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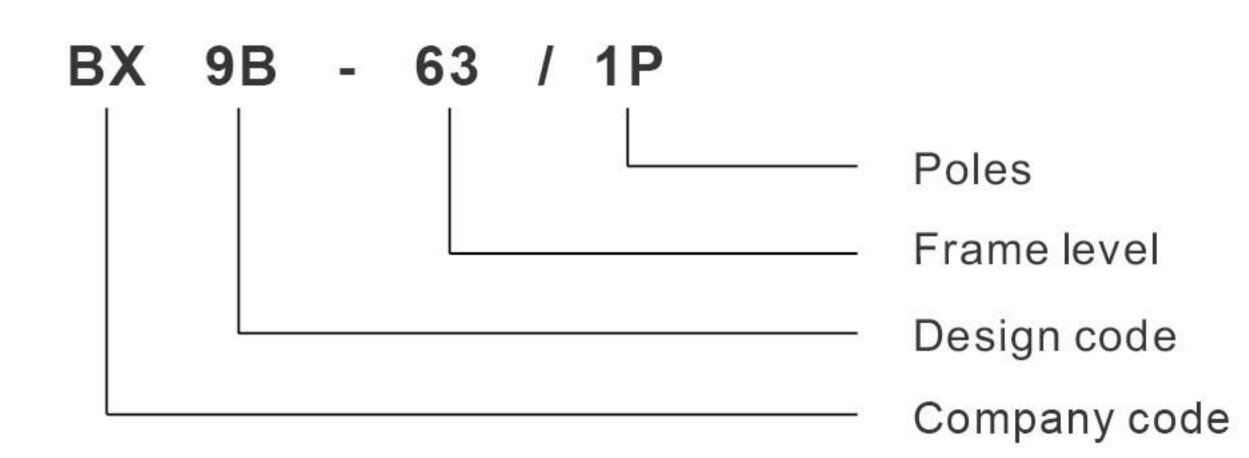


# 1.Function

BX9B series circuit breaker is used in protection lighting or power distribution system from over-load and short-circuit, apply to the circuit of AC 50/60Hz, rated voltage less than 415V. The product adopt high fire resistant and shockproof plastics, quality metal materials, which is neoteric in structure, light in weight, reliable in performance.

Products comply with IEC/EN60898-1.

### 2.Nomenclature

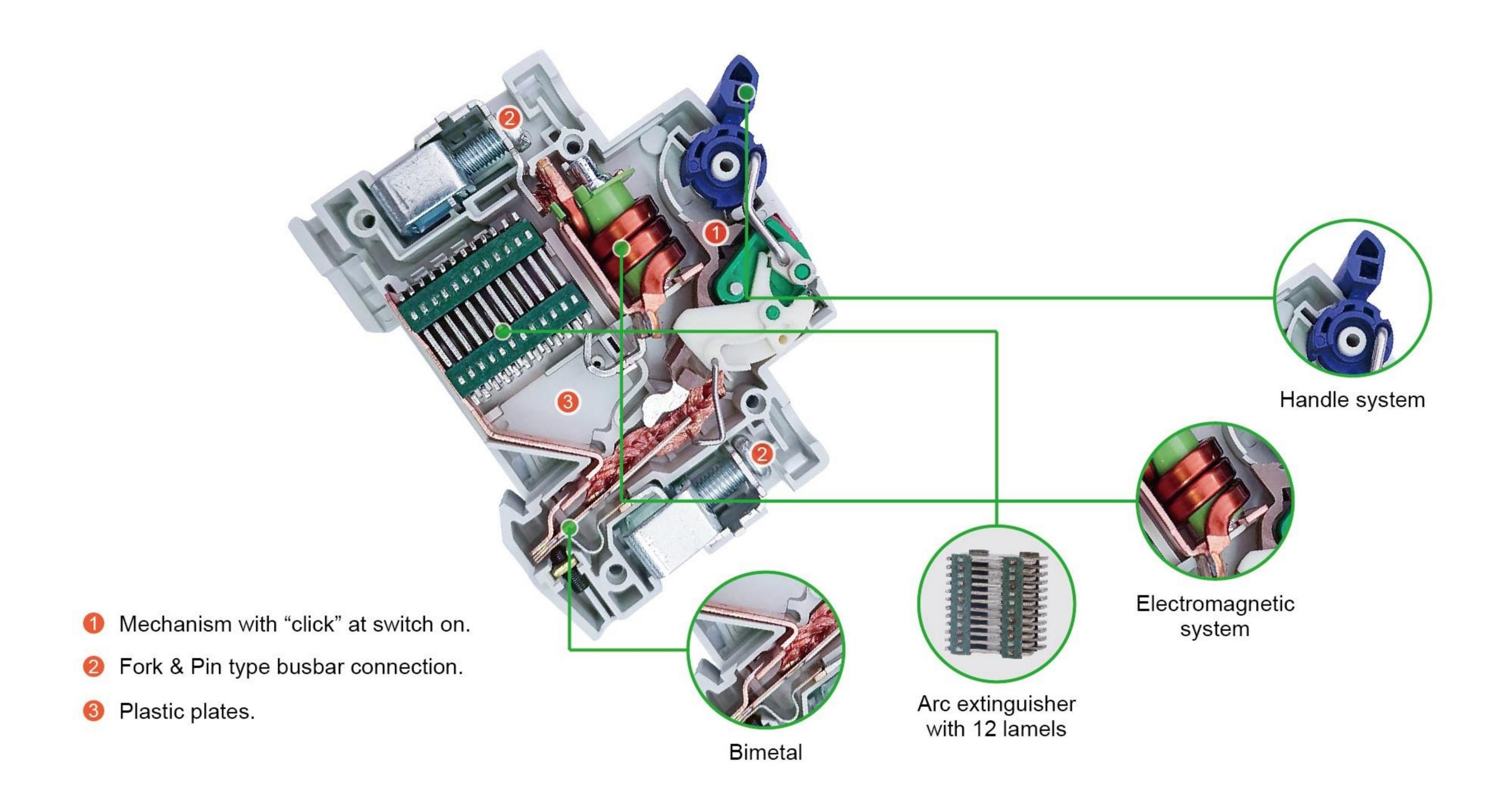


# 3. Safety Features

## Rapid Arc Extinguishing System

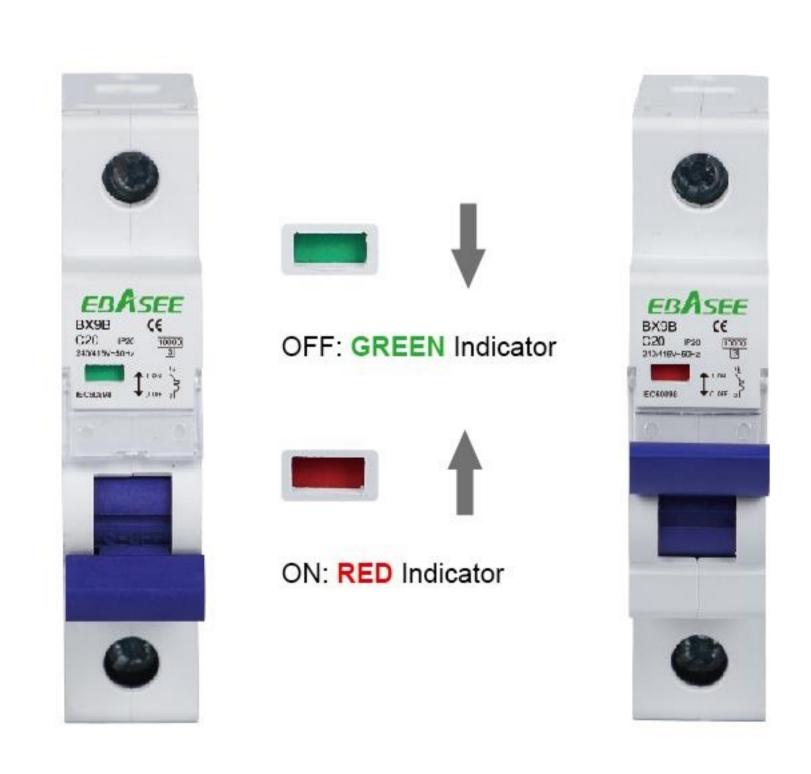
The rapid arc extinguishing system built by science that can quickly extinguish the arc.

And prevent the danger of the electric current which cause by the arc.



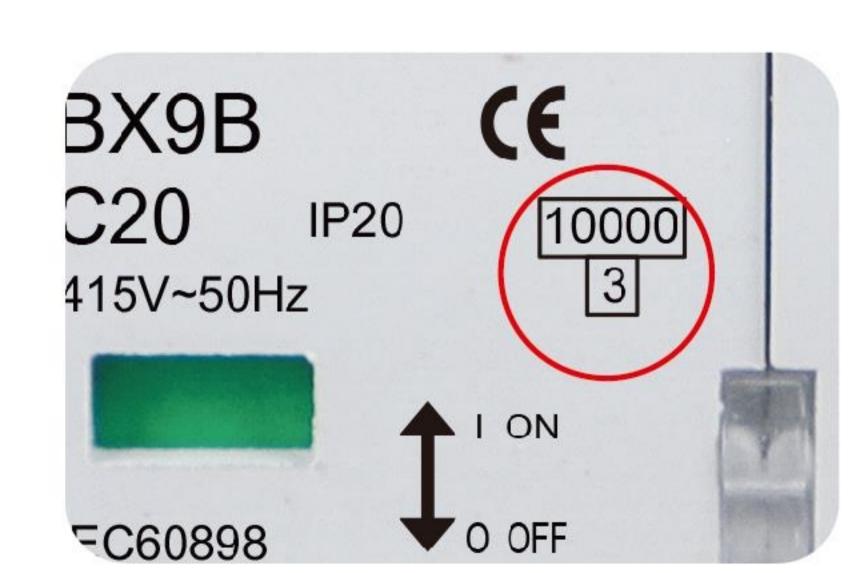
#### ON/OFF Indicator

Red and green indication light, clearly working status display, convenient to check safety and controllability.



#### Energy Class 3

Energy Class 3 ensures the lowest possible flow of energy through the circuit in case of fault preventing damage to surrounding and downstream equipment and networks.



#### ▶ IP20 Protection

A rating of "IP20" denotes protection from solid objects 18mm/1P in size.

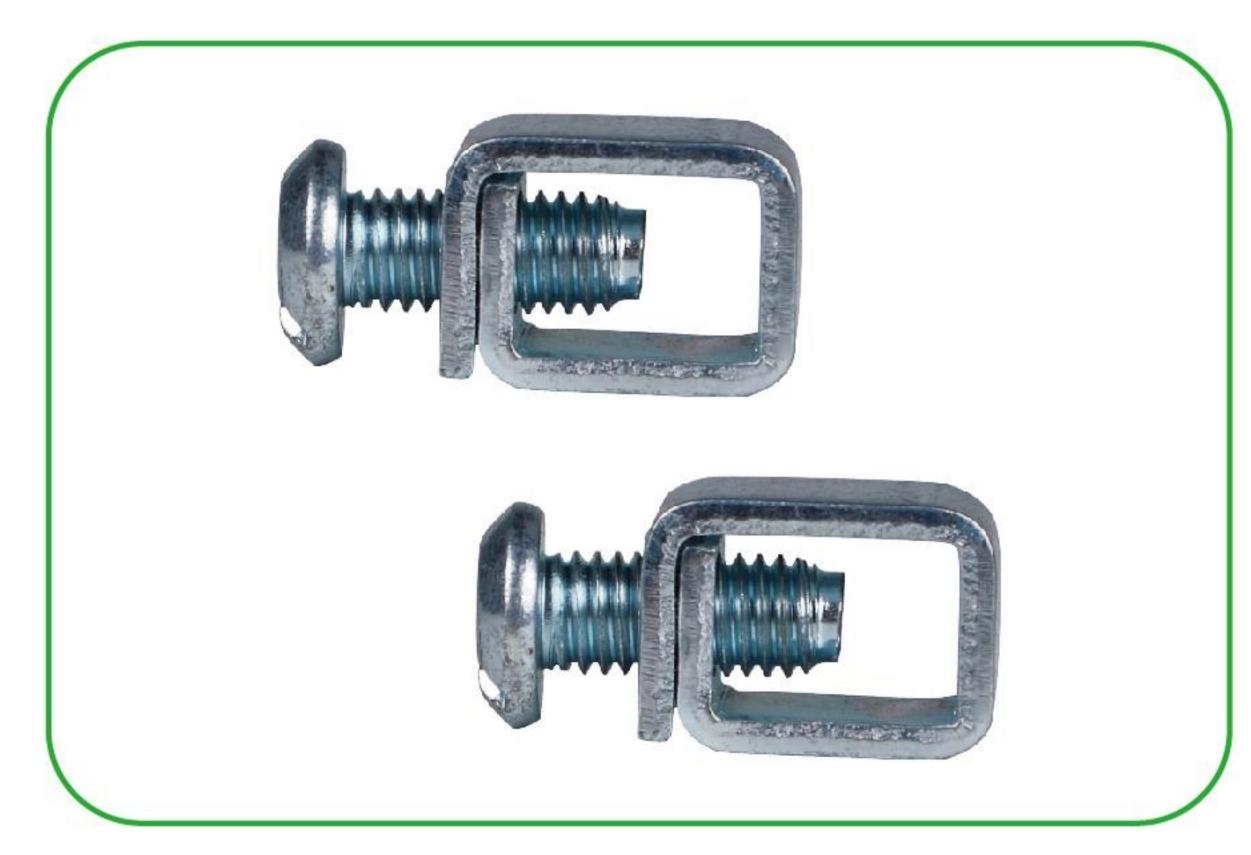




### Sealed Terminal

- a. Thermosetting material, no melting point, no buring, more safety.
- b. Double terminals connection.

Warranty: 24 months

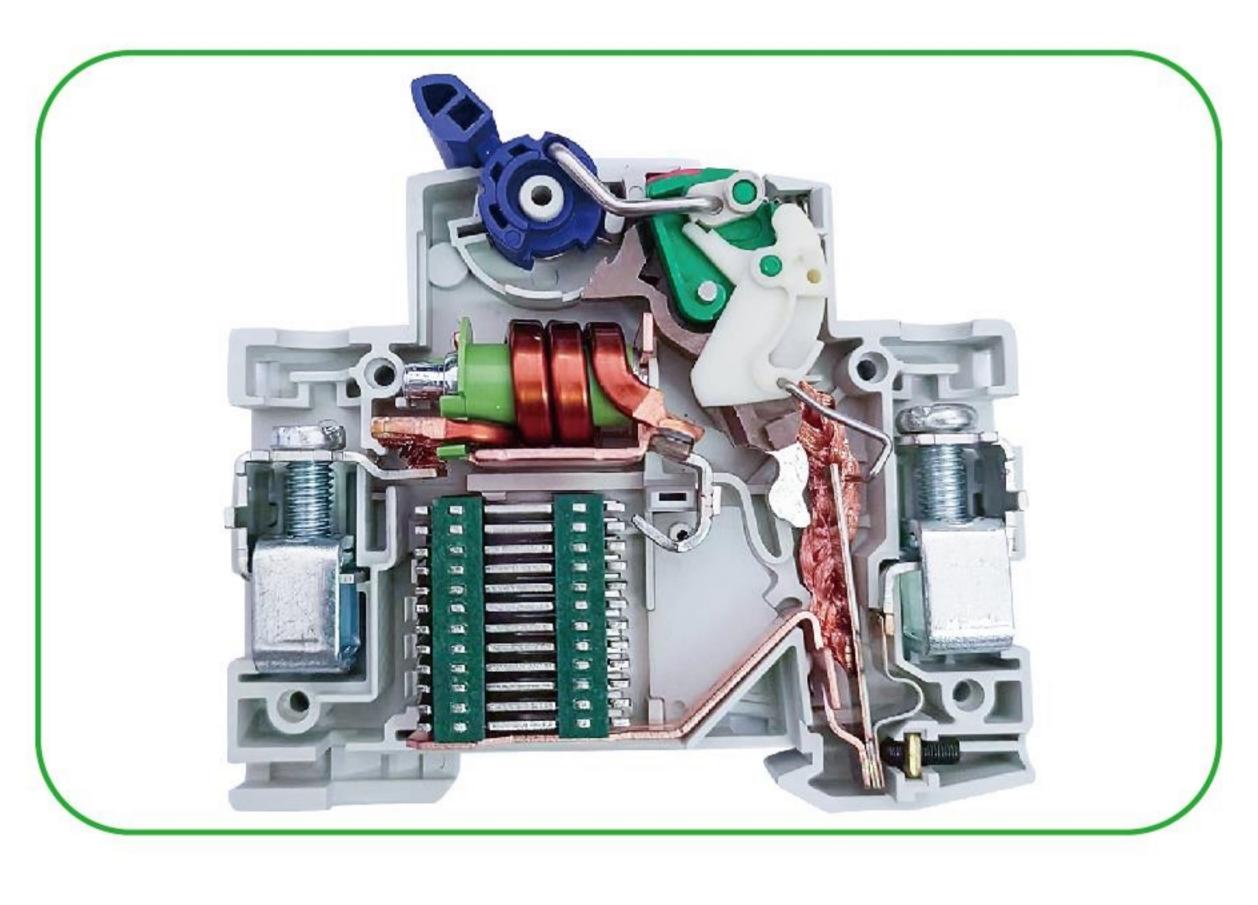


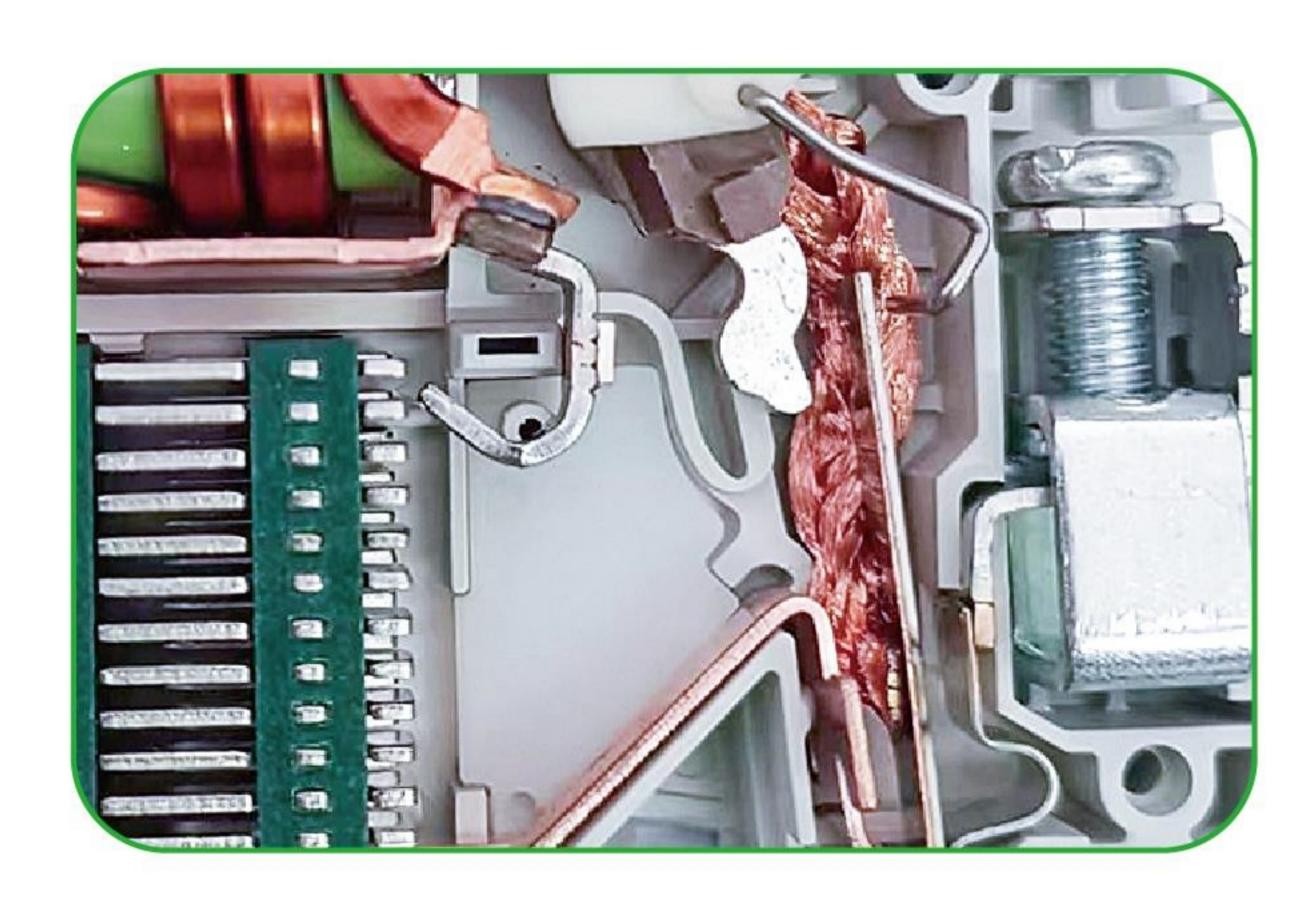
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#### Reliable Termination

- World class terminal reliability
- Excellent electrical joint
- Excellent mechanical joint
- 2.5 N·m torque
- Firm cable grip
- Excellent cable pull withstand
- Excellent temperature performance

# 5.Performance Features



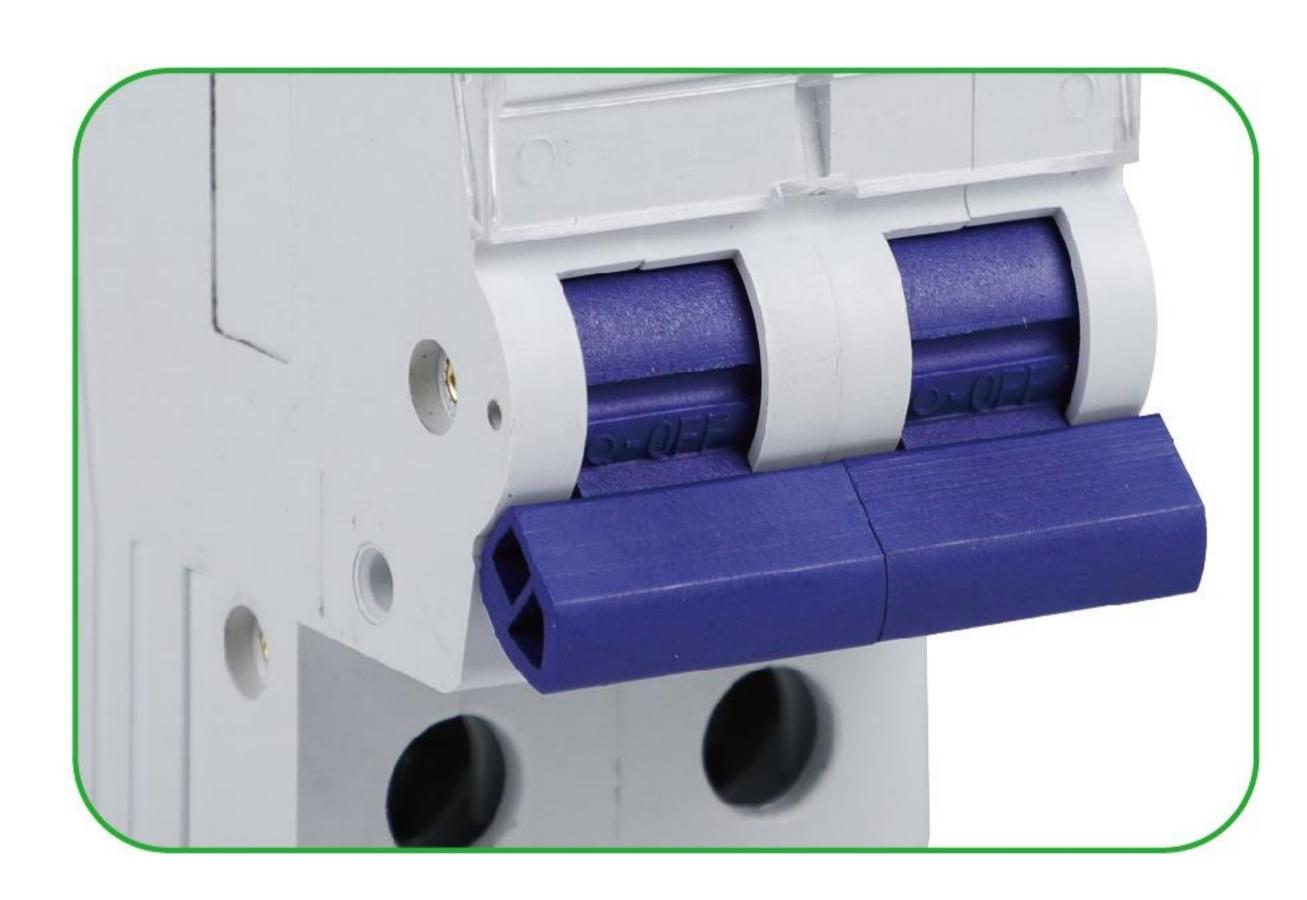


## Contact Tip

Silver graphite contact tips ensures longer life and maximum safety against contact welding due to superior anti-welding properties enhancing safety and life of system.



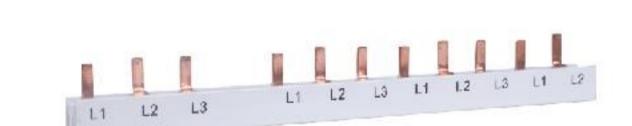
### 6.Installation Features

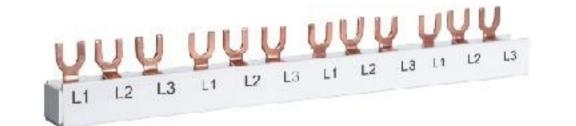


#### Ergonomics: Better Grip

With its wide surface area and prominent strips around the periphery, the ergonomically designed handle assists with the manual operation of the circuit breaker from single pole to four poles with optimum force, and ensures a secure grip while operating the handle.







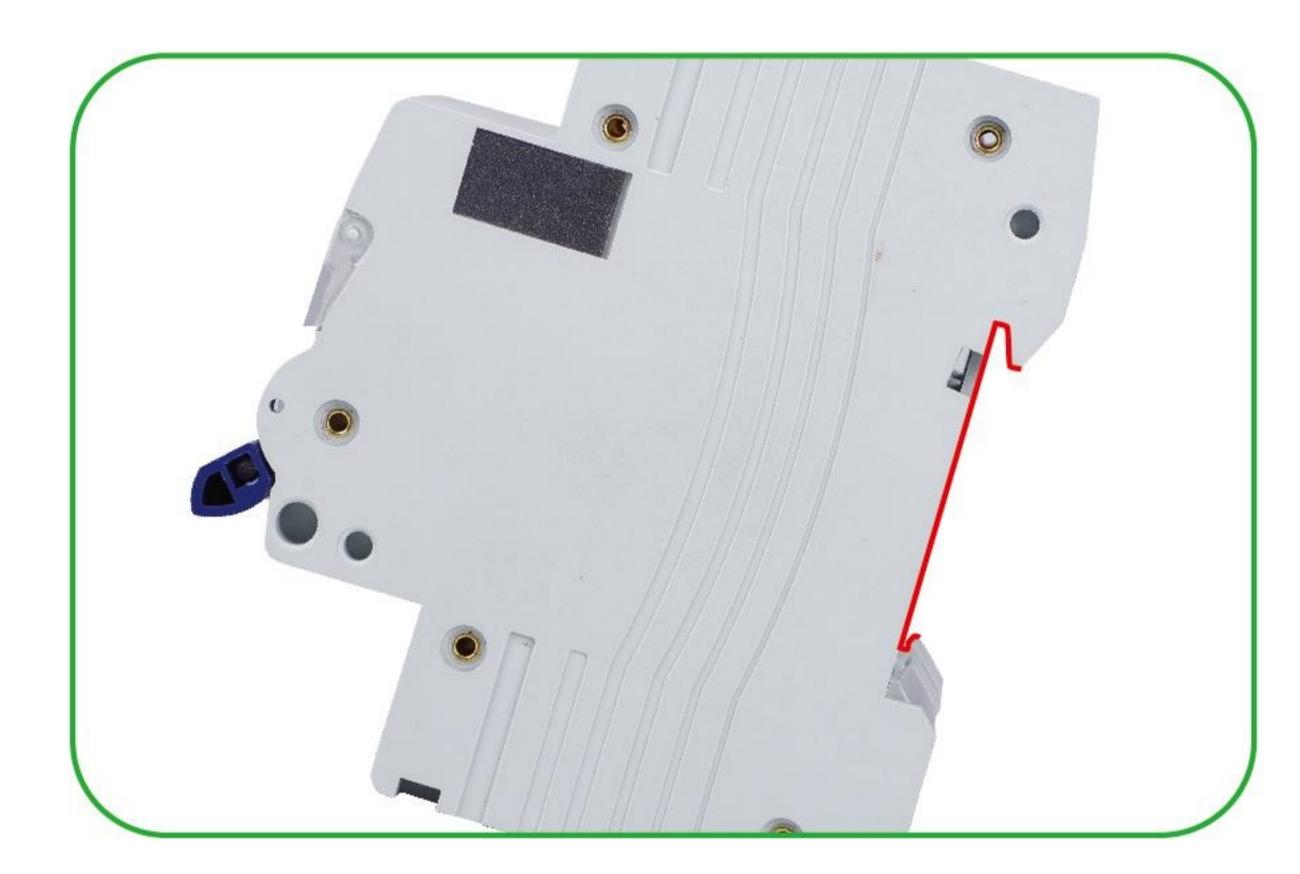
#### Terminal Shutter

Double terminals connection:

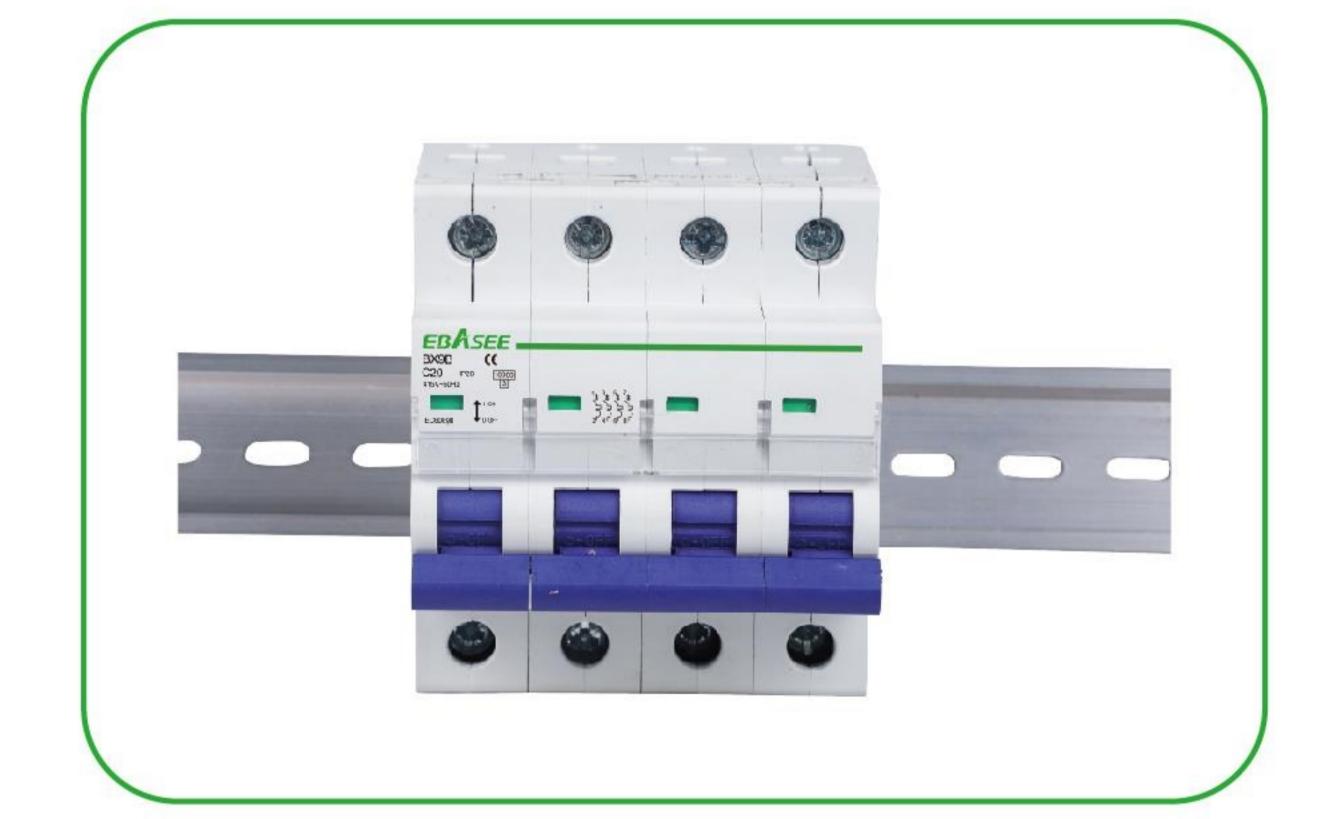
U Type & Pin type busbar are ok to connect. wire connection way.



Two-position DIN clip facilitates easy mounting



▶ Din rail installation:35mm



Ease Mounting

Din-rail mounting, it is easy to install and remove.



## 7.Accessories



500V
AC 400, 230, 125V
70%~100% Us
AC: 3A/400V AC: 6A/230V AC: 9A/125V
2kV/1min
≥ 4000 times

Mounting on the left side of MCB/RCBO, used to trip the combined MCB/RCBO by remote controlling device.

### MV+MN Over/Under-voltage Tripper



AC 230V
500V
280V±5%
170V±5%
≥4000 times

Mounted on the left side of circuit breaker, actuate the combined device to trip in case of under-voltage or over-voltage, effectively prevent the device from closing operation under abnormal power voltage condition.

#### SD Alarm Switch



Rated insulating voltage (Ui)	500V
Rated power voltage (Us)	AC 400,230,125V
Operate voltage range	70~100% Us
Contact capacity	AC: 3A/400V AC: 6A/230V AC: 9A/125V
Dielectric strength	2kV/1min
Electro-mechanical endurance	≥ 4000 times

Is used to connect ON/OFF auxiliary contact, work as circuit breaker ON/OFF indicator in case of faulty (tripping)



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Model	BX9B
Rated Current	1, 2, 3, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63A
Rated Voltage	240/415V
Number of poles	1P
Breaking capacity	10kA
	Overload protection
Function	Short-circuit protection
	Isolation protection



Model	BX9B
Rated Current	1, 2, 3, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63A
Rated Voltage	2P: 415V, 1P+N: 240V
Number of poles	2P, 1P+N
Breaking capacity	10kA
	Overload protection
Function	Short-circuit protection
	Isolation protection

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Model	BX9B				
Rated Current	1, 2, 3, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63A				
Rated Voltage	415V				
Number of poles	3P				
Breaking capacity	10kA				
	Overload protection				
Function	Short-circuit protection				
	Isolation protection				

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Model	BX9B					
Rated Current	1, 2, 3, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63,					
Rated Voltage	415V					
Number of poles	4P, 3P+N					
Breaking capacity	10kA					
	Overload protection					
Function	Short-circuit protection					
	Isolation protection					

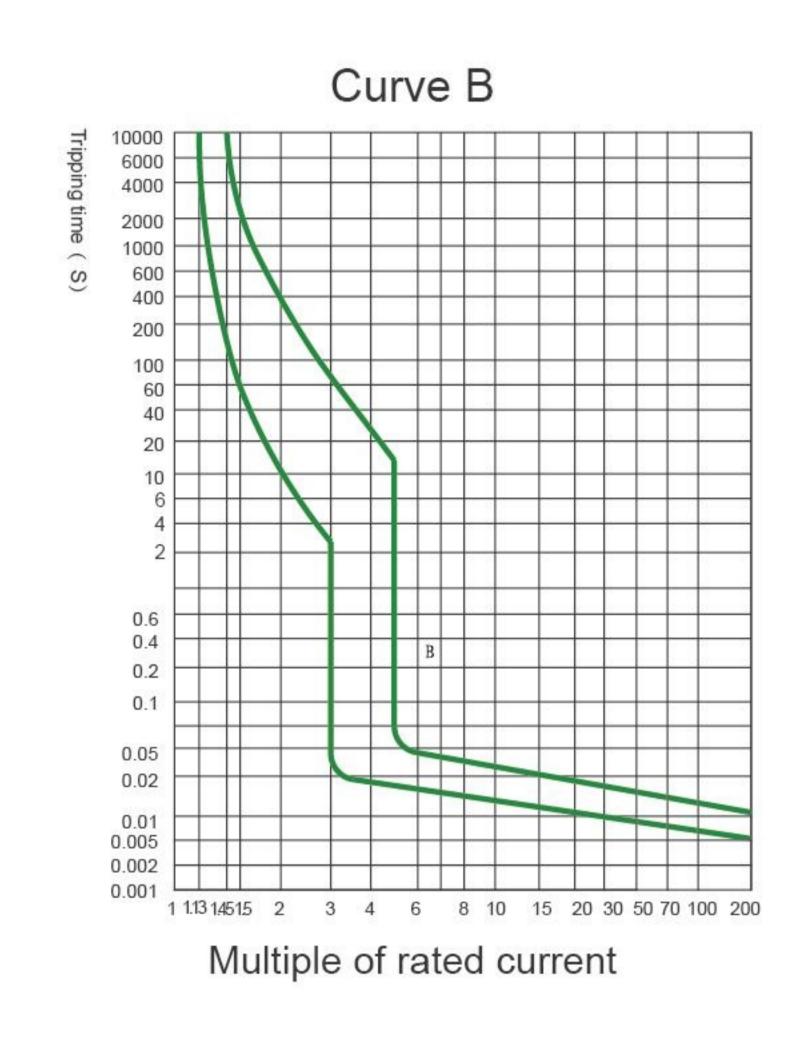
Туре	Standard		IEC/EN 60898-1
	Rated current In	А	1, 2, 3, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63
	Poles	Р	1, 2, 3, 4,1P+N,3P+N
	Rated voltage Ue	V	230/400
	Insulation voltage Ui	V	500
Electrical	Rated frequency	Hz	50/60
features	Rated breaking capacity	Α	10000, 6000
	Rated impulse withstand voltage(1.2/50)Uimp	V	6000
	Dielectric test voltage at ind. Freq. for 1min	kV	2
	Pollution degree		2
	Thermo-magnetic release characteristic		B, C, D
	Electrical life	t	10000
	Mechanical life	t	20000
Mechanical features	Protection grade		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
	Terminal connection type		Cable/Pin-type busbar/U-type bar
	Tarminal size ton / bettem for achle	mm²	25
	Terminal size top / bottom for cable	AWG	18/3
	Terminal cize ton / bettem for bucher	mm²	25
Installation	Terminal size top / bottom for busbar	AWG	18/3
	Tightoning torque	N*m	2.5
	Tightening torque	In-lbs	22
	Mounting		On DIN rail EN 60715(35mm)by means of fast clip device
	Connection		From top and bottom
Rated voltage	(single phase)	V	120/240
Rated voltage	(three phases)	V	220

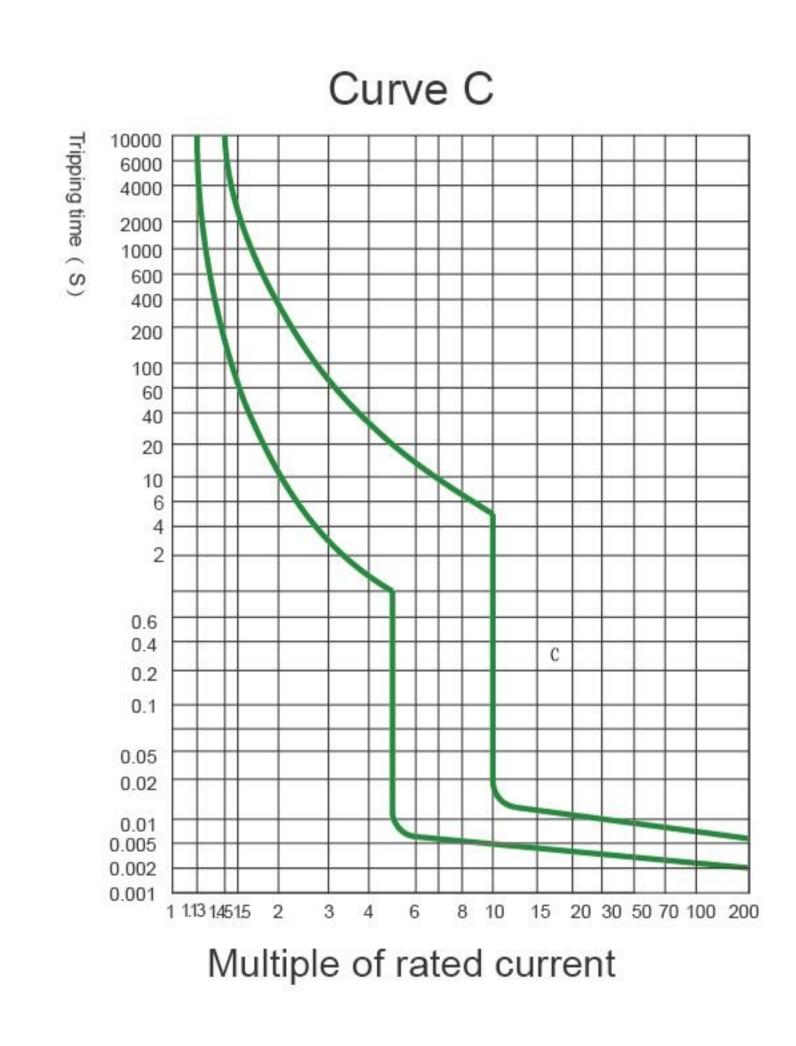
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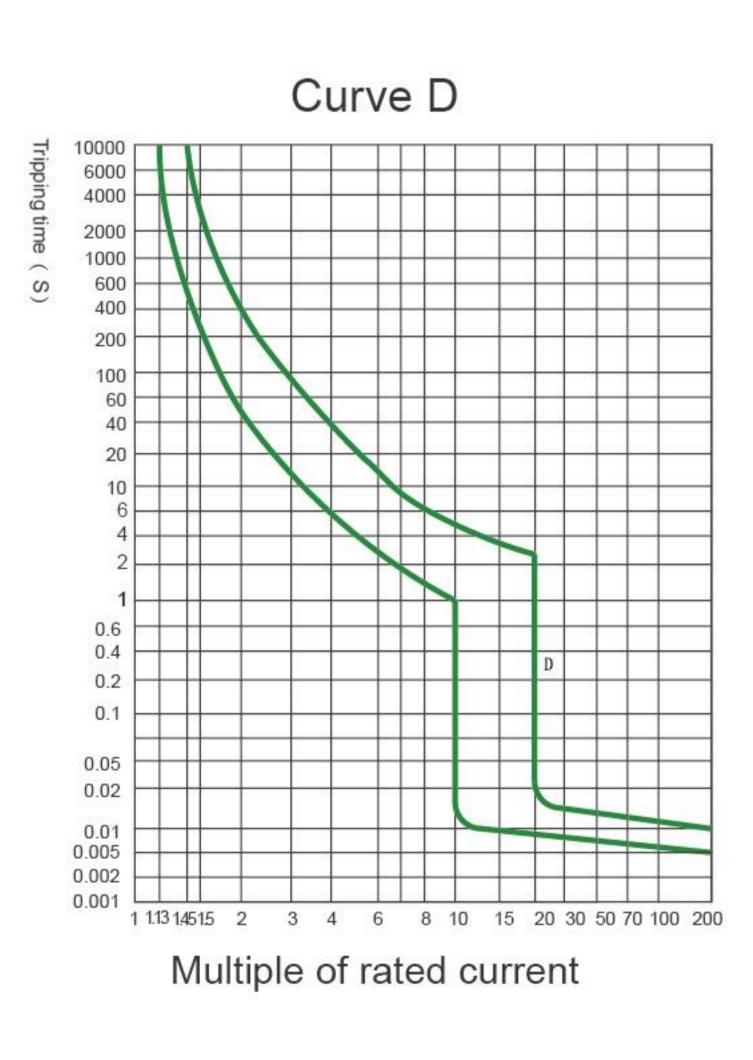
## 9.Release

Item	Tripping Curve	Test current In(A)	Initial Status	Time limit for tripping or non-tripping	Expected result	Remarks
а	B/C/D	1.13ln	Cold	t≤1h	Non-tripping	
b	B/C/D	1.45ln	Following item a test	t<1h	Tripping	Current smoothly rises to specified value within 5s
С	B/C/D	2.55ln	Cold	1s <t<60s(ln≤32a) 1s<t<120s(ln>32A)</t<120s(ln></t<60s(ln≤32a) 	Tripping	value within 55
	В	3ln				
d	С	5ln	Cold	t≤0.1s	Non-tripping	Cwitch on the
	D	10ln				Switch on the power supply by
	В	5ln				closing the auxiliary switch
е	С	10ln	Cold	t<0.1s	Tripping	
	D	20ln				

Note: The term"cold "means that the test is carried out at a reference calibration temperature without load before the test.







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# 10.Conductor

Copper cross-section(mm²)	Rated current In(A)
1	In≤6
1.5	6 <in≤13< td=""></in≤13<>
2.5	13 <ln≤20< td=""></ln≤20<>
4	20 <in≤25< td=""></in≤25<>
6	25 <in≤32< td=""></in≤32<>
10	32 <in≤50< td=""></in≤50<>
16	50 <ln≤63< td=""></ln≤63<>



# 11.Temperature Derating

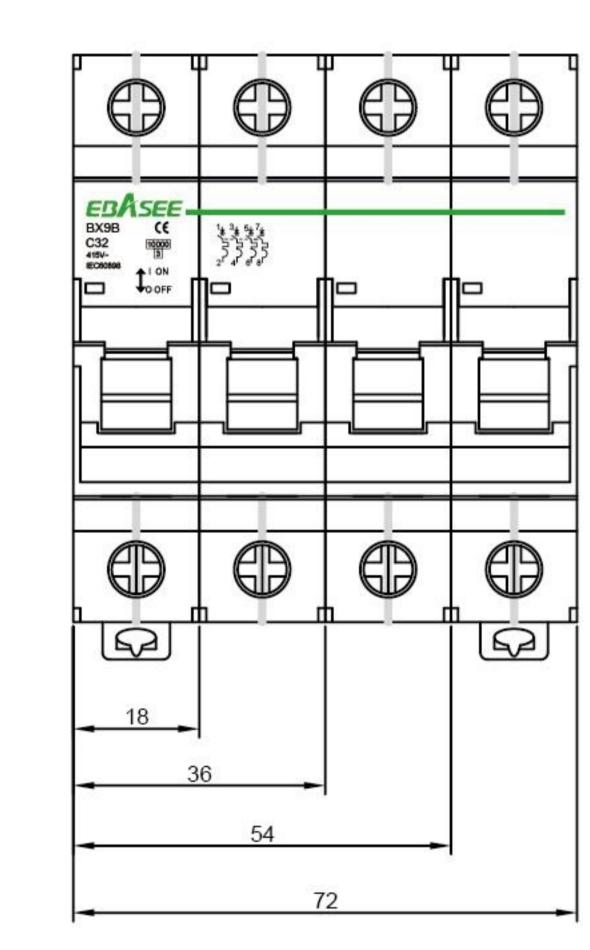
The maximum permissible current in a circuit breaker depends on the ambient temperature where the circuit breaker is placed. Ambient temperature is the temperature inside the enclosure or switchboard in which the circuit breakers are installed. The reference temperature is 30°C.

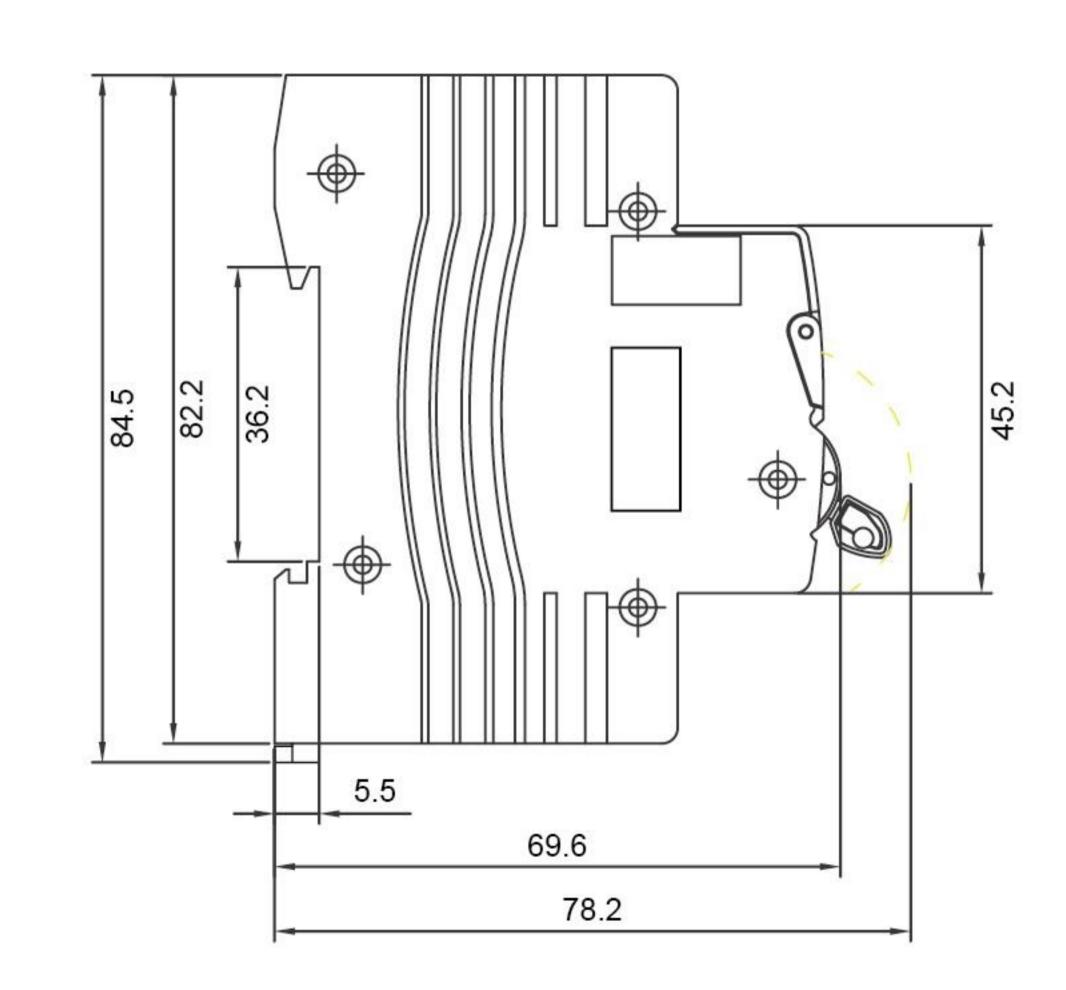
Ambient temperature Rated current (A)	-35°C	-30℃	<b>-20</b> ℃	-10 °C	<b>0</b> °C	10℃	20℃	30℃	<b>40</b> ℃	50℃	<b>60</b> ℃
2	2.60	2.52	2.46	2.38	2.28	2.20	2.08	2.00	1.92	1.86	1.76
4	5.20	2.04	4.92	4.76	4.56	4.40	4.16	4.00	3.84	3.76	3.52
6	7.80	7.56	7.38	7.14	6.84	6.60	6.24	6.00	5.76	5.64	5.28
10	13.20	12.70	2.50	12.00	11.50	11.10	10.60	10.00	9.60	9.30	8.90
16	21.12	20.48	20.00	19.20	18.40	17.76	16.96	16.00	15.36	4.88	14.24
20	26.40	25.60	25.00	24.00	23.00	22.20	21.20	20.00	19.20	8.60	17.80
25	33.00	32.00	31.25	30.00	28.75	27.75	26.50	25.00	24.00	23.25	22.25
32	42.56	41.28	40.00	38.72	37.12	35.52	33.92	32.00	30.72	29.76	28.16
40	53.20	51.20	50.00	48.00	46.40	44.80	42.40	40.00	38.40	37.20	35.60
50	67.00	65.50	63.00	60.50	58.00	56.00	53.00	50.00	48.00	46.50	44.00
63	83.79	81.90	80.01	76.86	73.71	70.56	66.78	63.00	60.48	58.90	55.44

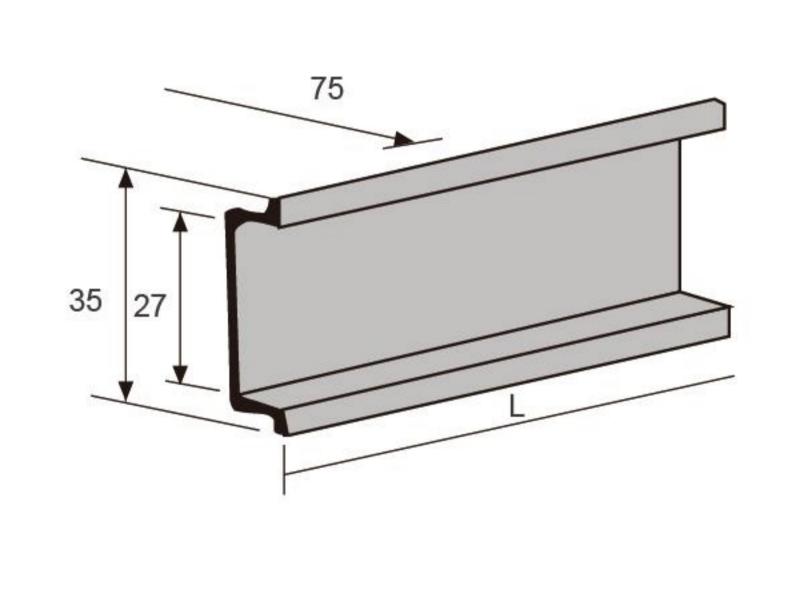
When several simultaneously operating circuit breakers are mounted side by side in a small enclosure, the temperature rise inside the enclosure causes a reduction in current rating.

You must then assign the rating (already derated if necessary according to ambient temperature), a derating factor of 0.8.

# 12.Dimensions







#### 13.Order Note

Following items should be marked when ordering	Ordering sample
Product name, model & frame level	To order BX9B miniature circuit breaker, 2 poles, curve C, rated
Poles	current 20A, 10kA, quantity is 100 pieces, should be marked:
Tripping characteristic and rated current	BX9B/2P C20 10kA, 100PCS.
Quantity	

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