

COOLING INCUBATOR

IG-540PGC





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ABOUT THE COMPANY

iGene Labserve Pvt. Ltd. is gaining recognition by offering resilient, innovative solutions in laboratory instrumentation across healthcare, genomics, drug discovery, biopharma, and food & beverage sectors. We strive to enhance lab efficacy and reduce challenges through advanced technologies and a diverse product portfolio tailored to our customers' needs.

PRODUCT OVERVIEW:

The Cooling incubator is designed to create controlled environments with three-sided illumination, humidity, and temperature regulation, making it ideal for plant science, soil science, and agricultural research. The chamber provides precise control over temperature, humidity, and light to simulate various environmental conditions for biological samples, electronic components, and other related applications.

OPTIONAL FEATURES:

PLC-Based HMI Controller: Advanced control with a colour touchscreen for monitoring and adjusting temperature and humidity. Data monitoring and storage are provided, along with a USB interface for easy data transfer.

30mm Port Hole: For external wires and validation. UV Lamp, Cooling incubator Racks: Additional features can be included as per customer requirements.

Door Open Alarm: Alerts users when the chamber door is opened, ensuring the internal environment is maintained.

Password Protection for Controller: Added security for the settings to avoid unintended alterations.

Caster Wheels: Fitted with brakes for easy movement and placement.

KEY FEATURES:

- Removable shelves: Equipped with removable shelves with LED lights on each shelf having controllable programmable Lux from 10-100% maximum up to 8000 lux from 10 inch distance
- Durable Construction: The inner chamber is constructed with thick-gauge stainless steel (304 grade), while the exterior is made from corrosionresistant, powder-coated GI sheets. A 70mm highdensity PUF insulation is filled between the inner and external walls. The chamber is fabricated using laser welding for enhanced durability.
- Temperature and Humidity Control: The temperature range is from 5°C to 60°C, and the humidity range is from 50% to 90%, controlled by a PID controller with PT100 temperature sensors and capacitive humidity sensors for precise regulation. Stainless steel tanks with high quality immersion heaters are used for humidity generation, with automatic water filling functionality.
- Double Door System: The chamber features a
 double door system, where the inner door is used
 for observation and is directly fixed to the chamber.
 The external door is insulated and fitted with easyto-use latches to ensure minimal variation in the
 internal environment when accessed.
- Adjustable Shelves: Stainless steel or chromeplated adjustable shelves allow for flexibility in organizing plant samples and other materials.



CONTROLLER FEATURES

- **Temperature Control:** Equipped with a digital PID controller that displays both set value (SV) and process value (PV) for precise temperature regulation, ensuring stable and consistent conditions.
- **Humidity Control:** Includes a digital PID humidity controller with SV and PV displays, allowing accurate control and monitoring of humidity levels within the chamber to meet specific application requirements.
- **Shelves Lighting**: Option of removable shelves with LED lights on each shelf having controllable programmable Lux from 10-100% maximum up to 8000 lux from 10 inch distance
- **Programmable Lighting:** Lights can be programmed to match specific protocol needs, offering flexibility in intensity and timing to accommodate varying research or operational requirements.
- **24/7 Timing Cycle:** A comprehensive weekly digital timer with 99 cycles, each capable of containing a 30-segment program. This flexible timing cycle supports round-the-clock operations, ideal for complex and extended protocols.
- Optional Features:
 - **Defrosting:** Optional defrost function to maintain optimal operating conditions and prevent ice buildup in low-temperature applications.
 - **UV Sterilization:** Optional UV light feature to ensure sterilization within the chamber, reducing the risk of contamination and maintaining a clean working environment.
- Optional Features: Touch screen programmable controller.





SPECIFICATIONS

Parameters	Specifications	
Temperature range	Temperature Range Ambient -10 degree C to 45 degree with full light on.	
Controller	Microprocessor based advanced PID controller for all parameters and high accuracy and auto restart from same time after power failure and resume	
Temperature accuracy	±1%	
Humidity range	Humidity Range 50-90% with ± 3% accuracy.	
Humidity controller	Digital PID controller with SV & PV values	
Humidity accuracy	±3%	
Illumination	Programmable Light and temperature control as per Day/Night Cycle	
Light timer	24x7 weekly digital timer	
Shelves	 Equipped with 4 removable shelves with LED lights on each shelf having controllable programmable Lux from 10-100% maximum up to 8000 lux from 10 inch distance. Stainless steel shelves can bear Load up to 25 KG 	
Humidity system	SS boiler tank with immersion heater and automatic water replenishment by external tank	
Safety	Audio / visual alarm for temperature deviation	
Optional	 Exterior made of stainless steel 304 / 316 White painted steel inner walls Door open alarm Cooling incubator racks Equipped with 4 Germicidal UV Lamp (2 each size of 36 inch) on both side of Cooling Incubator for uniform sterilization. PLC with HMI interface Data logger with USB interface Password protection for controller Caster wheels 	
Power supply	220 Volt 50 Hz, Power 2 KW	

ORDERING INFORMATION

Model	Dimension (mm)	Volume (Liter)
IG-540PGC	120cm x 75cm x 60cm	540 L





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