



ADM3-125L 3P

Application

ADM3 series moulded case circuit breaker (hereinafter referred to as circuit breaker) is a new circuit breaker product developed by our company, with a new industrial appearance design, the product shows the fashionable, atmospheric sense of quality; product specifications can be covered from 125A to 800A case frame current; compact product volume, as well as the detachable design of the cover brings accessories independent installation function, greatly improving the convenience of the product; the product has a small size, high breaking, short flying arc. its rated insulation voltage up to 1000V, suitable for AC 50Hz or 60Hz, rated working voltage up to 690V, rated working current from 10A to 800A in the power distribution network, used to distribute power and protect the line and power supply equipment from overload, short circuit and under voltage fault damage; at the same time as the line infrequent The circuit breaker has an isolation function and its corresponding function is to protect the circuit and power supply equipment from overload, short-circuit and under-voltage faults. This circuit breaker has an isolation function, the corresponding symbols of which are \square/\blacktriangle .

The circuit breaker can be installed vertically or horizontally.
The product meets the requirements of IEC60947-2 and GB/T14048.2.

Product range

2.1 Normal working conditions:

- (1) The product has protection class IP30 and pollution class 3.
- (2) The ambient air temperature should not be higher than +40°C and not lower than -5°C, and the 24h average temperature should not exceed +35°C.
- (3) The altitude of the installation site should not exceed 2000m.
- (4) The relative humidity of the atmosphere does not exceed 50% at an ambient temperature of +40°C, with higher relative humidity possible at lower temperatures, e.g. 90% at 20°C. Special measures should be taken for occasional condensation due to temperature changes.
- (5) Where there is no risk of explosion and where the medium is free from gases and conductive dusts sufficient to corrode metals and destroy insulation.
- (6) Where there is no rain or snow intrusion.
- (7) Installation: for fixed plate front, fixed plate rear, inserted plate front, inserted plate rear or extracted.



ADM3-250M 3P

Breaker types and specifications

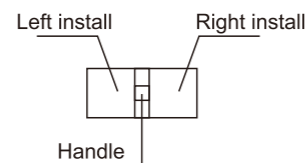


- | | |
|---|--|
| 1. Company code | 6. Operating mode (see remark 2) |
| 2. Moulded case circuit breaker | 7. Number of poles: 3 pole, 4 pole |
| 3. Design code | 8. Code for release type and accessories (see Table 1) |
| 4. Case frame rated current | 9. Application code (see remark 1) |
| 5. rated limit short circuit breaking capacity level (see remark 3) | |

Remark: (1) Use code: 1 is used for distribution protection and may not be written out; 2 is used for motor protection.
(2) Operation mode: no code for manual operation, P for electric operation, Z for rotating handle operating mechanism.
(3) Short circuit breaking capacity level:
125, 250 type: S-economic, L-standard, M-higher, H-high breaking type.
400, 630, 800 type: L-standard type, M-higher type, H-high breaking type.
(4) N-pole form:
A: N-pole without overcurrent release, and N-pole is always connected, not combined with other three poles.
B: N pole is not installed with overcurrent release, and N pole is combined with other three poles.
C: N pole is fitted with an overcurrent release and the N pole is combined with the other three poles.
D: N pole is fitted with an overcurrent release and N pole is always connected, not combined with the other three poles.



ADM3-800M 3P



- Auxiliary contacts
- Alarm contacts
- Shunt release
- ▲ Undervoltage release
- Prepayment meter release

Table1-1

Accessories	Code		ADM3-125S、L		ADM3-125M、H		ADM3-250S、L		ADM3-250M、H	
	Electromagnetic release	Thermomagnetic release	3P	4P	3P	4P	3P	4P	3P	4P
Without inside accessories	200	300								
Alarm contact	208	308	●	●	●	●	●	●	●	●
Shunt release	210	310	■	■	■	■	■	■	■	■
Prepayment meter release	210Y	300Y	□	□	□	□	□	□	□	□
Auxiliary contact (1NO1NC)	220	320	○	○	○	○	○	○	○	○
Auxiliary contact (2NO2NC)										
Undervoltage release	230	330	▲	▲	▲	▲	▲	▲	▲	▲
Shunt release Auxiliary contact (1NO1NC)	240	340	■	○	■	○	■	○	■	○
Shunt release Auxiliary contact (2NO2NC)										
Prepayment meter release Auxiliary contact (1NO1NC)	240Y	340Y	□	○	□	○	□	○	□	○
Shunt release Undervoltage release	250	350	▲	■	▲	■	▲	■	▲	■
Two sets of auxiliary contact (2NO2NC)	260	360	○	○	○	○	○	○	○	○
Undervoltage release Auxiliary contact (1NO1NC)	270	370	▲	○	▲	○	▲	○	▲	○
Undervoltage release Auxiliary contact (2NO2NC)										
Shunt release Alarm contact	218	318	■	●	■	●	■	●	■	●
Prepayment meter release Alarm contact	218Y	318Y	□	●	□	●	□	●	□	●
Auxiliary contact (1NO1NC) Alarm contact	228	338	○	●	○	●	○	●	○	●
Auxiliary contact (2NO2NC) Alarm contact										
Undervoltage release Alarm contact	228	338	▲	●	▲	●	▲	●	▲	●
Shunt release Auxiliary contact (1NO1NC) Alarm contact	248	348	■	○	■	○	■	○	■	○
Prepayment meter release Auxiliary (1NO1NC) Alarm contact	248Y	348Y	□	○	□	○	□	○	□	○
Two sets of auxiliary contact (2NO2NC) Alarm contact	268	368	○	○	○	○	○	○	○	○
Undervoltage release Auxiliary contact (1NO1NC) Alarm contact	278	378	▲	○	▲	○	▲	○	▲	○

Table1-2

附件名称	Code		ADM3-400L、M、H		ADM3-630L、M、H		ADM3-800L、M、H	
	Electromagnetic release	Thermomagnetic release	3P	4P	3P	4P	3P	4P
Without inside accessories	200	300						
Alarm contact	208	308						
Shunt release	210	310						
Prepayment meter release	210Y	300Y						
Auxiliary contact (1NO1NC)	220	320						
Auxiliary contact (2NO2NC)								
Undervoltage release	230	330						
Shunt release Auxiliary contact (1NO1NC)	240	340						
Shunt release Auxiliary contact (2NO2NC)								
Prepayment meter release Auxiliary contact (1NO1NC)	240Y	340Y						
Shunt release Undervoltage release	250	350						
Two sets of auxiliary contact	260	360						
Undervoltage release Auxiliary contact (1NO1NC)	270	370						
Undervoltage release Auxiliary contact (2NO2NC)								
Shunt release Alarm contact	218	318						
Prepayment meter release Alarm contact	218Y	318Y						
Auxiliary contact (1NO1NC) Alarm contact	228	338						
Auxiliary contact (2NO2NC) Alarm contact								
Undervoltage release Alarm contact	228	338						
Shunt release Auxiliary contact (1NO1NC) Alarm contact	248	348						
Prepayment meter release Auxiliary contact (1NO1NC) Alarm contact	248Y	348Y						
Two sets of auxiliary contact Alarm contact	268	368						
Undervoltage release Auxiliary contact (1NO1NC) Alarm contact	278	378						

■ Main technical parameters and performance

4.1 Main technical parameters (see Table 2)

Table2-1

Type	ADM3-125				ADM3-250					
Frame rated current Inm(A)	125				250					
Rated current In(A)	10, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125				100, 125, 140, 160, 180, 200, 225, 250					
Rated frequency Hz	AC 50/60									
Rated insulating voltage Ui(V)	800				1000					
Rated impulse withstand voltage Uimp(kV)	8				12					
Rated voltage Ue(V)	400(415)/690				400(415)/690					
Number of poles	3/4				3/4					
Breaking Class	S	L	M	H	S	L	M	H		
Limit short circuit breaker capacity Icu(kA)	AC400/415V	25	35	50	70	35	50	70	85	
	AC690V	5	5	8	10	10	10	10	20	
Operating short circuit breaking capacity Ics(kA)	AC400/415V	18	25	35	50	25	35	50	65	
	AC690V	5	5	8	10	8	8	10	10	
Standard	IEC60947-2 GB/T 14048.2									
Using category	A				A					
Isolating	■				■					
Working ambient temperature	-5°C ~ +40°C									
Arcing distance (mm)	≤50				≤50					
Electrical life (times) AC400V/415V	10000				10000					
Mechanical life (times)	No maintenance	20000				20000				
	Maintenance	40000				40000				
Release and protect type	Single magnetic trip	Distribution protection	■				■			
		Motor protection	■				■			
	Thermally magnetic trip	Distribution protection	■				■			
		Motor protection	■				■			
Accessories	Auxiliary contact	■				■				
	Alarm contact	■				■				
	Shunt release	■				■				
	Undervoltage release	■				■				
	Manual operating mechanism	■				■				
	Electric operating mechanism	■				■				
	Wiring behind the board	■				■				
	Insert type	■				■				
Interphase dividers	■				■					
Outline dimensions fixed front plate Width(W)*Height(H)*Depth(D)	3P(mm)	75*130*68	92*150*93.5	107*165*76	107*165*88					
	4P(mm)	100*130*68	122*150*93.5	142*165*76	142*165*88					

■ Main technical parameters and performance

Table2-2

Type	ADM3-400			ADM3-630			ADM3-800				
Frame rated current Inm(A)	400			630			800				
Rated current In(A)	200, 225, 250, 315, 350, 400			500, 630			630, 700, 800				
Rated frequency Hz	AC 50/60										
Rated insulating voltage Ui(V)	1000										
Rated impulse withstand voltage Uimp(kV)	12										
Rated voltage Ue(V)	400(415)/690										
Number of poles	3/4										
Breaking Class	L	M	H	L	M	H	L	M	H		
Limit short circuit breaker capacity Icu(kA)	AC400/415V	50	70	100	50	70	100	50	70	100	
	AC690V	10	15	20	10	15	20	15	20	20	
Operating short circuit breaking capacity Ics(kA)	AC400/415V	35	50	75	35	50	75	35	50	75	
	AC690V	10	10	10	10	10	10	15	15	15	
Standard	IEC60947-2 GB/T 14048.2										
Using category	A			A			A				
Isolating	■			■			■				
Working ambient temperature	-5°C - +40°C										
Arcing distance (mm)	≤100			≤100			≤100				
Electrical life (times) AC400V/415V	8000			8000			8000				
Mechanical life (times)	No maintenance	15000			15000			10000			
	Maintenance available	25000			25000			20000			
Release and protect type	Single magnetic release	Distribution protection	■			■			■		
		Motor protection	■			■			■		
	Thermomagnetic release	Distribution protection	■			■			■		
		Motor protection	■			■			■		
Accessories	Auxiliary contact	■			■			■			
	Alarm contact	■			■			■			
	Shunt release	■			■			■			
	Under-voltage release	■			■			■			
	Manual operating mechanism	■			■			■			
	Electric operating mechanism	■			■			■			
	Wiring behind the board	■			■			■			
	Insert type	■			■			■			
Outline dimensions fixed front plate Width(W)*Height(H)*Depth(D)	3P(mm)	150*257*107.5			150*257*107.5			210*280*100			
	4P(mm)	198*257*107.5			198*257*107.5			280*280*100			

4.2 Breaker overcurrent release form: thermomagnetic type. The thermomagnetic release has an inverse time limit characteristic, the electromagnetic release is instantaneous, see Table 3 (for power distribution) and Table 4 (for electric motors) for characteristics.

Table3

Rated current of release	Thermally activated release device (ambient temperature +40°C)		Tripping current of electromagnetic release (A)
	1.05In(Cold state) Non-tripping time(h)	1.3In(thermal state) Tripping time (h)	
In≤63A	≤1h	< 1h	≤32A: 400A±20% > 32A: 10In±20% (Tripping time≤0.2s)
In > 63A	≤2h	< 2h	

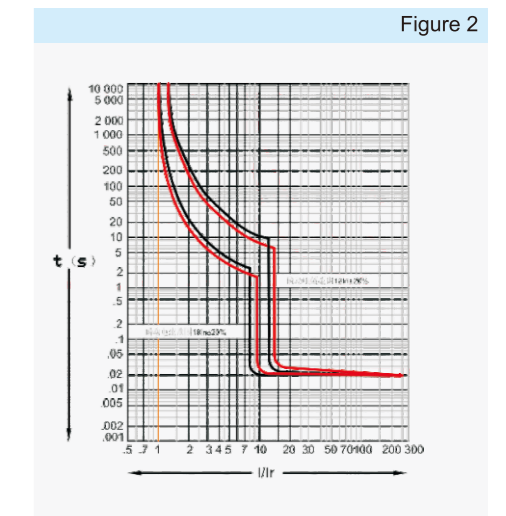
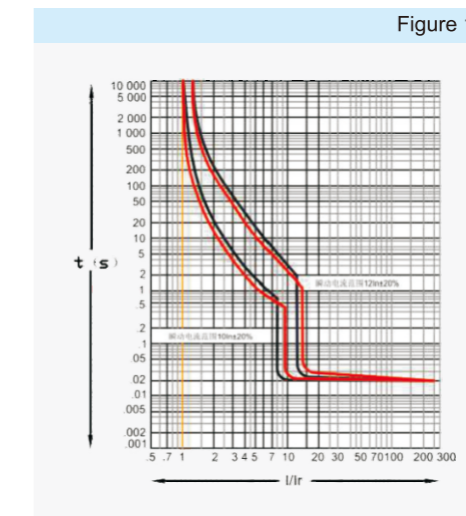
Table4

Thermally activated release device (ambient temperature +40°C)		Tripping current of electromagnetic release (A)
1.0In(Cold state) non-tripping time(h)	1.2In(thermal state) tripping time(h)	
≥ 2h	< 2h	≥40A: 12In±20% (Tripping time≤0.2s)

■ Tripping curve

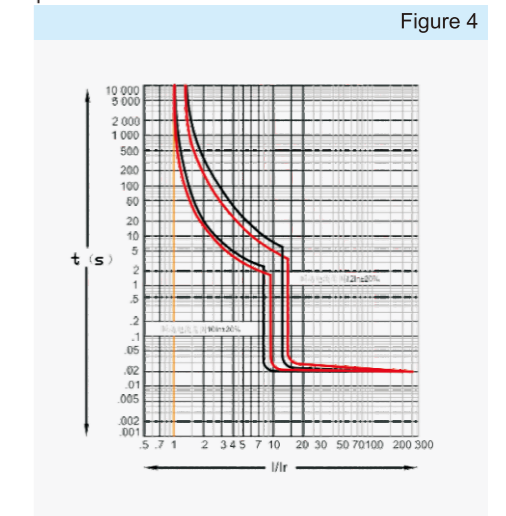
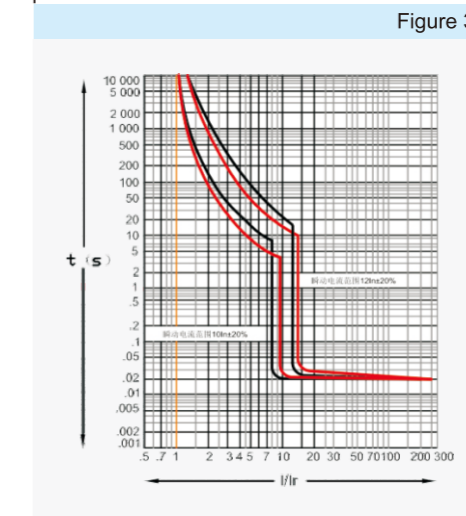
ADM3-125S/L (See Figure 1 below):
40A-125A black for distribution protection, red for motor protection, 10A-32A instantaneous action current of 400A±20%

ADM3-125M/H (see figure 2 below):
Black for distribution protection, red for motor protection

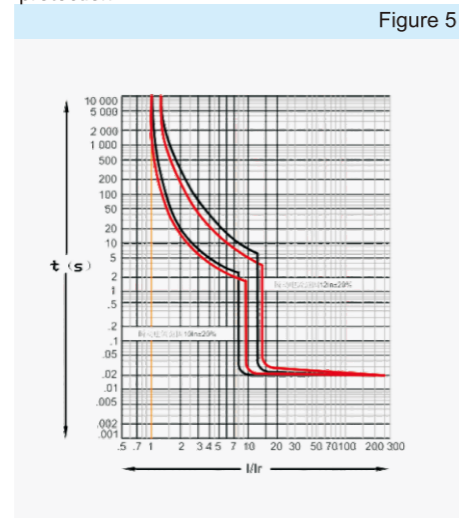


ADM3-250 (see figure 3 below):
Black for distribution protection, red for motor protection

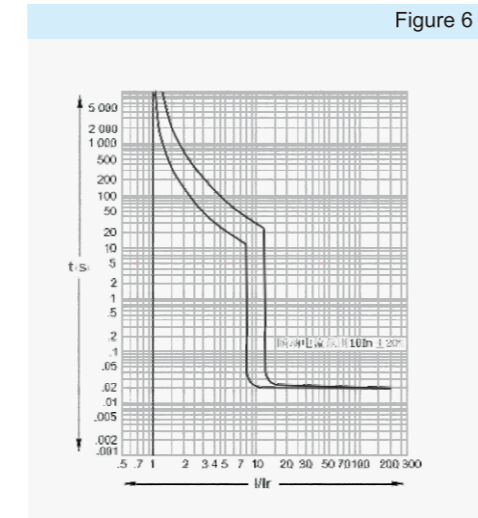
ADM3-400 (see figure 4 below):
Black for distribution protection, red for motor protection



ADM3-630 (see figure 5 below).
Black for distribution protection, red for motor protection



ADM3-800 (see figure 6 below).



■ Outline and installation dimensions

6.1 Breaker fixed front panel wiring outline and installation dimensions (see Figure 7 and Tables 5-1,5-2)

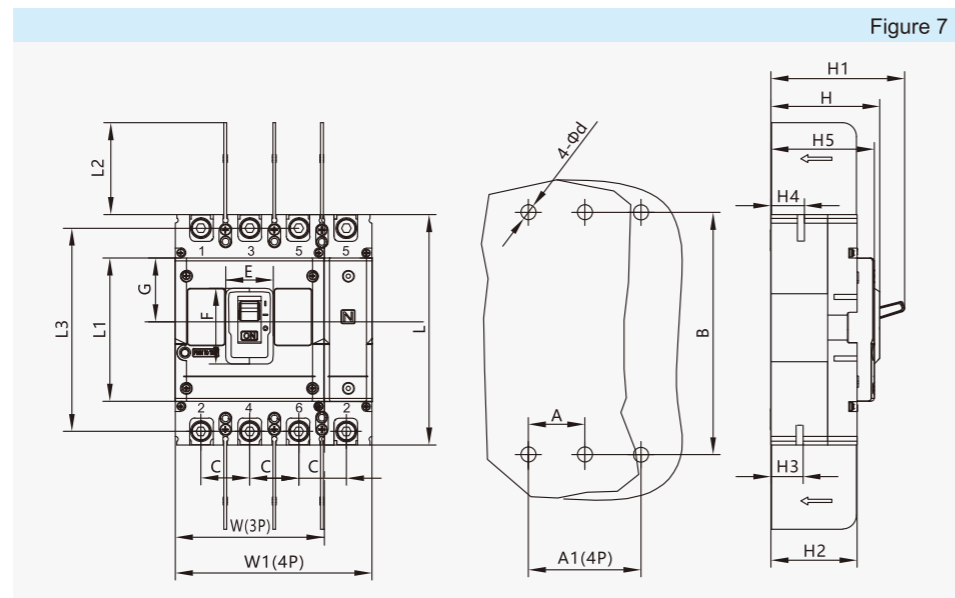


Table5-1

Type	Outline dimensions										
	W	W1	L	L1	L2	L3	H	H1	H2	H3	H4
ADM3-125S L	75	100	130	83	50	111	70.5	81.5	56	24	24
ADM3-125MH											
ADM3-250S L	107	142	165	102	80	145	77.5	94.5	62	23	23
ADM3-250MH	107	142	165	102	80	145	99.5	112.5	80	23	23
ADM3-400L/M/H	150	198	257	150	96.2	225	107.5	145.9	96.2	38	39
ADM3-630L/M/H	150	198	257	150	96.2	225	107.5	145.9	96.2	38	39
ADM3-800L/M/H	210	280	280	102	97.5	245	100	146.5	97.5	32.5	35.5

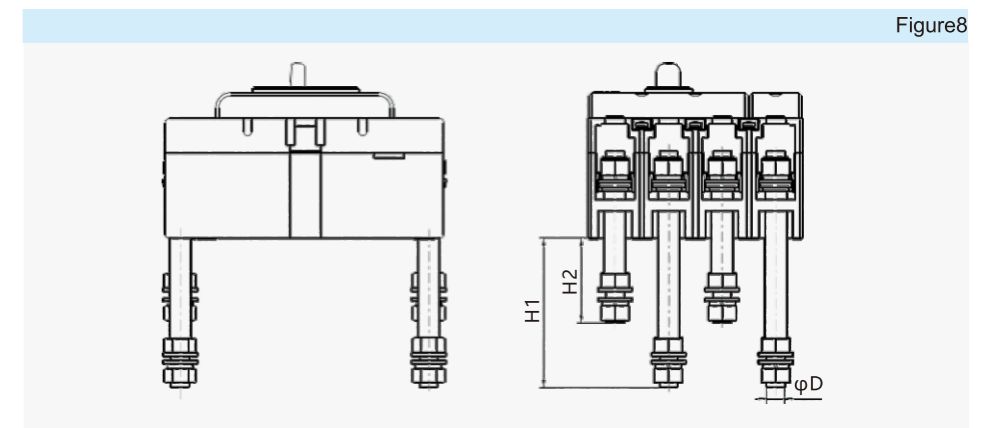
Table5-2

Type	Outline dimensions					Installation dimensions			
	H5	E	F	G	C	A	A1	B	d
ADM3-125S L	66	22	50	41.5	25	25	50	111	4
ADM3-125M H									4
ADM3-250S L	73	26	54	51	35	35	70	126	5
ADM3-250M H	92	26	54	51	35	35	70	126	5
ADM3-400L/M/H	111	52.5	75.5	75	48	44	88	215	7
ADM3-630L/M/H	111	52.5	75.5	75	48	44	88	215	7
ADM3-800L/M/H	108	65	102	61	70	70	140	243	7.5

6.2 Wiring behind the circuit breaker board

ADM3 series circuit breaker behind the board wiring (three poles four poles) shape and size and opening dimensions, X-X, Y-Y for three pole breaker centre

6.2.1 ADM3-125~250 behind-plate wiring dimensions and mounting dimensions (see Figure 8 and Table 6)

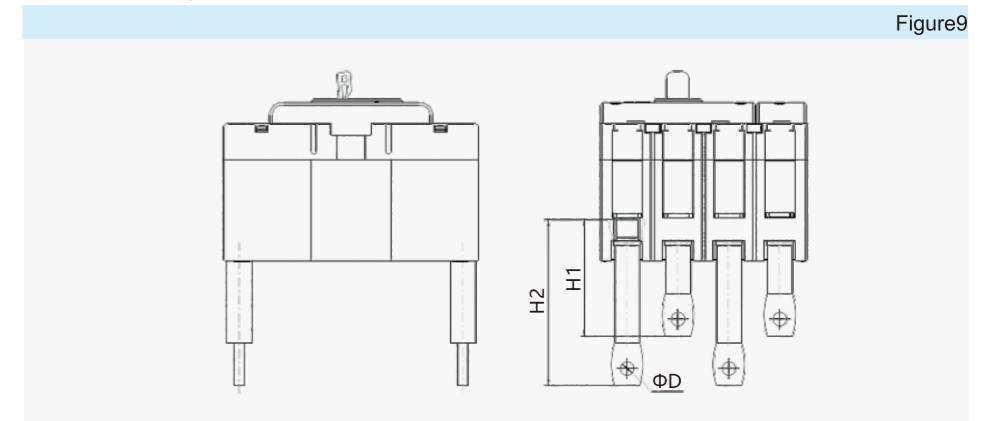


Behind-board wiring outline dimensions

Table6

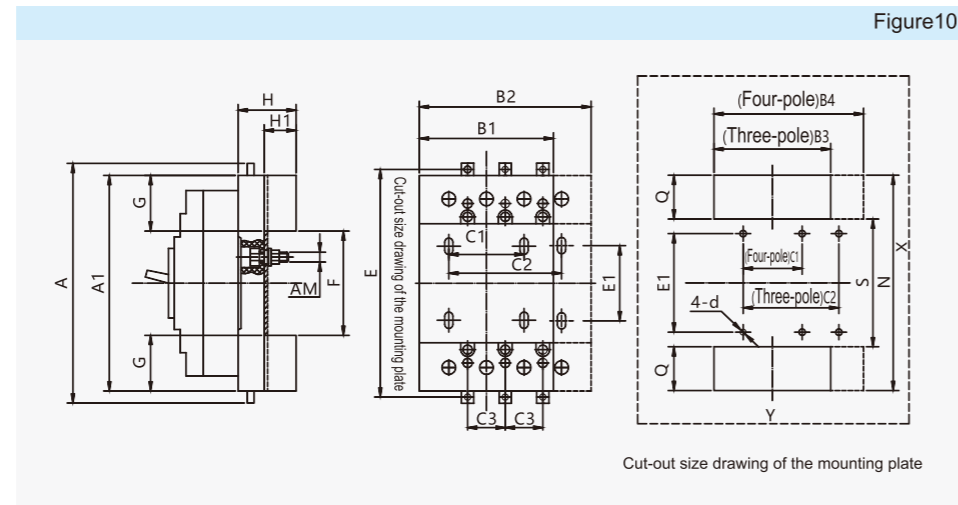
Type	H1	H2	φD
ADM3-125S/L	80	67	8
ADM3-125M/H	97	47	8
ADM3-250	102	72	10
ADM3-400/630	92	128	12.5
ADM3-800	103	137	13

6.2.2 Outline and installation dimensions of the ADM3-400-800 behind-board wiring (see Figure 9 and Table 6)



6.3 Circuit breaker plug-in wiring

ADM3 series circuit breaker plug-in wiring (three-pole four-pole) outline and hole dimensions (see Figure 10 and Tables 7-1,7-2) X-X, Y-Y is the centre of the three-pole circuit breaker



The outline and installation dimensions of the ADM3 plug-in type sea table: (for plug-in type) Table7-1

Applicable type	A	A1	B1	B2	C1	C2	C3	E	E1	E1
ADM3-125 S/L type	155	136.5	75	100	50	75	25	145	55	91.5
ADM3-125 M/H type	180	162	90.5	120	60	90	30	170	61	101.5
ADM3-250 type	204	181	105	140	70	70	35	192	65	110
ADM3-400/630 type	/	278	152	200	88	88	44	/	146	171
ADM3-800 type	/	305	210	280	90	90	70	/	146	181

Table7-2

Applicable type	G	H	H1	N	S	Q	B3	B4	AM	4-d
ADM3-125 S/L type	22.2	48	31	146.5	81.5	32.2	85	110	M4	φ4.5
ADM3-125 M/H type	30.2	55	36	172	91.5	40.2	100.5	130	M5	φ5.5
ADM3-250 type	35.2	72	46	191	100	45.2	115	150	M6	φ6.5
ADM3-400/630 type	54	80	60	288	161	64	162	210	M8	φ8.5
ADM3-800 type	62	87	60	315	171	72	220	290	M10	φ11

6.4 Wiring behind the circuit breaker board

6.4.1 ADM3-125/250 circuit breaker behind board wiring (three poles four poles) outline and hole dimensions (see Figure 11 and Table 8) X-X, Y-Y Y-Y is the centre of the three-pole circuit breaker

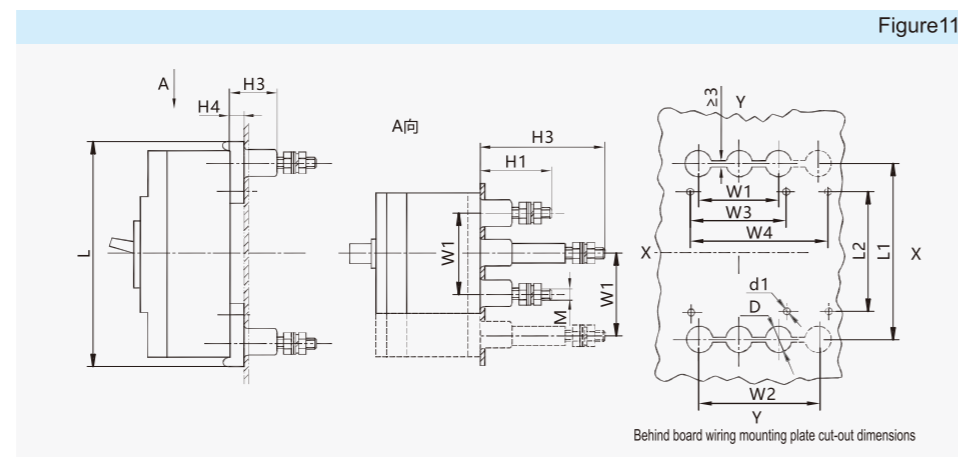


Table8

Type	Behind board wiring														
	L	L1	L2	W1	W2	W3	W4	H1	H2	H3	H4	ΦD	Φd1	Φd2	M
ADM3-125 ^M _H	164	132	90	60	90	72	102	53	93	35	10	22	5.5	8.5	8
ADM3-250 ^M _H	173	144	93	70	105	87	122	55	100	35	10	24	5.5	8.5	8

6.4.2 ADM3-400/800 circuit breaker behind board wiring (three poles four poles)outline and hole dimensions (see Figure 12 and Table 9) X-X, Y-Y Y-Y is the centre of the three-pole circuit breaker

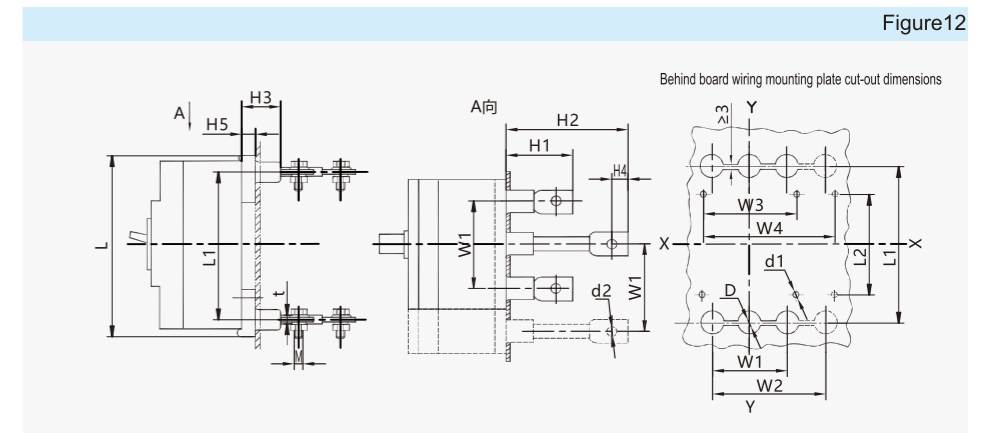


Table9

Type	Behind board wiring									
	L	L1	L2	W1	W2	W3	W4	H1	H2	
ADM3-400 ^M _H	267	224	164	96	144	124	172	68	127.5	
ADM3-800 ^M _H	295	243	158	140	210	178	248	84	84	

Type	Behind board wiring								
	H3	H4	H5	ΦD	Φd1	Φd2	t	M	
ADM3-400 ^M _H	37	18	10	32	6.5	10.5	8.5	10	
ADM3-800 ^M _H	37	22	10	48	7.0	13	16	12	

Internal accessories for circuit breakers

7.1 Axuliary contacts

7.1.1 Function: Accessory for remote indication of the closed (ON) or split/free release (OFF) status of the circuit breaker, connected to the in the auxiliary circuit.

7.1.2 Indication of the breaking and closing status of the circuit breaker

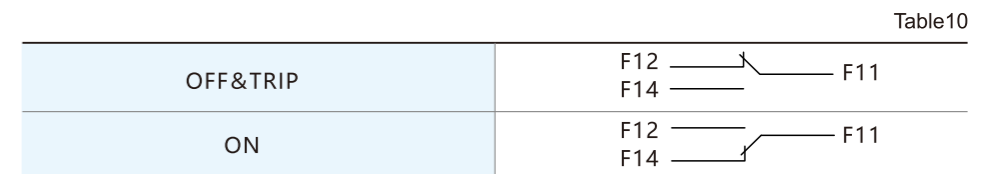


Table10

7.1.3 Electrical characteristics

Table11

Working voltage		AC-15	DC-13	
		AC380/400/415	DC110	DC220
Working current	125A-250A	0.26	0.14	0.14
	400A-800A	0.4	0.2	0.2

7.1.4 Wiring diagrams

The auxiliary contacts can form a control circuit with the indicator light. The state of the circuit breaker can be determined by the indicator light when the switchboard is not opened.

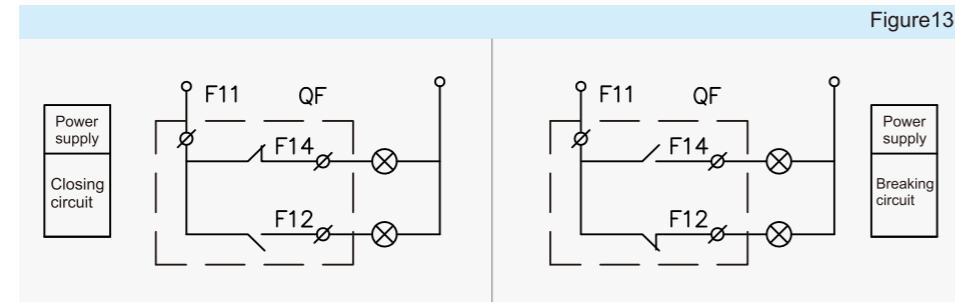


Figure13

7.2 Alarm contact

7.2.1 Function: Mainly used to provide a signal to the circuit breaker when a fault has occurred or when the circuit breaker is free to trip. Alarm contact occurs fault indication signal
 Causes are: 1、 Overload or short circuit trip 2、 Under voltage trip 3、 Residual current trip 4、 Manual trip

7.2.2 Indication of circuit breaker breaking and closing status. Table12

OFF&ON	B12 ———— B11 B14 ———— B11
TRIP	B12 ———— B11 B14 ———— B11

7.2.3 Electrical characteristics Table13

Working voltage		AC-15		DC-13	
		AC380/400/415	DC110	DC220	
Working current	125A-250A	0.26	0.14	0.14	
	400A-800A	0.4	0.2	0.2	

7.2.4 Wiring diagrams

The alarm contacts can form a control circuit with the indicator light. The status of the circuit breaker can be determined by the indicator light when the switchboard is not opened.

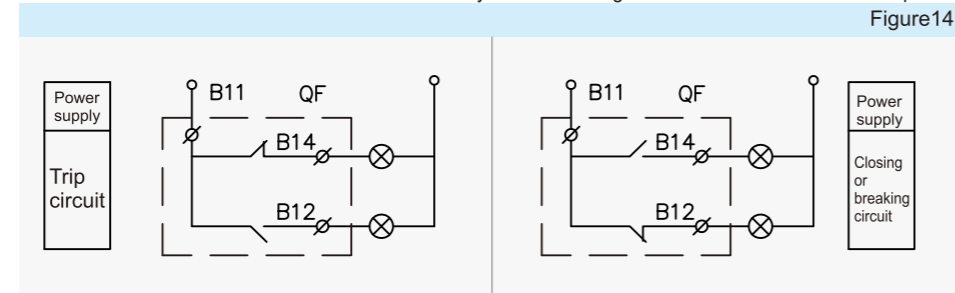


Figure14

7.3 Undervoltage release

7.3.1 Function: Realizes the function of under-voltage protection of the circuit breaker, disconnects the circuit breaker when the power supply voltage is too low and protects the power-using equipment.
 1、 When the power supply voltage drops (even slowly) to the range of 70%~35% of the rated voltage, the undervoltage release should make the circuit breaker trip reliably.
 2、 When the power supply voltage is lower than 35% of the rated control voltage of the release, the undervoltage release shall be able to prevent the circuit breaker from closing.
 3、 When the power supply voltage is equal to or greater than 85% of the rated control voltage of the release, the undervoltage release should be able to ensure that the circuit breaker can reliable close.

7.3.2 Action characteristics Table14

Conditions of release	Reliable open	35%-70%
	Preventing close	≤35%
	Reliable close	≥85%
Response time		1S
Operation times		1000

7.3.3 Wiring diagrams

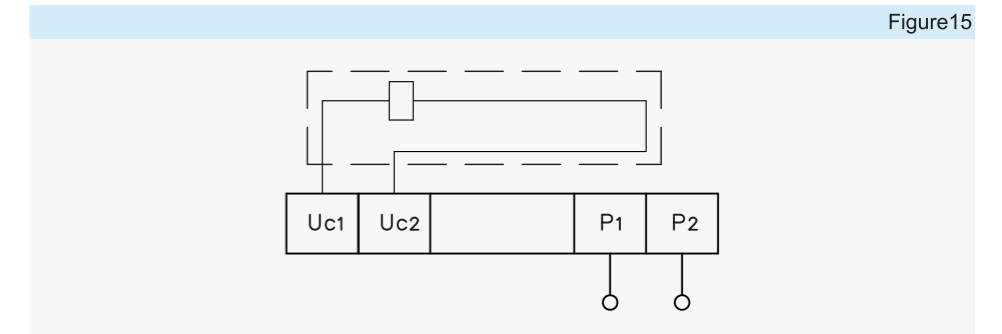


Figure15

7.4 Shunt release

7.4.1 Function: It is an accessory for remote breaking

1. When the power supply voltage is equal to any voltage between 70% and 110% of the rated control voltage the shunt release should make the the circuit breaker operate reliably.

7.4.2 Action characteristics Table15

Reliable operating voltage		35%-70%
Power on time (pulse type)	Maximum value	≤35%
	Minimum value	≥85%
Reliable operating voltage		1S
Operating times		1000

7.4.3 Wiring diagrams

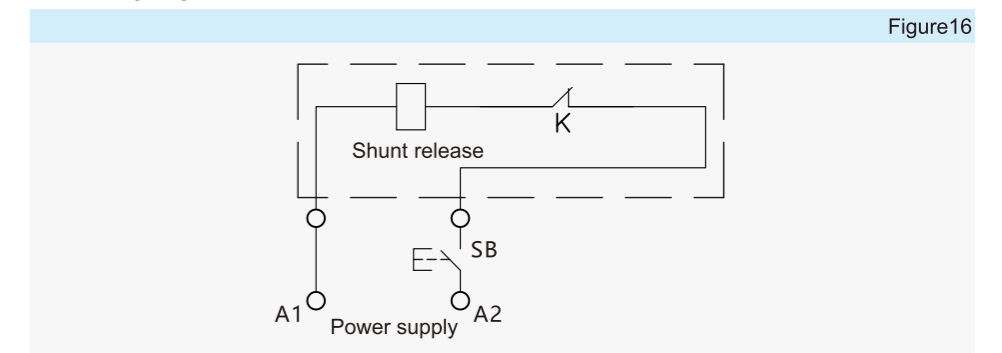


Figure16

External accessories for circuit breakers

8.1 LCD electric operating mechanism

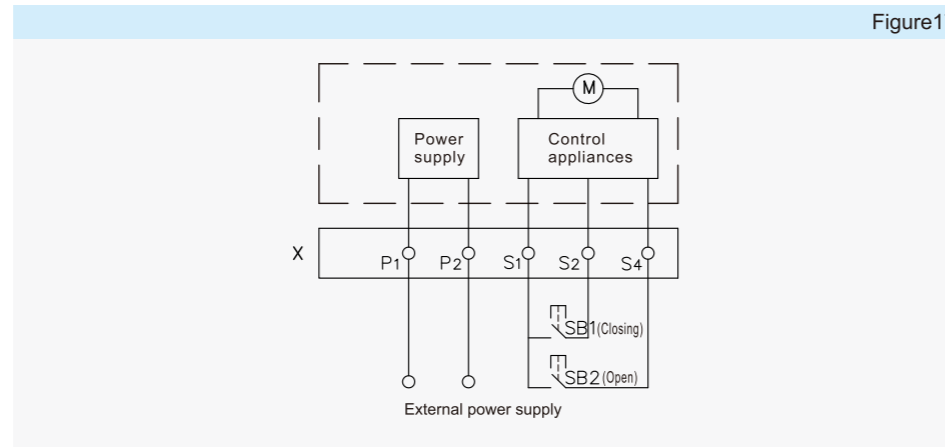
8.1.1 Function: Suitable for remote closing, breaking and re-buckling of circuit breakers, and for automation applications.

8.1.2 Electrical characteristics Table16

Category / Type	Full range
Structure type	AC/DC dual use
Voltage	AC220V/230V/240V AC380V/400V/415V DC110V/DC220V
Rated frequency	50Hz/60Hz

8.1.3 Wiring diagrams

Figure17



Remark: SB1 and SB2 are the closing and dividing buttons (user provided). P1 and P2 are external power terminals, when the external power supply is DC power, P1 is connected to "+" and P2 is connected to "-".

8.1.4 Installation diagram and dimensions of the electrically operated mechanism (see Figure18, Table 17)

Figure18

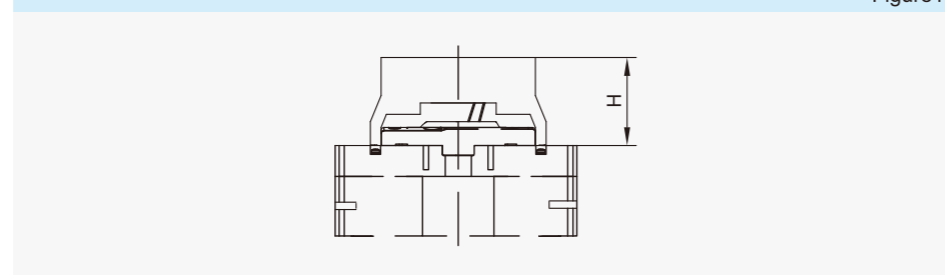


Table17

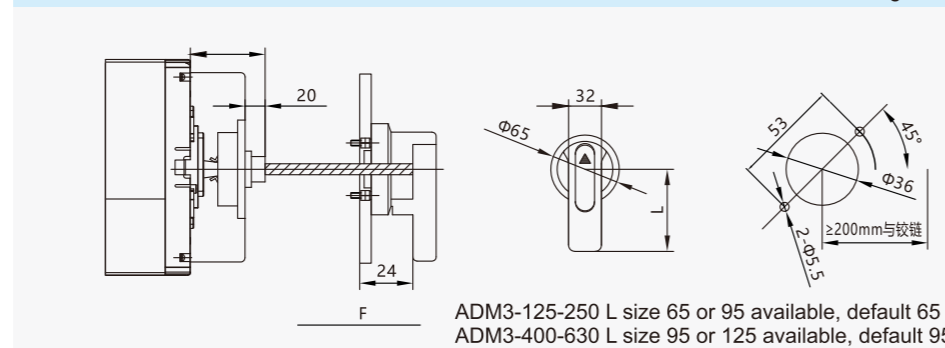
Type	125S L	125M H	250	400/630	800
Installation dimension H(mm)	93	97	97.5	154	154

8.2 Manually operated mechanisms

8.2.1 Function: A unique design and drive mechanism is used to achieve closing, breaking and re-buckling operation of the circuit breaker by rotation.

8.2.2 Installation diagram and dimensions of the manual operating mechanism (see Figure 19, Table 18)

Figure19



Remark: The connection bar at F is 150mm as standard, if you need special customisation, please contact the manufacturer.

Table18

Type	125SL	125MH	250SL	250MH	400/630LMH	800LMH
Installation dimension D(mm)	54	57	54	78	78	76

■ The cross-sectional area of the connecting conductor is matched to the rated current of the decoupler

9.1 Rated current of not more than 400 A and matching cross-sectional area of the connecting conductor (see Table 19) Table 19

Rated current (A)	16 20	25	32	40 50	63	80	100	125 140	160	180 200 225	250	315 350	400
Cross-sectional area mm ²	2.5	4.0	6.0	6.0	16	25	35	50	70	50	120	185	240

9.2 Rated current greater than 400 A and matching cross-sectional area of the connecting conductor (see Table 20) Table 20

Rated current (A)	Cable		Copper busbar	
	Cross-sectional area mm ²	Quantity	Dimensions mmxmm	Quantity
500	150	2	30×5	2
630	185	2	40×5	2
800	240	2	50×5	2

■ Transport and storage

10.1 Transport

The transport of the product should be protected from water, rain, snow or other harmful liquids such as chemical solvents and corrosive liquids and from mixing. Prevent strong impact and extrusion between liquids; yard in the direction indicated by the packaging, with no more than 4 layers.

10.2 Storage

Storage environmental conditions: ambient temperature -10°C~+45°C.

Relative humidity ≤ 90% (at an ambient temperature of +20°C).

The storage site should be free of dust and free of conductive dust.

Free from corrosive, flammable and explosive gases and free from rain and snow.

Dry and well ventilated.

Yarded in the direction indicated by the packaging, not higher than 4 layers.

■ Cautions

11.1 After normal operation, the product should be tested once a month and test records should be made.

11.2 The company will not be responsible for any non-quality problems caused by improper installation and use, or for the burning of terminals due to improper wiring.

11.3 If there is any problem in the use of the product, please contact the local distributor or our customer centre.