



NBH8 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

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 (3-5I_n)

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

C curve (5-10I_n)

protection for resistive and inductive loads with low inrush
current.

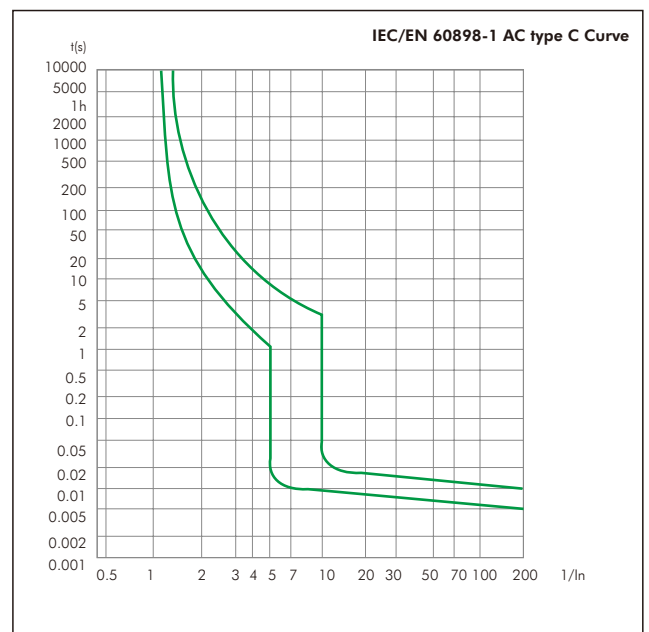
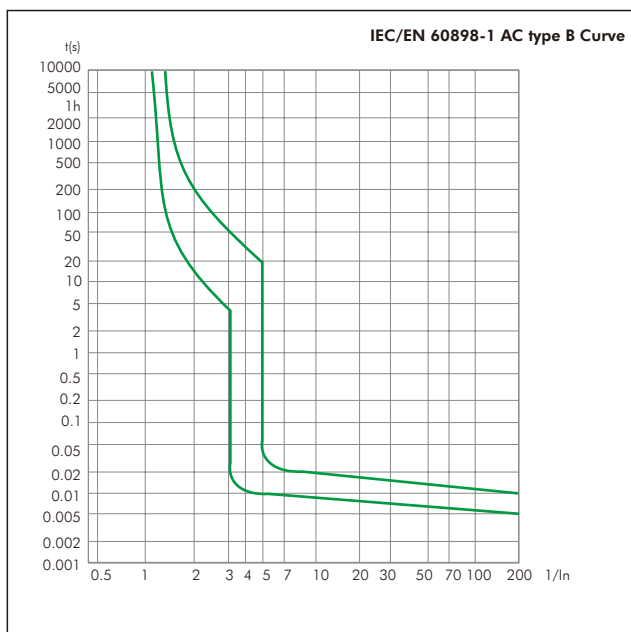
1.3 Approvals and certificates

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



2. Technical data

2.1 Curves



2.2

	Standard		IEC/EN 60898-1
Electrical features	Rated current In	A	1, 2, 3, 4, 6, 10, 16, 20, 25, 32, 40
	Poles		1P+N
	Rated voltage Ue	V	230/240
	Insulation voltage Ui	V	500
	Rated frequency	Hz	50/60
	Rated breaking capacity	A	4500/6000
	Rated impulse withstand voltage(1.2/50) Uimp	V	4000
	Dielectric test voltage at ind. Freq. for 1 min	kV	2
	Pollution degree		2
	Energy limiting class		3
Mechanical features	Electrical life		10, 000
	Mechanical life		20, 000
	Contact position indicator		Yes
	Protection degree		IP20
	Reference temperature for setting of thermal element	°C	30
	Ambient temperature (with daily average ≤ 35°C)	°C	-5...+40
	Storage temperature	°C	-25...+70
Installation	Terminal connection type		Cable/Pin-type busbar
	Terminal size top/bottom for cable	mm ²	16
		AWG	18-5
	Terminal size top/bottom for busbar	mm ²	10
		AWG	18-8
	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
Combination with accessories	Auxiliary contact		Yes
	Shunt release		Yes
	Under voltage release		Yes
	Alarm contact		Yes

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

=

In/Rated current (A)	Current correction value under different ambient temperature										
	-25°C	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
1	1.28	12.5	1.19	1.13	1.08	1.03	1	0.97	0.91	0.86	0.8
2	2.56	2.5	2.38	2.26	2.16	2.06	2	1.94	1.82	1.72	1.6
3	3.84	3.75	3.57	3.39	3.24	3.09	3	2.97	2.73	2.58	2.4
4	5.12	5	4.76	4.52	4.32	4.12	4	3.88	3.64	3.44	3.2
6	7.68	7.5	7.14	6.78	6.48	6.18	6	5.82	5.46	5.16	4.8
10	12.8	12.5	11.9	11.3	10.8	10.3	10	9.7	9.1	8.6	8
16	20.5	20	19.0	18.1	17.3	16.5	16	15.5	14.6	13.8	12.8
20	25.6	25	23.8	22.6	21.6	20.6	20	19.4	18.2	17.2	16
25	32	31.3	29.8	28.3	27	25.8	25	24.3	22.8	21.5	20
32	39.1	38.3	36.8	35.3	34	32.8	32	31.3	30	28.7	27.2
40	47.8	46.8	45.2	43.6	42.2	40.8	40	39.3	38	36.7	35.2

3. Overall and mounting dimensions (mm)

