



## eBC eB eBG Miniature Circuit Breaker

### 1. General

#### 1.1 Function

protection of circuits against short-circuit currents,  
protection of circuits against overload currents,  
switch,  
isolation.

#### 1.2 Selection

Technical data of the network at the point considered:  
the earthing systems (TNS, TNC),  
short-circuit current at the circuit-breaker installation point,  
which must always be less than the breaking capacity of  
this device,  
Network normal voltage.

Tripping curves:

B curve (3-5In)

protection for people and big length cables in TN and IT  
systems.

C curve (5-10In)

protection for resistive and inductive loads with low inrush  
current.

D curve(10-20In)

protection for circuits which supply loads with high inrush  
current at the circuit closing  
(LV/LV transformers, breakdown lamps).

#### 1.3 Approvals and certificates

Detailed information, please refer to Certificates Table  
on the last page.



RCC

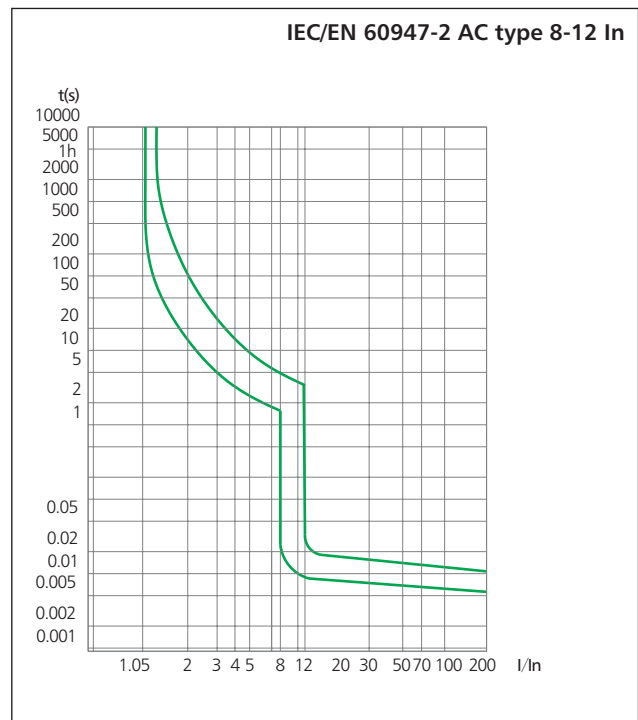
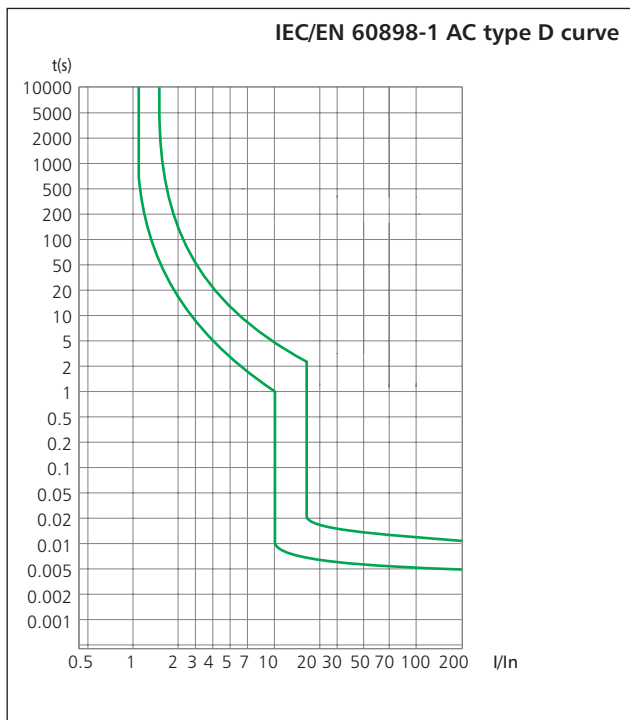
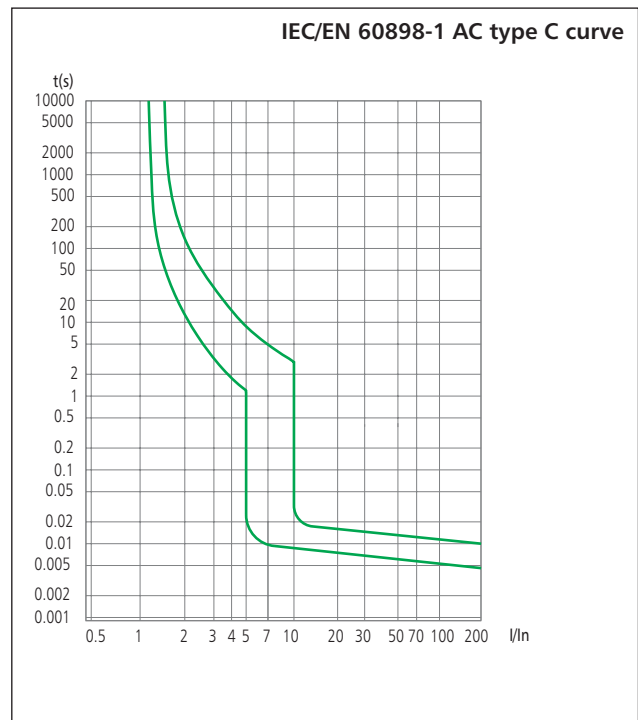
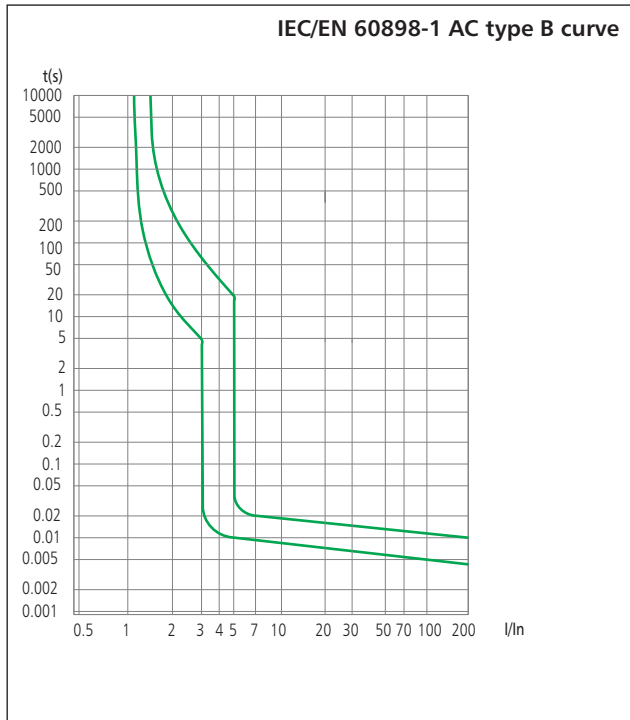
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**2. Technical data**

2.1 Curves

**BC B BG** is of high current limiting performance to limit the destruction energy due to short circuit to the greatest extent.



2.2

	Standard		IEC/EN 60898-1	IEC/EN 60947-2
Electrical features	Rated current $I_n$	A	1, 2, 3, 4, 5, 6, 10, 15, 16, 20, 25, 32, 40, 50, 60, 63	
	Poles		1P, 2P, 3P, 4P	
	Rated voltage $U_e$	V	230/400~240/415	
	Insulation voltage $U_i$	V	500	
	Rated frequency	Hz	50/60	
	Rated breaking capacity	kA	3 (1~63A) eBC 4.5 (1~63A) eB 6 (B,C 1~40A) eBG	
	Rated impulse withstand voltage(1.2/50) $U_{imp}$	V	4000	
	Dielectric test voltage at ind. Freq. for 1 min	kV	2	
	Pollution degree		2	
	Thermo-magnetic release characteristic		B, C, D	8-12 $I_n$
Mechanical features	Electrical life		4, 000	
	Mechanical life		10, 000	
	Protection degree		IP20	
	Reference temperature for setting of thermal element	°C	30	
	Ambient temperature (with daily average $\leq 35^\circ\text{C}$ )	°C	-5...+40	
	Storage temperature	°C	-25...+70	
Installation	Terminal connection type		Cable/Pin-type busbar	
	Terminal size top/bottom for cable	mm <sup>2</sup>	1~25	
		AWG	17~3	
	Terminal size top/bottom for busbar	mm <sup>2</sup>	1~10	
		AWG	17~7	
	Tightening torque	N·m	2	
		In-lbs.	18	
Mounting		On DIN rail EN 60715 (35mm) by means of fast clip device		
Connection		From top and bottom		

2.3 Temperature derating

The maximum permissible current in a circuit breaker depends on the ambient temperature where the circuit breaker is placed. Ambient temperature is the temperature inside the enclosure or switchboard in which the circuit breakers are installed.  
**The reference temperature is 30°C**

Rated current $I_n$ (A)	Temperature compensation coefficient under various operational temperature								
	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	55°C	60°C
1~6	1.20	1.14	1.09	1.05	1.00	0.96	0.80	0.75	0.70
10~32	1.18	1.12	1.08	1.04	1.00	0.96	0.92	0.88	0.84
40~60	1.16	1.12	1.07	1.03	1.00	0.97	0.87	0.83	0.80

3. Overall and mounting dimensions (mm)

