



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 color appearance and good color 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

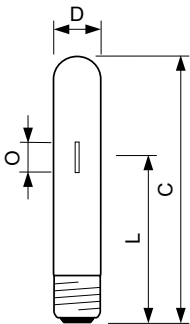
MASTER HPI-T Plus

Versions



HPI-T Plus, E39/E40

Dimensional drawing



Product	D	O	L	C
MASTER HPI-T Plus 250W/645 E40 1SL/12	47 mm	29 mm	155 mm	255 mm
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MASTER HPI-T Plus 250W/645 E40 1SL/12	47 mm	29 mm	155 mm	255 mm
MASTER HPI-T Plus 400W/645 E40 1SL/12	47 mm	30.5 mm	168 mm	286 mm
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MASTER HPI-T Plus 400W/645 E40 1SL/12	47 mm	30.5 mm	168 mm	286 mm
MASTER HPI-T Plus 250W/645 E40 1SL	47 mm	29 mm	158 mm	257 mm
MASTER HPI-T Plus 400W/643 CL 1SL	47 mm	30.5 mm	168 mm	286 mm
MASTER HPI-T Plus 400W/643 E39 1SL	47 mm	30.5 mm	165 mm	283 mm
MASTER HPI-T Plus 250W/643 E39 1SL	47 mm	29 mm	152 mm	252 mm

Controls and Dimming

Dimmable No

General Information

Bulb Shape T46
Life To 50% Failures (Nom) 20000 h
Life To 5% Failures (Nom) 5000 h
Operating Position P20

Light Technical

Color Designation Cool White (CW)

Mechanical and Housing

Bulb Finish Clear

Approval and Application

order code	Energy Consumption kWh/ 1000 h	Energy Efficiency Label (EEL)	Mercury (Hg) Content (Nom)
928076109299	269 kWh	A+	33 mg

order code	Energy Consumption kWh/ 1000 h	Energy Efficiency Label (EEL)	Mercury (Hg) Content (Nom)
928473709299	429 kWh	A+	-

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order code	Energy Consumption kWh/	Energy Efficiency Label	Mercury (Hg) Content
	1000 h	(EEL)	(Nom)
928481300092	269 kWh	A+	36 mg
928481300096	269 kWh	A+	36 mg
928481300097	269 kWh	A+	36 mg
928481300098	269 kWh	A+	36 mg
928481600092	420 kWh	A+	29.5 mg

order code	Energy Consumption kWh/	Energy Efficiency Label	Mercury (Hg) Content
	1000 h	(EEL)	(Nom)
928481600094	420 kWh	A+	29.5 mg
928481600095	420 kWh	A+	29.5 mg
928481600096	420 kWh	A+	29.5 mg
928483400191	-	-	36 mg
928483500191	420 kWh	-	29.5 mg

Operating and Electrical

order code	Lamp Current				Power (Rated)
	(EM) (Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)	(Nom)
928076109299	2.10 A	138 V	118 V	128 V	245.0 W
928473709299	3.4 A	135 V	115 V	125 V	390 W
928481300092	2.1 A	138 V	118 V	128 V	245 W
928481300096	2.1 A	138 V	118 V	128 V	245 W
928481300097	2.1 A	138 V	118 V	128 V	245 W
928481300098	2.1 A	138 V	118 V	128 V	245 W

order code	Lamp Current				Power (Rated)
	(EM) (Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)	(Nom)
928481600092	3.4 A	135 V	115 V	125 V	382 W
928481600094	3.4 A	135 V	115 V	125 V	382 W
928481600095	3.4 A	135 V	115 V	125 V	382 W
928481600096	3.4 A	135 V	115 V	125 V	382 W
928483400191	2.1 A	138 V	118 V	128 V	245 W
928483500191	3.4 A	135 V	115 V	125 V	382 W

General Information (1/2)

order code	Cap-Base	Life To 10% Failures (Nom)	Life To 20% Failures (Nom)	Life To 50% Failures (Min)	LSF 12000 h Rated	LSF 16000 h Rated	LSF 2000 h Rated	LSF 20000 h Rated
928076109299	E40	7500 h	11000 h	-	76 %	63 %	99 %	50 %
928473709299	E40	-	5000 h	10000 h	-	-	-	-
928481300092	E40	7500 h	11000 h	-	-	-	-	-
928481300096	E40	7500 h	11000 h	-	-	-	-	-
928481300097	E40	7500 h	11000 h	-	-	-	-	-
928481300098	E40	7500 h	11000 h	-	-	-	-	-
928481600092	E40	7500 h	11000 h	-	-	-	-	-
928481600094	E40	7500 h	11000 h	-	-	-	-	-
928481600095	E40	7500 h	11000 h	-	-	-	-	-
928481600096	E40	7500 h	11000 h	-	-	-	-	-
928483400191	E39	7500 h	11000 h	-	-	-	-	-
928483500191	E39	7500 h	11000 h	-	-	-	-	-

General Information (2/2)

order code	LSF 4000 h	LSF 6000 h	LSF 8000 h	System Description
	Rated	Rated	Rated	
928076109299	96 %	93 %	88 %	-
928473709299	-	-	-	Horizontal Operating Position
928481300092	-	-	-	Horizontal Operating Position
928481300096	-	-	-	Horizontal Operating Position
928481300097	-	-	-	Horizontal Operating Position
928481300098	-	-	-	Horizontal Operating Position

order code	LSF 4000 h	LSF 6000 h	LSF 8000 h	System Description
	Rated	Rated	Rated	
928481600092	-	-	-	Horizontal Operating Position
928481600094	-	-	-	Horizontal Operating Position
928481600095	-	-	-	Horizontal Operating Position
928481600096	-	-	-	Horizontal Operating Position
928483400191	-	-	-	Horizontal Operating Position
928483500191	-	-	-	Horizontal Operating Position

Luminaire Design Requirements

order code	Bulb Temperature (Max)
928076109299	550 °C
928473709299	600 °C
928481300092	550 °C

order code	Bulb Temperature (Max)
928481300096	550 °C
928481300097	550 °C
928481300098	550 °C

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order code	Bulb Temperature (Max)
928481600092	600 °C
928481600094	600 °C
928481600095	600 °C

order code	Bulb Temperature (Max)
928481600096	600 °C
928483400191	550 °C
928483500191	600 °C

Light Technical (1/3)

order code	Chromaticity		Correlated Color Temperature		Color Rendering Index (Nom)	LLMF 12000 h Rated	LLMF 16000 h Rated	LLMF 2000 h Rated
	Coordinate X (Nom)	Coordinate Y (Nom)	Color Code	(Nom)				
928076109299	365	377	645	4500 K	65	68 %	63 %	90 %
928473709299	369	375	643	4300 K	65	-	-	-
928481300092	365	377	645	4500 K	65	-	-	-
928481300096	365	377	645	4500 K	65	-	-	-
928481300097	365	377	645	4500 K	65	-	-	-
928481300098	365	377	645	4500 K	65	-	-	-
928481600092	361	372	645	4500 K	65	-	-	-
928481600094	361	372	645	4500 K	65	-	-	-
928481600095	361	372	645	4500 K	65	-	-	-
928481600096	361	372	645	4500 K	65	-	-	-
928483400191	365	377	645	4500 K	69	-	-	-
928483500191	361	372	645	4500 K	69	-	-	-

Light Technical (2/3)

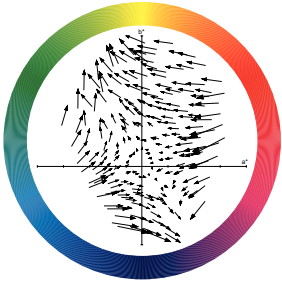
order code	LLMF 20000	LLMF 4000	LLMF 6000	LLMF 8000	Lumen Maintenance	Lumen Maintenance	Lumen Maintenance	Lumen Maintenance	Lumen Maintenance
	h Rated	h Rated	h Rated	h Rated	10000 h (Nom)	2000 h (Min)	2000 h (Nom)	20000 h	5000 h (Min)
928076109299	60 %	82 %	77 %	73 %	-	-	-	-	-
928473709299	-	-	-	-	75 %	80 %	90 %	-	70 %
928481300092	-	-	-	-	70 %	75 %	90 %	60 %	65 %
928481300096	-	-	-	-	70 %	75 %	90 %	60 %	65 %
928481300097	-	-	-	-	70 %	75 %	90 %	60 %	65 %
928481300098	-	-	-	-	70 %	75 %	90 %	60 %	65 %
928481600092	-	-	-	-	70 %	75 %	90 %	60 %	65 %
928481600094	-	-	-	-	70 %	75 %	90 %	60 %	65 %
928481600095	-	-	-	-	70 %	75 %	90 %	60 %	65 %
928481600096	-	-	-	-	70 %	75 %	90 %	60 %	65 %
928483400191	-	-	-	-	70 %	75 %	90 %	60 %	65 %
928483500191	-	-	-	-	70 %	75 %	90 %	60 %	65 %

Light Technical (3/3)

order code	Lumen				order code	Lumen			
	Maintenance 5000 h (Nom)	Luminous Efficacy (rated) (Nom)	Luminous Flux (Rated) (Min)	Luminous Flux (Rated) (Nom)		Maintenance 5000 h (Nom)	Luminous Efficacy (rated) (Nom)	Luminous Flux (Rated) (Min)	Luminous Flux (Rated) (Nom)
928076109299	-	84 lm/W	-	20500 lm	928481600092	80 %	84 lm/W	30000 lm	32000 lm
928473709299	85 %	90 lm/W	30000 lm	35000 lm	928481600094	80 %	84 lm/W	30000 lm	32000 lm
928481300092	80 %	84 lm/W	18500 lm	20500 lm	928481600095	80 %	84 lm/W	30000 lm	32000 lm
928481300096	80 %	84 lm/W	18500 lm	20500 lm	928481600096	80 %	84 lm/W	30000 lm	32000 lm
928481300097	80 %	84 lm/W	18500 lm	20500 lm	928483400191	80 %	84 lm/W	18500 lm	20500 lm
928481300098	80 %	84 lm/W	18500 lm	20500 lm	928483500191	80 %	89 lm/W	30000 lm	32000 lm

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Color Rendering Diagrams



Light Distribution Diagrams

