



## Pharmaceutical stability test chamber

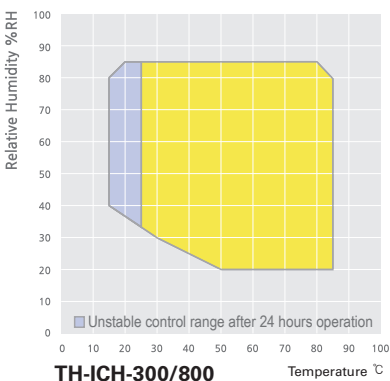
Manufactured in accordance with ICH Guidelines Q1A-Stability test (R2), Q1B-Photostability test (Option 2).

- ▶ 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



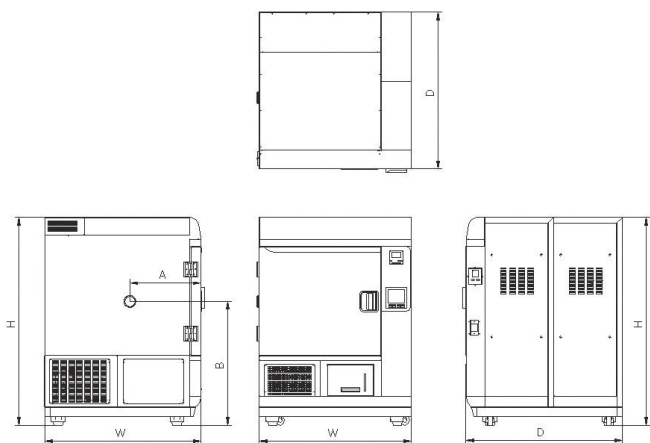
## TH-ICH with the optional recorder

### Standard accessories

- Wire shelves, Cable port (Ø50mm)
- Fluorescent lamp (cool white), UVA lamp, UV sensor, Illumination sensor, Door key

### Optional accessories see page 238

- Direct water system



### 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 (33.8")	1215mm (47.8")
H	1520mm (59.8")	1965mm (77.4")
A	460mm (18.1")	545mm (21.5")
B	905mm (35.6")	1185mm (46.7")

### 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.
  - Set value and present value are clearly visible together on display.
  - Operating progress visible in graph mode allow for direct data interpretation.
  - Temperature and other operating parameters recorded with use of selectable recorder. (optional)
- Sufficient programmable control support.

Description	TH-ICH
Programmable pattern capacity	10
pattern repeat time	999
Max. Segments per a pattern	100
Available max. segments*	100
Programmable process time per a segment	0 to 99 hr. 59 min.

\* Even though the max. segments per a pattern are 100, available total segments are up to 300 not 3000, so you need to arrange the number of segment and patterns properly.

- Computer interface.
  - RS-485 communication port enables connection of up to maximum 9 units. Simultaneous monitoring and operating of multiple units is an available feature. (optional)
  - Program patterns are simple to set with the use of our software.
  - Storage of program information, backup of value settings, recovery, temperature, humidity values.
  - RS-232 communication port comes standard.

### 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)

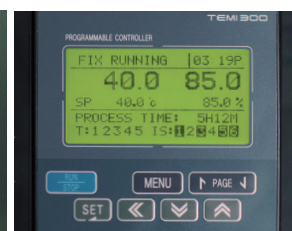
- Built in UV and fluorescent lamps for uniformed luminescence.
- Equipped with movable UV and VIS sensors .
- Independent lamp controller
  - An indicator for Total usage time of UV and fluorescent lamps.
- Convenient set function of cumulative dosage and lamp Off.

### Safety

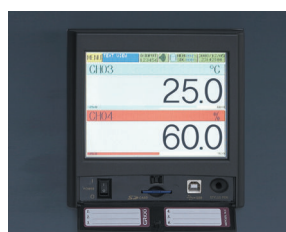
- Built in door lock with a key.
- Automatic shut off after overheat alarm.
- Low and empty water level alarm.
- Power supply leakage breaker.
- Over current protection.
- Open door alarm.



Lamp controller



LCD controller



Digital recorder (optional)



Water level indicator

Model		TH-ICH-300	TH-ICH-800
Chamber volume (L / cu ft)		300 / 10.6	760 / 26.8
Controller		PID control (LCD Type)	
Temperature <sup>1)</sup>	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 <sup>1)</sup> (±°C / °F) at 40°C / 60%RH		0.3 / 0.55
	Variation <sup>1)</sup> (±°C / °F) at 40°C / 60%RH		0.7 / 1.3
Time	Heating		25min (20°C → 85°C)
	Cooling		35min (20°C → 5°C)
Humidity	Range (%RH)		20 to 85 ※ See page 231 for more detailed humidity range check.
	Fluctuation <sup>2)</sup> (±%RH) at 60%RH / 40°C		3
	Variation <sup>2)</sup> (±%RH) at 60%RH / 40°C		5
Light source (ICH Q1B option 2)	Cool white <sup>3)</sup>		6,000 lux
	Ultraviolet-A <sup>3)</sup>		5 W/m <sup>2</sup>
	Light uniformity		VIS. : ±10% 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 <sup>2</sup>		≈ 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 20 <sup>μ</sup> S / 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 (W×D×H)	Interior (mm / inch)		750×650×650 / 29.5×25.6×25.6
	Exterior (mm / inch)		1130×985×1520 / 44.5×38.8×59.8
	Net weight (kg / lbs)		280±10 / 617±22
Cable port		Basically one hole provided / ∅ 50mm (2"), Optionally max. two holes available / ∅ 50 or 80mm (2 or 3.2")	
Interface port		Basically RS-232C, [RS-485 : optional]	
Electrical requirements	AC230V, 1ph, 60Hz		24.5 A
	Cat.No.		AAHC1001K
	AC230V, 1ph, 50Hz		23.5 A
	Cat.No.		AAHC1002K

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

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

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

※ FDA establishment registered company. FDA listed products.

# Accessories & Options

## for Floor Standing Chambers

### Accessory check list

□ Standard    ○ Optional

Description	Models					
	TH-G	TH-I	TH-KH	TH-TG	TH-ICH	TH-CR
Recorder (6 points)	○	○	○	○	○	○
Recorder (digital, 6 channels)	○	○	○	○	○	○
interface converter RS-485C → 232C included a cable (5m / 16.4ft)	○	○	○	○	○	○
Interface cable (5m / 16.4ft)	○	○	○	○	○	○
Warning signal lamp	○	○	○	○	○	○
Inner glass door	○	○	○	○	○	-
Viewing window	□	□	□	□	-	□
Wire shelf	□	□	□	□	□	□
Perforated shelf	○	○	○	○	○	○
Cable port (Ø 50mm / 2")	□	□	□	□	□	□
Cable port (Ø 80mm / 3.2")	○	○	○	○	○	○
Temperature sensor (RTD type)	□	□	□	□	□	□
Humidity sensor	□	□	□	□	□	□
Fluorescent lamp (Cool White)	-	-	-	-	□	-
UVA lamp	-	-	-	-	□	-
UV sensor	-	-	-	-	□	-
Illumination Sensor	-	-	-	-	□	-
HEPA filter	-	-	-	-	-	□
ULPA filter	-	-	-	-	-	○
Water cartridge tank (Water Container)	□	□	□	□	-	□
Water purifier	○	○	○	○	○	○
Direct water system	○	○	○	○	○	○

### Ordering information

Cat. No.	Description	Suitable for
AAA8T500	Recorder (6 points)	All models
AAA8T505	Recorder (digital, 6 channels)	All models
AAA8T540	interface converter RS-485C → 232C included a cable (5m / 16.4ft)	All models
AAA8T542	Interface cable (5m / 16.4ft)	All models
AAA80550	Warning signal lamp	All models
AAA81552	Inner glass door	TH-G//KH-180
AAA81551		TH-G//KH-300, 408, CR-270
AAA81550		TH-G-800, 1000
AAAC2501		TH-TG-180
AAAC2502		TH-TG-300, 408
AAAC2503		TH-TG-800, 1000
AAA81554		TH-ICH-300
AAA81555		TH-ICH-800
AAA8T610	Cable port (Ø 50mm / 2")	All models
AAA8T611	Cable port (Ø 80mm / 3.2")	All models
CFA1185	Temperature sensor (RTD type)	TH-G//GU models
CFA1923		TH-TG/ICH/CR models
CFA7113	Humidity sensor	All models
RTD1190	Fluorescent lamp (cool white)	TH-ICH-300
RTD1191		TH-ICH-800
RTD1188	UVA lamp	TH-ICH-300
RTD1189		TH-ICH-800
AAA80680	THE-680 UV sensor	TH-ICH-300/800
AAA80681	THE-681 Illumination sensor	TH-ICH-300/800
AAA80661	Door lock device	TH-ICH-300/800
EDA9184	HEPA filter	TH-CR-270
EDA9175	ULPA filter	TH-CR-270
AAA80622	Water cartridge tank	All models

Cat. No.	Description	Suitable for
AAA8T621	Water purifier	All models
AAA80620	Direct water system	All models
EDA8212	Wire shelf	TH-G//KH-180
EDA8213		TH-G//KH-300
EDA8214		TH-G//KH-408
EDA8215		TH-G-800
EDA8216		TH-G-1000
RTD1302		TH-TG-180
RTD1303		TH-TG-300
RTD1300		TH-TG-408
RTD1304		TH-TG-800
RTD1301		TH-TG-1000
RTD1305		TH-G/TG-1500
RTD1196		TH-ICH-300
RTD1198		TH-ICH-800
STT1040		TH-CR-270
AAA80602-1	Perforated shelf	TH-G//KH-180
AAA80602-2		TH-G//KH-300
AAA80602-3		TH-G//KH-408
AAA80602-4		TH-G-800
AAA80602-5		TH-G-1000
AAA80604-11		TH-TG-180
AAA80604-12		TH-TG-300
AAA80604-13		TH-TG-408
AAA80604-14		TH-TG-800
AAA80604-15		TH-TG-1000
AAA80604-16		TH-G/TG-1500
AAA80604-2		TH-ICH-300
AAA80604-4		TH-ICH-800
AAA80603-1		TH-CR-270