

ETA110 COMPRESSOR TECHNICAL SPECIFICATION

Guangzhou Boasi Appliance CO.,LTD

Signature: _____

Date: _____

Wanbao Group Compressor Co., Ltd.

Signature: _____

Date: _____

CONTENT

1.Compressor Type 1

2.Working Condition 1

3.Compressor Design Parameter..... 1

4.Electrical Characteristics2

5.Capacity Parameter2

6.Compressor Shape Drawing3

7.Starter 3

8.Protector4

9.Delivery list.....5

10.Package Storage and Transportation.....5

11.Installation Notes6

1. Compressor Type

Project	Data	Unit
Compressor Model	ETA110	
Rating Voltage/Frequency	220-240~50	V/Hz
Refrigerant	R600a	
Operating Back Pressure	LBP	
Cooling state	ST cooling	
Throttle Device	Capillary	
Motor Type	RSIR	
Running Capacitor	/	μF

2. Working Condition

Project	Data	Unit
Environment Temperature	-5~43	°C
Evaporate Temperature	-35~-10	°C
Voltage Range	187~254	V
Max Discharge Pressure (absolute pressure)	0.98	MPa
Max Condensing Temperature	60	°C
Max Winding Temperature	120	°C
Max Shell Temperature	95	°C
Max Discharge Temperature (Ambient Temp 30□)	100	°C
Start Voltage(gauge pressure)	187(0.25/ 0.25Mpa)	V
Minimum Shell forbearing Pressure (absolute pressure)	2.5	MPa

3. Compressor Design Parameter

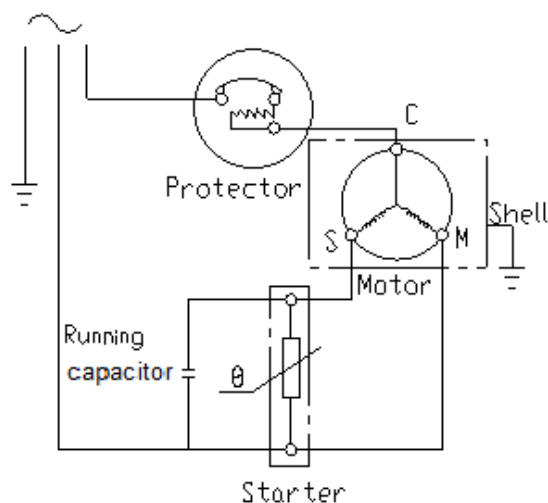
Project	Data	Unit
Lubricant oil	Mineral oil/Alkyl benzene oil	
Lubricant viscosity	ISO10	
Supplier	Emkarate	
Lubricant Charge	165±10	[ml]
Density(20°C)	0.85~0.90	g/mL
40°C viscosity	9.0~12.5	[mm ² /s]
Min oil maintain volume	80	[ml]
Weight (Include Oil)	7.3±0.3	kg
Discharge Tube Diameter(Inner diameter)	4.95±0.05	mm
ScutionTube/Process Tube Diameter(Inner diameter)	6.15±0.05	mm
Material for Suction Tube, Service Tube, and Discharge Tube	TP2	

Noise	≤41	dB(A)
Vibration	≤0.70	m/s ²
Protection Gas	Dry Nitrogen (Dew point: -40℃)	
Particulate Matter(W/O oil)	≤80	mg
Moisture(W/O oil)	≤100	mg

4. Electrical Characteristics

Project	Data	Unit
Wiring Diagram	Refer to following figure	
Insulation Grade	B Grade	
Max Start Current	8.5	A
Main Winding Electrical Resistant in 20℃	15.09±10%	Ω
Secondary Winding Electric Resistant in 20℃	27.34±10%	Ω
Motor Max winding temperature	130	℃
Electrical Safety	Meet the standard of GB4706.17/IEC60335-2-34	

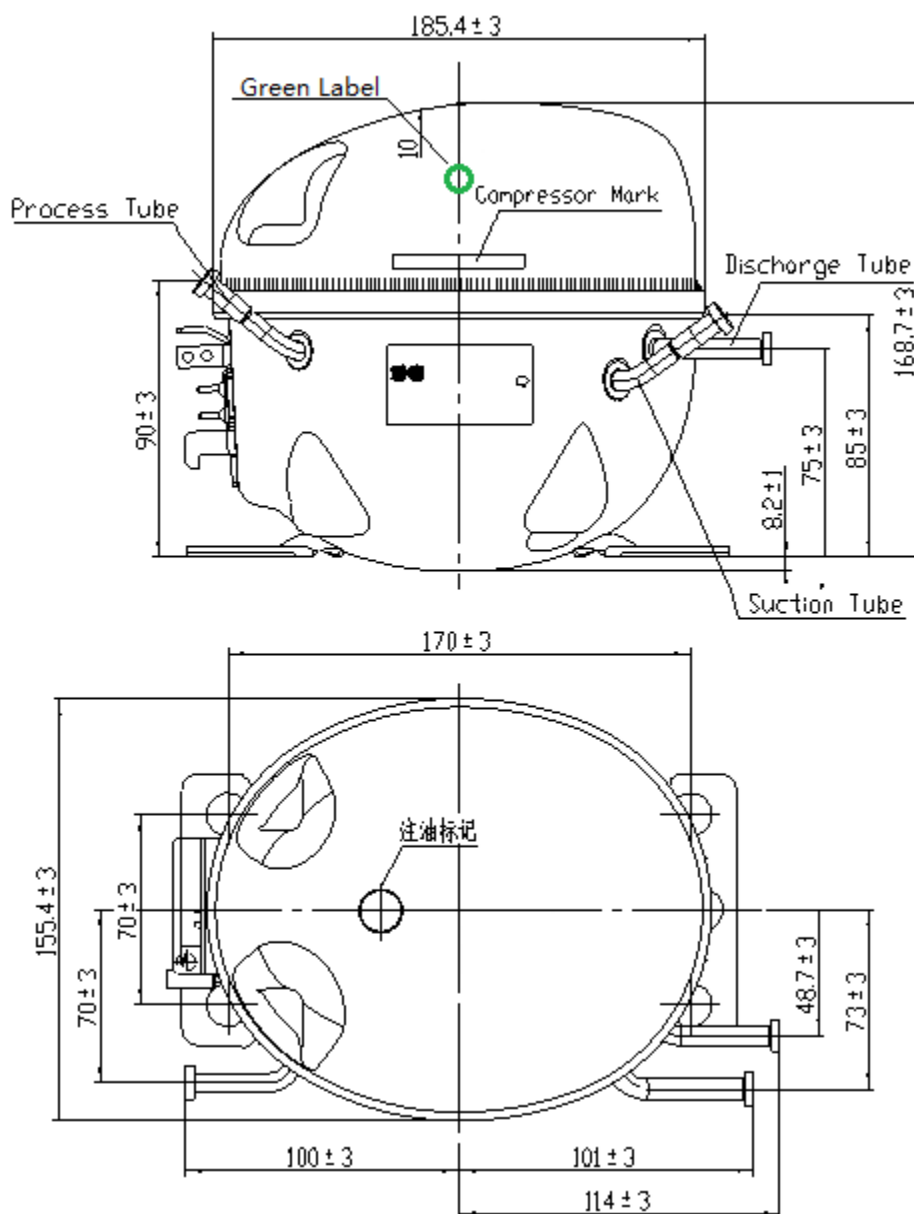
Wiring Drawing (RSCR):



5. Capacity Parameter

Test condition		LBP – ASHRAE		(Evaporating temp. -23.3℃)	
220-240V/50Hz		Static		(Condensing temp. 54.4℃)	
Cooling capacity	Input power	Current	Efficiency	Noise	Vibration
≥95%	≤115%	≤110%	≥97%		
[W]	[W]	[A]	W/W	dB(A)	m/s ²
185	136	1.15	1.36	≤41	≤0.7

6.Compressor Shape Drawing



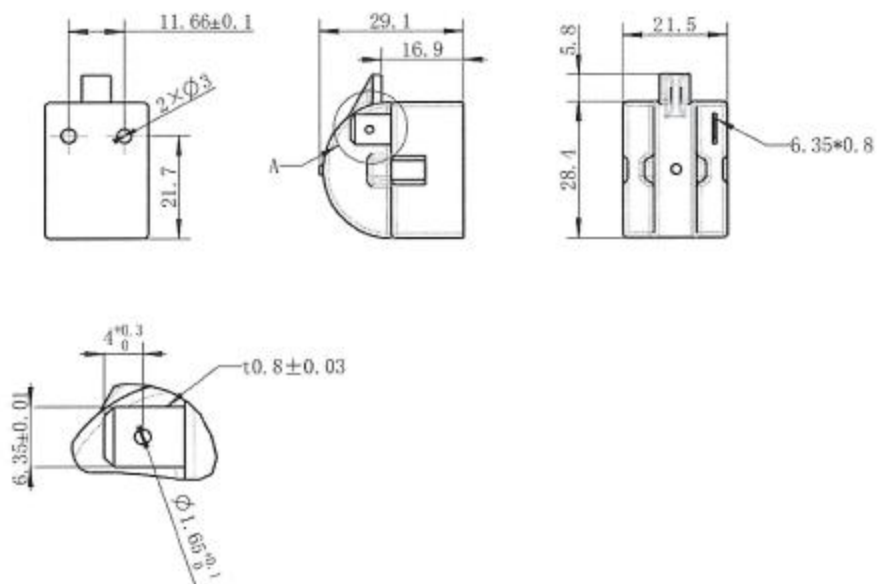
Remark: Interchange between the Process tube and suction tube is not allowed.

7.Starter

	Project	Data	Unit
Starter	Type	QP2-15G	
	Normal resistance (25°C)	$15 \pm 20\%$	Ω
	Operating time	0.25~1.2	s
	Reset time	≤ 100	s
	Max Voltage	350	V

	Max Current	8	A
--	-------------	---	---

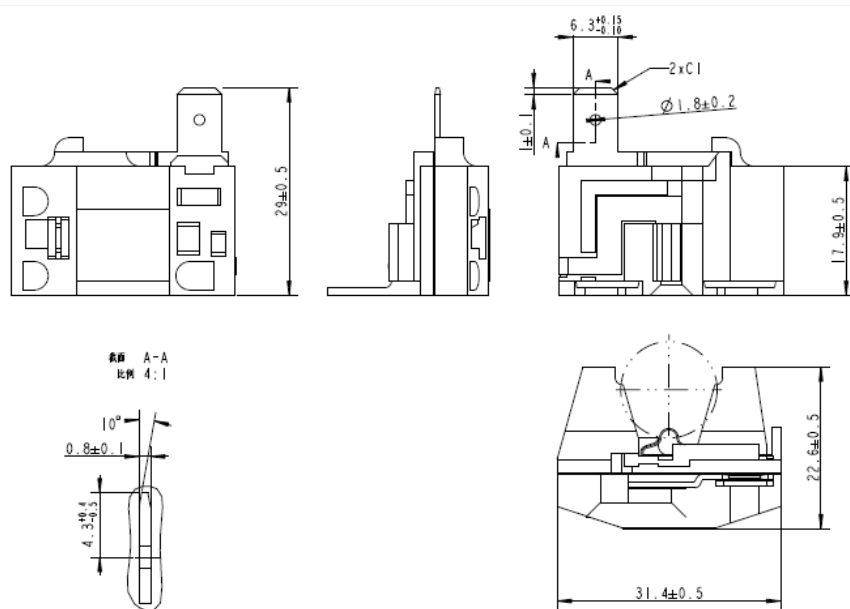
Installation force ≤ 88N (first time) Unload force ≥ 25N (6th time) Flame-retardant grade: UL94 V-0



8.Protector

	Project	Data	Unit
Protector	Type	BT60-120	
	Operation Current (25°C)	6.0	A
	Operation Time	6~16	s
	Reset Time	≥10	s
	Operation Temperature	120±5	°C
	Reset Temperature	61±9	°C
	Running current (75°C)	1.75~2.05	A

Senbao:



9. Delivery list

No.	Name	Specification	Qty	Name and trademark of the factory
1	Compressor	ETA110	1 台	Wanbao Group compressor Co., Ltd.
2	Starter	QP2-15G	1 个	Guangzhou Senbao Electrical Appliances Co.,Ltd
3	Protector	BT60-120	1 个	
4	Ground screw	M4×8	1 个	/
5	Relay cover	TS-2	1 个	Guangzhou Qianneng Mechanical Manufacture Co.,Ltd Guangzhou Jintao Hardware Manufacturing Co.,Ltd

Note: In addition to the pre-installed parts, the rest of the electrical devices and accessories are individually packaged and shipped with the compressor.

10. Package Storage and Transportation

Package Type	Disposable (can not be used again)
Quantity	100 Pcs/box
Transportation	Road or train or Shipping
Stack layers	≤2 layer
Gross weight	840±30 Kg
Outer size: Length×width×high	110.6×86.6×110 (cm)

Main package component	Pallet、 cover board、 cover foam、 le foam、 bottom foam、 plastic film、 plastic film bag、 PET belt
Transit	Hold compressor in normal and vertical position (in 2 hours before compressor installed into refrigerator)

11. Installation Notes

13.1 System vacuum grade (compressor): 60 Pa(Absolute pressure).

13.2 Non-condensate gas is limited within:1%.

13.3 To prevent moisture intrusion, remove the tube covers, should be loaded quickly in 10 minutes in the refrigeration system.

13.4 Compressor can not endure high voltage or start/run under the vacuum condition.

13.5 Compressor can not be used to vacuum the system.

13.6 When compressor works, its horizontal angle should be no more than 5°.

13.7 Not allowed Usage of Non designated oil.

13.8 Prohibit Refrigerant liquid return.

13.9 The storage period should be no more than six months after leave factory. If time is exceeded, please check up the sufficiency of dry air of the compressor, recharge it when necessary.

13.10 Maximum refrigerant perfusion 300(g)

Other requirements:

- ◇ System oil return should be considered when cooling system is designed.
- ◇ Damaged compressor is not permitted to use