Technical Information

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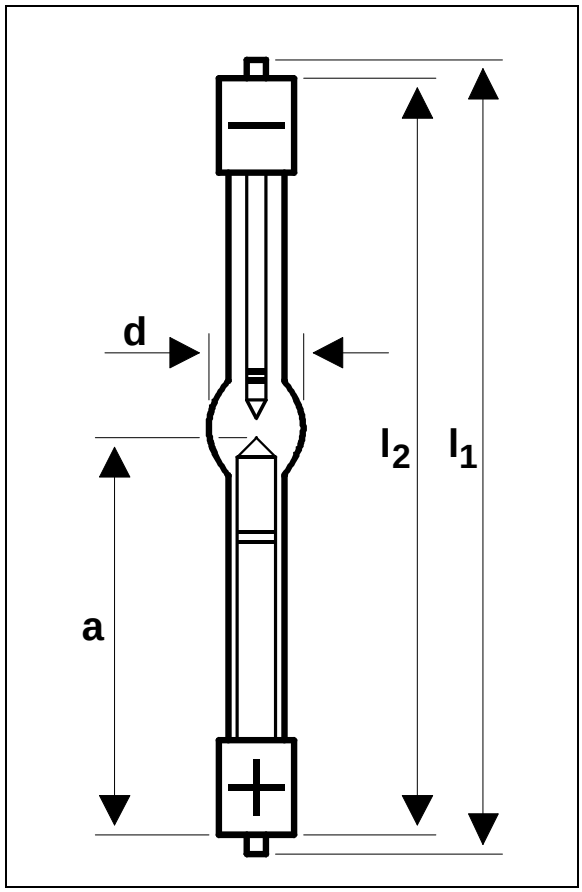
Mercury Short Arc Lamp

HBO® 100 W/2

Product description

- Mercury discharge lamp
- Short arc
- For DC operation at constant power
- High pressure during operation
- For vertical and horizontal operation



Electrical Data and Lamp Geometry

Rated lamp power	W	100
Rated lamp current	A	4.9
Initial voltage range	V	17 ... 25
Ignition voltage (cold)	V	max. 850
Overall lamp length l_1	mm	max. 90
Lamp length l_2	mm	max. 82
Bulb diameter d	mm	10.0 ± 0.2
Length a [1]	mm	43.0 ± 1.5
Arc gap (cold)	mm	Approx. 0.5
Base (anode side) Base (cathode side)		• SFa 9-2 • SFa 7.5-2

Performance Data [2]

Initial luminous flux	lm	min. 1800
Initial light intensity [3]	cd	min. 230
Declared service life [4]	h	200

Full luminous flux is generated after a run-up phase of approximately five minutes.

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 anode tip referring to reference plane at room temperature.
[2] At rated power if not otherwise specified; data pertains to both vertical and horizontal operation.
[3] Light intensity in the plane containing anode tip and vertical to lamp axis
[4] At switch cycle 2 hours on, 2 hours off

Operation Conditions

Burning position		s 90 (vertical-to-horizontal, anode down)
Base temperature	℃	max. 230 allowed
Cooling		depending on lamp housing convection may be sufficient
Arc stabilisation		not required
Allowed power range [5]	W	70 ... 125 (in case of short-time line voltage deviations)
Required inrush current	A	min. 5, max 8
Polarity		for proper polarity observe base marking

This lamp type can be operated both on a standard ballast and on an electronic power supply provided they comply with the requirements laid down in *Guidelines for Power Supplies and Igniters* (see table below).

Safety Instructions

- During operation the lamp has a very high internal pressure. Even so, an explosion is extremely unlikely but, the possibility cannot be entirely ruled out.
- HBO-Lamps 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
• Typical Spectral Distribution	
• Mercury Safety Instructions for HBO Short Arc Lamps	No. FO 4574
• Guidelines for Power Supplies and Ignitors	No. FO GL-1

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

[5] It is recommended to operate this lamp with rated power.