

PRODUCT FAMILY DATASHEET

SubstiTUBE Advanced

High performance LED tubes for electromagnetic control gears



AREAS OF APPLICATION

- General illumination within ambient temperatures from -20...+50 °C
- Illumination of production areas
- Traffic zones and corridors
- Supermarkets and department stores
- Industry

PRODUCT BENEFITS

- No bending thanks to glass technology
- Quick, simple and safe replacement without rewiring
- Energy savings of up to 60 % (compared to T8 fluorescent lamp on CCG)
- Instant-on light, therefore ideally suitable in combination with sensor technology
- Very high resistance to switching loads
- 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
- Single and tandem operation on conventional control gear (0.6 m version)
- Tube made of glass
- Mercury-free and RoHS compliant
- Uniform illumination
- Type of protection: IP20



- Bright, robust and durable

TECHNICAL DATA

Product description	Electrical data								
	Rated wattage	Nominal voltage	Operating frequency	Nominal wattage	Nominal current	Type of current	Max. lamp no. on circuit break. B16 A - CCG without compensation	Max. lamp no. on circuit break. B10 A - CCG without compensation	Max. lamp no. on circuit break. B16 A - CCG with compensation
ST8A-EM 7.3 W/4000K 600 mm EM	7.30 W	220...240 V	50...60 Hz	7.30 W	0.036 A	AC	200	125	25
ST8A-EM 7.3 W/6500K 600 mm EM	7.30 W	220...240 V	50...60 Hz	7.30 W	0.036 A	AC	200	125	25
ST8A-EM 14 W/4000K 1200 mm EM	14.00 W	220...240 V	50...60 Hz	14.00 W	0.064 A	AC	112	70	24
ST8A-EM 14 W/6500K 1200 mm EM	14.00 W	220...240 V	50...60 Hz	14.00 W	0.064 A	AC	112	70	24
ST8A-EM 20.6 W/4000K 1500 mm EM	20.60 W	220...240 V	50...60 Hz	20.60 W	0.094 A	AC	76	48	14
ST8A-EM 20.6 W/6500K 1500 mm EM	20.60 W	220...240 V	50...60 Hz	20.60 W	0.094 A	AC	76	48	14

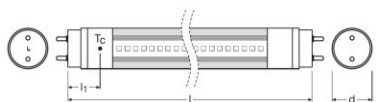
Product description	Photometrical data								
	Max. lamp no. on circuit break. 10 A (B)	Max. lamp no. on circuit break. B10 A - CCG with compensation	Max. lamp no. on circuit break. 16 A (B)	Total harmonic distortion	Color temperature	Nominal luminous flux	Rated luminous flux	Lumen main.fact.at end of nom.life time	
ST8A-EM 7.3 W/4000K 600 mm EM	125	16	200	< 20 %	4000 K	1100 lm	1100 lm	0.70	
ST8A-EM 7.3 W/6500K 600 mm EM	125	16	200	< 20 %	6500 K	1100 lm	1100 lm	0.70	
ST8A-EM 14 W/4000K 1200 mm EM	70	15	112	< 20 %	4000 K	2100 lm	2100 lm	0.70	
ST8A-EM 14 W/6500K 1200 mm EM	70	15	112	< 20 %	6500 K	2100 lm	2100 lm	0.70	
ST8A-EM 20.6 W/4000K 1500 mm EM	48	8	76	< 20 %	4000 K	3100 lm	3100 lm	0.70	
ST8A-EM 20.6 W/6500K 1500 mm EM	48	8	76	< 20 %	6500 K	3100 lm	3100 lm	0.70	

Product description	Light technical data					Dimensions & weight					
	Light color (designation)	Color temperature	Luminous flux	Color rendering index Ra	Rated beam angle (half peak value)	Warm-up time (60 %)	Starting time	Tube diameter	Base diameter	Product weight	Overall length
ST8A-EM 7.3 W/4000K 600 mm EM	Cool White	4000 K	1100 lm	83	190.00 °	< 0.50 s	< 0.5 s	25.8 mm	26.7 mm	100.00 g	603.0 mm
ST8A-EM 7.3 W/6500K 600 mm EM	Cool Daylight	6500 K	1100 lm	83	190.00 °	< 0.50 s	< 0.5 s	25.8 mm	26.7 mm	100.00 g	603.0 mm
ST8A-EM 14 W/4000K 1200 mm EM	Cool White	4000 K	2100 lm	83	190.00 °	< 0.50 s	< 0.5 s	25.8 mm	26.7 mm	190.00 g	1212 mm
ST8A-EM 14 W/6500K 1200 mm EM	Cool Daylight	6500 K	2100 lm	83	190.00 °	< 0.50 s	< 0.5 s	25.8 mm	26.7 mm	190.00 g	1212 mm

Product description	Light color (designation)	Color temperature	Luminous flux	Color rendering index Ra	Light technical data			Dimensions & weight			
					Rated beam angle (half peak value)	Warm-up time (60 %)	Starting time	Tube diameter	Base diameter	Product weight	Overall length
ST8A-EM 20.6 W/4000K 1500 mm EM	Cool White	4000 K	3100 lm	83	190.00 °	< 0.50 s	< 0.5 s	25.8 mm	26.7 mm	225.00 g	1513 mm
ST8A-EM 20.6 W/6500K 1500 mm EM	Cool Daylight	6500 K	3100 lm	83	190.00 °	< 0.50 s	< 0.5 s	25.8 mm	26.7 mm	225.00 g	1513 mm

Product description	Temperatures & operating conditions		Lifespan		Additional product data		Capabilities	Certificates & standards
	Ambient temperature range	Maximum temperature at tc test point	Nominal lamp life time	Number of switching cycles	Base (standard designation)	Mercury-free	Dimmable	Type of protection
ST8A-EM 7.3 W/4000K 600 mm EM	-25...+50 °C	75 °C	50000 h	200000	G13	Yes	No	IP20
ST8A-EM 7.3 W/6500K 600 mm EM	-25...+50 °C	75 °C	50000 h	200000	G13	Yes	No	IP20
ST8A-EM 14 W/4000K 1200 mm EM	-20...+50 °C	75 °C	50000 h	200000	G13	Yes	No	IP20
ST8A-EM 14 W/6500K 1200 mm EM	-20...+50 °C	75 °C	50000 h	200000	G13	Yes	No	IP20
ST8A-EM 20.6 W/4000K 1500 mm EM	-20...+50 °C	75 °C	50000 h	200000	G13	Yes	No	IP20
ST8A-EM 20.6 W/6500K 1500 mm EM	-20...+50 °C	75 °C	50000 h	200000	G13	Yes	No	IP20

Product description	Logistical data
	Temperature range at storage
ST8A-EM 7.3 W/4000K 600 mm EM	-25...+80 °C
ST8A-EM 7.3 W/6500K 600 mm EM	-25...+80 °C
ST8A-EM 14 W/4000K 1200 mm EM	-20...+80 °C
ST8A-EM 14 W/6500K 1200 mm EM	-20...+80 °C
ST8A-EM 20.6 W/4000K 1500 mm EM	-20...+80 °C
ST8A-EM 20.6 W/6500K 1500 mm EM	-20...+80 °C



ST8A-EM 7.3 W/4000K 600 mm EM,
ST8A-EM 7.3 W/6500K 600 mm EM,
ST8A-EM 14 W/4000K 1200 mm EM,
ST8A-EM 14 W/6500K 1200 mm EM,
ST8A-EM 20.6 W/4000K 1500 mm EM,
ST8A-EM 20.6 W/6500K 1500 mm EM

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.

APPLICATION ADVICE

For more detailed application information and graphics please see product datasheet.

LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075454750	Shipping carton box 10	742 mm x 210 mm x 115 mm	1618.00 g	17.92 dm ³
4058075454774	Shipping carton box 10	742 mm x 210 mm x 115 mm	1588.00 g	17.92 dm ³
4058075454798	Shipping carton box 10	1352 mm x 210 mm x 115 mm	2796.00 g	32.65 dm ³
4058075454811	Shipping carton box 10	1352 mm x 210 mm x 115 mm	2780.00 g	32.65 dm ³
4058075454835	Shipping carton box 10	1652 mm x 210 mm x 115 mm	3520.00 g	39.90 dm ³
4058075454859	Shipping carton box 10	1652 mm x 210 mm x 115 mm	3510.00 g	39.90 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/substitute

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.