Lab Companion

High And Low Temperature Test Chamber T-387-40

Custom Solution

Brief Introduction

The equipment is mainly for industrial products reliability test in high and low temperature condition. The adaptability test of electronic, electrical, automobile, aerospace, Marine weapons, scientific research units and other materials in the environment of high temperature and low temperature storage, transportation and use. The test equipment is mainly used for the product in accordance with the national standard requirements or user-defined requirements. At high and low temperature, the physical and other related characteristics of the product experience environmental simulation test. Through testing to determine the performance of the product and whether it can still meet the predetermined requirements for product design, improvement, identification and factory inspection.

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Specifications and parameters：

Model	T-387-40
Power source	AC220V, 50/60HZ, 1 ∮ 3 wire
Rated current	AC 25 A
Total power	5.5 KW
This machine is dedicated to the above marked power supply, please use according to the rated power distribution.If the use area is changed, please contact our company. Service phone 400-628-2786.	
Temperature Range	-40~+150 ℃(Air-cooled, no-load)
Temperature fluctuation	≤±0.5℃
Temperature deviation	≤2.0℃
Temperature uniformity	≤±2.0℃
Temperature rising rate	-40℃→+150℃, Nonlinear no-load approx. 3.0℃/min
Cooling rate	150℃→-40℃, Nonlinear no-load approx. 1.0℃/min
Internal Dimension	W650*H850*D700 (mm)
External Dimension	W980*H1880*D1370(mm)
Suitable temperature for using	5~30℃
Controller model	Q8 color touch screen
Compressor model	CAJ2464*2
Refrigerant	R-404A/R23
Temperature electric heating	3.6 KW

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Appearance Introduction and Description:

1. Front and side of the machine

Number	Name	Illustrate
1	Tricolor light	Green light means running, yellow standby, red fault
2	Controller panel	The intelligent operating panel
3	Test hole	An external power supply can be plugged in from the test hole for live product testing
4	Door lock	Pull the vertical bar door upward to open
5	Control panel	Leakage protector and safety control
6	Glass Window	To observe the workings of the inner studio

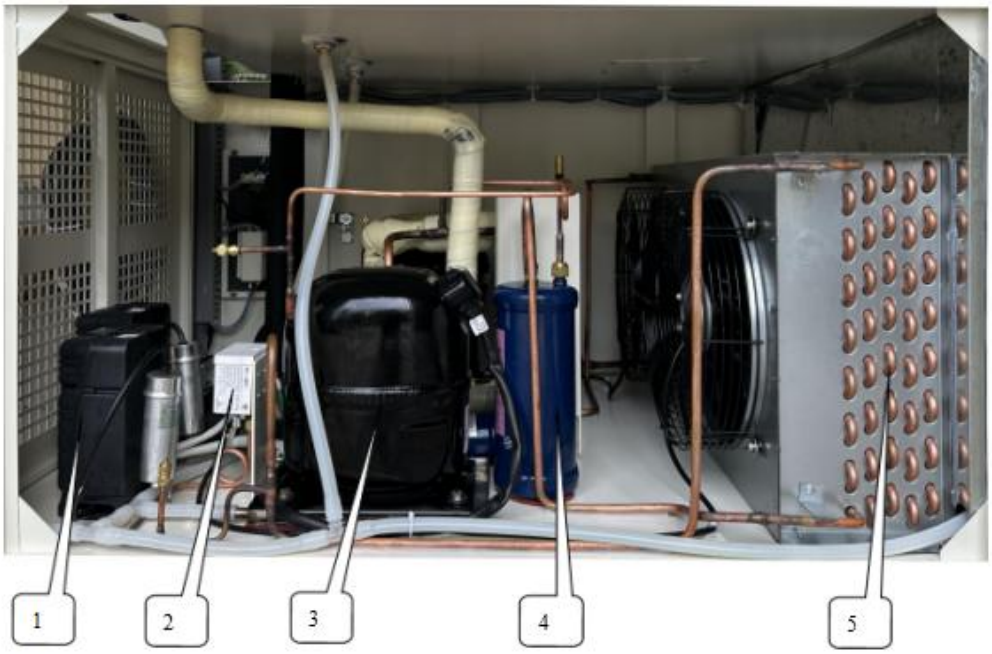
2. Control panel

Number	Name	Illustrate
1	Controller	Touch screen programmable controller
2	The USB interface	Used to copy data related to curves or documents.
3	Emergency stop switch	Used to connect the device and cut off power supply

3. Test area

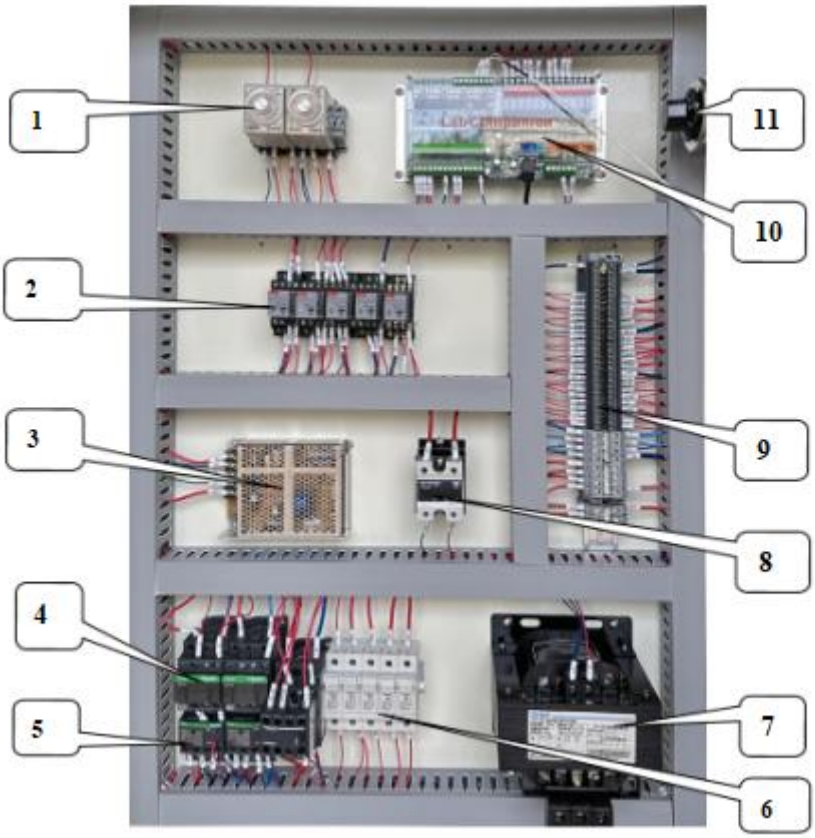
Number	Name	Specification
1	Thermal resistance sensor	Used for panel overtemperature sensing the temperature of the inner box
2	Thermal resistance sensor	Used for the controller to sense the temperature of the inner box
3	The air outlet	Test area circulates air outlet
4	Sealant	Heat preservation and air leakage prevention
5	Sample rack track	Used to secure the sample holder
6	Sample holder	Used to place test products

4. The cooling machine room



Number	Name	Illustrate
1	Compressor operating capacitance	Ensure smooth start-up and operation of the compressor
2	Pressure protection controller	When the pressure is too high, the machine will alarm
3	Compressor	Compression cooling
4	Oil separator	Separate refrigerant and chilled oil
5	Condenser	Cool the refrigerant

5. Power distribution room



Number	Name	Number	Name
1	Time relay	7	Transformer
2	Intermediate relay	8	Solid state relay
3	Dc power supply	9	Connector terminal
4	Ac contactor	10	Temperature controller
5	Thermal overload relay	11	Dry burn protector
6	Fuse		

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Test Report:

Temperature Sensor ℃	-40℃	-20℃	0℃	40℃	85℃	125℃	150℃
1	-40.3	-20.8	0.6	40.5	85.7	125.3	150.0
2	-40.1	-20.5	0.2	40.1	85.9	125.1	149.7
3	-39.5	-20.7	0	40.6	86.0	125.6	150.2
4	-39.7	-20.3	0.5	40.8	86.2	125.8	150.4
5	-38.9	-19.9	0.3	41.0	85.8	125.4	150.6
6	-39.3	-19.6	0.1	41.3	85.6	125.3	150.5
7	-39.5	-20.0	0.5	40.9	85.2	124.9	150.8
8	-39.9	-20.4	0.7	40.5	84.9	125.7	150.9
9	-40.2	-20.6	1.0	40.2	84.7	126.0	150.5
Temperature deviation	1.1	0.8	1.0	1.3	1.2	1.0	0.9
Temperature uniformity	1.4	1.2	1.0	1.2	1.5	1.1	1.2