

NCT2212CK COMPRESSOR

TECHNICAL SPECIFICATION



HUANGSHI DONPER COMPRESSOR CO., LTD.

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1. Compressor Type

Compressor model	NCT2212CK
Rated voltage/frequency	220-240V~50Hz
Refrigerant	R404A
Application	Low/Middle back pressure (L/MBP)
Cooling method	Fan Cooling
Start torque	High starting torque (HST)
Control device	Capillary tube
Motor type	CSR
Running capacitor	25μF
Starting capacitor	100μF

2. Performance Data

Displacement	Net Wt.	Oil Charge	Cooling Capacity(≥95%)										COP(≥95%)		
			ASHRAE										CECO MAF	ASHR AE	CECO MAF
			-35	-30	-25	-23.3	-20	-15	-10	-5	0	-25	-23.3	-25	
cm³	kg	ml	w	w	w	w	w	w	w	w	w	w	w/w	w/w	
34.6	21.5±0.4	550±10	658	872	1145	1400	1652	1816	2212	2664	3142	1221	1.20	0.94	

Testing condition:

Test conditions	LBP	
	ASHRAE	CECOMAF
Evaporating Temp.	-23.3°C	-25°C
Ambient Temp.	+32.2°C	+32°C
Condensing Temp.	+54.4°C	+55°C
Suction Temp.	+32.2°C	+32°C
Subcooling Temp.	+32.2°C	+55°C

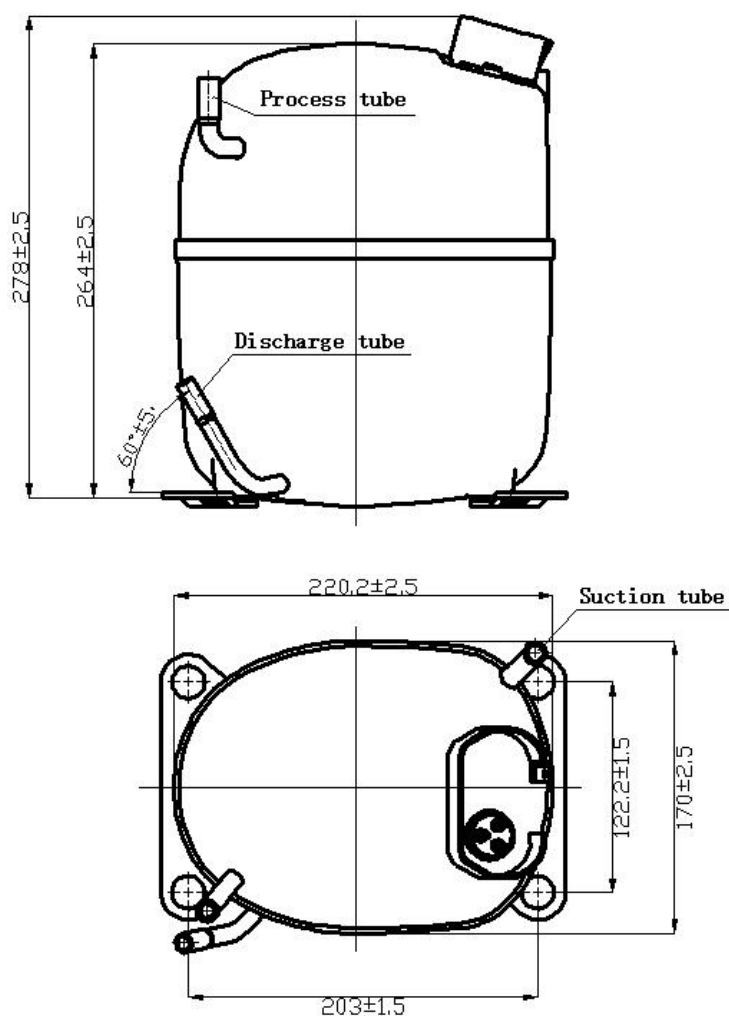
3. Running Condition

Ambient temp.	0~43°C
Evaporating temp.	-35~0°C
Voltage range	187~254V
Max. condensing temp.	65°C
Max. winding temp.	130°C
Max. shell temp.	110°C
Max. discharge temp.	130°C
Start voltage	187V [1.1/1.1MPa(abs)]
Shell min. resistance to pressure	35bar

4. Compressor Mechanical Information

Oil type	POE
Viscosity	28.8~35.2 mm ² /s (40℃)
Oil charged	550±10ml
Diameter of suction tube (I.D.)	Φ 9.6±0.1mm
Diameter of discharge tube(I.D.)	Φ 8.0±0.1mm
Diameter of process tube (I.D.)	Φ 9.6±0.1mm
Material of suction tube, process tube and discharge tube	Copper tube
Compressor noise	≤70dB(A)
Vibration	≤7.0m/s ²
Protecting gas	-0.06~-0.02MPa

5. Compressor Shape

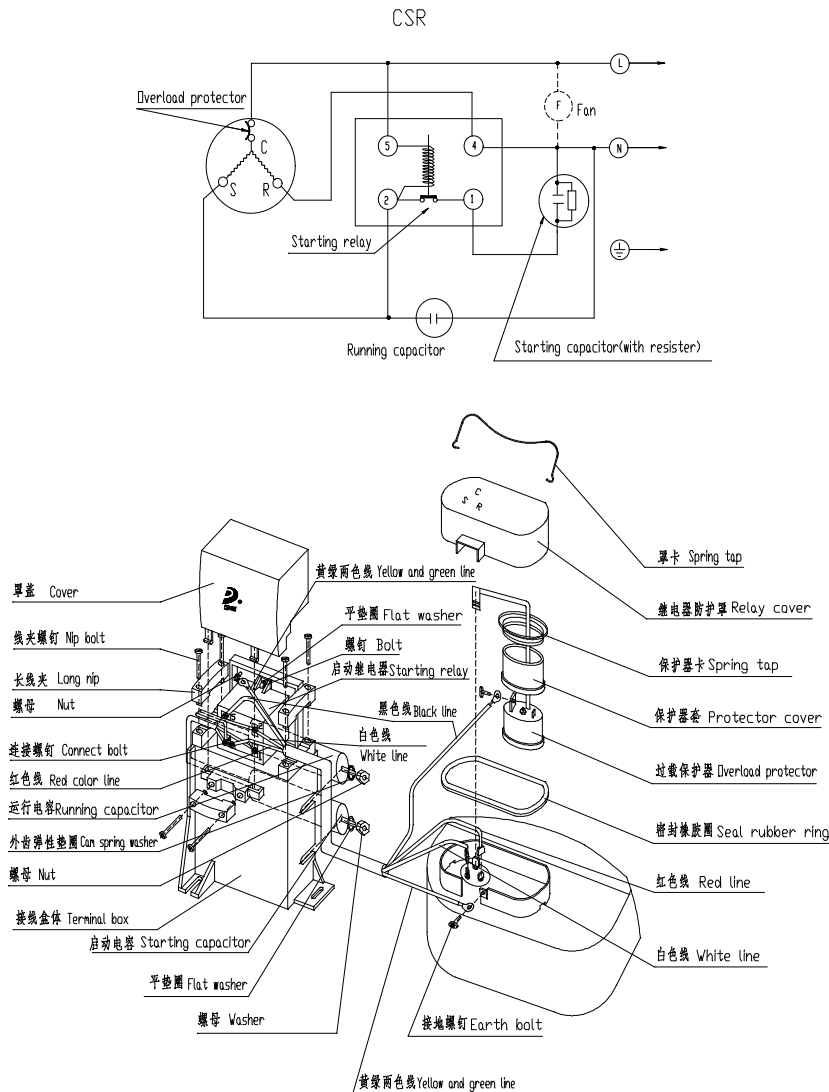


Caution:Suction tube and process tube can not be exchanged

Unmarked tolerance: ± 5mm

Unmarked Angle: ± 10°

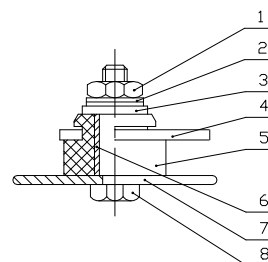
6. Wiring Diagram



Note: Each of the starting relay、the overload protector、the relay cover 、the spring tap、the starting capacitor、the running capacitor and all terminal box assembly is separately provided by our company.

7. Fixing of mounting bracket and cabinet base

- 1、Hexagon nut
- 2、Spring washer
- 3、Flat washer
- 4、Compressor mounting bracket
- 5、Rubber grommet
- 6、Sleeve
- 7、Cabinet base
- 8、Screw



Note: Equipment assembly is all provided by our company. Above is just for reference, details can refer to delivery state.

8. Starting relay and overload protector

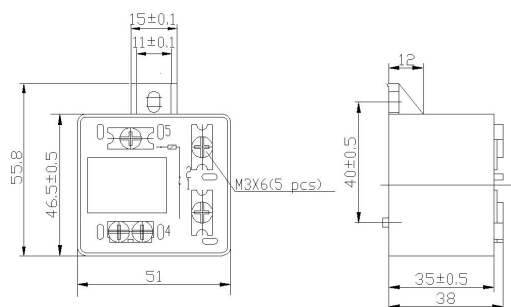
8.1 Starting relay

Model	RVA6M3C	
Supplier	ELSING (SUZHOU) ELECTRICAL CONTROLS CO.,LTD.	
Max Close Voltage	V	239~268
Min Open Voltage	V	60~135

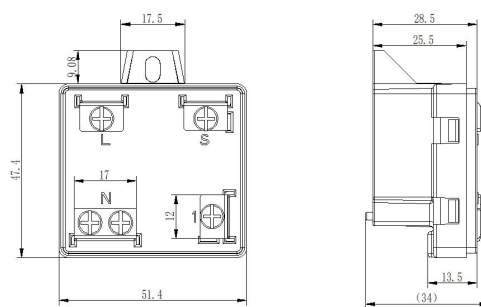
Model	TY-QE-505	
Supplier	Changshu Tianyin Electromechanical Co. Ltd.	
Run time	S	0.1~3.0
Reset time	S	≤90
Max working voltage	V	240
Max current	A	20

Flammability: Anti-flammability

RVA6M3C



TY-QE-505

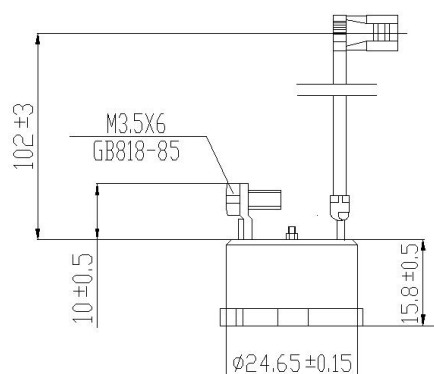


8.2 Overload protector

Model	T2047	B404-120
Supplier	ELSING (SUZHOU) ELECTRICAL CONTROLS CO.,LTD	Changshu Tianyin Electromechanical Co. Ltd.
Max.T.C Amp.(25°C)	A	40.4
Trip time	S	9~16
Reset time	S	10~80
Open temp.	±5°C	120
Close temp.	±11°C	69

Flammability: Anti-flammability

T2047/B404-120



9. Capacitor

Type	Starting capacitor	Running capacitor
Model μF	100	25
Rated voltage V.AC	330	450
Supplier and model	Huangshan Zhenzhou Electronic Technology Co., Ltd.	Anhui Feida Electrical Technology Co., Ltd.
	FUXIN JIEKEDA ELECTRONIC CO.LTD	Anhui Tongfeng Electronics Co.,Ltd

10. Delivery State

No	Name	Model	Quantity	CODE
1	Compressor	NCT2212CK	1pcs	
2	Rubber plug	$\Phi 9.85$	1pcs	
		$\Phi 11.5$	2pcs	
3	Rubber grommet	Q79E-03	4pcs	
4	Starting relay	RVA6M3C	1pcs	ELSING (SUZHOU) ELECTRICAL CONTROLS CO.,LTD
		TY-QE-505		Changshu Tianyin Electromechanical Co. Ltd.
5	Overload protector	B404-120	1pcs	Hangzhou Star shuaier Electric Appliance Co.,LTD
				Changshu Tianyin Electromechanical Co.LTD
		T2047		ELSING (SUZHOU) ELECTRICAL CONTROLS CO.,LTD
6	Starting capacitor	100 μF	1pcs	Huangshan Zhenzhou Electronic Technology Co., Ltd.
				FUXIN JIEKEDA ELECTRONIC CO.LTD
7	Running capacitor	25 μF	1pcs	Anhui Feida Electrical Technology Co., Ltd.
				Anhui Tongfeng Electronics Co.,Ltd.
8	Cover	Q79E-09	1pcs	
9	Grounding screw	QET.1-24C	1pcs	

10	Sleeve	$\phi 11.1 \times 23$	4pcs	
11	Spring tap	Q79E-08	1pcs	
12	Spring for overload protector	Q79E-11	1pcs	
13	Protector cover	Q79E-12	1pcs	
14	Seal rubber ring	Q79E-10	1pcs	
15	Anchor bolt assembly	M6 \times 30	4pcs	
16	Nut	M6	4pcs	

Notes:1. Except for special remakes, all electrical parts and equipment assembly are supplied separately, not installed on the compressor.

2.All electrical parts and equipment assembly according to “Delivery state” are all provided by our company.

11. Package、Storage and Transportation

Package type	unrecyclable
Quantity	45 pcs/box
Transportation	By sea
Storage	Max. 2 layers
Cross Weight Kg	1003 \pm 18
Net Weight Kg	968 \pm 18
Volume m ³	1.16
Dimension: length \times width \times height cm	104 \times 102 \times 109
Main components	Wooden supporter、upper wooden cover、foam divider、plastic sheet、cardboard cover、rain-proof cover、wrapping
Movement	Keep the compressor in normal or vertical position
Trans. test requirement	No allowable compressor's damage and performance loss.

12、Technical Items

(1)、Don't take off the rubber plugs before using and installing compressor to prevent dust and moisture.

(2)、Don't turn down or incline the compressor during storage, transportation or installation and avoid vibration and shock.

(3)、The compressor must be kept horizontally during running, the inclination angle must be less than 5° .

(4)、A special polyester oil is charged in the R404A compressor and the charging volume has been optimized by DONPER. Don't pour out or add any refrigerant oil.

(5)、The interval of compressor operation must be more than 4 minutes in order to obtain a

pressure balance in the systems.

(6)、Don't start or run in the case of vacuum or charge high voltage in the compressor. The compressor cannot be used to vacuumize the refrigeration system.

(7)、The design of refrigeration system must be suitable to insure the oil could flow back to compressor.

(8)、The maximum ambient temperature of the compressor operation is 43℃.When continuously operating under the maximum ambient temperature 43℃, the condensing pressure and the peak pressure should not exceed as showing in the following table.

Refrigerant	R404A
Max. condensing pressure	2.68MPa
Peak	3.0MPa

(9)、Widen the evaporating Temp. range of the compressor should be approved by DONPER.

(10)、Compressor should be stored in a dry place.

(11)、Compressor accessories (eg: starting relay, overload protector etc.) are put in the accessories box instead of fixing on the compressor.

(12)、The inventory period of the compressor after leaving the factory should not exceed 6 months. If it exceeds 6 months, please check if the protective gas inside the compressor is under negative pressure.

(13)、It's necessary to keep the compressor without rubber plug as short time as possible (max time 10 min).

(14)、R404A systems require a filter with drying agent which suitable for R404A refrigerant

(15)、The vacuum pump and the charging system must only be dedicated to R404A

(16)、The refrigeration system should minimize the content of chlorine and moisture, and must be free of paraffin and silicon oil.

(17)、The organic substance non-compatible with R404A cannot be used in the refrigeration system.