

# **Growth Chambers GP-1400 (Light Only), 110V/60Hz**



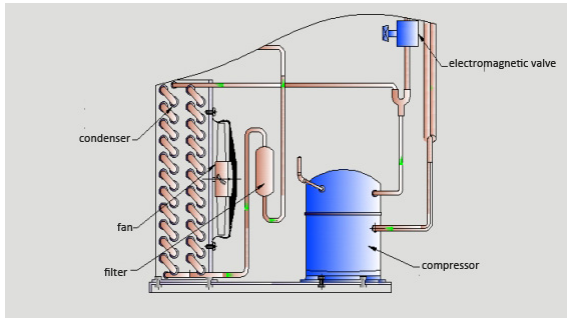
Iris GP-1000 series environmental growth chambers are ideal solution for testing the effects of specified environmental conditions on industrial products, materials, and botanical and agricultural applications, plant pathology, plant tissue culture studies and plant genetic research. The Iris GP-1400 Growth Chambers are available in 3 different chamber sizes, control the temperature and daylight simulation. The PID control of temperature and lighting (5°C to + 50°C, 0 to 15,000lx create the optimum environment for meticulous plant culturing and rearing.

Iris climatic test chambers are designed to meet quality standards while offering flexibility, uniformity and control accuracy for cost-effective testing in prototyping, durability testing, and product component screening.

- Perfect forced convection, maximum samples number of working room, minimum temperature recovery time after the opening, world famous axial fan, perfect air current design, ensure an ideal result of samples culture.
- Advanced air current cycling: keep temperature continuous and stable, keep humidity continuous and stable, ensure perfect sample culture environment.
- Integrated, dot-matrix LCD display, Chinese and English subtitles, design for the highest operational comfort.
- Display parameters: temperature, humidity, cycle, run time, run/stop.
- Adaptive PID controller precisely controls the temperature and humidity, prevent temperature soaring, keep working room temperature stable and uniformity.
- User password protection, built-in multifunctional memory menu, connect to multiple devices (up to 16 units), real-time monitoring.
- Programmable multi-sections control, to meet customer needs, temperature and humidity control up to 30 sets. Time setting: 0-99h,0-9999m,programs can be executed automatically cycles.
- Set operations with beep tips
- Remote control of computer software, professional operation ALLSENS™ software (optional)
- Design of double-layer isolation, reduce power consumption, environmental protection concept, energy conservation.
- Internal isolated door design, easy observation of working room samples, keep temperature stability of working room.
- Laboratory of classical color design, international fashion design, arc-shaped design, for highest operational comfort.
- Integrated design that contains original outside handle and LCD screen, ergonomic structure, comfortable viewing angle, convenient to open the outside door and operate interface.
- Interval and number of mesh shelf can be adjusted according to customer requirements. Maximum capacity to meet customer needs.
- Comfortable vertical structure, maximize work chamber, working room in the upper, convenient to take.
- Double door design, easy observation samples, keep temperature stability, with bell-type lighting system.
- Liquid crystal micro-computer controller with diagnostic function. Display operating parameters including historical record, temperature and humidity data.
- Maintaining of controlling system and cooling system, electrical control system mounted on the incubator bottom.
- Electrical control components and working room are installed separately. Especially refrigerating battery and electrical control output parts, which are installed in incubator bottom, easy to maintenance.
- Multiple over temperature protection function, sound and light alarm.
- Automatic double over temperature protection function.
- All electronic components are UL certified.
- All over temperature protection devices meet Germany standard DIN standard D12880 Class 3.1

### **Advanced Refrigeration technology**

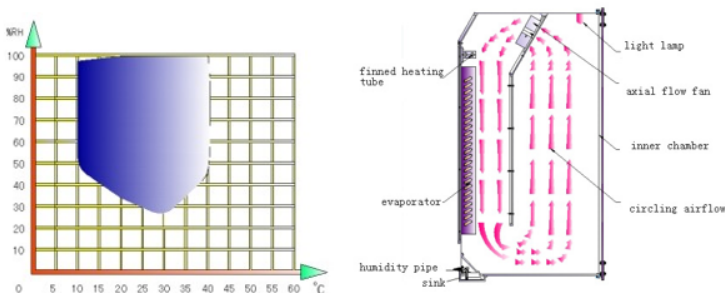
- Balanced refrigeration technology, auto defrost, multiple security system, long time running, environmental protection, high efficiency and energy saving.
- Auto-defrost function: original rapid heat pump defrost technology, for continuous operation, effectively prevent frost because of continuous operation of evaporator.
- Refrigeration effect manual control system: meet customer's terrible work environment.
- Imported DuPont SUVA R134 a environmental refrigerant. For cleaner world, for better work condition.
- To save energy, to reduce the cost.



### Advanced Perfect Air Current Cycling

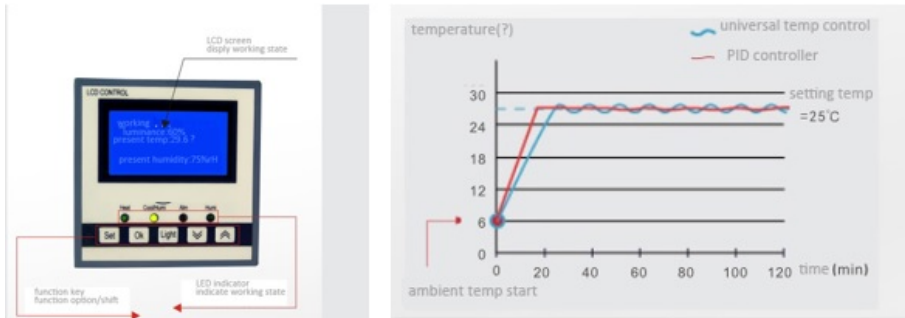
The advanced air current cycling: perfect forced convection, maximum samples number of working room, minimum temperature recovery time after the opening, world famous axial fan, perfect air current design, ensure an ideal result of samples culture. Advanced air current cycling keep temperature continuous and stable, the wind speed can be adjusted, with fan switch function, ensure perfect sample culture environment.

- Perfect forced convection, maximum samples number of working room, minimum temperature recovery time after the opening, world famous axial fan, perfect air current design, ensure an ideal result of samples culture.
- Keep temperature continuous and stable, keep humidity continuous and stable, ensure perfect sample culture environment.



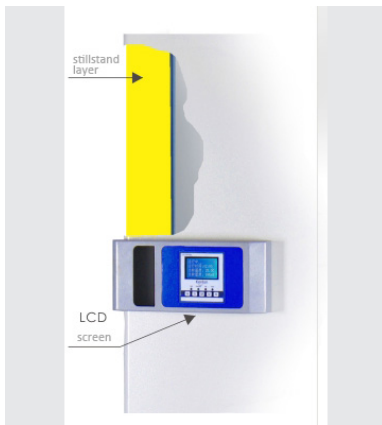
### Programmable PID control

- Designed for the highest operational comfort.
- Integrated with dot-matrix LCD display parameters for temperature, humidity, and cycle, run time, run/stop.
- Adaptive PID controller precisely controls the temperature and humidity; prevent temperature soaring, keep working room temperature stable and uniformity.
- User password protection, built-in multifunctional memory menu, connects to multiple devices (up to 16 units) for real-time monitoring.
- Time setting: 0-99h, 0-9999min
- RS-485 interface
- Easy to operate. All set operations are recognised by voice prompts.
- Optional remote control of programmable software.
- Programmable multi-sections control, to meet customer needs, temperature and humidity control up to 30 sets. Time setting: 0-99h, 0-9999m, programs can be executed automatically cycles.
- Set operations with beep tips
- Bacteria-free culture with UV disinfection (Optional)



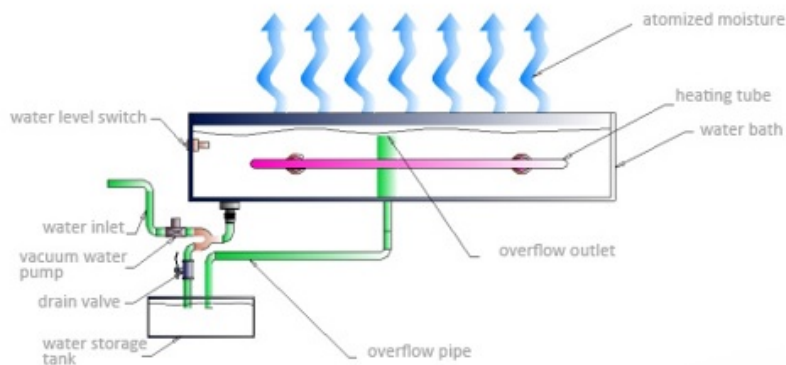
**Efficient Isolation Design**

- Design of double-layer isolation, reduce power consumption, environmental protection concept, energy conservation.
- Internal isolated door design, easy observation of working room samples, keep temperature stability of working room.



**Advanced Humidification System (only for GP-2000 Series)**

- Original design of humidification system, prevent disadvantages (non uniformity, instability) of traditional atomizer design.
- Automatic water intake, automatic water level control, ensure the precision of humidity control.
- Stainless steel SUS304 internal surface and water tank, ensure the quality of atomization and uses persistent.

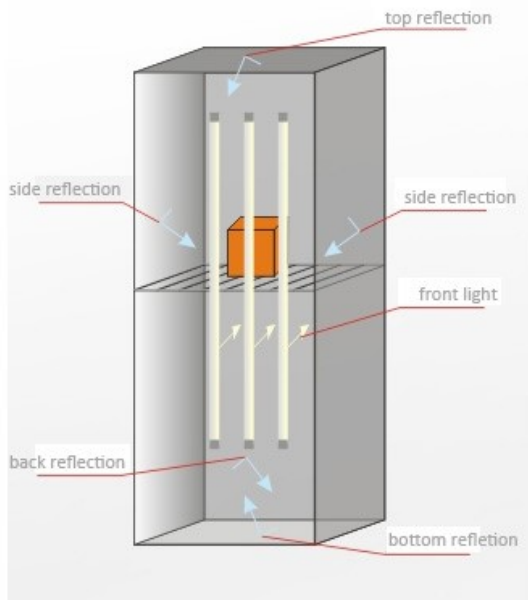


**Professional Lighting Systems**

- Equipped with specially design Pro-Bright™ light system in the chamber that can simulate daytime and nighttime natural

light, to meet specific lighting conditions.

- Effective compensation of the heat generated by the light, through a sophisticated control system to ensure that the temperature is constant.
- Three-dimensional light source, evenly distributed lighting, use the stainless steel mirror as reflective material to make the lighting better, at the same time lighting degree can be adjust.
- Better lighting systems, tube and the chamber is effectively insulated by double glazing and a ventilation hole cooling.



## Technical Specification:

Model	GP-1400
Control System	Microprocessor PID
Temperature Range (°C)	With illumination 10~50°C [With no illumination 5~50°C]
Interior Volume (L)	400L
Interior Volume (Cubic feet)	14
Temperature Accuracy [°C]	±0.1°C
Temperature Uniformity (°C)	±1°C
Temperature Fluctuation [°C]	±0.5 [in the of range 3 [50°C]
Temperature Display	LCD
Convection Mode	Forced Convection
Illumination Range	0~15000LX
Illumination Set Range	Five levels [20% [40% [60% [80% [100%]
Internal Dimension (HxWxD) cm	1148×554×610mm
Timer Range	0 [99 Hours [0 [9999 minutes
Working Environment	Ambient temperature [10~30°C, Humidity less than 70%
Insulation Materials	High Quality environmental protection type material
External Dimensions (HxWxD) cm	1828×783×905mm
Interior Steel Materials	SUS304 stainless steel inner
Net Weight (kg)	194
Shipping Weight (kg)	214
Packing Size (HxWxD) cm	2017×880×1060mm
Power [W]	1550
Certifications/Compliance	CE
Electrical Requirements	110V/60Hz
Catalogue No.	2200515-1

## Technical Data:

Model	GP-1250		GP-1300		GP-1400	
Interior Volume (L)	250		300		400	
Interior Volume (Cubic feet)	8.8		10.5		14	
Convection Mode	Forced Convection					
Control System	Microprocessor PID					
Temp. Range ???	With illumination 10~50??With no illumination 5~50?					
Temp. Accuracy???	±0.1?					
Temp. Fluctuation ???	±0.5?in the of range 3?50??					
Temp. Uniformity	±1?		±1?		±1.5?	
Illumination	0~10000LX		0~15000LX		0~15000LX	
Illumination set range	Five levels?20%?40%?60%?80%?100%?					
Internal Dimensions (H×W×D) mm	1100×480×480		1100×540×520		1148×554×610	
External Dimensions (H×W×D) mm	1780×710×775		1780×770×815		1828×783×905	
Timer Range	0?99 Hours?0?9999 minutes					
Working environment	Ambient temperature?10~30?, Humidity<70%					
Insulation materials	High Quality environmental protection type material					
Interior steel materials	SUS304 stainless steel inner					
The number of standard tray						
Power?W?	1350		1350		1550	
Net weight (KG)	162		183		194	
Shipping weight(KG)	172		198		214	
Packing size?mm? ?H×W×D?	1965×800×900		1965×860×940		2017×880×1060	
Electrical Requirements	110V/60Hz	220V/50Hz	110V/60Hz	220V/50Hz	110V/60Hz	220V/50Hz
Catalogue Number	2200505-1	2200505-2	2200510-1	2200510-2	2200515-1	2200515-2



**Iris Analytical Ltd.**

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