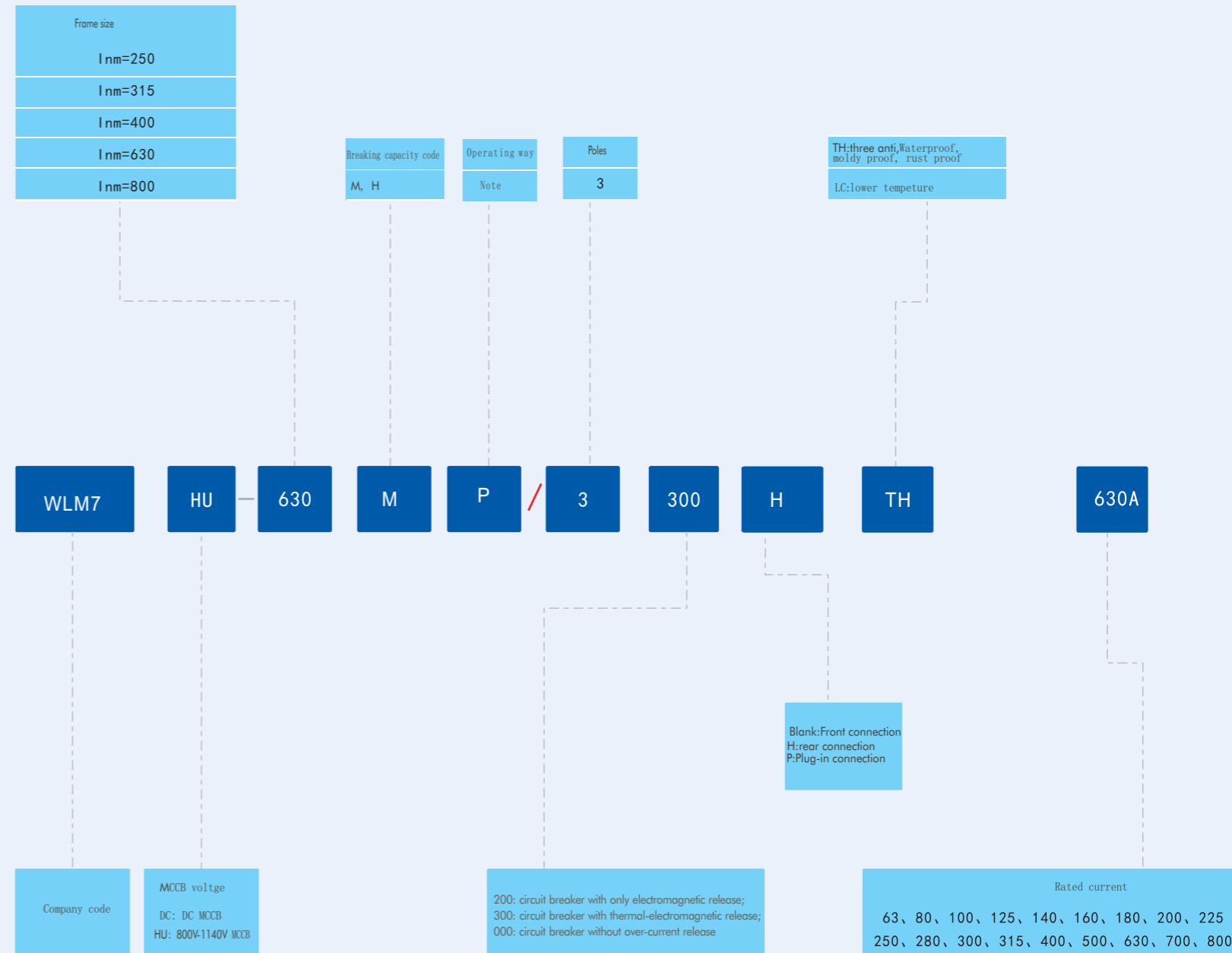


Solar Moulded Case Circuit Breakers

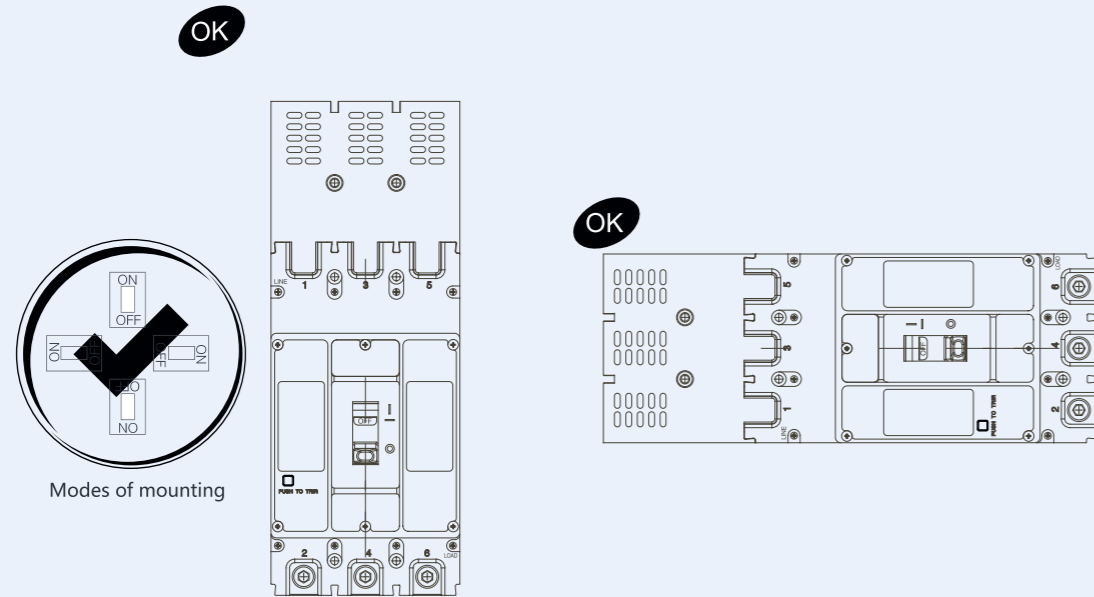
Type designation



Note 1
 No code: direct operation
 P1: DC3 electric operation (General market version)
 P2: DC6 series electric operation (self-manufacturing)
 ZY1: Rotating handle (manual center type - circular handle) - (defaulted)
 ZF1: Rotating handle (manual center type - square handle)
 ZY2: Rotating handle (hand operated eccentric - circular handle)
 ZF2: Rotating handle (manual eccentric square handle)
 Z3: Rotating handle (hand operated integrated)
 (Only available in 125, 160, and 250) Note: one pole and two pole products only have Direct operation function.
 The voltage of electric operation is divided into: DC24/DC110V/DC220V/AC230V/AC400V, defaulted is: AC230V

■ Mounting of circuit breaker

Modes of mounting



■ The cross-sectional area and corresponding rated current of the connecting wires

Rated current (A)	63	80	100	125	160	180, 200, 225	250	280, 300	315, 350	400
Wire cross-sectional area (mm ²)	16	25	35	50	70	95	120	185	185	240

Rated current (A)	busbar		busbar	
	Pieces	Wire cross-sectional area (mm ²)	Wires	Wire cross-sectional area (mm ²)
500	2	150	2	30 × 5
630	2	185	2	40 × 5
700	2	240	2	50 × 5
800	2	240	2	50 × 5

■ HU Type Technical data

WLM7HU Moulded Case Circuit Breaker	250/315		400		630/800	
Rated operating current I _n (A), 40°C	16-20-25-32-40-50-63	280	250-315-350-400		400-500-630	630-700-800
	-80-100-125-140-	300-315				
	160-180-200-225-250					
Rated insulation voltage U _i (V)	1150		1250		1250	
Rated impulse withstand voltage U _{imp} (kV)	12		12		12	
Rated operational voltage U _e (V), AC	415, 690, 800, 1000, 1140V		415, 690, 800, 1000, 1140V		415, 690, 800, 1000, 1140V	
Breaking capacity code	M	H	M	H	M	H
Number of poles	3P		■		■	
	AC415V				100	
	AC690V				60 65	
	AC800V	35 50	50 50		50 50	
	AC1000V	15 20	20 25		20 30	
	AC1140V	15 15	15 20		15 20	
Rated ultimate short-circuit breaking capacity I _{cu} (kA)					100 100	
	AC415V				60 65	
	AC690V				37.5 50	
	AC800V	35 50	37.5 50		37.5 50	
	AC1000V	15 20	15 20		20 30	
	AC1140V	15 15	15 15		15 20	
Rated service breaking capacity I _{cs} (kA)					15 20	
Standard	IEC/EN 60947-2					
Utilization category	A		A			
Ambient temperature	-40 °C ~+70 °C					
Safety of insulation	■		■			
Arcing distance	0		0			
Mechanical life (C0 recycle)	Maintenance free	20000	15000		10000	
Electrical life (C0 recycle)		1500	1000-5000		1000-5000	
Release units						
Distribution protection	TM	■	■		■	
Mounting and connection						
Fixed	Front connection	■	■		■	
	Rear connection	■	■		■	
Plug-in ¹⁾	Front connection	■	■		■	
	Rear connection	■	■		■	
Draw-out ¹⁾	Front connection	—	—		■	
	Rear connection	—	—		■	
DIN rail	Front connection	—	—		—	
Dimension						
Dimension(mm) W×H×D	Width	107	150		182	
	Height	200	257		270	
	Depth	109	125.8		125.8	
Weight						
Weight (kg)/Fixed	3P	3	5.8		8	

■ The application type: Power distribution type

◆ Power distribution type

rated current (A)	Thermal release (ambient temperature+40 °C)		Electromagnetic release action current (A)
	1.05In non tripping time(cold state)	1.30 In trip time (hot state)	
63	≥1	≤1	10In±20%
63 < In ≤ 800	≥2	≤2	

◆ WLM7HU compensation coefficient table

Model	Current(A)	Total power loss of 2Poles/3Poles (W)			
		板前接线	板后接线	插入式板前接线	插入式板后接线
WLM7HU-250	250A	62	63.5	66	70
WLM7HU-315	315A	67	73	75	78
WLM7HU-400	400A	115	117	120	125
WLM7HU-630	630A	187	192	100	210
WLM7HU-800	800A	260	262	265	290

◆ WLM7HU Electronic circuit breaker rated operational current and temperature compensation coefficient table

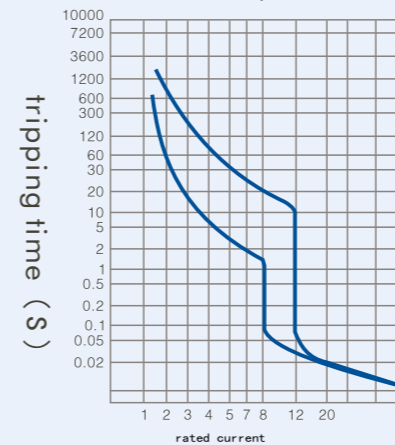
Model	Ambient temperature °C						
	+40°C	+45°C	+50°C	+55°C	+60°C	+65°C	+70°C
WLM7HU-250	1.0In	0.983In	0.965In	0.94In	0.924In	0.904In	0.882In
WLM7HU-315	1.0In	0.982In	0.962In	0.942In	0.922In	0.901In	0.880In
WLM7HU-400	1.0In	0.980In	0.960In	0.940In	0.918In	0.898In	0.877In
WLM7HU-630	1.0In	0.979In	0.958In	0.937In	0.912In	0.895In	0.872In
WLM7HU-800	1.0In	0.977In	0.956In	0.931In	0.905In	0.893In	0.868In

◆ WLM7HU Derating factor table for circuit breakers altitude

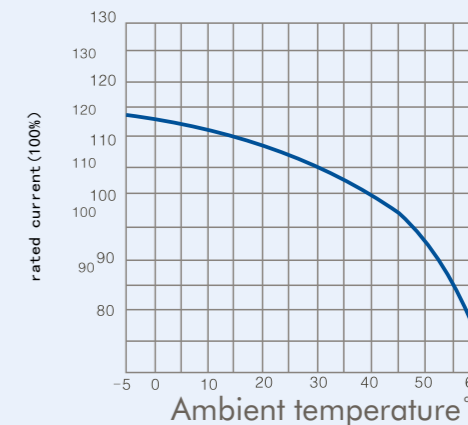
Altitude (m)	2000	2500	3000	3500	4000	4500	5000
Working current (A)	1	1	0.98	0.97	0.95	0.94	0.93
Working Voltage (V)	1140	1140	1060	1000	980	940	900
	1000	1000	900	850	810	770	730
Power-Frequency withstand voltage (V)	800	800	720	670	630	600	560
	300	300	2650	2500	2300	2150	2000
Uimp (V)	1150	1150	1040	980	935	890	845
	1250	1250	1140	1080	1035	990	945

■ Tripping curve

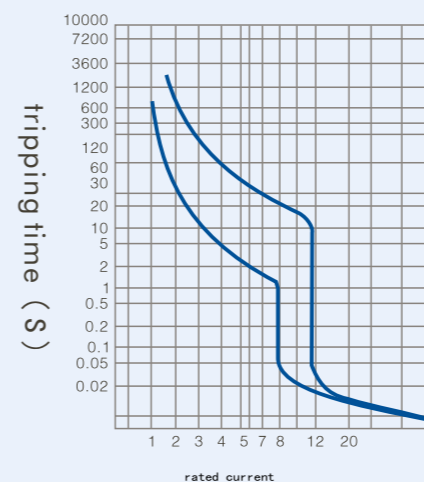
The characteristic curve is truly cold, measured under three-phase load



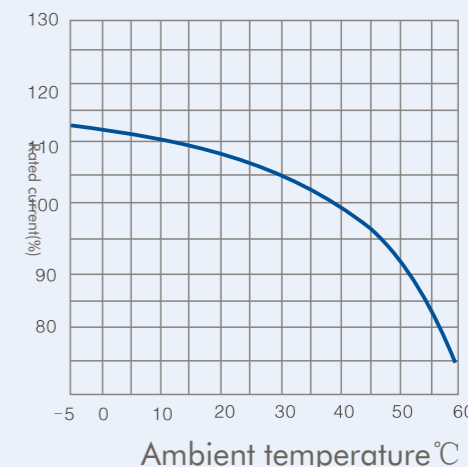
WLM7HU-250/315 Tripping Characteristic curve



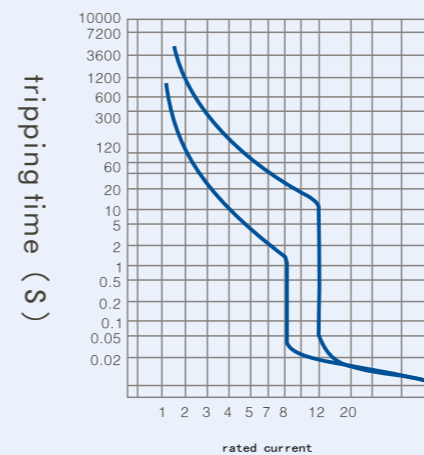
WLM7HU-250/315 current-temperature characteristic



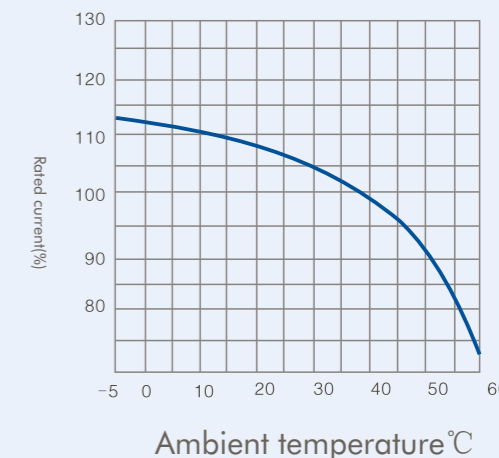
WLM7HU-400 Tripping Characteristic curve



WLM7HU-400 current-temperature characteristic

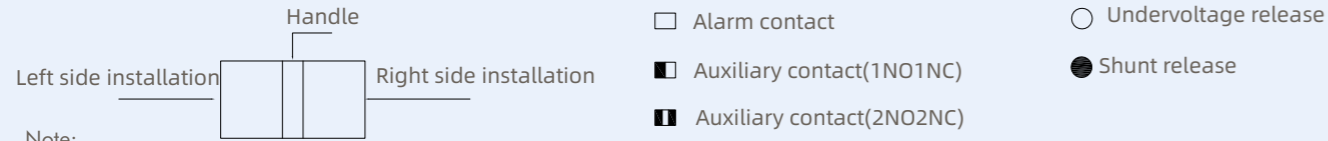


WLM7HU-630/800 Tripping Characteristic curve



WLM7HU-630/800 current-temperature characteristic

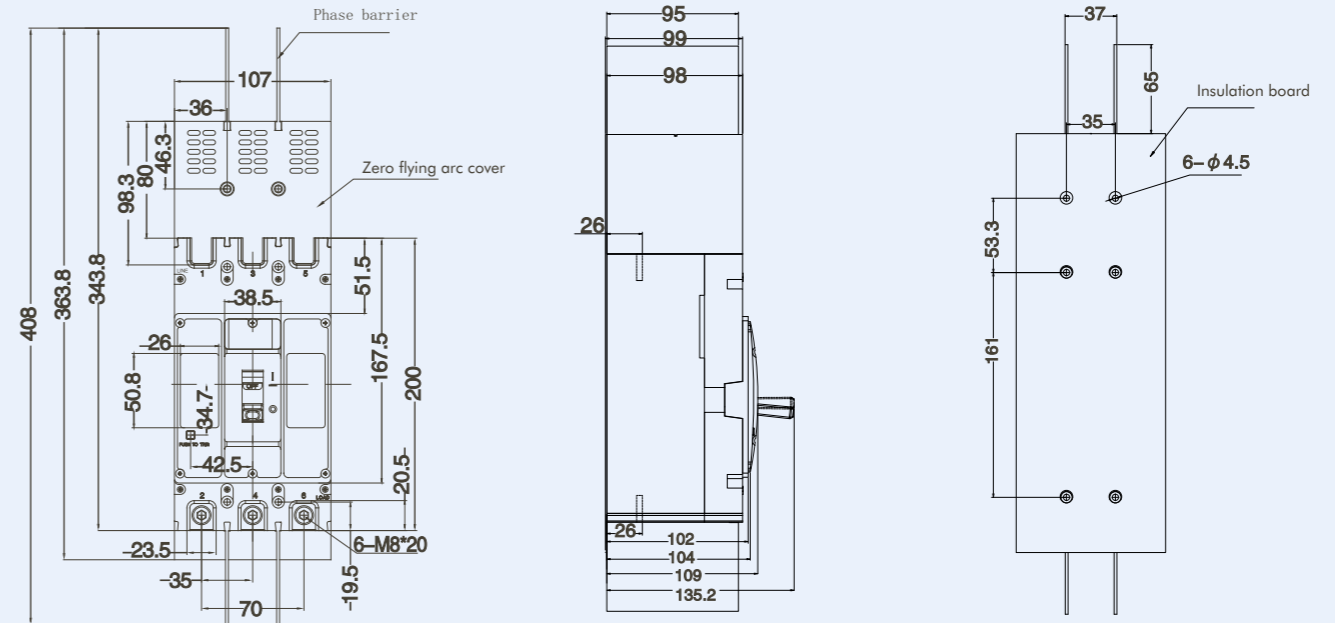
9.25 WLM7HU solar mccb



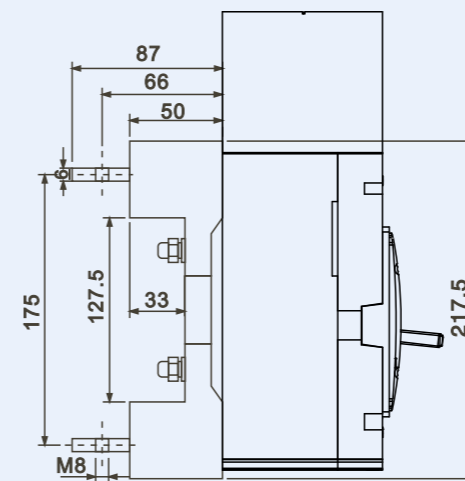
Note:
 250 need left undervoltage release customized, 250 need left shunt release customized
 shunt release /UV choosing rage:DC24V、DC110V、DC220V、AC230V、AC400V;default:AC230V

releases mode internal accessory code	Model Number of poles Accessory name	WLM7HU-250/315		WL7HU-400		WL7HU-630/800	
		3P	4P	3P	4P	3P	4P
00	No	—	—	—	—	—	—
08	Alarm contact	□	□	□	□	□	□
10	Shunt release	●	●	●	●	●	●
18	Shunt release+ Alarm contact	□●	□●	□●	□●	□●	□●
20	Auxiliary contac (1NO1NC)	◻	◻	◻	◻	◻	◻
27	Auxiliary contac (2NO2NC)	▨	▨	▨	▨	▨	▨
28	Auxiliary contac (1NO1NC)+ Alarm contact	◻□	◻□	◻□	◻□	◻□	◻□
29	Auxiliary contac (2NO2NC)+ Alarm contact	▨□	▨□	▨□	▨□	▨□	▨□
30	Under voltage release	○	○	○	○	○	○
38	Under voltage release+ Alarm contact	○□	○□	○□	○□	○□	○□
40	Shunt release+ Auxiliary contac (1NO1NC)	●◻	●◻	●◻	●◻	●◻	●◻
41	Shunt release+ Auxiliary contac (2NO2NC)	●▨	●▨	●▨	●▨	●▨	●▨
48	Shunt release+ Auxiliary contac (1NO1NC) Alarm contact	●◻□	●◻□	●◻□	●◻□	●◻□	●◻□
50	Shunt release+ Under voltage release	●○	●○	●○	●○	●○	●○
60	2 sets of Auxiliary contac (1NO1NC)	◻◻	◻◻	◻◻	◻◻	◻◻	◻◻
61	Auxiliary contac (2NO2NC)+ Auxiliary contac (1NO1NC)	▨◻	▨◻	▨◻	▨◻	▨◻	▨◻
62	2 sets of Auxiliary contac (2NO2NC)	▨▨	▨▨	▨▨	▨▨	▨▨	▨▨
68	Auxiliary contac (1NO1NC)+ Auxiliary contac (1NO1NC) Alarm contact	◻◻□	◻◻□	◻◻□	◻◻□	◻◻□	◻◻□
69	Auxiliary contac (2NO2NC)+ Auxiliary contac (1NO1NC) Alarm contact	▨◻□	▨◻□	▨◻□	▨◻□	▨◻□	▨◻□
70	Under voltage release+ Auxiliary contac (1NO1NC)	○◻	○◻	○◻	○◻	○◻	○◻
71	Under voltage release+ Auxiliary contac (2NO2NC)	○▨	○▨	○▨	○▨	○▨	○▨
78	Under voltage release+ Auxiliary contac (1NO1NC) Alarm contact	○◻□	○◻□	○◻□	○◻□	○◻□	○◻□

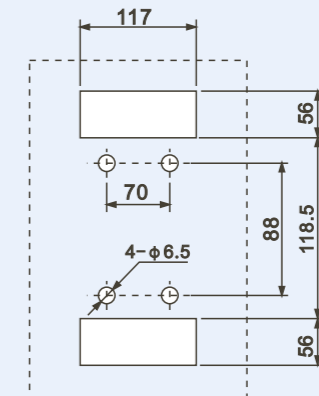
WLM7HU-250/315 3P Front connection



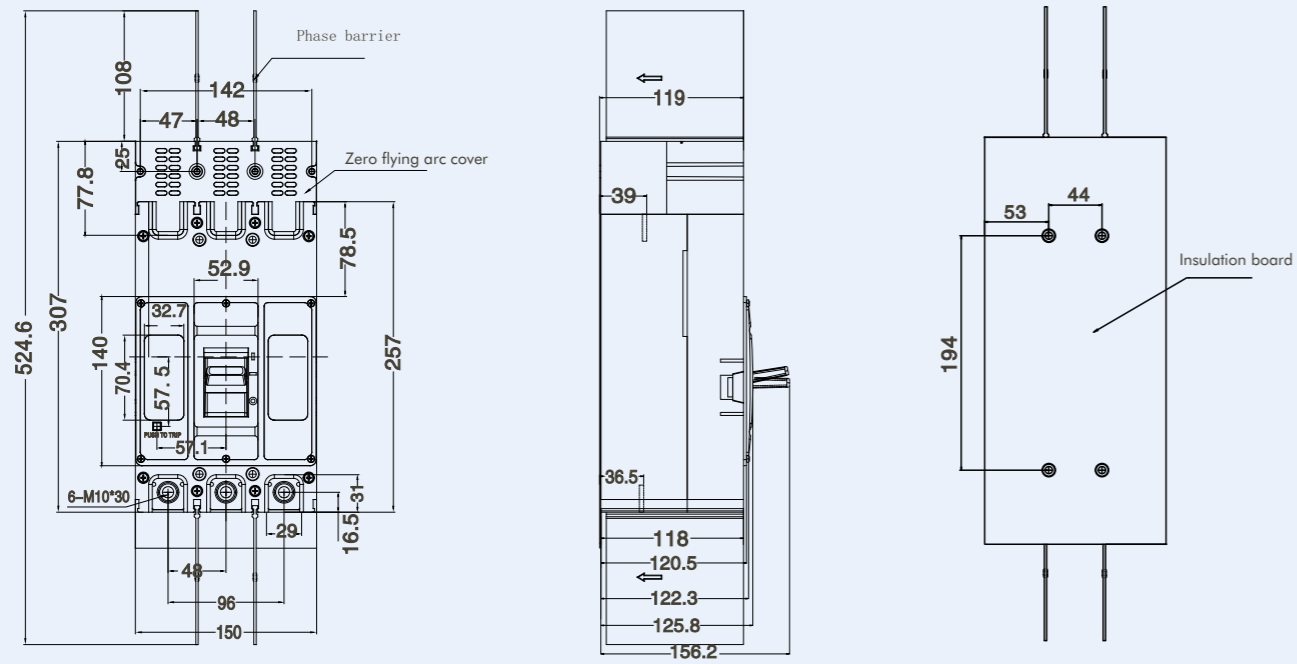
WLM7HU-250/315 3P plug in rear connection



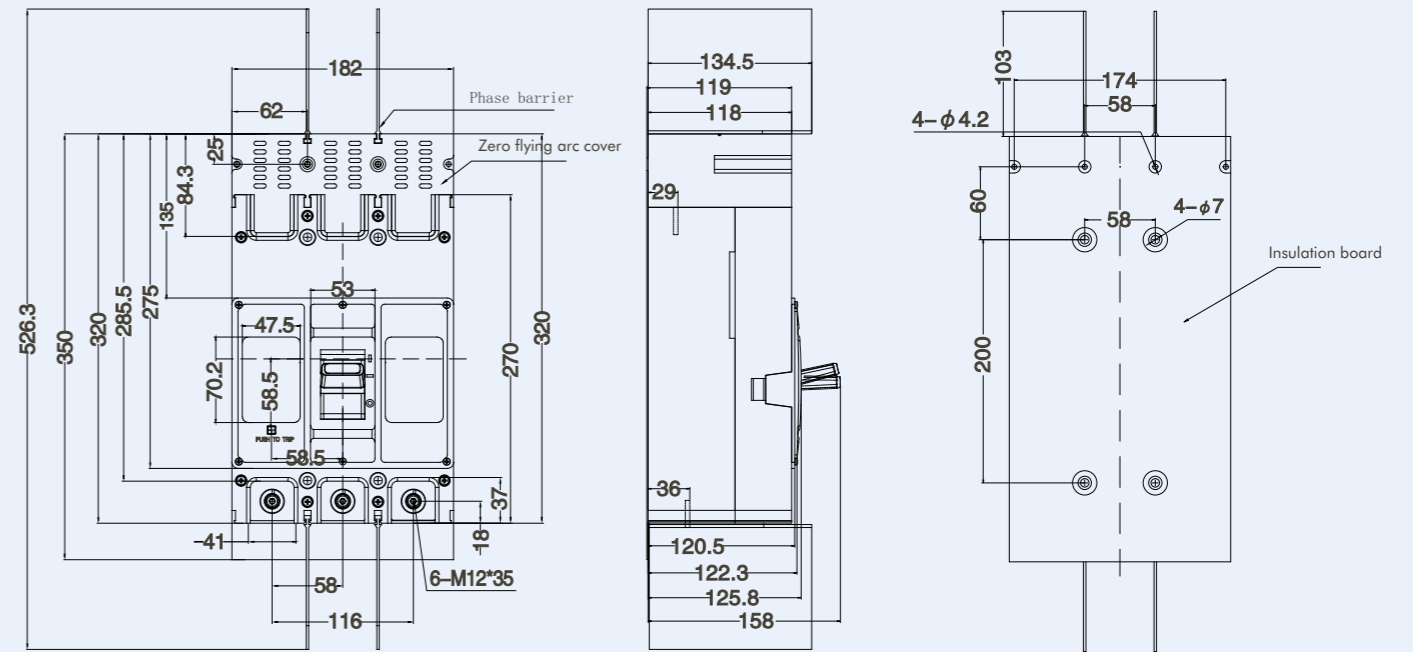
Installation plate hole size



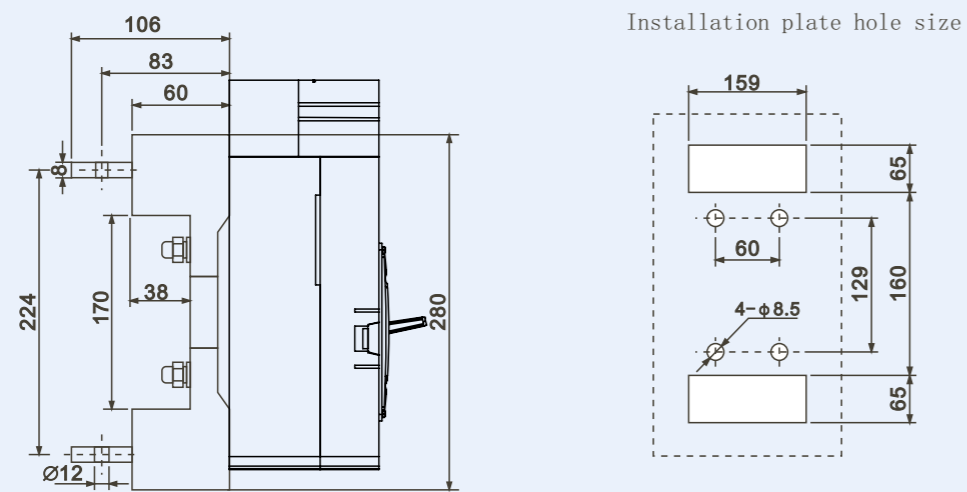
■ WLM7HU-400 3P Front connection



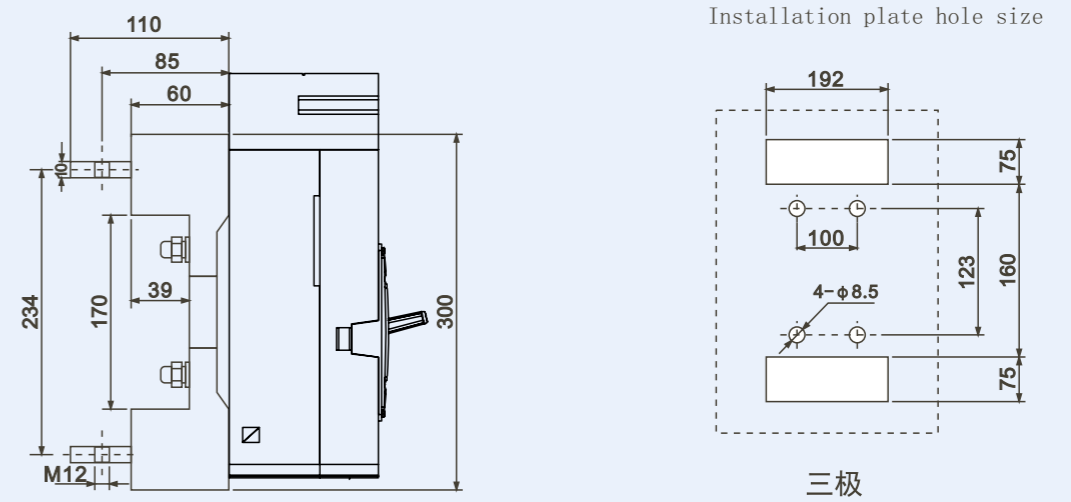
■ WLM7HU-630/800 3P Front connection



■ WLM7HU-400 3P plug in rear connection



■ WLM7HU-630/800 3P plug in rear connection



■ Installation instructions for flying arc cover

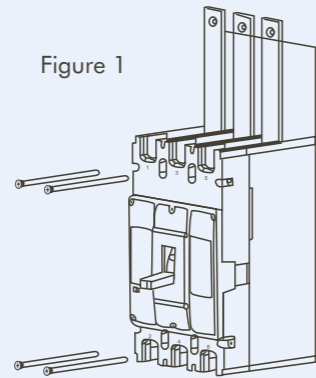


Figure 1

1. Fix the product onto the cabinet using installation screws

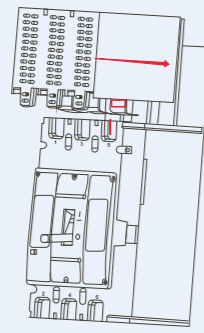


Figure 2

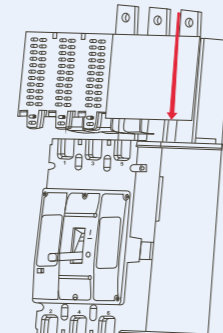


Figure 3

2. After aligning the assembled arc shield with the red marked surface on the middle cover, slide it towards the product side according to Figure 3 to ensure that the arc shield is securely attached to the base

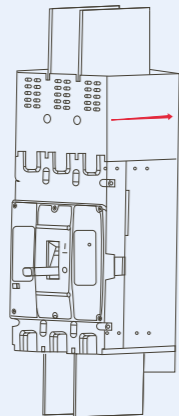


Figure 4

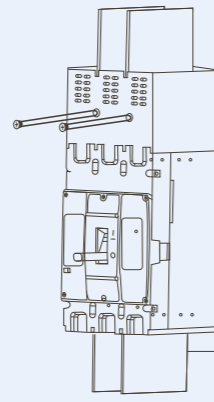
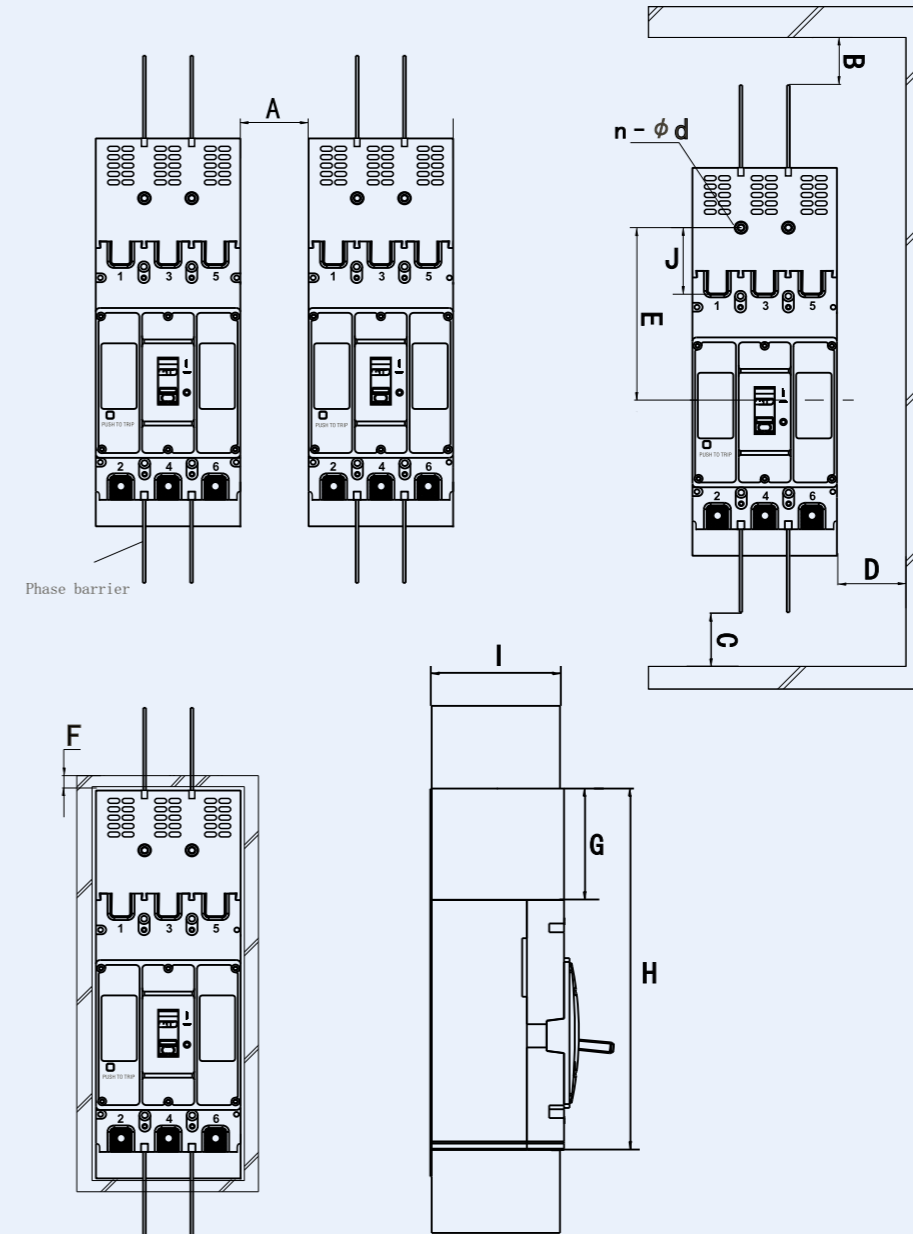


Figure 5

3. After the arc cover is clamped with the base and middle cover according to Figure 3, apply force according to Figure 4 to move the arc cover in the direction marked in red. After installation, as shown in Figure 4, fix and install the arc isolation plate on the arc cover with screws, as shown in Figure 5

■ Installation Size



Model	距离 (mm)										
	A	B	C	D	E	F	G	H	I	J	n-φd
WLM7HU-250	30	30	30	30	188	13	80	280	94	53	2-φ4.5
WLM7HU-315	30	30	30	30	188	13	80	280	94	53	2-φ4.5
WLM7HU-400	30	30	30	30	153.5	13	50	307	118	53	2-φ4.5
WLM7HU-630	30	30	30	30	185	13	50	320	118	60	2-φ4.5
WLM7HU-800	30	30	30	30	185	13	50	320	118	60	2-φ4.5

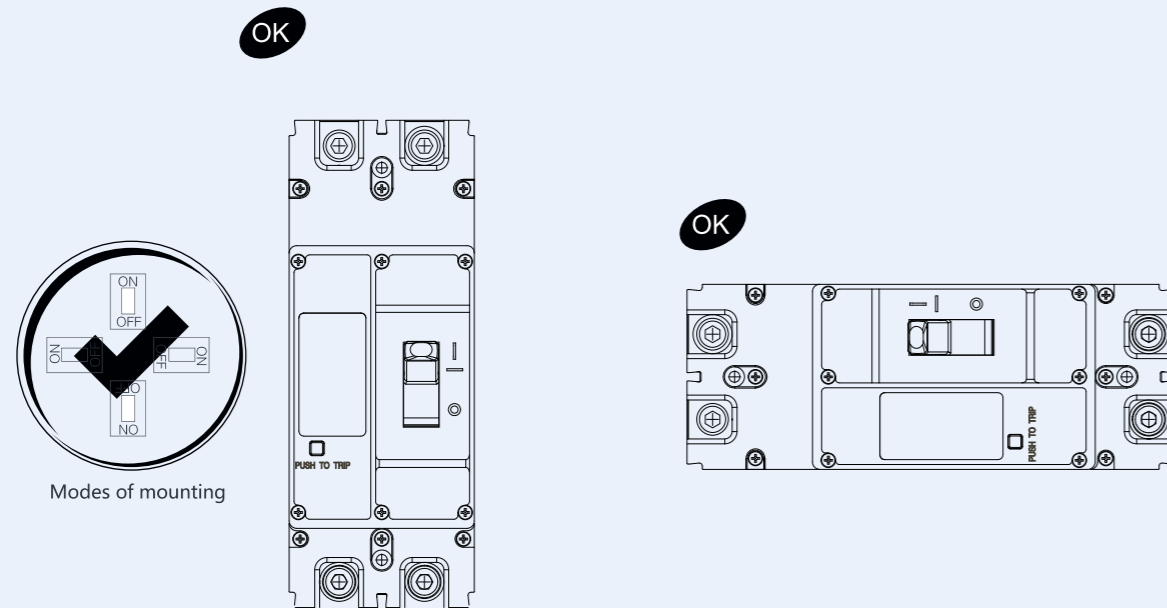
Note: When users use 1000V and 1140V, terminal covers should be installed on the terminal side of circuit breaker

1.3.5 as shown in the diagram, and phase separators should be installed on the terminal side of circuit breaker

2.4.6. Insulation boards should be padded between the circuit breaker and the metal mounting plate

■ Mounting of DC circuit breaker

Modes of mounting

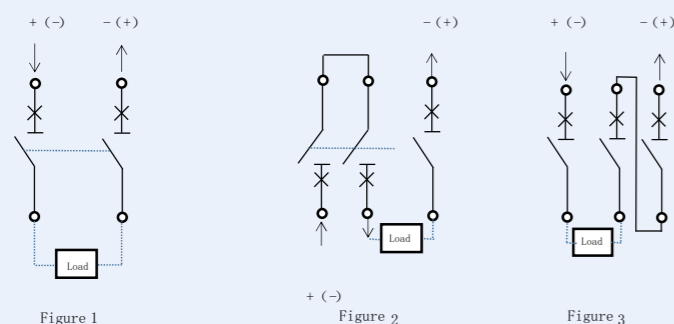


■ The cross-sectional area and corresponding rated current of the connecting wires

Rated current (A)	63	80	100	125	160	180, 200, 225	250	280, 300	315, 350	400
Wire cross-sectional area (mm ²)	16	25	35	50	70	95	120	185	185	240

Rated current (A)	busbar		busbar	
	Pieces	Wire cross-sectional area (mm ²)	Wires	Wire cross-sectional area (mm ²)
500	2	150	2	30 × 5
630	2	185	2	30 × 5
700	2	240	2	50 × 5
800	2	240	2	50 × 5

■ connecting way



Note:
 Figure1 :250/2P 400V/2P、630V/2P、400/2P、630/2P、800/2P);
 Figure2 :400/3P 630/3P、800/3P
 Figure 3 :250/3P

■ DC Type Technical data

WLM7DC Moulded Case Circuit Breaker	250	315	
Rated operating current I _n (A),40°C characteristics	63-80-100-125-140-160-180-200-225-250	280-300-315	
Rated insulation voltage U _i (V)	1500	1500	
Rated impulse withstand voltage U _{imp} (kV)	12	12	
Rated operational voltage U _e (V),DC	250, 500, 750, 1000,1250,1500	250, 500, 750, 1000,1250,1500	
Breaking capacity code	M H	M H	
Number of poles	2P	■ ■	■ ■
	3P	■ ■	■ ■
Rated ultimate short-circuit breaking capacity I _{cu} (kA)	DC250V	— 50	— 50
	DC500C	— 50	— 50
	DC750V	— 25	— 25
	DC1000V	15 25	15 25
Rated service breaking capacity I _{cs} (kA)	DC1250V	— —	— —
	DC1500V	5(3P20) 7.5(3P25)	5(3P20) 7.5(3P25)
	DC250V	— 50	— 50
	DC500C	— 50	— 50
	DC750V	— 25	— 25
Standard	IEC/EN 60947-2		
	Utilization category	A	A
	Ambient temperature	-40 °C ~+70 °C	
	Safety of insulation	■	■
Arcing distance	0	0	
Mechanical life (C0 recycle)	Maintenance free	20000	20000
	Electrical life (C0 recycle)	DC1000V,I _n	1500
Release units			
Distribution protection	TM	■	■
Mounting and connection			
Fixed	Front connection	■	■
	Rear connection	■	■
Plug-in ¹⁾	Front connection	■	■
	Rear connection	■	■
Draw-out ¹⁾	Front connection	—	—
	Rear connection	—	—
DIN rail	Front connection	—	—
Dimension			
Dimension(mm) W×H×D	Width(2P/3P/4P)	78/107	78/107
	Height	200	200
	Depth	109	109
Weight			
Weight Weight (kg)/Fixed	2P	2.35	2.35
	3P	3	3
	4P	—	—

WLM7DC Moulded Case Circuit Breaker		400	400Q (customized)		
Rated operating current In (A),40℃		250-315-350-400		250-280-315-320-350-400	
Electric characteristics					
Rated insulation voltage Ui (V)		1500		1500	
Rated impulse withstand voltage Uimp (kV)		12		12	
Rated operational voltage Ue (V),DC		110, 250, 500, 750, 1000,1200,1500		110, 250, 500, 750, 1000,1200,1500	
Breaking capacity code		M	H	M	H
Number of poles	2P	■	■	—	■
	3P	■	■	—	—
Rated ultimate short-circuit breaking capacity Icu(kA)	DC250V	25	50	—	70
	DC500C	25	50	—	70
	DC750V	15	25	—	50
	DC1000V	15(3P30)	25(3P40)	—	50
	DC1250V	—	—	—	20
	DC1500V	10(3P25)	10(3P30)	—	20
Rated service breaking capacity Ics(kA)	DC250V	25	50	—	70
	DC500C	25	50	—	70
	DC750V	15	25	—	50
	DC1000V	15(3P30)	25(3P40)	—	50
	DC1250V	—	—	—	20
	DC1500V	10(3P25)	10(3P30)	—	20
Standard		IEC/EN 60947-2			
Utilization category		A		A	
Ambient temperature		-40℃ ~+70℃			
Safety of insulation		■		■	
Arcing distance		0		0	
Mechanical life (C0 recycle)	Maintenance free	20000		15000	
	Electrical life (C0 recycle)	DC1000V,In 2000(DC1500V is :1000times)		2000(DC1500V is :1000times)	
Release units					
Distribution protection		TM	■	■	
Mounting and connection					
Fixed	Front connection	■		■	
	Rear connection	■		■	
Plug-in ¹⁾	Front connection	■		■	
	Rear connection	■		■	
Draw-out ¹⁾	Front connection	—		—	
	Rear connection	—		—	
DIN rail	Front connection	■		■	
Dimension					
Dimension(mm) W×H×D	Width(2P/3P)	130/182		106	
	Height	270		275	
	Depth	125.8		154.5	
Weight					
Weight Weight (kg)/Fixed	2P	2.5		5.6	
	3P	3.2		7.7	
	4P	—		—	

WLM7DC Moulded Case Circuit Breaker		630	630Q (customized)		800
Rated operating current In (A),40℃		400-500-630		450-500-630 630-700-800	
Electric characteristics					
Rated insulation voltage Ui (V)		1500		1500	
Rated impulse withstand voltage Uimp (kV)		12		12	
Rated operational voltage Ue (V),DC		110, 250, 500, 750, 1000,1200,1500		110, 250, 500, 750, 1000,1200,1500 750,1000,1200,1500	
Breaking capacity code		M	H	M	H
Number of poles	2P	■	■	—	■
	3P	■	■	—	■
Rated ultimate short-circuit breaking capacity Icu(kA)	DC250V	25	50	—	70
	DC500C	25	50	—	70
	DC750V	15	35	—	50
	DC1000V	15(3P30)	35 (3P30)	—	50
	DC1250V	—	—	—	20
	DC1500V	10(3P25)	25	—	20
Rated service breaking capacity Ics(kA)	DC250V	25	50	—	70
	DC500C	25	50	—	70
	DC750V	15	35	—	50
	DC1000V	15(3P30)	35	—	50
	DC1250V	—	—	—	20
	DC1500V	10(3P25)	25	—	20
Standard		IEC/EN 60947-2			
Utilization category		A		A	
Ambient temperature		-40℃ ~+70℃			
Safety of insulation		■		■	
Arcing distance		0		0	
Mechanical life (C0 recycle)	Maintenance free	20000		15000	
	Electrical life (C0 recycle)	DC1000V,In 2000(DC1500V is :1000times)		2000(DC1500V is :1000times)	
Release units					
Distribution protection		TM	■	■	■
Mounting and connection					
Fixed	Front connection	■		■	
	Rear connection	■		■	
Plug-in ¹⁾	Front connection	■		■	
	Rear connection	■		■	
Draw-out ¹⁾	Front connection	—		—	
	Rear connection	—		—	
DIN rail	Front connection	■		■	
Dimension					
Dimension(mm) W×H×D	Width(2P/3P)	130/182		106	
	Height	270		275	
	Depth	154.5		154.5	
Weight					
Weight Weight (kg)/Fixed	2P	2		5.85	
	3P	8.3		8.5	
	4P	—		—	

■ The application type: Power distribution type

rated current (A)	Thermal release (ambient temperature+40 °C)		Electromagnetic release action current (A)
	1.05In non tripping time(cold state)	1.30 In trip time (hot state)	
63	≥1	≤1	10In±20%
63 < In ≤ 800	≥2	≤2	

◆ WLM7DC compensation coefficient table

Model	Current(A)	Total power loss of 2Poles/3Poles (W)
WLM7DC-250	250A	40
WLM7DC-315	315A	43
WLM7DC-400	400A	115
WLM7DC-400Q	630A	105
WLM7DC-630	800A	187
WLM7DC-630Q	630A	127
WLM7DC-800	800A	252

◆ WLM7DC Electronic circuit breaker rated operational current and temperature compensation coefficient table

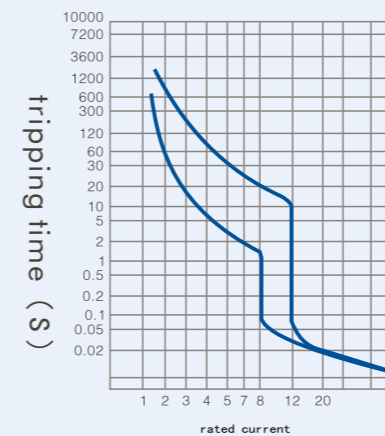
Model	Ambient temperature °C						
	+40°C	+45°C	+50°C	+55°C	+60°C	+65°C	+70°C
CSDM5DC-250	1.0In	1.0In	1.0In	0.95In	0.93In	0.91In	0.88In
CSDM5DC-315	1.0In	1.0In	1.0In	0.95In	0.93In	0.91In	0.88In
CSDM5DC-400	1.0In	1.0In	1.0In	0.93In	0.91In	0.89In	0.85In
CSDM5DC-630	1.0In	1.0In	1.0In	0.92In	0.90In	0.89In	0.83In
CSDM5DC-800	1.0In	1.0In	1.0In	0.92In	0.89In	0.85In	0.80In

◆ WLM7DC Derating factor table for circuit breakers altitude

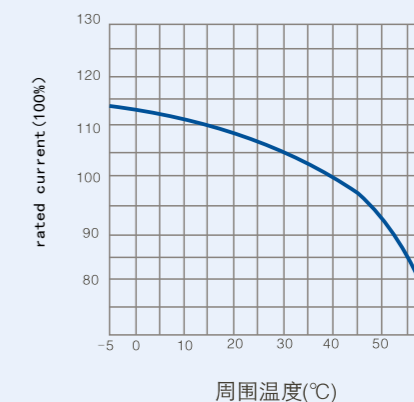
Altitude (m)	2000	2500	3000	3500	4000	4500	5000
Working current	1	1	0.98	0.95	0.93	0.91	0.89
correction factor Working Voltage (V)	1	1	1	1	1	1	1
Power-frequency withstand voltage (V)	1	1	1	1	1	1	1
Uimp (V)	1	1	1	1	1	1	1

■ Tripping curve

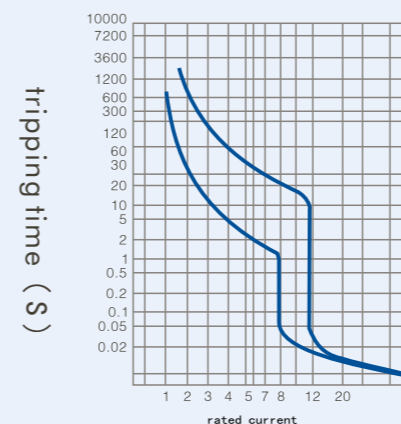
The characteristic curve is truly cold, measured under three-phase load



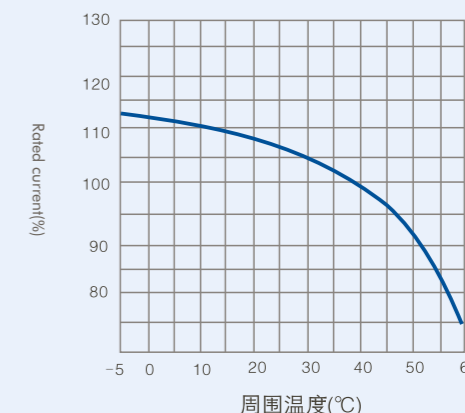
WLM7DC-250/315 Tripping Characteristic curve



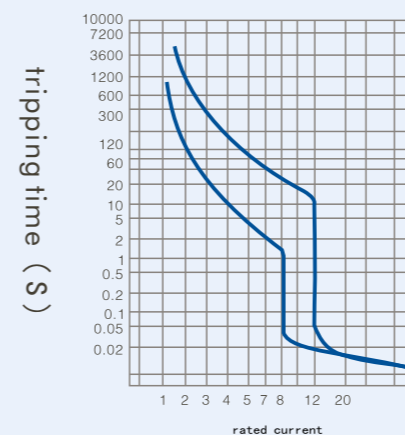
WLM7DC-250/315current-temperature characteristic



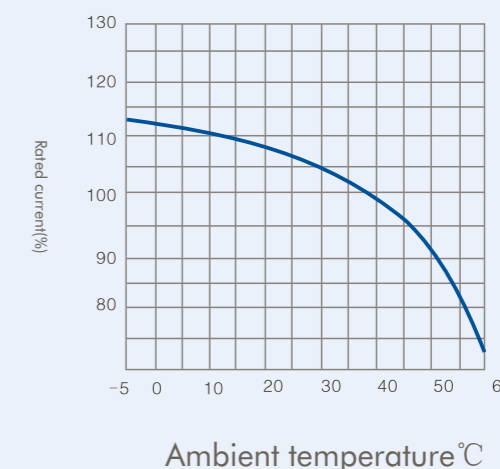
WLM7DC-400 Tripping Characteristic curve



WLM7DC-400current-temperature characteristic

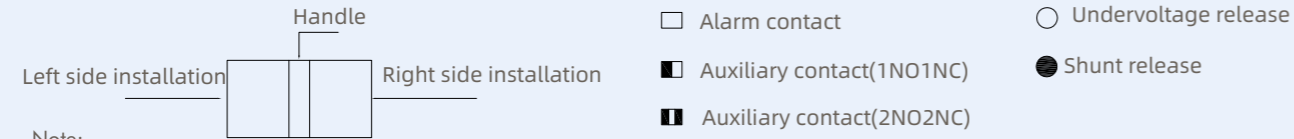


WLM7DC-630/800 Tripping Characteristic curve



WLM7DC-630/800current-temperature characteristic

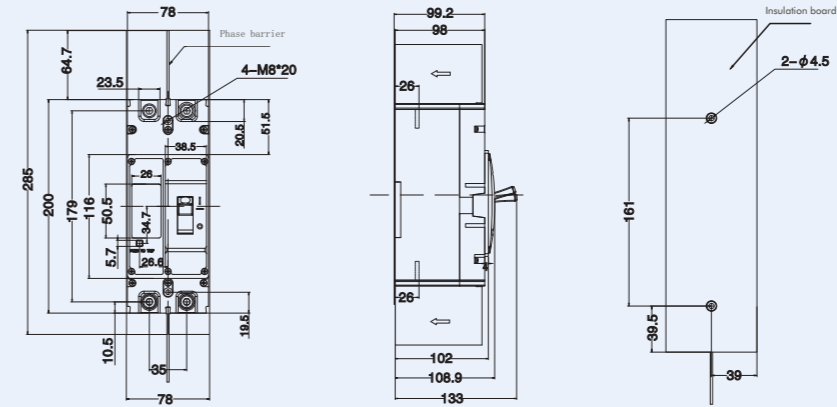
9.25 WLM7DC solar MCCB



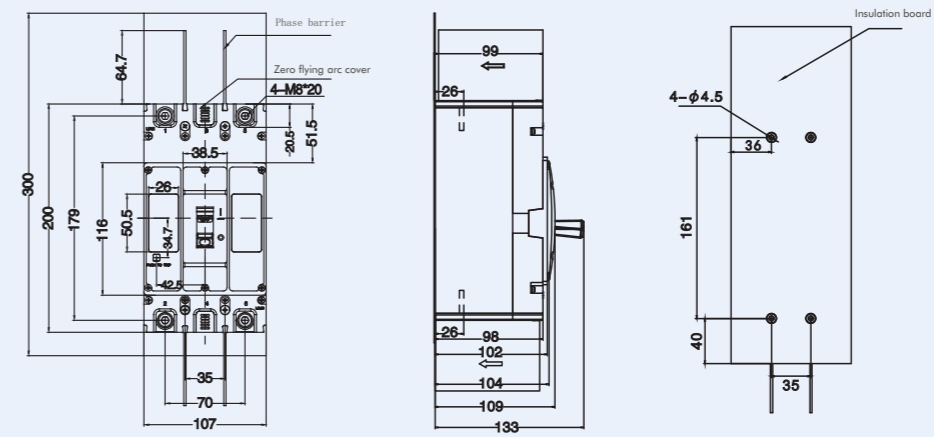
Note:
 250 need left undervoltage release customized, 250 need left shunt release customized
 shunt release /UV choosing rage:DC24V、DC110V、DC220V、AC230V、AC400V;default:AC230V

releases mode internal accessory code	Model		WLM7DC-250/315		WL7DC-400/630QH		WL7DC-400/630/800	
	Number of poles	Accessory name	2P	3P	2P	2P	3P	3P
00	No		—	—	—	—	—	—
08	Alarm contact	□	□	□	□	□	□	□
10	Shunt release	●	●	●	●	●	●	●
18	Shunt release+ Alarm contact	□ ●	□ ●	—	—	—	□ ●	□ ●
20	Auxiliary contac (1NO1NC)	■	■	■	■	■	■	■
27	Auxiliary contac (2NO2NC)	▣	▣	▣	▣	▣	▣	▣
28	Auxiliary contac (1NO1NC)+ Alarm contact	□ ■	□ ■	□ ■	□ ■	□ ■	□ ■	□ ■
29	Auxiliary contac (2NO2NC)+ Alarm contact	—	□ ▣	□ ▣	□ ▣	□ ▣	□ ▣	□ ▣
30	Under voltage release	○	○	○	○	○	○	○
38	Under voltage release+ Alarm contact	—	○ □	○ □	○ □	○ □	○ □	○ □
40	Shunt release+ Auxiliary contac (1NO1NC)	—	● ■	● ■	● ■	● ■	● ■	● ■
41	Shunt release+ Auxiliary contac (2NO2NC)	—	● ▣	● ▣	● ▣	● ▣	● ▣	● ▣
48	Shunt release+ Auxiliary contac (1NO1NC) Alarm contact	—	● ■ □	—	—	—	● ■ □	● ■ □
50	Shunt release+ Under voltage release	—	—	—	—	—	● ○	● ○
60	2 sets of Auxiliary contac (1NO1NC)	—	■ ■	■ ■	■ ■	■ ■	■ ■	■ ■
61	Auxiliary contac (2NO2NC)+ Auxiliary contac (1NO1NC)	—	▣ ■	—	—	—	▣ ■	▣ ■
62	2 sets of Auxiliary contac (2NO2NC)	—	▣ ▣	—	—	—	▣ ▣	▣ ▣
68	Auxiliary contac (1NO1NC)+ Auxiliary contac (1NO1NC) Alarm contact	—	■ ■ □	—	—	—	■ ■ □	■ ■ □
69	Auxiliary contac (2NO2NC)+ Auxiliary contac (1NO1NC) Alarm contact	—	▣ ■ □	—	—	—	▣ ■ □	▣ ■ □
70	Under voltage release+ Auxiliary contac (1NO1NC)	—	○ ■	○ ■	○ ■	○ ■	○ ■	○ ■
71	Under voltage release+ Auxiliary contac (2NO2NC)	—	○ ▣	—	—	—	○ ▣	○ ▣
78	Under voltage release+ Auxiliary contac (1NO1NC) Alarm contact	—	○ ■ □	—	—	—	○ ■ □	○ ■ □

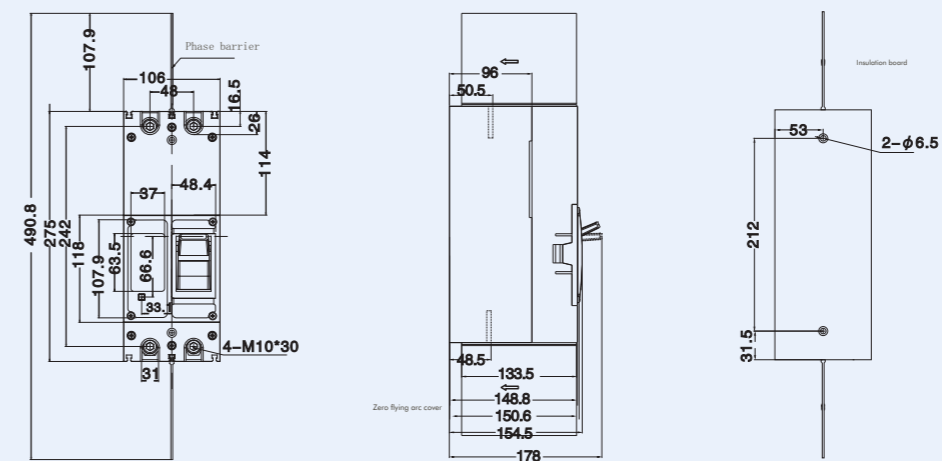
■ WLM7DC-250/315 2P Front connection



■ WLM7DC-250/315 3P Front connection

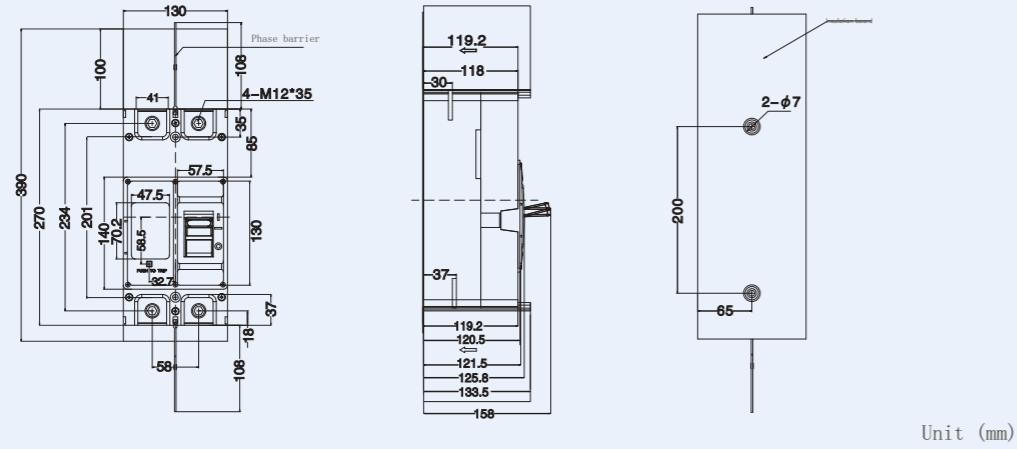


■ WLM7DC-400/630QH 2P Front connection

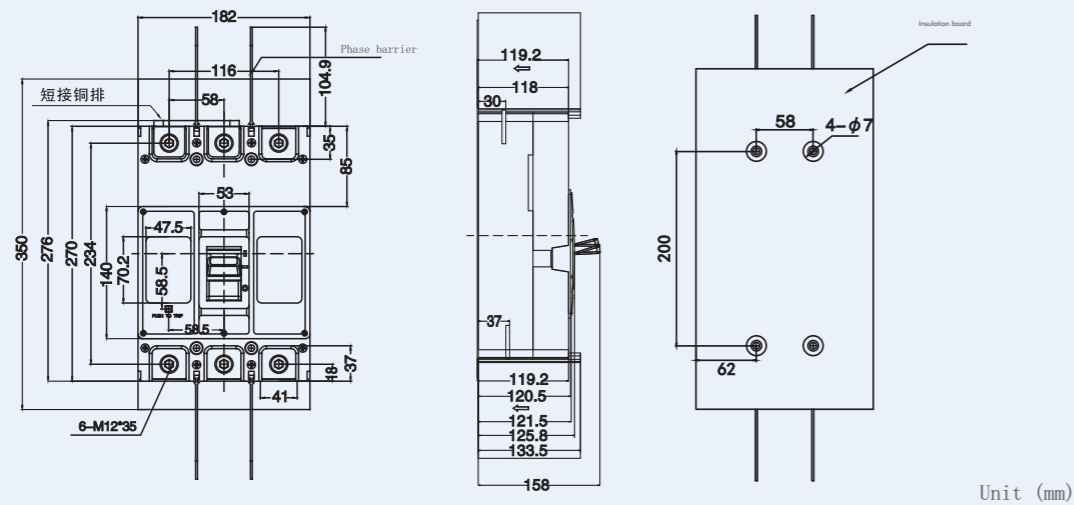


Unit (mm)

■ WLM7DC-400/630/800 2P Front connection



■ WLM7DC-400/630/800 3P Front connection



■ Accessories characteristics and installation



AX-125 single auxiliary contact



AXS-125 Double auxiliary contact



AX-400 single auxiliary contact

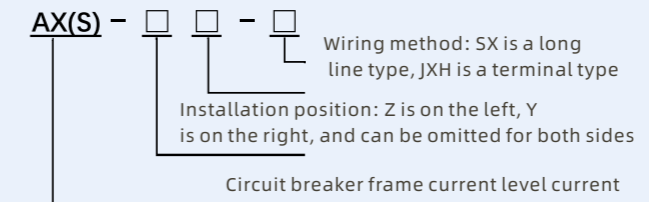
WLM6 moulded case circuit breaker has various accessory modules, which can be found in P84 for more details

12.1 AX Auxiliary contact

9.1.1 Function

Remotely indicate the circuit breaker's making (on) or breaking / tripping (OFF) status, connected to the auxiliary circuit of the circuit breaker.

12.1.2 Model description



Name: AX represents auxiliary, (S) represents double

12.1.2 Code for mccb Frame

Frame	125/160	250	400
-------	---------	-----	-----

code AX-125 AX-250 AX-400

12.1.3 Indication of circuit breaker status

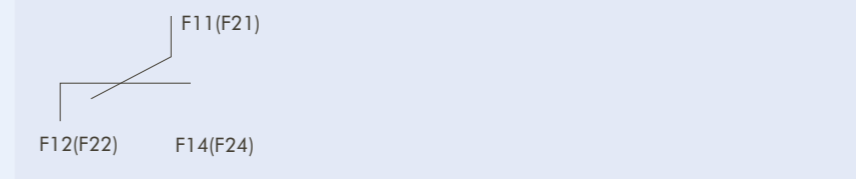
The circuit breaker is in the "off" or "free trip" position	double AX	F11 (F21) F14 (F24) F12 (F22)
	single AX	F14 F11 F12
"Normally closed" contacts status	change from "closed" to "open", change from "open" to "closed"	

12.1.4 Electrical characteristics

Ue (V)	AC		DC	
	230V	400V	110	220
Inm250~800(A)	0.3	0.3	0.15	0.15

Note: 1NO1NC Inm 125\250, 2NO2NC Inm 400/630/800

12.1.5 Wiring diagram



12.2 AL Alarm contact

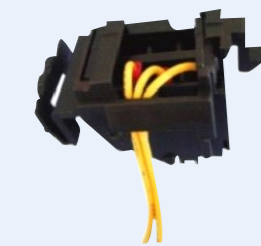
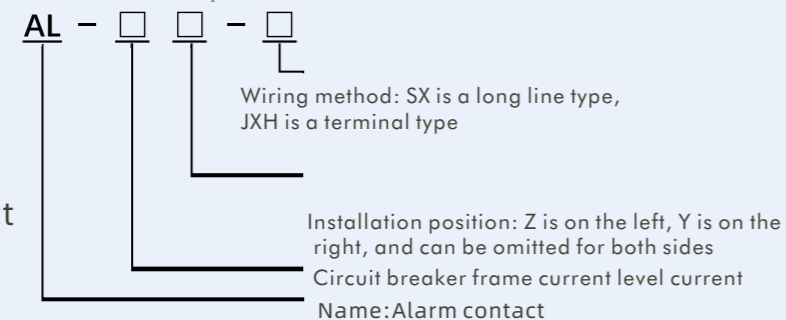
12.2.1 Function

It is mainly used to provide a signal when the load of the circuit breaker is overloaded, short-circuited or undervoltage, or tripped.

The reasons for the failure of the alarm signal are:

- Over-load or short-circuit
- Undervoltage trip
- Residual current action trip
- Manual free trip

12.2.2 Model description



AL-400 alarm contact

12.2.3 Code for mccb Frame

Frame	125/160	250	400
code	AL-125	AL-250	AL-400

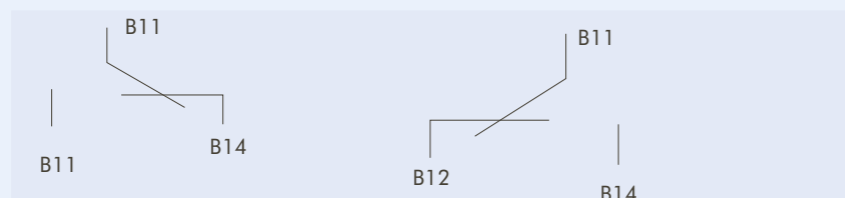
12.2.4 Indication of circuit breaker status

Circuit breaker is at breaking or making status	B14 B12	B11
Circuit breaker is at free tripping status	B14 B12	B11

12.2.5 Electrical characteristics

Ue (V)	AC			DC	
	230V	400V	110	220	24
In (A)	0.3	0.3	0.15	0.15	0.15

12.2.6 Wiring diagram



SHT-250shunt release



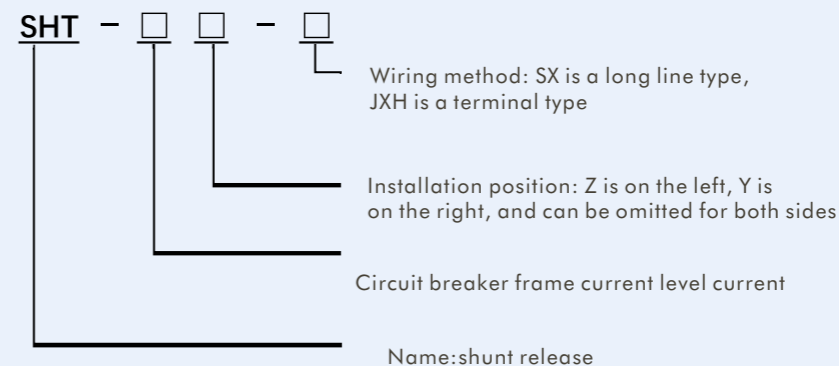
SHT-400shunt release

12.3 SHT Shunt release

12.3.1 Function

Shunt releases operate according to electrical signals, enabling remote control and automatic control of circuit breakers. When the supply voltage When the voltage is equal to any voltage between 70% and 110% of the rated control power supply voltage, the shunt release should enable the circuit breaker to operate reliably.

12.3.2 Model description



12.3.2 Code for mccb Frame

Frame	125/160	250	400
code	SHT-125	SHT-250	SHT-400

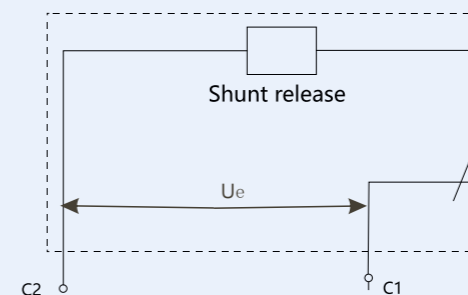
12.3.3 Electrical characteristics

Ue (V)	AC			DC	
	230V	400V	110	220	24
In (A)	0.3	0.3	0.15	0.15	0.15

12.3.4 Action characteristics

Can be powered for a long time. Response time: pulse type $\geq 220\text{ms}$, $\leq 60\text{ms}$

12.3.5 Wiring diagram



Note:

When the rated control power supply voltage DC24V shunt release is used, the maximum length of the copper wire (each of the two wires) must meet the following table:

Rated control supply voltage U_s (DC24V)	Conductor cross-sectional area	
	1.5mm ²	2.5mm ²
100% U_s	150m	250m
85% U_s	100m	160m



12.5 CD Motor-driven mechanism

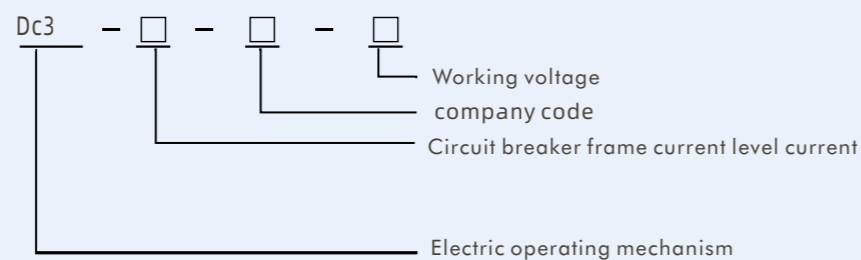
12.5.1 Function

It is suitable for closing, opening and re-opening of circuit breakers at long distances as well as automation applications.

Rated Voltage(Us)	AC230V 50Hz	AC400V 50Hz
	DC24V、110V、220V	
Frame Rated current Inm	250-315	400-800
Operating power(w)	14	35
Life(times)	20000	10000

Reliable action range:85%-110% Us

12.5.2 Model description

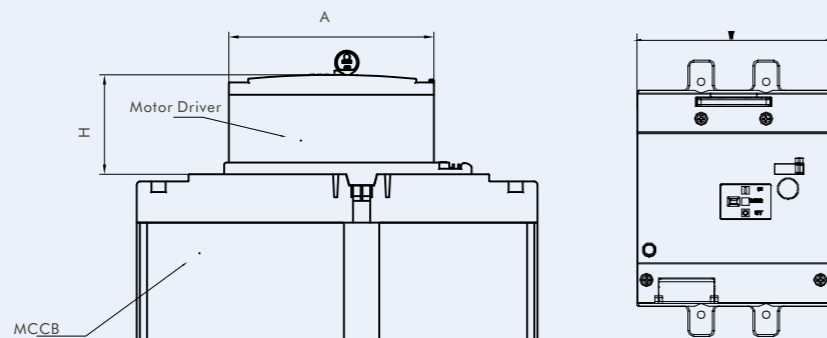


Note: The 1600 frame motor-driven mechanism is assembled in the factory and is suitable for electronic circuit breakers and disconnectors according to the inside of the circuit breaker.

12.5.3 Electrical characteristics

Model	250/315/400/630/800
type	
Ue	z 110V、230V、DC24V、110V、220V
Hz	AC50Hz/60H

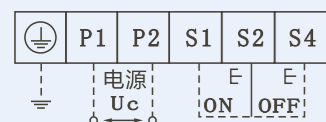
12.5.4 Installation dimension diagram of motor operating mechanism



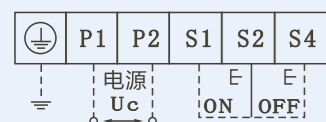
Product Model	DC3-250/315	DC3-400	DC3-630/800
Size H	98	136	138

Motor Driver assembling size(mm)

DC2-250/315 Motor operating mechanism



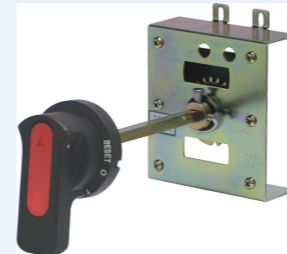
交流接线图 图1



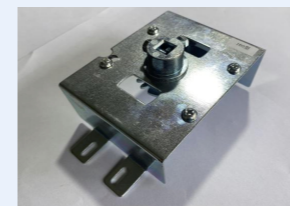
交流接线图 图2

CD2电机式接线原理图

The dashed box represents the wiring diagram of the internal accessories of the circuit breaker of the internal accessories of the circuit breaker



SC-160 Manual operation mechanism



12.6 SC Economic extended rotary handle

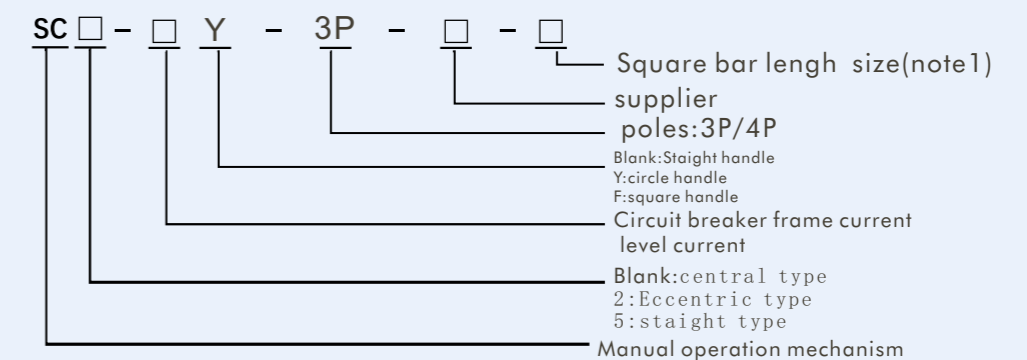
12.6.1 Function

The unique design and transmission structure are adopted to realize the closing, opening and re-closing operation of the circuit breaker by rotating the handle.

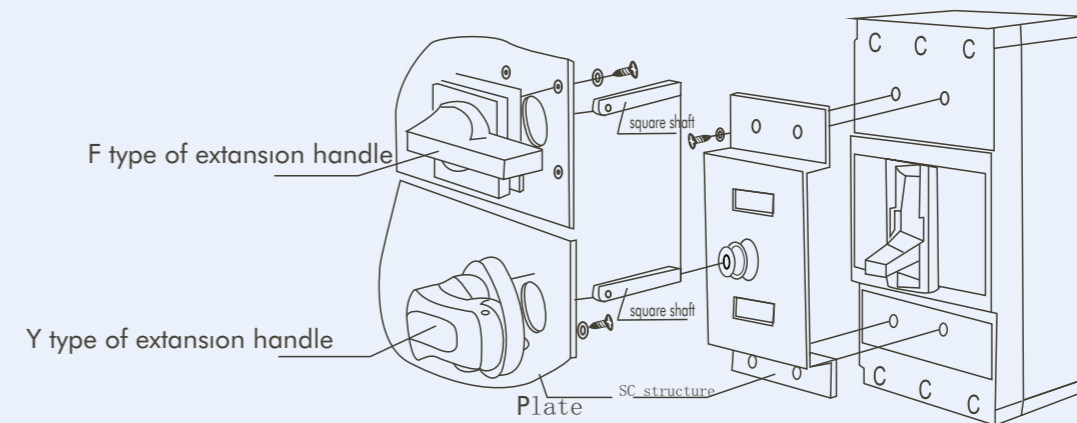
Protection degree: IP30

- With isolation function indication;
- O (open), I (closed) and free trip 3 position indications;
- The circuit breaker can be locked in the OFF position with 1~3 padlocks with a diameter of 5~8mm. At this time, it can prevent the circuit breaker from closing and the switch cabinet from opening;
- When the switch is in the ON position, the cabinet door cannot be opened under the action of the rotary handle (if the cabinet door is opened urgently, the cabinet door can be opened by the emergency unlocking device on the handle).

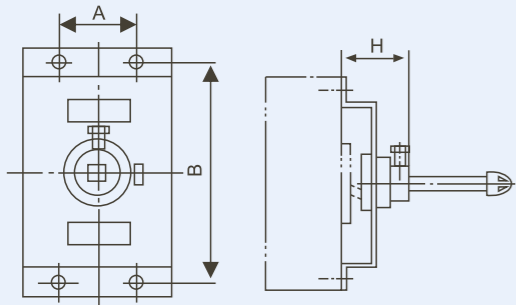
12.6.2 Model description



Note1: default length of shaft is 150mm
150mm/200mm/300mm/350mm/500mm



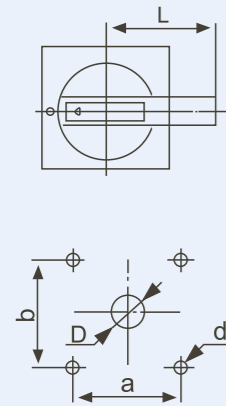
SC Overall and mounting dimension



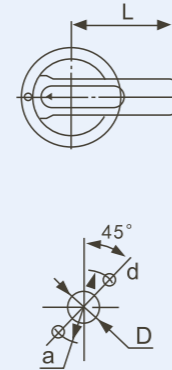
Model	Dimensions of Operating Mechanism Handle (mm)		
	A	B	H
WLM7HU-250/315	35	161	70
WLM7HU-400	137	200	76
WLM7HU-600/800	167	214	76.3

Model	Dimensions of Operating Mechanism Handle (mm)		
	A	B	H
WLM7DC-250/315-2300	—	161	62
WLM7DC-250/315-3300	35	161	70
WLM7HU-400/630-2300	116	200	76.3
WLM7HU-400Q/630Q-2300	89	217	48
WLM7HU-800/2300	116	200	76.3
WLM7HU-400/630/800-3300	167	214	76.3

SC Overall and mounting dimension



Model	A1 250-315	A2 400-800
D	φ 35	φ 35
d	φ 4.5	φ 4.5
a	65	65
b	65	65
L	95	125



手柄规格	B1 250-315	B2 400-800
D	φ 35	φ 35
d	φ 4.5	φ 4.5
a	65	65
b	53	53
L	95	125

F type of extension handle

Y type of extension handle

Company			
Model List		<input type="checkbox"/> WLM6 <input type="checkbox"/> one knob <input type="checkbox"/> two knob <input type="checkbox"/> S <input type="checkbox"/> 1P <input type="checkbox"/> Rated current _____ A <input type="checkbox"/> WLM6E <input type="checkbox"/> three knob <input type="checkbox"/> six knob <input type="checkbox"/> C <input type="checkbox"/> 2P <input type="checkbox"/> WLM6LY <input type="checkbox"/> M <input type="checkbox"/> 3P <input type="checkbox"/> WLM6 <input type="checkbox"/> DC <input type="checkbox"/> HU <input type="checkbox"/> LCD <input type="checkbox"/> H <input type="checkbox"/> 4P	
Table			
Function	wiring way	<input checked="" type="checkbox"/> up in down out	<input type="checkbox"/> up out down in
	Plug in way		
	Knob	<input type="checkbox"/> six knob <input type="checkbox"/> three knob Current range: 160A-400A/320-800A; Frame size: 400A/800A	
	Testing	Temperature: <input type="checkbox"/> -30°C <input checked="" type="checkbox"/> 40°C <input type="checkbox"/> 50°C <input type="checkbox"/> 55°C	Protection: <input type="checkbox"/> Power distributor <input type="checkbox"/> Mactor protection
	Temperature rising	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> lower temperature rising 55K
	Communication	<input type="checkbox"/> DL645	<input type="checkbox"/> Customized: Modbus
	Breaking capacity	<input type="checkbox"/> Normal	<input type="checkbox"/> Customized 50/50 KA
	Electronic life	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Customized
	Mechanical life	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Customized
	Ig protection	<input checked="" type="checkbox"/> Have	<input type="checkbox"/> No
	loading pre-alarm	<input checked="" type="checkbox"/> Have	<input type="checkbox"/> No
	communication	<input checked="" type="checkbox"/> Have Voltage: <input type="checkbox"/> AC230V <input type="checkbox"/> AC400V <input type="checkbox"/> DC24V others: _____	<input checked="" type="checkbox"/> No
ROHS	<input checked="" type="checkbox"/> Have	<input checked="" type="checkbox"/> No	
Salt spray test	<input checked="" type="checkbox"/> Have <input type="checkbox"/> 48h <input type="checkbox"/> 72h	<input checked="" type="checkbox"/> No	
Apperance	Base cover colour	<input checked="" type="checkbox"/> blancck3C <input type="checkbox"/> COOL GRAY 1C	
	Handle colour	<input checked="" type="checkbox"/> blancck3C <input type="checkbox"/> Red186C <input type="checkbox"/> gray11C <input type="checkbox"/> dark gray 7547U <input type="checkbox"/> blue3015C <input type="checkbox"/> gray430C	
	Middle cover colour	material: <input checked="" type="checkbox"/> DMC <input type="checkbox"/> PA6	Printed: line, LOAD: <input checked="" type="checkbox"/> 有 <input type="checkbox"/> No
		<input checked="" type="checkbox"/> blancck3C <input type="checkbox"/> COOL GRAY 1C <input type="checkbox"/> dark gray 7547U <input type="checkbox"/> gray430C <input type="checkbox"/> Cool gray 431C	
	Top cover colour	<input checked="" type="checkbox"/> blancck3C <input type="checkbox"/> COOL GRAY 1C <input type="checkbox"/> dark gray 7547U <input type="checkbox"/> gray430C <input type="checkbox"/> Cool gray 431C	
	Tripping Knob	<input type="checkbox"/> RED 186C <input type="checkbox"/> dark blue 661U-1 <input type="checkbox"/> Orange1645C	
adjustable Knob	<input type="checkbox"/> RED 186C <input type="checkbox"/> dark blue 661U-1 <input type="checkbox"/> light blue2128C <input type="checkbox"/> Orange1645C		
top cover screw	<input type="checkbox"/> Blue white zinc <input type="checkbox"/> Black zinc others: _____		
Stickers	Nameplate	<input type="checkbox"/> Blank <input type="checkbox"/> Laser <input type="checkbox"/> Print <input type="checkbox"/> name plate	
	Nameplate	<input type="checkbox"/> Customer provide <input type="checkbox"/> W9 provide <input type="checkbox"/> others: _____	
	Current plate	<input checked="" type="checkbox"/> Blanck <input type="checkbox"/> White	position: <input checked="" type="checkbox"/> Base right side <input type="checkbox"/> middle cover
	Side information plate	<input type="checkbox"/> Customer provide <input type="checkbox"/> W9 provide <input type="checkbox"/> others: _____	<input checked="" type="checkbox"/> No
	Series No.	<input checked="" type="checkbox"/> Have	<input type="checkbox"/> No
	box plate	<input type="checkbox"/> Customer provide <input type="checkbox"/> W9 provide <input type="checkbox"/> others: _____	<input type="checkbox"/> No
	outside box plate	<input type="checkbox"/> Customer provide <input type="checkbox"/> W9 provide <input type="checkbox"/> others: _____	<input type="checkbox"/> No
Accessories	Shunt release	AC230V <input type="checkbox"/> ; AC380V/400V <input type="checkbox"/> ; DC220V <input type="checkbox"/> ; DC24V <input type="checkbox"/> ;	
	Undervoltage release	AC230V <input type="checkbox"/> ; AC380V/400V <input type="checkbox"/> ; DC220V <input type="checkbox"/> ; DC24V <input type="checkbox"/> ;	
	Auxiliary switch	1 set <input type="checkbox"/> ; 2 sets <input type="checkbox"/>	
	Wiring method of internal accessories	lead wire [default]; terminal block <input type="checkbox"/> ;	
	Length of accessory wire	50cm (default); 100cm [chargeable] <input type="checkbox"/> ; customized length [chargeable] <input type="checkbox"/> ;	

Accessory	Motor Driver (DC3/DC6)	P1: DC3 electric operation(General market version) <input type="checkbox"/> DC24 <input type="checkbox"/> DC110V <input type="checkbox"/> DC220V <input type="checkbox"/> AC400V	<input type="checkbox"/> DC24 <input type="checkbox"/> DC110V <input type="checkbox"/> DC220V <input type="checkbox"/> AC400V	
		P2: DC6 series electric operation(self-manufacturing) <input checked="" type="checkbox"/> AC230V(defaulted)	<input checked="" type="checkbox"/> AC230V(defaulted)	
	Terminal Cover			
	Busbar			
	Operation Handle	Zy1: Rotating handle (manual center type - circular handle) - (defaulted)		
		Zf1: Rotating handle (manual center type - square handle)		
Zy2: Rotating handle (hand operated eccentric - circular handle)				
Zf2: Rotating handle (manual eccentric square handle)				
Z3: Rotating handle (hand operated integrated)				
Instructions	Neutral	<input checked="" type="checkbox"/> Have	<input type="checkbox"/> No	
	Customized	<input type="checkbox"/> Customer provide <input type="checkbox"/> W9 provide <input type="checkbox"/> others: _____	<input type="checkbox"/> No	
Box	Neutral	<input checked="" type="checkbox"/> Have	<input type="checkbox"/> No	
	Customized	<input type="checkbox"/> Customer provide <input type="checkbox"/> W9 provide <input type="checkbox"/> others: _____	<input type="checkbox"/> No	
Packaging box	Neutral	<input checked="" type="checkbox"/> Have	<input type="checkbox"/> No	
	Customized	<input type="checkbox"/> Customer provide <input type="checkbox"/> W9 provide <input type="checkbox"/> others: _____	<input type="checkbox"/> No	
Sealing tape	Neutral	<input checked="" type="checkbox"/> Have	<input type="checkbox"/> No	
	Customized	<input type="checkbox"/> Customer provide <input type="checkbox"/> W9 provide <input type="checkbox"/> others: _____	<input type="checkbox"/> No	
others				
Notes				

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