

TGCA-06M-12M Mini AC Contactor



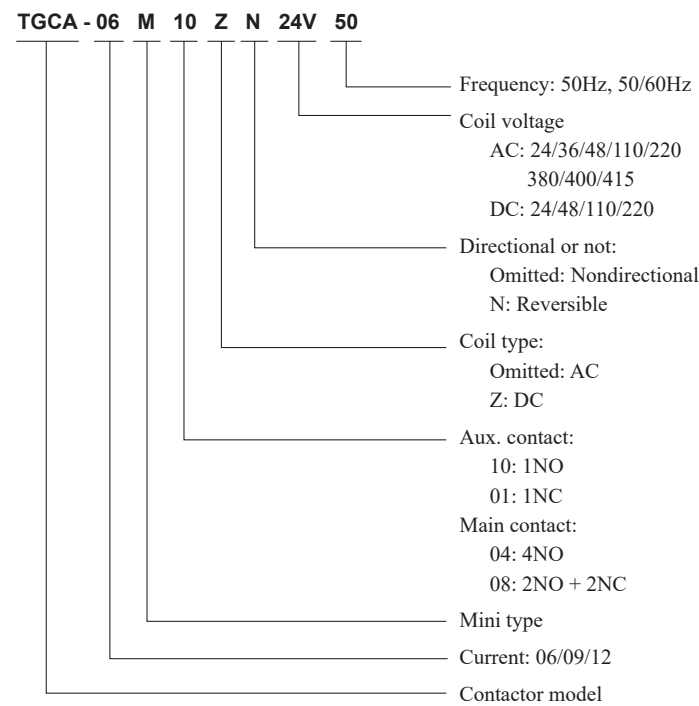
1 Overview

TGCA-06M-12M Mini AC Contactor (hereinafter referred to as contactor) features with artistic appearance and small size. It is primarily used in the AC 50Hz(50/60Hz) power system with the rated working voltage up to 690V, and with the rated working current up to 12A at the rated working voltage 380V under the AC-3 usage category for remotely marking and breaking circuit breaker. The contactor is suitable for AC motor with frequent starts and controls.

Standard: IEC 60947-4-1

Certification: CE

2 Type Designation



3 Technical Parameters

Rated working current Ie	6A~12A
Rated working voltage Ue	220V~690V
Rated insulation voltage	690V
Number of poles	3P, 4P
Coil control type	AC, DC
Insatllation method	35mm rail-mounted, mounted through screws

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4 Operating Conditions

Installation category	Class III
Pollution degree	3
Protection grade	IP20
Ambient air temperature	Ambient temperature (surrounding the equipment): permissible working temperature: -35°C~+70°C; normal working temperature: -5°C~+40°C; when the working temperature is higher than +40°C, it must be considered that the permissible limit temperature rise of the product shall be reduced. When the working temperature is below -5°C, it shall be considered that greases used for insulation and lubrication may be frozen in a too low ambient temperature, resulting in action failure of the product. The manufacturer shall contact the user for design or usage through negotiation.
Altitude	≤2,000 meters
Atmospheric conditions	The relative air humidity does not exceed 50% at the maximum temperature +70°C, and a higher relative humidity is allowed at a lower temperature, such as up to 90% at 20°C. Special measures shall be taken for condensation occurring occasionally due to temperature changes.
Installation conditions	The inclination between the mounting plane and the vertical plane is not greater than ±22.5°
Impact and vibration	The product shall be installed in places where there is no obvious shaking, impact or vibration.

5 Derating Coefficient Table

Ambient temperature °C	40	50	55	60	65	70
Correction factor	1	0.98	0.95	0.93	0.875	0.75

6 Main Circuit Parameters and Performance Indicators

6.1 Main circuit parameters and performance indicators

Model			TGCA-06M	TGCA-09M	TGCA-12M
Rated operating current (A)	220B/230B	AC-3	6	9	12
		AC-4	2.6	3.5	5
	380B/400B	AC-3	6	9	12
		AC-4	2.6	3.5	5
	660B/690B	AC-3	3.8	4.9	4.9
		AC-4	1	1.5	2
Resistive current of free air (A)			20	20	20
Rated insulation voltage (V)			690		
Rated impulse withstand voltage (kV)			6		

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Table, continued

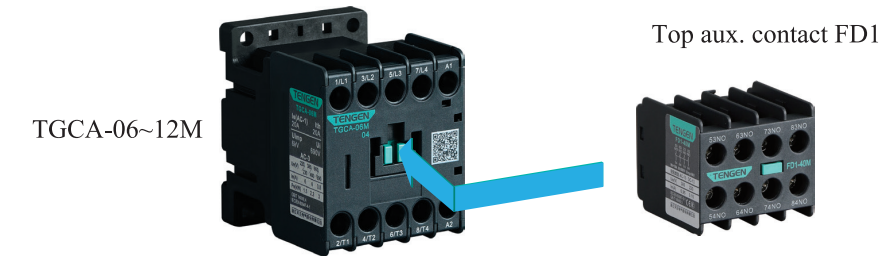
Model			TGCA-06M		TGCA-09M		TGCA-12M		
Controllable three-phase squirrel case motor power (AC-3) kW			220B/230B	1.5	2.2		3		
			380B/400B	2.2	4		5.5		
			660B/690B	3	4		4		
Intermittent periodic duty-type motor power (AC-4) kW			220B/230B	0.55	0.75		1.1		
			380B/400B	1.1	1.5		2.2		
			660B/690B	0.75	1.1		1.5		
Operating frequency (times/h)	Electrical life	AC-3	1200						
		AC-4	300						
Electrical life (10,000 times)			AC-3	120					
			AC-4	15					
Electrical life (10,000 times)				1200					
Model of matched fuse				RT16 - 00 16		RT16 - 00 20		RT16 - 00 20	
Cold-pressed terminal	Qty.		1	2	1	2	1	2	
	Non-prefabricated terminal flexible cable	mm ²	1/2.5	1/2.5	1/2.5	1/2.5	1/2.5	1/2.5	
	Prefabricated terminal flexible cable		1/2.5	1/2.5	1/2.5	1/2.5	1/2.5	1/2.5	
	Non-prefabricated terminal hard cable		1/2.5	1/2.5	1/2.5	1/2.5	1/2.5	1/2.5	
Size and tightening torque of terminal block screw (N.m)				M3					
				0,8					
AC coil power (50Hz)		Pull-in (VA)	40						
		Hold (VA)	9						
DC coil power (W)				1~4					
Main contact structure form				Three normally open, four normally open, two normally open + two normally closed					
Number of equipped aux. contacts	Three poles		One normally open or one normally closed						
	Four poles		-						
Pull-in voltage range				70%~120% (installation angle ± 5°), 85%~110%6Us (installation angle ± 22.5°)					
Coil pull-in voltage range				(20%~759%) Us AC					
Rated making capacity				(10%~759%) Us DC					
Rated breaking capacity				10 x Ie (AC-3) or 12 x Ie(AC-4)					
Coil control power		AC	8 x Ie (AC-3) or 10 x Ie(AC-4)						
		DC	24/48/110/220						
Matched accessories				Top accessory FD1					

6.2 Circuit parameters

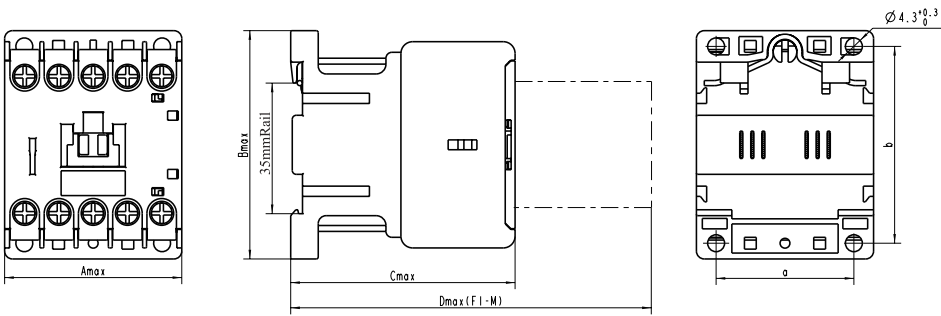
Conventional heating current Ith	10A
Rated insulation voltage Ui(V)	690
Control capacity of aux. contact	AC-15:1.6A/220V, 0.95A/380V
	DC-13:0.15A/220V
Rated impulse withstand voltage Uimp(kV)	6
Wiring capacity (N.m)	0.8(M3)

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7 Accessories



8 Outline and Installation Dimensions



Unit (mm)

Model & Spec.	Amax	Bmax	Cmax	Dmax	a	b
TGCA-06M~12M	45.5	58.5	57.5	92	35	50
TGCA-06M/Z~12M/Z	45.5	58.5	70	104	35	50