

PRODUCT FAMILY DATASHEET

SubstiTUBE Advanced

High performance LED tubes for electromagnetic control gears, shatterproof



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
- Shatter protection thanks to special PET coating
- LED replacement for conventional compact fluorescent lamps for use in CCG luminaires or on AC mains
- Support the implementation of the HACCP concepts from production through to presentation

PRODUCT FEATURES

- Bright, robust and durable
- Uniform illumination
- Single and tandem operation on conventional control gear (0.6 m version)



- Tube made of glass
- Mercury-free and RoHS compliant
- Type of protection: IP20
- Lamp tube made of glass with splinter protection e.g. for food industry applications
- VDE certified according to IEC62776

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. 10 A (B)	Max. lamp no. on circuit break. B10 A - CCG with compensation	Max. lamp no. on circuit break. B10 A - CCG without compensation
ST8A-EM 7.3 W/4000K 600 mm	7.30 W	220...240 V	50...60 Hz	7.30 W	0.036 A	AC	125	16	125
ST8A-EM 7.3 W/6500K 600 mm	7.30 W	220...240 V	50...60 Hz	7.30 W	0.036 A	AC	125	16	125
ST8A-EM 11.3 W/4000K 900 mm	11.30 W	220...240 V	50...60 Hz	11.30 W	0.052 A	AC	86	15	86
ST8A-EM 11.3 W/6500K 900 mm	11.30 W	220...240 V	50...60 Hz	11.30 W	0.052 A	AC	86	15	86
ST8A-EM 14 W/4000K 1200 mm	14.00 W	220...240 V	50...60 Hz	14.00 W	0.064 A	AC	70	15	70
ST8A-EM 14 W/6500K 1200 mm	14.00 W	220...240 V	50...60 Hz	14.00 W	0.064 A	AC	70	15	70
ST8A-EM 20.6 W/4000K 1500 mm	20.60 W	220...240 V	50...60 Hz	20.60 W	0.094 A	AC	48	8	48
ST8A-EM 20.6 W/6500K 1500 mm	20.60 W	220...240 V	50...60 Hz	20.60 W	0.094 A	AC	48	8	48

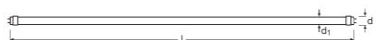
Product description					Photometrical data			
	Max. lamp no. on circuit break. B16 A - CCG without compensation	Max. lamp no. on circuit break. B16 A - CCG with compensation	Max. lamp no. on circuit break. 16 A (B)	Total harmonic distortion	Color temperature	Nominal luminous flux	Rated luminous flux	Lumen main.fact.at end of nom.life time
ST8A-EM 7.3 W/4000K 600 mm	200	25	200	< 20 %	4000 K	1100 lm	1100 lm	0.70
ST8A-EM 7.3 W/6500K 600 mm	200	25	200	< 20 %	6500 K	1100 lm	1100 lm	0.70
ST8A-EM 11.3 W/4000K 900 mm	137	25	137	< 20 %	4000 K	1700 lm	1700 lm	0.70
ST8A-EM 11.3 W/6500K 900 mm	137	25	137	< 20 %	6500 K	1700 lm	1700 lm	0.70
ST8A-EM 14 W/4000K 1200 mm	112	24	112	< 20 %	4000 K	2100 lm	2100 lm	0.70
ST8A-EM 14 W/6500K 1200 mm	112	24	112	< 20 %	6500 K	2100 lm	2100 lm	0.70
ST8A-EM 20.6 W/4000K 1500 mm	76	14	76	< 20 %	4000 K	3100 lm	3100 lm	0.90
ST8A-EM 20.6 W/6500K 1500 mm	76	14	76	< 20 %	6500 K	3100 lm	3100 lm	0.70

Product description	Light color (designation)	Color temperature	Luminous flux	Color rendering index Ra	Light technical data			Dimensions & weight			
					Starting time	Rated beam angle (half peak value)	Warm-up time (60 %)	Tube diameter	Base diameter	Product weight	Overall length
ST8A-EM 7.3 W/4000K 600 mm	Cool White	4000 K	1100 lm	83	< 0.5 s	190.00 °	< 0.50 s	25.8 mm	26.7 mm	103.00 g	603.0 mm
ST8A-EM 7.3 W/6500K 600 mm	Cool Daylight	6500 K	1100 lm	83	< 0.5 s	190.00 °	< 0.50 s	25.8 mm	26.7 mm	103.00 g	603.0 mm
ST8A-EM 11.3 W/4000K 900 mm	Cool White	4000 K	1700 lm	83	< 0.5 s	190.00 °	< 0.50 s	25.8 mm	26.7 mm	149.00 g	908.0 mm
ST8A-EM 11.3 W/6500K 900 mm	Cool Daylight	6500 K	1700 lm	83	< 0.5 s	190.00 °	< 0.50 s	25.8 mm	26.7 mm	149.00 g	908.0 mm
ST8A-EM 14 W/4000K 1200 mm	Cool White	4000 K	2100 lm	83	< 0.5 s	190.00 °	< 0.50 s	25.8 mm	26.7 mm	200.00 g	1212 mm
ST8A-EM 14 W/6500K 1200 mm	Cool Daylight	6500 K	2100 lm	83	< 0.5 s	190.00 °	< 0.50 s	25.8 mm	26.7 mm	200.00 g	1212 mm
ST8A-EM 20.6 W/4000K 1500 mm	Cool White	4000 K	3100 lm	83	< 0.5 s	190.00 °	< 0.50 s	25.8 mm	26.7 mm	264.00 g	1513 mm
ST8A-EM 20.6 W/6500K 1500 mm	Cool Daylight	6500 K	3100 lm	83	< 0.5 s	190.00 °	< 0.50 s	25.8 mm	26.7 mm	264.00 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	-25...+50 °C	64 °C	50000 h	200000	G13	Yes	No	IP20
ST8A-EM 7.3 W/6500K 600 mm	-25...+50 °C	64 °C	50000 h	200000	G13	Yes	No	IP20
ST8A-EM 11.3 W/4000K 900 mm	-25...+50 °C	65 °C	50000 h	200000	G13	Yes	No	IP20
ST8A-EM 11.3 W/6500K 900 mm	-25...+50 °C	65 °C	50000 h	200000	G13	Yes	No	IP20
ST8A-EM 14 W/4000K 1200 mm	-25...+50 °C	67 °C	50000 h	200000	G13	Yes	No	IP20
ST8A-EM 14 W/6500K 1200 mm	-25...+50 °C	67 °C	50000 h	200000	G13	Yes	No	IP20
ST8A-EM 20.6 W/4000K 1500 mm	-25...+50 °C	67 °C	50000 h	200000	G13	Yes	No	IP20
ST8A-EM 20.6 W/6500K 1500 mm	-25...+50 °C	72 °C	50000 h	200000	G13	Yes	No	IP20

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

Product description	Logistical data
	Temperature range at storage
ST8A-EM 7.3 W/6500K 600 mm	-25...+80 °C
ST8A-EM 11.3 W/4000K 900 mm	-25...+80 °C
ST8A-EM 11.3 W/6500K 900 mm	-25...+80 °C
ST8A-EM 14 W/4000K 1200 mm	-25...+80 °C
ST8A-EM 14 W/6500K 1200 mm	-25...+80 °C
ST8A-EM 20.6 W/4000K 1500 mm	-25...+80 °C
ST8A-EM 20.6 W/6500K 1500 mm	-25...+80 °C



ST8A-EM 7.3 W/4000K 600 mm, ST8A-EM 7.3 W/6500K 600 mm, ST8A-EM 11.3 W/4000K 900 mm, ST8A-EM 11.3 W/6500K 900 mm, ST8A-EM 14 W/4000K 1200 mm, ST8A-EM 14 W/6500K 1200 mm, ST8A-EM 20.6 W/4000K 1500 mm, ST8A-EM 20.6 W/6500K 1500 mm

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
4058075136427	Shipping carton box 10	742 mm x 210 mm x 115 mm	1693.00 g	17.92 dm ³
4058075136441	Shipping carton box 10	742 mm x 210 mm x 115 mm	1677.00 g	17.92 dm ³
4058075136465	Shipping carton box 10	1048 mm x 210 mm x 115 mm	2450.00 g	25.31 dm ³
4058075136489	Shipping carton box 10	1048 mm x 210 mm x 115 mm	2330.00 g	25.31 dm ³
4058075136502	Shipping carton box 10	1352 mm x 210 mm x 115 mm	2979.00 g	32.65 dm ³
4058075136526	Shipping carton box 10	1352 mm x 210 mm x 115 mm	2979.00 g	32.65 dm ³
4058075136540	Shipping carton box 10	1652 mm x 210 mm x 115 mm	3700.00 g	39.90 dm ³
4058075136564	Shipping carton box 10	1652 mm x 210 mm x 115 mm	3670.00 g	39.90 dm ³

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
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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.