

SubstiTUBE® TRIO – ST8-HT2/ST8-HT4

T8 LED tubes replacement for T8 Fluorescent Lamp



OSRAM SubstiTUBE® TRIO offers a truly flexible solution for T8 fluorescent lamp replacement with added benefits. This new light source emits natural light colors and consumes 24W Max. system energy. Compared to a 36W T8 fluorescent lamp with electromagnetic ballast, there is potentially more than 40% energy savings. The product long lifetime and good lumen maintenance also minimize the hassle of maintenance.

Generally, SubstiTUBE® TRIO can be used in applications such as warehouse, offices, car parks, residential spaces, corridors, industrial arenas, stairways, signage, storage, hospitality etc.

TECHNICAL OPERATING DATA

Product	Color	Color temp. [K]	Lum. Flux [lm]	Voltage [V]/ * Frequency [Hz]	Power [W]	Radiance Angle [°]
ST8-HT2-064-830	Warm White	3000	640	220-240V~50/60Hz	9	120
ST8-HT2-074-840	Cool White	4000	740	220-240V~50/60Hz	9	120
ST8-HT2-074-865	Cool Daylight	6500	740	220-240V~50/60Hz	9	120
ST8-HT2-075-830	Warm White	3000	750	220-240V~50/60Hz	10	120
ST8-HT2-085-840	Cool White	4000	850	220-240V~50/60Hz	10	120
ST8-HT2-085-865	Cool Daylight	6500	850	220-240V~50/60Hz	10	120
ST8-HT2-093-830	Warm White	3000	930	220-240V~50/60Hz	12	120
ST8-HT2-100-840	Cool White	4000	1030	220-240V~50/60Hz	12	120
ST8-HT2-100-865	Cool Daylight	6500	1030	220-240V~50/60Hz	12	120
ST8-HT4-135-830	Warm White	3000	1350	220-240V~50/60Hz	18	120
ST8-HT4-150-840	Cool White	4000	1500	220-240V~50/60Hz	18	120
ST8-HT4-150-865	Cool Daylight	6500	1500	220-240V~50/60Hz	18	120
ST8-HT4-150-830	Warm White	3000	1500	220-240V~50/60Hz	20	120
ST8-HT4-170-840	Cool White	4000	1700	220-240V~50/60Hz	20	120
ST8-HT4-170-865	Cool Daylight	6500	1700	220-240V~50/60Hz	20	120
ST8-HT4-185-830	Warm White	3000	1850	220-240V~50/60Hz	24	120
ST8-HT4-220-840	Cool White	4000	2200	220-240V~50/60Hz	24	120
ST8-HT4-220-865	Cool Daylight	6500	2200	220-240V~50/60Hz	24	120

All data listed above are related to the general lamp specifications. Due the special conditions of the manufacturing processes of LED the typical data of technical parameters can only reflect statistical figures and do not necessarily correspond to the actual parameters of each single product which could differ from the typical data.

Technical Features

- **Fits to standard T8 luminaires**
 - Led tube in T8 shape with tube diameter 28mm and G13 socket
- **For operation with magnetic ballast**
 - Direct retrofit for CCG luminaires; replacement of lamp and specified starter (not included).
- **Flexible and Robust Design**
 - Based on special plastic material to enable flexibility and extreme light weight for easy installation

Major Benefits

- **Energy Savings**
 - Low power consumption of 24W system energy offers potential >40% energy savings and CO2 reduction.
- **Environment Friendly**
 - Mercury free
 - No UV
- **Simple & Easy installation**
 - Fits directly into standard T8 Fluorescent G13 base
- **Low Maintenance**
 - Long lifetime of 30,000 hrs
 - Extreme light weight

Mechanical and Electrical Specifications



Models	A	B	C	Net weight
ST8-HT2 (2ft)	587 mm	604 mm	22 mm	175 g
ST8-HT4 (4ft)	1197 mm	1213 mm	22 mm	310 g

(According to IEC 60081)

Optics:	Diffused PC Cover
End cap:	OSRAM orange color
Mounting:	G13
Protection Class:	IP20
Tensile Strength (N/mm ²), Compressive strength (N/mm ²) & Impact strength (kJ/m ² esp. kN/m):	IEC 61195 and IEC 60061
ESD Protection:	IEC 61547
Dimming Function:	N.A.
Ambient Temp. (Ta):	-20°C.... +45°C
Rated Voltage:	220-240V~, 50/60Hz
Power Factor:	>0.9 @ direct mains, >0.9 @ CCG non compensated
Safety Protection:	Short circuit protection / open loop protection

Standards

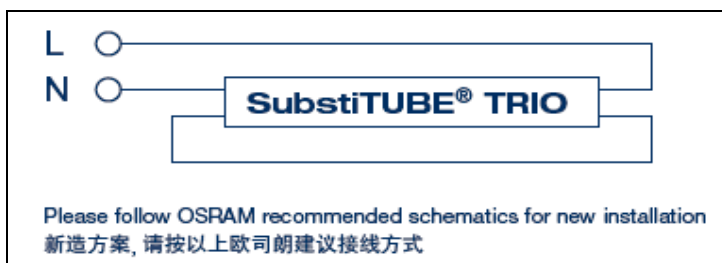
Photo-biological Safety:	IEC 62471
Flammability:	Glow wire test (650°C)
Insulation class:	IEC 61347-2-11 Clause 12
Safety Requirements	IEC 61347-2-11 Clause 14 + actual status of IEC 62560 proposal
EMC / radio disturbance characteristics:	EN 55015 (CISPR 15)
EMC / immunity:	IEC 61547 (IEC 61000-3-2 and -3-3)
MM / F / FF compliance:	Test according to DIN 57710 Part 14

Safety Notes

- The LED module itself and all its components may not be mechanical stressed.
- Assembly must not damage or destroy conducting paths on the circuit board.
- Installation of LED modules needs to apply electrical and safety standards. Only qualified personnel should be allowed to perform installations.
- Please follow the wiring instruction carefully.
- Please ensure that the input voltage is in the correct range.
- Damage by corrosion will not be honored as a materials defect claim. It is the user's responsibility to provide suitable protection against corrosive agents such as moisture and condensation and other harmful elements.
- The design of the housing should be according to the IP standards in the application.
- Pay attention to standard ESD precautions when installing the module.



Instruction Manual



Ordering Information

Short text	EAN-010	EAN-040	Rated Power [W]	Rated Lumen output [lm]
ST8-HT4-150-865	4008321839343	4008321839350	18	1500
ST8-HT4-150-840	4008321839367	4008321839374	18	1500
ST8-HT4-135-830	4008321839381	4008321839398	18	1350
ST8-HT4-170-865	4008321839282	4008321839299	20	1700
ST8-HT4-170-840	4008321839305	4008321839312	20	1700
ST8-HT4-150-830	4008321839329	4008321839336	20	1500
ST8-HT4-220-865	4008321839404	4008321839411	24	2200
ST8-HT4-220-840	4008321839428	4008321839435	24	2200
ST8-HT4-185-830	4008321839442	4008321839459	24	1850
ST8-HT2-074-865	4008321840622	4008321840639	9	740
ST8-HT2-074-840	4008321840646	4008321840653	9	740
ST8-HT2-064-830	4008321840660	4008321840677	9	640
ST8-HT2-085-865	4008321840561	4008321840578	10	850
ST8-HT2-085-840	4008321840585	4008321840592	10	850
ST8-HT2-075-830	4008321840608	4008321840615	10	750
ST8-HT2-100-865	4008321840684	4008321840691	12	1030
ST8-HT2-100-840	4008321840707	4008321840714	12	1030
ST8-HT2-093-830	4008321840721	4008321840738	12	930

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Sales and technical support is given by the local OSRAM subsidiaries. Complete subsidiaries listing is available at OSRAM homepage.