

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 alternative to classic T8 fluorescent lamps in CCG luminaires
- 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
- Integrated ECG with high power factor

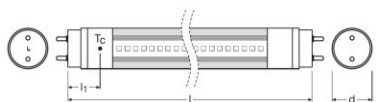
TECHNICAL DATA

Product description	Electrical data						Photometrical data					
	Nominal wattage	Rated wattage	Nominal voltage	Operating frequency	Nominal current	Type of current	Light color (designation)	Color temperature	Nominal luminous flux	Rated luminous flux	Color rendering index Ra	Lumen main.fact.t.at end of nom.life time
ST8A-EM 7.3 W/840 600 mm	7.30 W	7.30 W	220...240 V	50...60 Hz	0.034 A	AC	Cool White	4000 K	1100 lm	1100 lm	>80	0.70
ST8A-EM 7.3 W/865 600 mm	7.30 W	7.30 W	220...240 V	50...60 Hz	0.034 A	AC	Cool Daylight	6500 K	1100 lm	1100 lm	>80	0.70
ST8A-EM 11.3 W/840 900 mm	11.30 W	11.30 W	220...240 V	50...60 Hz	0.052 A	AC	Cool White	4000 K	1700 lm	1700 lm	>80	0.70
ST8A-EM 11.3 W/865 900 mm	11.30 W	11.30 W	220...240 V	50...60 Hz	0.052 A	AC	Cool Daylight	6500 K	1700 lm	1700 lm	>80	0.70
ST8A-EM 14 W/840 1200 mm	14.00 W	14.00 W	220...240 V	50...60 Hz	0.065 A	AC	Cool White	4000 K	2100 lm	2100 lm	>80	0.70
ST8A-EM 14 W/865 1200 mm	14.00 W	14.00 W	220...240 V	50...60 Hz	0.065 A	AC	Cool Daylight	6500 K	2100 lm	2100 lm	>80	0.70
ST8A-EM 20.6 W/840 1500 mm	20.60 W	20.60 W	220...240 V	50...60 Hz	0.095 A	AC	Cool White	4000 K	3100 lm	3100 lm	>80	0.70
ST8A-EM 20.6 W/865 1500 mm	20.60 W	20.60 W	220...240 V	50...60 Hz	0.095 A	AC	Cool Daylight	6500 K	3100 lm	3100 lm	>80	0.70

Product description	Light technical data			Dimensions & weight			Temperatures & operating conditions	Lifespan	
	Starting time	Rated beam angle (half peak value)	Warm-up time (60 %)	Tube diameter	Product weight	Overall length	Ambient temperature range	Nominal lamp life time	Number of switching cycles
ST8A-EM 7.3 W/840 600 mm	< 0.5 s	210.00 °	< 0.50 s	25.5 mm	112.00 g	602.0 mm	-20...+50 °C	50000 h	200000
ST8A-EM 7.3 W/865 600 mm	< 0.5 s	210.00 °	< 0.50 s	25.5 mm	112.00 g	602.0 mm	-20...+50 °C	50000 h	200000
ST8A-EM 11.3 W/840 900 mm	< 0.5 s	210.00 °	< 0.50 s	25.5 mm	160.00 g	907.0 mm	-20...+50 °C	50000 h	200000
ST8A-EM 11.3 W/865 900 mm	< 0.5 s	210.00 °	< 0.50 s	25.5 mm	160.00 g	907.0 mm	-20...+50 °C	50000 h	200000
ST8A-EM 14 W/840 1200 mm	< 0.5 s	210.00 °	< 0.50 s		198.00 g	1213 mm	-20...+50 °C	50000 h	200000
ST8A-EM 14 W/865 1200 mm	< 0.5 s	210.00 °	< 0.50 s		198.00 g	1213 mm	-20...+50 °C	50000 h	200000
ST8A-EM 20.6 W/840 1500 mm	< 0.5 s	210.00 °	< 0.50 s		252.00 g	1513 mm	-20...+50 °C	50000 h	200000

Product description	Light technical data			Dimensions & weight			Temperatures & operating conditions	Lifespan	
	Starting time	Rated beam angle (half peak value)	Warm-up time (60 %)	Tube diameter	Product weight	Overall length	Ambient temperature range	Nominal lamp life time	Number of switching cycles
ST8A-EM 20.6 W/865 1500 mm	< 0.5 s	210.00 °	< 0.50 s		252.00 g	1513 mm	-20...+50 °C	50000 h	200000

Product description	Additional product data		Capabilities	Certificates & standards	Country-specific categorizations	Logistical data
	Base (standard designation)	Mercury-free	Dimmable	Type of protection	ILCOS	Temperature range at storage
ST8A-EM 7.3 W/840 600 mm	G13	Yes	No	IP20	DR-7.3/840-G13-26/602	-20...80 °C
ST8A-EM 7.3 W/865 600 mm	G13	Yes	No	IP20	DR-7.3/865-G13-25.5/602	-20...80 °C
ST8A-EM 11.3 W/840 900 mm	G13	Yes	No	IP20	DR-11.3/840-G13-25.5/907	-20...80 °C
ST8A-EM 11.3 W/865 900 mm	G13	Yes	No	IP20	DR-11.3/865-G13-25.5/907	-20...80 °C
ST8A-EM 14 W/840 1200 mm	G13	Yes	No	IP20	DR-14/840-G13-25.5/1213	-20...80 °C
ST8A-EM 14 W/865 1200 mm	G13	Yes	No	IP20	DR-14/865-G13-25.5/1213	-20...80 °C
ST8A-EM 20.6 W/840 1500 mm	G13	Yes	No	IP20	DR-20.6/840-G13-25.5/1513	-20...80 °C
ST8A-EM 20.6 W/865 1500 mm	G13	Yes	No	IP20	DR-20.6/865-G13-25.5/1513	-20...80 °C



ST8A-EM 7.3 W/840 600 mm, ST8A-EM
7.3 W/865 600 mm, ST8A-EM 11.3
W/840 900 mm, ST8A-EM 11.3 W/865
900 mm, ST8A-EM 14 W/840 1200 mm,
ST8A-EM 14 W/865 1200 mm, ST8A-EM
20.6 W/840 1500 mm, ST8A-EM 20.6
W/865 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	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4058075818057	ST8A-EM 7.3 W/840 600 mm	Shipping carton box 10	742 mm x 210 mm x 115 mm	17.92 dm ³	1805.00 g
4058075818071	ST8A-EM 7.3 W/865 600 mm	Shipping carton box 10	742 mm x 210 mm x 115 mm	17.92 dm ³	1782.00 g
4058075818095	ST8A-EM 11.3 W/840 900 mm	Shipping carton box 10	1048 mm x 210 mm x 115 mm	25.31 dm ³	2520.00 g
4058075818118	ST8A-EM 11.3 W/865 900 mm	Shipping carton box 10	1048 mm x 210 mm x 115 mm	25.31 dm ³	2521.00 g
4058075818132	ST8A-EM 14 W/840 1200 mm	Shipping carton box 10	1352 mm x 210 mm x 115 mm	32.65 dm ³	3009.00 g
4058075818156	ST8A-EM 14 W/865 1200 mm	Shipping carton box 10	1352 mm x 210 mm x 115 mm	32.65 dm ³	3150.00 g
4058075818170	ST8A-EM 20.6 W/840 1500 mm	Shipping carton box 10	1652 mm x 210 mm x 115 mm	39.90 dm ³	3654.00 g
4058075818194	ST8A-EM 20.6 W/865 1500 mm	Shipping carton box 10	1652 mm x 210 mm x 115 mm	39.90 dm ³	3950.00 g

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.