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PEM1LE-63

RCBO Electronic

- Small Volume
- Short circuit Protection
- Overload Protection
- Leakage Protection
- Complete Accessories
- Support Bidirectional Current

V20250709

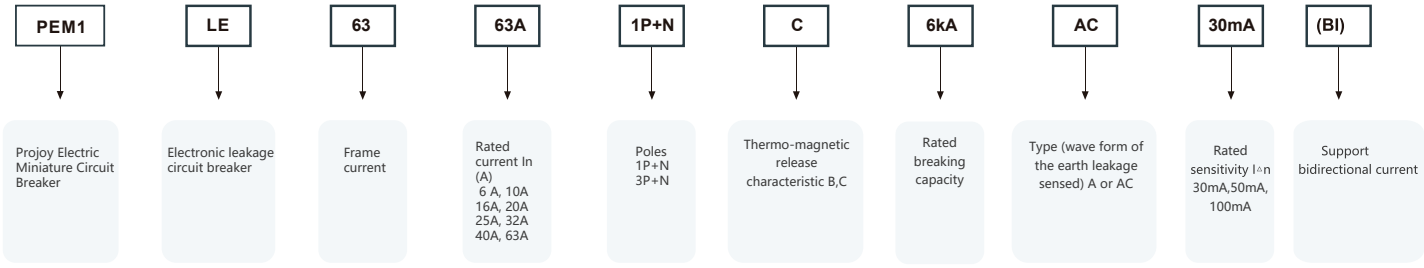
PEM1LE-63 Series RCBO

1 Overview

PEM1LE–63 series Residual Current Operated Circuit Breaker (RCBO) is mainly suitable for circuits with AC 50Hz, rated voltage 230V, and rated current up to 63A. When a person gets an electric shock or the grid leakage current exceeds the specified value, the device can quickly cut off the power supply to protect the safety of people and electrical equipment. Embedded with overload, short–circuit protection and isolation functions, it can also switch on and off electrical devices and lighting lines infrequently under normal circumstances, making it especially suitable for industrial, commercial and residential distribution systems.

The product complies with IEC / EN 61009–1 standards.

2 Product naming rules



3 Specifications

3.1 Basic Data

Product Name		PEM1LE-63
Standard		IEC/EN 61009-1
Electrical Features		
Number of poles		1P+N 、3P+N (N can be switched on and off)
Rated frequency(Hz)		50
Frame rating current (A)	Inm	63
Rated current(A)		6、10、16、20、25、32、40、50、63
Rated voltage(V)		AC230
Rated insulation voltage (V)	Ui	500
Rated impulse withstand voltage (kV)	Uimp	4
Rated operating short-circuit breaking capacity (kA)	Ics	6
Rated short circuit capacity (kA)	Icn	6
Rated residual making and breaking capacity (A) (I△m)		2000
Max. breaking time at rated residual current		0.1s
Instantaneous tripping feature		B(3In~5In) C(5In~10In)
Trip mode		Thermal magnetic trip
Pollution level		2

Continue the above table

Electrical and mechanical accessories	MX: Shunt release SD: Alarm contact OF: Auxiliary contact MX+OF: Shunt + auxiliary release MV: Over-voltage release MN: Under-voltage release MV+MN: Over and under voltage release
Rated residual operating current (mA) (I△n)	30、50、100
Mechanical Features	
Electrical life	6000
Mechanical life	10000
Protection level	IP20
Normal operating conditions and installation	
Ambient temperature	-35℃~+70℃
Installation altitude	Not more than 2,000m
Terminal connection type	Screw crimp
Max. wiring capacity	25
Max. Ultimate torque	2.5
Installation Type	II、III Type
Installation method	TH35-7.5 standard slide rail
Incoming line method	Upline or downline

3.2 Over-current release operation of the circuit breaker (see Table 2)

Table 2

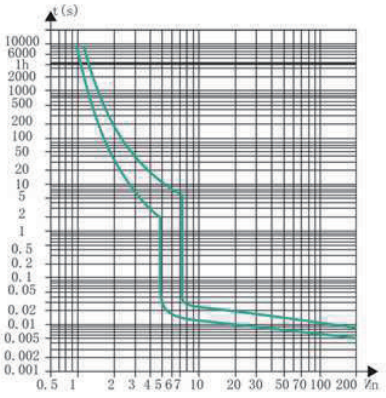
Serial No.	Test current(A)	Starting state	Set time	Expected outcome	Remark
a	1.13In	Cold state	t ≤ 1h	No tripping	
	1.45In	Then try it on 1.13In test	t < 1h	Trip	The current rises stably to the specified value within 5s
	2.55In	Cold state	1s < t < 120s (For In > 32A)	Trip	
			1s < t < 60s (For In ≤ 32A)		
b	3In	Cold state	t ≤ 0.1s	No tripping	Closing the auxiliary switch to connect the current
	5In	Cold state	t < 0.1s	Trip	
c	5In	Cold state	t ≤ 0.1s	No tripping	Closing the auxiliary switch to connect the current
	10In	Cold state	t < 0.1s	Trip	

Note: Cold state refers to under the temperature of 30℃, there is no load before the test.

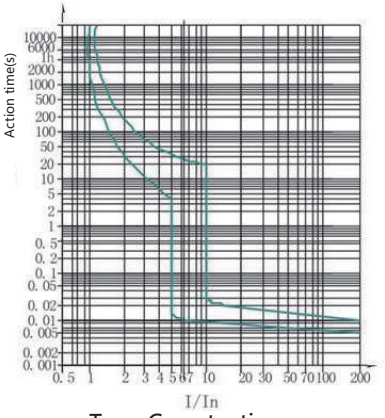
3.3 Advantage

- Full scenario leakage protection: integrated overload, short circuit, leakage fault and other protection functions.
- High sensitivity and reliability.
- The electrical life is relatively long, up to 6000 cycles.
- support bidirectional current.

3.4 Protection curve of the circuit breaker



Type B protection curve



Type C protection curve

3.5 Wiring: It is suitable for wire connection of 25mm² or smaller (see Table 3). Use screws to tighten the wiring and the torque is 2.5N·m.

Table 3

Product Name	PEM1LE-63
1~6	1
10	1.5
16~20	2.5
25	4
32	6
40~50	10
63	16

4 Product appearance and installation dimensions