

## PRODUCT DATASHEET

### ST8A-EM 22 W/4000 K 1200 mm GEN12

SubstiTUBE Advanced HE&HO | LED Tubes for electromagnetic control gears application with high efficacy and light output



#### 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

#### 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	22 W
Construction wattage	22.00 W
Nominal voltage	220...240 V
Operating mode	Conventional control gear (CCG), AC Mains
Nominal current	96 mA
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Total harmonic distortion	≤ 20 %
Power factor $\lambda$	> 0.90

### Photometrical data

Luminous flux	3100 lm
Luminous efficacy	140 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	≥80
Light color	840
Standard deviation of color matching	≤5 sdcn
Rated LLMF at 6,000 h	0.80

### Light technical data

Beam angle	> 190 °
Starting time	< 0.5 s

### Dimensions & Weight

Overall length	1212.00 mm
Diameter	25.30 mm
Product weight	200.00 g

### Temperatures & operating conditions

Ambient temperature range	-20...+50 °C
Maximum temperature at tc test point	<75 °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

#### Capabilities

Dimmable	No
----------	----

#### Certificates & Standards

Energy consumption	23.00 kWh/1000h
Type of protection	IP20
Standards	CB
Photobiological safety group acc. to EN62778	RG0

#### Country-specific categorizations

Order reference	ST8A-1.2M 22W/8
-----------------	-----------------

#### LOGISTICAL DATA

Temperature range at storage	-20...+80 °C
------------------------------	--------------

#### Energy labelling regulation data acc EU 2019/2015

Light source cap-type (or other electric interface)	G13
Length	1212.00 mm
Height	25.30 mm
Width	25.30 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.

## LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4099854087523	Sleeve 1	1,305 mm x 29 mm x 29 mm	224.00 g	1.10 dm <sup>3</sup>
4099854087530	Shipping box 10	1,335 mm x 180 mm x 95 mm	2780.00 g	22.83 dm <sup>3</sup>
4099854153815	Shipping box 10	1,335 mm x 180 mm x 95 mm	2830.00 g	22.83 dm <sup>3</sup>

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](http://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.

## DISCLAIMER

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