

## PRODUCT DATASHEET

# SubstiTUBE T5 HF HE35 18 W/6500 K 1463 mm

SubstiTUBE TUBE T5 HF | LED tubes for electronic high frequency control gears



### Areas of application

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

### Product benefits

- No bending thanks to glass technology
- Quick, simple and safe replacement without rewiring
- High luminous flux for sophisticated lighting tasks
- Also suitable for operation at low temperatures

### Product features

- Retrofit replacement of existing T5 lamps on HF ballast installations
- 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 ( $SVM \leq 0,4$  /  $PstLM \leq 1$ )
- Type of protection: IP20
- Compatible with many common electronic control gears (see also compatibility list)

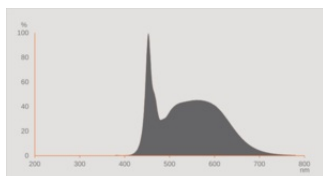
## TECHNICAL DATA

### Electrical data

Nominal wattage	18 W
Construction wattage	18.00 W
Nominal voltage	105...150 V
Operating mode	ECG
Nominal current	177 mA
Type of current	AC
Inrush current	15 A
Operating frequency	20...75 kHz
Mains frequency	20...75 kHz
Total harmonic distortion	< 20 %
Power factor $\lambda$	> 0.90

### Photometrical data

Luminous flux	2800 lm
Luminous efficacy	155 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	83
Light color	865
Standard deviation of color matching	$\leq 5$ sdc <sub>m</sub>
Flickering metric (Pst LM)	1
Stroboscope effect metric (SVM)	0,4

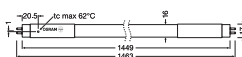


EPREL data spectral diagram PROF  
LEDr 6500K

### Light technical data

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

## Dimensions & Weight



Overall length	1463.00 mm
Length with base excl. base pins/connection	1449.00 mm
Diameter	17.00 mm
Tube diameter	16 mm
Maximum diameter	17 mm
Product weight	192.00 g

## Temperatures & operating conditions

Ambient temperature range	-20...+45 °C
Maximum temperature at tc test point	62 °C

## Lifespan

Lifespan L70/B50 at 25 °C	50000 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)	G5
Mercury content	0.0 mg
Mercury-free	Yes
Design / version	Frosted

## Capabilities

Dimmable	No
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## Certificates & Standards

Energy efficiency class	D 1)
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Energy consumption	20.00 kWh/1000h
Type of protection	IP20
Standards	CE
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 T5 HF 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	NMLS
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
Standby power	0 W
Networked standby power for CLS	0 W
Claim of equivalent power	No
Length	1463.00 mm
Height	17.00 mm
Width	17.00 mm
Chromaticity coordinate x	0.312
Chromaticity coordinate y	0.328
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	642868
Model number	AC35153

**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 max temperature on the product prior to installation.

**DOWNLOAD DATA**

Documents and certificates		Document name
	User Instruction	SubstiTUBE T5 HF (ECG) LED TUBE
	Extended installation guide	SubstiTUBE® T8 T5
	Declarations of conformity	LEDTUBE T5 HF
	Declarations Of Conformity UKCA	LEDTUBE T8 and T5

Photometric and lighting design files		Document name
	IES file (IES)	ST5HE35 1.5M 18W 865 HF G5 OSRAM
	LDT file (Eulumdat)	ST5HE35 1.5M 18W 865 HF G5 OSRAM
	LDC typ polar	ST5HE35 1.5M 18W 865 HF G5 OSRAM
	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
4058075543164	Sleeve 1	1,465 mm x 20 mm x 24 mm	218.00 g	0.70 dm <sup>3</sup>
4058075543171	Shipping box 10	1,518 mm x 153 mm x 80 mm	2702.00 g	18.58 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

– For current information see [www.ledvance.com/osram-substitube](http://www.ledvance.com/osram-substitube)

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## Legal advice

– When used to replace a T5 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.