

PRODUCT DATASHEET

LEDTUBE T8 EM S 12 W/4000 K 1200 mm

SubstiTUBE T8 EM PRO | High performance LED tubes for electromagnetic control gears (CCG), shatterproof



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 tube
- Shatter protection thanks to special PET coating
- Support the implementation of the HACCP concepts from production through to presentation
- Very high resistance to switching loads
- High luminous flux for sophisticated lighting tasks
- Quick, simple and safe replacement without rewiring
- Energy savings of up to 68 % (compared to T8 fluorescent lamp on CCG)
- Instant-on light, therefore ideally suitable in combination with sensor technology
- Also suitable for operation at low temperatures

Product features

- LED replacement for classic T8 fluorescent lamps with G13 socket for use in CCG luminaires or on AC mains
- Low flicker according to EU 2019-2020 ($SVM \leq 0.4$ / $PstLM \leq 1$)
- Lamp tube made of glass with splinter protection e.g. for food industry applications
- VDE certified according to IEC62776



- Single and tandem operation on conventional control gear (0.6 m version)
- Type of protection: IP20

TECHNICAL DATA

Electrical data

Nominal wattage	12 W
Construction wattage	12.00 W
Nominal voltage	220...240 V
Operating mode	Conventional control gear (CCG), AC Mains
Nominal current	54 mA
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Total harmonic distortion	≤ 20 %
Power factor λ	0.90

Photometrical data

Luminous flux	2100 lm
Luminous efficacy	175 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	≤5 sdcn
Rated LLMF at 6,000 h	0.80

Light technical data

Beam angle	190 °
Warm-up time (60 %)	ˆ 0.50 s
Starting time	< 0.5 s

Dimensions & Weight



Overall length	1212.00 mm
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Diameter	26.70 mm
Product weight	183.00 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
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Certificates & Standards

Energy efficiency class	C
Energy consumption	12.00 kWh/1000h
Type of protection	IP20
Standards	CB
Photobiological safety group acc. to EN62778	RG0

Country-specific categorizations

Order reference	LEDTUBE T8 EM S
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LOGISTICAL DATA

Temperature range at storage	-20...+80 °C
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Energy labelling regulation data acc EU 2019/2015

Light source cap-type (or other electric interface)	G13
Correlated colour temperature type	SINGLE_VALUE
Length	1212.00 mm
Height	26.70 mm

Width	26.70 mm
EPREL ID	1334035,1529735
Model number	AC45353,AC51563

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.
- Disconnect mains before installation.
- Not suitable for emergency lighting.

LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4099854088148	Sleeve 1	1,305 mm x 29 mm x 29 mm	212.00 g	1.10 dm ³
4099854154225	Shipping box 10	1,335 mm x 180 mm x 95 mm	2660.00 g	22.83 dm ³
4099854088155	Shipping box 10	1,335 mm x 180 mm x 95 mm	2660.00 g	22.83 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 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.