

Plant Growth Chamber

Provision of optimum photosynthesis conditions for plant growth



GC-1000TLH



GC-300TLH

Optimal photosynthesis condition for plant growth.

- Uniform temperature and humidity. (TLH models)
- Reinforced Blue and Red spectrums lighting system for plant photosynthesis.
- Optional CO₂ sensor. (option)
- Programmable temperature, humidity, and lighting.
- Progressive temperature, humidity, illumination program control for optimization of plant growth environment for night and day.

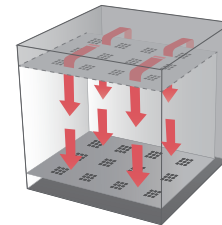
Structural Functional Features

General control system

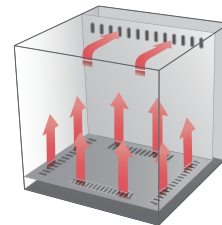
- 5°C to 50°C (lamp off) / 10°C to 50°C. (lamp on)
- Max. to 35,000Lux for GC-1000.
Max. to 20,000Lux for GC-300 Models.
- 40 to 80% RH for GC-300TLH. (at 20 to 35°C)
50 to 90% RH for GC-1000TLH. (at 20 to 35°C)
- Max. 5,000ppm CO₂ on/off system. (option)
- Microprocessor PID control / Temperature calibration / 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.



GC-300



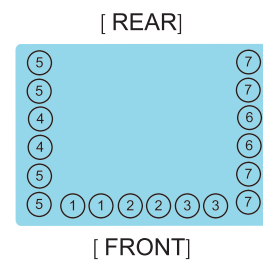
GC-1000

Outstanding Safety

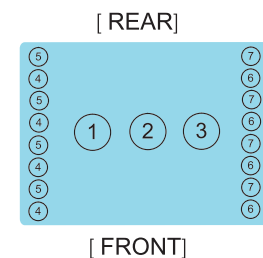
- Automatic shut off after overheat alarm.
- Low and empty water level alarm.
- Power supply leakage breaker.
- Over current protection.
- Open door alarm.

Lamps setting

- Control illumination values with the below lamp setting arrangements.



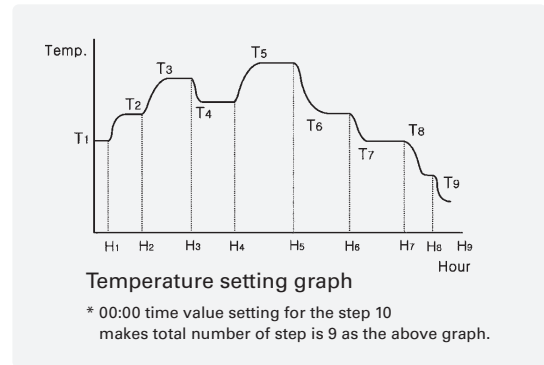
GC-300 lamp arrangement



GC-1000 lamp arrangement

Use Convenience Features

- 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.

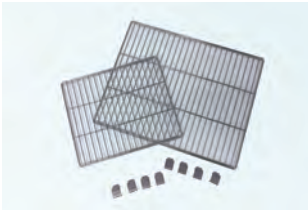


Specification

Model		GC-300TL	GC-300TLH	GC-1000TLH
Chamber volume (L / cu ft)		300 / 10.6	300 / 10.6	1000 / 35.3
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 at 25°C (±°C / °F)	0.4 / 0.72 - without humidity		
	Variation at 25°C (±°C / °F)	1.0 / 1.8 - without humidity		
Humidity	Range (%RH)	-	40 to 80 at 20 to 35°C 70 to 90 at 36 to 50°C	50 to 90 at 20 to 35°C 60 to 90 at 36 to 50°C
	Fluctuation at 60%RH (±%RH)	-	3	3
Illumination	Range (Lux)	0 to 20000	0 to 20000	0 to 35000
	Control (steps)	10	10	11
	Fluorescent lamp (W)	32 x 18ea	32 x 18ea	32 x 16ea
	Metal lamp (W)	-	-	400 x 3ea
CO₂ (Option)	Range	750 to 5000	750 to 5000	750 to 5000
	Sensor	NDIR CO ₂ sensor	NDIR CO ₂ sensor	NDIR CO ₂ sensor
Dimensions	Interior (W x D x H, mm / inch)	510 x 540 x 1100 / 20 x 21.3 x 43.3	510 x 540 x 1100 / 20 x 21.3 x 43.3	1200 x 800 x 1080 / 47.2 x 31.5 x 42.5
	Exterior (W x D x H, mm / inch)	700 x 805 x 1900 / 27.6 x 31.7 x 74.8	700 x 805 x 1900 / 27.6 x 31.7 x 74.8	1410 x 1070 x 2150 / 55.5 x 42.1 x 84.6
	Net weight (Kg / lbs)	250 / 551.2	250 / 551.2	550 / 1212.5
Electrical requirements (230V, A)		50/60Hz, 12.5	50/60Hz, 16	50Hz, 23.2 60Hz, 30
Cat. No.		AAHA1012K	AAHA1022K	AAHA1032K AAHA1031K

Accessories **Page 95** Wire Shelves, Perforated Shelves, Recorder, CO₂ Sensor

Accessories for Incubator



Wire Shelf

- Excellent corrosion resistance as made of stainless steel.
- Excellent air permeability and uniform temperature distribution.



Perforated Shelf

- Porous structure made of stainless steel.
- Solid structure makes it suitable for high load samples.



Recorder (Dot)

- 6-channel graph-type temperature recorder.
- Adjustable recording range, speed, etc.



CO₂ Sensor

- Dedicated sensor for CO₂ measurement
- Formation of optimal photosynthetic conditions

Model	Wire Shelves		Perforated Shelves		Recorder	CO ₂ Sensor
	Cat. No.	Quantity of shelves (standard/max.)	Cat. No.	Quantity of shelves (max.)	Cat. No.	Cat. No.
IB-05G	00EDA0008136	2 / 4	AAA12531	4	-	-
IB-15G	00EDA0008135	2 / 6	AAA12532	6	-	-
IB-25G	00EDA0008137	2 / 7	AAA12535	7	-	-
IM-10	00EDA0008244	2 / 4	AAA24511	4	-	-
IB-01E	00EDA0008136	2 / 5	AAA12531	5	-	-
IB-11E	00EDA0008220	2 / 7	AAA22522	7	-	-
IB-21E	00EDA0008219	2 / 7	AAA22521	7	-	-
IB-02G-2C/4C ¹⁾	00EDA0008136	2 / 4	AAA12531	4	-	-
ILP-02	00EDA0008223	1 / 6	AAA24501	6	-	-
ILP-12	00EDA0008221	2 / 13	AAA24502	13	-	-
IL3-15/15A	00EDA0008219	2 / 6	AAA22521	6	-	-
IL3-25/25A	00EDA0008220	3 / 13	AAA22522	13	-	-
IL-11-2C/4C ¹⁾	00EDA0008219	2 / 12	AAA12532	12	-	-
GC-300TL	00EDA0008220	3 / 14	AAA22522	14	AAAA1501	AAAA1521
GC-300TLH	00EDA0008220	3 / 14	AAA22522	14	AAAA1501	AAAA1521
GC-1000TLH	00EDA0008222	6 / 29	AAAA1512	29	AAAA1502	AAAA1521

1) Standard for each chamber

LC GreenBox

- Monitor and control the operation status of the product in real time via mobile app with an internet connection.

Model	Description	Dimension (mm / inch)	Cat. No.
IB-G / IL3 / ILP	Mobile Monitoring System	156 x 94 x 34 / 6.1 x 3.7 x 1.3	AAHQ1011K



Double-stacked bracket

- Incubator bracket for double stacked.

Model	Cat. No.	Model	Cat. No.
IB-05G	AAA21521	IB-01E	AAA26501
IB-15G	AAA21522	IB-11E	AAA26502
IB-25G	AAA21523	IB-21E	AAA26503