exactly as the ordering codes. Errors and omissions excepted.

Accessories (approved to VG 95345, part 23)

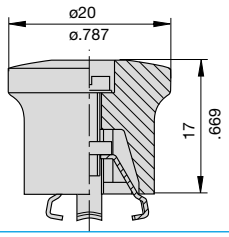
Splash cover /hex nut assembly with O ring (IP66 and IP67)
X 200 801 08 nickel plated nut M12x1, transparent cover
X 200 801 03 matt black finish nut M12x1, black cover
X 200 801 12 with blackened nut and transparent cover



Splash cover black /hex nut assembly with O ring (IP54)
X 200 802 01 nickel plated nut M12x1
X 200 802 02 matt black finish nut M12x1

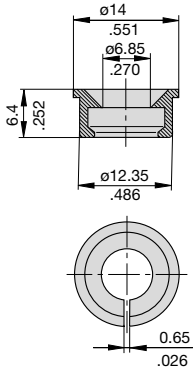
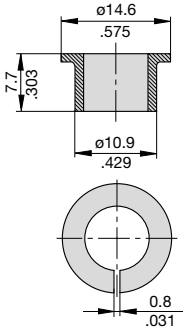


Actuator extension (black)
to be fitted on the push button
X 200 803 01



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