

**EMERGENCY PACK FOR LED PANEL
TECHNICAL DATA SHEET**



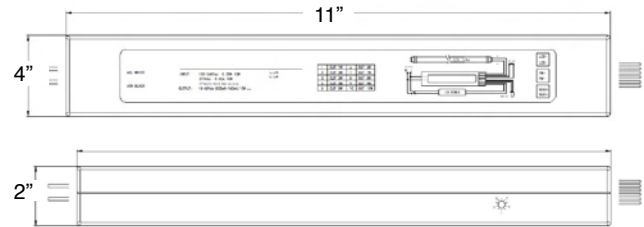
FEATURES



SPECIFICATIONS	
Power Consumption	10W
Output Voltage	18~59Vdc
MAX Input Current	500 mA
Emergency Time	90 Minutes
Battery Specification	14.4V/2000mAH
Dimension (Inches)	11"(L) x 4"(W) x 2"(H)
Weight	1.3 lbs

The product is designed especially for the emergency driver of LED lighting with external driver, accordance with the requirement of the UL certification.

DIMENSIONS



ORDERING

DESCRIPTION	WATT	VOLT	BASE	CASE
EMERGENCY PACK FOR LED PANEL10W/90 MIN/V4- SUPERIOR LIFE®	10	120-277V	HARD WIRE	1

CHARACTERISTICS

1. The emergency output range is applicable for 8~18 individual LEDs connected in a LED series. The kit will automatically identify the corresponding individual LED and the match voltage and current within the series.
2. The user can set the emergency amount of output power from 1 to 10 watts using the dial on the side. The kit will then assign consistent power, voltage and current automatically according to the number of LED series.
3. The emergency power supply complies with fire controls safety requirements of 90 mins at the maximum 10W. This time can be greatly extended when a lower output power is selected.
4. The emergency power supply has an integrated design, battery and circuit assembly with easy installation.

Basic Function

Input voltage range: 100 ~ 277 Vac. Input frequency range: 45-65 Hz.

When the electrical supply is working normally the battery is charged from emergency kit, the electric supply is shift to the output of emergency module and power is supplied to the LED series. When the electrical supply goes off, the kit provides emergency power to the LED series. Based on the output power selected the kit will automatically detected and assign consistent power, voltage and current accordingly.

Charge according to the Nickel Metal Hydride Battery (nimH) requirements. Rated power of LED series is less than 100W and the load is less than 10w under the emergency condition with battery management function.

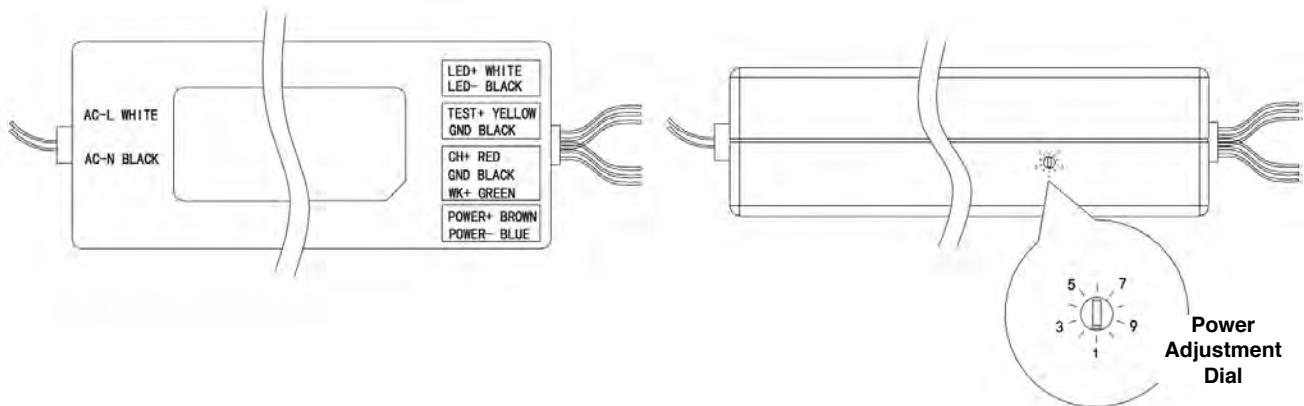
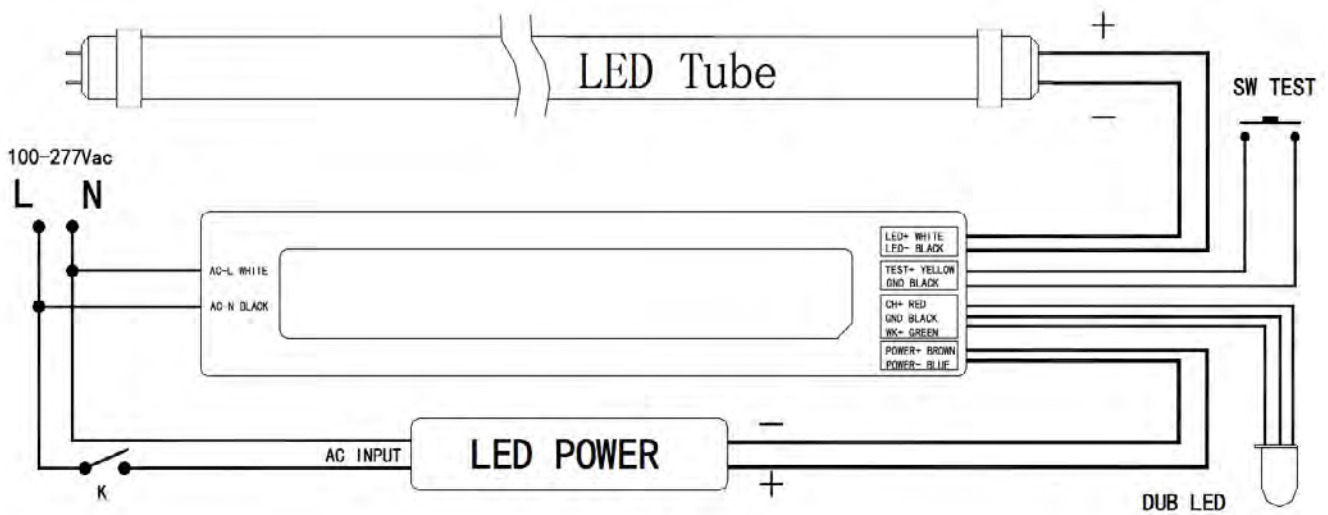
It also has over current, short circuit, battery low-voltage protection and battery low-voltage alarm function. It can be tested by switch whether the emergency function is normal or not when connect the to an electrical supply.

The product has natural transmit heat dissipation; complies with security approved design requirements of good appearance, stable function and high reliability.

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INPUT TERMINAL DEFINITION		
DESCRIPTION	ELECTRIC DEFINITION	REMARKS
AC-N	AC Input Null line	18AWG Black line length: 7.9"
AC-L	AC Input Live line	18AWG White line length: 7.9"
INDICATOR OUTPUT TERMINAL DEFINITION		
LED+	electric supply indicate LED positive electrode	20AWG White line length: 7.9"
LED-	LED electric supply indicate LED negative electrode	20AWG Black line length: 7.9"
TEST+	Test switch positive electrode	24AWG Yellow line length: 7.9"
GND	Test switch negative electrode	24AWG Black line length: 7.9"
CH+	electric supply green light positive electrode	24AWG Green line length: 7.9"
GND	public negative electrode for red and green light	24AWG Black line length: 7.9"
WK+	emergency work red light positive electrode	24AWG Red line length: 7.9"
POWER+	The DC output of external power supply positive electrode	20AWG Brown line
POWER_	The DC output of external power supply negative electrode	20AWG Blue line
MODULE INPUT TERMINAL WIRING DIAGRAM		



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WORKING ENVIRONMENT			
DESCRIPTION	QUALIFICATION		REMARKS
Working Temperature	-20 ~ +50 °C		guarantee starting and working normally under -20 ~ +55 °C
Storage Temperature	-25 ~ +65 °C		
Relative Humidity	10 ~ 95%		No condensation
Atmospheric Pressure	70 ~ 106 kPa		Working normally
Heating Dissipation	natural transmit heat dissipation		natural transmit heat dissipation method
INPUT CHARACTER			
DESCRIPTION	TECHNICAL REQUIREMENTS	RATED	REMARKS
Input start-working voltage range	100~277 Vac.	220/110V	Module works normally under -20 ~ +55°C
Input working voltage range	100~277 Vac.	220/110V	Module works normally under -20 ~ +55°C
Input frequency range	45~65 Hz	50/60 Hz	Works normally in all range covered
Max input current	≤1.5A	/	Based on using loading power change, max input current must be less than 1.5A.
Max input power	≤100W	/	External power supply provides current less than 3A.
Max power in emergency	≤10W	/	Power supply by battery
Caution: Output loading power must be less than 100W.(36V/3A).The inner fuze of module will be burned if the power exceed working power range that external power provides power less than 2A.			
CHARGING OUTPUT CHARACTERISTICS			
Battery start charging voltage	16V		Standby, after the battery self-discharge to 16 v, the module will be added to the battery is full capacity.
End-of-charge voltage	17.4V		
Charging output current range	200-220mA		
PROTECT CHARACTERISTICS			
Output short-circuit protection in emergency condition	YES		When emergency output short circuit, the output module is closed, need to restart the mains protection.
Battery low-voltage protection	12V		
INDICATION FUNCTION			
DESCRIPTION	CHARACTER		
Electric supply instructions	When the module connected to the electric supply, the indicator light is green		
Emergency instructions	Without any electric supply, the indicator light is red		
Test instructions	With electric supply, hold down the test switch, the indicator light is orange.		
TEST SWITCH FUNCTION INTRODUCTION			

Under AC condition: module will shift to emergency mode when the TEST switch is turned on and back to power supply when the TEST switch is turned off.

Under emergency condition: touch TEST switch (turned off after connect it) will turn off emergency.

Function and LED lamp also turn off; touch TEST switch again gently, LED lighting work normally and recover to emergency function.

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TECHNICAL DATA SHEET



SECURITY REQUEST			
DESCRIPTION		STANDARD (test condition)	TEST CONDITION
Isolation Voltage	Input to Output	$\leq 10\text{mA}@1\text{min}@1500\text{Vac}$	Can be bear 50Hz, 1500V AC voltage one minute, leakage current $\leq 10\text{mA}$,no breakdown or flashover phenomenon.
Ulation Resistance	Input to Output	$\geq 10\text{M}\Omega@500\text{Vdc}$	The relative humidity is 90% under normal pressure atmosphere; when test voltage is DC 500V; AC and DC of rectifier over the ground, insulation resistance of AC and DC are both not less than 10M Ω .
EMC REQUEST			
DESCRIPTION		STANDARD (test condition)	REMARKS
RE Radiated Interference		CLASS A ,EN55022	
CE Conducted Interference		CLASS A ,EN55022	
SURGE		wire-wire 1kV;	
OTHER REQUESTS			
DESCRIPTION		STANDARD (test condition)	REMARKS
Failure Isolation		Make reliable isolation when the product is defective (lose effectiveness) so that the equipment and staff will be not harmed	Defective((lose effectiveness) product cannot be influenced power-supply system
Acoustic Noise		Less than 45dB,measuring distance 1.5m	
Heating Dissipation		Natural heat dissipation	
Smell		No peculiar smell or harmful smell	
MTBF		$\geq 40,000\text{h}$	
RELIABILITY ENVIRONMENT REQUEST			
DESCRIPTION		QUALIFICATION	REMARKS
High Temperature Working Condition		Outer shell temperature $\leq +55^{\circ}\text{C}$ Remark: high temperature & high humidity test, full load power up can last 3 hours.	Output voltage is normal with stable property.
Low Temperature Working Condition		Ambient temperature -20°C Remark: low temperature test , full load power up can last 3 hours.	
High Temperature Aging		Ambient temperature $+55^{\circ}\text{C}$ Remark: during high temperature aging test, battery can works normally when full load power up can last 48 hours; the battery can work normally after take out to cool for 2 hours	
High Temperature stress test		Ambient temperature $+55^{\circ}\text{C}$ Remark: high temperature aging test, the upper limit, rated value and lower limit of input voltage range are respectively 10 minute, recycle continuously; all group full load output; the lasting time is 10 days, power supply can work normally.	
Storage		Product need be placed into packing carton if not used. The ambient temperature in warehouse is $-25^{\circ}\text{C} \sim +65^{\circ}\text{C}$, relative humidity is 10%~90%, Not allowed harmful gas, inflammable, explosive product and mordant chemical products in warehouse. No strong machinery vibration, impact and high-intensity magnetic field. Packing carton should deviate from ground no less than 20cm high, no less than 50cm distance from wall, heat source or window air inlet. The storage period under mentioned condition is 2 years usually. It should be inspected after 2 years.	
			Before back to normal work ,it need take 2 hours to recover under normal temperature, the output voltage of product is normal.

Notice: High temperature stress test is destructive, the tested product can not be used to normal production and sell, only be suitable for reliability test.

SAFETY

1. The product stay in good ventilation and cooling condition when use.
2. The product should be used under the environmental conditions of the usage manual.
3. Limited to operation in the volatile gases or flammable environment.
4. Never remove the cover or touch the internal parts. Do not repair or use replacement parts.
5. Safety insulated is necessary when either side is more than 8mm away from outside metal shell. One pad of PVC sheet over 1mm thick to reinforce insulation if less than 8mm.
6. If smoke or odor occurred in the process of boot or use; immediately cut off the power.

PRECAUTIONS

1. If the equipment is damaged, turn off the device.
2. Installation requires knowledge of electrical systems. If not qualified, do not attempt installation. Contact a qualified electrician.
3. When the equipment goes from a cold to a warm environment, condensation may cause the risk of electric leakage, so the grounding requirements must be strictly enforced; only the qualified personnel approve to connect device to the power supply.
4. After power is cut off, allow five minutes to maintain the equipment after the capacitor achieves full discharge time.
5. To avoid electric shock or burns: Do not touch in the places show in the safety warning sign or high voltage signs.