

# Technical Information

No. 5463

Edition: 06/06

Substitutes: 01/06

Status: valid

# Xenon Short Arc Lamp

# XBO<sup>®</sup> 3000 W/HSLA OFR

## ■ Product description

OSRAM XBO<sup>®</sup> 3000 W/HSLA OFR. LA stands for Lumen Advanced. Produced with the latest high brightness XBO technology. A new generation of high light output lamps specially developed for applications requiring excellent arc stability and maximum efficiency of its luminance.

## ■ Technical data

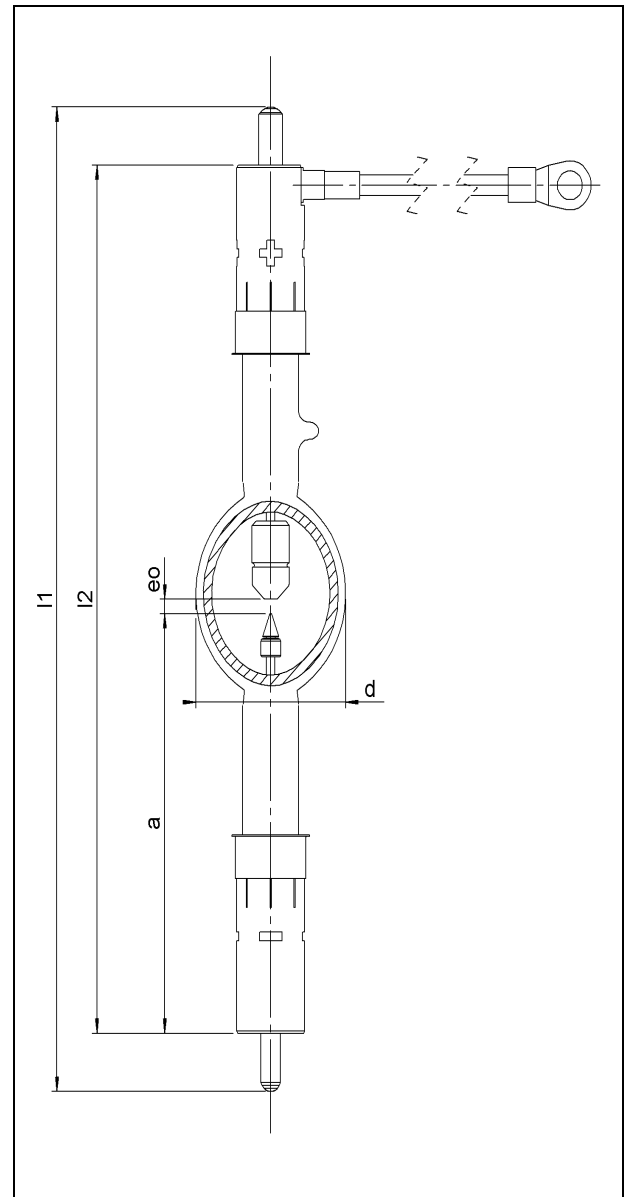
Order reference	XBO <sup>®</sup> 3000 W/HSLA OFR	
Rated lamp wattage	W	3000
Rated lamp voltage	V	29
Rated lamp current (DC)	A	110
Current control range	A	60 - 120
Ignition voltage	kV <sub>p</sub>	36
Min. open circuit voltage for cold / hot ignition	V	85 / 110
Luminous flux	lm	130000
Luminous intensity	cd	12000
Average luminance	cd/cm <sup>2</sup>	105000
Luminous area w x h *)	mm	1.7 x 4.0
Electrode gap e (cold)	mm	5
Lamp length (overall) l <sub>1</sub>	mm	max. 342
Lamp length l <sub>2</sub>	mm	max. 302
LCL a	mm	145
Bulb diameter d	mm	54
Average service life	h	2000
Warranty	h	1500
Base	Cathode	SFa 27-7,9
	Anode	SFaX 27-9,5

\*) w = luminance half width value; h = height of luminous area (corresponds to electrode gap, hot)

\*\*) Using electronic rectifier with low current ripple

## ■ Lamp operation

Maximum permissible base temperature	230°C
Cooling	forced cooling / fan
Min. air flow velocity around discharge vessel	6 m/s
Magnetic arc stabilization	necessary for horizontal operation
Operating position	s 30 (vertical ± 30° anode up); p 30 (horizontal ± 30°)





## Technical Information

No. 5395

Edition: 01/06 - subject to change

Substitutes: Edition 01/06

Status: valid

## Xenon Short Arc Lamp

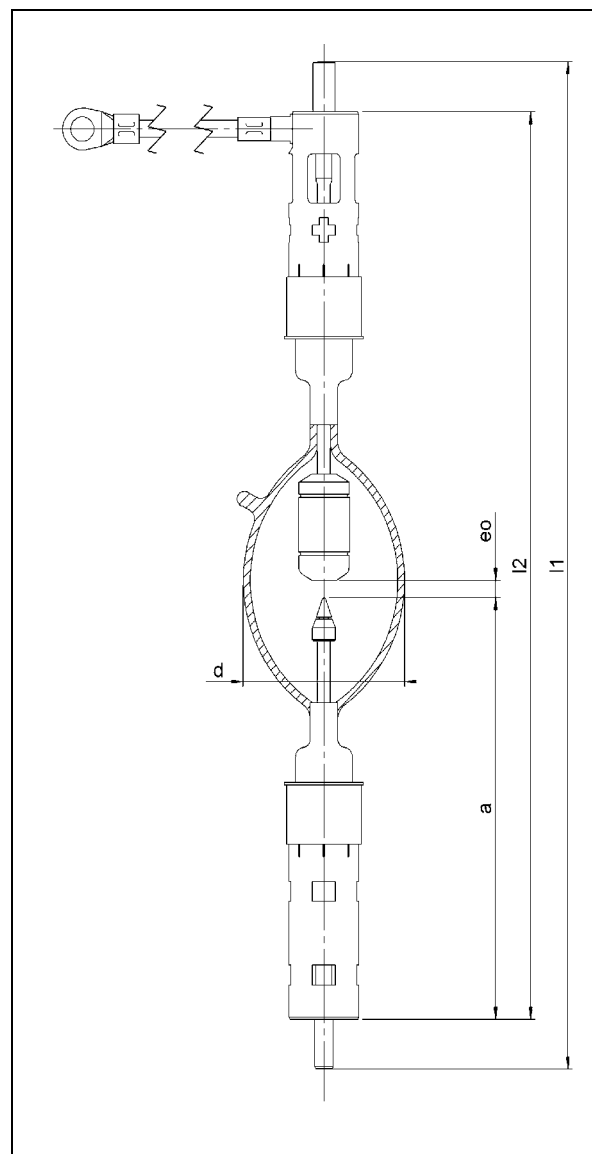
# XBO<sup>®</sup> 6000 W/HSLA OFR

### ■ Product description

The OSRAM XBO<sup>®</sup> 6000 W/HSLA OFR is a DC-operated lamp that is especially suited for applications requiring excellent arc stability and a high luminance.

### ■ Technical data

Order reference	XBO <sup>®</sup> 6000 W/HSLA OFR	
Rated lamp wattage	W	6000
Rated lamp voltage	V	35
Rated lamp current (DC)	A	170
Current control range	A	140 - 175
Ignition voltage	kV <sub>p</sub>	40
Min. open circuit voltage for cold / hot ignition	V	85 / 110
Luminous flux	lm	280000
Luminous intensity	cd	30000
Average luminance	cd/cm <sup>2</sup>	160000
Luminous area w x h *)	mm	1.9 x 6.0
Electrode gap e (cold)	mm	7.0
Lamp length (overall) l <sub>1</sub>	mm	max. 433
Lamp length l <sub>2</sub>	mm	max. 393
LCL a	mm	170,5
Bulb diameter d	mm	70
Average service life **)	h	1000
Warranty	h	600
Base	Cathode:	SFa 30-7,9
	Anode:	SFa X 30-9,5



\*) w = luminance half width value; h = height of luminance area (corresponds to electrode gap, hot)

\*\*\*) Using electronic rectifier with low current ripple

### ■ Lamp operation

Maximum permissible base temperature	230°C
Cooling	forced cooling / fan
Min. air flow velocity around discharge vessel	6 m/s
Magnetic arc stabilization	necessary for horizontal operation
Burning position	s 15 (vertical ± 15° ; anode up) ; p 15 (horizontal ± 15°)



product details

**XBO 6500W/HSLA OFR**

Product description: XBO 6500W/HSLA OFR  
 Product code: 4008321288103  
 Quantity: Shipping carton box (VS) contains  
 1 Piece (PCE)

You can find this product in the eCatalog:

[http://catalog.myosram.com?~language=EN&~country=COM&it\\_p=4008321288103](http://catalog.myosram.com?~language=EN&~country=COM&it_p=4008321288103)

Applications	
Cooling	Forced
Burning position	s15/p15 <sup>1)</sup>

General Description	
Base (standard designation)	SFaX30-9.5+SFa30-7.9
Arc stability, horizontal	Yes
Base anode (standard designation)	SFaX30-9.5
Base cathode (standard designation)	SFa30-7.9
Connector: Presence	J

Logistical Data	
Product weight	1380.300 g

Technical - Electrical Data	
Construction wattage	6500 W
Lamp voltage	38 V
Construction current	170 A
Lamp current	170 A
Current control range	140...175 A
Nominal voltage	38 V

Technical - Geometries	
Diameter	70.00 mm
Length with base excl. base pins/connect	433 mm
Mounting length	393 mm
Light centre length (LCL)	170.5 mm <sup>2)</sup>
Illuminated field	2.0*6.3 mm <sup>2</sup>
Length	433.00 mm
Cable length	400 mm

Technical - Lifespan	
Lifespan	500 h

Technical - Light Technical Data	
Luminous flux	300000 lm <sup>3)</sup>
Luminance	160000 cd/cm <sup>2</sup> <sup>4)</sup>
Luminous intensity	32000 cd <sup>5)</sup>

Packaging units				
Product code	Packaging type and content	Dimensions in h x w x l	Gross weight	Volume
4008321288103	Shipping carton box contains 1 Piece	309,000 mm x 309,000 mm x 670,000 mm	3.350,300 g (0,000 g)	63,972 Cubic dec.



30.03.2011

Subject to change without notice. Errors and omission excepted.  
 © 2011 OSRAM GmbH

Page 1 of 2



product details

## XBO 6500W/HSLA OFR

### Safety

Because of their high luminance, UV radiation and internal pressure in both the hot and cold state, XBO lamps may only be operated in enclosed lamp casings specially constructed for the purpose. Always use the protective jackets supplied when handling these lamps. When packing the lamps and when installing or removing the lamps without their protective jackets, always wear protective clothing (face mask with neck protector and leather gloves with wrist protectors). For more information see the relevant in-pack leaflets and operating instructions.

### Their main characteristics and advantages are as follows

XBO lamps are double-ended short-arc discharge lamps in which the discharge arc burns between the two electrodes in an atmosphere of pure xenon gas.

- Very high luminance (point light source)
- Daylight color temperature of approx. 6,000 K
- High color rendering index ( $R_a > 96$ )
- Continual color quality, irrespective of lamp type and lamp wattage
- Hot restart
- DC operation
- Dimmable
- Long life

### Applications

- Classic 35 mm film projection
- Digital film and video projection
- Architectural and effect light (Light Finger)
- Sunlight simulation

### Literature

For more information on XBO lamps and their operation please refer to the following OSRAM brochures:

- Guideline for control gear and igniters: XBO Xenon short arc lamps
- Technology and application XBO cinema lamps

- 1) For vertical burning position: anode (+) on top
- 2) Distance from end of base to tip of electrode (cold)
- 3) Measured in the vertical burning position
- 4) Measured in the vertical burning position
- 5) Measured in the vertical burning position