

# Temperature & Humidity Chamber

## Basic type

### Applied the new developed controller specialized for Temp. & Humid chambers

#### **Differentiated Systems**

- Convenient operation with 5.6 inch color touch display controller.
- Possible to check the operation status with graphs.
- Minimize the occurrence of faults by simplifying water direct line and electric circuit.
- Water level check function enables water replenishment at the right time.

#### **Structural Functional Features**

- Excellent thermal insulation and sealing to ensure stable temperature and humidity reproducibility even for repeated test use.
- The door part is a double-sealed structure that provides enhanced airtightness.
- Maintains stable temperature and humidity by circulating air in the chamber at the optimum speed.
- Energy-saving system that can perform optimum temperature and humidity tests efficiently, reducing power consumption during operation.

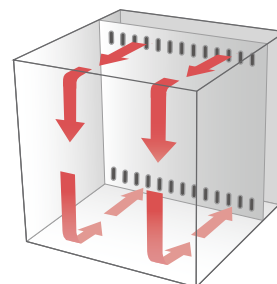
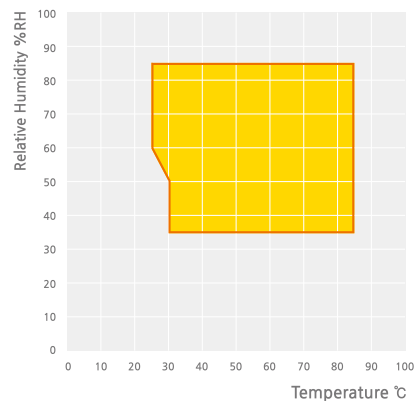
#### **Outstanding Safety**

- 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.



**TH3-E-200**  
with Wire Shelves 2ea (standard)

**TH3-E-200, 400**





## Use Convenience Features

- Efficient water supply and recirculation system minimizes water refilling even for long-term high-humidity tests.
- Direct water supply system. (option)
- Easy observation of samples with tempered glass door with built in heating wire and LED lamp.
- A structure that allows the door to be opened and closed easily.
- Easy to clean as it is easy to remove refrigerator condenser grill, making it convenient to maintain efficiency of refrigeration.

## Multifunction Control System

- Reliable control with temperature/humidity auto-tuning and temperature calibration.
- Control and data processing by connecting up to 32 devices to PC at same time via RS-485 port.
- PID zone subdivided into 9 zones for more precise control stability.
- Monitor via mobile app anytime, anywhere with LC Connected. (mobile monitoring system) (when purchased LC GreenBox)
- Convenient checking with useful graph display.

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.

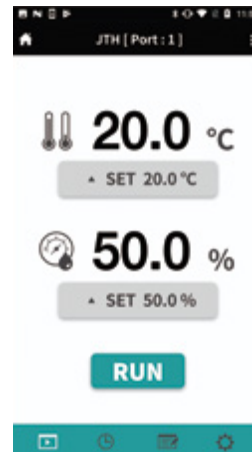
\* It is possible to set 100 segments per pattern, but the maximum number of segments is not 10,000 (100 pattern x 100 segment) but 2,000.



Large LCD touch screen controller (5.6 inches)



Tempered glass window with wire heater and LED lamp



Remote monitoring and control via Lab Companion's app.

## Specification

Model	TH3-E-200	TH3-E-400
<b>Interior dimensions</b>		
Chamber volume (L / cu ft)	201 / 7.1	398 / 14.1
Width (mm / inch)	500 / 19.7	600 / 23.6
Depth (mm / inch)	670 / 26.4	830 / 32.7
Height (mm / inch)	600 / 23.6	800 / 31.5
Quantity of shelves (standard/max.)	2 / 9	2 / 10
Distance of between shelves (mm)	40 / 1.6	40 / 1.6
Max. load per shelf (kg / lbs)	20 / 44.1	25 / 55.1
Permitted total load (kg / lbs)	50 / 110.2	65 / 143.3
Cable port (∅, mm / inch)	50 / 2.0	65 / 2.6
Water tank capacity (L / cu ft)	20 / 0.7	20 / 0.7
<b>Weight (kg / lbs)</b>	200 / 440.9	270 / 595.2
<b>Temperature data</b>		
Range without humidity (°C / °F)	0 to 90 / 32 to 194	0 to 90 / 32 to 194
Fluctuation (±°C / °F) <sup>1)</sup>	0.5 / 0.9	0.5 / 0.9
Variation (±°C / °F) <sup>1)</sup>	0.8 / 1.44	0.8 / 1.44
Heating time (0°C to 90°C) (min)	80	80
Cooling time (90°C to 0°C) (min)	90	90
<b>Humidity data (※ Ref.: Temp./ Humid. control range graph)</b>		
Range (%RH)	35 to 85	35 to 85
Fluctuation (±%RH) <sup>1)</sup>	1	1
Variation (±%RH) <sup>1)</sup>	3	3
<b>Electrical data &amp; Ordering information</b>		
Electrical requirements (230V, 1ph, 60Hz, A)	15	16
<b>Cat. No.</b>	<b>AAH841101K</b>	<b>AAH841111K</b>
Electrical requirements (230V, 1ph, 50Hz, A)	15	16
<b>Cat. No.</b>	<b>AAH841102K</b>	<b>AAH841112K</b>

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

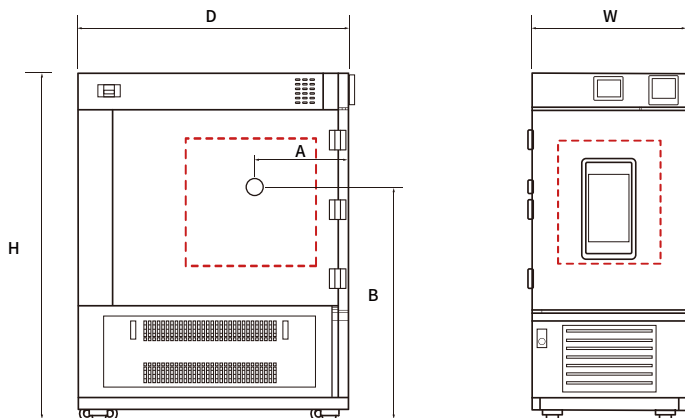
※ Permissible environmental conditions are 18 - 30°C (recommended 20°C), 85% RH or less, under 2000m above sea level.

※ 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.

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



## Dimension

Model	TH3-E-200	TH3-E-400
<b>W (mm / inch)</b>	655 / 25.8	755 / 29.7
<b>H (mm / inch)</b>	1495 / 58.9	1695 / 66.7
<b>D (mm / inch)</b>	1162 / 45.7	1322 / 52.0
<b>A (mm / inch)</b>	375 / 14.8	455 / 17.9
<b>B (mm / inch)</b>	985 / 38.8	1135 / 44.7