

## Plant Growth Chamber

Model No.: RE-PGC-70L4

### Applications/Features

Useful for Agricultural Lab / Plant Research / Fisheries Laboratory/ insect studies / Cell culture / Drosophila studies / Mosquito research / Biotechnology experiments / Analytical Lab / Food Science and Technology/ Seed Germination and other controlled environment research.

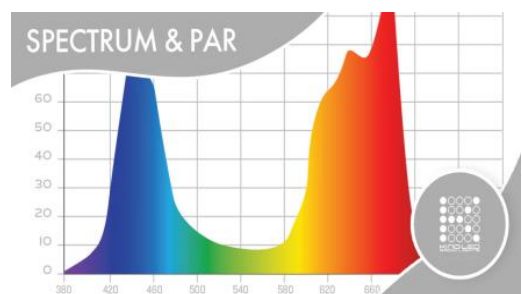
### Cabinet Construction

- Automatic Reach in chamber.
- Interior Construction: Interior is made up of 22 gauge galvanized steel, corrosion resistant white powder coating.
- Exterior Construction: Exterior is highly durable wet painted 18 gauge galvanized steel.
- Double wall construction with 5 cm thick CFC free insulation.
- For easy movement Castor wheels, adjustable leveling feet and fresh Air exchange port/access port with light tight cap. Chamber contains floor drain.
- Four tiers with eight shelves which are supported by shelf clips allowing ½" vertical adjustments. Adjustable shelf of white epoxy-coated steel wire to accommodate plants of various lengths. Shelves dimension 69.1 cm x 72 cm (D x W).
- Two door opening with keyed lock provided by which total work area can be accessed. Door size 74.1cm x 148 cm (W x H). Magnetic gasket will be provided to ensure hermetic seal to door frame.



### Lighting System

- Illuminated growth chamber with horizontal LED lighting system (with PAR spectrum) top mounted in each tier. Intensity programmable through controller.
- Growth chambers with diurnal settings for studying day & night cycle.
- Light intensity 250  $\mu\text{mole}/\text{m}^2/\text{s}$  for each tier measured from 15cm from source with 0-100% Dimmable feature and 1% light setting.



## Refrigeration/Air Circulation:

- There is a self-contained top mounted air-cooled compressor and HOT gas bypass system for cooling and heating with precise temperature regulation (CFC/HCFC free Urethane) copper tube evaporator with two fans for air circulation and solenoid valves for longevity. Heat rejection 3790 BTU/hr.
- Forced air circulation ensures the most reproducible test conditions. The unit is equipped with a hermetically sealed continuous running compressor & an independent over temp alarm. Two minutes delay timer for compressor will be given to protect it.
- The chamber air is gently and continuously circulated at a rate that ensures the temp and uniformity of all test samples. Air moves along the back wall, over tiers and return to ceiling fan to provide uniform air circulation in both directions.

## Controller/Safety:

- Keypad based single microprocessor-based PID controller to program and run the system in Manual, Diurnal & Multi-step program ramping & non-ramping for Temp, RH, CO<sub>2</sub> and light to simulate weather conditions and ambient temperature monitoring feature.
- Touchscreen with high resolution display with graphical view, and four level password protection.
- Adjustable high & low temperature alarm with audible-visible indicator. Automatically reset when temperature comes to normal after the power shutdown. Trouble shooting with onboard diagnostics. Dual experiment protection via integrated yet independent temperature limit shutdown.
- Two calibration offsets for both light ON and OFF, light lifetime alarm.
- It also includes a circuit breaker to protect from electrical overload.
- Air flow regulator, adjustable from 50-100% depending upon the Plant growth.

## Certification:

ISO 9001:2015 Certified Co. & CE mark product. CSA/CE/UL safety.

| MODEL  | RE-PGC-70L4  |
|--|--|
| Temperature Range  | 4-60±0.5° C (Light On)<br>0-60±0.5° C (Light Off)  |
| Temperature Control                                      | PID temperature controller,<br>PV actual value and SV setting value displayed at the same time   |
| Safety Device  | Overheat protector. 2-stage protection with safety protection alarm and indicator, compressor delay-start, high and low pressure of cold media protection device |
| Refrigerator   | R134a  |
| Total Work area  | 4.4 m <sup>2</sup> (47 ft <sup>2</sup> )   |
| Total Growth height                                      | 29.2 cm (11.5 inch) per tier   |
| Timer  | 24H Temperature and light control  |
| Tiers  | 4  |
| Exterior Dimension (WxDxH)<br>Interior Dimension (WxDxH) | 1695x 850x2000 mm<br>1461x 733x1727 mm   |
| Volume   | 1850 L   |
| Power Voltage  | 220V/ 50HZ   |
| Weight   | 440 kg   |
| Light intensity  | 0-100% (Dimmable) 250 µmoles/m <sup>2</sup> /s for each tier   |

## Options

- Additive CO<sub>2</sub> control
- CO<sub>2</sub> removal system
- CO<sub>2</sub> Cylinder
- CO<sub>2</sub> Regulator
- Dry alarm contacts
- Door with viewing window
- Dimmable lighting with PAR light sensor
- Dimmable lighting Only
- Dimmable Light each tier
- Temperature ranges available up to 60°C
- Power points inside the Plant Growth Chamber
- Computer connection
- Voltage stabilizer
- Water purification System
- Additional warranty

## Humidity Control (Optional)

Ultrasonic Humidifier - up to 95% ( $\pm 3\%$ )  
Ultrasonic Humidifier and Dehumidifier 40-95% ( $\pm 3\%$ )  
PAN Humidifier -up to 95% ( $\pm 3\%$ )  
PAN Humidifier and Dehumidifier - 40-95% ( $\pm 3\%$ )

See other specification sheets or consult factory for additional information.

Contact us for any additional information.