

POWERSTAR® HQI®-E/P coated

Technical Information

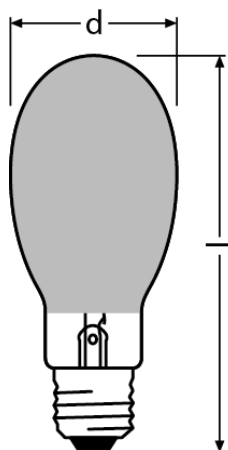


POWERSTAR® HQI®-E/P coated

General product description

- Metal halide lamp POWERSTAR® HQI® with quartz technology
- Warm white light WDL and neutral white light NDL
- Long life B50 of 9000 h to be increased to 12000 h as soon as statistical life data are available
- E27 base
- Approved for use in open and enclosed fixtures
- UV filter technology

Basic technical description



Product reference	Nominal lamp wattage	Cap	Cor-related colour temp.	Comp. Cap. @50hz, cos φ ≈0.9	Light colour code	Length max. (l)	Diameter (d)	Weight per piece	Light centre length (a)	Typical lamp voltage ¹	Typical lamp current ¹
	[W]		[K]	[μF]		[mm]	[mm]	[g]	[mm]	[V]	[A]
HQI-E/P 70/WDL coated	70	E27	3000	12	730	141	55	73	n.a.	100	0.9
HQI-E/P 70/NDL coated	70	E27	4200	12	742	141	55	73	n.a.	100	0.9
HQI-E/P 100/WD L coated	100	E27	3000	16	730	141	55	79	n.a.	100	1.2
HQI-E/P 100/NDL coated	100	E27	4200	16	842	141	55	79	n.a.	100	1.2
HQI-E/P 150/WDL coated	150	E27	3000	20	830	141	55	81	n.a.	100	1.8
HQI-E/P 150/NDL coated	150	E27	4200	20	842	141	55	81	n.a.	100	1.8
HQI-E/P 250/D coated	250	E40	5300	32	953	226	90	160	n.a.	98	3.0
HQI-E/P 400/D coated	400	E40	5100	45	951	290	120	235	n.a.	110	4.0

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

Performance specification²

Product reference	Rated lamp wattage [W]	Rated system wattage ³ [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Colour rendering index Ra	Colour rendering level	Average life (B50) [h]
HQI-E/P 70W/WDL coated	75	80	5596	72	70	2A	9000
HQI-E/P 70W/NDL coated	75	80	5866	75	80	1B	9000
HQI-E/P 100W/WD L coated	100	106	7671	77	70	2A	9000
HQI-E/P 100W/NDL coated	100	106	7942	80	80	1B	9000
HQI-E/P 150W/WDL coated	150	160	12056	81	70	2A	9000
HQI-E/P 150W/NDL coated	150	160	12056	81	80	1B	9000
HQI-E/P 250W/D coated	250	n.a.	17000	68	90	1A	9000
HQI-E/P 400W/D coated	420	n.a.	28000	67	90	1A	16000

Product reference	Lamp lumen maintenance factor (LLMF) vs. operation hours					
	2000h	4000h	6000h	8000h	12000h	16000h
HQI-E/P 70W/WDL coated	75%	65%	60%	50%	-	-
HQI-E/P 70W/NDL coated	80%	75%	70%	65%	-	-
HQI-E/P 100W/WD L coated	75%	65%	60%	50%	-	-
HQI-E/P 100W/NDL coated	80%	75%	70%	65%	-	-
HQI-E/P 150W/WDL coated	75%	65%	60%	50%	-	-
HQI-E/P 150W/NDL coated	80%	75%	70%	65%	-	-
HQI-E/P 250W/D coated	84%	76%	74%	72%	68%	-
HQI-E/P 400W/D coated	83%	76%	70%	65%	55%	50%

Product reference	Lamp survival factor ⁴ (LSF) vs. operation hours					
	2000h	4000h	6000h	8000h	12000h	16000h
HQI-E/P 70W/WDL coated	98%	90%	80%	70%	-	-
HQI-E/P 70W/NDL coated	98%	90%	80%	70%	-	-
HQI-E/P 100W/WD L coated	98%	90%	80%	70%	-	-
HQI-E/P 100W/NDL coated	98%	90%	80%	70%	-	-
HQI-E/P 150W/WDL coated	98%	90%	80%	70%	-	-
HQI-E/P 150W/NDL coated	98%	90%	80%	70%	-	-
HQI-E/P 250W/D coated	95%	85%	80%	65%	-	-
HQI-E/P 400W/D coated	99%	98%	95%	90%	80%	50%

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

³ With OSRAM POWERTRONIC PTi, PT-FIT or PTO

⁴ 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. ⁵ / max. ⁶ [kV]	Required control gear ⁷	Suitable OSRAM electronic control gear	Dimming
HQI-E/P 70W/WDL coated	universal	400	210	3.6 / 5	ECG, CCG	PTo, PTi	Not allowed
HQI-E/P 70W/NDL coated	universal	400	210	3.6 / 5	ECG, CCG	PTo, PTi	Not allowed
HQI-E/P 100W/WD L coated	universal	400	210	3.6 / 5	ECG, CCG	PTo, PTi	Not allowed
HQI-E/P 100W/NDL coated	universal	400	210	3.6 / 5	ECG, CCG	PTo, PTi	Not allowed
HQI-E/P 150W/WDL coated	universal	400	210	3.6 / 5	ECG, CCG	PTo, PTi	Not allowed
HQI-E/P 150W/NDL coated	universal	400	210	3.6 / 5	ECG, CCG	PTo, PTi	Not allowed
HQI-E/P 250W/D coated	universal	400	210	3.6 / 5	CCG	PTo, PTi	Not allowed
HQI-E/P 400W/D coated	universal	400	210	3.6 / 5	CCG	PTo, PTi	Not allowed

Safety, materials and environment

Product description	Typical specific effective radiant UV power [mW/1000 lm]	Typical mercury content [mg]
HQI-E/P 70W/WDL coated	<2	11.5
HQI-E/P 70W/NDL coated	<2	11.1
HQI-E/P 100W/WD L coated	<2	10.6
HQI-E/P 100W/NDL coated	<2	12.5
HQI-E/P 150W/WDL coated	<2	15.6
HQI-E/P 150W/NDL coated	<2	12.0
HQI-E/P 250W/D coated	<2	17.0
HQI-E/P 400W/D coated	<2	59.0

- 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 ballast⁸ a protection against rectifying effect at end-of-life required
- Staring to operating light source to be avoided because of high brightness

⁵ For superimposed ignition with square wave electronic ballast 3.0 kV are sufficient.

⁶ This limit is for safety reasons

⁷ 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).

⁸ See IEC 61347.

Energy labelling⁹

Product description	Energy efficiency class	Weighted energy consumption E _c [kWh/1000h]
HQI-E/P 70W/WDL coated	A	83
HQI-E/P 70W/NDL coated	A	83
HQI-E/P 100W/WD L coated	A	110
HQI-E/P 100W/NDL coated	A	110
HQI-E/P 150W/WDL coated	A	165
HQI-E/P 150W/NDL coated	A	165
HQI-E/P 250W/D coated	A	275
HQI-E/P 400W/D coated	A	462

Logistics data

Product description	ILCOS	EAN 10	EAN 40	Standard pack quantity
HQI-E/P 70W/WDL coated	MES/UB-70/730-H/E/SL-E27-56/141	4008321971050	4008321971067	20
HQI-E/P 70W/NDL coated	MES/UB-70/742-H/E/SL-E27-56/141	4008321971098	4008321971104	20
HQI-E/P 100W/WD L coated	MES/UB-100/730-H/E/SL-E27-56/141	4008321994486	4008321994530	20
HQI-E/P 100W/NDL coated	MES/UB-100/842- H/E/SL -E27-56/141	4008321994523	4008321994493	20
HQI-E/P 150W/WDL coated	MES/UB-150/830- H/E/SL -E27-56/141	4008321971135	4008321971142	20
HQI-E/P 150W/NDL coated	MES/UB-150/842- H/E/SL -E27-56/141	4008321971173	4008321971180	20
HQI-E/P 250W/D coated	MES/UB-250/953- H/E/SL -E40-90/226	4008321677921	4008 321677938	12
HQI-E/P 400W/D coated	MES/UB-400/951- H/E/SL -E40-120/290	4008321677945	4008 321677952	12

⁹ According to Regulation (EU) No 874/2012 of July 12, 2012

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.

Typical spectral power distribution

Light colour code	Fig. no.
WDL	1
NDL	2

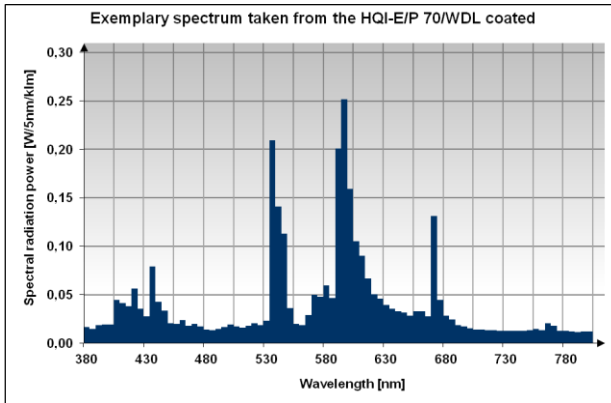


Fig 1

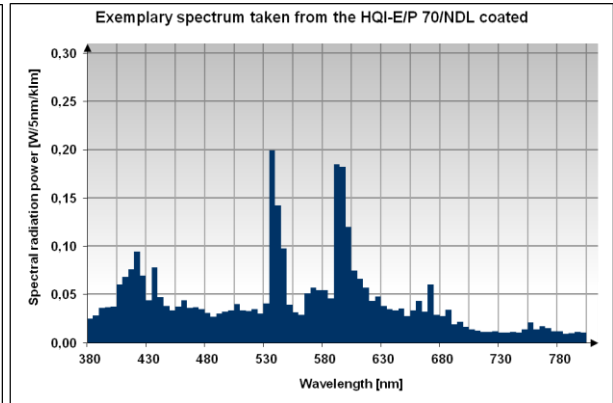


Fig 2

References

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