

Technical Information

No. FO 4055

Edition: 04/2006 - subject to change

Supersedes: edition 2/89

Status: valid

Xenon Short Arc Lamp

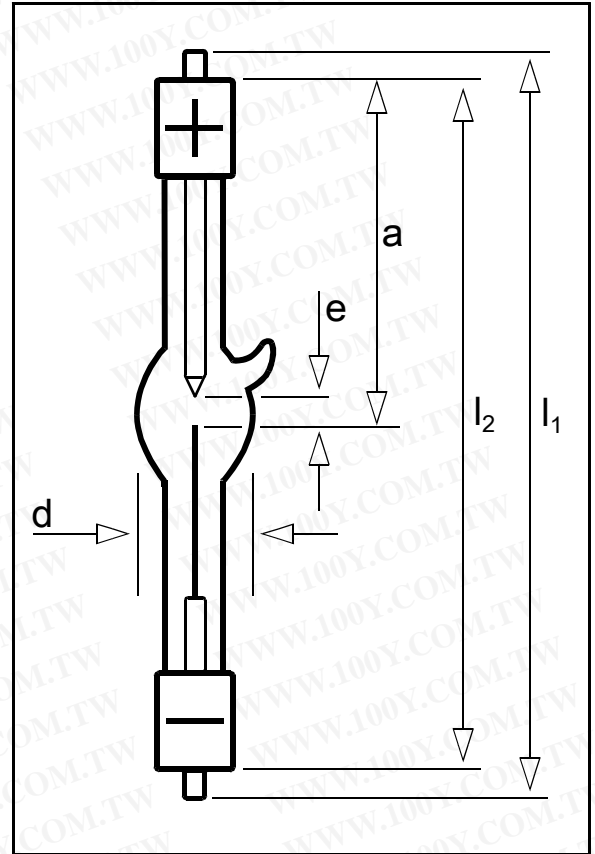
XBO[®] 100 W OFR

■ Product description

- Xenon discharge lamp for DC operation
- Short arc
- High pressure
- Day-light spectrum
- Hot re-strike
- Ozone-free

■ Electrical Data and Lamp Geometry

Rated lamp current	A	7.2
Rated lamp power	W	100
Initial voltage range	V	12.8 ... 14.4
Ignition voltage (cold / hot)	kV	max. 20 / max. 20
Overall lamp length l_1	mm	max. 90
Lamp length l_2	mm	max. 82
Bulb diameter d	mm	approx. 11
Length a^1	mm	44.5 ± 1.5
Electrode gap (cold) e	mm	approx. 0.9
Base (anode side)		• SFa 9-2
Base (cathode side)		• SFa 7.5-2



■ Performance Data²

Initial luminous flux	lm	min. 1800
Initial average luminance	cd/cm ²	min. 27000
Initial light intensity ³	cd	min. 165
Average life	h	500
Colour temperature	K	approx. 6000

■ Mounting

This lamp should be mounted at the anode base; the cathode base should be left unsupported. It is allowed to mount at the cathode base leaving the anode base unsupported; however, this renders length „a“ meaningless.

¹ Length „a“ specifies the position of cathode tip referring to reference plane at room temperature.

² At rated current if not otherwise specified

³ Light intensity in the plane containing cathode tip and vertical to lamp axis

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■ Operation Conditions

Burning position		s 100; vertical, cathode down, to 10° below horizontal, cathode up
Base temperature	°C	max. 230 allowed
Cooling		depending on lamp housing convection may be sufficient
Arc stabilisation		not required
Allowed power range	W	85 ... 115
Allowed current range ⁴	A	7.0 ... 7.4
Max. peak of inrush current		15
Polarity		for proper polarity observe base marking

This lamp type can be operated both on a standard ballast and on an electronic control gear provided they comply with the requirements laid down in „Guidelines for Control Gears and Igniters. Xenon Short Arc Lamps. Photo Optics“ (see table below).

■ Safety Instructions

XBO[®] 100 W OFR must only be operated in purpose-built lamp housings which prevent direct viewing of the arc and in case of lamp bursting refrain lamp particles.

■ Additional Documentation

Title	Order reference
• Guidelines for Control Gear and Igniters. Xenon Short Arc Lamps. Photo Optics	FO GL-4
• Technology and Applications. XBO Theatre Lamps	123 W97 11/97 CO
• Typical Spectral Distribution	

For above mentioned publications please contact an OSRAM representative in your neighbourhood.

⁴ It is recommended to operate this lamp with rated current. Currents deviating from rated value are allowed provided their value is within the specified range and they do not result in power consumption outside the specified power range. In case maximum power has been reached the power supply must reduce current.