



Product Description

MASTER SON-T APIA Plus Hg Free

High-pressure sodium lamp with clear tubular outer bulb, long reliable lifetime and zero mercury

Benefits

- Superior technology results in a long and reliable lifetime, high lumen maintenance and reliable ignition over lifetime
- Zero mercury makes this the most environmentally friendly product in this application area

Features

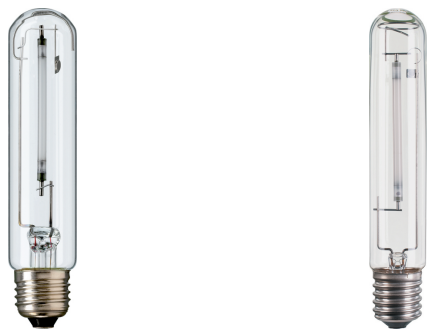
- Clear tubular outer bulb
- Ceramic discharge tube with new Active Philips Integrated Antenna (APIA) for an improved long and reliable lifetime; up to five years service lifetime
- Robust construction with few welding points is highly vibration- and shock-resistant, further reducing early failures and extending lamp life
- ZrAl getter ensures high lumen maintenance and few early failures
- "Plus" concept with high efficacy translates into high light output
- Fully compliant with EuP legislation for sodium lamps

Application

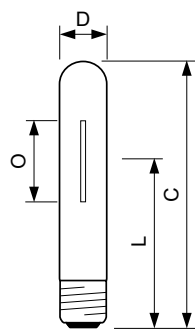
- Road and residential lighting
- Industrial area lighting
- Recreational sports facilities, indoor and outdoor
- Decorative floodlighting, illumination

MASTER SON-T APIA Plus Hg Free

Versions



Dimensional drawing



Product	D (max)	O	L	C (max)
MASTER SON-T APIA Plus Hg Free 70W E27 1SL	36 mm	46 mm	104 mm	156 mm
MASTER SON-T APIA Plus Hg Free 100W E40 1SL	47 mm	71 mm	132 mm	210 mm
MASTER SON-T APIA Plus Hg Free 400W E40 1SL	47 mm	109 mm	175 mm	279 mm
MASTER SON-T APIA Plus Hg Free 150W E40 1SL	47 mm	73 mm	132 mm	210 mm
MASTER SON-T APIA Plus Hg Free 250W E40 1SL	47 mm	87 mm	158 mm	257 mm

MASTER SON-T APIA Plus Hg Free

Approval and Application	
Energy Efficiency Label (EEL)	A+
Controls and Dimming	
Dimmable	yes
Operating and Electrical	
Re-Ignition Time (Min) (Max)	120 s
General Information	
Life To 50% Failures (Nom)	38000 h
Life To 5% Failures (Nom)	20000 h
LSF 12000 h Rated	99 %
LSF 16000 h Rated	98 %
LSF 2000 h Rated	99 %
LSF 20000 h Rated	95 %
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	
Correlated Colour Temperature (Nom)	2100 K
Colour Rendering Index (Max)	25
Mechanical and Housing	
Bulb Finish	Clear (CL)

Approval and Application

Order Code	Full Product Name	Energy Consumption kWh/	Mercury (Hg)
		1000 h	Content (Nom)
928196209227	MASTER SON-T APIA Plus Hg Free 70W E27 1SL	77 kWh	0 mg
928198909830	MASTER SON-T APIA Plus Hg Free 100W E40 1SL	110 kWh	0 mg
928199009830	MASTER SON-T APIA Plus Hg Free 150W E40 1SL	165 kWh	0.0 mg
928199109830	MASTER SON-T APIA Plus Hg Free 250W E40 1SL	282 kWh	0.0 mg
928199209830	MASTER SON-T APIA Plus Hg Free 400W E40 1SL	437 kWh	0.0 mg

Operating and Electrical (1/2)

Order Code	Full Product Name	Lamp	Voltage (Max)	Voltage (Min)	Voltage (Nom)
		Current (EM) (Nom)			
928196209227	MASTER SON-T APIA Plus Hg Free 70W E27 1SL	0.99 A	100 V	70 V	85 V
928198909830	MASTER SON-T APIA Plus Hg Free 100W E40 1SL	1.2 A	110 V	80 V	95 V
928199009830	MASTER SON-T APIA Plus Hg Free 150W E40 1SL	1.8 A	110 V	80 V	95 V

Order Code	Full Product Name	Lamp	Voltage (Max)	Voltage (Min)	Voltage (Nom)
		Current (EM) (Nom)			
928199109830	MASTER SON-T APIA Plus Hg Free 250W E40 1SL	3 A	110 V	80 V	95 V
928199209830	MASTER SON-T APIA Plus Hg Free 400W E40 1SL	4.6 A	110 V	90 V	95 V

Operating and Electrical (2/2)

Order Code	Full Product Name	Power (Rated) (Nom)
928196209227	MASTER SON-T APIA Plus Hg Free 70W E27 1SL	70.0 W
928198909830	MASTER SON-T APIA Plus Hg Free 100W E40 1SL	100.0 W
928199009830	MASTER SON-T APIA Plus Hg Free 150W E40 1SL	150.0 W

Order Code	Full Product Name	Power (Rated) (Nom)
928199109830	MASTER SON-T APIA Plus Hg Free 250W E40 1SL	256.0 W
928199209830	MASTER SON-T APIA Plus Hg Free 400W E40 1SL	397.0 W

General Information

MASTER SON-T APIA Plus Hg Free

Order Code	Full Product Name	Cap-Base
928196209227	MASTER SON-T APIA Plus Hg Free 70W E27 1SL	E27
928198909830	MASTER SON-T APIA Plus Hg Free 100W E40 1SL	E40
928199009830	MASTER SON-T APIA Plus Hg Free 150W E40 1SL	E40

Order Code	Full Product Name	Cap-Base
928199109830	MASTER SON-T APIA Plus Hg Free 250W E40 1SL	E40
928199209830	MASTER SON-T APIA Plus Hg Free 400W E40 1SL	E40

Luminaire Design Requirements

Order Code	Full Product Name	Bulb Temperature (Max)
928196209227	MASTER SON-T APIA Plus Hg Free 70W E27 1SL	350 °C
928198909830	MASTER SON-T APIA Plus Hg Free 100W E40 1SL	350 °C
928199009830	MASTER SON-T APIA Plus Hg Free 150W E40 1SL	350 °C

Order Code	Full Product Name	Bulb Temperature (Max)
928199109830	MASTER SON-T APIA Plus Hg Free 250W E40 1SL	450 °C
928199209830	MASTER SON-T APIA Plus Hg Free 400W E40 1SL	450 °C

Light Technical (1/2)

Order Code	Full Product Name	Colour Code	LLMF	LLMF	LLMF
			12000 h Rated	16000 h Rated	2000 h Rated
928196209227	MASTER SON-T APIA Plus Hg Free 70W E27 1SL	-	90 %	86 %	98 %
928198909830	MASTER SON-T APIA Plus Hg Free 100W E40 1SL	-	90 %	88 %	96 %
928199009830	MASTER SON-T APIA Plus Hg Free 150W E40 1SL	221	86.5 %	79.5 %	99 %

Order Code	Full Product Name	Colour Code	LLMF	LLMF	LLMF
			12000 h Rated	16000 h Rated	2000 h Rated
928199109830	MASTER SON-T APIA Plus Hg Free 250W E40 1SL	221	90 %	88 %	96 %
928199209830	MASTER SON-T APIA Plus Hg Free 400W E40 1SL	221	90 %	88 %	96 %

Light Technical (2/2)

Order Code	Full Product Name	LLMF 20000 h	LLMF 4000 h	LLMF 6000 h	LLMF 8000 h	Luminous Efficacy	Luminous Flux	Ratio Scotopic/
		Rated	Rated	Rated	Rated	(rated) (Nom)	(Rated) (Nom)	Photopic Lumens
928196209227	MASTER SON-T APIA Plus Hg Free 70W E27 1SL	83 %	97 %	95 %	93 %	90 lm/W	6300 lm	0.55
928198909830	MASTER SON-T APIA Plus Hg Free 100W E40 1SL	87 %	94 %	92 %	91 %	100 lm/W	10000 lm	0.55
928199009830	MASTER SON-T APIA Plus Hg Free 150W E40 1SL	73.5 %	98 %	97 %	93.5 %	114 lm/W	17100 lm	0.55
928199109830	MASTER SON-T APIA Plus Hg Free 250W E40 1SL	87 %	94 %	92 %	91 %	125 lm/W	32000 lm	0.60
928199209830	MASTER SON-T APIA Plus Hg Free 400W E40 1SL	97 %	94 %	92 %	91 %	136 lm/W	54000 lm	0.60

Mechanical and Housing

Order Code	Full Product Name	Bulb Shape
928196209227	MASTER SON-T APIA Plus Hg Free 70W E27 1SL	T35
928198909830	MASTER SON-T APIA Plus Hg Free 100W E40 1SL	T46
928199009830	MASTER SON-T APIA Plus Hg Free 150W E40 1SL	T46

Order Code	Full Product Name	Bulb Shape
928199109830	MASTER SON-T APIA Plus Hg Free 250W E40 1SL	T46
928199209830	MASTER SON-T APIA Plus Hg Free 400W E40 1SL	T46

Light Distribution Diagrams

