

SDE13B Series

Emergency Battery Backup

The SDE13B series is an emergency battery backup LED driver designed to meet NFPA 101 requirements. It features a versatile design that supports both adjustable constant power and constant voltage modes. Based on the LED driver used in the fixture, you can adjust the DIP switch to select the appropriate output mode.

In constant power mode, the output voltage range is 20–400 VDC with adaptive output, making it compatible with the forward voltage of most lighting boards. In constant voltage mode, the output connects directly to the driver input for simplified wiring. The 0–10V dimming input manages power consumption, and it is also compatible with the Wireless Emergency Lighting Solution LynxEM® App.



Input voltage	100-347Vac 50/60Hz
Rated Input Current	0.1A Max. @120Vac
Power Factor	≥0.5@120Vac
Input Power	<4W@120Vac
Charge Current	250mA(MAX.)
Charge Time	24 hours(MAX.)
Operating Mode	Emergency
Load Power	Max.200W
Loading Type	LED module / LED Driver input / DOB light (input)
DC Power	8W-16W
Emergency Duration	90min
Output Current	20-800mA
Output Voltage	20-400VDC (Recommended 45-400Vdc)
IP Rating	IP20
Classification	Class I
Installation	Hanging mounting
Terminals	Press; wire diameter:0.2-0.75mm²
Emergency Switching Test	Manually Test (Test Button) /Auto-test (Monthly/Annually), Wireless Emergency Lighting Solution LynxEM App®
Abnormal Protection	Over-voltage, over-current, over-tem premature, short-circuit, and open circuit protection and current limitation
Operation Temperature	0°C~50°C
LVD Standard	UL924
Lifespan	40000 HOURS @Ta full load(not include the battery)
Warranty	5 Years
Dimension	SDE13B-8W: 11.89"x1.52"x1.12"/SDE13B-16W: 14.57"x1.52"x1.12"

PRODUCT FEATURE

- UL924 Listed
- Slim Structure
- DIP switch selectable
- Constant Volt/ Wattage options
- With corrugated flexible tubes
- Test Switch/Indicators
- Aluminum enclosure
- Built-in Li-ion battery
- Max. 400Vdc output
- 90 Minutes duration
- Manually test
- Self-test function
- LVD compliant
- RoHS compliant
- LynxEM® App Compatible (Optional)
- Five-year warranty

Note: All parameters are measured at input voltage 230Vac and ambient temperature 25°C. Special explanation will be given if there are special circumstances.

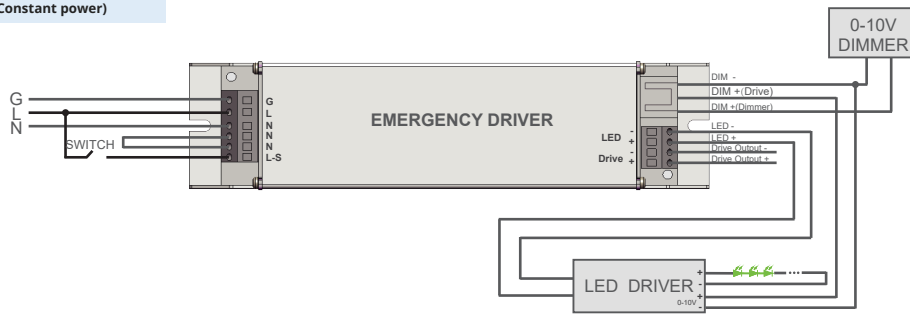
SDE13B Series

Emergency Battery Backup

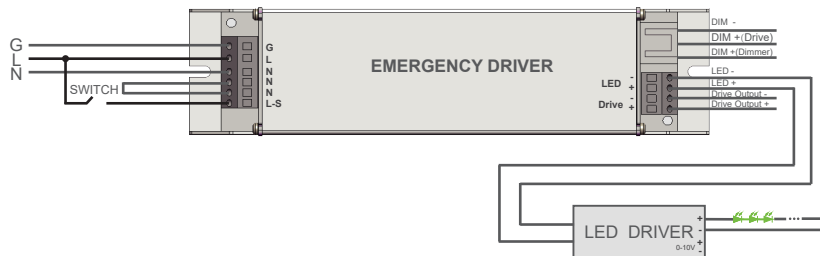
MODEL SELECTION :

MODEL NO.	Input Voltage	DC Power	Emergency Duration	Output Voltage	Recommend Operation Voltage	Output Current	Battery
SDE13B-160A090L	100 – 347Vac	16.0W	90min	20 – 400VDC	30 – 400VDC	40.0 – 800mA	Li-ion
SDE13B-080A090L		8.0W				20.0 – 400mA	

Connected with LED Driver
(Constant power)



Connected with Non-isolated LED Driver
(Constant power)



-  Charging - Green light flashes slowly
-  Full charged - Green light ON
-  Analog Emergency Mode - Green light in breathing mode (On-off Alternation)
-  Real Emergency Mode(AC cut off) - Red light in breathing mode (On-off Alternation)
-  Fault: Red light flashes slowly
-  Battery Voltage <87.5%(Declared): Red and green lights flash fast alternately.
-  Load Deviation >25%: Red and green lights flash slowly alternately.



Versatile DC Output for Seamless Emergency Lighting

Our DC output emergency battery backup LED driver ensures reliable performance by connecting directly to the driver input with or without the need of a dimming line, making it compatible with DOB fixtures and LED tubes. Its adaptable design suits various product structures, seamlessly supporting commercial and industrial lighting applications, such as high-bay fixtures and office panels. Unlike other solutions, our DC driver delivers consistent emergency power across a wide range of luminaire types, ensuring safety and reliability in any environment.



Safe Battery Disconnection

A standout feature from Magtech's emergency battery backup LED driver, unmatched by other brands, is its disconnected battery circuit during transportation. This design eliminates any risk of battery short-circuiting or self-discharge, ensuring zero damage to the battery or product during shipping and storage, providing unmatched safety and peace of mind.

Project Name:	
Type:	

SDE13B Series

Emergency Battery Backup

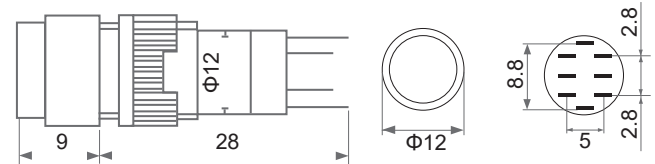
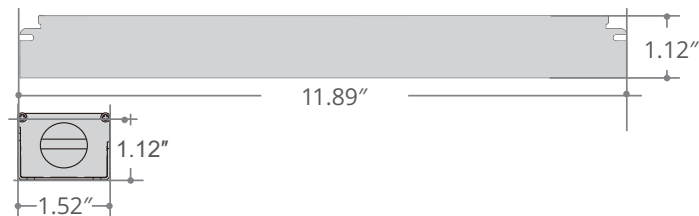
FUNCTIONS :

FUNCTION	STATE
AC Power Failure	When AC main power is in fault or blackout, Emergency power kits will switch to emergency mode automatically, and supply power to the load with a rated emergency power
Auto-test (Monthly/Annually) function description	Monthly auto-test: The first automatic monthly test runs within 24 hours, with subsequent tests every 30 days. A power failure resets the timer. Each test simulates a 60-second emergency, smoothly switching to emergency mode and returning to charging mode afterward.
	Annually auto-test: The annual auto-test runs every 52 weeks after the first power-on. The device fully charges and discharges during this test, restarting the timer if a power outage occurs. In annual test mode, it switches smoothly to emergency mode, indicated by a green breathing light, and returns to charging mode afterward. The battery voltage must stay above the over-discharge protection level; if not, it signals severe battery attenuation, requiring replacement. A red flashing light alerts maintenance personnel.
Manually Test	A. Press and hold the test button to start a simulated emergency test, after release the button, it will recover to main power charging mode. B. Press the test button twice within 3 seconds to start a 60-second monthly test. The next test will reset to 30 days from that date. C. Press the test button three times within 3 seconds to start a 60-minute annual test (requires full charge). The next test will reset to 52 weeks from that date. Hold the test button for over 3 seconds during simulated monthly and annually auto-test to terminate it.

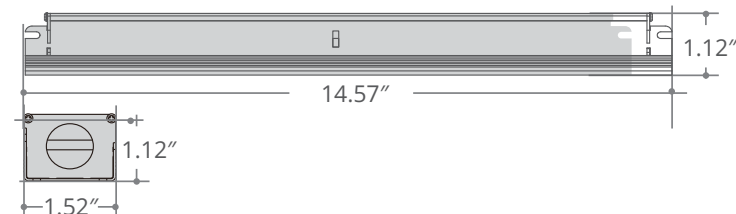
PACKAGING INFORMATION AND DIMENTIONS :

N.W	8W:0.658KG 16W:0.794KG		
G.W	v:0.752KG 16W:0.91KG		
INCLUDES			
LED Emergency Driver	1	Tec Screws	2
Lifting ring	0	Test Button	0
Waterproof connector	1	Installation Guide	0
Screw Wire Connectors	1		

SDE13B-8W



SDE13B-16W



Tolerance:

> 6-30	± 0.40
> 0-6	± 0.25

Recommended hole size for installation : $\Phi 12\text{mm}$