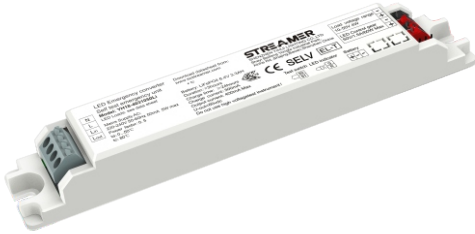


LED Emergency converter and battery YH18 selftest series



EL-T

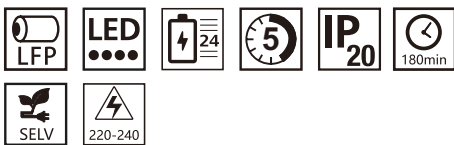


Product description

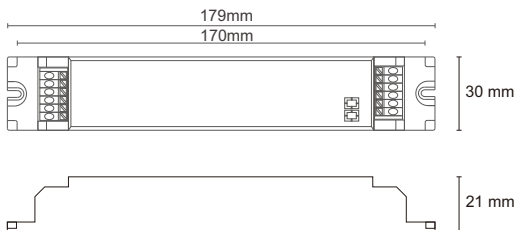
- Selftest function.
- LED emergency converter that can transfer standard LED fitting into emergency LED fitting.
- Used with Lithium iron phosphate battery.
- Suits for LED fitting with external led driver.
- Accessory: test switch and charge indicator.

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 to 0...65°C
- 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.



Dimension



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
AS/NZS 60598-2-22
AS2293.3



LED Emergency converter and battery YH18 selftest series

Naming rules

| Emergency power kit | Nomenclature |
|---------------------------------------|--|
| | YH18 - <u>2</u> <u>03</u> <u>1050</u> <u>Li</u> 1 2 3 4 5 |
| 1. Basic series | YH18 |
| 2. Power(Emergency mode) | 2: 2W ; 3: 3W; 4: 4W; 6: 6W |
| 3. Duration | 03: 180minutes |
| 4. Output voltage (Emergency mode) | 1050: 10V to 50V H300: 50V to 300V |
| 5. Battery | Li: LiFePO4 Battery |

Technical data

- Input rated voltage: 220-240V AC, 50-60Hz
- AC input current: 50mA
- AC Input power: 3.5W max
- Power factor: >0.5
- Charge time : 24 hours
- Charge mode: trickle re-charging on battery.
- Output emergency power 2-6 wattage DC10...50V, DC50-300V, Constant power output.
- Output voltage DC10...50V(SELV), DC50-300V 350V max
- Battery capacity (LiFePO4) 1600mAh, 2200mAh, 3200mAh, 4500mAh
- Battery Charging Current: 0-350mA
- 3 hours rated duration
- Max. casing temperature tc 80°C
- Lumen Factor: 140lm/Wattage
- Reinforced insulation between mains supply and the battery circuit.
- This unit can recharge the battery normally after reconnecting of battery.

Ordering data

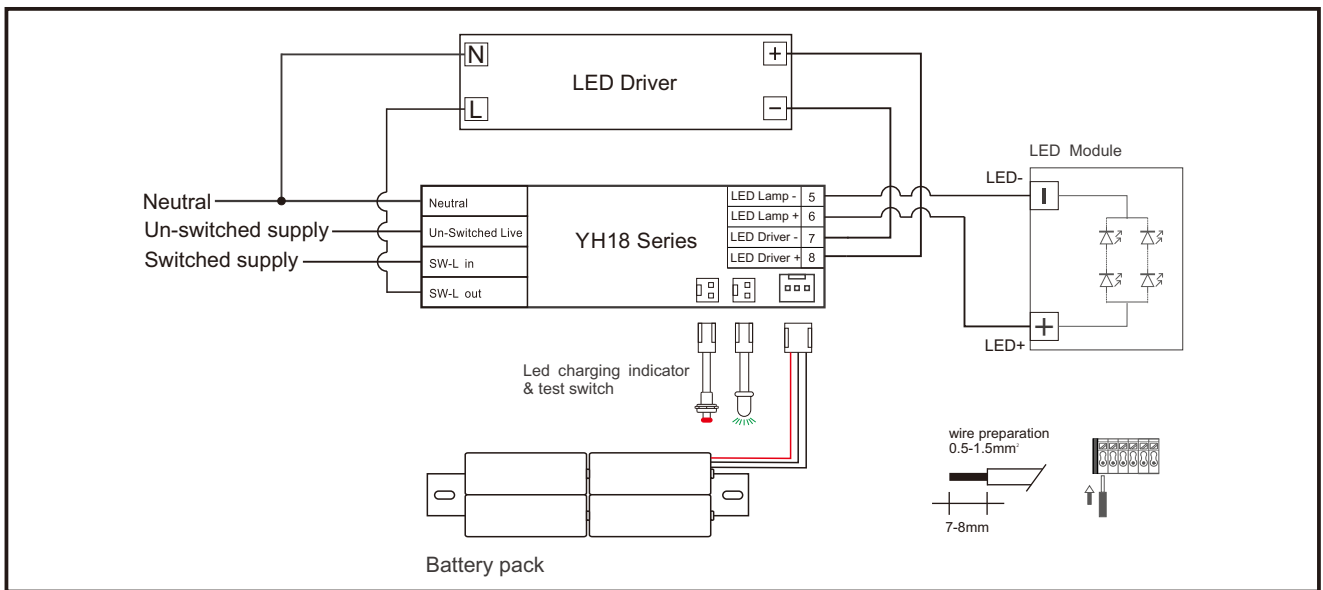
| Type | Mode *Constant power | Battery | Duration | Qty /Carton |
|----------------|-------------------------|-------------------|----------|----------------|
| YH18-2031050Li | DC 10-50V 2W | LiFePO4 6.4V1.6AH | 3 Hours | 25pcs |
| YH18-203H300Li | DC 50-300V 2W | LiFePO4 6.4V1.6AH | 3 Hours | 25pcs |
| YH18-3031050Li | DC 10-50V 3W | LiFePO4 6.4V2.2AH | 3 Hours | 25pcs |
| YH18-303H300Li | DC 50-300V 3W | LiFePO4 6.4V2.2AH | 3 Hours | 25pcs |
| YH18-4031050Li | DC 10-50V 4W | LiFePO4 6.4V3.2AH | 3 Hours | 25pcs |
| YH18-403H300Li | DC 50-300V 4W | LiFePO4 6.4V3.2AH | 3 Hours | 25pcs |
| YH18-6031050Li | DC 10-50V 6W | LiFePO4 6.4V4.5AH | 3 Hours | 25pcs |
| YH18-603H300Li | DC 50-300V 6W | LiFePO4 6.4V4.5AH | 3 Hours | 25pcs |

LED Emergency converter and battery YH18 selftest series

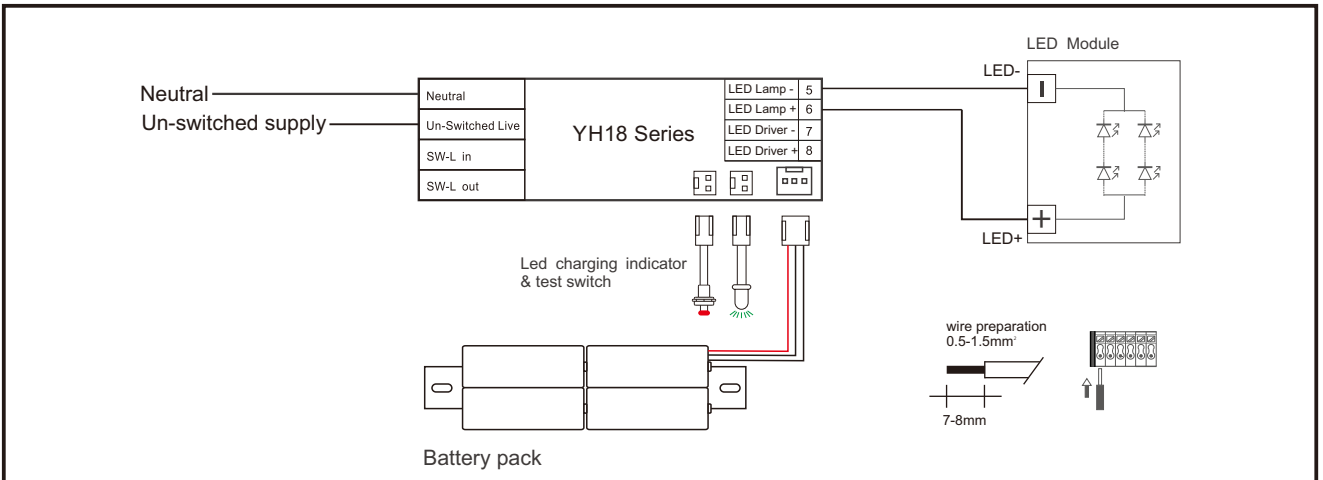
Install

- 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.

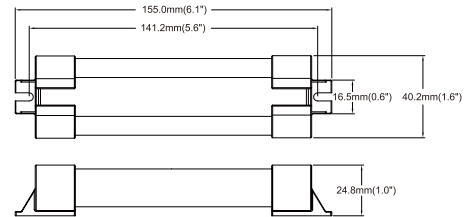
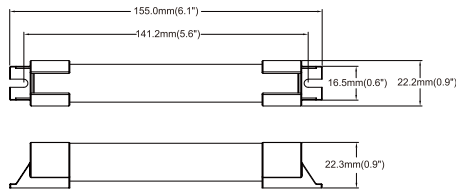
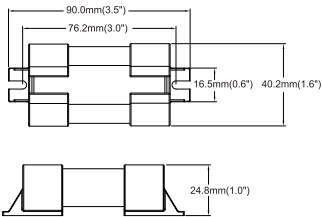
Wiring diagram(Maintained)



Wiring diagram(Non-maintained)



LED Emergency converter and battery YH18 selftest series



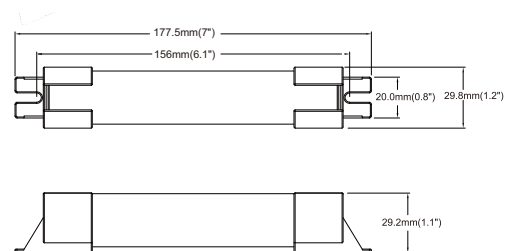
Battery

| Battery type | Battery model |
|--------------------|---------------|
| LiFePO4 6.4V 1.6Ah | YHBL-2-1.6B |
| | YHBL-2-1.6Z |
| LiFePO4 6.4V 2.2Ah | YHBL-2-2.2 |
| LiFePO4 6.4V 3.2Ah | YHBL-2-3.2 |
| LiFePO4 6.4V 4.5Ah | YHBL-2-4.5 |

*YH18 series are all available with LiFePO4 batteries
If you need more details of spec, please go to www.szstreamer.com for downloading.

Battery Declaration

- Batteries' lifetime is 6 years. If you are using or stocking the batteries for 5 years, please replace the batteries.
- Battery pack have temperature control.
The battery charge won't start if the cell temperature is below Tcmin or above Tcmax.
- The batteries can not be charged for 5000 hours consistently.
It should be discharged for once at least, during the 5000 hours charging time.



Battery size

| Model No.: | Battery pack L×W×H |
|-------------|--------------------------------|
| YHBL-2-1.6B | 90×40.2×24.8mm 3.54×1.58×0.98" |
| YHBL-2-1.6Z | 155×22.2×22.3mm 6.1×0.87×0.88" |
| YHBL-2-2.2 | 90×40.2×24.8mm 3.54×1.58×0.98" |
| YHBL-2-3.2 | 155×40.2×24.8mm 6.1×1.58×0.98" |
| YHBL-2-4.5 | 177.5×29.8×28.2mm 7×1.17×1.15" |

Technical data

| Battery model | YHBL-2-1.6B/Z | 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 |

*2S1P
S: Series connection
P: Parallel connection

LED Emergency converter and battery YH18 selftest series

SelfTest

The emergency kits carry out self-tests automatically to ensure its functionality.

The self-test includes 3 types of tests:

Initial test

- As soon as mains supply is connected, the emergency kit will carry out a 3-seconds functional test automatically.
- In case of a failure, the LED will turn permanent red. Otherwise, the charge mode will start.

Functional test

- Refers to charging, discharging and the functioning of load.
- Carry out for 10 seconds automatically every 30 calendar days.

Duration test

- Refers to the test of batteries capacity.
- Carry out every 180 calendar days.

Rest mode

Rest mode can be initiated during emergency mode by pressing test switch longer than 3 seconds.







The rest mode will be exited automatically after reconnect AC mains.

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 |
|  | | Green and red off | DC mode | Battery operation (emergency mode) |



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.