

# **LG68CK COMPRESSOR**

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## **TECHNICAL SPECIFICATION**



HUANGSHI DONPER COMPRESSOR CO., LTD.

2026.3

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### 1. Compressor Type

Compressor model	LG68CK
Rated voltage/frequency	220-240V/50Hz
Refrigerant	R404A
Application	LBP
Cooling method	Fan Cooling
Start torque	Low starting torque
Control device	Capillary tube
Motor type	CSIR
Running capacitor	/
Starting capacitor	75 $\mu$ F

### 2. Performance Data

Displacement	Net Wt.	Oil Charge	Cooling Capacity( $\geq$ 95%)							COP( $\geq$ 95%)		
			ASHRAE							CECOM AF	ASHRAE	CECOMAF
			-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
6.8	8.6 $\pm$ 0.4	200 $\pm$ 10	203	252	305	350	387	471	584	237	1.3	1.01

These datas come from the test without a current starting relay

#### Testing condition:

Test conditions	LBP	
	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

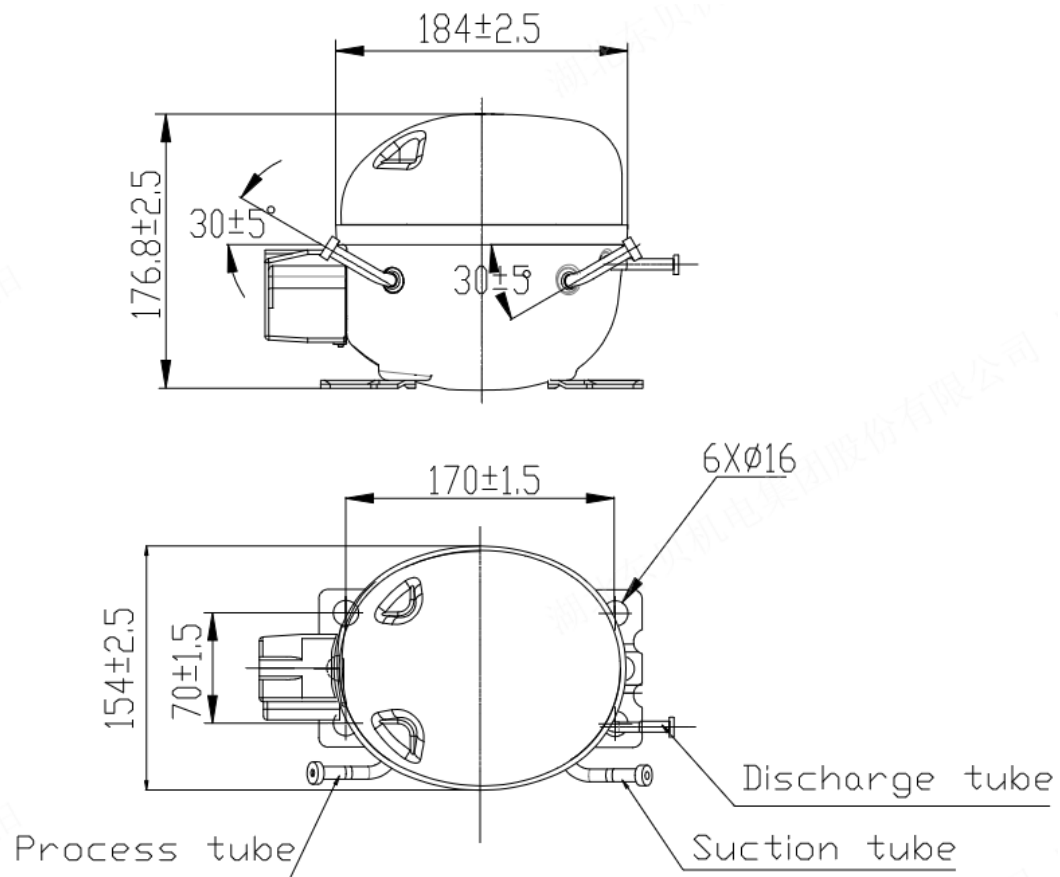
Ambient temp.	0~43 $^{\circ}$ C
Evaporating temp.	-35~-10 $^{\circ}$ C
Voltage range	187~242V
Max. condensing temp.	65 $^{\circ}$ C
Max. winding temp.	130 $^{\circ}$ C
Max. shell temp.	95 $^{\circ}$ C
Max. discharge temp.	130 $^{\circ}$ C
Start voltage	187V [0.5/0.5MPa(abs)]

Shell min. resistance to pressure	35bar
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**4. Compressor Mechanical Information**

Oil type	POE oil
Viscosity	29.7~34.2 mm <sup>2</sup> /s (40°C)
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	52dB(A)
Vibration	1.8m/s <sup>2</sup>
Protecting gas	Dry com.air (Dew point-60°C)

**5. Compressor Shape**

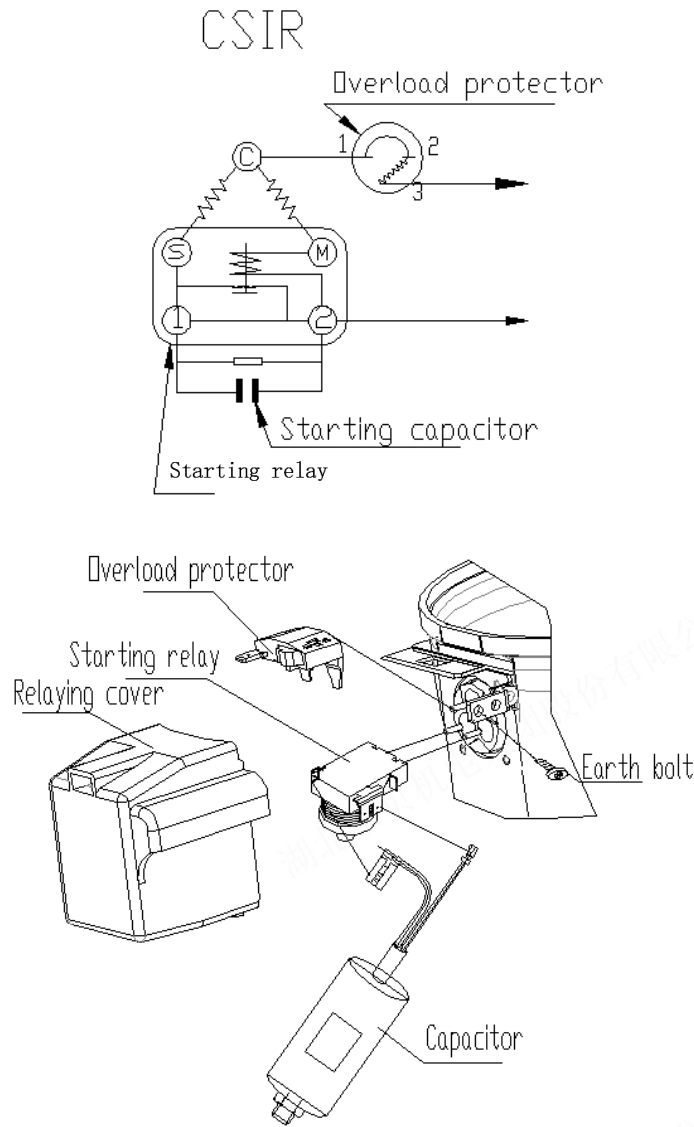


Caution: Suction tube and process tube can not be exchanged

Unmarked tolerance: ± 5mm

Unmarked Angle: ± 10°

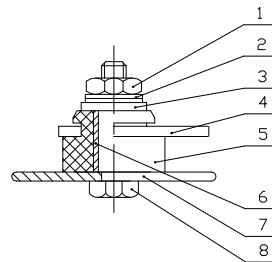
**6. Wiring Diagram**



Note: Each of the starting relay, the overload protector, the relaying cover, the capacitor 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.

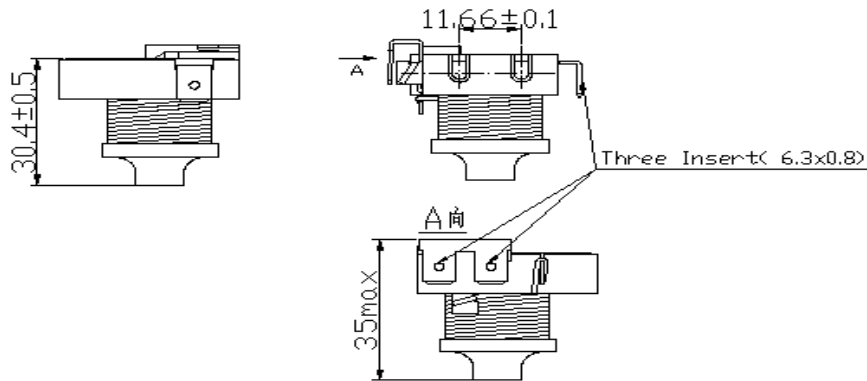
**8. Starting relay and overload protector**

**8.1 Starting relay**

Model	QL2-6.8	
Supplier	Changshu Tianyin Electromechanical Co. Ltd	Hangzhou Star shuaier Electric Appliance Co.,Ltd.
Max Current	A	6.8
Min Open Current	S	5.75

Assembly force ≤ 100N    Disassembly force ≥ 25N

Flammability: Anti-flammability

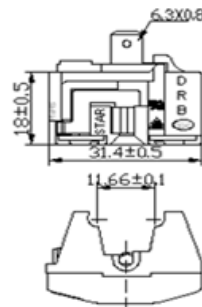


**8.2 Overload protector**

Model	DRB29M61A2	TB94-105
Supplier	Hangzhou Star shuaier Electric Appliance Co.,Ltd.	Shunde Ronggui Electronic Circuit Measuring Equipment Co. Ltd.
Max.T.C Amp.(25°C)	A	9.4
Trip time	S	5~15
Reset time	S	25~150
Open temp.	±5°C	125
Close temp.	±9°C	61

Assembly force ≤ 80N    Disassembly force ≥ 12.5N

Flammability: Anti-flammability



**9. Capacitor**

Type	Starting capacitor	
Model	μF	75
Rated voltage	V.AC	330
Supplier and model	Huangshan Zhenzhou Electrical Products Co.,Ltd.	
	FUXIN JIEKEDA ELECTRONIC CO.LTD	

**10. Delivery State**

No.	Name	Model	Quantity	CODE
1	Compressor	LG68CK	1pcs	
2	Rubber plug	Φ6.4	1pcs	installed on the compressor
3		Φ8.2	2pcs	installed on the compressor
4	Rubber grommet	H model	4pcs	
5	Starting relay	QL2-6.8	1pcs	
6	Overload protector	DRB29M61A2	1pcs	
		TB94-105		
7	Capacitor	75μF	1pcs	
8	Relaying cover	A1N	1pcs	
9	Earth screw	QET.1-24C	1pcs	
10	Sleeve	Φ 10×17	4pcs	
11	Anchor bolt assembly	M6×30	4pcs	
12	Nut	QET-27	4pcs	

Notes:1. Rubber plug are installed on the compressor, 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	546±24
Net Weight	Kg	516±24
Volume	m <sup>3</sup>	0.9
Dimension: length×width×height	cm	103×89×98

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.

**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 R404A 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	R404A
Max. condensing pressure	2.63MPa
Peak	3.0MPa

- (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 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)、 R404A systems require a filter with drying agent which suitable for R404A refrigerant

- (15)、 The vacuum pump and the charging system must only be dedicated to R404A.
- (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 R404A cannot be used in the refrigeration system.