

PRODUCT DATASHEET SubstiTUBE T8 EM Advanced 14 W/4000 K 1200 mm

SubstiTUBE T8 EM ADVANCED | LED tubes for electromagnetic control gear (CCG)



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
- Quick, simple and safe replacement without rewiring
- Energy savings of up to 64 % (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

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 ≤0,4 / PstLM ≤ 1)
- Single and tandem operation on conventional control gear (0.6 m version)
- Tube made of glass
- Mercury-free and RoHS compliant





- Uniform illumination
- Type of protection: IP20

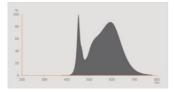
TECHNICAL DATA

Electrical data

Nominal wattage	14 W
Construction wattage	14.00 W
Nominal voltage	220240 V
Nominal current	63 mA
Type of current	AC
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp no. on circuit break. 10 A (B)	71
Max. lamp no. on circuit break. B10 A - CCG without compensation	71
Max. lamp no. on circuit break. B10 A - CCG with compensation	14
Max. lamp no. on circuit break. 16 A (B)	114
Max. lamp no. on circuit break. B16 A - CCG without compensation	114
Max. lamp no. on circuit break. B16 A - CCG with compensation	23
Total harmonic distortion	18 %
Power factor λ	> 0.90

Photometrical data

Luminous flux	2100 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
Rated LLMF at 6,000 h	0.80
Flickering metric (Pst LM)	1
Stroboscope effect metric (SVM)	0.4



Light technical data

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

Dimensions & Weight

Overall length	1212.00 mm
Diameter	26.70 mm
Tube diameter	25.3 mm
Maximum diameter	27 mm
Product weight	190.00 g

Temperatures & operating conditions

Ambient temperature range	-20+50 °C
Maximum temperature at tc test point	60 °C

Lifespan

Lifespan L70/B50 at 25 °C	50000 h
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

August 25, 2023, 12:50:19
SubstiTUBE T8 EM Advanced 14 W/4000 K
1200 mm

Capabilities	Mercury-free	Yes	
Dimmable	apabilities		
Diffinate 140	Dimmable	No	

Certificates & Standards

Energy efficiency class	D 1)
Energy consumption	14.00 kWh/1000h
Type of protection	IP20
Standards	CE / EAC
Photobiological safety group acc. to EN62778	RGO

¹⁾ Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (lowest efficiency)

Country-specific categorizations

Temperature range at storage

Order reference	LEDTUBE T8 EM A
LOGISTICAL DATA	

-20...+80 °C

Energy labelling regulation data acc EU 2019/2015

Lighting technology used	LED
Non-directional or directional	NDLS
Mains or non-mains	MLS
Light source cap-type (or other electric interface)	G13
Connected light source (CLS)	No
Color-tuneable light source	No
Envelope	No
High luminance light source	No
Anti-glare shield	No
Correlated colour temperature type	SINGLE_VALUE
Standby power	0 W
Claim of equivalent power	No
Length	1212.00 mm
Height	26.70 mm
Width	26.70 mm
Chromaticity coordinate x	0.382
Chromaticity coordinate y	0.380

August 25, 2023, 12:50:19
SubstiTUBE T8 EM Advanced 14 W/4000 K
1200 mm

0.00
SPHERE_360
0,9
0,9
No
563376
AC34963

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.

DOWNLOAD DATA

	Documents and certificates
POF	User instruction
POF	Installation guide
POF	Declarations Of Conformity CE
POF	Declarations Of Conformity UKCA
	Photometric and lighting design files
	IES file (IES)
	LDT file (Eulumdat)
	UGR file (UGR table)
	LDC typ polar
	Spectral power distribution

1200 mm

Photometric and lighting design files

LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075611832	Sleeve 1	1,305 mm x 29 mm x 29 mm	219.00 g	1.10 dm ³
4058075611849	Shipping box 10	1,352 mm x 210 mm x 115 mm	2881.00 g	32.65 dm³
4099854009211	Shipping box 10	1,335 mm x 180 mm x 95 mm	2730.00 g	22.83 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.