

Hiacc[®]

CLIMATIC CHAMBER

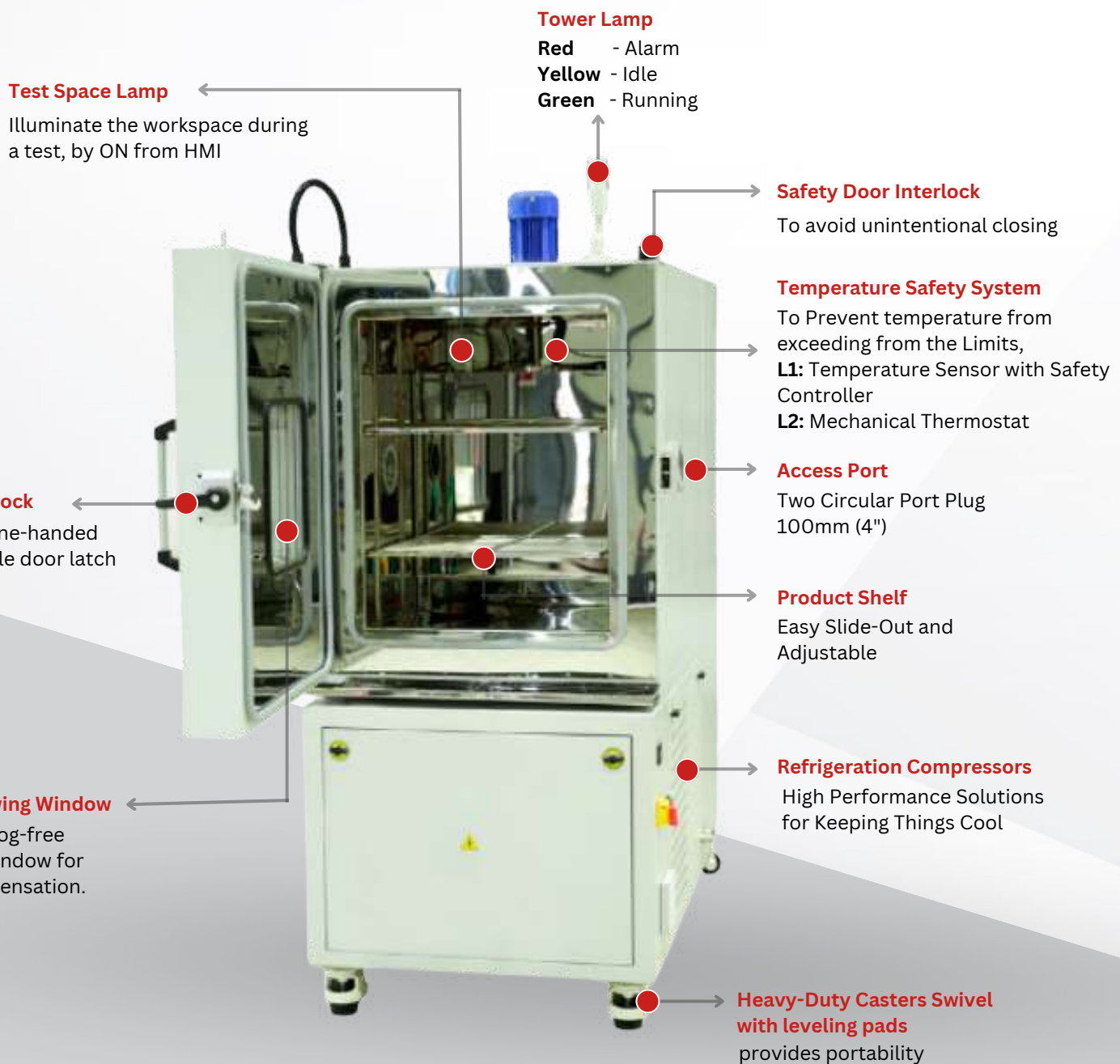
Product Catalogue



Revolutionize Environmental Testing with Our Klima Series

Klima range of Climatic Chambers simulates temperature & humidity in its test space. With the new design, an upgraded refrigeration system, and an intelligent controller, Klima is now more efficient than ever and provides an uninterrupted testing experience.

An optimized heating & cooling system offers higher performance & energy efficiency. The test chamber can be customized suiting to different test standards. It comes with a larger viewing window, ports for live specimen testing, a visual alarm system, improved mobility, and a smaller footprint.



Test Space Capacity



Experience the timeless elegance of our chambers, boasting the signature HIACC stainless steel test space complemented by a sturdy structure. With the control console conveniently located on the door, the unit's footprint is further optimized for compactness. Plus, the user-friendly door latch ensures simplicity and security like never before.

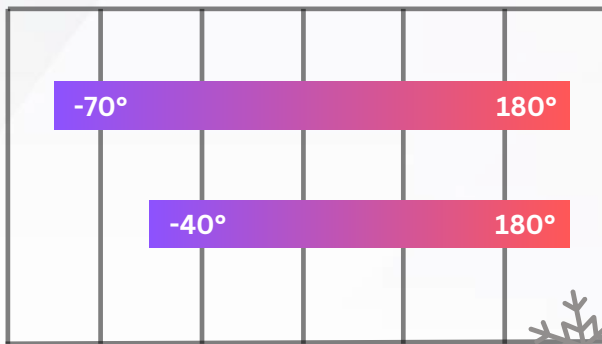
The Klima Series Available in Different Test Space Sizes:

120, 225, 340, 450, 580, 1000, 1500 (*All in Liters)

(* Upon customer request, customized sizes are also available.

Temperature Range

(°C) -60° -20° 0° 80° 160° 200°



Cascade
(All -70C Model)

-70°

180°

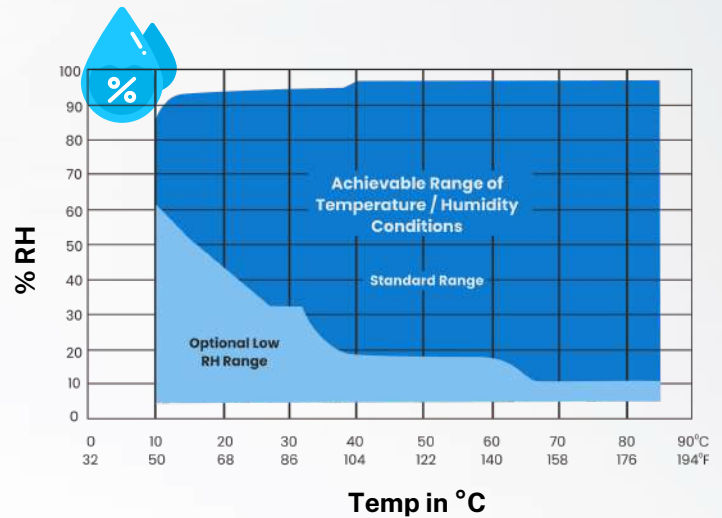
Single
(All -40C Model)

-40°

180°



Humidity Performance



The KLIMA series offers over ten diverse models, allowing you to select the ideal size and performance for your testing needs. Temperature cycling rates range from 3 to 20°C/min, with options for ultimate low temperatures of either -40°C or -70°C. Models with humidity control (C) provide expanded testing capabilities beyond temperature cycling. KLIMA Series are engineered to meet the performance criteria outlined in various international environmental test standards such as IEC, ASTM, and MilStd.

Full-Range Humidity Specifications

Humidity Range	10% to 98% RH
Temperature Range	10°C to 85°C
Humidity Control	<±3% RH

Options

(Special accessories on customer request)

- ✓ Additional Port Holes 50MM, 100MM, 125MM& 150MM
- ✓ Floor loading capacity (customizable)
- ✓ Air Dryer for Low RH Applications
- ✓ Heavy duty Customized Shelves
- ✓ Water-Cooled Refrigeration Systems
- ✓ Remote Refrigeration/ Condensing Unit
- ✓ Booster Cooling through LN2 up to -150 Deg C



Safety

Enhanced Electrical Safety

- ✓ Incoming power supply EMF (Electromagnetic interference filter) protection for reduces electromagnetic field radiation.
- ✓ Dedicated MPCB protection for various components, including Refrigeration Compressors, Air Heater, Circulation Fan Motor, Movement Basket Motor Assembly and Condenser Motor.
- ✓ Dedicated MCB protection for HMI, PLC, Test space Lamp, and the Control Circuit to ensure system stability
- ✓ Three Phase Preventer for under voltage and over voltage protection from the main input power.

Comprehensive Temperature Control

Dual safety mechanisms - Mechanical Thermostats and adjustable electronic safety controllers - prevent thermal deviations and protect your samples.

- ✓ **Level 1** - High and Low temperature adjustable electronic safety controllers
- ✓ **Level 2** - High and Low temperature mechanical thermostats

Advanced Refrigeration Safeguard

- ✓ High and Low Refrigeration safety pressure Protection for safeguards the refrigeration system.



Control

Precise Climate Regulation

precisely controls temperature, humidity, and other environmental factors to match your desired test conditions.

Data Logging and Reporting

Track essential data throughout your tests and generate comprehensive reports for analysis.

Easy Set-Up and Operation

An intuitive user interface allows for simple programming and monitoring of test parameters.



Technical Specifications

SPECIFICATION/ MODEL		KLIMA 120/-40C/3K	KLIMA 120/-70C/3K	KLIMA 225/-40C/3K	KLIMA 225/-70C/3K	KLIMA 340/-40C/3K	KLIMA 340/-70C/3K	KLIMA 450/-40C/3K	KLIMA 450/-70C/3K	KLIMA 600/-40C/3 K	KLIMA 600/-70C/3K	KLIMA 1000/-40C/3K	KLIMA 1000/-70C/3K	KLIMA 1500/-40C/3K	KLIMA 1500/-70C/3K
TEST SPACE DIMENSIONS															
Test space volume	Ltr.	120L		225L		340L		448L		612L		1000L		1500L	
Width	mm	500		600		700		700		800		1000		1000	
Depth	mm	400		500		600		800		850		1000		1500	
Height	mm	600		750		800		800		900		1000		1000	
PERFORMANCE DATA FOR TEMPERATURE TESTS															
Maximum temperature	°C	180													
Minimum temperature discontinuous	°C	-40	-70	-40	-70	-40	-70	-40	-70	-40	-70	-40	-70	-40	-70
Rate of temperature change, cooling	°C/min	3													
Rate of temperature change, heating	°C/min	3.5													
Temperature deviation, in time	°C	±0,5 ... ±1		±0,5 ... ±1		±0,5 ... ±1		±0,5 ... ±1		±0,5 ... ±1		±0,5 ... ±1		±0,5 ... ±1	
Heat compensation, max. at +20 °C	W	850	1000	850	1000	900	1100	900	1100	1000	1200	1000	1200	1000	1200
PERFORMANCE DATA FOR CLIMATE TESTS															
Maximum temperature	°C	85													
Minimum temperature	°C	10													
Humidity range	%RH	10...98													
Humidity deviation, in time	%RH	±1...±3													
Temperature deviation, in time	%RH	±0,1 ... ±0,3													
Test Standard Compliance		IEC-60068, IEC-60749, IEC-61747, MIL-STD, ISO16750, ASTM, SAE, BIS & 50 other standards													
TEST SPACE LOADING CAPACITY															
Load, max.	kg	80		100		100		100		100		100		100	
Load per grid	kg	20		20		25		25		30		30		30	
Possible number of insert grids	piece	4		5		6		6		7		7		7	
POWER/CONNECTION DATA															
Voltage rating	V	3/N/PE AC 415V±10% 50Hz other voltages and frequencies optional													
Connected Load	KW	8.5	11	9.5	12	12	13	11.5	14	14.5	17	16	19.5	17	20
Minimum temperature discontinuous	dB(A)	72	74	72	74	72	74	73	74	73	74	73	74	73	74
Minimum temperature discontinuous	kg	450	500	490	540	540	600	600	680	720	780	820	900	900	1000
Refrigerant	type	R404A	R404A R23	R404A	R404A R23	R404A	R404A R23	R404A	R404A R23	R404A	R404A R23	R404A	R404A R23	R404A	R404A R23

(*) The performance data refer to an operating room (ambient) temperature of +26 °C, 415 V/50 Hz nominal voltage, without test specimen and without accessories

(*) Append request: Low GWP refrigerants of R449a, R448a, and 508B are available.

(*) Sound Pressure Level: Using a calibrated instrument, the weighted sound pressure level was measured in free-field environments at a height of 1 meters from the floor and a distance of 1 meter from the equipment surface.

Advanced Energy Saving

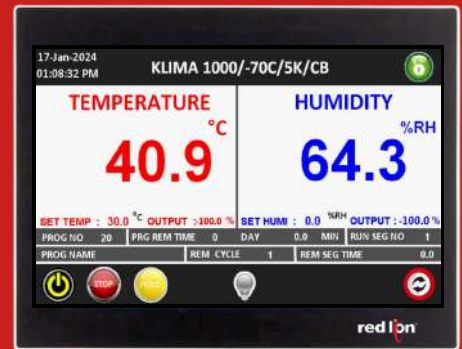
The KLIMA features a solenoid valve for advanced cooling control, which modifies proportionately depending on demand to save energy and improve temperature stability. A smart forward-looking algorithm improves and smoothest temperature ramping. It also improves test accuracy and energy efficiency. Combined with further advancements in refrigeration and heater performance, these superior features are unique to HIACC and make the most energy efficient HIACC KLIMA chambers to ever.



Touchscreen Controller

HIACC's flagship touchscreen controller provides ease for doing complex testing. It is equipped with USB access and Ethernet, with a range of flexibility. Following are some of the features of the controller with 10" color touchscreen, makes chamber operation and data collection easy and reliable. Quick navigation buttons provide shortcuts to user-selected screens. With this Controller, receive:

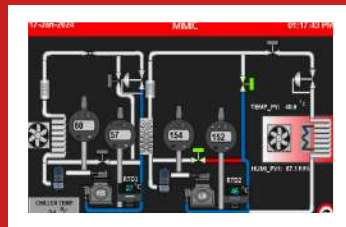
- Multi-level, password-based security system to protect data
- Test data that can be downloaded to .CSV formats
- The MIMIC to detect excessive refrigeration pressures and temperatures and notify users when problems occur
- Remotely Connect Chamber
- Graphical trend view of actual/set temperature values
- Easy to Program 40 Profiles up to 50setps each, with battery backup and real time clock.



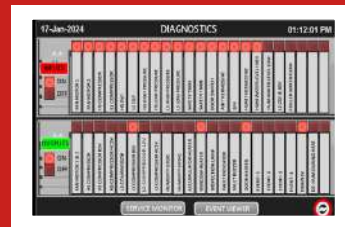
Chamber Home



Chamber Menu



Process Mimic



Chamber Diagnostics



Alarm Status



How Our Support Works

Call Our Support
Hotline Number +91 98848 88149

E-Mail Us
support@hiaccengineering.com

Register on Website
www.hiaccengineering.com



We Raise a Ticket for Your Issue in Less than 24 hrs. You'll Receive an E-mail Confirming Receipt of the Issue Raised.



Our Support Engineers Will Respond, Usually Resolving Your Issue Remotely



if not. A Visit to Your Premises Will Be Arranged (Based on Your Service Plan)



Integrated Temperature Chamber with Force Calibration System



Remote Cooling / Heating Customized Temperature System for Automotive Testing



Environmental Chamber with Ultra-Low Humidity Control



Custom Size Environmental Chamber with Vibration Integration (AGREE)



Walk in/ Drive in Chamber (Customizable)



Customized Thermal Shock System

Related Products

Expand your testing horizons with our diverse range of complementary equipment, ensuring comprehensive, accurate, and reliable testing outcomes. your ultimate destination for environmental testing solutions, we provide cutting-edge products to elevate your testing capabilities to new heights.



Temperature Test Chamber



Bench Top / Table Top Test Chamber



Thermal Shock Test Chamber



Stress Screening Test Chamber



Altitude Test Chamber



HALT/HASS



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