

NE2150CK COMPRESSOR

TECHNICAL SPECIFICATION



HUANGSHI DONPER COMPRESSOR CO., LTD.

2026.3

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 | NE2150CK |
| Rated voltage/frequency | 220-240V ~ 50Hz |
| Refrigerant | R404A |
| Application | Low/Middle back pressure (L/MBP) |
| Cooling method | Fan Cooling |
| Start torque | High starting torque (HST) |
| Control device | Capillary tube |
| Motor type | CSR |
| Starting capacitor | 75μF |
| Running capacitor | 6μF |

2. Performance Data

| Displacement | Net Wt. | Oil Charge | Cooling Capacity(≥95%) | | | | | | | | COP(≥95%) | | |
|-----------------|----------|------------|------------------------|-----|-----|-------|-----|-----|------|-----|-----------|--------|---------|
| | | | ASHRAE | | | | | | | | CECOMAF | ASHRAE | CECOMAF |
| | | | -35 | -30 | -25 | -23.3 | -20 | -15 | -10 | -25 | -23.3 | -25 | |
| cm ³ | kg | ml | w | w | w | w | w | w | w | w/w | w/w | | |
| 12.0 | 11.9±0.4 | 370±10 | 347 | 413 | 505 | 600 | 664 | 876 | 1175 | 453 | 1.25 | 1.01 | |

Note: These datas come from the test without a current starting relay

Testing condition:

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

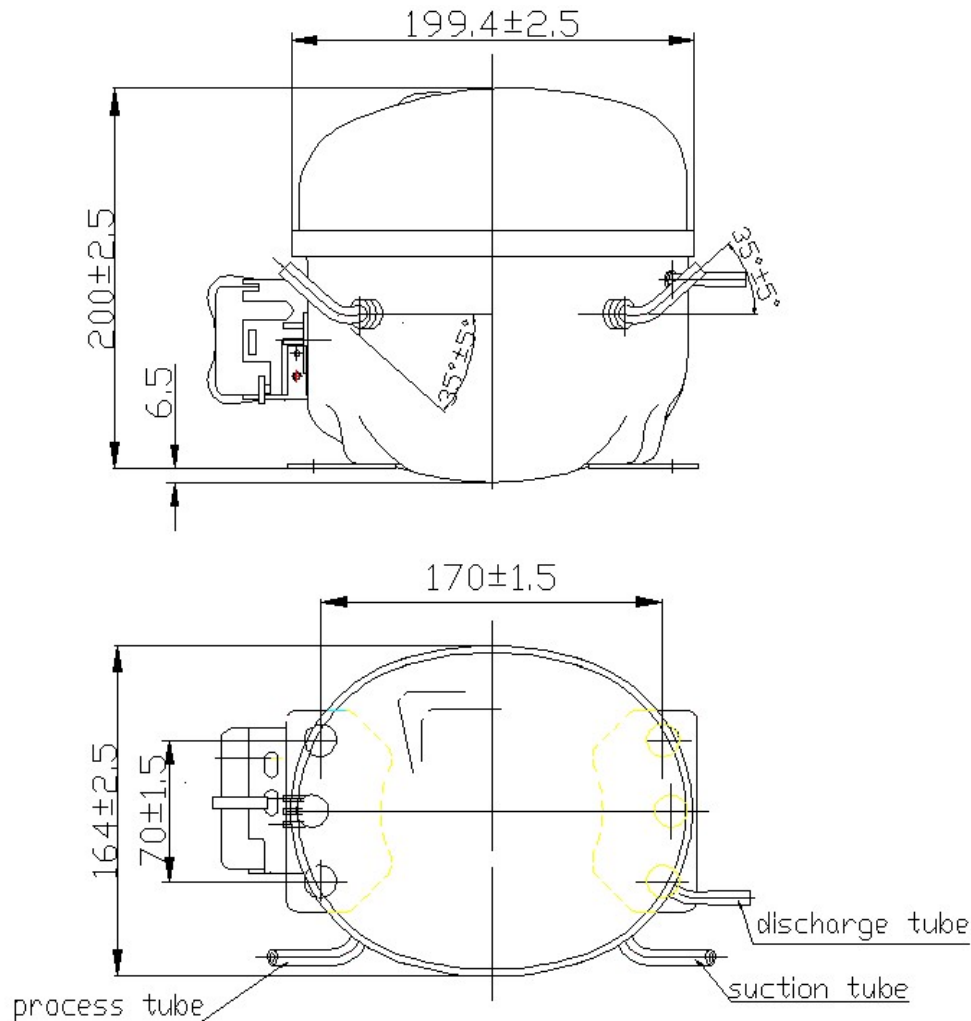
3. Running Condition

| | |
|-----------------------------------|------------------------|
| Ambient temp. | 0~43°C |
| Evaporating temp. | -35~0°C |
| Voltage range | 187~254V |
| Max. condensing temp. | 65°C |
| Max. winding temp. | 130°C |
| Max. shell temp. | 110°C |
| Max. discharge temp. | 130°C |
| Start voltage | 187V [1.1/1.1MPa(abs)] |
| Shell min. resistance to pressure | 35bar |

4. Compressor Mechanical Information

| | |
|---|-------------------------------------|
| Oil type | POE oil |
| Viscosity | 28.8~35.2 mm ² /s (40°C) |
| Oil charged | 370±10ml |
| Diameter of suction tube (I.D.) | Φ 8.15±0.1mm |
| Diameter of discharge tube(I.D.) | Φ 6.15±0.1mm |
| Diameter of process tube (I.D.) | Φ 6.15±0.1mm |
| Material of suction tube, process tube and discharge tube | copper tube |
| Compressor noise | ≤55dB(A) |
| Vibration | ≤1.8m/s ² |
| Protecting gas | Dry com. air (Dew point-60°C) |

5. Compressor Shape

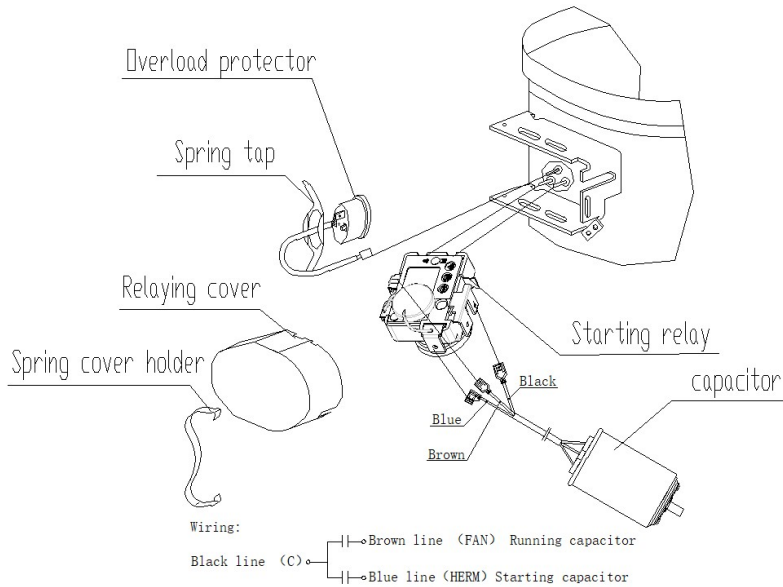
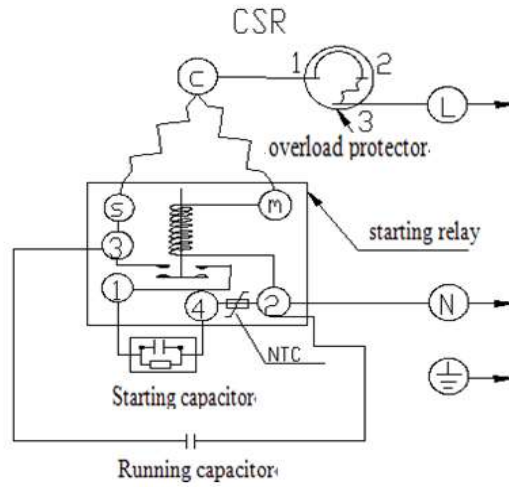


Caution:Suction tube and process tube can not be exchanged

Unmarked tolerance: ± 5mm

Unmarked Angle: ± 10°

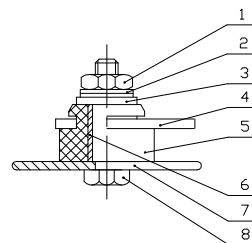
6. Wiring Diagram



Note: Each of the starting relay, the overload protector, the cover, the spring tap, the spring for overload protector, the capacitor and the grounding screw 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

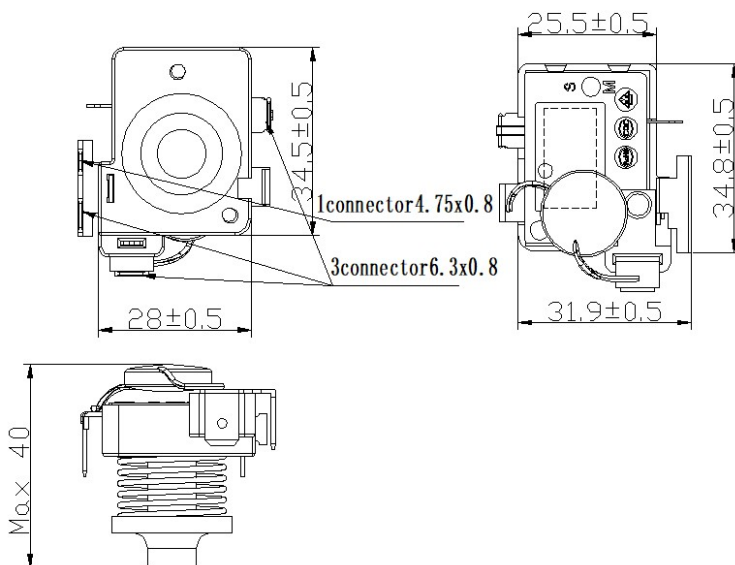
8.1 Starting relay

| Model | QL2-8.1 | QL2-8.10 |
|---------------------|---|--|
| Supplier | Changshu Tianyin Electromechanical 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/QL2-8.2



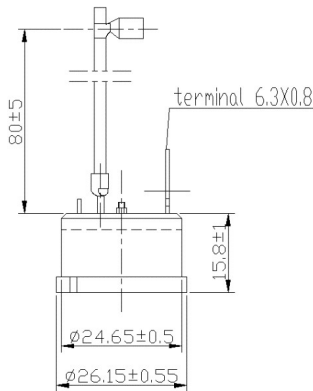
8.2 Overload protector

| Model | B128-135 | |
|----------------------|---|--|
| Supplier | Changshu Tianyin Electromechanical Co. Ltd. | Hangzhou Star shuaier Electric Appliance Co.,Ltd |
| Max.T.C Amp.(25°C) A | 12.8 | |
| Trip time S | 5~15 | |
| Reset time S | 10~80 | |
| Open temp. ±5°C | 135 | |
| Close temp. ±9°C | 61 | |

Assembly force ≤ 80N Disassembly force ≥ 12.5N

Flammability: Anti-flammability

B128-135



9. Capacitor

| | | | |
|--------------------|--|--------------------|-------------------|
| Type | | Starting capacitor | Running capacitor |
| Model | μF | 75 | 6 |
| Rated voltage | V.AC | 330 | 450 |
| Supplier and model | Ningguo Yuhua Electrical Products Co.,Ltd. | | |
| | SHANGHAI HAOYE ELECTRONIC CO.,LTD | | |
| | Anhui Feida Electrical Technology Co.,Ltd. | | |
| | Anhui Tongfeng Electronics Co.,Ltd. | | |

10. Delivery State

| No | Name | Model | Quantity | CODE |
|----|-------------------------------|-----------|----------|---|
| 1 | Compressor | NE2150CK | 1pcs | |
| 2 | Rubber plug | Φ10.3 | 1pcs | Installed on the compressor |
| | | Φ8.2 | 2pcs | Installed on the compressor |
| 3 | Rubber grommet | H model | 4pcs | |
| 4 | Starting relay | QL2-8.1 | 1pcs | Changshu Tianyin Electromechanical Co.,Ltd. |
| | | QL2-8.10 | | Hangzhou Star shuaier Electric Appliance Co.,Ltd. |
| 5 | Overload protector | B128-135 | 1pcs | Changshu Tianyin Electromechanical Co.,Ltd. |
| | | | | Hangzhou Star shuaier Electric Appliance Co.,Ltd. |
| 6 | Capacitor | 75+6μF | 1pcs | |
| 7 | Cover | E1 | 1pcs | |
| 8 | Grounding screw | QET.1-24C | 1pcs | |
| 9 | Spring tap | QET-09B | 1pcs | |
| 10 | Sleeve | Φ10×17 | 4pcs | |
| 11 | Spring for overload protector | QET-07 | 1pcs | |

| | | | | |
|----|----------------------|--------|------|--|
| 12 | Anchor bolt assembly | M6×30 | 4pcs | |
| 13 | Nut | QET-27 | 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 | | 60pcs/box |
| Transportation | | By sea |
| Storage | | Max. 2 layers |
| Cross Weight | Kg | 744 ± 24 |
| Net Weight | Kg | 714 ± 24 |
| Volume | m ³ | 0.97 |
| Dimension: length ×width ×height | cm | 103 × 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

- (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 | 2.68MPa |
| 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 inventory period of the compressor after leaving the factory should not exceed 6 months. 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.