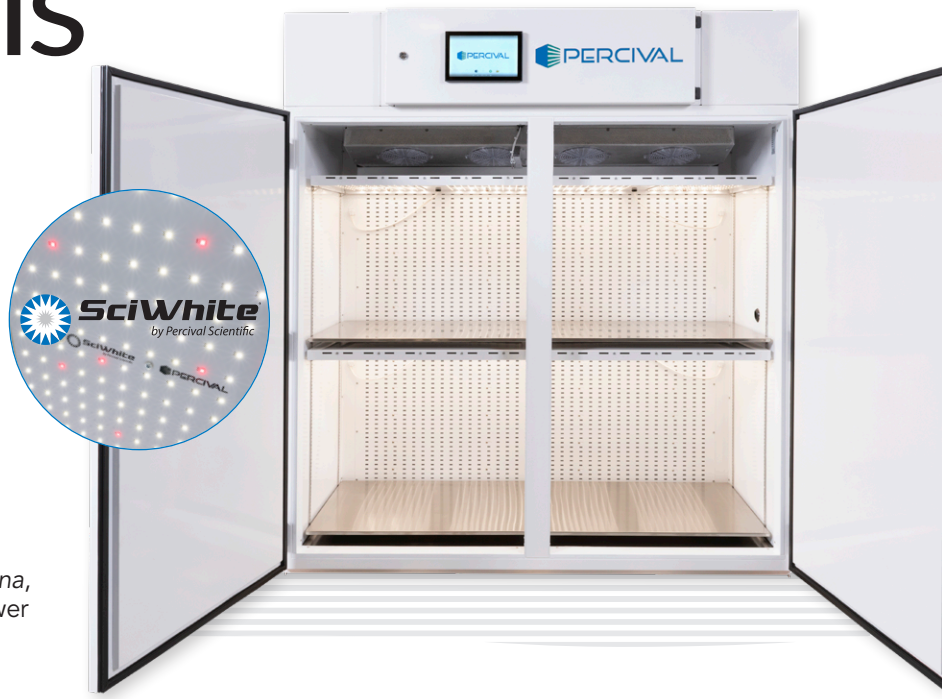
Arabidopsis

Percival® model AR-66L2

Standard SciWhite® lighting



Applications

- This chamber is frequently used for *Arabidopsis thaliana*, *Brassica sp.*, lettuce, spinach and other plants with lower light intensity requirements
- Many other applications exist for this product

Please compare your own requirements to the specifications listed below.

Percival's IntellusUltra Controller

The IntellusUltra control system (C8) was purpose-built for controlled environments and is standard on all Percival chambers.

- Robust and reliable, industrial-grade integrated hardware design
- Highly flexible architecture facilitates configuration, expansion and customization
- Precise, simultaneous control of up to 7 environmental parameters
- Industry-leading experiment protection and system diagnostics

IntellusUltra Control Graphical User Interface

A touchscreen user interface is provided as standard on all Percival Scientific plant growth chambers and allows users to interact with their controlled environment in new and intuitive ways.

- 10.1" IPS, high resolution display with 10-point multi-touch sensitivity
- Tabular and graphical presentation of chamber programs and parameters
- Highly visible process values and alarm notifications
- Enhanced user feedback menus

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

SciWhite LED Lighting System

- Two lighted tiers with SciWhite LEDs with enhanced red
- Each lighted tier consists of two lamp banks
- Intensity programmable up to 360 µmoles/m²/s of light irradiance measured @ 6" from LEDs
- Programming and control of the lighting is done via IntellusUltra real time controller
- Dimmable between 10-100% output
- Open loop dimmable lighting

Airflow/Circulation

- Air circulation inside chamber is from a specifically designed air diffuser (air travels along the entire back wall, over the shelves and returns to the ceiling fans through an opening between the light fixtures and the doors)

Cabinet Construction

- Interior constructed of 22-gauge galvanized steel
- Interior floor constructed of 22-gauge polished stainless steel
- Exterior constructed of 18-gauge Galvannealed extra-smooth steel
- Overall wall thickness is 2" (5.1 cm)
- Integrated floor drain
- Contains casters assembly and adjustable leveling legs
- One 1.25" access port with air-tight plug
- Highly durable and reflective coating

AR-66L2 specifications (subject to change without notice)

Temp Range with all lights on	Interior Space volume		Total Shelving Floor Area		Maximum Growing Height		Exterior Dimensions width		depth		height		Light Intensity 6" from lamps unless otherwise noted	Tiers
°C	ft³	m³	ft²	m²	in	cm	in	cm	in	cm	in	cm	µmoles/m²/s	
7-44±0.5	62.4	1.8	20.3	1.9	23.1	58.7	66	167.6	33.6	85.4	77.2	196.1	360	2

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Insulation

- Woodless construction using foam-in-place 2" [5.1 cm] thick CFC free urethane insulation foam (this is an environmentally friendly foam with global warming potential [GWP] of 0.0 and ozone depletion potential [ODP] of 0.0)

Doors

- Two reach-in doors each with an opening of 29.1" x 57.5" (73.9 cm x 146.1 cm) providing full access to chamber interior
- Magnetic gasket provides a tight seal to door frame

Interior Space

- 62.4 ft^3 (1.8 m^3) with work area of 20.3 ft^2 (1.9 m^2) provided on two tiers

Shelving

- Two tiers of solid stainless steel shelving (each shelf is 24"W x 30.4"D [61 cm x 77.2 cm])
- Each shelf is supported by shelf clips allowing ½" vertical adjustments
- Maximum growing height is 23.1" (58.7 cm) per tier

Refrigeration

- Self-contained air-cooled condensing unit with hot gas bypass system for continuous compressor operation, extended life and tight temperature control. Continuous running condensing unit ensures precise temperature control by alternately cycling refrigerant and hot gas to coil; also prolongs compressor life, and eliminates risk of ice build up in coil.
- Extended stem solenoid valves for quiet and long life operation
- Heat rejection to the ambient (standard refrigeration system) = 3,875 BTU/hr.

Temperature Range

- 7°-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
- System automatically resets when temperature returns to normal range

Humidity Control (optional)

- Ultrasonic Humidifier with Advanced RH Sensor (H11)
- Ultrasonic Humidifier and Dehumidifer with Advanced RH Sensor (H12)
- Ultrasonic Humidifier with Electronic RH sensor (H14)
- Ultrasonic Humidifier and Dehumidifier with Electronic RH sensor (H15)

See other specification sheets or consult factory for additional information.

Options (most popular)

- IntellusUltra Connect (C9)
- Additive CO_2 control
- CO_2 removal system
- Self-contained water-cooled condensing unit
- Dry alarm contacts
- Closed loop dimmable lighting with PAR light sensor (Q22)
- Open loop dimmable lighting per tier (Q23+)
- Extended temperature ranges available
- Convenience receptacles

Contact info@percival-scientic.com with questions or for additional information.

Electrical Service Requirements

- 115/1/60 - two grounded cords (NEMA 5-15P) provided for standard chamber
- Cord #1 RLA=9.5 & cord #2 RLA=9.8 (combined MCA=24.1)

Regulatory Standards

- Electrical Safety: UL-508A, certified and labelled by Percival Scientific under UL file number E340161
- Quality System: ISO 9001:2015, certified under DQS, Inc. under certification number 10017261

Helping You Create Better Science

Percival Scientific controlled environment systems are the culmination of over 60 years of design and manufacturing experience. We developed our high-quality products through direct partnerships within the scientific community. Our controlled environments are known for their customizable designs and superior, long-lasting performance. Creativity, passion, technical expertise and attention to detail drive our scientific innovation, and we are proud to help you create better science.

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