

Dew Formation

Percival® models I-36D & I-36DL

Standard SciWhite® lighting



Applications

- These chambers are designed for plant pathology studies and inoculating plants
- The I-36DL chamber is **NOT** intended for long-term plant growth

For other plant applications that don't require dew, please refer to other plant growth chambers.

- Many other applications exist for this product
- Please compare your own requirements to the specifications listed below.*

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

- One tier of lighted shelving lit by SciWhite LEDs
- Intensity programmable up to 500 $\mu\text{moles/m}^2/\text{s}$ 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

Airflow/Circulation

- Natural air flow provides temperature uniformity during the dew deposition period

Cabinet Construction

- Interior constructed of stainless-steel and aluminum with non-corrosive features that will resist chemical cleaning and disinfecting
- Walls covered with stainless-steel cooling plates to absorb radiated heat from plants (the false ceiling is tapered to prohibit drops of water from settling on plants on the top shelf)
- Contains caster assembly and adjustable leveling legs to compensate for floor unevenness in the lab
- Neither cabinet contains access ports on the side of the chamber

I-36D & I-36DL 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	
* 10-32±0.75	29.7	0.8	19.5	1.8	10.5	26.7	33.5	85.1	33.6	85.4	77.2	196.1	No Light	4
** 12-32±1.0	29.7	0.8	19.5	1.8	10.5	26.7	33.5	85.1	37.4	95.1	77.2	196.1	500	4

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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 29.3" x 57.5" (74.3 cm x 146.1 cm) provides full access to the chamber interior (magnetic gasket provides a tight seal to door frame)

Interior Space

- 29.7 ft³ (0.8 m³) with work area of 19.5 ft² (1.8 m²) provided on four shelves

Shelving

- 4 tiers of stainless-steel wire shelving (each shelf is 27.5"D x 25.5"W [69.9 cm x 64.8 cm])
- Shelf is supported by shelf clips allowing ½" vertical adjustments
- Maximum growing height is 10.5" (26.7 cm) provided on four tiers

Lighting System (I-36D)

- Contains SciWhite working light controlled by the IntellusUltra controller

Lighting System (I-36DL)

- Single externally mounted lamp bank consists of energy efficient SciWhite LEDs
- Maximum light intensity of 500 µmoles/m²/s of light irradiance measured @ 6" from lamps on 1 on/off light event
- Programming and control of the lighting is done via IntellusUltra real time controller

Finish

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

Refrigeration

- Top mounted 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.
- As heat is rejected, it rises and is dissipated into room without having any effect on inside temperature of cabinet
- Solenoid valves have extended stem for quiet and long life operation
- Ceiling mounted evaporator coil incorporates twin air circulation fans in aluminum housing

Temperature Range (I-36DL)

- 10°-32°C (±0.75°C) lights off and 12°-32°C (±1°C) lights on

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)
- Door with observation window and cover (Q2) (I-36D only)
- Self-contained water-cooled condensing unit
- Dry alarm contacts
- Closed loop dimmable lighting with PAR light sensor Q22
- Security package including locking door, power switch, and dry alarm contacts (S1)
- Access ports (Q10)
- Temperature recorder (10", front or side mount (R1)
- External drip pan assembly (Q19)
- Drip pan adapter (Q17)
- Additional shelving

See other catalog sheets or consult factory for additional accessories.

Electrical Service Requirements (I-36D)

- 115/1/60 - two grounded cords each with NEMA 5-15P plug provided for standard chamber
- Cord #1 RLA=3.6 & cord #2 RLA=9.5 (combined MCA=16.4)

Electrical Service Requirements (I-36DL)

- 115/1/60 - two grounded cords each with NEMA 5-15P plug provided for standard chamber
- Cord #1 RLA=6.2 & cord #2 RLA=9.5 (combined MCA=19.6)

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



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