

## HBO $\leq$ 200W Double End

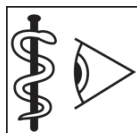


### Areas of application

- 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

| General Product Information |                           |                            |              |                        |
|-----------------------------|---------------------------|----------------------------|--------------|------------------------|
| Product description         | 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 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      |
| HBO 200 W/2 49 V            |                           |                            |              | HBO 200 W/2 49 V       |

|                     |           | Electrical Data |                         |              | Photometric Data      |
|---------------------|-----------|-----------------|-------------------------|--------------|-----------------------|
| Product description | Lamp type | 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 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              |
| HBO 200 W/2 49 V    |           | 200 W           | 47...57 V <sup>1)</sup> | 3.0...3.5 A  | 9500 lm               |

|                     |                      |                   |                           | Physical Attributes & Dimensions |
|---------------------|----------------------|-------------------|---------------------------|----------------------------------|
| Product description | Luminous intensity   | Luminous efficacy | Light center length (LCL) | 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                           |

## Product family datasheet

|                     |                       |                   |                           | Physical Attributes & Dimensions |
|---------------------|-----------------------|-------------------|---------------------------|----------------------------------|
| Product description | Luminous intensity    | Luminous efficacy | Light center length (LCL) | 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 202 W/4         | 1000 cd <sup>8)</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                          |
| HBO 200 W/2 49 V    | 1000 cd <sup>2)</sup> | 47.5 lm/W         | 40.0 mm <sup>3)</sup>     | SFc10-4                          |

| Product description | Base (cathode) | Diameter | Diameter | Diameter (in) |
|---------------------|----------------|----------|----------|---------------|
| HBO 50 W/AC 39 V    | SFa6-2         | 10.0 mm  | 10.0 mm  | 39.331 in     |
| HBO 50 W/AC 34 V    | SFa6-2         | 10.0 mm  | 10.0 mm  | 39.331 in     |
| HBO 50 W/3          | SFa6-2         | 9 mm     | 9 mm     | 39.331 in     |
| HBO 100 W/2         | SFa7.5-2       | 10.0 mm  | 10.0 mm  | 0.394 in      |
| HBO 103 W/2         | SFa7.5-2       | 10.0 mm  | 10.0 mm  | 0.394 in      |
| HBO 200 W/2 57 V    | SFc10-4        | 17.0 mm  | 17.0 mm  | 39.331 in     |
| HBO 200 W/4         | SFc10-4        | 17.0 mm  | 17.0 mm  | 39.331 in     |
| HBO 202 W/4         | SFc10-4        | 18.0 mm  | 18.0 mm  | 39.331 in     |
| HBO 200 W/DC 57 V   | SFc10-4        | 17.0 mm  | 17.0 mm  | 39.331 in     |
| HBO 200 W/2 49 V    | SFc10-4        | 17.0 mm  | 17.0 mm  | 39.331 in     |

|                     |          |                                             |                | Operating Conditions |
|---------------------|----------|---------------------------------------------|----------------|----------------------|
| Product description | Length   | Length with base excl. base pins/connection | Product weight | Burning position     |
| HBO 50 W/AC 39 V    | 53.0 mm  | 47.00 mm <sup>4)</sup>                      | 3.00 g         | s45 <sup>5)</sup>    |
| HBO 50 W/AC 34 V    | 53.0 mm  | 47.00 mm <sup>4)</sup>                      | 3.80 g         | s45 <sup>5)</sup>    |
| HBO 50 W/3          | 52.0 mm  | 47.00 mm <sup>4)</sup>                      | 4.50 g         | s45 <sup>6)</sup>    |
| HBO 100 W/2         | 90.0 mm  | 82.00 mm <sup>4)</sup>                      | 11.00 g        | s90 <sup>6)</sup>    |
| HBO 103 W/2         | 90.0 mm  | 82.00 mm <sup>4)</sup>                      | 11.00 g        | s90 <sup>6)</sup>    |
| HBO 200 W/2 57 V    | 125.0 mm | 102.00 mm <sup>4)</sup>                     | 100.00 g       | s90 <sup>6)</sup>    |
| HBO 200 W/4         | 125.0 mm | 102.00 mm <sup>4)</sup>                     | 32.00 g        | s20 <sup>7)</sup>    |
| HBO 202 W/4         | 125.0 mm | 102.00 mm <sup>4)</sup>                     | 32.00 g        | s15 <sup>7)</sup>    |
| HBO 200 W/DC 57 V   | 125.0 mm | 102.00 mm <sup>4)</sup>                     | 33.00 g        | s90 <sup>6)</sup>    |
| HBO 200 W/2 49 V    | 125.0 mm | 102.00 mm <sup>4)</sup>                     | 32.00 g        | s90 <sup>6)</sup>    |

| Product description | Lifetime Data    | Environmental & Regulatory Information<br>Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH) |                                                                             |                            |
|---------------------|------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|----------------------------|
|                     | Nominal lifetime | Primary article identifier                                                                                      | Declaration no. in SCIP database                                            | Candidate list substance 1 |
| HBO 50 W/AC 39 V    | 100 hr           | 4050300629100   4050300507132                                                                                   | 2cdba8c8-2480-43e3-bef8-1501edfbab7b   e8310b2d-6dfd-4214-99f2-54a875611416 | Lead                       |

Product family datasheet

|                     | Lifetime Data    | Environmental & Regulatory Information<br>Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH) |                                      |                            |
|---------------------|------------------|-----------------------------------------------------------------------------------------------------------------|--------------------------------------|----------------------------|
| Product description | Nominal lifetime | Primary article identifier                                                                                      | Declaration no. in SCIP database     | Candidate list substance 1 |
| HBO 50 W/AC 34 V    | 100 hr           | 4050300507118                                                                                                   | b4dbd9f8-acc8-44fd-a092-9b5d3d42769a | Lead                       |
| HBO 50 W/3          | 200 hr           | 4050300506692                                                                                                   | b7f62293-c952-4934-b87d-0fed8aac3c8e | Lead                       |
| HBO 100 W/2         | 200 hr           | 4050300507095                                                                                                   | 8a5de7b7-1ac0-42b0-9bc6-43f410d52790 | Lead                       |
| HBO 103 W/2         | 300 hr           | 4050300382128                                                                                                   | cbe25e5b-c77c-499d-b5cb-d98156b8d489 | Lead                       |
| HBO 200 W/2 57 V    | 400 hr           | 4050300508153                                                                                                   | 0a543a28-ee8e-4f2f-be05-060615b8f13b | Lead                       |
| HBO 200 W/4         | 200 hr           | 4050300506715                                                                                                   | 0b6aabc0-648f-4d0d-8fa3-737723deaad7 | Lead                       |
| HBO 202 W/4         | 200 hr           | 4050300507156                                                                                                   | 86fed10b-6f1f-4b7c-a8ef-a5a2c4846634 | Lead                       |
| HBO 200 W/DC 57 V   | 1000 hr          | 4050300506791                                                                                                   | 5178b200-39bc-438f-9a39-c562426a7852 | Lead                       |
| HBO 200 W/2 49 V    | 400 hr           | 4050300508283                                                                                                   | In work                              |                            |

| Product description | CAS No. of substance 1 | Safe use instruction                                                                               |
|---------------------|------------------------|----------------------------------------------------------------------------------------------------|
| HBO 50 W/AC 39 V    | 7439-92-1              | The identification of the Candidate List substance is sufficient to allow safe use of the article. |
| HBO 50 W/AC 34 V    | 7439-92-1              | The identification of the Candidate List substance is sufficient to allow safe use of the article. |
| HBO 50 W/3          | 7439-92-1              | The identification of the Candidate List substance is sufficient to allow safe use of the article. |
| HBO 100 W/2         | 7439-92-1              | The identification of the Candidate List substance is sufficient to allow safe use of the article. |

Product family datasheet

| Product description | CAS No. of substance<br>1 | Safe use instruction                                                                               |
|---------------------|---------------------------|----------------------------------------------------------------------------------------------------|
| HBO 103 W/2         | 7439-92-1                 | The identification of the Candidate List substance is sufficient to allow safe use of the article. |
| HBO 200 W/2 57 V    | 7439-92-1                 | The identification of the Candidate List substance is sufficient to allow safe use of the article. |
| HBO 200 W/4         | 7439-92-1                 | The identification of the Candidate List substance is sufficient to allow safe use of the article. |
| HBO 202 W/4         | 7439-92-1                 | The identification of the Candidate List substance is sufficient to allow safe use of the article. |
| HBO 200 W/DC 57 V   | 7439-92-1                 | The identification of the Candidate List substance is sufficient to allow safe use of the article. |
| HBO 200 W/2 49 V    |                           |                                                                                                    |

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) 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.