

Drosophila

Percival® model DR-41VL

Standard IncuWhite® lighting



Applications

- This incubator has a specific combination of features optimized for *Drosophila melanogaster*
- 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.

IncuWhite LED LightingSystem

- Linear LEDs vertically mounted
- Intensity programmable up to 120 $\mu\text{moles/m}^2/\text{s}$ of light irradiance measured @ 6" from LEDs
- Programming and control of the lighting is done via IntellusUltra real time controller
- Dimmable between 5-100% output

Cabinet Construction

- 26-gauge smooth galvanized white side walls and top reinforced with 24-gauge backer plates
- Interior floor constructed of 24-gauge #304-4 stainless steel
- 24-gauge smooth white galvanized exterior
- NSF compliant seam design
- Overall wall thickness 2"
- Foamed-in-place non-CFC insulation (refer to insulation section)
- One 1¼" diameter access port on right hand wall
- Chamber floor equipped with floor drain and hose assembly
- Contains casters assembly and adjustable leveling legs to compensate for floor unevenness in the lab

DR-41VL 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	
5-44±0.5	37.2	1.1	34	3.2	9.5	24.1	41	104.1	33.6	85.4	77.2	196.1	120	5

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Insulation

- Woodless construction using 2" thick foamed-in-place non-CFC Urethane insulation with 97% closed cell, R-value of 12.5, K-value of 0.16 and density of 2.2 lbs/ft³

Door

- One door opening 36.8" x 57.5" (93.3 cm x 146.1 cm) provides full access to the chamber interior (magnetic gasket provides a tight seal to door frame)

Interior Space

- 37.2 ft³ (1.1 m³) with work area of 34 ft² (3.2 m²) provided on six tiers

Shelving

- Five tiers of white epoxy coated steel wire shelving (each shelf is 27"D x 36.3"W [68.6 cm x 92.2 cm])
- Shelves are supported by shelf clips allowing ½" vertical adjustments
- Maximum clearance between shelves is 9.5" (24.1 cm) per tier with all five shelves installed (and the water pan humidifier as standard)

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 (heat rejection to ambient [standard chamber] = 2718 BTU/hr.)
- Coil is phenolic coated to prolong the life of chamber from the acidic environment that can be created by drosophila

Temperature Range

- 5°-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)

Humidity Control

- Additive humidity control of higher than ambient to 85% (±10%) lights on for set temperatures between 15° to 30°C
- Humidity control of higher than ambient to 90% (±10%) lights off for set temperatures between 15° to 30°C
- Humidity system requires a de-mineralized water supply line which terminates to a ½" MPT connector

Electrical Service Requirements

- 120/1/60 - two grounded cords each with NEMA 5-15P plug provided for standard chamber
- Cord #1 RLA=6.6 & cord #2 RLA=6.4 (combined MCA=16.3)

Helping You Create Better Science

Percival Scientific controlled environment systems are the culmination of over 60 years of design and manufacturing experience. Our high quality products have been developed through direct partnerships with the scientific community and offer platforms that are highly customizable and provide superior performance. We understand that scientific innovation is bred through creativity, passion, technical expertise and attention to detail, and we are proud to help you create better science.



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