



# Product Description

## MASTER HPI-T Plus

Quartz metal halide lamps with clear outer bulb

### Benefits

- High safety and comfort level, maintained over life
- Minimal maintenance cost
- Initial investment saving options with "Plus"-concept

### Features

- Clear tubular outer bulb
- Unique 3-band technology resulting in high luminous efficacy, both initially and over long lifetime
- Renders a natural white colour appearance and good colour stability

### Application

- Sports lighting, floodlighting of buildings and monuments, area lighting e.g. harbours and building sites, canopy lighting e.g. petrol stations, horticultural lighting

### Warnings and Safety

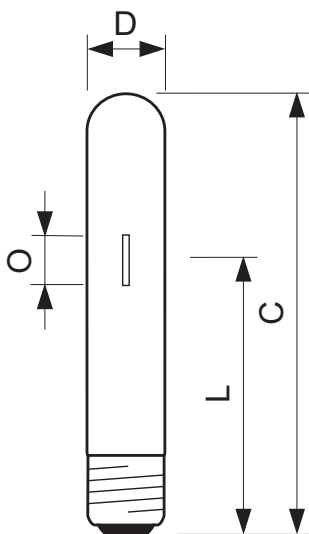
- Use only in totally enclosed luminaire, even during testing (IEC61167, IEC 62035, IEC60598)
- The luminaire must be able to contain hot lamp parts if the lamp ruptures
- For use with control gear designed for high-pressure mercury or sodium lamps
- A lamp breaking is extremely unlikely to have any 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.

Related products



HPI-T Plus, E39/E40

Dimensional drawing



MASTER HPI-T Plus 250W/645 E40 1SL

Product	C (Max)	D (Max)	L (Norm)	O (Norm)
HPI-T Plus 250W/645 E40	255	47	155	29
HPI-T Plus 250W/645 E40	255	47	155	29
HPI-T Plus 400W/645 E40	286	47	168	30,5
HPI-T Plus 400W/645 E40	286	47	168	30,5

General Characteristics (1/2)

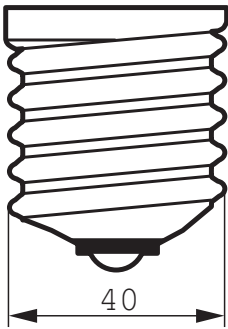
Order code	Full product name	System Description	Cap-Base	Bulb	Bulb Finish	Burning Position	Life to 5% failures	Life to 10% failures	Life to 20% failures	Life to 50% failures	LSF EM 2000h Rated, 12h cycle
203410 15	MASTER HPI-T Plus 250W/645 E40 1SL	Horizontal	GES	T46	Clear	p20	5000 hr	7500 hr	11000 hr	20000 hr	%
179890 15	MASTER HPI-T Plus 250W/645 E40 1SL	Horizontal	GES	T46	Clear	p20	5000 hr	7500 hr	11000 hr	20000 hr	%
203458 15	MASTER HPI-T Plus 400W/645 E40 1SL	Horizontal	GES	T46	Clear	p20	5000 hr	7500 hr	11000 hr	20000 hr	%
179906 15	MASTER HPI-T Plus 400W/645 E40 1SL	Horizontal	GES	T46	Clear	p20	5000 hr	7500 hr	11000 hr	20000 hr	%

General Characteristics (2/2)

Order code	Full product name	LSF EM 4000h Rated, 12h cycle	LSF EM 6000h Rated, 12h cycle	LSF EM 8000h Rated, 12h cycle	LSF EM 12000h Rated, 12h cycle	LSF EM 16000h Rated, 12h cycle	LSF EM 20000h Rated, 12h cycle
203410 15	MASTER HPI-T Plus 250W/645 E40 1SL	%	%	%	%	%	%
179890 15	MASTER HPI-T Plus 250W/645 E40 1SL	%	%	%	%	%	%

Order code	Full product name	LSF EM 4000h Rated,12h cycle	LSF EM 6000h Rated,12h cycle	LSF EM 8000h Rated,12h cycle	LSF EM 12000h Rated, 12h cycle	LSF EM 16000h Rated, 12h cycle	LSF EM 20000h Rated, 12h cycle
203458 15	MASTER HPI-T Plus 400W/645 E40 1SL	%	%	%	%	%	%
179906 15	MASTER HPI-T Plus 400W/645 E40 1SL	%	%	%	%	%	%

Installation diagrams



E40



p20

Light Technical Characteristics (1/3)

Order code	Full product name	Colour Code	Colour Rendering Index	Colour Designation	Colour Temperature	Lamp Luminous Flux EM	Luminous Flux EM 25°C, Rated	Lamp Luminous Efficacy EM	Lum Efficacy Rated EM 25°C	Lumen Maintenance 2000h	Lumen Maintenance 5000h
203410 15	MASTER HPI-T Plus 250W/645 E40 1SL	645	65 Ra8	Cool White	4500 K	20500 Lm	Lm	84 Lm/W	Lm/W	90 %	80 %
179890 15	MASTER HPI-T Plus 250W/645 E40 1SL	645	65 Ra8	Cool White	4500 K	20500 Lm	Lm	84 Lm/W	Lm/W	90 %	80 %

Order code	Full product name	Colour Code	Colour Rendering Index	Colour Designation	Colour Temperature	Lamp Luminous Flux EM	Luminous Flux EM 25°C, Rated	Lamp Luminous Efficacy EM	Lum Efficacy Rated EM 25°C	Lumen Maintenance 2000h	Lumen Maintenance 5000h
203458 15	MASTER HPI-T Plus 400W/645 E40 1SL	645	65 Ra8	Cool White	4500 K	32000 Lm	Lm	84 Lm/W	Lm/W	90 %	80 %
179906 15	MASTER HPI-T Plus 400W/645 E40 1SL	645	65 Ra8	Cool White	4500 K	32000 Lm	Lm	84 Lm/W	Lm/W	90 %	80 %

Light Technical Characteristics (2/3)

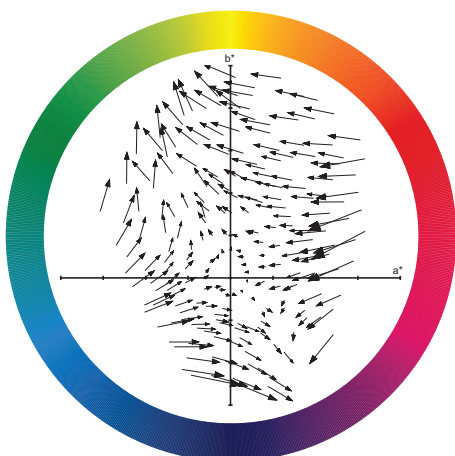
Order code	Full product name	Lumen Maintenance 10000h	Lumen Maintenance 20000h	LLMF EM 2000h Rated	LLMF EM 4000h Rated	LLMF EM 6000h Rated	LLMF EM 8000h Rated	LLMF EM 12000h Rated	LLMF EM 16000h Rated	LLMF EM 20000h Rated	Chromaticity Coordinate X
203410 15	MASTER HPI-T Plus 250W/645 E40 1SL	70 %	60 %	%	%	%	%	%	%	%	365 -
179890 15	MASTER HPI-T Plus 250W/645 E40 1SL	70 %	60 %	%	%	%	%	%	%	%	365 -
203458 15	MASTER HPI-T Plus 400W/645 E40 1SL	70 %	60 %	%	%	%	%	%	%	%	361 -
179906 15	MASTER HPI-T Plus 400W/645 E40 1SL	70 %	60 %	%	%	%	%	%	%	%	361 -

Light Technical Characteristics (3/3)

Order code	Full product name	Chromaticity Coordinate Y
203410 15	MASTER HPI-T Plus 250W/645 E40 1SL	377 -
179890 15	MASTER HPI-T Plus 250W/645 E40 1SL	377 -

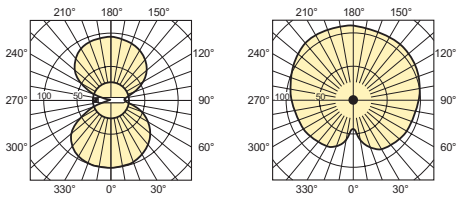
Order code	Full product name	Chromaticity Coordinate Y
203458 15	MASTER HPI-T Plus 400W/645 E40 1SL	372 -
179906 15	MASTER HPI-T Plus 400W/645 E40 1SL	372 -

Light technical



HPI-T 250W, 400W

Light technical

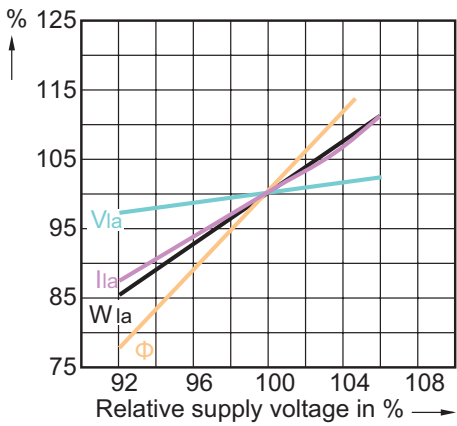


HPI-T

Electrical Characteristics

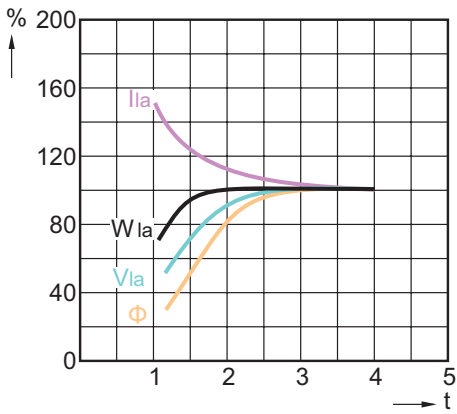
Order code	Full product name	Lamp Wattage	Lamp Wattage EM	Lamp Wattage EM 25°C, Nominal	Lamp Wattage EM 25°C, Rated	Lamp Voltage	Lamp Current EM	Dimmable
203410 15	MASTER HPI-T Plus 250W/645 E40 1SL	250 W	245 W	W	W	128 V	2.1 A	no
179890 15	MASTER HPI-T Plus 250W/645 E40 1SL	250 W	245 W	W	W	128 V	2.1 A	no
203458 15	MASTER HPI-T Plus 400W/645 E40 1SL	400 W	382 W	W	W	125 V	3.4 A	no
179906 15	MASTER HPI-T Plus 400W/645 E40 1SL	400 W	382 W	W	W	125 V	3.4 A	no

Performance diagrams

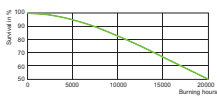


HPI-T

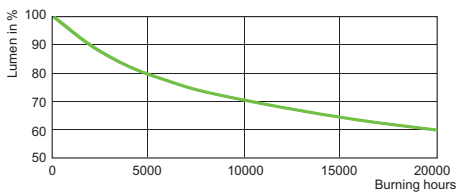
Performance diagrams



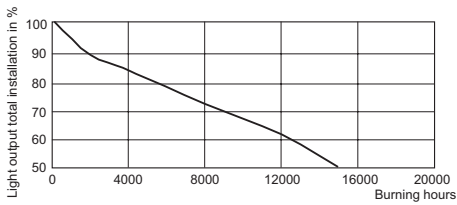
HPI-T



HPI-T Life Expectancy



HPI-T Lumen Maintenance



HPI-T Service Lifetime

Environmental Characteristics

Order code	Full product name	Energy Efficiency Label (EEL)	Mercury (Hg) Content	Energy consumption kWh/1000h
203410 15	MASTER HPI-T Plus 250W/645 E40 1SL	A+	36 mg	269 kWh
179890 15	MASTER HPI-T Plus 250W/645 E40 1SL	A+	36 mg	269 kWh
203458 15	MASTER HPI-T Plus 400W/645 E40 1SL	A+	29.5 mg	420 kWh
179906 15	MASTER HPI-T Plus 400W/645 E40 1SL	A+	29.5 mg	420 kWh

Luminaire Design Requirements

Order code	Full product name	Cap-Base Temperature	Bulb Temperature
203410 15	MASTER HPI-T Plus 250W/645 E40 1SL	250 (max) C	550 (max) C
179890 15	MASTER HPI-T Plus 250W/645 E40 1SL	250 (max) C	550 (max) C
203458 15	MASTER HPI-T Plus 400W/645 E40 1SL	250 (max) C	600 (max) C
179906 15	MASTER HPI-T Plus 400W/645 E40 1SL	250 (max) C	600 (max) C



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data subject to change