

Pharmaceutical Stability Test Chambers (TH-ICH)



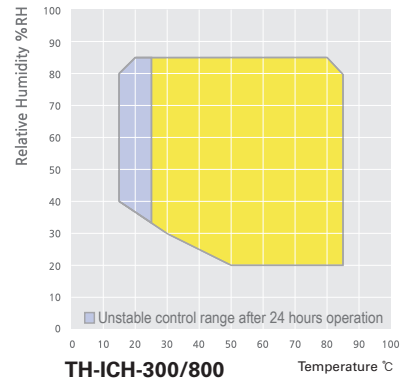
Manufactured in accordance with ICH Guidelines
Q1A-Stability test (R2), Q1B-Photostability test (Option 2).

- ▶ Optimum temperature and humidity control system for long-term stability test.
- ▶ Independent luminescence control system for photostability test.



Control range

- Temperature range from -5 to 85°C
- Humidity range from 20 to 85% RH



TH-ICH

with the optional recorder

Standard accessories • Wire shelves, Cable port (Ø50mm)

Optional accessories • Direct water system
see page 242 • Fluorescent lamp (cool white), UVA lamp,
UV sensor, Illumination sensor, Door key

Performance

- Microprocessor PID control / Temperature calibration / Automatic tuning.
- Rapid humidity control is achieved by adapting the humidification tank interior to the chamber.
- Air-tight door closure with perfect sealed packing.
 - Heat-resistant silicone packing completely blocks high heat leakage from the inner chamber.

Convenience

- Two different sized models available to suit any users' needs.
- Corrosion resistant stainless steel chamber.
- Cable port for introduction of external probes or wires.
 - 50mm diameter cable port comes standard on the left side of the unit.
 - Additional 50mm or 80mm diameter cable ports, custom ordered. (optional)
- Inner glass door with entry ports for handling samples without affecting inner chamber temperature and humidity. (optional)
- Casters for easy mobility during installation or relocation.
- User friendly LCD controller.
 - Colorful interactive touch type LCD controller.
 - Set point temperature and present temperature are clearly shown together on display.
 - Sufficient programmable control support.
 - Operating progress can be shown in graph mode for better data understanding.
 - Automatic start/stop can be programmed for unattended operations.
 - Display indicates abnormal temperature changes or power failures.
 - Selective bilingual language support.
(Korean / English or English / Chinese, selectable only when placing an order)
 - Temperature and other operating parameters can be recorded using a six channel digital recorder. (optional)
- Computer interface.
 - RS-485 communication port (optional) enables connection up to maximum 32 units. Simultaneous monitoring and operating of multiple units is an available feature.
 - Program patterns are simple to set with the use of our software.
 - Easy to check status of real-time operations. Graph data supports easy understanding.
 - Storage and documentation of programs.
 - Data with saving capabilities in excel and text format.
 - Storage of program information, backup of value settings, recovery, and temperature values.
 - RS-232 communication port as standard offer.

Description	No
Programmable pattern capacity	100
Pattern repeat time	999
Part repeat time	255
Max. segments per a pattern	100
Available max. segments*	2000
Programmable process time per a segment	0 to 99 hr. 59 min.

* Even though the max. segments per pattern are 100, the total available segments are up to 2000 not 10000, therefore arrangement of the number of segment and patterns will need to be done properly.

Stability test ICH guideline Q1A (R2)

- Operating progress visible through graph mode for better data analyzation.
- Cyclic defrost system, designed to work excellently for the long period stability test operation.
 - (※ Temperature and humidity changes may occur during automatic defrost.)
- Maintenance of water supply are easily performed with a front water tank.
 - Water level check indicated by water level bar in the tank.
- Water supply during operation is also available for long term test purposes.
- Direct water system provides user great convenience when performing long-term test. (optional)

Photostability test ICH guideline Q1B (Option 2)

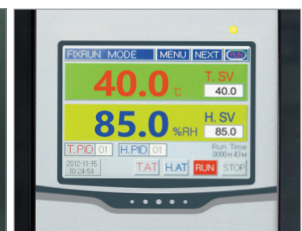
- Built in UV and fluorescent lamps for uniformed luminescence.
- Equipped with movable UV and VIS sensors .
- Independent lamp controller
 - An indicator for Total usage time of UV and fluorescent lamps.
- Convenient set function of cumulative dosage and lamp Off.

Safety

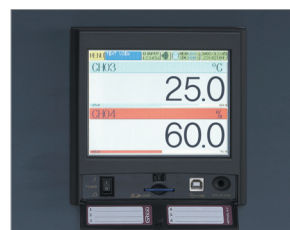
- Built in door lock with a key.
- Automatic shut off after overheat alarm.
- Low and empty water level alarm.
- Power supply leakage breaker.
- Over current protection.
- Open door alarm.



Lamp controller



LCD controller



Digital recorder (optional)



Water level indicator

Pharmaceutical Stability Test Chambers (TH-ICH)

Model		TH-ICH-300	TH-ICH-800
Chamber volume (L / cu ft)		300 / 10.6	760 / 26.8
Controller		PID control (LCD Type)	
Temperature	Range	without humidity (°C / °F)	-5 to 85 / 23 to 185 without Light 0 to 85 / 32 to 185 with Light
		with humidity (°C / °F)	+15 to 85 / 59 to 185 with Light
	Fluctuation ¹⁾ (±°C / °F) at 40°C / 60%RH	0.3 / 0.55	0.3 / 0.55
	Variation ¹⁾ (±°C / °F) at 40°C / 60%RH	0.5 / 0.9	0.7 / 1.3
Time	Heating	25min (20°C → 85°C)	30min (20°C → 85°C)
	Cooling	35min (20°C → 5°C)	40min (20°C → 5°C)
Humidity	Range (%RH)	20 to 85 ※ See page 236 for more detailed humidity range check.	
	Fluctuation ¹⁾ (±%RH) at 60%RH / 40°C	3	
	Variation ¹⁾ (±%RH) at 60%RH / 40°C	5	
Light source (ICH Q1B option 2)	Cool white ²⁾	6,000 lux	6,500 lux
	Ultraviolet-A ²⁾	4.5 W/m ²	5 W/m ²
	Light uniformity	VIS. : ±10% UVA : ±15%	VIS. : ±15% UVA : ±15%
Typical time required to reach ICH Recommendation of 1.2 million lux-hr		≈ 200Hr	≈ 184Hr
Typical time required to reach ICH recommendation of 200 W-hr/m ²		≈ 50Hr	≈ 40Hr
Refrigeration	System	Air-cooled	
	Refrigerant	R-404A	
Water tank	Capacity (L / cu ft)	15 / 0.53	
	Water quality	pH6.2 ~ 7.2, Electrical conductivity 20µs / cm to below	
No. of wire shelves (standard / max.)		2 / 8	2 / 17
Distance of between shelves (mm / inch)		60 / 2.4	60 / 2.4
Max. load per shelf (kg / lbs)		25 / 55.1	40 / 88.2
Permitted total load (kg / lbs)		75 / 165.3	100 / 220.5
Dimension (WxDxH)	Interior (mm / inch)	750×650×650 / 29.5×25.6×25.6	750×880×1160 / 29.5×34.6×45.7
	Exterior (mm / inch)	1130×985×1520 / 44.5×38.8×59.8	1220×1215×1965 / 48×47.8×77.4
	Net weight (kg / lbs)	280±10 / 617±22	400±10 / 882±22
Cable port		Basically one hole provided / ø 50mm (2"), Optionally max. two holes available / ø 50 or 80mm (2 or 3.2")	
Interface port		Basically RS-232C, [RS-485 : optional]	
Electrical requirements	AC230V, 1ph, 60Hz	15.4 A	24.5 A
	Cat.No.	AAHC1001K	AAHC1011K
	AC230V, 1ph, 50Hz	15.4 A	24.5 A
	Cat.No.	AAHC1002K	AAHC1012K

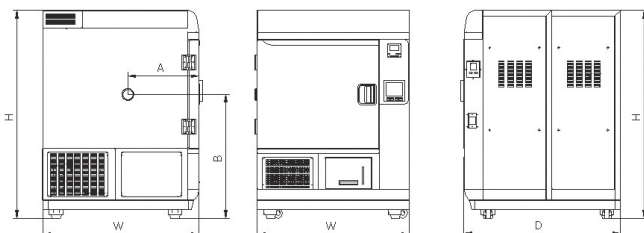
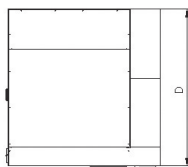
1) Technical data according to DIN 12880, IEC 60068.

2) The value is measured on the center of chamber at the point of vertical direction.

※ Permissible environmental conditions: temperature (18 to 30°C) and relative humidity (up to 85%).

※ All specifications are under ambient temperature 20°C (68°F), No load.

※ FDA establishment registered company. FDA listed products.



Dimension

Model	TH-ICH-300	TH-ICH-800
Capacity	300L (10.6 cu ft)	760L (26.8 cu ft)
W	1130mm (44.5")	1220mm (48")
D	985mm (38.8")	1215mm (47.8")
H	1520mm (59.8")	1965mm (77.4")
A	460mm (18.1")	545mm (21.5")
B	905mm (35.6")	1185mm (46.7")