

LED Emergency Converter

Application

- The output voltage can be raised to 230Vdc, directly connected to the LED drive input (L,N)
- Integral LiFePO4 battery pack
- 4 years guarantee electronic
- 2 years guarantee battery
- With Self-Test series



Properties

- Maintained/Non-maintained operation
- 1.5h - 3h rated duration
- Automatic shutdown of output if LED load is out of range
- Constant power output, output current self-adjustable
- Electronic charge system
- Deep discharge protection
- Short-circuit-proof battery connection
- Open-circuit-proof
- Polarity reversal protection for battery

Technical Data

Rated supply voltage	220~240VAC
Mains frequency	50/60Hz
Mains input current, min	22mA
Mains input current, max	28mA
Input power in mains operation, min	2.7W±10%
Input power in mains operation, max	3.2W±10%
Battery charge time	16h/24h
Ambient temperature t_a	0°C~45°C
Max. Casing temperature t_c	60°C
Type of protection	IP20

1.All specifications are typical on the 230VAC unless otherwise stated.

2.The emergency function test must be performed when a battery is fully charged for 16 hours.

Battery Discharge & Charge Specifici

Parameter	Min.	Typ.	Max.	Note
Battery discharge current	300mA	-	400mA	* Measured at 6.4V input from batteries and "EM 2.5W"
Output voltage	80Vdc	-	230Vdc	
Output current	8mA	-	25mA	
Emergency power	2W	-	2.6W	

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Parameter	Min.	Typ.	Max.	Note
Battery discharge current	580mA	-	680mA	* Measured at 6.4V input from batteries and "EM 3.5W"
Output voltage	80Vdc	-	230Vdc	
Output current	7mA	-	35mA	
Emergency power	3W	-	3.6W	

Parameter	Min.	Typ.	Max.	Note
Battery discharge current	700mA	-	800mA	* Measured at 6.4V input from batteries and "EM 5W"
Output voltage	80Vdc	-	230Vdc	
Output current	12mA	-	50mA	
Emergency power	4.6W	-	5.2W	

Item Code	Batteries	Emergency Power	Emergency Duration	Charge Current	Charge Time
	6.4V/1500mAhLiFePO4 battery	2.5W	3h	200mA±10%	16h
	6.4V/1500mAhLiFePO4 battery	3.5W	2h	200mA±10%	16h
	6.4V/1500mAhLiFePO4 battery	5W	1.5h	200mA±10%	16h
	6.4V/1500mAhLiFePO4 battery	2.5W	3h	200mA±10%	16h
	6.4V/1500mAhLiFePO4 battery	3.5W	2h	200mA±10%	16h
	6.4V/1500mAhLiFePO4 battery	5W	1.5h	200mA±10%	16h

Note: All specifications are typical at 25°C unless otherwise stated.

Service Life

Average life-time 50,000 hours under rated conditions with a failure rate of less than 10% for the emergency converter as rated power. Average failure rate of 0.2% per 1000 operating hours.

Compliance

Safety Category	Countries	Standard
CE	Europe	EN61347-1, EN61347-2-7, EN61347-2-13
EMC Category	Countries	Standard
EMI	Europe	EN 55015
EMS	Europe	EN 61000-3-2, EN 61000-3-3, EN 61547

Rohs Compliance

Our products comply with the European Directive 2011/65/EU, calling for the elimination of lead and other hazardous substances from electronic products.

Safety Category	Countries	Standard
AS	Australia	AS/NZS 61347/ AS/NZS 61347.2.7

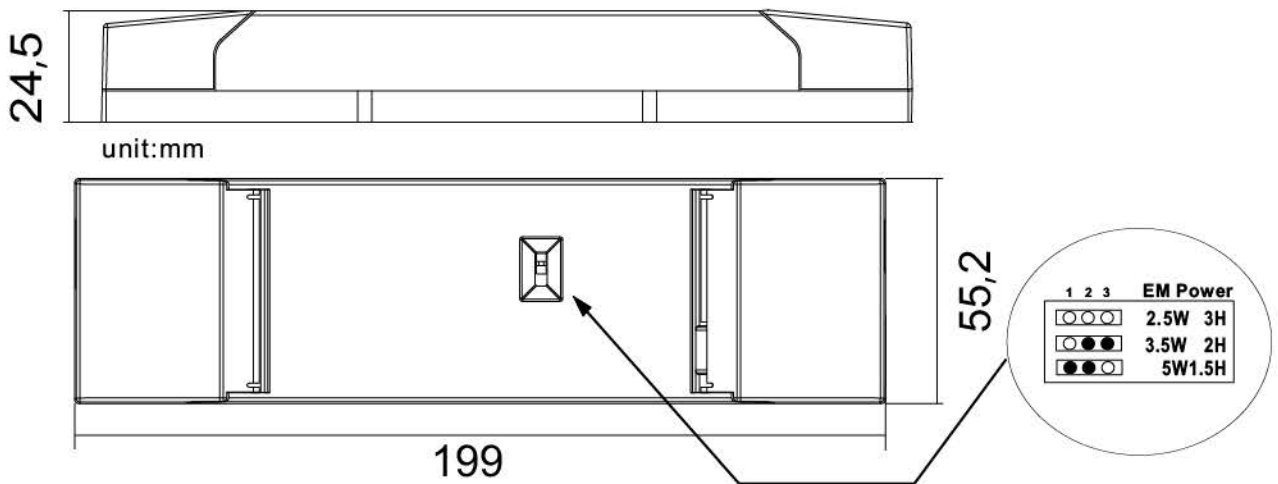
LED Emergency Converter

EMC Category	Countries	Standard
C-TICK(EMC)	Australia	AS/NZS CISPR 15
Rohs Compliance		

Our products comply with the European Directive 2011/65/EU, calling for the elimination of lead and other hazardous substances from electronic products.

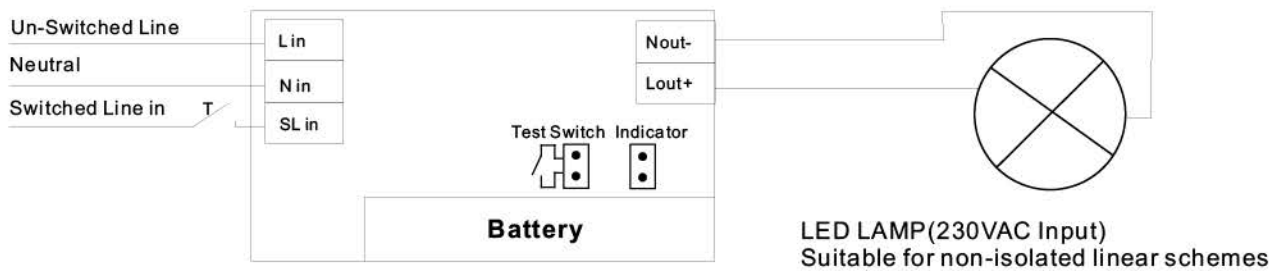
Mechanical Outline

unit:mm



Wiring Diagram

When charging, the maximum load power shall not exceed 24W

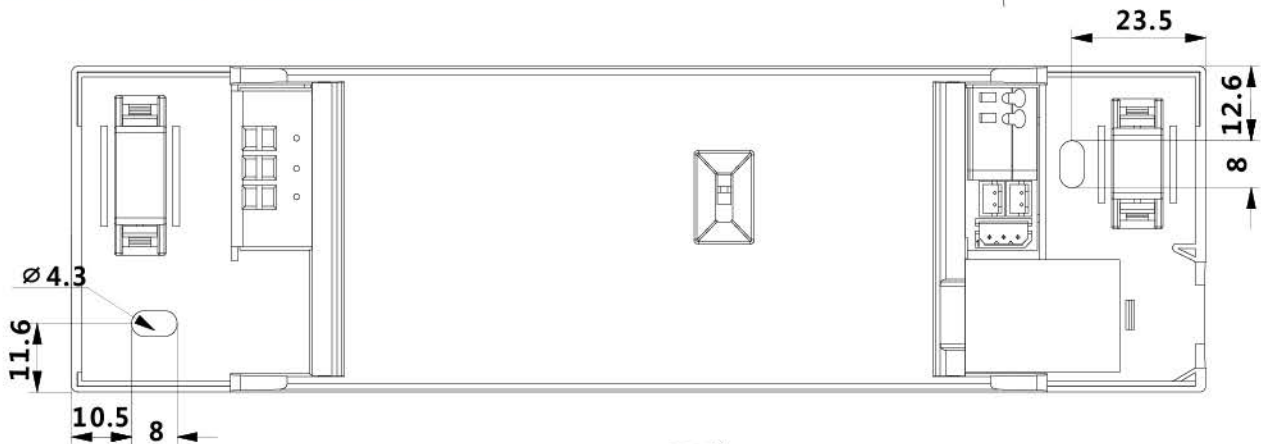


Notice: With the following cases, the indicator will be off.

1. Mains power off, the light goes into emergency mode.
2. Battery is disconnect when mains power on.
3. Battery be connected again after disconnected when mains power on
(Attention: In that case, please re-set the AC mains power)
4. When the SLin is connected, the LED light is under maintenance,
When SLin is disconnected, the LED lights are in a state of no maintenance.

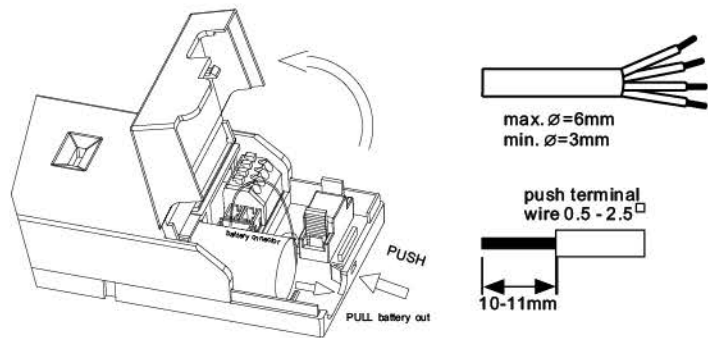
LED Emergency Converter

Mechanical Outline



Notice: Battery replacement steps:

1. Open the top cover first
2. take off the battery
3. setup the battery
4. Close up the cover



Notice:

- The battery should be changed when the battery be failed on charging's ability.
- The battery is replaceable
- Building insulation may about the sides of the led module
- If it is necessary to press the wire of the indicator light and the test button, it is necessary to fold the wire above the output wire.
- Built-in protection plate of battery pack with anti-reverse connection , short circuit, overcharge, overdischarge and other protection function.

Battery

- High-temperature grade battery cells
- 6.4V LiFePO4 battery
- Male/female socket for simple connection

LiFePO4 Battery

Case temperature range to ensure 4 years design life	0°C to +60°C
Battery voltage	3.2V per cell
Capacity 18650	1500mAh

Notice: Storage condition

- Batteries should be stored within the specified temperature range in low humidity conditions.
Optimal storage conditions are:
 - Temperature: -20°C to +40°C
 - Humidity: 45% - 85%
- Avoid atmosphere with corrosive gas
- It is recommended to disconnect the battery before storage or delivery
- Battery should be charged once in three months in order to keeping it in initial performance

Testing/Commissioning(self test)

Functionality of the test switch

- 1) A short press (>1s) on the button start a function test lasting 5 seconds (The battery's capacity should be more than 5%=charging 30mins)
- 2) Holding down the button(>10s) resets the timer(System-resets)

Functional test

The 5 second long, each 7 days' function test serves to check the functionality of the emergency unit, the batteries and LED module.

Notice.

-If a mains supply failure occurs whilst a functional test is in progress, the test shall be postponed and the system shall enter emergency operation. Following restoration of the mains supply, a postponed functional test shall re-commence automatically as soon as conditions permit.

Duration test(EU-3hrs)

- Initial duration test: The test will be carried out exactly 24hours later after the initial installation.
- Half year duration test: The test will be carried out on each 180-182days.

Duration test(AU)

- Initial duration test(2hrs): The test will be carried out exactly 16 hours later after the initial installation.
- Half year duration test: The test will be carried out on each 180-182days. 2hrs duration test on the first 180-182 days check the capacity of the batteries. 1.5hrs duration test is carried out on the next 180-182 days and yearly to check the capacity of the batteries.

Notice.

-A duration test shall only be started when the battery supply is fully charge if a mains supply failure occurs whilst a duration test is in progress, the test shall be postponed and the system shall enter emergency operation. Following restoration of the mains supply, a postponed duration test shall re-commence automatically when the battery supply is fully re-charge

-The indicator will be slow flashing Green within 5 days if the duration test be carried out successfully.

Indicator LED System status is locally by a bi-color indicator LED.

LED Indication	Status	Description
Permanent Green	Standby ,System OK	Mains Operation, battery is charged
Fast flashing Green (0.25s on 0.25s off)	Function test underway	Function test underway
Slow flashing Green (1s on 1s off)	Duration test underway	Duration test underway
Permanent Red	Lamp failure	Open Circuit or Short circuit or LED failure
Fast flashing Red (0.25s on 0.25s off)	Battery capacity failure	Battery failed duration test
Slow flashing Red (1s on 1s off)	Battery fault	Incorrect battery voltage or Short circuit or Open Circuit
Green and Red off	Battery Operation	Emergency mode:Mains disconnected or Mains failure

NOTICE

Fault status:

If an error is detected, the indicator LED switches to RED. If the error has been corrected please re-connecting the battery after the mains power off, the indicator LED immediately switches back to GREEN when mains power on.

NOTICE

Battery failed duration test:

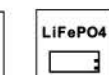
After an exchange of the battery and holding down the button (>10S) reset the timer, the indicator LED switches to GREEN.

Important:

It is recommended that the unit is installed by a competent person ensuring the installation complies with the necessary standards.

The company accept no responsibility for incorrect installation, incorrect operation or improper maintenance.

After installation of the fitting, the battery must be charged for 16 hours for duration test.



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Status Indication Green LED

- A green LED indicates that charging current is flowing into the battery
- Plug connection 1



Test Switch

- For connection to the emergency lighting unit
- For checking the device function
- Plug connection



Status Indication Green LED

- Plug connection 2

