



PE300BFA 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 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 lamp, Model PE300BFA, has an integrated parabolic reflector, enabling high-intensity, focused output of 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 requiring 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.

CERMAX

Key Features

- High-intensity illumination—4000 Lumens
- Power range of 180-320 Watts
- 500 hour warranty
- Broad spectral range with 5900° Kelvin color temperature
- Made in Indonesia

Applications

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

PE300BFA

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Operational Specifications		
Description	Nominal	Range
Power	300 Watts	180-320 Watts
Current	21 amps (DC)	10-22 amps (DC)
Operating Voltage	14 volts (DC)	13-16 volts (DC)
Ignition Voltage	23-35 kilovolts (system dependent)	
Temperature	150° C (Maximum)	
Lifetime*	500 hour warranty	

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

Initial Output at Nominal Power	
F= UV Filtered Output	
Description	PE300BFA
Peak Intensity	515x10 ³ Candelas
Radiant Output*	50 Watts
UV Output*	2.6 Watts
IR Output*	28.8 Watts
Visible Output*	4000 Lumens
Color Temperature	5900° Kelvin
Peak Instabilities	4%
Beam Geometry**	5°/6°/7°

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

** Beam Geometry defined as the half angle at 10% PTS after 0/100/1000 hours

Physical Specifications	
Description	Specification
Weight	132 grams
Window Diameter	1.0 inch (25.4 mm)
Country of Origin	Indonesia

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Focused Output with f/1.0 Lens

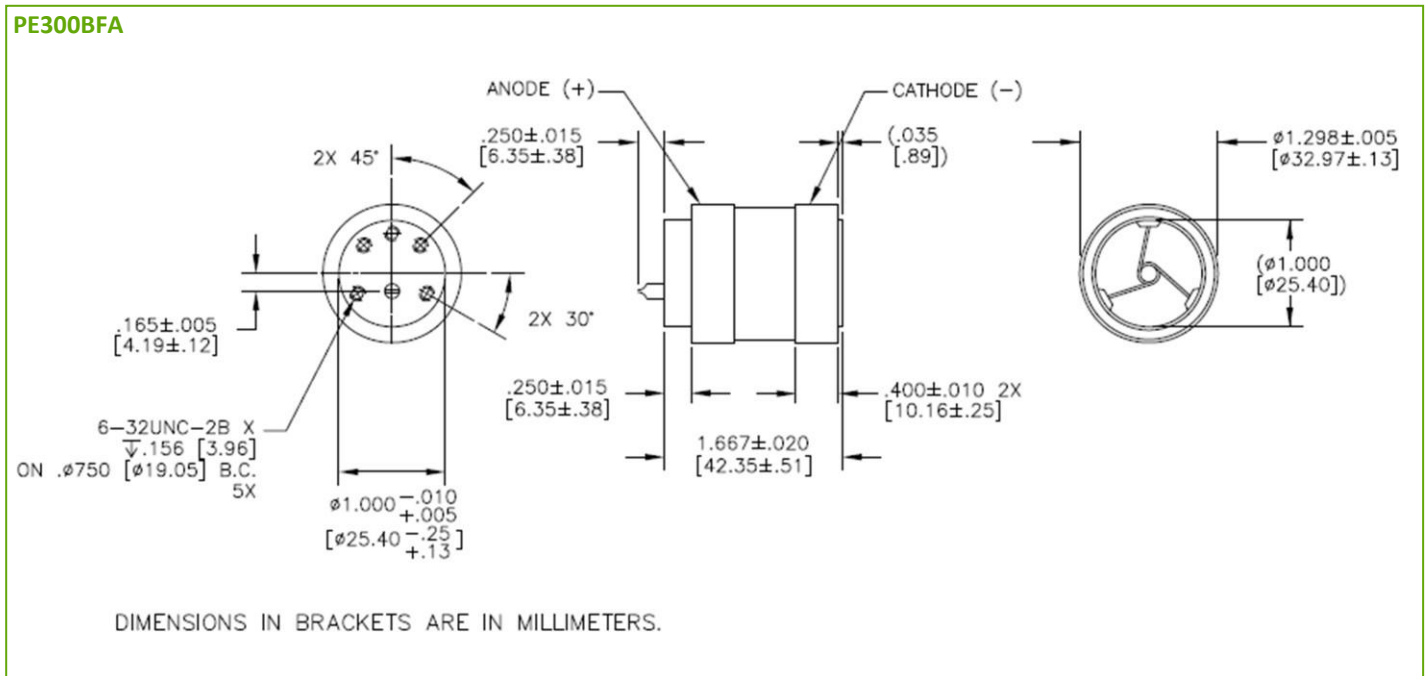
Description	Visible Output	Total Output*
3 mm aperture	1410 Lumens	14 Watts
6 mm aperture	3130 Lumens	29 Watts

* Nominal values at 300 watts.

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. Please read the Hazard Sheet included with each lamp shipment.

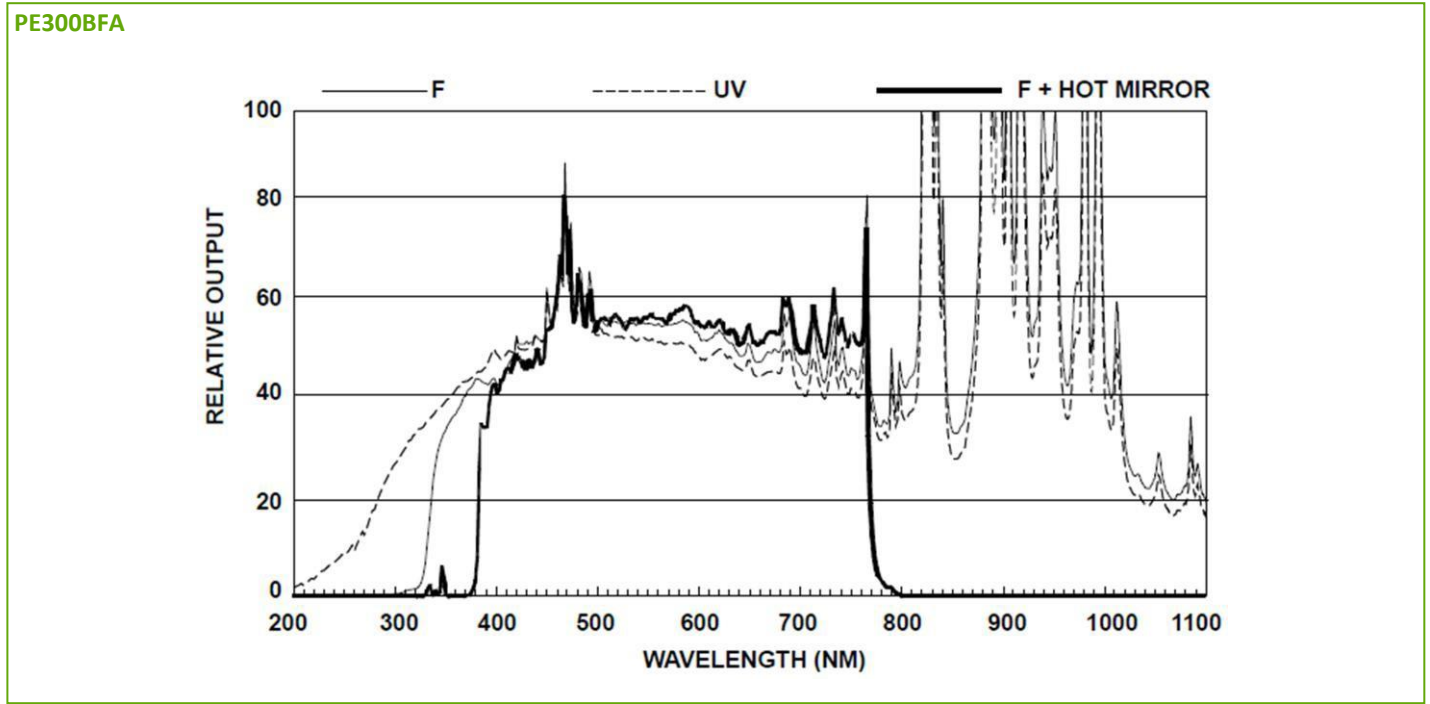
Mechanical Dimensions



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Spectral Output



About Excelitas Technologies

Excelitas Technologies® is a leading industrial technology manufacturer focused on delivering innovative, market-driven photonic solutions to meet the illumination, optical, optronic, sensing, detection and imaging needs of our OEM and end-user customers. Serving a vast array of applications across biomedical, scientific, semiconductor, industrial manufacturing, safety, security, consumer products, defense and aerospace sectors, Excelitas stands committed to enabling our customers' success in their many various end-markets. Our team consists of more than 7,500 professionals working across North America, Europe and Asia, to serve customers worldwide.