

# ILBLP SP18 HE SD LC CW

Emergency LED Driver Kit for Cold Weather Applications

## PRODUCT SPECIFICATION SHEET



Certified in CA TITLE 20  
Appliance Efficiency Database -  
Battery Charger



## DESCRIPTION

The **ILBLP SP18 HE SD LC CW** from IOTA is a UL Recognized LED emergency driver that allows the same LED fixture to be used for both normal and emergency operation in ambient temperatures of **-20° to 60°C**. In the event of a power failure, the **ILBLP SP18 HE SD LC CW** switches power from the normal LED driver and operates the LEDs in the emergency mode for **90 minutes**. The unit includes a charger and converter circuit in a reduced-profile housing and a separate flexible LiFePO<sub>4</sub> battery component. The **ILBLP SP18 HE SD LC CW** will operate an LED array load at **18 watts** during the primary stage of operation at a rated output voltage of **20V-58V**. After the primary operation stage, the **ILBLP SP18 HE SD LC CW** will deliver a secondary wattage output compliant to Life Safety Code requirements. Includes single-piece IP67 rated test switch and charge indicator accessory and includes automatic monthly and annual **self-testing** features as standard.

## SPECIFICATIONS

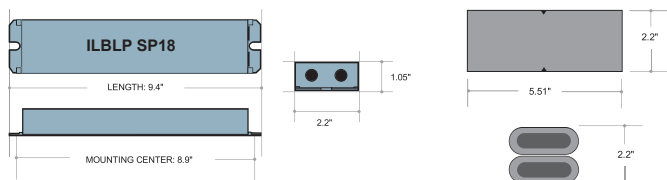
Input Voltage .....	(Universal) 120-277VAC, 50/60Hz
Input Rating (120/277) .....	65 mA (max)
Output Voltage .....	20-58VDC Class 2 Compliant
Output Current .....	0.9A (@18VDC) - 0.31A (@58VDC)
Output Power .....	18 Watts (primary)
Max. AC Driver Output Current .....	5A <sub>dc</sub>
Power Factor .....	≥ 0.9*
Surge Protection .....	Meets or Exceeds ANSI/IEEE C62.41.2-2002
Emergency Operation .....	90 minutes
Operating Temp .....	-20° to 60° C
THD .....	< 10%
EMI .....	Complies to FCC commercial limits
Battery .....	LiFePO <sub>4</sub> 24 Hour Recharge
Weight (incl. batteries) .....	2.8 lbs
Certifications .....	UL Recognized Component for factory installation in the U.S. and Canada CA T20 Appliance Efficiency Database

\* PF is ≥0.6 for 277Vac



## DIMENSIONS

ILBLP SP18 HE SD LC CW Component Housing: 9.4" x 1.05" x 2.2"  
ILBLP SP18 HE SD LC CW Battery: 11.81" x 2.17" x 2.09"



MODEL NO: \_\_\_\_\_  
TYPE: \_\_\_\_\_  
PROJECT: \_\_\_\_\_  
COMMENTS: \_\_\_\_\_

## LUMEN PERFORMANCE

Fixture Efficacy	Primary Stage Output
100 lm/W	1800
110 lm/W	1980
120 lm/W	2160
130 lm/W	2340

## PRODUCT ADVANTAGES

- **Auto-Sensing Class 2 Output**  
Auto-adjusting 20-58VDC output range accommodates a wide range of Class 2 forward voltage LED designs
- **Consistent Performance Across Voltages**  
Will auto-sense and deliver consistent dual stage wattage performance across the full Class 2 20-58VDC forward voltages.
- **Extended Temperature Performance**  
-20° to 60°C ambient temperature performance is ideal for outdoor paths of egress and freezing environments.
- **AC Activate**  
Automatically engages battery charging circuitry when AC power is detected, eliminating need for physical battery connection when power is supplied at initial installation.

## FEATURES

- UL 1310 Certified, Output Class 2 Compliant
- Circuitry enclosed in galvanized steel housing
- Includes single-piece IP67 rated test switch and charge indicator accessory kit
- Adaptable two-part, maintenance-free, high temperature LiFePO<sub>4</sub> lithium battery designed for long life
- For use with switched or unswitched fixtures
- **5-Year Warranty.**
- Meets or exceeds all NEC, IBC, and Life Safety Code Emergency Lighting Requirements
- Certified for CA Title 20
- Suitable for use in damp location and IP67 rated enclosed and gasketed luminaires (no venting valve required.)
- RoHS Compliant



# ILBLP SP18 HE SD LC CW

Constant Power Emergency LED Driver Kit for Cold Weather Applications

## ORDERING GUIDE

ILBLP

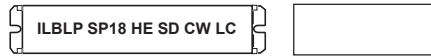
SP18

HE

SD

LC

CW



### Understanding Your IOTA Driver Model:

- ILBLP** = IOTA Emergency LED Driver with Lithium Battery Technology
- SP\*\*** = Dual stage output performance at the rated wattage
- HE** = High efficiency charging control for CA Title 20 requirements
- SD** = Self-diagnostic capability
- LC** = Electronics enclosure with separate battery
- CW** = (Cold Weather) Extended Temperature Performance

### ILBLP SP18 HE SD LC CW Sample Specification

Supply and install IOTA ILBLP SP18 HE SD LC CW emergency LED driver system as indicated on the plans. The emergency driver shall be designed for internal mounting to the luminaire including a self-contained, high-temperature, sealed, maintenance-free lithium iron-phosphate battery rated for a 5 to 7-year service life. The unit shall be provided complete with an illuminated push to test switch. The emergency driver system shall be UL class 2 certified in accordance with UL 1310 and shall be suitable for use in damp location fixtures with a temperature range of -20° to 60° C.

The AC input shall be a two-wire, universal voltage capable 120 thru 277 VAC, 50/60 Hz and be UL Listed to Category Control Number (CCN) FTBR, Emergency Lighting and Power Equipment, and FTBV, Emergency Light-Emitting-Diode Drivers. Maximum input power of the emergency driver shall be 60mA.

The unit charger shall consist of a two-stage charging system which samples the battery in relation to its temperature, state of charge and input voltage fluctuations. The charger shall be current limited, temperature compensated, short-circuit protected with reverse polarity protection. A low voltage battery disconnect (LVD) circuit shall be provided and will disconnect the load and circuitry from the battery when it reaches approximately 80 to 85% of its nominal terminal voltage, preventing a non-recoverable, deep-discharge condition as well as equipment initialization failure when utility power is restored. The unit shall achieve a full recharge in 24-hours.

The unit shall be designed to automatically test the emergency lighting capability for no less than 30 seconds monthly and 90 minutes annually, and shall monitor battery charge and battery discharge current and load performance. A red light-emitting LED shall be provided to indicate test results and charge status.

The emergency driver shall accommodate an LED load with a forward voltage requirement ranging from 20 to 58VDC. The output voltage sensing shall be automatic and instantaneous with a resulting, inversely-proportional current to maintain constant power to the LED array with an output tolerance of +/- 5%. The unit shall supply the rated load for a minimum of 1 1/2 hours or to 87.5% of rated battery terminal voltage. Primary output power to the LED load during emergency operation shall be held at 18 watts for a pre-determined period before delivering a consistent secondary wattage for the remainder of operation compliant with Life Safety Code egress illumination requirements.

The unit shall be furnished with electronic AC-Activate circuitry which will connect the battery when the branch circuit is energized, and an electronic brownout circuit which will enable a transfer to emergency operation when utility power dips below an acceptable level.

### Emergency Lumen Performance - ILBLP SP18 HE SD LC CW

Approx. Luminaire Efficacy	Primary Stage Output
100 lm/W	1800
110 lm/W	1980
120 lm/W	2160
130 lm/W	2340

## DIAGNOSTIC CODES

The charge indicator (IPS) LED will be **STEADY RED** when charging or standby mode indicating AC power is present and no faults are detected. If a problem is encountered during charging or after a test cycle, the IPS will **FLASH RED**, according to the diagnostic codes below:

STATUS INDICATION	CONDITION
STEADY RED	AC PRESENT / NO FAULTS DETECTED
FLASHING RED (ONCE PER SECOND)	UNABLE TO CHARGE
1 RED FLASH (EVERY 6 SECONDS)	DISCONNECTED BATTERY / LOW BATTERY
2 RED FLASHES (EVERY 6 SECONDS)	EMERGENCY LED LOAD FAILURE
OFF	EMERGENCY MODE / TESTING

**Attention:** Refer to the IATA website at <https://www.iata.org> for air transportation requirements and restrictions for lithium batteries and products containing lithium batteries.

Contact IOTA Customer Service to learn more about IOTA standards and best practices for the shipping, handling, and storage of IOTA lithium battery products.

**Warranty:** 5-Year Limited Warranty

Complete warranty terms located at [www.acuitybrands.com/CustomerResources/Terms\\_and\\_conditions.aspx](http://www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx)