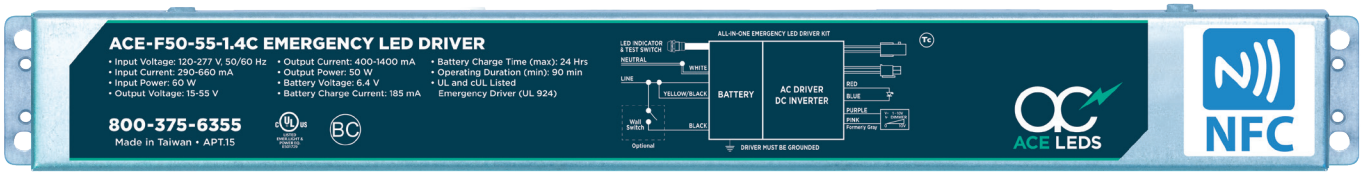
ACE LEDS

Input Voltage 120-277 V

All-in-one Programmable LED Driver with Emergency Back-up Inside

ACE-F50-55-1.4C Constant Current Emergency LED Driver



Driver Electrical Specifications: Programmable, Digital, Wide-Range Adjustable Current & Dimming

Output Power Max.	Input Power	Input Current	Min PF (Full Load)	Max THD (Full Load)	Output Voltage	Output Current	T case Max.	Min Starting Temp.	Efficiency Up To	Dimming Protocol	Dimming Range
50 W	80 W	0.66 A @ 120 V 0.29 A @ 277 V	≤0.90	≤20	15-55 V	400 mA - 1400 mA +/- 5%	66° C	0° C	82%	0-10 V	1-100%

Emergency Back-Up Power: Battery Type/Model No.: LiFePO$_4$ 6.4 VDC with 3300 mAh

Output Power Constant	Operating Duration Min.	Battery Charge Current	Battery Charge Time Max.	Battery Voltage	Output Voltage	Output Current Max	Efficiency Up To
10 W	90 min.	185 mA	24 Hrs	6.4 V	15-55 V	190 mA	85%

Lead Lengths (Solid Hook-up Wires)

Black	14"	Blue	14"	Pink	15.2"
White	14"	Red	14"	LED Indicator	25"
Yellow/Black	14"	Purple	15.2"	Test Switch	7.1
Battery Connector	7.1"/1.97"				

Dimensions

Length	17.71"	Height	1.2"
Width	1.69"	Mounting Length	17.24"

Description:

This AC Electronics UL Listed Emergency Driver allows a single fixture to be used for both regular and emergency (loss of power) operations. If power fails, this emergency driver switches to “Emergency Mode”. It will then operate the LED modules for 90 minutes at an output voltage in the range of 15-55 V. It can be used in conjunction with switched and unswitched fixture applications. During Emergency operation, this driver will drive any LED module that is designed to accept a constant current input of 190mA and has an input voltage in the range of 15-55 VDC.

5-Year USA-Backed Warranty*

See complete AC Warranty information for details

For questions or to place an order contact us at oemsales@aceleds.com or 800-375-6355
or your local WPG Americas Sales representative at inquiry@wpgamericas.com or 888-WPG8881

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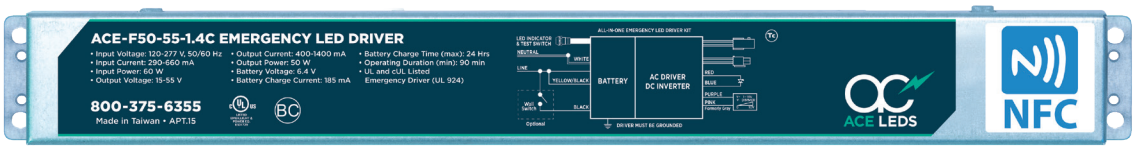
ACE-F50-55-1.4C All-In-One Emergency LED Driver



Product Features:

- At least 90 minute operation in emergency mode
- Wide range input voltage - range - 120-277 VAC
- Test switch and AC Power-On LED indicator for manual test
- Operating Temperature Range 0°C Through 50°C
- Maximum Case Temperature ≤66˚C @ 3-year warranty
- Up to 85% Efficiency for Emergency Back-up
- 5-year USA Backed warranty*
- Surge Protection - 3kV
- Open/Short/Over-Voltage/Over Temperature protection

Safety and Product Benefits:

- UL and cUL Listed as an LED emergency driver (UL 924)
- UL/cUL Class 2
- UL Classified Field or Factory Installation
- Two-wire universal AC Input
- Self-sensing output voltage adjusts to various LED loads
- Includes battery status indicator
- Long life high temperature LiFePO4 battery
- Warranty: 5 years based on a max. case temp. of ≤60°C*, 3 yrs ≤66°C
- Soft-switching to prevent spikes and protect the longevity of LED modules
- IP Rating: 30

Applications:

- New and existing fixtures
- Emergency back-up installations
- Emergency only fixtures

Installation:

This emergency backup driver may be used with either a switched or unswitched fixture. If a switched fixture is used, an unswitched hot lead must be connected to this emergency backup driver to allow its battery to charge when AC power is available. The emergency backup driver must be fed from the same branch circuit as the AC powered driver (if used). This emergency backup driver should NOT be installed with fixtures where the ambient temperature may fall below 0 °C (32°F).

- Maximum remote mounting distance to LEDs is 18 feet.
- The emergency backup driver case should be grounded.
- 18 AWG 600V/105°C tinned stranded copper lead-wires required

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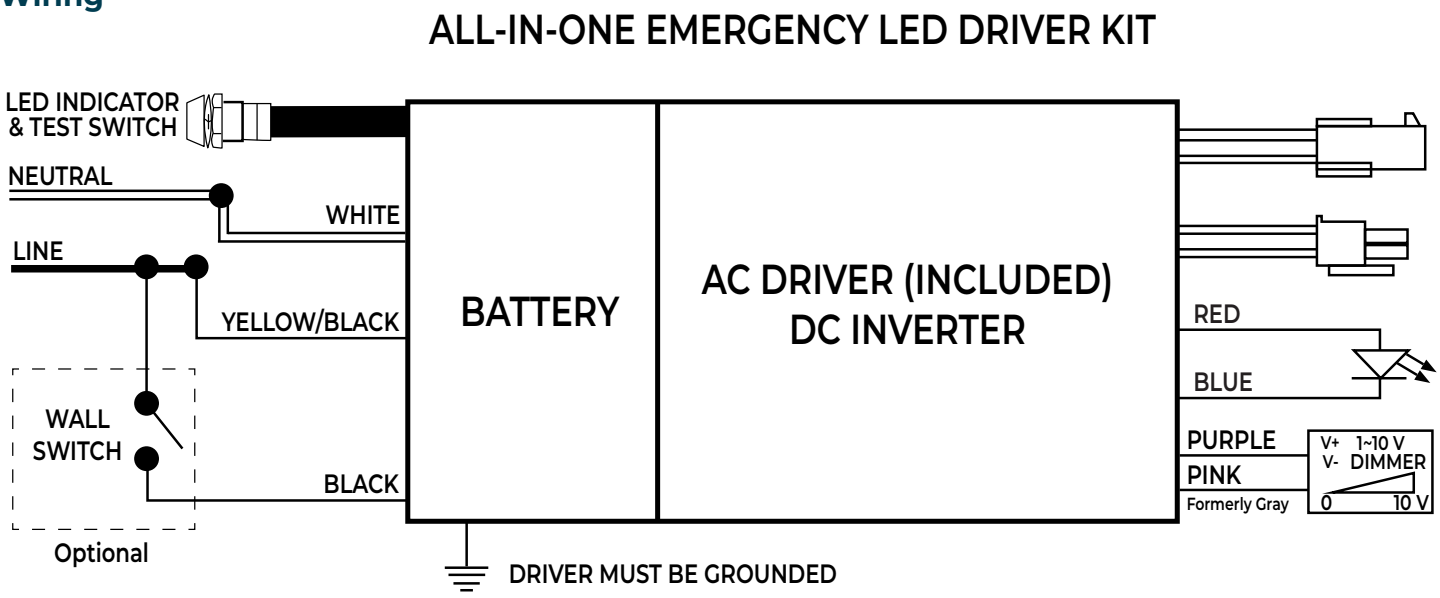
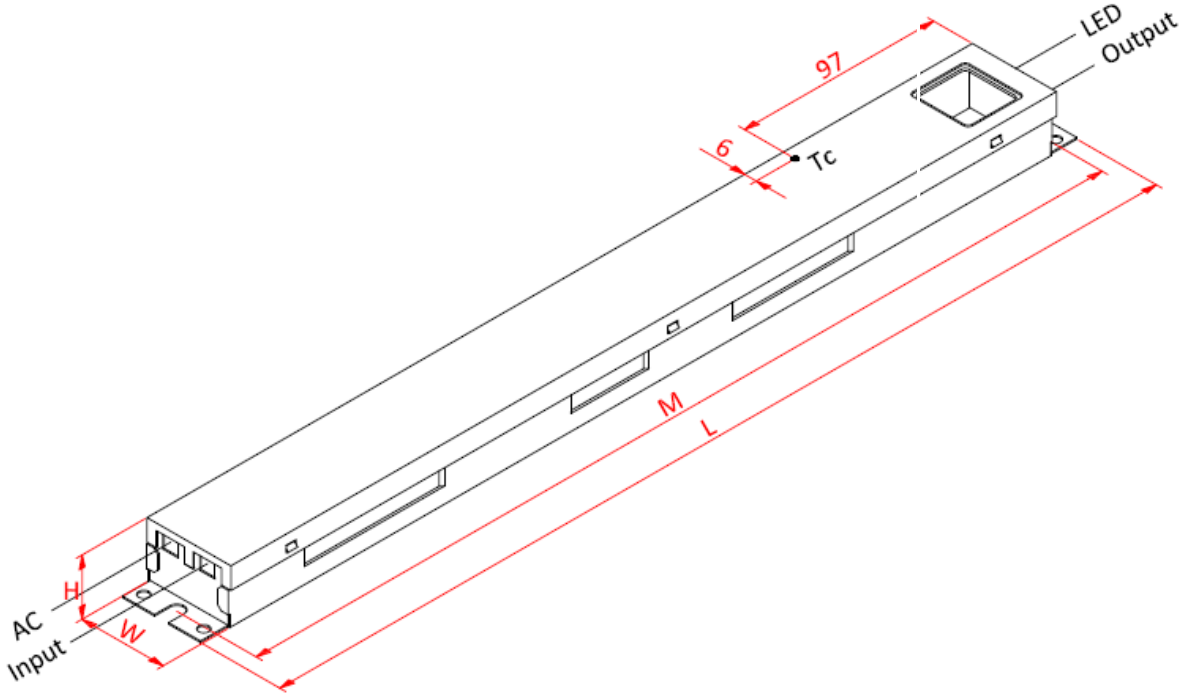
Wiring





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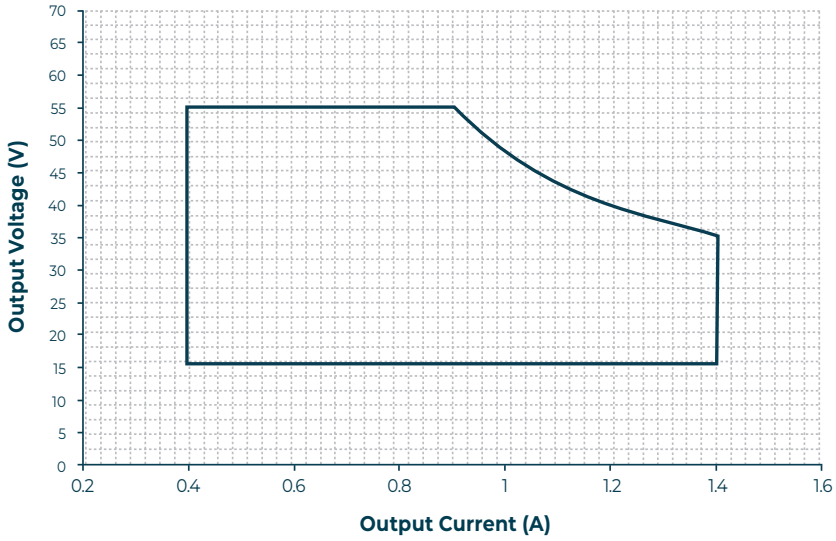
ACE LEDS — ACE-F50-55-1.4C All-In-One Emergency LED Driver

Programmable Tool:

- Put the programmable wand above the NFC mark of the driver to start programming
- Download the software from www.aceleds.com

I out vs V out Curve



Output Current Code List

Current Value (mA)	Correspond Iout Code Location 0	1	2	3	Current Value (mA)	Correspond Iout Code Location 0	1	2	3
400	01	90	00	06	950	03	B6	00	06
450	01	C2	00	06	1000	03	E8	00	06
500	01	F4	00	06	1050	04	1A	00	06
550	02	26	00	06	1100	04	4C	00	06
600	02	58	00	06	1150	04	7E	00	06
650	02	82	00	06	1200	04	B0	00	06
700	02	BC	00	06	1250	04	E2	00	06
750	02	EE	00	06	1300	05	14	00	06
800	03	20	00	06	1350	05	46	00	06
850	03	52	00	06	1400	05	78	00	06
900	03	84	00	06	1400 OFF	05	78	01	06

Note: **Factory default current is set to the maximum current unless otherwise specified.** For drivers containing Revision C of their firmware (contact factory for date code of implementation), it is also possible to adjust the minimum dimming level and the dimming speed by programming the location 2.

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Programmable Driver Options (App Note)

All programmable drivers accept a 16-bit hexadecimal code to program the output current (Iout) of the driver. The Iout programming codes are documented in the computer based-programming software (ST- TOOLS.exe) or from the driver's IOUTCODE.pdf file. The Locations below 0, 1, 2, 3 contain the basic code for a specific output current value.

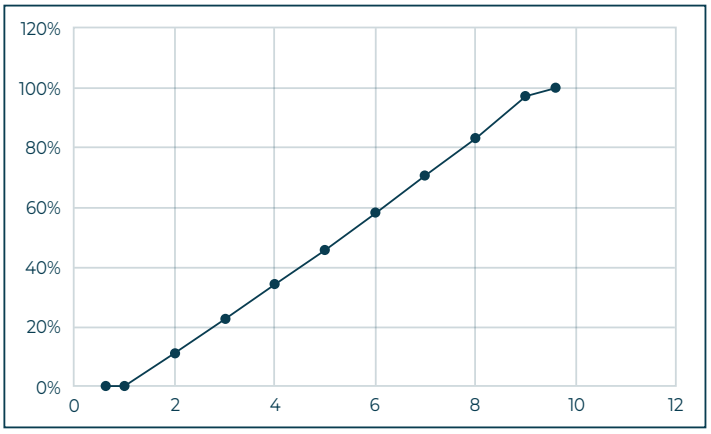
Location | 0 | 1 | 2 | 3 |
Value | 00 | 00 | 00 | 00 |

For drivers containing Revision C of their firmware (contact factory for date code of implementation), it is also possible to adjust the minimum dimming level and the dimming speed ≤ 1.0 sec. This adjustment is made by modifying location 2 of the programming code while keeping the other locations set for the desired output current. Specifically, the location 2 values are defined as:unswitched fixture applications. During Emergency operation, this driver will drive any LED module that is designed to accept a constant current input of 190mA and has an input voltage in the range of 15-55 VDC.

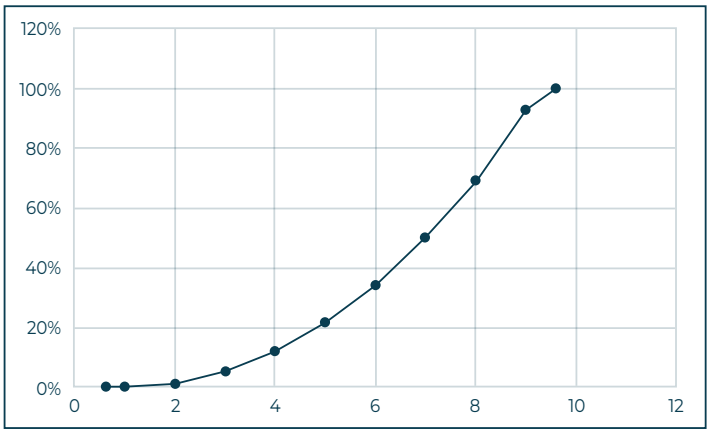
Linear Dimming	Logarithmic Dimming
• 00 => Dim to 1%	• 10 => Dim to 1%
• 01 => Dim-to-OFF	• 11 => Dim-to-OFF
• 02 => Dim to 10%	• 12 => Dim to 10%

Dimming Curve

Linear Dimming



Logarithmic Dimming



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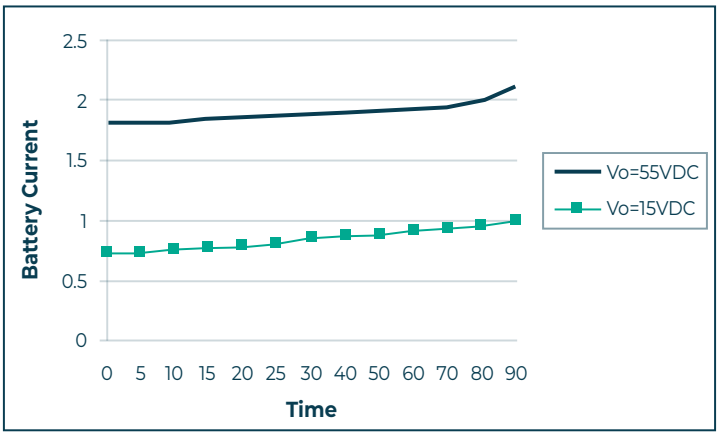
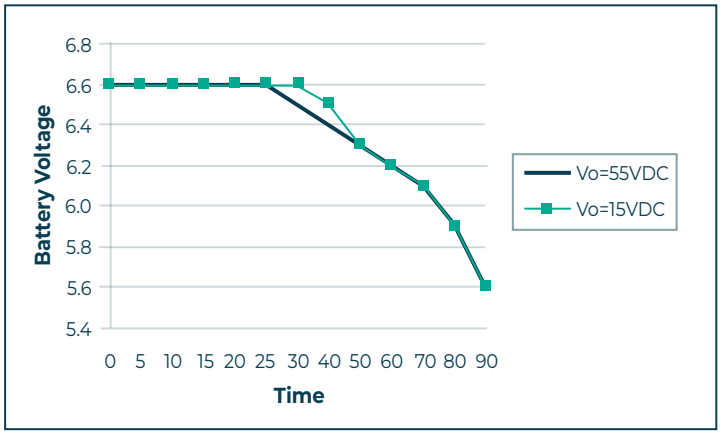
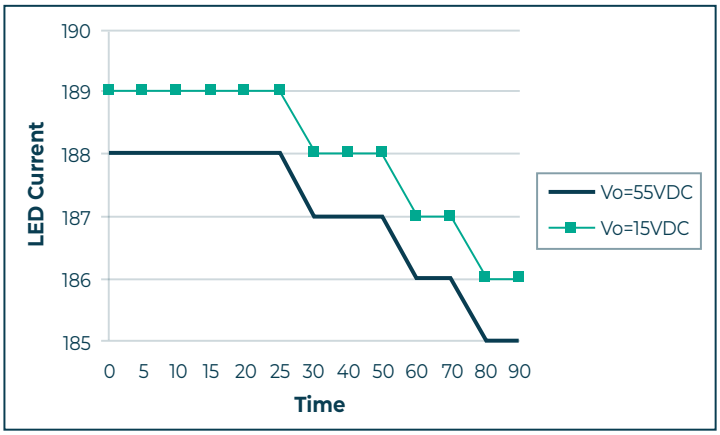
Battery Current V.S. Time



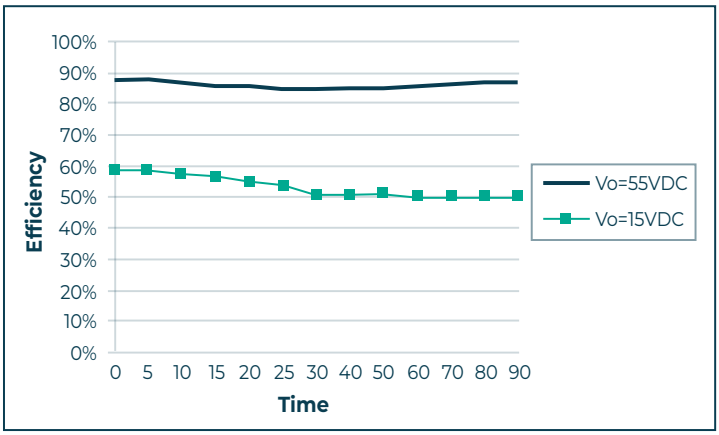
Battery Voltage V.S. Time



LED Current V.S. Time



LED Efficiency V.S. Time



***AC Electronics/ACE LEDS warrants to the purchaser that each Emergency LED Driver will be free from defects in material or workmanship for a period of 5 years when operated at max case temp of up to <60°C and 3 years warranty based on a maximum case temperature of ≤ 66°C when properly installed and under normal conditions of use. See aceleds.com for complete warranty policy.**

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