

# Temperature & Humidity Chambers (Tabletop - TH-PE)

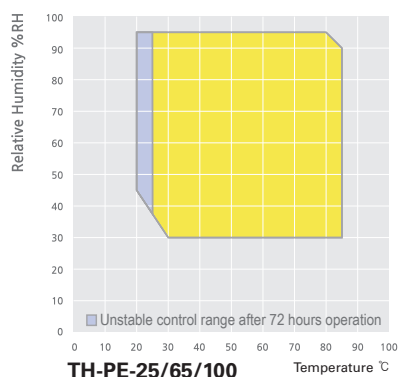


The best choice for the limited laboratory space!  
Tabletop chamber is beneficial for space efficiency.



## Control range

- Temperature range from 0 to 120 °C
- Humidity range from 30 to 95% RH

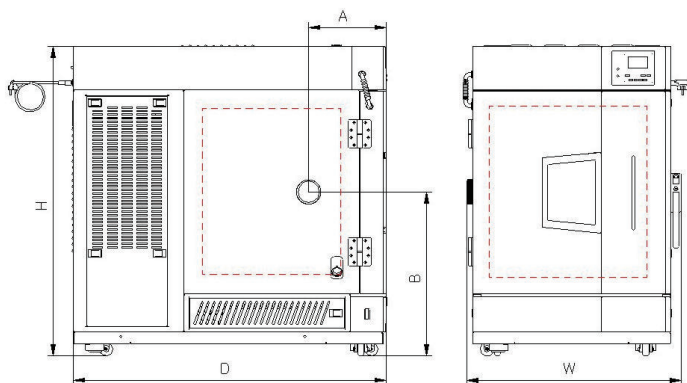


## TH-PE

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

**Optional accessories** • Two step stands, Direct water system  
see page 237

- ※ Above products design can be changed without prior notice.
- ※ Inner glass door is not equipped to the unit since 2013.



## Dimension

Model	TH-PE-25	TH-PE-65	TH-PE-100
<b>Capacity</b>	25L (0.9 cu ft)	65L (2.3 cu ft)	100L (3.53 cu ft)
<b>W</b>	522mm (20.6")	602mm (23.7")	760mm (29.9")
<b>D</b>	878mm (34.6")	1048mm (41.3")	1108mm (43.6")
<b>H</b>	919mm (36.2")	1056mm (41.6")	1096mm (43.1")
<b>A</b>	211mm (8.3")	276mm (10.9")	276mm (10.9")
<b>B</b>	495mm (19.5")	580mm (22.8")	580mm (22.8")

## Performance

- Microprocessor PID control / Temperature calibration / Automatic tuning.
- Uniform temperature and humidity control guarantees reliable test result.
- Air-tight door closure with perfect sealed packing.
  - Heat-resistant silicone packing completely blocks high heat leakage from the inner chamber.
- Maintenance of water supply is easily performed.
  - Water level condition is easy to check by the water level indicator on the front control panel.
- 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)

## Safety

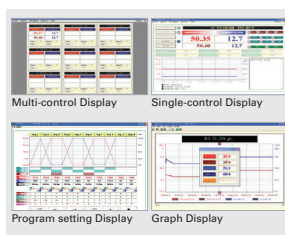
- Built in door lock with a key.
- Automatic shut off after overheat alarm.
- Low and empty water level alarm.
- Power supply leakage breaker.
- Over current protection.
- Open door alarm.

## Convenience

- Compact design and quite operation.
- Three different size models are available to suit user's need.
- Corrosion resistance stainless steel chamber.
- Operating condition is clearly noticed by front LED indicator.
  - Three different colored lights show each status of running, stop, and power off condition.
- Clear observation of samples.
  - Tempered glass window with wire heater and lighting provides a clear view of samples in the chamber, beneficial for during testing.
- 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)
- Two type of stands for space-saving. (optional)
  - Single stand with a drawer provides enough storage space.
  - Two step stand accepts loading two units to save limited space.
- User friendly LCD controller.
  - Set value and present value are clearly visible together on display.
  - Operating progress visible in graph mode allow for direct data interpretation.
  - Temperature and other operating parameters recorded with use of selectable recorder. (optional)
- Sufficient programmable control support.



LCD controller



Computer Interface



Door handle



Viewing window

Description	No
Programmable pattern capacity	10
pattern repeat time	999
Max. Segments per a pattern	100
Available max. segments*	100
Programmable process time per a segment	0 to 99 hr. 59 min.

\* Even though the max. segments per a pattern are 100, available total segments are up to 300 not 3000, so you need to arrange the number of segment and patterns properly.

- Computer interface.
  - 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.

# Temperature & Humidity Chambers (Tabletop - TH-PE)

Model		TH-PE-025	TH-PE-065	TH-PE-100
Chamber volume (L / cu ft)		25 / 0.9	65 / 2.3	100 / 3.5
Controller		Program controller (LCD type)		
Temperature	Range (°C / °F)	0 to 120 / 32 to 248 without humidity 15 to 90 / 59 to 194 with humidity		
	Fluctuation <sup>1)</sup> (±°C / °F) at 25°C / 60%RH	0.2 / 0.36	0.3 / 0.54	0.2 / 0.36
	Variation <sup>1)</sup> (±°C / °F) at 25°C / 60%RH	0.3 / 0.54		
Time	Heating - without humidity (min.) from 0°C to 120°C	40		
	Cooling - without humidity (min.) from 20°C to 0°C	30		
Humidity	Range (%RH)	30 to 95 ※ See page 228 for more detailed humidity range check.		
	Fluctuation <sup>1)</sup> (±%RH) at 60%RH / 55°C	1.6	0.4	0.5
	Variation <sup>1)</sup> (±%RH) at 60%RH / 55°C	3.0		
Refrigeration	System	Mechanical single stage refrigerator system (air-cooled condenser)		
	Refrigerant	R-404A		
Water tank	Capacity (L / cu ft)	75 / 0.26	10 / 0.35	14.5 / 0.51
	Water quality	pH6.2 ~ 7.2, Electrical conductivity 20°C / cm to below		
No. of wire shelves (standard / max.)		2 / 7	2 / 10	2 / 10
Distance of between shelves (mm / inch)		20 / 1.6	20 / 1.6	20 / 1.6
Max. load per shelf (kg / lbs)		25 / 55.1	25 / 55.1	25 / 55.1
Permitted total load (kg / lbs)		65 / 143.3	65 / 143.3	65 / 143.3
Dimension (WxDxH)	Interior (mm / inch)	348×220×353 / 13.7×8.7×13.9	398×330×498 / 15.7×13×19.6	498×390×538 / 19.6×15.4×21.2
	External (mm / inch)	552×878×919 / 21.7×34.6×36.2	602×1048×1056 / 23.7×41.2×41.6	760×1108×1096 / 29.9×43.6×43.1
	Viewing window (mm / inch)	220×300 / 8.7×11.8		
	Net weight (kg / lbs)	80±5 / 176±11	110±5 / 242±11	130±5 / 286±11
Cable port		Basically one hole provided / ø 50mm (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, 1hp, 60Hz)		9.6A	12A	14.4A
<b>Cat. No.</b>		<b>AAH82211K</b>	<b>AAH82221K</b>	<b>AAH82231K</b>
Electrical requirements (230V, 1hp, 50Hz)		9.2A	11.1A	13.8A
<b>Cat. No.</b>		<b>AAH82212K</b>	<b>AAH82222K</b>	<b>AAH82232K</b>

1) Technical data according to DIN 12880, IEC 60068.

\* 80mm cable access hole is NOT available for 25L chamber (TH-PE-025).

\* Above the dimensions are NOT included size of attached accessories.

※ Permissible environmental conditions: temperature (18 to 30°C) and relative humidity (up to 85%).

※ All specifications are under ambient temperature 20°C (68°F), No load.

※ FDA establishment registered company. FDA listed products.

## for Tabletop Chambers

### Accessory check list

 Standard     Optional

Description	Models		
	TH-KE	TH-ME	TH-PE
Portable recorder (6 points)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Portable recorder (digital, 6 channels)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
interface converter RS-485C → 232C included a cable (5m / 16.4ft)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interface cable (5m / 16.4ft)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Warning signal lamp	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Viewing window	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wire shelf	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perforated shelf	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cable port (Ø 50mm / 2.0")	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cable port (Ø 80mm / 3.2") <sup>1)</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Two step stand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Temperature sensor (RTD type)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Humidity sensor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water purifier	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Direct water system	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

1) 80mm cable access hole is NOT available for 25L chamber.

### Ordering information

Cat. No.	Description	Suitable for
<b>AAA8T504</b>	Portable recorder (6 points)	All models
<b>AAA8T506</b>	Portable recorder (digital, 6 channels)	All models
<b>AAA8T540</b>	Interface converter RS-485C → 232C Included a cable (5m / 16.4ft)	All models
<b>AAA8T542</b>	Interface cable (5m / 16.4ft)	All models
<b>AAA80550</b>	Warning signal lamp	All models
<b>RTD679</b>	Wire shelf	TH-KE/ME/PE-025
<b>RTD680</b>		TH-KE/ME/PE-065
<b>RTD681</b>		TH-KE/ME/PE-100, TH-PF-100
<b>AAA80602-6</b>	Perforated shelf	TH-KE/ME/PE-025
<b>AAA80602-7</b>		TH-KE/ME/PE-065
<b>AAA80602-8</b>		TH-KE/ME/PE-100, TH-PF-100
<b>AAA8T610</b>	Cable port (Ø 50mm / 2.0")	TH-KE/ME/PE/PF Models
<b>AAA8T611</b>	Cable port (Ø 80mm / 3.2")	TH-KE/ME/PE/PF Models <sup>1)</sup>
<b>AAA80631</b>	Stand	TH-KE/ME/PE-025
<b>AAA80632</b>		TH-KE/ME/PE-065
<b>AAA80633</b>		TH-KE/ME/PE-100, TH-PF-100
<b>AAA80634</b>		TH-KE/ME/PE-025
<b>AAA80635</b>	Two step stand	TH-KE/ME/PE-065
<b>CFA1923</b>	Temperature sensor (RTD type)	All models
<b>CFA7113</b>	Humidity sensor	All models
<b>AAA8T621</b>	Water purifier	All models
<b>AAA80620</b>	Direct water system	All models

1) 80mm cable access hole is NOT available for 25L chamber.