E-T-A Thermal-Magnetic Circuit Breaker 201

Description

Single pole thermal-magnetic circuit breaker with tease-free, trip-free, snap action mechanism and two button operation (M-type TM CBE to EN 60934). Featuring a narrow profile housing, recessed terminals, standard EN rail mounting, and precision CBE performance.
Approved to CBE standard EN 60934 (IEC 60934).

Typical applications

Process control systems, instrumentation, rail vehicles.

Ordering information

Type No.		
201		single pole, rail mounted version
	Current ratings	
	0.05...16 A	
201	- 10 A	ordering example

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.

Preferred types

Preferred types	Standard current ratings (A)									
	0.5	1	2	3	4	5	8	10	15	16
201-	x	x	x	x	x	x	x	x	x	x

Standard current ratings and typical internal resistance values

Current rating (A)	Internal resistance (Ω)	Current rating (A)	Internal resistance (Ω)
0.05	447	**3**	**0.19**
0.1	131	**4**	**0.090**
0.2	40	**5**	**0.061**
0.3	19.3	6	0.041
0.4	10.4	7	0.034
0.5	**7.1**	**8**	**< 0.02**
0.6	4.3	**10**	**< 0.02**
0.8	2.5	12	< 0.02
1	**1.67**	14	< 0.02
1.5	0.61	**15**	**< 0.02**
2	**0.38**	**16**	**< 0.02**
2.5	0.24		

Approvals

Authority	Standard	Rated voltage	Current ratings
VDE	IEC/EN 60934	AC 240 V DC 65 V	0.05 A...16 A 0.05 A...16 A
UL	UL 1077 C22.2 No 235	AC 250 V DC 80 V	0.05 A...16 A 0.05 A...16 A
CSA	C22.2 No 235	AC 250 V DC 80 V	0.05 A...16 A 0.05 A...16 A



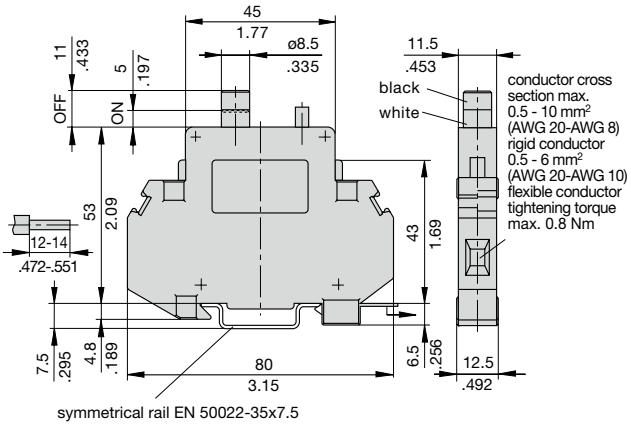
201-...

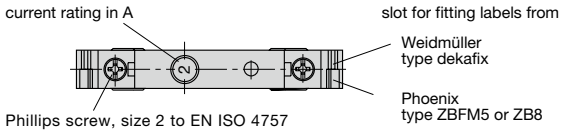
Technical data

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 rating range	0.05...16 A		
Typical life	5,000 operations at 1 x I_N, inductive 5,000 operations at 2 x I_N, resistive		
Ambient temperature	-30...+60 °C (-22...+140 °F)		
Insulation co-ordination (IEC 60664 and 60664 A)	rated impulse withstand voltage 2.5 kV reinforced insulation	pollution degree 2 in operating area	
Dielectric strength (IEC 60664 and 60664A) operating area	test voltage AC 3,000 V		
Insulation resistance	> 100 MΩ (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 DC 80 V	1,000 A 1,000 A
Degree of protection (IEC 60529/DIN 40050)	operating area IP40 terminal area IP20		
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 60068-2-78, test Cab		
Mass	approx. 60 g		

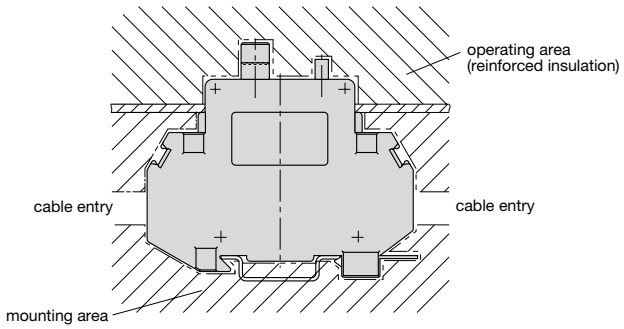
Dimensions



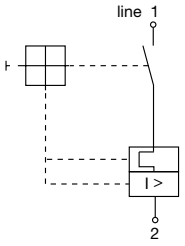


This is a metric design and millimeter dimensions take precedence ($\frac{mm}{inch}$)

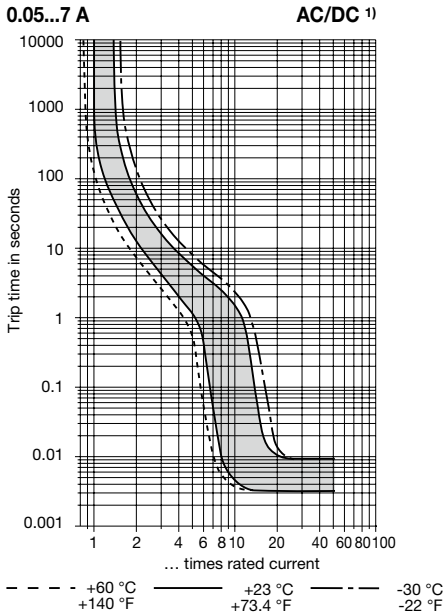
Installation drawing

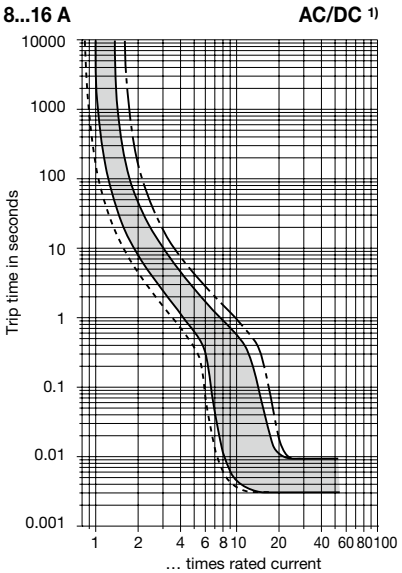


Internal connection diagram



Typical time/current characteristics





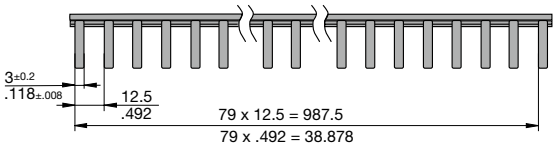
1) Magnetic tripping currents are increased by 20% on DC supplies.

Ambient temp. °F °C	-22 -30	-4 -20	+14 -10	+32 0	+73.4 +23	+104 +40	+122 +50	+140 +60
Derating factor	0.76	0.79	0.83	0.88	1	1.08	1.16	1.24

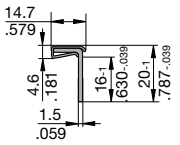
The time/current characteristic curve depends on the ambient temperature prevailing. In order to eliminate nuisance tripping, please multiply the circuit breaker current ratings by the derating factor shown below. See also section Technical information.

Accessories

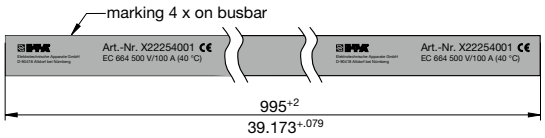
Busbar 1-pole, 90°
X 222 540 01
The one metre long busbars can be cut to suitable lengths. Plug-on caps can be fitted on the ends to provide brush contact protection.
I_{max} - busbar 100 A (40 °C)



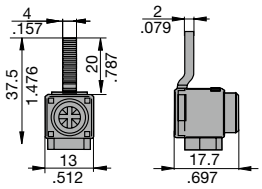
Plug-on cap, 1-pole
Y 307 851 01





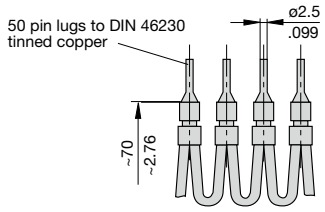


Supply terminal I_{max} 63 A
Y 308 551 01
Max. tightening torque of terminal screw 2 Nm
Max. cable cross section: 25 mm² / single strand
16 mm² / multistrand
with wire end ferrule





Connector bus links -K10
X 210 589 01/2.5 mm², (AWG 14) (black) up to 20 A max. load
X 210 589 02/1.5 mm², (AWG 16) (brown) up to 13 A max. load



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.