

# ETA® Thermal-Magnetic Circuit Breaker 201/-WA

## 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. Complies with CBE standard EN 60934 (IEC 934)

## Typical applications

Process control systems, instrumentation.

## Accessories

X 200 409 01	Mounting adapter for asymmetric rail (G-profile).
X 210 589 01	50-way 2.5 mm <sup>2</sup> cable links with prefitted connection lugs, black
X 210 589 02	As above but with 1.5 mm <sup>2</sup> cable links, brown
X 221 497 00	Bus bar
X 221 498 00	Bus bar
X 221 496 00	Supply terminal for bus bar

## Ordering information

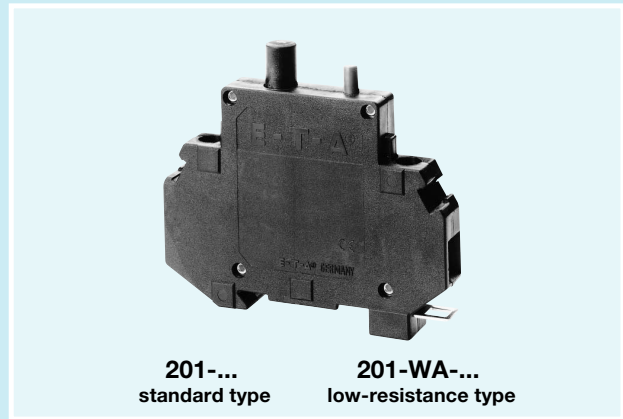
Type No.	
201	single pole, rail mounted version
201-WA	low-resistance version
<b>Option</b>	
2705	fitted with adapter X 200 409 01
<b>Current ratings</b>	
0.05...16 A (type 201)	
0.05...10 A (type 201-WA)	

201-WA - [ ] - 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.

## Standard current ratings and typical internal resistance values

Current rating (A)	Internal resistance (Ω)		Current rating (A)	Internal resistance (Ω)	
	201	201-WA		201	201-WA
0.05	447	211	3	0.19	0.054
0.1	131	48	4	0.090	0.035
0.2	40	12.4	5	0.061	0.025
0.3	19.3	5.7	6	0.041	< 0.02
0.4	10.4	3.1	7	0.034	< 0.02
0.5	7.1	2.0	8	< 0.02	< 0.02
0.6	4.3	1.32	10	< 0.02	< 0.02
0.8	2.5	0.76	12	< 0.02	
1	1.67	0.49	14	< 0.02	
1.5	0.61	0.21	15	< 0.02	
2	0.38	0.101	16	< 0.02	
2.5	0.24	0.078			



201-... standard type      201-WA-... low-resistance type

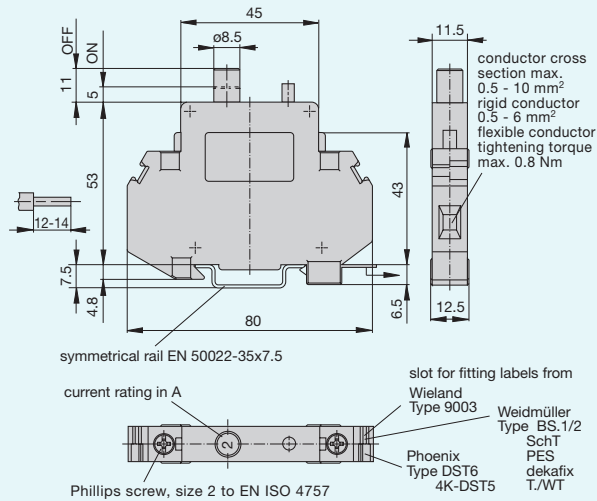
## Technical data

Voltage rating	AC 250 V, 50/60 Hz; DC 65 V (DC 80 V UL/CSA)		
Current rating range	201: 0.05 ... 16 A 201-WA: 0.05...10 A		
Typical life	5,000 operations at 2xI <sub>N</sub>		
Ambient temperature	-30...+60 °C		
Insulation co-ordination (IEC 664 and 664 A)	Rated impulse withstand voltage 2.5 kV	Pollution degree 2	reinforced insulation in operating area
Dielectric strength (IEC 664 and 664A) operating area	Test voltage AC 3000 V		
Insulation resistance	> 100 MΩ (DC 500 V)		
Interrupting capacity I <sub>cn</sub>	201	201-WA	
	0.05...0.8 A 1...2 A 2.5...16 A	0.05...0.2 A 0.3...2 A 2.5...10 A	self-limiting 200 A 400 A
Interrupting capacity (UL 1077)	I <sub>N</sub>	U <sub>N</sub>	
	0.05...16 A 0.05...16 A	AC 250 V DC 80 V	1000 A 1000 A
Degree of protection (IEC 529/DIN 40050)	operating area IP 40 terminal area IP 20		
Vibration	5 g (57-500 Hz), ±0.38 mm (10-57 Hz) to IEC 68-2-6, Test Fc 10 frequency cycles/axis		
Shock	25 g (11 ms) to IEC 68-2-27, Test Ea		
Corrosion	96 hours at 5 % salt mist, to IEC 68-2-11, Test Ka		
Humidity	240 hours at 95 % RH to IEC 68-2-3, Test Ca		
Mass	approx. 60 g		

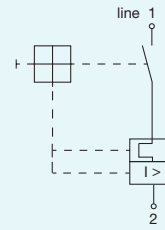
## Approvals

Authority	Voltage ratings	Current ratings
VDE, Demko,	AC 250 V, DC 65 V	0.05...16 A
CSA, UL	AC 250 V, DC 80 V	0.05...16 A
LRoS	AC 250 V, DC 65 V	0.3...16 A

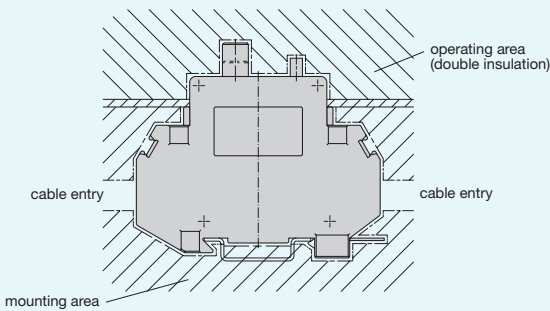
## Dimensions



## Internal connection diagram



## Installation drawing for protection class II (IEC 730-1)

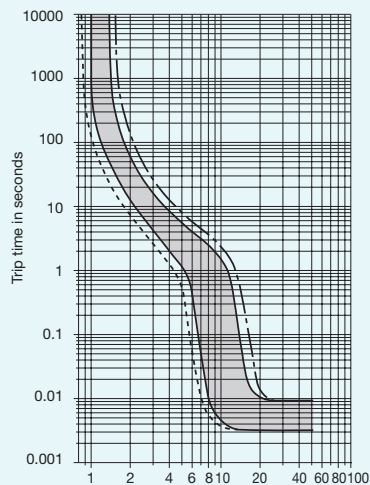


Time/current characteristics are calibrated at 23°C (see page 8). For operation at other temperatures please apply the factors below to determine the circuit breaker rating required.

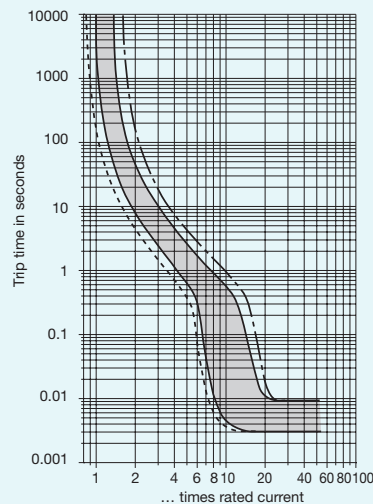
Ambient temperature °C	-20	-10	0	+23	+40	+50	+60
Multiplication factor	0.76	0.84	0.92	1	1.08	1.16	1.24

## Typical time/current characteristics

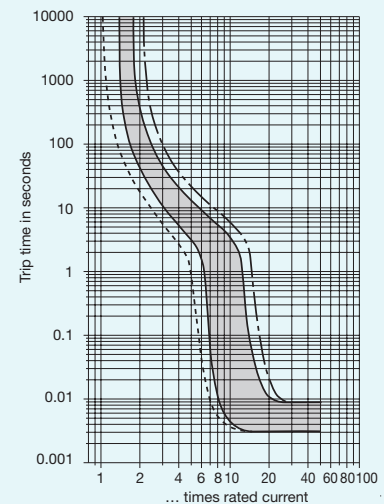
Type 201 0.05...7 A AC



Type 201 8...16 A AC



Type 201-WA 0.05...10 A DC

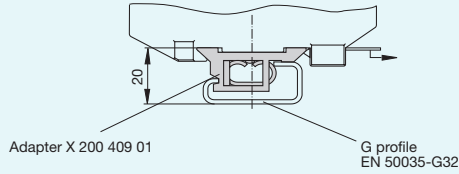


Magnetic tripping currents are increased by 20 % on DC supplies.

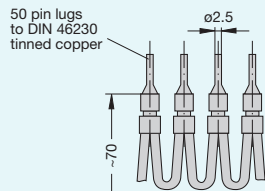
Magnetic tripping currents are decreased by 20 % on AC supplies.

## Accessories

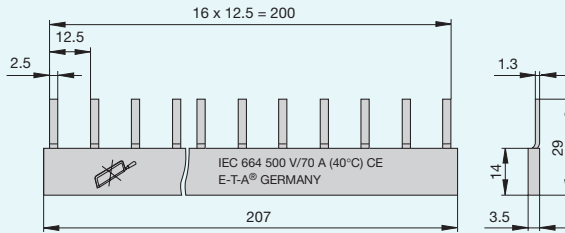
**Adapter for EN rail 50035-G32 specified as a separate item  
X 200 409 01**



**Connector bus links -K10**  
X 210 589 01/2.5 mm<sup>2</sup> (black)  
X 210 589 02/1.5 mm<sup>2</sup> (brown)



**Bus bar**  
X 221 498 01



**Supply terminal for bus bar**  
X 221 496 01

