

PGR15

Reach-in
Growth Chamber



PGR15 Reach-in Growth Chamber

Product Overview

The PGR15 offers 16.1 ft² of growth area and 57" of growth height making it suitable for a range of applications including the growth of many tall plant species to full maturity. Shipped fully assembled, the PGR15 fits through a standard doorway. A wide selection of options are available including ultra-low temperature operation to -10°C (lights on) for enabling cold weather research. Please consult Convion for available options.

Lighting

The standard light intensity for the PGR15 is 1,000 $\mu\text{moles}/\text{m}^2/\text{s}$ using broad spectrum 12W T5 LED lamps. For advanced research applications, an option for a blend of broad spectrum and far-red is available, plus options for high-performing LED canopies with greater light intensity and unique spectral qualities. For alignment with past research and existing chambers, fluorescent fixtures are available as an option. Lamp and ballast combinations have been designed to ensure uniform light distribution. As standard, lighting can be dimmed by the user through the controller. An optional counter-balanced light canopy is available, which enables height adjustment between the lamp canopy and the plants.

Airflow

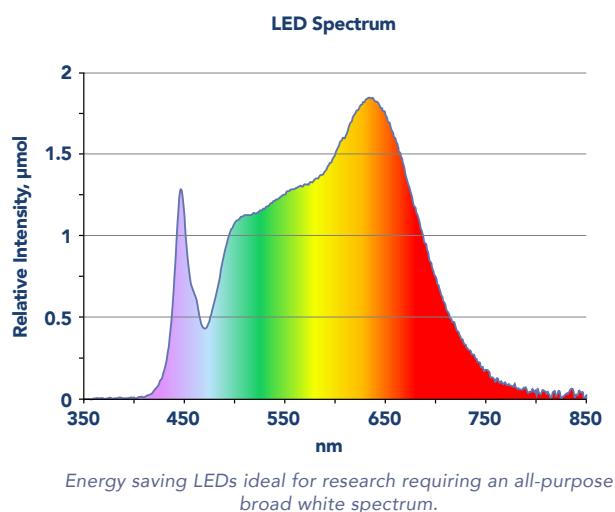
Airflow for the PGR15 is distributed uniformly upward using Convion's innovative Unifloor® air distribution plenum. The unit includes fresh air intake and exhaust ports which are adjustable to allow up to 20 ft³/min (0.57m³/min.) of air exchange.

Refrigeration

Cooling for the PGR15 is provided by a self-contained 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 refrigeration 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.



Performance Data

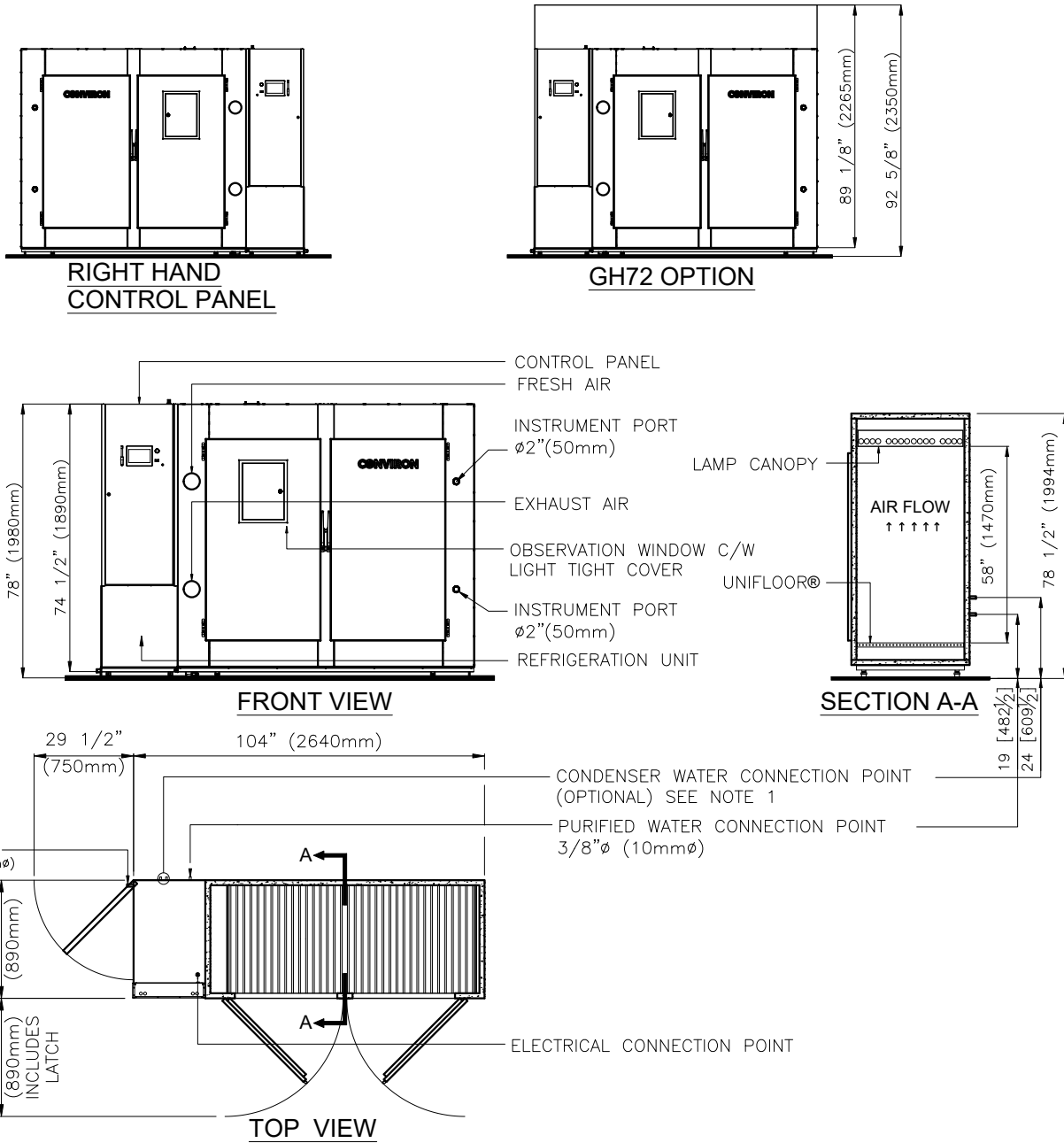
*Temperature Range (°C)	Interior Capacity	Growth Area	Growth Height	Exterior Dimensions (WxDxH)	LED Light Intensity (6in. from lamp)	Electrical Service	Weight
10 – 45 lights on	78ft ³	16.1ft ²	58"	104" x 35" x 78"	1000 $\mu\text{moles}/\text{m}^2/\text{s}$	120/208-3Ø-60Hz	1355lb
4 – 45 lights off	(2220l)	(1.5m ²)	(1470mm)	2640 x 890 x 1980 (mm)	@ 25°C	230/400-3Ø-50Hz	(615kg)

*Optional ultra-low temperature option enabling -10°C (lights on).

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NOTES:

1. STANDARD REFRIGERATION SYSTEM IS WATER COOLED ($1/2"$ (13mm) ϕ) CONNECTION).
2. REQUIRE A MINIMUM OF $2"$ (51mm) FROM REAR OF CHAMBER TO BACK WALL.
3. CASTER OPTION ADDS $2"$ (51mm) TO OVERALL HEIGHT OF CHAMBER.
4. LT AND ULT OPTIONS ADD $10"$ (250mm) AND CO2 OPTION ADDS $6"$ (155mm) TO OVERALL HEIGHT OF CHAMBER.
(REMOVABLE TO PASS THROUGH DOORWAYS)
5. DEPTH DIMENSION IS CHAMBER SIZE ONLY. DIMENSION DOES NOT INCLUDE DOOR LATCH OR PIPING ON BACK WALL.
6. LENGTH AND WIDTH DIMENSIONS $\pm 1/4"$ (6mm). HEIGHT DIMENSION $\pm 1"$ (25mm). DO NOT SCALE DRAWING.





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