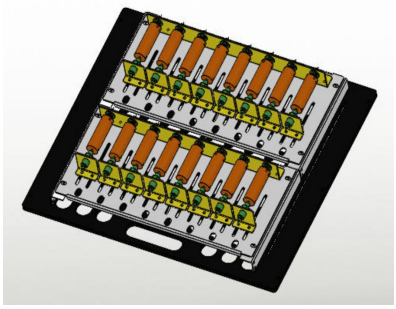
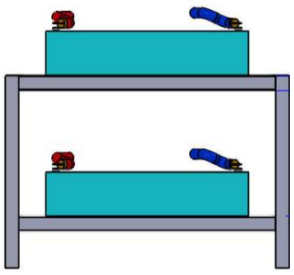
WGDW-1000-40 High-Low Temperature Chamber

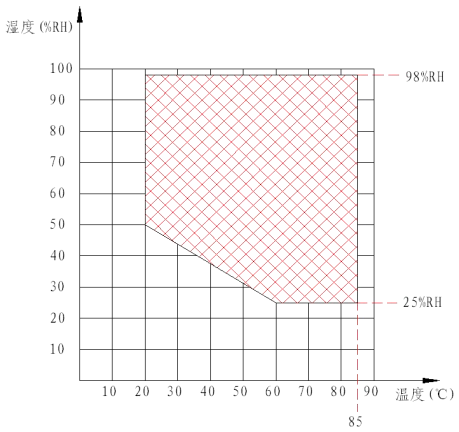
Chamber **(Image for reference only)**		
Outer Dimension	W1250mm × D1850mm × H2000mm	
Weight	Around 700kg	
Display Selection **(Image for reference only)**	☐ Trays (load bearing: 20kg)	
	☐ Custom Rack (additional charge)	

Chamber Dimensions	
Items	**Values**
Inner Volume	1000L
Inner Space Dimension	W1000mm × D1000mm × H1000mm
Lead Holes	∅ 100mm*4, 2 on each sides
Load Bearing	20kg/tray
Performance	
Items	**Values**
Temperature Range	-40~150°C
Fluctuation	≤ ± 0.5°C (max. difference between different test points)
Deviation	± 2°C (max. difference of the same test point in a period of time)
Heating Time	20°C→150°C ≤ 60 mins (No load, average non-linearity)
Cooling Time	20°C→-40°C ≤ 60 mins (No load, average non-linearity)
Heat Load Limit	≤ 450W (heat generated by battery)
Refrigeration System	
Items	**Values**
Compressor	Mechanical compression cascade refrigeration method
Cooling Method	Air cooling
Refrigerant	R404A (Ozone depletion index is 0)/R23
Insulation Materials	Polyurethane foam + glass wool
Insulation Thickness	100mm
Electrical Connection	
Items	**Values**
Power Cable	1 cable (5-core, 3-phase-4-wire + protective ground wire)
Leakage Circuit Breaker	3-phase-4-wire + protective ground wire
Switch	A power switch of correspongding capacity should be configured to the chamber independently.
Input Voltage	AC(380±38)V or AC(208±21)V | 50Hz or 60Hz
Protective Ground Wire	Resistance less than 4Ω
Maximum Power	11kW

Communication	
Items	**Values**
Host computer communication	TCP/IP protocol
Communication port	Ethernet port
Tester communication baud rate	1M
Host communication baud rate	10M~100M adaptive
Communication setup	Set up a LAN (local area network) through switches and routers
Operating system	Windows 7/8/10 64bit
Operation and storage environment requirement	
Items	**Values**
Operation Environment Temp.	5~35°C
Operation Environment Humidity	≤85% RH
Atmospheric Pressure	86~106kPa
Installation Site	Level ground, flatness≤5mm/2m. Good ventilation. No strong vibration around the device. No strong electromagnetic fields around the device. No flammable/explosive/corrosive substances &dust. There should be enough room for the door to be opened and closed. There should be no objects directly in front of the door.
Health and Safety Protection	
Items	**Values**
Refrigeration	Compressor overheating protection Compressor overloading protection Compressor over-pressure protection Condensing fan overheating protection
Over-Temperature	Independent over-temperature protector. When the working temperature exceeds the set temperature, the device will shut down automatically and send an alarm signal.
Test Chamber	Adjustable over-temperature / abnormal protection of circulating fan within the chamber
Smoke Alarm	The smoke alarm will automatically go off when detected smoke.

Smoke Extraction Device	When the smoke concentration exceeds the set standard, the extraction fan will be activated.
Others	Total power phase sequence & phase loss protection Leakage protection Overload & short circuit protection Power failure recovery protection
Note	Opening the door while testing will cause temperature fluctuations. During the test, if the door is opened frequently or left open for a long time, or if the test sample emits moisture, it may cause the heat exchanger of the refrigeration system to frost or freeze and cause issue.

Add-on Protection (Optional)

Items	Values
☐ **Explosion-proof and automatic extinguisher**	Add explosion-proof chains on the door. Add pressure relief port, which is located at the left side of the chamber, automatically released when test pressure exceeds the set limitation. Upgrade component parts to explosion-proof strength.
	The fire extinguishing device configured for each equipment is an 8L carbon dioxide empty bottle, which is installed on the side of the equipment and can be used as manual extinguisher or automatic fire extinguishing system. (Note: Due to logistics and transportation restrictions, users need to find a local professional gas company to fill the carbon dioxide fire extinguisher (cylinder connector model: QF-2A, export thread: G5/8, import thread: PZ27.8)
☐ **Humidity Control**	
	Relative humidity deviation: ± 3.0% RH (Humidity >75%RH); ± 5.0% RH (Humidity ≤75%RH).