PRODUCT DATASHEET SubstiTUBE T8 EM Pro 18.8 W/6500 K 1500 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 ≤0,4 / PstLM ≤ 1)





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- YUL CEITHER ACCORDING TO ILCOZ770
- Single and tandem operation on conventional control gear (0.6 m version)
- Type of protection: IP20

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IECHNICAL DATA

Electrical data

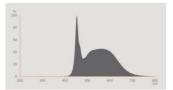
Nominal wattage	18.8 W
Construction wattage	18.80 W
Nominal voltage	220240 V
Nominal current	88 mA
Type of current	AC
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp no. on circuit break. 10 A (B)	51
Max. lamp no. on circuit break. B10 A - CCG without compensation	51
Max. lamp no. on circuit break. B10 A - CCG with compensation	8
Max. lamp no. on circuit break. 16 A (B)	82
Max. lamp no. on circuit break. B16 A - CCG without compensation	82
Max. lamp no. on circuit break. B16 A - CCG with compensation	13
Total harmonic distortion	20 %
Power factor λ	> 0.90

Photometrical data

Luminous flux	3100 lm
Luminous efficacy	164 lm/W
Lumen main.fact.at end of nom.life time	0.70
Light color (designation)	Cool Daylight
Color temperature	6500 K
Color rendering index Ra	83
Light color	865
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

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Light technical data

Beam angle	190 °
Warm-up time (60 %)	< 0.50 s
Starting time	< 0.5 s
Rated beam angle (half peak value)	190.00 °

Dimensions & Weight

Overall length	1513.00 mm
Diameter	26.70 mm
Tube diameter	25.3 mm
Maximum diameter	27 mm
Product weight	242.00 g

Temperatures & operating conditions

Ambient temperature range	-20+50 °C
Maximum temperature at tc test point	65 °C

Lifespan

Lifespan	75000 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)	G13
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Mercury-free	Yes	
Capabilities		
Dimmable	No	
Certificates & Standards		
Energy efficiency class	C ¹⁾	
Energy consumption	19.00 kWh/1000h	
Type of protection	IP20	
Standards	CE / VDE / EAC	
Photobiological safety group acc. to EN62778	RG0	

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 P
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	1513.00 mm
Height	26.70 mm
Width	26.70 mm
Chromaticity coordinate x	0.312

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Chromaticity coordinate y	0.328
R9 Colour rendering index	0.00
Beam angle correspondence	SPHERE_360
Survival factor	0.90
Displacement factor	0.90
LED light source replaces a fluorescent light source	No
EPREL ID	563403
Model number	AC34945

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
PDF	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

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Photometric and lighting design files



Spectral power distribution

LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075612334	Sleeve 1	1,605 mm x 29 mm x 29 mm	276.00 g	1.35 dm ³
4058075612341	Shipping box 10	1,652 mm x 210 mm x 115 mm	3510.00 g	39.90 dm³
4099854009150	Shipping box 10	1,634 mm x 180 mm x 95 mm	3720.00 g	27.94 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/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.

July 25, 2023, 12:23:33 SubstiTUBE T8 EM Pro 18.8 W/6500 K 1500