



Model and Meaning

EXB9L-125 1P+N 25 30mA 10kA Type AC

- Leakage type: Type AC (default), Type A, Type S, Type A+SI
- Breaking capacity: 10kA/6kA
- Rated sensitivity ($I_{\Delta n}$): 10mA, 30mA (default), 100mA, 300mA, 500mA
- Current(I_n): 16A, 25A, 32A, 40A, 63A, 80A, 100A, 125A
- Poles: 1P+N, 3P+N
- Frame

General

EXB9L-125 residual current operated circuit breaker without over current protection (hereinafter referred to as RCCB) is suitable for AC 50Hz/60Hz, rated voltage up to 415V, rated current up to 125A, for residual current protection. When the human body gets an electric shock or the network leak current exceeds the specified value, the residual current operated circuit breaker can rapidly cut off the human body and the powered equipment. It is used in housing, tertiary sector and industry.

The product meets the standards of IEC 61008-1.

1.2 Selection

Detectable wave form

AC type

Tripping is ensured for slowly increasing sinusoidal AC residual currents.

A type

Tripping is ensured for sinusoidal AC residual currents and for pulsed DC residual currents, whether applied suddenly or increasing slowly.

S, SI type

Tripping is ensured not only for sinusoidal AC residual currents but also for pulsed DC residual currents whether applied suddenly or increasing slowly. S, SI type with filters against spurious tripping caused by harmonics and transient surges. With the impact of 8/20us surge 3000A, this high immunity RCCB will still be in stable status.

Tripping sensitivity

10mA – precision instrument leakage protection and bathroom use.

30mA additional protection against direct contact.

100mA – coordinated with the earth system according to the formula $I_{\Delta n} < 50/R$, to provide protection against indirect contacts;

300mA/500mA – protection against indirect contacts, as well as fire hazard.

Tripping time

Instantaneous

It ensures instantaneous tripping(without time-delay)

SI: Short time delay

S: Selective (time delay)

Wire Connection

Before installation, check whether technical parameter of the circuit breaker is in conformity with user's requirement. The conductor of power supply shall be connected to the up terminal of circuit breaker. During installation, the tightening torque is max 3.5N.m. The sectional area of connecting wire can refer

to Table 1.

I_n A	$S(Cu)$ mm ²
16,20	2.5
25	4
32	6
40	10
63	16
80	25
100	35
125	50

Note: Max. tightening torque: 2.5N·m for $I_n \leq 80$ A, 3.5 N·m for $I_n = 100A$ and 125A.

Technical Parameter

	Standard		IEC/EN61008-1
Electrical features	Type (wave form of the earth leakage sensed)		Type AC ; Type A ; Type S ; Type A+SI
	Rated current I_n	A	16,25,32,40,63,80,100,125
	Poles		1P+N,3P+N
	Rated voltage U_e	V	1P+N:230/240V~ ; 3P+N:400/415V~;
	Rated sensitivity $I_{\Delta n}$	A	0.01,0.03,0.1,0.3,0.5
	Insulation voltage U_i	V	500
	Rated residual making and breaking capacity $I_{\Delta m}$	A	500($I_n=16A/25A/32A/40A$) 10 I_n for 63A/80A100A/125A
	Conditional rated short circuit current ($I_{nc}/I_{\Delta c}$)	A	10000 / 6000
	SCPD fuse	A	
	break time under $I_{\Delta n}$	s	≤ 0.1
	Rated frequency	Hz	 10000
	Rated impulse withstand voltage(1.2/50) U_{imp}	V	4000
	Dielectric test voltage ct ind. Freq. for 1 min	KV	2
Mechanical features	Pollution degree		2
	Electrical life		4000
	Mechanical life		4000
	Fault current indicator		Yes
	Protection degree		IP20
	Ambient temperature (with daily average $\leq 35^\circ\text{C}$)	$^\circ\text{C}$	-25...+40
Installation	Storage temperature	$^\circ\text{C}$	-25...+70
	Terminal connection type		Cable/U-type busbar / Pin-type busbar
	Terminal size top/bottom for cable	mm ²	25/35
		AWG	18-3/18-2
	Terminal size top/bottom for busbar	mm ²	10/16
		AWG	18-8/18-5
	Tightening torque	N·m	2.5
		in - lbs	22
	Mounting		On DIN rail EN 60715(35mm)by means of fast clip device
	Connection		From top or bottom

Rated sensitivity $I_{\Delta n}$ Table Contd

General type: $I_n = 16, 25, 32, 40, 63, 80, 100A, 125A$ $I_{\Delta n} = 0.01A$ (only for $I_n = 16, 25, 32, 40, 63A$), Type-A and -AC $I_{\Delta n} = 0.03A, 0.1A, 0.3A$, Type-A and -AC $I_{\Delta n} = 0.5A$, Type-AC	With type S: $I_{\Delta n} = 16, 25, 32, 40, 63A$ $I_{\Delta n} = 0.03, 0.1, 0.3A$, Type-A and -AC, Type-S $I_{\Delta n} = 0.5A$, Type-AC, Type-S	With manufacturer code SI: $I_{\Delta n} = 16, 25, 32, 40, 63A$ $I_{\Delta n} = 0.03, 0.1, 0.3A$, Type-A
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Limit values of break time and non-actuating time(s) for alternating residual currents(r.m.s) for type A&AC:

Code	$I_n(A)$	$I_{\Delta n}(A)$	$I_{\Delta n}$	$2I_{\Delta n}$	$5I_{\Delta n}$	$5I_{\Delta n}$ or 0.25A	5A~200A	5A~200A	
SI	≥ 16	≥ 0.03	0.3	0.15	0.04		0.04	0.04	Maximum break times
		≥ 0.03	0.01	0.01	0.01		0.01	0.01	Minimum non-actuating times

Overall and Mounting Dimensions

