

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	ASH	CECO
			-35	-30	-25	-23.3	-20	-15	-10	-5	0	-25	MAF	RAE	MAF
cm ³	kg	ml	w	w	w	w	w	w	w	w	w	w	w/w	w/w	
34.4	21.5±0.4	550±10	658	872	1145	1400	1652	1816	2212	2664	3142	1221	1.20	0.94	

Note: These datas come from the test without a current starting relay

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

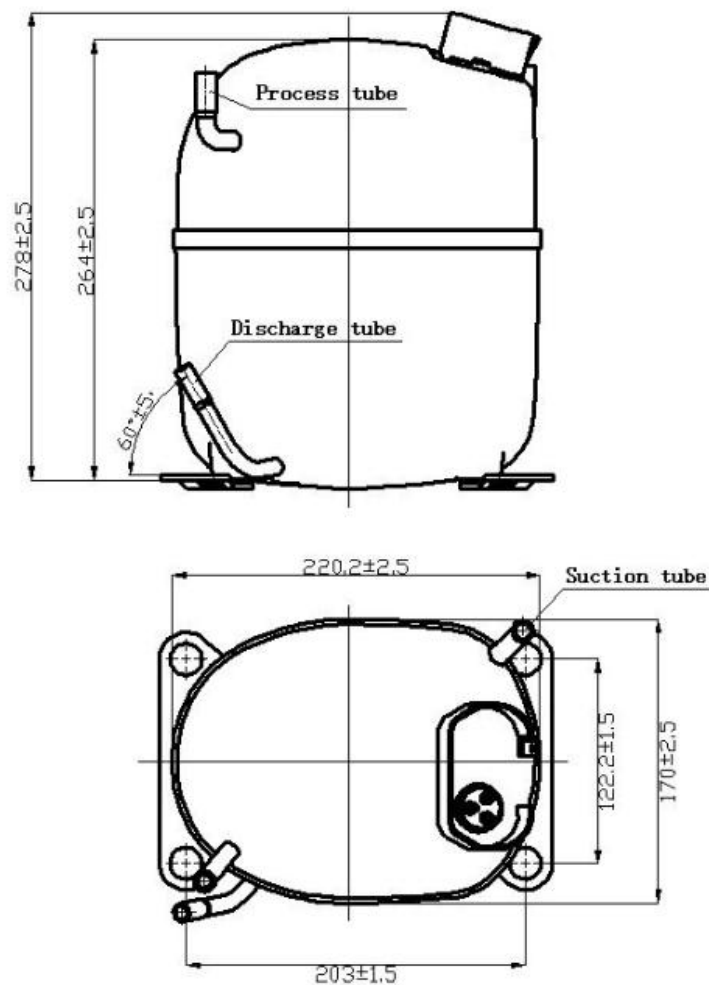
3. Running Condition

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	28.8~35.2mm ² /s (40℃)
Oil charged	550±10ml
Diameter of suction tube (I.D.)	Φ9.6±0.1mm
Diameter of discharge tube(I.D.)	Φ8.0±0.1mm
Diameter of process tube (I.D.)	Φ9.6±0.1mm
Material of suction tube, process tube and discharge tube	copper tube
Compressor noise	≤70dB(A)
Vibration	≤7.0 m/s ²
Protecting gas	Dry com. air (Dew point-60℃)

5. Compressor Shape

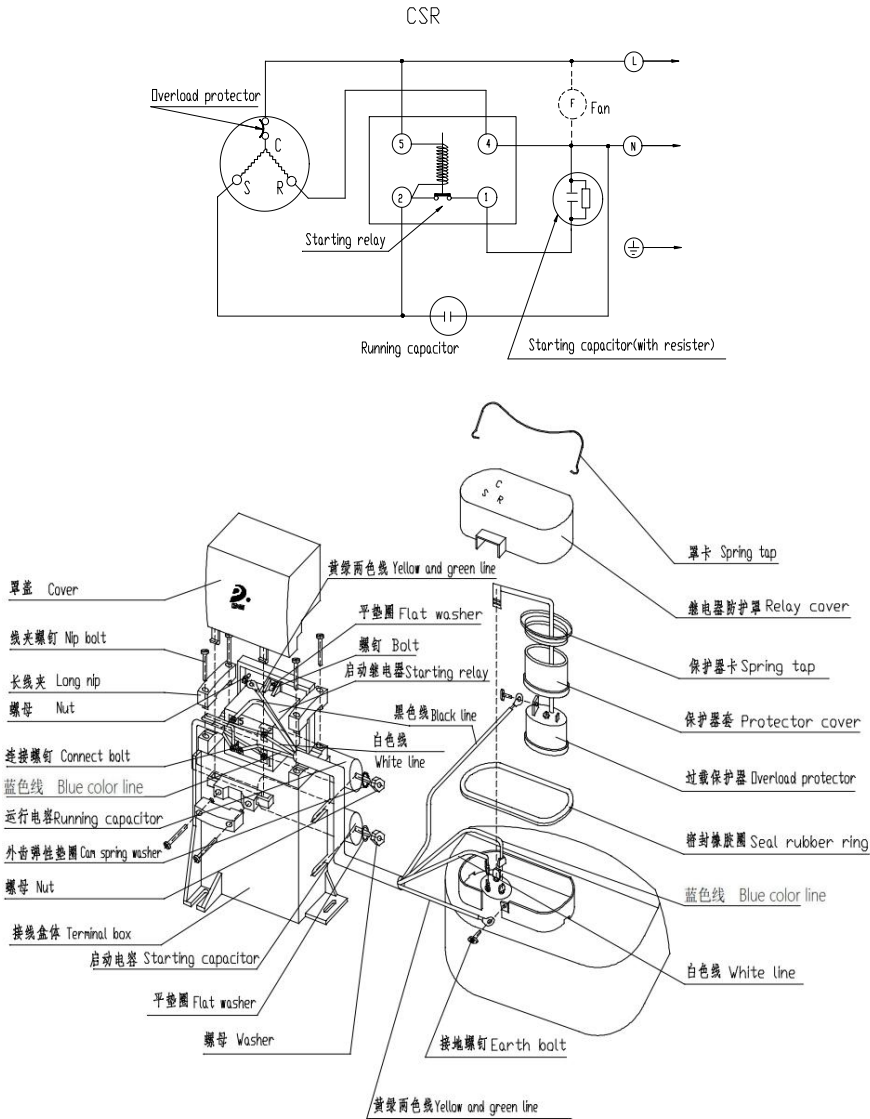


Caution:Suction tube and process tube can not be exchanged

Unmarked tolerance: ± 5mm

Unmarked Angle: ± 10°

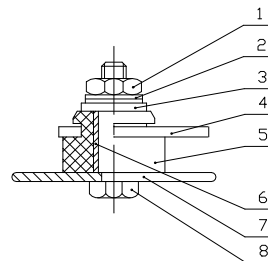
6. Wiring Diagram



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.

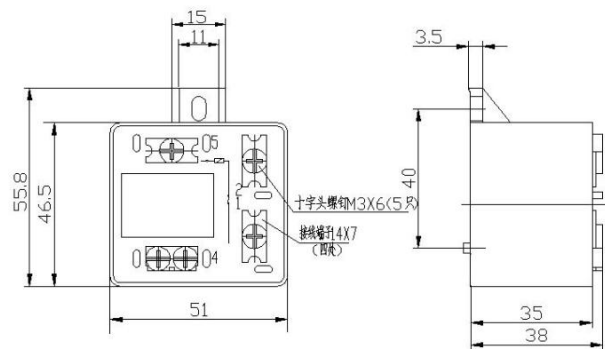
8. Starting relay and overload protector

8.1 Starting relay

Model	RVA 6M3C	DYS 6M3C
Supplier	ELSING (SUZHOU) ELECTRICAL CONTROLS CO.,LTD.	Lanxi City Yueqiang Electric Co., Ltd.
Max Close Voltage V	239~268	
Min Open Voltage V	60~135	

Flammability: Anti-flammability

RVA 6M3C/DYS 6M3C



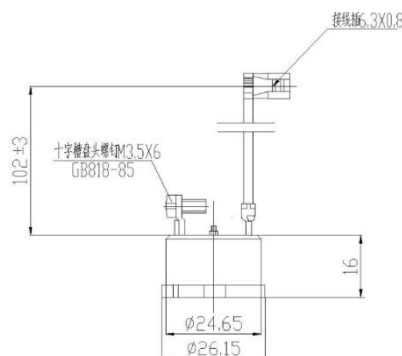
Unmarked tolerance: ± 1mm

8.2 Overload protector

Model	T2047	B404-120
Supplier	ELSING (SUZHOU) ELECTRICAL CONTROLS CO.,LTD	Hangzhou Star shuaier Electric Appliance Co.,LTD
Max.T.C Amp.(25°C) A	42	
Trip time S	6~16	
Reset time S	20~150	
Open temp. ±5°C	120	
Close temp. ±9°C	52	

Flammability: Anti-flammability

T2047/B404-120



Unmarked tolerance: ± 1mm

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	Φ 9.85	1pcs	Installed
		Φ 11.5	2pcs	Installed
3	Rubber grommet	Q79E-03	4pcs	
4	Starting relay	RVA 6M3C	1pcs	ELSING (SUZHOU) ELECTRICAL CONTROLS CO.,LTD.
		DYS 6M3C		Lanxi City Yueqiang Electric Co., Ltd.
5	Overload protector	B404-120	1pcs	Hangzhou Star shuaier Electric Appliance Co.,LTD
		T2047		ELSING (SUZHOU) ELECTRICAL CONTROLS CO.,LTD.
6	Starting capacitor	100 μ F	1pcs	Huangshan Zhenzhou Electronic Technology Co., Ltd
				Fuxin Jiekeda Electronic Co.Ltd
7	Running capacitor	25 μ F	1pcs	Anhui Feida Electrical Technology Co., Ltd.
				Anhui Tongfeng Electronics Co.,Ltd.
8	Relaying cover	Q79E-09	1pcs	
9	Earth bolt	QET.1-24C	1pcs	
10	Sleeve	Φ 11.1×23	4pcs	
11	Spring cover holder	Q79E-08	1pcs	
12	Spring for overload protector	Q79E-11	1pcs	
13	Anchor bolt assembly	M6×30	4pcs	
14	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	998 ± 18
Net Weight	Kg	968 ± 18
Volume	m ³	1.15
Dimension: length ×width ×height	cm	104 × 102 × 108
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 stocking period must be less than 6 months after the date of production. If longer, you have to check whether the filled gas is sufficient. Replenishment must be done if necessary.
- (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 whith 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 chlorion and moisture, and must be free of paraffin and silicon oil.
- (17)、 The organic substance non-compatable with R404A cannot be used in the refrigeration system.