



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 (-70~180°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.)