DATASHEET
Lighting Solutions

PE500C-10F and PE500C-10UV

CERMAX® XENON SHORT-ARC LAMPS

CERMAX

Cermax® Xenon short-arc lamps from Excelitas Technologies are ideal for applications that require a high degree of illumination control.

Key Features

- High-intensity, focused illumination - 10500 Lumens
- Up to 10.3 Watts of UV output (<390 nm)
- Power range of 350-525 Watts
- 1000 hours life
- Broad spectral range with 5900° Kelvin color temperature

Applications

- Medical and industrial fiber optic illuminators
- Machine vision
- Infrared and visible spotlights/beacons
- Spectroscopy
- Microscopy
- UV Curing
- Video projection
- Solar simulation
- Wafer inspection

The Cermax® Xenon short-arc lamp from Excelitas Technologies is an innovative lamp design in the specialty lighting industry. Cermax® Xenon lamps were first introduced in the early 1980s and are now used in diagnostic and surgical endoscopes in most major hospitals worldwide, in high-brightness projection display systems, and for a wide variety of high-performance applications.

The Cermax® Xenon lamps, Models PE500C-10F and PE500C-10UV, have an integrated elliptical reflector, enabling high-intensity, focused output of ultraviolet, visible, and infrared radiation. With their internal reflector and rugged ceramic body construction, Cermax® Xenon lamps are the safest and most compact alternative to conventional quartz xenon lamps. This makes them ideal for applications that require a high degree of illumination control.

Current-regulated or power-regulated power supplies with output ripples of less than 5% are recommended. Single-shot ignition pulses are advised because radio frequency starters may damage the lamp's internal reflector.

In addition to lamps, Excelitas Technologies manufactures Cermax® Xenon short-arc lamp power supplies, lamp holders, OEM lighting systems, and fiber optic light sources.

EXCELITAS TECHNOLOGIES

www.excelitas.com

PE500C-10F and PE500C-10UV

Operational Specifications		
Description	**Nominal**	**Range**
Power	500 Watts	350-525 Watts
Current	32 amps (DC)	23-35 amps (DC)
Operating Voltage	15.5 volts (DC)	14-16.5 volts (DC)
Ignition Voltage	23-35 kilovolts (system dependent)	
Temperature	150° C (Maximum)	
Lifetime*	1000 hours typical	

* End of life is defined as 50% of initial output

Initial Output at Nominal Power		
F= UV Filtered Output	**UV= UV Enhanced Output**	
Description	**PE500C-10F**	**PE500C-10UV**
Radiant Output*	112 Watts	112 Watts
UV Output*	5.0 Watts	10.3 Watts
IR Output*	65 Watts	63 Watts
Visible Output*	10500 Lumens	9550 Lumens
Color Temperature	5900° Kelvin	5050° Kelvin
Peak Instabilities	4%	
Spot Size at Crossover at 50% pts.	0.7 inch (18 mm)	
Spot Size at Crossover at 10% pts.	0.2 inch (5 mm)	

* These values indicate total output in all directions. Wavelengths = UV<390 nm, IR>770 nm, Visible: 390 nm-770 nm

Physical Specifications	
Description	**Specification**
Focal Distance “A”	0.8 inch (19 mm)
Weight	191 grams
Window Diameter	1.0 inch (25.4 mm)

Focused Output		
Description	**Visible Output**	**Total Output***
3 mm aperture	4085 Lumens	39 Watts
6 mm aperture	7770 Lumens	75 Watts

* Nominal values at 500 Watts after 2 hour burn-in.

NOTES:

1. Lamp must not be operated with window facing upwards within 45° of vertical.

2. Seal temperature must not exceed 150° C.

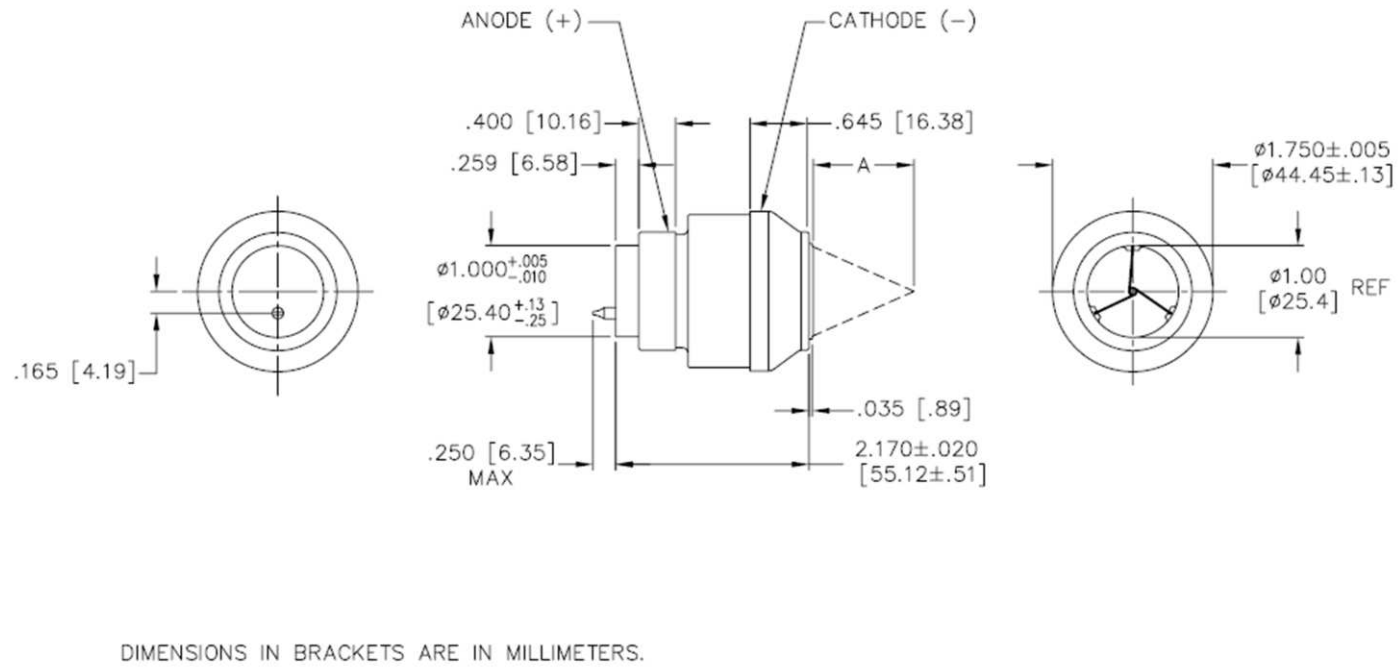
3. Current/power regulated power supplies and Excelitas lamp housing units are recommended.

4. Lamp must be operated within recommended current and power range. Over powering may lead to arc instability, hard starting and premature aging.

5. Cermax® Xenon lamps are much safer lamps to use than their quartz xenon arc lamp equivalents. However, caution must be practiced when operating lamps because they are under high pressure, require high voltage, reach temperatures up to 200° C, and their IR and UV radiation can cause skin burns and eye damage. Please read the Hazard Sheet included with each lamp shipment.

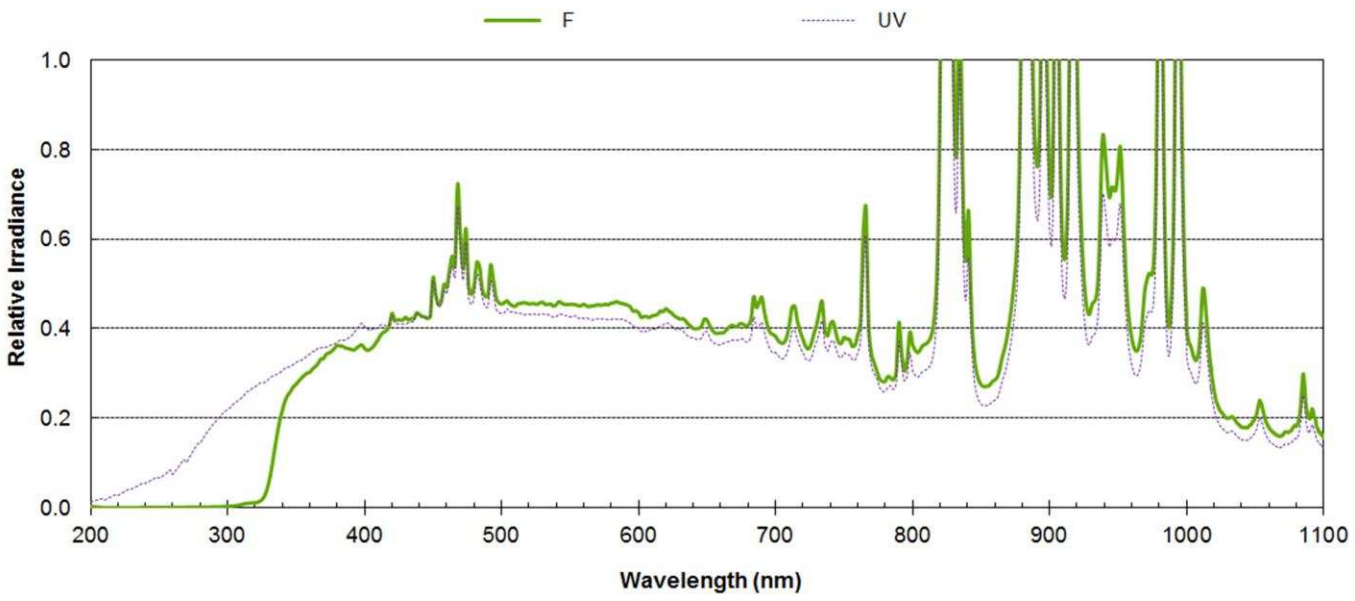
Mechanical Dimensions

PE500C-10F and PE500C-10UV



Spectral Output

PE500C-10F and PE500C-10UV



About Excelitas Technologies

Excelitas Technologies is a global technology leader focused on delivering innovative, customized solutions to meet the lighting, detection and other high-performance technology needs of OEM customers.

From medical lighting to analytical instrumentation, clinical diagnostics, industrial, safety and security, and aerospace and defense applications, Excelitas Technologies is committed to enabling our customers' success in their specialty end-markets. Excelitas Technologies has approximately 3,000 employees in North America, Europe and Asia, serving customers across the world.

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