

TGC1 Series AC contactor

1 Product overview



TGC1 series AC contactor, beautiful appearance, small size. It is mainly used for AC 50/60Hz, rated operating voltage to 690V, under AC-3 use categories and rated operating voltage, rated operating current to 95A power system, for long-distance switching on and off circuit. But also the electromagnetic starter can be formed with suitable thermal relay to protect circuits that may be overloaded. AC contactor suitable for frequent start and control of AC motors.

The product matches IEC 60947-4-1

2 Model selection

2.1 Model description



TGC1 - 18 10 N B 7

Default: 50Hz 7: 50/60Hz

coil voltage

B: 24V C: 36V E: 48V F: 110V

M: 220V O: 380V V: 400V N: 415V

function code

default: normal contactor N: reversible contactor

contact form

10: 1NO+1NC (suitable 06-38A)

01: 0NO+1NC (suitable 06-38A)

11: 1NO+1NC (suitable 40-95A)

rated current

06: 06A 09: 09A 12: 12A 18: 18A 25: 25A

32: 32A 38: 38A 40: 40A 50: 50A

65: 65A 80: 80A 95: 95A

contactor model



2.2 AC contactor selection table

motor power P _e (kW AC, 3, 380V)	rated current I _c (A)	auxiliary contact		model
		NO	NC	
2.2	6	1	-	TGC1-0610*
		-	1	TGC1-0601*
4	9	1	-	TGC1-0910*
		-	1	TGC1-0901*
5.5	12	1	-	TGC1-1210*
		-	1	TGC1-1201*
7.5	18	1	-	TGC1-1810*
		-	1	TGC1-1801*
11	25	1	-	TGC1-2510*
		-	1	TGC1-2501*
15	32	1	-	TGC1-3210*
		-	1	TGC1-3201*



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18.5	38	1	-	TGC1-3810*
		-	1	TGC1-3801*
18.5	40	1	1	TGC1-4011*
22	50	1	1	TGC1-5011*
30	65	1	1	TGC1-6511*
37	80	1	1	TGC1-8011*
45	95	1	1	TGC1-9511*

coil voltage code									
coil voltage	V	24	36	48	110	220	380	400	415
code	50Hz	B	C	E	F	M	Q	Y	N
	50/60Hz	B7	C7	E7	F7	M7	Q7	V7	N7

main technical parameter

parameters and technical performance

model	TGC1-06	TGC1-09	TGC1-12	TGC1-18	TGC1-25	TGC1-32	TGC1-38	TGC1-40	TGC1-50	TGC1-65	TGC1-80	TGC1-95		
main circuit feature														
pole	3 Pole													
insulation voltage U_i	690													
impulse withstand U_{imp}	6kV										8kV			
rated voltage U_e	220, 380, 690													
connecting capability	connecting current: 10X I_e (AC-3) 或 12X I_e (AC-4)													
breaking capacity	connecting and breaking current: 8X I_e (AC-3) or 10X I_e (AC-4)													
rated operating current I_e	380V	AC-3 A	6	9	12	18	25	32	38	40	50	65	80	95
		AC-4 A	2.6	3.5	5	7.7	8.5	12	14	18.5	24	28	37	44
	660V	AC-3 A	3.8	6.6	8.9	12	18	22	34	39	42	49	49	
		AC-4 A	1	1.5	2	3.8	4.4	7.5	8.9	9	12	14	17.3	21.3
conventional free air heating current I_{th}	A	16	20	20	25	32	40	50	50	60	80	110	110	
rated operating power P_e	380V	AC-3 kW	2.2	4	5.5	7.5	11	15	18.5	18.5	22	30	37	45
		AC-4 kW	1.1	1.5	2.2	3	4	5.5	5.5	7.5	11	15	18.5	22
	660V	AC-3 kW	3	5.5	7.5	10	15	18.5	18.5	30	37	37	45	45
		AC-4 kW	0.75	1.1	1.5	3.7	4	5.5	6	7.5	11	11	15	18.5
electrical life	AC-3	10^4 times	120					100					80	
	AC-4	10^4 times	25					20					13	
mechanical life	10^4 times		1600				1000				900		650	
	operating frequency	Elec. life	AC-3 T/h					1200					600	
Mec. life		AC-4 T/h		300										
life	7/h	3600												

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continue the table

SCPD Matched fuse												
matched fuse model	RT16-00 20	RT16-00 20	RT16-00 20	RT16-00 32	RT16-00 40	RT16-00 50	RT16-00 50	RT16-00 63	RT16-00 80	RT16-00 80	RT16-00 100	RT16-00 125
matched thermal relay model	TGR1-18				TGR1-38				TGR1-95			
main circuit terminal wiring capability												

auxiliary contact			
auxiliary contact parameter	Ith	A	10
	control power	AC-15 VA	60VA
		DC-13 W	33W
certificate			CCC CE

coil voltage type

coil voltage	V	24	36	48	110	220	380	400	415
coil voltage code	50Hz	B	C	E	F	M	Q	V	N
	50/60Hz	B7	C7	E7	F7	M7	Q7	V7	N7

installation condition

Ambient temperature:working temperature limit:-35℃-+70℃,normal working temperature:-5℃-+40℃;the average temperature within 24 hours shall not exceed+35℃,if the product is not used in normal working temperature,please refer to the sample data for details;

Altitude:lower than or equal to 2000m;

Atmospheric condition :when the highest temperature is +70℃.the relative humidity shall not be larger than 50%.Higher relative humidity is permitted under lower temperature.

Pollution degree:3

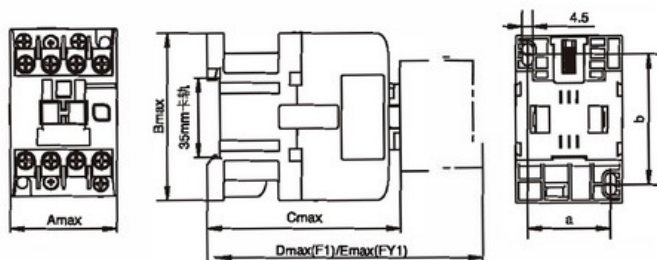
type of installation :III

Installation condition:the angle between the installation surace and the vertical place shall not be larger than 22.5 degree.

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Shape and mounting dimension

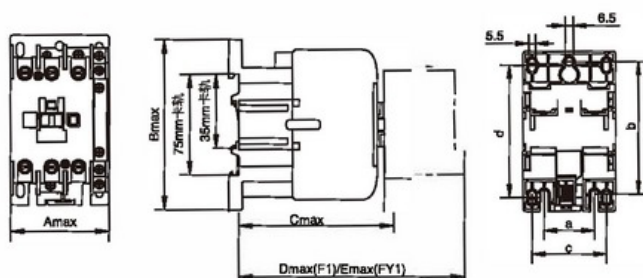
TGC1-06~38



unit: mm

Type	A_{max}	B_{max}	C_{max}		E_{max}	a	b	c	d
TGC1-06	45	74	73	111	131	35	50/60	-	-
TGC1-09~18	45	71	82	120	140	35	50/60	-	-
TGC1-25~38	56	82.5	96	134	154	40	50/60	-	-

TGC1-40~95

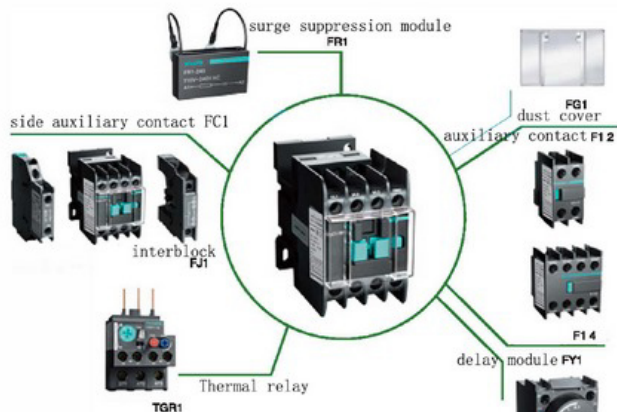


unit: mm

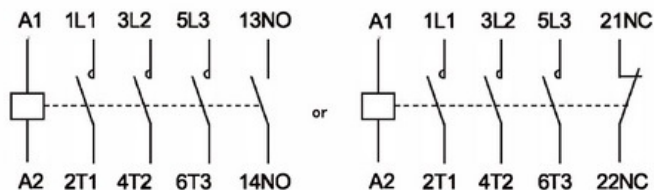
Type	A_{max}	B_{max}	C_{max}	D_{max}	E_{max}	a	b	c	d
TGC1-40~65	73.5	127	116	154	174	40	100/100	59	100/110
TGC1-80~95	84.5	126.5	123	161	181	40	100/100	54	102/111

TGC1 series AC contactor

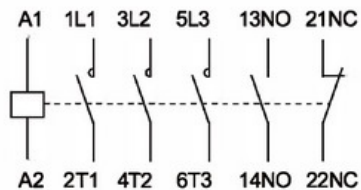
accessory installation diagram



TGC1-06-38 wiring diagram



TGC1-06-38 wiring diagram



TGC1 series AC contactor

accessory type

auxiliary contact F1/FC1



suitable for normal environment

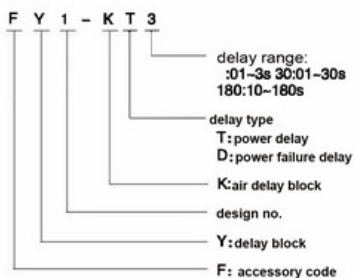
installation position	pole	contact layout	contact form	suitable model	model
top	2	<pre> 51 81 53 61 53 83 NC NC NO NC NO NO ----- 52 62 54 62 54 64 </pre>	1NO+1NC	TGC1-06~95	F1-11
		<pre> 51 81 53 61 53 83 NC NC NO NC NO NO ----- 52 62 54 62 54 64 </pre>	2NO+0NC		F1-20
		<pre> 51 81 53 61 53 83 NC NC NO NC NO NO ----- 52 62 54 62 54 64 </pre>	0NO+2NC		F1-02
	4	<pre> 51 61 71 81 51 63 71 81 53 61 71 83 NC NC NC NC NC NO NC NC NO NC NC NC ----- 52 62 72 82 52 64 72 82 54 62 72 84 </pre>	2NO+2NC		F1-22
		<pre> 51 61 71 81 51 63 71 81 53 61 71 83 NC NC NC NC NC NO NC NC NO NC NC NC ----- 52 62 72 82 52 64 72 82 54 62 72 84 </pre>	4NO+0NC		F1-40
		<pre> 53 61 73 83 53 63 73 83 NO NC NO NO NO NO NO NO ----- 54 62 74 84 54 64 74 84 </pre>	0NO+4NC		F1-04
side	2	<pre> 161/172 151/162 151/172 153/164 163/174 153/164 NC NC NC NO NO NO ----- 163/171 153/161 163/171 154/163 164/173 154/163 </pre>	1NO+1NC	TGC1-09~95	FC1-11
		<pre> 161/172 151/162 151/172 153/164 163/174 153/164 NC NC NC NO NO NO ----- 163/171 153/161 163/171 154/163 164/173 154/163 </pre>	2NO+0NC		FC1-20
		<pre> 161/172 151/162 151/172 153/164 163/174 153/164 NC NC NC NO NO NO ----- 163/171 153/161 163/171 154/163 164/173 154/163 </pre>	0NO+2NC		FC1-02

maximum auxiliary contact number

contactor	auxiliary contact		
	top		side
	2pole	4pole	2pole
TGC1-06	1	or 1	/
TGC1-09~95	1	or 1	2

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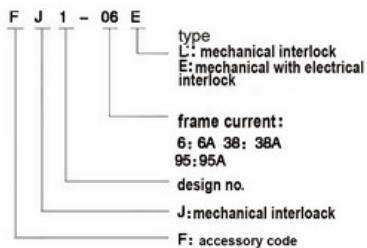
Air delay block FY1



contact position	delay type	contact	wiring diagram	delay range	suit model	model
top	power delay	1NO+1NC		0.1~3s	TGC1-06~95	FY1-KT3
				0.1~30s		FY1-KT30
				10~180s		FY1-KT180
	power failure delay	1NO+1NC		0.1~3s		FY1-KD3
				0.1~30s		FY1-KD30
				10~180s		FY1-KD180

between N/C contact open and N/O contact close, waiting time: 40ms±15ms.

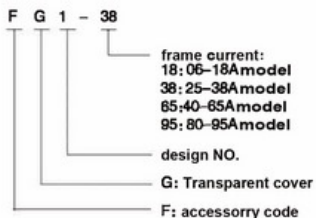
mechanical interlock FJ1



installation position	interlock way	suitable contactor model	model
side	mechanical interlock	TGC1-06	FJ1-06L
		TGC1-09~38	FJ1-38E
	mechanical + electrical interlock	TGC1-40~95	FJ1-95E

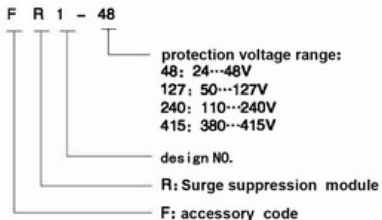
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dust cover FG1



installation position	suitable contactor model	model
top	TGC1-06~18A	FG1-18
	TGC1-25~38A	FG1-38
	TGC1-40~65A	FG1-65
	TGC1-80~95A	FG1-95

Surge suppression module (resistance-capacitance type) FR1



Product feature:

Effective protect circuit sensitive to high frequency interference. For sinusoidal voltage waveforms, total harmonic distortion below 5%

The maximum voltage is limited to 3Uc, the maximum oscillation frequency is limited to 400Hz.

The disconnect time will increase to 1.2 to 2 normal time.

installation position	protect voltage range		Suitable product	model
	AC	DC		
top	~	—	TGC1-06~95	FR1-48
	~	—		FR1-127
	~	—		FR1-240
	~	—		FR1-415

CJX2(LC1-D) AC Contactors

Dimensions of Outline and Installation



CJX2 115/150



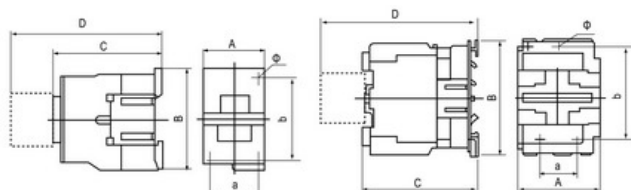
CJX2 170



CJX2-D205



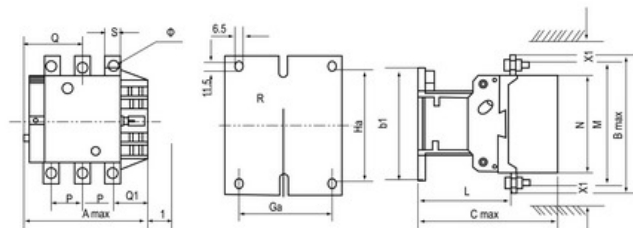
CJX2-D300



CJX2-D09-32

CJX2-D40-95

Type	A	B	C	D	a	b	Φ
CJX2-D09-12	47	76	82	113	34/35	50/60	4.5
CJX2-D18	47	76	87	118	34/35	50/60	4.5
CJX2-D25	57	86	95	126	40	48	4.5
CJX2-D32	57	86	100	131	40	48	4.5
CJX2-D40-65	77	129	116	145	40	100/110	4.5
CJX2-D80-95	87	120	127	176	40	100/110	4.5



CJX2-D115-620

Type	A	B	C	b1	P	Q	S	Q1	M	N	L	Φ	Ga	Ha
CJX2-D115	158	120	132	158	35	60	17	25	134	96.2	75	M6	-	-
CJX2-D150	158	120	132	158	35	60	17	25	134	96.2	75	M6	-	-
CJX2-D170	158	120	132	158	35	60	17	25	134	96.2	75	M6	-	-
CJX2-D205	168.5	174	181	137	40	69	20	59.4	154	127	113.5	M8	80	120-106
CJX2-D245	168.5	197	191	137	48	69	25	51.5	172	127	113.5	M10	80	120-106
CJX2-D300	213	206	219	145	48	91	25	74	181	158	145	M10	80	120-106
CJX2-D410	213	206	219	209	48	91	25	74	181	158	145	M10	80	120-106