

PRODUCT FAMILY DATASHEET

SubstiTUBE STAR

Economic LED tubes for electromagnetic control gears



AREAS OF APPLICATION

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

PRODUCT BENEFITS

- High color homogeneity
- Energy savings of up to 68 % compared to conventional 1,500 mm T8 fluorescent lamp
- Instant flickerfree starting
- LED replacement for conventional compact fluorescent lamps for use in CCG luminaires or on AC mains

PRODUCT FEATURES

- T8 LED tube made of glass with G13 base
- Mercury-free and RoHS compliant
- Single and tandem operation on conventional control gear (0.6 m version)
- Type of protection: IP20



TECHNICAL DATA

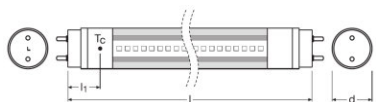
Product description	Electrical data								
	Rated wattage	Nominal voltage	Operating frequency	Nominal wattage	Nominal current	Type of current	Max. lamp no. on circuit break. B10 A - CCG without compensation	Max. lamp no. on circuit break. B16 A - CCG with compensation	Max. lamp no. on circuit break. B16 A - CCG without compensation
ST8S-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	32	333
ST8S-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	32	333
ST8S-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	32	333
ST8S-EM 16.2 W/3000K 1200 mm EM	16.20 W	220...240 V	50...60 Hz	16.20 W	0.075 A	AC	85	22	136
ST8S-EM 16.2 W/4000K 1200 mm EM	16.20 W	220...240 V	50...60 Hz	16.20 W	0.075 A	AC	85	22	136
ST8S-EM 16.2 W/6500K 1200 mm EM	16.20 W	220...240 V	50...60 Hz	16.20 W	0.075 A	AC	85	22	136
ST8S-EM 19.1 W/3000K 1500 mm EM	19.10 W	220...240 V	50...60 Hz	19.10 W	0.09 A	AC	98	32	157
ST8S-EM 19.1 W/4000K 1500 mm EM	19.10 W	220...240 V	50...60 Hz	19.10 W	0.09 A	AC	98	32	157
ST8S-EM 19.1 W/6500K 1500 mm EM	19.10 W	220...240 V	50...60 Hz	19.10 W	0.09 A	AC	98	32	157

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
ST8S-EM 7.6 W/3000K 600 mm EM	208	20	333	< 20 %	3000 K	720 lm	720 lm	0.70
ST8S-EM 7.6 W/4000K 600 mm EM	208	20	333	< 20 %	4000 K	1100 lm	800 lm	0.70
ST8S-EM 7.6 W/6500K 600 mm EM	208	20	333	< 20 %	6500 K	800 lm	800 lm	0.70
ST8S-EM 16.2 W/3000K 1200 mm EM	85	14	136	< 20 %	3000 K	1530 lm	1530 lm	0.70
ST8S-EM 16.2 W/4000K 1200 mm EM	85	14	136	< 20 %	4000 K	1700 lm	1700 lm	0.70
ST8S-EM 16.2 W/6500K 1200 mm EM	85	14	136	< 20 %	6500 K	1700 lm	1700 lm	0.70
ST8S-EM 19.1 W/3000K 1500 mm EM	98	20	157	< 20 %	3000 K	1800 lm	1800 lm	0.70
ST8S-EM 19.1 W/4000K 1500 mm EM	98	20	157	< 20 %	4000 K	2000 lm	2000 lm	0.70
ST8S-EM 19.1 W/6500K 1500 mm EM	98	20	157	< 20 %	6500 K	2000 lm	2000 lm	0.70

Product description	Light color (designation)	Color temperature	Luminous flux	Luminous efficacy	Color rendering index Ra	Light technical data			Dimensions & weight		
						Warm-up time (60 %)	Starting time	Rated beam angle (half peak value)	Tube diameter	Product weight	Overall length
ST8S-EM 7.6 W/3000K 600 mm EM	Warm White	3000 K	720 lm	94 lm/W	≥80	< 0.50 s	< 0.5 s	190.00 °	25.8 mm	105.00 g	603.0 mm
ST8S-EM 7.6 W/4000K 600 mm EM	Cool White	4000 K	1100 lm	144 lm/W	≥80	< 0.50 s	< 0.5 s	190.00 °	25.8 mm	105.00 g	603.0 mm
ST8S-EM 7.6 W/6500K 600 mm EM	Cool Daylight	6500 K	800 lm	105 lm/W	≥80	< 0.50 s	< 0.5 s	190.00 °	25.8 mm	105.00 g	603.0 mm
ST8S-EM 16.2 W/3000K 1200 mm EM	Warm White	3000 K	1530 lm	94 lm/W	≥80	< 0.50 s	< 0.5 s	190.00 °	25.8 mm	208.00 g	1212 mm
ST8S-EM 16.2 W/4000K 1200 mm EM	Cool White	4000 K	1700 lm	104 lm/W	≥80	< 0.50 s	< 0.5 s	190.00 °	25.8 mm	208.00 g	1212 mm
ST8S-EM 16.2 W/6500K 1200 mm EM	Cool Daylight	6500 K	1700 lm	104 lm/W	≥80	< 0.50 s	< 0.5 s	190.00 °	25.8 mm	208.00 g	1212 mm
ST8S-EM 19.1 W/3000K 1500 mm EM	Warm White	3000 K	1800 lm	94 lm/W	≥80	< 0.50 s	< 0.5 s	190.00 °	25.8 mm	235.00 g	1513 mm
ST8S-EM 19.1 W/4000K 1500 mm EM	Cool White	4000 K	2000 lm	104 lm/W	≥80	< 0.50 s	< 0.5 s	190.00 °	25.8 mm	235.00 g	1513 mm
ST8S-EM 19.1 W/6500K 1500 mm EM	Cool Daylight	6500 K	2000 lm	104 lm/W	≥80	< 0.50 s	< 0.5 s	190.00 °	25.8 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
ST8S-EM 7.6 W/3000K 600 mm EM	-20...+45 °C	65 °C	30000 h	200000	G13	Yes	No	IP20
ST8S-EM 7.6 W/4000K 600 mm EM	-20...+45 °C	65 °C	30000 h	200000	G13	Yes	No	IP20
ST8S-EM 7.6 W/6500K 600 mm EM	-20...+45 °C	65 °C	30000 h	200000	G13	Yes	No	IP20
ST8S-EM 16.2 W/3000K 1200 mm EM	-20...+45 °C	75 °C	30000 h	200000	G13	Yes	No	IP20
ST8S-EM 16.2 W/4000K 1200 mm EM	-20...+45 °C	75 °C	30000 h	200000	G13	Yes	No	IP20
ST8S-EM 16.2 W/6500K 1200 mm EM	-20...+45 °C	75 °C	30000 h	200000	G13	Yes	No	IP20
ST8S-EM 19.1 W/3000K 1500 mm EM	-20...+45 °C	75 °C	30000 h	200000	G13	Yes	No	IP20
ST8S-EM 19.1 W/4000K 1500 mm EM	-20...+45 °C	75 °C	30000 h	200000	G13	Yes	No	IP20
ST8S-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
ST8S-EM 7.6 W/3000K 600 mm EM	DR-7.6/830-G13-25.5/600	-20...+80 °C
ST8S-EM 7.6 W/4000K 600 mm EM	DR-7.6/840-G13-25.5/600	-20...+80 °C
ST8S-EM 7.6 W/6500K 600 mm EM	DR-7.6/865-G13-25.5/600	-20...+80 °C
ST8S-EM 16.2 W/3000K 1200 mm EM	DR-16.2/830-G13-25.5/1200	-20...+80 °C
ST8S-EM 16.2 W/4000K 1200 mm EM	DR-16.2/840-G13-25.5/1200	-20...+80 °C
ST8S-EM 16.2 W/6500K 1200 mm EM	DR-16.2/865-G13-25.5/1200	-20...+80 °C
ST8S-EM 19.1 W/3000K 1500 mm EM	DR-19.1/830-G13-25.5/1500	-20...+80 °C
ST8S-EM 19.1 W/4000K 1500 mm EM	DR-19.1/840-G13-25.5/1500	-20...+80 °C
ST8S-EM 19.1 W/6500K 1500 mm EM	DR-19.1/865-G13-25.5/1500	-20...+80 °C



ST8S-EM 7.6 W/3000K 600 mm EM,
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ST8S-EM 7.6 W/6500K 600 mm EM,
ST8S-EM 16.2 W/3000K 1200 mm EM,
ST8S-EM 16.2 W/4000K 1200 mm EM,
ST8S-EM 16.2 W/6500K 1200 mm EM,
ST8S-EM 19.1 W/3000K 1500 mm EM,
ST8S-EM 19.1 W/4000K 1500 mm EM,
ST8S-EM 19.1 W/6500K 1500 mm EM

EQUIPMENT / ACCESSORIES

- Suitable for operation on magnetic control gear

SAFETY ADVICE

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
4058075024441	Shipping carton box 8	753 mm x 182 mm x 125 mm	1509.00 g	17.13 dm ³
4058075024465	Shipping carton box 8	753 mm x 182 mm x 125 mm	1496.00 g	17.13 dm ³
4058075024489	Shipping carton box 8	753 mm x 182 mm x 125 mm	1494.00 g	17.13 dm ³
4058075024502	Shipping carton box 8	1367 mm x 182 mm x 125 mm	2680.00 g	31.10 dm ³
4058075024526	Shipping carton box 8	1367 mm x 182 mm x 125 mm	2700.00 g	31.10 dm ³
4058075024540	Shipping carton box 8	1367 mm x 182 mm x 125 mm	2680.00 g	31.10 dm ³
4058075024564	Shipping carton box 8	1660 mm x 182 mm x 125 mm	3210.00 g	37.77 dm ³
4058075024588	Shipping carton box 8	1660 mm x 182 mm x 125 mm	3280.00 g	37.77 dm ³
4058075024601	Shipping carton box 8	1660 mm x 182 mm x 125 mm	3300.00 g	37.77 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.

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.