



Product Description

MASTER SON-T PIA Plus

High Pressure Sodium lamp with clear tubular 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

- Clear tubular 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
- Decorative floodlighting, illumination
- Industrial area lighting
- Recreational sports facilities Outdoor and Indoor
- Horticultural lighting

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-T PIA Plus

Controls and dimming	
Dimmable	Yes
General information	
LSF 12000 h Rated	99 %
LSF 4000 h Rated	99 %
LSF 6000 h Rated	99 %
LSF 8000 h Rated	99 %
Operating Position	UNIVERSAL
System Description	External Ignitor (E)
Light technical	
Chromaticity Coordinate Y (Nom)	0.42
Colour Code	220
Colour Rendering Index (Max)	25
Colour Rendering Index (Nom)	-
Mechanical and housing	
Bulb Finish	Clear

Approval and application

Order Code	Full Product Name	Energy Consumption	Mercury (Hg)	Mercury (Hg)
		kWh/1000 h	Content (Max)	Content (Nom)
928144809293	MASTER SON-T PIA Plus 400W E40 1SL/12	408 kWh	19.6 mg	20 mg
928483400095	MASTER SON-T PIA Plus 150W E40 1SL/12	155 kWh	15.1 mg	13.9 mg
928483200094	MSTSON-TPIA Plus 70W E27 1CT/12	73 kWh	12.2 mg	12.2 mg

Operating and electrical (1/2)

Order Code	Full Product Name	Lamp Current (EM) (Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)
		(A)	(V)	(V)	(V)
928144809293	MASTER SON-T PIA Plus 400W E40 1SL/12	4.410 A	115 V	85 V	105 V
928483400095	MASTER SON-T PIA Plus 150W E40 1SL/12	1.8 A	115 V	85 V	100 V

Order Code	Full Product Name	Lamp Current (EM) (Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)
		(A)	(V)	(V)	(V)
928483200094	MSTSON-TPIA Plus 70W E27 1CT/12	0.975 A	103 V	73 V	93 V

Operating and electrical (2/2)

Order Code	Full Product Name	Re-Ignition Time	
		Power (Nom)	(Min) (Max)
928144809293	MASTER SON-T PIA Plus 400W E40 1SL/12	408.0 W	120 s
928483400095	MASTER SON-T PIA Plus 150W E40 1SL/12	155.0 W	180 s

Order Code	Full Product Name	Re-Ignition Time	
		Power (Nom)	(Min) (Max)
928483200094	MSTSON-TPIA Plus 70W E27 1CT/12	73.0 W	30 s

General information (1/2)

Order Code	Full Product Name	Cap- Base	Life To 10%	Life To 20%	Life To 50%
			Failures (Nom)	Failures (Nom)	Failures (Nom)
928144809293	MASTER SON-T PIA Plus 400W E40 1SL/12	E40	24000 h	28000 h	36000 h
928483400095	MASTER SON-T PIA Plus 150W E40 1SL/12	E40	24000 h	28000 h	32000 h

Order Code	Full Product Name	Cap- Base	Life To 10%	Life To 20%	Life To 50%
			Failures (Nom)	Failures (Nom)	Failures (Nom)
928483200094	MSTSON-TPIA Plus 70W E27 1CT/12	E27	20000 h	23500 h	28000 h

MASTER SON-T PIA Plus

General information (2/2)

Order Code	Full Product Name	Life To 5%	LSF	LSF	
		Failures (Nom)	16000 h Rated	LSF 2000 h Rated	20000 h Rated
928144809293	MASTER SON-T PIA Plus 400W E40 1SL/12	20500 h	98 %	100 %	95 %
928483400095	MASTER SON-T PIA Plus 150W E40 1SL/12	20500 h	98 %	100 %	95 %

Order Code	Full Product Name	Life To 5%	LSF	LSF	
		Failures (Nom)	16000 h Rated	LSF 2000 h Rated	20000 h Rated
928483200094	MSTSON-TPIA Plus 70W E27 1CT/12	17000 h	96 %	99 %	90 %

Luminaire design requirements

Order Code	Full Product Name	Bulb Temperature (Max)
928144809293	MASTER SON-T PIA Plus 400W E40 1SL/12	450 °C
928483400095	MASTER SON-T PIA Plus 150W E40 1SL/12	450 °C

Order Code	Full Product Name	Bulb Temperature (Max)
928483200094	MSTSON-TPIA Plus 70W E27 1CT/12	350 °C

Light technical (1/3)

Order Code	Full Product Name	Chromaticity Coordinate X (Nom)	Correlated		
			Colour Temperature (Nom)	LLMF 12000 h Rated	LLMF 16000 h Rated
928144809293	MASTER SON-T PIA Plus 400W E40 1SL/12	0.535	2000 K	92 %	90 %
928483400095	MASTER SON-T PIA Plus 150W E40 1SL/12	0.535	2000 K	96 %	95 %

		Chromaticity	Correlated		
			Colour	LLMF	LLMF
	Full Product	Coordinate X	Temperature	12000 h	16000 h
Order Code	Name	(Nom)	(Nom)	Rated	Rated
928483200094	MSTSON-TPIA Plus 70W E27 1CT/12	0.54	1900 K	80 %	79 %

Light technical (2/3)

Order Code	Full Product Name	LLMF	LLMF	LLMF	LLMF	LLMF	Lumen	Lumen	Lumen	Lumen
		2000 h	20000 h	4000 h	6000 h	8000 h	Maintenance	Maintenance	Maintenance	Maintenance
		Rated	Rated	Rated	Rated	Rated	2000 h (Min)	2000 h (Nom)	20000 h	5000 h (Min)
928144809293	MASTER SON-T PIA Plus 400W E40 1SL/12	99 %	88 %	97 %	96 %	94 %	95 %	99 %	88 %	90.5 %
928483400095	MASTER SON-T PIA Plus 150W E40 1SL/12	97 %	94 %	-	-	-	94 %	97 %	94 %	88 %
928483200094	MSTSON-TPIA Plus 70W E27 1CT/12	86 %	78 %	-	-	-	90 %	95 %	81 %	85 %

Light technical (3/3)

Order Code	Full Product Name	Lumen Maintenance 5000 h (Nom)	Luminous Efficacy (rated) (Nom)	Luminous Flux (Nom)	Luminous Flux (Rated) (Min)	Luminous Flux (Rated) (Nom)	Ratio Scotopic/Photopic Lumens
928144809293	MASTER SON-T PIA Plus 400W E40 1SL/12	96.5 %	137 lm/W	55900 lm	-	55900 lm	0.60
928483400095	MASTER SON-T PIA Plus 150W E40 1SL/12	95 %	115 lm/W	17800 lm	14500 lm	17800 lm	-

MASTER SON-T PIA Plus

Order Code	Full Product Name	Lumen Maintenance	Luminous Efficacy	Luminous Flux	Luminous Flux	Luminous Flux	Ratio Scotopic/
		5000 h (Nom)	(rated) (Nom)	(Nom)	(Rated) (Min)	(Rated) (Nom)	Photopic Lumens
928483200094	MSTSON-TPIA Plus 70W E27 1CT/12	92 %	91 lm/W	6600 lm	5940 lm	6600 lm	-

Mechanical and housing

Order Code	Full Product Name	Bulb Shape	Order Code	Full Product Name	Bulb Shape
928144809293	MASTER SON-T PIA Plus 400W E40 1SL/12	T46	928483200094	MSTSON-TPIA Plus 70W E27 1CT/12	T35
928483400095	MASTER SON-T PIA Plus 150W E40 1SL/12	T46			

