

algae

Percival® model AL-30L2

applications

- This chamber is specifically designed for algae with higher light intensity requirements
- Also, frequently used for short plants with moderate light intensity requirements
- 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

- Each tier of shelves lighted by fluorescent lamps properly spaced for uniform light intensity over entire shelf
- Intensity programmable up to 360 $\mu\text{moles}/\text{m}^2/\text{s}$ of light irradiance measured @ 6" from lamps on 2 on/off light events
- Programming and control of the lighting is done via IntellusUltra real time controller



CU-30L2 chamber shown

airflow/circulation

- Conditioned air circulates through a rear wall plenum, and travels horizontally across each shelf (air then flows vertically upward through the space between the door and shelves back to the unit cooler)

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
- Overall wall thickness is 2" (5.1 cm)

AL-30L2 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
	°C	ft ³	m ³	ft ²	m ²	in	cm	width		depth		height		
10-44±0.5	9.7	0.3	6.1	0.6	9	22.8	31	78.7	23.8	60.3	46.1	117.2	Up To 360	2

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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 29.6" (67.9 cm x 75.2 cm) provides full access to the chamber interior (magnetic gasket provides a tight seal to door frame)

interior space

- 9.7 ft³ (0.3 m³) with work area of 6.1 ft² (0.6 m²) provided on two tiers

shelving

- Two tiers of white epoxy coated steel wire shelving (each shelf is 16.4"D x 26.5"W [41.6 cm x 67.3 cm])
- Maximum growing height is 9" (22.8 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 continuous 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 an 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] = 3200 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)

options (most popular)

- IntellusUltra Connect (C9)
- IntellusUltra Connect and Android-based Touchscreen (C9T)
- IntellusUltra (standard) and Android-based Touchscreen (C8T)
- CO₂ enrichment package
- Door with observation window and cover (Q2)
- Door with fresh air ports (Q1)
- 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

- Two 115/1/60 convenience receptacles provided inside chamber

electrical service requirements

- 115/1/60 with NEMA 5-15P plug provided (with standard chamber)
- RLA=11.7, MCA=14.6



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