

# PRODUCT DATASHEET ST8A-UN 20 W/3000 K 1500 mm

SubstiTUBE Advanced UN | LED tubes for electronic and electromagnetic control gears



#### Areas of application

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

#### **Product benefits**

- No bending thanks to glass technology
- Shatter protection thanks to special PET coating
- Also suitable for operation at low temperatures
- High luminous flux for sophisticated lighting tasks
- Easy installation

#### **Product features**

- Compatible with conventional and many common electronic control gears (see also compatibility list) and line voltage
- Lamp tube made of glass with splinter protection e.g. for food industry applications
- For especially uniform illumination





# **TECHNICAL DATA**

# Electrical data

| Nominal wattage  | 20 W   |  |
|--|--|--|
| Construction wattage   | 20.00 W  |  |
| Nominal voltage  | 220240 V   |  |
| Operating mode   | Electronic control gear (ECG), Conventional control gear (CCG), Line voltage |  |
| Nominal current  | 100 mA <sup>1)</sup>   |  |
| Type of current  | AC   |  |
| Inrush current   | 37 A   |  |
| Operating frequency  | 5060 Hz  |  |
| Mains frequency  | 5060 Hz <sup>2)</sup>  |  |
| Max. lamp no. on circuit break. 10 A (B)                         | 43   |  |
| Max. lamp no. on circuit break. B10 A - CCG without compensation | 43   |  |
| Max. lamp no. on circuit break. B10 A - CCG with compensation    | 37   |  |
| Max. lamp no. on circuit break. 16 A (B)                         | 69   |  |
| Max. lamp no. on circuit break. B16 A - CCG without compensation | 69   |  |
| Max. lamp no. on circuit break. B16 A - CCG with compensation    | 62   |  |
| Power factor $\lambda$   | > 0.90   |  |

<sup>1) 480</sup> mA for ECG (HF)

# Photometrical data

| Luminous flux                           | 2800 lm    |
|---|------------|
| Luminous efficacy                       | 140 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                | 83         |
| Light color                             | 830        |
| Standard deviation of color matching    | ≤5 sdcm    |
| Rated LLMF at 6,000 h                   | 0.80       |

# Light technical data

<sup>2) &</sup>lt;sub>20-75KHz</sub> for ECG (HF)

|   | PRODUCT DATASHE    |
|---|--------------------|
| Warm-up time (60 %)   | < 0.50 s           |
| Starting time   | < 0.5 s            |
| Dimensions & Weight   |                    |
| Overall length  | 1500.00 mm         |
| Length with base excl. base pins/connection                     | 1498 mm            |
| Diameter  | 28.00 mm           |
| Tube diameter   | 26,7 mm            |
| Base diameter   | 28,0 mm            |
| Maximum diameter  | 28 mm              |
| Product weight  | 297.00 g           |
| Ambient temperature range  Maximum temperature at tc test point | -20+50 °C<br>62 °C |
| Maximum temperature at tc test point                            | 62 °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                 |
|   |                    |

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|-------------|--|
| Dimmable    | No   |
| Bittillable | 110  |

# Certificates & Standards

| Energy efficiency class                      | A++ 1)          |
|--|-----------------|
| Energy consumption                           | 20.00 kWh/1000h |
| Type of protection                           | IP20            |
| Standards                                    | CE              |
| Photobiological safety group acc. to EN62778 | RGO             |

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

# **Country-specific categorizations**

#### **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  | 1500.00 mm |
| Height  | 28.00 mm   |
| Width   | 28.00 mm   |

# Safety advice

- Operation in outdoor applications in suitable damp-proof luminaires possible according to data sheet and installation instruction.

# **DOWNLOAD DATA**

# Documents and certificates Installation guide

#### **LOGISTICAL DATA**

PDF

| Product code  | Packaging unit (Pieces/Unit) | Dimensions (length x width x height) | Gross weight | Volume    |
|---------------|------------------------------|--------------------------------------|--------------|-----------|
| 4008597184383 | Sleeve<br>1                  | 1,605 mm x 29 mm x 29 mm             | 331.00 g     | 1.35 dm³  |
| 4008597484384 | Shipping box<br>10           | 1,652 mm x 210 mm x 115 mm           | 4152.00 g    | 39.90 dm³ |

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/substitube

# 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.