

# PRODUCT DATASHEET

## SubstiTUBE T5 AC HE28 16 W/3000 K 1149.00 mm

SUBSTITUBE® T5 220-240V AC | LED tubes for operation on AC mains connection



### Areas of application

- Offices, public buildings
- Supermarkets and department stores
- Industry
- General illumination within ambient temperatures from -20...+45 °C

### Product benefits

- No bending thanks to glass technology
- Shatter protection thanks to special PET coating
- High luminous flux for sophisticated lighting tasks

### Product features

- LED replacement for T5 fluorescent lamps with G5 base on AC mains
- Lamp tube made of glass with splinter protection e.g. for food industry applications
- High color consistency:  $\leq 5$  SDCM
- Lifetime: up to 50,000 h



- Low flicker according to EU 2019/2020
- Type of protection: IP20



TECHNICAL DATA

Electrical data

Nominal wattage	16 W
Construction wattage	16.00 W
Nominal voltage	220...240 V
Claimed equiv. conventional lamp power	28 W
Nominal current	74 mA
Type of current	AC
Inrush current	3.7 A
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp no. on circuit break. 10 A (B)	60
Max. lamp no. on circuit break. 16 A (B)	97
Total harmonic distortion	< 20 %
Power factor $\lambda$	> 0.90

Photometrical data

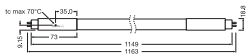
Luminous flux	2150 lm
Luminous efficacy	134 lm/W
Lumen main.fact.at end of nom.life time	0.70
Light color (designation)	Warm White
Color temperature	3000 K
Color rendering index Ra	83
Light color	830
Standard deviation of color matching	$\leq 5$ sdcm
Flickering metric (Pst LM)	1.0
Stroboscope effect metric (SVM)	0.4



Light technical data

Beam angle	160 °
Warm-up time (60 %)	< 2.00 s
Starting time	< 0.5 s
Rated beam angle (half peak value)	160.00 °

Dimensions & Weight



Overall length	1149.00 mm
Diameter	19.00 mm
Tube diameter	16,0 mm
Maximum diameter	19 mm
Product weight	160.00 g

Temperatures & operating conditions

Ambient temperature range	-20...+45 °C
Maximum temperature at tc test point	60 °C

Lifespan

Lifespan	50000 h
Number of switching cycles	50000
Lumen maintenance at end of serv	0.70
Rated lamp survival factor at 6,000	≥ 0.90

Additional product data

Base (standard designation)	G5
Mercury content	0.0 mg
Design / version	Frosted

Capabilities

Dimmable	No
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Certificates & Standards

Energy efficiency class	E
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Energy consumption	16.00 kWh/1000h
Type of protection	IP20
Standards	CE
Photobiological safety group acc. to EN62778	RG0

Country-specific categorizations

Order reference	LEDTUBE T5 AC H
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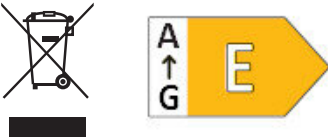
LOGISTICAL DATA

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)	G5
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
Claim of equivalent power	No
Length	1149.00 mm
Height	19.00 mm
Width	19.00 mm
Chromaticity coordinate x	0.433
Chromaticity coordinate y	0.403
Beam angle	SPHERE_360
Survival factor	0.90
Displacement factor	0.90
LED light source replaces a fluorescent light source	No
EPREL ID	642851
Model number	AC35136,AC35136

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.
- The operating temperature range of LED tube is restricted. In case of doubt regarding suitability of the application please measure Tc max temperature on the product prior to installation.

DOWNLOAD DATA

DOWNLOAD DATA	
	User instruction
	Installation guide
	Installation guide

LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075630581	Sleeve 1	1,165 mm x 20 mm x 24 mm	210.00 g	0.56 dm³
4058075630598	Shipping box 10	1,218 mm x 153 mm x 80 mm	2201.00 g	14.91 dm³

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.

DISCLAIMER

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

