Compressor type

Compressor model, rated voltage, frequency	NE2168CU
	220-240V-50Hz
Refrigerant	R290
Work back-pressure cooling state	Medium/Low Backpressure (L/MBP)
throttling device	Air-cooled Capillary Tube
Motor type	CSR
Operating capacitor start	6μF
capacitor	75μF

2. Working Conditions

Environmental temperature	0 to 43 degrees Celsius
Evaporation temperature	-35 to 0 degrees Celsius
Maximum exhaust pressure within voltage range	187~254V
	0.87 MPa(abs)
The highest condensation temperature	65 degrees Celsius
Maximum winding temperature	130°
Maximum shell temperature	110°C
Maximum exhaust temperature	130 degrees Celsius
Startup performance	187V [0.5/0.5MPa(abs)]
Maximum balanced pressure of the 43°C refrigeration system	0.5/0.5MPa(abs)
Minimum pressure resistance of the shell	35bar

3. Compressor Design Parameters

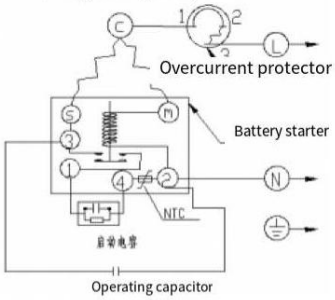
Type of refrigeration oil	Ester oil
Viscosity	30~34 mm2/s (40 degrees Celsius)
The density of oil	0.94~1.04g/ml (15°C)
Freezing oil grade	ISO 32 350
Oil injection volume	±10ml
Weight (including oil)	11.5 ± 0.4 kg
Inhalation tube diameter (inner diameter) Exhalation tube diameter (inner diameter)	8.15 ± 0.1 mm
	6.15 ± 0.1 mm
Process pipe diameter (inner diameter)	6.15 ± 0.1 mm of dry air (dew point: -60°C)
Inhalation tube, process pipe, exhaust pipe material	Brass tube
Protective gas	
Residual impurity content	<50mg
Water (with oil)	<100mg

4. Electrical Characteristics

Electrical wiring diagram (CSR)	See the picture below.
Insulation class	"B" 130°C

Maximum winding temperature of the motor	130 degrees Celsius
Electrical safety	Compliant with GB4706.17/IEC60335-2-34

Electrical wiring diagram (CSR) CSR



5. Performance Parameters

Cylinder volume refrigeration capacity W cm^3	Input power: W 295%	115%	Working current: 110% of AS	COP(W/W) 295%	Noise dB(A) Vibration m/s^2 n	n
16.7	750	580	3.0	1.30	56	1.8

Test conditions: During the performance test, the condensation temperature of the two chambers was 54.4°C, and the overcooling temperature was 32.2°C.

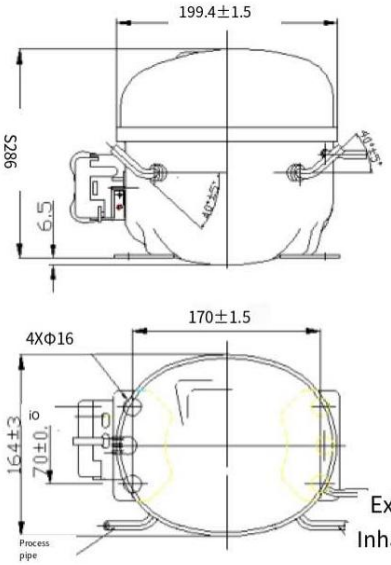
Environmental temperature: 32.2°C

Evaporation temperature: -23.3°C

Inhalation temperature: 32.2°C

Test power supply: 220V - 50Hz

6. Compressor outline drawing



Note: The inhalation tube and the process pipe cannot be interchanged.

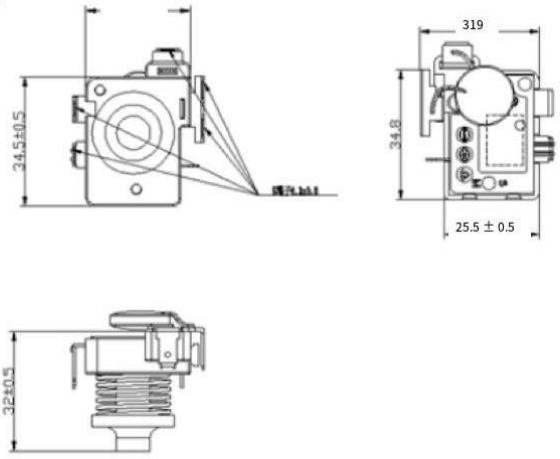
No tolerance specified: ±5mm

7. Initiator

Type of starter: Drop-weight starter

Compressor type			NE2168CU	
Launcher	Model number		QL2-8.1	QL2-8.2
	Manufacturer		Changshu Tianyin Electromechanical Co., Ltd	Hangzhou Xingshuer Electrical Appliance Co., Ltd.
	Maximum suction current	A	8.1	
	Minimum release current	A	6.8	

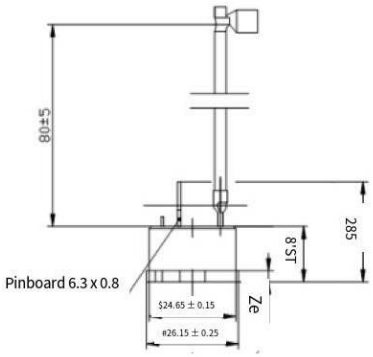
Insertion force < 100N (first time), extraction force > 25N (sixth time), flame retardant grade UL94V-028 ± 0.5



8. Protector

Compressor type			NE2168CU
Protector	Model number		B150-115
	Action current (at 25°C) action time	A	15.0
		S	6-16
	Recovery time	S	10 - 80
	Action temperature	±5°C	115
	Reset temperature	±9 degrees Celsius	61
	Manufacturer		Changshu Tianyin Mechanical & Electrical Co., Ltd. Hangzhou Xingsheier Electrical Appliance Co., Ltd.

Insertion force ≤ 80N (first time), extraction force > 12.5N (sixth time), flame retardant grade UL94V-0



9. Capacitor

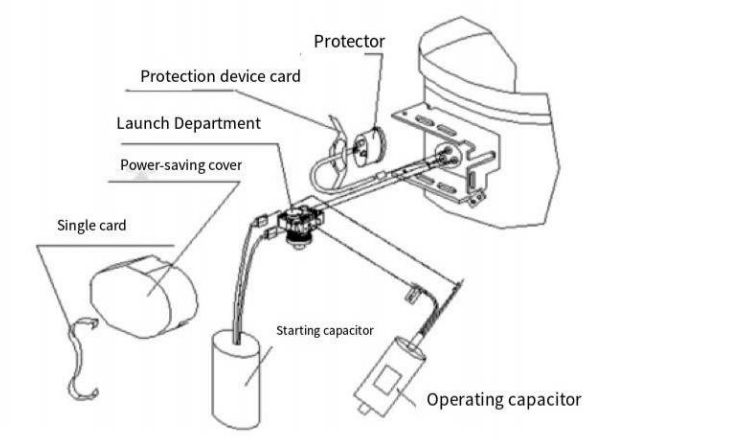
9.1. Starting Capacitor

Model number	NE2168CU	
Manufacturer	Huangshan Zhenzhou Electronic Technology Co., Ltd.	Fuxin Jiezai Electronics Co., Ltd.
Specification μF	75	75
Rated Voltage V. AC	330	330
Shell material	Plastic	Plastic
Type of Certification	CQC	CQC

9.2. Operating Capacitor

Model number	NE2168CU		
Manufacturer	Anhui Feida Electrical Technology Co., Ltd.	Ningguo City Yu Hua Electrical Appliance Co., Ltd.	Shanghai Haoyue Electrical Co., Ltd.
Specification μF	6	6	6
Rated Voltage V.AC	450	450	450
Shell material	Plastic	Plastic	Plastic
Type of Certification	CQC	CQC、VDE	CQC、VDE

10. Connection method of the two equipment



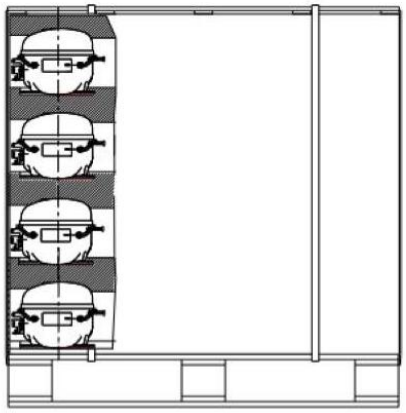
11. Delivery List

Serial Number	Name	Specification	Quantity	Note
1	Compressor	NE2168CU	1 unit / 1 piece	
2	Rubber stopper	Φ10.3		
		Φ8.2	Two	
3	Machine foot rubber ring	QET.1-03B	4 ones	
4	Launcher	QL2-8.1	1 unit	Changshu Tianyin Electromechanical Co., Ltd
		QL2-8.2		Hangzhou Xingshuer Electrical Appliance Co., Ltd.
5	Protector	B150-115	1 unit	Changshu Tianyin Mechanical & Electrical Co., Ltd. Hangzhou Xingsheier Electrical Appliance Co., Ltd.
6	Starting capacitor	75μF	1 unit	Huangshan Zhenzhou Electronic Technology Co., Ltd. Fuxin Jiejiaotai Electronics Co., Ltd.
7	Operating capacitor	6μF	1 unit	Anhui Feida Electrical Technology Co., Ltd. Ningguo Yuhua Electrical Co., Ltd. Shanghai Haoyue Electrical Co., Ltd.
8	Relay cover	E1		
9	Cover plate	1 QET-09B	1 unit	
10	Protection device card	QET-07	1 unit	
11	O-ring	Φ10×17	Four	
twelve	Grounding screw assembly	QET.1-25	1 set	
13	Base bolt assembly	M6×30	Four	
fourteen	Nut	M6	Four	

Note: All the electrical components and installation parts are packaged separately and are not directly attached to the compressor.

12. Packaging, Storage and Transportation

Packaging type	One-time (non-reusable)
Quantity	80 units per box
Transportation	Trains or cars
Stacking height	At most two floors
Gross Weight (in kilograms)	960 ± 32
Net weight (in kilograms)	920 ± 32
Volume (m^3)	1.04
Overall dimensions: Length × Width × Height cm	109 × 89 × 107
Main packaging components	Wooden base, upper cover plate, foam partition board, plastic diaphragm, rainproof cover, plastic steel strip
Lifting and moving	Keep the compressor in a normal and vertical position
Simulation transportation requirements	It is not allowed to cause any damage to the compressor or its performance.



13. Installation Instructions

System vacuum level: 0.5 mbar
Non-condensable gases are limited to: 1.0%
Maximum opening time of the plug: 15 minutes
Maximum system moisture content: 50mg/m2 (excluding the compressor)

The compressor cannot withstand high voltage or start or operate under vacuum conditions. It cannot be used to evacuate the system with the compressor.

Vacuum.

When the compressor is operating, the inclination from the horizontal position should not exceed 5 degrees.

Drying filter model: XH-7" or XH-9

Using non-designated types of refrigerating oil: Prohibited

Compressor return liquid: Not allowed

The storage period of the compressor after it leaves the factory should not exceed 6 months. If it exceeds 6 months, please check the damaged parts inside the compressor. The damaged compressor is not allowed to be used.

Whether the protective gas is sufficient or not, it should be replenished if necessary.

Other requirements:

◇ When designing the refrigeration system, the return oil of the system should be fully considered.

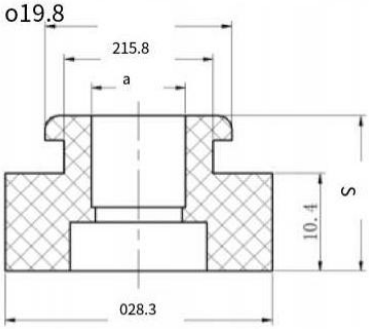
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14. Installation Diagram

Machine foot rubber ring

Material: Natural rubber Hardness: 55 ± 10 AHS Color: Black

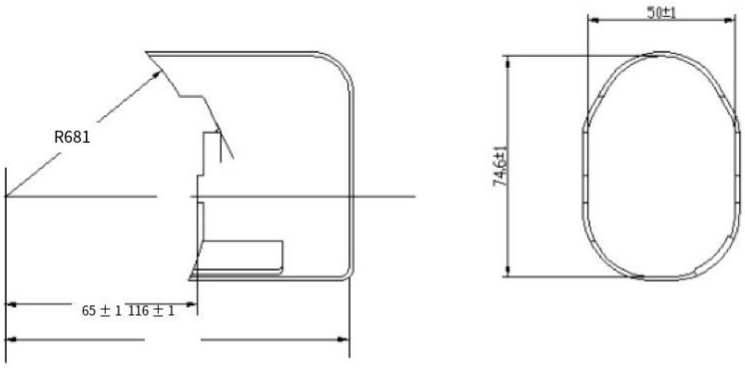
o19.8



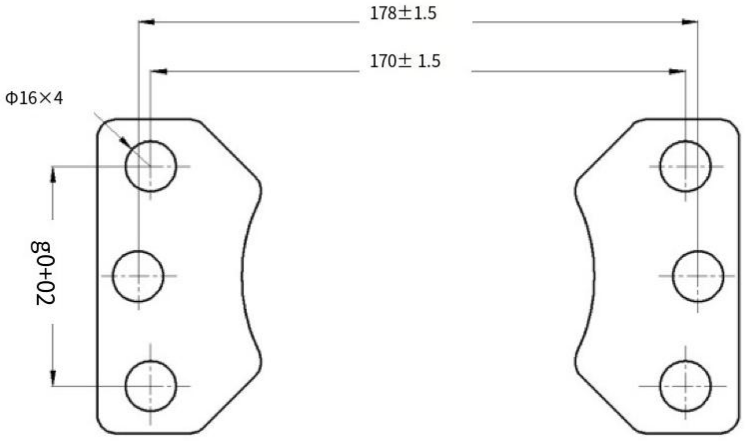
Uncertain tolerance: ±0.25

2> Relay cover

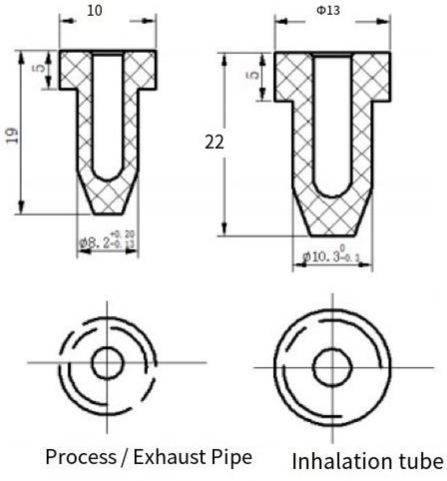
Material: Black nylon 6　　Flame retardant grade: VO level



3) Installation diagram of machine feet



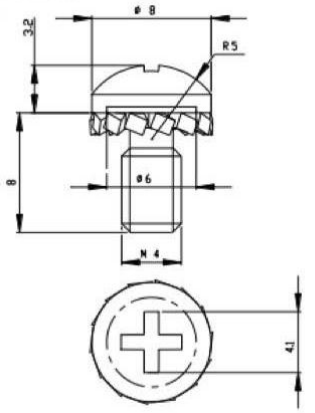
4) Rubber stopper　　Material: Nitrile rubber



Uncertain tolerance: ±0.25

5) Grounding screw

Material: Steel



Uncertain tolerance: ±0.25

15. Plate appearance diagram



16. Environmental protection requirements

Regarding compressors and their accessories:

1. PAHs requirements: Must meet Class II and Class III standards of PAHs;
2. Requirements of the REACH regulation: The limit for SVHC is less than 1000 ppm;
3. Requirements for phthalates (esters): The 18-item restrictions on harmful substances must be less than 1000 ppm.
4. RoHS 2.0: Compliant with 2011/65/EU, with 6 restricted substances (Pb: 800 ppm, Cr6+: 800 ppm, Hg:) 800ppm、 Cd: 80ppm、 PBBs: 800ppm、 PBDEs: 800ppm)。

17. Product Certification Detail List

Component/Part Name	Manufacturer	Model/Specification	Type of Certification	Certificate Number
Compressor	Huangshi Dongbei Electrical Appliances Co., Ltd.	CCC		2020970704001510
Launcher	Changshu Tianyin Electromechanical Co., Ltd	NE2168CU QL2-8.1 QL2-8.2	CQC	CQC02002001006
	Hangzhou Xingshuer Electrical Appliance Co., Ltd.		CQC	CQC02002002517