



Product Description

MASTER SON PIA Plus

High Pressure Sodium lamp with opalized ovoid outer bulb, high output and long reliable lifetime

Benefits

- Superior technology results in a long and reliable lifetime, high lumen maintenance and a reliable ignition over lifetime
- High energy efficacy and absence of lead (Pb) makes this a sound environmental offer
- High luminous efficacy makes this the most energy efficient HPS lamp

Features

- Ovoid, internally white coated outer bulb
- Ceramic discharge tube with Philips Integrated Antenna (PIA) for a long and reliable lifetime
- Robust construction with few welding points is highly vibration- and shock-resistant, further reducing early failures and extending lamp life
- ZrCo getter ensures high lumen maintenance and few early failures
- "Plus" concept with high efficacy translated into high light output
- Completely lead-free lamps

Application

- Road and residential lighting
- Industrial lighting both indoor and outdoor
- Recreational sports facilities Outdoor and Indoor

Warnings and Safety

- Control gear must include end-of-life protection (IEC60662, IEC 62035)
- 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.

MASTER SON PIA Plus

Controls and Dimming

Dimmable	Yes
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Operating and Electrical

Voltage (Max)	115 V
Voltage (Min)	85 V

General Information

Cap-Base	E40
LSF 12000 h Rated	99 %
LSF 2000 h Rated	100 %
LSF 4000 h Rated	99 %
LSF 6000 h Rated	99 %
LSF 8000 h Rated	99 %
Operating Position	UNIVERSAL
System Description	External Ignitor (E)

Luminaire Design Requirements

Bulb Temperature (Max)	350 °C
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Light Technical

Chromaticity Coordinate X (Nom)	0.535
Chromaticity Coordinate Y (Nom)	0.42
Colour Code	220
Correlated Colour Temperature (Nom)	2000 K
Colour Rendering Index (Max)	25
Colour Rendering Index (Nom)	-

Mechanical and Housing

Bulb Finish	Coated glass
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Approval and Application

Order Code	Full Product Name	Energy Consumption kWh/1000 h	Mercury (Hg)	Mercury (Hg)
			Content (Max)	Content (Nom)
928151409827	MASTER SON PIA Plus 150W/220 E40 1SL/12	154 kWh	15.1 mg	15 mg
928151608827	MASTER SON PIA Plus 100W/220 E40 1SL/12	101 kWh	16.3 mg	16.3 mg
928153309830	MASTER SON PIA Plus 250W/220 E40 1SL/12	250 kWh	15.1 mg	15.1 mg

Operating and Electrical

Order Code	Full Product Name	Lamp			Re-Ignition
		Current (EM) (Nom)	Voltage (Nom)	Power (Nom)	Time (Min) (Max)
928151409827	MASTER SON PIA Plus 150W/220 E40 1SL/12	0.178 A	100 V	154.0 W	180 s
928151608827	MASTER SON PIA Plus 100W/220 E40 1SL/12	0.119 A	100 V	101.0 W	120 s

Order Code	Full Product Name	Lamp			Re-Ignition
		Current (EM) (Nom)	Voltage (Nom)	Power (Nom)	Time (Min) (Max)
928153309830	MASTER SON PIA Plus 250W/220 E40 1SL/12	0.300 A	96 V	250.0 W	120 s

General Information (1/2)

Order Code	Full Product Name	Life To 20%		Life To 50%	
		Life To 10% Failures (Nom)	Failures (Nom)	Life To 5% Failures (Nom)	Failures (Nom)
928151409827	MASTER SON PIA Plus 150W/220 E40 1SL/12	24000 h	28000 h	36000 h	20500 h

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Order Code	Full Product Name	Life To		Life To	
		Life To 10% Failures (Nom)	20% Failures (Nom)	50% Failures (Nom)	Life To 5% Failures (Nom)
928151608827	MASTER SON PIA Plus 100W/220 E40 1SL/12	21000 h	25000 h	29000 h	17000 h

Order Code	Full Product Name	Life To		Life To	
		Life To 10% Failures (Nom)	20% Failures (Nom)	50% Failures (Nom)	Life To 5% Failures (Nom)
928153309830	MASTER SON PIA Plus 250W/220 E40 1SL/12	24000 h	28000 h	36000 h	20500 h

General Information (2/2)

Order Code	Full Product Name	LSF 16000 h Rated	LSF 20000 h Rated
928151409827	MASTER SON PIA Plus 150W/220 E40 1SL/12	98 %	95 %
928151608827	MASTER SON PIA Plus 100W/220 E40 1SL/12	97 %	91 %

Order Code	Full Product Name	LSF 16000 h Rated	LSF 20000 h Rated
928153309830	MASTER SON PIA Plus 250W/220 E40 1SL/12	98 %	95 %

Light Technical (1/2)

Order Code	Full Product Name	LLMF 12000 h	LLMF 16000 h	LLMF 2000 h	LLMF 20000 h
		Rated	Rated	Rated	Rated
928151409827	MASTER SON PIA Plus 150W/220 E40 1SL/12	96 %	95 %	99 %	94 %
928151608827	MASTER SON PIA Plus 100W/220 E40 1SL/12	92 %	90 %	98 %	89 %

Order Code	Full Product Name	LLMF 12000 h	LLMF 16000 h	LLMF 2000 h	LLMF 20000 h
		Rated	Rated	Rated	Rated
928153309830	MASTER SON PIA Plus 250W/220 E40 1SL/12	96 %	95 %	99 %	94 %

Light Technical (2/2)

Order Code	Full Product Name	LLMF 4000 h	LLMF 6000 h	LLMF 8000 h	Luminous Efficacy (rated) (Nom)	Luminous Flux (Nom)	Luminous Flux (Rated) (Nom)	Ratio Scotopic/Photopic Lumens
		Rated	Rated	Rated				
928151409827	MASTER SON PIA Plus 150W/220 E40 1SL/12	98 %	97 %	96 %	107.79 lm/W	16600 lm	16600 lm	0.55
928151608827	MASTER SON PIA Plus 100W/220 E40 1SL/12	96 %	95 %	94 %	95 lm/W	9600 lm	9600 lm	0.55
928153309830	MASTER SON PIA Plus 250W/220 E40 1SL/12	98 %	97 %	96 %	120 lm/W	30000 lm	30000 lm	0.60

Mechanical and Housing

Order Code	Full Product Name	Bulb Shape
928151409827	MASTER SON PIA Plus 150W/220 E40 1SL/12	BD90
928151608827	MASTER SON PIA Plus 100W/220 E40 1SL/12	B75

Order Code	Full Product Name	Bulb Shape
928153309830	MASTER SON PIA Plus 250W/220 E40 1SL/12	BD90

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