

Constant Climate Chamber

Multi-dimensional Application Scenarios

This high-end equipment is professionally designed for pharmaceutical stability testing, featuring Peltier-based temperature and humidity control. It is widely deployed in pharmaceutical companies and drug testing laboratories, and fully complies with ICH Q1A stability testing guidelines. The system is ideally suited for long-term, accelerated, and stress testing of both temperature-sensitive and conventional drug products, and is also applicable to stability testing for food and cosmetic products



Uniform & Stable
Control



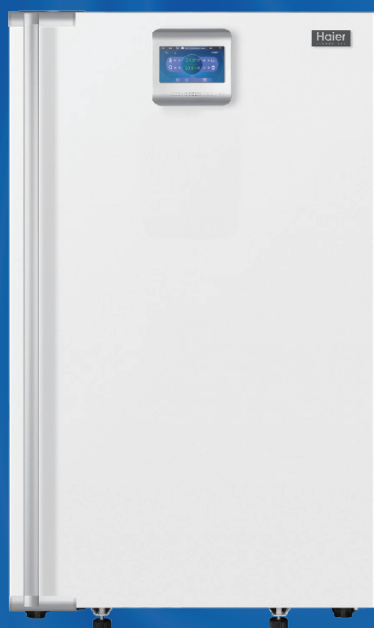
Regulatory Compliance
& Full Traceability



Energy-Saving
& Eco-Friendly Operation



HHS-256eco



HHS-506eco



HHS-756eco

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Product Advantages



Uniform & Stable Control

ART Patented Intelligent Temperature Control – Unmatched Precision

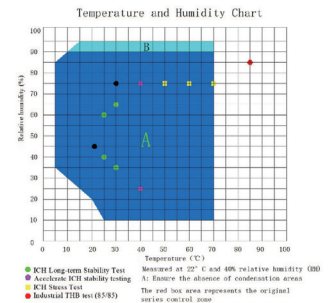
- Proprietary ART temperature control patent with matrix air duct + high-precision PID
- Temperature fluctuation: $\pm 0.05^{\circ}\text{C}$ | Uniformity: $\leq \pm 0.15^{\circ}\text{C}$ | Humidity fluctuation: $\pm 1\%$ RH (@ 25°C 60%RH)
- Zero drift over long-term operation – fully compliant with ICH and pharmacopoeia guidelines for stability and bio-testing

One System, Unlimited Versatility

- Wide range: $0\text{--}70^{\circ}\text{C}$ / $10\text{--}95\%$ RH – covers $5\pm 3^{\circ}\text{C}$ long-term storage and accelerated stress testing
- Single-unit solution for heat-sensitive drugs and all QC compliance applications – no need for multiple instruments

Maximum Efficiency, Minimum Cost

- 1.7 kWh/day – 80% less energy than conventional compressor models (@ 25°C 60%RH, Test model HHS-756eco)
- Robust insulation + smart energy management for 24/7 continuous use
- Significant long-term savings on electricity and maintenance



Regulatory Compliance & Full Traceability

ALCOA+ Data Integrity – GMP/GCP Compliant

- Full compliance with ALCOA+ principles – attributable, legible, contemporaneous, original, accurate, complete, consistent, enduring, available
- Complete data traceability with original records permanently retained – meets global pharmaceutical data integrity mandates

21 CFR Part 11 Certified – Audit-Ready Security

- Three-tier user access control + compliant e-signatures
- Permanent, immutable audit trails for every operation
- Electronic records fully satisfy FDA 21 CFR Part 11 – stress-free regulatory inspections

One-Click Batch Records – Inspection & Submission Ready

- Automatically outputs complete batch records with drug info, trend curves, and logs
- Supports sub-batch splitting for flexible reporting
- Ready for registration filings and unannounced inspections – eliminates manual paperwork and transcription errors



Energy-Saving & Eco-Friendly Operation

Peltier Refrigerant-Free Temperature Control – Low-Carbon, Silent, and Sustainable

- Powered by Peltier semiconductor technology – completely refrigerant-free with zero carbon emissions, aligning with carbon peaking/neutrality goals and corporate ESG initiatives. Ultra-quiet operation at $\leq 46\text{ dB(A)}$ – library-grade silence with zero mechanical vibration – ideal for lab-office integrated environments and perfectly suited for sensitive samples including vaccines and biologics.

Enhanced Environmental Adaptability – Stable Performance Across Conditions

- Temperature control performance improved by 50%, supporting frost-free operation at 4°C . The system accommodates ambient temperatures from $15\text{--}30^{\circ}\text{C}$ with rapid self-regulation under external fluctuations – delivering superior anti-interference capability and expanding the range of possible testing scenarios.

Parallel Modular Fault-Tolerant Architecture – Long-Term Reliability

- Second-generation multi-stage parallel semiconductor modules ensure uninterrupted temperature control even in the event of a single module failure. Full stainless steel interior combined with industrial-grade core components delivers a service life of up to 10 years – safeguarding the integrity of long-term experimental data.

Specification

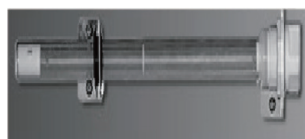
Model		HHS-756eco	HHS-506eco	HHS-256eco
Construction	Capacity L (L/Cu.Ft)	776/27.4	500/17.7	250/8.8
	Interior Material	SUS304 Stainless Steel	SUS304 Stainless Steel	SUS304 Stainless Steel
	Exterior Material	Coated Cold-rolled Steel	Coated Cold-rolled Steel	Coated Cold-rolled Steel
	Access Port	35mm Diameter	35mm Diameter	35mm Diameter
Electrical	Power Supply	220V~/50/60Hz	220V~/50/60Hz	220V~/50/60Hz
	Rated Power (W)	2300	1850	1400
	Lighting Power	LED 2W(optional)	LED 2W(optional)	LED 2W(optional)
Temperature Control & Dehumidification	Number of Peltier Elements (Temperature Control)	4	3	2
	Number of Peltier Elements (Dehumidification)	4	3	2
Dimensions	External Dimensions (w×d×h)mm	1380x1000x1545	920X1000X1545	670 X 820X1310
	Interior Dimensions (w×d×h)mm	1100x570x1260	650 X610X1260	520X480X1000
	Packing Dimensions (w×d×h)mm	1465x1090x1690	985x1090x1690	740x925x1460
	Water Tank Capacity (L)	25L / Width:350mm		
	Net Weight (kg)	280	215	135
	Container load (20'/40'/40'H)	7/15/15	10/22/22	15/33/33
Shelves	Standard qty/Max qty	3/12	3/12	3/10
	Dimension/mm (W*D)	1073*528	623*528	495*465
Temperature Parameters	Temperature Control Range (°C)	Temperature only: 0~70°C Temperature + Humidity: 5~70°C Temperature + Light: 10~60°C Temperature + Humidity + Light: 10~60°C		
	Temperature Accuracy (°C)	0.1	0.1	0.1
	Temperature Sensor Type	PT100	PT100	PT100
Humidity Parameters	Humidity Control Range (RH)	10%-95%	10%-95%	10%-95%
Technical Performance	Temperature Fluctuation°C (@25-40°C)	±0.05	±0.05	±0.05
	Temperature Uniformity°C (@25°C)	±0.15	±0.15	±0.15
	Temperature Uniformity°C (@40°C)	±0.3	±0.3	±0.3
	Humidity Uniformity%RH (@25°C60%RH, @40°C75%RH)	±1	±1	±1
	Optional ICH-Q1B-Compliant Light Source for Photostability Test	Illuminance Range (Lux)	0-10000	
		Illuminance Deviation (Lux)	±500	
		UV Wavelength (nm)	320-400	
		UV Energy (W/m²)	0-1.7	
	Noise Level (dB (A))	46	46	46
	Energy Consumption kW·h/24h(at25°C60%Rh)	1.7	2	1.8
	Energy Consumption kW·h/24h(at40°C75%Rh)	4.7	4.2	3.6
Optional Accessories	Printer	Y	Y	Y
	UV disinfection module	Y	Y	Y
	BOD connector	Y	Y	Y
	Internal Chamber Light	Y	Y	Y
	Electromagnetic lock	Y	Y	Y
RS485		Y	Y	Y
USB		Y	Y	Y

All technical specifications are measured at an ambient temperature of 22±3°C, with a power supply voltage variation of ±10%, under no-load conditions with standard equipment configuration. Humidity performance data are obtained under two operating conditions: 25°C/60% RH and 40°C/75% RH, in compliance with DIN 12880 and Haier internal standards, with testing carried out in Haier laboratories. All values presented are average measurements, and the data for this product series are typical values

Optional Accessories



Dot Matrix Printer



UV Disinfection Module



Internal Chamber Light



BOD Connector