



Optimal photosynthesis condition guaranteed when using our plant growth chamber.

Ample capacity, maximum capacity of 1000L to satisfy user's plant growth needs



### GC-1000TLH / GC-300TLH

with optional recorder

#### Standard accessories

- Inner glass door, Wire shelves

#### Optional accessories

- Perforated shelves, CO<sub>2</sub> sensors

see page 245

### Optimal photosynthesis condition for plant growth.

- ▶ Uniform temperature and humidity. (TLH models)
- ▶ Reinforced Blue and Red spectrums lighting system for plant photosynthesis.
- ▶ Optional CO<sub>2</sub> sensor (optional)
- ▶ Programmable temperature, humidity, and lighting.
- ▶ Progressive temperature, humidity, illumination program control for optimization of plant growth environment for night and day.

## Performance

### General control system

- 5°C to 50°C (lamp off) / 10°C to 50°C. (lamp on)
- Max. to 35,000Lux for GC-1000.  
Max. to 20,000Lux for GC-300 Models.
- 40 to 80% RH for GC-300TLH. (at 20 to 35°C)  
50 to 90% RH for GC-1000TLH. (at 20 to 35°C)
- Max. 5,000ppm CO<sub>2</sub> on/off system. (optional)
- Microprocessor PID control / Temperature calibration / Automatic tuning
- 10 step programmable temperature, humidity, and illumination profiles and repeatable steps of up to 999 cycles.
- Advanced performance of low and high temperature and humidity control, achieved by adapting the humidification tank exterior to the chamber, added benefit for long term test.

### Illuminance control system

- Uniformed luminescence distribution.
- Broad distribution of side lamps for hastening the growth of plants.
- High intensity illumination of upper lamp for light efficient and low thermal load. (for GC-1000TLH/1000TL)
- Unique construction for minimization of heat increase from surrounding lamps.
  - Tempered glass door blocks heated air from lamps.
  - Designed to exhaust heated air through upper vent holes. (for GC-1000TLH)
- Stable and long lasting lighting through introduction of high frequency electronic ballast lamps.

## Convenience

- Ergonomically designed door construction.
  - Inner glass door with silicone and external door with magnetic sealing for dual airtight packing.
  - Well designed providing a smooth open for minimization of damage to plants.
- Wide inner tempered glass door for clear observation of plant growth without affecting inner chamber's environment.
- Tall plants can be grown inside of the chamber with adjustment of shelf level.
- Maintenance of water supply are easily performed with a front water tank. (GC-1000TLH)
  - Water level check indicated by water level bar in the tank.
- Water supply during operation is also available for long term test purposes.
- Adjustable water tank position. (for GC-300TLH)
- Detachable condenser air-filter for easy maintenance of refrigerating efficiency.
  - Maintenance of air filter no longer cumbersome with our detachable condenser air filter.

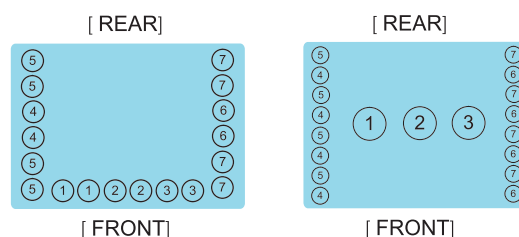
- Casters for easy mobility during installation or relocation.
- Eco-friendly CFC-free refrigerant use.

## Safety

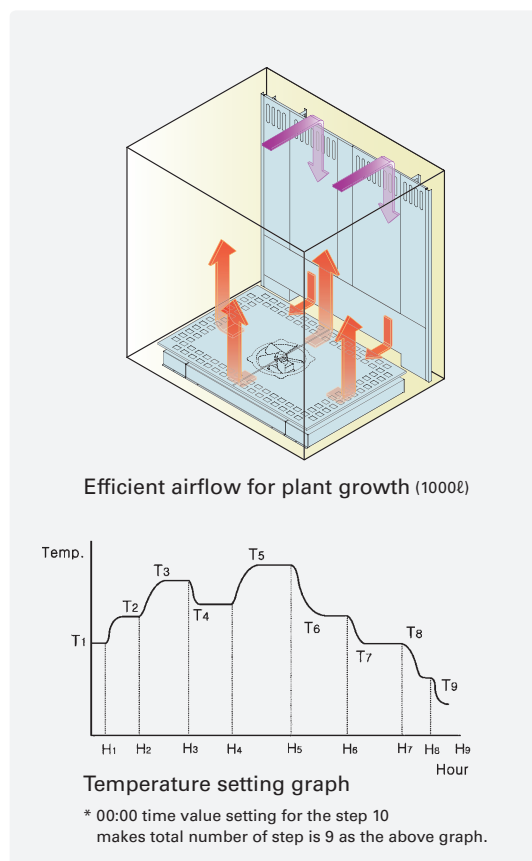
- Automatic shut off after overheat alarm.
- Low and empty water level alarm.
- Power supply leakage breaker.
- Over current protection,
- Open door alarm.

## Lamps setting

- Control illumination values with the below lamp setting arrangements.



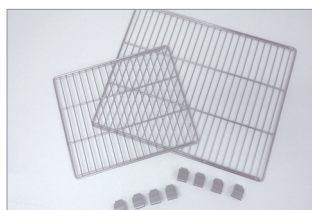
GC-300 lamp arrangement GC-1000 lamp arrangement



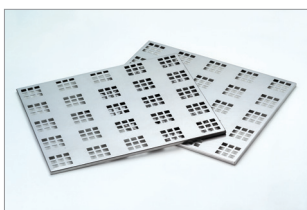
Model		GC-300TL		GC-300TLH		GC-1000TLH	
Chamber volume (L / cu ft)		300 / 10.6				1000 / 35.3	
Control system		Microprocessor PID controller					
Temperature	Range (°C / °F)	5 to 50 / 41 to 122 - Lamp off					
		10 to 50 / 50 to 122 - Lamp on					
		20 to 50 / 68 to 122 - with humidity					
	Fluctuation (±°C / °F) at 25°C	0.4 / 0.72 - without humidity					
	Variation (±°C / °F) at 25°C	1.0 / 1.8 - without humidity					
Illumination	Range (Lux)	0 to 20,000				0 to 35,000	
	Control (steps)	10				11	
	Lamp	FI lamp (32W×18ea)				FL lamp (32W×16ea) Metal lamp (400W×3ea)	
Humidity	Range (% RH)	-	40 to 80 at 20 to 35°C		50 to 90 at 20 to 35°C		
			70 to 90 at 36 to 50°C		60 to 90 at 36 to 50°C		
	Fluctuation (±RH) at 60% RH	-	3				
CO <sub>2</sub> (optional)	Range (ppm)	Max. 5,000					
	Sensor	NDIR CO <sub>2</sub> sensor					
Refrigerant (HP)		1/2				3/4	
Temp. heater power (W)		750×2ea				1,500×2ea	
Humid. heater power (W)		-		1800			
Dimension (W×D×H)	Interior (mm / inch)	510×540×1100 / 20×21.3×43.3				1200×800×1080 / 47.2×31.5×42.5	
	Exterior (mm / inch)	700×760×1930 / 27.6×29.9×76		700×920×1930 / 27.6×36.2×76		1410×1068×2160 / 55.5×42×85	
	Net weight (kg / lbs)	250 / 551.2				550 / 1212.5	
Electrical requirements (230V)		60Hz / 15A	50Hz / 15A	60Hz / 15A	50Hz / 15A	60Hz / 17A	50Hz / 17A
Cat. No.		AAHA1011K	AAHA1012K	AAHA1021K	AAHA1022K	AAHA1031K	AAHA1032K

※ FDA establishment registered company. FDA listed products.

## Accessories & Options



Wire shelves



Perforated shelves



Recorder (dot type)



CO<sub>2</sub> sensor

Model	Wire shelves			Perforated shelves		
	Cat. No.	Dimension (W×L, mm / inch)	No. of shelves (standard/max.)	Cat. No.	Dimension (W×L, mm / inch)	No. of shelves (max.)
GC-300TL	EDA8220	466×490 / 18.3×19.3	3 / 14	AAA22522	466×490 / 18.3×19.3	14
GC-300TLH	EDA8220		3 / 14	AAA22522		14
GC-1000TLH	EDA8222	580×770 / 2.8×30.3	6 / 29	AAAA1512	580×770 / 22.8×30.3	29
Model	Recorder			CO <sub>2</sub> sensor		
	Cat. No.			Cat. No.		
GC-300TL	AAAA1501			AAAA1521		
GC-300TLH	AAAA1501			AAAA1521		
GC-1000TLH	AAAA1502			AAAA1521		