

drosophila

Percival® model TE-36VL

applications

- This chamber is frequently used for *Drosophila melanogaster*, mosquitos and other insect rearing research. Many other applications exist for this product such as simple/low cost germination and other lighted applications

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.

heating and cooling

- Energy saving Peltier heating/cooling system integrated in the rear of the chamber
- Uniform air distribution across each shelf optimized via CFD designed perforated rear plenum

lighting system

- Two 2' x 4' edge lit flat panel LED light fixture (mounted one on each side wall) for uniform light distribution
- Intensity programmable up to 100 $\mu\text{moles}/\text{m}^2/\text{sec}$ of light irradiance measured @ 6" from the light source on one on/off light event
- Programming and control of the lighting is done via IntellusUltra real time controller



TE-36VL specifications (subject to change without notice)

Temp Range (°C)		Interior Space volume		Total Shelving Floor Area		Maximum Growing Height		Exterior Dimensions						Light Intensity 6" from lamps unless otherwise noted	Tiers
Low	High	ft ³	m ³	ft ²	m ²	in	cm	width		depth		height			
								in	cm	in	cm	in	cm	$\mu\text{moles}/\text{m}^2/\text{s}$	
see note	70°C	29.7	0.8	25.3	2.3	11	27.9	33.5	85.1	39.3	99.8	77.2	196.1	100	5

Note: 20°C below ambient with lights off or 13°C below ambient with lights on

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temperature range

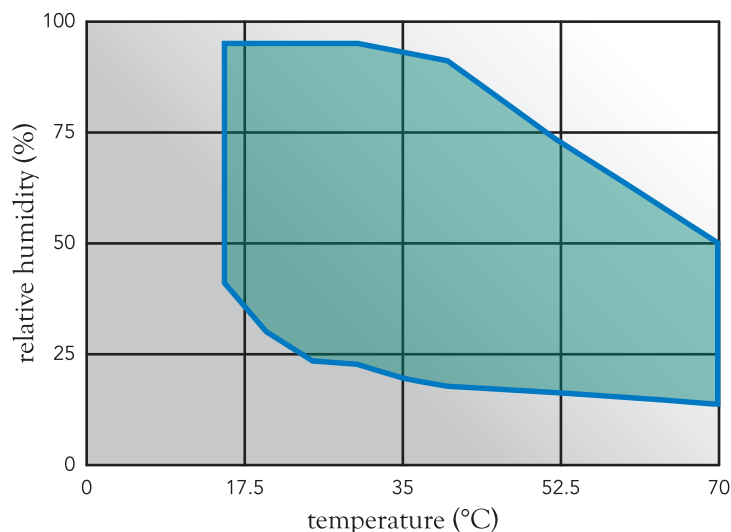
- Working temperature maximum with lights off: +70°C
- Working temperature maximum with lights on: +45°C
- Working temperature minimum with lights off: 20°C below ambient (or 4°C in a 24°C room ambient)
- Working temperature minimum with lights on: 13°C below ambient (or 11°C in a 24°C room ambient)
- Setting accuracy temperature: 0.1°C
- Volumetric uniformity with lights off: $\pm 0.2^\circ\text{C}$ @ 25°C, or $\pm 0.2^\circ + 0.06 \cdot |T - 25|^\circ\text{C}$
- Volumetric uniformity with lights on: $\pm 0.5^\circ\text{C}$ @ 30°C, or $\pm 0.5^\circ + 0.06 \cdot |T - 30|^\circ\text{C}$

humidity (optional)

- Setting range is 0-99% RH
- Control range is 10-90% RH with optional humidifier and optional dehumidifier
- Optional Humidifier types: humidification via steam generator or humidification via ultrasonic humidifier
- Steam Humidifier water requirements: distilled water from external tank by self-priming pump
- Ultrasonic Humidifier water requirements: distilled water or RO water from lab supplied water hose/tubing
- Optional dehumidifier type: Dehumidification using Peltier technology

See other specification sheets or consult factory for additional information.

temperature vs. humidity performance (with optional humidifier or/and dehumidifier)



*Graph displays chamber performance with steam humidity system

cabinet construction

- Maximizes interior volume with minimal use of floor space
- Allows chamber to fit through standard doors without disassembling critical components
- Interior and exterior constructed of ptlok steel painted with highly reflective, environmentally friendly, high temperature baked powder coating
- Overall wall thickness 5.1 cm (2")
- Chamber floor equipped with #304-4 stainless steel interior floor with drain and hose assembly
- Contains caster assembly and adjustable leveling legs to compensate for floor unevenness in the lab

interior space

- 29.7 ft³ (840 liters) with work area of 25.2 ft² (2.34 m²) provided on five tiers

shelving

- Five tiers of white epoxy coated steel wire shelving (each shelf is 71 cm x 66 cm [28" x 26"])
- Slidable, non-tilt shelves in adjustable stainless steel rails (five sets provided as standard)
- Stainless steel rails are adjustable in 4 cm (1.56") increments
- Maximum clearance between equally spaced shelves is 28 cm (11") per tier with all five shelves installed
- Maximum number of shelves = 15 (optional)

door

- One door opening 74 cm x 146 cm (29.2" x 57.5") provides full access to chamber interior (magnetic gasket provides a tight seal to door frame)
- Right hand swing standard

electrical service requirements

- (U.S. Electrical) 115VAC, single phase, 50/60Hz, one grounded cord with NEMA 5-15P plug provided approx. 950W max.
- Country specific voltage and frequencies available upon request



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