



Product Description

Quartz metal halide lamps with opalized outer bulb

Benefits

- High safety and comfort level, maintained over life
- Minimal maintenance cost
- Initial investment saving options with "Plus" - concept and "S" and "P" - types
- Adjustable atmosphere creation by using appropriate color temperature

Features

- Ovoid, internally white coated outer bulb
- Unique 3 - band technology resulting in high luminous efficacy, both initially and over long lifetime
- Available in cool white and daylight color appearance demonstrating good color stability
- "S" - type for direct retrofit for HPL lamps
- "P" - type for use without protective front shield

Environment

- Good environmental choice because of long service life
- This product is RoHS compliant
- This product is covered by WEEE

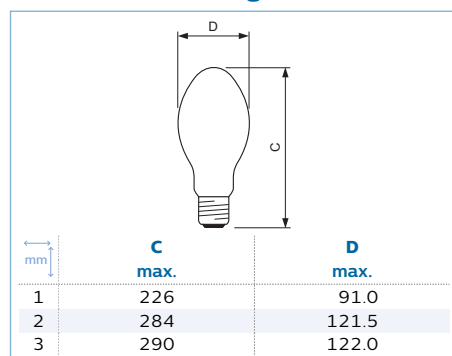
Application

- High bay lighting, e. g. industrial workshops, exhibition halls, hypermarkets, shopping malls, DIY stores, churches, airports and train stations

Warnings and Safety

- Use only in totally enclosed luminaire, even during testing (IEC 61167, IEC 62035, IEC 60598)
- The luminaire must be able to contain hot lamp parts if the lamp ruptures
- For use with control gear designed for high - pressure mercury or sodium lamps
- A lamp breaking is extremely unlikely to have any impact on your health. If a lamp breaks, ventilate the room for 30 minutes and remove the parts, preferably with gloves. Put them in a sealed plastic bag and take it to your local waste facilities for recycling. Do not use a vacuum cleaner.

Dimension Drawing



Product Range



Main Data

MASTER HPI Plus

Wattage/Light source color	Lamp system description	Cap - Base	SAP Packing (Piece)/Packaging configuration	Correlated Color Temperature (K)	Life to 10% Failures (h)	Energy Consumption kWh/1000 h (kWh)	Ordering number 8711500...
253W/645	BASE-UP	E40	SL / 12	4,500	7,500	278	18114515
253W/667	BASE-UP	E40	SL / 12	6,700	7,500	278	20739515
395W/645	BASE-UP	E40	SL / 6	4,500	7,500	434	18252410
395W/667	BASE-UP	E40	SL / 6	6,700	7,500	434	20737110

Electrical data

Commercial product name	Lamp Current (EM) (A)	Lamp power (W)	Voltage (V)	Ignition Time (sec. [max.])
MASTER HPI Plus 250W/645 BU E40 1SL/12	2.2	253	128	30
MASTER HPI Plus 250W/667 BU E40 1SL/12	2.2	253	128	30
MASTER HPI Plus 400W/645 BU E40 1SL/6	3.4	395	125	30
MASTER HPI Plus 400W/667 BU E40 1SL/6	3.4	395	125	30

Lifetime data

Commercial product name	Life to 5% Failures (h)	Life to 10% Failures (h)	Life to 20% Failures (h)	Life to 50% Failures (h)
MASTER HPI Plus 250W/645 BU E40 1SL/12	5,000	7,500	11,000	20,000
MASTER HPI Plus 250W/667 BU E40 1SL/12	5,000	7,500	11,000	20,000
MASTER HPI Plus 400W/645 BU E40 1SL/6	5,000	7,500	11,000	20,000
MASTER HPI Plus 400W/667 BU E40 1SL/6	5,000	7,500	11,000	20,000

Color data

Commercial product name	Colour Rendering Index	Light source color ¹	Color Designation	Bulb Finish	Chromaticity Coordinate X	Chromaticity Coordinate Y
MASTER HPI Plus 250W/645 BU E40 1SL/12	65	645	Cool White (CW)	Coated glass	365	363
MASTER HPI Plus 250W/667 BU E40 1SL/12	52	667	Daylight	Coated glass	314	342
MASTER HPI Plus 400W/645 BU E40 1SL/6	65	645	Cool White (CW)	Coated glass	367	374
MASTER HPI Plus 400W/667 BU E40 1SL/6	60	667	Daylight	Coated glass	310	341

¹ 'Light source color' value description(s): '645' = CCT of 4500K, '667' = CCT of 6700K

Luminous flux/efficacy/intensity data

Commercial product name	Luminous Flux (Rated) (lm)	Luminous Efficacy (Rated) (lm/W)	Ratio Scotopic/Photopic Lumens
MASTER HPI Plus 250W/645 BU E40 1SL/12	18,000	72.0	1.50
MASTER HPI Plus 250W/667 BU E40 1SL/12	18,000	72.0	2.00
MASTER HPI Plus 400W/645 BU E40 1SL/6	32,500	82.0	1.50
MASTER HPI Plus 400W/667 BU E40 1SL/6	32,500	82.0	2.00

Rated Lumen Maintenance data

Commercial product name	LLMF 2000 h Rated (%)	LLMF 4000 h Rated (%)	LLMF 6000 h Rated (%)	LLMF 8000 h Rated (%)	LLMF 12000 h Rated (%)	LLMF 16000 h Rated (%)	LLMF 20000 h Rated (%)
MASTER HPI Plus 250W/645 BU E40 1SL/12	90	82	77	73	68	63	60
MASTER HPI Plus 250W/667 BU E40 1SL/12	90	82	77	73	68	63	60
MASTER HPI Plus 400W/645 BU E40 1SL/6	90	82	77	73	68	63	60
MASTER HPI Plus 400W/667 BU E40 1SL/6	90	82	77	73	68	63	60

Temperature data

Commercial product name	Correlated Color Temperature (K)	Color Temperature Technical (K)	Bulb Temperature (°C [max.])	Cap - Base Temperature (°C [max.])	Default Ambient Temperature (°C)
MASTER HPI Plus 250W/645 BU E40 1SL/12	4,500	4,380	350	250	25
MASTER HPI Plus 250W/667 BU E40 1SL/12	6,700	6,400	350	250	25
MASTER HPI Plus 400W/645 BU E40 1SL/6	4,500	4,370	350	250	25
MASTER HPI Plus 400W/667 BU E40 1SL/6	6,700	6,560	350	250	25

Environmental data & ETIM group & Design Requirements

Commercial product name	Energy Consumption kWh/ 1000 h (kWh)		Mercury (Hg) Content (mg)	ETIM Group ²
MASTER HPI Plus 250W/645 BU E40 1SL/12	278	A	47	EC000037
MASTER HPI Plus 250W/667 BU E40 1SL/12	278	A	47	EC000037
MASTER HPI Plus 400W/645 BU E40 1SL/6	434	A+	67	EC000037
MASTER HPI Plus 400W/667 BU E40 1SL/6	434	A+	67	EC000037

² 'ETIM Group' value description(s): 'EC000037' = Metal Halide Lamp without Reflector



Rated Survival Factor data

Commercial product name	LSF 2000 h Rated (%)	LSF 4000 h Rated (%)	LSF 6000 h Rated (%)	LSF 8000 h Rated (%)	LSF 12000 h Rated (%)	LSF 16000 h Rated (%)	LSF 20000 h Rated (%)
MASTER HPI Plus 250W/645 BU E40 1SL/12	99	96	93	88	76	63	50
MASTER HPI Plus 250W/667 BU E40 1SL/12	99	96	93	88	76	63	50
MASTER HPI Plus 400W/645 BU E40 1SL/6	99	96	93	88	76	63	50
MASTER HPI Plus 400W/667 BU E40 1SL/6	99	96	93	88	76	63	50

System data

Commercial product name	Lamp system description
MASTER HPI Plus 250W/645 BU E40 1SL/12	Base-Up
MASTER HPI Plus 250W/667 BU E40 1SL/12	Base-Up
MASTER HPI Plus 400W/645 BU E40 1SL/6	Base-Up
MASTER HPI Plus 400W/667 BU E40 1SL/6	Base-Up

Operating data

Commercial product name		Default Burning Position	Ignition Supply Voltage (V [min.])	Ignition Supply Voltage (V [max.])	Default Gear		Default Cycle Time
MASTER HPI Plus 250W/645 BU E40 1SL/12	H15	Vertical	198		Electromagnetic	No	12 hour cycle
MASTER HPI Plus 250W/667 BU E40 1SL/12	H15	Vertical	198	198	Electromagnetic	No	12 hour cycle
MASTER HPI Plus 400W/645 BU E40 1SL/6	H15	Vertical	198		Electromagnetic	No	12 hour cycle
MASTER HPI Plus 400W/667 BU E40 1SL/6	H15	Vertical	198	198	Electromagnetic	No	12 hour cycle

³  value description(s): 'H15' = Hanging +/- 15D or Base Up (BU)

Miscellaneous & General data

Commercial product name	Bulb Shape ⁴	Cap-Base	ILCOS Code
MASTER HPI Plus 250W/645 BU E40 1SL/12	BD90	E40	ME-250/45/2A-H-E40-/V
MASTER HPI Plus 250W/667 BU E40 1SL/12	BD90	E40	ME-250/67/2A-H-E40-90/225/V
MASTER HPI Plus 400W/645 BU E40 1SL/6	BD120	E40	ME-400/45/2A-H-E40-/V
MASTER HPI Plus 400W/667 BU E40 1SL/6	BD120	E40	ME-400/67/2A-H-E40-90/225/V

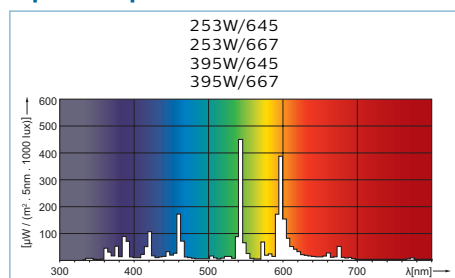
⁴ 'Bulb Shape' value description(s): 'BD120' = BD 120mm, 'BD90' = BD 90mm

Logistic data

Commercial product name	SAP Packing (Piece)/Pack- aging configura- tion ⁵	Numerator - Packs per outer box	Ordering number 8711500...	Material Nr. (12NC) (9280...)	SAP Gross Weight (Piece) (g)	Net Weight (Piece) (g)	EAN-3 8711500...
MASTER HPI Plus 250W/645 BU E40 1SL/12	SL / 12	12	18114515	76709891	238	168	181152
MASTER HPI Plus 250W/667 BU E40 1SL/12	SL / 12	12	20739515	76809894	235	166	207401
MASTER HPI Plus 400W/645 BU E40 1SL/6	SL / 6	6	18252410	74309891	408	259	182531
MASTER HPI Plus 400W/667 BU E40 1SL/6	SL / 6	6	20737110	74409894	421	257	207388

⁵ 'SAP Packing (Piece)/Packaging configuration' value description(s): 'SL / 12' = SLEEVE, 'SL / 6' = SLEEVE

Spectral power distribution



Cap – Base Overview

