

# TGC1-N Series Reversing Contactor



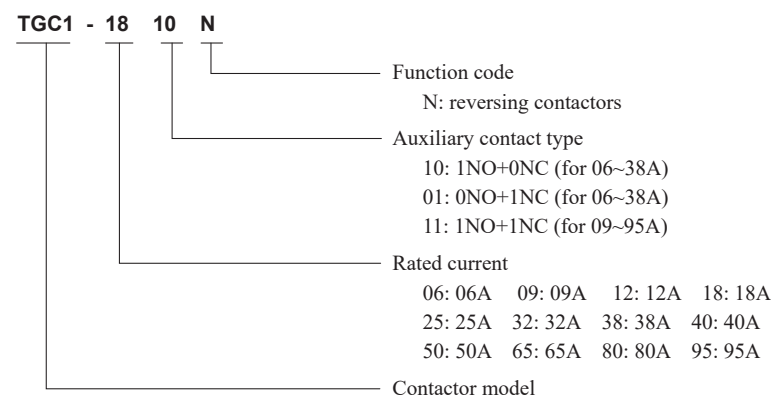
## 1 Overview

TGC1-N series reversing contactors (hereinafter referred to as contactors) feature with exquisite appearance and small shape, mainly used in AC 50Hz (or 60Hz) power system with a rated operating voltage up to 690V, with a rated operating voltage of 380V under AC-4 use category, and with a rated current up to 44A for power-on and power-off of circuit remotely, and can be combined with the appropriate thermal relay to form an electromagnetic starter for protection of circuit that overload may occur. The contactor is suitable for frequent start and control of AC motor.

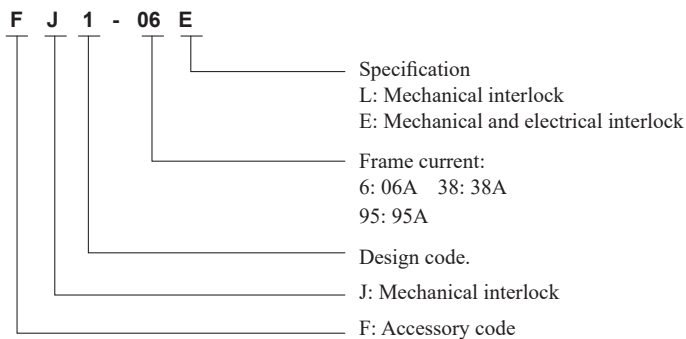
This product complies with standard IEC 60947-4-1.

## 2 Type Designation

### 2.1 Model description



### 2.2 Mechanical and electrical interlock FJ1



Installation location	Interlock method	Available product	Material description	Auxiliary specification for product
Side	Mechanical interlock	TGC1-06	FJ1-06L	
		TGC1-09~38	FJ1-38L	1NO+1NC
	Mechanical + electrical interlock	TGC1-09~38	FJ1-38E	1NO+1NC
		TGC1-40~95	FJ1-95E	

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2.3 TGC1-N Reversing contactor model table

Motor Power Pe(kW AC-4,380V)	Rated current Ie (A)	Auxiliary contact		Item Description
		Normal open NO	Normal closed NC	
1.1	2.6	1	-	TGC1-0610N*
		-	1	TGC1-0601N*
1.5	3.5	1	-	TGC1-0910N*
		-	1	TGC1-0901N*
		1	1	TGC1-0911N*
2.2	5	1	-	TGC1-1210N*
		-	1	TGC1-1201N*
		1	1	TGC1-1211N*
3.3	7.7	1	-	TGC1-1810N*
		-	1	TGC1-1801N*
		1	1	TGC1-1811N*
4	8.5	1	-	TGC1-2510N*
		-	1	TGC1-2501N*
		1	1	TGC1-2511N*
5.4	12	1	-	TGC1-3210N*
		-	1	TGC1-3201N*
		1	1	TGC1-3211N*
5.5	14	1	-	TGC1-3810N*
		-	1	TGC1-3801N*
		1	1	TGC1-3811N*
7.5	18.5	1	1	TGC1-4011N*
11	24	1	1	TGC1-5011N*
15	28	1	1	TGC1-6511N*
18.5	37	1	1	TGC1-8011N*
22	44	1	1	TGC1-9511N*

## 3 Technical Parameters

3.1 TGC1-N reversing contactor parameters table

Contact model	Rated insulation voltage	Rated operating voltage	Resistive current	Intermittent work cycle	
	Ui (V)	Ue (V)	Ith (A)	Ie (A)	Pe (kW)
TGC1-06N	690	380	16	2.6	1.1
		660		1	0.75
TGC1-09N	690	380	20	3.5	1.5
		660		1.5	1.1
TGC1-12N	690	380	20	5	2.2
		660		2	1.5
TGC1-18N	690	380	25	7.7	3.3
		660		3.8	3

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Continued table

TGC1-25N	690	380	32	8.5	4
		660		4.4	3.7
TGC1-32N	690	380	40	12	5.4
		660		7.5	5.5
TGC1-38N	690	380	40	14	5.5
		660		8.9	6
TGC1-40N	690	380	50	18.5	7.5
		660		9	7.5
TGC1-50N	690	380	60	24	11
		660		12	10
TGC1-65N	690	380	80	28	15
		660		14	11
TGC1-80N	690	380	110	37	18.5
		660		17.3	15
TGC1-95N	690	380	110	44	22
		660		21.3	18.5

3.3 Coil voltage specification table

Coil voltage	V	24	36	48	110	220	380	400	415
Coil voltage code	50Hz	B5	C5	E5	F5	M5	Q5	V5	N5
	50/60Hz	B7	C7	E7	F7	M7	Q7	V7	N7

## 4 Operating Conditions

4.1 Ambient temperature (around the equipment): Allowable working temperature:  $-35^{\circ}\text{C}\sim+70^{\circ}\text{C}$ ; normal working temperature:  $-5^{\circ}\text{C}\sim+40^{\circ}\text{C}$ ; when the working environment temperature is higher than  $+40^{\circ}\text{C}$ , by considering that the allowable limit temperature rise of the product will be reduced, the rated working current must be reduced (the derating coefficient sees table below), and the quantity of the contactors mounted in the standard assembly shall be decreased, otherwise the product may be damaged, the service life may be shortened, and the working reliability may be reduced, and furthermore the product action range may be affected; when the working environment temperature is lower than  $-5^{\circ}\text{C}$ , considering that the insulation and lubrication grease may be congealed at too low ambient temperature resulting in product action failure, please contact the manufacturer and user for design or use.

Ambient temperature $^{\circ}\text{C}$	40	50	55	60	65	70
Correction factor	1	0.98	0.95	0.93	0.875	0.75

4.2 Installation conditions: The inclination between the mounting surface and the vertical surface is not more than  $\pm 22.5^{\circ}\text{C}$ , and the installation category is Class III;

4.3 Pollution degree: 3

4.4 Altitude: Not more than 2,000 meters

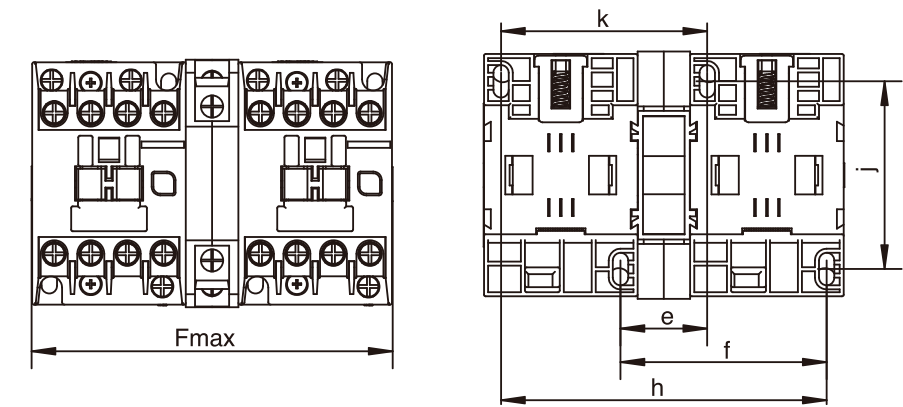
4.5 Atmospheric conditions: When the maximum temperature is  $+70^{\circ}\text{C}$ , the relative humidity of the air does not exceed 50%. Higher relative humidity is allowed at lower temperatures, for example, up to 90% at  $20^{\circ}\text{C}$ . Special measures should be taken for condensation occurred occasionally due to temperature changes;

4.6 The product should be installed and used in a place where there is no obvious shaking, impact and vibration.

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5 Outline and Installation Dimensions

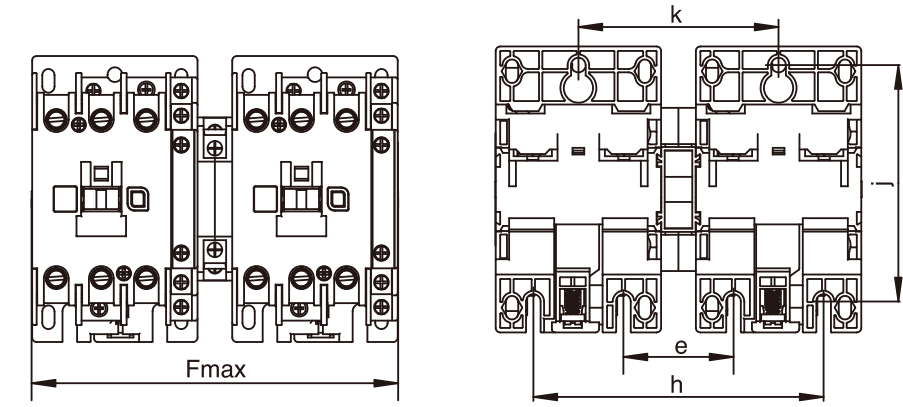
5.1 TGC1-06N~38N



Unit: mm

Spec. & Model	Fmax	e	f	h	j	k
TGC1-06N	105	25	60	95	50/60	60
TGC1-09N~18N	106	25	60	95	50/60	60
TGC1-25N~38N	129	31.5	71	111.5	50/60	71

5.2 TGC1-40N~95N



Unit: mm

Spec. & Model	Fmax	e	f	h	j	k
TGC1-40N~65N	163	50	-	130	100/110	90
TGC1-80N~95N	186	60	-	140	100/110	100