reach in plant growth

Percival model PGC-6L

applications

- Frequently used for research applications such as lighting for vascular plants to facilitate standard plant production, plant pathology research and seedling germination and development
- Many other applications exist for this product

Please compare your own requirements to the specifications listed below.

percival's intellus ultra controller

- Controls temperature, lighting, humidity (optional) and CO_2 (optional)
- Single-board electronic solid-state design includes 10 key membrane keypad with LED indicators and vacuum fluorescent display
- Programs can be configured to run in real time or elapsed time
- Ramping and non-ramping program methods available for each programming mode
- Multiple programs can be linked creating complex environmental profiles
- Optional Intellus Web Server allows monitoring and controlling of chamber via web browser (requires Internet Explorer 6.0+) (this option allows for remote monitoring and programming of chamber including alerts and current condition updates for up to five e-mail addresses)

Please refer to www.percival-scientific.com for additional information regarding the control system.

lighting system

- Each tier of shelves is lighted by (16) 17W cool white fluorescent lamps and (2) 40W incandescent lamps properly spaced for uniform light intensity
- Intensity programmable up to 550 µmoles/m^2/s of light irradiance measured @ 6" from lamps on 3 on/off light events
- Programming and control of the lighting is done via Intellus real time controller

airflow/circulation

- Air circulation inside chamber is from a specifically designed air diffuser (air travels along the entire back wall, over the shelves and returns to the ceiling fans through an opening between the light fixtures and the doors)

cabinet construction

- Interior constructed of 22-gauge electro-zinc plated steel
- Exterior constructed of 18-gauge exterior electro-zinc plated steel
- Welded seams and joints on outer and inner shells
- Inner shell supported by non-compressing/non-thermal conducting material locking inner liner in place without a metal-to-metal bond to outer case
- Chamber is completely self-contained

PGC-6L specifications (subject to change without notice)

Temp Range with all lights on	Interior Space volume		Total Shelving Floor Area		Maximum Growing Height		Exterior Dimensions width		depth		height		Light Intensity 6" from lamps unless otherwise noted	Tiers
°C	ft^3	m^3	ft^2	m^2	in	cm	in	cm	in	cm	in	cm	µmoles/m^2/s	
10-44±0.5	36	1	10.8	1	27	68.6	51.6	131.9	33.6	85.4	77.3	196.1	550	2

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insulation

- Woodless construction using CFC free insulation (overall wall thickness is 2" [5.1 cm], ample insulation for maintenance of stated temperature range)

door

- One door opening 29.2" x 70" (74 cm x 178 cm) provides full access to the chamber interior (magnetic gasket provides a tight seal to door frame)

interior space

- 36 ft^3 (1 m^3) usable volume with work area of 10.8 ft^2 (1 m^2) provided on two tiers

shelving

- Two tiers of white epoxy coated steel wire shelving (each shelf is 27"D x 28.8"W [68.6 cm x 73 cm])
- Shelves are supported by shelf clips allowing ½" vertical adjustments
- Maximum clearance between shelves is 27" (68.6 cm) per tier with both shelves installed

finish

- Interior and exterior painted with highly reflective, environmentally friendly, high temperature baked white powder coating

refrigeration

- ½ h.p. self-contained air-cooled condensing unit with hot gas bypass system for continuous compressor operation, extended life and close temperature control (this continous running condensing unit ensures precise temperature control by alternately cycling refrigerant and hot gas to coil; this also prolongs life of compressor, and eliminates risk of ice build up in coil)
- Solenoid valves have extended stem for quiet and long life operation
- Ceiling mounted evaporator coil incorporates twin air circulation fans in aluminum housing (heat rejection to ambient [standard chamber] = 5900 BTU/hr.)

temperature range

- 10°-44°C (±0.5°C) lights on and 2°-44°C (±0.5°C) lights off

temperature safety limit controls

- (Experiment Protection) Adjustable high and low temperature controls, audible alarms, and visual indicators provided
- Controls shut down all power to the chamber, activating alarms (when the temperature returns to the normal range the system will automatically reset)

humidity control (optional)

- Additive humidity control of higher than ambient to 60% (±10%) lights on for set temperatures between 15° to 30°C
- Humidity control of higher than ambient to 90% (±10%) lights off for set temperatures between 15° to 30°C
- Extended humidity ranges available

See other specification sheets or consult factory for additional information.

options (most popular)

- Intellus Ultra Web Server (C9)
- Communications Software (C9+)
- Intellus Ultra with Touchscreen and Internet capabilities (C10)
- Spray nozzle humidifier with advanced RH sensor and some dehumidification via reheat heaters (H9)
- Dehumidification via independent cooling coil with reheat heaters and spray nozzle humidifier (H8)
- Ultrasonic Humidifier with advanced RH Sensor (H11)
- Dehumidification via independent dehumidifying coil with reheat heaters and Ultrasonic Humidifier (H12)
- Ultrasonic Humidifier with Electronic RH sensor (H14)
- CO_2 enrichment package
- Self-contained water-cooled condensing unit
- Dry alarm contacts
- Dimmable lighting (closed loop with PAR light sensor) (Q22)
- Dimmable lighting (open loop control) (Q23)
- Extended temperature ranges available

See other catalog sheets or consult factory for additional accessories.

convenience receptacles

- Two 120/1/60 convenience receptacles provided inside chamber

electrical service requirements

- 120/1/60 - (two grounded cords and plug provided, [1] 9 amp cord and [1] 10 amp cord)

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