



# NB1-63H Miniature Circuit Breaker

## 1. General

### 1.1 Function

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

NB1-63H circuit-breakers are used in domestic installation,  
as well as in commercial and industry electrical  
distribution systems.

### 1.2 Selection

Technical data of the network at the point considered:  
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)**

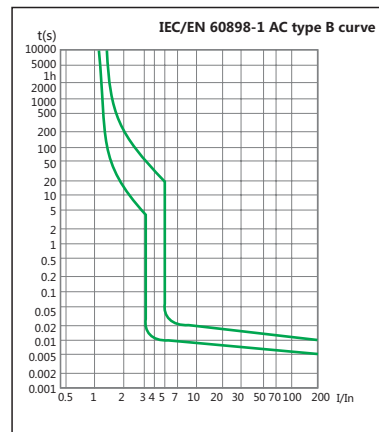
protection for resistive and inductive loads with low inrush  
current.

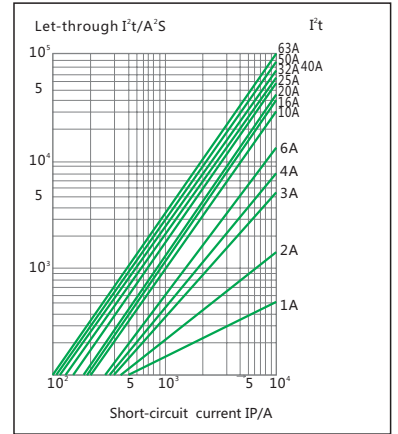
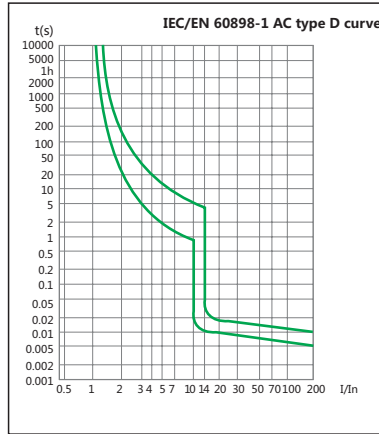
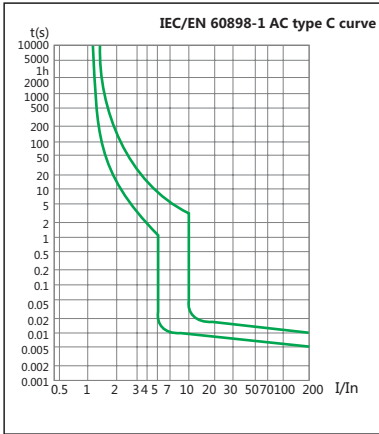
#### **D curve (10-14In)**

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

## 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, 50, 63	
	Poles		1P, 1P+N, 2P, 3P, 3P+N, 4P	
	Rated voltage Ue	V	230/400~240/415	
	Insulation voltage Ui	V	500	
	Rated frequency		50/60Hz	
	Rated breaking capacity	A	10000	
	Energy limiting class		3	
	Rated impulse withstand voltage(1.2/50) Uimp	V	6000	
	Dielectric test voltage at ind. Freq. for 1 min	kV	2	
	Pollution degree		2	
Power loss per pole			Rated current (A)	Max power loss per pole (W)
			1, 2, 3, 4, 5, 6, 10	2
			13, 16, 20, 25, 32	3.5
		40, 50, 63	5	
Thermo-magnetic release characteristic			B, C, D	
Mechanical features	Electrical life		4, 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	-35...+70(Special application please refer to P10 for temperature compensation correction)	
	Storage temperature	°C	-35...+70	
Installation	Terminal connection type		Cable/U-type busbar/Pin-type busbar	
	Terminal size top/bottom for cable	mm²	25	
		AWG	18-4	
	Terminal size top/bottom for busbar	mm²	10	
		AWG	18-8	
	Tightening torque	N m	2.0	
	In-lbs.	22		
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	