

POWERBALL® HCI®-TF

Technical Information

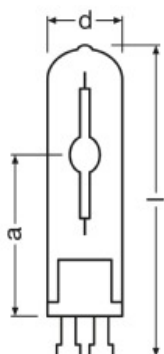


POWERBALL® HCI®-TF

General product description

- High intensity discharge lamps
- Metal halide lamps with ceramic burner
- POWERBALL¹ technology
- UV-filter technology
- For operation with electronic control gear, only
- For luminaires with protective shield, only

Basic technical description



Product reference	Nominal lamp wattage	Cap	Correlated colour temperature	Light colour code	Length max. (l)	Diameter (d)	Weight per piece	Light centre length (a)
	[W]		[K]		[mm]	[mm]	[g]	[mm]
HCl-TF 20W/830 WDL PB	20	GU6.5	3000	830	57	13	8	30
HCl-TF 35W/930 WDL PB	35	GU6.5	3000	930	57	13	8	30

Performance specification²

Product reference	Rated lamp wattage	Rated system wattage ³	Luminous flux	Luminous efficacy	Colour rendering index Ra	Colour rendering level	Average life (B50) ⁴
	[W]	[W]	[lm]	[lm/W]			[h]
HCl-TF 20W/830 WDL PB	20	23	1700	85	89	1B	15000
HCl-TF 35W/930 WDL PB	39	43	3600	92	90	1A	15000

¹ Round ceramic burner for optimized efficacy

² The specified values 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 PTc

⁴ For all burning positions

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Product reference	Lamp lumen maintenance factor (LLMF) vs. operation hours					
	2000 h	4000 h	6000 h	8000 h	12000 h	15000 h
HCl-TF 20W/830 WDL PB	80%	75%	73%	70%	69%	64%
HCl-TF 35W/930 WDL PB	90%	88%	85%	83%	80%	75%

Product reference	Lamp survival factor ⁵ (LSF) vs. operation hours					
	2000 h	4000 h	6000 h	8000 h	12000 h	15000 h
HCl-TF 20W/830 WDL PB	99%	98%	97%	96%	80%	50%
HCl-TF 35W/930 WDL PB	99%	98%	97%	96%	80%	50%

Operation conditions

- Burning position: any

Product reference	Max. permitted outer bulb temperature [°C]	Max. permitted pinch temperature [°C]	Ignition voltage min. / max. [kV _p]	Required control gear ⁶	Suitable OSRAM electronic control gear	Dimming
HCl-TF 20W/830 WDL PB	380	250	3.0 ⁷ / 5.0 ⁸	ECG only	PTi	not allowed
HCl-TF 35W/930 WDL PB	450	250	3.0 ⁷ / 5.0 ⁸	ECG only	PTi, PT-FIT, PTo	not allowed

Safety, materials and environment

- Compliant with safety specifications according to EN 62035
- Compliant with RoHS.
- Only for luminaires with protective shield according to IEC 60598-1
- Staring at operating light source to be avoided because of high brightness

Product description	Typical specific effective radiant UV power [mW/1000 lm]	Typical mercury content [mg]
HCl-TF 20W/830 WDL PB	0.25	3.2
HCl-TF 35W/930 WDL PB	0.17	4.0

⁵ Indicates the percentage of operational lamps after a given period of operation time.

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

⁷ For superimposed ignition with square wave electronic ballast

⁸ This limit is for safety reasons.

Energy labelling⁹

Product description	Energy efficiency class	Weighted energy consumption E_c [kWh/1000h]
HCI-TF 20W/830 WDL PB	A	22
HCI-TF 35W/930 WDL PB	A+	43

Logistics data

Product description	ILCOS	EAN 10	EAN 40	Standard pack quantity
HCI-TF 20W/830 WDL PB	MT/UB-20/830-H/E/L-GU6.5-13.3/30	4008321683045	4008321683052	12
HCI-TF 35W/930 WDL PB	MT/UB-35/930-H/E/L-GU6.5-13.3/30	4008321683021	4008321683038	12

Typical spectral power distribution

Light colour code	Fig. no.
830	1
930	2

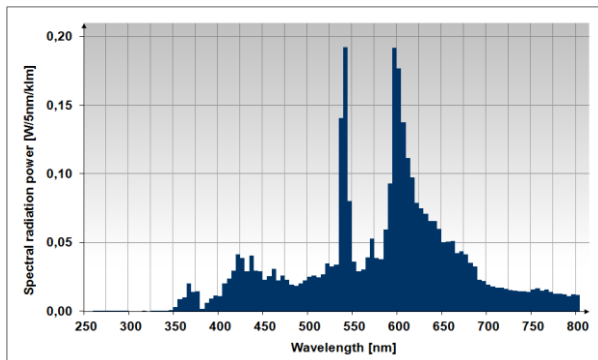


Fig. 1

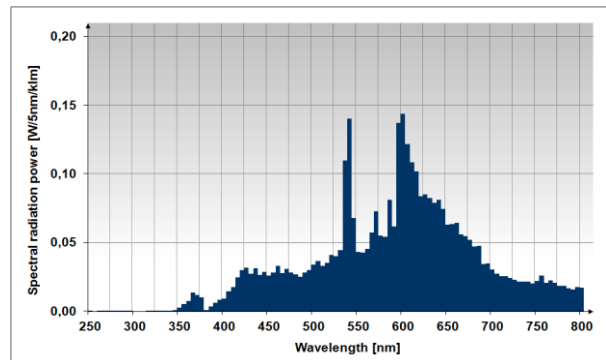


Fig. 2

References

Reference	
Brochure "Metal halide lamps. Instructions for the use and application"	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

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

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