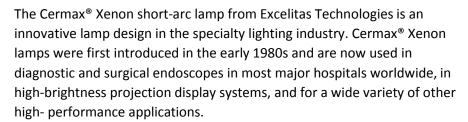


PE300C-10F and PE300C-10UV

CERMAX® XENON SHORT-ARC LAMPS



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



The Cermax® Xenon lamps, Models PE300C-10F and PE300C-10UV, have an integrated elliptical reflector, enabling high-intensity, focused light output. Due to the Xenon lamp's broad color spectrum, the lamp is filtered to emit ultraviolet, visible, or infrared light, depending upon the application or usage. With their internal reflector and rugged ceramic body construction, Cermax® Xenon lamps are the safest and most compact alternative to conventional quartz xenon lamps. Cermax® lamps are 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 lamps internal reflector.

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



Key Features

- High-intensity, focused illumination 7475 Lumens
- Up to 9.7 Watts of UV output (<390 nm)
- Power range of 200-300 Watts
- 1000 hours lamp lifetime
- Broad spectral range with 5900°
 Kelvin color temperature

Applications

- Medical fiber optic illuminators
- Industrial fiber optic illuminators
- Machine vision
- Infrared and visible spotlights/beacons
- Spectroscopy
- Microscopy
- UV Curing
- Video projection



PE300C-10F and PE300C-10UV

CERMAX® XENON SHORT-ARC LAMPS

PE300C-10F and PE300C-10UV

| Operational Specifications | | | | |
|----------------------------|------------------------------------|--------------------|--|--|
| Description | Nominal | Range | | |
| Power | 300 Watts | 200-300 Watts | | |
| Current | 21 amps (DC) | 13-23 amps (DC) | | |
| Operating Voltage | 12 Volts (DC) | 11.5-15 Volts (DC) | | |
| Ignition Voltage | 23 kilovolts (recommended minimum) | | | |
| 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 L | Filtered Output UV= UV Enhanced Output | | | |
| Description | PE300C-10F | PE300C-10UV | | |
| Radiant Output* | 75 Watts | 75 Watts | | |
| UV Output* | 3.8 Watts | 9.7 Watts | | |
| IR Output* | 37 Watts | 34.5 Watts | | |
| Visible Output* | 7475 Lumens | 6725 Lumens | | |
| Color Temperature | 5900° Kelvin | 5050 ° Kelvin | | |
| Peak Instabilities | | 4% | | |
| Spot Size at Focus – FWHM (inc | hes) (| 0.060" | | |

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

| Physical Specifications | | |
|-------------------------|---------------------------------|--|
| Description | Specification | |
| Arc Gap | 0.045 inch (1.14 mm) | |
| Reflector Geometry | Ellipsoidal $1=X^2/M^2+Y^2/N^2$ | |
| Weight | 190 grams | |
| Window Diameter | 1.0 inch (25.4 mm) | |

PE300BF and PE300BUV

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CERMAX® XENON SHORT-ARC LAMPS

| Focused Output | | | |
|----------------|----------------|---------------|--|
| Description | Visible Output | Total Output* | |
| 3 mm aperture | 2300 Lumens | 23 Watts | |
| 6 mm aperture | 4500 Lumens | 37 Watts | |

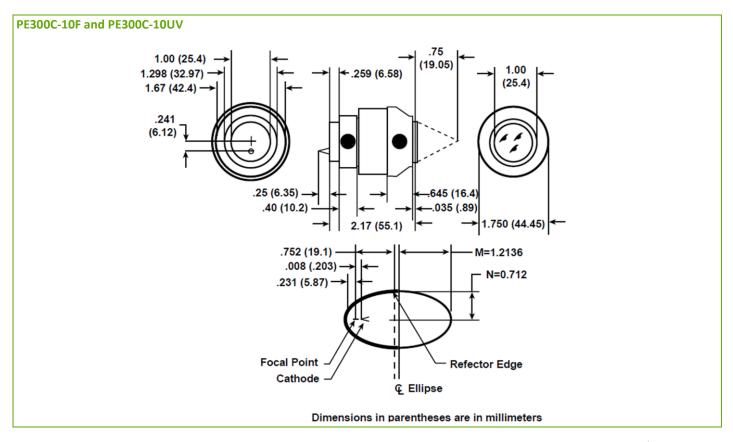
^{*} Nominal values at 300 Watts after 2 hour burn-in.

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. Hot mirror assembly is available for IR filtering.
- **6.** 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

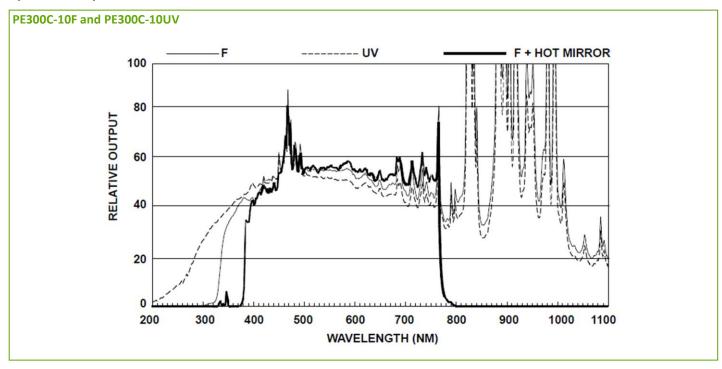
IR and UV radiation can cause skin burns and eye damage. Read hazard sheet included with each lamp shipment.

Mechanical Dimensions



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Spectral Output



About Excelitas Technologies

Excelitas Technologies is a global technology leader focused on delivering innovative, customized solutions to meet the lighting, detection and other highperformance 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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