reach in plant growth

Percival® model E-30BHO

E-30B chamber shown

applications

- This chamber is frequently used for Alfalfa/forages, peanut, potato, bluegrass, short term plant growth and/or short plants
- Many other applications exist for this product

  Please compare your own requirements to the specifications listed below.

percival's IntellusUltra controller

Percival Scientific has built a reputation of providing flexible, customized options for research scientists around the world. We've taken that philosophy to the next level with our improved IntellusUltra Controller. Now choose from the levels of functionality that meet your research needs.

Please refer to www.percival-scientific.com for additional information regarding the control system.

lighting system

- Single lamp bank consists of compact fluorescent lamps and incandescent lamps
- Intensity programmable up to 950 µmoles/m²/s of light irradiance measured @ 6" from lamps on 3 on/off light events
- Programming and control of the lighting is done via IntellusUltra real time controller

cabinet construction

- Interior constructed of 22-gauge electro-zinc plated steel
- Exterior constructed of 18-gauge exterior electro-zinc plated steel
- Welded seams and joints on outer and inner shells
- Inner shell supported by non-compressing/non-thermal conducting material locking inner liner in place without a metal-to-metal bond to outer case
- Chamber is completely self-contained, suitable for stacking one above the other

E-30BHO specifications (subject to change without notice)

Temp Range with all lights on	Interior Space volume		Total Shelving Floor Area		Maximum Growing Height		Exterior Dimensions						Light Intensity 6" from lamps unless otherwise noted	Tiers
							width		depth		height			
°C	ft³	m³	ft²	m²	in	cm	in	cm	in	cm	in	cm	µmoles/m²/s	
10-44±0.5	9.7	0.3	3	0.3	24.9	63.2	31	78.7	23.8	60.3	46.1	117.2	950	1

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insulation

- Woodless construction using CFC free insulation (overall wall thickness is 2" [5.1 cm], ample insulation for maintenance of stated temperature range)

door

- One door opening 26.8" x 29.8" (68 cm x 75.7 cm) provides full access to the chamber interior (magnetic gasket provides a tight seal to door frame)

interior space

- 9.7 ft^3 (0.3 m^3) with work area of 3 ft^2 (0.3 m^2) provided on one tier

shelving

- One tier of white epoxy coated steel wire shelving (shelf is 16.5"D x 26.5"W [41.9 cm x 67.3 cm])
- Shelf is supported by shelf clips allowing ½" vertical adjustments
- Maximum growing height is 24.9" (63.2 cm)

finish

- Interior and exterior painted with highly reflective, environmentally friendly, high temperature baked white powder coating

refrigeration

- Self-contained air-cooled condensing unit with hot gas bypass system for continuous compressor operation, extended life and close temperature control (this continous running condensing unit ensures precise temperature control by alternately cycling refrigerant and hot gas to coil; this also prolongs life of compressor, and eliminates risk of ice build up in coil)
- Solenoid valves have extended stem for quiet and long life operation
- Rear chamber wall mounted evaporator coil incorporates an air circulation fan (heat rejection to ambient [standard chamber] = 4700 BTU/hr.)

temperature range

- 10°-44°C (±0.5°C) lights on and 2°-44°C (±0.5°C) lights off

temperature safety limit controls

- (Experiment Protection) Adjustable high and low temperature controls, audible alarms, and visual indicators provided
- Controls shut down all power to the chamber, activating alarms (when the temperature returns to the normal range the system will automatically reset)

humidity control (optional)

- Additive control of humidity in %RH through use of ultrasonic humidifiers or spray nozzles will maintain humidity levels of up to 90% RH lights off and 70% lights on, between 15° and 30°C
- Humidifier requires distilled or de-mineralized water
- Optional dehumidification via independent coiling coil and reheat heaters will maintain humidity levels down to 40% RH between 15°C and 30°C

options (most popular)

- IntellusUltra Connect (C9)
- IntellusUltra Connect and Android-based Touchscreen (C9T)
- IntellusUltra (standard) and Android-based Touchscreen (C8T)
- Spray nozzle humidifier with advanced RH sensor and some dehumidification via reheat heaters (H9)
- Dehumidification via independent cooling coil with reheat heaters and spray nozzle humidifier (H8)
- Ultrasonic Humidifier with advanced RH Sensor (H11)
- Dehumidification via independent dehumidifying coil with reheat heaters and Ultrasonic Humidifier (H12)
- Ultrasonic Humidifier with Electronic RH sensor (H14)
- CO_2 enrichment package
- Self-contained water-cooled condensing unit
- Dry alarm contacts
- Dimmable lighting (closed loop with PAR light sensor) (Q22)
- Dimmable lighting (open loop control) (Q23)
- Extended temperature ranges available

  See other catalog sheets or consult factory for additional accessories.

convenience receptacles

- One 120/1/60 convenience receptacle provided inside chamber

electrical service requirements

- 115/1/60 - two grounded cords each with NEMA 5-15P plug provided for standard chamber
- Cord #1 RLA=7.1 & cord #2 RLA=9.5 (combined MCA=20.8)