NE2150CU COMPRESSOR

TECHNICAL SPECIFICATION



HUANGSHI DONPER COMPRESSOR CO., LTD.

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INDEX

Page

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	NE2150CU
Rated voltage/frequency	220-240V～50Hz
Refrigerant	R290
Application	Low/Middle back pressure（L/MBP）
Cooling method	Fan Cooling
Start torque	High starting torque（HST）
Control device	Capillary tube
Motor type	CSIR
Starting capacitor	75μF

2. Performance Data

Displacement	Net Wt.	Oil Charge	Cooling Capacity(≥95%)								COP(≥95%)		CURRENT
			ASHRAE							CECOMAF	ASHRAE	CECOMAF	ASHRAE
			-35	-30	-25	-23.3	-20	-15	-10	-25	-23.3	-25	-23.3
cm^3	kg	ml	w	w	w	w	w	w	w	w	w/w	w/w	A
13.5	11.5±0.4	370±10	324	429	564	580	720	896	1019	499	1.30	1.01	3.1

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℃

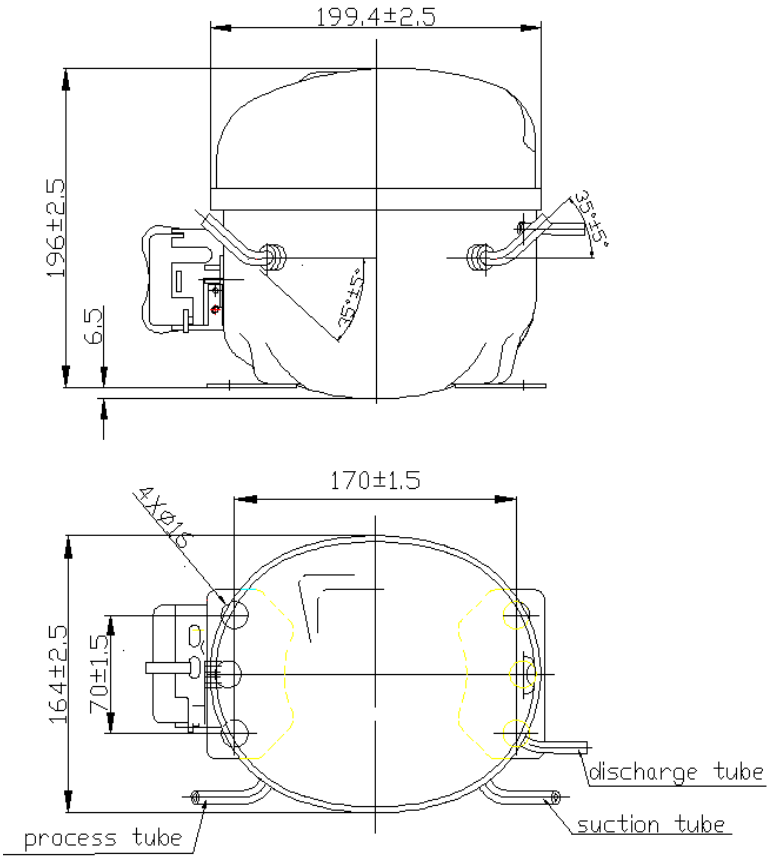
3. Running Condition

Ambient temp.	0～43℃
Evaporating temp.	-35～0℃
Voltage range	187～254V
Max. condensing temp.	65℃
Max. winding temp.	130℃
Max. shell temp.	110℃
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	28.8～35.2 mm^2/s (40℃)
Oil charged	400±10ml
Diameter of suction tube (I.D.)	Φ6.15±0.1mm
Diameter of discharge tube(I.D.)	Φ4.95±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	≤54dB(A)
Vibration	≤1.6m/s^2
Protecting gas	－0.06~－0.02MPa

5. Compressor Shape

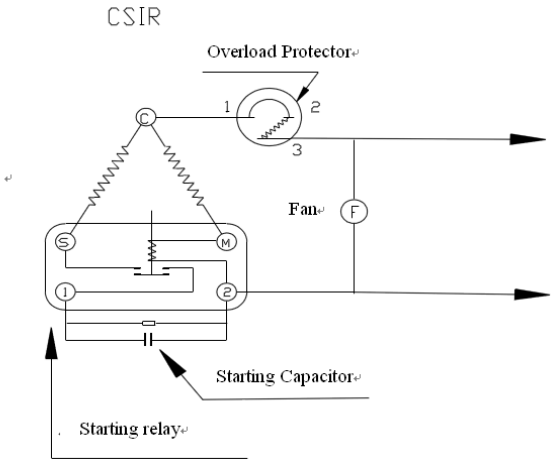


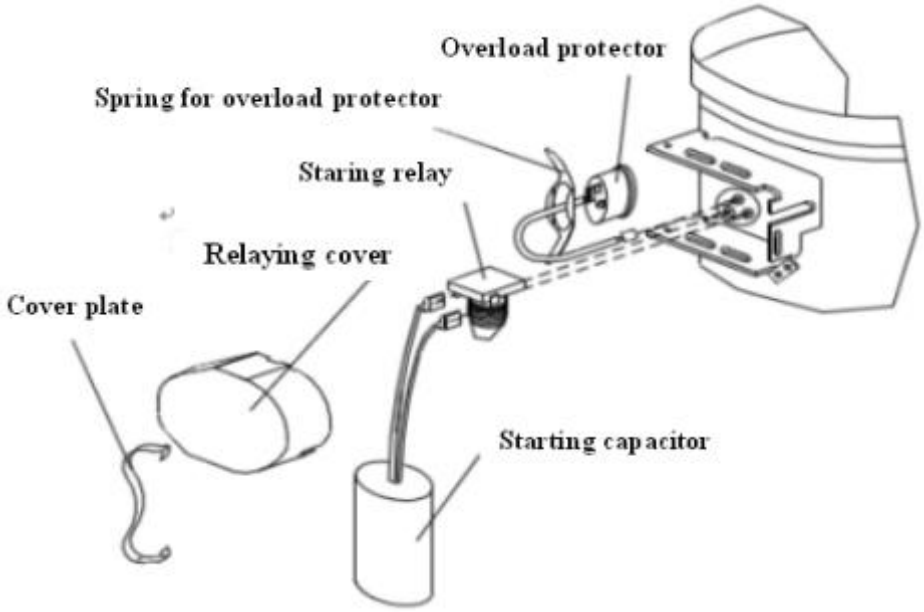
Caution:Suction tube and process tube can not be exchanged

Unmarked tolerance:±5mm

Unmarked Angle: ±10°

6. Wiring Diagram

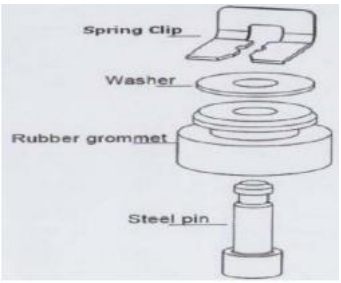




Note: Each of the starting relay、the overload protector、the cover 、the spring tap、the spring for overload protector、the starting capacitor is separately provided by our company.

7. Fixing of mounting bracket and cabinet base

1、Spring clip
2、Washer
3、Rubber grommet
4、Steel pin



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

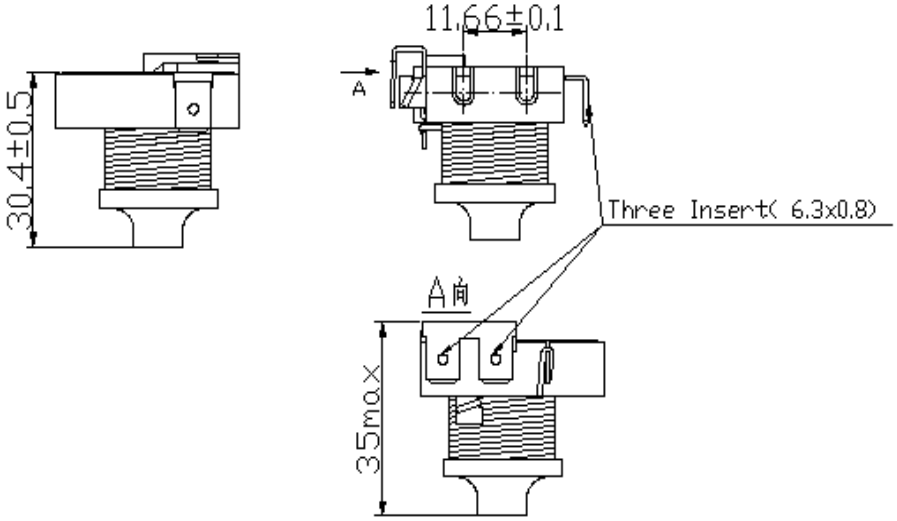
8.1 Starting relay

Model	QL2-8.1	MTRP0071
Supplier	Changshu Tianyin Electromechanical Co. Ltd.	ELSING (SUZHOU) ELECTRICAL CONTROLS CO.,LTD
	Hangzhou Star shuaier Electric Appliance Co.,Ltd	
Max.Close Current A	8.1	
Min Open Currente S	6.8	

Assembly force≤100N Disassembly force≥25N

Flammability: Anti-flammability

QL2-8.1/ MTRP0071



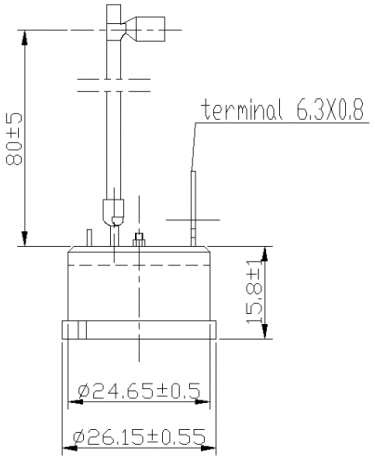
8.2 Overload protector

Model	B128-120	B128-120
Supplier	Changshu Tianyin Electromechanical Co. Ltd.	Hangzhou Star shuaier Electric Appliance Co.,Ltd
Max.T.C Amp.(25℃) A	12.8	
Trip time S	6~16	
Reset time S	10~80	
Open temp. ±5℃	120	
Close temp. ±9℃	61	

Assembly force≤80N Disassembly force≥12.5N

Flammability: Anti-flammability

B128-120



9. Capacitor

Type		Starting capacitor	
Model	μF	75	
Rated voltage	V.AC	330	
Supplier and model		Huangshan Zhenzhou Electronic Technology Co., Ltd.	CD60
		FUXIN JIEKEDA ELECTRONIC CO.LTD	CD60
		Ningguo Yuhua Electrical Products Co.,Ltd	CBB65-B
		SHANGHAI HAOYUE ELECTRIC CO.,LTD	MSC-1

10. Delivery State

No.	Name	Model	Quantity	CODE
1	Compressor	NE2150CU	1pcs	
2	Rubber plug	Φ6.4	1pcs	Installed on the compressor
		Φ8.2	2pcs	Installed on the compressor
3	Rubber grommet	QET-03C	4pcs	
4	Starting relay	QL2-8.1	1pcs	Changshu Tianyin Electromechanical Co.,Ltd.
				Hangzhou Star shuaier Electric Appliance Co.,Ltd.
		MTRP0071		ELSING (SUZHOU) ELECTRICAL CONTROLS CO.,LTD
5	Overload protector	B128-120	1pcs	Changshu Tianyin Electromechanical Co.,Ltd.
				Hangzhou Star shuaier Electric Appliance Co.,Ltd.
6	Starting capacitor	75μF	1pcs	Huangshan Zhenzhou Electronic Technology Co., Ltd
				FUXIN JIEKEDA ELECTRONIC CO.LTD
				Ningguo Yuhua Electrical Products Co.,Ltd
				SHANGHAI HAOYUE ELECTRIC CO.,LTD

7	Cover	QET-08B	1pcs	
8	Grounding screw	QET.1-24C	1pcs	
9	Spring tap	QET-09B	1pcs	
10	Spring for overload protector	QET-07	1pcs	
11	Anchor shaft pin assembly	QLH08Y.5.1	4pcs	

Notes:1. Except for special remakes, all 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	80 pcs/box
Transportation	By sea
Storage	Max. 2 layers
Cross Weight Kg	955±32
Net Weight Kg	920±32
Volume m^3	1.03
Dimension: length ×width ×height cm	109×89×106
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

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 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.

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.