SK68CU1 COMPRESSOR

TECHNICAL SPECIFICATION



HUANGSHI DONPER COMPRESSOR CO., LTD.

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1. Compressor Type

Compressor model	SK68CU1
Rated voltage/frequency	220-240V~50Hz
Refrigerant	R290
Application	L/MBP
Cooling method	Fan Cooling
Start torque	Low starting torque（LST）
Control device	Capillary tube
Motor type	RSCR
Running capacitor	5 μ F
Starting capacitor	/

2. Performance Data

Displacement	Net Wt.	Oil Charge	Cooling Capacity(≥95%)										COP(≥95%)	
			ASHRAE									CECO MAF	ASHRAE	CECO MAF
			-35	-30	-25	-23.3	-20	-15	-10	-5	0	-25	-23.3	-25
cm^3	kg	ml	w	w	w	w	w	w	w	w	w	w	w/w	w/w
6.8	7.2±0.4	160±10	170	230	300	325	380	482	584	718	841	244	1.50	1.30

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

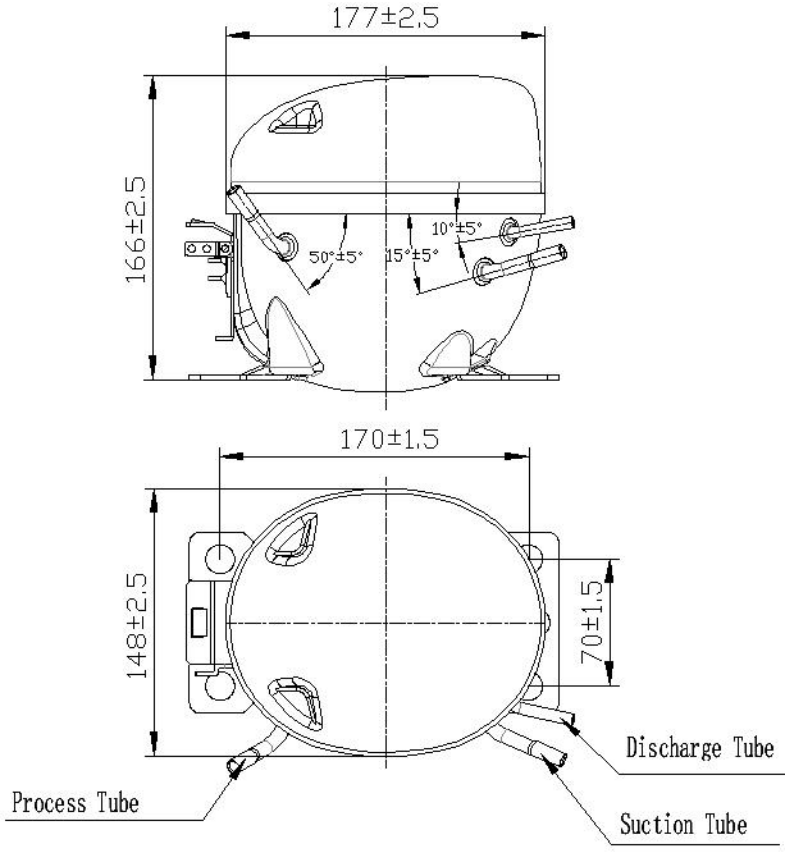
Ambient temp.	0～43℃
Evaporating temp.	-35～0℃
Voltage range	187～254V
Max. condensing temp.	65℃
Max. winding temp.	130℃
Max. shell temp.	95℃
Max. discharge temp.	130℃

Start voltage	187V [0.8/0.8MPa (abs)]
Shell min. resistance to pressure	35bar

4. Compressor Mechanical Information

Oil type	POE
Viscosity	18.2～21.2mm^2/S (40℃)
Oil charged	160±10ml
Diameter of suction tube (I.D.)	Φ6.15±0.1mm
Diameter of discharge tube(I.D.)	Φ4.9±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	≤48.0 dB(A)
Vibration	≤1.2m/s^2
Protecting gas	Dry com.air（Dew point-60℃）
Material of main winding	AL 11.2±15% Ω @25℃
Material of secondary winding	AL 12.1±15% Ω @25℃

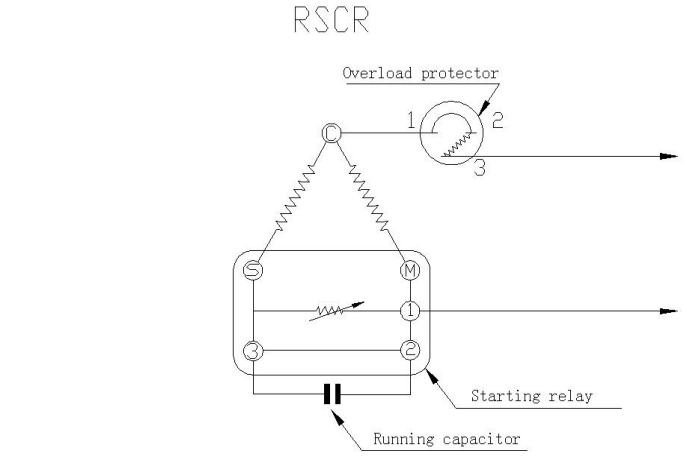
5. Compressor Shape

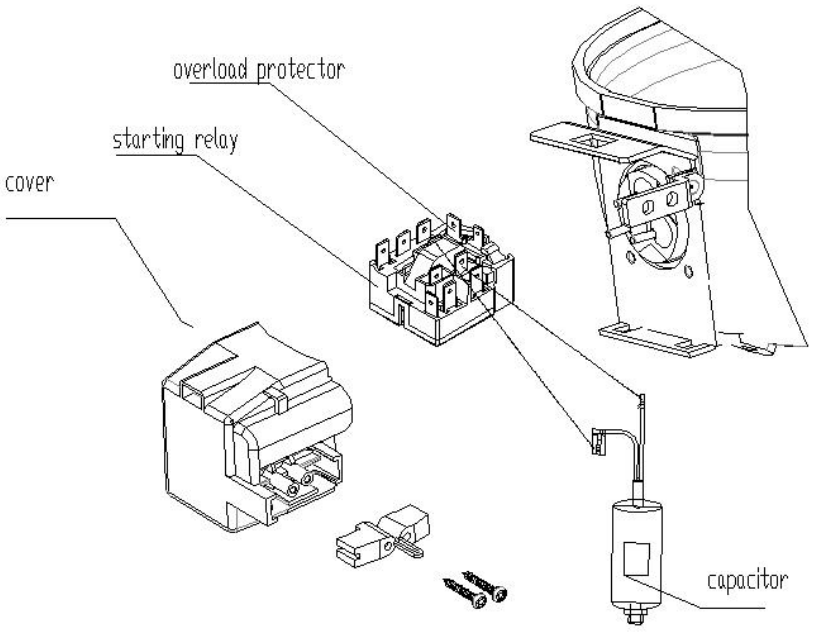


Caution:Suction tube and process tube can not be exchanged
Unmarked tolerance:±5mm
Unmarked Angle: ±10°

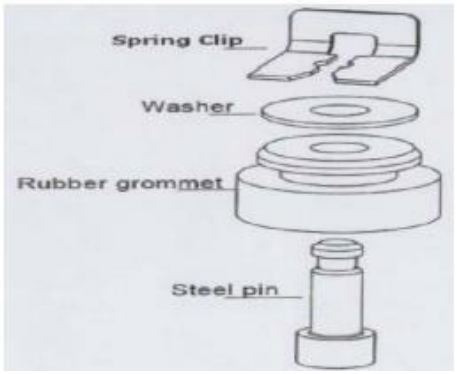
6. Wiring Diagram

Rank of insulation	"B"
Electric safe	GB4706.17/IEC60335-2-34





7. Fixing Of Mounting Bracket And Cabinet Bas



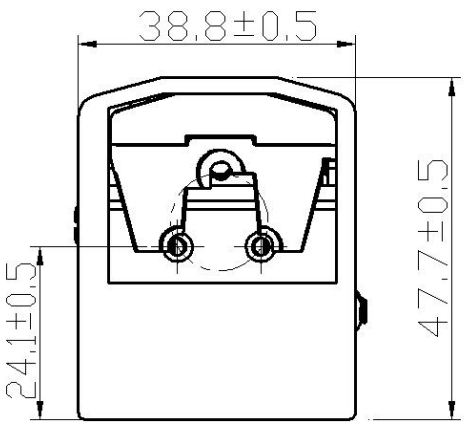
Note: Above parts are all provided by our company. Above is just for reference, details can refer to delivery state.

8. Starting relay and overload protector

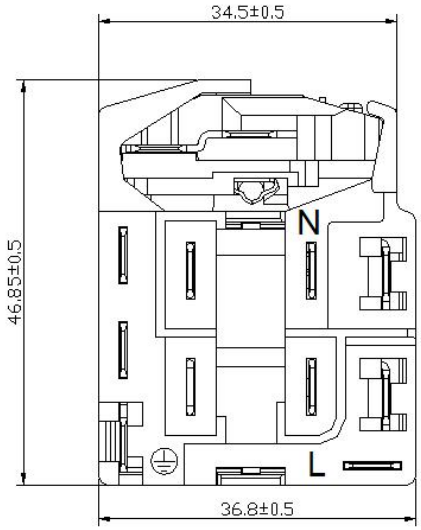
8.1 Comb. starting relay and overload protector

Model		JPQV-15 +BT83-135	QPS2-C15MD3+DRB268S61A3
Supplier		Lanxi City Yueqiang Electric Co.,Ltd.	Hangzhou Star shuaier Electric Appliance Co.,Ltd.
Starting relay	Resistance Ω	15±20%	
	Run time S	0.2~1.5	
	Reset time S	≤100	
	Max working voltage V	350	
	Max current A	8	
Protector	Max.T.C Amp.(25℃) A	8.3	
	Trip time S	5~15	
	Reset time S	20~150	
	Open temp. ±5℃	135	
	Close temp. ±9℃	61	

JPQV-15 +BT83-135



QPS2-C15MD3+DRB268S61A3



9. Capacitor

Model μF	5
Rated voltage V.AC	450
Supplier and model	Anhui Tongfeng Electronics CO.,LTD CBB65
	Shanghai haoyue Electronics CO.,LTD CBB65D（MKP-1）
	Anhui Feida Electrical Technology Co., Ltd. CBB65A-2
	Ningguo Yuhua Electrical Product CO.,LTD CBB65

10. Delivery State

No.	Name	Model	Quantity	CODE
1	Compressor	SK68CU1	1pcs	
2	Rubber plug	Φ6.4	1pcs	Installed
		Φ8.2	2pcs	
3	Rubber grommet	H model	4 pcs	QET-03B
4	Combo starting relay and overload protector	QPS2-C15MD3+ DRB268S61A3	(1 pcs)	Installed
		JPQV-15 +BT83-135		
5	Capacitor	5 μ F	1 pcs	Installed
6	Cover	A2B	1 pcs	
7	Earth bolt	QET.1-24C	1 pcs	
8	Anchor shaft pin assembly	QLH08Y.5.1	4 pcs	

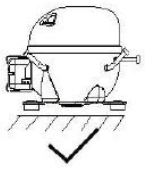
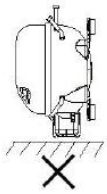
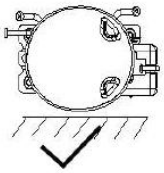
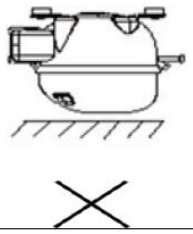
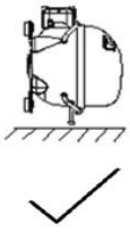
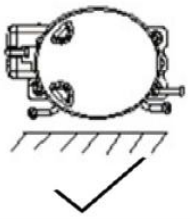
Notes:1. Except rubber plug 、combo starting relay and overload protector、capacitor ，other parts and equipment assembly are supplied separately, not installed on the compressor.

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	100pcs/box
Transportation	By sea
Storage	Max. 2 layers
Cross Weight Kg	755±40
Net Weight Kg	720±40
Volume m^3	1.1
Dimension: length×width×height (cm)	114×89×114
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.

12. Installation Notes

Allowable position	Upright	Cover down	Tubes up
			
	Upside down	Cover up	Tubes down
			

Notes:

1. OK(√), NG(×)

2.Cover up is possible, but there is a limit condition: before cooling product switch on, the user must keep the cooling product in upright position for 8 hours.(because the compressor cover up, the oil will enter the plastic muffler, we need 8 hours to let the oil flow out)

13. Technical Items

⑴、Don't take off the rubber plugs before using and installing compressor to prevent dust and moisture.

⑵、Don't turn down or incline the compressor during storage, transportation or installation and avoid vibration and shock.

⑶、The compressor must be kept horizontally during running, the inclination angle must be less than 5°.

⑷、A special polyester oil is charged in the R290 compressor and the charging volume has been optimized by DONPER. Don't pour out or add any refrigerant oil.

⑸、The interval of compressor operation must be more than 4 minutes in order to obtain a pressure balance in the systems.

⑹、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.

⑺、The design of refrigeration system must be suitable to insure the oil could flow back to compressor.

⑻、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	R290
Max. condensing pressure	2.01MPa
Peak	2.44MPa

⑼、 Widen the evaporating Temp. range of the compressor should be approved by DONPER.

⑽、Compressor should be stored in a dry place.

⑾、 Compressor accessories (eg: starting relay, overload protector etc.) are put in the accessories box instead of fixing on the compressor.

⑿、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.

⒀、It's necessary to keep the compressor without rubber plug as short time as possible (max time 10 min).

⒁、R290 systems require a filter with drying agent whith suitable for R290 refrigerant

⒂、The vacuum pump and the charging system must only be dedicated to R290.

⒃、 The refrigeration system should minimize the content of chlorion and moisture, and must be free of paraffin and silicon oil.

⒄、The organic substance non-compatable with R290 cannot be used in the refrigeration system.