

NV2192CK COMPRESSOR

TECHNICAL SPECIFICATION



HUANGSHI DONPER COMPRESSOR CO., LTD.

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1. Compressor Type

Compressor model	NV2192CK
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	25 μ F
Starting capacitor	100 μ F

2. Performance Data

Displacement	Net Wt.	Oil Charge	Cooling Capacity($\geq 95\%$)										COP($\geq 95\%$)		
			ASHRAE										CECOM AF	ASHR AE	CECO MAF
			-35	-30	-25	-23.3	-20	-15	-10	-5	0	-25	-23.3	-25	
cm ³	kg	ml	w	w	w	w	w	w	w	w	w	w	w/w	w/w	
21.2	18.5±0.4	450±10	429	640	859	950	1121	1457	1848	2281	2773	699	1.25	0.97	

Note: These datas come from the test without a PTC 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

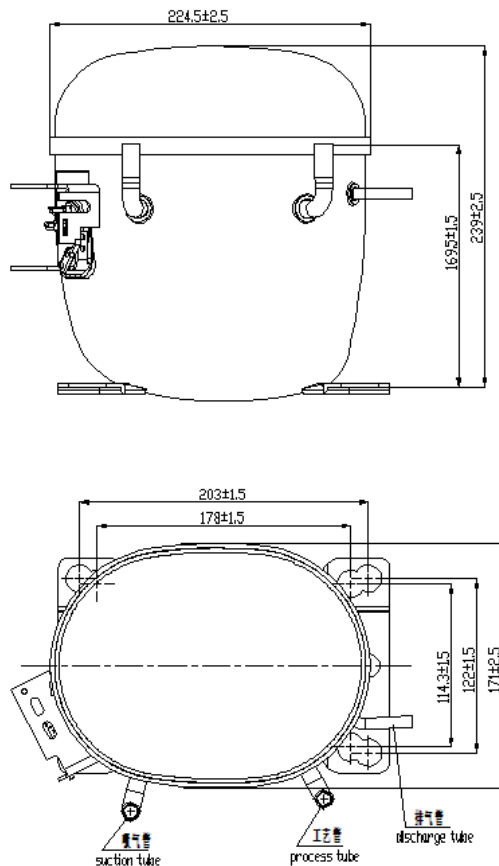
3. Running Condition

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 oil
Viscosity	28.8~35.2 mm ² /s(40°C)
Oil charged	450±10ml
Diameter of suction tube (I.D.)	Φ 9.6±0.1mm
Diameter of discharge tube(I.D.)	Φ 6.2±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	≤68dB(A)
Vibration	≤6.0m/s ²
Protecting gas	-0.06~-0.02MPa

5. Compressor Shape

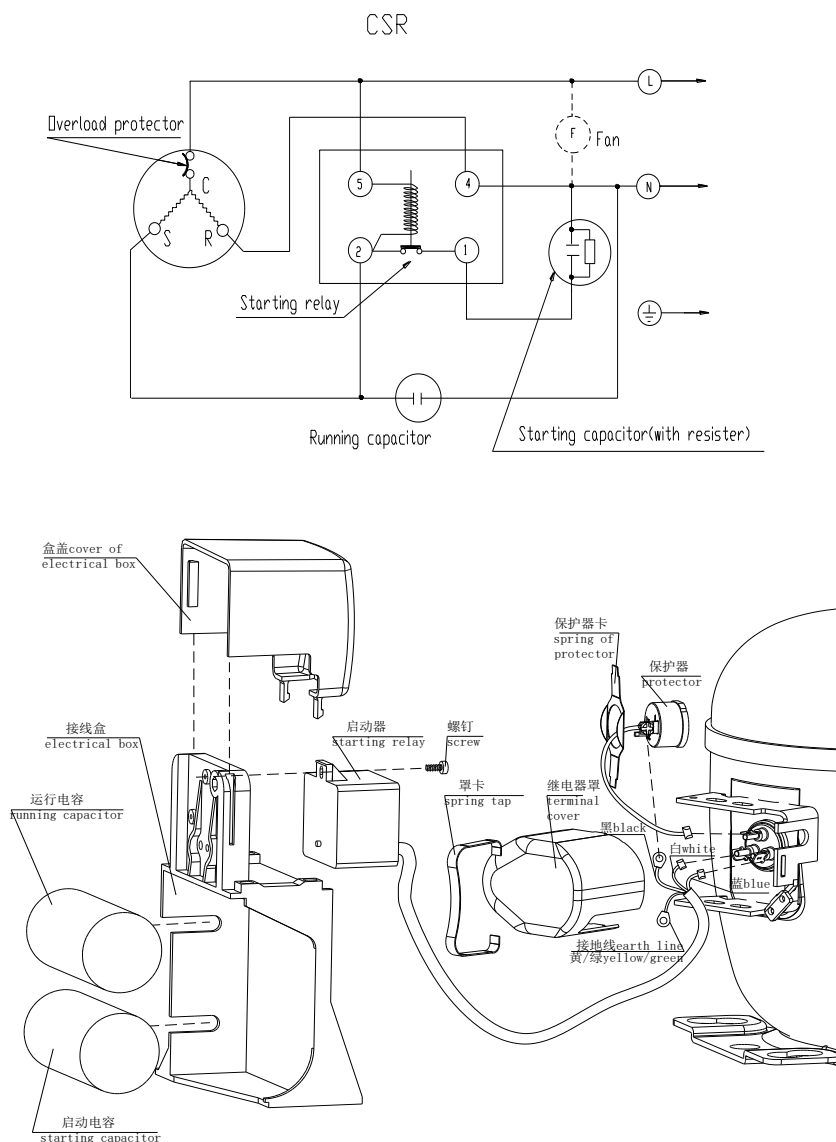


Caution : Suction tube and process tube can be exchanged.

Unmarked tolerance: ±5mm

Unmarked Angle: ±10°

6. Wiring Diagram



Note: Each of the starting relay、the overload protector、 the capacitor 、the spring for overload protector and the cover is separately provided by our company.

7. Starting relay and overload protector

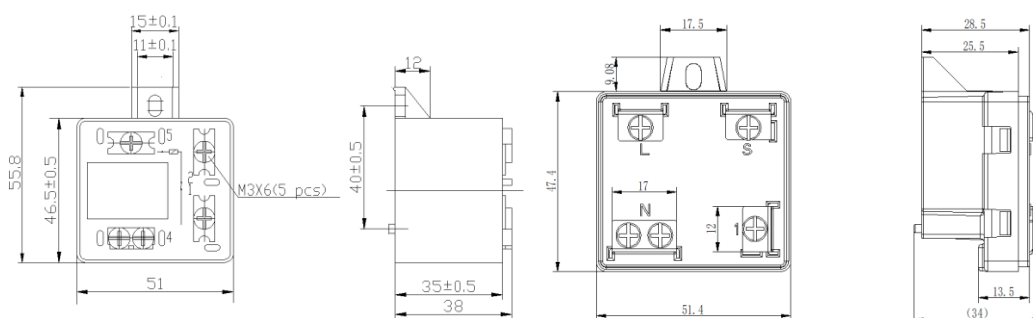
7.1 Starting relay

Model	RVA4M3C	
Supplier	ELSING (SUZHOU) ELECTRICAL CONTROLS CO.,LTD.	
Max pull-in voltage	V	242~272
Min release voltage	V	60~121

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

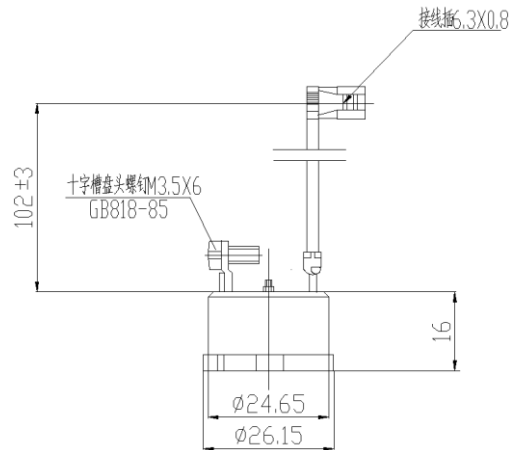
RVA4M3C

TY-QE-505



7.2 Overload protector

Model	T1130	DRB-B265-120
Supplier	ELSING (SUZHOU) ELECTRICAL CONTROLS CO.,LTD.	Hangzhou Star shuaier Electric Appliance Co.,Ltd.
Max.T.C Amp.(25°C)	A	26.5
Trip time	S	5~15
Reset time	S	2~60
Open temp.	±5°C	120
Close temp.	±9°C	61



8. 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. CD60	Anhui Feida Electrical Technology Co., Ltd. CBB65A-2
	FUXIN JIEKEDA ELECTRONIC CO.LTD CD60	Anhui Tongfeng Electronics Co.,Ltd. CBB65

9. Delivery State

No.	Name	Model	Quantity	CODE
1	Compressor	NV2192CK	1pcs	
2	Rubber plug	$\Phi 8.2$	1pcs	Installed on the compressor
3		$\Phi 11.5$	2pcs	Installed on the compressor
4	Rubber grommet	Q79E-03	4pcs	
5	Starting relay	RVA4M3C	1pcs	ELSING (SUZHOU) ELECTRICAL CONTROLS CO.,LTD.
		TY-QE-505		Changshu Tianyin Electromechanical Co. Ltd.
6	Overload protector	DRB-B265-120	1pcs	Hangzhou Star shuaier Electric Appliance Co.,LTD
		T1130		ELSING (SUZHOU) ELECTRICAL CONTROLS CO.,LTD.
7	Starting capacitor	100 μF	1pcs	Huangshan Zhenzhou Electronic Technology Co., Ltd
				Fuxin Jiekeda Electronic Co.Ltd
8	Running capacitor	25 μF	1pcs	Anhui Feida Electrical Technology Co., Ltd.
				Anhui Tongfeng Electronics Co.,Ltd.

9	Relaying cover	QET-08B	1pcs	
10	Grounding screw	QET.1-24C	1pcs	
11	Junction box assembly	QJ38Z.6.1A	1pcs	
12	Sleeve	Q79E-04	4pcs	
13	Spring tap	QET-09B	1pcs	
14	Spring for protector	QET-07	1pcs	
15	Anchor bolt assembly	QET-42	4pcs	
16	Nut	QET-27	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.

10. Package、Storage and Transportation

Package type	Unrecyclable
Quantity	45pcs/box
Transportation	By sea
Storage	Max. 2 layers
Cross Weight Kg	868±18
Net Weight Kg	833±18
Volume m ³	1.02
Dimension: length×width×height cm	103×101×98
Main components	Wooden supporter、upper wooden cover、foam divider、plastic sheet、cardboard cover、wrapping
Movement	Keep the compressor in normal or vertical position
Trans. test requirement	No allowable compressor's damage and performance loss.

11. 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°C. When continuously operating under the maximum ambient temperature 43°C, the condensing pressure and the peak pressure should not exceed as showing in the following table.

Refrigerant	R404A
Max. condensing pressure	2.68MPa
Peak	3.0 MPa

- (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.