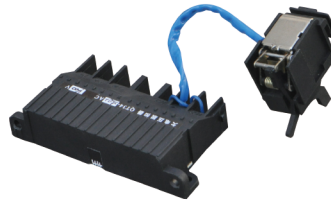


TGM3 Series Moulded Case Circuit Breaker

- 1 Body
- 2 Flame arresting chamber (optional to customers)
- 3 Plug-in connection (optional to customers)
- 4 Flash barrier (standard)
- 5 Zero flashover cover (optional to customers)
- 6 Undervoltage release (optional to customers)
- 7 Shunt release (optional to customers)
- 8 Alarm contact (optional to customers)
- 9 Auxiliary contact (optional to customers)
- 10 Front-panel wiring transition plate (optional to customers)
- 11 Electric motor operating mechanism (optional to customers)
- 12 Rotary handle operating mechanism (optional to customers)







TGM3 Series Moulded Case Circuit Breaker

1 Product overview

TGM3 series moulded case circuit breaker (hereinafter referred to as circuit breaker) is one of the new circuit breakers researched and developed by us with international advanced technology. It has the characteristics of zero flashover, high breaking, box-type accessories, small and compact structure, green and environmental protection.

By rated limit short-circuit breaking capacity (Icu), the circuit breaker is divided into L type (standard), M type (relatively high breaking) and H (high breaking). It is an ideal product for power distribution and motor protection. It has the rated isolation voltage of 800V. It can be used for occasional circuit switch and startup of motor in circuits with the rated working voltage $\leq 690V$ and rated current of 16A-800A.

This series of circuit breakers are equipped with overload, short circuit and undervoltage protection devices, which can protect circuits and power devices from overcurrent or undervoltage damage. This series circuit breaker may be installed vertically (i.e., vertical installation) or horizontally (i.e., horizontal installation).

It has disconnecting function, with the corresponding symbol of:

The circuit breaker shall meet the standard: IEC 60947-1 and IEC 60947-2

2 Type designation

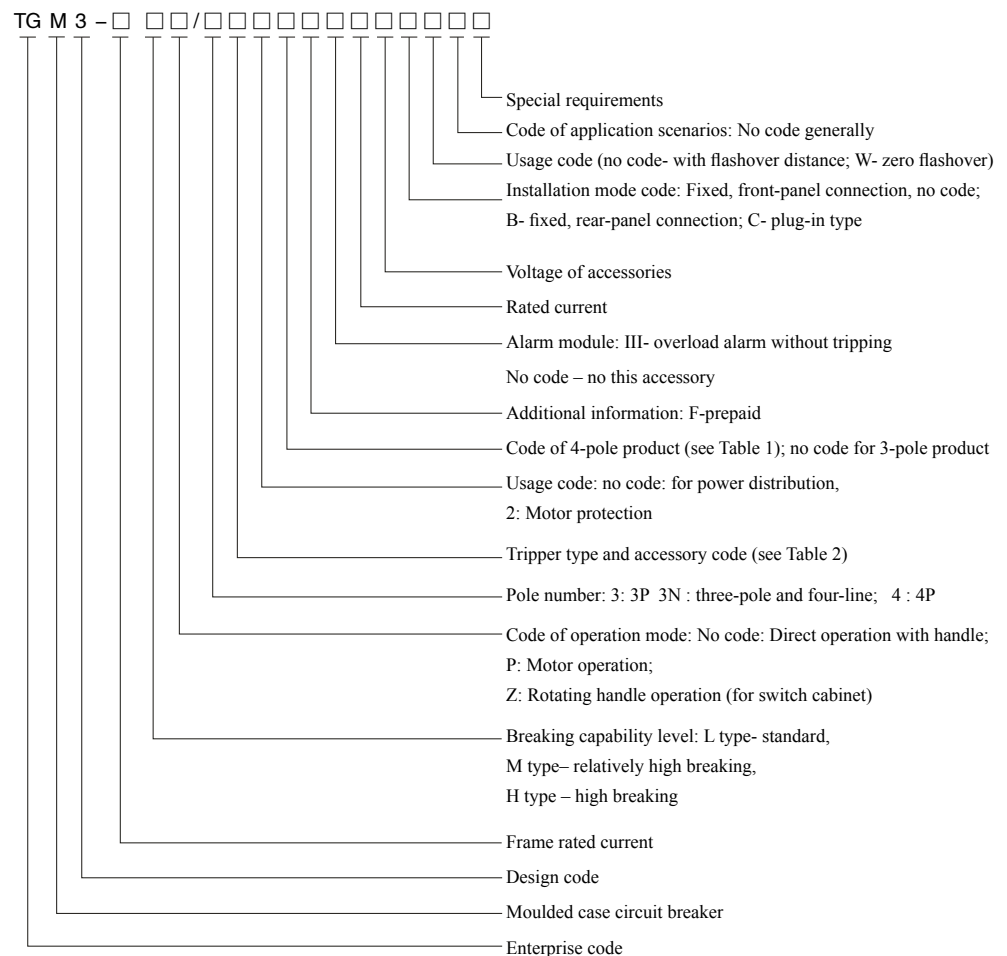
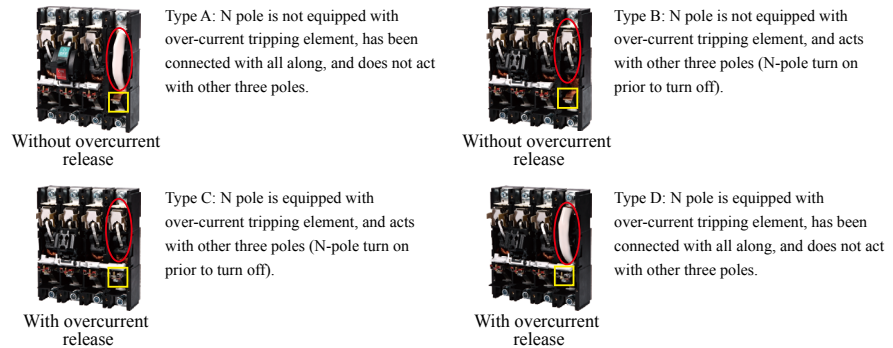


Table 1

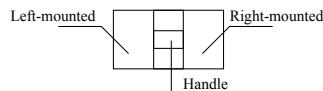
Code	Statement	Example
Type A	N pole is not equipped with over-current tripping element, has been connected with all along, and does not act with other three poles	3N300A
Type B	N pole is not equipped with over-current tripping element, and acts with other three poles (N-pole turn on prior to turn off)	4300B
Type C	N pole is equipped with over-current tripping element, and acts with other three poles (N-pole turn on prior to turn off)	4300C
Type D	N pole is equipped with over-current tripping element, has been connected with all along, and does not act with other three poles	3N300D

TGM3 Series Moulded Case Circuit Breaker

View of codes of 4-pole product



Code of release and accessories



Alarm contact ● Auxiliary contact ○
Shunt release ■ Undervoltage release ▲

Table 2

Accessory Name	Accessory Code		Accessory installation and lead mode							
			TGM3-125		TGM3-250		TGM3-400 TGM3-630 TGM3-800			
No accessories	200	300								
Alarm contact	208	308								
Shunt release	210	310								
Auxiliary contact	220	320								
Undervoltage release	230	330								
Shunt tripper Auxiliary contact	240	340								
Shunt release Undervoltage release	250	350								
Two groups of auxiliary contacts	260	360								
Auxiliary contact Undervoltage release	270	370								
Shunt release Alarm contact	218	318								
Auxiliary contact Alarm contact	228	328								
Undervoltage release Alarm contact	238	338								
Shunt release Auxiliary contact Alarm contact	248	348								
Two groups of auxiliary contacts Alarm contact	268	368								
Undervoltage release Auxiliary contact Alarm contact	278	378								

A set of auxiliary contacts include a NO contact and a NC contact for below 400 type; a set of auxiliary contacts include two NO contacts and NC contacts for 400 and above 400 types.

TGM3 Series Moulded Case Circuit Breaker

3 Product parameter

3.1 Product parameters (Table 3)

Table 3

Technical Specification																
Frame rated current		125			250			400			630			800		
Pole number		3P、3P+N、4P			3P、3P+N、4P			3P、3P+N、4P			3P、3P+N、4P			3P、3P+N、4P		
Frequency (Hz)		50			50			50			50			50		
Rated working voltage U _e (V)		400/550/690			400/550/690			400/550/690			400/550/690			400/550/690		
Rated insulation voltage U _i (V)		800			800			1000			1000			1000		
Rated impulse withstand voltage U _{imp} (kV)		8			8			12			12			12		
Rated working current I _n (A)		16A、20A、25A、32A、40A、50A、63A、80A、100A、125A			100A、125A、140A、160A、180A、200A、225A、250A			225A、250A、315A、350A、400A			400A、500A、600A、630A			400A、500A、600A、630A、700A、800A		
Breaking capability level		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Breaking capacity of rated limiting short circuit I _{cu} (kA)	AC400V	35	50	65	35	50	65	50	65	85	50	65	85	50	65	85
	AC550V	/	25	25	/	25	25	/	35	35	/	35	35	/	35	35
	AC690V	5	10	15	5	10	15	15	20	30	15	20	30	15	20	30
Breaking capacity of rated operating short circuit I _{cs} (kA)	AC400V	26	50	50	26	50	50	35	65	65	35	65	65	35	65	65
	AC550V	/	20	20	/	20	20	/	25	25	/	25	25	/	25	25
	AC690V	5	5	10	5	5	10	10	20	20	10	20	20	10	20	20
Isolating function		3P, 4P			3P, 4P			3P, 4P			3P, 4P			3P, 4P		
Use category		Category A			Category A			Category A			Category A			Category A		
Flashover distance (mm)	Have flashover distance	≤50			≤50			≤100			≤100			≤100		
	Zero flashover	0			0			0			0			0		
Mechanical life (times)	Maintenance-free	20000			20000			10000			10000			8000		
	Maintenance needed	40000			40000			20000			20000			10000		
Electrical life (times)		10000			10000			8000			8000			7500		

Accessories information					
Direct operation with handle	■ (Standard)	■ (Standard)	■ (Standard)	■ (Standard)	■ (Standard)
Extended rotating handle	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)
Motor-operated mechanism	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)
Shunt release	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)
Undervoltage release	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)
Auxiliary contact	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)
Alarm contact	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)
Fixed, front panel connection	■ (Standard)	■ (Standard)	■ (Standard)	■ (Standard)	■ (Standard)
Fixed, rear panel connection	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)
Plug-in, front panel connection (not optional to 4P products)	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)
Plug-in rear panel connection	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)
Transition bar	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)
Phase partition	■ (Standard)	■ (Standard)	■ (Standard)	■ (Standard)	■ (Standard)
Handle lock	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)
Zero flashover cover	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)

Note: Select zero flashover accessories to achieve zero flashover.

3.2 Inverse-time characteristic of circuit breakers for power distribution (Table 4)

Table 4

Name of test current	Rated current multiple	Conventional time		Initial state
		I _n ≤63A	I _n >63A	
Conventional non-tripping current	1.05 I _n	≥1h	≥2h	Cold state
Conventional tripping current	1.30 I _n	<1h	<2h	Thermal state

Note: Thermal state refers to the state after the conventional non-tripping current reaches the specified time.

TGM3 Series Moulded Case Circuit Breaker

3.3 Inverse-time characteristic of circuit breakers for motor protection (Table 5)

Table 5

Name of test current	Rated current multiple	Conventional time	Initial state
Conventional non-tripping current	1.0 I_n	$\geq 2h$	Cold state
Conventional tripping current	1.2 I_n	$< 2h$	Thermal state

Note: Thermal state refers to the state after the conventional non-tripping current reaches the specified time.

3.4 Short-circuit protection characteristics of the circuit breaker

The setting value of instantaneous action characteristic of circuit breakers for distribution is $10I_n \pm 20\%$.
The setting value of instantaneous action characteristic of circuit breakers for motor protection is $12I_n \pm 20\%$.

4 Normal working conditions and installation conditions

4.1 Temperature

4.1.1 The ambient air temperature shall be not higher than $+40^\circ\text{C}$ but shall not lower than -5°C , and the average temperature within 24 hours shall be not higher than $+35^\circ\text{C}$.

4.3.2 In special environment: The temperature shall not be $< -25^\circ\text{C}$ and $> +55^\circ\text{C}$.

4.3.3 Derate according to the attitude factors or contact us when the temperature is $> +40^\circ\text{C}$ and $< -5^\circ\text{C}$.

4.2 Altitude

4.2.1 The attitude for normal operation shall not exceed 2,000m.

4.2.2 Derate according to the attitude factors or contact us when the attitude is above 2,000m.

4.3 Humidity

4.3.1 The relative humidity of atmosphere shall be not more than 50% at the ambient air temperature of $+40^\circ\text{C}$. A higher relative humidity is allowed at the lower temperature.

4.3.2 The monthly average maximum relative humidity of the wettest month shall not exceed 90%, and the monthly average minimum temperature shall not exceed $+25^\circ\text{C}$.

4.3.3 Please consider the effect of condensation on product surface due to temperature changes on product performance.

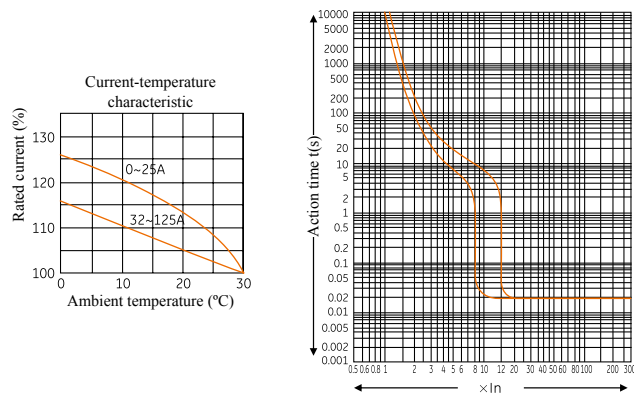
4.4 Pollution class: 3.

4.5 Installation class: III.

4.6 Installation conditions: The inclination with the vertical plane does not exceed 5° when installation of the circuit breaker.

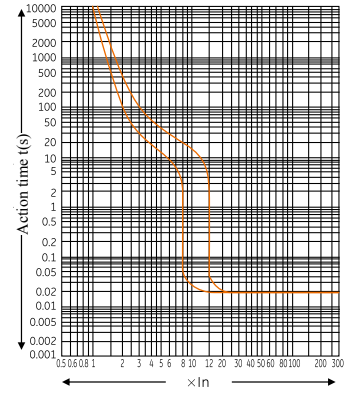
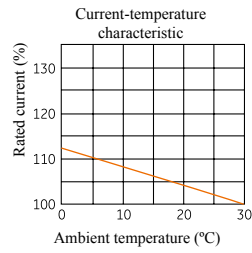
5 The protection characteristic curve of the circuit breaker

TGM3-125(L/M/H) time/current characteristic curve

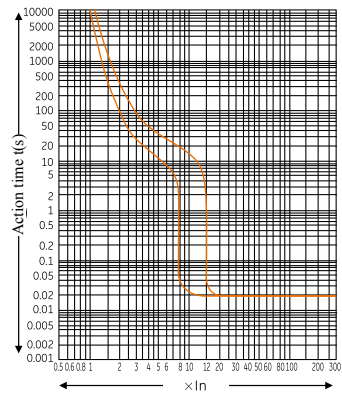
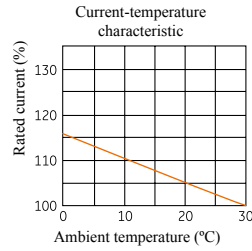


TGM3 Series Moulded Case Circuit Breaker

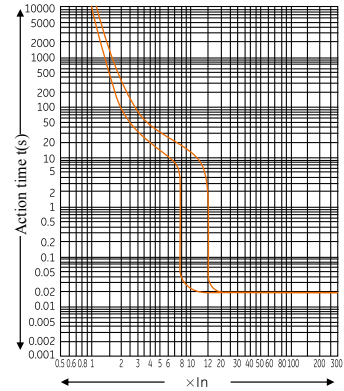
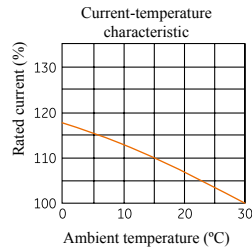
TGM3-250(L/M/H) time/current characteristic curve



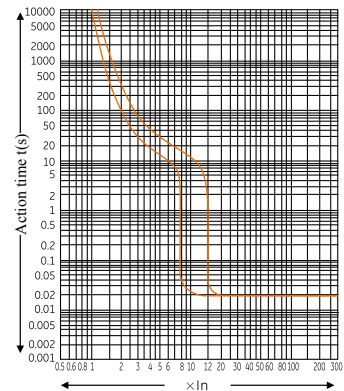
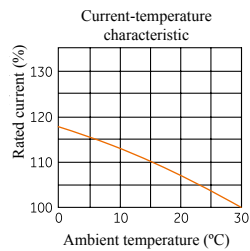
TGM3400 (L/M/H) time/current characteristic curve



TGM3-630(L/M/H) time/current characteristic curve



TGM3-800(L/M/H) time/current characteristic curve



TGM3 Series Moulded Case Circuit Breaker

6 Correction factors of the circuit breaker in special environment

6.1 Derating factors of temperature change (Table 6)

Table 6

Ambient temperature Factors	+40 C	+45 C	+50 C	+55 C	+60 C
Model	Derating factors	Derating factors	Derating factors	Derating factors	Derating factors
TGM3-125	1In	0.95 In	0.89In	0.84In	0.76In
TGM3-250	1In	0.95 In	0.90In	0.87In	0.82In
TGM3-400	1In	0.94In	0.87In	0.81In	0.73In
TGM3-630	1In	0.93In	0.88In	0.83In	0.76In
TGM3-800	1In	0.92In	0.86In	0.81In	0.75In

6.2 Effect of altitude change on the circuit breaker characteristics (Table 7)

When the altitude exceeds 2,000m, electrical performance of the circuit breaker can be modified according to the following table.

Table 7


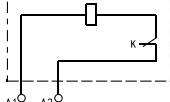
Altitude	2000m	3000m	4000m	5000m
Power frequency withstand voltage	3000V	2500V	2000V	1800V
Working current correction factor	1	0.94	0.88	0.83

7 Accessories

Product internal accessories

According to the needs of users, the circuit breaker accessories can be directly led out with wire (wire length of 50cm. For special requirements, please specify when ordering), or be equipped with terminal blocks (if needed, please specify when ordering).

Shunt Release (left-mounted and right-mounted)

	Rated control power supply voltage (Us)	AC: AC220/230V, AC380/400V DC: DC24V, DC110V, DC220V
	Action voltage	(0.7~1.1)Us
	Wiring Diagram: 	Note: K-The microswitch in the shunt release which is in series with the coil inside is normally closed contact; after opening of circuit breaker, the contact is automatically opened; at the closing, it is closed.
<p>When the rated control power supply voltage is DC24V, the shunt release can be used directly. The maximum length is 150m for 1.5mm² copper lead (the length of each of the two leads) and 250m for 2.5mm² copper lead. The power at the terminal of the release shall meet the minimum power of 50W, or a DC24V intermediate relay shall be used for controlling AC230V or AC400V shunt release, and the contact capacity of the intermediate relay shall be no less than 1A.</p>		

● Prepaid meter shunt release

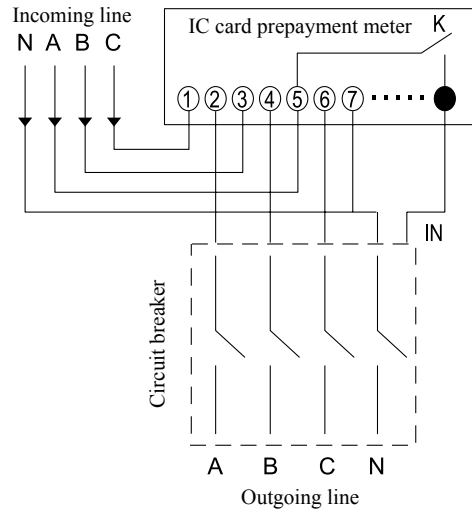
1. Difference between prepaid shunt release and ordinary shunt release: After the ordinary shunt release is powered on, the iron core pulls in and drives the product to act. The prepaid shunt tripper has the following two states:

- 1) When Phase A and Phase N are powered on, the iron core pulls in with a delay of 0.5s~5s and drives the product to act.
- 2) When the signal port IN is connected to Phase A, the iron core doesn't pull in and the product doesn't act.

2. Sampling power supply voltage of prepaid shunt tripper body: AC220V□


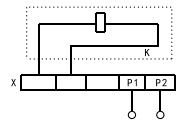
TGM3 Series Moulded Case Circuit Breaker

Wiring diagram of prepaid installation




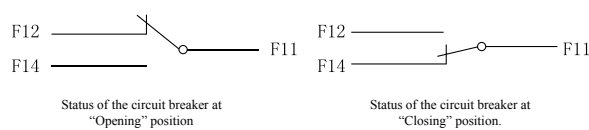
1. When Phase A and Phase N are powered on, the iron core pulls in and drives the product to act.
2. When the signal port IN is connected to Phase A, the iron core doesn't pull in and the product doesn't act.
3. Sampling power supply voltage of prepaid shunt tripper body: AC220V.

• Undervoltage release (left-mounted and right-mounted)

	Rated working voltage (Ue)	AC: AC220/230V, AC380/400V
	Action feature	When the voltage is 35%-70% of the rated working voltage, it shall trip reliably, When the voltage is 85%-110% of the rated working voltage, it shall guarantee closing; When the voltage is lower than 35% of the rated working voltage, it shall prevent closing.
	Wiring Diagram: 	Note: X- terminal block. Note: (The circuit breaker internal accessory wiring diagram is in the dotted box.)

Attention: The undervoltage release must be energized first in order to re-buckle and close the circuit breaker, otherwise it will damage the circuit breaker.

• Auxiliary contact (left-mounted and right-mounted)

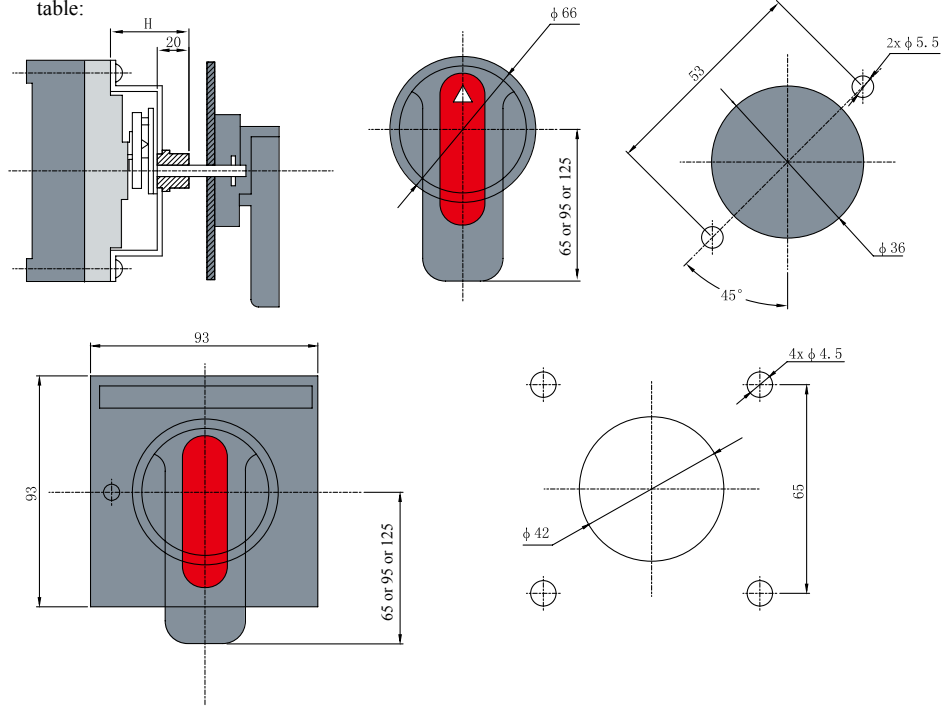
	Fram rated current	$I_{nm} \leq 250A$		$I_{nm} \geq 400A$	
	Conventional heating current Ith	3A		6A	
	Use category	AC-15	DC-13	AC-15	DC-13
	Working voltage	AC380V/400V	DC220V/230V	AC380V/400V	DC220V/230V
	Rated working current	0.3A	0.15A	1A	0.15A
Wiring diagram					
					

TGM3 Series Moulded Case Circuit Breaker



- Manually operated mechanism:

The outline and installation dimension of the rotating handle are shown in following figures and table:



Outline and hole dimensions of the rotating handle

Model and specification	TGM3-125	TGM3-250	TGM3-400	TGM3-630/800
Installation dimension (H)	61	57	87	87

- Alarm contact (left-mounted and right-mounted)

	Conventional heating current I_{th}	3A
	Rated working current I_e	Same as auxiliary contact
	<p>Wiring Diagram:</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>B12 ————</p> <p>B14 ————</p> <p>The circuit breaker is at free release (alarm) status.</p> </div> <div style="text-align: center;"> <p>B12 ————</p> <p>B14 ————</p> <p>Status of the circuit breaker at "Opening" and "Closing" position.</p> </div> </div>	

TGM3 Series Moulded Case Circuit Breaker

- Accessory for overload alarm without tripping (left lead out wire of the product)

The accessory for overload alarm without tripping is a built-in accessory. It is used to output passive alarm signal without tripping when the circuit breaker is overloaded and the tripping time is reached; It is installed through the left lead out wire of the product.	Conventional heating current I_{th}	3A
	Rated working current I_e	Same as auxiliary contact
	Wiring Diagram: <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;"> <p>The status of the circuit breaker under overload</p> </div> <div style="text-align: center;"> <p>The status of the circuit breaker under normal "opening", "closing" and "free tripping" conditions</p> </div> </div>	



Product external accessories

- Electric Motor operating mechanism:

It is mounted on the panel of the circuit breaker, and is used for the remote closing, disconnecting and re-closing of the circuit breaker electrically. It is suitable for automatic control. See Table 8 for the outline dimension of the motor-operated mechanism

Input voltage	AC220V/230V, AC380V/400V	
Wiring diagram	<p>Note: P1 and P2 are inputs of external power supplies. SB1 and SB2 are operation buttons (prepared by users)</p> <p>Note: The wiring diagram of internal accessories of motor-operated mechanism is in the dashed box.</p>	

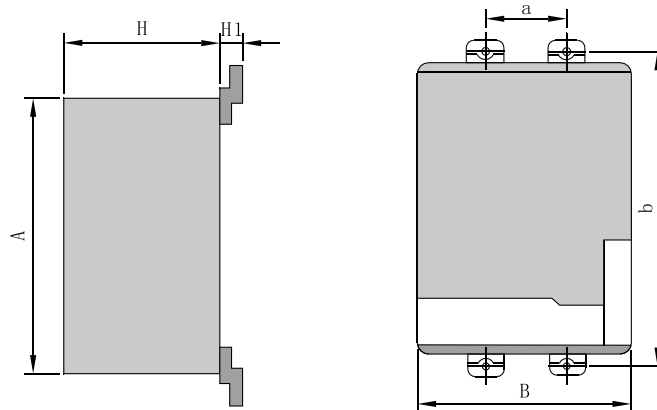


表8

Model	A	B	H	H1	a	b
TGM3-125	116	90	77	22	30	129
TGM3-250	116	90	77	17	35	126
TGM3-400	176	130	115	24	44	194
TGM3-630/800	176	130	115	27	70	243

TGM3 Series Moulded Case Circuit Breaker

8 Outline dimension and installation dimension

8.1 Outline dimension and installation dimension (Table 9, Figure 1 and Figure 2)

Table 9

Model	Pole number	Outline dimension (mm)												
		L	L1		L2	L4	L5	W	W1	W2	H	H1	H2	H3
			Non-zero flashover	Zero flashover										
TGM3-125L	3	151	253	268	132	8	164	93	30	18	99	64	25	3
	4							122						
TGM3-125M	3							116			82	28		
	4												122	
TGM3-125H	3							93						
	4										122			
TGM3-250L	3	165	300	315	146	12	180	107	35	24	98	69	25	4
	4							142						
TGM3-250M	3							116			85	23		
	4												142	
TGM3-250H	3							107						
	4										142			
TGM3-400L	3	257	465	493	224	13	285	150	48	33	150	99	39	5
	4							198						
TGM3-400M	3							150						
	4													
TGM3-400H	3							150						
	4													
TGM3-630L	3	281	496	518	243	15	303	210	70	45	155	103	40	6
	4							280						
TGM3-630M	3							210						
	4													
TGM3-630H	3							210						
	4													
TGM3-800L	3	281	496	518	243	15	303	210	70	45	155	103	40	6
	4							280						
TGM3-800M	3							210						
	4													
TGM3-800H	3							210						
	4													

TGM3 Series Moulded Case Circuit Breaker

Continued Table 9

Model	Pole number	Outline dimension (mm)											Installation dimension (mm)																								
		H4	H5	H6	H7	A	B	C	D	E	F	G	L3	W3	φd																						
TGM3-125L	3	25	3	/	78	96	66	33	32	28	16	30	129	30	φ4.5																						
	4				60																																
TGM3-125M	3	28			97									96		66	33	32	28	16	30	129	30														
	4																						60														
TGM3-125H	3																						4	60	96	66	33	32	28	16	30	129	30				
	4																																60				
TGM3-250L	3	25	4	4	78	97	67	31	37	33	14	35	125		35								φ4.5														
	4				70																																
TGM3-250M	3	23			95									97	67	31	37	33	14	35	125	35															
	4																					70															
TGM3-250H	3																					4		70	97	67	31	37	33	14	35	125	35				
	4																																70				
TGM3-400L	3	38	3	5	114	155	109	46	46	58	20	44	194									44	φ8														
	4											94										94															
TGM3-400M	3											44		94	114	155	109	46	46	58	20	194		44													
	4																							94									94				
TGM3-400H	3																							4	94	114	155	109	46	46	58	20	194	44			
	4																																	94	94		
TGM3-630L	3	41	6	7	121	175	115	66	72	66	33	70	243	70									φ7														
	4													140																							
TGM3-630M	3													70	140	121	175	115	66	72	66	33		70	243									70			
	4																																	140			
TGM3-630H	3																									4	140	121	175	115	66	72	66	33	70	243	70
	4																																				140
TGM3-800L	3	41	6	7	121	175	115	66	72	66	33	70	243	70	φ7																						
	4													140																							
TGM3-800M	3													70		140	121	175	115	66	72	66	33	70	243	70											
	4																									140											
TGM3-800H	3																									4	140	121	175	115	66	72	66	33	70	243	70
	4																																				140

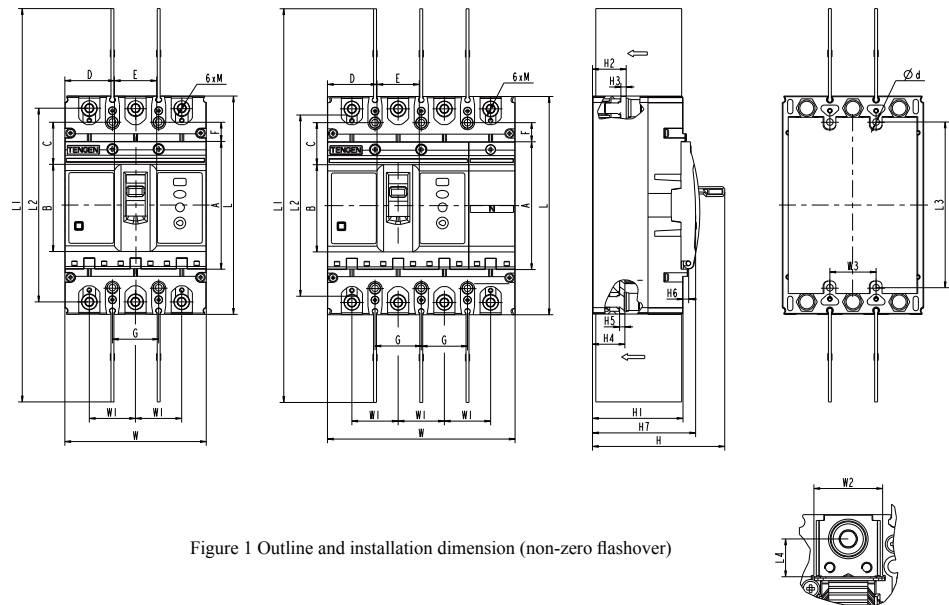


Figure 1 Outline and installation dimension (non-zero flashover)

TGM3 Series Moulded Case Circuit Breaker

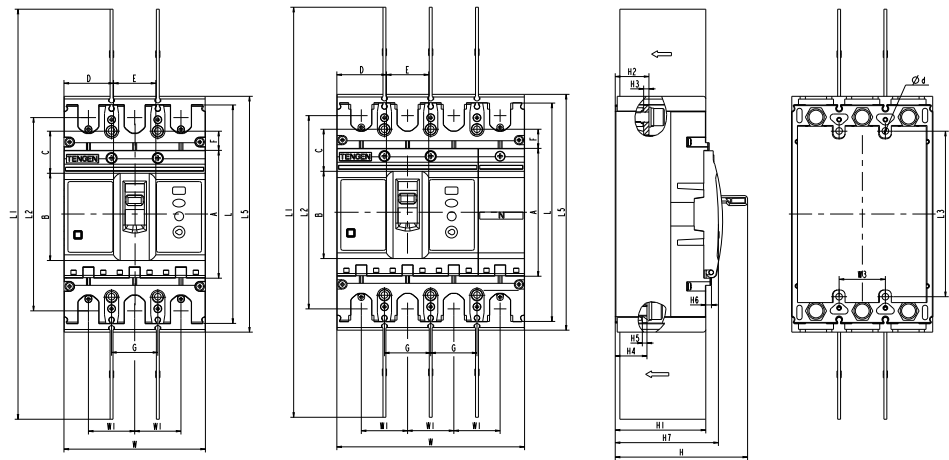
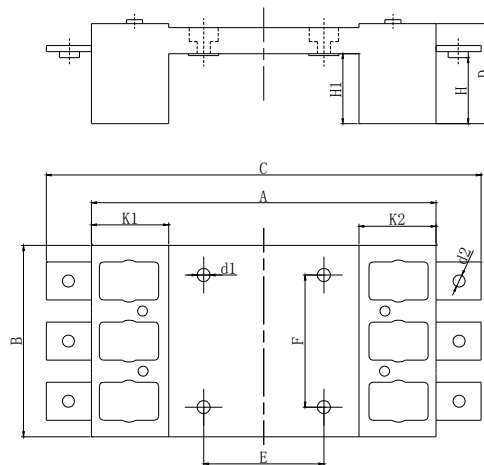


Figure 2 Outline dimension and installation dimension (zero flashover)

8.2 Outline and installation dimension of plug-in front panel connection type (See Figure 3 and Table 10)



Outline and installation dimension of plug-in front panel connection type

Table 10

Model and specification	Outline and installation dimension (mm)											
	A	B	C	D	E	F	H	H1	K1	K2	d1	d2
TGM3-125	172	96	217	50	60	66	13	35	38	38	7	Φ8
TGM3-250	183	110	261	51.5	64	70	42.5	35	44	44	7	Φ8
TGM3-400	276	150	352	80	135	115	31	Flat	Flat	Flat	8.5	Φ11
TGM3-630/800	305	210	409	87	144	90	16	61	62	62	11	Φ13

TGM3 Series Moulded Case Circuit Breaker

8.3 Outline and installation dimension of plug-in rear panel connection type (See Figure 4 and Table 11)

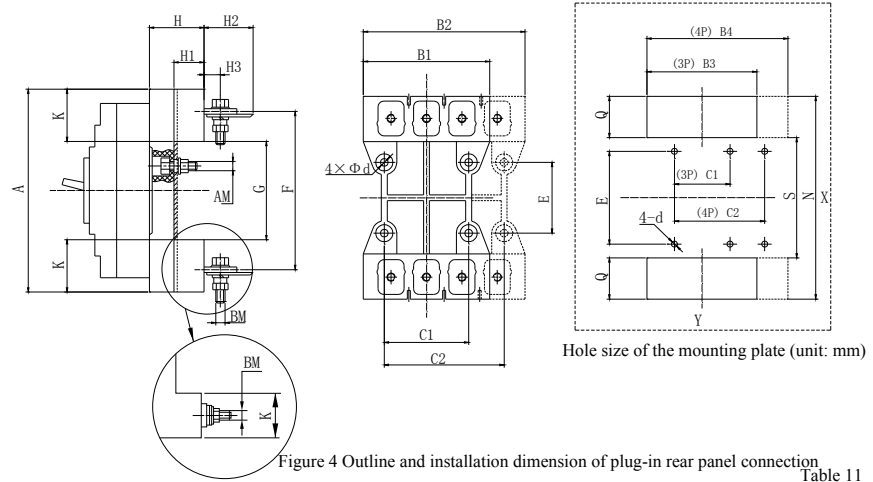


Figure 4 Outline and installation dimension of plug-in rear panel connection

Table 11

Model and specification	Outline and installation dimension (mm)																			
	A	B1	B2	C1	C2	E	F	G	K	H	H1	H2	N	S	Q	B3	B4	AM	BM	4-d
TGM3-125	168	91	125	60	90	56	132	92	38	50	33	28	178	82	48	101	135	M6	M8	Φ6.5
TGM3-250	186	107	145	70	105	54	145	94	46	50	33	37	196	84	56	117	155	M6	M8	Φ6.5
TGM3-400	280	149	200	60	108	129	224	170	55	60	38	46	290	160	65	159	210	M8	M12	Φ8.5
TGM3-630/800	305	210	280	90	162	146	242	181	62	87	60	22	315	171	72	220	290	M10	M14	Φ11

9 Ordering instructions

Please specify following matters when ordering:

- Model, name and pole number of the circuit breaker.
- Rated current of circuit breakers.
- Name, specification and combination code of accessories of the circuit breaker; When undervoltage release and shunt release are used, please specify the operational voltage (or control power supply voltage) values.
- Usage: For power distribution (be delivered as for power distribution by default if not specified) and for motor protection (represented by 2).
- Quantity.

For example: 20 sets of TGM3-250, 3-pole, 65kA creaking capacity, rated current of 225A, with a shunt release, AC 400V.

Fill in: TGM3-250H/3310 225A AC400V 20 sets.

For special requirements to the circuit breaker, please negotiate with the manufacturer.

10 Examples of rapid selection

TGM3-125L/3N300A 125A:

i.e., order a TGM3 series thermal magnetic circuit breaker for distribution protection, with 125A frame, 35kA (economic type), rated current of 125A, 3-pole and 4-wire (i.e., 3P+N), without null line protection.

TGM3-125M/33002 125A:

i.e., order a TGM3 series thermal magnetic circuit breaker for motor protection, with 125A frame, 50kA (standard), rated current of 125A, 3 poles.

TGM3-125M/32002 125A:

i.e., order a TGM3 series single-magnetic (i.e., no overload protection, only short circuit protection) circuit breaker for motor protection, with 125A frame, 50kA (standard), rated current of 125A, 3 poles.

Remarks: For special customized products, please consult us firstly.

TGM3 Series Moulded Case Circuit Breaker

11 Description of the selection table of TGM3 series moulded case circuit breaker

TGM3	125	L	Z	4	3	10	2	A	F	III	125A	AC230V	B	W	Plateau	Other
Product model	Frame current	Breaking capacity	Operation mode	Pole number	Tripping mode	Internal accessories	Usage	N pole code	Additional information	Alarm module	Rated current	Voltage of accessories	Installation mode	Usage code	Applicable situation	Special requirements
TGM3 series moulded case circuit breaker	125; 125A	L: Standard type	Default: direct operation	3: 3 poles	Short-circuit protection	60: no accessory 10: shunt release 20: auxiliary contact 30: undervoltage release 40: shunt contact + auxiliary contact	Default: Distribution protection	A: three protective poles. Null line is not broken with other poles.	F: Prepayment	III: overload alarm without tripping No code - no this accessory	16A 800A	AC380/400V AC220/230V DC110V DC24V	Default: Fixed, front panel connection	No code - have flashover distance	Default: Conventional application	Handle lock
	250; 250A	M: Relatively high	Z: operation of rotating handle	3N: 3P+N	3: Overload + short circuit	50: shunt + undervoltage release 60: two sets of auxiliary contacts 70: undervoltage release + auxiliary contact 80: alarm contact	2: Motor protection	B: three protective poles. Null line is broken with other poles.				Multiple accessory voltages shall be described separately (for example: Shunt AC230V, undervoltage AC400V)	B: Fixed, rear panel connection	W: zero flashover	Plateau, hot and humid, environmental protection, salt mist, low temperature	
	400; 400A	H: High breaking	P: Electric motor operating mechanism	4: 4 poles		18: shunt + alarm contact + alarm contact 28: auxiliary contact 38: undervoltage release + alarm contact 48: Shunt release + alarm contact + auxiliary contact		C: four protective poles. Null line is broken with other poles.					C: Plug-in rear panel connection			
	630; 630A					68: two sets of auxiliary contacts + alarm contact 78: undervoltage release + auxiliary contact + alarm contact		D: four protective poles. Null line is not broken with other poles.					F: Plug-in front panel connection			
	800; 800A															