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fitotron

CGR Crop Growth Rooms

fitotron® CGR Crop Growth Rooms

fitotron® CGR Crop Growth Rooms are based on a modular design with very high performance. They are available with five growing areas for plants that require very high light intensities with a balanced spectrum, from 4m² to 18m².

The innovative design of the **fitotron®** CGR Crop Growth Rooms incorporates growing heights of up to 2.5 m. Very high light intensities are available up to 1600 $\mu\text{mol m}^{-2} \text{s}^{-1}$ utilising the latest ceramic metal halide technology. The lamps are separated from the growing space by a transparent barrier and are independently cooled for optimum performance and excellent control of growing conditions.

The user is able to individually control temperature, humidity and very high light intensities.

Our range of Crop Growth Rooms enables the researcher to maintain controlled growing conditions of temperature and humidity in a 24h period with independent selection of photo-periods. A full range of 'day/night' cycles with 'dawn/dusk' effects can be programmed.

fitotron® CGR Crop Growth Rooms are ideal for researching taller plants from seedling through to maturity. The rooms are also suitable for growing and developing maize, tobacco plants, cotton, legumes, shrubs and horticultural plants which all require a higher light intensity.

Features and Benefits:

- Designed for plants requiring high light levels (e.g. C4 plants) and extended growing heights up to 2500 mm
- Variable high light intensity up to 1600 $\mu\text{mol m}^{-2} \text{s}^{-1}$ at 1000 mm
- Modular and custom sizes - flexible installation possibilities
- Full humidity control with both additive and dehumidification as standard

Global Service and Support

The training undertaken by our agents and engineers is state-of-the-art in the industry, ensuring that our customers are supported by high-level technical expertise. Our customers can be assured that their equipment will perform to the required standard.

Options

- LED-lighting technology
- Water-cooled refrigeration
- CO₂ control
- Additional flexibility using mobile, multi-tiered light racks and growing benches
- Biological containment filtration

Room Specifications

fitotron® Model	CGR4025	CGR6025	CGR8025	CGR12025	CGR18025
Growth area (in m ²)	4.14	6.21	8.14	12.10	18.04
Growth height (maximum in mm)	2500 (all models)				
Exterior (wxdxh in mm)	2350x 3060x 3180	2350x 4325x 3180	2910x 4325x 3180	2910x 6300x 3180	4080x 6300x 3180
Interior (wxd in mm) ^{1,2}	1800, 2190x 2300	1800, 2190x 3450	2360, 2750x 3450	2360, 2750x 5125	3520, 3920x 5125
Temperature range: Lights off Lights on	+4 °C to +45 °C (all models) +4 °C to +45 °C (all models)				
Temperature fluctuation with time	±0.5 °C (all models)				
Humidity range: Lights off Lights on	40% RH to 90% RH (all models) 40% RH to 85% RH (all models)				
Dewpoint range	+8 °C to +28 °C (all models)				
Humidity fluctuation with time	±5% RH (all models)				
Maximum lighting intensity ³	1200 $\mu\text{mol m}^{-2} \text{s}^{-1}$ (standard all models 1600 $\mu\text{mol m}^{-2} \text{s}^{-1}$ available as an option)				
Electrical connection ⁴	3 Ph/N/E 380 V-440 V 50 Hz (all models)				

¹Minimum width at floor level

²Maximum width at bench level (growing benches - optional)

³Measured at 1000 mm from the transparent lamp barrier

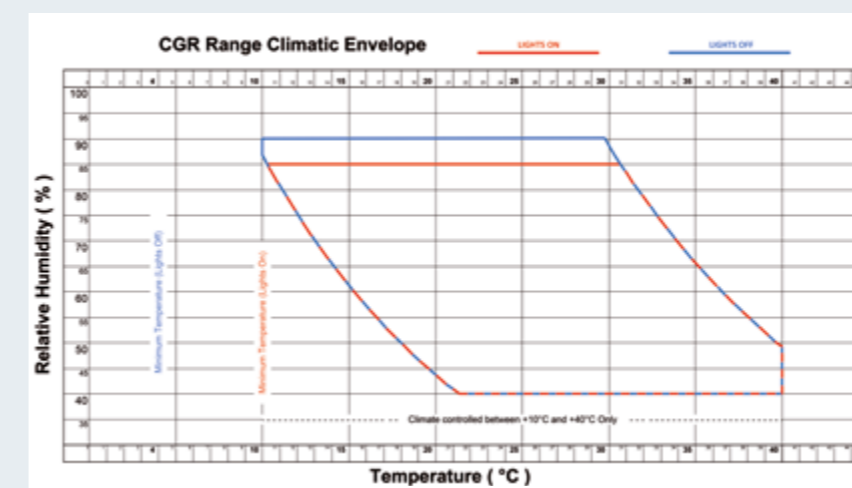
⁴60 Hz also available, dependent on installation country

Humidification

Humidification is maintained by injection of sterile steam at ambient pressure, preventing harmful bacteria (including legionella) from entering the room, creating a safe working environment. The system benefits from extended periods between maintenance and does not require a compressed air supply.

Airflow

Airflow is vertically downwards to ensure even temperature across the whole plant canopy. The conditioned air is delivered via high-level ducting running along the centre of the room and returned to the air-handling unit via ducting at low level alongside each side wall.



Information subject to change without written notice.

Passionately innovative.

We work in partnership to support companies in research, development, production and quality assurance, with 22 companies in 15 countries at 40 locations.

weisstechnik

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With decades of experience and know-how, we guarantee the most sophisticated clean air and containment solutions. Our comprehensive and innovative range of products includes barrier systems, laminar flow systems, safety workbenches, isolators and airlock gate systems.

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