PRODUCT DATASHEET
LED TUBE T8 EM HIGH TEMPERATURE 1500 mm 22.1W 840

LED TUBE T8 EM HIGH TEMPERATURE | High performance LED tubes for electromagnetic control gear (CCG) and AC mains, for applications with high ambient temperature



SUPERIOR CLASS

Areas of application

- General illumination within ambient temperatures from -20…+80 °C
- Illumination of production areas
- Industry

Product benefits

- Suitable for high ambient temperatures of more than +80 °C
- 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 62 % (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
- Very broad ambient temperature range: -20…+80 °C
- Low flicker according to EU 2019-2020 (SVM ≤ 0.4 / PstLM ≤ 1)
- Lifetime at 25 °C ambient temperature up to 75,000 h
- Lifetime at 80 °C ambient temperature up to 17,500h
- Type of protection: IP20





– ENEC 10 VDE mark

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TECHNICAL DATA

Electrical data

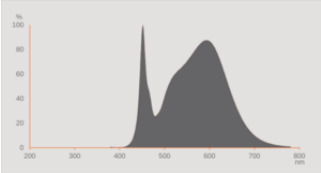
Nominal wattage	22.1 W
Nominal voltage	220…240 V
Operating mode	CCG, AC Mains, DC
Nominal current	105 mA
Type of current	AC
Inrush current	10,0 A
Suitable for DC input	Yes
Input voltage DC	186…260 V
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz [1)]
Max. lamp number on MCB B10 A	9
Max. lamp number on MCB B10 A - CCG without compensation	32
Max. lamp number on MCB B10 A - CCG with compensation	8
Max. lamp number on MCB B16 A	14
Max. lamp number on MCB B16 A - CCG without compensation	52
Max. lamp number on MCB B16 A - CCG with compensation	13
Maximum total harmonic distortion	12 %
Power factor λ	0.90

1) DC 0 Hz

Photometrical data

Luminous flux	4100 lm
Luminous efficacy	185 lm/W
Lumen main.fact.at end of nom.life time	0.96
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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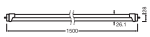


EPREL data spectral diagram PROF LEDr 4000K

Light technical data

Beam angle	120 °
Warm-up time (60 %)	‹ 0.50 s
Starting time	< 0.5 s

Dimensions & Weight



Overall length	1514.00 mm
Length with base excl. base pins/connection	1500.00 mm
Diameter	28.00 mm
Product weight	420.00 g

Temperatures & operating conditions

Ambient temperature range	-20…+80 °C [1)]
Maximum temperature at tc test point	95 °C

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

Lifespan

Lifespan L70/B50 at 25 °C	75000 h
Number of switching cycles	200000
Lumen maintenance at end of service lifetime	0.96
Rated lamp survival factor at 6,000 h	≥ 0.90

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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 / VDE / ENEC / 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

Order reference	LEDTUBE T8 EM U

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 W
Claim of equivalent power	No
Length	1514.00 mm
Height	28.00 mm

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Width	28.00 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	1879594
Model number	AC59259,AC59259

EQUIPMENT / ACCESSORIES

- Replacement starter for LED tubes

Safety advice

- Before installation it is recommended to be checked, if the luminaire and especially the holders are in good condition and capable of carrying the weight of the lamp.
- Only suitable for temperatures of up to 80 °C inside of the luminaire.
- 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 UO HT 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 tubes

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

	Tender texts	Document name
	Tender documents	LED TUBE T8 EM ULTRA OUTPUT HIGH TEMPERATURE S 1500 mm 22.1W 840-EN

LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4099854258596	Sleeve 1	1,555 mm x 29 mm x 29 mm	454.00 g	1.31 dm^3
4099854258602	Shipping box 10	1,590 mm x 170 mm x 95 mm	5291.00 g	25.68 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/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.

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DISCLAIMER

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.

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