

Constant Temperature and Humidity Test Chamber



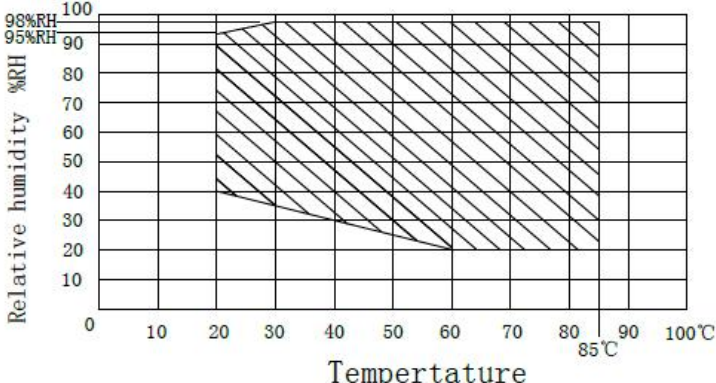
Models Option:

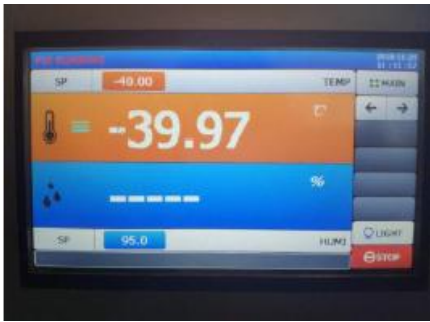
Model	EI-HT80	EI-HT150	EI-HT225	EI-HT408	EI-HT800	EI-HT1000
Capacity	80L	150L	225L	408L	800L	1000L
Inner (cm)	40 x 50 x 40	50 x 60 x 50	60 x 75 x 50	60 x 85 x 80	100 x 100 x 80	100 x 100 x 100
External (cm)	105 x 162 x 98	105 x 175 x 108	115 x 190 x 108	135 x 200 x 115	155 x 215 x 135	155 x 215 x 155
Temperature Range	Low Temperature: A: Ambient +10°C, B: 0°C, C: -20°C, D: -40°C, E: -60°C, F: -70°C High Temperature: +150°C					
Humidity Range	20 % ~ 98% R.H.					
Temperature Accuracy / Uniformity	0.1°C / ±2.0°C					

Temperature Fluctuation	$\pm 0.5^{\circ}\text{C}$					
Humidity Accuracy	$0.1\% \pm 2.5\%$					
Heating / Cooling Rate	Heating: $2.0 \sim 4.0^{\circ}\text{C}/\text{min}$ Cooling: $0.7 \sim 1.0^{\circ}\text{C}/\text{min}$					
Inner & Outer Materials	SUS#304 Stainless steel for inner chamber; Eternal powder coated					
Insulation Materials	Resistant to high temp ,high density, ethyl acetum foam insulation materials					
Cooling System	Air cooling/single segment compressor (-40°C) Air & water double segment compressor ($-50^{\circ}\text{C} \sim -70^{\circ}\text{C}$)					
Protection Devices	Fuse switch, compressor overload switch, refrigerant high and low pressure protection switch, super humidity over-temperature protection switch, fuse, failure warning system					
Parts	Observe window, Side testing hole, Chamber lamp, Wet and dry bulb gauze, Shelves, Foot Cup					
Compressor	Original France “Tecumseh” Brand					
Controller	Taiwan, Independent R&D Software					
Power	AC240V 50Hz & AC415V 50Hz					
Weight (kg)	200	220	270	320	450	580

Technical Specification:

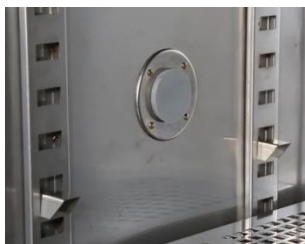
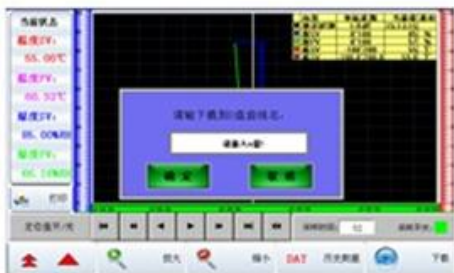
Performance:	
Model	
Temperature Range	
Temperature Fluctuation	$\pm 0.5^{\circ}\text{C}$
Temperature Accuracy Distribution	$\pm 2.0^{\circ}\text{C}$
Humidity Range and Temperature Control Range (Refer to fig.)	$20\% \sim 95\%\text{R.H}$ (temperature at $20^{\circ}\text{C} \sim 85^{\circ}\text{C}$)

	
Humidity Fluctuation	±2.5%R.H.
Humidity Accuracy Distribution	±3.0%
Heating Rate	-20°C → +150°C Heating Rate: 2.0 ~ 4.0°C/min
Cooling Rate	+150°C → -20°C Cooling Rate: 0.7 ~ 1.0°C/min
Load Condition	Testing space is not more than 3/4 of the total space, no heating
Sample Holder	Stainless Steel Punching Stencil
Structure Characteristics:	
Air Conditioning Channel	Centrifugal Fan: Heater, Evaporimeter, Outfall, Temperature Sensor
Controller	Control screen, over temperature protection setting
Insulated enclosure Structure	External material: Stainless steel or Powder coated Chamber material: SUS304 Insulation material of box body: flame retardant fire rigid polyurethane foam Door thermal insulation material: flame retardant fire rigid polyurethane foam
Test Chamber Standard	Window 330 x 450 x 40mm, 3 Layers Anti-explosion Handle Door Hinge: Stainless steel Chamber lamp: 11W Access Port: φ50mm or φ100mm 1pc
Door	Single door, open from left, handle is at right; With viewing window: W300 x H450mm, lamp window / condensation prevention thermal device
Machine Room	Refrigeration Units , Water Pans , Outfall
Control Cabinet for Power Distribution	Switchboard fan, Ventilator
Heater	Heating system: cycling heating from finned-tube Stainless steel electric heater
Humidifier Oven	humidification system, cycling winding system
Power Line Hole and Outfall Position	Located at the back of chamber

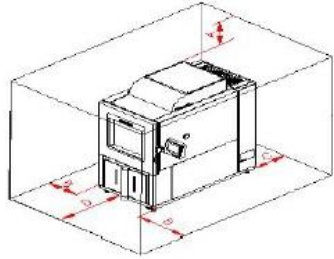
Cooling System:	
Cooling compressor	Tecumseh (France) 
Evaporator	Fins-tube evaporator 
Condenser	Air-Cooled tube-type condenser 
Expansion System	Refrigeration system of volume control (capillary)
Evaporative Condenser	Stainless steel brazing plate-type heat exchanger 
Chiller control	Operation of cooling machine can be adjusted automatically by control system according to the test condition evaporating pressure adjustable valve Cooling loop of compressor
Freezing medium	R404a (Eco-friendly, Ozone loss rate at 0) 
Controller:	
Controller	Independent R&D software (Taiwan) 

Temperature and Humidity Controller	Imported 7.0 inch LCD touch screen control, programmable of temperature and humidity; 100 groups of program and 1000 groups of memory, each for 99hrs 59min and can be set as required with groups of PID control function.
Controller Specifications	Precision: Temp. $\pm 0.1^{\circ}\text{C} + 1\text{digit}$, Humi.: $\pm 1\%\text{R.H} + 1\text{digit}$ Distinguishability: Temp.: $\pm 0.01^{\circ}\text{C}$, Humi.: $\pm 0.1\%\text{R.H}$. Slope temperature; 0.1~9.9 adjustable. With warning function and up& down limitation standby 9 groups of PID control parameters and PID auto-calculation. Dry and damp ball with auto correction.
Function of page display, program volume and control function	- Touch screen operation, no need to input by key pressing; - Temp. & humid. Set (SV) with true (PV) value shown. - Display of current program No., phase, time left and cycling times. - Run the operation of accumulative time. - Program set value of Temp. & humid. shown as curve; - At least 5 phase of temp. & humid, time can be input on the sole program editing page. - Language can be switched between English and Chinese; - Fault page shown; - Back light adjustable of screen; - Protection function can be set by time, TIMER can be turn off by manual; - Program groups available: 100 max. PATTEN. - Memory volume available: 1000 SEGMENTS. - Repeat executive command: up to 90 times for each command. - Program with editing, cancel and insert available; - Time set of SEGMENTS: 0~90Hour59Min; - Module device controlled by program; - Electricity cut memory, with auto start-up and executive program function after switch on; - program execution with display of curve diagram; - With auto adjustable freeze function; - Reservation of start-up and turn-off available; - Data and time adjustable; - Key-pressing and page lock (LOCK) available.
Safety Protection Device:	
Cooling system	- compressor overheated - compressor overflowed - compressor overpressure - condensate fan overheated - oil pressure protection of compressor

Test Chamber	Adjustable overheat Air conditioning channel over temperature limit Wind motor overheated
Others	- Phase sequence and open phase protection of main power supply - Leakage protection - Heating, humidification and Dry burning-resistant protection - Overload and short circuit protection - Over temperature outage protection
Other Equipped Parts:	
Power Control Contactor of Sample Testing	Contactor of relay control: within AC240V, 2A (contactor closed under normal running, when chamber stops or of malfunction, contactor open).
Leakage Breaker of Main Power Supply	240V / 415V, 50Hz + Grounding wire.

Accessories:	
Power (Standard)	Five core single-phase three-wire and 1piece of protection grounding wire (optional)
Access Port	Ø50mm, Ø100mm available according to your requirement and can be customized on the premise that not affect the machine performance. 
USB Interface (Standard)	All the history curve and history data can be downloaded from controller as Excel or JPG according to date.  Test curve download  Test data download

Usage Requirements:	
Installation Position	- With leveling ground and good ventilation; - No strong shock near the chamber; - No strong electromagnetic field near the chamber

	- No inflammable , explosive , corrosive material and dust - Surrounding size for chamber operation and maintenance: A: not less than 10cm B: not less than 60cm C: not less than 60cm D: 225 type: not less than 80cm 408 type: not less than 90cm 1000 type: not less than 120cm 
Water Supply	Pure water or distilled water is added into the water tank manually.   Case Type Narrow Type
Condition	Temperature: 5°C~30°C Humidity: ≤85% Air pressure: 86kPa~106kPa
Power Supply Condition	- AC220V + Protection grounding - Voltage fluctuation range: AC (240±10%) V - Frequency fluctuation range: (50/60)Hz - Resistance of protection ground wire less than 4Ω. - It's required to equipped with air or motive switch of corresponding capacities, which is also used only for the chamber Total Power: 3.8kW Maximum Current: 16A