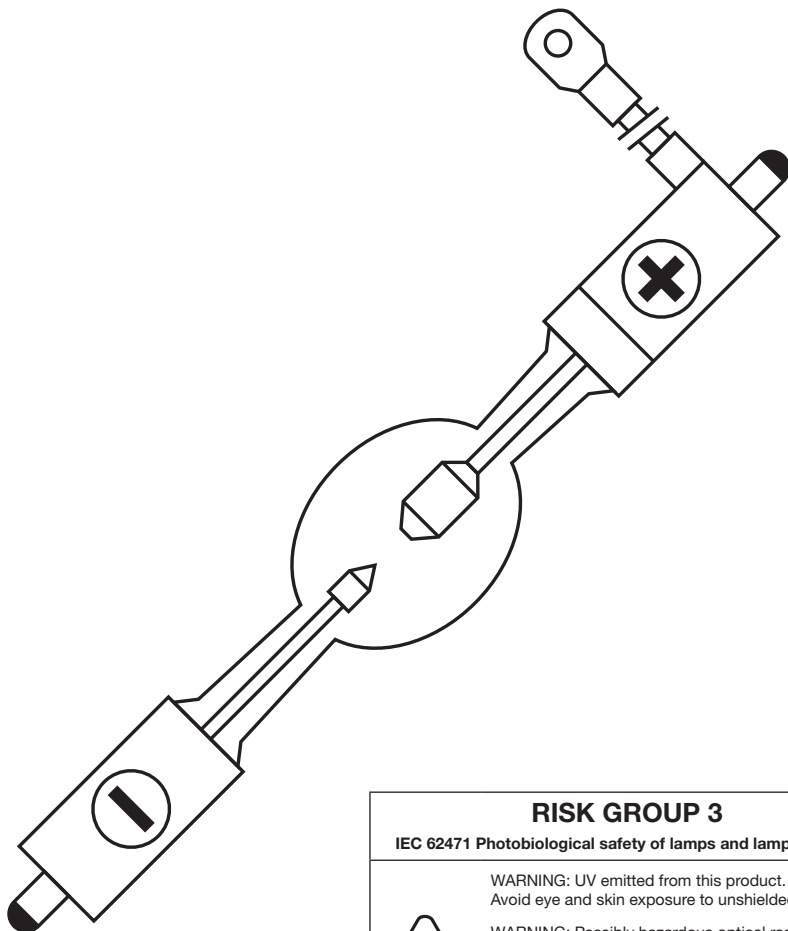


XBO®



RISK GROUP 3

IEC 62471 Photobiological safety of lamps and lamp systems



WARNING: UV emitted from this product.
Avoid eye and skin exposure to unshielded product.

WARNING: Possibly hazardous optical radiation emitted from this product.
Do not look at operating lamp. Eye injury may result.

WARNING: IR emitted from this product.
Avoid eye exposure. Use appropriate shielding or eye protection.

OSRAM

GB User Instructions for XBO Lamps.

Thank you very much for purchasing an OSRAM XBO lamp. Before using the product, please read these instructions carefully. They contain important information for handling and using these products and for preventing injury during the use and installation of XBO lamps. Please follow all the safety guidelines and instructions provided by the projector or device manufacturer. OSRAM will not be responsible for accidents and/or issues caused by failure to observe the warnings and notes in this document.

		1. Introduction. This product documentation is for XBO lamps filled with xenon gas operating at power levels from 450W to 10,000W.
		2. General guideline. XBO lamps may be operated only in specially designed lamp enclosures to ensure that direct eye contact is avoided and to contain shards in the unlikely event of the lamp breaking. XBO lamps are designed for DC operation; therefore, correct polarity must be observed. The DC current may be varied only within the limits of the current control range (see technical lamp data sheet). XBO lamps operate best at the rated current. Over the life of the lamp the current may be increased to its maximum value to compensate for light deterioration. The output of the lamp can be reduced by operating the lamp at minimum current; however, this does not prolong the life of the lamp. All XBO lamps are suitable for a vertical and horizontal operation, as indicated in the respective technical instructions. Depending on the type, XBO lamps require convection cooling (air speed at the bulb circumference 3 m/s) or fan cooling (air speed 5 to 10 m/s); fan cooling should continue for at least 5 minutes after the lamp has been switched off. The maximum permissible base temperature is 230°C; discoloration on the base indicates inadequate cooling.
		3. Safe operation. Lamps must be operated only with specified power supplies, lamp enclosures, and operational parameters (i.e. voltage, current, power, service life, cooling ...). Failure to do so could result in poor performance or malfunction. Always ensure that no foreign objects are left in the lamp enclosure before the lamp is operated. Always remove the lamp cover. XBO lamps are made from quartz glass and therefore are, by nature, very sensitive to shock and vibration, which can cause breakage or invisible micro cracks (which could cause the lamp to shatter during operation). Therefore, do not apply any shock or vibration to the lamp during storage, transportation or handling. For safety reasons, XBO lamps should be replaced once they reach the end of their defined service life, since after this there is an increased risk of malfunction.
		4. General safety. Protective gear (face mask or safety glasses, neck protection, gloves, and safety jacket/apron) should be worn when handling the lamp. Exercise additional caution when the lamp is not enclosed by its protective cover and ensure that the protective cover is wrapped around the lamp when the lamp is not in the lamp enclosure.
		Because of its high internal pressure, there is a risk that the lamp will shatter in either hot or cold states. During operation it emits intense UV radiation which is harmful to the eyes and skin. The high luminance of the arc can cause severe damage to the eye if you look directly into the lamp. Read carefully and observe the handling instructions provided by the system manufacturer.
		5. Installation and specific safety information Before the enclosure is opened, ensure that the system power is turned off and the system is disconnected from the power supply during lamp maintenance to prevent the risk of electric shock. This applies to all lamp-related maintenance.
		To prevent injury, do not open the lamp enclosure or remove the lamp until the lamp has properly cooled down. The lamp fixture and lamp become extremely hot during operation.
		Never touch the bulb/quartz with bare fingers. Fingerprints remain and can cause the lamp to shatter or fail prematurely. Clean any fingerprints on the bulb/quartz with isopropyl alcohol and a lint free cloth before installing the lamp.
		Do not proceed if the bulb is scratched, cracked or damaged in any way.
		The lamp supports must not transfer any mechanical stress to the lamp, either during installation or during operation (due to thermal expansion). Lamps with an overall length of up to 250 mm require only single-ended support at the cathode base; lamps over 250 mm require an additional mechanical support at the anode base, which allows the lamp to expand along its longitudinal axis. To avoid breakage, the lamp must be free of mechanical stress during installation and operation by allowing for thermal expansion along its axis. Reinstall all fixture covers and shields after replacing the lamp to prevent eye damage, injury, or damage.
		The contact surface of the electrical connections must be free of foreign particles, corrosion, and scorch marks to ensure good conductivity. Check regularly that the clamps and cables are firmly in place, especially after fitting the lamp. Remove the protection cover just shortly before the lamp is installed. Follow the installation guideline provided by the projector/device manufacturer.
		6. Warranty and Transport. Claims under the provided warranty will be acknowledged only if the defective XBO lamp is returned to the relevant supplier in the complete original packaging (to avoid further damage in transit) or if photos are provided that indicate the possible cause of failure of the respective lamp, which must be accompanied by the completed warranty card. Damage to lamps during transit in their original packaging must be reported immediately to the freight forwarder. The warranty does not cover the following: – Damage during transit to XBO lamps not in their original packaging (e.g. damage to an XBO lamp fitted in a luminaire). – Damage to lamps caused by ignoring these operating instructions, non-compliance with the specified operating parameters or adverse external effects.
		7. Disposal of used lamps. Due to high internal lamp pressure, the lamp must first be depressurized before it can be disposed of. Please wear protective clothing, wrap and secure the lamp in its original protective jacket and Velcro straps, and drop it from a height above 1m into a trash container. Be sure that the lamp is broken before final disposal. Small amounts of radioactive material (Th-232 < 2000 Bq per lamp) are deliberately added as thoriated tungsten to XBO lamps for functional reasons. XBO lamps are manufactured under regulatory control as a consumer product according to IAEA Basic Safety Standard BSS 115. Radiological consequences (radiation exposure) for members of the public are insignificant during the entire life cycle of XBO lamps (< 10µSv per year) as demonstrated in several studies. (e.g. IAEA safety report) and are well below natural background radiation (~500-1500 µSv/year). Please inform the disposal company that this lamp contains radioactive material and follow the depressurizing instruction before the lamp is handed over for disposal.