



The programmable constant temperature and humidity test chamber is a versatile, essential device. It precisely simulates high/low temperature and alternating humid environments products, materials, and packaging may face during transportation, storage, and use. By exposing them to these conditions, it effectively assesses their resistance to heat, cold, and humid - heat, helping manufacturers and researchers spot weaknesses.

It's widely used in aerospace (where components endure extreme in - flight changes), automotive (for reliable performance in different climates), electronics (to ensure stability), and new materials research (to develop adaptable materials). This chamber is crucial for guaranteeing product quality and durability across these fields.

FEATURES

- ❖ Wide-range temperature & humidity control ($-70\sim 180^{\circ}\text{C}$)
- ❖ High-precision stability ($\pm 0.1^{\circ}\text{C}/\pm 1\%\text{RH}$)
- ❖ Multi-level safety protection (overheat, leakage, power failure)
- ❖ Energy-efficient and low-noise operation
- ❖ Smart data logging & remote monitoring capability



Electronic humidity sensing

Electronic humidity sensors offer precise readings with small error via advanced tech. In contrast, wet - and - dry - bulb hygrometers' accuracy is affected by factors like thermometer, airflow, and wick cleanliness, thus less reliable.

Energy-efficient design

VRF technology, based on PID+PWM, uses cold control PID for low - temp energy - saving. During cooling and low - temp constant - temp, it adjusts refrigeration for "cold balance" (no cooling while heating and vice versa). This design saves over 30% energy vs traditional mode.



SPECIFICATIONS

Model	DR-H201-100	DR-H201-150	DR-H201-225	DR-H201-408
Internal Dimension (W*H*D)mm	500*500*400	500*600*500	600*750*500	600*850*800
External Dimension (W*H*D)mm	750*1536*1310	750*1636*1410	850*1786*1410	850*1896*1710
Total Power (kw)	4.5/4.5/6.5	5/5/6.5	9.5/9.5/11.6	9.5/9.5/11.6
Maximum Current (A)	25/25/32	32/32/40	25/32/40	25/32/40
Voltage (v)	Single Phase 220	Single Phase 220	Three Phase 380	Three Phase 380
Performance	Temp.& Humi. Adjust Way	Balanced temperature and humidity control (BTHC) PID intelligent adjustment		
	Temperature range	-70℃~+150℃ (Other temperature ranges can be customized)		
	Temperature accuracy	0.01℃		
	Temperature tolerance	≤±1.0℃ or ±2.0℃		
	Temperature fluctuations	≤±0.5℃ (without load and temperature stable)		
	Temperature uniformity	≤1.5℃ (without loading)		
	Humidity range	20%~98% (Other humidity ranges can also be customized)		
	Humidity accuracy	0.1%RH		
	Humidity tolerance	1、≥75%RH: ≤±3%RH ; 2、≤75%RH : ≤±6%RH		
	Humidity fluctuations	≤±2.5%RH		
	Heating rate	3℃/min in average		
	Cooling rate	1℃/min in average		
	Internal Chamber Material	Stainless Steel 304		
	External Chamber Material	Stainless Steel steel of paint spray		
Regulator	Cooling Method	Single stage compression, two stage compression		
	Refrigerator	Hermetically Sealed France Tecumseh Compressor or Semi-hermetic BOCK Compressor		
	Cooling Method	Air-cooled/Water-cooled		
Controller	Operation Panel	Programmable LCD Touch Screen		
	Running Mode	Fix Running, Pattern Running		
	Program Memory Capacity	120 Group Programmable, Max 100 Section Each		
	Output	Rs-232 (USB,Optional)		
Water	Water Supply	Circulating Water		
	Water Tank Capacity	Chamber Internal Capacity < 800L: 25L X 1pc Chamber Internal Capacity > 800L: 25LX 2pc		

Conventional large capacity: 800 liters / 1000 liters (For more requirements regarding product dimensions and parameters, customization can be made according to specific requests.)