

S72CZ1

COMPRESSOR

TECHNICAL SPECIFICATION



DONPER

HUANGSHI DONGBEI ELECTRICAL APPLIANCE CO., LTD.

2019.5

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1. Compressor Type

Compressor model	S72CZ1
Rated voltage/frequency	220-240V~50Hz
Refrigerant	R134a
Application	Low back pressure (L.B.P)
Cooling method	Static
Start torque	Low starting torque (LST)
Control device	Capillary tube
Motor type	RSIR
Running capacitor	/

2. Performance Data

Displacement	Oil Charge	Net Wt.	Cooling Capacity(≥95%)				COP(≥95%)	
			ASHRAE		CECOMAF		ASHRAE	CECOMAF
			-23.3		-25		-23.3	-25
cm ³	ml	kg	w	kcal	w	kcal	w/w	w/w
7.2	160±10	7.1±0.4	190	163.8	178.8	154.1	1.30	1.12

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

Testing condition:

Test conditions	L.B.P	
	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℃

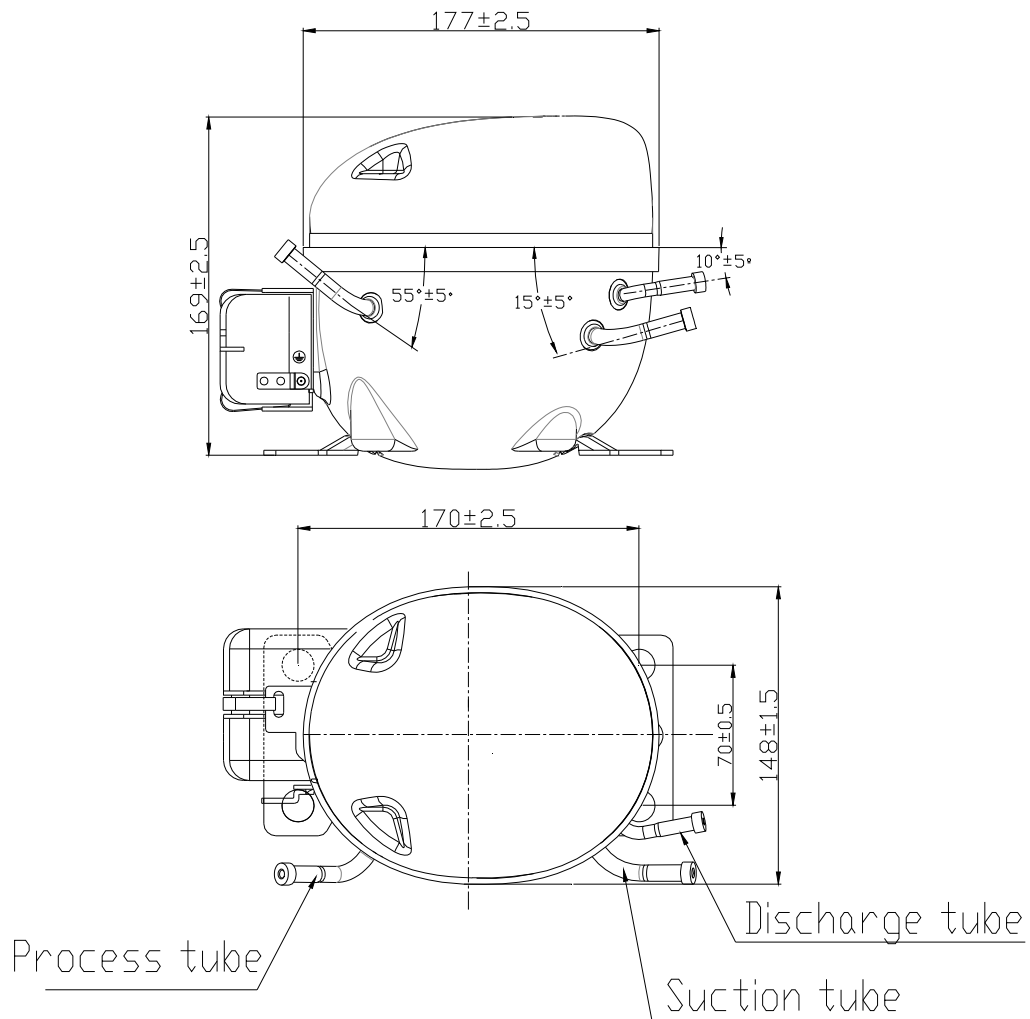
3. Running Condition

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 [0.5/0.5 MPa (abs)]
Shell min. resistance to pressure	35bar

4. Compressor Mechanical Information

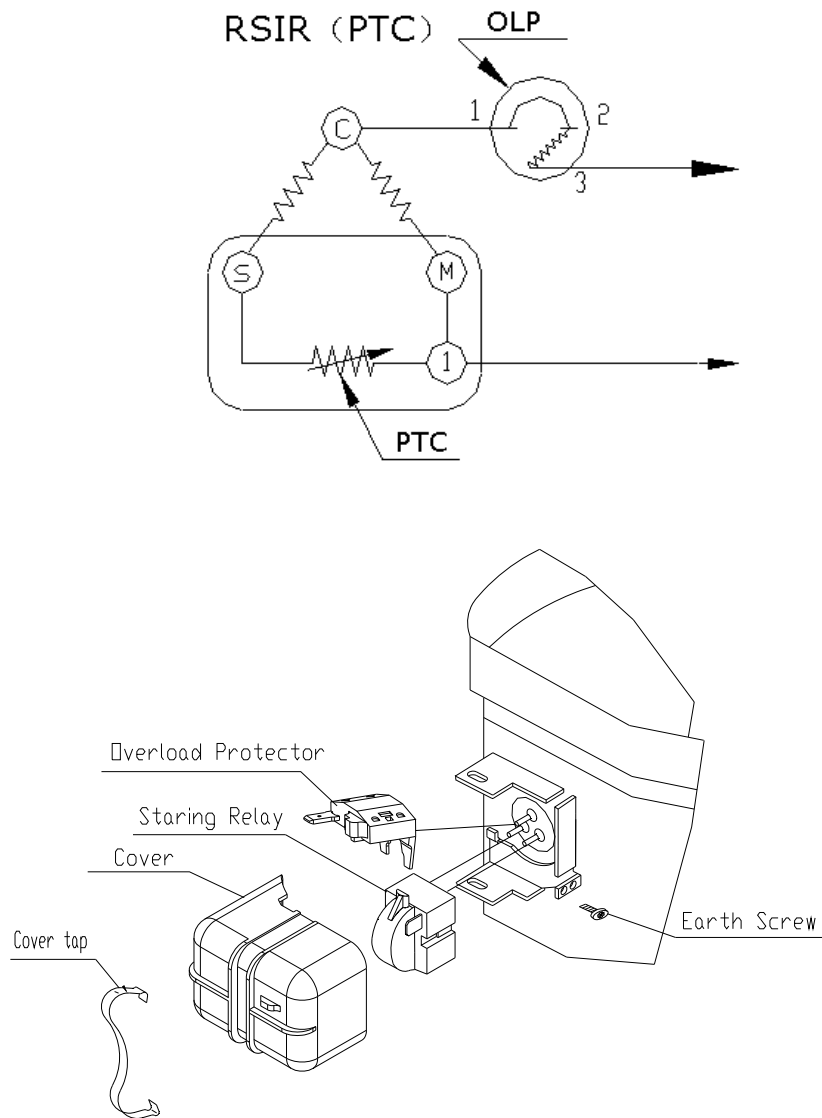
Oil type	Ester oil
Oil charged	160±10ml
Min. oil volume in compressor	110ml
Diameter of suction tube(I.D.)	Φ6.5±0.1mm
Diameter of discharge tube(I.D.)	Φ4.9±0.1mm
Diameter of process tube (I.D.)	Φ6.5±0.1mm
Material of suction tube, process tube and discharge tube	copper tube
Compressor noise	42dB(A)
Vibration	0.7m/s ²
Protecting gas	Dry com.air 0.5~0.8bar (Dew point-60℃)

5. Compressor Shape



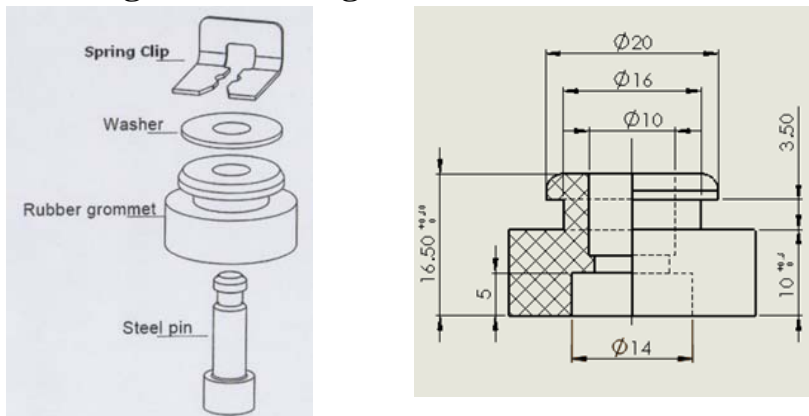
Suction tube and process tube can not be exchanged

6. Wiring Diagram



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

7. Fixing Of Mounting Accessories



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

Starter Model: QP2-15 or JPQ II -15

Compressor model		S72CZ1
Starting relay	Resistance of Starting relay Ω	$15 \pm 20\%$
	max working voltage V	350
	max current A	8

Assembly force (first) $\leq 100\text{N}$,Unload force(sixth) $\geq 25\text{N}$

Starting relay Supplier:

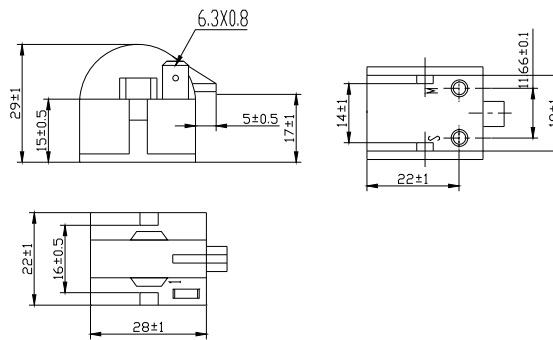
Hangzhou Star shuaier Electric Appliance Co.,Ltd.

Lanxi City Yueqiang Electric Co.,Ltd.

Shunde Ronggui Electronic CircuitMeasuring Equipment Co. Ltd.

Flammability: Anti-flammability

QP2-15/ JPQ II -15



8.2 Overload protector

Protector Model: DRB26N61A2 or BT75-120 or TB75-120

Compressor model		S72CZ1
Max.T.C Amp.(25°C)	A	7.5
Trip time	S	5~15
Reset time	S	30~150
Open temp.	$\pm 5^\circ\text{C}$	120
Close temp.	$\pm 9^\circ\text{C}$	61

Assembly force (first) $\leq 80\text{N}$,Unload force(sixth) $\geq 12.5\text{N}$

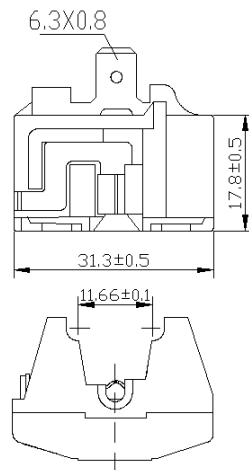
Overload protector Supplier:

Hangzhou Star shuaier Electric Appliance Co.,Ltd.

Lanxi City Yueqiang Electric Co.,Ltd.

Shunde Ronggui Electronic CircuitMeasuring Equipment Co. Ltd.

Flammability: Anti-flammability



9. Delivery State

No.	Name	Model	Quantity	CODE
1	Compressor	S72CZ1	1pcs	
2	Rubber plug	Φ6.4	1pcs	
3		Φ8.2	2pcs	
4	Rubber grommet	H model	4pcs	
5	Starting relay	QP2-15	1pcs	
		JPQ II -15		
6	Overload protector	TB75-120	1pcs	
		BT75-120		
		DRB26N61A2		
7	Relaying cover	QS08-04	1pcs	S1
8	Grounding screw	QET.1-24C	1pcs	
9	Mounting Accessories	QLH08Y.5.1	4pcs	
10	Cover tap	QS08-05D	1pcs	

Notes:1.All 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.

10. Package、Storage and Transportation

Package type	unreusable
Quantity	120pcs/box
Transportation	By Sea
Storage	Max. 2 layers
Gross Weight Kg	887±48
Net Weight Kg	852±48
Volume m ³	1.12
Dimension: length×width×height (cm)	109×89×114.8
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.

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). The interval of compressor operation must be more than 4 minutes in order to obtain a pressure balance in the systems.
- (5). 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.
- (6). The design of refrigeration system must be suitable to insure the oil could flow back to compressor.
- (7). 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/abs(60°C)
Peak	2.0MPa/ abs(70°C)

- (8). Widen the evaporating Temp. range of the compressor should be approved by DONPER.
- (9). Compressor should be stored in a dry place.

- (10). Compressor accessories (eg: starting relay, overload protector etc.) are put in the accessories box instead of fixing on the compressor.
- (11). 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.
- (12). It's necessary to keep the compressor without rubber plug as short time as possible (max time 10 min).
- (13). R134a systems require a filter with drying agent which suitable for R134a refrigerant
- (14). The vacuum pump and the charging system must only be dedicated to R134a.
- (15). The refrigeration system should minimize the content of chlorine and moisture, and must be free of paraffin and silicon oil.
- (16). The organic substance non-compatible with R134a cannot be used in the refrigeration system.