

## RDM5L series Residual Current Circuit Breaker

### Introduction

RDM5L series residual current circuit breaker(RCCB) is mainly applied to power distribution network of AC50/60Hz, rated operated voltage up to 400V, rated operate current up to 800A. RCCB has indirect touch protection for human, and protect the device against the fire danger caused by insulation damage and grounding faults. And it also can distribute electrical energy, protect circuit and power-supply against overload and short-circuit, and also for transferring circuit and starting motor unfrequently.

Standard: IEC60947-2 GB14048.2 and GB/Z6829.

### Type selection

RDM5L	250	L	P	/	4	3	00	2	A	I	R
Code	Frame size	Break capacity	Operate method	Pole	Release code	Accessory code	Application	4P	Optional code	Alarm Module Code	Intall Code
RDM5L: MCCB with residual current protect function	code 125 250 400 800	L: Normal type M:Middle type H: High type	Non: direct handle operate Z:Rotary handle operate P:motor operate	4: 3P 4: 4P	Release option code 2:Instantan -eous Release 3:Complex Release	See Table1	Non: distribution MCCB 2: motor protect MCCB	Non: 3P 4P: see Table2	Non: no leakage, alarm module I:leakage alarm and tripping II:leakage alarm, no tripping	Non:front board connect R:back board connect PF:insert type front board connect PR:insert type back board connect	

For example: RDM5L-250MP/4310B II 225A 100mA ,0.4s,AC230V shunt release 100 PCS means that RDM4L-250, middle capacity M, Motor operate, 4P B type distribute protect MCCB, complex releae, with AC 230V shunt release, II type leakage alarm no tripping module, front board connect

### Residual Current Time Set

Time set	Performance Characteristic				
	Non-delay Performance Characteristic				
0.3s	Residual current	$I \Delta n$	$2I \Delta n$	$5I \Delta n$	$10I \Delta n$
	Max break time(s)	0.3	0.15	0.04	0.04
0.4s	Residual current	$I \Delta n$	$2I \Delta n$	$5I \Delta n$	$10I \Delta n$
	Max break time(s)	0.4	0.3	0.2	0.2
	Limit non drive time (s)		0.1		
1.0s	Residual current	$I \Delta n$	$2I \Delta n$	$5I \Delta n$	$10I \Delta n$
	Max break time(s)	1.0	1.0	0.9	0.9
	Limit non drive time (s)		0.5		

## RDM5E series Moulded Case Circuit Breaker

### Internal Accessory Code Table

Alarm Switch  
  Auxiliary Switch  
  Shunt Release  
  Under-voltage Release  
 → Lead Direction
 
 Handle  
 left install   Right install

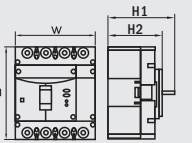
Code	Accessory	RDM5L-125/250		RDM5L-400、800	
		3P, 4P A/D Type	4P B/C Type	3P, 4P A/D Type	4P B/C Type
00	No internal accessory				
08	Alarm switch				
10	Shunt release				
20	Auxiliary switch(1NO1NC)				
	Auxiliary switch(2NO2NC)				
30	Under-voltage release				
40	Shunt release+Auxiliary switch(1NO1NC)				
	Shunt release+Auxiliary switch(2NO2NC)				
50	Shunt release+Under-voltage release				
60	2 sets Auxiliary switch(2NO2NC)				
	2 sets Auxiliary switch(4NO4NC)				
70	Under-voltage release+Auxiliary switch(1NO1NC)				
	Under-voltage release+Auxiliary switch(2NO2NC)				
18	Shunt release+Alarm switch				
28	Auxiliary switch(1NO1NC)+Alarm switch				
38	Under-voltage release+Alarm switch				
48	Shunt release+Auxiliary switch(1NO1NC)+Alarm switch				
68	2 sets Auxiliary switch(2NO2NC)Alarm switch				
78	Under-voltage release Auxiliary switch(1NO1NC)Alarm switch				

### 4P product code Table2

Code	Instruction
A Type	Neutral pole has no overcurrent release, and N pole is always connecting and do not break or close with the other three poles.
B Type	Neutral pole has no overcurrent release, and N pole breaks and close with the other three poles together.(N pole closed first and break later)
C Type	Neutral pole has overcurrent release, and N pole breaks and close with the other three poles together.(N pole closed first and break later)
D Type	Neutral pole has overcurrent release, and N pole is always connecting and do not break or close with the other three poles.

## RDM5L series Residual Current Circuit Breaker

### Main Technical parameter

Frame size rated current $I_{nm}(A)$	125			250			400			800					
Rated current $I_n(A)$	10、16、20、25、32、40 50、63、80、100、125			100、125、160、180 200、225、250			200、225、250、315 350、400			400、500、630、700 800					
Pole	3P、4P														
Rated frequency(Hz)	50、60														
Rated insulation voltage $U_i(V)$	AC1000														
Rated impulse withstand voltage $U_{imp}(V)$	8000														
Rated operate voltage $U_e(V)$	AC400														
Arc distance (mm)	$\leq 50$						$\leq 100$								
Short-circuit breaking capacity level	L	M	H	L	M	H	L	M	H	L	M	H			
Rated ultimate short-circuit breaking capacity $I_{cu}(kA)$	35	50	85	35	50	85	50	65	100	50	70	100			
Rated operate short-circuit breaking capacity $I_{cs}(kA)$	25	35	50	25	35	50	25	35	50	25	35	50			
Rated short-time withstand current $I_{cw}(kA/0.5s)$	—						5			8					
Using Type	A														
Rated residual operate current $I_n(mA)$	30、100、300 (Non-delay) 100、300、500 (Delay)			100、300、500			100、300、500			300、500、1000					
Rated residual non-operate current $I_{no}(mA)$	0.5I $\Delta$ n														
Rated residual short-circuit making(breaking) capacity $I_m(kA)$	0.25I $_{cu}$														
Residual current operate time(s)	Non-delay		0.3s												
	Delay		0.4s、1.0s												
Residual current operate type	AC Type														
Standard	IEC60947-2 GB14048.2 GB/Z6829														
Ambient temperature	-35 $^{\circ}C$ ~ +70 $^{\circ}C$														
Electrical life	8000			8000			7500			7500					
Mechanical life	20000			20000			10000			10000					
Undervoltage release	■			■			■			■					
Shunt release	■			■			■			■					
Alarm contact	■			■			■			■					
Auxiliary contact	■			■			■			■					
Dimension (mm)			W	92(3P) 122(4P)			107(3P) 142(4P)			150(3P) 198(4P)			210(3P) 280(4P)		
			L	150			165			257			280		
			H1	110			115			148			168		
			H2	96			94			115			122		