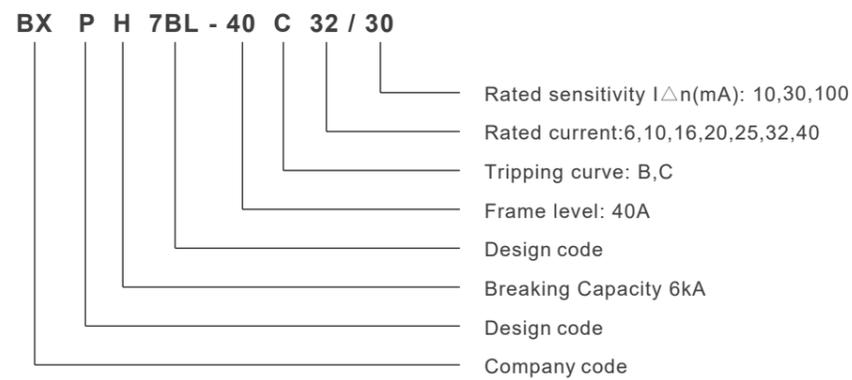


### 1.Function

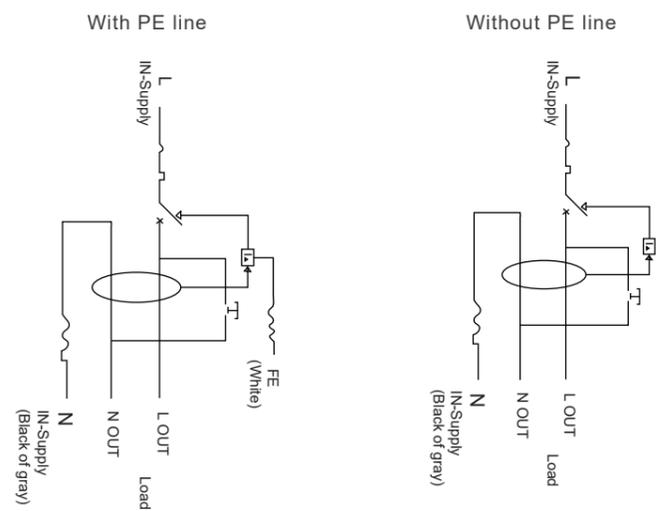
RCBO is mainly used in AC 50Hz(60Hz), rated voltage 110/220V, 240V, rated current 6A to 40A low voltage. RCBO is equal with MCB+RCD function; It is used for electric shock protection and human indirect contact protection, electric equipment protection when human body touching electricity or electric network leak current exceeds stipulated value, and over load and short circuit protection ; It can also be a non-frequency operator in the circuit, widely used in the residential and commercial district. It complies with standard of IEC61009-1.



### 2.Nomenclature



### 3.Wiring Diagram



### 4.Specifications

Type	Standard	IEC/EN 61009-1		
Electrical features	Mode	Electronic type		
	Type(wave form of the earth leakage sensed)	A, AC		
	Thermal-magnetic release characteristic	B, C		
	Rated current $I_n$	A	6, 10, 16, 20, 25, 32, 40	
	Poles	P	1P+N	
	Rated voltage $U_e$	V	240	
	Rated sensitivity $I_{\Delta n}$	mA	10, 30, 100, 300	
	Rated residual making and breaking capacity $I_{\Delta m}$	A	500	
	Rated short-circuit capacity $I_{cn}$	A	6000	
	Tripping time under $I_{\Delta n}$	S	$\leq 0.1$	
	Rated frequency	Hz	50/60	
	Rated impulse withstand voltage(1.2/50) $U_{imp}$	V	4000	
	Dielectric test voltage at ind.Freq for 1min	kV	2	
	Mechanical features	Insulation voltage $U_i$		500
Pollution grade			2	
Electrical life (times)		t	4000	
Mechanical life (times)		t	4000	
Contact position indicator			YES	
Protection grade			IP20	
Ambient temperature(with daily average $\leq 35^\circ\text{C}$ )		$^\circ\text{C}$	-5~+40(Special application please refer to temperature compensation correction)	
Storage temperature		$^\circ\text{C}$	-25~+70	
Installation		Terminal connection type		Cable/U-type busbar/Pin-type busbar
		Terminal size top/bottom for cable	mm <sup>2</sup>	16
	AWG		18/5	
	Terminal size top/bottom for busbar	mm <sup>2</sup>	16	
		AWG	18/5	
	Tightening torque	N*m	1.2	
		In-lbs	11	
Connection		From top		
Mounting		Plug-in type		

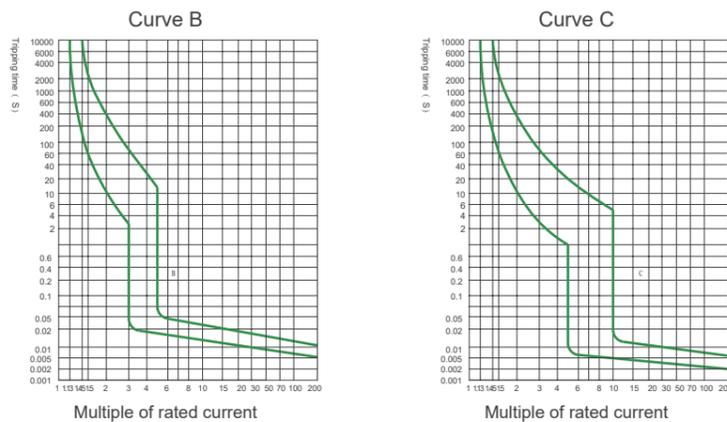
## 5.Applicable Working and Busbar Connection

Model	Breaking capacity
Ambient temperature	-5~+40℃, the average value cannot exceednto +35℃ within 24h
Altitude	≤2000m
Relative humidity	≤95%
Pollution level	II.It should be used appropriate casing to protect against high level of pollution
Installation location	mount on the place where has no obvious vibration or impact

## 6.Release

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

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



## 7.Conductor

Copper cross-section(mm <sup>2</sup> )	Rated current In(A)
1	In≤6
1.5	6<In≤13
2.5	13<In≤20
4	20<In≤25
6	25<In≤32
10	32<In<50

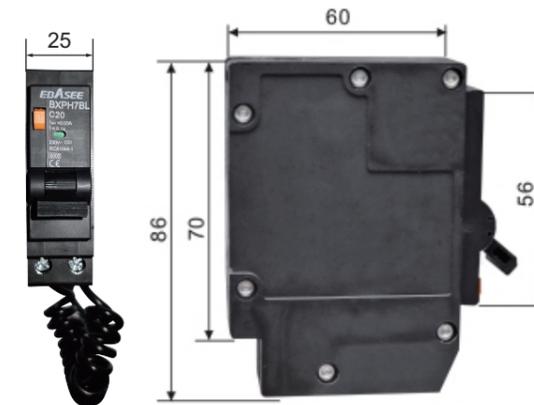
## 8.Temperature Derating

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℃.

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.

## 9.Dimensions



## 10.Order Note

### Following items should be marked when ordering

- Product name, model & frame level
- Rated current and Rated residual current
- Tripping curve
- Quantity

### Ordering sample

To order the BXPH7BL RCBO, frame level 40A, rated current is 32A, tripping curve is C, rated residual current 30mA, with earth wire protection, and quantity is 100 pieces, should be marked: BXPH7BL-40/C32/30, with earth wire protection, 100PCS.