

# 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
- Industry
- Warehouses
- Cooling and storage rooms
- Warehouses
- Domestic applications
- Supermarkets and department stores

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### PRODUCT BENEFITS

- No bending thanks to glass technology
- Energy savings of up to 65 % (compared to T8 fluorescent lamp on CCG)
- Quick, simple and safe replacement without rewiring
- 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 replacement for classic T8 fluorescent lamps with G13 socket for use in CCG luminaires or on AC mains
- Uniform illumination
- Mercury-free and RoHS compliant
- Single and tandem operation on conventional control gear (0.6 m version)
- Tube made of glass



## TECHNICAL DATA

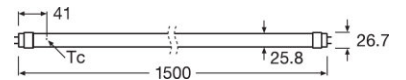
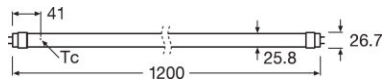
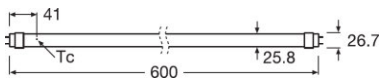
Product description	Electrical data						
	Rated wattage	Nominal voltage	Operating frequency	Nominal wattage	Nominal current	Type of current	Max. lamp no. on circuit break. B10 A - CCG without compensation
ST8V-EM 7.3 W/6500K 600 mm	7.30 W	220...240 V	50...60 Hz	7.30 W	0.035 A	AC	200
ST8V-EM 7.3 W/3000K 600 mm	7.30 W	220...240 V	50...60 Hz	7.30 W	0.035 A	AC	200
ST8V-EM 7.3 W/4000K 600 mm	7.30 W	220...240 V	50...60 Hz	7.30 W	0.035 A	AC	200
ST8V-EM 16.4 W/4000K 1200 mm	16.40 W	220...240 V	50...60 Hz	16.40 W	0.075 A	AC	93
ST8V-EM 16.4 W/6500K 1200 mm	16.40 W	220...240 V	50...60 Hz	16.40 W	0.075 A	AC	93
ST8V-EM 16.4 W/3000K 1200 mm	16.40 W	220...240 V	50...60 Hz	16.40 W	0.075 A	AC	93
ST8V-EM 20 W/3000K 1500 mm	20.00 W	220...240 V	50...60 Hz	20.00 W	0.095 A	AC	73
ST8V-EM 20 W/6500K 1500 mm	20.00 W	220...240 V	50...60 Hz	20.00 W	0.095 A	AC	73
ST8V-EM 20 W/4000K 1500 mm	20.00 W	220...240 V	50...60 Hz	20.00 W	0.095 A	AC	73

Product description					Photometrical data	
	Max. lamp no. on circuit break. 10 A (B)	Max. lamp no. on circuit break. B16 A - CCG without compensation	Max. lamp no. on circuit break. 16 A (B)	Total harmonic distortion	Color temperature	
ST8V-EM 7.3 W/6500K 600 mm	200	320	320	< 20 %	6500 K	
ST8V-EM 7.3 W/3000K 600 mm	200	320	320	< 20 %	3000 K	
ST8V-EM 7.3 W/4000K 600 mm	200	320	320	< 20 %	4000 K	
ST8V-EM 16.4 W/4000K 1200 mm	93	149	149	< 20 %	4000 K	
ST8V-EM 16.4 W/6500K 1200 mm	93	149	149	< 20 %	6500 K	
ST8V-EM 16.4 W/3000K 1200 mm	93	149	149	< 20 %	3000 K	
ST8V-EM 20 W/3000K 1500 mm	73	73	117	< 20 %	3000 K	
ST8V-EM 20 W/6500K 1500 mm	73	73	117	< 20 %	6500 K	
ST8V-EM 20 W/4000K 1500 mm	73	73	117	< 20 %	4000 K	

Product description	Light color (designation)	Color temperature	Luminous flux	Luminous efficacy	Color rendering index Ra	Light technical data			D
						Starting time	Rated beam angle (half peak value)	Warm-up time (60 %)	
ST8V-EM 7.3 W/6500K 600 mm	Cool Daylight	6500 K	800 lm	110 lm/W	≥80	< 0.5 s	190.00 °	< 0.50 s	2
ST8V-EM 7.3 W/3000K 600 mm	Warm White	3000 K	720 lm	99 lm/W	≥80	< 0.5 s	190.00 °	< 0.50 s	2
ST8V-EM 7.3 W/4000K 600 mm	Cool White	4000 K	800 lm	110 lm/W	≥80	< 0.5 s	190.00 °	< 0.50 s	2
ST8V-EM 16.4 W/4000K 1200 mm	Cool White	4000 K	1800 lm	110 lm/W	≥80	< 0.5 s	190.00 °	< 0.50 s	2
ST8V-EM 16.4 W/6500K 1200 mm	Cool Daylight	6500 K	1800 lm	110 lm/W	≥80	< 0.5 s	190.00 °	< 0.50 s	2
ST8V-EM 16.4 W/3000K 1200 mm	Warm White	3000 K	1620 lm	99 lm/W	≥80	< 0.5 s	190.00 °	< 0.50 s	2
ST8V-EM 20 W/3000K 1500 mm	Warm White	3000 K	1980 lm	99 lm/W	≥80	< 0.5 s	190.00 °	< 0.50 s	2
ST8V-EM 20 W/6500K 1500 mm	Cool Daylight	6500 K	2200 lm	110 lm/W	≥80	< 0.5 s	190.00 °	< 0.50 s	2
ST8V-EM 20 W/4000K 1500 mm	Cool White	4000 K	2200 lm	110 lm/W	≥80	< 0.5 s	190.00 °	< 0.50 s	2

Product description	Overall length	Temperatures & operating conditions		Lifespan	
		Ambient temperature range	Maximum temperature at tc test point	Nominal lamp life time	Number of switch cycles
ST8V-EM 7.3 W/6500K 600 mm	603.0 mm	-20...+45 °C	75 °C	30000 h	200000
ST8V-EM 7.3 W/3000K 600 mm	603.0 mm	-20...+45 °C	75 °C	30000 h	200000
ST8V-EM 7.3 W/4000K 600 mm	603.0 mm	-20...+45 °C	75 °C	30000 h	200000
ST8V-EM 16.4 W/4000K 1200 mm	1212 mm	-20...+45 °C	75 °C	30000 h	200000
ST8V-EM 16.4 W/6500K 1200 mm	1212 mm	-20...+45 °C	75 °C	30000 h	200000
ST8V-EM 16.4 W/3000K 1200 mm	1212 mm	-20...+45 °C	75 °C	30000 h	200000
ST8V-EM 20 W/3000K 1500 mm	1513 mm	-20...+45 °C	75 °C	30000 h	200000
ST8V-EM 20 W/6500K 1500 mm	1513 mm	-20...+45 °C	75 °C	30000 h	200000
ST8V-EM 20 W/4000K 1500 mm	1513 mm	-20...+45 °C	75 °C	30000 h	200000

Product description	Certificates & standards	Logistical data
	Type of protection	Temperature range at storage
ST8V-EM 7.3 W/6500K 600 mm	IP20	-20...+80 °C
ST8V-EM 7.3 W/3000K 600 mm	IP20	-20...+80 °C
ST8V-EM 7.3 W/4000K 600 mm	IP20	-20...+80 °C
ST8V-EM 16.4 W/4000K 1200 mm	IP20	-20...+80 °C
ST8V-EM 16.4 W/6500K 1200 mm	IP20	-20...+80 °C
ST8V-EM 16.4 W/3000K 1200 mm	IP20	-20...+80 °C
ST8V-EM 20 W/3000K 1500 mm	IP20	-20...+80 °C
ST8V-EM 20 W/6500K 1500 mm	IP20	-20...+80 °C
ST8V-EM 20 W/4000K 1500 mm	IP20	-20...+80 °C



ST8V-EM 7.3 W/6500K 600 mm, ST8V-EM 7.3 W/3000K 600 mm, ST8V-EM 7.3 W/4000K 600 mm

ST8V-EM 16.4 W/4000K 1200 mm, ST8V-EM 16.4 W/6500K 1200 mm, ST8V-EM 16.4 W/3000K 1200 mm

ST8V-EM 20 W/3000K 1500 mm, ST8V-EM 20 W/6500K 1500 mm, ST8V-EM 20 W/4000K 1500 mm

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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.

The Tc Point is located underneath the product label on the front side of the lamp.

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.

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## LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)
4058075454491	Shipping carton box 10	690 mm x 210 mm x 105 mm
4058075454453	Shipping carton box 10	690 mm x 210 mm x 105 mm
4058075454477	Shipping carton box 10	690 mm x 210 mm x 105 mm
4058075454538	Shipping carton box 10	1290 mm x 210 mm x 105 mm
4058075454552	Shipping carton box 10	1290 mm x 210 mm x 105 mm
4058075454514	Shipping carton box 10	1290 mm x 210 mm x 105 mm
4058075454576	Shipping carton box 10	1590 mm x 210 mm x 105 mm

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)
4058075454613	Shipping carton box 10	1590 mm x 210 mm x 105 mm
4058075454590	Shipping carton box 10	1590 mm x 210 mm x 105 mm

The mentioned product code describes the smallest quantity unit which can be ordered. One shipping unit can contain one or more single products. Please enter single or multiples of a shipping unit.

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#### REFERENCES / LINKS

For current information see  
▶ [www.ledvance.com/substitute](http://www.ledvance.com/substitute)

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#### 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.

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