

Temp. & Humid. Chambers

Temp. & Humid. Chambers (Tabletop Models)

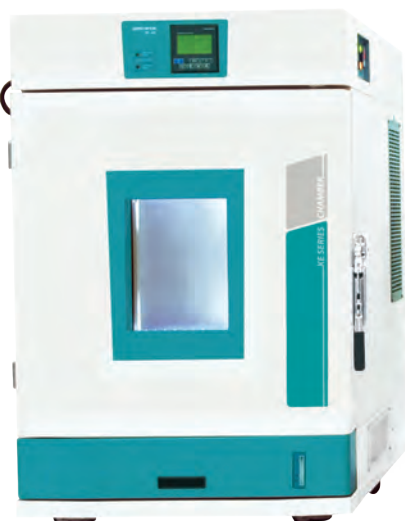


Please visit JEIOTECH.com

For further information on Jeio Tech's Temperature & Humidity Chamber products
Information is readily available on our website.



CE Certification only for TH-ME / PE models



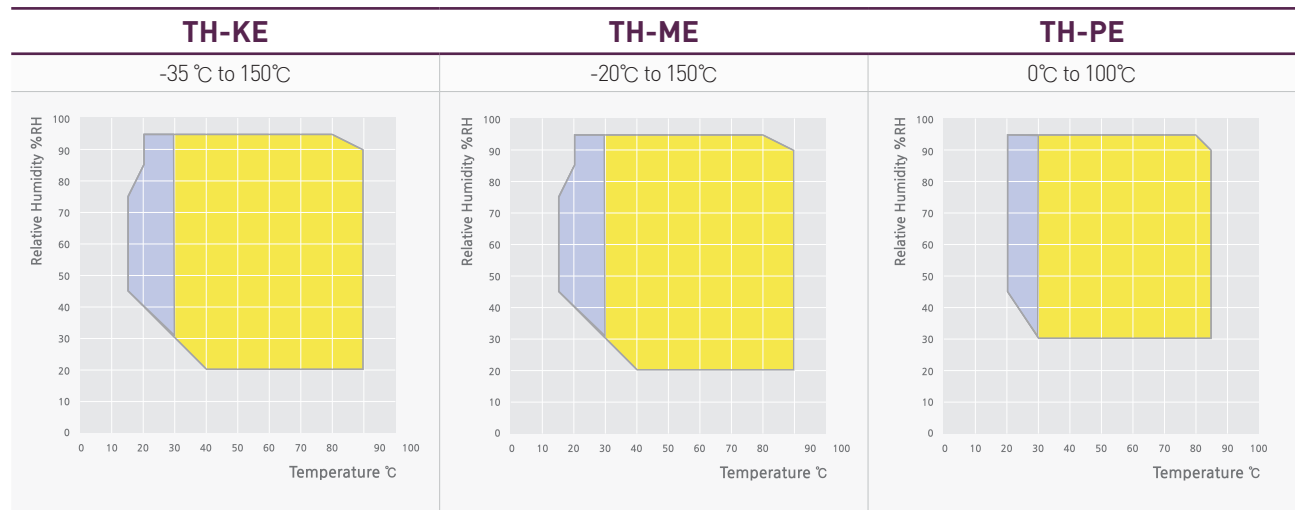
TH-ME/KE/PE Models
with optional Viewing Windows

※ In the year of 2013, this products design can be changed without prior notice.

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Temperature & Humidity Control Range



■ Discontinuous temperature and humidity operation..

➤ TH-KE (25 to 100L)

- 45~75% RH at 15°C
- 20~95% RH at 40~80°C
- 20~90% RH at 90°C

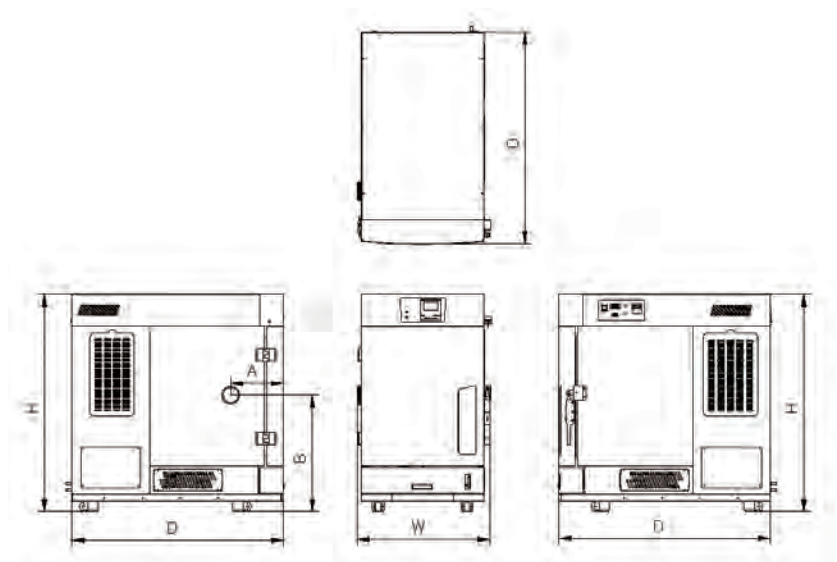
➤ ME (25 to 100L)

- 45~75% RH at 15°C
- 20~95% RH at 40~80°C
- 20~90% RH at 90°C

➤ TH-PE (25 to 100L)

- 45~95% RH at 20°C
- 30~95% RH at 30~80°C
- 30~90% RH at 85°C

Dimension (TH-KE / ME / PE Models)



Models	Capacity	W	D	H	A	B
TH-KE	25L (0.9 cu ft)	610mm (24")	875mm (34.4)	920mm (36.2")	220mm (8.7")	498mm (19.6")
TH-ME	65L (2.3 cu ft)	660mm (26")	1040mm (40.9)	1065mm (41.9")	258mm (10.2")	570mm (22.4")
TH-PE	100L (3.53 cu ft)	760mm (29.9")	1110mm (43.7)	1085mm (42.7")	318mm (12.5")	56.3mm (22.2")

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Operating & Constructional Features



Stainless Steel Inner Chamber



Controller



Portable Digital Recorder (optional)

Constructional Features

- Small size and light weight.
 - Compact design with high performance.
 - Choose from 9 different model chambers based on size and temperature preference.
 - The series comes in 3 different models based on temp. and humid. ranging in -35°C to 150°C, -20°C to 120°C, -0°C to 120°C / upmost 20 to 95% RH and three different volume capacities of 20L, 65L, 100L.
 - Efficient system with durable materials.
 - The evaporating system for better thermal efficiency with corrosion-resistant materials.
 - The heating system with minimized potential heat when heating or cooling for prompt reaction time and advanced performance.
 - Water tank for easy water supply.
 - Maintenance can be done easily from the front side.
 - Viewing window.
 - A tempered glass window provides a clear view of samples in the chamber, beneficial during testing.
 - Cable port for external probes or wires.
 - 50mm diameter cable port comes standard on the left side of the unit. Additional 50mm or 80mm diameter cable ports can be custom ordered. (optional)
 - Optional stand for space-saving layout.
 - For use in limited spaces: stand and casters.
- ※ Be sure to secure the stand onto floor with earthquake resistant fitting for your safety when using stand.

Safety Features

- Leakage breaker for power supply.
- Over current protection.
- Overheat protection.
- Switch-off after alarm for over heating.
- Door open alarm.
- Water empty alarm. (TH-KE / ME / PE)

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► Operating Features

- Microprocessor PID control / Auto-tuning / Calibration.
- Digital LCD display with touch-sensitive keys.
- Easy operation with wide LCD screen.
 - Temperature and humidity / timer settings and operating condition.
- Program patterns are memorized for 10 years due to a battery built into the PCB.
- Expansion parameter inputs. (displayed by letters)
- Programming operation

Description	TH-KE / ME / PE
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.

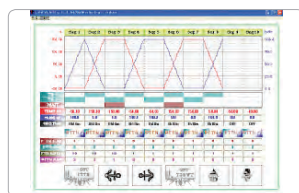
- Computer interface. (optional)
 - Software provided
 - Save data in excel format.
 - Storage of program information, backup of value settings / recovery, and temperature and humidity values.
 - RS-232C port as standard offer.
- Chart Recorder. (optional)
 - 6 point dot type recorder with digital display.
- RS-485 communication port offers a maximum of 9 temp. and humidity chambers to be connected by one PC. (optional)



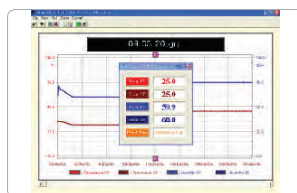
Multi-control Display



Single-control Display



Program setting Display



Graph Display



WaterTank



Stand with Caster (optional)

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Specifications & Ordering Information



Model		TH-KE-025	TH-KE-065	TH-KE-100
Chamber Volume (L / cu ft)		25 / 0.9	65 / 2.3	100 / 3.53
Controller		Program controller (LCD type)		
Temperature ¹⁾	Range (°C / °F)	-35 to 150 / -31 to 302 without humidity +15 to 90 / 59 to 194 with humidity		
	Fluctuation ²⁾ (±°C / °F) at 50°C / 60%RH	0.5 / 0.90		
	Variation ²⁾ (±°C / °F) at 50°C / 60%RH	1 / 1.8		
Time	Heating ³⁾ → without Humidity (Min.)	60 (-40°C → 100°C)		
	Cooling ³⁾ → without Humidity (Min.)	70 (25°C → -35°C)		
Humidity	Range (%RH)	FULL RANGE : 20 to 95 45 to 75 at 15°C (59°F) 40 to 95 at 20°C (68°F) 20 to 95 at 40 to 80°C (104 to 176°F) 20 to 90 at 90°C (194°F)		
	Fluctuation ²⁾ (±%RH) at 60%RH / 50°C	2		
	Variation ²⁾ (±%RH) at 60%RH / 50°C	3		
Refrigeration	System	Mechanical single stage refrigerator system (air-cooled condenser)		
	Refrigerant	R-404A		
	Capacity (W)	470	656	750
Cooler		Plate fin cooler (cooper)		
Heater	Material	Ni-Cr Wire Heater/SUSTUBE Heater		
	Drying Bulb (W)	800	1000	1200
	Humidity Bulb (W)	800	1000	1200
Sensor	Temperature	Pt 100		
	Humidity	Electronic sensor - Free of drying a wet pack and good reaction time		
Air Flow (sirocco fan)		60W×2EA	60W×2EA	60W×2EA
Material	Internal	Stainless steel #304 (2B polish)		
	External	SUS #304 & Steel, 0.8t, Double painted & baked		
	Insulation	Polyurethane foam 100mm [3.94"]		
	Door	Glasswool		
Water Tank	Capacity (L / cu ft)	6.0 / 0.21	7.5 / 0.26	10.0 / 0.35
	Quality	pH6.2 ~ 7.2, Electrical conductivity 20°C / cm to below		
Interface Port		Basically RS-232C, [RS-485: optional]		
Cable Port		Basically one hole provided / Ø 50mm (2") Optionally max. two holes available/ Ø 50 or 80mm (2 or 3.2")		
Dimension (W×D×H)	Internal (mm / inch)	350×220×350 / 13.8×8.7×13.8	400×330×495 / 15.7×13×19.5	500×380×530 / 19.7×15×20.9
	External (mm / inch)	610×875×920 / 24×34.4×36.2	660×1040×1065 / 26×40.9×41.9	760×1110×1085 / 29.9×43.7×42.7
	Net Weight (kg / lbs)	110 ±10 / 242.5 ±22	140 ±10 / 308.6 ±22	150 ±10 / 330.7 ±22
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.

3) Up to 98% of the set value.

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

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

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Specifications & Ordering Information



Model		TH-ME-025	TH-ME-065	TH-ME-100
Chamber Volume (L / cu ft)		25 / 0.9	65 / 2.3	100 / 3.53
Controller		Program controller (LCD type)		
Temperature	Range (°C / °F)	-20 to 120 / -4 to 248 without humidity		
	Fluctuation ¹⁾ (±°C / °F) at 25°C / 60%RH	0.5°C / 0.9		
	Variation ¹⁾ (±°C / °F) at 25°C / 60%	1.0 / 1.8	1.0 / 1.8	1.0 / 1.8
Time	Heating - without Humidity (Min.)	55 From -15°C to 120°C (5°F to 248°F)		
	Cooling - without Humidity (Min.)	60 From 20°C to -15°C (68°F to 5°F) on single point control *		
Humidity	Range (%RH)	FULL RANGE : 20 to 95 45 to 75% at 15°C (59°F) 40 to 95% at 20°C (68°F) 20 to 95% at 40 to 80°C (104 to 176°F) 20 to 90% at 90°C (194°F)		
	Fluctuation ¹⁾ (±%RH) at 60%RH / 55°C	1.6	1.0	1.0
	Variation ¹⁾ (±%RH) at 60%RH / 55°C	3	3	3
Refrigeration	System	Mechanical single stage refrigerator system (air-cooled condenser)		
	Refrigerant	R-404A		
	Capacity (W)	250	250	375
Cooler		Plate fin cooler (cooper)		
Heater	Material	Ni-Cr Wire Heater / SUS sheath Heater		
	Drying Bulb (W)	800	1000	1200
	Humidity Bulb (W)	500	650	1000
Sensor	Temperature	Pt 100		
	Humidity	Electronic sensor - Free of drying a wet pack and good reaction time		
Material	Interior	Stainless steel #304		
	Exterior	SUS #304 & Steel, 0.8t, Double painted & baked		
	Insulation	Polyurethane foam 100mm [3.94"]		
	Door	Glass wool		
Air Flow (sirocco fan)		60W x 1EA		60W x 2EA
Water Tank	Capacity (L / cu ft)	6.0 / 0.21	7.5 / 0.26	10.0 / 0.35
	Water Quality	pH6.2 to 7.2 / Electrical conductivity 20°C/cm to below		
Dimension (WxDxH)	Interior (mm / inch)	350×220×350 / 13.8×8.7×13.8	400×330×495 / 15.7×13×19.5	500×380×530 / 19.7×15×20.9
	Exterior (mm / inch)	610×875×920 / 24×34.4×36.2	660×1040×1065 / 26×40.9×41.9	760×1110×1085 / 29.9×43.7×42.7
	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 (Maximum 999 Units Control) - optional]		
Electrical Requirements (230V, 1ph, 60Hz)		9.6A	12A	14.4A
Cat. No.		AAH82111K	AAH82121K	AAH82131K
Electrical Requirements (230V, 1ph, 50Hz)		9.2A	11.1A	13.8A
Cat. No.		AAH82112K	AAH82122K	AAH82132K

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

* 80mm cable access hole is NOT available for 25L chamber. (TH-ME-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.

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Specifications & Ordering Information



Model		TH-PE-025	TH-PE-065	TH-PE-100
Chamber Volume (L / cu ft)		25 / 0.9	65 / 2.3	100 / 3.53
Controller		Program controller (LCD type)		
Temperature	Range (°C / °F)	0 to 120 / 32 to 248 - without humidity		
	Fluctuation ¹⁾ (±°C / °F) at 25°C / 60%RH	0.5 / 0.9		
	Variation ¹⁾ (±°C / °F) at 25°C / 60%	1.0 / 1.8	1.0 / 1.8	1.0 / 1.8
Time	Heating - without Humidity (Min.)	40 From 0°C to 120°C (32°F to 248°F)		
	Cooling - without Humidity (Min.)	30 From 20°C to 0°C (68°F to 32°F) on single point control *		
Humidity	Range (%RH)	FULL RANGE : 30 to 95 45 to 95 at 20°C (68°F) 30 to 95 at 30 to 80°C (86 to 176°F) 30 to 90 at 85°C (185°F)		
	Fluctuation ¹⁾ (±%RH) at 60%RH / 55°C	1.6	1.0	1.0
	Variation ¹⁾ (±%RH) at 60%RH / 55°C	3	3	3
Refrigeration	System	Mechanical single stage refrigerator system (air-cooled condenser)		
	Refrigerant	R-404A		
	Capacity (W)	250	250	375
Cooler		Plate fin cooler (cooper)		
Heater	Material	Ni-Cr Wire Heater/ SUS sheath Heater		
	Drying Bulb (W)	800	1000	1200
	Humidity Bulb (W)	500	650	1000
Sensor	Temperature	Pt 100		
	Humidity	Electronic sensor - Free of drying a wet pack and good reaction time		
Material	Interior	Stainless steel #304		
	Exterior	SUS #304 & Steel, 0.8t, Double painted & baked		
	Insulation	Polyurethane foam 100mm [3.94"]		
	Door	Glass wool		
Air Flow (sirocco fan)		60W x 2EA	60W x 2EA	60W x 2EA
Water Tank	Capacity (L / cu ft)	6.0 / 0.21	7.5 / 0.26	10.0 / 0.35
	Water Quality	pH6.2 ~ 7.2, Electrical conductivity 20°C / cm to below		
Dimension (WxDxH)	Interior (mm / inch)	350×220×350 / 13.8×8.7×13.8	400×330×495 / 15.7×13×19.5	500×380×530 / 19.7×15×20.9
	Exterior (mm / inch)	610×875×920 / 24×34.4×36.2	660×1040×1065 / 26×40.9×41.9	760×1110×1085 / 29.9×43.7×42.7
	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 (Maximum 999 Units Control) - optional]		
Electrical Requirements (230V, 1hp, 60Hz)		9.6A	12A	14.4A
Cat. No.		AAH82211K	AAH82221K	AAH82231K
Electrical Requirements (230V, 1hp, 50Hz)		9.2A	11.1A	13.8A
Cat. No.		AAH82212K	AAH82222K	AAH82232K

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%).

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