



Staying cool when things hot up

HTI® lamps with eXtreme Seal technology



SEE THE WORLD IN A NEW LIGHT



More success with **XS** – HTI[®] metal halide lamps

With the new improved HTI[®] metal halide lamps from OSRAM, the lighting experts, original equipment manufacturers, designers and endusers can continue to hit the heights in entertainment lighting.

First-class performance

The latest generation of the successful HTI[®] metal halide lamps stands out from the crowd because of its much higher thermal load capacity. When ordinary performers are starting to feel the heat, our stage professionals retain their cool. Thanks to innovative XS (eXtreme Seal) technology, we have managed to increase the maximum pinch temperature from 350 °C to 450 °C.

Ideal prerequisites for original equipment manufacturers:

- More compact luminaire designs – smaller space requirements
- Reduced need for forced cooling – less noise from cooling fans

A very wide repertoire

Fans of high-quality entertainment lighting will love the new HTI[®] lamps with XS technology. Our compact short-arc lamps without outer bulbs are available as single-ended and double-ended versions, cover a wide range of wattages from 405 to 2500 W and are as much at home in effect spotlights as they are in advertising projectors and slide projectors.

The HTI[®] 575 W/DE and HTI[®] 700 W/DE lamps are entirely new. With their high luminance and luminous efficacy they are ideal particularly for use in lighting systems with optical paths.

Light with that certain something extra

The new HTI[®] metal halide lamps from OSRAM combine much higher thermal resistance with the characteristics that have made HTI[®] lamps so successful:

- Pioneering XS technology
- Short arc
- Compact dimensions
- High luminance
- Daylight characteristics
- High reliability



with **Xs** technology

How does XS work?

A lot of light creates a lot of heat. Effect spotlights are designed more and more compact. The lamps are increasingly subject to thermal stress. Particularly critical are the weldings located at the end of the lamp's pinch seal. This is where the external power leads are welded to the molybdenum foil. Here the molybdenum basically is in contact with the atmosphere's oxygen. At approximately 350 °C molybdenum starts to oxidise. In doing so it expands until the pinch seal will crack and the foil will burn through.

What the market needs are robust lamps that can withstand these higher operating temperatures and require much less cooling.

With XS technology from OSRAM, which protects the most thermally sensitive area of the lamp with a special coating, this oxidation process does not begin until the temperature reaches 450 °C.

XS technology – the benefits at a glance

- **eXtreme heat resistance:**
More resistant to thermal stress (max. permissible pinch temperature 450 °C)
- **eXtreme cool:**
Reduced need for cooling and therefore space
- **eXtreme designs:**
New freedom for luminaire designers
- **eXtreme compact:**
compact lamps for more compact luminaires
- **eXtreme quiet:**
through less cooling quieter luminaires
- **eXcess light:**
High luminance thanks to short-arc technology

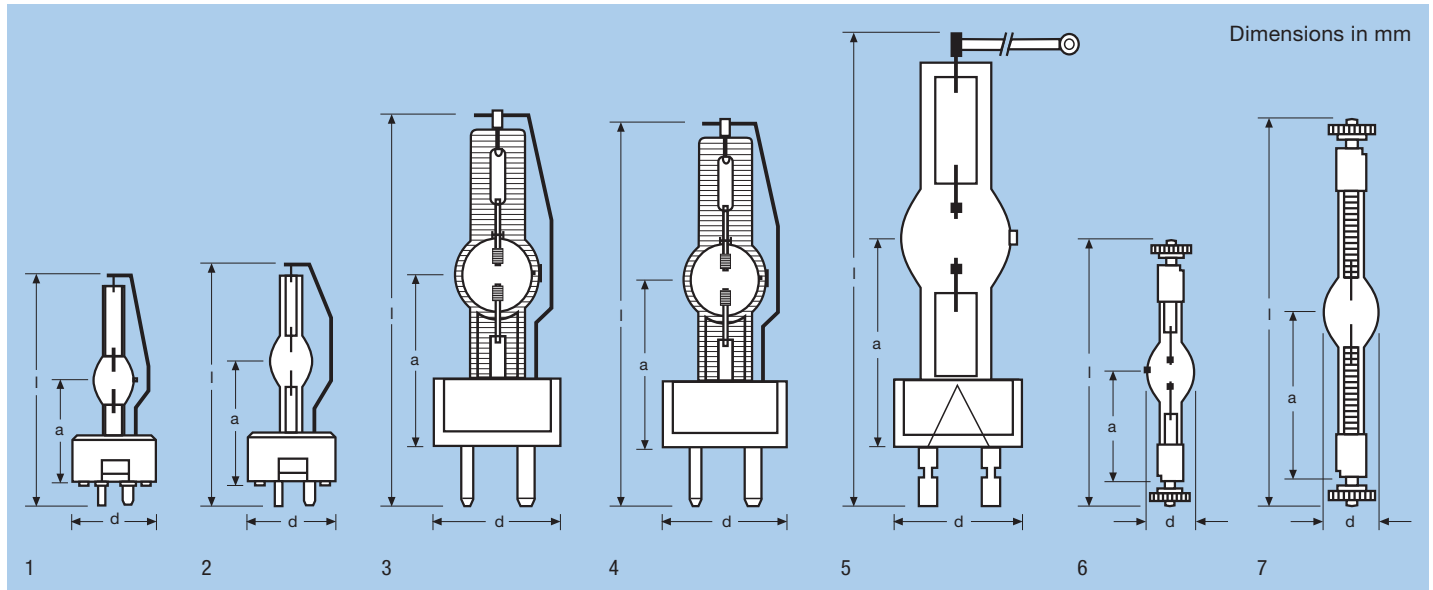
All summed up as OSRAM eXpertiSe!



The XS label identifies HT[®]/HM[®] metal halide lamps from OSRAM equipped with innovative XS technology. It stands for improved thermal resistance and improved reliability.

Metal halide lamps from OSRAM include (from left to right) HT[®] 705 W/SE, HT[®] 1200 W/SE, HT[®] 575 W/DE and HT[®] 700 W/DE – much higher thermal resistance thanks to innovative XS technology.

Technical data



Reference		HTI® 405 W/SE	HTI® 705 W/SE	HTI® 1200 W/SE	HTI® 1800 W/SE	HTI® 2500 W/SE	HTI® 575 W/DE	HTI® 700 W/DE
Product number	(EAN)	4050300436074	4050300618074	4050300371153	4050300558127	4050300371146	4050300946122	4050300658001
Rated wattage	W	400	700	1.200	1.800	2.500	575	700
Lamp voltage	V	55	70	100	100	115	90	70
Operating current (AC)	A	7,3	10	13,8	20	25,6	7,4	10
Ignition voltage (cold/hot)	kV _s	3	2,5	4,5/20	4,5/20	8/45	4/20	3/20
Luminous flux	lm	29.000	59.000	105.000	155.000	240.000	43.000	59.000
Max. luminance	cd/cm ²	85.000	80.000	85.000	85.000	80.000	80.000	80.000
Colour temperature	K	5.800	5.700	5.400	5.600	6.000	5.600	5.600
Colour rendering index	CRI	> 80	> 80	> 80	> 80	> 90	> 85	> 85
Electrode gap (cold)	mm	3	4	7	7	14	5	4
Lamp length max.	l	80	85	137	137	180	92	135
LCL	a	36,5	39	59	59	85	35	57,5
Base width	d	28	28	42	42	42	-	-
Average lamp life	h	500	500	750	750	600	500	500
Base		GY9,5	GY9,5	GY22	GY22	G22*	SFc-11 with phase	SFc-10 with phase
Max. permissible pinch temperature	°C	450	450	450	450	450	450	450
Burning position		horizontal ± 45, current bar down/ for moving heads ANY		vertical + 135°; current bar down/ for moving heads ANY		vertical ± 135°; s 135	universal	universal
Cooling		Forced cooling	Forced cooling	Forced cooling	Forced cooling	Forced cooling	Forced cooling	Forced cooling
Fig. no.		1	2	3	4	5	6	7

*Note: both contact pins are connected to the electrode near the base; power feed to top electrode only with cable

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