PGC20
REACH-IN
PLANT GROWTH

DATA SHEET

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PGC20
REACH-IN

PLANT GROWTH

Product Overview/Applications

The PGC20 offers an unprecedented growth area-to-footprint ratio. With the entire refrigeration and electrical systems top-mounted, the PGC20 provides 20 ft^2 (1.9 m^2) of growth area in a footprint of less than 25ft^2 (2.32 m^2). Using a counter-balanced light canopy, the growth height extends to a maximum of 59" (1500mm) inches making the PGC20 an ideal candidate for research involving tall plant species to full maturity. Please consult Conviron regarding specific requirements.

Lighting

The standard lighting configuration for the PGC20 combines T5 fluorescent lamps and halogen incandescent lamps thus providing a broad based light spectrum. The light fixture is counter-balanced for ease of height adjustment between the lamp canopy and the plants. Standard light intensity is 1400 micromoles/m^2/s which is measured by a quantum light meter and transmitted to the controller for user readout.

Airflow

Airflow for the PGC20 is distributed uniformly upward using Conviron's innovative *Unifloor*® air distribution plenum. The airflow is sufficient to promote uniformity as well as proper gas exchange at the plant's leaf surface. The unit includes fresh air intake and exhaust ports which are adjustable to allow up to 20 ft^3/min (0.57m^3/min) of air exchange.

Refrigeration

Cooling for the PGC20 is provided by a top mounted water-cooled condensing unit with hot gas bypass for continuous compressor operation. The result is 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. Alternative refrigeration methods are available depending on site-specific and/or user-defined requirements. Consult the factory for heat rejection information and other cooling options.

Experiment Protection

User programmable "set and forget" alarms track the chamber's operation versus user-defined set points. This allows for exceptionally accurate monitoring without the need for adjustment every time the set point is redefined. Backup "high/low" alarms provide a further level of protection while visual and audible notification is provided when any alarm is activated. Contacts for connection to a building management system are also included.

Key Product Attributes

- Large 20 ft^2 growth area with minimal product footprint
- Fluorescent and incandescent lamp canopy is vertically adjustable within the 59" usable growth height
- Refrigeration system uses top-mounted water-cooled configuration
- Top-mounted machine compartment minimizes footprint, accommodates serviceability, and simplifies installation
- Product certifications/markings; $_{C}CSA_{US}$ (NRTL), CE

Performance Data

Temperature Range (°C)	Interior Capacity	Growth Area	Growth Height	Exterior Dimensions (WxDxH)	Light Intensities (6in. from lamp)	Electrical Service	Weight
10 – 40 lights ON	103ft^3	20ft^2	59"	100" x 35.5" x 101"	1400 µmoles/m^2/s	120/208-3Ø-60Hz	1660lb.
4 – 40 lights OFF	3145l	(1.9m^2)	(1500mm)	2540 x 900 x 2565 (mm)	@ 25°C	220/380-3Ø-50Hz	(392kg)

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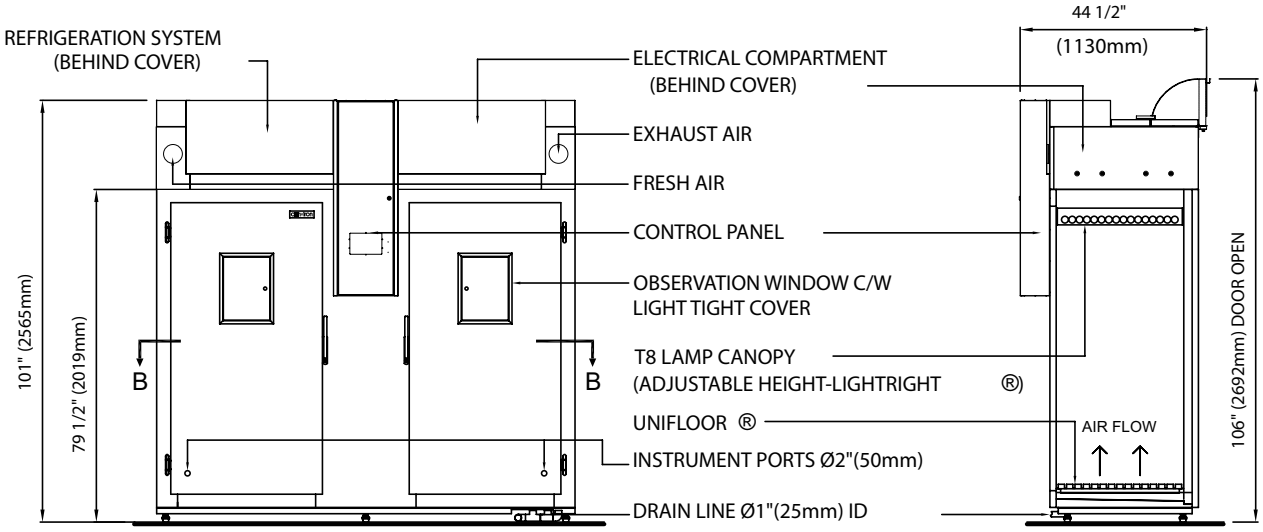
CONVIRON MODEL **PGC20**

PLANT GROWTH CHAMBER

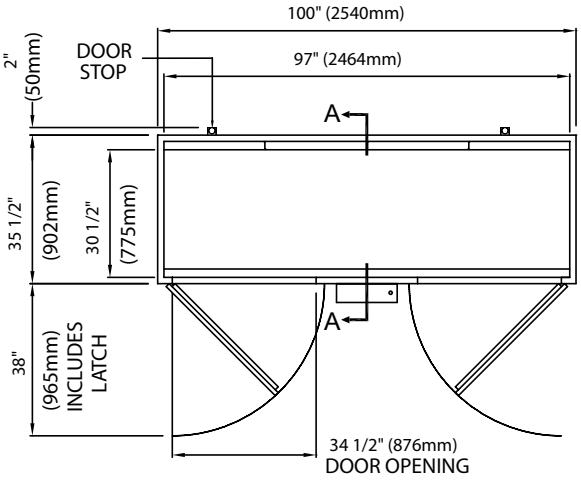
NOTES:

1. STANDARD REFRIGERATION SYSTEM IS WATER COOLED, (1/2"Ø (13mmØ) CONNECTION).
2. CHAMBER MUST BE SECURELY FASTENED TO FLOOR.
3. DEPTH DIMENSION IS CHAMBER SIZE ONLY. DIMENSION DOES NOT INCLUDE DOOR LATCH OR HINGES.
4. FOR BACK TO BACK INSTALLATION, ALLOW 2" (50mm) SPACE BETWEEN CHAMBERS.
5. LENGTH AND WIDTH DIMENSIONS ±1/4" (6mm), HEIGHT DIMENSION ±1" (25mm). DO NOT SCALE DRAWING.

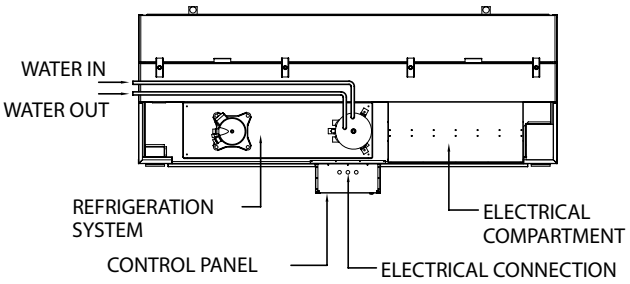


FRONT VIEW

SECTION A-A



SECTION B-B



TOP VIEW

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