

# POWERSTAR® HQI®-T 1000/2000W



Technical Information

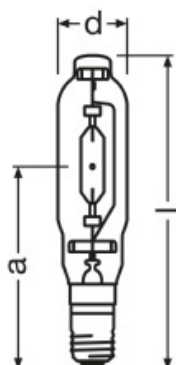


POWERSTAR® HQI®-T 1000/2000W

## General product description

- Metal halide lamp with quartz POWERSTAR® technology
- Tubular & clear outer bulb
- High luminous flux and efficacy
- Neutral white N and daylight D
- Long life time

## Basic technical description



Product reference	Nominal lamp wattage	Cap	Cor-related colour temp	Comp. Cap. @50hz, $\cos \varphi \approx 0.9$	Light colour code	Length max. (l)	Diameter (d)	Weight per piece	Light centre length (a)	Typical lamp voltage <sup>1</sup>	Typical lamp current <sup>1</sup>
	[W]		[K]	[ $\mu$ F]		[mm]	[mm]	[g]	[mm]	[V]	[A]
HQI-T 1000W/N	1000	E40	3350	85	633	345	76	413.5	220	130	9.0
HQI-T 1000W/D	1000	E40	7250	85	872	345	76	412.4	220	130	8.6
HQI-T 2000W/N/I	2000	E40	4300	37	643	430	100	530.3	265	235	8.9
HQI-T 2000W/N/E SUPER	2000	E40	4550	37	645	430	100	580.0	265	220	9.6
HQI-T 2000W/N/SN	2000	E40	4550	37	645	430	100	580.0	265	220	9.9
HQI-T 2000W/N 230V	2000	E40	4150	125	641	430	100	580.0	265	116	18.8
HQI-T 2000W/D	2000	E40	7250	60	872	430	100	580.0	265	230	10.3
HQI-T 2000W/D/I	2000	E40	7450	60	874	430	100	544.0	265	230	10.1

<sup>1</sup> Refers to 50 Hz operation with a reference conventional ballast (IEC 60923).

## Performance specification<sup>2</sup>

Product reference	Rated lamp wattage [W]	Rated system wattage <sup>3</sup> [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Colour rendering index Ra	Colour rendering level	Average life (B50) [h]
HQI-T 1000W/N	1055	n.a.	110000	104	64	2B	9000
HQI-T 1000W/D	1050	n.a.	85000	82	81	1B	9000
HQI-T 2000W/N/I	1955	n.a.	200000	102	60	2B	9000
HQI-T 2000W/N/E SUPER	1980	n.a.	245000	124	63	2B	5500
HQI-T 2000W/N/SN SUPER	2030	n.a.	240000	118	63	2B	5500
HQI-T 2000W/N 230V	2040	n.a.	190000	93	60	2B	6000
HQI-T 2000W/D	2100	n.a.	180000	85	80	1B	9000
HQI-T 2000W/D/I	2110	n.a.	180000	85	83	1B	9000

Product reference	Lamp lumen maintenance factor (LLMF) vs. operation hours			
	2000h	4000h	6000h	8000h
HQI-T 1000W/N	91%	86%	82%	78%
HQI-T 1000W/D	71%	58%	47%	35%
HQI-T 2000W/N/I	91%	84%	80%	76%
HQI-T 2000W/N/E SUPER	79%	66%	-	-
HQI-T 2000W/N/SN SUPER	81%	67%	-	-
HQI-T 2000W/N 230V	95%	90%	85%	
HQI-T 2000W/D	85%	80%	70%	60%
HQI-T 2000W/D/I	86%	75%	67%	60%

Product reference	Lamp survival factor <sup>4</sup> (LSF) vs. operation hours			
	2000h	4000h	6000h	8000h
HQI-T 1000W/N	99%	95%	83%	62%
HQI-T 1000W/D	98%	89%	75%	59%
HQI-T 2000W/N/I	99%	95%	82%	62%
HQI-T 2000W/N/E SUPER	99%	84%	-	-
HQI-T 2000W/N/SN SUPER	99%	84%	-	-
HQI-T 2000W/N 230V	90%	70%	50%	
HQI-T 2000W/D	98%	89%	75%	58%
HQI-T 2000W/D/I	97%	89%	75%	58%

<sup>2</sup> The specified values refer to 50 Hz operation with magnetic control gear at rated wattage, unless otherwise stated. They refer to horizontal burning position, in line with IEC 61167. Other burning positions may result in differing values.

<sup>3</sup> With OSRAM POWERTRONIC PTi, PT-FIT or PT<sub>o</sub>

<sup>4</sup> Indicates the percentage of operational lamps after a given period of operation time.

Edition December 3, 2013; replaces edition August 30, 2013. Subject to change without notice. Errors and omissions excepted. Make sure to use the most recent edition.

## Operation conditions

Product reference	Burning position	Max. permitted outer bulb temperature [°C]	Max. permitted base edge temperature [°C]	Ignition voltage min. / max. <sup>5</sup> [kV]	Required control gear <sup>6</sup>	Suitable OSRAM electronic control gear	Dimming
HQI-T 1000W/N	p30	500	250	4.0 / 5.0	CCG		Not allowed
HQI-T 1000W/D	p30	500	250	4.0 / 5.0	CCG		Not allowed
HQI-T 2000W/N/I	p30	500	250	internal	CCG		Not allowed
HQI-T 2000W/N/E SUPER	p60	500	250	4.0 / 5.0	CCG		Not allowed
HQI-T 2000W/N/SN SUPER	p60	500	250	0.75 / 1.3	CCG		Not allowed
HQI-T 2000W/N 230V	p30	500	250	0.75 / 1.3	CCG		Not allowed
HQI-T 2000W/D	p30	500	250	4.0 / 5.0	CCG		Not allowed
HQI-T 2000W/D/I	p30	500	250	internal	CCG		Not allowed

## Safety, materials and environment

Product description	Typical specific effective radiant UV power [mW/1000 lm]	Typical mercury content [mg]
HQI-T 1000W/N	<2	132
HQI-T 1000W/D	<2	62
HQI-T 2000W/N/I	<2	300
HQI-T 2000W/N/E SUPER	<2	220
HQI-T 2000W/N/SN SUPER	<2	220
HQI-T 2000W/N 230V	<2	130
HQI-T 2000W/D	<2	198
HQI-T 2000W/D/I	<2	198

- Compliant with safety specifications according to EN 62035
- Compliant with RoHS.
- Only for luminaires with protective shield according to IEC 60598-1
- For operation with an electromagnetic ballast<sup>7</sup> a protection against rectifying effect at end-of-life required
- Staring to operating light source to be avoided because of high brightness

<sup>5</sup> This limit is for security reasons

<sup>6</sup> ECG stands for low frequency square wave electronic ballast. See the respective lamp data sheet in IEC 61167 and Annexes G and H, therein.

CCG stands for electromagnetic ballast (see IEC 61347).

<sup>7</sup> See IEC 61347.

## Energy labelling<sup>8</sup>

Product description	Energy efficiency class	Weighted energy consumption E <sub>c</sub> [kWh/1000h]
HQI-T 1000W/N	A+	1161
HQI-T 1000W/D	A	1155
HQI-T 2000W/N/I	A+	2151
HQI-T 2000W/N/E SUPER	A+	2178
HQI-T 2000W/N/SN SUPER	A+	2233
HQI-T 2000W/N 230V	A+	2233
HQI-T 2000W/D	A+	2310
HQI-T 2000W/D/I	A	2332

## Logistics data

Product description	ILCOS	EAN 10	EAN 40	Standard pack quantity
HQI-T 1000W/N	MT/UB-1000/633-H/E/SL-E40-76/345/H	4008321528285	4008321528292	6
HQI-T 1000W/D	MT/UB-1000/872-H/E/SL-E40-76/345/H	4008321527035	4008321527042	6
HQI-T 2000W/N/I	MT/UB-2000/643-E//SL-E40-100/430/H	4008321665379	4008321665386	4
HQI-T 2000W/N/E SUPER	MT/UB -2000/645-E//E/SL-E40-100/430/H	4008321979063	4008321979070	4
HQI-T 2000W/N/SN SUPER	MT/UB -2000/645-E/S/SL-E40-100/430/H	4008321979087	4008321979094	4
HQI-T 2000W/N 230V	MT/UB -2000/641-H/S/SL-E40-100/430/H	4008321979100	4008321979117	4
HQI-T 2000W/D	MT/UB -2000/872-E/E/SL-E40-100/430/H	4008321526809	4008321526816	4
HQI-T 2000W/D/I	MT/UB -2000/874-E//SL-E40-100/430/H	4008321527011	4008321527028	4

<sup>8</sup> According to Regulation (EU) No 874/2012 of July 12, 2012

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## Typical spectral power distribution

Light colour code	Fig. no.
N	1
D	2
N/E/SUPER	3
N/SN/SUPER	4

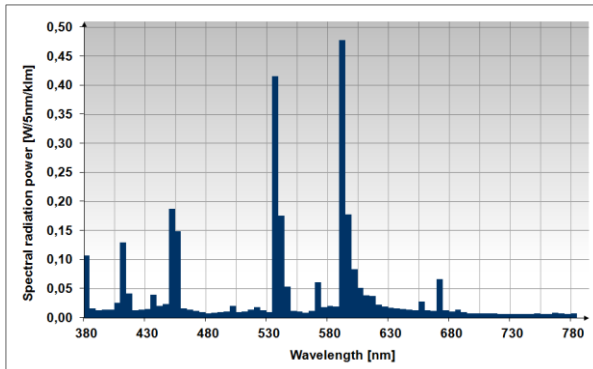


Fig 1

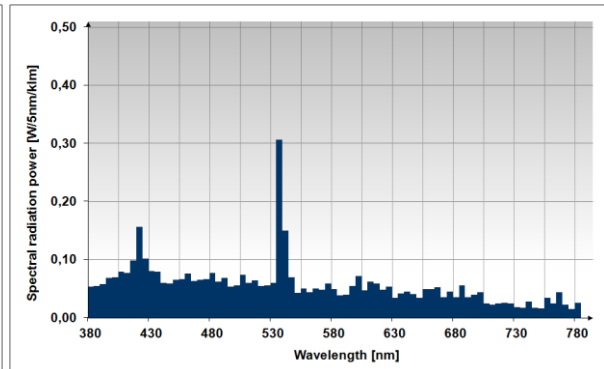


Fig 2

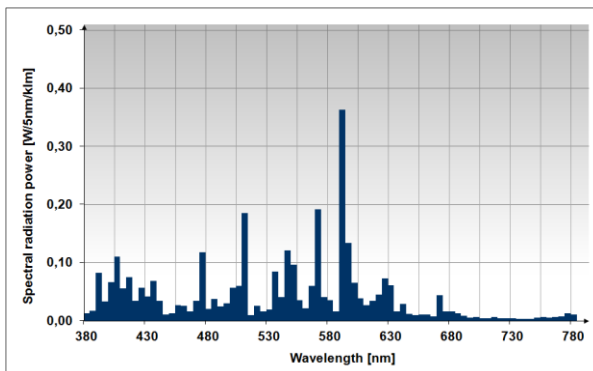


Fig 3

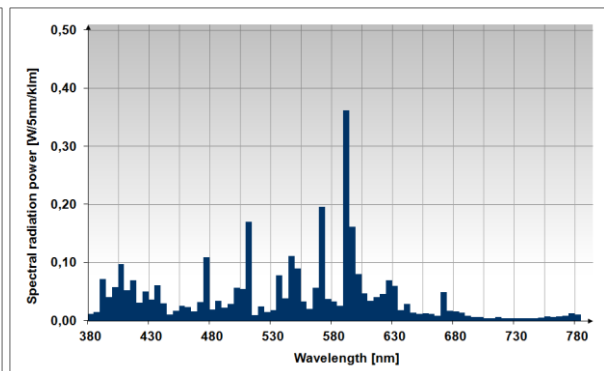


Fig 4

## References

Reference	
Brochure "Metal halide lamps. Instructions for the use and application"	<a href="http://www.osram.com">www.osram.com</a>
Brochure "High Intensity Discharge lamps. Technical information on reducing the wattage"	<a href="http://www.osram.com">www.osram.com</a>
Ray data (e.g. ASAP, SPEOS, LightTools)	available on request
3D data (e.g. Parasolid, STEP)	available on request
System+ guarantee	level 3C, see <a href="http://www.osram.com">www.osram.com</a>