CE | Green CFC-Free | Computer Interface | Program | Calibration | Level Indicator Full Start | Over Temp. | Auto Run

Standard environmental test chamber.
Highly interactive LCD controller, beneficial for sophisticated long-term test cycles.
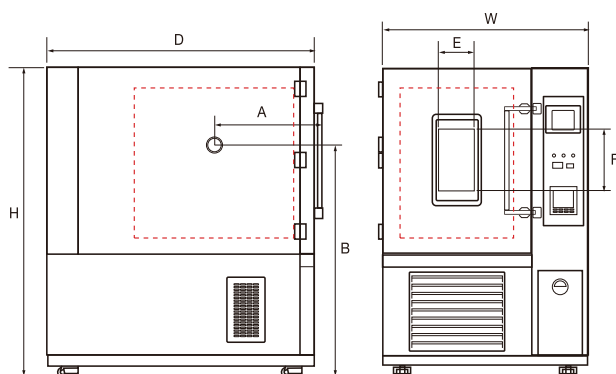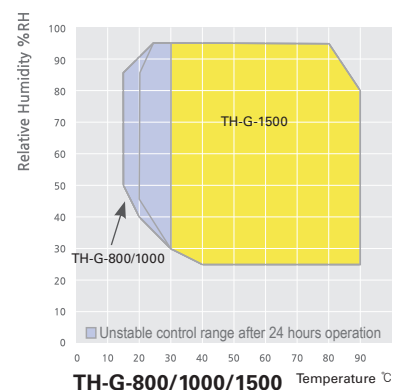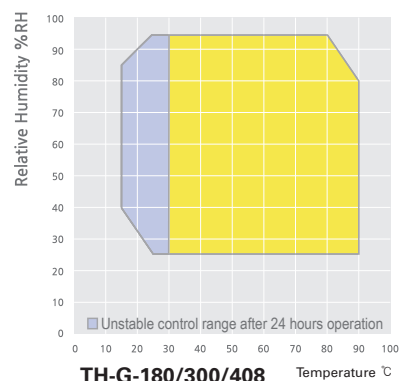

TH-G
with optional recorder

Standard accessories • Viewing window, Wire shelves, Cable port (Ø50mm)
• Water container, Door key

Optional accessories
see page 238 • Interface converter, Water purifiers, Direct water system

Control range

• Temperature range from -40 to 150℃
Humidity range from 25 to 95% RH

☐ Unstable control range after 24 hours operation

TH-G-180/300/408

☐ Unstable control range after 24 hours operation

TH-G-800/1000/1500

Dimension

Model	TH-G-180	TH-G-300	TH-G-408
Capacity	189L (7.4cu ft)	302L (11.9cu ft)	408L (14.4cu ft)
W	1003mm (39.5″)	1103mm (43.4″)	1103mm (43.4″)
D	1139mm (44.8″)	1139mm (44.8″)	1359mm (53.5″)
H	1468mm (57.8″)	1668mm (65.7″)	1668mm (65.7″)
A	412mm (16.2″)	432mm (17.0″)	532mm (20.9″)
B	1110mm (43.7″)	1246mm (49.0″)	1246mm (49.0″)

Dimension

Model	TH-G-800	TH-G-1000	TH-G-1500
Capacity	800L (28.3cu ft)	1000L (35.3cu ft)	1540L (54.4cu ft)
W	1503mm (59.2″)	1503mm (59.2″)	1603mm (63.1″)
D	1319mm (51.9″)	1519mm (59.8″)	1960mm (77.2″)
H	1968mm (77.5″)	1968mm (77.5″)	1950mm (76.8″)
A	509mm (20.0″)	609mm (23.9″)	609mm (23.9″)
B	1465mm (57.7″)	1465mm (57.7″)	1350mm (53.1″)

Performance

- Microprocessor PID control / Temperature calibration / Automatic tuning.

- Advanced performance of low and high temperature and humidity control, achieved by adapting the humidification tank exterior to the chamber, added benefit for long term test.

- Water recycling and filtering system reduce water consumption for longer operation.

- Air-tight door closure with perfect sealed packing.
  - Heat-resistant silicone packing completely blocks high heat leakage from the inner chamber.
  - Two-point door latch also enhances tightness to door closure.

- Energy efficiency is achieved by optimization of the insulation system.
  - Even if the unit is operating at max. temperature, the surface of the unit doesn't allow high temperatures of over 60℃.
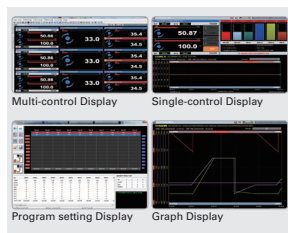
Safety

- 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.

Color LCD controller

Multi-control Display Single-control Display

Program setting Display Graph Display

Computer interface

Door handle

Portable water container

Convenience

- Spacious chamber volume with a maximum capacity of 1500L.
  - Various volume sizes, available to suit any users' need.

- Corrosion resistance stainless steel chamber and electric polished humidification tank.

- Maintenance of water supply are easily performed with a front water tank.
  - Portable water container makes supplying water convenient.

- Water supply during operation is also available for long term test purposes.

- Direct water system provides user great convenience when performing long-term tests. (optional)

- Clear observation of samples.
  - Tempered glass door with built in heating wire.
  - Energy efficient, long life span LED lighting.
  - Wider view, inner glass door is available for monitoring of samples. (optional)

- 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)

- Casters for easy mobility during installation or relocation.

- User friendly LCD controller.
  - 5.7 inch colorful interactive touch type LCD controller.
  - Set value and present value are clearly visible together on display.
  - Operating progress visible in graph mode allow for direct data interpretation.
  - Built-in SD card drive.
  - Trilingual support. (English / Chinese / Korean)
  - Temperature and other operating parameters recorded with use of selectable recorder. (optional)
  - Sufficient programmable control support.

Description	No
Programmable pattern capacity	120
Pattern repeat time	999
Max. segments per a pattern	100
Available max. segments*	1200
Programmable process time per a segment	0 to 999hr. 59 min. 59 sec.

* Even though the max. segments per a pattern are 100, available total segments are up to 1200 not 12000, so you need to arrange the number of segment an 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.

Model	TH-G-180	TH-G-300	TH-G-408	TH-G-800	TH-G-1000	TH-G-1500
Chamber volume (L / cu ft)	189 / 7.4	302 / 11.9	408 / 14.4	800 / 28.3	1000 / 35.3	1540 / 54.4
Controller	Programmable, Touch screen type controller (5.7″ color monitor)					
Temperature — Range (℃ / ℉)	-40 to 150 / -40 to 302 without humidity, 15 to 90 / 59 to 194 with humidity * Best programmable control range : -30 to 140 / -22 to 284					
Fluctuation [1] (±℃ / ℉) at 40℃ / 75%RH	0.3 / 0.54					
Variation [1] (±℃ / ℉) at 40℃ / 75%RH	0.5 / 0.9					
Time — Heating - without humidity (min.)	70 from -40℃ to 120℃ (-40℉ to 248℉)			70 from -40℃ to 120℃ (-40℉ to 248℉)		90 from -40℃ to 120℃ (-40℉ to 248℉)
Cooling - without humidity (min.)	75 from 20℃ to -40℃ (68℉ to -40℉)			85 from 20℃ to -40℃ (68℉ to -40℉)		90 from 20℃ to -40℃ (68℉ to -40℉)
Humidity — Range (%RH)	25 to 95 ※ See page 210 for more detailed humidity range check.					
Fluctuation [1] (±%RH) at 75%RH / 40℃	0.4			1.0		2.0
Variation [1] (±%RH) at 75%RH / 40℃	3					
Refrigeration — System	Mechanical single stage refrigerator system (air-cooled condenser)			Mechanical dual stage refrigerator system (air-cooled condenser)		
Refrigerant	R-507					
Water Supply — Capacity	15L (0.53cu ft) - Cartridge type					
Water quality	pH6.2 to 7.2 / Electrical conductivity 20μs /cm to below					
No. of wire shelves (standard / max.)	2 / 9	2 / 10	2 / 10	2 / 14	2 / 14	2 / 14
Distance of between shelves (mm / inch)	40 / 1.6	40 / 1.6	40 / 1.6	40 / 1.6	40 / 1.6	40 / 1.6
Max. load per shelf (kg / lbs)	20 / 44.1	25 / 55.1	25 / 55.1	40 / 88.2	40 / 88.2	40 / 88.2
Permitted total load (kg / lbs)	50 / 110.2	65 / 143.3	65 / 143.3	100 / 220.5	100 / 220.5	100 / 220.5
Dimension (W×D×H) — Interior (mm / inch)	500×630×600 / 19.7×24.8×23.6	600×630×800 / 23.6×24.8×31.5	600×850×800 / 23.6×33.5×31.5	1000×800×1000 / 39.4×31.5×39.4	1000×1000×1000 / 39.4×39.4×39.4	1100×1000×1400 / 43.3×39.4×55.1
Exterior (mm / inch)	1003×1139×1468 / 39.5×44.8×57.8	1103×1139×1668 / 43.4×44.8×65.7	1103×1359×1668 / 43.4×53.5×65.7	1503×1319×1968 / 59.2×51.9×77.5	1503×1519×1968 / 59.2×59.8×77.5	1603×1960×1950 / 63.1×77.2×76.8
Viewing windows (mm / inch)	200×330 / 7.9×13			270×330 / 10.6×13		
Net weight (kg / lbs)	320 / 705.5	385 / 848.8	410 / 903.9	620 / 1366.9	680 / 1499.1	860 / 1895.9
Cable port	Basically one hole provided / Ø50mm (2″) - Optionally max. two holes available / Ø 50 or 80mm (2 or 3.2″)					
Interface port	Basically RS-232C [RS-485-optional]					
Electrical requirements (230V, 60Hz)	1ph / 26.3A	1ph / 26.7A		1ph / 35.5A		
Cat. No.	AAH80011K	AAH80021K	AAH80031K	AAH80041K	AAH80051K	-
Electrical requirements (230V, 50Hz)	3ph / 15.3A	3ph / 15.6A		3ph / 20.6A		3ph / 26.3A
Cat. No.	AAH80012K	AAH80022K	AAH80032K	AAH80042K	AAH80052K	AAH80072K
Electrical requirements (380V, 50Hz)	3ph / 9.1A	3ph / 9.2A		3ph / 12.2A		3ph / 15.5A
Cat. No.	AAH80018K	AAH80028K	AAH80038K	AAH80048K	AAH80058K	AAH80078K

[1] Technical data according to DIN 12880, IEC 60068.

※ Permissible environmental conditions: temperature (18 to 30℃) and relative humidity (up to 85%).
※ All specifications are under ambient temperature 20℃ (68℉), No load.
※ 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/I/KH-180
AAA81551		TH-G/I/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/I/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/I/KH-180
EDA8213		TH-G/I/KH-300
EDA8214		TH-G/I/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/I/KH-180
AAA80602-2		TH-G/I/KH-300
AAA80602-3		TH-G/I/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