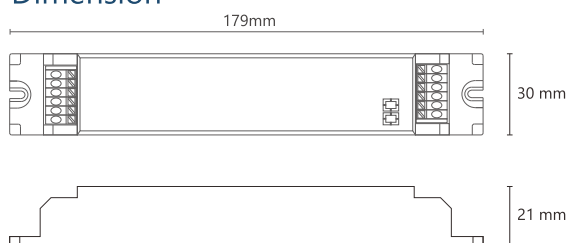


LED Emergency Power Kit YH18 Series self-test unit



Dimension



Relevant standard

IEC 61347-1
IEC 61347-2-7
EN 62034
EN 55015
EN 61547
EN 61000-3-2
EN 61000-3-3
EN 62493
IEC/AS/NZS 60598-2-22
AS2293.3



Product description

- Self-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.
- 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 t_a 0...60°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.
- Warranty:
5 years for Emergency driver and battery.



LED Emergency Power Kit

YH18 Series self-test unit

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 3060: 30V to 60V H300: 50V to 300V H300: 90V to 300V
5. Battery	Li: LiFePO4 Battery

Technical data

- Input rated voltage: 220-240V AC, 50-60Hz
- AC input current: 50mA
- AC Input power: 5W max
- Power factor: 0.6
- Charge time : 24 hours
- Charge mode: trickle re-charging on battery.
- Output emergency power 2-6 wattage DC10...50V,DC30...60V, DC50-300V,DC90-300V Constant power output.
- Output voltage DC10...50V, DC30...60V DC55V max(SELV)
- Battery capacity (LiFePO4) 1500mAh, 2200mAh, 3000mAh. 6600mAh.
- 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

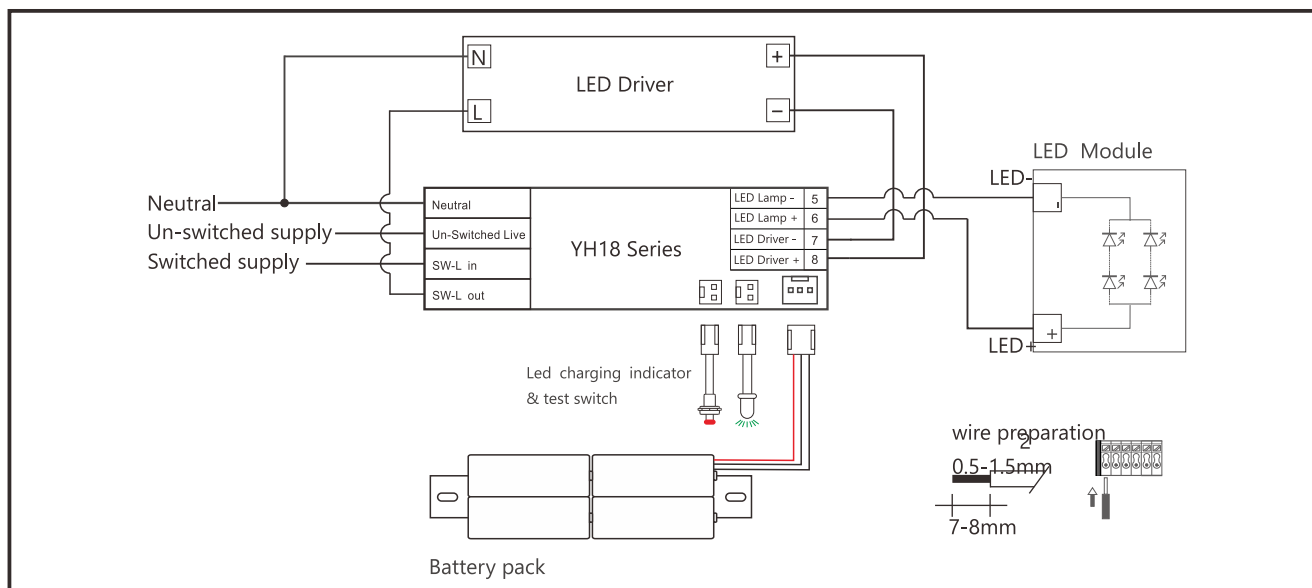
Type	Mode *Constant power	Battery	Duration	Qty /Carton
YH18-2031050Li	DC 10-50V 2W	LiFePO4 6.4V1.5AH	3 Hours	25pcs
YH18-203H300Li	DC 50-300V 2W	LiFePO4 6.4V1.5AH	3 Hours	25pcs
YH18-3031050Li	DC 10-50V 3W	LiFePO4 6.4V2.2AH	3 Hours	25pcs
YH18-303H300Li	DC 50-300V 3W	LiFePO4 6.4V2.2AH	3 Hours	25pcs
YH18-4031050Li	DC 10-50V 4W	LiFePO4 6.4V3.0AH/3.3AH	3 Hours	25pcs
YH18-403H300Li	DC 50-300V 4W	LiFePO4 6.4V3.0AH/3.3AH	3 Hours	25pcs
YH18-6033060Li	DC 30-60V 6W	LiFePO4 6.4V6.6AH	3 Hours	25pcs
YH18-603H300Li	DC 90-300V 6W	LiFePO4 6.4V6.6AH	3 Hours	25pcs

LED Emergency Power Kit YH18 Series self-test unit

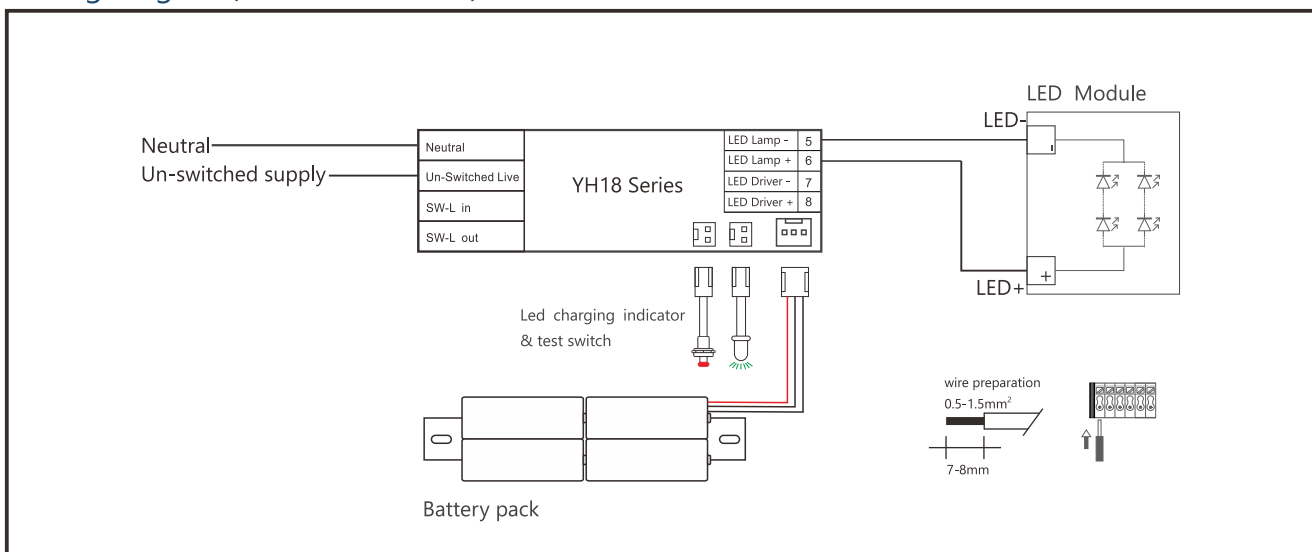
Install

- 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 Power Kit

YH18 Series self-test unit

Battery properties

- LiFePO4 battery.
- High-temperature range operation at 0...60°C.
- Complies with IEC62133,IEC61960,IEC62620.
- Suitable for emergency lighting equipment as per IEC60598-2-22.
- IFR18650, IFR26650 battery cells.

Battery

Battery type	Battery model
LiFePO4 6.4V 1.5Ah	YHBL-2-1.5B
	YHBL-2-1.5Z
LiFePO4 6.4V 2.2Ah	YHBL-2-2.2
LiFePO4 6.4V 3.0Ah	YHBL-2-3.0
LiFePO4 6.4V 3.3Ah	YHBL-2-3.3Z
LiFePO4 6.4V 6.6Ah	YHBL-2-6.6Z

*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 4 years. If you are using or stocking the batteries for 4 years, please replace the batteries.
 - The batteries can not be charged for 5000 hours consistently.
- It should be discharged for once at least, during the 5000 hours charging time.

Size

Model No.:	Battery pack
	L×W×H
YHBL-2-1.5B	90×36×23mm 3.5×1.4×0.9"
YHBL-2-1.5Z	160×20×23mm 6.3×0.8×0.9"
YHBL-2-2.2	130×36×23mm 5.1×1.4×0.9"
YHBL-2-3.0	165×36×23mm 6.3×1.4×0.9"
YHBL-2-3.3Z	168×30×30mm 6.6×1.18×1.18"
YHBL-2-6.6Z	300×30×30mm 11.8×1.18×1.18"

Technical data(battery cells)

Battery model	IFR18650-1500	IFR18500-1100	IFR26650-3300
Battery voltage per cell	3.2V	3.2V	3.2V
Battery capacity per cell	1500mAh	1100mAh	3300mAh
Battery case temperature	0...60°	0...60°	0...60°
Max short term temperature	70°	70°	70°

Ordering data

Model No.:	Rated	Type	Number of cells	Battery cells type
YHBL-2-1.5B	6.4V 1.5AH 9.6Wh	IFR18650-1500 2s1p	2	IFR18650-1500
YHBL-2-1.5Z	6.4V 1.5AH 9.6Wh	IFR18650-1500 2s1p	2	IFR18650-1500
YHBL-2-2.2	6.4V 2.2AH 14.4Wh	IFR18500-1100 2s2p	4	IFR18500-1100
YHBL-2-3.0	6.4V 3.0AH 19.2Wh	IFR18650-1500 2s2p	4	IFR18650-1500
YHBL-2-3.3Z	6.4V 3.3AH 21.12Wh	IFR26650-3300 2s1p	2	IFR26650-3300
YHBL-2-6.6Z	6.4V 6.6AH 42.24Wh	IFR26650-3300 2s2p	4	IFR26650-3300

*2S1P
S: Series connection
P: Parallel connection



YHBL-2-1.5B



YHBL-2-1.5Z



YHBL-2-3.0
YHBL-2-2.2



YHBL-2-6.6Z

YHBL-2-3.3Z

LED Emergency Power Kit

YH18 Series self-test unit

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.

LED Emergency Power Kit

YH18 Series self-test unit

Attention

- To guarantee the rated discharge time, please charge the battery for more than 24 hours.
Please ensure that the voltage is 80% higher than the rated voltage, less than 110% of the highest rated voltage.
- Charge and discharge cycle needs to be done at least once every three months, and the continuous charging time can not exceed 3 months.

Caution in Transportation

- The outside packing for Ni-Cd battery must be strong enough to prevent from damage during carriage or due to vibration in transportation.
- Outside packing is prohibited being pressed by other heavy load, so as to avoid the battery being pressed.
- Battery must be protected from short circuit, and preventive measures must be taken to avoid contacting conductive materials in the same package which may lead to short-circuit.
- Must avoid transportation with liquids, like water; Avoid damp, raining or watering on it.
- Must be transported at half-charged state (40-70%)
- If transported after installed in equipment, must guarantee:
 - The equipment must be fixed to prevent the battery from moving in the package, and measures must be taken to prevent the battery from starting operation in accident during transportation.
 - The outside packing shall be water-proof or by using inner polybag as lining for water-proof purpose unless the structure of equipment itself has the feature of water-proof.

Caution in storage

- Battery must be stored at -10°C-45°C in clean, dry and ventilated room place.
- The package must be strong enough to avoid the battery being crushed or crimped.
- Must be store far away from the fire and heat sources, and from strong magnetic circumstances.
- Avoid contacting corrosive materials, Keep away from moisture, raining and water.
- Charge and discharge the battery for 1 cycle every 6 months during storage.

Warranty notes

- Except for the following circumstances:
 - 1) Improper installation or operation.
 - 2) Misuse.
 - 3) Abuse.
 - 4) Unauthorized or improper repair alteration.
 - 5) Accident or negligence in use, storage, transportation.
 - 6) Any natural acts.

