

## HBO $\leq$ 200W Double End

Short arc lamps with an intense point source that provides a broad spectrum through the visible and ultraviolet ranges



### Areas of application

- Laboratory & Analysis
- UV Curing
- Fiber Illumination
- Microscopy
- Solar Simulation

### Product features and benefits

- High luminance / radiance with intense point source
- Broad spectral distribution in the visible and ultraviolet range
- Enhanced UV characteristics available on some types
- High arc stability



## Product family datasheet

### Technical data

Product description	General Product Information			
	Product number (Americas)	Product name (Americas)	Family brand	Global order reference
HBO 50 W/AC 39 V	69213	HBO 50 W AC L1 10/CS 1/SKU	HBO	HBO 50 W/AC 39 V
HBO 50 W/AC 34 V	69214	HBO 50 W AC L2 10/CS 1/SKU	HBO	HBO 50 W/AC 34 V
HBO 50 W/3	69215	HBO 50 W/3 10/CS 1/SKU	HBO	HBO 50 W/3
HBO 100 W/2	69217	HBO 100 W/2 10/CS 1/SKU	HBO	HBO 100 W/2
HBO 103 W/2	69182	HBO 103 W/2 10/CS 1/SKU	HBO	HBO 103 W/2
HBO 200 W/2 57 V	69198	HBO 200 W/2 L1 10/CS 1/SKU	HBO	HBO 200 W/2 57 V
HBO 200 W/4	69224	HBO 200 W/4 10/CS 1/SKU	HBO	HBO 200 W/4
HBO 200 W/DC TM	69163	HBO 200 W/DC TM 10/CS 1/SKU	HBO	HBO 200 W/DC TM
HBO 202 W/4				HBO 202 W/4
HBO 200 W/DC 57 V	69225	HBO 200 W/DC 10/CS 1/SKU	HBO	HBO 200 W/DC 57 V

Product description	Lamp type	Electrical Data			Photometric Data
		Nominal wattage	Lamp voltage	Lamp current	Nominal luminous flux
HBO 50 W/AC 39 V		50 W	39...45 V <sup>1)</sup>	1.1...1.3 A	2000 lm
HBO 50 W/AC 34 V		50 W	34...39 V <sup>1)</sup>	1.3...1.5 A	2000 lm
HBO 50 W/3		50 W	20...26 V <sup>1)</sup>	1.9...2.5 A	1300 lm
HBO 100 W/2		100 W	17...25 V <sup>1)</sup>	4.3...5.6 A	2200 lm
HBO 103 W/2	HBO103W/2	103 W	17...25 V <sup>1)</sup>	4.0...5.0 A	2550 lm
HBO 200 W/2 57 V		200 W	57...65 V <sup>1)</sup>	3.0...3.5 A	9500 lm
HBO 200 W/4		200 W	54...63 V <sup>1)</sup>	3.0...3.7 A	9500 lm
HBO 200 W/DC TM	DOUBLE ENDED	200 W	57...65 V <sup>1)</sup>	3.0...4.3 A	9500 lm
HBO 202 W/4		202 W	57...65 V <sup>1)</sup>	3.6 A	
HBO 200 W/DC 57 V		200 W	48...65 V <sup>1)</sup>	3.0...4.3 A	10000 lm

Product description	Luminous intensity	Luminous efficacy	Light center length (LCL)	Physical Attributes & Dimensions
				Base (anode)
HBO 50 W/AC 39 V	230 cd <sup>2)</sup>	40 lm/W	22.0 mm <sup>3)</sup>	SFa6-2
HBO 50 W/AC 34 V	230 cd <sup>2)</sup>	40 lm/W	22.0 mm <sup>3)</sup>	SFa6-2
HBO 50 W/3	150 cd <sup>2)</sup>	26 lm/W	22.0 mm <sup>3)</sup>	SFa8-2
HBO 100 W/2	260 cd <sup>2)</sup>	22 lm/W	43.0 mm <sup>3)</sup>	SFa9-2
HBO 103 W/2	300 cd <sup>2)</sup>	30 lm/W	43.0 mm <sup>3)</sup>	SFa9-2

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Product description	Luminous intensity	Luminous efficacy	Light center length (LCL)	Physical Attributes & Dimensions
				Base (anode)
HBO 200 W/2 57 V	1000 cd <sup>2)</sup>	47.5 lm/W	40.0 mm <sup>3)</sup>	SFc10-4
HBO 200 W/4	950 cd <sup>2)</sup>	47.5 lm/W	40.0 mm <sup>3)</sup>	SFc10-4
HBO 200 W/DC TM	1000 cd <sup>2)</sup>	50 lm/W	40.0 mm <sup>3)</sup>	SFc10-4 <sup>8)</sup>
HBO 202 W/4	1000 cd <sup>9)</sup>	47.5 lm/W	40.0 mm <sup>3)</sup>	SFc10-4
HBO 200 W/DC 57 V	1100 cd <sup>2)</sup>	50 lm/W	40.0 mm <sup>3)</sup>	SFc10-4

Product description	Base (cathode)	Diameter	Diameter (in)	Length
HBO 50 W/AC 39 V	SFa6-2	10.0 mm	39.331 in	53.0 mm
HBO 50 W/AC 34 V	SFa6-2	10.0 mm	39.331 in	53.0 mm
HBO 50 W/3	SFa6-2	9 mm	39.331 in	52.0 mm
HBO 100 W/2	SFa7.5-2	10.0 mm	0.394 in	90.0 mm
HBO 103 W/2	SFa7.5-2	10.0 mm	0.394 in	90.0 mm
HBO 200 W/2 57 V	SFc10-4	17.0 mm	39.331 in	125.0 mm
HBO 200 W/4	SFc10-4	17.0 mm	39.331 in	125.0 mm
HBO 200 W/DC TM	SFc10-4 <sup>8)</sup>	17.0 mm	39.331 in	125.0 mm
HBO 202 W/4	SFc10-4	18.0 mm	39.331 in	125.0 mm
HBO 200 W/DC 57 V	SFc10-4	17.0 mm	39.331 in	125.0 mm

Product description	Length with base excl. base pins/connection	Product weight	Operating Conditions	Lifetime Data
			Burning position	Nominal lifetime
HBO 50 W/AC 39 V	47.00 mm <sup>4)</sup>	3.00 g	s45 <sup>5)</sup>	100 hr
HBO 50 W/AC 34 V	47.00 mm <sup>4)</sup>	3.80 g	s45 <sup>5)</sup>	100 hr
HBO 50 W/3	47.00 mm <sup>4)</sup>	4.50 g	s45 <sup>6)</sup>	200 hr
HBO 100 W/2	82.00 mm <sup>4)</sup>	11.00 g	s90 <sup>6)</sup>	200 hr
HBO 103 W/2	82.00 mm <sup>4)</sup>	11.00 g	s90 <sup>6)</sup>	300 hr
HBO 200 W/2 57 V	102.00 mm <sup>4)</sup>	100.00 g	s90 <sup>6)</sup>	400 hr
HBO 200 W/4	102.00 mm <sup>4)</sup>	32.00 g	s20 <sup>7)</sup>	200 hr
HBO 200 W/DC TM	102.00 mm <sup>4)</sup>	33.00 g	s90 <sup>6)</sup>	400 hr
HBO 202 W/4	102.00 mm <sup>4)</sup>	32.00 g	s15 <sup>7)</sup>	200 hr
HBO 200 W/DC 57 V	102.00 mm <sup>4)</sup>	33.00 g	s90 <sup>6)</sup>	1000 hr

Product description	Environmental & Regulatory Information Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH)			
	Primary article identifier	Declaration no. in SCIP database	Candidate list substance 1	CAS No. of substance 1
HBO 50 W/AC 39 V	4050300629100   4050300507132	2cdba8c8-2480-43e3-bef8-1501edfbab7b1e8310b2d-6dfd-4214-99f2-54a875611416	Lead	7439-92-1
HBO 50 W/AC 34 V	4050300507118	b4dbd9f8-acc8-44fd-a092-9b5d3d42769a	Lead	7439-92-1

## Product family datasheet

Environmental & Regulatory Information				
Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH)				
Product description	Primary article identifier	Declaration no. in SCIP database	Candidate list substance 1	CAS No. of substance 1
HBO 50 W/3	4050300506692	b7f62293-c952-4934-b87d-0fed8aac3c8e	Lead	7439-92-1
HBO 100 W/2	4050300507095	8a5de7b7-1ac0-42b0-9bc6-43f410d52790	Lead	7439-92-1
HBO 103 W/2	4050300382128	cbe25e5b-c77c-499d-b5cb-d98156b8d489	Lead	7439-92-1
HBO 200 W/2 57 V	4050300508153	0a543a28-ee8e-4f2f-be05-060615b8f13b	Lead	7439-92-1
HBO 200 W/4	4050300506715	0b6aabc0-648f-4d0d-8fa3-737723deaad7	Lead	7439-92-1
HBO 200 W/DC TM	4008321137623	5280e35b-70e6-48e0-ac95-d834d6ba11af	Lead	7439-92-1
HBO 202 W/4	4050300507156	86fed10b-6f1f-4b7c-a8ef-a5a2c4846634	Lead	7439-92-1
HBO 200 W/DC 57 V	4050300506791	5178b200-39bc-438f-9a39-c562426a7852	Lead	7439-92-1

Product description	Safe use instruction
HBO 50 W/AC 39 V	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 50 W/AC 34 V	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 50 W/3	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 100 W/2	The identification of the Candidate List substance is sufficient to allow safe use of the article.

## Product family datasheet

Product description	Safe use instruction
HBO 103 W/2	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 200 W/2 57 V	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 200 W/4	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 200 W/DC TM	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 202 W/4	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 200 W/DC 57 V	The identification of the Candidate List substance is sufficient to allow safe use of the article.

1) Initial electrical values

2) Typical initial photometric value

3) Distance from end of base to tip of anode (cold)

4) Maximum

5) Observe "UP" marking

6) Anode underneath

7) Reference base pointing downwards (shorter shaft)

8) With 8-32 UNC-3 B thread

9) Minimum 850 cd

## Product family datasheet

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### Safety advice

Because of their high luminance, UV radiation and high internal pressure (when hot) HBO lamps may only be operated in enclosed lamp casings specially constructed for the purpose. Mercury is released if the lamp breaks. Special safety precautions must be taken. More information is available on request or can be found in the leaflet included with the lamp or in the operating instructions.

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### Application advice

For more detailed application information and graphics please see product datasheet.

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### Disclaimer

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.