



# The most reliable solution in road lighting

## MASTER SON-T PIA Plus

High Pressure Sodium lamp with clear tubular outer bulb, high output and long reliable lifetime

### Benefits

- Initial investment saving options with "Plus" concept
- High lumen output, maintained over life
- Minimal maintenance cost

### Features

- Clear tubular outer bulb
- Ceramic discharge tube with Unique Philips Integrated Antenna (PIA) concept enabling long and reliable lifetime
- "Plus" concept with high efficacy translates into high light output and improved lumen maintenance
- Robust construction with few welding points is highly vibration- and shock-resistant, further reducing early failures and extending lamp life
- Dimmable

### Application

- Road and residential lighting
- Decorative floodlighting, illumination
- Industrial area lighting
- Recreational sports facilities indoor and outdoor

# MASTER SON-T PIA Plus

## Warnings and Safety

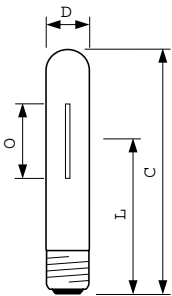
- Control gear must include end-of-life protection (IEC60662, IEC 62035)
- A lamp breaking is extremely unlikely to have any impact on your health. If a lamp breaks, ventilate the room for 30 minutes and remove the parts, preferably with gloves. Put them in a sealed plastic bag and take it to your local waste facilities for recycling. Do not use a vacuum cleaner.

## Versions



SON-T PIA Plus, E40

## Dimensional drawing



### Product

MASTER SON-T PIA Plus 250W E40 1SL/12
MASTER SON-T PIA Plus 100W E40 1SL/12
MSTSON-TPIA Plus 70W E27 1CT/12
MASTER SON-T PIA Plus 400W E40 1SL/12
MASTER SON-T PIA Plus 150W E40 1SL/12

### General Information

Operating Position	UNIVERSAL
System Description	External Ignitor (E)

### Light Technical

Color Code	220
Correlated Color Temperature (Nom)	2000 K
Color Rendering Index (Max)	25

### Mechanical and Housing

Bulb Finish	Clear
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## Approval and Application

# MASTER SON-T PIA Plus

Order Code	Full Product Name	Energy	Energy	Mercury
		Consumption	Efficiency	(Hg)
		kWh/1000 h	Label (EEL)	Content (Nom)
928144709293	MASTER SON-T PIA Plus 250W E40 1SL/12	275 kWh	A+	15.1 mg
928144809293	MASTER SON-T PIA Plus 400W E40 1SL/12	440 kWh	A++	20 mg
928483300095	MASTER SON-T PIA Plus 100W E40 1SL/12	110 kWh	A+	14.3 mg

Order Code	Full Product Name	Energy	Energy	Mercury
		Consumption	Efficiency	(Hg)
		kWh/1000 h	Label (EEL)	Content (Nom)
928483400095	MASTER SON-T PIA Plus 150W E40 1SL/12	169 kWh	A+	13.9 mg
928483200094	MSTSON-TPIA Plus 70W E27 1CT/12	80 kWh	A+	12.2 mg

## Controls and Dimming

Order Code	Full Product Name	Dimmable
928144709293	MASTER SON-T PIA Plus 250W E40 1SL/12	Yes
928144809293	MASTER SON-T PIA Plus 400W E40 1SL/12	Yes
928483300095	MASTER SON-T PIA Plus 100W E40 1SL/12	No

Order Code	Full Product Name	Dimmable
928483400095	MASTER SON-T PIA Plus 150W E40 1SL/12	No
928483200094	MSTSON-TPIA Plus 70W E27 1CT/12	No

## Operating and Electrical

Order Code	Full Product Name	Lamp Current (EM)				Re-ignition Time (Min)	
		(Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)	Power (Rated) (Nom)	(Max)
928144709293	MASTER SON-T PIA Plus 250W E40 1SL/12	3 A	115 V	85 V	100 V	250.0 W	120 s
928144809293	MASTER SON-T PIA Plus 400W E40 1SL/12	4.5 A	115 V	85 V	100 V	400.0 W	120 s
928483300095	MASTER SON-T PIA Plus 100W E40 1SL/12	1.2 A	115 V	85 V	100 V	100.0 W	120 s
928483400095	MASTER SON-T PIA Plus 150W E40 1SL/12	1.8 A	115 V	85 V	100 V	154.0 W	180 s
928483200094	MSTSON-TPIA Plus 70W E27 1CT/12	0.975 A	103 V	73 V	93 V	73.0 W	30 s

## General Information (1/2)

Order Code	Full Product Name	Cap-Base	Life To 10% Failures (Nom)	Life To 20% Failures (Nom)	Life To 50% Failures (Nom)	Life To 5% Failures (Nom)	LSF 12000 h Rated	LSF 16000 h Rated
928144809293	MASTER SON-T PIA Plus 400W E40 1SL/12	E40	24000 h	28000 h	36000 h	20500 h	99 %	98 %
928483300095	MASTER SON-T PIA Plus 100W E40 1SL/12	E40	-	23500 h	28000 h	17000 h	-	-
928483400095	MASTER SON-T PIA Plus 150W E40 1SL/12	E40	24000 h	28000 h	32000 h	20500 h	-	-
928483200094	MSTSON-TPIA Plus 70W E27 1CT/12	E27	20000 h	23500 h	28000 h	17000 h	-	-

## General Information (2/2)

Order Code	Full Product Name	LSF	LSF	LSF	LSF	LSF
		2000 h Rated	20000 h Rated	4000 h Rated	6000 h Rated	8000 h Rated
928144709293	MASTER SON-T PIA Plus 250W E40 1SL/12	100 %	95 %	99 %	99 %	99 %
928144809293	MASTER SON-T PIA Plus 400W E40 1SL/12	100 %	95 %	99 %	99 %	99 %

Order Code	Full Product Name	LSF	LSF	LSF	LSF	LSF
		2000 h Rated	20000 h Rated	4000 h Rated	6000 h Rated	8000 h Rated
928483300095	MASTER SON-T PIA Plus 100W E40 1SL/12	-	-	-	-	-
928483400095	MASTER SON-T PIA Plus 150W E40 1SL/12	-	-	-	-	-

# MASTER SON-T PIA Plus

Order Code	Full Product Name	LSF	LSF	LSF	LSF	LSF
		2000 h	20000 h	4000 h	6000 h	8000 h
Order Code	Full Product Name	Rated	Rated	Rated	Rated	Rated
928483200094	MSTSON-TPIA Plus 70W E27 1CT/12	-	-	-	-	-

## Luminaire Design Requirements

Order Code	Full Product Name	Bulb Temperature (Max)
928144709293	MASTER SON-T PIA Plus 250W E40 1SL/12	450 °C
928144809293	MASTER SON-T PIA Plus 400W E40 1SL/12	450 °C
928483300095	MASTER SON-T PIA Plus 100W E40 1SL/12	450 °C

Order Code	Full Product Name	Bulb Temperature (Max)
928483400095	MASTER SON-T PIA Plus 150W E40 1SL/12	450 °C
928483200094	MSTSON-TPIA Plus 70W E27 1CT/12	350 °C

## Light Technical (1/3)

Order Code	Full Product Name	Chromaticity		Color Rendering Index (Nom)	LLMF 12000 h Rated	LLMF 16000 h Rated	LLMF 2000 h Rated	LLMF 20000 h Rated
		Coordinate X (Nom)	Coordinate Y (Nom)					
928144709293	MASTER SON-T PIA Plus 250W E40 1SL/12	530	420	-	96 %	95 %	99 %	94 %
928144809293	MASTER SON-T PIA Plus 400W E40 1SL/12	525	425	-	92 %	90 %	99 %	88 %
928483300095	MASTER SON-T PIA Plus 100W E40 1SL/12	525	420	-	-	-	-	-
928483400095	MASTER SON-T PIA Plus 150W E40 1SL/12	535	420	-	-	-	-	-
928483200094	MSTSON-TPIA Plus 70W E27 1CT/12	540	420	-	-	-	-	-

## Light Technical (2/3)

Order Code	Full Product Name	LLMF	LLMF	LLMF	Lumen	Lumen	Lumen	Lumen	Lumen	Luminous
		4000 h Rated	6000 h Rated	8000 h Rated	Maintenance 2000 h (Min)	Maintenance 2000 h (Nom)	Maintenance 20000 h	Maintenance 5000 h (Min)	Maintenance 5000 h (Nom)	Efficacy (rated) (Nom)
928144709293	MASTER SON-T PIA Plus 250W E40 1SL/12	98 %	97 %	96 %	-	-	-	-	-	127 lm/W
928144809293	MASTER SON-T PIA Plus 400W E40 1SL/12	97 %	96 %	94 %	95 %	99 %	88 %	90.5 %	96.5 %	137 lm/W
928483300095	MASTER SON-T PIA Plus 100W E40 1SL/12	-	-	-	94 %	97 %	-	90 %	95 %	107 lm/W
928483400095	MASTER SON-T PIA Plus 150W E40 1SL/12	-	-	-	94 %	97 %	-	88 %	95 %	117 lm/W
928483200094	MSTSON-TPIA Plus 70W E27 1CT/12	-	-	-	90 %	95 %	-	85 %	92 %	91 lm/W

## Light Technical (3/3)

Order Code	Full Product Name	Luminous Flux (Rated) (Min)	Luminous Flux (Rated) (Nom)	Ratio
				Scotopic/Photopic Lumens
928144709293	MASTER SON-T PIA Plus 250W E40 1SL/12	-	33000 lm	0.60

Order Code	Full Product Name	Luminous Flux (Rated) (Min)	Luminous Flux (Rated) (Nom)	Ratio
				Scotopic/Photopic Lumens
928144809293	MASTER SON-T PIA Plus 400W E40 1SL/12	-	55800 lm	0.60

## MASTER SON-T PIA Plus

Order Code	Full Product Name	Luminous	Luminous	Ratio
		Flux (Rated) (Min)	Flux (Rated) (Nom)	Scotopic/ Photopic Lumens
928483300095	MASTER SON-T PIA Plus 100W E40 1SL/12	8700 lm	10700 lm	-
928483400095	MASTER SON-T PIA Plus 150W E40 1SL/12	14500 lm	18000 lm	-

Order Code	Full Product Name	Luminous	Luminous	Ratio
		Flux (Rated) (Min)	Flux (Rated) (Nom)	Scotopic/ Photopic Lumens
928483200094	MSTSON-TPIA Plus 70W E27 1CT/12	5940 lm	6600 lm	-

### Mechanical and Housing

Order Code	Full Product Name	Bulb Shape
928144709293	MASTER SON-T PIA Plus 250W E40 1SL/12	T14 1/2
928144809293	MASTER SON-T PIA Plus 400W E40 1SL/12	T14 1/2
928483300095	MASTER SON-T PIA Plus 100W E40 1SL/12	T14 1/2
928483400095	MASTER SON-T PIA Plus 150W E40 1SL/12	T14 1/2
928483200094	MSTSON-TPIA Plus 70W E27 1CT/12	T35

