

Technical Information

No. FO 4875

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Substitutes: 01/99

Status: preliminary

Mercury Short Arc Lamp
for Microlithography

HBO[®] 4000 W/PL

n Product description

The OSRAM HBO[®] 4000 W/PL is a direct current mercury short arc i-line lamp designed for the manufacture of integrated circuits (microlithography). This lamp type emits a very high radiant intensity in the ultraviolet and visible wavelength range and is especially suited for use in SVG equipment (Micrascan II) in semiconductor applications.

n Technical data

Order reference		HBO [®] 4000 W/PL
Rated lamp wattage	W	3.500 (4.000)
Rated lamp voltage	V	38 (42)
Rated lamp current (=)	A	92,5 (95)
Ignition voltage (cold)	kV _s	max.
Electrode gap e (cold)	mm	5
Lamp length (overall) l ₁	mm	max. 363
Lamp length l ₂	mm	338 / max. 342
Bulb diameter d	mm	77
LCL a	mm	158

Average service life	h	1.000
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Base	<ul style="list-style-type: none">• Cathode: SFc 33,5-10/50• Anode: SF 33,5/50 with cable connection
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n Lamp operation

Maximum permissible base temperature	°C	200
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Cooling	forced base cooling
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Burning position	vertical, anode (+) up
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The HBO[®] 4000 W/PL can either be operated on standard ballasts or on electronic power supplies (ECG).

n Safety Instruction

Because their high luminous efficacy, the UV radiation which they emit and the high pressure within the lamp, HBO[®] lamps must be operated within enclosed, purpose-built housings. When a lamp breaks, mercury is released. Particular safety regulations must be paid attention (for details please request technical information sheet no. FO 4574).

