

LK56XZ1 COMPRESSOR

TECHNICAL SPECIFICATION



DONPER

HUANGSHI DONGBEI ELECTRICAL APPLIANCE CO., LTD.

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1. Compressor Type

Compressor model	LK56XZ1
Rated voltage/frequency	110-127V~60Hz
Refrigerant	R134a
Application	Low back pressure (L. B. P)
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.	Cooling Capacity($\geq 95\%$)							COP($\geq 95\%$)		
		W								W/W	
		ASHRAE							CECOMAF	ASHRAE	CECOMAF
		-35	-30	-25	-23.3	-20	-15	-10	-25	-23.3	-25
cm ³	kg	w	w	w	w	w	w	w	w	w/w	w/w
5.6	8.8 \pm 0.4	74	104	1.55	185	216	239	380	137	1.55	1.16

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

Testing condition:

Test conditions	L.B.P	
	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

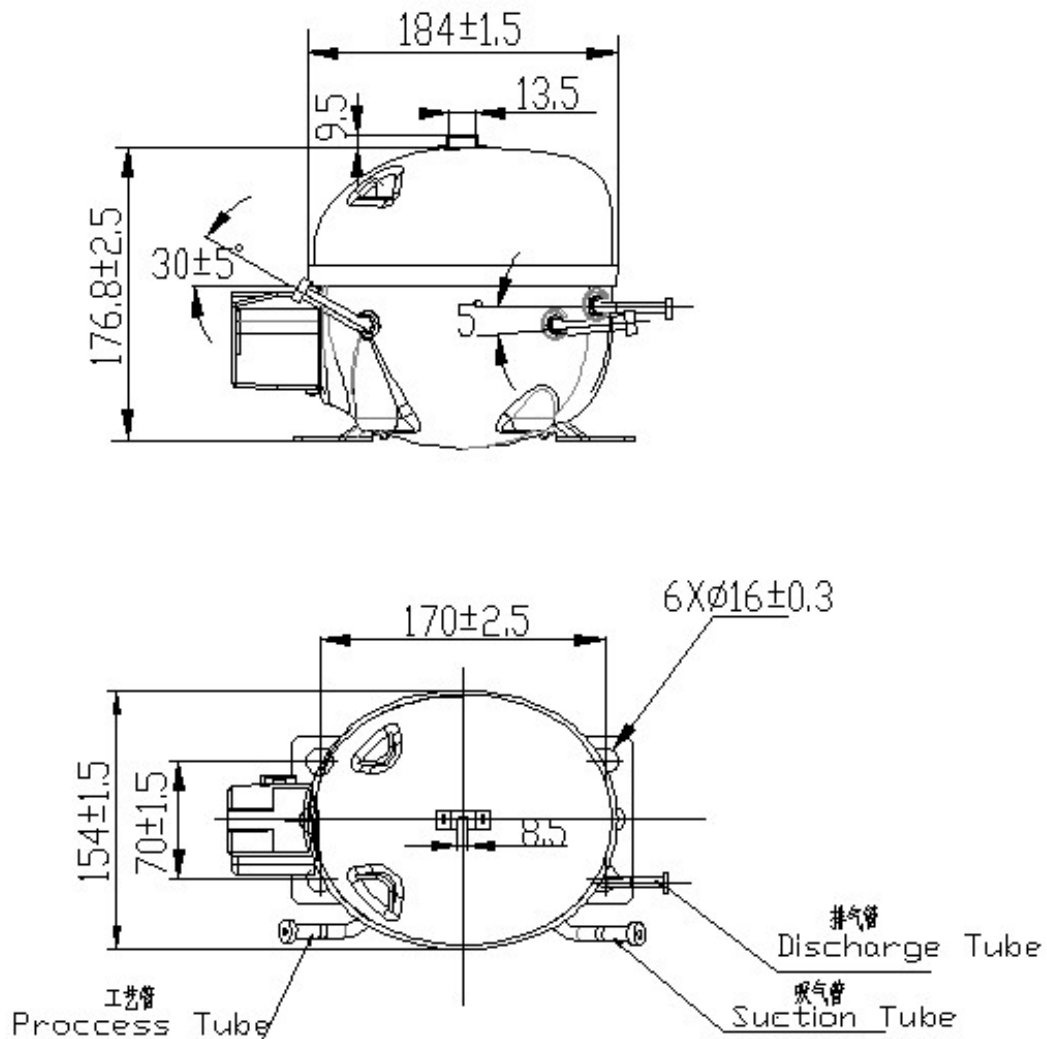
3. Running Condition

Ambient temp.	0~43 $^{\circ}$ C
Evaporating temp.	-35~-15 $^{\circ}$ C
Voltage range	94~134V
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	94V [0.3/0.3 (abs)]
Shell min. resistance to pressure	35bar

4. Compressor Mechanical Information

Oil type	POE ester
Viscosity	9.0~10.6 cst (40℃)
Oil charged	190±10ml
Min. oil volume in compressor	160ml
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	44dB(A)
Vibration	0.7 m/s ²
Protecting gas	Dry com. air (Dew point-60℃)

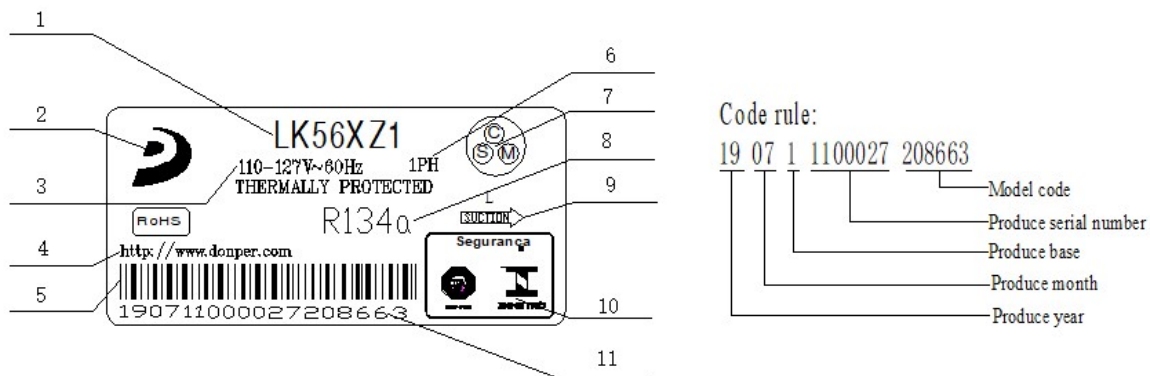
5. Compressor Shape



Caution: Suction tube and process tube can not exchange.

Unmarked tolerance: ±5mm

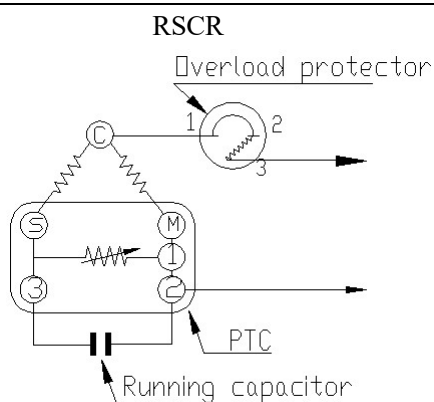
Unmarked Angle: ±10°

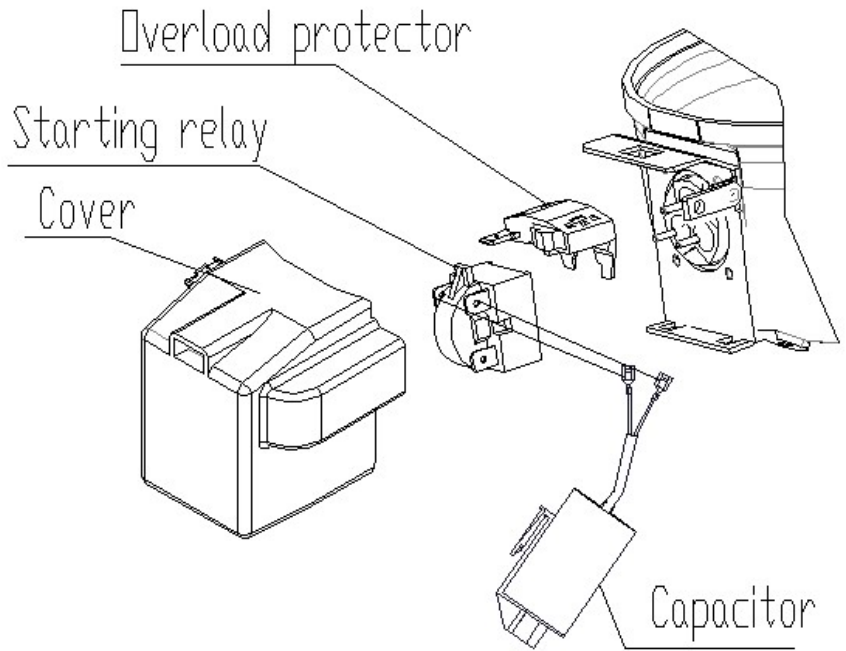


NO	Content	NO	Content
1	Compressor Model	2	Registered trade mark
3	Rated voltage/frequency	4	Company website
5	Bar code	6	Single-phase power
7	Wiring mark	8	Refrigerating fluid
9	Suction sign	10	Certification mark
11	Bar code of number		

6. Wiring Diagram

Rank of insulation	“B” 130°C
Electirc safe	GB4706. 17/IEC60335-2-34

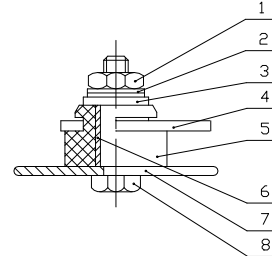




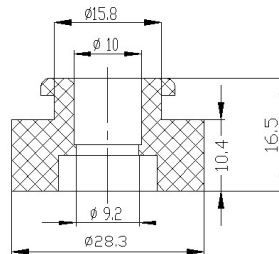
Note: Each of the starting relay, the overload protector, the cover and the earth bolt is separately provided by our company.

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



Rubber grommet



Note: Equipment assembly is all provided by our company. Above is just for reference, details can refer to delivery state.

8. Starting relay and protector

8.1. Starting relay

Model: QPS2-A4R7MD3 or JPQII-4.7

Type: Starting relay

max current: 12A

max working voltage:----180V

Resistance of Starting relay(25C):/

 Assembly force $\leq 100\text{N}$ Disassembly force $\geq 25\text{N}$

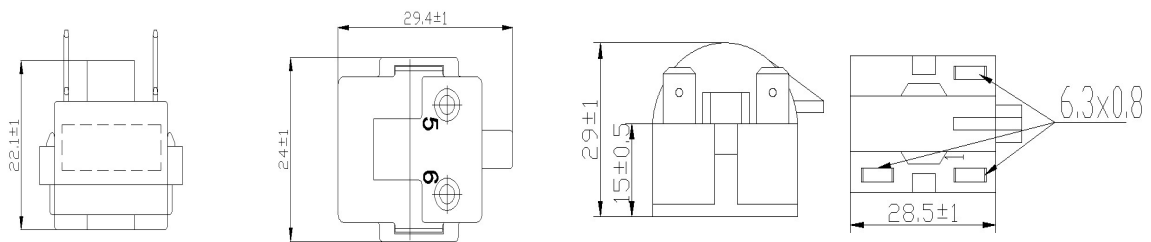
Starting relay Supplier: Hangzhou Star shuaier Electric Appliance Co.,Ltd.

Lanxi City Yueqiang Electric Appliance Co.,Ltd.

Flammability:Anti-flammability

QPS2-A4R7MD3

JPQII-4.7



8.2.Overload protector

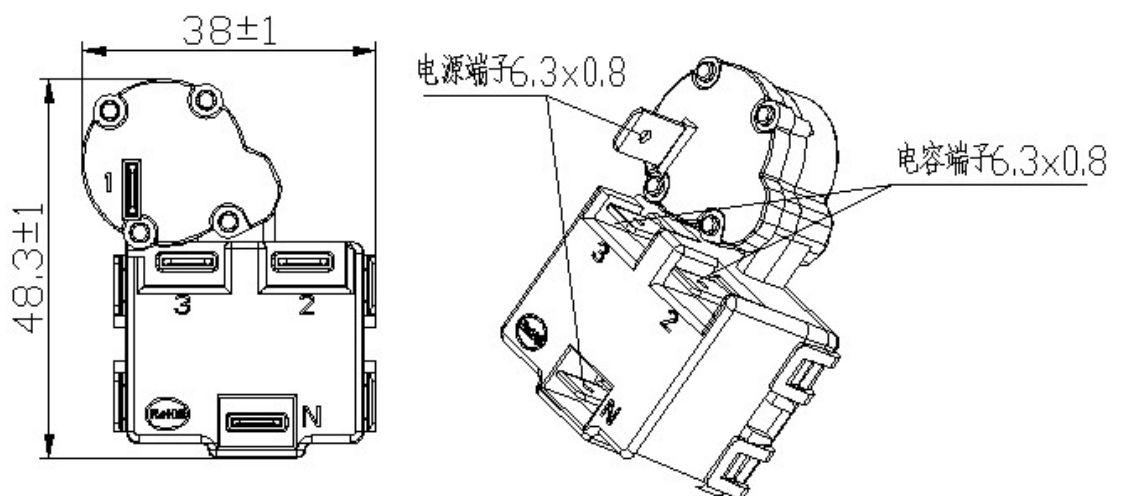
Compressor model		LK56XZ1	
Prote-ctor	Type	DRB29M61A1	BT94-125
	Max.T.C Amp.(25°C)	A	9.4
	Trip time	S	5~15
	Reset time	S	30~150
	Open temp.	$\pm 5^\circ\text{C}$	125
	Close temp.	$\pm 9^\circ\text{C}$	61

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

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

Lanxi City Yueqiang Electric Appliance Co.,Ltd.

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9. Capacitor

Compressor model		LK56XZ1
Capacitor	Model	μF
	Rated voltage	V.AC
	Supplier and model	
	Anhui Tongfeng Electronics CO.,LTD	
	Shanghai haoyue Electronics CO.,LTD	
Anhui Feida Electrical Technology Co., Ltd.		
Ningguo Yuhua Electrical Product CO.,LTD		

10. Delivery State

No.	Name	Model	Quantity	CODE
1	Compressor	LK56XZ1	1 pcs	
2	Rubber grommet(Installed)	QET-03B	4 pcs	H model
3	Seperate (Installed)	Starting relay	1 pcs	Hangzhou Star shuaier Electric Appliance Co., Ltd
				Lanxi City Yueqiang Electric Appliance Co.,Ltd.
	Overload protector	DRB29M61A1	1 pcs	Hangzhou Star shuaier Electric Appliance Co., Ltd
		BT94-125		Lanxi City Yueqiang Electric Appliance Co.,Ltd
4	Running Capacitor (pothook structure)	12uF	1 pcs	Installed
5	Starting relay cover	A3A	1 pcs	Installed
6	Water tray	QL10Y.1-05B	1 pcs	

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

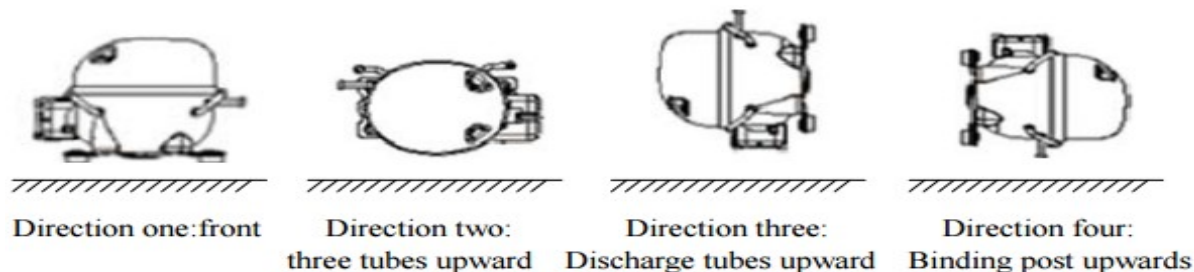
2.All electrical parts and equipment assembly according to Delivery states are all provided by our company.

11.Package、 Storage and Transportation

Package type	unreusable
Quantity	80pcs/box
Transportation	By Sea
Storage	Max. 2 layers
Gross 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、 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. Installation Notes



Notes: Direction four: Binding post upwards need to keep the system in the operation position for 8 hours before plug in the energy to prevent oil inflow into plastic suction muffler.

13. 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 R134a 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	R134a
Max. condensing pressure	1.59MPa
Peak	2.0Mpa

To keep the compressor stably running ,the running temperature of Max. winding can't beyond 130°C.

- (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)、 R134a systems require a filter with drying agent which suitable for R134a refrigerant
- (15)、 The vacuum pump and the charging system must only be dedicated to R134a.
- (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 R134a cannot be used in the refrigeration system.