



KT-EMRG-LED-20SD-2000-EN /DF

CONSTANT POWER EMERGENCY LED DRIVER

DESCRIPTION

Constant Power Emergency LED Driver | 20W Output | 120–277V Input



DRIVER TYPE: Constant Power Emergency LED Driver

MAX. OUTPUT POWER: 20W

INPUT VOLTAGE: 120–277Vac $\pm 10\%$

NUMBER OF OUTPUTS: One

SAFETY STANDARD: UL 924, Complies with CEC Title 20 Efficiency Standards

LOCATION: IP20 design for dry and damp location

WARRANTY: 5 Years

PASS-THROUGH CURRENT: 3A max.



ELECTRICAL SPECIFICATIONS

Input voltage range	120~277Vac $\pm 10\%$
Frequency	50/60Hz
Power factor	>0.9 under 120~277Vac input
Inrush current	20A @ 120V
Max input current	60mA @120V, 35mA @240V, and 30mA @277V
THD	<20% under 120~277Vac input
Output voltage	20–60Vdc Class 2 compliant Remarks: the output power is valid for output voltage ≤ 58 Vdc; above that power will drop
Output current	1000mA @ 20Vdc, 333mA @ 60Vdc
Output power	20W (constant)
Turn-on Delay Time	< 1s
Overshoot	< 10%
Ripple & Noise (pk-pk)	< 10%
Withstand voltage	Input to output, 2800Vdc, 2mA
Leakage current	Maximum 0.5mA at 277Vac, 60Hz input
Protection	<p>Over voltage protection: Hiccup mode. Protection will trigger when load voltage exceeds specified output voltage and will auto recover after the fault mode is removed.</p> <p>Over current protection: Hiccup mode. Protection will trigger when load current exceeds specified output current and will auto recover after the fault mode is removed.</p> <p>Short circuit protection: Hiccup mode. Protection will trigger when short circuit and will auto recover after the fault mode is removed.</p> <p>Over charge and discharge protection: Monitor battery voltage to prevent over charge of the battery and deep discharge which may damage battery.</p>
Emergency Operation	90 minutes
Battery	High-temperature, maintenance-free, LiFePO ₄ battery, 16Vdc, 5 cell
Recharge Time	24 hours
Battery Charging Current	295mA

ENVIRONMENTAL SPECIFICATIONS

Operating temperature	0°C/32°F to 55°C/131°F
Storage temperature	-20°C/-4°F to 55°C/131°F
Humidity	5% to 95%
MTBF	TBD
Life rating	TBD
Maximum ambient temperature	55°C/131°F

SAFETY AND EMC COMPLIANCE

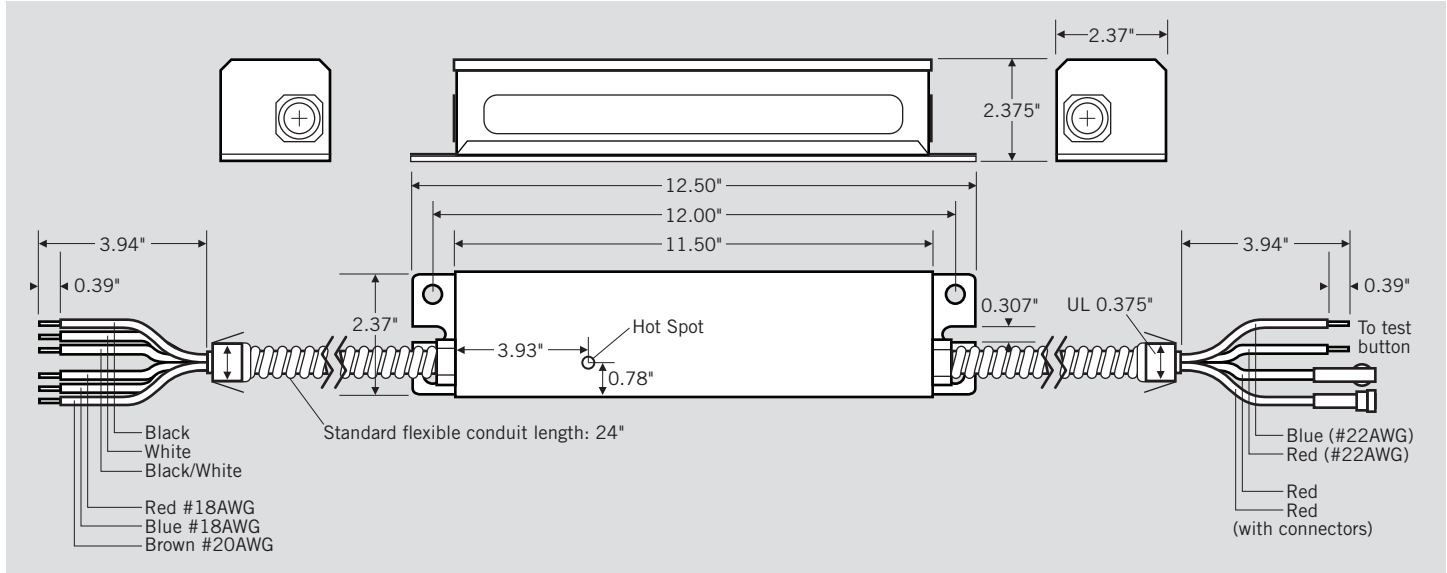
UL/cUL	UL 924
FCC, 47CFR Part 15	ANSI C63.4:2009 Class B (consumer limit)
EN61000-3-2	Harmonic current emissions Class C

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DIMENSIONS AND WIRING SPECIFICATIONS

EMERGENCY LED DRIVER SPECIFICATIONS



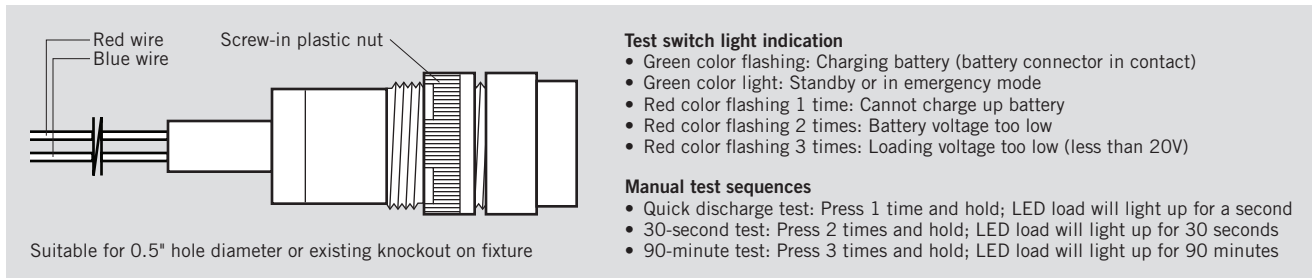
LED DRIVER DIMENSIONS

Length (L)	12.50" (317.5mm)
Width (W)	2.37" (60.2mm)
Height (H)	2.375" (60.3mm)
Mounting (M)	12.00" (304.8mm)

WIRE SPECIFICATIONS

Black, White (Input)	UL1316 #18AWG
Red, Blue (Output to LED module)	UL1316 #18AWG
Brown	UL1430 #20AWG
Red, Black (Battery connection)	UL1015 #18AWG
Red, Blue (Test switch connection)	UL1430 #22AWG

TEST SWITCH (2-WIRE) SPECIFICATIONS



Notes:

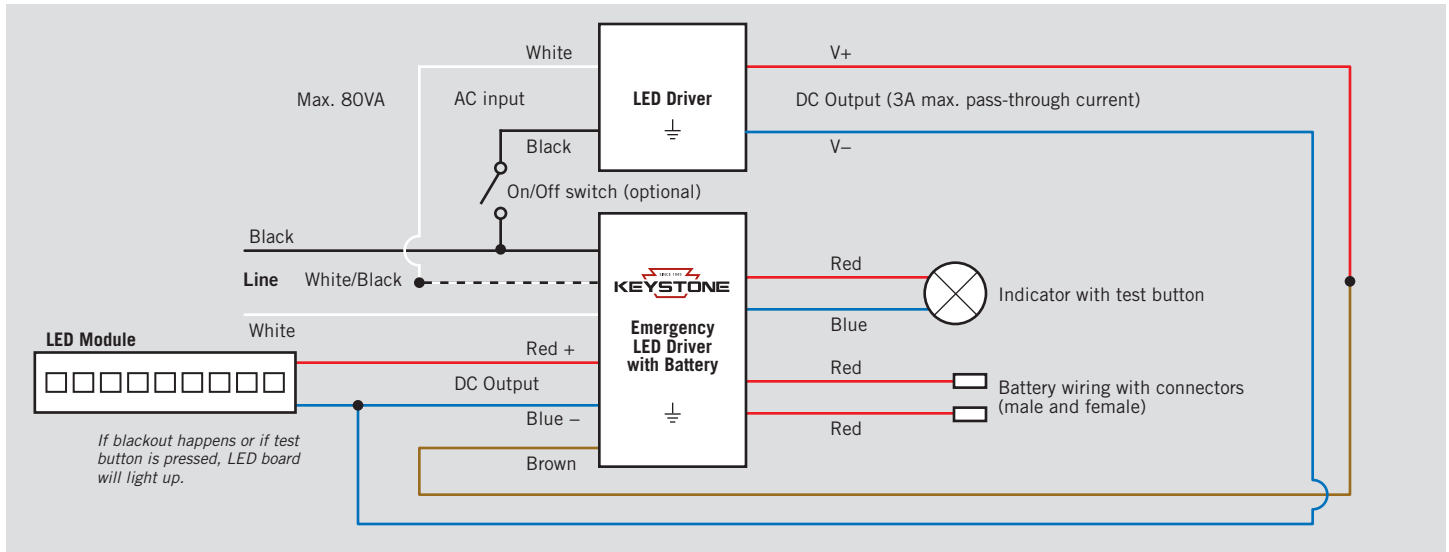
1. To maintain good battery lifespan during storage, recharge emergency driver annually.
2. For operation, wiring, installation, regular check, and maintenance, please refer to installation instruction and Life Safety Code.
3. Automatic Monthly and Annual Testing: Automatically conduct a 30-second test every month and a 90-minute test every year. The test button will flash RED if an issue is detected.
4. Once conducted, the quick discharge test mode requires 2 hours to recharge battery before performing other tests.
5. Once entering emergency mode or after conducting other test modes, 24 hours are required to recharge battery before performing other tests.
6. The internal timer of the emergency driver starts once power is applied to the unswitched hot lead. The internal timer will not reset due to power loss as long as there is enough battery power to maintain the emergency driver's internal memory.
7. The internal timer of the emergency driver resets after 12 automatic tests. The 12th test conducted is a 90-minute test, which occurs every 377 days. The first 11 tests conducted are 30-second tests and occur once every 30 days (if the 90-minute test occurs within the 30-day time period, the duration will increase to 31 days).
8. If the emergency driver has a manual test (test button pushed) during the time of the auto-test, the auto-test will delay for 24 hours.
9. Regardless if the switched hot is on or off (if applicable), automatic tests will still occur and will power the LED load at 20W.
10. If a power outage were to occur during the time of an automatic test, the emergency driver will continue the automatic test until completed. After the test is done, it will continue to operate the load in emergency mode until power is restored.



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WIRING DIAGRAM



ORDERING INFORMATION

ORDER CODE	DESCRIPTION	PACKAGING STYLE	PACK QTY.	ITEM STATUS
KT-EMRG-LED-20SD-2000-EN /DF-IP	LED Emergency Back-Up, CEC Compliant	Individually Packaged	TBD	Active

CATALOG NUMBER BREAKDOWN

KT-EMRG-LED-20SD-2000-EN /DF-IP

1 2 3 4 5 6 7 8 9

- 1 Keystone Technologies
- 2 Emergency Back-Up
- 3 LED Driver
- 4 Nominal Wattage
- 5 Self Diagnostic
- 6 Nominal Lumen Output
- 7 1-Piece Enclosure
- 8 Dual Flex Cables
- 9 Packaging Style