

Dew Formation

Percival® models I-36D & I-36DL

Standard SciWhite® lighting



Applications

- Designed for plant pathology studies, innoculating plants and many more applications
- The I-36DL chamber is NOT intended for long-term plant growth

IntellusUltra Controller

The IntellusUltra (C8T) control system adapts to nearly any programming style with a large range of options for optimal control over experiments.

- Robust and reliable, industrial-grade integrated hardware design
- Highly flexible programming capabilities for customized configurations and expansion
- Precise, simultaneous control of up to 7 environmental parameters
- Industry-leading experiment protection and system diagnostics

IntellusUltra Touchscreen Interface

This high-resolution touchscreen displays advanced settings and data for fine-tuning experiments, including graphs and charts.

- 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 visit www.percival-scientific.com for more information on our control systems.

SciWhite LED Lighting System (I-36DL)*

- SciWhite LEDs mounted externally in the door
- 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

*I-36D comes standard with SciWhite working light only

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
- 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

- Construction using 2" high-grade materials, such as closed-cell and non-CFC Urethane insulation

Door

- One door opening of 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 tiers

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])
- Each shelf is supported by shelf clips allowing ½" vertical adjustments
- Maximum growing height is 10.5" (26.7 cm) per tier

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 (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 buildup in coil)
- Top-mounted refrigeration system allows easy access for maintenance and cleaning
- As heat is rejected, it rises and is dissipated into room without having any effect on inside temperature of cabinet
- Extended stem solenoid valves for quiet and long life operation
- Ceiling-mounted evaporator coils incorporate dual air circulation fans in aluminum housing
- Heat rejection to ambient (standard chamber) = 4,000 BTU/hr (I-36D); 4,500 BTU/hr (I-36DL)

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/low temperature control, audible alarms and visual indicators)
- Controls shut down all power to the chamber, activating alarms
- System automatically resets when temperature returns to normal range

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
- Dimmable lighting (closed loop 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

Contact info@percival-scientific.com for additional information.

Electrical Service Requirements (I-36D)

- 115/1/60: two grounded cords each with NEMA 5-15P plug provided (with 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 (with 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

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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