

# PRODUCT FAMILY DATASHEET

## SubstiTUBE Value

Economic LED tubes for electromagnetic control gears



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### AREAS OF APPLICATION

- General illumination within ambient temperatures from -20...+45 °C
- Corridors, stairways, parking garages
- Cooling and storage rooms
- Domestic applications
- Industry
- Warehouses
- Supermarkets and department stores

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### PRODUCT BENEFITS

- No bending thanks to glass technology
- Quick, simple and safe replacement without rewiring
- Energy savings of up to 65 % (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

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### PRODUCT FEATURES

- LED alternative to classic T8 fluorescent lamps in CCG luminaires
- Uniform illumination
- Mercury-free and RoHS compliant
- Luminous efficacy: up to 105 lm/W
- Tube made of glass



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
ST8V-EM 7.6 W/3000K 600 mm EM	7.60 W	220...240 V	50...60 Hz	7.60 W	0.035 A	AC	208	20	208
ST8V-EM 7.6 W/4000K 600 mm EM	7.60 W	220...240 V	50...60 Hz	7.60 W	0.035 A	AC	208	20	208
ST8V-EM 7.6 W/6500K 600 mm EM	7.60 W	220...240 V	50...60 Hz	7.60 W	0.035 A	AC	208	20	208
ST8V-EM 16.2 W/3000K 1200 mm EM	16.20 W	220...240 V	50...60 Hz	16.20 W	0.075 A	AC	98	20	98
ST8V-EM 16.2 W/4000K 1200 mm EM	16.20 W	220...240 V	50...60 Hz	16.20 W	0.075 A	AC	98	20	98
ST8V-EM 16.2 W/6500K 1200 mm EM	16.20 W	220...240 V	50...60 Hz	16.20 W	0.075 A	AC	98	20	98
ST8V-EM 19.1 W/3000K 1500 mm EM	19.10 W	220...240 V	50...60 Hz	19.10 W	0.09 A	AC	85	14	85
ST8V-EM 19.1 W/4000K 1500 mm EM	19.10 W	220...240 V	50...60 Hz	19.10 W	0.09 A	AC	85	14	85
ST8V-EM 19.1 W/6500K 1500 mm EM	19.10 W	220...240 V	50...60 Hz	19.10 W	0.09 A	AC	85	14	85

Product description	Electrical data				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
ST8V-EM 7.6 W/3000K 600 mm EM	333	32	333	< 20 %	3000 K	720 lm	720 lm	0.70
ST8V-EM 7.6 W/4000K 600 mm EM	333	32	333	< 20 %	4000 K	800 lm	800 lm	0.70
ST8V-EM 7.6 W/6500K 600 mm EM	333	32	333	< 20 %	6500 K	800 lm	800 lm	0.70
ST8V-EM 16.2 W/3000K 1200 mm EM	157	32	157	< 20 %	3000 K	1530 lm	1530 lm	0.70
ST8V-EM 16.2 W/4000K 1200 mm EM	157	32	157	< 20 %	4000 K	1700 lm	1700 lm	0.70
ST8V-EM 16.2 W/6500K 1200 mm EM	157	32	157	< 20 %	6500 K	1700 lm	1700 lm	0.70
ST8V-EM 19.1 W/3000K 1500 mm EM	136	22	136	< 20 %	3000 K	1800 lm	1800 lm	0.70
ST8V-EM 19.1 W/4000K 1500 mm EM	136	22	136	< 20 %	4000 K	2000 lm	2000 lm	0.70
ST8V-EM 19.1 W/6500K 1500 mm EM	136	22	136	< 20 %	6500 K	2000 lm	2000 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
ST8V-EM 7.6 W/3000K 600 mm EM	Warm White	3000 K	720 lm	≥80	< 0.5 s	190.00 °	< 0.50 s	25.6 mm	26.7 mm	105.00 g	603.0 mm
ST8V-EM 7.6 W/4000K 600 mm EM	Cool White	4000 K	800 lm	≥80	< 0.5 s	190.00 °	< 0.50 s	25.6 mm	26.7 mm	105.00 g	603.0 mm
ST8V-EM 7.6 W/6500K 600 mm EM	Cool Daylight	6500 K	800 lm	≥80	< 0.5 s	190.00 °	< 0.50 s	25.6 mm	26.7 mm	105.00 g	603.0 mm
ST8V-EM 16.2 W/3000K 1200 mm EM	Warm White	3000 K	1530 lm	≥80	< 0.5 s	190.00 °	< 0.50 s	25.6 mm	26.7 mm	208.00 g	1212 mm
ST8V-EM 16.2 W/4000K 1200 mm EM	Cool White	4000 K	1700 lm	≥80	< 0.5 s	190.00 °	< 0.50 s	25.6 mm	26.7 mm	208.00 g	1212 mm
ST8V-EM 16.2 W/6500K 1200 mm EM	Cool Daylight	6500 K	1700 lm	≥80	< 0.5 s	190.00 °	< 0.50 s	25.6 mm	26.7 mm	208.00 g	1212 mm
ST8V-EM 19.1 W/3000K 1500 mm EM	Warm White	3000 K	1800 lm	≥80	< 0.5 s	190.00 °	< 0.50 s	25.6 mm	26.7 mm	235.00 g	1513 mm
ST8V-EM 19.1 W/4000K 1500 mm EM	Cool White	4000 K	2000 lm	≥80	< 0.5 s	190.00 °	< 0.50 s	25.6 mm	26.7 mm	235.00 g	1513 mm
ST8V-EM 19.1 W/6500K 1500 mm EM	Cool Daylight	6500 K	2000 lm	≥80	< 0.5 s	190.00 °	< 0.50 s	25.6 mm	26.7 mm	235.00 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
ST8V-EM 7.6 W/3000K 600 mm EM	-20...+45 °C	65 °C	30000 h	200000	G13	Yes	No	IP20
ST8V-EM 7.6 W/4000K 600 mm EM	-20...+45 °C	65 °C	30000 h	200000	G13	Yes	No	IP20
ST8V-EM 7.6 W/6500K 600 mm EM	-20...+45 °C	65 °C	30000 h	200000	G13	Yes	No	IP20
ST8V-EM 16.2 W/3000K 1200 mm EM	-20...+45 °C	75 °C	30000 h	200000	G13	Yes	No	IP20
ST8V-EM 16.2 W/4000K 1200 mm EM	-20...+45 °C	75 °C	30000 h	200000	G13	Yes	No	IP20
ST8V-EM 16.2 W/6500K 1200 mm EM	-20...+45 °C	75 °C	30000 h	200000	G13	Yes	No	IP20
ST8V-EM 19.1 W/3000K 1500 mm EM	-20...+45 °C	75 °C	30000 h	200000	G13	Yes	No	IP20
ST8V-EM 19.1 W/4000K 1500 mm EM	-20...+45 °C	75 °C	30000 h	200000	G13	Yes	No	IP20
ST8V-EM 19.1 W/6500K 1500 mm EM	-20...+45 °C	75 °C	30000 h	200000	G13	Yes	No	IP20

Product description	Country-specific categorizations	Logistical data
	ILCOS	Temperature range at storage
ST8V-EM 7.6 W/3000K 600 mm EM	DR-7.6/830-G13-25.5/590	-20...+80 °C
ST8V-EM 7.6 W/4000K 600 mm EM	DR-7.6/840-G13-25.5/590	-20...+80 °C
ST8V-EM 7.6 W/6500K 600 mm EM	DR-7.6/865-G13-25.5/590	-20...+80 °C
ST8V-EM 16.2 W/3000K 1200 mm EM	DR-16.2/830-G13-25.5/1200	-20...+80 °C
ST8V-EM 16.2 W/4000K 1200 mm EM	DR-16.2/840-G13-25.5/1200	-20...+80 °C
ST8V-EM 16.2 W/6500K 1200 mm EM	DR-16.2/865-G13-25.5/1200	-20...+80 °C
ST8V-EM 19.1 W/3000K 1500 mm EM	DR-19.1/830-G13-25.5/1500	-20...+80 °C
ST8V-EM 19.1 W/4000K 1500 mm EM	DR-19.1/840-G13-25.5/1500	-20...+80 °C
ST8V-EM 19.1 W/6500K 1500 mm EM	DR-19.1/865-G13-25.5/1500	-20...+80 °C



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ST8V-EM 16.2 W/6500K 1200 mm EM,  
ST8V-EM 19.1 W/3000K 1500 mm EM,  
ST8V-EM 19.1 W/4000K 1500 mm EM,  
ST8V-EM 19.1 W/6500K 1500 mm EM

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#### EQUIPMENT / ACCESSORIES

– Suitable for operation with low-loss and conventional control gears

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#### 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.

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#### 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
4058075156166	Shipping carton box 10	742 mm x 210 mm x 115 mm	1603.00 g	17.92 dm <sup>3</sup>
4058075156180	Shipping carton box 10	742 mm x 210 mm x 115 mm	1611.00 g	17.92 dm <sup>3</sup>
4058075156203	Shipping carton box 10	742 mm x 210 mm x 115 mm	1610.00 g	17.92 dm <sup>3</sup>
4058075024687	Shipping carton box 10	1278 mm x 154 mm x 65 mm	2520.00 g	12.79 dm <sup>3</sup>
4058075156241	Shipping carton box 10	1352 mm x 210 mm x 115 mm	2950.00 g	32.65 dm <sup>3</sup>
4058075156265	Shipping carton box 10	1352 mm x 210 mm x 115 mm	3061.00 g	32.65 dm <sup>3</sup>
4058075156289	Shipping carton box 10	1652 mm x 210 mm x 115 mm	3560.00 g	39.90 dm <sup>3</sup>
4058075156302	Shipping carton box 10	1652 mm x 210 mm x 115 mm	3560.00 g	39.90 dm <sup>3</sup>
4058075156326	Shipping carton box 10	1652 mm x 210 mm x 115 mm	3560.00 g	39.90 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/substitute](http://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.

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### DISCLAIMER

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