

INNOVATIVE TECHNOLOGIES



# Temperature & Humidity Test Chamber

**ToronTHC Series**



TORONTECH





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The ToronTHC Series – Temperature and humidity test chambers also known as climate or climatic chambers are **built to replicate a wide range of environmental conditions such as heat, moisture, low temperatures, and high temperatures.**

These chambers play a key role in product reliability testing, helping manufacturers evaluate how materials and components perform under various climate stresses. They are commonly used in industries including electronics, electrical appliances, mobile devices, communication systems, automotive components, plastics, metals, food, chemicals, construction materials, medical products, and aerospace.

The ToronTHC series is available in standard capacities ranging from **64 to 1,000 liters**, making it suitable for most temperature and humidity testing applications. For projects with unique demands, we also offer customized solutions to ensure the equipment matches your exact specifications and testing standards.

# FEATURES/ADVANTAGES

## » Smart Environmental Control

Automatically adjusts temperature and humidity levels to maintain precise and stable testing conditions at all times.

## » Comprehensive Safety Features

Equipped with multiple protection systems that reduce failure risk and help extend the machine’s operational lifespan.

## » Efficient Electrical Layout

Streamlined internal design supports easy troubleshooting, faster repairs, and reduced downtime during maintenance.

## » Stable & Reliable Performance

A high-performance compressor delivers consistent operation across long testing cycles and varying conditions.

## » Easy Data Handling

Standard USB interface allows for simple storage and transfer of test data for accurate records and analysis.

## » Remote Access & Monitoring

Optional RS-485 and LAN connectivity support remote control and live monitoring from external devices or systems.

## » Condensation & Visibility Control

Heated door frame and vacuum glass window with interior lighting ensure clear viewing without moisture buildup.

## » Convenient Operation & Mobility

Mobile casters and included accessories—such as shelves, ports, and lighting—make setup and use fast and simple.




# TECHNICAL SPECIFICATIONS

SPECIFICATIONS	DETAILS				
	ToronTHC-64	ToronTHC-150	ToronTHC-225	ToronTHC-408	ToronTHC-1000
Test Space Volume (Liters)	64	150	225	408	1000
Inner Chamber Size W×H×D(mm)	400×400×400	600×600×460	700×700×480	700×750×800	1000×1000×1000
Exterior Chamber Size W×H×D (mm)	700×1652×1170	800×1715×1230	900×1660×1470	900×1710×1790	1200×1910×1725
Temperature Range	R: -20°C to +150°C, L: -40°C to +150°C, S: -70°C to +150°C (180°C optional)				
Humidity Range	20% to 98% RH (10%–98% RH, 5%–98% RH (optional))				
Temperature & Humadity Fluctuation	±0.5°C / ±2.0% RH				
Temperature & Humadity Uniformity	≤ 2.0°C / 3% RH				
Temperature Change Rate ACC. IEC 60068-3-5	Heating rate 3°C/min, cooling rate 1°C/min (average rate, no load)				
Exterior Chamber Material	High-quality carbon steel with painting				
Interior Chamber Material	SUS304 matte stainless steel plate				
Insulation Material	Rigid polyurethane foam insulation				
Refrigeration System	Air cooled/Water cooled				
	Hermetic compressor, single stage or cascade refrigeration system, environmental-friendly refrigerant				
Controller	7" LCD Touch Screen Controller with PID control				
Safety Protection Device	NFB(No fuse breaker), over pressure, over heat and over current protectors for compressor, over temperature protectors, over load protector of fan, dry heat protector,short of water protector				
Standard Accessory	Sight window*1, Cable port(port Φ50mm / Φ100mm)*2, Shelves*2, LED Lighting device*1 Mobile Casters with foot cups, Power cable*5m				
Ambient Temp.	+5 to +35°C				
Voltage	220V AC 1Ø 50Hz (110V is also available)	380V AC 3Ø 50Hz	380V AC 3Ø 50Hz	380V AC 3Ø 50Hz	380V AC 3Ø 50Hz
Customization Service	Non-standard or special requirements can be customized.				
Note	Our R&D team will optimize and upgrade standard environmental chambers every year, so some parameters may change. Please consult our salesperson for confirmation of specific specifications.				



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