

PRODUCT DATASHEET

ST9-EM 22 123 ° 12 W/4000 K G10q

SubstiTUBE® T9 EM | Circular LED tube for electromagnetic control gear (CCG) and AC mains



Areas of application

- General illumination within ambient temperatures from -20...+45 °C
- Corridors, stairways, parking garages
- Domestic applications
- Decorative applications

Product benefits

- Quick, simple and safe replacement without rewiring
- Energy savings of up to 50% (compared to T9 fluorescent lamp on CCG)
- Also suitable for operation at low temperatures
- Operation directly on 230 V AC mains possible

Product features

- LED alternative to classic T9 fluorescent lamps in CCG luminaires
- Uniform illumination
- Lifetime: up to 30,000 h
- Mercury-free and RoHS compliant



TECHNICAL DATA

Electrical data

| | |
|--|-------------|
| Nominal wattage | 12 W |
| Construction wattage | 12.00 W |
| Nominal voltage | 220...240 V |
| Claimed equiv. conventional lamp power | 22 W |
| Nominal current | 60 mA |
| Type of current | AC |
| Operating frequency | 50...60 Hz |
| Mains frequency | 50...60 Hz |
| Max. lamp no. on circuit break. 10 A (B) | 80 |
| Max. lamp no. on circuit break. B10 A - CCG without compensation | 80 |
| Max. lamp no. on circuit break. 16 A (B) | 140 |
| Max. lamp no. on circuit break. B16 A - CCG without compensation | 140 |
| Power factor λ | > 0.90 |

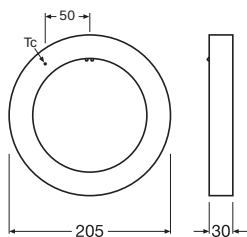
Photometrical data

| | |
|---|--------------|
| Luminous flux | 1200 lm |
| Luminous efficacy | 100 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 | ≤ 6 sdc |

Light technical data

| | |
|------------------------------------|----------|
| Beam angle | 123 ° |
| Warm-up time (60 %) | < 0.50 s |
| Starting time | < 0.5 s |
| Rated beam angle (half peak value) | 123.00 ° |

Dimensions & Weight



| | |
|------------------|-----------|
| Overall length | 205.00 mm |
| Diameter | 30.00 mm |
| Maximum diameter | 30 mm |
| Product weight | 143.00 g |

Temperatures & operating conditions

| | |
|---------------------------|--------------|
| Ambient temperature range | -20...+45 °C |
|---------------------------|--------------|

Lifespan

| | |
|-------------------------------------|---------|
| Nominal lamp life time | 30000 h |
| Number of switching cycles | 200000 |
| Lumen maintenance at end of serv | 0.70 |
| Rated lamp survival factor at 6,000 | ≥ 0.90 |

Additional product data

| | |
|-----------------------------|---------|
| Base (standard designation) | G10q |
| Mercury content | 0.0 mg |
| Mercury-free | Yes |
| Design / version | Frosted |

Capabilities

| | |
|----------|----|
| Dimmable | No |
|----------|----|

Certificates & Standards

| | |
|--|------------------|
| Energy efficiency class | A+ ¹⁾ |
| Energy consumption | 12.00 kWh/1000h |
| Type of protection | IP20 |
| Standards | CE |
| 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 | ST9-22 12W/840 |
|-----------------|----------------|

LOGISTICAL DATA

| | |
|------------------------------|--------------|
| Temperature range at storage | -20...+65 °C |
|------------------------------|--------------|

Energy labelling regulation data acc EU 2019/2015

| | |
|---|-----------|
| Light source cap-type (or other electric interface) | G10q |
| Length | 205.00 mm |
| Height | 30.00 mm |
| Width | 30.00 mm |





EQUIPMENT / ACCESSORIES

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

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.

DOWNLOAD DATA

| DOWNLOAD DATA | |
|--|--|
|  | User instruction SubstiTUBE T9 |
|  | PRODUCT DATASHEET ST9-EM 22 123 12 W 4000K G10q DATASHEET |
|  | IES file (IES) AC11636_ST9-22 12W 840 220-240V EM |
|  | LDT file (Eulumdat) AC11636_ST9-22 12W 840 220-240V EM |

LOGISTICAL DATA

| Product code | Packaging unit (Pieces/Unit) | Dimensions (length x width x height) | Gross weight | Volume |
|---------------|------------------------------|--------------------------------------|--------------|-----------------------|
| 4058075135444 | Folding box 1 | 38 mm x 214 mm x 245 mm | 194.00 g | 1.99 dm ³ |
| 4058075135451 | Shipping box 10 | 385 mm x 232 mm x 237 mm | 2608.00 g | 21.17 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 T9 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.