

Specification for Plant Growth Chamber - 2nos	Criteria Matching(Yes/No)	Remarks
Temperature		
2 to 44°C all lights off (+0.5° C off with all range) 7 to 44°C all lights Onoff (+0.5° C off with all range) High and Low alarm audio and visual		
All power shut down when alarm activating		
Automatic restart when temperature is normal		
Shelf contained air cooled condensing unit with hot gas bypass system		
Continuous running compressor with solenoid valve		
Compressor over temperature and over pressure protection, compressor delay start, temperature deviation alarm, Heat rejection to the ambient 5,347 BTU/hr, Conditioned air moves in uniform upward direction through entire work bench through perforations in aluminum channels, Fresh air inlet and outlet are adjustable		
Light		
More than 1400 umoles lights 6 inches from light source, 10 to 100% Dimming fight, Only LED plate (led tube not accepted) light, Lamp bank vertically adjustable, PAR Light (range 430 to 780nm).		
Ultrasonic Humidification and Dehumidification 50 to 80% Light ON and 50 to 90% Light Off.		
Work Area		
1.5m2 on Single tier, Minimum plant growth height >142cm. Working bench 185 cm x 780 cm or more, Volume more than 3000L		
Body Structure		
Interior 24-gauge smooth galvanized steel		
Interior floor 22-gauge 304-4 SS, Exterior 24 gauge galvanized white		
Overall wall thickness 2inches, 1.25 inches diameter access port		
Floor equipped with floor drain and hose assembly, NSF Compliant seam design, CFC Free insulation, casters and adjustable leveling legs		
Two doors with full access magnetic perimeter gasket and locking system with key, With observation window and Light cover		
Outer dimension does not exceed W 270cm X D 100cm X H 200cm		
Controller		

Touchscreen user interface controller, controlled environment in new and intuitive ways Solid state microcontroller architecture, Single board electronic controller, run manual, diurnal, 24hrs ramping mode and non-ramping mode and elapsed time		
multiple program link to simulate natural condition, dual experiment protection temperature limit shutdown		
Two calibration offset light on and light off, light lifetime alarm and reset,		
RTD temperature sensor, visible and audible alarm, ambient temperature monitoring, 10 key Industrial keypads with VFD display and LED indicator		
Four levels of password protection, diagnostic menu, view set point, process value, alarm, alarm setting.		
Delay start timer, automatic restart, Power fail event logging, 90 + Program storage faciality		
Other		
ISO Certificate must be provided along with a technical bid, demonstration of the quoted model needs to be conducted by the vendor if needed during technical evaluations.		
Other Required Accessories supply along with plant Growth chamber which is required functional of machine.		
Suitable Voltage stabilizer, Watter purification system for Humidification		
Without the exact mention of specification details & description for all points of the plant growth chamber model (being proposed) the presented model will be liable for disqualification in the technical verification round.		
Actual image of quoted incubator model is required in/with provided catalog/documents.		
The model, its specification and its available modification/ accessories must be presented in the manufacturer's catalogue on day before the first day of public display of the tender call. The product must be part of serial production of the OEM and not a one-off model.		
Company must provide a compliance statement supported by technical literature and website.		
Authorisation certificate from the OEM must be included in the technical bid		
Site inspection certificate to be enclosed in the technical bid duly signed and stamped by the supplier.		
Unpacking and shifting of the instrument including manpower during installation must be in the vendor scope.		
User list must be enclosed for the quoted model supplied to any other institute/Organization in Delhi and NCR.		
Certificate for spare availability upto 10 years for quoted model to be provided from OEM alongwith the technical bid.		

Min.3 Customer satisfactory / performance certificate for specific quoted model from the end user should be included in the quote.		
Warranty 5 years including all spares , PM kit and calibrations of instrument on regular basis as and when required.		
Consumables required during installation to setup the new instrument must be quoted along with the instrument.		
AMC & CMC Charges for the next 5 years after standard warranty must be quoted in optional item		