



STAR-Enabled for  
Wireless Reporting



## DESCRIPTION

The IOTA® **ILB CP20 HE AELR HV** is a UL Listed LED emergency driver that allows the same LED fixture to be used for both normal and emergency operation. In the event of a power failure, the **ILB CP20 HE AELR HV** switches from the existing normal LED driver to operate the LED load for **90 minutes** from the **ILB CP20 HE AELR HV** emergency battery supply. The unit contains a battery, charger, and converter circuit in a single enclosure. The **ILB CP20 HE AELR HV** will operate an LED array load at **20 watts** with **constant power** at a rated output voltage of **50-200VDC**. The Constant Power design of the **ILB CP20 HE AELR HV** maintains the output wattage to the LED array, providing consistent illumination for the entire emergency runtime. The integrated self-diagnostic circuitry will **automatically conduct monthly 60-second and annual 90-minute tests** to verify proper emergency capability per Life Safety Code requirements. The wireless connectivity enables communication of all diagnostic information to **Atrius®** or **Clairity+™** applications. Features high-efficiency performance and is certified in the CA Title 20 Appliance Efficiency Database as a small battery charger.

## SPECIFICATIONS

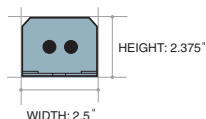
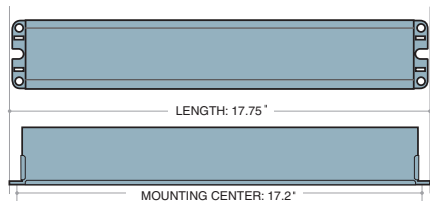
Input Voltage .....	(Universal) 120-277VAC, 50/60Hz
Input Rating (120/277) .....	5.75 Watts (max)
Output Voltage <sup>1</sup> .....	50-200VDC <sup>1</sup>
Output Current .....	0.4A (@50VDC) - 0.1A (@200VDC)
Output Power .....	20 Watts (constant)
Max. AC Driver Neutral Current .....	(120Vac) 5 Amps (277Vac) 3 Amps
Max. AC Driver Output Current .....	5Adc
Power Factor .....	≥ 0.85
Surge Protection .....	Meets ANSI/IEEE C62.41.2-2002
Emergency Operation .....	90 minutes
Operating Temp .....	0° to 55° C
THD .....	< 10%
EMI (radiated and conducted) .....	FCC Class A (charge and EM modes)
Battery .....	High Temp Nickel-Cadmium 24 Hour Recharge 7-10 Year Life Expectancy
Weight .....	6.0 lbs.
Certifications .....	UL Listed for factory and field installation CSA C22.2 No 141 CA T20 Appliance Efficiency Database Certified wireless module: FCC ID BRM1, Model BRM1-3

<sup>1</sup>Compatible with drivers in normal mode up to 235V max.  
Operates in emergency mode at 20W from 50 up to 201VDC.



## DIMENSIONS

17.75" x 2.5" x 2.375"  
(mounting center 17.2")



MODEL NO: \_\_\_\_\_

TYPE: \_\_\_\_\_

PROJECT: \_\_\_\_\_

COMMENTS: \_\_\_\_\_

## LUMEN PERFORMANCE

Fixture Efficacy	Minute 1	Minute 45	Minute 90
100 lm/W	2000	2000	2000
110 lm/W	2200	2200	2200
120 lm/W	2400	2400	2400
130 lm/W	2600	2600	2600

## PRODUCT ADVANTAGES

- **STAR-Enabled for Wireless Reporting**  
Automatically conducts required monthly and annual tests and communicates results to the STAR (Self-Testing Automated Reporting) tool in the Clairity+ app.
- **Auto-Sensing Non-Class 2 Output**  
Auto-adjusting 50-200 VDC output range accommodates higher voltage driver output and LED arrays
- **Constant Power Performance**  
Constant wattage delivery maintains illumination for the full emergency runtime with no degradation
- **Listed for Field or Factory Installation**  
UL Listed for both field or factory installation in United States and Canada
- **Certified for CA Title 20**  
High Efficiency Performance meets CA Title 20 battery charger efficiency standards

## FEATURES

- UL 924 Listed, UL Listed and Classified to FTBV
- Long life high temperature recyclable Ni-Cad battery
- Galvanized steel case
- Includes three-color illuminated test switch and charge indicator
- For use with switched or unswitched fixtures
- **5-Year Warranty.**
- Meets or exceeds all NEC, IBC, and Life Safety Code Emergency Lighting Requirements
- Suitable for use in Plenum and Damp Location fixtures
- RoHS Compliant



# ILB CP20 HE AELR HV

Bluetooth Enabled Constant Power Emergency LED Driver - 50-200VDC Output

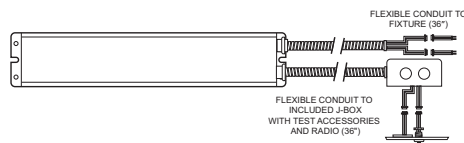
## ORDERING GUIDE



### Understanding Your IOTA Driver Model:

- ILB** = IOTA Emergency LED Driver
- CP\*\*** = Constant Power Performance at the rated wattage
- HE** = High Efficiency for CA Title 20
- AELR** = Self-Diagnostic with wireless radio communication to Atrius® or STAR reporting tool in Clairity+™
- HV** = 50-200VDC Output
- A** = Includes dual flexible conduit for running to the fixture and accessories

**QDKIT** (Bluetooth Radio, Junction Box)



## ILB CP20 HE AELR HV Sample Specification

Supply and install IOTA ILB CP20 HE AELR HV A Constant Power Self Diagnostic emergency LED driver system as indicated on the plans. The emergency driver shall be designed for external mounting to the luminaire including a self-contained, high-temperature, sealed, maintenance-free nickel cadmium battery rated for a 10-year service life. The unit shall be provided complete with an illuminated push to test switch. The emergency driver system shall be UL listed for use in damp locations with a temperature range of 0° to 55° 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 for field installation. Maximum input power of the emergency driver shall be 5.75 watts. The unit shall monitor and adjust the input power consumption and be certified in the CA Title 20 Modernized Appliance Efficiency Database System (MAEDBS) as a small battery charger.

The unit charger shall consist of a two-stage charging system which samples the battery state of charge and input voltage fluctuations. The charger shall be current limited and short-circuit protected. 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 input shall be designed to automatically test the emergency lighting capability for no less than 60 seconds monthly and 90 minutes annually, shall monitor battery charge and battery discharge current and load performance, and will be capable of wirelessly communicating diagnostic status to a compatible data platform. A three-color 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 50 to 200VDC (235VDC max. normal mode.) 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 +/- 3%. The unit shall supply the rated load for a minimum of 1 1/2 hours or to 87 1/2% of rated battery terminal voltage. The output power to the LED load during emergency operation shall be held constant 20 watts from minute one throughout the entire emergency run time resulting in no loss or degradation of the light source during emergency operation.

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

## Emergency Lumen Performance - ILB CP20 HE AELR HV

Approx. Luminaire Efficacy	Minute 1	Minute 45	Minute 90
100 lm/W	2000	2000	2000
110 lm/W	2200	2200	2200
120 lm/W	2400	2400	2400
130 lm/W	2600	2600	2600



The **ILB CP20 HE AELR HV** is UL Listed and Classified for Field Installation. Refer to the "**CP Series Compatibility and Suitability of Use Guidelines**" addendum for complete project installation requirements.



### The STAR (Self-Testing Automated Reporting) Tool

Use the STAR reporting tool on your mobile device to connect wirelessly to your IOTA emergency driver to view monthly and annual test data and download and send testing logs. STAR connects to all AELR emergency devices in the facility for easier Life Safety compliance. Access the STAR reporting tool in the Clairity+ app launcher. Available for both iOS and Android devices.

IOTA emergency driver test results can still be diagnosed via the illuminated test switch. If a problem is encountered during the test cycle, the TCTS will flash RED. Refer to the user's manual for complete diagnostic codes.

## Remote Mounting

The emergency LED driver may be remote mounted from the fixture up to 50 feet. If used in conjunction with an AC driver, the maximum distance is up to half the distance the AC driver manufacturer recommends remote mounting the AC driver from the LED load. Use 18 gauge wire or larger to maintain output power and minimize loss. Remote mounting can result in reduced power output of the AC driver. For more information, contact IOTA Technical Services.

### 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)

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## ACCESSORIES

### ○ TBMK T-Grid Mounting Kit

Use the TBMK mounting kit to remote mount flexed units within a grid ceiling. The ILB CP is secured to the TBMK bars which mount to the T-bars of the ceiling grid. The flexible conduit of the ILB CP connects to the fixture.

### ○ SK Strapping Kit

The strapping kit provides (2) straps that run through the mounting tabs of the ILB CP for securing to a beam or column near the fixture. Overall strap length is 18".