

LM1L Series Earth Leakage Circuit Breaker

Application and description

LM1L series earth leakage circuit breaker are one of the new type earth leakage breakers which have been developed by the company using international advanced design and manufacturing technology. Suitable for a line of AC50Hz/60Hz, rated voltage up to 400V, rated current 16A to 630A. And is acted as infrequent changeover of circuit or infrequent starting of motor. The breaker has overload, short-circuit and under-voltage protective function, which can protect the circuit and the power equipment against damage, meanwhile, it can provide protection to these fire dangers that caused by these long-time existed grounding fault that can not be detected by the over-current protection.



LM1L-100M/4P

This breaker can be installed vertically(upright) or horizontally(transverse).

Wiring of the breaker can not be in adverse direction, that means power supply line must be connected to terminal 1,3 and 5 and the load line connected to terminal 2,4 and 6.

The rated residual operating current $I_{\Delta n}$ and the maximum breaking time can be adjusted on site according to practical condition.

The leakage protection module still can work normally when the phase voltage reduce to 50V. It has the same overall size with the Am1 series breakers, which make the installation more exchangeable.

The breakers are suitable for isolation, its symbol are:

The breakers comply with the demands of the following standards: 

IEC60947-1 and GB/T 14048.1 General

IEC60947-2 and GB 14048.2 Low voltage breakers

IEC60947-4 and GB 14048.4 Contactors and motor starters

IEC60947-5.1 and GB 14048.5 Electrical equipments of electromechanical control circuit



LM1L-225M/3P

Main technical specifications

Table 1

Type	LM1L-100	LM1L-225	LM1L-400	LM1L-630	
Frame Current I_n (A)	100	225	400	630	
Rated current I_n (A)	(10) 16,20,25,32,40,50,63,80,100	100,125,160,180,200,225	225,250,315,350,400	400,500,630	
Pole Number	3 4	3 4	3 4	3 4	
Rated insulation voltage U_i (V)	AC800				
Rated working voltage U_e (V)	AC 400V				
Rated impulse with stand voltage U_{imp} (V)4	8000				
Arc-over Distance(mm)	≥50				
Breaking capacity grade	M H	M H	M	M	
Limiting short-circuit breaking capacity I_{cu} (KA)	50 85 50	50 85 50	65	65	
Service short-circuit breaking capacity I_{cs} (KA)	35 50 35	35 50 35	42	42	
Rated residual operating current $I_{\Delta n}$ (mA)	Non-delay type	100/300/500			
$I_{\Delta n}$ (mA)	Delay type	100/300/500		300/500/1000	
Rated residual non-operating current $I_{\Delta n0}$ (mA)	1/2 $I_{\Delta n}$				
Operation performance (time)	Electrified	1500	1000	1000	1000
	Unelectrified	8500	7000	4000	4000