



# PGC FLEX

## REACH-IN

PLANT GROWTH CHAMBER

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#### Product Overview/Applications

The PGC FLEX offers the ultimate in flexibility. In its standard configuration, the chamber operates as a single-tier highlight growth chamber with a counterbalanced light canopy and upward airflow. A simple conversion alters the chamber's configuration to either a double or triple tier configuration with medium light intensity and horizontal airflow. In a footprint slightly larger than 21.5 ft<sup>2</sup> (2 m<sup>2</sup>), the FLEX provides either 20.5 ft<sup>2</sup> (1.9 m<sup>2</sup>), 37.7 ft<sup>2</sup> (3.5 m<sup>2</sup>), or 56.0 ft<sup>2</sup> (5.2 m<sup>2</sup>) of growth area with corresponding growth heights of 59.75" (1520mm), 26.5" (673mm), and 14.5" (368mm), respectively. The unique flexibility of the PGC FLEX makes it ideal for use in facilities with multiple research programs. Please consult Convion regarding specific requirements.

#### Lighting

In its standard, single-tier configuration, the PGC FLEX combines T5 fluorescent and halogen incandescent lamps which provides a broad based light spectrum with a light intensity of 1125 micromoles/m<sup>2</sup>/s. The multi-tier configuration reduces this light intensity to 500 micromoles/m<sup>2</sup>/s in both the 2-tier and 3-tier configurations. Light output is measured by a quantum light meter and transmitted to the controller for user readout.

#### Airflow

Two airflow configurations are available with the PGC FLEX. In the standard, single-tier configuration airflow is distributed uniformly upward from Convion's Unifloor™ plenum. When operating in either of the multi-tier configurations, air is distributed uniformly horizontally from a back wall air distribution plenum. The unit includes adjustable fresh air intake and exhaust ports.

#### Refrigeration

Cooling for the PGC FLEX is provided by a top mounted water-cooled condensing unit with hot gas bypass for continuous compressor operation. 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

- Flexible configuration for single-tier, 2-tier or 3-tier operation
- Flexible airflow with either upward or horizontal discharge
- Maximum growth area with multiple application use
- Top-mounted refrigeration system and machine compartment minimizes footprint, accommodates serviceability, and simplifies installation
- Product certifications/markings; <sub>c</sub>CSA<sub>US</sub> (NRTL), CE



#### Performance Data

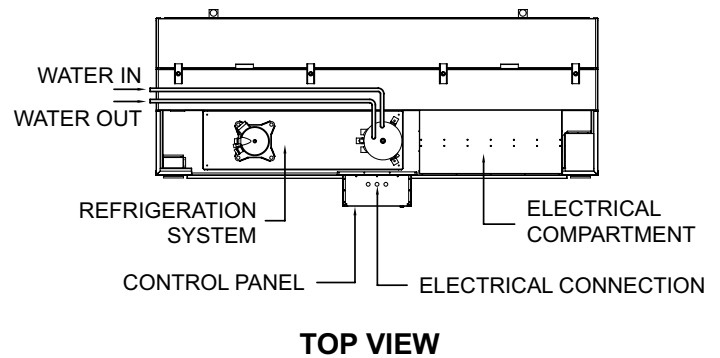
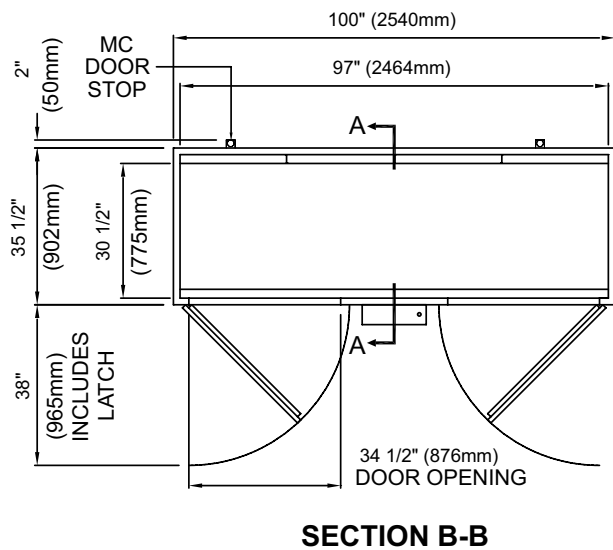
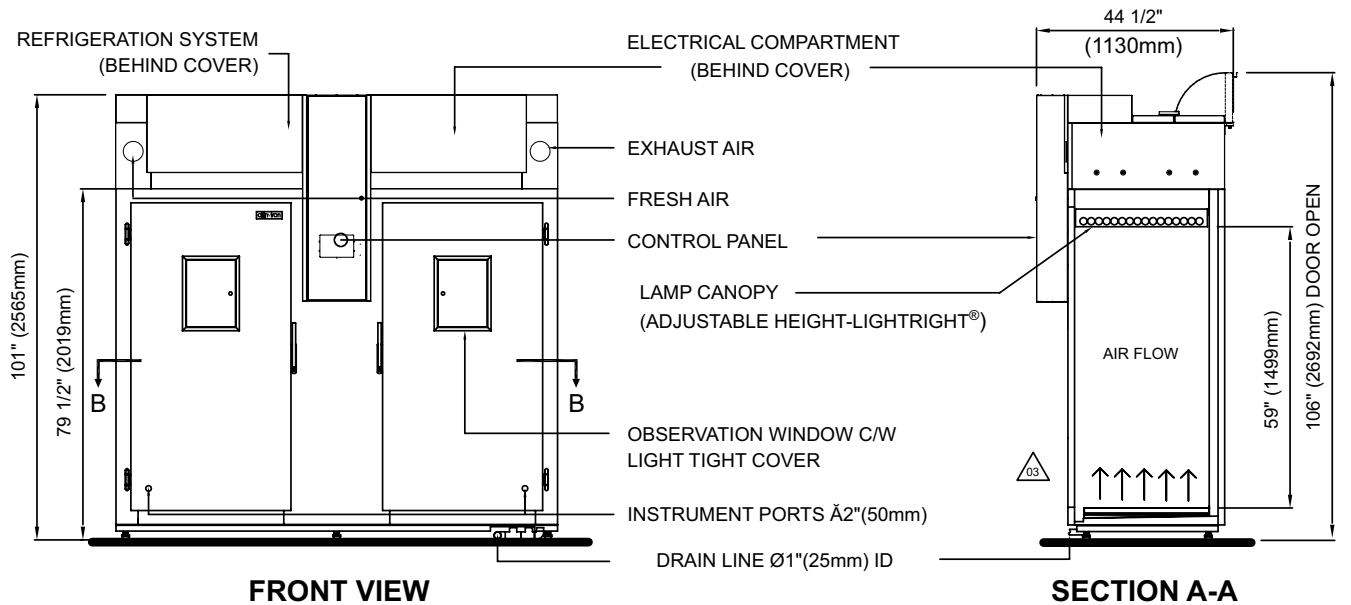
Number of Tiers	Temperature Range (°C)	Interior Capacity	Growth Area	Growth Height	Exterior Dimensions (WxDxH)	Light Intensities (6in. from lamp)	Electrical Service	Weight
single	10 – 40 lights ON 4 – 40 lights OFF	111 ft <sup>3</sup> (3145 L)	19 ft <sup>2</sup> (1.8m <sup>2</sup> )	59.75" (1520mm)	100"W x 35.5"D x 101"H 2540 x 900 x 2565 (mm)	1125 μmoles/m <sup>2</sup> /s *single tier	230/400-3Ø-50Hz 120-208-3Ø-60Hz	1660lbs (755kg)
2-tier	10 – 40 lights ON 4 – 40 lights OFF	111 ft <sup>3</sup> (3145 L)	38 ft <sup>2</sup> (3.6m <sup>2</sup> )	25" (635 mm)	100"W x 35.5"D x 101"H 2540 x 900 x 2565 (mm)	500 μmoles/m <sup>2</sup> /s	230/400-3Ø-50Hz 120-208-3Ø-60Hz	1660lbs (755kg)
3-tier	10 – 40 lights ON 4 – 40 lights OFF	111 ft <sup>3</sup> (3145 L)	57 ft <sup>2</sup> (5.2 m <sup>2</sup> )	14" (355 mm)	100"W x 35.5"D x 101"H 2540 x 900 x 2565 (mm)	500 μmoles/m <sup>2</sup> /s	230/400-3Ø-50Hz 120-208-3Ø-60Hz	1660lbs (755kg)

# CONVIRON MODEL PGC FLEX

## 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  $\pm 1/4"$  (6mm), HEIGHT DIMENSION  $\pm 1"$  (25mm). DO NOT SCALE DRAWING.

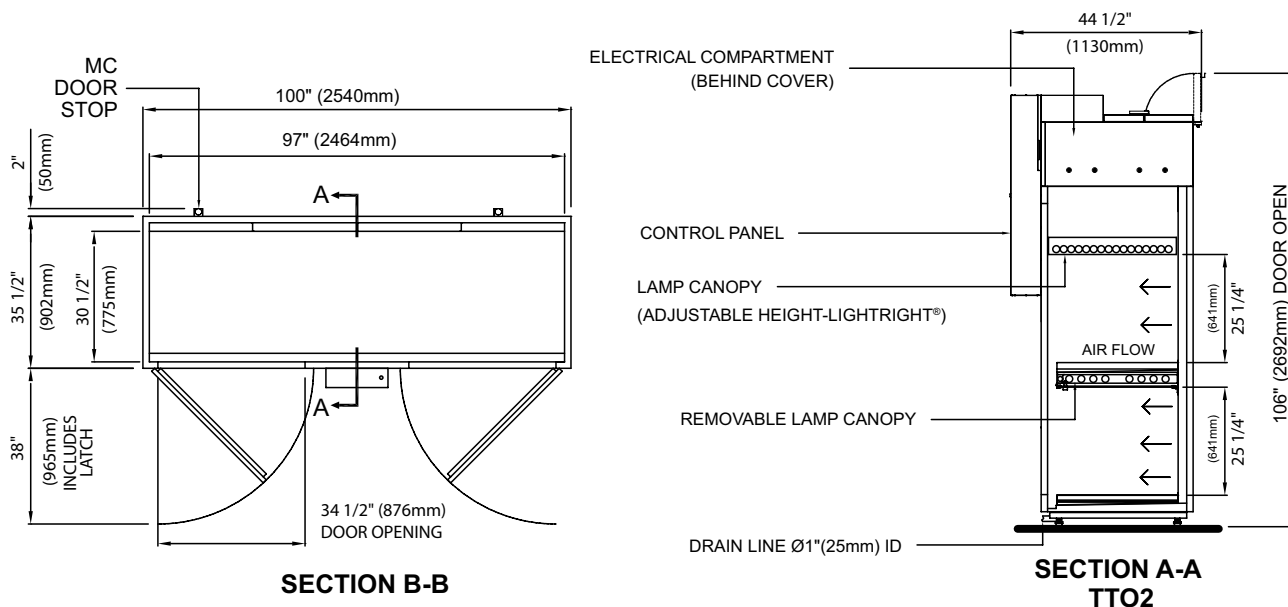
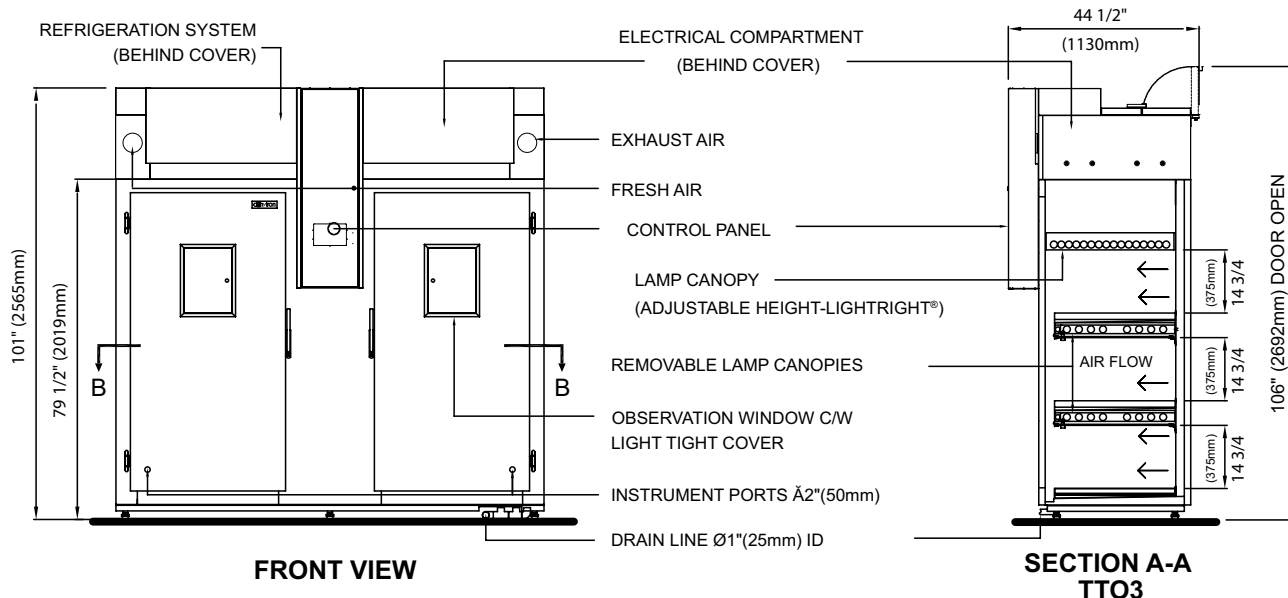


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5. LENGTH AND WIDTH DIMENSIONS ±1/4" (6mm), HEIGHT DIMENSION ±1" (25mm). DO NOT SCALE DRAWING.



### PGC FLEX PLANT GROWTH CHAMBER (2 TIER, 3 TIER)

DRAWING NO. 250766

DATES ISSUED: 10/10/13

ISO9001  

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REF: SPEC-PGC FLEX Rev.: 11, 4-June-2015  
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