Description

Single pole high performance thermal-magnetic circuit breaker, with tease-free, trip-free, snap action mechanism and push/pull on/off actuation (M-type TM 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 fast acting magnetic characteristics and auxiliary contacts.

Typical applications

Extra low voltage wiring systems on all types of vehicle for land, sea and air; defence equipment; battery powered machines.

Ordering information

Type No.
- **452** standard delay curve
- **452-2** fast trip curve

Terminal design
- **K14** screw terminals M6
- **K34** screw terminals M6, reinforced

Version
- **FN2** vehicle application
- **LN2** aircraft/general application

Auxiliary contacts
- **(blank)** without auxiliary contacts
- **S1** with auxiliary contact (connector EN 3155-016M2018 (NC)
- **S5** as S1, but with polarized auxiliary contact (NC)

Current ratings
- **50...100 A**

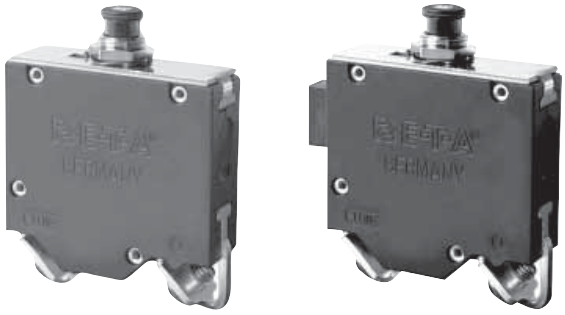
452 - K14 - LN2 - S1 - 80 A ordering example

Standard current ratings and typical volt drop values

Current rating (A)	Volt drop (mV)	Current rating (A)	Volt drop (mV)
50	90	80	92
60	85	90	100
70	85	100	100
75	90		

Approvals (without auxiliary contacts)

Authority	Voltage ratings	Current ratings
VG 95345, part 17	DC 28 V	60...100 A
QPL, Canada	DC 28 V	60...100 A
QPL, Sweden	DC 28 V	60...100 A (452-K34-FN)
UL	DC 28 V; DC 72 V	50...125 A



452-...

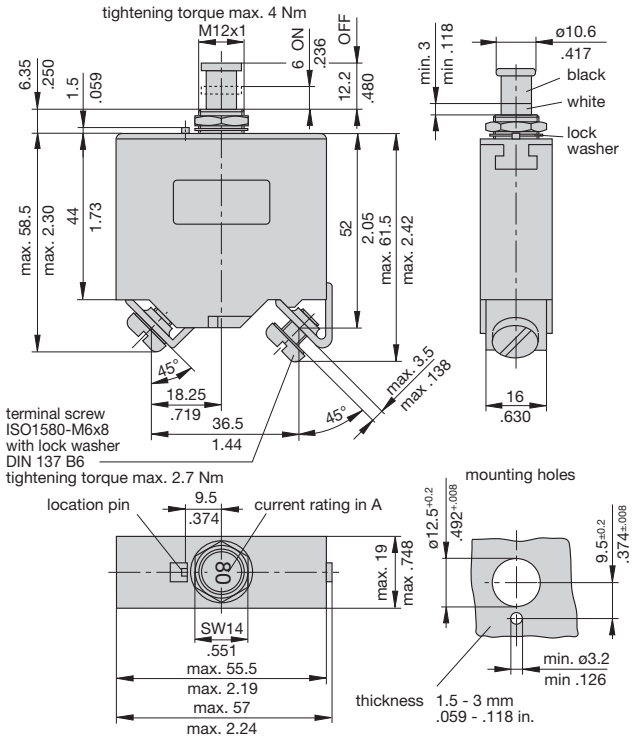
without auxiliary contacts — with auxiliary contacts

Technical data

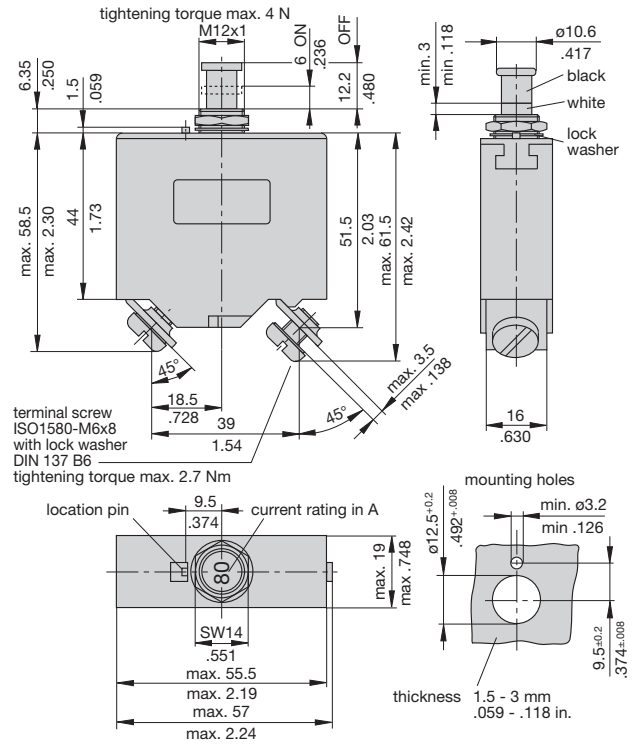
Voltage rating	DC 28 V
Current rating range	50...100 A
Auxiliary circuit	0.5 A, DC 28 V
Typical life	2,500 operations at I_N
Ambient temperature	-55...+75 °C (-67...+167 °F)
Insulation co-ordination (IEC 60664 and 60664A)	rated impulse withstand voltage 1.5 kV; pollution degree 3
Dielectric strength (IEC 60664 and 60664A) operating area	test voltage AC 1,500 V
Insulation resistance	> 100 MΩ (DC 500 V)
Interrupting capacity I_{cn}	6,000 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	96 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. 122 g without auxiliary contact approx. 126 g with auxiliary contact

Dimensions 452-K...-...

452-K34-FN2 (VG 95345 T17)

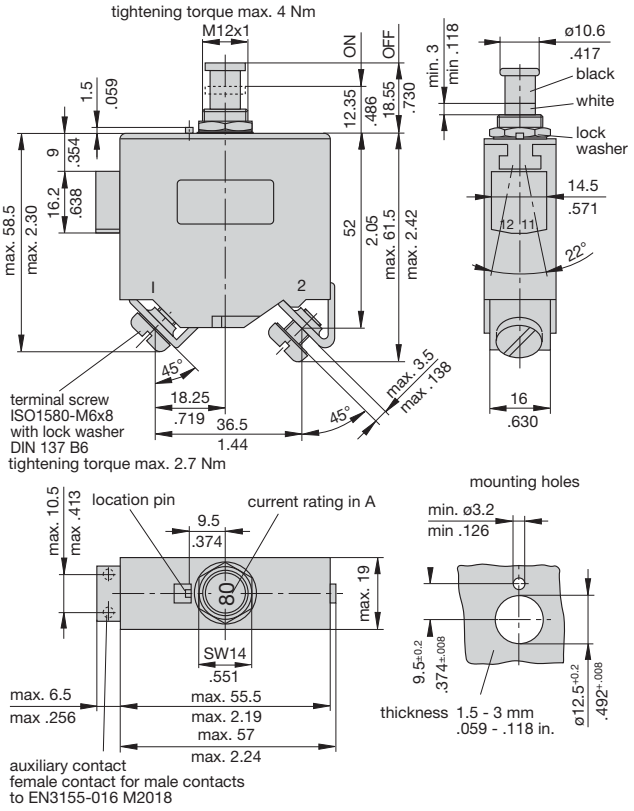


452-K14-LN2 (VG 95345 T17)

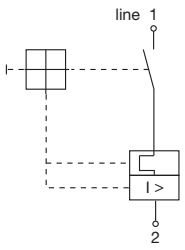


Dimensions 452-K..-S.

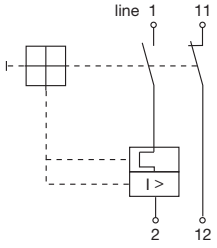
452-K34-LN2-S1 (VG 95345 T17)
452-K34-LN2-S5



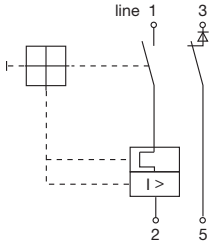
Internal connection diagram



with auxiliary contact -S1



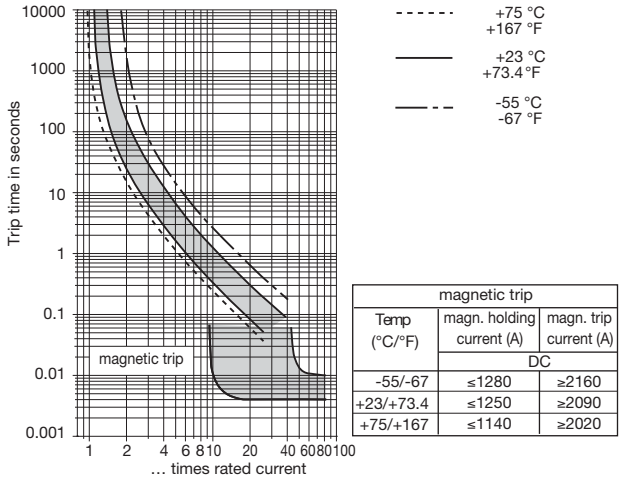
with polarized auxiliary contact -S5



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

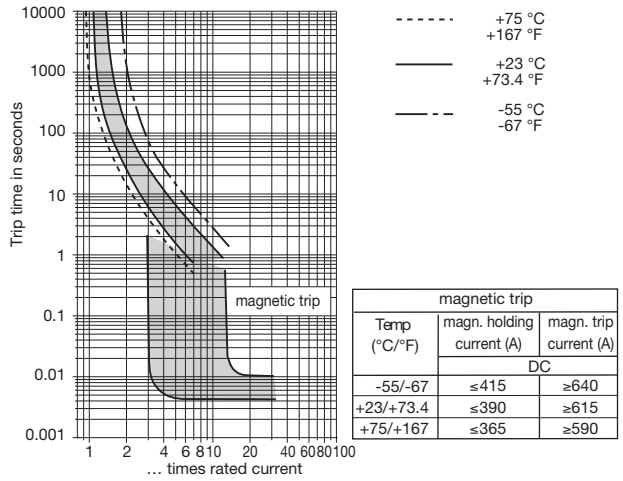
Typical time/current characteristics

452-... (standard delay)



magnetic trip		
Temp (°C/°F)	magn. holding current (A)	magn. trip current (A)
	DC	
-55/-67	≤1280	≥2160
+23/+73.4	≤1250	≥2090
+75/+167	≤1140	≥2020

452-2-... (fast trip)

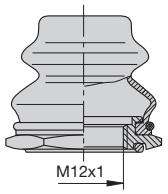


magnetic trip		
Temp (°C/°F)	magn. holding current (A)	magn. trip current (A)
	DC	
-55/-67	≤415	≥640
+23/+73.4	≤390	≥615
+75/+167	≤365	≥590

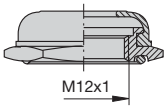
Characteristic curves for AC to special order.

Accessories (approved to VG 95345, part 23)

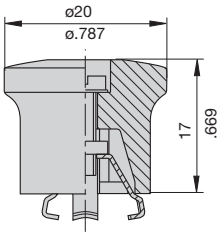
Splash cover/hex nut assembly with O ring (IP66 and IP67)
X 200 801 08 nickel plated nut, transparent cover
X 200 801 03 matt black finish nut, black cover



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

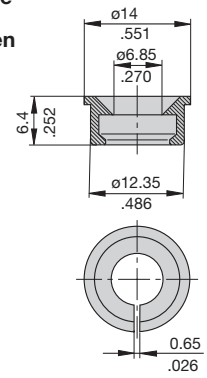


Actuator extension (black)
to be fitted on the push button
X 200 803 01

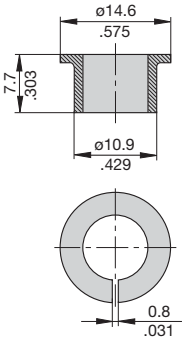


Accessories

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



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

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.

Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

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- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

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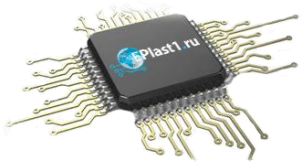
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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