

LJ111XY1 COMPRESSOR

TECHNICAL SPECIFICATION



HUANGSHI DONGBEI ELECTRICAL APPLIANCE CO. , LTD.

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INDEX

	page
1. Compressor Type	2
2. Performance Data	2
3. Running Condition.....	2
4. Compressor Mechanical Information	3
5. Compressor Shape	3
6. Wiring Diagram	4
7. Fixing of mounting bracket and cabinet base	4
8. Starting relay and overload protector.....	5
9. Capacitor.....	6
10. Delivery State	7
11. Package、Storage and Transportation.....	7
12 . Technical Items.....	8

1. Compressor Type

Compressor model	LJ111XY1
Rated voltage/frequency	110-127V~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
			-35	-30	-25	-23.3	-20	-15	-10	-25	-23.3	-25	
cm ³	kg	ml	w	w	w	w	w	w	w	w	w/w	w/w	
11.1	9.2 \pm 0.4	190 \pm 10	62	125	194	210	302	421	550	155	1.8	1.34	

Note: These datas come from the test without a PTC relay

Testing condition:

Test conditions	L.B.P	
	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

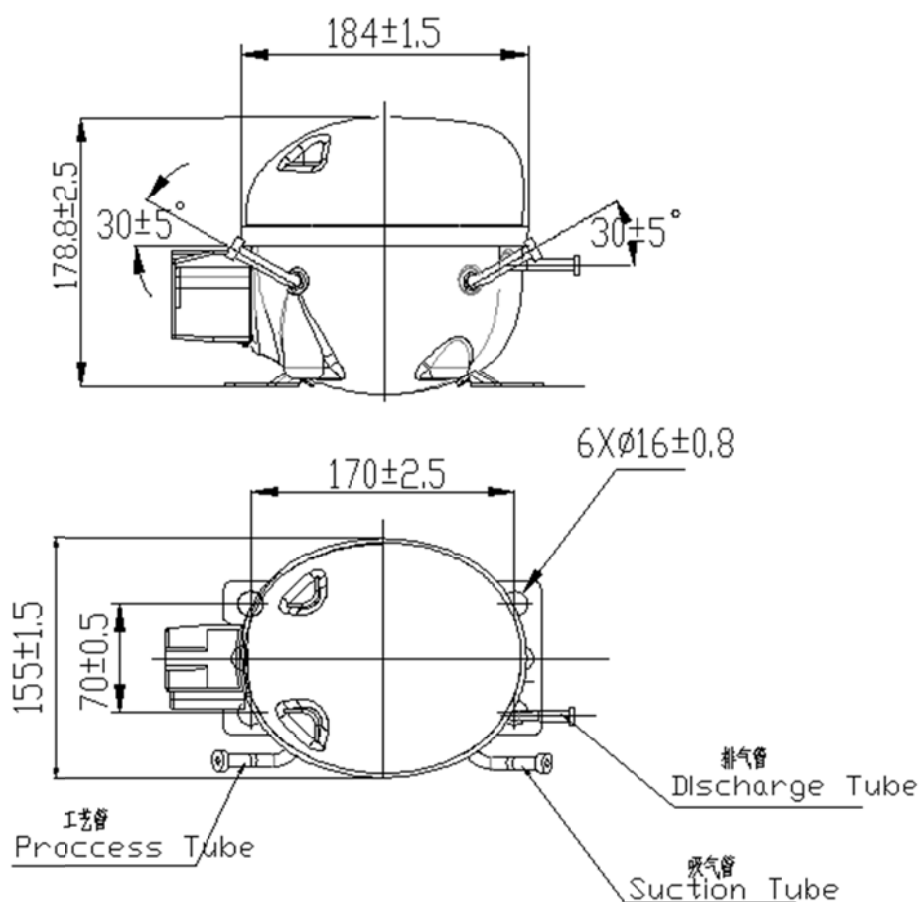
Ambient temp.	0~43°C
Evaporating temp.	-35~-15°C
Voltage range	94~134V
Max. condensing temp.	65°C
Max. winding temp.	120°C
Max. shell temp.	95°C
Max. discharge temp.	110°C

Start voltage	95V [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	190±10ml
Min. oil volume in compressor	160ml
Diameter of suction tube (I.D.)	Φ6.15 ± 0.1mm
Diameter of discharge tube(I.D.)	Φ4.95 ± 0.1mm
Diameter of process tube (I.D.)	Φ6.15 ± 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)

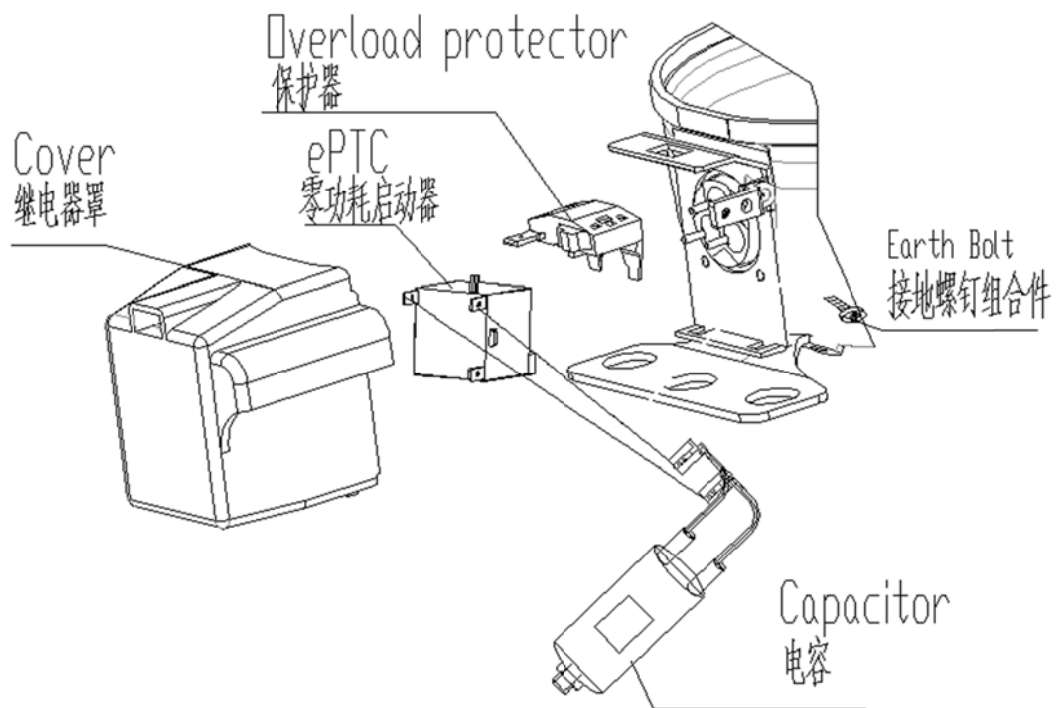
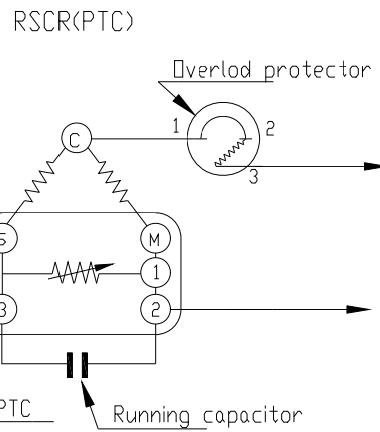
5. Compressor Shape



Caution:Suction tube and process tube can not be exchanged

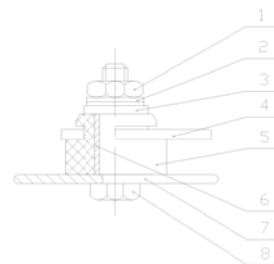
Unmarked tolerance: ±5mm

Unmarked Angle: ±10°



Note: Each of the capacitor, the cover and the earth bolt is separately provided by our company.

7. Fixing of mounting bracket and cabinet base



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

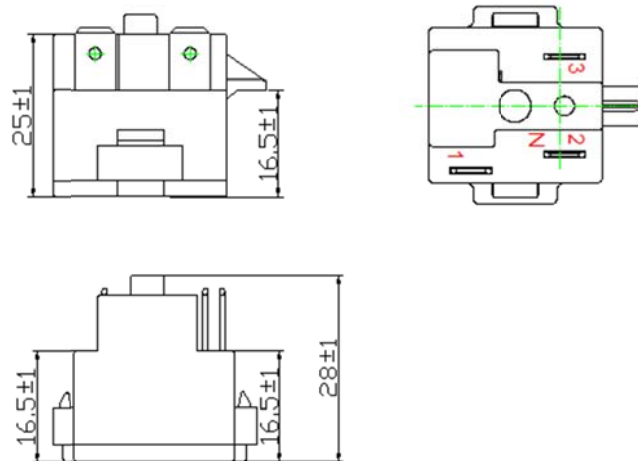
Model: QPE2-A4R7MD3

Type: Starting relay

max current: 12A

Flammability: Anti-flammability

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



8.2 Overload protector

Protector Model: DRB30N61A2

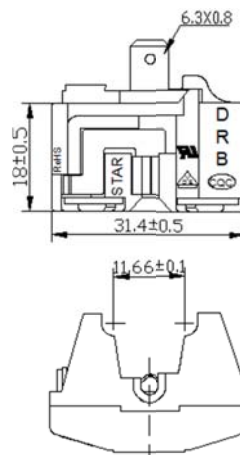
Compressor model		LJ111XY1
Overload protector	Max.T.C Amp.(25°C)	A 10.5
	Trip time	S 5~15
	Reset time	S 25~150
	Open temp.	±5°C 125
	Close temp.	±9°C 61

Assembly force $\leq 80\text{N}$ Disassembly force $\geq 12.5\text{N}$

Flammability: Anti-flammability

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

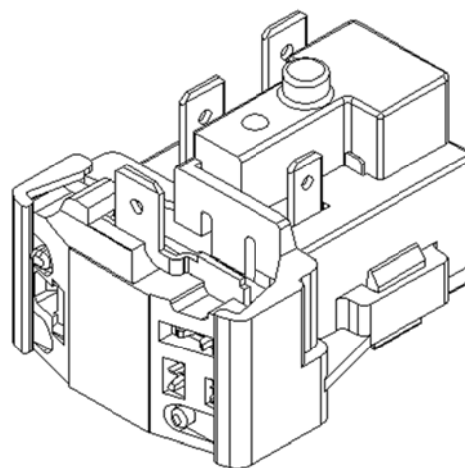
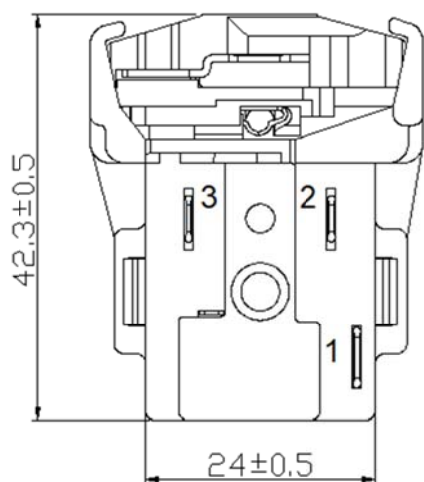
DRB30N61A2



8.3 Combo starting relay and overload protector

Compressor model			LJ111XY1
Model			QPE2-B4R7MD3+DRB30N61A2
Supplier			Hangzhou Star shuaier Electric Appliance Co.,Ltd.
Starting relay	Run time	S	0.7~2.2
	Reset time	S	≤100
	Max working voltage	V	180
	Max current	A	12
Protector	Max.T.C Amp.(25°C)	A	10.5
	Trip time	S	5~15
	Reset time	S	25~150
	Open temp.	±5°C	125
	Close temp.	±9°C	61

QPE2-B4R7MD3+DRB30N61A2



9. Capacitor

Compressor model			LJ111XY1	
Capacitor	Model	μF	12	
	Rated voltage	V.AC	250	
	Supplier and model		Anhui Tongfeng Electronics CO.,LTD	CBB65
			Anhui Feida Electrical Technology Co., Ltd.	CBB65A-2
			Ningguo Yuhua Electrical Product CO.,LTD	CBB65
Shanghai haoyue Electronics CO.,LTD			CBB65D (MKP-1)	

10. Delivery State

No.	Name	Model	Quantity	CODE
1	Compressor	LJ111XY1	1pcs	
2	Rubber plug	Φ6.4	1pcs	
3		Φ8.2	2pcs	
4	Rubber grommet	H model	4pcs	
5	Starting relay	QPE2-A4R7MD3	1pcs	Hangzhou Star shuaier Electric Appliance Co.,Ltd.
6	Overload protector	DRB30N61A2	1pcs	Hangzhou Star shuaier Electric Appliance Co.,Ltd.
7	Running capacitor	12μF	1pcs	
8	Starting relay and Overload protector	QPE2-B4R7MD3 +DRB30N61A2	(1pcs)	
9	Relaying cover	A1	1pcs	QAU05Y-02
10	Grounding screw	QET.1-24C	1pcs	
11	Anchor bolt assembly	QET-42	4pcs	M6×30
12	Sleeve	QET-04	4pcs	Φ 10×17
13	Nut	QET-27	4pcs	M6

Notes: 1. All electrical parts and equipment assembly except overload protector, starting relay and Rubber Grommet 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	unreusable
Quantity	120pcs/box
Transportation	By Truck or Train
Storage	Max. 2 layers
Cross Weight	Kg 1139 ± 35
Net Weight	Kg 1104 ± 35
Volume	m ³ 1.43
Dimension: length×width×height	cm 114×89×140
Main components	Wooden supporter, upper wooden cover, foam divider, plastic sheet, 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)、The charging volume of refrigerant oil 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	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)、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)、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 chlorion 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.