

dew formation

Percival® models
I-36D & I-36DL



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.

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.

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

*I-36D **I-36DL

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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 29.2" x 57.5" (74 cm x 146 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 working light controlled by the IntellusUltra controller

lighting system (I-36DL)

- Single lamp bank consists of energy efficient fluorescent lamps and incandescent lamps
- Maximum light intensity of 500 $\mu\text{moles/m}^2/\text{s}$ 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

- 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)
- Top mounted refrigeration system allows easy access for maintenance (e.g. cleaning)
- 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 ($\pm 0.75^\circ\text{C}$) lights off and 12°-32°C ($\pm 1^\circ\text{C}$) 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)
- IntellusUltra Connect and Android-based Touchscreen (C9T)
- IntellusUltra (standard) and Android-based Touchscreen (C8T)
- 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) (I-36DL only)
- Dimmable lighting (open loop control) (Q23) (I-36DL only)
- 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=8.6 & cord #2 RLA=9.5 (combined MCA=22.6)



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