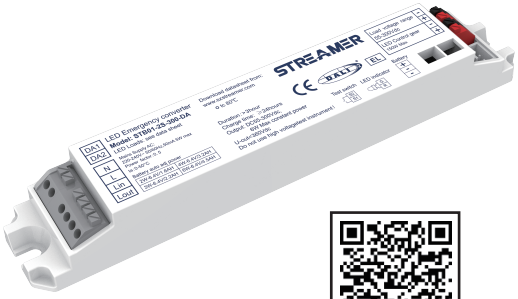
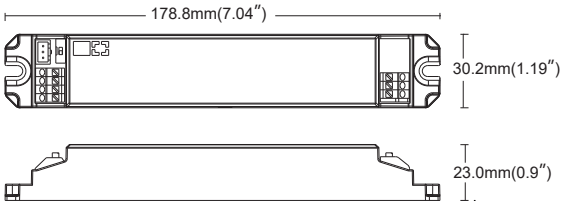
LED Emergency converter and battery
STB01 selftest series



GTIN

Dimension



Product description

- Emergency lighting LED driver with DALI interface and automatic test function
- LED emergency converter that can transfer standard LED fitting into emergency LED fitting.
- Used with Lithium iron phosphate battery.
- Suits for LED fitting with external led driver.
- Accessary: test switch and charge indicator.

Applications

-Use in damp and dry environment.

- For use on a wide range of LED fittings to convert them from standard to emergency fitting.
- LED fitting would be maintained emergency fitting if standard (main powered) driver, emergency lighting kit and battery are all retained in the circuit. LED fitting would be non-maintained emergency fitting if only emergency conversion module and battery are retained in the circuit.
- Additional Relay that can control standard LED driver.
- Deep discharge protection.
- Connector between emergency kit and battery has the function of polarity reversal protection.
- Ambient range ta 0....50℃
- IP20 protection, relies on end-product enclosure for protection against accidental contact live parts.
- Not intended for use in luminaries for high-risk task area lighting.
- Full warranty 5 years.

Relevant standard

IEC 61347-1:2015+A1:2021
IEC 61347-2-7:2012+A1:2019+A2:2022
EN 55015
EN 61547
EN 61000-3-2
EN 61000-3-3
EN 62493
DALI standard EN
62386-202, according to EN 60598-2-22, according to EN 50172

Ordering data

Model	Output voltage	Output emergency power *Constant power	Duration
STB01-2S-55-DA	DC 15-55V	DC 2W,3W,4W,6W	3 Hours
STB01-2S-300-DA	DC 55-300V	DC 2W,3W,4W,6W	3 Hours

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Naming rules

Emergency power kit	Nomenclature
	STB01 - 2S - 300 - DA 1 2 3 4
1. Basic series	STB01
2. Battery number of cells	2S: 2 Series connection
3. Output voltage (Emergency mode)	55: DC15-55V 300: DC55-300V
4. Interface	DA: Dalli-2

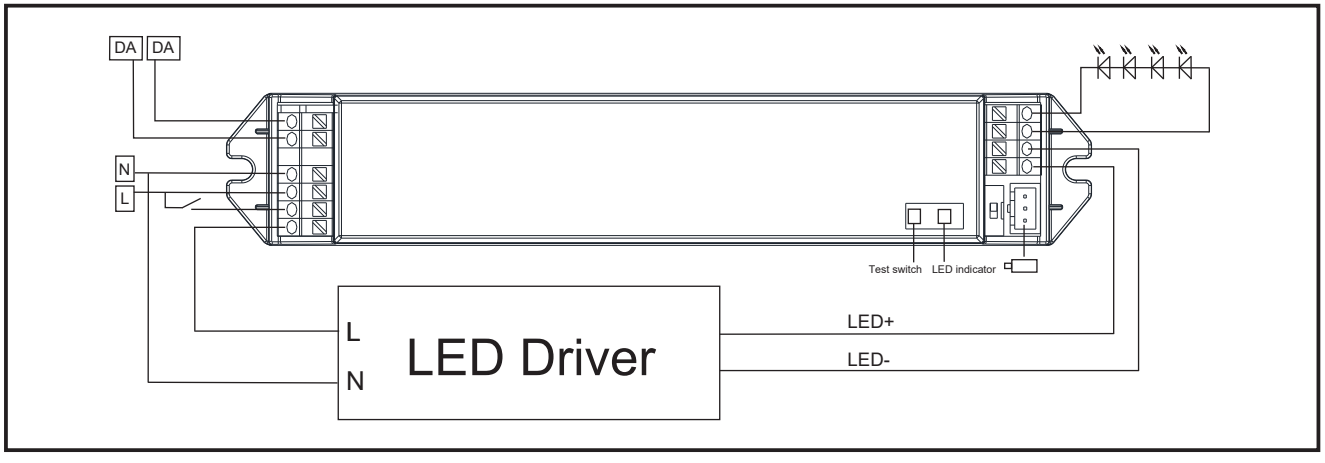
Technical data

- Input rated voltage: 220-240VAC, 50-60Hz
- AC input current: Actual external driver definition
- AC Input power: Actual external driver definition
- Power factor: >0.5
- Charge time : 24 hours
- Charge mode: trickle re-charging on battery
- Output emergency power: 2W-3W-4W-6W, Constant power output
- Output voltage DC15...55V(SELV) 64V max, DC55-300V 340V max
- Battery capacity (LiFePO4) 6.4V,1600mAh, 2200mAh,3200mAh 4500mAh
- Battery Charging Current: 0-240mA
- Max. casing temperature tc 85℃
- Reinforced insulation between mains supply and the battery circuit
- This unit can recharge the battery normally after reconnecting of battery

Install

- It should be built in lighting fixture.
- Only professional people (e.g. electrical Engineer) can wire it.
- Please confirm that the electrical parameters of this product match with the luminaire.
- Please check the wiring method carefully before installation.
- Please power off mains supply before installation, and confirm the wiring is correct, then connect the battery, the last step is to turn on mains supply.

Wiring diagram(Maintained)



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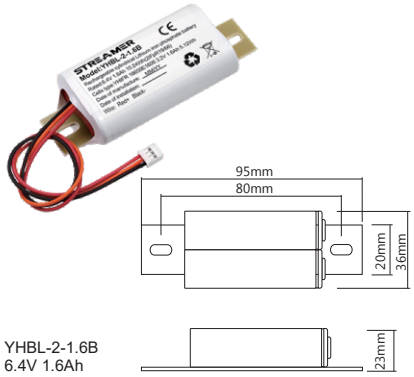
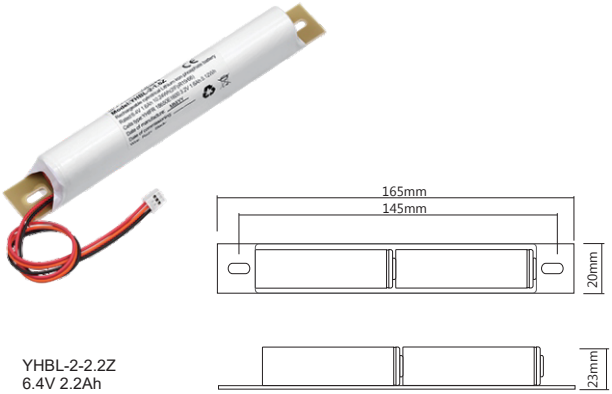
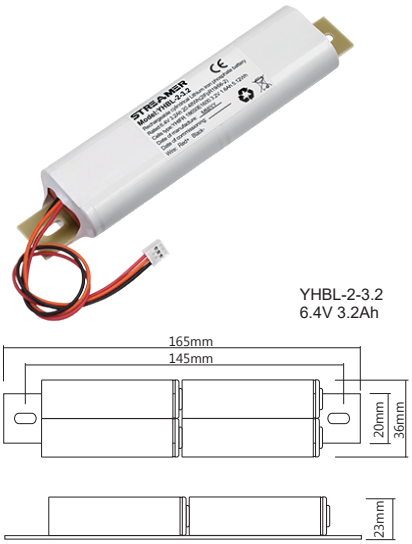


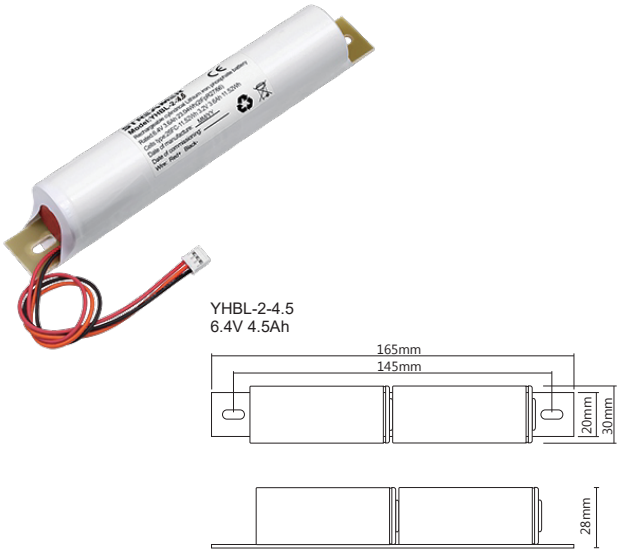
YHBL-2-1.6B
6.4V 1.6Ah



YHBL-2-2.2Z
6.4V 2.2Ah



YHBL-2-3.2
6.4V 3.2Ah



YHBL-2-4.5
6.4V 4.5Ah

Battery size and output emergency power

Model No.:	Battery pack L×W×H	Output emergency power *Constant power output
YHBL-2-1.6B	95×36×23mm 3.74×1.42×0.9″	2W
YHBL-2-2.2	95×36×23mm 3.74×1.42×0.9″	3W
YHBL-2-3.2	165×36×23mm 6.5×1.42×0.9″	4W
YHBL-2-4.5	165×30×28mm 6.5×1.18×1.1″	6W

*2S1P
S: Series connection
P: Parallel connection

Technical data

Battery model	YHBL-2-1.6B	YHBL-2-2.2	YHBL-2-3.2	YHBL-2-4.5
Battery voltage	6.4V	6.4V	6.4V	6.4V
Battery capacity	1600mAh	2200mAh	3200mAh	4500mAh
Charge Operating Temperature	0....+65°C	0....+55°C	0....+65°C	0....+55°C
Discharge Operating Temperature	-20....+65°C	-20....+55°C	-20....+65°C	-20....+55°C
Max short term temperature	75°C	65°C	75°C	65°C
Type of cells	18650-1600mAh	18650-2200mAh	18650-1600mAh	26700-4500mAh
Number of cells	2cells 2S1P	2cells 2S1P	4cells 2S2P	2cells 2S1P

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SelfTest

The emergency kits carry out self-tests automatically to ensure its functionality.
The self-test includes 2 types of tests:
- Before connecting DALI system: EM pack follow its own self test mode
- After connecting DALI system: DALI system can customize self test mode.

Functional test

- Refers to charging, discharging and the functioning of load.
- Carry out for 10 seconds automatically every 7 calendar days.

Duration test

- Refers to the test of batteries capacity.
- Carry out every 360 calendar days.

Please note

If mains supply is off during self-test period, emergency conversion module would terminate self-test immediately and go into emergency mode.
Self-test is under the regulation of EN62034.

Explanation of LED indicator

	Color	LED indication	Status	Comment
	Green	Permanent green	Charging Mode Fully Charged	AC mode
	Green	Fast flashing green (0.1 sec on, 0.1 sec off)	Function test underway	
	Green	Slow flashing green (1 sec on, 1 sec off)	Duration test underway	
	Red	Permanent red	Load failure	Open circuit/ Short circuit Led failure (emergency mode)
	Red	Slow flashing red (1 sec on, 1 sec off)	Battery failure	Battery failed the duration test or function test / No battery
	Red	Fast flashing red (0.1 sec on, 0.1 sec off)	Low battery	

LED Holder

Test switch

The test button is a open switch , if you press it, it connects, and then you release it, it cuts off automatically.
When you are doing the daily maintenance , if you press the test button, the emergency driver goes into emergency mode, if you release the button, the emergency driver will go back to normal mode.

LED indicator

It can reflect charging or not charging. LED charging monitor will be light if battery is connected while it will be off without battery connecting.