

Lab Companion

High And Low Temperature Test Chamber

T-64-40-3

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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Technical Features:

Dimensions (mm)	Width	Height	Depth
Useful	470	400	340
Overall	740	1480	900

Temperature range
from -40°C to $+150^{\circ}\text{C}$

Homogeneity and Regulation:

Temperature fluctuation:

$\leq \pm 0.5^{\circ}\text{C}$

Temperature deviation:

$\leq \pm 1.5^{\circ}\text{C}$

Temperature uniformity:

$\leq 2.0^{\circ}\text{C}$

Temperature rise time:

$\geq 3^{\circ}\text{C}/\text{min}$ ($+20^{\circ}\text{C} \rightarrow +150^{\circ}\text{C}$) The whole process of nonlinear heating, no-load)

Temperature drop time:

$\geq 1.0^{\circ}\text{C}/\text{min}$ ($+20^{\circ}\text{C} \rightarrow -40^{\circ}\text{C}$) The whole process of nonlinear cooling, no-load)

Other parameters:

Controller model:

C100

Compressor model:

CAJ2432*2

Refrigerant:

R-404A/R23

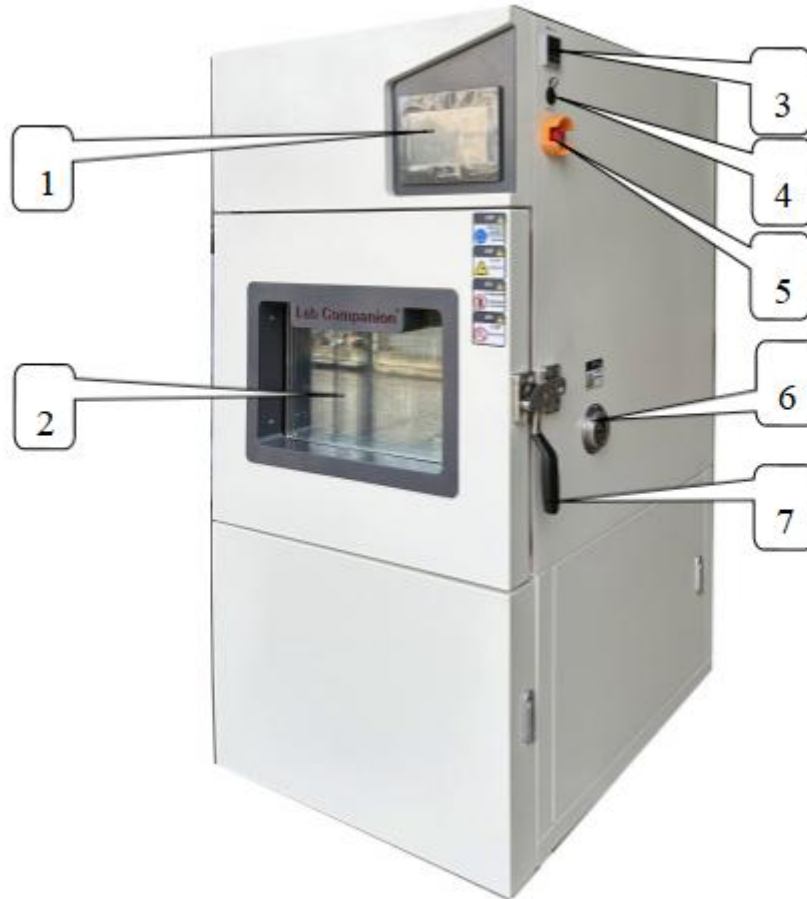
Temperature electric heating:

1.8KW

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Appearance Introduction and Description:

1. Front and side of the machine



Number	Name	Illustration
1	Controller panel	The intelligent operating panel
2	Glass window	To observe the inner workings of the laboratory
3	Over temperature Setting	To Set the upper temperature limit in the test area
4	USB interface	Used to copy curves or document-related data
5	Scram switch	Used to connect the device and cut off the power supply
6	The test hole	An external power supply can be plugged in from the test hole for live product testing
7	The door lock	Pull the vertical door to open it

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2. Control panel



Number	Name	Illustration
1	Controller	Touch screen programmable controller

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3. Test area



Number	Name	Illustration
1	Thermal resistance sensor	Used for panel overtemperature sensing the temperature of the inner chamber
2	Thermal resistance sensor	Used for the controller to sense the temperature of the inner chamber
3	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

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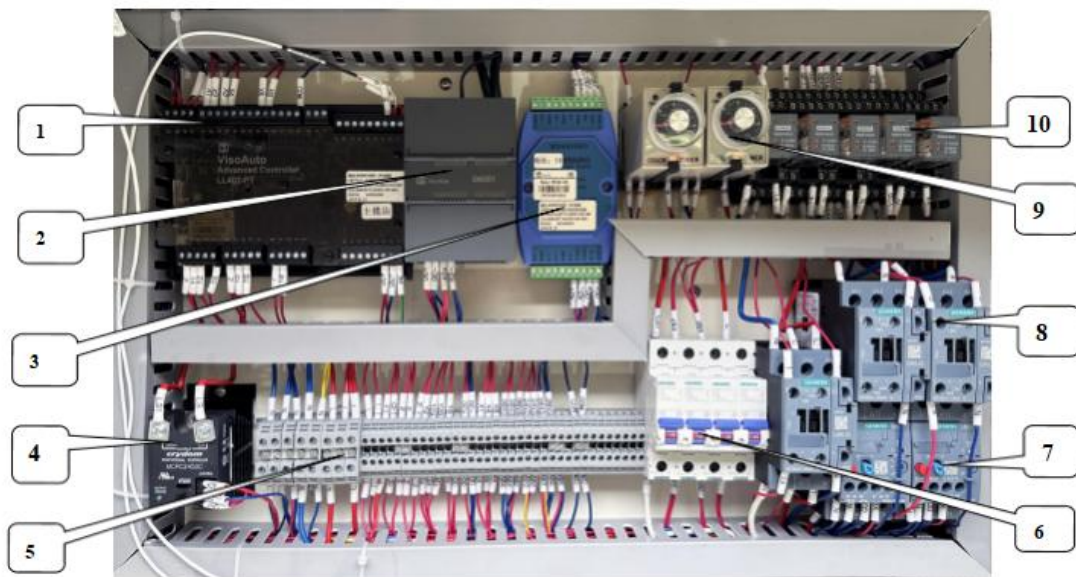
4. The cooling machine room



Number	Name	Illustration
1	Compressor	Compression refrigeration
2	Oil separator	Separate refrigerant and refrigerant oil
3	Condenser	Cooling refrigerant

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5. Power distribution room



Number	Name	Number	Name
1	Temperature controller	6	Circuit breaker
2	Electronic expansion valve module	7	Thermal overload relay
3	Expansion module	8	Ac contactor
4	Solid state relay	9	Time relay
5	Connector terminal	10	Intermediate relay

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Test Report:

Temperature Sensor °C	-40°C	-20°C	0°C	40°C	85°C	125°C
1	-40.2	-20.5	0	40.5	85.2	125.1
2	-39.9	-20.1	0.5	40.6	85.0	125.0
3	-40.5	-20.6	0.2	40.9	84.9	124.9
4	-40.1	-19.9	0.1	41.0	85.0	124.7
5	-39.7	-20.0	0	40.8	84.8	125.0
6	-40.0	-20.4	0.3	40.5	85.0	125.4
7	-40.5	-20.6	0.4	40.9	85.2	125.3
8	-40.3	-21.0	0.6	41.0	85.6	125.0
9	-40.0	-20.5	0.9	41.0	85.2	125.1
Temperature deviation	0.5	1.0	0.9	1.0	0.6	0.4
Temperature uniformity	0.8	1.1	0.9	0.5	0.8	0.7