TGM3G Series Moulded Case Disconnector

1 Overview

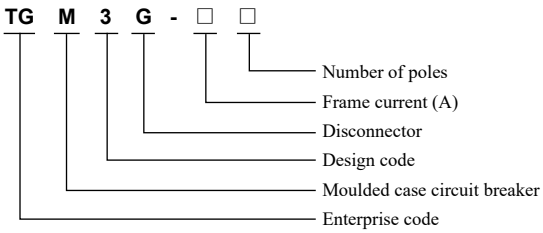
TGM3G series disconnector (hereinafter referred to as disconnector) is suitable for AC 50Hz circuit with rated insulation voltage 1000V, rated working voltage 400V and below and rated current up to 800A for isolation in the low-voltage power generation, transmission, and power distribution line as obvious break points. It is widely used in many power distribution applications such as new energy, power, steel & iron, metallurgy, building, petrochemical, and rail transport. With its small size, anti-vibration, and environmental protection, it is an ideal electrical element in power distribution and transmission.

The disconnector can be perpendicularly installed (and vertically installed), and can be horizontally installed (and laterally installed).

Isolation function symbol: 

Standard: IEC 60947-1 and IEC 60947-2

2 Type Designation



3 Technical Parameters

Basic Informaiton					
Frame current (Ith)		125	250	400	800
Number of poles		3P、4P	3P、4P	3P、4P	3P、4P
Frequency (Hz)		50	50	50	50
Rated working voltage Ue (V)		400	400	400	400
Rated insulation voltage Ui (V)		1000	1000	1000	1000
Rated impulse withstand voltage Uimp (kV)		8	8	12	12
Rated working current Ie (A)		16A, 20A, 25A, 32A, 40A, 50A, 63A, 80A, 100A, 125A	100A, 125A, 140A, 160A, 180A, 200A, 225A, 250A	225A, 250A, 315A, 350A, 400A	630A, 700A, 800A
Rated short-time withstand current Icw (A) / 1s		2000	3500	5000	10000
Rated short-circuit breaking capacity Icm (A)		3000	6000	7650	17000
Usage category		AC-22A	AC-22A	AC-22A	AC-22A
Service life(times)	Mechanical	40000	40000	20000	20000
	Electrical	8000	8000	7500	7500
Accessory Information					
Terminals of transition busbar		■ (standard)	■ (standard)	■ (standard)	■ (standard)
Transition terminal		□ (Optional)	□ (Optional)	□ (Optional)	□ (Optional)

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		TGM3G-125	TGM3G-250
TGM3G series disconenctor			
Number of poles		3P, 4P	3P, 4P
Resistive current (Ith) A		125A	250A
Frequency (Hz)		50	50
Rated working voltage Ue (V)		400	400
Rated current In (A)		16, 20, 25.32, 40, 50, 63, .80, 100, 125	100, 125, 140, 160, 180, 200, 225, 250
Rated insulation voltage Ui (V)		1000	1000
Rated impulse withstand voltage Uimp (kV)		8	8
Rated short-time withstand current Icw (A) / s		2000/1	3500/1
Rated short-circuit breaking capacity Icm (A)		3000	6000
Usage category		AC-22A	AC-22A
Service life(times)	Mechanical	Without maintenancein20000 With mainteance 40000	Without maintenancein20000 With mainteance 40000
	Electrical	8000	8000
Terminals of transition busbar		■ (Standard)	■ (Standard)
Transition terminal		□ (Optional)	□ (Optional)
		TGM3G-400	TGM3G-800
TGM3G series disconenctor			
Number of poles		3P, 4P	3P, 4P
Resistive current (Ith) A		400	800
Frequency (Hz)		50	50
Rated working voltage Ue (V)		400	400
Rated current In (A)		225, 250, 315, 350, 400	630, 700, 800
Rated insulation voltage Ui (V)		1000	1000
Rated impulse withstand voltage Uimp (kV)		12	12
Rated short-time withstand current Icw (A) / s		5000/1	10000/1
Rated short-circuit breaking capacity Icm (A)		7650	17000
Usage category		AC-22A	AC-22A
Service life(times)	Mechanical	Without maintenancein10000 With mainteance 20000	Without maintenancein10000 With mainteance 20000
	Electrical	7500	7500
Terminals of transition busbar		■ (Standard)	■ (Standard)
Transition terminal		□ (Optional)	□ (Optional)

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4 Operating Conditions

4.1 Temperature

4.1.1The ambient air temperature does not exceed +40℃, the lower limit is -5℃, and the mean temperature within 24h does not exceed +35℃.

4.1.2In special environment: The lower limit of temperature is not below -25℃, and the upper limit does not exceed +55℃.

4.2 Altitude

4.2.1The altitude at the installation site where the product works normally does not exceed 2,000 meters.

4.2.2If the altitude exceeds 2,000 meters, the altitude coefficient derating is required, or contact our company.

4.3 Humidity

4.3.1The relative air humidity does not exceed 50% at the maximum ambient temperature +40℃, and a higher relative humidity is allowed at a low temperature.

4.3.2The maximum mean relative humidity of the wettest month does not exceed 90%, and the monthly minimum mean temperature of this month does not exceed +25℃.

4.2.3The influence of condensation occurred on the product surface due to temperature changes to the product performance shall be considered.

4.4 Pollution degree:3

4.5 Usage and installation

4.5.1“1”, “3”, “5”, and “N” are incoming terminals and “2”, “4”, “6”, and “N” are outgoing terminals of disconnector; the vertical installation is required rather than reverse installation or reverse wiring connection.

4.5.2The inclination of product installation in each direction does not exceed ±5°.

4.5.3 Main circuit installation category is Class III; the installation category is Class II if not connected to the aux. circuit and control circuit of main circuit

4.5.4 The external magnetic field near the disconnector installation site shall not exceed 5 times earth’s magnetic field in any direction

5 Outline and Installation Dimensions

Model	Number of poles	Outline dimensions (mm)										
		L	L1	L2	L4	L5	W	W1	W2	H	H1	H2	H3
TGM3G-125	3	151.6	253	132.5	8	164	93	30	18	99	65	25	3
	4						122						
TGM3G-250	3	165	300	146.6	12	180	107	35	23.5	100	69	25	4
	4						142						
TGM3G-400	3	257	465	224	13	285	150	48	33	150	99	39	5
	4						198						
TGM3G-800	3	281	490	243	15	303	210	70	45	155	103	40	6
	4						280						

Model	Number of poles	Outline dimensions (mm)										Installation dimensions (mm)		
		H4	H5	H6	H7	A	B	C	D	E	F	G	L3	W3	Φd
TGM3G-125	3	25	3	/	78	96	66	33	32	28	16	30	129	30	Φ4,5
	4													60	
TGM3G-250	3	25	4	4	79	97	67	31	37	33	14	35	125	35	Φ5
	4													70	
TGM3G-400	3	38	2.5	5	114	155	109	46	46	58	20	44	194	44	Φ7
	4											94		94	
TGM3G-800	3	42	6	6	121	175	115	66	72	66	33	70	243	70	Φ7
	4													140	

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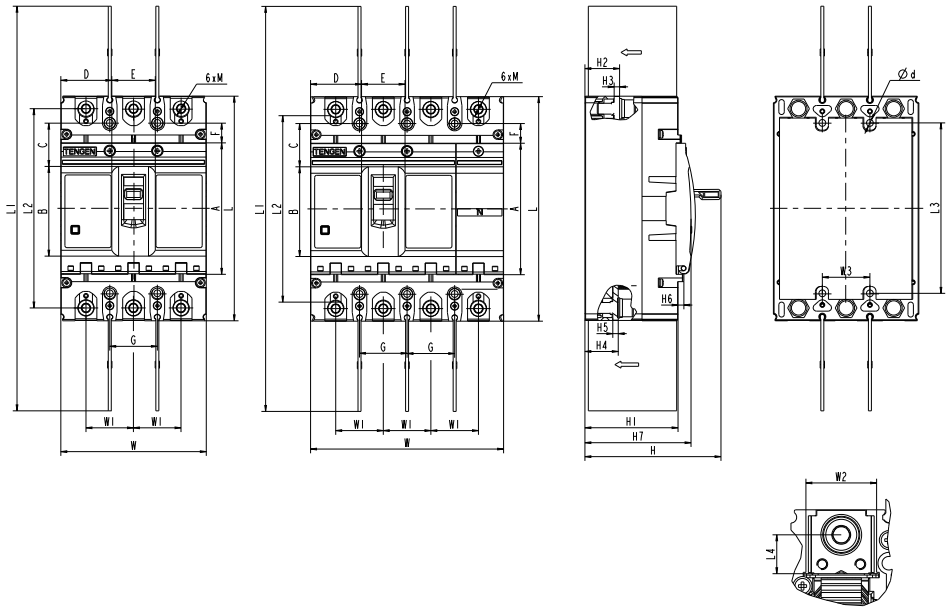

6 Selection of Sectional Area of Connecting Busbar and Cable

Rated current (A)	16 20	25	32	40 50	63	80	100	125 140	160	180 200 225	250	315 350	400
Sectional area of wire (mm^2)	2.5	4	6	10	16	25	35	50	70	95	120	185	240

Rated current (A)	Cable		Copper busbar	
	Sectional area (mm^2)	Qty.	Size	Qty.
500	150	2	30×5	2
600	185	2	40×5	2
700 800	240	2	50×5	2

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7 Operation and With maintenance

7.1 Various features of disconnector are set by the company, and cannot be adjusted without permission during operation.

7.2 Disconnector handle can be in three positions indicated with ON, OFF, Trip states, respectively. When the handle is turned to the Trip position, pull the handle backwards to activate the switch for power-on.

7.3 The manufacturer will be responsible for replacement or repair of circuit breaker free of charge for any damage or abnormal operation due to poor quality within 24 hours from the shipment date under the premise that user complies with the storage and operation conditions and that the product is well sealed.

8 Ordering Notice

Please specify the following items when ordering:

a)Model, name, number of poles of disconnector;

b)Rated current of disconnector;

c)Quantity.

For example: To order TGM3G-250, 3-pole, rated current 225A, 20 pcs.
Please specify: TGM3G-250/3P, 225A, 20 pcs.