


## ZQM1 Molded case circuit breaker

### Applicable working environment and installation conditions

- ◇ The altitude of the installation site is 2000m and below;
- ◇ The temperature of surrounding medium shall not be higher than +40°C and not lower than -5°C; and the 24-hour average value shall not exceed 35°C (except for special orders);
- ◇ The relative humidity of the air at the installation place shall not exceed 50% when the maximum temperature is +40°C; There can be a higher relative humidity at a lower temperature. The average maximum temperature of the wettest month shall not exceed +25°C, and the average maximum relative humidity of the month shall not exceed 90%. The condensation on the product surface caused due to temperature change shall be considered.
- ◇ The pollution level is 3;
- ◇ Protection grade: IP20;
- ◇ The installation category of the main circuit of the circuit breaker is III, and the install category of the auxiliary circuit and control circuit not connected to the main circuit is II;
- ◇ In the place where there is no explosion medium and there is no gas and conductive dust that can corrode metal and damage insulation;
- ◇ In the place free from rain and snow;
- ◇ The circuit breaker shall be installed according to the product instruction.

### Release mode and accessory code

Left side installation →



Right side installation ←

□ Right side installation

● Shunt release

→ Lead direction

■ Auxiliary contact

○ Undervoltage release

△ Phase loss protection release

Code name	Accessory name	Model		ZQM1-63、125		ZQM1-160、250		ZQM1-400、630		ZQM1-630、800		ZQM1-1250、1600	
		Number of poles		3	4	3	4	3	4	3	4	3	4
208、308	Alarm contact			← □ □		← □ □		← □ □		← □ □		□ □ →	
210、310	Shunt release			← ● □		← ● □		← ● □		□ □ ●		□ □ ●	
220、320	Auxiliary contact			← ■ □		← ■ □		← ■ □		← ■ □		□ □ ■	
230、330	Undervoltage release			□ □ ○	→	□ □ ○	→	□ □ ○	→	○ □ □	→	□ □ ○	→
240、340	Shunt release auxiliary contact			← ● ■	→	← ● ■	→	← ● ■	→	← ■ ●	→	← ■ ●	→
250、350	Shunt release Undervoltage release			← ● □ ○		← ● □ ○		← ● □ ○		← ○ □ ●		← ■ □ ○	
260、360	Two sets of auxiliary contacts			← ■ ■		← ■ ■		← ■ ■		← ■ ■		← ■ ■	
270、370	Auxiliary contact Undervoltage release			← ■ □ ○		← ■ □ ○		← ■ □ ○		← ○ □ ■		← ■ □ ○	
218、318	Shunt release Alarm contact			← □ ●		← □ ●		← ● □		← □ ●		← □ ●	
228、328	Auxiliary contact Alarm contact			← ■ □		← ■ □		← □ ■		← □ ■		← ■ □	
238、338	Undervoltage release Alarm contact			← □ ○		← □ ○		← □ ○		← ○ □		← ○ □	
248、348	Shunt release Auxiliary contact, alarm contact			← ■ ●		← ■ ●		← ● ■		← ■ ●		← ■ ●	
268、368	Two sets of auxiliary contacts, Alarm contact			← ■ ■		← ■ ■		← ■ ■		← ■ ■		← ■ ■	
278、378	Auxiliary contact, alarm contact of undervoltage release			← ■ □ ○		← ■ □ ○		← ■ □ ○		← ○ □ ■		← ○ □ ■	
380、480	Phase loss protection release			← ● △		← ● △		← ● △					

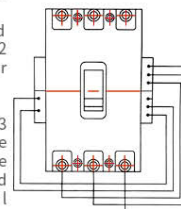
## ZQM1 Molded case circuit breaker

### Note:

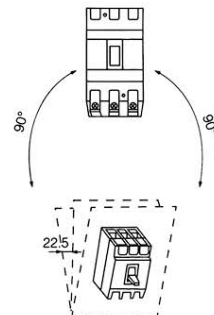
- ◇ 200: circuit breaker body with only electromagnetic release;
- ◇ 300: circuit breaker body with thermal-electromagnetic release;
- ◇ 000: circuit breaker body without tripping release;
- ◇ For ZQM1-125 and 250 bipolar products, there are only 210,310,220,320,230, and 330;
- ◇ For ZQM1-63 and 125 level ZQM1-250 four-pole circuit breakers, there is no 240, 340, 260, 360, 218, 318, 248, 348, 268 and 368 when the N pole is Type A and D;
- ◇ For ZQM1-400, ZQM1-630 and ZQM1-800, 1250 and 1600, the auxiliary contacts in 248, 348, 278 and 378 specifications are one pair of contacts (i.e. one normally open and one normally closed), and the auxiliary contacts in the 268 and 368 are three pairs of contacts;
- ◇ 630H, 800H(M) auxiliary alarm and alarm test run;
- ◇ There are only five types of shell frames of ZQM1-63, 125, 250, 400 and 630, for the phase loss protection release, which must be used together with the shunt release

### Wiring instructions of phase failure protection release:

1. u1 and u2 are connected to uc1 and uc2 respectively for power supply;
2. The sample-limiting power L1, L2 and L3 of the phase failure protection module are respectively connected to the load terminal phase 2,4 and 6 of the product.



### Protection characteristics



- ◇ Thermal release of circuit breaker has inverse time characteristic;
- ◇ The electromagnetic release is instantaneous action, and its characteristic (for power distribution)

Rated current of release (A)	The thermal release (ambient temperature: land +40°C, marine +45°C) is 1.05I <sub>n</sub>		Action current (A) of electromagnetic release
	1.05I <sub>n</sub> (cold) inactivity time (h)	1.30I <sub>n</sub> (hot) action time	
I <sub>n</sub> ≤ 63	≥ 1	< 1	10I <sub>n</sub> ± 20%
63 < I <sub>n</sub> ≤ 125	≥ 2	< 2	
125 < I <sub>n</sub> ≤ 800	≥ 2	< 2	5I <sub>n</sub> ± 20%, 10I <sub>n</sub> ± 20%
1250, 1600	≥ 2	< 2	4I <sub>n</sub> ± 20%, 7I <sub>n</sub> ± 20%

- ◇ The electromagnetic release is instantaneous action with characteristics (for motor protection)

Rated current of release (A)	Thermal release (ambient temperature land +40°C and marine +45°C)				Action current (A) of electromagnetic release
	1.0I <sub>n</sub> (cold) inactivity time (h)	1.20I <sub>n</sub> (hot) action time (h)	1.50I <sub>n</sub> (hot) action time (h)	7.2I <sub>n</sub> (hot) action time (h)	
10 ≤ I <sub>n</sub> ≤ 225	≥ 2	< 2	4min	2s < T <sub>p</sub> ≤ 10s	12I <sub>n</sub> ± 20%
225 < I <sub>n</sub> ≤ 1600			8min	4s < T <sub>p</sub> ≤ 20s	

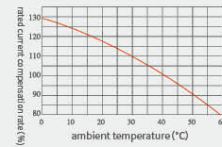
### Main technical performance indicators

Model	Rated current (A)	Number of poles	Rated isolation voltage (V)	Rated working voltage (V)	Flashover distance (mm)	Rated ultimate short-circuit breaking capacity I <sub>cu</sub> (kA)	Rated operating short circuit breaking capacity I <sub>cs</sub> (kA)	Operating performance (times)	
								Power on	Power off
ZQM1-63L	10、16、20、25	2、3poles	800	660 and below	0(≤50)	25	18	2000	10000
ZQM1-63M	32、40、50、63	3、4poles			0(≤50)	50	35		
ZQM1-125L	16、20、25、32、40	1、2、3、4 poles			0(≤50)	35	25		
ZQM1-125M	50、63、80、100、125				0(≤50)	50	35		
ZQM1-125H					0(≤50)	85	50		
ZQM1-250L	100、125、140、160	1、2、3、4 poles			≤50	35	25	2000	10000
ZQM1-250M	180、200、225、250				≤50	50	35		
ZQM1-250H					≤50	85	50		
ZQM1-400L	225、250、315 350、400	1、3、4 poles			≤100	50	35		
ZQM1-400M					≤100	65	42		
ZQM1-400H					≤100	85	50		
ZQM1-630L					≤100	50	35	1000	5000
ZQM1-630M	400、500、630	≤100			65	42			
ZQM1-630H		≤100			100	65			
ZQM1-800M	630、700、800	3、4 poles			≤100	75	50		
ZQM1-800H					≤100	100	65		
ZQM1-1250H					800、1000、1250	≤120	65	32.5	1000
ZQM1-1600H	1000、1250、1400、1600	3、4 poles			≤120	100	65	1000	2000

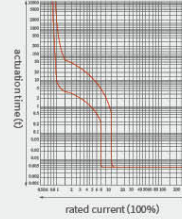
**ZQM1**  
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**Characteristic curve**

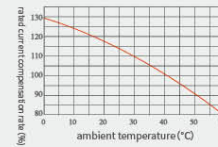
◇ ZQM1-63 and ZQM1-125:  
 current-temperature characteristic



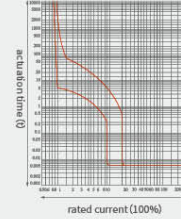
◇ ZQM1-63:  
 time/current characteristic curve



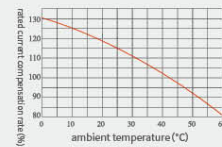
◇ ZQM1-63 and ZQM1-125:  
 current-temperature characteristic



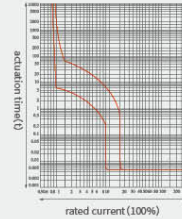
◇ ZQM1-125:  
 time/current characteristic curve



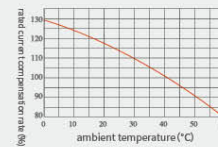
◇ ZQM1-250:  
 current-temperature characteristic



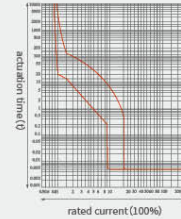
◇ ZQM1-250:  
 time/current characteristic curve



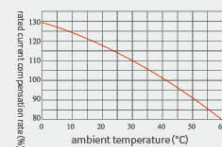
◇ ZQM1-400, ZQM1-630:  
 current-temperature characteristic



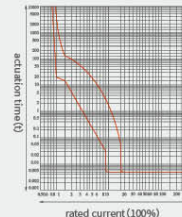
◇ ZQM1-400:  
 time/current characteristic curve



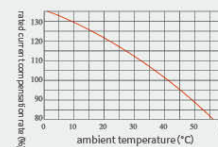
◇ ZQM1-400 and ZQM1-630:  
 current-temperature characteristic



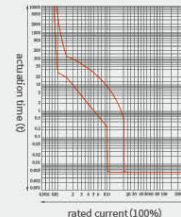
◇ ZQM1-630:  
 time/current characteristic curve



◇ ZQM1-800 and ZQM1-1600:  
 current-temperature characteristic



◇ ZQM1-800 and ZQM1-1600:  
 time/current characteristic curve



## ZQM1

### Molded case circuit breaker

#### Outline dimension table

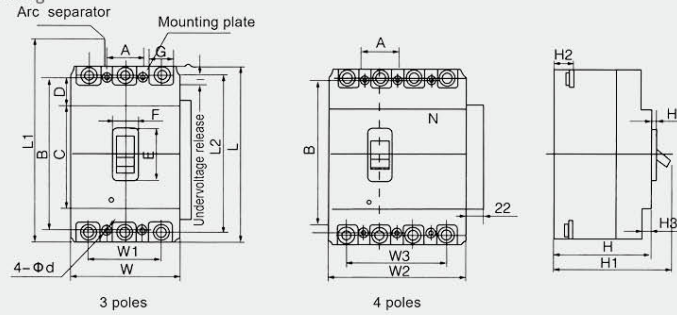
Model	ZQM1													
Product specification and model		Code	63L	63M	125L	125M/H	250L	250M/H	400C/L/M	400H	630L7M	630H	800M	800H
Specification	Unit	W	76	76	91	91	106	106	148	148	180	180	210	210
Front wiring boundary dimension	mm	W1	50	50	60	60	70	70	96	96	116	116	140	140
	mm	L	135	135	150	150	165	165	257	257	270	270	274	280
	mm	L1	154	154	199	199	230	230	356	356	370	370	385	480
	mm	L2	117	117	132	132	144	144	225	225	234	235	242.5	243
	mm	H	74	85	68	85	89	105	107	107	112	112	107	116
	mm	H1	89	98.5	87	102.5	109	126	151	151	156	156	149	152
	mm	H2	18	27.5	24	24	24	24	37	38	45	45	43	45
	mm	H3	14	14	18	18	13	13	42	42	36	36	12.5	8
	mm	H4	4	4	4	4	4	4	7	7	7	7	4.5	4.5
	mm	C	85	85	88	88	102	102	128	174	134	184	154	204
	mm	D	16.5	16.5	23.5	23.5	21.5	21.5	33	25	33	25	19	19
	mm	E	48	48	58	58	58	50	89	89	89	89	106	82
	mm	F	22	22	22.5	22.5	25	22	65	65	65	65	66	66
	mm	G	14	14	17	17	23	23	32	32	44	44	44	45
	mm	I	7.5	7.5	8	8	9	9	14.5	12.5	15	14	11	14
	mm	W2	103	103	121	121	141	141	197	197	240	240	280	280
	mm	W3	75	75	90	90	105	105	144	144	173.5	174	210	210
	mm	L3	117	117	132	132	144	144	225	225	234	235	243	243
Rear wiring boundary dimension	mm	L4	117	117	129	129	126	126	194	194	201	201	243	243
	mm	H5	25	25	68	68	76	73	66	66	68	68	87	87
	mm	H6	49.5	49.5	102	102	110	110	102	102	124	124	87	87
	mm	ΦD	6.5	6.5	24	24	24	24	32	32	48	48	48	48
	mm	M	M6	M6	M8	M8	M10	M10	M12	M12	M16	M16	M16	M16
	mm	L5	125	125	92	92	94	94	170	170	170	170	176.5	176.5
Plug-in boundary dimensions	mm	L6	135	135	168	168	185	185	279	279	299	299	302	302
	mm	H7	27.5	27.5	50	50	50	50	60	60	60	60	88	88
	mm	H8	36	36	65	65	68.5	68.5	84	84	92	92	88	88
	mm	H9	43	43	77	77	86.5	86.5	105.5	105.5	112	112	104	104
	mm	H10	8	8	14	14	14	14	18.5	18.5	20	20	20	20
	mm	J	60	60	56	56	54	54	129	129	123	123	142	142
	mm	K	50.5	50.5	60	60	70	70	60	60	125	125	90	90
	mm	Φd1	5.5	5.5	6.5	6.5	6.5	6.5	8.5	8.5	8.5	8.5	10	10
mm	M1	M5	M5	M8	M8	M8	M8	M12	M12	M12	M12	M12	M12	
Installation dimension	mm	A	25	25	30	30	35	35	44	44	58	58	70	70
	mm	B	117	117	129	129	126	126	194	194	201	201	243	243
	mm	Φd	3.5	3.5	4.5	4.5	5	5	7	7	7	7	7	7



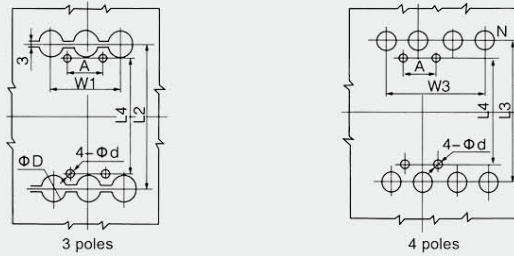
ZQM1  
 Molded case circuit breaker

ZQM1-63 ~ 800 outline and installation dimensions

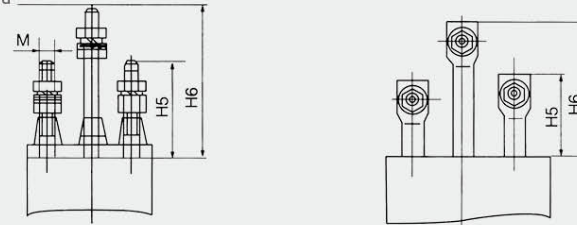
◇ Front plate wiring



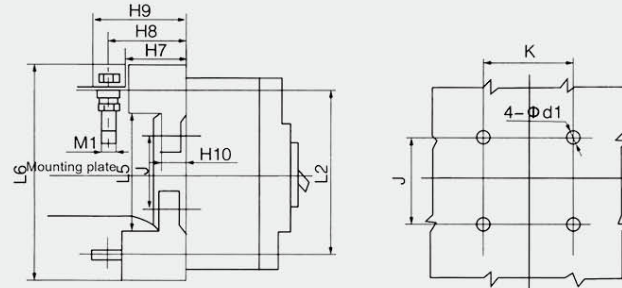
◇ Hole drawing for wiring behind the board



◇ Wiring behind the board

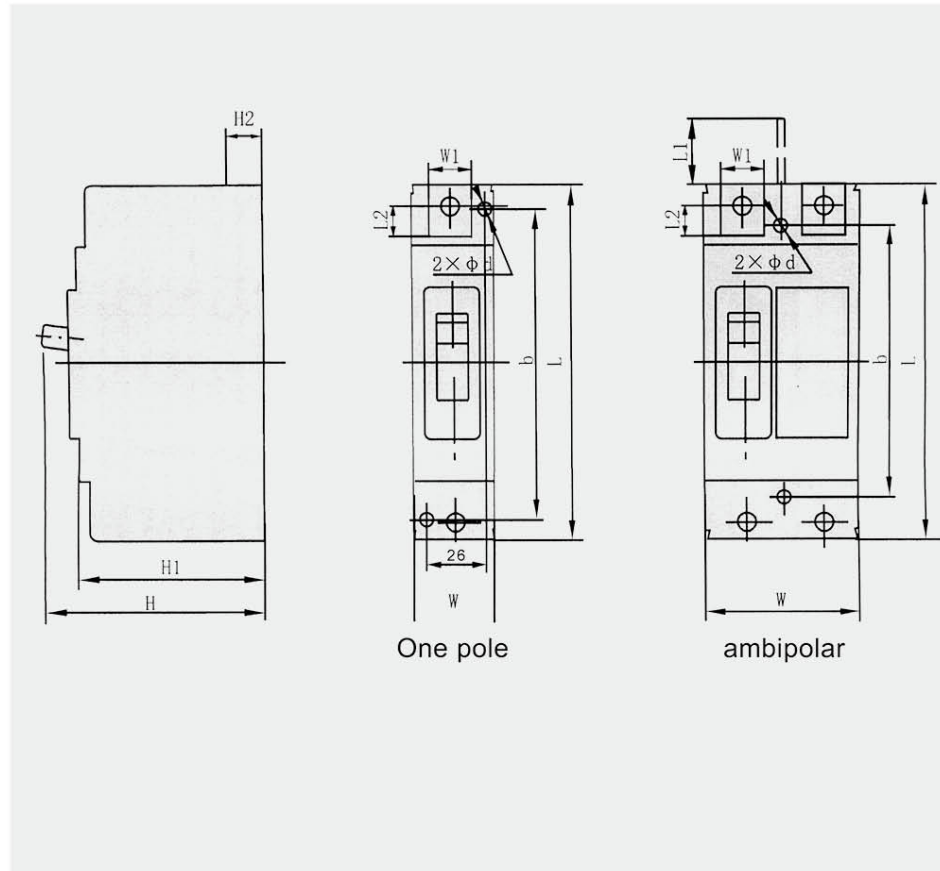


◇ Plug-in



**ZQM1**  
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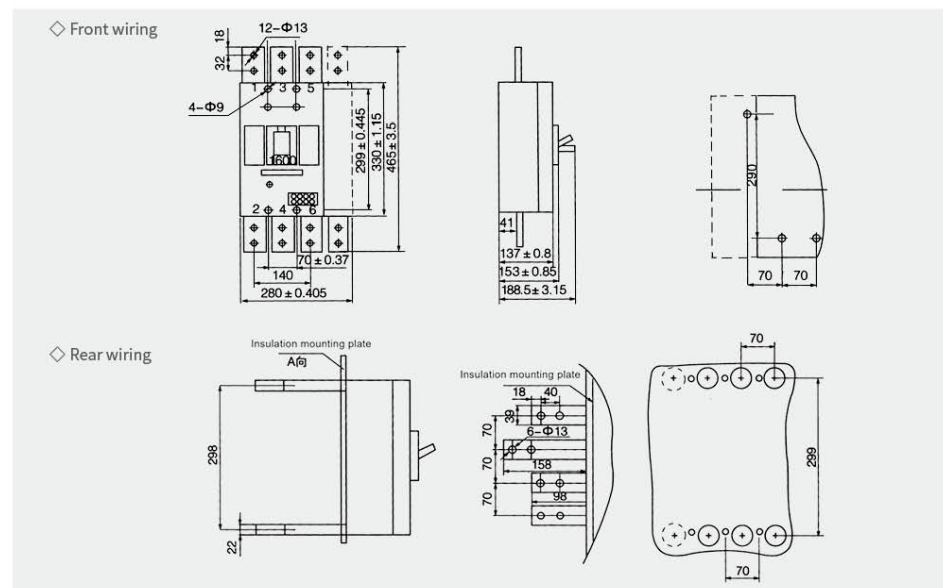
**ZM1-125/250/1p/2p-400/1p fixed plate front boundary dimensions and installation dimensions**



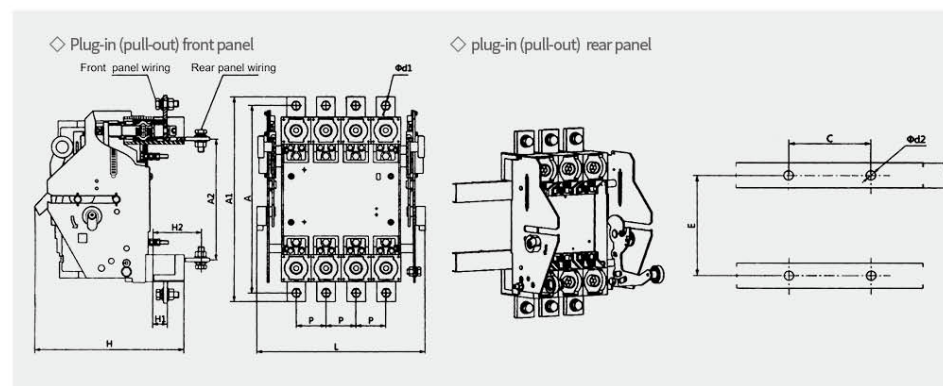
Model	Digital pole	Boundary dimensions								Installation dimensions	
		L	L1	L2	W	W1	H*	H1*	H2*	b	d
ZQM1-125	1	150	-	7	39	17.5	103.5	87	24	129	4.5
	2	150	51	7	65	17.5	103.5	87	24	129	4.5
ZQM1-250	1	165	-	9	43	23	124.5	104	24.5	126	5.5
	2	165	64	9	74	23	124.5	104	24.5	126	5.5
ZQM1-400	1	257	-	14.5	80	32	151	107	37	194	7

**ZQM1**  
 Molded case circuit breaker

**QM1-1250 ~ 1600 appearance and installation dimensions**



**QM1-1250 ~ 1600 Plug-in (pull-out) front and back panels**



Pull-out front/rear plate

Model	A	A1	A2	H	H1	H2	P	L	C	E	Φd1	Φd2
ZQM1-1250/3P	485	515	261	280	29	48	70	265	140	140	Φ13.5	Φ9
ZQM1-1600/3P												

**ZQM1**  
 Molded case circuit breaker

**Lineup coefficient**

Attachment name	Envirmental temperature	+40°C (marine +45°C)	+45°C (marine +50°C)	+50°C (marine +55°C)	+55°C (marine +60°C)	+60°C (marine +65°C)
	Coefficient	Lineup coefficient	Lineup coefficient	Lineup coefficient	Lineup coefficient	Lineup coefficient
ZQM1-63(L/M)		1In	0.94In	0.88In	0.80In	0.72In
ZQM1-125(L/M/H)		1In	0.95In	0.89In	0.84In	0.76In
ZQM1-250(L/M/H)		1In	0.96In	0.91In	0.87In	0.82In
ZQM1-400(L/M/H)		1In	0.94In	0.87In	0.81In	0.73In
ZQM1-630(L/M/H)		1In	0.93In	0.88In	0.83In	0.76In
ZQM1-800(M/H)		1In	0.88In	0.83In	0.79In	0.76In
ZQM1-1250H		1In	0.89In	0.85In	0.77In	0.7In
ZQM1-1600H		1In	0.87In	0.80In	0.74In	0.69In

Note: The above lineup coefficients are measured under the rated frame current .

**Internal accessories**

◇ Internal accessories

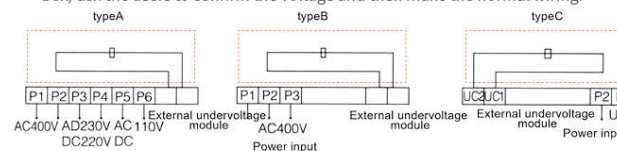
The internal accessories of the circuit breaker can directly lead out wiring according to the user's needs, the circuit breaker accessories can be directly wired out, or add a lead out terminal block.

Type A: one specification with five voltage levels: AC 50hz 110v 230v 400v; DC 110V 220V ;

Type B: (three-phase protection) one specification: AC50Hz 400V;

Type C: two specifications: AC50Hz AC230V or 400V.

The wiring diagram ( the inner accessories of the switch are shown in the dotted box) ask the users to confirm the voltage and then make the normal wiring.



◇ Undervoltage shunt release power

Under 35%~70% of the rated working voltage, the under voltage release shall reliably trip the circuit breaker;

When the rated working voltage is 85%~110%, the under voltage release shall ensure that the circuit breaker can be closed;

When the rated working voltage is lower than 35%, the undervoltage release shall prevent the circuit breaker from closing.

Warning:The undervoltage release must be powered on before the circuit breaker can be tripped and closed again. Otherwise, the switch will be damaged!

Note: The specifications in the red box above are under trial operation.



Equipped with circuit breaker	Undervoltage release power (w)	
	AC230V	AC400V
ZQM1-63	3.5	3.3
ZQM1-125	2.6	3.3
ZQM1-250	3.8	3.3
ZQM1-400	3.7	2.7
ZQM1-630	2.3	2.7
ZQM1-800	2.5	2.8
ZQM1-1250 1600	3.0	3.3



**ZQM1**  
 Molded case circuit breaker

Internal accessories

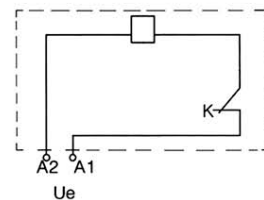


◇ Shunt release

Line diagram (the internal accessories of the switch are in the dotted frame)

Specifications: AC 50Hz, 230V or 400V; 220V DC

When DC 220V is between 70-110% of the rated control power supply voltage, the shunt release shall reliably trip the circuit breaker.



K: The microswitch in series with the coil inside the shunt release is normally closed. When the circuit breaker is opened, the contact will automatically open and close when it is closed.

◇ Alarm contact



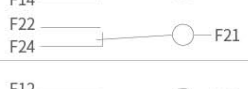

B11 and B12 are normally closed in the "opening and closing" state.



B11 and B14 are normally closed under "free tripping" status



◇ Alarm contact

The circuit breaker is in the "off" position		Circuit breaker with frame level current of 400A and above (one group is four pairs of contacts)
		Circuit breakers with shell level current of 225A and below (one group is two pairs of contacts)
The circuit breaker is in the "on" position		Circuit breaker with frame level current of 400A and above (one group is four pairs of contacts)
		Circuit breakers with frame level current of 225A and below (one group is two pairs of contacts)

◇ Rated current of auxiliary contact

Rated current of shell frame	Agreed heating current (Ith)	rated working current at AC400V (Ie)
≥ 400A	6	1
≤ 225A	3	0.3

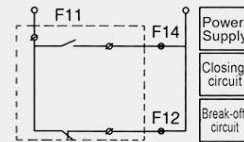
Use category	Put through			Breaking			Frequency	Operating frequency/hour	Power on time (s)
	I/Ie	U/Ue	COSΦ	I/Ie	U/Ue	COSΦ			
AC-15	10	1	0.3	1	1	0.3	6050	360	≥ 0.05

Use category	Put through			Breaking			Frequency	Operating frequency/hour	Power on time (s)
	I/Ie	U/Ue	COSΦ	I/Ie	U/Ue	COSΦ			
DC-13	10	1.1	0.3	10	1.1	0.3	10	120	≥ 0.05

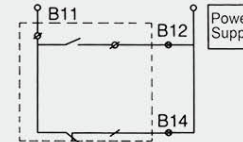
## ZQM1 Molded case circuit breaker

### Internal attachment

◇ Wiring diagram of auxiliary contacts (internal accessories of switch in virtual frame)

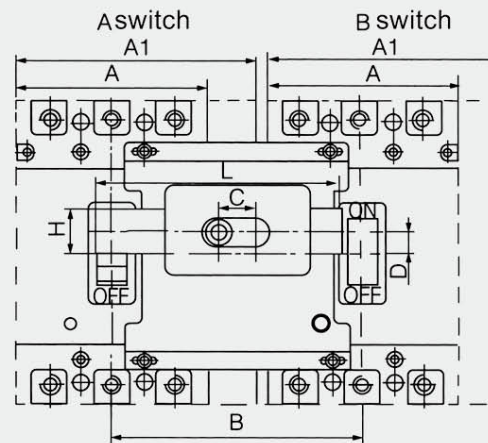


◇ Alarm wiring diagram (the virtual box is the internal accessory of the switch)



When the circuit breaker is normally closed, the alarm contact does not act. Only after free tripping (or fault tripping), the alarm will be given, and the contact will change its original position, that is, normally open to normally closed, normally closed to normally open, B12 lights up and B14 lights out. After the circuit breaker is buckled again, the alarm contact will return to the original state.

◇ External accessories of circuit breaker  
Mechanical interlocking mechanism of two circuit breakers

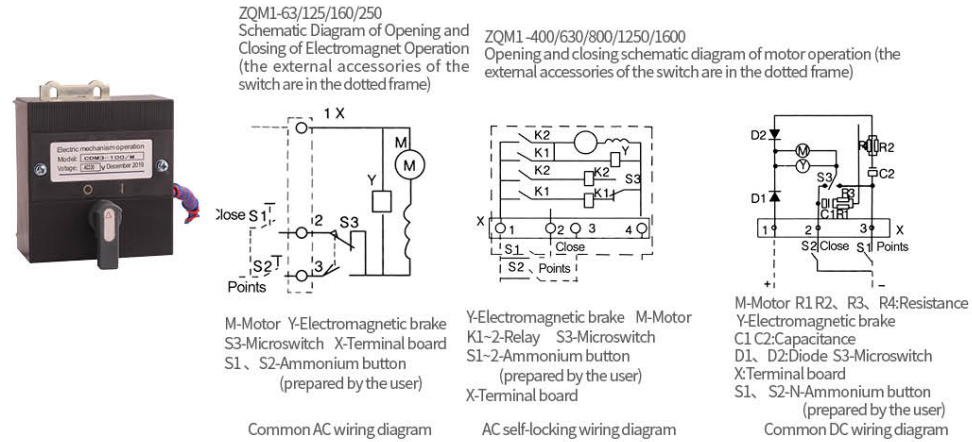


Product name	A	A1	B	C	D	L	H	Remarks
ZQM1-63	78		102	18	13	95	22	Used for ZQM1-63L M
ZQM1-125	92		120	18	11.5	118	22	Used for ZQM1-125L M H
ZQM1-250	107		135	18	9	130	22	Used for ZQM1-250L M H
ZQM1-400	150		190	42	16	175	22	Used for ZQM1-400L M
ZQM1-630	182		220	42	12	198	22	Used for ZQM1-630L M and 400H
ZQM1-800	210		240	42	3.5	230	22	Used for ZQM1-630H and 800M H
ZQM1-63/4P		103	132	18	13	125	22	Used for ZQM1-63 quadrupole
ZQM1-125/4P		122	152	18	11.5	150	22	Used for ZQM1-125 quadrupole
ZQM1-250/4P		142	173	18	9	168	22	Used for ZQM1-250 quadrupole
ZQM1-400/4P		198	240	42	16	225	22	Used for ZQM1-400M quadrupole
ZQM1-630/4P		240	280	42	12	258	22	Used for ZQM1-630 quadrupole

## ZQM1 Molded case circuit breaker

### Internal attachment

#### ◇ Electric mechanism operation

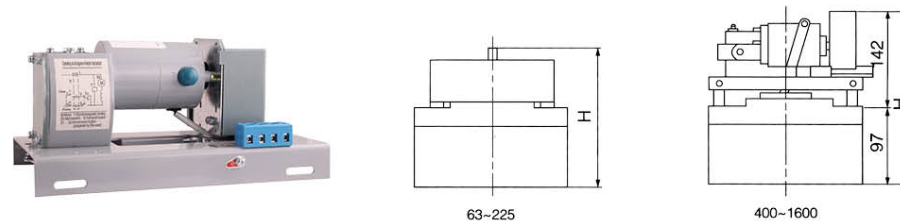


#### ◇ Electric mechanism operation

Starting current of matched circuit breaker(A)	Starting power (w)	Life/time	Rated working current at AC400V (Ie)
ZQM1-63(L M)	<5	1100	10000
ZQM1-125(L M H)	<7	1540	10000
ZQM1-250(L M H)	<8.5	1870	8000
ZQM1-400(L、M、H)	<5.7	1200	5000
ZQM1-630(L、M、H)	<5.7	1200	5000
ZQM1-800(M、H)	<7.5	2000	3000
ZQM1-1250	<8.5	2500	3000
ZQM1-1600	<8.5	2500	3000

Note: After the circuit breaker trips, the electric operating mechanism must make the circuit breaker trip again before closing.

#### ◇ Height of electric operating mechanism



#### ◇ Total height of circuit breaker after installing electric operating mechanism

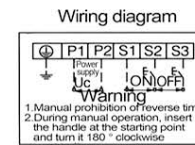
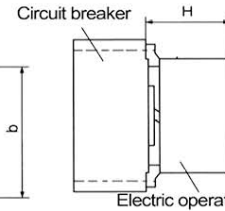
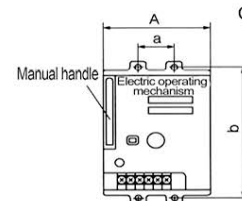
Model	ZQM1-63L	ZQM1-63M	ZQM1-125L	ZQM1-125M、H	ZQM1-250L	ZQM1-250M、H	ZQM1-400L	ZQM1-400M、H	ZQM1-630L、M、H	ZQM1-800M、H	ZQM1-1250 1600
Height	157	166	155	170	178	196	235	236.5	240	230	268

## ZQM1 Molded case circuit breaker

### Internal accessories

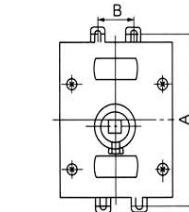
- ◇ CD2 electric operating mechanism  
Features and applications: CD2 series electric operating mechanism adopts advanced switching power supply technology and is driven by small permanent magnet motor. It can be used for both AC and DC, with small working current, and is suitable for 63-800A molded case circuit breaker.
- ◇ Outline dimensions and installation diagram of CD2 electric operating mechanism

Operating mechanism model	Overall installation dimension (mm)				Rated voltage (V)	Action current (A)	Mechanism life (times)	Motor power (W)
	a	b	A	H				
CD2-63/ M	25	117	74	90	AC 230/110V DC 250/110V or DC 24V	≤ 0.5	14000	14
CD2-125/ M	30	129	90	92				
CD2-250/ M	35	126	90	93				
CD2-400/ M	44	194	130	143				
CD2-630/ M	58	201	130	143	AC 230/110V DC 250/110V or DC 24V	≤ 2.0	5000	35
CD2-800/ M	70	243	130	147				
CD2-1250/ M	70	300	130	153				
CD2-1600/ M	70	300	130	153				

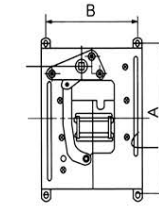


### Operating mechanism characteristics of rotary handle

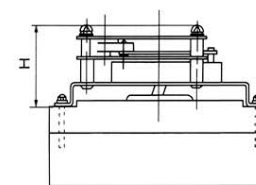
- ◇ Features of rotating handle operating mechanism  
The operating mechanism adopts a unique design and transmission mechanism, and the breaking, closing and retripping of the molded case circuit breaker are realized by rotating the handle. Flexible and stable operation, small operating force, convenient installation, and no need to adjust the overall performance and quality of the mechanism are superior to other similar products. At the same time, the mechanism is provided with a rotary handle. In order to meet the use requirements of different users, our factory can provide CSI series, ZQM1 (CS2) series and CZ series of operating mechanisms for selection (three -pole products and four-pole products are common).
- ◇ Purpose  
This mechanism is specially used for ZQM1 series molded case circuit breakers to achieve the requirements for drawer cabinets, distribution cabinets, power boxes, etc. to operate on the panel by rotating the handle, and to ensure that the door panel of the cabinet can not be opened when the circuit breaker is closed (i.e. interlocked with the door).  
Note: The upper part of the figure is the incoming line end; the operating machinery with square shaft at the center is suitable for vertical and horizontal installation.
- ◇ Refer to the following figure for the relative dimensions and installation dimensions of the operating mechanical model operating lever and the center of the circuit breaker:



ZQM1-63 Operating mechanism



ZQM1-125、250、400、630、800 Operating mechanism



Operating mechanism height

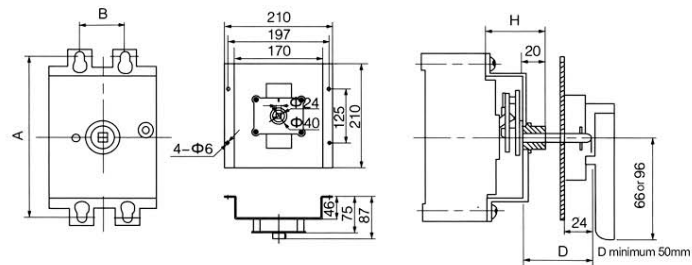


## ZQM1 Molded case circuit breaker

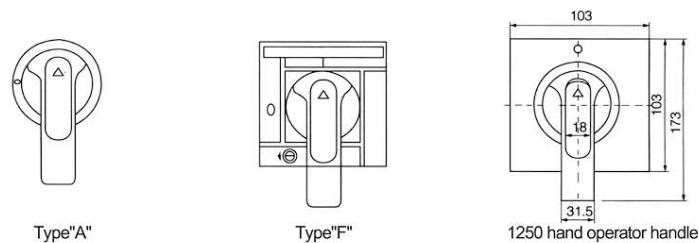
### Rotating handle operating mechanism

◇ The operating mechanism is also equipped with CS1 series (divided into metal type and plastic type structures) for users to use the shape and size first.

Operating mechanism model	A	B	H
ZQM1-63(CZ3-138)	102	25	50
ZQM1-125A(CS2-125/M)	104	30	45
ZQM1-250A(CS2-250/M)	142	35	47
ZQM1-400A(CS2-400/ML)	194	138	88
ZQM1-630A(CS2-630/M)	200	168	98
ZQM1-800A(CS1-800/M)	245	198	87
ZQM1-1600A(CS1-1250/1600)	125	197	87

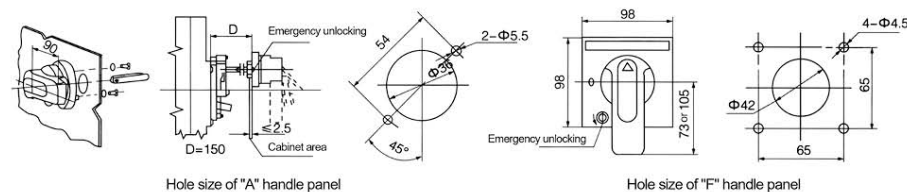


### Handle diagram



- ◇ For the same mechanism of CS1 series and ZQM1 (CS2) series, two kinds of handles can be selected for operation: one square handle is called "F" handle, and the other round handle is called "A" handle for short. (As shown in the figure) "A" handle features;
- ◇ Simple structure and convenient installation. It also has the function of consistent opening of panels with different specifications of corresponding circuit breakers. "F" handle features;
- ◇ When the circuit breaker is equipped with undervoltage release and in the tripping position, the cabinet door can be closed and the cabinet door can be opened by emergency unlocking. The corresponding circuit breakers have different specifications, and the opening of the door panel is consistent.

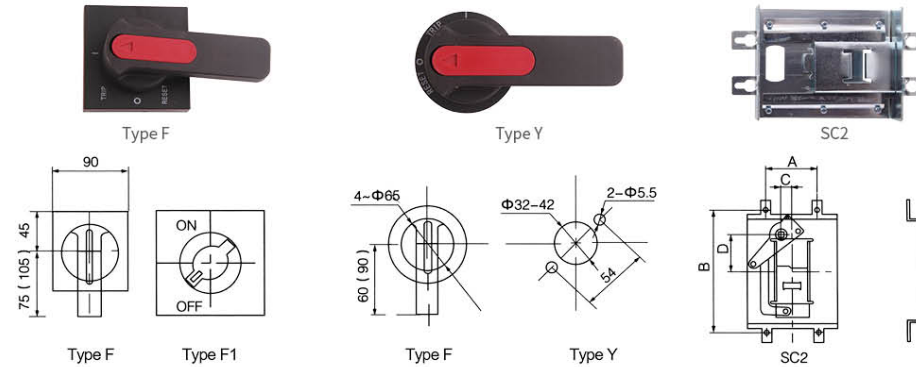
Note: The special specification of square shaft length shall be noted when ordering, and the long charge D=150 is generally provided.



## ZQM1 Molded case circuit breaker

### Handle diagram

◇ The operating mechanism is additionally equipped with SC2 eccentric operating mechanism series for users to select the shape and size



◇ Equipped with ZQM1 series SC2 eccentric operating mechanism

Manual operation model	Installation dimensions			
	A	B	C	D
SC2(Y F)-63M	25	100	0	35
SC2(Y F)-125M	30	104	11	35
SC2(Y F)-250M	35	144	11	35
SC2(Y F)-400M	138	195	15	60
SC2(Y F)-630M	172	81	15	60
SC2(Y F)-800M	198	242	15	60

### Test current and the section area of conductor

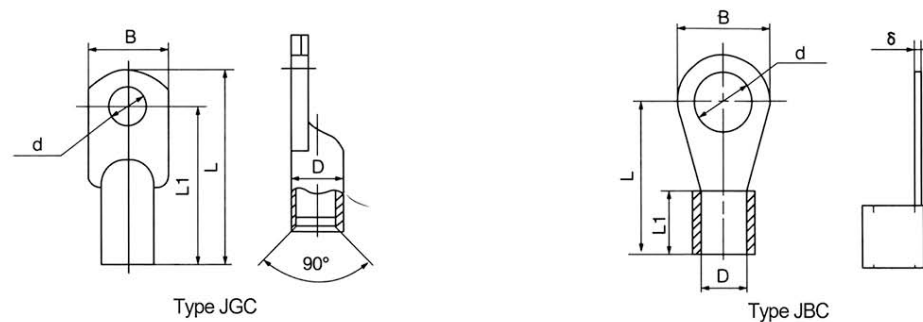
The section area of the connecting conductor for temperature rise test and the corresponding test current

Rated current value A	10	16.20	25	32	40.50	63	80	100	125	140	160	180.200.225	250	315	400
Section area of conductor mm <sup>2</sup>	1.5	2.5	4	6	10	16	25	35	50	50	70	95	120	185	240

Rated current value A	Cable section area mm <sup>2</sup>		Copper bar size	
	Quantity	Section area mm <sup>2</sup>	Quantity	Dimension
500	2	150	2	30x5
630	2	185	2	40x5
700.800	2	240	2	50x5
1000			2	60x5
1250			2	80x5
1600			2	100x5

**ZQM1**  
 Molded case circuit breaker

**Boundary dimension and installation drawing**



**Terminal model**

◇ The terminals blocks are divided into JGC, JBC and JB models for users to choose from.

Model	Current A	Section area of conductor mm <sup>2</sup>	Terminal model	B	L	L1	D	d
ZQM1-63	63	16	JGC16-25	12	38	31.5	Φ6	Φ 8.2
ZQM1-125	10.16.20	2.2	JGC2.5-8	15	28	8.5	Φ2.6	Φ 8.2
	32	6	JGC6-8	15	30	10	Φ3.5	Φ 8.2
	40.50	10	JGC10-8	15	32	11	Φ4.5	Φ 8.2
	63	16	JGC16-8	17	41	33.5	Φ6	Φ 8.2
	80	25	JGC25-8	17	46	38.5	Φ7	Φ 8.2
	125	35	JGC35-8	17	52	44.5	Φ8	Φ 8.2
ZQM1-250	125	50	JGC50-8	22	54	45	Φ10	Φ 8.2
	180.200.225	95	JGC95-8	22	66	57	Φ13	Φ 8.2
	250	120	JGC120-8	22	66	57	Φ13	Φ 8.2

Note: JB2.5-5 is adopted for specifications 10, 16 and 20A in ZQM1-63; JB6-5 is adopted for 32A specification; JB10-5 terminal blocks are used for 40A and 50A specifications

**Ordering instructions**

- ◇ If "F" handle is selected, model CS1 and ZQM1 (CS2) are not marked with "F". Such as CS1-125/M, CS2-125/M, etc;
- ◇ If "A" handle is selected, "A" shall be added to the model. They are CS1A and CS2A. Such as CS1A-250/M, CS2A-250/M, etc.

◇ Warn users:

Manual operating mechanism must be ordered from our company to ensure the quality.

If the user purchases by himself, please select the manufacturer with reliable quality, otherwise the company will not be responsible for any adverse consequences after assembly.

Note: Due to the continuous improvement of product technology, all data should be subject to the latest data confirmed by our company. In case of any change, no further notice will be given.