

Temperature & Humidity Chamber

Low temperature type (-70 to 100°C / -40 to 100°C)

General Temp. & Humid chamber with proven reliability and reproducibility

- **TH-KH** Ultralow temp. type (-70°C)
- **TH-G** Low temp. type (-40°C)

TH-G-180

with Wire Shelves 2ea, Φ50 Cable Port (standard), Recorder (option)



Optimized Model Configuration

- Various models optimized according to temperature and humidity control range and specialized functions.
- TH-KH Series (-70 to 100°C, 25~95%RH)
Provides wide temperature control range.
- TH-G Series (-40 to 100°C, 25~95%RH)
Representative model with proven reliability.

Structural Functional Features

- Stable humidity control ability with applying differentiated external humidification system and convenient maintenance for cleaning testing space.
- Excellent thermal insulation and sealing to ensure stable temperature and humidity reproducibility even for repeated test use.
- Proven reproducibility and reliability with structural design optimized for each capacity.
- The door part is a double-sealed structure that provides enhanced airtightness.
- Durability even after long-term repeated use has been verified by satisfying the door load test (SEFA standard).



Use Convenience Features

- Efficient water supply and recirculation system minimizes water refilling even for long-term high-humidity tests.
- Drawer-type water tank structure makes refill the water easily at the front part.
- Possible structure to refill the water even during operation.
- Direct water supply system. (option)
- Easy observation of samples with tempered glass door with built in heating wire and LED lamp.
- Open/close door with latches on either side.
- Door handle with built-in key lock.
- Cable port (Ø50 mm) is included as standard, making it convenient to connect external equipment.
- Easy to clean as it is easy to remove refrigerator condenser grill, making it convenient to maintain efficiency of refrigeration.



Drawer-type water tank



Door handle and locking device

Multifunction Control System

- 5.7-inch color touch display controller for convenient intuitive operation and checking of operation status.
- Save program information and back up the set values.
- Includes temperature and humidity auto-tuning.
- Highly reliable control through temperature calibration.
- PID zone subdivided into 6 zones for more precise control stability.
- RS-232 port (default) and RS-485 port (option) supported.
- Control and data processing by connecting up to 32 devices to PC at same time via RS-485 port.
- Convenient checking with useful graph display.



Cable port



Tempered glass window with wire heater and LED lamp

Description	No.
Pattern	120
Repeat time	999
Part repeat time	255
Max. segments / pattern	100
Available max. segments	1200
Programmable Process time / segment	999 hr. 59 min.

* It is possible to set 100 segments per pattern, but the maximum number of segments is not 12,000 (120 pattern x 100 segment) but 1,200.

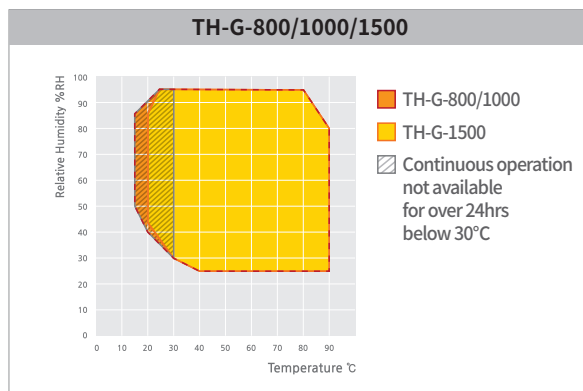
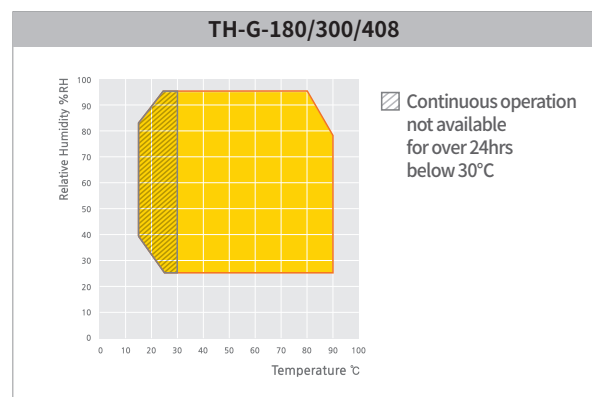
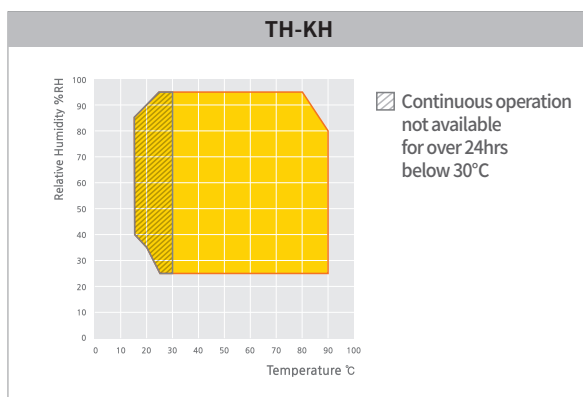
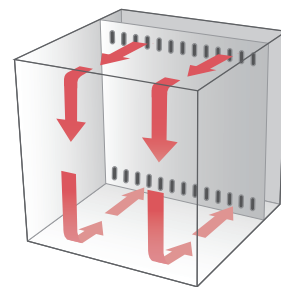


Controller (5.7 inch)

Temp. & humid. graph

Outstanding Safety

- Electronic over temperature shutdown system (advanced over temperature. (A-OT) limiter)
Independent precision temperature sensor and controller for safer and more accurate over temperature shutdown.
- General over power shutdown system. (B-OT, backup over temperature limiter)
A backup device for electronic system failure, mechanically preventing over temperature even when it occurs electronic errors.
- Ensures that the surface temperature is kept below 60°C.
- Low and empty water level alarm and automatic shut off.
- Door open warning and automatic shut off.
- Overcurrent and short circuit protection of device.
- Fuse installed for each heater for safety.
- Auto stop when operating current of compressor is overloaded.
- Auto stop when compressor is overheating.
- Auto shut off in case refrigerant pressure (high/low pressure) is abnormal.



Specification

Model	TH-KH-180	TH-KH-300	TH-KH-408
Interior dimensions			
Chamber volume (L / cu ft)	189 / 6.7	302 / 10.7	408 / 14.4
Width (mm / inch)	500 / 19.7	600 / 23.6	600 / 23.6
Depth (mm / inch)	630 / 24.8	630 / 24.8	850 / 33.5
Height (mm / inch)	600 / 23.6	800 / 31.5	800 / 31.5
Quantity of shelves (standard/max.)	2 / 9	2 / 10	2 / 10
Distance of between shelves (mm / inch)	60 / 2.4	60 / 2.4	60 / 2.4
Max. load per shelf (kg / lbs)	20 / 44.1	25 / 55.1	25 / 55.1
Permitted total load (kg / lbs)	50 / 110.2	65 / 143.3	65 / 143.3
Cable port (Ø, mm / inch)	50 / 2.0	50 / 2.0	50 / 2.0
Water tank capacity (L / cu ft)	15 / 0.5	15 / 0.5	15 / 0.5
Weight (kg / lbs)	320 / 705.5	385 / 848.8	410 / 903.9
Temperature data			
Range without humidity (°C / °F)	-70 to 100 / -94 to 212	-70 to 100 / -94 to 212	-70 to 100 / -94 to 212
Fluctuation (±°C / °F) ¹⁾	0.3 / 0.54	0.3 / 0.54	0.3 / 0.54
Variation (±°C / °F) ¹⁾	0.5 / 0.9	0.5 / 0.9	0.5 / 0.9
Heating time (-70°C to 100°C) (min)	70	70	70
Cooling time (20°C to -70°C) (min)	80	80	80
Humidity data (※ Ref.: Temp./ Humid. control range graph)			
Range (%RH)	25 to 95	25 to 95	25 to 95
Fluctuation (±%RH) ¹⁾	0.4	0.4	0.4
Variation (±%RH) ¹⁾	3	3	3
Electrical data & Ordering information			
Electrical requirements (380V, 3P, 50Hz, A)	10.1	10.2	10.2
Cat. No.	AAHC3014K	AAHC3114K	AAHC3214K
Cat. No. (EU only)	AAHC3010K	AAHC3110K	AAHC3210K

※ The above specifications are tested according to IEC 60068 standard.

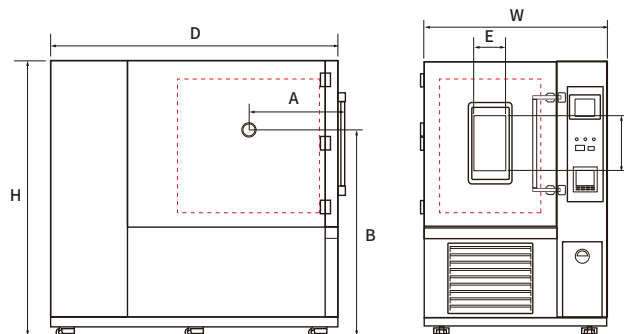
※ Permissible environmental conditions are 18 - 30°C (recommended 20°C), 85%RH or less, under 2000m above sea level.

※ The DI water condition is pH 6.2 - 7.2 and the electrical conductivity is less than 20µs/cm.

1) The set value is set under the conditions of 25°C, 60%RH.

Dimension

Model	TH-KH-180	TH-KH-300	TH-KH-408
W (mm / inch)	1050 / 41.3	1150 / 45.3	1150 / 45.3
D (mm / inch)	1615 / 63.6	1615 / 63.6	1835 / 72.2
H (mm / inch)	1560 / 61.4	1760 / 69.3	1760 / 69.3
A (mm / inch)	550 / 21.7	550 / 21.7	670 / 26.4
B (mm / inch)	1225 / 48.2	1325 / 52.2	1325 / 52.2
E (mm / inch)	200 / 7.9	200 / 7.9	200 / 7.9
F (mm / inch)	330 / 13.0	330 / 13.0	330 / 13.0



Accessories Page 308 Cable Port, Shelves, Signal Lamp, Recorder, Water Purifier, Direct Water System, Inner Glass Door

Specification

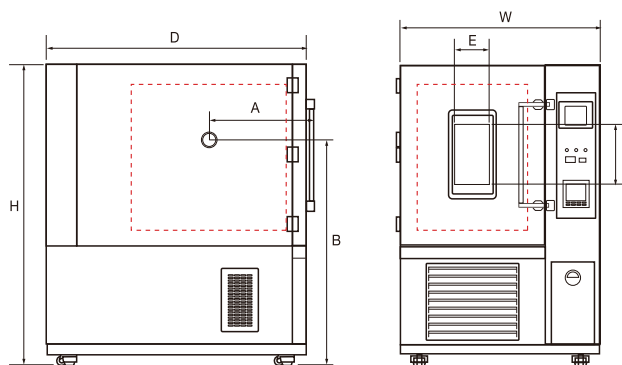
Model	TH-G-180	TH-G-300	TH-G-408	TH-G-800	TH-G-1000	TH-G-1500
Interior dimensions						
Chamber volume (L / cu ft)	189 / 6.7	302 / 10.7	408 / 14.4	800 / 28.3	1000 / 35.3	1450 / 57.1
Width (mm / inch)	500 / 19.7	600 / 23.6	600 / 23.6	1000 / 39.4	1000 / 39.4	1100 / 43.3
Depth (mm / inch)	630 / 24.8	630 / 24.8	850 / 33.5	800 / 31.5	1000 / 39.4	1000 / 39.4
Height (mm / inch)	600 / 23.6	800 / 31.5	800 / 31.5	1000 / 39.4	1000 / 39.4	1450 / 57.1
Quantity of shelves (standard/max.)	2 / 9	2 / 10	2 / 10	2 / 14	2 / 14	3 / 18
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
Cable port (Ø, mm / inch)	50 / 2.0	50 / 2.0	50 / 2.0	50 / 2.0	50 / 2.0	50 / 2.0
Water tank capacity (L / cu ft)	15 / 0.5	15 / 0.5	15 / 0.5	15 / 0.5	15 / 0.5	15 / 0.5
Weight (kg / lbs)	320 / 705.5	385 / 848.8	410 / 903.9	620 / 1366.9	680 / 1499.1	860 / 1896.0
Temperature data						
Range without humidity (°C / °F)	-40 to 100 / -40 to 212 (60Hz) -35 to 100 / -31 to 212 (50Hz)					
Fluctuation (±°C / °F) ¹⁾	0.3 / 0.54	0.3 / 0.54	0.3 / 0.54	0.3 / 0.54	0.3 / 0.54	0.3 / 0.54
Variation (±°C / °F) ¹⁾	0.5 / 0.9	0.5 / 0.9	0.5 / 0.9	0.5 / 0.9	0.5 / 0.9	0.5 / 0.9
Heating time (-40°C to 100°C) (min)	60	60	60	70	70	90
Cooling time (20°C to -40°C) (min)	60	60	60	75	75	90
Humidity data (※ Ref.: Temp./ Humid. control range graph)						
Range (%RH)	25 to 95	25 to 95	25 to 95	25 to 95	25 to 95	25 to 95
Fluctuation (±%RH) ¹⁾	0.4	0.4	0.4	1	1	2
Variation (±%RH) ¹⁾	3	3	3	3	3	3
Electrical data & Ordering information						
Electrical requirements (230V, 1P, 50Hz, A)	25.2	25.6	25.6			
Cat. No.	AAH80013K	AAH80023K	AAH80033K	-	-	-
Cat. No. (EU only)	AAH80015K	AAH80025K	AAH80035K	-	-	-
Electrical requirements (230V, 1P, 60Hz, A)	25.2	25.6	25.6			
Cat. No.	AAH80011K	AAH80021K	AAH80031K	-	-	-
Electrical requirements (380V, 3P, 50/60Hz, A)	9.1	9.2	9.2	12.2	12.2	15.5
Cat. No.	AAH80018K	AAH80028K	AAH80038K	AAH80048K	AAH80058K	AAH80078K
Cat. No. (EU only)	AAH80010K	AAH80020K	AAH80030K	AAH80040K	AAH80050K	AAH80070K

※ The above specifications are tested according to IEC 60068 standard.

※ Permissible environmental conditions are 18 - 30°C (recommended 20°C), 85%RH or less, under 2000m above sea level.

※ The DI water condition is pH 6.2 - 7.2 and the electrical conductivity is less than 20µs/cm.

1) The set value is set under the conditions of 40°C, 75%RH.



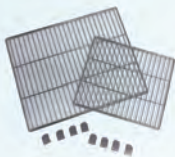
Dimension

Model	TH-G-180	TH-G-300	TH-G-408	TH-G-800	TH-G-1000	TH-G-1500
W (mm / inch)	1003 / 39.5	1103 / 43.4	1103 / 43.4	1503 / 59.2	1503 / 59.2	1503 / 59.2
D (mm / inch)	1139 / 44.8	1139 / 44.8	1359 / 53.5	1319 / 51.9	1519 / 59.8	2065 / 81.3
H (mm / inch)	1468 / 57.8	1668 / 65.7	1668 / 65.7	1968 / 77.5	1968 / 77.5	2007 / 79.0
A (mm / inch)	412 / 16.2	432 / 17.0	532 / 20.9	509 / 20.0	609 / 24.0	482 / 19.0
B (mm / inch)	1110 / 43.7	1246 / 49.1	1246 / 49.1	1465 / 57.7	1495 / 58.9	1500 / 59.1
E (mm / inch)	200 / 7.9	200 / 7.9	200 / 7.9	270 / 10.6	270 / 10.6	270 / 10.6
F (mm / inch)	330 / 13.0	330 / 13.0	330 / 13.0	330 / 13.0	330 / 13.0	330 / 13.0

Accessories Page 286 Cable Port, Shelves, Signal Lamp, Recorder, Water Purifier, Direct Water System, Inner Glass Door

Accessories

Wire Shelf



- Excellent ventilation structure.
- Stainless steel.
- Includes 2ea as standard.

Perforated Shelf



- Suitable for high-load samples.
- Excellent maintenance as made of stainless steel.

Recorder (Paper)



- Up to 6 channels supported.
- Set recording range and speed.
- Paper width: 100 mm.

Recorder (Digital)



- Paperless. (5.7" LCD display)
- Up to 6 channels supported.
- Data stored in internal/external memory.

Cable Port



- Both cap and silicone plug are included as standard in Ø50 mm cable port.
- It is available to add Ø50 mm, Ø80 mm.

Signal Lamp



- Figuring out equipment status remotely.
- Run/Stand-by/Error displayed by color.

Water Purifier



- Water purifier composed of particle filter and carbon filter.
- Solid steel box construction.

Inner Glass Door



- Minimized temperature and humidity changes and observation of internal samples enabled.
- Hand-in port is provided as standard. (selectable when purchasing)

Stand (1 Stage)



- Dedicated stand for small appliances.
- Provides lower drawer and loading space.
- Casters provided as standard for moving/fixing.

Stand (2 Stage)



- Placing of two compact devices vertically.
- Minimized installation space for different temperature and humidity tests.

Direct Water System



- Direct connection of distilled water to direct water line of the equipment from a water supply pipe.
- Useful for long-term testing.

Model	Cable Port (ø50)	Cable Port (ø80)	Wire Shelf	Perforated Shelf	Signal Lamp	Recorder (Paper)	Recorder (Digital)	Water Purifier	Direct Water System	Inner Glass Door	Stand (1 stage)	Stand (2 stage)
TH3-KE-025	AAA8T612	N/A	00RTD0000679	AAA80602-6	AAA80550	AAA8T504	AAA8T506	AAA8T625	AAA80620	N/A	AAA80631	AAA80634
TH3-KE-065	AAA8T612	AAA8T611	00RTD0000680	AAA80602-7	AAA80550	AAA8T504	AAA8T506	AAA8T625	AAA80620	N/A	AAA80632	AAA80635
TH3-KE-100	AAA8T612	AAA8T611	00RTD0000681	AAA80602-8	AAA80550	AAA8T504	AAA8T506	AAA8T625	AAA80620	N/A	AAA80633	N/A
TH3-ME-025	AAA8T612	N/A	00RTD0000679	AAA80602-6	AAA80550	AAA8T504	AAA8T506	AAA8T625	AAA80620	N/A	AAA80631	AAA80634
TH3-ME-065	AAA8T612	AAA8T611	00RTD0000680	AAA80602-7	AAA80550	AAA8T504	AAA8T506	AAA8T625	AAA80620	N/A	AAA80632	AAA80635
TH3-ME-100	AAA8T612	AAA8T611	00RTD0000681	AAA80602-8	AAA80550	AAA8T504	AAA8T506	AAA8T625	AAA80620	N/A	AAA80633	N/A
TH3-PE-025	AAA8T612	N/A	00RTD0000679	AAA80602-6	AAA80550	AAA8T504	AAA8T506	AAA8T625	AAA80620	N/A	AAA80631	AAA80634
TH3-PE-065	AAA8T612	AAA8T611	00RTD0000680	AAA80602-7	AAA80550	AAA8T504	AAA8T506	AAA8T625	AAA80620	N/A	AAA80632	AAA80635
TH3-PE-100	AAA8T612	AAA8T611	00RTD0000681	AAA80602-8	AAA80550	AAA8T504	AAA8T506	AAA8T625	AAA80620	N/A	AAA80633	N/A
TH-KH-180	AAA8T610	AAA8T6111	00EDA0008212	AAA80602-1	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAA81552	N/A	N/A
TH-KH-300	AAA8T610	AAA8T6111	00EDA0008213	AAA80602-2	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAA81551	N/A	N/A
TH-KH-408	AAA8T610	AAA8T6111	00EDA0008214	AAA80602-3	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAA81551	N/A	N/A
TH-G-180	AAA8T610	AAA8T611	00EDA0008212	AAA80602-1	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAA81552	N/A	N/A
TH-G-300	AAA8T610	AAA8T611	00EDA0008213	AAA80602-2	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAA81551	N/A	N/A
TH-G-408	AAA8T610	AAA8T611	00EDA0008214	AAA80602-3	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAA81551	N/A	N/A
TH-G-800	AAA8T610	AAA8T611	00EDA0008215	AAA80602-4	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAA81550	N/A	N/A
TH-G-1000	AAA8T610	AAA8T611	00EDA0008216	AAA80602-5	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAA81550	N/A	N/A
TH-G-1500	AAA8T610	AAA8T611	00EDA0008216	AAA80602-5	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	N/A	N/A	N/A
TH-TG-180	AAA8T610	AAA8T611	00RTD0001302	AAA80604-11	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAAC2501	N/A	N/A
TH-TG-300	AAA8T610	AAA8T611	00RTD0001303	AAA80604-12	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAAC2502	N/A	N/A
TH-TG-408	AAA8T610	AAA8T611	00RTD0001300	AAA80604-13	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAAC2502	N/A	N/A
TH-TG-800	AAA8T610	AAA8T611	00RTD0001304	AAA80604-14	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAAC2503	N/A	N/A
TH-TG-1000	AAA8T610	AAA8T611	00RTD0001301	AAA80604-15	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAAC2503	N/A	N/A
TH-TG-1500	AAA8T610	AAA8T611	00RTD0001305	AAA80604-16	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	N/A	N/A	N/A
TH3-DG-150	AAA8T610	AAA8T611	00EDA0008251	AAAC6501	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAAC6511	N/A	N/A
TH3-DG-300	AAA8T610	AAA8T611	00RTD0001280	AAAC6502	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAAC6512	N/A	N/A
TH3-DG-400	AAA8T610	AAA8T611	00EDA0008250	AAAC6503	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAAC6513	N/A	N/A
TH3-E-200	AAA8T610	AAA8T611	00EDA0008212	AAA80602-1	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAA81552	N/A	N/A
TH3-E-400	AAA8T610	AAA8T611	00EDA0008214	AAA80602-3	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAA81551	N/A	N/A
TH-ICH-300	AAA8T610	AAA8T611	00RTD0001196	AAA80604-2	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAA81554	N/A	N/A
TH-ICH-800	AAA8T610	AAA8T611	00RTD0001198	AAA80604-4	AAA80550	AAA8T500	AAA8T505	AAA8T625	AAA80620	AAA81555	N/A	N/A

LC GreenBox (only TH3 models)

- Monitor and control the operation status of the product in real time via mobile app with an internet connection.
- Up to 4 devices can be connected.

Description	Dimension (W x D x H, mm / inch)	Cat. No.
LC GreenBox	156 x 94 x 34 / 6.1 x 3.7 x 1.3	AAHQ1011K



LC DataKeeper (only TH3 models)

- High-integrity software compliant with FDA 21 CFR Part 11
- Integrated with Jeio Tech equipment for GMP audits

Description	Cat. No.
LC DataKeeper-Basic	SSA11001
LC DataKeeper-Pro	SSA11002

※ Trial version is available for 30 days, offering the same features as the Basic version, and can be requested through the website.

