

Temperature & Humidity Chamber

Dual type

Space efficiency model that controls two upper and lower chambers individually



TH-DG-150

with Wire Shelves 2ea Φ 50 Cable Port (standard), Recorder (option)

Optimized For Long-term Testing

- Independent control of the temperature and humidity with dual chambers divided into upper and lower.
- Suitable for use when various test are required.
- Superior defrosting control technology ensures stable temperature and humidity control for long-term tests.
- Recommended in case no low temperature testing.
- Provide 3 kinds of model depending on capacity.
- Satisfies ICH Guideline Q1A (R2) Stability Test.
- Recorder for maintaining test records. (option)

Structural Functional Features

- Optimum temperature and humidity test can be carried out even with minimum refrigeration performance, it makes reduce the electric energy efficiently.
- 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.



Use Convenience Features

- Convenient operation with large color touch display controller.
- Efficient water supply and recirculation system minimizes water refilling even for long-term high-humidity tests.
- Water inlet is easy to use with easy cap.
- 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.

Multifunction Control System

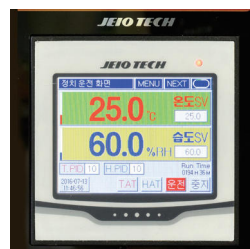
- Includes temperature and humidity auto-tuning.
- Highly reliable control through temperature calibration.
- PID zone subdivided into 9 zones for more precise control stability.
- RS-232 port (default) and RS-485 port (option) supported.
- Control and data processing by connecting up to 32 devices to PC at same time via RS-485 port.
- Convenient checking with useful graph display.



Door handle & locking device



Cable Port



Controller

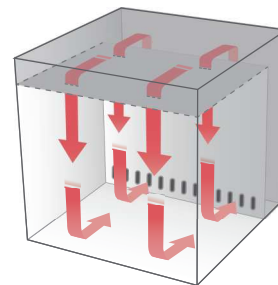
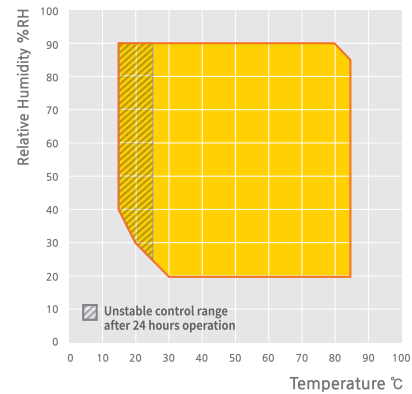
Description	No.
Pattern	100
Repeat time	999
Part repeat time	255
Max. segments / pattern	100
Available max. segments	2000
Programmable process time / segment	99 hr. 59 min.

* It is possible to set 100 segments per pattern, but the maximum number of segments is not 10,000 (100 pattern x 100 segment) but 2,000.

▮ 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-type 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.

TH-DG



Specification

Model	TH-DG-150	TH-DG-300	TH-DG-400
Interior dimensions			
Chamber volume (L / cu ft)	150 x 2 / 5.3 x 2	288 x 2 / 10.2 x 2	384 x 2 / 13.6 x 2
Width (mm / inch) ²⁾	600 / 23.6	800 / 31.5	800 / 31.5
Depth (mm / inch) ²⁾	500 / 19.7	600 / 23.6	800 / 31.5
Height (mm / inch) ²⁾	500 / 19.7	600 / 23.6	600 / 23.6
Quantity of shelves (standard/max.) ²⁾	2 / 7	2 / 8	2 / 8
Distance of between shelves (mm / inch)	60 / 2.4	60 / 2.4	60 / 2.4
Max. load per shelf (kg / lbs)	25 / 55.1	25 / 55.1	25 / 55.1
Permitted total load (kg / lbs) ²⁾	75 / 165.3	75 / 165.3	75 / 165.3
Cable port (Ø, mm / inch) ²⁾	50 / 2.0	50 / 2.0	50 / 2.0
Water tank capacity (L / cu ft)	20 / 0.7	24 / 0.8	24 / 0.8
Weight (kg / lbs)	420 / 926	516 / 1137.6	560 / 1234.6
Temperature data			
Range without humidity (°C / °F)	-5 to 100	-5 to 100	-5 to 100
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 (-5°C to 100°C) (min)	85	85	85
Cooling time (100°C to -5°C) (min)	100	100	100
Humidity data (※ Ref.: Temp./ Humid. control range graph)			
Range (%RH)	15 to 90	15 to 90	15 to 90
Fluctuation (±%RH) ¹⁾	0.8	0.8	0.8
Variation (±%RH) ¹⁾	3	3	3
Electrical data & Ordering information			
Electrical requirements (230V, 1ph, 60Hz, A)	13.6 x 2ea	17.5 x 2ea	17.5 x 2ea
Cat. No.	AAHC6001K	AAHC6011K	AAHC6021K
Electrical requirements (230V, 1ph, 50Hz, A)	13.6 x 2ea	17.5 x 2ea	17.5 x 2ea
Cat. No.	AAHC6002K	AAHC6012K	AAHC6022K

※ The above specifications are tested according to DIN 12880 and IEC 60068 standards.

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

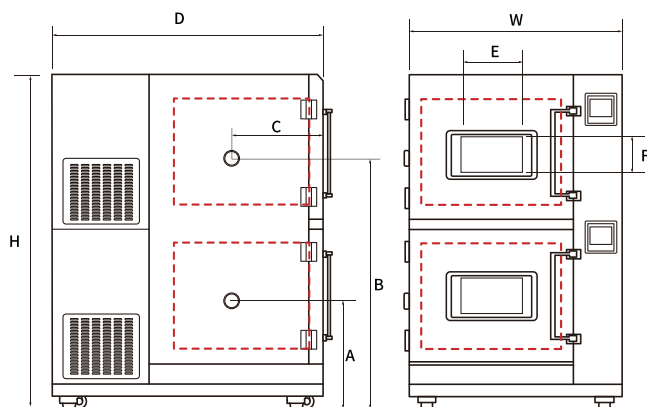
※ The DI water condition is pH 6.2 - 7.2 and the electrical conductivity is less than 20µs/cm.

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

2) Each chamber.

Accessories Page 296

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



Dimension

Model	TH-DG-150	TH-DG-300	TH-DG-400
W (mm / inch)	1055 / 41.5	1255 / 49.4	1255 / 49.4
D (mm / inch)	1320 / 52.0	1470 / 57.9	1670 / 65.9
H (mm / inch)	1725 / 67.9	1925 / 75.8	1925 / 75.8
A (mm / inch)	710 / 28.0	760 / 29.9	760 / 29.9
B (mm / inch)	1450 / 57.1	1600 / 63.0	1600 / 63.0
C (mm / inch)	345 / 13.6	385 / 15.2	485 / 19.1
E (mm / inch)	330 / 13.0	330 / 13.0	330 / 13.0
F (mm / inch)	200 / 7.9	200 / 7.9	200 / 7.9

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	AAA8T610	N/A	00RTD0000679	AAA80602-6	AAA80550	AAA8T504	AAA8T506	AAA8T621	AAA80620	N/A	AAA80631	AAA80634
TH3-KE-065	AAA8T610	AAA8T611	00RTD0000680	AAA80602-7	AAA80550	AAA8T504	AAA8T506	AAA8T621	AAA80620	N/A	AAA80632	AAA80635
TH3-KE-100	AAA8T610	AAA8T611	00RTD0000681	AAA80602-8	AAA80550	AAA8T504	AAA8T506	AAA8T621	AAA80620	N/A	AAA80633	N/A
TH3-ME-025	AAA8T612	N/A	00RTD0000679	AAA80602-6	AAA80550	AAA8T504	AAA8T506	AAA8T621	AAA80620	N/A	AAA80631	AAA80634
TH3-ME-065	AAA8T612	AAA8T611	00RTD0000680	AAA80602-7	AAA80550	AAA8T504	AAA8T506	AAA8T621	AAA80620	N/A	AAA80632	AAA80635
TH3-ME-100	AAA8T612	AAA8T611	00RTD0000681	AAA80602-8	AAA80550	AAA8T504	AAA8T506	AAA8T621	AAA80620	N/A	AAA80633	N/A
TH3-PE-025	AAA8T612	N/A	00RTD0000679	AAA80602-6	AAA80550	AAA8T504	AAA8T506	AAA8T621	AAA80620	N/A	AAA80631	AAA80634
TH3-PE-065	AAA8T612	AAA8T611	00RTD0000680	AAA80602-7	AAA80550	AAA8T504	AAA8T506	AAA8T621	AAA80620	N/A	AAA80632	AAA80635
TH3-PE-100	AAA8T612	AAA8T611	00RTD0000681	AAA80602-8	AAA80550	AAA8T504	AAA8T506	AAA8T621	AAA80620	N/A	AAA80633	N/A
TH-KH-180	AAA8T610	AAA8T611	00EDA0008212	AAA80602-1	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAA81552	N/A	N/A
TH-KH-300	AAA8T610	AAA8T611	00EDA0008213	AAA80602-2	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAA81551	N/A	N/A
TH-KH-408	AAA8T610	AAA8T611	00EDA0008214	AAA80602-3	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAA81551	N/A	N/A
TH-KH-800	AAA8T610	AAA8T611	00EDA0008215	AAA80602-4	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAA81550	N/A	N/A
TH-KH-1000	AAA8T610	AAA8T611	00EDA0008216	AAA80602-5	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAA81550	N/A	N/A
TH-G-180	AAA8T610	AAA8T611	00EDA0008212	AAA80602-1	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAA81552	N/A	N/A
TH-G-300	AAA8T610	AAA8T611	00EDA0008213	AAA80602-2	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAA81551	N/A	N/A
TH-G-408	AAA8T610	AAA8T611	00EDA0008214	AAA80602-3	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAA81551	N/A	N/A
TH-G-800	AAA8T610	AAA8T611	00EDA0008215	AAA80602-4	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAA81550	N/A	N/A
TH-G-1000	AAA8T610	AAA8T611	00EDA0008216	AAA80602-5	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAA81550	N/A	N/A
TH-G-1500	AAA8T610	AAA8T611	00EDA0008216	AAA80602-5	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	N/A	N/A	N/A
TH-I-180	AAA8T610	AAA8T611	00EDA0008212	AAA80602-1	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAA81552	N/A	N/A
TH-I-300	AAA8T610	AAA8T611	00EDA0008213	AAA80602-2	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAA81551	N/A	N/A
TH-I-408	AAA8T610	AAA8T611	00EDA0008214	AAA80602-3	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAA81551	N/A	N/A
TH-TG-180	AAA8T610	AAA8T611	00RTD0001302	AAA80604-11	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAC2501	N/A	N/A
TH-TG-300	AAA8T610	AAA8T611	00RTD0001303	AAA80604-12	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAC2502	N/A	N/A
TH-TG-408	AAA8T610	AAA8T611	00RTD0001300	AAA80604-13	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAC2502	N/A	N/A
TH-TG-800	AAA8T610	AAA8T611	00RTD0001304	AAA80604-14	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAC2503	N/A	N/A
TH-TG-1000	AAA8T610	AAA8T611	00RTD0001301	AAA80604-15	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAC2503	N/A	N/A
TH-TG-1500	AAA8T610	AAA8T611	00RTD0001305	AAA80604-16	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	N/A	N/A	N/A
TH-DG-150	AAA8T610	AAA8T611	00EDA0008251	AAAC6501	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAAC6511	N/A	N/A
TH-DG-300	AAA8T610	AAA8T611	00RTD0001280	AAAC6502	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAAC6512	N/A	N/A
TH-DG-400	AAA8T610	AAA8T611	00EDA0008250	AAAC6503	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAAC6513	N/A	N/A
TH3-E-200	AAA8T610	AAA8T611	00EDA0008212	AAA80602-1	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAA81551	N/A	N/A
TH3-E-400	AAA8T610	AAA8T611	00EDA0008214	AAA80602-3	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAA81552	N/A	N/A
TH-ICH-300	AAA8T610	AAA8T611	00RTD0001196	AAA80604-2	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAA81554	N/A	N/A
TH-ICH-800	AAA8T610	AAA8T611	00RTD0001198	AAA80604-4	AAA80550	AAA8T500	AAA8T505	AAA8T621	AAA80620	AAA81555	N/A	N/A

LC GreenBox

· Monitor and control the operation status of the product in real time via mobile app with an internet connection.

Model	Description	Dimension (mm / inch)	Cat. No.
TH3 series	Mobile Monitoring System	156 x 94 x 34 / 6.1 x 3.7 x 1.3	AAAQ1011