

## BSA-7W-EM-48V180-CH



### Emergency Lighting Conversion Kits – Basic Conversion

BSA-7W-EM-48V180-CH, is a high quality emergency lighting LED driver designed to suite a wide range of LED tubes and applications. A 3-hour standard switchable emergency lighting LED driver is designed to work with lithium-ion batteries and is available for the 25...48V Volt LED loads, light sources, and applications.

The driver automatically adjusts the output current to provide the best match between the battery and the load, providing half/maximum illumination.

The driver has been tested for safety and complies with the requirements of national and international regulations.

### Features

- **Protections**  
Short circuit / Over current / Over voltage / Over temperature / Hot Swap
- **Application**  
Emergency lighting LED Conversion kits for 25...48V Volt LED loads, light sources, and applications.
- **Circuit**  
Automatic Battery Recharge Circuit  
Battery Discharge Circuit
- **Battery**  
Operated with Maintenance-free long life lithium-ion battery 3.6V/7.2V.
- **Function**  
Charge LED indicator  
Manual push-in switch bottom & LED indicator
- **Warranty**  
5 year warranty

### Product family benefits

- ❑ Conversion kits LED for central battery emergency lighting or downlight applications
- ❑ Lifetime: up to 100,000h (temperature at T<sub>c</sub> = 75 °C, max. 10 % failure rate)
- ❑ Wide operating temperature range: -40...+65 °C
- ❑ Available working with existing ECGsmart LED Light source T5 136mm LED, T5 212mm LED, T5 288mm LED, G24q 5W LED, G24q 6W LED, 2G7 LED.
- ❑ Conform with IEC 61347-1, IEC 60598-2-22 standard and RoHS regulation.
- ❑ Very high efficiency

## Technical data

### Electrical data

Nominal input voltage	100...220V AC Max. 260V AC
Mains frequency	50...60 Hz
Input current	15...80mA
Power factor	>0.5
Nominal output voltage	25V...48V DC
Nominal output current	160mA Max. 170mA
Output PSTLM	≤1
Output SVM	≤0.4
Nominal output power	4W...11W
Regulation method	Constant Current
Power loss in stand-by mode	< 0.25W
Isolation input to output	No
SELV or Non-SELV	SELV
Charge LED Indicator	BLUE/RED

### Colors & materials

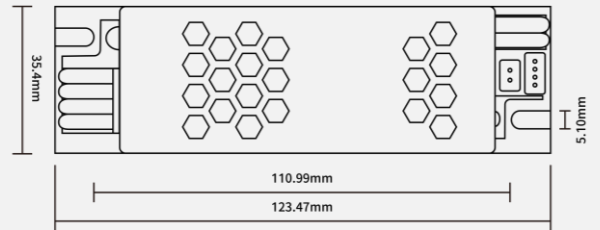
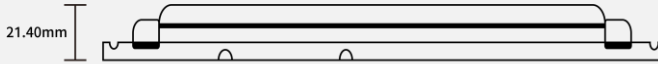
Casing material	Aluminum
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### Temperature & operating conditions

Ambient temperature range	-40...+70 °C
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## Electrical data

Product weight	67g
Length	123.47mm
Width	35.4mm
Height	21.4mm
Mounting hole space, length	D5.10mm, 110.99mm



## Lifespan

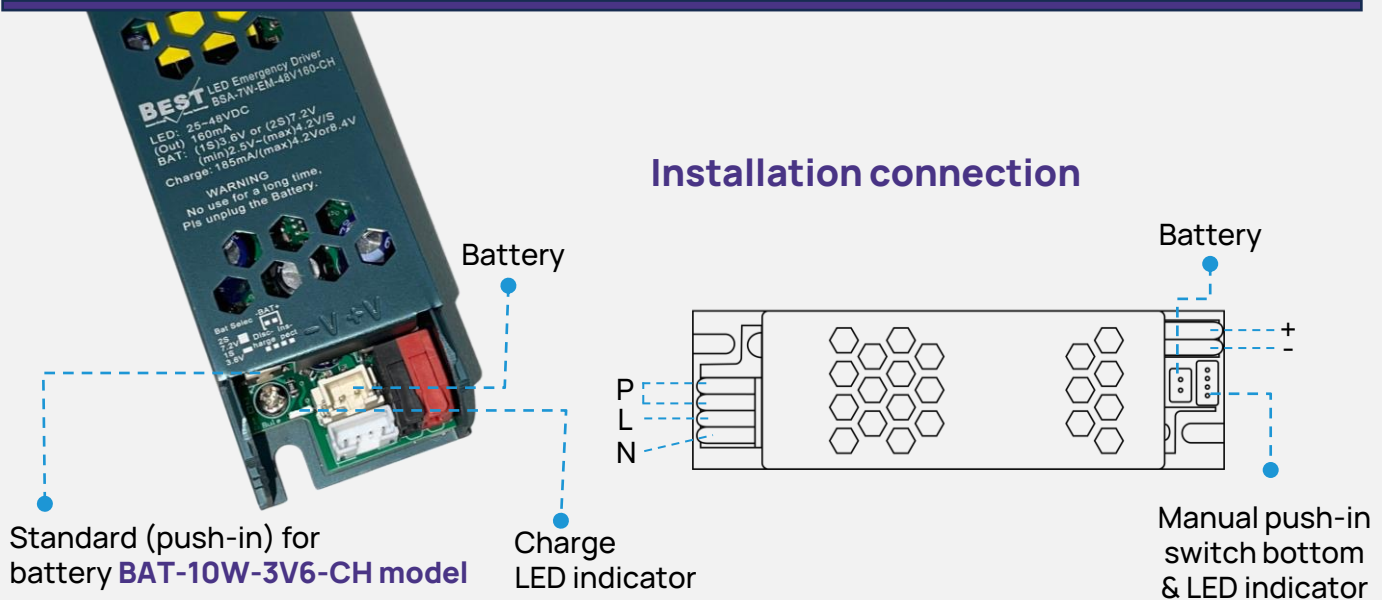
lifetime	100000/50000 h
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## Wiring and Connections

Input Wire cross-section	0.5...1.5mm <sup>2</sup> / 20...16 AWG
Output Wire cross-section	0.5...1.5mm <sup>2</sup> / 20...16 AWG
Type	Wago, solid wire

## Capabilities

Dimmable	No
Type of Protection	IP20



## Protection

### Overheating Protection

- Intelligently adjust or turn off the current output if the PCB temperature  $\geq 110^{\circ}\text{C}$ . When the PCB temperature  $< 90^{\circ}\text{C}$ , automatically recover normal output

### Overload Protection

- Automatically protect the device when the load exceeds 102% of the rated power. Automatically recover once load is reduced

### Overvoltage Protection

- Automatically protect the device when voltage exceeds the no-load voltage. It can be recovered automatically

### Short Circuit Protection

- Entering hiccup mode if short circuit occurs, and recover automatically

## Certificate of Conformity

### CE/RoHS

- Acc. to IEC 61347-1/Acc. to IEC 61347-2-13/Acc. to IEC 62384/Acc. to IEC 61000- 3-2/Acc. to IEC 61000-3- 3/Acc. to IEC 61547 /Acc. to IEC 60598-2-22

**MODEL: BSA-7W-EM-48V180-CH****Conversion kits LED**

the best match with ECGsmart LED tubes and external LED Driver solution for old ECG ballasts and CFL/FL replacement



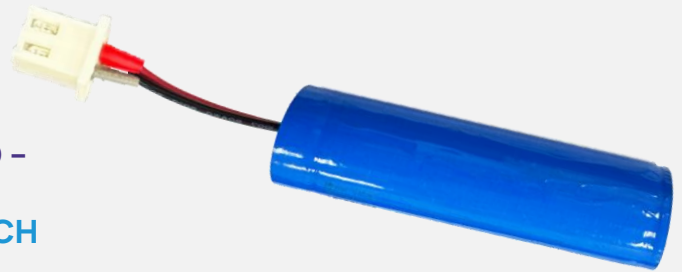
Product Model no.	ECGsmart LED series	Target replacement Old fluorescent lamp	# of tubes
<b>BSA-7W-EM-48V180-CH</b>	T5 HE 4W 136mm	T5 HE 4W 136mm FL	1
	T5 HE 4W 212mm	T5 HE 6W 212mm FL	1
	T5 HE 5W 288mm	T5 HE 8W 288mm FL	1
	T5 HE 7W 517mm	T5 HE 13W 517mm FL	1
	2G7 3W	2G7 5W CFL	1
	2G7 4W	2G7 7W CFL	1
	2G7 5W	2G7 9W CFL	1
	2G7 6W	2G7 11W CFL	1

**NOTE**

- The number or the range of number stands for how many LED lamps can be used in serial connection for that corresponding constant-current LED driver.
- The correct setting of output current of LED driver should be referred to the designated lamp current of ECGsmart LED lamp in its datasheet.
- Welcome OEM and ODM! Please contact us directly.

**Battery MODEL****Emergency lighting Conversion kits LED -**

the best match for **BSA-7W-EM-48V180-CH**

**BAT-10W-3V6-CH**

<b>Battery</b>	lithium-ion
<b>Duration</b>	3 Hours (One Cell) or Customized
<b>Battery Charging Time</b>	< 24-Hours or Customized
<b>Nominal voltage of battery</b>	3.6V 3Ah
<b>Nominal capacity of battery</b>	3,300 mAh, 10,000mAh max.
<b>Switching AC to DC</b>	< 0.1 sec.
<b>Charge Current</b>	62...1500mA
<b>Battery Discharge output current</b>	80mA Max.
<b>Size</b>	L.:81.8mm D.:21mm
<b>Battery Weight</b>	65g
<b>Ta</b>	Charge: 0... 45°C / Discharge: -20...-60°C

**BAT-20W-7V2-CH**

<b>Battery</b>	lithium-ion
<b>Duration</b>	3 Hours (2 Cell) or Customized
<b>Battery Charging Time</b>	< 24-Hours or Customized
<b>Nominal voltage of battery</b>	7.2V 3Ah
<b>Nominal capacity of battery</b>	3,300 mAh, 10,000mAh max.
<b>Switching AC to DC</b>	< 0.1 sec.
<b>Charge Current</b>	62...1500mA
<b>Battery Discharge output current</b>	80mA or 160mA Max.
<b>Size</b>	L.:145.6mm D.:21
<b>Battery Weight</b>	122g
<b>Ta</b>	Charge: 0... 45°C / Discharge: -20...-60°C