

LU118XY1 COMPRESSOR

TECHNICAL SPECIFICATION



HUANGSHI DONGBEI ELECTRICAL APPLIANCE CO. , LTD.

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1. Compressor Type

Compressor model	LU118XY1
Rated voltage/frequency	110-127V~ 60Hz
Refrigerant	R600a
Application	Low/Middle back pressure (L/MBP)
Cooling method	Static
Start torque	Low starting torque (LST)
Control device	Capillary tube
Motor type	RSCR
Running capacitor	12 μ F

2. Performance Data

Displacement	Net Wt.	Oil Charge	Cooling Capacity($\geq 95\%$)								COP($\geq 95\%$)
			ASHRAE								ASHRAE
			-35	-30	-25	-23.3	-20	-15	-10	-23.3	
cm ³	kg	ml	w	w	w	w	w	w	w	w	w/w
11.2	8.9 \pm 0.4	190 \pm 10	102	147	203	220	262	319	405		1.59

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

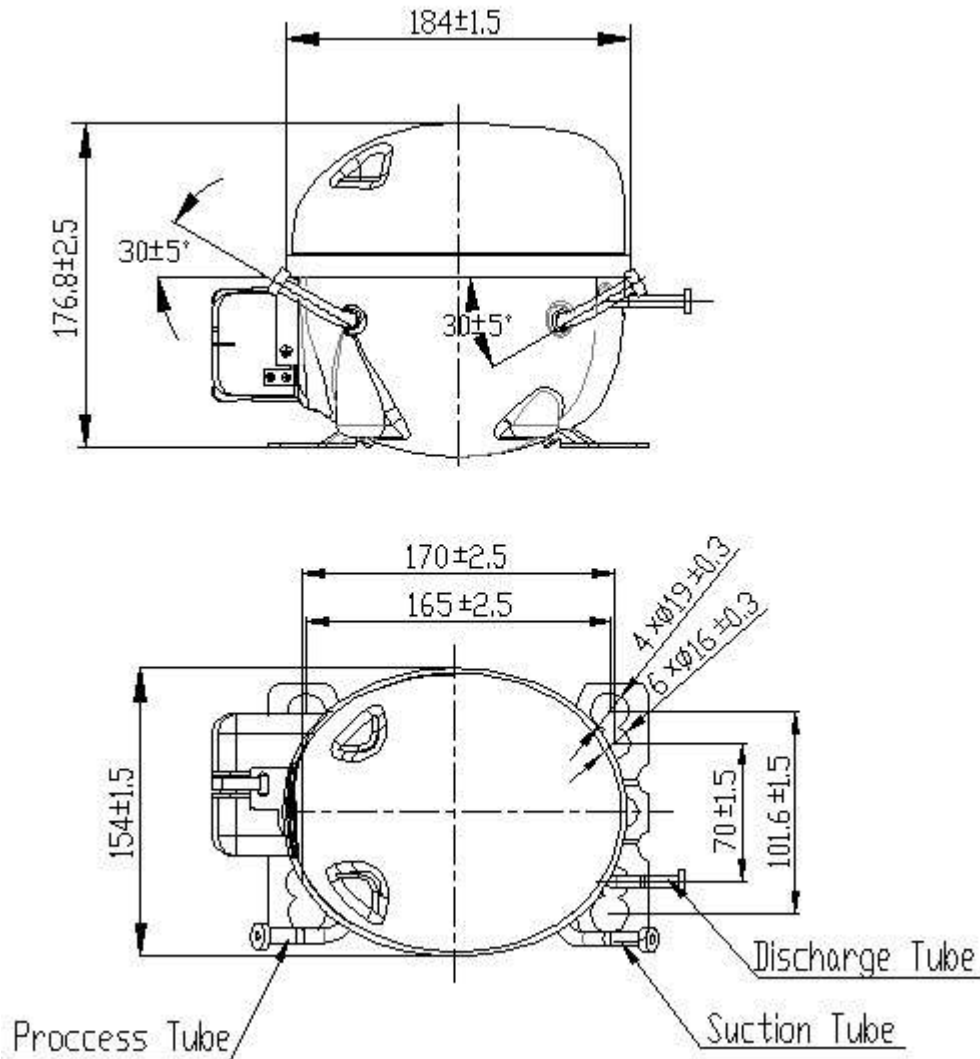
3. Running Condition

Ambient temp.	0~43°C
Evaporating temp.	-35~0°C
Voltage range	97~134V
Max. condensing temp.	65°C
Max. winding temp.	120°C
Max. shell temp.	95°C
Max. discharge temp.	110°C
Start voltage	97V [0.25/0.25 (abs)]
Shell min. resistance to pressure	35bar

4. Compressor Mechanical Information

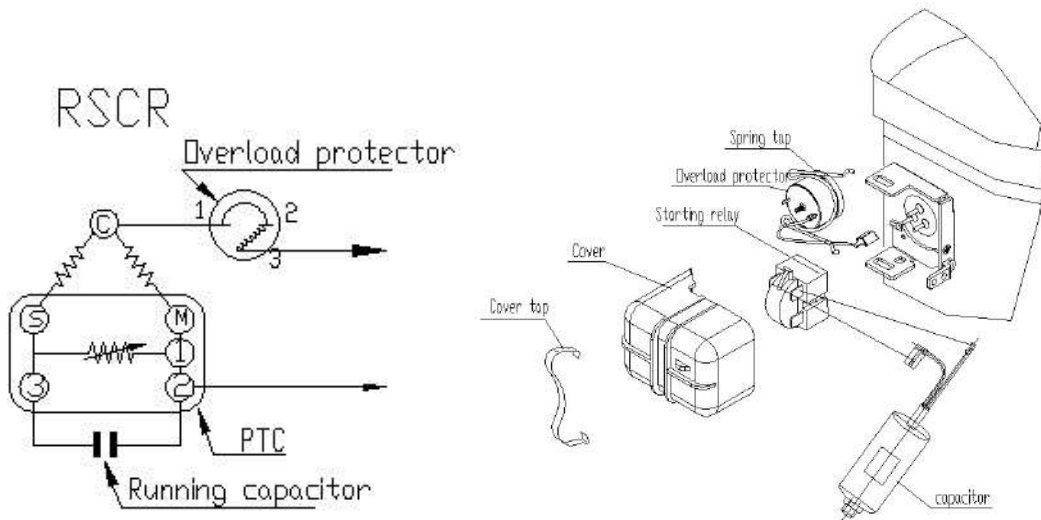
Oil type	Synthetic oil
Viscosity	4.2~6.4mm ² /S (40°C)
Oil charged	190±10ml
Diameter of suction tube(I.D.)	Φ6.5±0.1mm
Diameter of discharge tube(I.D.)	Φ4.9±0.1mm
Diameter of process tube (I.D.)	Φ6.5±0.1mm
Material of suction tube, process tube and discharge tube	copper tube
Compressor noise	43dB(A)
Vibration	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

6. Wiring Diagram



Note: Each of the starting relay, overload protector, the capacitor, the spring tap, the cover and the cover tap are separately provided by our company.

7. Starting relay and overload protector

7.1 Starting relay

Starter Model: QPS2-A4R7MD3

Type: Starting relay

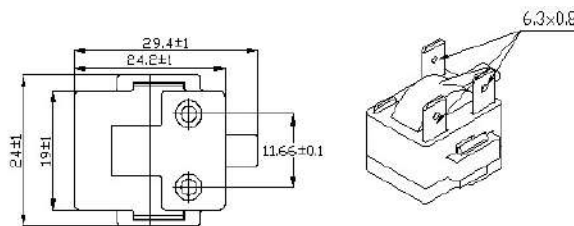
max current: 12A

First Assembly Force $\leq 100\text{N}$, The Sixth Disassembly Force $\geq 25\text{N}$

Starting relay Supplier: Hangzhou Star shuaier Electric Appliance Co.,Ltd.

Flammability: Anti-flammability

QPS2-A4R7MD3



7.2 Overload protector

Compressor model		LU118XY1	
Protector	Type	DRB-B128-120	B128-120
	Max.T.C Amp.(25°C)	A	12.8
	Trip time	S	5~16
	Reset time	S	10~80
	Open temp.	$\pm 5^\circ\text{C}$	120
	Close temp.	$\pm 9^\circ\text{C}$	61

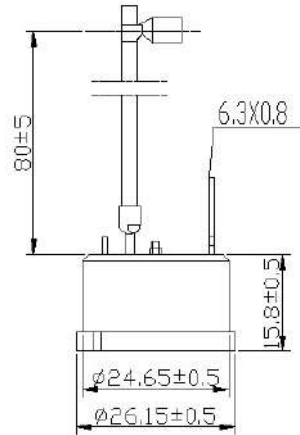
First Assembly force $\leq 80\text{N}$, The Sixth Disassembly force $\geq 12.5\text{N}$

Overload protector Supplier: Hangzhou Star shuaier Electric Appliance Co.,Ltd.

Changshu Tianyin Electromechanical Co. Ltd.

Flammability: Anti-flammability

DRB-B128-120/B128-120



8. Capacitor

Compressor model		LU118XY1
Capacitor	Model μF	12
	Rated voltage V.AC	250
	Supplier and model	Anhui feida Electrical Technology CO.,LTD
		Ningguo Yuhua Electrical Product CO.,LTD
		Shanghai Haoye Electric CO.,LTD
Anhui Tongfeng Electronics CO.,LTD		

9. Delivery State

No.	Name	Model	Quantity	Remarks
1	Compressor	LU118XY1	1 pcs	
2	Rubber plug	$\Phi 6.4$	1 pcs	Installed
		$\Phi 8.2$	2 pcs	Installed
3	Spring tap	QS08-06A	1 pcs	Installed
4	Rubber grommet	G model	4 pcs	
5	Starting relay	QPS2-A4R7MD3	1 pcs	
6	Overload protector	DRB-B128-120	1 pcs	
		B128-120		
7	Capacitor	12 μF	1 pcs	
8	Cover	S1A	1 pcs	
9	Cover tap	QS08-05H	1 pcs	

Notes:1.All electrical parts and equipment assembly are supplied separately, not installed on the compressor,except the ones noted "Installed".

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

10. Package、Storage and Transportation

Package type	unrecyclable
Quantity	80pcs/box
Transportation	By Sea
Storage	Max. 2 layers
Cross Weight	Kg
Net Weight	Kg
Volume	m ³
Dimension: length×width×height (cm)	114×89×99
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 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)、Compressor accessories (eg: capacitor、cover 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 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.