

C45LE Leakage Circuit Breaker With Over-current Protection



1. Application

C45LE is applicable to a line of AC 50Hz/60Hz, rated voltage 230V for single pole two-wire, 2-pole or 400V for 3-pole, 3-pole 4-wire, 4-pole and rated current up to 40A. It can protect the line and motor from overload and short circuit. It can also be used for infrequent line conversion and infrequent motor start. It conforms with the standards of IEC61009.

2. Main technical parameter

Type	C45LE	
Pole	1P+N, 2P	3P, 3P+N, 4P
Rated current (A)	6, 10, 16, 20, 25, 32, 40, 50, 63	
Rated voltage (V)	230	400
Rated short circuit breaking capacity $I_{cn}(KA)$	6–32A:6/40–63:4.5	
Rated residual making/breaking capacity $I_{\Delta m}(A)$	2000	
Rated residual action current $I_{\Delta n}(A)$	0.03, 0.05, 0.1, 0.3	
Rated residual non-action current $I_{\Delta no}(A)$	0.5 $I_{\Delta n}$	

3. Applicable conducting wire

Rated current(A)	1–6A	10A	16, 20A	25A	32A	40, 50A	63A
Normal cross section of wire mm ²	1	1.5	2.5	4	6	10	16

4. Residual current breaking time

I_n (A)	$I_{\Delta n}$ (A)	Breaking time(s) when equals to rating following					
		$I_{\Delta n}$	$2I_{\Delta n}$	$5I_{\Delta n}$	5, 10, 20, 50, 100, 200, 500 ^a (A)	$I_{\Delta t}^b$	
6–63	0.03, 0.05, 0.1, 0.3	0.1	0.06	0.04	0.04	0.04	

5. The over-current protection property

Ambient Temperature	Initial Status	Test Current	Expected Result	Expected Result	Note
30 ± 2°C	Cold position	1.13 I_n	$t \leq 1h$	Non-release	–
	Carried out immediately after previous test	1.45 I_n	$t < 1h$	Release	–
	Cold position	2.55 I_n	1s < t < 60s ($I_n \leq 32A$)	Release	Current smoothly rises to specified value within 5s
	Cold position	2.55 I_n	1s < t < 120s ($I_n > 32A$)	Release	
–5~+40°C	Cold position	3 I_n	$t \leq 0.1s$	Non-release	Type B
	Cold position	5 I_n	$t < 0.1s$	Release	Type B
	Cold position	5 I_n	$t \leq 0.1s$	Non-release	Type C
	Cold position	10 I_n	$t < 0.1s$	Release	Type C
	Cold position	10 I_n	$t \leq 0.1s$	Non-release	Type D
	Cold position	20 I_n	$t < 0.1s$	Release	Type D