Laboratory Equipment Manufacturer
www.mrclab.com

PGC-800H/C

Plant Growth Easier



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Technical Specifications

Technical Specs PGC-800H/C		
	Standard	**Option**
Temp. Range Lights ON Lights OFF	 +3℃ to +45℃ +3℃ to +45℃	 - -10℃ to +45℃
Temp. Display Precision	0.1℃	
Temp. Fluctuation	±0.5℃	
Temp. Uniformity	±0.5℃	
Humidity Range Lights ON Lights OFF	 50% RH to 90% RH 50% RH to 90% RH	 30% RH to 99% RH 30% RH to 99% RH
Humidity Display Precision	0.1%RH	
Humidity Fluctuation	±2.0%RH	
Humidity Uniformity	±3.0%RH	
Temp. & Hum. Sensor	Equipped with VAISALA HMP60	
Control System	Programable Man-Machine Interactive Control system with 7" Touch Screen	
Smart Phone APP Remote Control System	Equipped with smart phone APP remote control system	
Fresh Air System	Equipped with fresh air system	
Growing Space	790L	
Shelves	Equipped with 5 modular shelves	
Max. Growing Height	152 cm	
Lights & Intensity	LED lighting panels & 300μmol/m²/s (@10cm from the lights)	
Lights Color	Cool white	One/three/four/eighteen color(s)
CO_2	-	Ambient to 2000/5000 PPM
Electrical Supply	AC 110-277V ±5%, 50/60Hz, 15Amp	
Peak Power Consumption	3.3KW	
Warranty	12 months	

Note: Lights with a different spectrum are available on request

Product Overview/Applications

PGC-800H/C is specifically designed for plant growth light sufficiently for quality studies and other experiments requiring with specific wavelengths or full-spectrum wavelengths of light, capable of achieving extreme conditions of temperature, lighting levels and humidity. This product is well suit for research applications which requiring a high level of control in a relatively small footprint. In addition to customizable environmental control parameters, options are also available for growth height, gas levels. This chamber offers a maximum growth height of 59.8" (152cm) or a 27.3 ft^2 (2.54m^2) growth area
Many other applications exist for this product

Lighting System

This facilitates precise light intensity levels to be maintained throughout the life of experiment. Standard light intensity is 300 µmol/m^2/s (@10cm from the lights), which is measured by a quantum light meter and transmitted to the controller for user readout
Standard color choices include cool white, full-spectrum LEDs
Non-standard color choices include blue, red, far red, red-blue-far red combination, red-green-blue combination, red-blue-far red-white combination LEDs
(Non-standard light intensity choices include 500/700/1000/1600 µmol/m^2/s (@10cm from the lights
Each color of the lights is independently regulated and dimmable from 0% to 100%
Programming and control of the lighting is done via MRC real time controller

Air Flow

Airflow for this chamber is distributed uniformly outward from back sides of the walls and back through .mthe air pump on top of the cabinet, which using MRC innovative horizontal-to-vertical air refresh syste Airflow is sufficiently to ensure uniformity as well as proper air exchange on the leaf surface. Fresh air intake can be adjustable which also helps to ensure adequate ambient gas exchange.

Refrigeration

• Self-contained air-cooled condensing unit with hot air bypass system for continuous compressor operation, extended life and close temperature control. An electronic modulating valve provides tight temperature control while ensuring quiet operation. Pressure transducers are included for monitoring the status of the refrigeration system.
• Solenoid valves have extended stem for quiet and long-life operation.
• Rear chamber wall mounted evaporator coil incorporates an air circulation fan.

Safety Limit Controls

• Adjustable high and low temperature/humidity/pressure controls, audible alarms, and visual indicators display on the screen.

• Controls shut down all power to the chamber, activating alarms (when the temperature/humidity /pressure returns to the normal range, the system will automatically reset).
• Backup “high/low” alarms provide a further level of protection while visual and audible notification is provided when any alarm be activated. Contacts for connection to a remote management system are also included.

Key Product Attributes

• Counterbalanced Lighting system
• Standard lighting provides a wide spectrum at high intensity
• Certifications: ISO9001:2015, CE, RoHS

BPC800H/C | with Expended Temperature and Humidity Range

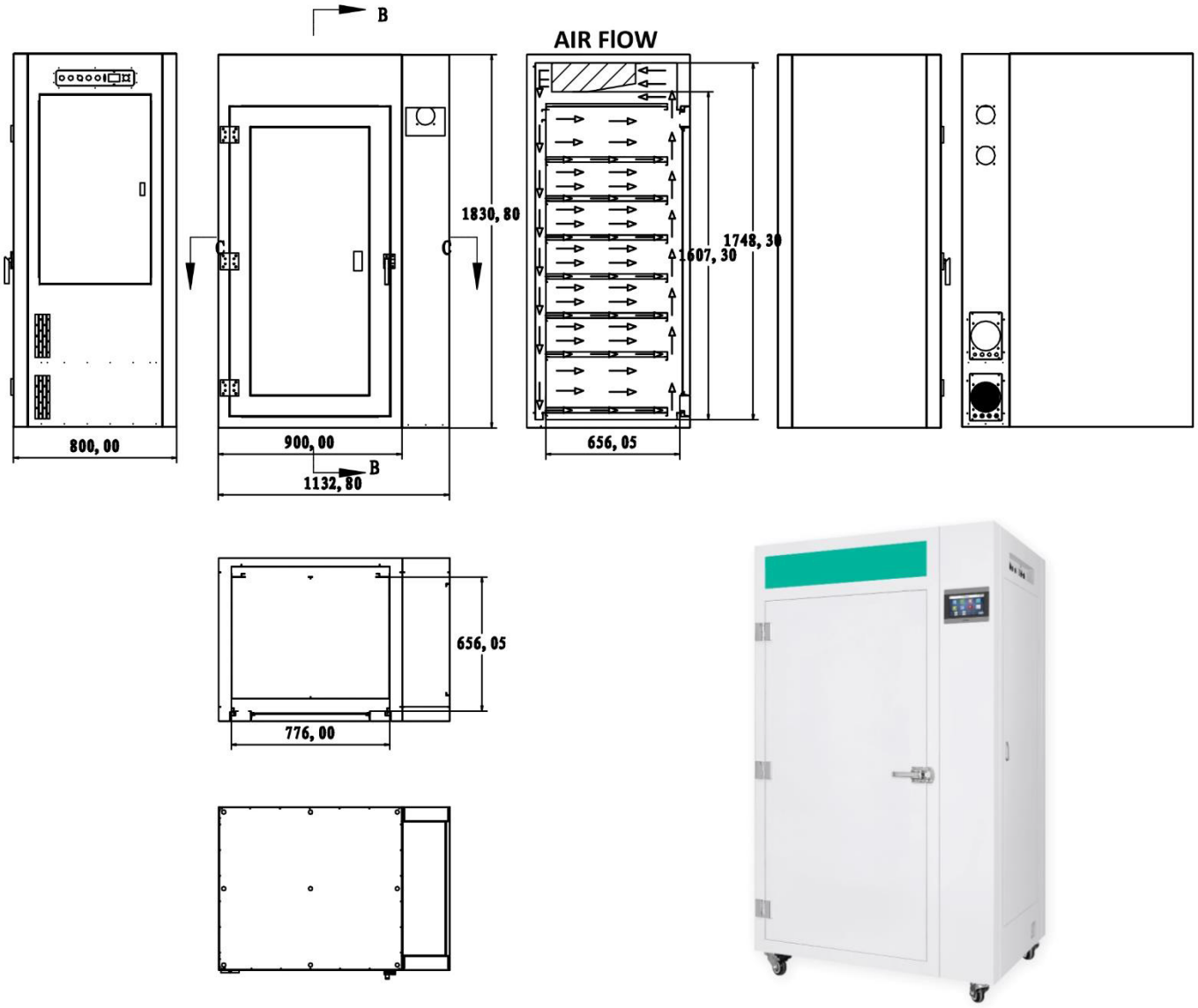
The MRC PGC-800H/C ensures absolute constant test conditions throughout the research area. A big advantage of this chamber is tis low space requirement and flexibility in terms of water supply. The wide temperature and humidity range make his constant climate chamber ideally suited for stress using series

Main Features

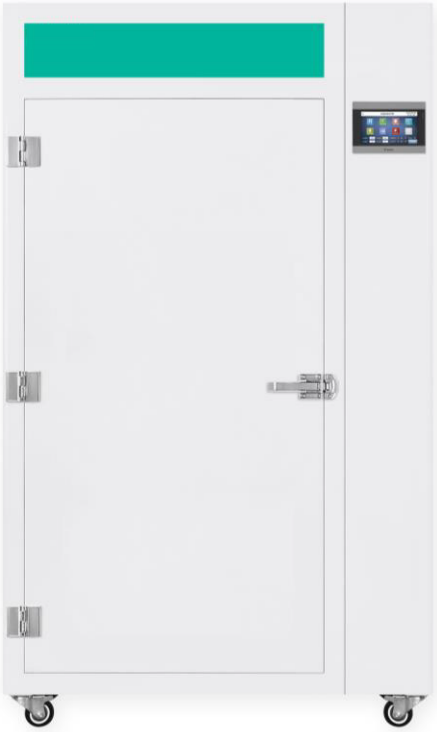
Temperature range: +3°C to +45°C
Humidity range: 50% RH to 90% RH
Programable lighting conditions under regulated
Temperature regulation with resistive temperature sensor
Humidity regulation with capacitive humidity sensor and vapor humidification
MRC Multi Management Software JPCS19V4 Basic Edition
Equipped with smart phone APP remote control system
Equipped with fresh air system
LCD to display temperature and humidity along with additional information and alarms
Independent temperature safety device with visual and audible temperature alarm
Easily operate with reliable regulating system which works in tandem with an HMI (Human-Machine Interface) consisting of a touchscreen display
Intuitive touchscreen controller with time-segment and real-time programming
Internal data logger, measured values can be read out in open format via USB
Flush-mounted door design for better air impermeability
The chamber made of completely stainless steel (SUS304) inner parts and spraying carbon steel body shell
Equipped with 4 stable castors and two with brakes, moveable to anywhere

Dimensions and Technical Drawings

Dimensions PGC-800H/C			
	Width	**Depth**	**Height**
Interior	776 mm	656 mm	1550 mm
Exterior	1133 mm	800 mm	1940 mm
Packing	1250 mm	900 mm	2140 mm



Product Show



Plant Growing Cases

Transgenic Rice Growing

Haruna Growing

Tobacco Growing

Citrus Growing

Magic Bean Growing

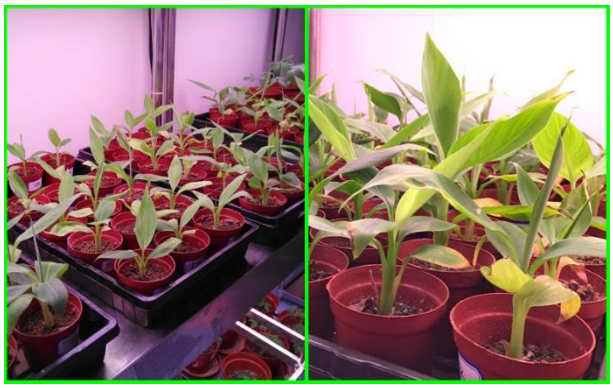
Lupin Growing

Arabidopsis Growing

Soybean Growing

Potato Growing

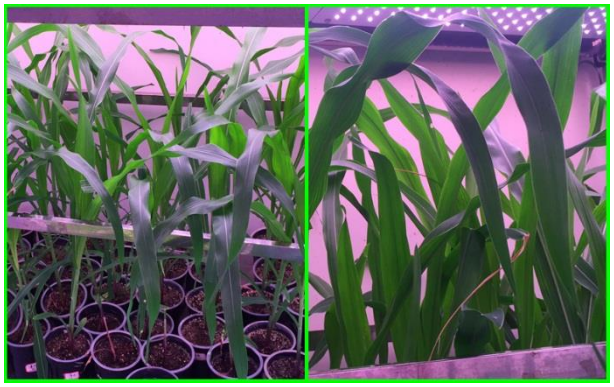
Tomato Growing



Banana Growing

Chili Growing

Strawberry Growing



Corn Growing

Bamboo Growing

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