

## ST8A-EM 20 W/840 1500 mm

SubstiTUBE Advanced | High performance LED tubes for electromagnetic control gears



### 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

- 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
- Extremely break resistant thanks to aluminum heat sink and polycarbonate cover

### Product features

- LED alternative to classic T8 fluorescent lamps in CCG luminaires
- Bright, robust and durable
- Uniform illumination
- Single and tandem operation on conventional control gear (0.6 m version)
- Wide beam angle: 160° (0.6 m), 150° (1.2 m, 1.5 m)
- Mercury-free and RoHS compliant
- Type of protection: IP20
- Integrated ECG with high power factor



## Technical data

### Electrical data

Nominal wattage	20.00 W
Rated wattage	20.00 W
Nominal voltage	220...240 V
Operating frequency	50...60 Hz
Nominal current	0.095 A
Type of current	AC
Max. tube no. on circuit break. 10 A (B)	65 / 12 / 70 <sup>1)</sup>
Max. tube no. on circuit break. 16 A (B)	105 / 20 / 110 <sup>1)</sup>
Power factor $\lambda$	> 0.90
Rated lamp efficacy (standard condition)	150 lm/W

<sup>1)</sup> Operated with conventional control gear / Operated with conventional control gear incl. compensation capacitor / Operated with direct mains connection (220...240 V)

### Photometrical data

Light color (designation)	Cool White
Color temperature	4000 K
Nominal luminous flux	3000 lm
Rated luminous flux	3000 lm
Color rendering index Ra	>80
Standard deviation of color matching	≤4 sdc <sub>m</sub>

### Light technical data

Starting time	< 0.5 s
Warm-up time (60 %)	< 0.50 s
Rated beam angle (half peak value)	150.00 °

# Product datasheet

## Dimensions & weight

---



<b>Overall length</b>	1513 mm
<b>Length with base excl. base pins/connection</b>	1499.00 mm
<b>Tube diameter</b>	27.3 mm
<b>Base diameter</b>	27.3 mm
<b>Product weight</b>	335.00 g
<b>Maximum diameter</b>	28.0 mm

## Temperatures & operating conditions

<b>Ambient temperature range</b>	-20...+50 °C
<b>Maximum temperature at tc test point</b>	70 °C <sup>1)</sup>

<sup>1)</sup> Maximum at the Tc-point

## Lifespan

<b>Nominal lamp life time</b>	50000 h
<b>Rated lamp life time</b>	50000 h
<b>Lumen main.fact.at end of nom.life time</b>	0.70
<b>Number of switching cycles</b>	200000

## Additional product data

<b>Base (standard designation)</b>	G13
<b>Mercury-free</b>	Yes
<b>Product remark</b>	When used to replace a T8 fluorescent lamp the total energy efficiency and light distribution depends on the design of the lighting system/Not usable in luminaires with serial lamp connection, i.e. more than one tube at one magnetic ballast (tandem circuitry)

## Capabilities

<b>Dimmable</b>	No
-----------------	----

# Product datasheet

## Certificates & standards

Type of protection	IP20
Standards	CE; VDE
Energy efficiency class	A++
Energy consumption	20 kWh/1000h

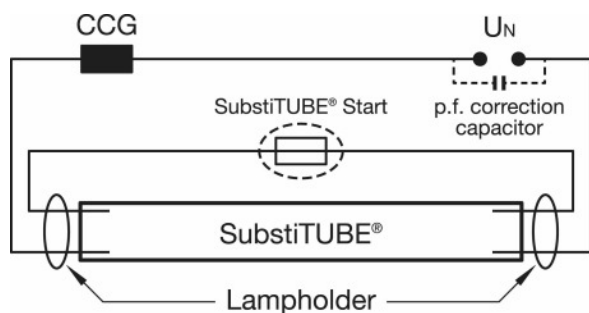
## Country specific categorizations

ILCOS	DR-20/840-G13-27.5/1500
Order reference	ST8A-1.5M 20W/8

## Logistical data

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

## Wiring Diagram



Wiring diagram

## Equipment / Accessories

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

## Product datasheet

---

### 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	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4052899956209	ST8A-EM 20 W/840 1500 mm	Shipping carton box 25	1637 mm x 166 mm x 182 mm	49.46 dm <sup>3</sup>	11160.00 g

---

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.

---