

# Passion creates the show

XBO® cinema lamps - the magic on screen

osram.us/cinema



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OSRAM XBO®

### Light is how we see the world

Our passion for light shines on the big screen



Going to the cinema is not just about watching blockbuster movies while eating popcorn. It's about escaping daily life and diving into another world. For almost 70 years, OSRAM XBO° lamps have delighted audiences worldwide and transformed a visit to the cinema into an experience they will remember.

The age of digital cinema has placed huge demands on projection technology, but XBO° cinema lamps have stayed one step ahead of the demands with continuous improvements and upgrades.

New digital cinema projectors and large screens require a high light output. OSRAM XBO° cinema lamps rise to the challenge with a level of luminance that guarantees brilliant, high-resolution images while maintaining the quality of the image – all with an impressive lifespan.

#### **OSRAM XBO**° product highlights:

- Short arc with high luminance for brighter screen illumination
- A lifetime of reliable performances with constant 6000K color temperature
- Easy to maintain
- High level of arc stability
- Hot restart and instant light on screen
- Dimmable in a wide range
- Wattages from 1200W to 8000W
- Designed to perform best within the projectors of all major manufacturers



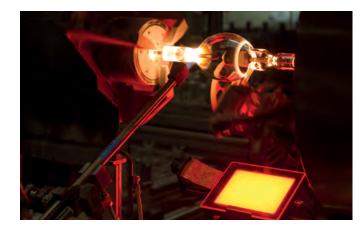


## OSRAM quality – automatically!

XBO° cinema lamps are the product of genuine ams OSRAM production – "Made in Germany". The automated processing of high-quality materials together with strict quality controls ensures a consistent high lamp standard. Experience our passion for cinema lighting by watching our latest video from our XBO° production facility – www.osram.us/cinema







# XBO® delivers what it promises. Guaranteed!

Not only do XBO° theater lamps set highquality standards, they also deliver a warranty that is the best in the industry.

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XBO° lamp

Wattage

DHP = Digital High Performance (Barco Projectors)

DHS = Digital High Performance Short (Barco Projectors)

L = Long Life

DHS = Digital High Performance Short (Barco Projectors)

LL = Longer Life

DTP = Digital Threaded Pin (Christie Projectors)

AL = eXtra Long Life

DTS = Digital Threaded Super Performance (Christie Projectors)

HPN = High Performance NEC

HPS = High Performance Sony

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OSRAM XBO°

#### OSRAM XBO® technical data

Product Name	Product Number	EAN	Warranty Hours (hrs)	Service Warranty Lifetime (hrs) <sup>1</sup>	Rated Wattage (W)	Minimum Power (W)	Maximum Power (W)	Minimum Current (A)	Maximum Current (A)
Lamps for BARCO pr	ojectors								
XBO° 1200W/DHP	69596	4062172030472	3000	3800	1200	840	1200	41	63
XBO° 1600W/DHP	69840	4062172030465	3000	3800	1600	1120	1600	55	85
XBO° 2000W/DHP L	68884	4062172030427	3300	3500	2000	1400	2000	60	90
XBO° 2200W/DHP	67484	4062172030373	1500	2000	2200	1540	2200	68	95
XBO° 2500W/DHP	69089	4062172030380	1700	2000	2500	1700	2500	63	95
XBO° 3000W/DHP	69480	4062172030410	1500	1900	3000	2100	3000	77	113
XBO° 3000W/DHP L	69048	4062172030502	1900	2100	3000	2100	3000	76	111
XBO° 3000W/DHP XL	59938	4062172092401	2200	2400	3000	2100	3000	77	113
XBO° 3000W/DHS	69462	4062172030540	1500	2000	3000	2100	3000	79	115
XBO° 4000W/DHP	69481	4062172030397	1100	1400	4000	2940	4200	91	130
XBO° 4000W/DHP L	69049	4062172030403	1300	1500	4000	2940	4200	95	137
XBO° 4000W/DHP XL	59940	4062172092395	1900	2100	4000	2940	4200	91	130
XBO° 4500W/DHP	69463	4062172030571	1000	1300	4500	3150	4500	108	155
XBO° 4500W/DHP L	69050	4062172030588	1300	1500	4500	3150	4500	108	155
XBO° 6000W/DHP	69476	4062172030663	650	800	6000	4500	6000	140	175
XBO° 6000W/DHP L	69053	4062172030670	900	1100	6000	4500	6000	140	175
XBO° 6000W/DHP XL	59969	4062172110839	1000	1200	6000	4500	6000	140	175
XBO° 6500W/DHP L	54337	4062172030755	700	800	6500	5000	6500	133	173
XBO° 6500W/DHP XL	55225	4062172031684	900	1000	6500	5000	6500	133	173
XBO° 7000W/DHP	55226	4062172031707	400	500	7000	4900	7000	130	175
Lamps for CHRISTIE	E proiectors								
XBO° 1400W/DTS	68891	4052899417793	3250	3500	1400	1000	1400	40	70
XBO° 1600W/DTS	68892	4052899417786	3250	3500	1600	1100	1600	50	80
XBO° 1800W/DTS	68880	4052899343276	1800	2100	1800	1260	1800	50	83
XBO° 2000W/DTS	68881	4052899308862	1300	1500	2000	1400	2000	60	90
XBO° 2000W/DTP L <sup>2</sup>	68882	4052899287884	3300	4000	2000	1400	2000	64	95
XBO° 2100W/DTS	68879	4052899376328	1100	1500	2100	1610	2100	60	85
XBO° 2300W/DTS	68889	4052899359659	1000	1200	2300	1610	2300	60	90
XBO° 3000W/DTP <sup>2</sup>	69154	4052899509474	1500	2500	3000	2100	3000	90	120
XBO° 3000W/DTP L <sup>2</sup>	17106	4052899430549	1900	2800	3000	2100	3000	74	109
XBO° 3000W/DTS	69063	4062172030489	1200	1500	3000	2100	3000	77	113
XBO° 4500W/DTP <sup>2</sup>	69459	4062172031387	1000	1300	4500	3150	4500	108	155
XBO° 4500W/DTP L <sup>2</sup>	69052	4062172026567	1300	1500	4500	3150	4500	108	155
XBO° 6000W/DTP <sup>2</sup>	69460	4062172030700	600	750	6000	4500	6000	140	175
XBO° 6000W/DTP L <sup>2</sup>	69055	4062172030717	900	1100	6000	4500	6000	140	175
XBO° 6000W/DTP XL <sup>2</sup>		4062172111652	1000	1200	6000	4500	6000	140	175
Lamps for SONY pro								-	-
XBO° 2000W/HPS L	68883	4062172030342	3000	3500	2000	1400	2000	60	87
XBO° 3000W/HPS	69487	4062172030335	1000	1300	3000	1500	3000	77	113
XBO° 4200W/HPS	60009	4062172030298	850	900	4200	2100	4200	73	137
XBO° 4200W/HPS LL	60008	4062172030281	1000	1200	4200	2100	4200	69	131
Lamps for NEC proje		.0021, 2000201	1000	1200	.200	2100	.200		
XBO° 1200W/HPN	69079	4062172030496	3000	3500	1200	840	1200	40	63
XBO* 2000W/HPN L	68885	4062172030478	3000	3500	2000	1400	2000	60	85
XBO° 3000W/HPN	69084	4062172030430	1500	1900	3000	2100	3000	77	108
XBO° 3000W/HPN L	68840	4062172030528	2200	2400	3000	2100	3000	76	105
XBO° 4000W/HPN	69060	4062172030353	650	750	4000	2900	4000	90	125
XBO 4000W/HPN L	69085	4062172030267	1100	1500	4000	2800	4000	90	125
XBO 4000W/HPN L XBO° 4500W/HPN	69113	4062172030274	1000	1300	4500	3150	4500	108	150
XBO° 4500W/HPN L	69051	4062172030537	1300	1500	4500	3150	4500	108	150
XBO° 6000W/HPN	69123	4062172030545	650	800	6000	4500	6000	135	167
XBO 6000W/HPN L	69054	4062172030649	1000	1200	6000	4500	6000	135	167
XBO 6000W/HPN L	55227	4062172030687	400	500	7000	4900	7000	135	175
ADO 7000W/TIFIN	33221	70021/2001071	+00	300	7000	7700	,000	100	1/3

#### OSRAM XBO° cross reference list

Product reference	Projector type		
Lamps for BARCO projectors			
XBO° 1200W/DHP	8S, <sup>3</sup> 10S, <sup>3</sup> 12C, <sup>3</sup> 15C, <sup>3</sup> 20C, <sup>3</sup> 19B, <sup>4</sup> 23B <sup>4</sup>		
XBO° 1600W/DHP	8S, <sup>3</sup> 10S, <sup>3</sup> 12C, <sup>3</sup> 15C, <sup>3</sup> 20C, <sup>3</sup> 19B, <sup>4</sup> 23B, <sup>4</sup>		
XBO° 2000W/DHP L	10S, 12C, 15C, 20C, 17B, 25B, 1200		
XBO° 2200W/DHP	10S, 312C, 315C, 320C, 319B, 423B4		
XBO° 2500W/DHP	15C, <sup>3</sup> 20C, <sup>3</sup> 19B, <sup>4</sup> 23B, <sup>4</sup> 1500, 2000		
XBO° 3000W/DHP	15C, 30C, 319B, 423B, 41500, 2000		
XBO° 3000W/DHP L	15C, 20C, 19B, 23B, 2000		
XBO° 3000W/DHP XL	15C, 20C, 14B, 23B, 2000 15C, 320C, 319B, 423B, 41500, 2000		
XBO° 3000W/DHS	32B, 790, 100, 3000		
XBO° 4000W/DHP	15C, 20C <sup>3</sup> 19B, <sup>4</sup> 23B, <sup>4</sup> 32B, <sup>5,6</sup> 90, 100, 2000, 3000		
XBO° 4000W/DHP L	15C, 20C <sup>3</sup> 19B <sup>4</sup> 23B <sup>4</sup> , 32B <sup>5,6</sup> 90, 100, 2000, 3000		
XBO° 4000W/DHP XL	15C, 20C, <sup>3</sup> 19B, <sup>4</sup> 23B, <sup>5</sup> 590, 100, 2000, 3000		
XBO° 4500W/DHP	32B, <sup>5</sup> 90, 100, 3000		
XBO° 4500W/DHP L	32B, 90, 100, 3000		
XBO° 6000W/DHP	32B, 90, 100, 3000		
XBO° 6000W/DHP L	32B, 90, 100, 3000		
XBO° 6000W/DHP XL	32B, 90, 100, 3000		
XBO° 6500W/DHP L	32B, 90, 100, 3000		
XBO° 6500W/DHP XL	32B, 50, 100, 3000		
XBO° 7000W/DHP	32B, <sup>5</sup> 90, 100, 3000		
Lamps for CHRISTIE projectors			
XBO° 1400W/DTS	Solaria One, Solaria One+, CP2208, CP2210, CP2215, CP2308		
XBO° 1600W/DTS	Solaria One, Solaria One+, CP2208, CP2210, CP2215, CP2308		
XBO° 1800W/DTS	CP2210, CP2215, CP2000M		
XBO° 2000W/DTS	Solaria One, Solaria One+, CP2208, CP2210, CP2215, CP2000M		
XBO° 2000W/DTP L	CP2000, CP2220, CP2230, CP4220, CP4230, CP2000SB/XB/SX, CP2000ZX		
XBO° 2100W/DTS	Solaria One, Solaria One+, CP2208, CP2210, CP2215, CP2308		
XBO° 2300W/DTS	CP2210, CP2215		
XBO° 3000W/DTP	CP2000, CP2220, CP4220, CP2230, CP4230, CP2000ZX, CP2000SB/XB/SX		
XBO° 3000W/DTP L	CP2000, CP2220, CP4220, CP2230, CP4230, CP2000ZX, CP2000SB/XB/SX		
XBO° 3000W/DTS	CP2000, CP2220, CP4220, CP2230, CP4230, CP2000ZX		
XBO° 4500W/DTP	CP2000, CP2220, CP4220, CP4230, CP4230, CP20002X  CP2000, CP2220, CP2230, CP4220, CP4230, CP2000SB/XB/SX		
	CP2000, CP2220, CP2230, CP4220, CP4230, CP2000SB/XB/SX  CP2000, CP2220, CP2230, CP4220, CP4230, CP2000SB/XB/SX		
XBO° 4500W/DTP L			
XBO° 6000W/DTP	CP2000, CP2220, CP2230, CP4220, CP4230, CP2000SB/XB/SX		
XBO° 6000W/DTP L	CP2000, CP2220, CP2230, CP4220, CP4230, CP2000SB/XB/SX		
XBO° 6000W/DTP XL	CP2000, CP2220, CP2230, CP4220, CP4230, CP2000SB/XB/SX		
Lamps for SONY projectors			
XBO° 2000W/HPS L	SRX-R210, SRX-R220, SRX-R320		
XBO° 3000W/HPS	SRX-R210, SRX-R220, SRX-R320		
XBO° 4200W/HPS	SRX-R220, SRX-R320		
XBO° 4200W/HPS LL	SRX-R220, SRX-R320		
,			
Lamps for NEC projectors			
XBO° 1200W/HPN	1200C, 1600C, 2000C, 2500S, 3200S, 3240S,		
XBO° 2000W/HPN L	1200C, 1600C, 2000C, 2500S, 3200S, 3240S,		
XBO° 3000W/HPN	1600C, 2000C, 2500S, 3200S, 3240S,		
XBO° 3000W/HPN L	1600C, 2000C, 2500S, <sup>6</sup> 3200S, <sup>6</sup> 3240S, <sup>6</sup>		
XBO° 4000W/HPN	1600C, 2000C, 2500S, 3200S, 3240S,		
XBO° 4000W/HPN L	1600C, 2000C, 2500S, 3200S, 3240S,		
XBO° 4500W/HPN	2500S, 3200S, 3240S		
XBO° 4500W/HPN L	2500S, 3200S, 3240S		
XBO° 6000W/HPN	2500S, 3200S, 3240S		
XBO° 6000W/HPN L	2500S, 3200S, 3240S		
	2500S, 3200S, 3240S 2500S, 3200S, 3240S		

¹ Service Warranty Lifetime: Warranted hours in the event of a lamp rupture. Covers the cost of damage to the optical and mechanical parts of a projector that is caused solely due to a defect in the lamp's material or workmanship. For details, see our latest revision of OSRAM XBO® Xenon Short Arc Lamp Limited Warranty.

2 ams OSRAM does not recommend and will not warranty XBO® lamps on "1" type power spplies because of excessive inrush current and high ripple current exceeding the lamp specifications. With respect to other power supplies used in Christie digital projectors, they must meet OSRAM lamp specifications. Contact your ams OSRAM representative for additional details.

Barco Adapter Part Number for Cathode: R858100
 Barco Adapter Part Number for Cathode: R865555
 Barco Adapter Part Number for Cathode: R8436081
 Pojector/Lamp combinations identified may require an anode adapter. Contact OSRAM if this is necessary.
 Barco Adapter Part Number for Cathode: R8436061 and Anode: R859987

OSRAM XBO° OSRAM XBO°

### Troubleshooting tips

XBO° lamps usually reach the end of their life through wear of the electrodes, which leads to an increase of flickering and decrease of light output. In case of early lamp failure, the sections below provide valuable troubleshooting help. Check them carefully before a new lamp is installed.

#### Lamp does not ignite

If the lamp ignites poorly or not at all, the following should be checked:

- Is the lamp type suitable for this projector?
- Is the lamp correctly installed and secured in the lamphousing as instructed by the projector and lamp manufacturer?
- Is the power lead between the lamp and lamphouse connected?
- Have you selected the correct lamp type in the projector menu?
- Has the lamp already reached the end of lifetime?
- Does the cooling system work sufficiently?
- Is the projector using the latest software?

#### Visible flicker on screen

If flicker is observed after installing a new lamp, the following should be checked:

- Is the lamp type suitable for this projector?
- Has the lamp been turned on for at least 10 minutes to obtain thermal stabilization?
- Have you selected the correct lamp type in the projector menu?
- Is the lamp being operated within the correct projector settings for current and power range?
- Please check for strong vibration.
- Is the lamp correctly adjusted within the optical system (reflector)?

If flicker is observed during lamp lifetime, the previous and following notes on "flicker" need to be checked:

- Adjust the lamp one more time in the optical system (reflector)! Due to the burn back effect of the electrode,
   the brightest point of the light arc will shift out of alignment within the reflector focus
- Set the lamp power to at least 85% of maximum power





#### Discoloration of lamp bases, cable and cable lugs

XBO° lamps produce an extremely high level of heat. Most of the heat is dissipated by convection and radiation. Thermal blockages and excessive temperatures must be avoided. If the upper limit of 230°C is exceeded, the lamp bases and cable discolor from light yellow to brown and blue. If this happens:

- Check the lamp cooling and exhaust fans
- Check the air filters for lamp cooling, they may be blocked
- Loose screws or insufficient electrical cable connection may decrease the contact
- Wrong electrical current and/or lamp power settings may be in place
- Check the adjustment of the lamp in the optical system (reflector)

Due to an incorrect lamp adjustment in the optical system, emitted radiation can focus on lamp bases and cable.

#### Burst lamp

XBO° lamps are made of quartz glass and have a high-internal pressure (about 60 bar in operation). Possible reasons for a burst lamp:

- Lamp life beyond the OSRAM "Service Warranty"
- Incorrect lamp installation
- Wrong electrical current and lamp power settings
- Insufficient lamp cooling system, blocked air filters
- Scratches on the outer skin of the quartz
- Slightly damaged by heavy shocks, which were caused by rough transportation
- Recrystallization on the surface of the quartz glass bulb caused by fingerprints, which have not been removed
- Strong bulb blackening degrades the emission of radiation by the quartz bulb and causes a rise in lamp bulb temperature and pressure

#### Not enough light

If the initial light output is too low or has decreased rapidly, the following must be checked:

- Is the lamp type suitable for this projector?
- Has the lamp been turned on for at least 10 minutes to obtain the initial brightness?
- Have you selected the correct lamp type in the menu?
- Is the lamp being operated within the correct lamp current and power range?
- Is strong bulb blackening visible?
- Is the optical system (reflector, lenses) dusty or dirty?
- Is the lamp correctly adjusted to the optical system (reflector)?

#### ams OSRAM Group

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