

COMMODITY DESCRIPTION

H.S. Code	Item No	Description	Unit	Quantity
		Plant Growth Chamber	SET	1

A. Model Name : JSPG-1500C

B. Product Description : Plant Growth Chamber

C. Manufacturer / Origin : JS Research Inc. / Rep. of KOREA

D. Application :

JSPG-1500C 3-Side Illumination Plant Growth Chamber provides reliable controlled climatic condition of temperature, humidity, lighting and CO₂ concentration. Ideal to growing plant, plant tissue culture or any other laboratory experiments needs controller climatic simulation. 1512 L large capacity and tall height of the chamber suitable to growing larger plants up to 1.2 m. Combination of top and two side light bank with HQI and fluorescent lamps provide light intensity up to 50,000 LUX.

E. Photo



JSPG-1500C Plant Growth Chamber

F. Feature

Controller (JSC-4CP Programmable Controller)

- ✓ High precision Digital PID Microprocessor controls temperature, humidity, lighting and CO₂ concentration in one integrated unit with easy to use 4-line back-light LCD display interface
- ✓ Programmable operation capability of various climatic conditions of temperature, humidity, light intensity and CO₂ conc. with time duration up to 11 Segments 999 cycles or unlimited repeating operation
- ✓ Temperature, humidity, light intensity, CO₂ conc. calibration and auto-tuning function
- ✓ Class A Pt-100 Ω temperature sensor
- ✓ Precision electronic humidity sensor
- ✓ Built-in LUX Meter in chamber to measure and display light intensity
- ✓ The most accurate NDIR-Diffusion (Infra Red) CO₂ Sensor
- ✓ Automatic defrost cycle

Construction

- ✓ Durable epoxy powder coated metallic casing
- ✓ Corrosion resistant Stainless Steel 304 chamber
- ✓ Durable Stainless Steel 304 Sheath Heater and Copper-Aluminum fin evaporator
- ✓ Removable and height adjustable shelf
- ✓ Built-in humidifier and automatic water supply
- ✓ Double layer vacuum tempered safety glass walls on light bank

Performance

- ✓ Forced air circulation of controlled temperature and humidity to achieve excellent thermal uniformity
- ✓ Durable Stainless Steel 304 Sheath Heater and copper-aluminum finned evaporator
- ✓ Temperature control within ± 0.1 °C resolution
- ✓ Humidity control within $\pm 1.0\%$ RH resolution
- ✓ Lighting control from 0 ~ 50,000 Lux by 8-Step light intensity for photoperiodic Day-Night simulation
- ✓ Lamp-on-Delay System by turn on lamp one by one which provides gradual increase of light to eliminate sudden light intensity change
- ✓ CO₂ concentration control within ± 1 ppm (1%) resolution
- ✓ Separate heating and cooling compartment prevents contamination and maintenance free
- ✓ Cooling system with hermetically sealed compressor

Convenience

- ✓ Outer door with self adhesive magnetic packing
- ✓ Door glass window for easy observation of sample during experiment.
- ✓ Removable and height adjustable shelf by 25mm spacing

- ✓ Easy to access Light Bank System for convenient maintenance
- ✓ Corrosion resistant Stainless Steel 304 (ASTM 304) chamber
- ✓ Auto-defrost system, user settable interval and time
- ✓ Built-in casters for easy transport

Safety

- ✓ **DUAL OVER TEMP. CUT-OFF**
Digital system cut-off heater and AUDIO VISUAL ALARM in case +2 °C above set temperature
Analog system cut-off heater 10% above set temp.
- ✓ **MAX TEMP CUT-OFF heater and AUDIO VISUAL ALARM** when +1 °C above maximum limit
- ✓ **OVER COOLING. CUT-OFF**
Digital system automatically cut-off compressor in case -3 °C below set temperature
- ✓ **SENSOR DISCONNECTION ALARM**
- ✓ **LOW WATER LEVEL ALARM AND CUT-OFF**
- ✓ **HUMIDIFIER DRY-BURN PROTECTION**
- ✓ **OVER CURRENT CUT-OFF : Electric Leakage Breaker**

G. Specifications

Chamber Volume (Capacity)	1512 Liters
Inner Dims. (W x D x H)	1400 x 900 x 1200 mm
Outer Dims. (W x D x H)	1880 x 1390 x 2065 mm
No. of Shelves included	8 EA
No. of Shelf position	35 EA by 25 mm spacing
Heating	Forced Air Convection
Cooling	CFC Free air cooled compressor
Control	Program Mode 1 Patterns Memory 11 Segments Manual Mode Fixed Temp. operation with timer
Temp. Range	+0°C ~ +60°C (light off) / +10°C ~ +60°C (light on) without humidification
Accuracy	±0.3 °C at +20°C, 60% RH Light off
Uniformity	±1.0 °C at +20°C, 60% RH Light off
Sensor	Class A PT-100 Ω Sensor
Humidity Range	30% ~ 85% RH
Accuracy	±3.0% at 60% RH
Uniformity	±6.0% at 60% RH
Sensor	Electronic Humiral Sensor

Illumination Range	0 - 50,000 Lux by 8-step combination
Lamp configuration	Top : 6 ea x 150 Watt HQI Lamp Side : 4 ea x 70 Watt HQI Lamp, 8 ea x 55 Watt fluorescent tube
Sensor	Built-in LUX Meter in chamber
CO2 Conc. Range	ambient - 5,000 ppm (- 0.5 %)
Accuracy	±50 ppm
Sensor	NDIR-Diffusion (Infra Red) CO ₂ Sensor
<i>Remark : CO2 control available only when optional CO2 control OHC-100 is included</i>	
Safety	Over-Temperature Cut-Off Low water level Cut-Off Over Current Cut-Off
Material	Body : Epoxy Powder Coated Steel Chamber : Stainless Steel 304
Electrical Requirement	220 ± 10% VAC, 50/60Hz, 1-Phase
Heater Capacity	10.0 kW
Power Rating	55 amps
Plug Configuration	Supplied without plug to connect to 60 Amp ELB Mains
Net Weight	510 kg
Shipping Weight	650 kg
Shipping Dims. (W x D x H)	2300 x 1510 x 2400 mm, wooden crating

H. Standard Accessories

PVC Coated Wire Shelf : 8 EA
Shelf Support : 32 EA
Instruction Manual : 1 EA
Warranty Card : 1 EA

I. Options & Accessories

Art No.	Descriptions
OHC-100	Optional CO2 Control amb. ~ 5,000 ppm with NDIR CO2 Sensor
OHC-101	2 Stage CO2 Gas Regulator
OHC-102	Flow Meter
OHC-103	Metering valve
PHS-C11	PVC Coated Wire Shelf, W680 x D845 mm
PHS-A99	Shelf Support, Set of 4 EA

J. Warranty

1 Year full coverage warranty