

PRODUCT DATASHEET

ST8A-EM 14 W/4000 K 1200 mm

SubstiTUBE Advanced | High performance LED tubes for electromagnetic control gears, shatterproof



Areas of application

- General illumination within ambient temperatures from -20...+50 °C
- Illumination of production areas
- Traffic zones and corridors
- Supermarkets and department stores
- Industry

Product benefits

- No bending thanks to glass technology
- Quick, simple and safe replacement without rewiring
- Energy savings of up to 60 % (compared to T8 fluorescent lamp on CCG)
- Instant-on light, therefore ideally suitable in combination with sensor technology
- Very high resistance to switching loads
- Also suitable for operation at low temperatures
- Shatter protection thanks to special PET coating
- Support the implementation of the HACCP concepts from production through to presentation

Product features

- LED replacement for conventional compact fluorescent lamps for use in CCG luminaires or on AC mains
- Bright, robust and durable
- Uniform illumination
- Single and tandem operation on conventional control gear (0.6 m version)
- Tube made of glass



- Mercury-free and RoHS compliant
- Type of protection: IP20
- Lamp tube made of glass with splinter protection e.g. for food industry applications

TECHNICAL DATA

Electrical data

Nominal wattage	14 W
Construction wattage	14.00 W
Nominal voltage	220...240 V
Nominal current	64 mA
Type of current	AC
Inrush current	4.96 A
Operating frequency	50...60 Hz
Mains frequency	50...60 Hz
Max. lamp no. on circuit break. 10 A (B)	70
Max. lamp no. on circuit break. B10 A - CCG without compensation	70
Max. lamp no. on circuit break. B10 A - CCG with compensation	15
Max. lamp no. on circuit break. 16 A (B)	112
Max. lamp no. on circuit break. B16 A - CCG without compensation	112
Max. lamp no. on circuit break. B16 A - CCG with compensation	24
Total harmonic distortion	< 20 %
Power factor λ	> 0.90

Photometrical data

Luminous flux	2100 lm
Luminous efficacy	150 lm/W
Lumen main.fact.at end of nom.life time	0.70
Light color (designation)	Cool White
Color temperature	4000 K
Color rendering index Ra	83
Light color	840
Standard deviation of color matching	≤5 sdcn

Light technical data

Beam angle	190 °
Warm-up time (60 %)	< 0.50 s
Starting time	< 0.5 s

Dimensions & Weight

Overall length	1212.00 mm
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Length with base excl. base pins/connection	1200 mm
Diameter	26.70 mm
Tube diameter	25.8 mm
Base diameter	26,7 mm
Maximum diameter	27 mm
Product weight	200.00 g

Temperatures & operating conditions

Ambient temperature range	-25...+50 °C
Maximum temperature at tc test point	67 °C

Lifespan

Number of switching cycles	200000
Lumen maintenance at end of service lifetime	0.70
Rated lamp survival factor at 6,000 h	≥ 0.90

Additional product data

Base (standard designation)	G13
Mercury content	0.0 mg
Mercury-free	Yes
Design / version	Frosted

Capabilities

Dimmable	No
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Certificates & Standards

Energy efficiency class	A++ ¹⁾
Energy consumption	14.00 kWh/1000h
Type of protection	IP20
Standards	CE / VDE
Photobiological safety group acc. to EN62778	RG0

¹⁾ Energy efficiency class (EEC) on a scale of A++ (highest efficiency) to E (lowest efficiency)

Country-specific categorizations

Order reference	ST8A-1.2M 14W/8
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LOGISTICAL DATA

Temperature range at storage	-25...+80 °C
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Energy labelling regulation data acc EU 2019/2015

Light source cap-type (or other electric interface)	G13
Length	1212.00 mm
Height	26.70 mm
Width	26.70 mm



EQUIPMENT / ACCESSORIES

- Suitable for operation with low-loss and conventional control gears

Safety advice

- Not suitable for operation with electronic control gear.
- Operation in outdoor applications in suitable damp-proof luminaires possible according to data sheet and installation instruction.
- The Tc Point is located underneath the product label on the front side of the lamp.

DOWNLOAD DATA

Photometric and lighting design files	
	IES file (IES)
	LDT file (Eulumdat)

LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075136496	Sleeve 1	1,305 mm x 29 mm x 29 mm	229.00 g	1.10 dm ³
4058075136502	Shipping box 10	1,352 mm x 210 mm x 115 mm	2979.00 g	32.65 dm ³

The mentioned product code describes the smallest quantity unit which can be ordered. One shipping unit can contain one or more single products. When placing an order, for the quantity please enter single or multiples of a shipping unit.

References / Links

- For current information see www.ledvance.com/substitute

Legal advice

- When used to replace a T8 fluorescent lamp the total energy efficiency and light distribution depends on the design of the lighting system.
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DISCLAIMER

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.