

Photostability Studies

Percival® model RX-3000L

Photostability Chamber 9.6 ft³ (272 liters)

Applications

- Designed to meet ICH Q1B Option I guidelines for photo-stability exposure testing

Please compare your own requirements to the specifications listed below.

Light Quality

- White 6500 K, 90CRI LED lighting
- UVA LED lighting
- Peak emission (360-365 nm)
- A significant portion between 320-360 nm
- A significant portion between 360-400 nm

Light Intensity

- 52 klux of white light
- Time required to reach ICH recommendation of 1.2 Mlux = 23.5 hr
- Reaches UV ICH recommendation of 200 W·hr/m² in less than 23.5 hr
- Includes photometric light sensor and dimmable lighting
- Additional integration feature so lighting automatically shuts off upon hitting minimum ICH targets or user program

Light Uniformity

- Better than +/- 10% over the entire shelf

Temperature Range

- 10°C-44°C (±0.5°C) throughout the chamber
- Temperature control accuracy: +/- 0.1°C

Humidification (optional)

- 50% to 85% RH between 15°C and 30°C
- Humidity control accuracy: +/- 2%
- Humidity uniformity: +/- 5%

Percival's IntellusUltra Controller

The IntellusUltra (C8) 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



Percival's IntellusUltra Controller (continued)

- 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
- SCADA/LIMS Port available to provide CFR21 Part 11 or EU GMP Annex 11 compliance

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

RX-3000L specifications (subject to change without notice)

Temp Range	Exterior Dimensions						Shelving Size		Work Area		ID 65 Channel 1 Light Intensity	UVA Channel 2 Light Intensity	Tiers
	width		depth		height								
°C	in	cm	in	cm	in	cm	in	cm	ft ²	m ²	klux	W/m ²	
10-44±0.5	31	78.7	23.8	60.3	46.2	117.3	26.5 x 16.5	67.3 x 41.9	3	0.3	52	40	1

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Insulation

- Woodless construction using 2" thick foamed-in-place non-CFC Urethane insulation with 97% closed cell-structure density of 2.2 lbs/ft³

Cabinet Construction

- Interior constructed of highly reflective Specular aluminum
- Interior floor constructed of 24-gauge polished stainless steel
- Exterior constructed of 24-gauge Galvannealed extra-smooth steel
- NSF-compliant seam design
- Chamber is completely self-contained, suitable for stacking one above the other
- Overall wall thickness is 2" (5.1 cm)
- Highly durable and reflective coating

Door

- One door opening 26.8" x 29.8" (67.9 cm x 75.6 cm) provides full access to the chamber interior
- Magnetic gasket provides a tight seal to door frame

Shelving

- One tier of stainless steel wire shelving (shelf is 16.5"D x 26.5"W [41.9 cm x 67.3 cm])
- Shelf is supported by shelf clips allowing ½" vertical adjustments
- Maximum height is 27" (68.6 cm)

Refrigeration

- Self-contained 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 buildup in coil.
- Extended stem solenoid valves for quiet and long life operation
- Rear chamber wall-mounted evaporator coil incorporates an air circulation fan
- Heat rejection to ambient (standard chamber) = 1,564 BTU/hr

Humidity Control (optional)

- Ultrasonic humidifier with advanced RH sensor (H11)
- Ultrasonic humidifier and dehumidifier with advanced RH sensor (H12)
- Ultrasonic humidifier with electronic RH sensor (H14)
- Ultrasonic humidifier and dehumidifier with electronic RH sensor (H15)

Contact info@percival-scientific.com with questions or for additional information on humidity control.

Options (most popular)

- IntellusUltra Connect (C9)
- Additive CO₂ control
- CO₂ removal system
- Self-contained water-cooled condensing unit
- Dry alarm contacts
- Extended temperature ranges available
- Convenience receptacles

Contact info@percival-scientific.com with questions or for additional information about chamber options.

Electrical Service Requirements

- 115/1/60 with NEMA 5-15P plug provided (with standard chamber)
- RLA=9.3, MCA=11.6

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. 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 comes from creativity, passion, technical expertise and attention to detail, and we are proud to help you create better science.



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