

## Ultraviolet Germicidal Irradiation (UVGI)

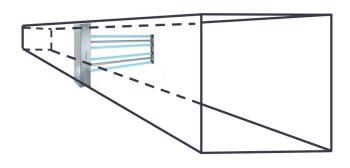
# SPECIFICATION SHEET: PV-AUV-DC Series

The PV-AUV-DC Series includes (2) different configurations with 2 lamps and 4 lamps, both at varying lamp lengths to fit inside different size ducts or plenums when positioned near coils.

The high-output DC Series germicidal Ultraviolet C (UVC) fixtures are designed specifically for HVAC applications. They can be mounted in various configurations for optimum pass-by air decontamination and/or to irradiate cooling coils and drain pans. Lamps and electronics can be accessed from outside the duct or plenum. "Green" lamps (contain ≤8mg of mercury) extend inside to span supply ducts and/or cooling coils

**Applications:** DC Series fixtures are used for external installation in medium to large air handling systems in commercial, industrial, health care and institutional buildings











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TB Series is manufactured in the U.S.A., and tested prior to shipment. Each assembly consists of housing, reflector, louver, electronic ballast, power cord, on/off pull chain and UVC lamp.

**FIXTURE:** Housings are constructed of heavy gauge hospital grade stainless steel. Lamp changes can be done without removing the fixture from the mounting. All components are in one integrated assembly to maximize serviceability.

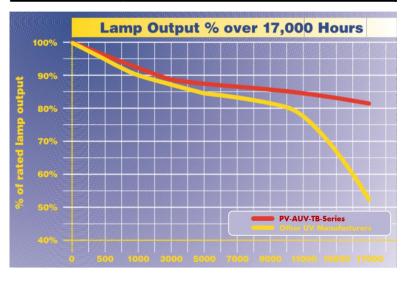
BALLAST: The solid-state electronic ballast (furnished with this series) is a Class P rapid start with a power factor minimum of .95. It is available as a 120, 208, 230, or 277 VAC 50/60 Hz and is designed to maximize photon production in air temperatures of 35 to 175 degrees F. Minimum ballast start temperature is minus 20 degrees F. Ballasts have a RFI - EMI rating as defined by FCC part 18A for industrial / commercial applications in regards to suppression. Ballasts are UL listed.

**LAMPS:** DC series UVC lamps are highoutput (800mA) T5 tube diameter, and constructed from hard glass tubing for superior UV transmittance. Lamps are "green", containing ≤8mg of mercury (Hg). Lamps shall retain, at minimum, 80% of initial output after 17,000 hours of use and produce no ozone. Electrodes are designed to maximize plasma convection and stability for superior lamp performance. Electrodes are designed to maximize plasma convection and stability for superior lamp performance. Lamps are rated to produce 11.7 microwatts/cm2 per linear inch of lamp arc length at a distance of one meter. This output has been independently tested in airstreams of 400 feet per minute velocities at temperatures of 45 degrees F.

2 Lamp - PV-AUV-DC Series for varying duct widths	
PV-AUV-DC14-2	Duct Clean fixture, 14", 2 high output UVC lamps
PV-AUV-DC16-2	Duct Clean fixture, 16", 2 high output UVC lamps
PV-AUV-DC24-2	Duct Clean fixture, 24", 2 high output UVC lamps
PV-AUV-DC33-2	Duct Clean fixture, 33", 2 high output UVC lamps
PV-AUV-DC45-2	Duct Clean fixture, 45", 2 high output UVC lamps

4 Lamp - PV-AUV-DC Series for varying duct widths		
4 Lamp - F V-AOV-DC Series for Varying duct widths		
PV-AUV-DC14-4	Duct Clean fixture, 14", 4 high output UVC lamps	
PV-AUV-DC16-4	Duct Clean fixture, 16", 4 high output UVC lamps	
PV-AUV-DC24-4	Duct Clean fixture, 24", 4 high output UVC lamps	
PV-AUV-DC33-4	Duct Clean fixture, 33", 4 high output UVC lamps	
PV-AUV-DC45-4	Duct Clean fixture, 45", 4 high output UVC lamps	

REPLACEMENT Ballasts & Lamps - PV-AUV-DC Series		
PV-AUV-TXG530	ballast for all PV-AUV-DC fixtures	
PV-AUV-SBL410	14" lamp for DC14 fixtures - 34 Watts each	
PV-AUV-SBL430	16" lamp for DC16 fixtures - 38 Watts each	
PV-AUV-SBL415	24" lamp for DC24 fixtures - 63 Watts each	
PV-AUV-SBL420	33" lamp for DC33 fixtures - 80 Watts each	
PV-AUV-SBL445	45" lamp for DC45 fixtures - 120 Watts each	





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#### **Benefits**

- •Improves Indoor Air Quality (IAQ) by reducing bacteria, viruses and mold that either grow or pass through the air handling systems. Reduces the risk of cold, flu, allergies and other illness associated with air handling systems
- Two-year (17,000 hour) guarantee on lamps with only 20% decrease in output over the two years.
- Five-year, non-prorated warranty on the ballast
- Continuously cleans upper air in rooms, preventing airborne transmission of bacteria and viruses
- Produces no ozone or other secondary contaminants

#### **Ballasts**



Prolonged, direct exposure to UVC light can cause temporary skin redness and eye irritation, but does not cause skin cancer or cataracts. These devices are designed with safety in mind and, when properly installed by a professional contractor, they do not allow exposure to UV irradiation and allow for safe operation and maintenance.

**INDEPENDENT TESTING:** Units are tested in accordance with the general provisions of Illumination Engineering Society (IES) Lighting Handbook, 1981 Applications Volume, and provide output per 1" arc length of not less than 11.7  $\mu$ W/cm2 at 1 meter in a 400 feet per minute (fpm) airstream of 45° Fahrenheit (F).

**SCALABILITY:** DC Series are offered in two and four-lamp configurations. They may be mounted singly; in built-up banks; or in parallel configurations in a variety of locations, including coils, drain pans, ductwork, mixed air plenums and exhaust systems. The DC Series is available in five insertion depths (14", 16", 24", 33", and 45") and four voltage options (115, 208, 230 or 277 VAC), providing installation flexibility to accommodate virtually any system.

DC Series Fixtures are designed for easy access lamp changes that do not require you to un-mount housing from ducting - simply remove the rear access panel, slide over the lamp retaining clips and remove the lamps. All electronic components are housed outside the ducting, including lamp power connection, which eliminates moisture contamination. Lamps are rated for two-year continuous operational life with approximately 20% drop in UVC output at end of lamp life.

### **Ultraviolet Lamp Wavelengths**

