

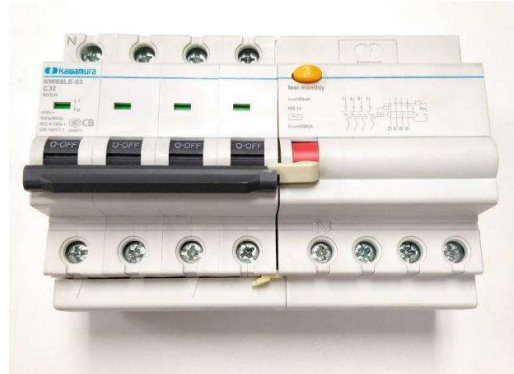
KWB8LE Series Miniature Circuit Breaks Incorporating Residual Current Protection



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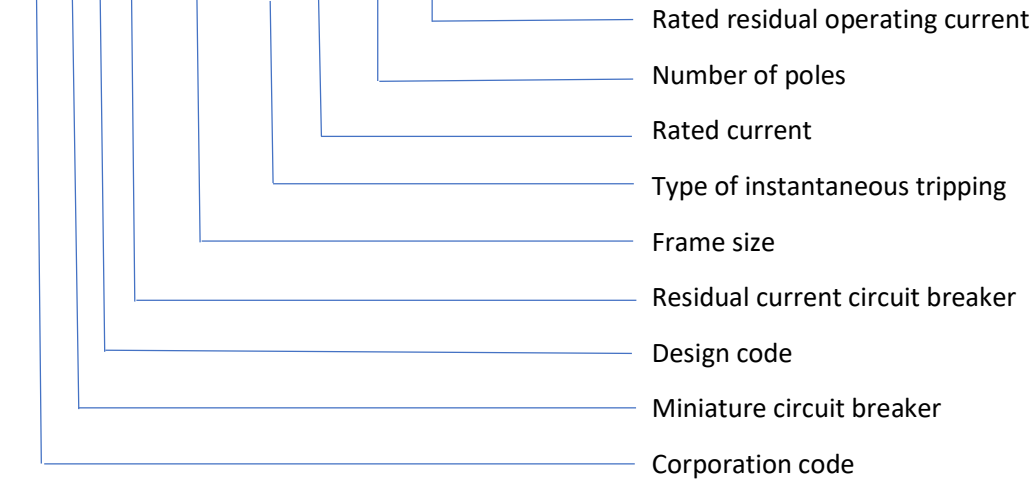
1. Application scope

KWB8LE series miniature circuit breakers incorporating residual current protection (hereinafter referred to as RCBOs) are suitable to be used in the circuits with rated operational voltage of 230 V or 400 V, a.c. 50 Hz, and rated current up to 32 A. They are primarily intended to provide indirect contact protection for human, and overcurrent protection for the circuits of buildings and similar use, and also to provide protection against fire hazards due to a persistent earth fault current, without the operation of the overcurrent protective device. The products conform to the standards of IEC 61009-1, GB 16917.1



2. Type designation and meaning

KW B 8 LE - 63 / □ □ □ □



3. Normal operation and Installation conditions

- The ambient air temperature is between -5°C and $+40^{\circ}\text{C}$, and the average temperature of 24 hours does not exceed 35°C .
Note1. The operation conditions for lowest temperature of -10°C or -25°C shall be declared to the manufacturer by user when ordered.
Note2. The operation conditions for ambient air temperature above $+40^{\circ}\text{C}$ or below -25°C should be according to agreement between manufacture and user.
- The altitude of the site of installation does not exceed 2000 m.
- The relative humidity of the air of the site of installation does not exceed 50% at a maximum temperature of $+40^{\circ}\text{C}$. Higher relative humidity may be permitted at lower temperatures, e.g. 90% at $+20^{\circ}\text{C}$. Adequate measures shall be taken for the condensation occurred occasionally due to variations in temperature.
- The pollution degree is 2.
- The overvoltage category is III or II.
- Usually be installed in vertical position with a tolerance of 2° in any direction
- There is no obvious shock and vibration at the site of installation.

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4. Main technical data

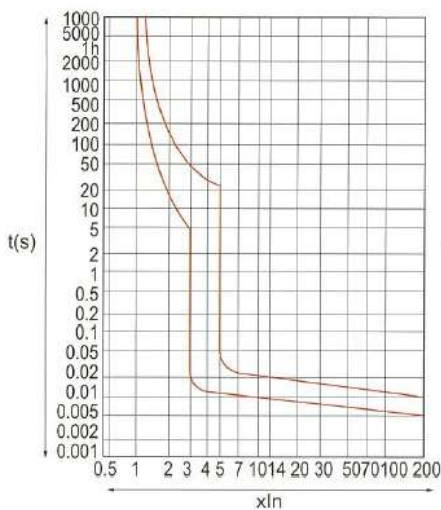
a. Main technical data

Type	Rated Current of frame size (A)	Number Of poles	Rated Voltage (V)	Rated Breaking Capacity Ics (A)	Rated Current In (A)	Rated residual operating current (mA)	Rated Residual non-operating current (mA)	Rated residual making and breaking capacity IΔm(A)	Type of instantaneous tripping
KWB8LE-63	63	1P+N	230	6000 (In≤40)	6 10 16	30	15	2000	B
		2P	400	4000 (In>40)	20 25 32	100	50		C
		3P		40 50 63			D		
		3P+N							
4P									

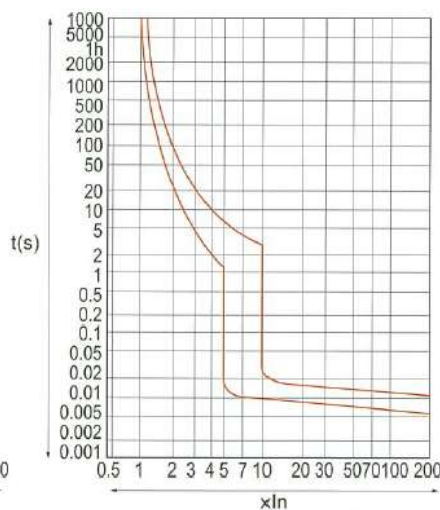
b. Characteristics of overcurrent protection

Type of overcurrent instantaneous tripping	Rated Current In (A)	Test current (A)	Limits of tripping or non-tripping time (t)	Results to be obtained	Initial Condition	Ambient Temperature	Remarks
B C D	≤63	1.13In	t≥1h	No tripping	Cold state	30°C~35°C	Immediately following the above test
B C D	≤63	1.45In	t<h	Tripping	Thermal steady-state		
B C D	≤32	2.55In	1s<t<60s	Tripping	Cold state		Current established by closing auxiliary switch
	>32		1s<t<120s				
B	≤63	3In	t≥0.1s	No tripping	Cold state		
C		5In					
D		10In					
B	≤63	5In	t<0.1s	Tripping	Cold state		
C		10In					
D		14In					

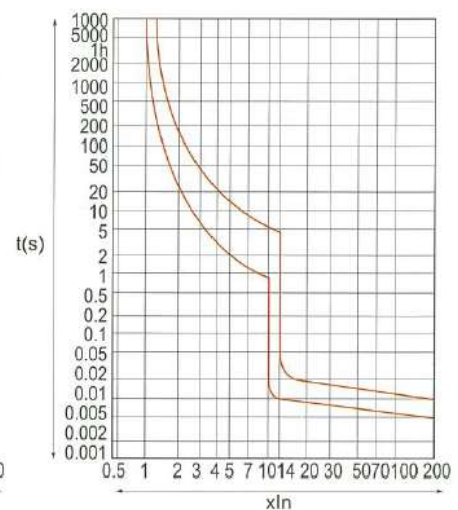
5. Time-current characteristic curve of circuit breakers



Time-current characteristics curve for type B



Time-current characteristics curve for type C



Time-current characteristics curve for type D

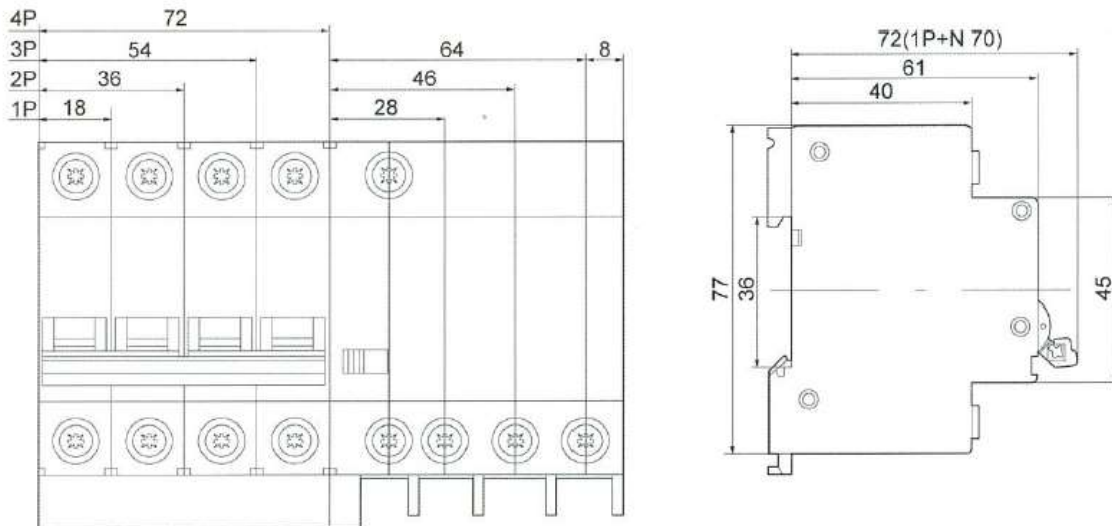
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6. Outline and installation dimensions

KWB8LE are mounted on mounting rails. Connectable cross-section of conductor for terminals is up to 25 mm².



7. Ordering information

- Type designation and specification of RCBOs
- Number of poles and rated current of RCBOs
- Rated residual operating current of RCBOs
- Quantity

For Example

If you want to order 1000 sets of KWB8LE-63 RCBOs of 4 poles, rated current of 40 A, rated operating current of 30 mA and type C, please write as "order KWB8LE-63/C40 4P 30 mA, 1000 sets"