

SJ96XY1 COMPRESSOR

TECHNICAL SPECIFICATION



DONPER

HUANGSHI DONGBEI ELECTRICAL APPLIANCE CO., LTD.

2020. 08

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1.Compressor Type

Compressor model	SJ96XY1
Rated voltage/frequency	115-127V~60Hz
Refrigerant	R600a
Application	Low back pressure (LBP)
Cooling method	Static
Start torque	Low starting torque (LST)
Control device	Capillary tube
Motor type	RSCR
Running capacitor	12 μ F
Starting capacitor	/

2.Performance Data

Displacement	Net Wt.	Oil Charge	Cooling Capacity($\geq 95\%$)		COP($\geq 95\%$)	
			ASHRAE	CECOMAF	ASHRAE	CECOMAF
			-23.3	-25	-23.3	-25
cm ³	kg	ml	w	w	w/w	w/w
9.6	7.4 \pm 0.4	160 \pm 10	185	139	1.81	1.40

Testing condition:

Test conditions	LBP	
	ASHRAE	CECOMAF
Evaporating Temp.	-23.3 $^{\circ}$ C	-25 $^{\circ}$ C
Ambient Temp.	+32.2 $^{\circ}$ C	+32 $^{\circ}$ C
Condensing Temp.	+54.4 $^{\circ}$ C	+55 $^{\circ}$ C
Suction Temp.	+32.2 $^{\circ}$ C	+32 $^{\circ}$ C
Subcooling Temp.	+32.2 $^{\circ}$ C	+55 $^{\circ}$ C

3.Running Condition

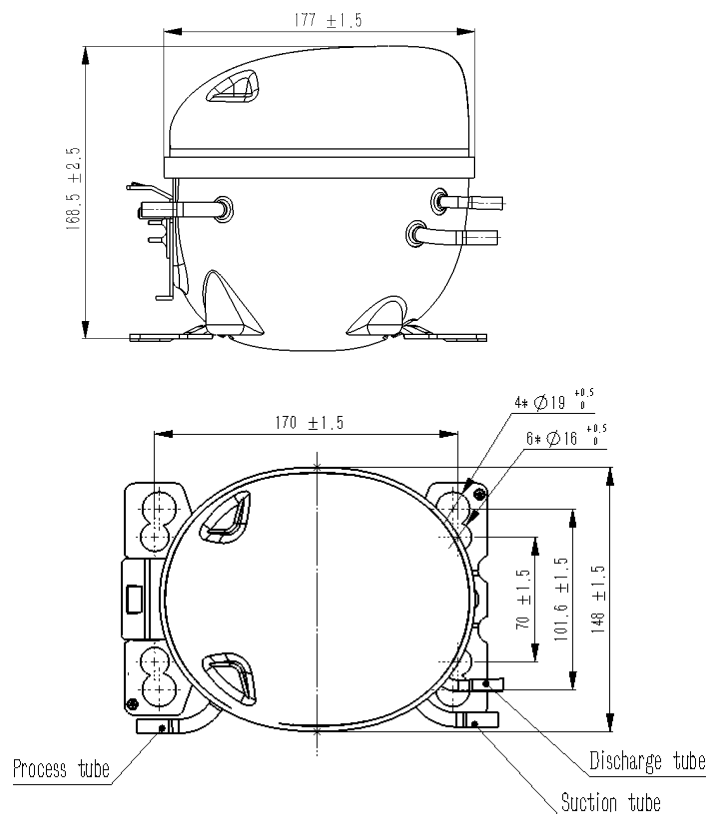
Ambient temp.	0~43 $^{\circ}$ C
Evaporating temp.	-35~-15 $^{\circ}$ C
Voltage range	98~135V
Max. condensing temp.	65 $^{\circ}$ C
Max. winding temp.	130 $^{\circ}$ C
Max. shell temp.	95 $^{\circ}$ C
Max. discharge temp.	120 $^{\circ}$ C

Start voltage	98V [0.3/0.3MPa(abs)]
Shell min. resistance to pressure	35bar

4.Compressor Mechanical Information

Oil type	Synthetic oil
Viscosity	4.2~6.2mm ² /s (40°C)
Oil charged	160±10ml
Min. oil volume in compressor	100ml
Diameter of suction tube (I.D.)	Φ 6.5 ± 0.1mm
Diameter of discharge tube(I.D.)	Φ 4.95 ± 0.1mm
Diameter of process tube (I.D.)	Φ 6.5 ± 0.1mm
Material of suction tube, process tube and discharge tube	Copper tube
Compressor noise	42dB(A)
Vibration	0.7m/s ²
Protecting gas	Dry com.air (Dew point-60°C)

5. Compressor Shape

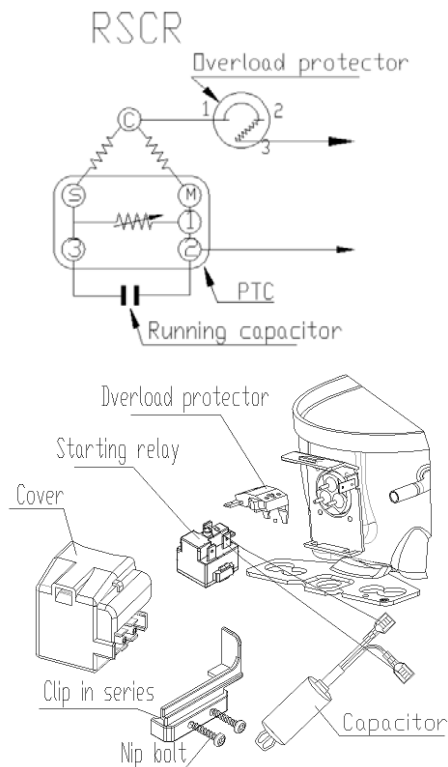


Caution:Suction tube and process tube can not be exchanged

Unmarked tolerance: ± 5mm

Unmarked Angle: ± 10°

6. Wiring Diagram



Note: Each of the starting relay, the overload protector, the capacitor, the cover is separately provided by our company

7. Starting relay and overload protector

7.1 Starting relay

Model: QPE2-A4R7MD3 or TY-QE-A4.7

Type: Starting relay

max current: 12A

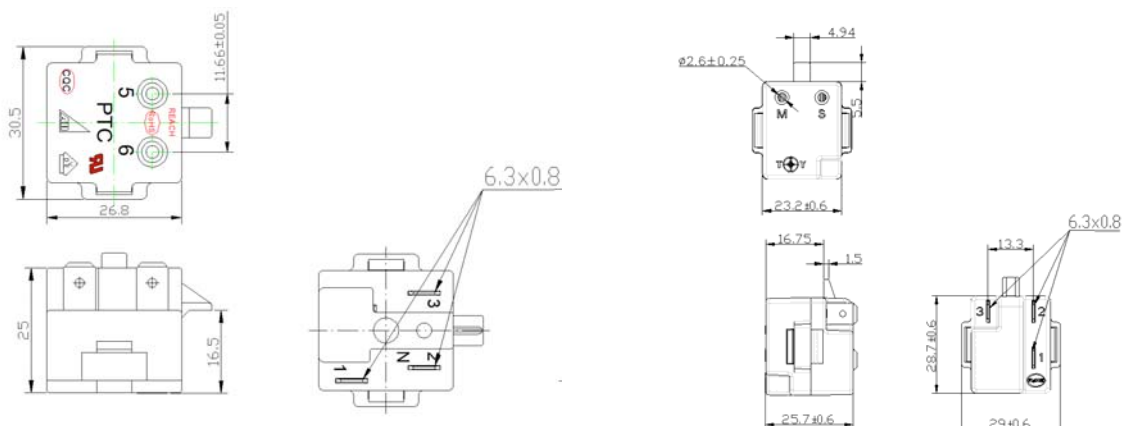
Flammability: Anti-flammability

Manufacturer: Hangzhou Star shuaier Electric Appliance Co.,Ltd

Changshu Tianyin Electromechanical Co. Ltd.

QPE2-A4R7MD3

TY-QE-A4.7



7.2 Overload protector

Protector Model: DRB268S61A2 or BT83-135

Compressor model		SJ96XY1	
Protector Model		DRB268S61A2	BT83-135
Max.T.Camp.(25°C)	A	8.3	
Trip time	S	5~15	
Reset time	S	20~150	
Opentemp.	±5°C	135	
Closetemp.	±9°C	61	

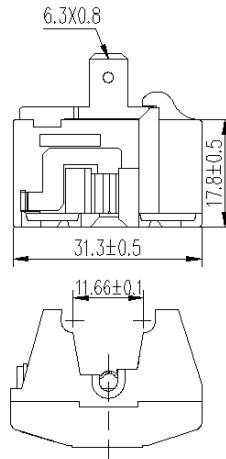
Assembly force ≤ 80N Disassembly force ≥ 12.5N

Flammability: Anti-flammability

Manufacturer: Hangzhou Star shuaier Electric Appliance Co.,Ltd.

Lanxi City Yueqiang Electric Co.,Ltd.

DRB268SN61A2 or BT83-135



8. Delivery State

No.	Name	Model	Quantity	CODE
1	Compressor	SJ96XY1	1pcs	
2	Rubber plug	Φ6.4	1pcs	
3		Φ8.2	2pcs	
4	Starting relay	QPE2-A4ER7MD3	1pcs	Hangzhou Star shuaier Electric Appliance Co.,Ltd.
		TY-QE-A4.7		Changshu Tianyin Electromechanical Co. Ltd.
5	Overload protector	DRB268S61A2	1pcs	Hangzhou Star shuaier Electric Appliance Co.,Ltd.
		BT83-135		Lanxi City Yueqiang Electric Co.,Ltd.
6	Relaying cover	A2C	1pcs	
7	Running capacitor	12μF	1pcs	
8	Rubber grommet	QET.1-03V	4pcs	

Notes:1. Except Starting relay 、 overload protector、 Rubber grommet, other electrical parts and equipment assembly are supplied separately, not installed on the compressor.

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

9. Package、Storage and Transportation

Package type	unrecyclable
Quantity	100pcs/box
Transportation	By sea
Storage	Max. 2 layers
Cross Weight Kg	785 ± 40
Net Weight Kg	750 ± 40
Volume m ³	1.17
Dimension: length×width×height cm	114×89×115
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.

10 .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 R600a 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	R600a
Max. condensing pressure	0.87MPa
Peak	0.98Mpa

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

- (10)、 Compressor should be stored in a dry place.
- (11)、 Exceptforspecialinstructions, compressor accessories 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)、 R600a systems require a filter with drying agent which suitable for R600a refrigerant
- (15)、 The vacuum pump and the charging system must only be dedicated to R600a.
- (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 R600a cannot be used in the refrigeration system.