



Temperature & Humidity Chamber Basic type (TH3-E)
A cost-beneficial solution for limited test conditions, but stable in climate control.

FEATURES

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.

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

- Control and data processing by connecting up to 32 devices to PC at same time via RS-485 port.
- Reliable control with temperature/humidity auto-tuning and temperature calibration.
- 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 | 255 |
| Max. segments / pattern | 100 |
| Available max. segments | 2000 |
| Programmable process time / segment | 99 hour 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.

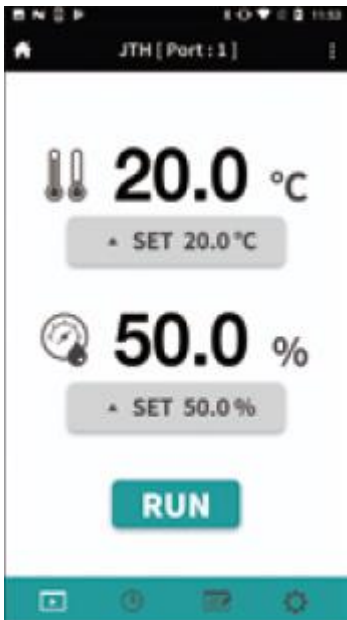


Large LCD touch screen controller (5.6 inches)

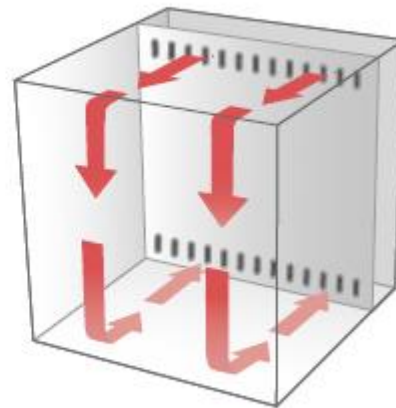
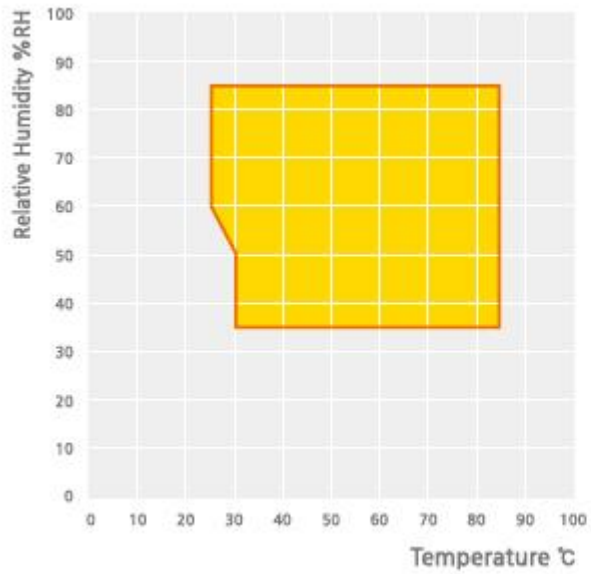


Tempered glass window with wire heater and LED lamp

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Remote monitoring and control via Lab Companion's app



SPECIFICATIONS

| Model | TH3-E-200 | TH3-E-400 |
|---|------------|------------|
| Interior dimensions | | |
| 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 / inch) | 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 | 60 / 132.3 |
| Cable port (Ø, mm / inch) | 50 / 2.0 | 50 / 2.0 |

| | | |
|--|------------------------|------------------------|
| Water tank capacity (L / cu ft) | 20 / 0.7 | 20 / 0.7 |
| Weight (kg / lbs) | 200 / 440.9 | 270 / 595.2 |
| Temperature data | | |
| Range without humidity (°C / °F) | 0 to 90 / 32 to 194 | 0 to 90 / 32 to 194 |
| Fluctuation (±°C / °F) ¹⁾ | 0.5 / 0.9 | 0.5 / 0.9 |
| Variation (±°C / °F) ¹⁾ | 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 |
| Humidity data (※ Ref.: Temp./ Humid. control range graph) | | |
| Range (%RH) | 35 to 85 | 35 to 85 |
| Fluctuation (±°C / °F) ¹⁾ | 1 | 1 |

| | | |
|--|-------------------|-------------------|
| Variation ($\pm^{\circ}\text{C}$ / $^{\circ}\text{F}$) ¹⁾ | 3 | 3 |
| Electrical data & Ordering information | | |
| Electrical requirements (AC230V, 1ph, 60 Hz) | 15A | 16A |
| Cat. No. | AAH841101K | AAH841111K |
| Electrical requirements (AC230V, 1ph, 50 Hz) | 15A | 16A |
| Cat. No. | AAH841102K | AAH841112K |

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

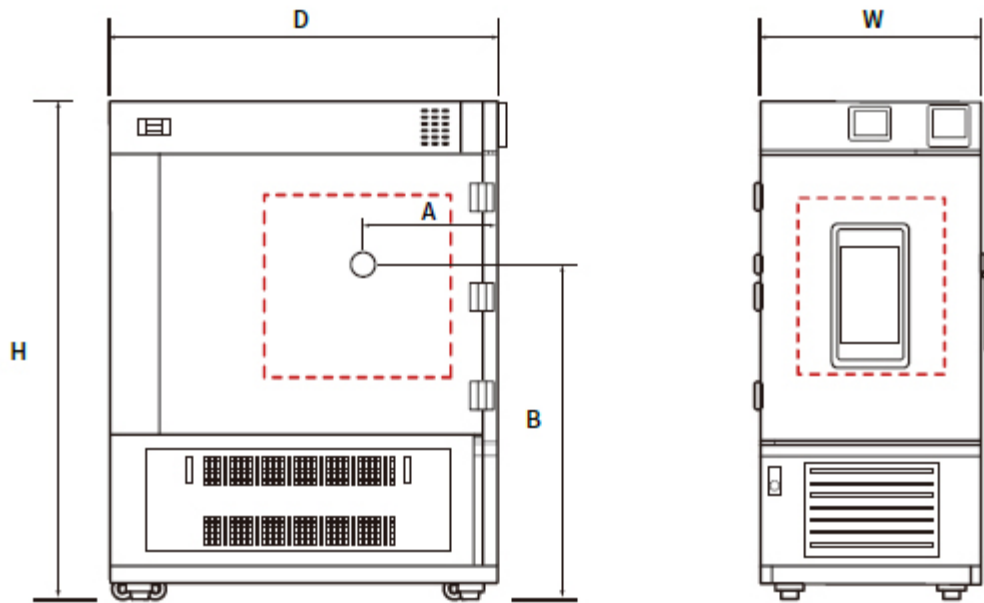
※ Permissible environmental conditions are 18 - 30°C (recommended 20°C), 85% RH or less, under 2000m above sea level.

※ The DI water condition is pH 6.2 - 7.2 and the electrical conductivity is less than 20 $\mu\text{S}/\text{cm}$.

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

| Model | TH3-E-200 | TH3-E-400 |
|----------------------|------------------|------------------|
| W (mm / inch) | 655 / 25.8 | 755 / 29.7 |
| D (mm / inch) | 1495 / 58.9 | 1695 / 66.7 |

| | | |
|----------------------|-------------|-------------|
| H (mm / inch) | 1162 / 45.7 | 1322 / 52.0 |
| A (mm / inch) | 375 / 14.8 | 455 / 17.9 |
| B (mm / inch) | 985 / 38.8 | 1135 / 44.7 |



ACCESSORIES

| 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-E-200 | AAA8T610 | AAA8T611 | EDA821 2 | AAA80602-1 | AAA80550 | AAA8T500 | AAA8T505 | AAA8T621 | AAA80620 | AAA81551 | N/A | N/A |
| TH3-E-400 | AAA8T610 | AAA8T611 | EDA821 4 | AAA80602-3 | AAA80550 | AAA8T500 | AAA8T505 | AAA8T621 | AAA80620 | AAA81552 | N/A | N/A |