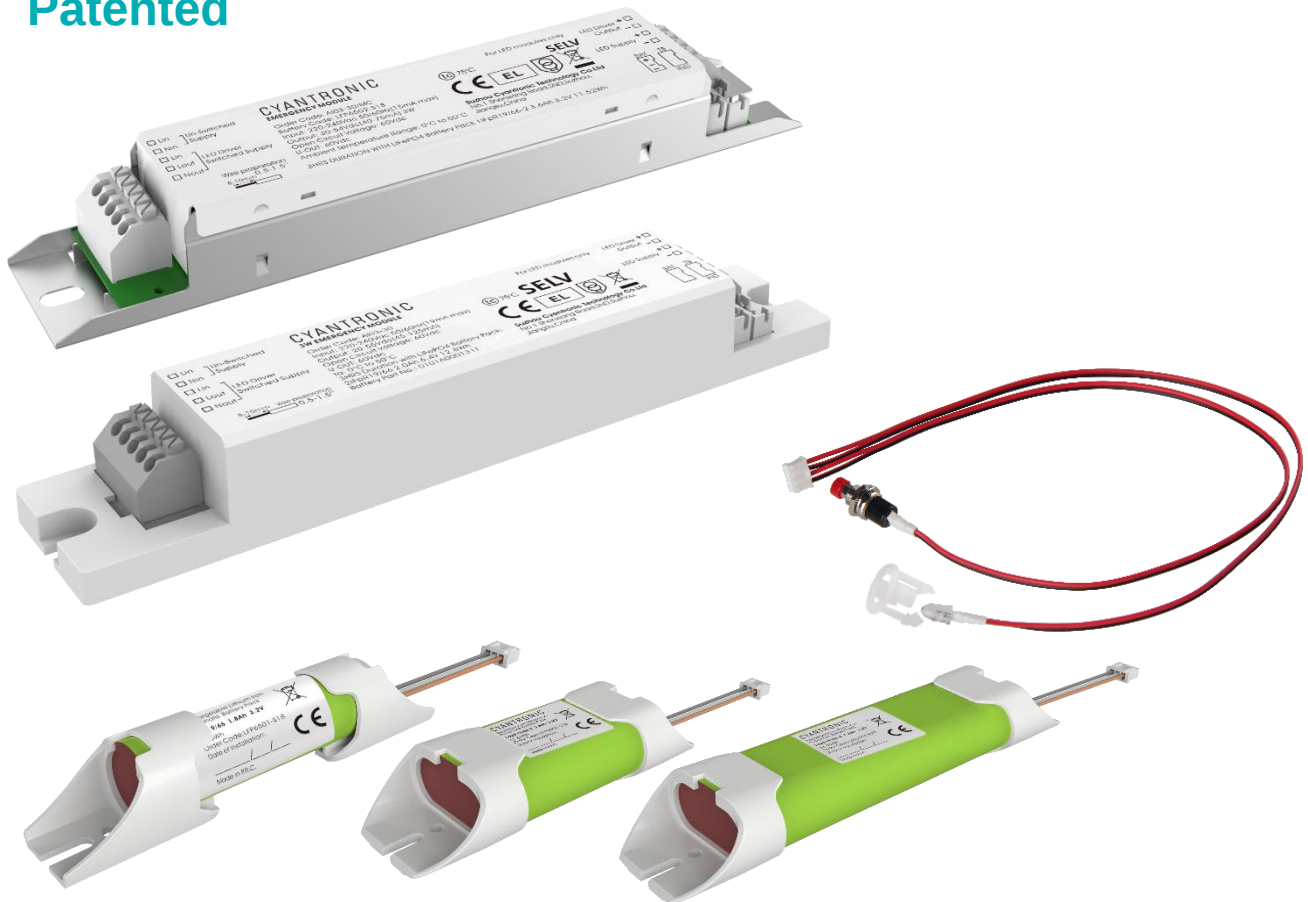


α-i

Manual-test Internal Emergency Module for LED Linear Luminaires with Isolated Driver

Patented



Product Information

This emergency module is used in LED luminaires with integrated LEDs and separate isolated LED drivers. It is designed for installing within the fitting to provide a battery back-up supply in the event of a power cut. The emergency module requires a permanent live un-switched supply to maintain the battery charge. In the event of a power cut, the battery will supply the luminaires at a reduced output.

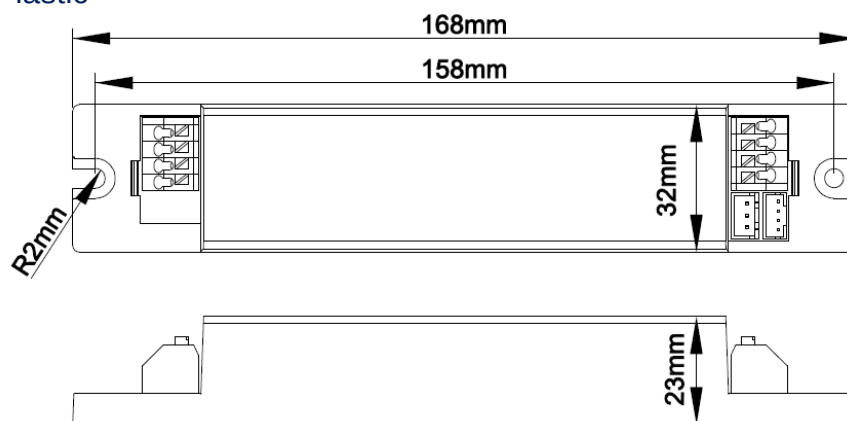
Features

- For LED modules with a forward voltage of 20-55Vdc
- For maintained or non-maintained emergency lighting systems
- Conforms to EN 61347-1 and EN 61347-2-7
- Wired between LED driver and LED module via terminals
- Suitable for use in luminaires for high-risk task area lighting
- Voltage change-over threshold according to EN 60598-2-22
- 1.5 hours or 3 hours rated duration
- LiFePO4 battery pack
- Over-charge, over-current, short-circuit and deep discharge protection for battery
- Green status LED indicator
- Constant power output
- For built-in
- Battery charging temperature control

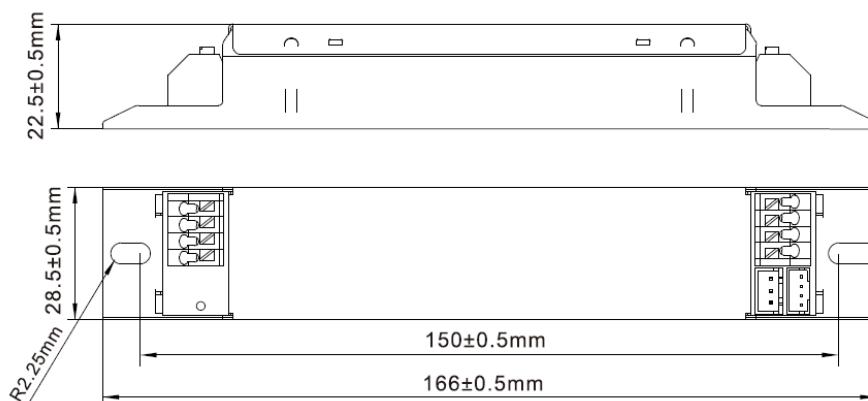
Dimensions

Emergency Module

Plastic

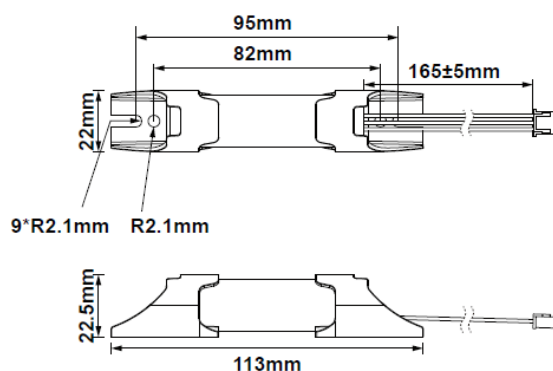


Metal

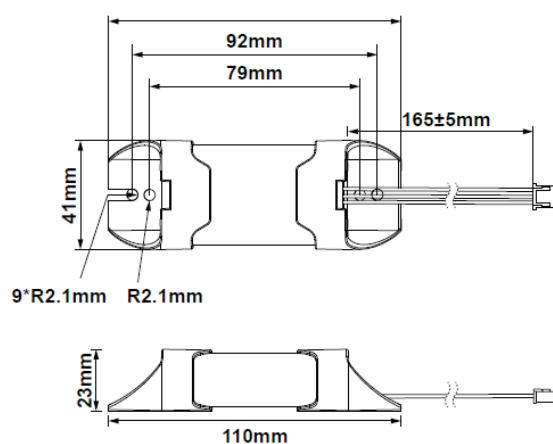


Battery Pack

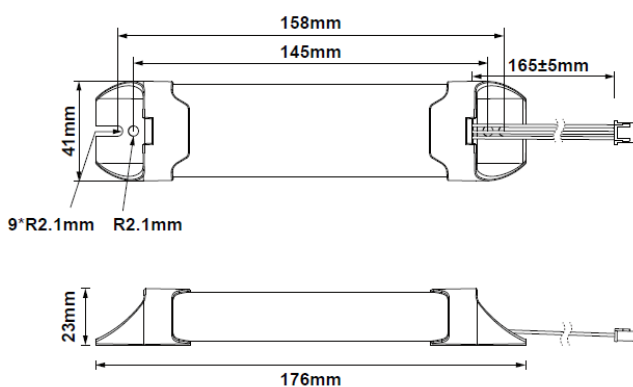
1IFpR19/66 1.8Ah 3.2V



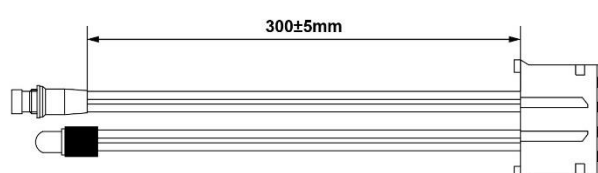
2IFpR19/66 2.0Ah 6.4V



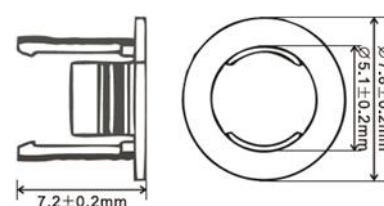
2IFpR19/66-2 4.0Ah 6.4V



Indicator&Test Button Cable



Indicator Holder



Product Code	AI03-30	AI03-15	AI05-30	AI05-15
	AI03-30/MC	AI03-15/MC	AI05-30/MC	AI05-15/MC
Input Parameters				
Rated Input Voltage Range	220-240Vac			
Operation Input Voltage Range	198-264Vac			
Input frequency	50/60Hz			
Input Wattage (max)	3.5W @Rated Input Voltage & Battery full discharge		4W @Rated Input Voltage & Battery full discharge	
Input Current (max)	19mA @Rated Input Voltage & Battery full discharge		21mA @Rated Input Voltage & Battery full discharge	
Input PF	PF:0.8 @Rated Input Voltage & Battery full discharge		PF:0.8 @Rated Input Voltage & Battery full discharge	
Overvoltage Protection	No			
Input Connection	Push-fit terminals 0.5-1.5mm ²			
Output Parameters				
Regulation Method	Constant Wattage			
Battery Output Wattage(max)	3W Max		5W Max	
Rated Output Wattage	2.5W Max		4W Max	
Rated Output Voltage Range	20-55Vdc			
Rated Output Current Range	45-125mA		73-200mA	
Max. Open Circuit Voltage	60Vdc			
U-OUT	60Vdc			
Short-circuit Protection	Yes (For battery)			
Open Circuit Protection	No			
Output Connection	Push-fit terminals 0.5-1.5mm ²			
Output Hot Plug-in	When the driver is powered on and the battery is connected, reconnecting the LED luminaire is not allowed.			
Safety				
Input to Output Protection	Double Insulation			
Battery to Output Protection	Basic Insulation			
Mains Surge Capability	L-N:1KV			
IP Protection	IP20			

Emergency Information				
Mains Voltage Changeover Threshold	144-187Vac			
Emergency Operation Time	3h	1.5h	3h	1.5h
Emergency Conversion Time	<1s			
Test Function	Manual test 1. Hold down the test button for a quick functional test. 2. Switched off the un-switched supply for a 3-hour test after 24 hours fully charge.			
Environment & Life time				
Operating Temperature Range	Ta:0 to 50°C			
Maximum Case Temperature	Tc:75°C			
Operating Humidity	<75% RH (Not Condensing)			
Operating Altitude	≤3000m			
Driver Storage temp./humidity	-20-50°C(≤75% RH)			
Driver Guarantee	5 Years			
Certifications and Standards				
Certifications	ENEC, CB, CE, RCM			
Safety	EN 61347-1, EN 61347-2-7			
EMC	EN 55015, EN 61000-3-2, EN 61000-3-3, EN 61547			
RoHS	Directive 2011/65/EU with amendment (EU) 2015/863			
Reach	No.1907/ 2006(EC) SVCH 240			
Patent				
EP3229557B1	EMERGENCY LIGHTING			
CN109640479B	一种兼恒功率输出的应急驱动的照明装置			

Battery Pack			
Battery Model	1IFpR19/66 1.8Ah 3.2V (for 3W 1.5h)	2IFpR19/66 2.0Ah 6.4V (for 3W 3h / 5W 1.5h)	2IFpR19/66-2 4.0Ah 6.4V (for 5W 3h)
Cell Type	LiFePO4 18650 3.2V 1800mAh	LiFePO4 18650 3.2V 2000mAh	LiFePO4 18650 3.2V 2000mAh
Number of cells	1	2	4
Series-parallel Combination	1S1P	2S1P	2S2P
Rated Battery Capacity	1800mAh	2000mAh	4000mAh
Rated Battery Voltage	3.2V	6.4V	6.4V

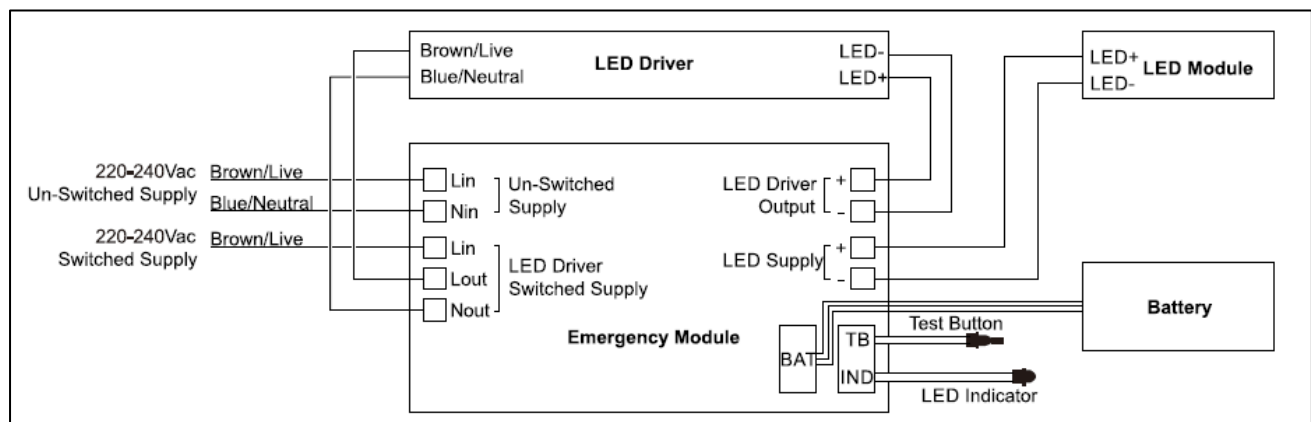
Battery Energy	5.76Wh	12.8Wh	25.6Wh
Battery Charge Voltage	3.65±0.1V	7.3±0.1V	7.3±0.1V
Battery Charge Current	Max.250mA	Max.250mA	Max.280mA
Battery Discharge Voltage	2.5-3.6V	5.0-7.2V	5.0-7.2V
Battery Discharge Current	900-960mA	450-480mA(3W,3h) 750-870mA(5W,1.5h)	750-870mA
Charging Time	24h	24h	24h
Charge Temperature Range Tcmin-Tcmax	0 to 65°C	0 to 65°C	0 to 65°C
Battery Design Life	5 Years at 50°C	5 Years at 50°C	5 Years at 50°C
Max. storage time	12 months at +5 °C to +25 °C	12 months at +5 °C to +25 °C	12 months at +5 °C to +25 °C

Customizable Accessories

Type	Description
LED indicator & Test button cable	Green status LED indicator and test button cable with 4-pole plug
Extension cable for battery	Extension cable for battery with 3-pole plug, available in 75mm or 130mm

Wiring Diagram

Driver output current ≤ 2A



Drive output current > 2A

