

RDCM1(CM1) Series

Overall And Mounting Dimensions (mm)

Model	Overall dimension																
	Front connection												Rear connection				
	W	L	H	W1	L1	L2	H1	H2	L3	E	F	G	H3	H4	L2	L3	φd
RDCM1-63L	78	135	73.5	50	172	117	87	17	85	50	23	4.0	44	67	117	87	18
RDCM1-63M	78	135	81.5	50	172	117	98.5	25	85	50	23	4.0	44	67	117	87	18
RDCM1-63 4P	103	135	81.5	75	172	117	98.5	25	85	50	23	4.0	44	67	117	87	18
RDCM1-100 2P	65	150	69	30	200	132	89	24	88	51	23	4.0	53	93	132	90	22
RDCM1-100L	92	150	69	60	200	132	89	24	88	51	23	4.0	53	93	132	90	22
RDCM1-100M	92	150	86	60	200	132	106	24	88	51	23	4.0	53	93	132	90	22
RDCM1-100 4P	122	150	86	90	200	132	106	24	88	51	23	4.0	53	93	132	90	22
RDCM1-225 2P	75	165	103	35	265	144	107	24	101	50	24	4.0	53	100	144	93	24
RDCM1-225L	107	165	86	70	265	144	107	24	101	50	24	4.0	55	100	144	93	24
RDCM1-225M	107	165	103	70	265	144	124	24	101	50	24	4.0	55	100	144	93	24
RDCM1-225 4P	142	165	103	105	265	144	124	24	101	50	24	4.0	55	100	144	93	24
RDCM1-400L, M	150	257	106.5	96	457	224	150	38	128	90	66	6.5	48.5	108.5	224	164	32
RDCM1-400 4P	198	257	106.5	144	457	224	150	38	128	90	66	6.5	48.5	108.5	224	164	32
RDCM1-630L, M	182	270	110	116	470	234	154	43	134	90	66	6.5	49	109	234	164	40
RDCM1-630 4P	240	270	110	174	470	234	154	43	134	90	66	6.5	49	109	234	164	40
RDCM1-800H	210	280	108	140	480	243	147	40	136	81	66	4.5	62	62	243	158	48
RDCM1-800H 4P	280	280	108	210	480	243	147	40	136	81	66	4.5	62	62	243	158	48

Model	Overall dimension									Mounting dimension			Plug-in plate size		
	Plug-in connection														
	L4	L5	H5	H6	H7	C	D	φd1	A	B	φd	A	B	H	
RDCM1-63L	135	100	31	36	43	60	50	5.5	25	117	3.5	90	79	28	
RDCM1-63M, H	135	100	31	36	43	60	50	5.5	25	117	3.5	90	79	28	
RDCM1-63 4P	135	100	31	36	43	60	75	5.5	25	117	3.5	90	104	28	
RDCM1-100 2P	-	-	-	-	-	-	-	-	-	129	4.5	-	-	-	
RDCM1-100L	168	90	50	64	76	56	60	6.5	30	129	4.5	90	94	41	
RDCM1-100M	168	9	50	64	76	56	60	6.5	30	129	4.5	90	94	41	
RDCM1-100 4P	168	90	50	64	76	56	90	6.5	30	129	4.5	90	125	41	
RDCM1-160, 225 2P	-	-	-	-	-	-	-	-	-	128	4.5	-	-	-	
RDCM1-160, 225L	186	94	50	71.5	71.5	51	70	6.5	35	128	4.5	88	110	51	
RDCM1-160, 225M	186	94	50	71.5	71.5	51	70	6.5	35	128	4.5	88	110	51	
RDCM1-160, 2254P	186	94	50	71.5	71.5	51	105	6.5	35	128	4.5	88	145	51	
RDCM1-400L, M	279	170	60	83.5	106.5	129	60	8.5	48	194	7.0	166	152	58	
RDCM1-400 4P	279	170	60	83.5	106.5	129	108	8.5	48	194	7.0	166	200	58	
RDCM1-630L, M	299	170	60	92	110	123	100	8.5	58	202	7.0	166	185	68	
RDCM1-630 4P	299	170	60	92	110	123	158	8.5	58	202	7.0	166	242	68	
RDCM1-800M	305	181	87	97	148	146	90	11	70	243	7.0	166	213	68	
RDCM1-800M 4P	299	181	87	97	148	146	140	11	70	243	7.0	183	213	68	
RDCM1-1250	/	/	/	/	/	/	/	/	70	300	9.0	/	/	/	

Moulded Case Circuit Breaker

RDCM1(CM1) Series

Application



RDCM1(CM1) series MCCB is mainly used in the circuit of AC 50/60Hz, rated insulating voltage 690V (630 type is 500V), rated working voltage up to 690V, and rated current from 6A-800A in distribution line for distributing power, protecting line, overload, short-circuit and under-voltage protection. It also can be used for infrequently starting of motor for overload, short-circuit and under-voltage protections.

It is small size, high breaking capacity and short arcing (without arcing).

The products can be installed vertically and horizontally. And it have front connection, rear connection and plug-in connection.

The product meets the standards of GB14048.2 and IEC60947-2.

Model

RD CM 1 - □ □ □ / □ □ □ □
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①	Company Code
②	Moulded Case Circuit Breaker
③	Design Number
④	Frame Class Rated Current
⑤	Breaking Capacity Code: L : Standard Type M: Relatively high Type
⑥	Operation Type Code: Handle Operation (without code); Electric (P); Rotary handle (Z)
⑦	Number Of Pole
⑧	Release Type and Accessories Code (find the accessories cable)
⑨	Utilization Category : power distribution protection (Without Code); motor protection (Code:2)
⑩	Four poles circuit breaker's N pole

Note: The neutral pole (N pole) of four pole has four types:

Type A: No current tripping release on N pole which making all the time, not closing and opening with the other three poles.

Type B: No current tripping release on N pole which closing and opening with the other three poles.

Type C: With current tripping release on N pole which closing and opening with the other three poles.

Type D: With current tripping release on N pole which making all the time, not closing and opening with the other three poles.

Accessories Cable

Accessories Name	No accessory	Alarm release	shunt release	Auxiliary contact	under-voltage release	shunt release auxiliary contact	shunt release under-voltage release	two groups of auxiliary contact	Auxiliary contact under-voltage release	shunt release alarm contact	Auxiliary contact alarm contact	under-voltage release auxiliary contact alarm contact	shunt release auxiliary contact alarm contact	two groups of auxiliary contact alarm contact	Auxiliary contact under-voltage release alarm contact
Electromagnetic release	200	208	210	220	230	240	250	260	270	218	228	238	248	268	278
Double release	300	308	310	320	320	340	350	360	370	318	328	338	348	368	378

RDCM1(CM1) Series

Product Classification

- Breaking Capacity: a Standard Type (L type) b Relatively high Type (M type);
- Connection Type: a Front connection b Rear connection c Plug-in connection;
- Operation Type: a handle directly operation; b Rotary handle operation;
 - c Electrical operation; (63-225 Size Electromagnet type; 400-800 Size motor type);
- Number Of Pole: two poles; three poles; four poles.

Normal Working Condition

- Altitude: not exceed 2000m
- Ambient air temperature:
 - 1) Temperature: $-5^{\circ}\text{C}\sim+40^{\circ}\text{C}$;
 - 2) 24 hours average air temperature shall not exceed $+35^{\circ}\text{C}$;
 - 3) If the air temperature is more than $+40^{\circ}\text{C}$, it need remark the special ordering.
- Air conditions:

At mounting site, relative humidity not exceed 50% at the max temperature of $+40^{\circ}\text{C}$, higher relative humidity is allowable under lower temperature. For example, RH could be 90% at $+20^{\circ}\text{C}$, special measures should be taken to occurrence of dews.
- Pollution grade: Grade 3;
- Protection Grade: IP20.

Main Technical Parameters

Circuit breaker rated value								
Model	Frame class rated current	Rated current In(A)	Rated working voltage (V)	Rated insulation voltage (V)	Rated ultimate short-circuit breaking capacity I_{cu} (kA)	Rated operating short circuit breaking capacity I_{cs} (kA)	number of pole	Arcing over distance(mm)
RDCM1-63L	63	6, 10, 16, 20, 25	400	500	10*	5*	3	≤50
RDCM1-63M	63	32, 40, 50, 63			15*	10*	3, 4	
RDCM1-100L	100	16, 20, 25, 32	400/690	690	35/10	22/5	3	≤50
RDCM1-100M	100	40, 50, 63, 80, 100			50	35	2, 3, 4	
RDCM1-225L	225	100, 125, 160	400/690	690	35/10	23/5	3	≤50
RDCM1-225M	225	180, 200, 225			50	35	2, 3, 4	
RDCM1-400L	400	225, 250	400/690	690	50/15	35/8	3, 4	≤100
RDCM1-400M	400	315, 350, 400			65	35	3	
RDCM1-630L	630	400, 500, 630	400/690	690	50/15	35/8	3, 4	≤100
RDCM1-630M	630				65	45	3	
RDCM1-800H	800	800	400/690	690	50/15	35/8	3, 4	≤100

Note: * is the test data of 400V, and 6A without thermal protection.

Characteristics of thermo protection operation of thermo-magnetic release for power distribution.			
Test Current	I/In	Conventional time	Initial Status
Conventional non-tripping current	1.05	2h(In>63A), 1h(In≤63A)	Cold Status
Conventional tripping current	1.30	2h(In>63A), 1h(In≤63A)	Thermal Status

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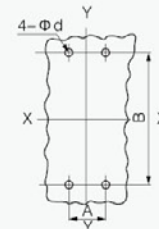
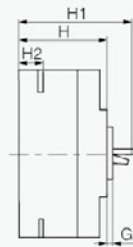
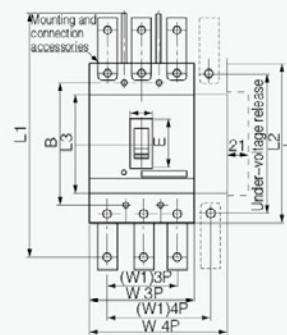
Characteristics of thermo protection operation of thermo-magnetic release for motor protection.

Rated Current	Conventional time	Initial status	Remarks
1.0I _n	>2h	Cold status	Not Tripping
1.2I _n	≤2h	Thermal status	Tripping
1.5I _n	≤4min	Cold status	10≤I _n ≤225
	≤8min	Cold status	225≤I _n ≤630
7.2I _n	4s≤T≤10s	Cold status	10≤I _n ≤225
	6s≤T≤20s	Cold status	225≤I _n ≤630

Instantaneous operation characteristics of power distribution protection circuit breaker: 10I_n±20%,
Instantaneous operation characteristics of motor protection circuit breaker: 12I_n±20%

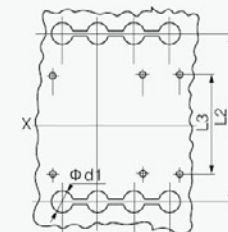
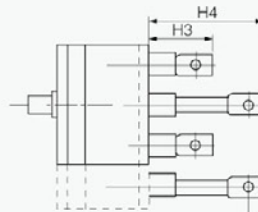
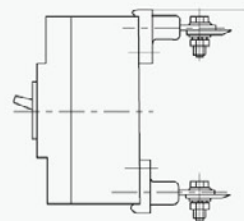
Overall And Mounting Dimensions (mm)

Front connection

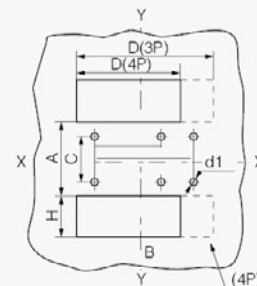
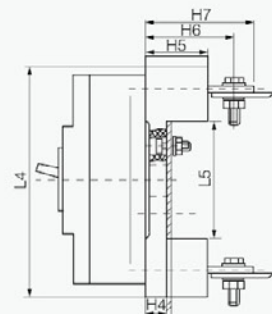


Front connection plate size X-X,Y-Y Three pole circuit breaker center

Rear connection



Rear connection plate size X-X,Y-Y Three pole circuit breaker center



Plug-in plate size