

# PRODUCT DATASHEET SubstiTUBE T9 C EM 32 20 W/6500 K G10q

SubstiTUBE T9 EM | Circular LED tube for electromagnetic control gear (CCG)



#### Areas of application

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

#### Product benefits

- Quick, simple and safe replacement without rewiring
- Energy savings of up to 50 % (compared to T9 fluorescent lamp)
- Also suitable for operation at low temperatures

# **Product features**

- LED alternative to classic T9 fluorescent lamps in CCG luminaires
- Uniform illumination
- Lifetime up to 30,000 h
- Mercury-free and RoHS compliant





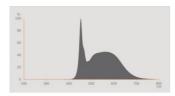
# TECHNICAL DATA

# Electrical data

Nominal wattage	20 W
Construction wattage	20.00 W
Nominal voltage	220240 V
Operating mode	CCG, AC Mains
Nominal current	100 mA
Type of current	AC
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp number on MCB B10 A	21
Max. lamp number on MCB B10 A - CCG without compensation	65
Max. lamp number on MCB B10 A - CCG with compensation	13
Max. lamp number on MCB B16 A	25
Max. lamp number on MCB B16 A - CCG without compensation	105
Max. lamp number on MCB B16 A - CCG with compensation	16
Total harmonic distortion	20 %
Power factor $\lambda$	> 0.90

# Photometrical data

Luminous flux	2200 lm
Luminous efficacy	110 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	≥80
Light color	865
Standard deviation of color matching	≤6 sdcm
Rated LLMF at 6,000 h	0.80
Flickering metric (Pst LM)	1
Stroboscope effect metric (SVM)	0.40



EPREL data spectral diagram PROF LEDr 6500K

# Light technical data

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

# Dimensions & Weight

Overall length	300.00 mm
Diameter	300.00 mm
Tube diameter	30,0 mm
Maximum diameter	300 mm
Product weight	220.00 g

# Temperatures & operating conditions

Ambient temperature range	-20+45 °C
Maximum temperature at tc test point	75 °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)	G10g
	20024

Mercury content	0.0 mg
Design / version	Frosted
Capabilities	
Dimmable	No
Certificates & Standards	
Energy efficiency class	E 1)
Energy consumption	20.00 kWh/1000h

Energy consumption 20.00 kWh/1000h

Type of protection IP20

Standards CE / EAC

RG0

# Country-specific categorizations

Photobiological safety group acc. to EN62778

		Order reference	LEDTUBE T9C EM
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# LOGISTICAL DATA

Temperature range at storage	-20+80 °C
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# 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)	G10q
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	0.00
Claim of equivalent power	No
Length	300.00 mm
Height	300.00 mm
Width	300.00 mm
Chromaticity coordinate x	0.312

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

0.328
0.00
SPHERE_360
0.9
0,70
No
716580
AC36310

# 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	Document name	
PDF	User instruction / safety instructions	SubstiTUBE® T9	
PDF	Declarations of conformity	LEDTUBE T9C	
PDF	Declarations of conformity UKCA	LEDTUBE T8 and T5	

Photometric and lighting design files	Document name	
Spectral power distribution	EPREL data spectral diagram PROF LEDr 6500K	

#### LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075604698	Folding box 1	38 mm x 308 mm x 348 mm	233.00 g	4.07 dm <sup>3</sup>
4058075604704	Shipping box 10	397 mm x 329 mm x 386 mm	2981.00 g	50.42 dm <sup>3</sup>

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

G10q

- For current information see www.ledvance.com/osram-substitube

# Legal advice

- When used to replace a T9 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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