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.

Key Features

- High-intensity illumination—5000 Lumens
- Power range of 180-320 Watts
- 1000 hours life
- Broad spectral range with 5900° Kelvin color temperature
- Made in the U.S.A.

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 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.

www.excelitas.com

PE300BFA

CERMAX® XENON SHORT-ARC LAMPS

PE300BFA

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*	1000 hours typical	

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

Initial Output at Nominal Power	
F= UV Filtered Output	
Description	**PE300BFA**
Peak Intensity	515×10^3 Candelas
Radiant Output*	50 Watts
UV Output*	2.6 Watts
IR Output*	28.8 Watts
Visible Output*	5000 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	United States of America

PE300BFA

CERMAX® XENON SHORT-ARC LAMPS

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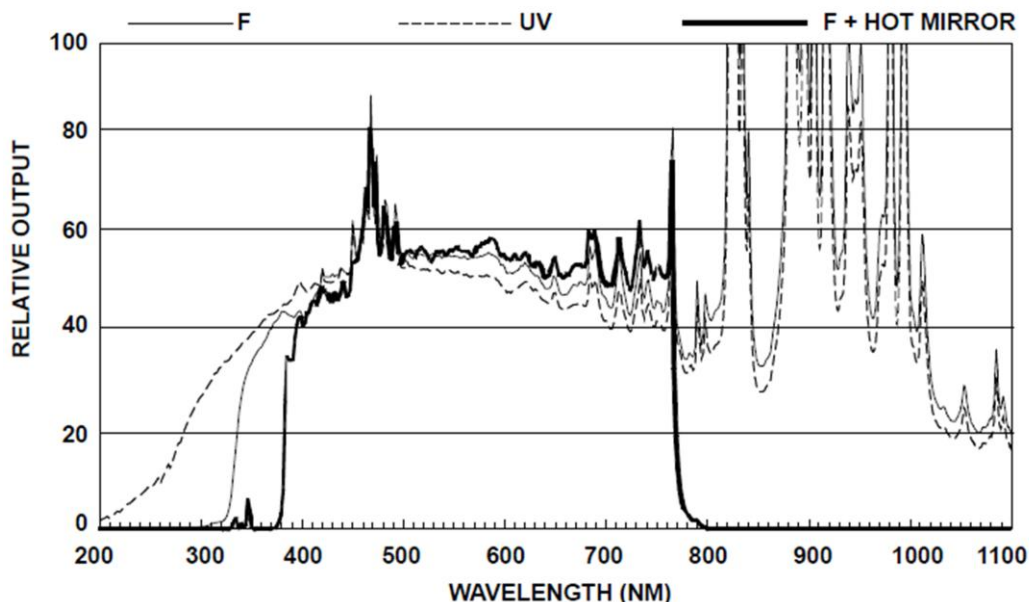
Mechanical Dimensions

PE300BFA

ANODE (+)   CATHODE (−)

2X 45°   .250±.015 [6.35±.38]   (.035 [.89])   ⌀1.298±.005 [⌀32.97±.13]

.165±.005 [4.19±.12]   2X 30°   (⌀1.000 [⌀25.40])

6−32UNC−2B X ▽.156 [3.96] ON .⌀750 [⌀19.05] B.C. 5X   .250±.015 [6.35±.38]   .400±.010 2X [10.16±.25]

⌀1.000 −.010 +.005 [⌀25.40 −.25 +.13]   1.667±.020 [42.35±.51]
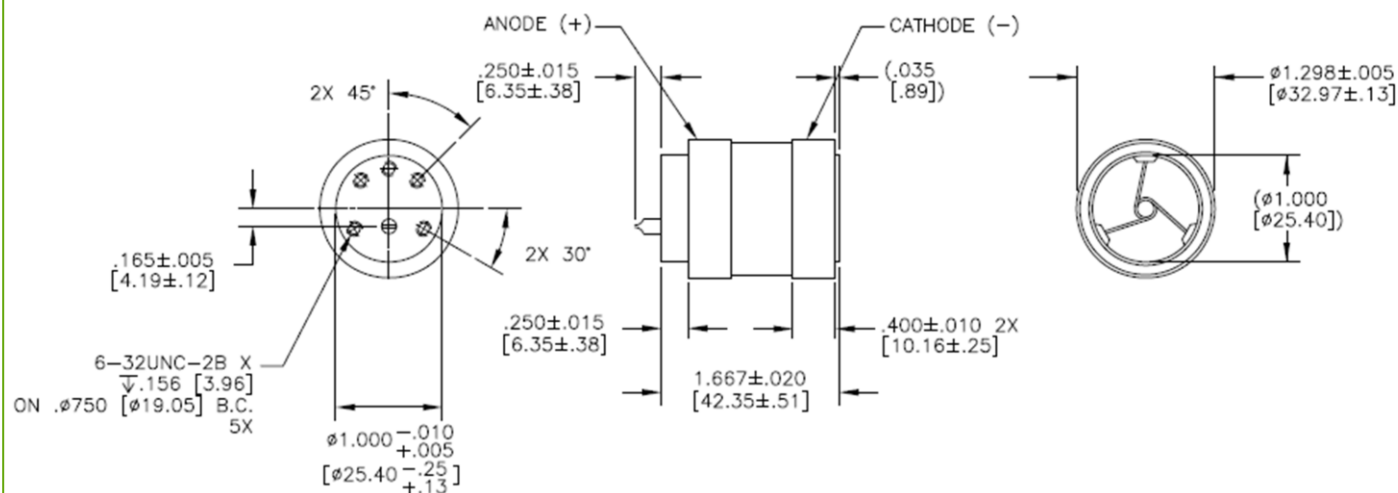
DIMENSIONS IN BRACKETS ARE IN MILLIMETERS.

Spectral Output

PE300BFA

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.

For a complete listing of our global offices, visit www.excelitas.com/locations

www.excelitas.com

EXCELITAS
TECHNOLOGIES