

## PRODUCT DATASHEET

### ST8A-EM 20.6 W/3000 K 1500 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           | 20.6 W                                    |
| Construction wattage      | 20.60 W                                   |
| Nominal voltage           | 220...240 V                               |
| Operating mode            | Conventional control gear (CCG), AC Mains |
| Nominal current           | 90 mA                                     |
| Operating frequency       | 50/60 Hz                                  |
| Mains frequency           | 50/60 Hz                                  |
| Total harmonic distortion | ≤ 20 %                                    |
| Power factor $\lambda$    | > 0.90                                    |

### Photometrical data

|   |                     |
|---|---------------------|
| Luminous flux                           | 2790 lm             |
| Luminous efficacy                       | 135 lm/W            |
| Lumen main.fact.at end of nom.life time | 0.70                |
| Light color (designation)               | Warm White          |
| Color temperature                       | 3000 K              |
| Color rendering index Ra                | ≥80                 |
| Light color                             | 830                 |
| Standard deviation of color matching    | ≤5 sdc <sub>m</sub> |
| Rated LLMF at 6,000 h                   | 0.80                |

### Light technical data

|               |         |
|---------------|---------|
| Beam angle    | > 190 ° |
| Starting time | < 0.5 s |

### Dimensions & Weight

|                  |            |
|------------------|------------|
| Overall length   | 1513.00 mm |
| Diameter         | 25.30 mm   |
| Maximum diameter | 28 mm      |
| Product weight   | 238.00 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                           | 21.00 kWh/1000h |
| Type of protection                           | IP20            |
| Standards                                    | CB              |
| Photobiological safety group acc. to EN62778 | RG0             |

## Country-specific categorizations

|                 |                 |
|-----------------|-----------------|
| Order reference | ST8A-1.5M20,6W/ |
|-----------------|-----------------|

## 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  | 1513.00 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.

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**LOGISTICAL DATA**

| Product code  | Packaging unit (Pieces/Unit) | Dimensions (length x width x height) | Gross weight | Volume                |
|---------------|------------------------------|--------------------------------------|--------------|-----------------------|
| 4099854087783 | Sleeve<br>1                  | 1,605 mm x 29 mm x 29 mm             | 272.00 g     | 1.35 dm <sup>3</sup>  |
| 4099854087790 | Shipping box<br>10           | 1,635 mm x 180 mm x 95 mm            | 3372.00 g    | 27.96 dm <sup>3</sup> |
| 4099854153730 | Shipping box<br>10           | 1,635 mm x 180 mm x 95 mm            | 3372.00 g    | 27.96 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.

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**References / Links**

– For current information see [www.ledvance.com/substitute](http://www.ledvance.com/substitute)

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**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.