

EKM7DC MCCB 1500V



Non-Polarity DC MCCB

Standard_IEC60947-2



Application

EKM7DC series DC molded case circuit breaker (referred to as circuit breaker), has a rated operating voltage to DC1500V, rated insulation voltage 1500V, rated impulse withstand voltage up to 12kV, and rated current 100A~1600A.

The circuit breaker can be vertically or horizontally installed.

It complies with the following standards:
IEC 60947-1 and IEC 60947-2.

Working conditions

- The altitude is 2000m and below, high altitude capacity reduction coefficient is shown in the capacity reduction coefficient table; The temperature of the surrounding medium shall not be higher than +70°C (+45°C for Marine products) and not lower than -25°C (below -25°C, LC low-temperature products need to be customized), and the average value within 24h shall not exceed +35°C. When it is higher than +50°C, the user needs to use the capacity reduction coefficient, as shown in Table.
- Storage temperature -40°C ~+75°C.
- The relative humidity of the air at the installation site does not exceed 50% at the maximum temperature of +40°C, and can have a higher relative humidity at lower temperatures, such as 90% at 20°C. Special measures should be taken for occasional condensation due to temperature changes.
- The maximum inclination is $\pm 22.5^\circ$.
Be used in a medium without explosion risk, and the medium is not sufficient to corrode metal and destroy insulation gas and conductive dust.
- Be used where with no rain and snow hit.

Selection Guide

EKM7DC - 630 H / 2 300 Z 250A

EKM7DC	630	H	2	300	Z	630A
↓	↓	↓	↓	↓	↓	↓
Model	Frame size	Code of control circuit source voltage	Pole number	Trip mode and internal accessories	Special Application	Rated current
Molded case circuit breaker for solar products	320,400, 630,1600	Breaking capacity	2P,3P,4P	2: Electronic only (instantaneous release) 3: Thermo-Magnetic (compound)	Terminal cover	See the parameter table for details

Notes: EKM7DC-320 and above frame size are with terminal cover

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Technical Parameters

Molded case circuit breaker	EKM7DC-320	EKM7DC-400	EKM7DC-630	EKM7DC-1600	
Frame size current In	100,125,140,160,180,200,225,250,280,315A	250,315,350,400A	400,500,630A	800,1000,1250,1500,1600A	
Pole number	2P	2P	2P	3P,4P	
Rated working voltage Ue (V), DC	DC750V, DC1000V, DC1200V, DC1500V				
Rated insulation voltage Ui (V)	1600V				
Rated impulse withstand voltage Uimp (kV)	12kV				
Rated operating short-circuit capacity Ics=Icu (kA)	DC750V	85	85	85	50
	DC1000V	50	50	50	30
	DC1200V	35	35	35	15
	DC1500V	20	20	20	10
Machine life (times)	4000	4000	4000	4000	2500
Electrical life (times)	1000	1000	1000	1000	500
Arcing distance (mm)	50 (plus arc suppression cover)				
Instantaneous tripper	5In or 10In				

Capacity Reduction Coefficient

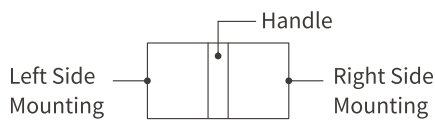
Model	Frame size rated current(A)	50°C	55°C	60°C	65°C	70°C
EKM7DC-320/2300	250	1	0.95	0.93	0.91	0.88
EKM7DC-400/2300	400	1	0.93	0.91	0.89	0.85
EKM7DC-630/2300	630	1	0.92	0.90	0.89	0.83
EKM7DC-1600/2300	1600	1	0.936	0.915	0.894	0.873

High Altitude Capacity Reduction

Altitude (m)	2000	2500	3000	3500	4000	4500	5000
Working current correction coefficient	1	1	0.98	0.97	0.96	0.95	0.94
Short-circuit breaking capacity correction coefficient	1	1	0.83	0.77	0.71	0.67	0.63
Power frequency withstand voltage correction coefficient	1	1	0.89	0.85	0.80	0.77	0.73

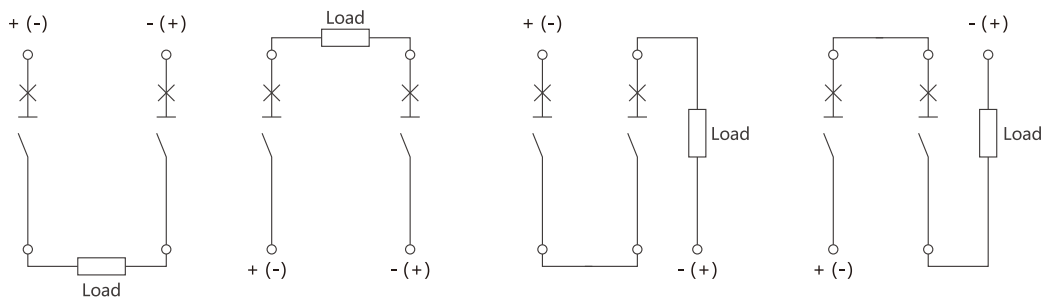
Accessory Table

Accessory code	Accessory name	EKM7DC-320	EKM7DC-400/630	EKM7DC-1600	
		2P	2P	3P	4P
00	No	-	-	-	-
08	Alarm contact				
10	Shunt release				
18	Shunt release + Alarm contact	-			
20	Single auxiliary contact				
27	Dual auxiliary contacts				
28	Single auxiliary contact + Alarm contact				
29	Dual auxiliary contacts + Alarm contact	-			
30	Under voltage release				
38	Under voltage release + Alarm contact	-			
40	Shunt release + Single auxiliary contact	-			
48	Shunt release + Auxiliary alarm	-			
62	Two sets of dual auxiliary contacts	-			
68	Single auxiliary contact + Auxiliary alarm				
69	Dual auxiliary contact + Auxiliary alarm	-			
70	Under voltage release + Single auxiliary contact	-			



- Alarm contact
- Single auxiliary contact
- Dual auxiliary contacts
- Under voltage release (mechanical)
- Shunt trip (mechanical)

DC Circuit Breaker Connection Mode



Note: (1) + positive power supply, - negative power supply.

The product has non-polar wiring characteristics, it can meet different wiring needs.

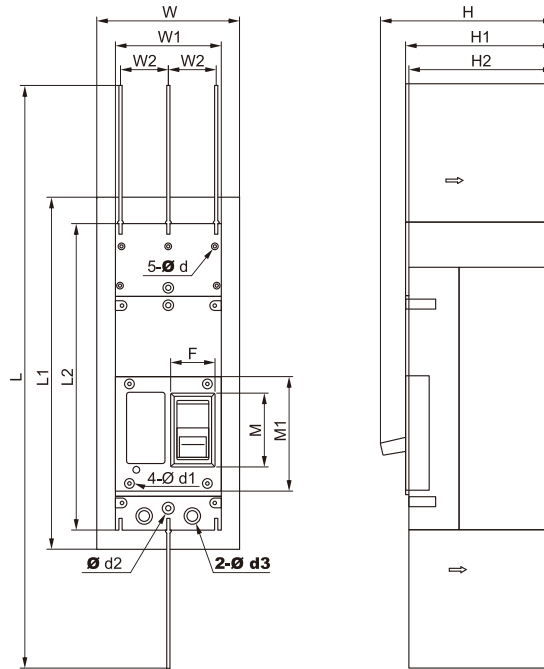
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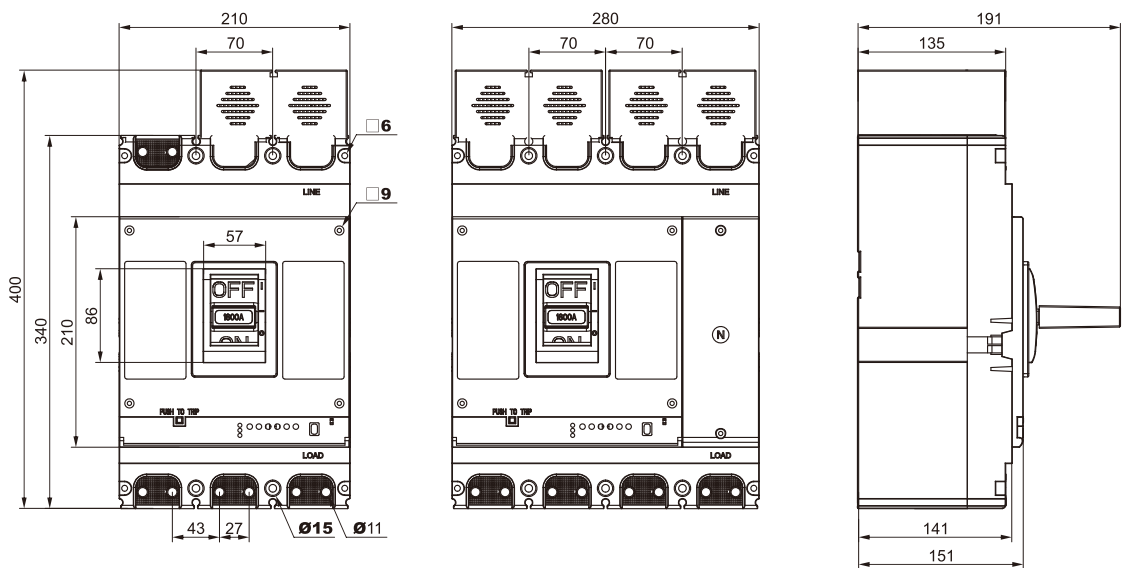
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Overall Dimensions and Mounting Dimensions (mm)

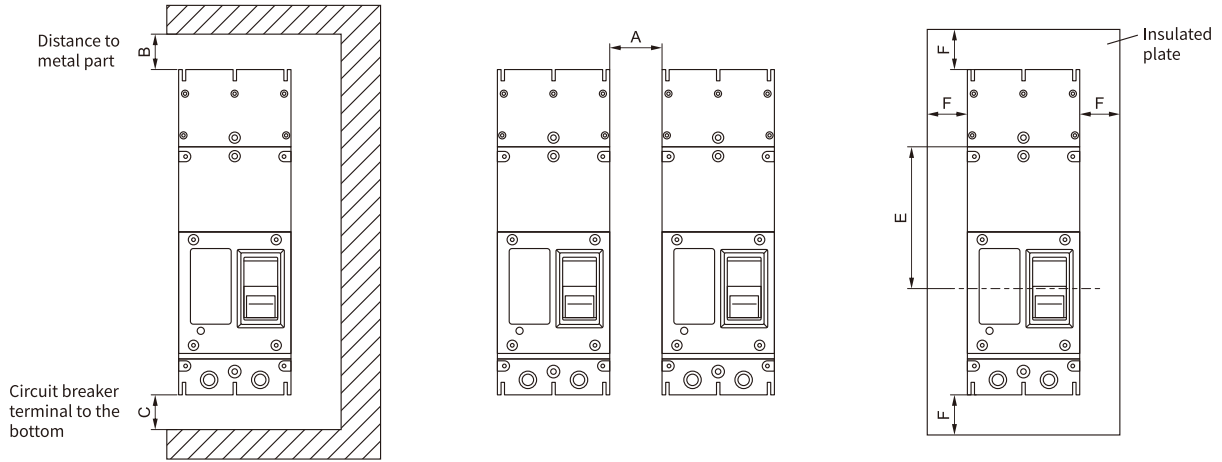


Model	W	W1	W2	L	L1	L2	M	M1	F	H	H1	H2	d	d1	d2	d3
EKM7DC-320	/	99	38	465	/	245	51	101	28	135	118	/	/	7	10	12.5
EKM7DC-400	148	110	49	605	365	319	76	119	45	178	154	150	8	11	13	19
EKM7DC-630	148	110	49	605	365	319	76	119	45	178	154	150	8	11	13	19

EKM7DC-1600



Mounting Diagram



Model	Dimensions (mm)					
	A	B	C	D	E	F
EKM7DC-320	30	30	30	30	93.8	25
EKM7DC-400	50	50	50	50	182.5	25
EKM7DC-630	50	50	50	50	182.5	25
EKM7DC-1600	100	110	110	50	162	110

Tripping Curve

