

PRODUCT DATASHEET ST5HE21-UN 10 W/4000 K 849.00 mm

SubstiTUBE T5 UN | LED tubes for electronic high frequency control gears and AC mains



Areas of application

- General illumination within ambient temperatures from -20...+50 °C
- Industry
- Public buildings, shopping centers
- Offices

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

Product features

- Compatible with 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 | 10 W |
|-------------------------------|---|
| Construction wattage | 10.00 W |
| Nominal voltage | 220240 V |
| Operating mode | Electronic control gear (ECG), Line voltage |
| Nominal current | 50 mA ¹⁾ |
| Type of current | AC |
| Inrush current | 29.7 A |
| Operating frequency | 5060 Hz |
| Mains frequency | 5060 Hz ²⁾ |
| Max. lamp number on MCB B10 A | 108 |
| Max. lamp number on MCB B16 A | 174 |
| Total harmonic distortion | < 20 % |
| Power factor λ | > 0.90 |

^{1) 150-320} mA for ECG (HF)

Photometrical data

| Luminous flux | 1500 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 sdcm |

Light technical data

| Beam angle | 160 ° |
|---------------------|----------|
| Warm-up time (60 %) | < 0.50 s |
| Starting time | < 0.5 s |

Dimensions & Weight

^{2) &}lt;sub>40-95KHz</sub> for ECG (HF)



| Overall length | 849.00 mm |
|---|-----------|
| Length with base excl. base pins/connection | 849,00 mm |
| Diameter | 17.00 mm |
| Tube diameter | 16 mm |
| Base diameter | 17,0 mm |
| Maximum diameter | 22 mm |
| Product weight | 102.00 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) | G5 |
|-----------------------------|--------|
| Mercury content | 0.0 mg |
| Mercury-free | Yes |

Capabilities

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

Certificates & Standards

| Energy efficiency class | A++ 1) |
|--|-----------------|
| Energy consumption | 10.00 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 | ST5HE21-0.9M 10 |
|------------------------------|-----------------|
| LOGISTICAL DATA | |
| Temperature range at storage | -20+80 °C |

Energy labelling regulation data acc EU 2019/2015

Light distribution curve type polar

| Light source cap-type (or other electric interface) | G5 |
|---|-----------|
| Length | 849.00 mm |
| Height | 17.00 mm |
| Width | 17.00 mm |

DOWNLOAD DATA

| | Documents and certificates | Document name |
|-----|---------------------------------------|--|
| PDF | Extended installation guide | Installation instructions for SubstiTube |
| | | |
| | Photometric and lighting design files | Document name |
| | IES file (IES) | ST5HE21 0,9M 10W 840 230V UN |
| | LDT file (Eulumdat) | ST5HE21 0,9M 10W 840 230V UN |

ST5HE21 0,9M 10W 840 230V UN

LOGISTICAL DATA

| Product code | Packaging unit (Pieces/Unit) | Dimensions (length x width x height) | Gross weight | Volume |
|---------------|------------------------------|--------------------------------------|--------------|-----------------------|
| 4058075138162 | Sleeve 1 | 865 mm x 20 mm x 24 mm | 117.00 g | 0.42 dm ³ |
| 4058075138179 | Shipping box 10 | 918 mm x 153 mm x 80 mm | 1514.00 g | 11.24 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.

DISCLAIMER

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