

Temperature & Humidity Chambers (Tabletop - TH-KE)

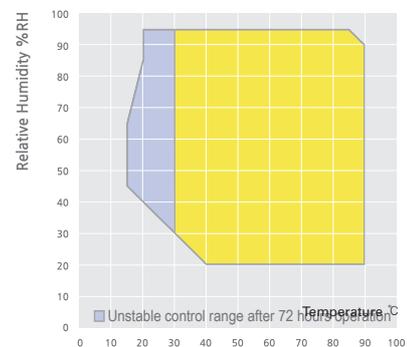


Various environmental tests can be performed due to wide temperature and humidity control range.



Control range

- Temperature range from -40 to 150°C
- Humidity range from 20 to 95% RH



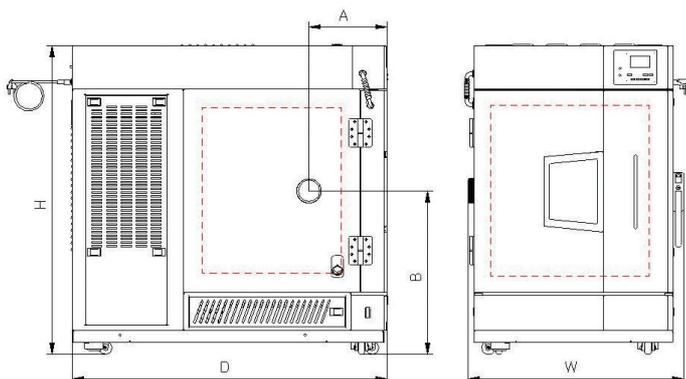
TH-KE-25/65/100

TH-KE

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-KE-25	TH-KE-65	TH-KE-100
Capacity	25L (0.9 cu ft)	65L (2.3 cu ft)	100L (3.53 cu ft)
W	522mm (20.6")	602mm (23.7")	760mm (29.9")
D	878mm (34.6")	1048mm (41.3")	1108mm (43.6")
H	919mm (36.2")	1056mm (41.6")	1096mm (43.1")
A	211mm (8.3")	276mm (10.9")	276mm (10.9")
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

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.



Stand with caster (optional)

Temperature & Humidity Chambers (Tabletop - TH-KE)

Model		TH-KE-025	TH-KE-065	TH-KE-100
Chamber volume (L / cu ft)		25 / 0.9	65 / 2.3	100 / 3.5
Controller		Program controller (LCD type)		
Temperature ¹⁾	Range (°C / °F)	-40 to 150 / -40 to 302 without humidity 15 to 90 / 59 to 194 with humidity		
	Fluctuation ²⁾ (±°C / °F) at 50°C / 60%RH	0.4 / 0.72	0.4 / 0.72	0.3 / 0.54
	Variation ²⁾ (±°C / °F) at 50°C / 60%RH	0.3 / 0.54	0.4 / 0.72	0.4 / 0.72
Time	Heating - without humidity (min.) from -40°C to 100°C	60		
	Cooling - without humidity (min.) from 20°C to -40°C	65	92	90
Humidity	Range (%RH)	20 to 95 * See page 222 for more detailed humidity range check.		
	Fluctuation ²⁾ (±%RH) at 60%RH / 50°C	4.1	2.8	1.8
	Variation ²⁾ (±%RH) at 60%RH / 50°C	0.9	1.0	1.2
Refrigeration	System	Mechanical single stage refrigerator system (air-cooled condenser)		
	Refrigerant	R-507A		
Water tank	Capacity (L / cu ft)	7.5 / 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)	348x220x353 / 13.7x8.7x13.9	398x330x498 / 15.7x13x19.6	498x390x538 / 19.6x15.4x21.2
	External (mm / inch)	552x878x919 / 21.7x34.6x36.2	602x1048x1056 / 23.7x41.2x41.6	760x1108x1096 / 29.9x43.6x43.1
	Viewing window (mm / inch)	220x300 / 8.7x11.8		
	Net weight (kg / lbs)	110 ±10 / 242.5 ±22	140 ±10 / 308.6 ±22	150 ±10 / 330.7 ±22
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 (AC230V, 1ph, 60Hz)		10.1A	12.4A	16A
Cat. No.		AAH82411K	AAH82421K	AAH82431K
Electrical requirements (AC230V, 1ph, 50Hz)		9.7A	11.8A	15.6A
Cat. No.		AAH82412K	AAH82422K	AAH82432K

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

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

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

* Recommended ambient temperature: +20°C(68°F).

* 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") ¹⁾	<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
AAA8T504	Portable recorder (6 points)	All models
AAA8T506	Portable recorder (digital, 6 channels)	All models
AAA8T540	Interface converter RS-485C → 232C Included a cable (5m / 16.4ft)	All models
AAA8T542	Interface cable (5m / 16.4ft)	All models
AAA80550	Warning signal lamp	All models
RTD679	Wire shelf	TH-KE/ME/PE-025
RTD680		TH-KE/ME/PE-065
RTD681		TH-KE/ME/PE-100, TH-PF-100
AAA80602-6	Perforated shelf	TH-KE/ME/PE-025
AAA80602-7		TH-KE/ME/PE-065
AAA80602-8		TH-KE/ME/PE-100, TH-PF-100
AAA8T610	Cable port (Ø 50mm / 2.0")	TH-KE/ME/PE/PF Models
AAA8T611	Cable port (Ø 80mm / 3.2")	TH-KE/ME/PE/PF Models ¹⁾
AAA80631	Stand	TH-KE/ME/PE-025
AAA80632		TH-KE/ME/PE-065
AAA80633		TH-KE/ME/PE-100, TH-PF-100
AAA80634	Two step stand	TH-KE/ME/PE-025
AAA80635		TH-KE/ME/PE-065
CFA1923	Temperature sensor (RTD type)	All models
CFA7113	Humidity sensor	All models
AAA8T621	Water purifier	All models
AAA80620	Direct water system	All models

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