









1 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

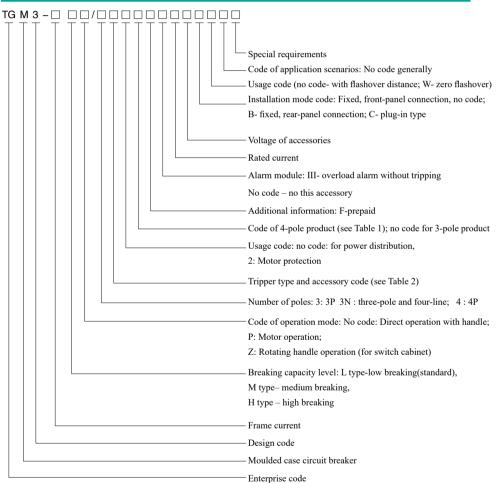


Table 1

		14010 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

View of codes of 4-pole product



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.

Without overcurrent release

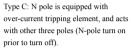


Type B: N pole is not equipped with over-current tripping element, and acts with other three poles (N-pole turn on prior to turn off).

Without overcurrent release



With overcurrent release





With overcurrent release

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.

Code of release and accessories



		L	Handie					Table 2
	Accesso	ry Code		A	ccessory installa	tion and lead mod	le	
Accessory Name			TGM3	3-63 -125	TGM3	TGMS	3-400 3-630 3-800	
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	8	<u> </u>	81	<u> </u>	8	<u> </u>
Auxiliary contact Undervoltage release	270	370						
Shunt release Alarm contact	218	318						
Auxiliary contact Alarm contact	228	328	8					
Undervoltage release Alarm contact	238	338						
Shunt release Auxiliary contact Alarm contact	248	348	8					
Two groups of auxiliary contacts Alarm contact	268	368	810		810	018	810	
Undervoltage release Auxiliary contact Alarm contact	278	378	814		8		814	

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.



3 Technical Parameters

3.1 Product parameters (Table 3)

Table 3

	puru									Table 3		
			Technic	al Specific	ation							
	Fran	ne current	6	53		125		250				
	Numb	er of poles	3P、3P	+N、4P	3P	、3P+N、	4P	3P、3P+N、4P				
	Frequ	ency (Hz)	5	50		50			50			
Rated	workii	ng voltage Ue (V)	3800/4	00/415	4	00/550/6	90	4	00/550/6	90		
Rated	insulat	ion voltage Ui (V)	8	00		800			800			
Rated impuls	e with	stand voltage Uimp (kV)		8		8			8			
Ratec	32A,	5A、30A	32A	20A、2 40A、5 80A、1 125A	50A、	160A、	125A、 180A、 25A、25	200A、				
	ng capacity	L	M	L	M	Н	L	M	Н			
Breaking capa	city of	AC400V	25	35	35	50	65	35	50	65		
rated limiting	Breaking capacity of rated limiting short AC550V				/	25	25	/	25	25		
circuit Icu(l	κA)	AC690V	/	/	5	10	15	5	10	15		
Breaking capa	city of	AC400V	18	25	26	50	50	26	50	50		
rated operating	g short	AC550V	/	/	/	20	20	/	20	20		
circuit Ics(k	(A)	AC690V	/	/	5	5	10	5	5	10		
	Isolati	ng function	3P.	, 4P	3P, 4P			3P, 4P				
	Usag	e category	Category A		Category A			Category A				
Flashover	Н	ave flashover distance	≤50		≤50			≤50				
distance (mm)		Zero flashover		0	0				0			
Mechanical	life	Without maintenancein	20,000		20,000				20,000			
(times)		With With maintenance	40,000		40,000				40,000			
Е	lectrica	al life (times)	10,	000	10,000				10,000			
			Accesso	ries inform	ation							
Direc	t opera	tion with handle	■ (Sta	ndard)	■ (Standard)				(Standar	rd)		
Ext	ended	rotating handle	□ (Op	tional)	□ (Optional)				(Optiona	al)		
Moto	or-oper	ated mechanism	□ (Op	tional)	□ (Optional)				(Optiona	al)		
	Shui	nt release	□ (Op	tional)		(Optiona	al)		(Optiona	al)		
U	ndervo	oltage release	□ (Op	tional)		(Optiona	al)		(Optiona	al)		
	Auxili	ary contact	□ (Op	tional)		(Optiona	al)		(Optiona	al)		
	Alar	m contact	□ (Op	tional)		(Optiona	al)		(Optiona	al)		
Fixed	panel connection	■ (Sta	ndard)	•	(Standar	rd)	-	(Standar	d)			
Fixed	panel connection	□ (Op	tional)		(Optiona	al)		(Optiona	al)			
Plug-in, front	Plug-in, front panel connection (not optional to 4P products)			tional)	□ (Optional)			□ (Optional)				
Plug-	Plug-in rear panel connection			tional)		(Optiona	al)		(Optiona	al)		
	Transition bar			□ (Optional)		□ (Optional)			□ (Optional)			
	Phase partition				■ (Standard)			■ (Standard)				
	Har	ndle lock	□ (Op	tional)		(Optiona	al)	□ (Optional)				
Z	Zero fla	shover cover	□ (Op	tional)		(Optiona	al)	□ (Optional)				

Note: Select zero flashover accessories to achieve zero flashover.



Table 3, continue

			Techn	ical Spec	ification	ı						
	Fram	ne current		400			630		800			
	Numb	er of poles	3P-	3P+N	4P	3P-	3P+N	4P	3P、3P+N、4P			
	Frequ	ency (Hz)	50				50			50		
Rated	workir	ng voltage Ue (V)	400/550/690			4	00/550/6	90	40	00/550/6	90	
Rated i	insulati	on voltage Ui (V)		1000			1000			1000		
Rated impuls	e withs	stand voltage Uimp (kV)		12			12			12		
Rated	l worki	ng current In(A)		250A、 50A、40		400A、	500A、 630A	600A、		500A、 700A、		
	Breaki	ng capacity	L	M	Н	L	M	Н	L	M	Н	
Breaking capac	city of	AC400V	50	65	85	50	65	85	50	65	85	
rated limiting	short	AC550V	/	35	35	/	35	35	/	35	35	
circuit Icu(k	(A)	AC690V	15	20	30	15	20	30	15	20	30	
Breaking capac	city of	AC400V	35	65	65	35	65	65	35	65	65	
rated operating		AC550V	/	25	25	/	25	25	/	25	25	
circuit Ics(k	(A)	AC690V	10	20	20	10	20	20	10	20	20	
	Isolatii	ng function		3P, 4P			3P, 4P			3P, 4P		
	Usage	e category	(Category	A	(Category	A	Category A			
Flashover	H	ave flashover distance	≤100				≤100			≤100		
distance (mm)		Zero flashover	0				0		0			
Mechanical	life	Without maintenancein	10,000				10,000			8,000		
(times)		With With maintenance	20,000				20,000			10,000		
E	lectrica	al life (times)	8,000				8,000		7,500			
				sories inf								
		tion with handle		(Standar			(Standar		■ (Standard)			
		rotating handle	□ (Optional)				(Option		□ (Optional)			
Moto		ated mechanism		(Option			(Option			(Optiona		
	Shur	nt release	□ (Optional)				(Option	al)		(Optiona		
U	ndervo	ltage release		(Option			(Option			(Optiona		
		ary contact		(Option			(Option			(Optiona		
		n contact		(Option:			(Option			(Optiona		
		panel connection		(Standar			(Standar			(Standar		
	Fixed, rear panel connection				al)		(Option	al)		(Optiona	al)	
Plug-in, front p		(Option	al)		(Option	al)		(Optiona	al)			
Plug-i	Plug-in rear panel connection				al)		(Option	al)		(Optiona	al)	
	Trans	sition bar		(Option	al)		(Option	al)		(Optiona	al)	
	Phase	partition	■ (Standard)			■ (Standard)			■ (Standard)			
	Han	dle lock	□ (Optional)			□ (Optional)			□ (Optional)			
Z	ero flas	shover cover		(Option	al)		(Option	al)		(Optiona	al)	

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	Conventi	Initial state	
ivame of test current	Kated current muniple	In≤63A	In>63A	initial state
Conventional non- tripping current	1.05 In	≥1h	≥2h	Cold state
Conventional tripping current	1. 30 In	<1h	<2h	Thermal state

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



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 In	≥2h	Cold state
Conventional tripping current	1.2 In	<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

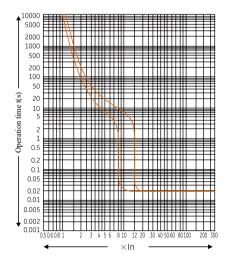
The setting value of instantaneous action characteristic of circuit breakers for distribution is $10 \text{In} \pm 20\%$. The setting value of instantaneous action characteristic of circuit breakers for motor protection is $12 \text{In} \pm 20\%$.

4 Operating Conditions

- 4.1 Temperature
- 4.1.1 The ambient air temperature shall be not higher than +40°C but shall not lower than -5°C, and the average temperature within 24 hours shall be not higher than +35°C.
- 4.3.2 In special environment: The temperature shall not be <-25°C and >+55°C.
- 4.3.3 Derate according to the attitude factors or contact us when the temperature is >+40°C and <-5°C.
- 4.2 Altitude
- 4.2.1 The attitude for normal operation shall not exceed 2,000 meters.
- 4.2.2 Derate according to the attitude factors or contact us when the attitude is above 2,000 meters.
- 4 3 Humidity
- 4.3.1 The relative humidity of atmosphere shall be not more than 50% at the ambient air temperature of +40°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°C.
- 4.3.3 Please consider the effect of condensation on product surface due to temperature changes on product performance.
- 4.4 Pollution degree: 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.

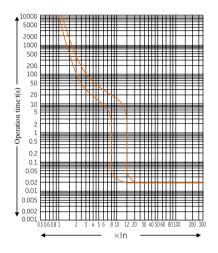
5 The Protection Characteristic Curve of the Circuit Breaker

TGM3-63/125(L/M/H) Time/current characteristic curve

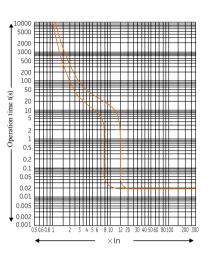




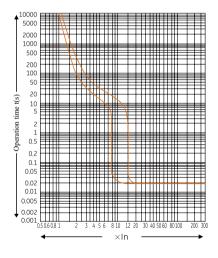
TGM3-250 (L/M/H) Time/current characteristic curve



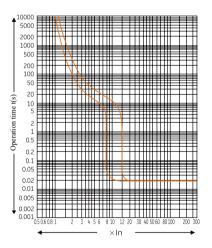
TGM3-400 (L/M/H) Time/Current Characteristic Curve



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



TGM3-800(L/M/H) Time/Current Characteristic Curve





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℃	+60°C
Model	Derating factors				
TGM3-63	1In	0. 95 In	0. 89In	0.84In	0. 76In
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 2,000 meters, electrical performance of the circuit breaker can be modified according to the following table.

Table 7

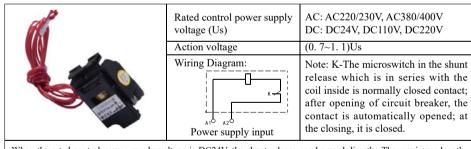
Altitude	2,000 meters	3,000 meters	4,000 meters	5,000 meters
Power frequency withstand voltage	3000V	2500V	2000V	1800V
Working current correction factor	1	0. 94	0. 88	0. 83

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)



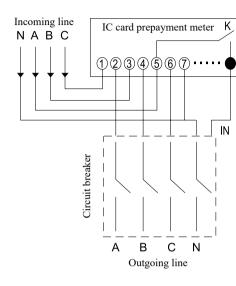
When the rated control power supply voltage is DC24V, the shunt release can be used directly. The maximum length is 150 m for 1.5mm^2 copper lead (the length of each of the two leads) and 250 m for 2.5mm^2 copper lead. The power at the terminal of the release shall meet the minimum power of 50 W, or 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 1 A.

• 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 shut 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.

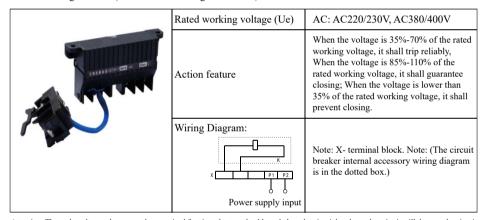


Wiring diagram of prepaid installation



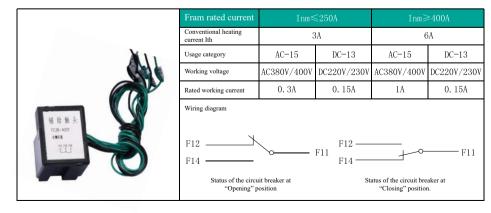
- When Phase A and Phase N are powered on, the iron core
 pulls in and drives the product to act.
- When the signal port IN is connected to Phase A, the iron core doesn't pull in and the product doesn't act.
- Sampling power supply voltage of prepaid shunt tripper body: AC220V.

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



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)

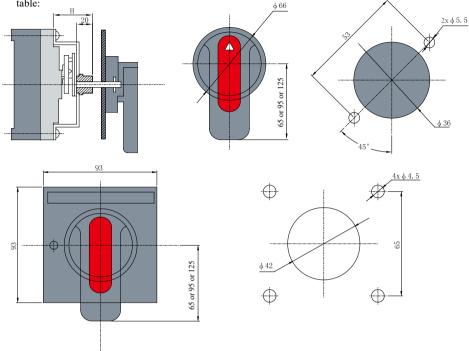






• Manually operated mechanism:

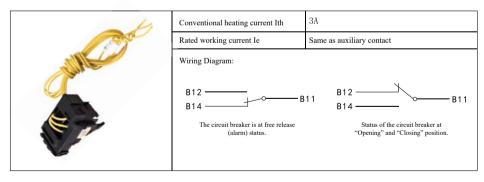
The outline and installation dimension of the rotating handle are shown in following figures and table:



Outline and hole dimensions of the rotating handle

Model and specification	TGM3-63	TGM3-125	TGM3-250	TGM3-400	TGM3-630/800
Installation dimension (H)	54	61	57	87	97

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





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

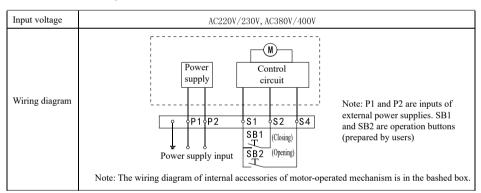
3A Conventional heating current Ith Rated working current Ie Same as auxiliary contact The accessory for overload alarm without tripping is a built-in accessory. Wiring Diagram: It is used to output passive alarm signal without tripping when the circuit RB12 RB12 breaker is overloaded and the tripping RB14 RB14 time is reached; It is installed through The status of the circuit breaker The status of the circuit breaker the left lead out wire of the product. under overload under normal "opening", "closing" and "free tripping" conditions

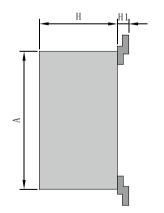


Product external accessories

• Electric Motor operating mechanism:

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





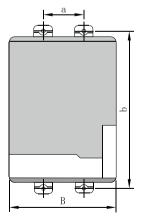


Table 8

Model	A	В	Н	H1	a	b
TGM3-63	101	73	78	13	25	117
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



8 Outline and Installation Dimensions

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

Table 9

						Outline	e dimer	nsion (n	nm)					Table 9								
			Li	1				(
Model	Number of poles	L	Non-zero flashover	Zero flashover	L2	L4	L5		W1	W2	Н	Н1	Н2	НЗ								
TGM3-63L	3							78														
1GW13-03L	4	/	235	/	121	7.5	,	103	25	18	87	62	20.5	2.5								
TGM3-	3		233	,	121	7.5	'	78	23	10	67	02	20.3	2.3								
63M	4							103														
TGM3-	3							93			99	64	25									
125L	4							122				04	23									
TGM3-	3	151.6	253	268	132	8	164	93	30	18				3								
125M	4	131.0	233	200	132		104	122] 30	10	116	82	28									
TGM3-	3							93			110	62	20									
125H	4							122														
TGM3-	3							107			98	69	25									
250L	4							142			96	0)	25									
TGM3-	3	165	300	315	146	12	180	107	35	24				4								
250M	4	103	300	313	140	12	100	142	33	24	116	85	23	7								
TGM3-	3							107			110	83	23									
250H	4							142														
TGM3-	3							150														
400L	4							198														
TGM3-	3	257	465	493	224	13	285	150	48	33	150	99	39	5								
400M	4	237	403	493	224	13	203	198	40	33	130	99	39)								
TGM3-	3							150														
400H	4							198														
TGM3-	3							210														
630L	4							280														
TGM3-	3	281	496	518	243	15	303	210	70	45	155	103	40	6								
630M	4	201	490	318	243	13	303	280	/0	43	133	103	40	0								
TGM3-	3							210														
630H	4							280														
TGM3-	3							210														
800L	4							280														
TGM3-	3	201	31 496	£10	242	1.5	202	210	70	4.5	155	102	40									
800M	4	281		518	243	243	243	243 1	243 15	15 303	303	280	70	45 155	155	103	40	6				
TGM3-	3															210	-					
800H	4							280														



Continued Table 9

	Number					Outline	dimens	ion (mi	n)					lation d	imension		
Model	of poles	H4	Н5	Н6	Н7	A	В	C	D	Е	F	G	L3	(mm W3) φd		
TGM3-63L	3 4	20.5	2.5	3.5	74	81.5	55	29.5	26	26.5	15.5	25	117	25 50	φ4.5		
TGM3-63M	3 4	20.5	2.5	3.3	, .	01.5	55	27.5	20	20.5	13.3	25	117	25 50	Ψ1.5		
TGM3-125L	3 4	25			78									30 60			
TGM3-125M	3 4	28	3	/	97	96	66	33	32	28	16	30	129	30 60	φ4.5		
TGM3-125H	3 4	20			91									30 60			
TGM3-250L	3 4	25			78									35 70			
TGM3-250M	4	23	4	4	95	97	67	31	37	33	14	35	125	35 70	φ4.5		
TGM3-250H	3 4	23)3									35 70			
TGM3-400L	3 4											44 94		94			
TGM3-400M	3 4	38	3	5	114	155	109	46	46	58	20	44 94	194	94	φ8		
TGM3-400H	3											44 94		94			
TGM3-630L	3													70 140			
TGM3-630M	4	41	6	7	121	175	115	66	72	66	33	70	243	70 140	φ7		
TGM3-630H	3 4													70 140			
TGM3-800L	3 4													70 140			
TGM3-800M	3 4	41	6	6	6	6	7	121	175	115	66 72	72 66	6 33	70	243	70 140	φ7
TGM3-800H	3 4													70 140			

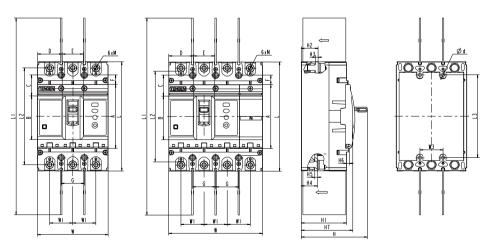


Figure 1 Outline and installation dimension (non-zero flashover)





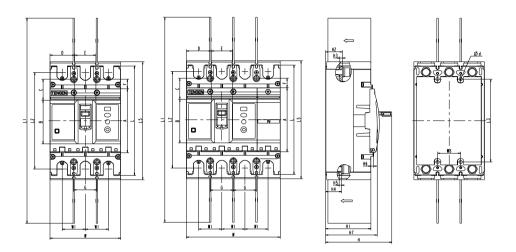
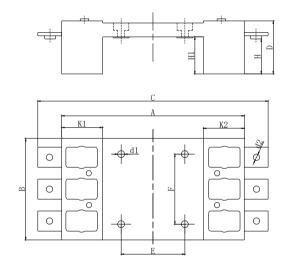


Figure 2 Outline dimension and installation dimension (zero flashover)

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	Outline and installation dimension (mm)												
specification	A	В	С	D	Е	F	Н	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	Ф11	
TGM3-630/800	305	210	409	87	144	90	16	61	62	62	11	Ф13	



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

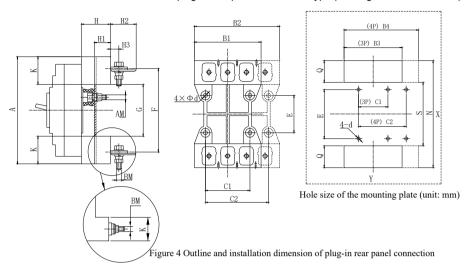


Table 11

Model and	Outline and installation dimension (mm)																			
specification		В1	В2	C1	C2	Е	F	G	K	Н	H1	H2	N	S	Q	В3	В4	AM	BM	4-d
TGM3-63	141	75	100	50	75	63	123	104	17	28	18.5	15	151	94	27	85	110	/	/	φ6
TGM3-125	168	91	125	60	90	56	132	92	38	50	33	28	178	82	48	101	135	M6	M8	Ф65
TGM3-250	186	107	145	70	105	54	145	94	46	50	33	37	196	84	56	117	155	M6	M8	Ф65
TGM3-400	280	149	200	60	108	129	224	170	55	60	38	46	290	160	65	159	210	M8	M12	Φ85
TGM3-630/800	305	210	280	90	162	146	242	181	62	87	60	22	315	171	72	220	290	M10	M14	Ф11

9 Ordering Notice

Please specify following matters when ordering:

- a) Model, name and Number of poles of the circuit breaker.
- b) 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
- d) Usage: For power distribution (be delivered as for power distribution by default if not specified) and for motor protection (represented by 2).
- e) 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.



11 Desc	ription o	f the Selection	Table of TGM3	Series Moulded	d Case Circuit B	reaker
Other	Special requirements	Handle lock				
Plateau	Applicable situation	Default: Conventional	Plateau, hot and humid, environmen, tal protection, salt mist, low temperature			
M	Usage	No code – have flashover distance	W- zero flashover			
В	Installation mode	Default: Fixed, front panel connection	B: Fixed, rear panel connection	C: Plug-in rear panel connection	F: Plug-in front panel connection	
AC230V	Voltage of accessories	AC220/230V C220V C220V C110V CC14V	Multiple accessory voltages shall be described separately	(for example: Shunt AC230V, undervoltage AC400V)		
125A	Rated	16A 800A				
	Alarm	III- overload alam without tripping No code – no this accessory				
(T.,	Additional information	F: Prepay- ment				
A	N pole code	A: three protective poles. Null line is not broken with other poles.	B: three protective poles. Null line is broken with other poles.	C: four protective poles. Null line is broken with other poles.	D: four protective poles. Null line is not broken with other poles.	
2	Usage	Default: Distribution tion protection	2: Motor protection			
10	Internal	00: no accessory 10: shum release 20: auxiliary contact 30: undervoltage release 40: shunt contact + auxiliary contact	\$0: shunt + undervoltage 60: two sets of auxiliary contacts 70: undervoltage release + auxiliary contact (08: alarm contact	18: shunt + alamn 28: auxiliary contact + alam contact = 38: undervolage release + alam 48: Shunt release + alam contact + auxiliary contact +	68: two sets of auxiliary contacts + alarm contact 78: undervoltage release+ auxiliary contact+ alam contact	
8	Tripping mode	Short-cir- cuit protection	3: Overload + short circuit			
4	Pole	3: 3 poles	3N: 3P+N	4: 4 poles		
	Operation mode	Default: direct operation	Z: operation of rotating handle	P: Electric motor operating mechanism		
	Breaking capacity	L: Standard type	M: Relatively high	H: High breaking		
. 125	Frame	63: 63A 125: 125A	250: 250A	400: 400A	630. 630.	800s 800A
TGM3	Product model	TGM3 series moulded case circuit breaker				