HY UVC HYBRID TROFFER NEW FIXTURE

Energy Solutions INTERNATIONAL, INC.

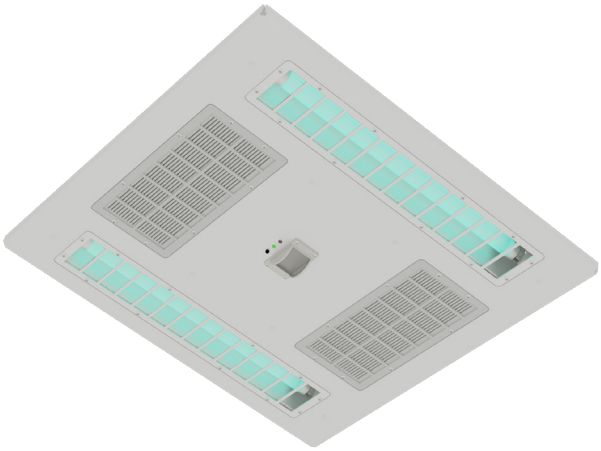
Hybrid 2x2 Recessed UVC Air Purifier and Whole-Room Treatment For Use During Occupancy and Non-Occupancy

PROJECT
TYPE
PART NUMBER

DESCRIPTION

American-made hybrid UVC air and surface technology provides safe and effective automated pathogen disinfection. UVC air purifier provides quiet air cleaning during occupancy while whole room UVC lighting provides comprehensive airborne and surface level treatments during periods of vacancy. Designed for offices, schools, universities, retail applications, and other commercial spaces.

Pure UVC guarantees this item is rigorously engineered to maximize safety & efficacy, and is built from the highest quality components with the following credentials:



SPECIFICATIONS

CONSTRUCTION

97% reflective white optics maximizes efficiency and performance
Weight: 14.5lbs
Dimensions: 23.5” x 23.5” x 4.5”

ELECTRICAL

75W, 110V-277V; 60HZ ELECTRICAL OPERATION
(2) 25W EXTERNAL AND (1) 11W INTERNAL 254NM OSRAM TUV LAMPS

MORE INFORMATION

30dB Noise Level Operation
T-Bar pull out tabs and 4 securing holes for code compliance
Access plate and knockouts provided for easy power connections
(1) Replaceable Standard HEPA Filter
(1) Replaceable Standard Active Carbon Filter
Optional - Surface Mount Kit
Estimated 10,000hr Lamp Life

LISTINGS

(2) UL-listed, UVC High Performance Ballasts
(2) 31CFM, 3,000RPM CE-listed Frictionless Fans
(1) UL-listed RF Occupancy Sensor
(1) FCC compliant Bluetooth Controller
Listings include: EPA Registered Establishment, CSA Pending, BAA Compliant, CE, FCC, RU (UL-Listed lamps and sensors)

ORDERING INFORMATION

STYLE	LIGHT ENGINE	SIZE	# OF LAMPS	WATTAGE	CONTROLS	ADD-ONS
PHT NEW UNIT	**UVC** 254nm UVC	**2** 2’ X 2’ SQUARE TROFFER	**3** (2) 25W EXTERNAL + (1) 11W INTERNAL UVC LAMP	**75** 75W	**IS** INTELLI-SAFE (TM)	**SM** SURFACE MOUNT
					RM REMOTE-MONITORING	
					BN BACnet	

PURE UVC

Buy American Act COMPLIANT

MADE IN MINNESOTA

INTERTEK ETL LISTED US

PATENT PENDING

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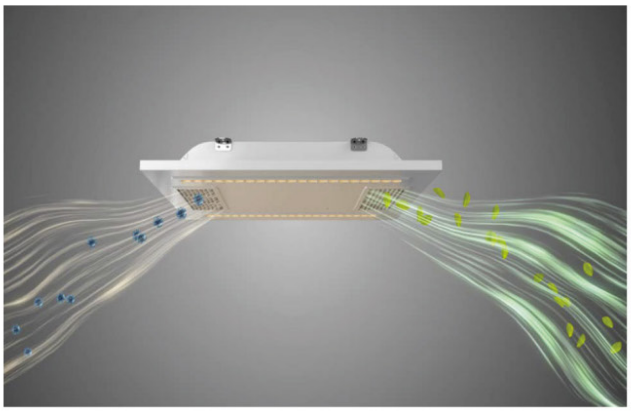
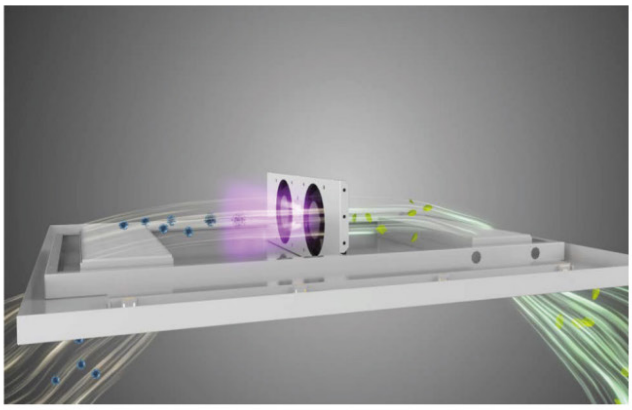
ADDITIONAL INFORMATION

Air Purification Overview



The PHTUVC2375XX air purification mode operates while spaces are occupied. The 60CFM low-noise air exchange system provides safe, effective, and non-distracting air treatment for spaces under 450 sqft with 8-10ft ceilings



Filtration via high-intensity 254nm UVC light, HEPA, and active carbon are combined in the PHTUVC2375XX to reduce commonly-found harmful airborne pathogens, pollutants, VOCs, odors, and other unwanted particulates.

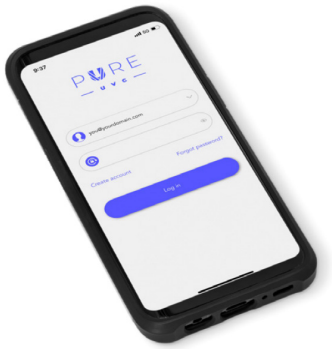
Whole-Room Treatment Overview

When spaces are unoccupied (i.e. between meetings or late at night), PHTUVC2375XX is equipped to deploy whole-room treatments which provide highly effective rapid disinfection against exposed surface-level and airborne viruses, bacteria, mold spores, and other pathogens while reducing certain VOCs in a space.

Each Hybrid Troffer is equipped with Pure UVC's Intelli-Safe™ controls to provide multiple layers of safety redundancies and future-ready flexible functionality including treatment scheduling, one-touch on-demand disinfection, fixture groupings, automatic updates, occupancy shut-off, and much more.

ADDITIONAL INFORMATION CONTINUED

Intelli-Safe™ Overview

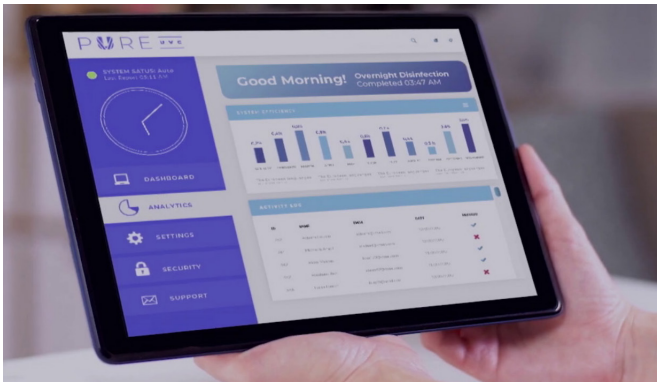


Intelli-Safe™ is designed to maximize occupant safety, system flexibility, and UVC treatment effectiveness. This is the first system of its kind: a pioneering app-based (iOS and Android) control system that is integrated into each PHTUVC2375XX fixture. Simple to commission, budget-friendly without sacrificing capability, customized for each facility's unique needs, and constantly up-to-date, Intelli-Safe™ is masterfully developed for future-readiness and reliability to maximize occupant safety and facility disinfection.

Features Include:

- **App-Based Controls** (iOS and Android) allow for easy alterations of schedule and fixture power by authorized users.
- In-fixture **Smart Sensors** detect occupants approaching the treatment area and automatically disengage operation of UVC fixtures while occupancy is detected.
- **Astronomic Clock** syncs all fixtures to be active only at designated times when treatment space is unoccupied (i.e. late at night).
- Fixtures are **Set to Deactivate** if any discrepancy is detected ensuring any system faults are remedied before continuation of operation.
- **Fixture Groupings** provide easy control of all fixtures in a single room, area, or wing based on facility needs.
- The Pure UVC app is preloaded with **Customized Presets** programmed to ensure proper disinfection times against viruses, bacteria, and mold calculated based on Pure UVC's engineered design.
- **Automated App Updates** provide the latest security measures and protocols to keep your system healthy and future-ready.

Remote Monitoring*



The Intelli-Safe™ remote monitoring add-on provides unprecedented system access with features including:

- **Extensive Reporting** including per-room treatment times, dosages achieved, and much more
- **Live System Status** indicates currently active treatments, remaining component lifespan, etc.
- **Automated Health Pings** provide notifications for component replacements or maintenance
- **Central System Programming** simplifies future-ready changes to treatment times and dates, and other system updates from a single central console

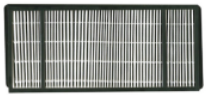
* Must select the "RM" Controls option when ordering

ADDITIONAL INFORMATION CONTINUED

UVC Emitter Details

	External (Whole-Room)	Internal (Air Purification)
Notable Features	• Effective and environment-friendly disinfection without chemicals • Low mercury content • Long lifetime due to specific coating • Ozone-free	
Part No.	Osram HNS 25W G13	Osram HNS 11W G5
Quantity	2	1
Nominal Voltage	46.0 V	33.0 V
Nominal Current	0.6 A	0.41 A
Nominal Wattage	25.00 W	11.00 W
Luminous Intensity	7800 cd	7800 cd
UVC Wavelength	253.7 nm	253.7 nm
UVC Radiated Power	6.9 W	2.5 W
Dimensions (DxL)	26.0 mm x 438.00 mm	16.0 mm x 212.0 mm
Base	G13	G5
Life Expectancy	9000 h	9000 h

Filter Details



	HEPA Filter	Activated Carbon Filter
Notable Features	Captures up to 99.97% of airborne particles at 0.3 microns from the air that passes through the filter[5]	Helps capture harmful gasses such as ammonia and certain VOCs, and deodorizes the air[4]
Part No.	Honeywell HRF-H1	Honeywell HRF-B1
Quantity	1	1
Dimensions (WxDxL)	4.6 x 1.4 x 10 in	4.2 x .25 x 20 in
Life Expectancy	1 Year	1 Year

ADDITIONAL INFORMATION CONTINUED

Fan Details

Part No.	DZ08038B24LA	Maximum Current	0.06A ±10%
Quantity	2	Maximum Power	1.44W ±10%
Dimensions (WxDxL)	80x80x38mm	Rated Airflow	29.53 CFM
Rated Voltage	24VDC	Rated Static Pressure	0.12 Inch-H2O
Start-Up Voltage	12VDC (50/60Hz)	Life Expectancy	70,000 h
Operating Voltage	14.0~27.6VDC	Noise Level	29.7 dB Max
Rated Speed	2300rpm ±10%	Motor Type	AC Frequency-Switching Fan

Cited Scientific Research

(1) Biasin, M., Bianco, A., Pareschi, G. et al. UV-C irradiation is highly effective in inactivating SARS-CoV-2 replication. Sci Rep 11, 6260 (2021). https://doi.org/10.1038/s41598-021-85425-w

(2) Malayeri, Adel & Mohseni, Madjid & Cairns, Bill. (2016). Fluence (UV Dose) Required to Achieve Incremental Log Inactivation of Bacteria, Protozoa, Viruses and Algae. IUVA News. 18. 4-6.

(3) Liu CY, Tseng CH, Wang HC, Dai CF, Shih YH. The Study of an Ultraviolet Radiation Technique for Removal of the Indoor Air Volatile Organic Compounds and Bioaerosol. Int J Environ Res Public Health. 2019;16(14):2557. Published 2019 Jul 17. doi:10.3390/ijerph16142557

(4) Mohamed F, Kim J, Huang R, Nu HT, Lorenzo V. Efficient control of odors and VOC emissions via activated carbon technology. Water Environ Res. 2014 Jul;86(7):594-605. doi: 10.2175/106143014x13975035525267. PMID: 25112027.

(5) Perry, Jay & Agui, Juan & Vijayakumar, Ra. (2016). Submicron and Nanoparticulate Matter Removal by HEPA-Rated Media Filters and Packed Beds of Granular Materials.

(6) Xu M, Sivak JG, McCanna DJ. Neutralization of the eye and skin irritant benzalkonium chloride using UVC radiation. Cutan Ocul Toxicol. 2021 Jun;40(2):78-84. doi: 10.1080/15569527.2021.1902339. Epub 2021 Mar 26. PMID: 33771058.

Contact ESI for additional scientific data, verification, and resources.

WARNING:

⚠ UV lamp emissions may pose a safety and health hazard, particularly to the eyes and skin. The system in direct UVC treatment mode is NOT to be used in the presence of individuals without appropriate precautions, including the use of personal protective equipment for skin and eye. Avoid eye and skin exposure to unshielded product. Warning signs should be placed at access points to the area be ing disinfected. Client is responsible for training personnel on the risk of hazard and appropriate use and maintenance after installation. Training materials provided should be kept for reference to reduce hazardous exposure.

⚠ Lamps contain mercury. If a lamp breaks, ventilate the room for 30 minutes and remove the parts, preferably with gloves. Put them in a sealed plastic bag and take it to your local waste facilities for recycling. Do not use a vacuum cleaner. PROP65 WARNING:

⚠ This product can expose you to chemicals including Di-isodecyl Phthalate, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.**ca.gov.**

DISCLAIMER:

ESI and Pure Lighting Company disclaim any and all liability for harm caused by improper or negligent use of the system. All information is believed to be accurate at the time of publication. Pure Lighting Company reserves the right to change specifications without notice.