



# PLANT GROWTH CHAMBERS



## LGC Series

LGC Series of Growth Chambers are ideal for agriculture or biotechnology testing growth of plants in an artificial climatic condition. It controls temperature, relative humidity and illumination. The wide variety of temperatures and light intensity patterns that are essential in plant research can now be accurately reproduced and controlled with the updated range by Plant Growth Chambers.



### Features:

- Digital PID Controls Temperature, Humidity and Illumination.
- 11 Segments, 999 Cycles Programmable or Continuous Operation.
- Accurate temperature control by  $\pm 0.1^{\circ}\text{C}$  accuracy and  $\pm 0.5^{\circ}\text{C}$  uniformity.
- Humidity Control from 30 ~ 98 % RH by  $\pm 3$  % RH accuracy.
- Illumination from 0 ~ 20,000 Lux by 6 to 8 Steps of gradation (Option Max. 40,000 Lux).
- Maximum and uniform light distribution through the chamber.
- 3-Line back light LCD displays operating status and easy-to-input program pattern.
- Water level controller automatically supply and stop water for humidity control.
- Over temperature protection, low water level alarm, electrical leakage breaker.

### Specifications:

Model No.	LGC-300C		LGC-420C		LGC-960C	
Chamber Capacity	300 L		432 L		964 L	
Temperature	Heating type	Forced convection by silent coaxial fan				
	Range	+ 5 <sup>o</sup> C~ 60 <sup>o</sup> C (without illumination)				
	Accuracy	$\pm 0.1^{\circ}\text{C}$ at 20 <sup>o</sup> C				
	Uniformity	$\pm 0.8^{\circ}\text{C}$ at 20 <sup>o</sup> C				
Humidity	Humidifier type	Water boiler with immersed incolony sheath heater				
	Range	30% ~98% RH (Altitude less than 2,000 m)				
	Accuracy	$\pm 3.0\%$ at 60%				
	Uniformity	$\pm 6.0\%$ at 60%				
Illumination	Illumination type	Fluorescent lamp from 3-side light bank				
	Range	0~20,000 Lux (40,000 Lux Optional)				
	Control steps	6 steps		8 steps		
	Feature	Lamp-on-delay function by 1 minute of interval				
Control	Main controller	Digital programmable microprocessor PID controller				
	Program	11 Segment,999 cycle or continuous				
	Sensor	Pt 100 ? for temperature/Electronic sensor for humidity/Lux meter for illumination				
Safety Device	Temperature	Hydraulic over temperature protection /Low water level warning & cut-off				
	Electrical	Electrical leakage breaker				
Dimensions (W x D x H)mm	Inner	500 x 550 x 1200	600 x 600 x 1200	1200 x 600 x 1200		
	Outer	700 x 825 x 1880	790 x 875 x 1980	1390 x 875 x 1980		
	Clearance	710 x 835 x 1890	800 x 885 x 1990	1400 x 885 x 1990		
Material	Chamber	1.0 Gauge stainless steel polished (SUS 304)				
	External	Steel 1T with epoxy powder coating				
	Door	Internal tempered safety glass door and external door with magnetic packing				
	Utility	Water Inlet/Water outlet/Over flow /Drain.				
Catalog No.	28150101		28150102		28150103	

## LPGC Series

LPGC Series Plant Growth Chambers are compactly designed to facilitate proliferation of vascular plants. Light intensity can also be altered to suit individual requirements, as the light intensity on each shelf is controllable by the user giving an impressive array of options. LPGC Series is provided with a large usable area that maximizes the efficiency of plant growth.



### Features:

- Light bank.
- Microprocessor based PID (Proportional Integral Derivative) controller provides accurate and stable temperature control.
- Ensures safe and error free operation every time.
- Diagnostic software displays error code.
- 10 Step program in one run.
- Stainless steel lid and chamber to prevent corrosion.
- One-touch type lid allows one hand opening and closing.
- Independent over-heating, over-cooling and over-voltage protector.

### Specifications:

Model No.		LPGC-3DM	LPGC-4DM
Light Bank		3 side type	4 side type
Illuminance		Max. 23,000 Lux	Max. 35,000 Lux
Illumination		F.L. 40W x 15EA	F.L. 40W x 15EA / Metal lamp x 1EA
Main Control		VFD displayed full microprocessor controller	
Display		Alphanumeric 80 character display	
Temperature	Range	0°C to 60°C (Light ON: 10°C to 60°C)	
	Accuracy	± 0.3°C at 37°C	
	Program	10 Step program	
Humidity	Range	35 to 98% RH	
	Accuracy	± 1% at 70%	
	Program	10 Step program	
	Sensor	Electronic device	
Humidifier		Evaporation by motor with SUS 316 pipe heater	
Illumination-Period		7 Step photo-period control, 10 step program	
Lux Meter		Movable sensor with flexible cable	
Capacity		300 L	
Shelves		3 ea, Adjustable type	
Dimensions (W x D x H)mm	Inner	500 x 500 x 1200	
	Outer	720 x 800 x 1950	
Material	Inner	Stainless steel, SUS 304	
	Outer	Steel plate with powder coating	
	Side Wall	Vacuum triple pair glass	
	Door	Double door, silicon packing magnet door	
Device	Cooling	Hermetically sealed compressor, auto exchange dual evaporator	
	Safety	Over / Under temp. protector, level monitor, power breaker	
Catalog No.		28110101	28110102



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