PRODUCT DATASHEET
LED TUBE T8 EM 6 kV ROTATABLE 1500 mm 22.1W 840

LED TUBE T8 EM 6 kV ROTATABLE | High performance LED tubes for electromagnetic control gears (CCG), 6 kV surge protection, rotatable endcaps, shatterproof



SUPERIOR CLASS

Areas of application

- General illumination within ambient temperatures from -20…+50 °C
- Rail stations, overground and underground
- Illumination of production areas
- Traffic zones and corridors
- Industry

Product benefits

- Light right where it is needed thanks to rotatable endcaps
- Suitable for use in damp proof luminaires with sealing sleeves thanks to maximum lamp diameter of 26 mm
- 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 65 % (compared to T8 fluorescent lamp)
- 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
- High surge protection: up to 6 kV (L-N)





- LED tube can be rotated by up to 90° to each side thanks to rotatable endcaps
- Low flicker according to EU 2019-2020 (SVM ≤ 0.4 / PstLM ≤ 1)
- Lamp tube made of glass with splinter protection e.g. for food industry applications
- ENEC 10 VDE mark
- For especially uniform illumination
- Lifetime up to 100,000 h
- Type of protection: IP20

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TECHNICAL DATA

Electrical data

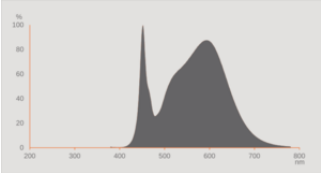
Nominal wattage	22.1 W
Nominal voltage	220…240 V
Operating mode	CCG, AC Mains, DC
Nominal current	100 mA
Type of current	AC
Inrush current	7.5 A
Suitable for DC input	Yes
Input voltage DC	186…260 V
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz [1)]
Max. lamp number on MCB B10 A	80
Max. lamp number on MCB B10 A - CCG without compensation	80
Max. lamp number on MCB B10 A - CCG with compensation	12
Max. lamp number on MCB B16 A	100
Max. lamp number on MCB B16 A - CCG without compensation	120
Max. lamp number on MCB B16 A - CCG with compensation	15
Maximum total harmonic distortion	< 20 %
Power factor λ	0.90
Surge capability (L-N)	6 kV

1) DC 0 Hz

Photometrical data

Luminous flux	4100 lm
Luminous efficacy	185 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 sdcm
Rated LLMF at 6,000 h	0.80
Flickering metric (Pst LM)	1
Stroboscope effect metric (SVM)	0.4

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EPREL data spectral diagram PROF LEDr 4000K

Light technical data

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

Dimensions & Weight



Overall length	1513.00 mm
Length with base excl. base pins/connection	1500.00 mm
Diameter	26.00 mm
Product weight	264.00 g

Temperatures & operating conditions

Ambient temperature range	-20…+50 °C [1)]
Maximum temperature at tc test point	82 °C
Performance temp. acc. to IEC 62717	49 °C [2)]

1) Temperature surrounding the lamp - for enclosed luminaires: temperature inside of the luminaire

2) Tp rated. Tp point coincides with Tc point - marked on device

Lifespan

Lifespan L70/B50 at 25 °C	100000 h
Number of switching cycles	200000
Lumen maintenance at end of service lifetime	0.70

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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	B [1)]
Energy consumption	23.00 kWh/1000h
Type of protection	IP20
Standards	CE / UKCA / EAC / ENEC / VDE
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

Order reference	LEDTUBE T8 EM 6

LOGISTICAL DATA

Temperature range at storage	-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	< 0.5 W
Claim of equivalent power	No

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Length	1513.00 mm
Height	26.00 mm
Width	26.00 mm
Chromaticity coordinate x	0.3818
Chromaticity coordinate y	0.3797
R9 Colour rendering index	1
Beam angle correspondence	SPHERE_360
Survival factor	0.9
Displacement factor	0.9
LED light source replaces a fluorescent light source	No
EPREL ID	2277862
Model number	AC78631

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

DOWNLOAD DATA

	Documents and certificates	Document name
PDF	User instruction / safety instructions	LEDTUBE T8 EM 6KV R S
PDF	Extended installation guide	Notes on the operation of LEDVANCE LED tubes in compensated luminaires
PDF	Extended installation guide	LEDVANCE Luminaire conversion checklist
PDF	Legal information	Informationstext 18 Abs 4 ElektroG
PDF	Legal information	Safety Insert G11201307
PDF	Declarations of conformity	LED Tube
PDF	Declarations of conformity UKCA	LED Tube

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	Photometric and lighting design files	Document name
	IES file (IES)	LEDTUBE T8 EM 6KV R S 1500 22.1W 840 LEDV
	LDT file (Eulumdat)	LEDTUBE T8 EM 6KV R S 1500 22.1W 840 LEDV
	Light distribution curve type polar	LEDTUBE T8 EM 6KV R S 1500 22.1W 840 LEDV
	Spectral power distribution	EPREL data spectral diagram PROF LEDr 4000K

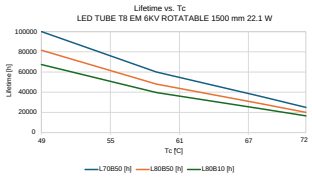
	Tender texts	Document name
	Tender documents	LED TUBE T8 EM 6 kV ROTATABLE 1500 mm 22.1W 840-en

LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4099854573255	Sleeve 1	1,605 mm x 29 mm x 29 mm	298.00 g	1.35 dm^3
4099854573262	Shipping box 10	1,635 mm x 175 mm x 95 mm	3622.00 g	27.18 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.

ADDITIONAL CATALOG INFORMATION



References / Links

- For Guarantee see www.ledvance.com/guarantee
- For current information see www.ledvance.com/ledtube

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.

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