

# **K325CZ1 COMPRESSOR**

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## **TECHNICAL SPECIFICATION**



HUANGSHI DONPER COMPRESSOR CO., LTD.

2023. 11

# INDEX

	<b>page</b>
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.....	6
11、Package、Storage and Transportation.....	7
12、Technical Items.....	7

## 1、Compressor Type

Compressor model	K325CZ1
Rated voltage/frequency	220-240V~50Hz
Refrigerant	R134a
Application	Low back pressure (LBP)
Cooling method	Fan Cooling
Start torque	High starting torque (HST)
Control device	Capillary tube
Motor type	CSIR
Starting capacitor	50μF
Running capacitor	/

## 2、Performance Data

Displacement	Net Wt.	Oil Charge	Cooling Capacity(≥95%)								COP(≥95%)	
			ASHRAE							CECO MAF	ASH RAE	CECO MAF
			-35	-30	-25	-23.3	-20	-15	-10	-25	-23.3	-25
cm <sup>3</sup>	kg	ml	w	w	w	w	w	w	w	w	w/w	w/w
11.4	10.4±0.4	200±10	100	170	279	325	398	554	730	247	1.30	0.97

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

Testing condition:

Test conditions	LBP	
	ASHRAE	CECOMAF
Evaporating Temp.	-23.3℃	-25℃
Ambient Temp.	+32.2℃	+32℃
Condensing Temp.	+54.4℃	+55℃
Suction Temp.	+32.2℃	+32℃
Subcooling Temp.	+32.2℃	+55℃

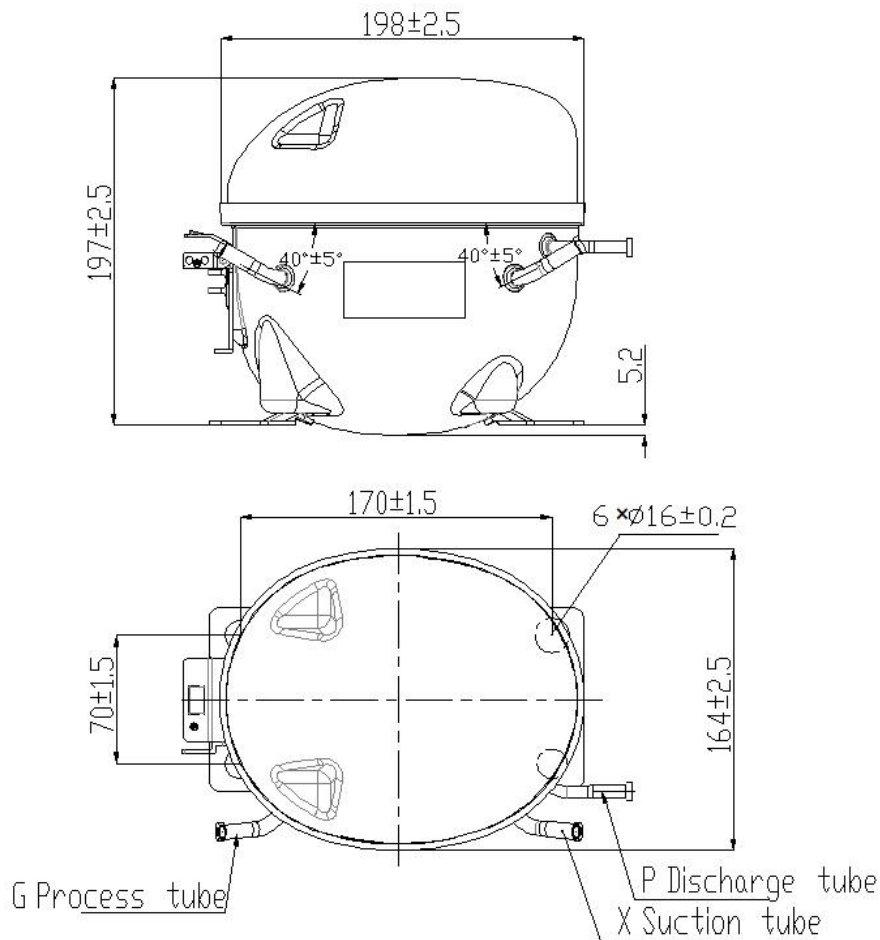
## 3、Running Condition

Ambient temp.	0~43℃
Evaporating temp.	-35~-15℃
Voltage range	187~254V
Max. condensing temp.	65℃
Max. winding temp.	130℃
Max. shell temp.	95℃
Max. discharge temp.	120℃
Start voltage	187V [0.5/0.5MPa(abs)]
Shell min. resistance to pressure	35bar

#### 4、Compressor Mechanical Information

Oil type	POE
Viscosity	28.8~35.2mm <sup>2</sup> /s(40℃)
Oil charged	200±10ml
Diameter of suction tube (I.D.)	Φ 6.2±0.1mm
Diameter of discharge tube(I.D.)	Φ 4.9±0.1mm
Diameter of process tube (I.D.)	Φ 6.2±0.1mm
Material of suction tube, process tube and discharge tube	copper tube
Compressor noise	≤48dB(A)
Vibration	≤0.7m/s <sup>2</sup>
Protecting gas	-0.06~-0.02MPa

#### 5、Compressor Shape

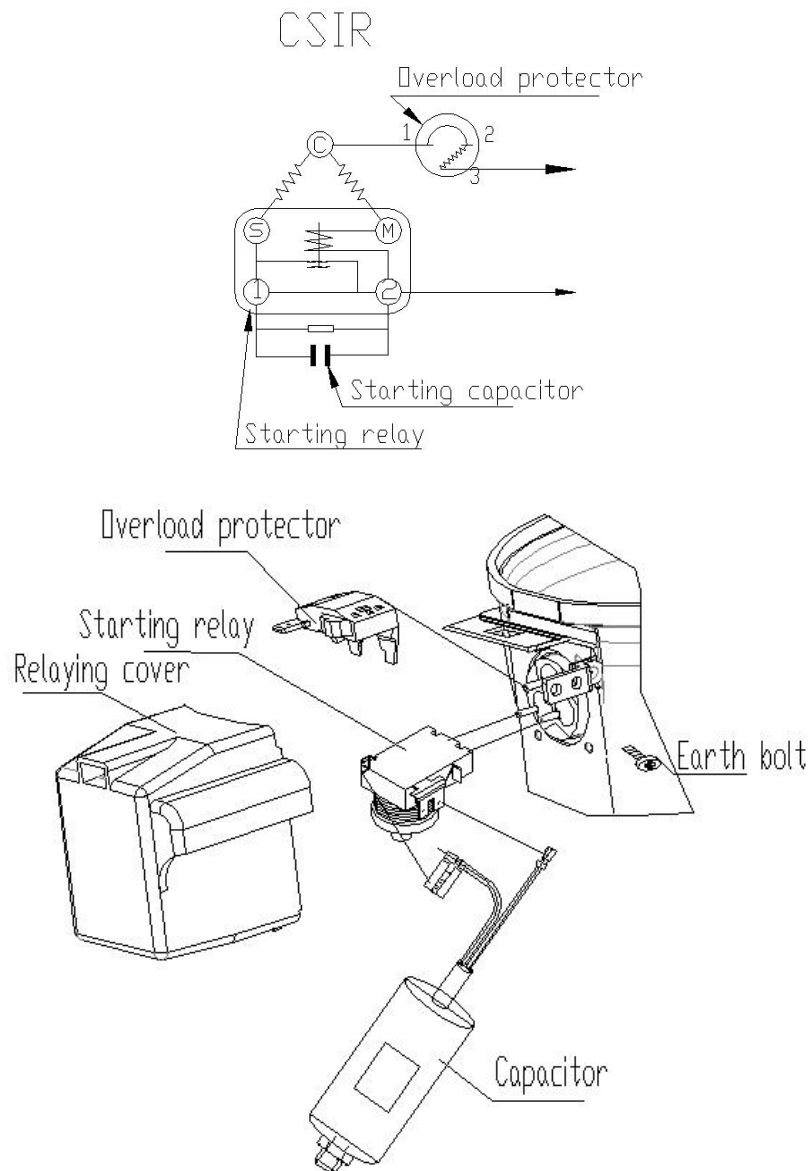


Caution: Suction tube and process tube can not exchange.

Unmarked tolerance: ±5mm

Unmarked Angle: ±10°

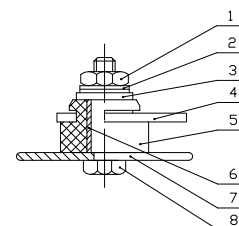
## 6、Wiring Diagram



Note: Each of the starting relay、the overload protector、the capacitor、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



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

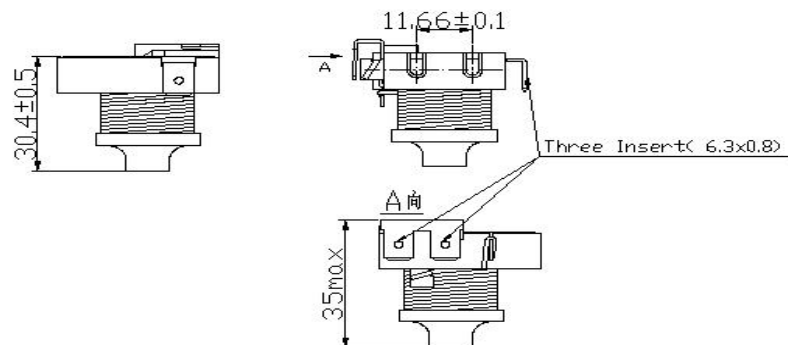
## 8、Starting Relay and Overload Protector

### 8.1 Starting relay

Model		QL2-4.95	
Supplier		Changshu Tianyin Electromechanical Co.,Ltd.	Hangzhou Star shuaier Electric Appliance Co.,Ltd.
Max current	A	4.95	
Min current	A	4.15	

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

Flammability: Anti-flammability

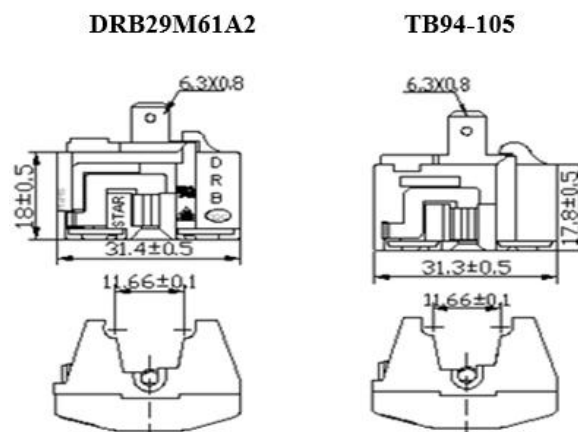


### 8.2 Overload protector

Model		DRB29M61A2	TB94-105
Supplier		Hangzhou Star shuaier Electric Appliance Co.,Ltd.	Foshan Shunde Ronggui Electric Circuit Mersurement Equipment Co., Ltd.
Max.T.Camp.(25°C)	A	9.4	
Trip time	S	5~15	
Reset time	S	25~150	
Open temp.	$\pm 5^{\circ}\text{C}$	125	
Close temp.	$\pm 9^{\circ}\text{C}$	61	

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

Flammability: Anti-flammability



## 9、Capacitor

Model	μF	50
Rated voltage	V.AC	330
Supplier	Fuxin Jiekeda Electronic Co.,Ltd.	
	Huangsan Zhenzhou Electronic technology Co.,Ltd.	

## 10、Delivery State

No.	Name	Model	Quantity	Code
1	Compressor	K325CZ1	1 pcs	
2	Rubber plug	Φ6.4	1 pcs	
		Φ8.2	2 pcs	
3	Rubber grommet	H model	4 pcs	
4	Starting relay	QL2-4.95	1 pcs	Changshu Tianyin Electromechanical Co.,Ltd.
				Hangzhou Star shuaier Electric Appliance Co.,Ltd.
5	Overload protector	DRB29M61A2	1 pcs	Hangzhou Star shuaier Electric Appliance Co.,Ltd.
		TB94-105		Foshan Shunde Ronggui Electric Circuit Mersurement Equipment Co., Ltd ;
6	Starting capacitor	50μF	1 pcs	
7	Relaying cover	A1	1 pcs	
8	Anchor bolt assembly	M6×30	4 pcs	
9	Nut	QET-27	4 pcs	
10	Sleeve	Φ 10×17	4 pcs	
11	Earth bolt	QET.1-24C	1 pcs	

Notes:1. Except for the Rubber plug,other 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.

## 11、Package、Storage and Transportation

Package type	unrecyclable
Quantity	60pcs/box
Transportation	By sea
Storage	Max. 2 layers
Cross Weight Kg	$659 \pm 24$
Net Weight Kg	$624 \pm 24$
Volume m <sup>3</sup>	0.96
Dimension: length×width×height cm	$103 \times 89 \times 105$
Main components	Plywood supporter、upper plywood 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.

## 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)、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



- (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)、R134a systems require a filter with drying agent whith 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.