

PRODUCT DATASHEET SubstiTUBE T8 UN Value 24 W/3000 K 1500 mm

SubstiTUBE T8 UNIVERSAL VALUE | LED tubes for electronic control gears (ECG), electromagnetic control gears (CCG) and mains



Areas of application

- General illumination within ambient temperatures from -20...+45 °C
- Corridors, stairways, parking garages
- Warehouses

Product benefits

- No bending thanks to glass technology
- Also suitable for operation at low temperatures
- Easy installation

Product features

- T8 LED tube made of glass with G13 base
- Compatible with conventional and many common electronic control gears (see also compatibility list) and line voltage
- Low flicker according to EU 2019/2020
- Uniform illumination
- Lifetime up to 30,000 h
- Mercury-free lamps





TECHNICAL DATA

Electrical data

Nominal wattage	24 W
Construction wattage	24.00 W
Nominal voltage	220240 V
Operating mode	ECG, CCG, AC Mains
Nominal current	130 mA
Type of current	AC
Inrush current	15 A
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp number on MCB B10 A	55
Max. lamp number on MCB B10 A - CCG without compensation	55
Max. lamp number on MCB B10 A - CCG with compensation	25
Max. lamp number on MCB B16 A	90
Max. lamp number on MCB B16 A - CCG without compensation	90
Max. lamp number on MCB B16 A - CCG with compensation	35
Total harmonic distortion	< 20 %
Power factor λ	> 0.90

Photometrical data

Luminous flux	2550 lm
Luminous efficacy	106 lm/W
Lumen main.fact.at end of nom.life time	0.70
Light color (designation)	Warm White
Color temperature	3000 K
Color rendering index Ra	83
Light color	830
Standard deviation of color matching	≤5 sdcm
Flickering metric (Pst LM)	1.0
Stroboscope effect metric (SVM)	0.4



EPREL data spectral diagram PROF LEDr 3000K

Light technical data

Beam angle	190 °
Warm-up time (60 %)	< 2.00 s
Starting time	< 0.5 s

Dimensions & Weight



Overall length	1513.10 mm
Length with base excl. base pins/connection	1500.00 mm
Diameter	27.80 mm
Tube diameter	25,5 mm
Maximum diameter	28 mm
Product weight	272.00 g

Temperatures & operating conditions

Ambient temperature range	-20+45 °C
Maximum temperature at tc test point	74 °C 1)

¹⁾ at CCG+Mains operation, ECG operation: 73°C

Lifespan

Lifespan L70/B50 at 25 °C	30000 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	
Mercury-free	Yes	
Capabilities		
Dimmable	No	
Certificates & Standards		
Energy efficiency class	F 1)	
Energy consumption	24.00 kWh/1000h	
Type of protection	IP20	
Standards	CE	
Photobiological safety group acc. to EN62778	RG0	
Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (local country-specific categorizations)		
1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (lo		
1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (local Country-specific categorizations Order reference	owest efficiency)	
Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (local country-specific categorizations)	owest efficiency)	
1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (local Country-specific categorizations Order reference LOGISTICAL DATA Temperature range at storage	vwest efficiency) LEDTUBE T8 UN V	
1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (local Country-specific categorizations Order reference LOGISTICAL DATA Temperature range at storage Energy labelling regulation data acc EU 2019/2015	vwest efficiency) LEDTUBE T8 UN V	
1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (local Country-specific categorizations Order reference LOGISTICAL DATA Temperature range at storage	LEDTUBE T8 UN V	
1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (local Country-specific categorizations Order reference LOGISTICAL DATA Temperature range at storage Energy labelling regulation data acc EU 2019/2015 Lighting technology used	LEDTUBE T8 UN V -20+80 °C	
1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (local Country-specific categorizations Order reference LOGISTICAL DATA Temperature range at storage Energy labelling regulation data acc EU 2019/2015 Lighting technology used Non-directional	LEDTUBE T8 UN V -20+80 °C LED NDLS	
1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (local Country-specific categorizations Order reference OGISTICAL DATA Temperature range at storage Energy labelling regulation data acc EU 2019/2015 Lighting technology used Non-directional or directional Mains or non-mains	LEDTUBE T8 UN V -20+80 °C LED NDLS MLS	
1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (local Country-specific categorizations Order reference LOGISTICAL DATA Temperature range at storage Energy labelling regulation data acc EU 2019/2015 Lighting technology used Non-directional or directional Mains or non-mains Light source cap-type (or other electric interface)	LEDTUBE T8 UN V -20+80 °C LED NDLS MLS G13	
1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (local Country-specific categorizations Order reference LOGISTICAL DATA Temperature range at storage Energy labelling regulation data acc EU 2019/2015 Lighting technology used Non-directional or directional Mains or non-mains Light source cap-type (or other electric interface) Connected light source (CLS)	LEDTUBE T8 UN V -20+80 °C LED NDLS MLS G13 No	
1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (local Country-specific categorizations Order reference LOGISTICAL DATA Temperature range at storage Energy labelling regulation data acc EU 2019/2015 Lighting technology used Non-directional or directional Mains or non-mains Light source cap-type (or other electric interface) Connected light source (CLS) Color-tuneable light source	LEDTUBE T8 UN V -20+80 °C LED NDLS MLS G13 No No	
1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (local Country-specific categorizations Order reference LOGISTICAL DATA Temperature range at storage Energy labelling regulation data acc EU 2019/2015 Lighting technology used Non-directional or directional Mains or non-mains Light source cap-type (or other electric interface) Connected light source (CLS) Color-tuneable light source Envelope	LEDTUBE T8 UN V -20+80 °C LED NDLS MLS G13 No No No No	
1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (local Country-specific categorizations Order reference OGISTICAL DATA Temperature range at storage Energy labelling regulation data acc EU 2019/2015 Lighting technology used Non-directional or directional Mains or non-mains Light source cap-type (or other electric interface) Connected light source (CLS) Color-tuneable light source Envelope High luminance light source	LEDTUBE T8 UN V -20+80 °C LED NDLS MLS G13 No No No No No No	
1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (local Country-specific categorizations Order reference LOGISTICAL DATA Temperature range at storage Energy labelling regulation data acc EU 2019/2015 Lighting technology used Non-directional or directional Mains or non-mains Light source cap-type (or other electric interface) Connected light source (CLS) Color-tuneable light source Envelope High luminance light source Anti-glare shield	LEDTUBE T8 UN V -20+80 °C LED NDLS MLS G13 No No No No No No No No No N	

1513.10 mm

Length

Height	27.80 mm
Width	27.80 mm
Chromaticity coordinate x	0.433
Chromaticity coordinate y	0.403
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	519442
Model number	AC33879

Safety advice

- Operation in outdoor applications in suitable damp-proof luminaires possible according to data sheet and installation instruction.
- The operating temperature range of LED tube is restricted. In case of doubt regarding suitability of the application please measure Tc temperature on the product prior to installation.
- For operation of LED TUBE T8 UN with a conventional control gear, the existing starter must be exchanged with the including LED starter in the LED tube packaging.
- All electrical connections must be made by a qualified person.
- Not suitable for emergency lighting.

DOWNLOAD DATA

	Documents and certificates	Document name	
PDF	User instruction / safety instructions	SubstiTUBE T8 Universal LED tube	
PDF	Extended installation guide	SubstiTUBE® T8 T5	
PDF	Declarations of conformity	T8 UN tube series	
PDF	Declarations of conformity UKCA	LEDTUBE T8 and T5	
	Photometric and lighting design files	Document name	
[3]	IES file (IES)	ST8V 1.5M 24W 830 UN OSRAM	
	LDT file (Eulumdat)	ST8V 1.5M 24W 830 UN OSRAM	
	Light distribution curve type polar	ST8V 1.5M 24W 830 UN OSRAM	

Photometric and lighting design files	Document name
Light distribution curve type polar	ST8V 1.5M 24W 830 UN OSRAM
Spectral power distribution	EPREL data spectral diagram PROF LEDr 3000K

LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075546950	Sleeve 1	1,605 mm x 29 mm x 29 mm	306.00 g	1.35 dm ³
4058075546967	Shipping box 10	1,652 mm x 210 mm x 115 mm	3900.00 g	39.90 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.

1500 mm