HBO Microlithography Lamps for Other Systems

Areas of application

- Microlithography

Product features and benefits

- High spectral intensity with peak irradiance at 365nm wavelength, making it ideal for microlithography
- Designed for long lasting performance
- Qualified with major microlithography equipment manufacturers
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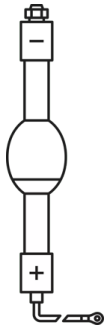
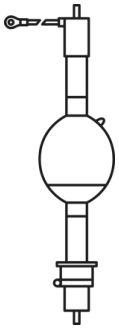
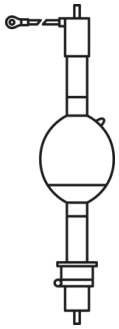


HBO 3500WMR



HBO 5000W/MF



HBO 5000W/S

Technical data

	General Product Information			
Product description	**Product number (Americas)**	**Product name (Americas)**	**Family brand**	**Lamp type**
HBO 350 W/S	69228	HBO 350W/68V/S 10/CS 1/SKU	HBO	DOUBLE ENDED
HBO 350 W [1)]	69226	HBO 350W/60V 10/CS 1/SKU	HBO	DOUBLE ENDED
HBO 5000 W/HK	69138	HBO 5000W/HK 4/CS 1/SKU	HBO	
HBO 1000 W/D	69200	HBO 1000W/38V/D 1/CS 1/SKU	HBO	
HBO 201 W/HS-D2	69168	HBO 201W/HS-D2 10/CS 1/SKU	HBO	DOUBLE ENDED
HBO 3500 W/HK	69137	HBO 3500W/HK 55V 1/CS 1/SKU		DOUBLE ENDED
HBO 250 W/LS	69553	HBO 250W/LS 10/CS 1/SKU	HBO	
HBO 500 W/A [2)]	69205	HBO 500W/60V/A 10/CS 1/SKU	HBO	DOUBLE ENDED
HBO 500 W/B [2)]	69206	HBO 500W/48.5V/B 10/CS 1/SKU	HBO	DOUBLE ENDED
HBO 1000W/DHL	55003	HBO 1000W/DHL 1/CS 1/SKU	HBO	
HBO 3500 W/MR				
HBO 5000 W/MF [3)]	69133	HBO 5000W/MF 1/CS 1/SKU	HBO	
HBO 5000 W/S [3)]				

		Electrical Data		Photometric Data
Product description	**Global order reference**	**Nominal wattage**	**Nominal voltage**	**Light center length (LCL)**
HBO 350 W/S	HBO 350 W/S	350 W	68 V	52.5 mm [4)]
HBO 350 W [1)]	HBO 350 W	350 W	67.5 V	45.0 mm [4)]
HBO 5000 W/HK	HBO 5000 W/HK	5000 W	70 V	152.5 mm [4)]
HBO 1000 W/D	HBO 1000 W/D	1000 W	37.7 V	89.5 mm [4)]
HBO 201 W/HS-D2	HBO 201 W/HS-D2	201 W	25 V	
HBO 3500 W/HK	HBO 3500 W/HK	3500 W	55 V	142.7 mm [4)]
HBO 250 W/LS	HBO 250 W/LS	250 W	39 V	62.0 mm [4)]
HBO 500 W/A [2)]	HBO 500 W/A	500 W	60 V	73.0 mm [4)]
HBO 500 W/B [2)]	HBO 500 W/B	500 W	48.5 V	78.5 mm [4)]
HBO 1000W/DHL	HBO 1000W/DHL	1000 W	45 V	
HBO 3500 W/MR	HBO 3500 W/MR	3500 W	62 V	
HBO 5000 W/MF [3)]	HBO 5000 W/MF	5000 W	50 V	143.5 mm [4)]

Product family datasheet

		Electrical Data		Photometric Data
Product description	**Global order reference**	**Nominal wattage**	**Nominal voltage**	**Light center length (LCL)**
HBO 5000 W/S [3]	HBO 5000 W/S	5000 W	50 V	143.5 mm [4]

	Physical Attributes & Dimensions	Operating Conditions		Lifetime Data
Product description	**Length**	**Burning position**	**Cooling**	**Nominal lifetime**
HBO 350 W/S	127.0 mm	Other [5]	Convection [6]	600 hr
HBO 350 W [1]	128.0 mm	Other [5]		400 hr
HBO 5000 W/HK	355.0 mm	Other [5]	Forced [7]	850 hr
HBO 1000 W/D	240.0 mm	Other [5]	Convection	1000 hr
HBO 201 W/HS-D2	150.0 mm	Other [8]		1000 hr
HBO 3500 W/HK	280.0 mm	Other [8]		1000 hr
HBO 250 W/LS	147.0 mm	Other [5]	Convection [9]	2500 hr
HBO 500 W/A [2]	190.0 mm	Other [5]		800 hr
HBO 500 W/B [2]	175.0 mm	Other [5]		800 hr
HBO 1000W/DHL	206.0 mm	Other		2250 hr
HBO 3500 W/MR	290.0 mm	Other [5]		750 hr
HBO 5000 W/MF [3]	360.0 mm	Other [8]	Forced [7]	850 hr
HBO 5000 W/S [3]	360.0 mm	Other [8]	Forced [7]	

	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 350 W/S	4050300258041 | 4052899528192	664a7846-47f2-4d61-8323-e72e69aa88b3 | 7d7b2d2e-a007-4743-bc1c-a0d10b59e864	Lead	7439-92-1
HBO 350 W [1]	4050300351599	69139dd2-ff81-43c7-bcfa-b84bcd0b9cc1	Lead	7439-92-1
HBO 5000 W/HK	4050300897585	db52bb49-e4f0-495f-9c4a-2e113c01961f	Lead	7439-92-1
HBO 1000 W/D	4050300288857 | 4062172370745	a7ed535d-b58b-40ea-8c22-64880ddaa6bb | 4e65a63f-77e1-4fba-a7be-6830a43f935b	Lead	7439-92-1
HBO 201 W/HS-D2	4050300591940	0e66b0e9-1432-4003-8cc4-4d3a9d357685	Lead	7439-92-1
HBO 3500 W/HK	4050300628349	43786f93-bbf9-4419-bc65-ce101b279063	Lead	7439-92-1

	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 250 W/LS	4052899514843 | 4008321336668	872b1190-ab05-48f3-8283-61ef79b983c3 | c2f27551-e9f2-44a8-9229-f4eeb5f6fb66	Lead	7439-92-1
HBO 500 W/A [2)]	4050300021089	454e0682-41e1-4c7d-a6fb-66d0753e0edc	Lead	7439-92-1
HBO 500 W/B [2)]	4050300275819	5f991f9f-8f20-4d97-8224-80639ee6776f	Lead	7439-92-1
HBO 1000W/DHL	4008321673145	35e19ed5-53bd-45ba-8079-3737c9f2fc21	Lead	7439-92-1
HBO 3500 W/MR	4050300628301	17abf204-4183-4567-b724-a13eff07fd7a	Lead	7439-92-1
HBO 5000 W/MF [3)]	4050300772264	026d4f20-6678-4452-8959-076527d7602a	Lead	7439-92-1
HBO 5000 W/S [3)]	4008321147875 | 4008321147899 | 4062172213486	c0d6f8d6-6d7d-4632-96fe-32aacce2ee6a | df72245a-57ed-42fb-90a2-5ca3c09b618d	Lead	7439-92-1

Product description	**Safe use instruction**
HBO 350 W/S	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 350 W [1)]	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 5000 W/HK	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 1000 W/D	The identification of the Candidate List substance is sufficient to allow safe use of the article.

Product description	Safe use instruction
HBO 201 W/HS-D2	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 3500 W/HK	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 250 W/LS	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 500 W/A [2)]	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 500 W/B [2)]	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 1000W/DHL	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 3500 W/MR	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 5000 W/MF [3)]	The identification of the Candidate List substance is sufficient to allow safe use of the article.
HBO 5000 W/S [3)]	The identification of the Candidate List substance is sufficient to allow safe use of the article.

[1] Lamp suitable for pulse operation between 250...500 W. Maximum permissible power is 350 W for constant power operation. Duty cycle 12 h ON/30 min OFF

[2] Duty cycle 12 h ON/30 min OFF

[3] Lamp contains overpressure even in cold status - additional safety regulations, supplied with the lamps, have to be fulfilled. Please read Technical bulletin DO-SEM TB 004 carefully

[4] Distance from end of base to tip of anode or cathode (cold)

[5] Anode underneath

[6] Cooling fins on cathode base

[7] Maximum permissible base temperature: 200 °C

[8] Anode on top

[9] Maximum permissible base temperature: 230 °C

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.

Application advice

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

Disclaimer

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