



# KT-EMRG-LED-5-500-AC

## CONSTANT WATTAGE LED EMERGENCY BACK-UP



**DESCRIPTION**

LED Emergency Back-Up Driver | Standard Side Exit Wire Leads | 5W Output

<b>DRIVER TYPE:</b> Constant Wattage LED Emergency
<b>MAX. OUTPUT POWER:</b> 5W
<b>INPUT VOLTAGE:</b> 120-277Vac ±10%
<b>OUTPUT VOLTAGE:</b> 40-300Vdc
<b>OUTPUT CURRENT:</b> Load Dependant
<b>WARRANTY:</b> 5 Years



**PRODUCT FEATURES**

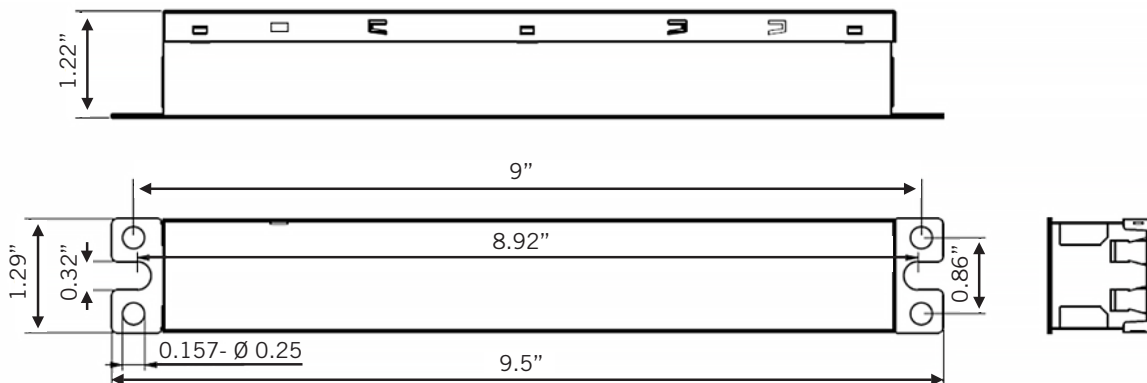
- Optimized for Keystone Single Ended Direct Drive LED tubes  
Contact Keystone for details on functioning with other Type B LED tubes
- Illuminates entire LED load at reduced output under emergency mode
- One Piece Design with Metal Housing
- 2 -in- 1 LED test switch and indicator light included
- Evaluated to UL 924 requirements
- 90 Minute operation in Emergency Mode
- UL Listed
- Operating Temperature: 32°F/0°C to 122°F/50°C
- Input Frequency: 50/60 Hz
- Maximum Load of 50W
- Li(NiCoMn)O<sub>2</sub> Battery

**ELECTRICAL SPECIFICATIONS**

Family	INPUT CHARACTERISTICS			OUTPUT CHARACTERISTICS			
	Input Voltage	Power Factor	Max. Current	Max. Output Power	Rated Output Current	Output Voltage	LED Module Included
5W	120-277Vac	≥0.35	100mA @120V	5W	Load Dependent	40~300Vdc	No

Emergency pack designed to deliver 5W to a constant current LED load. Approximate output is 500 lumens assuming a nominal minimum efficacy of 100lm/W.

**PHYSICAL SPECIFICATIONS**

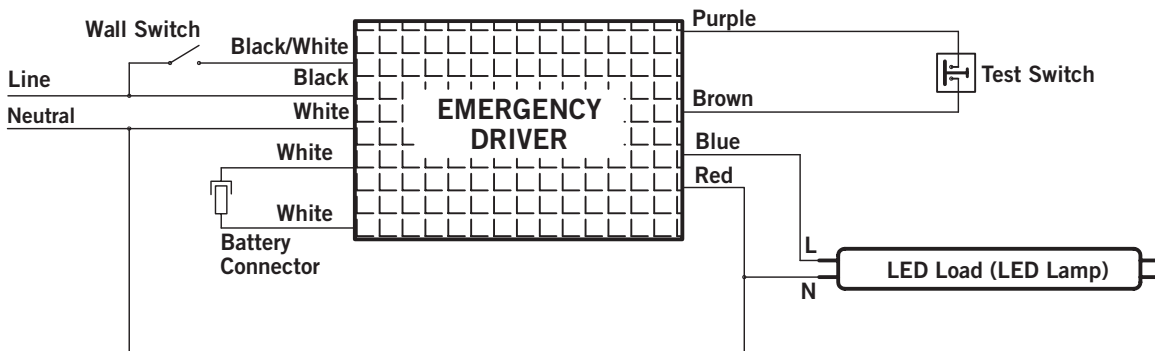
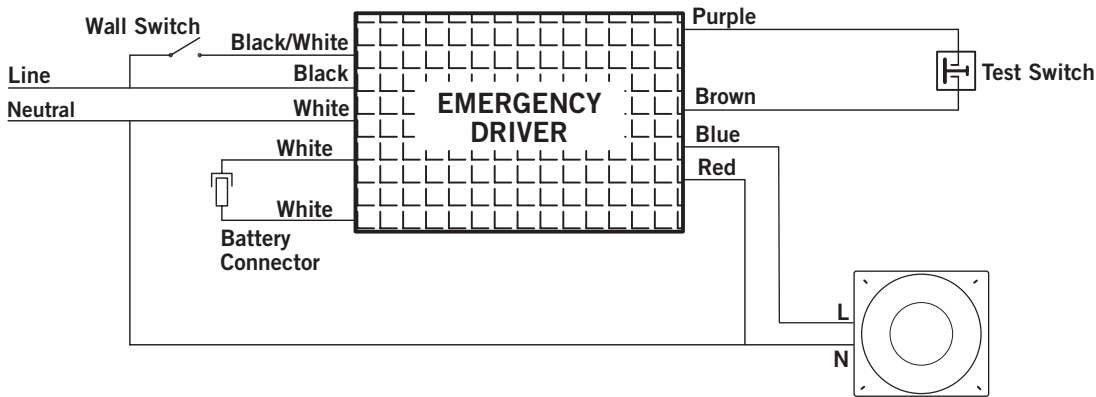




# KT-EMRG-LED-5-500-AC

## CONSTANT WATTAGE LED EMERGENCY BACK-UP

### WIRING DIAGRAM



### ORDERING INFORMATION

ORDER CODE	DESCRIPTION	PACKAGING STYLE	PACK QTY.	ITEM STATUS
KT-EMRG-LED-5-500-AC-IP	1-Piece LED Emergency Back Up with Standard Side Exit Wire Leads	Individually Packaged	1	Active

### CATALOG NUMBER BREAKDOWN

# KT-EMRG-LED-5-500-AC

- 1
- 2
- 3
- 4
- 5
- 6

- 1 Keystone Technologies
- 2 Emergency Back-Up Driver
- 3 LED Driver
- 4 Wattage Family
- 5 Nominal Lumen Output
- 6 Alternating Current



# KT-EMRG-LED-5-500-AC/DF

## CONSTANT WATTAGE LED EMERGENCY BACK-UP DRIVER

### DESCRIPTION

LED Emergency Back-Up Driver | Dual-Flex Conduit | 5W Output | 120–277V Input



<b>DRIVER TYPE:</b> Constant Wattage LED Emergency
<b>MAX. OUTPUT POWER:</b> 5W
<b>INPUT VOLTAGE:</b> 120–277Vac ±10%
<b>OUTPUT VOLTAGE:</b> 40–300Vdc
<b>OUTPUT CURRENT:</b> Load Dependant
<b>WARRANTY:</b> 5 Years



### PRODUCT FEATURES

- Optimized for recessed LED downlight fixtures and retrofit kits, and Keystone DirectDrive compact lamps. Contact Keystone for details on functioning with other LED products
- Illuminates entire LED load at reduced output under emergency mode
- One-piece design with metal housing
- 2-in-1 LED test switch and indicator light included
- Dual-flex conduit fits into 1/2" knockouts
- Not for use with dimmers
- Evaluated to UL 924 requirements
- 90-minute operation in emergency mode
- UL listed
- Operating temperature: 0°C/32°F to 50°C/122°F
- Input frequency: 50/60 Hz
- Maximum load: 50W
- Li(NiCoMn)<sub>2</sub> battery

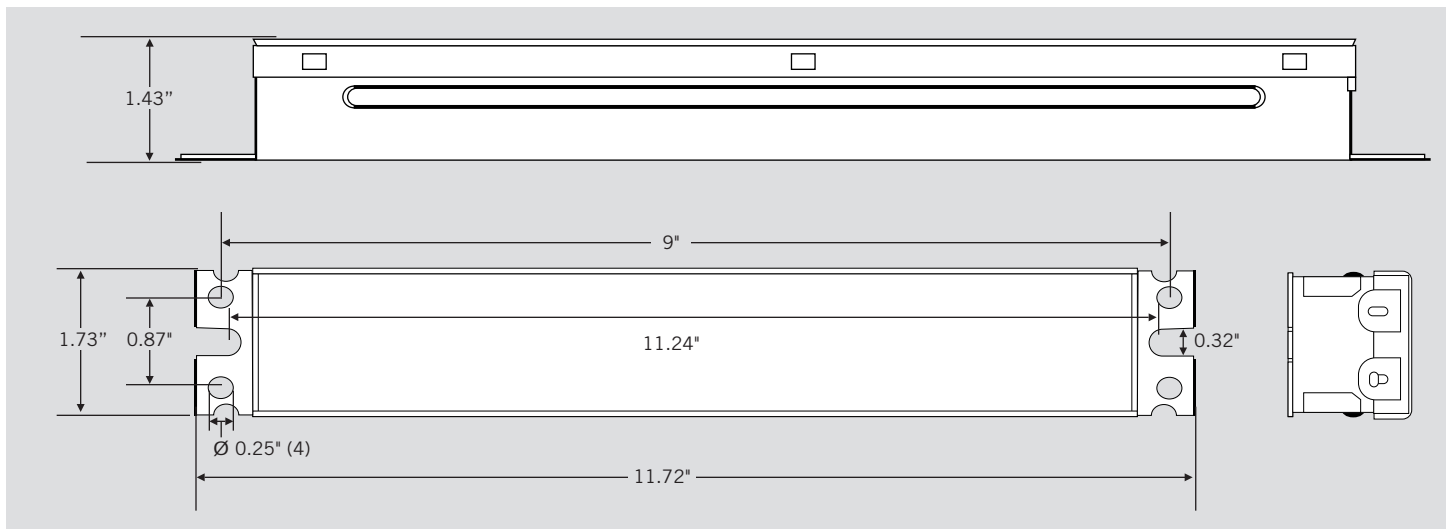
*Emergency pack does not meet CEC T20 requirements. Not to be sold or offered for sale in California, except when sold wholesale in California for final retail sale outside the state.*

### ELECTRICAL SPECIFICATIONS

Family	INPUT CHARACTERISTICS			OUTPUT CHARACTERISTICS			
	Input Voltage	Power Factor	Max. Current	Max. Output Power	Rated Output Current	Output Voltage	LED Module Included
5W	120–277Vac	≥ 0.35	100mA @120V	5W	Load Dependent	40–300Vdc	No

*EMERGENCY PACK DESIGNED TO DELIVER 5W TO A CONSTANT CURRENT LED LOAD. APPROXIMATE OUTPUT IS 500 LUMENS, ASSUMING A NOMINAL MINIMUM EFFICACY OF 100LM/W.*

### PHYSICAL SPECIFICATIONS

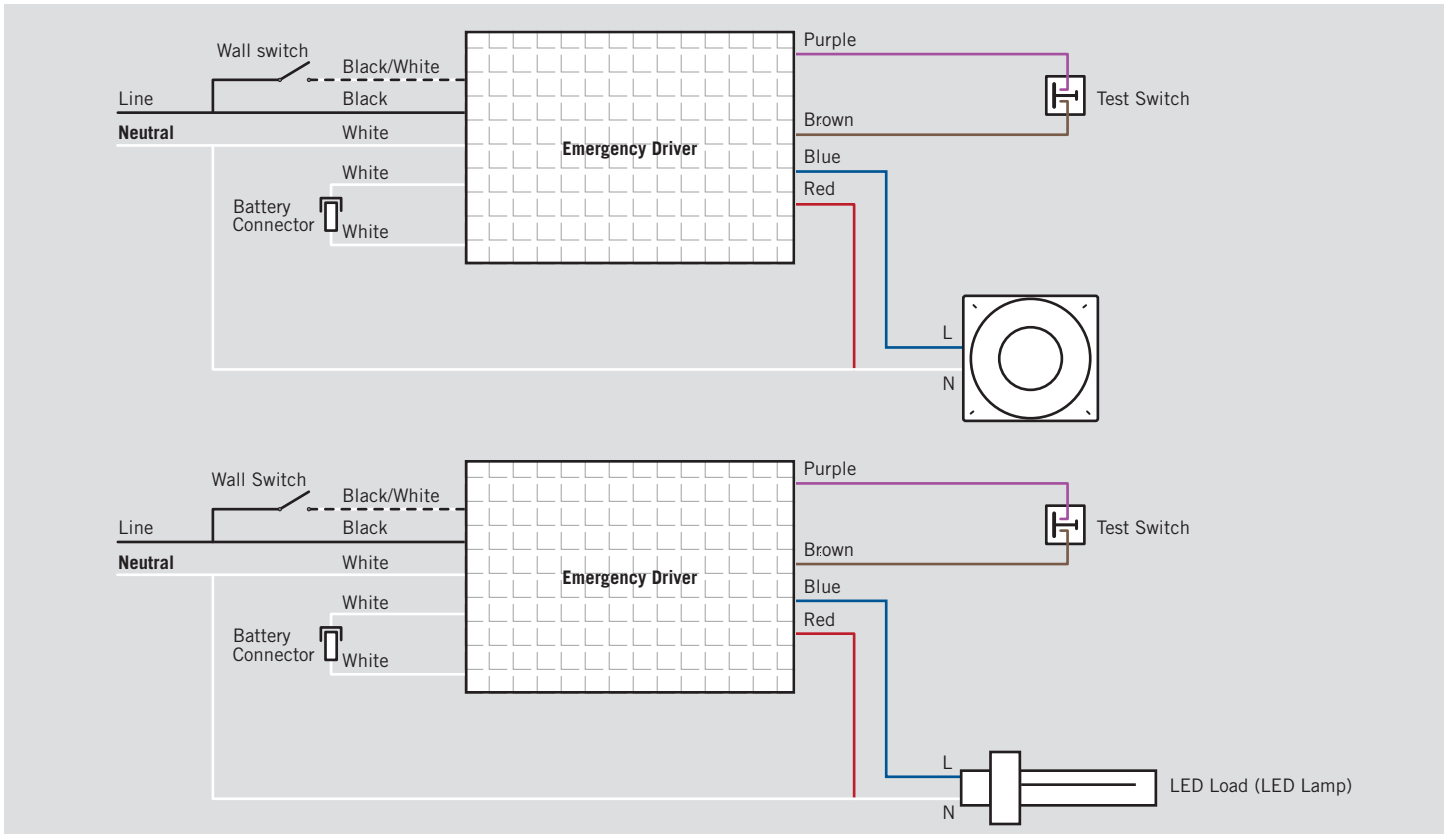




# KT-EMRG-LED-5-500-AC/DF

## CONSTANT WATTAGE LED EMERGENCY BACK-UP DRIVER

### WIRING DIAGRAM



### ORDERING INFORMATION

ORDER CODE	DESCRIPTION	PACKAGING STYLE	PACK QTY.	ITEM STATUS
KT-EMRG-LED-5-500-AC/DF	1-Piece LED Emergency Back Up with Duel-Flex Conduit	Individually Packaged	1	Active

### CATALOG NUMBER BREAKDOWN

# KT-EMRG-LED-5-500-AC/DF

- 1
- 2
- 3
- 4
- 5
- 6
- 7

- 1 Keystone Technologies
- 2 Emergency Back-Up Driver
- 3 LED Driver
- 4 Wattage Family
- 5 Nominal Lumen Output
- 6 Alternating Current
- 7 Dual-Flex



# KT-EMRG-LED-5C-500

## LED EMERGENCY BACK-UP DRIVER

### DESCRIPTION

LED Emergency Back-Up Driver | 5W Output | 120–277V  
Input | CEC T20 Compliant | 2-Piece Design



<b>DRIVER TYPE:</b> LED Emergency Back-Up Driver
<b>MAX. OUTPUT POWER:</b> 5W
<b>INPUT VOLTAGE:</b> 120–277Vac ±10%
<b>NUMBER OF OUTPUTS:</b> One
<b>SAFETY STANDARD:</b> UL 924, Complies with CEC Title 20 Efficiency Standards
<b>LOCATION:</b> IP20 design for dry and damp location
<b>WARRANTY:</b> 5 Years
<b>PASS-THROUGH CURRENT:</b> 3A max



### ELECTRICAL SPECIFICATIONS

Input voltage range	120–277Vac ± 10%
Frequency	50/60Hz
Power factor	> 0.9 under 120–277Vac input
Inrush current	TBD
Max input current	50mA @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 ≤ 58V; above that power will drop
Output current	250mA @ 20Vdc, 86mA @ 58Vdc
Output power	5W (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><b>Over voltage protection:</b> Hiccup mode. Protection will trigger when load voltage exceeds specified output voltage and will auto recover after the fault mode is removed.</p> <p><b>Over current protection:</b> Hiccup mode. Protection will trigger when load current exceeds specified output current and will auto recover after the fault mode is removed.</p> <p><b>Short circuit protection:</b> Hiccup mode. Protection will trigger when short circuit and will auto recover after the fault mode is removed.</p> <p><b>Over temperature protection:</b> Protection will trigger when driver overheats and auto-recovery when cooled down.</p>
Emergency Operation	90 minutes
Battery	High-temperature, maintenance-free, LiFePO4 battery, 9.6Vdc, 3 cell
Recharge Time	24 hours
Battery Charging Current	307mA



# KT-EMRG-LED-5C-500

## LED EMERGENCY BACK-UP DRIVER

### ENVIRONMENTAL SPECIFICATIONS

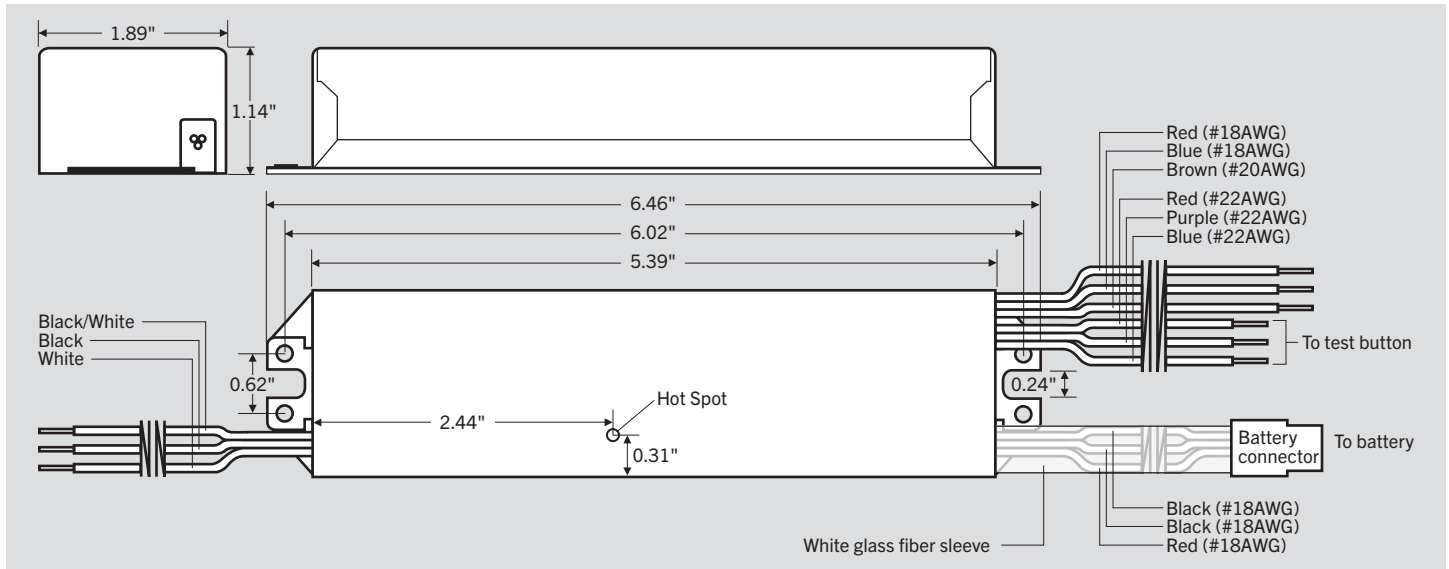
Operating temperature	0°C/32°F to 55°C/131°F
Storage temperature	-20°C/-4°F to 55°C/131°F
Humidity	5% to 95%
MTBF	TBD
Life rating	TBD
Maximum case temperature	167°F (75°C) for LED driver
Maximum ambient temperature	131°F (55°C) for battery

### SAFETY AND EMC COMPLIANCE

UL/cUL	Listed for field or factory installation: UL 924 and CSA No. 141 Emergency Lighting Compliant
FCC, 47CFR Part 15	ANSI C63.4:2009 Class B (consumer limit)
EN61000-3-2	Harmonic current emissions Class C

### DIMENSIONS AND WIRING SPECIFICATIONS

#### EMERGENCY LED DRIVER SPECIFICATIONS





# KT-EMRG-LED-5C-500

## LED EMERGENCY BACK-UP DRIVER

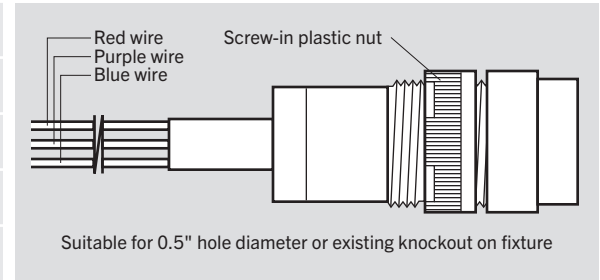
### LED DRIVER DIMENSIONS

Length (L)	6.46" (164mm)
Width (W)	1.89" (48mm)
Height (H)	1.14" (29mm)
Mounting (M)	6.02" (153mm)

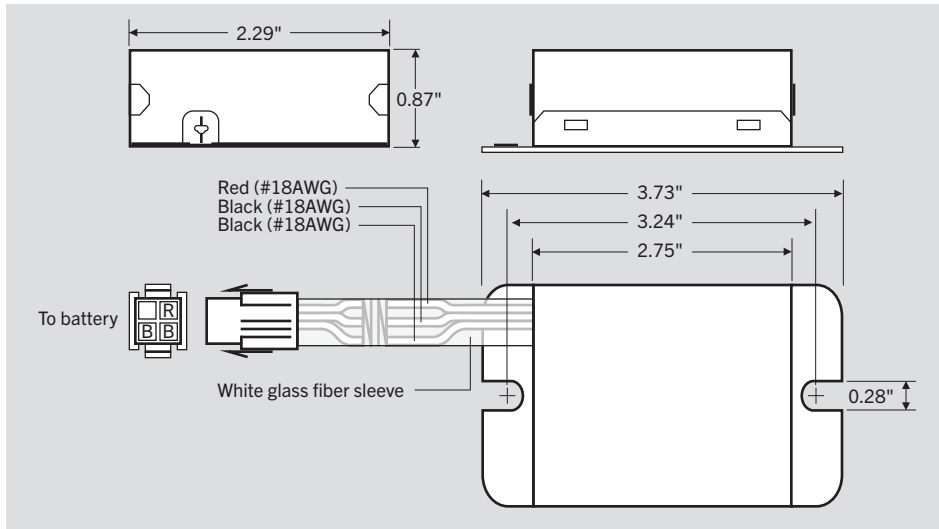
### WIRE SPECIFICATIONS

Input		Black, White, Black/White	12", UL1316 #18AWG
Output	To LED module	Red, Blue	24", UL1316 #18AWG
	To LED driver	Brown	24", UL1430 #20AWG
	To battery connector	Red, Black	24", UL1015 #18AWG
	To test button	Red, Blue, Purple	24", UL1430 #22AWG

### TEST SWITCH (3-WIRE) SPECIFICATIONS



### BATTERY PACK SPECIFICATIONS



### BATTERY PACK DIMENSIONS

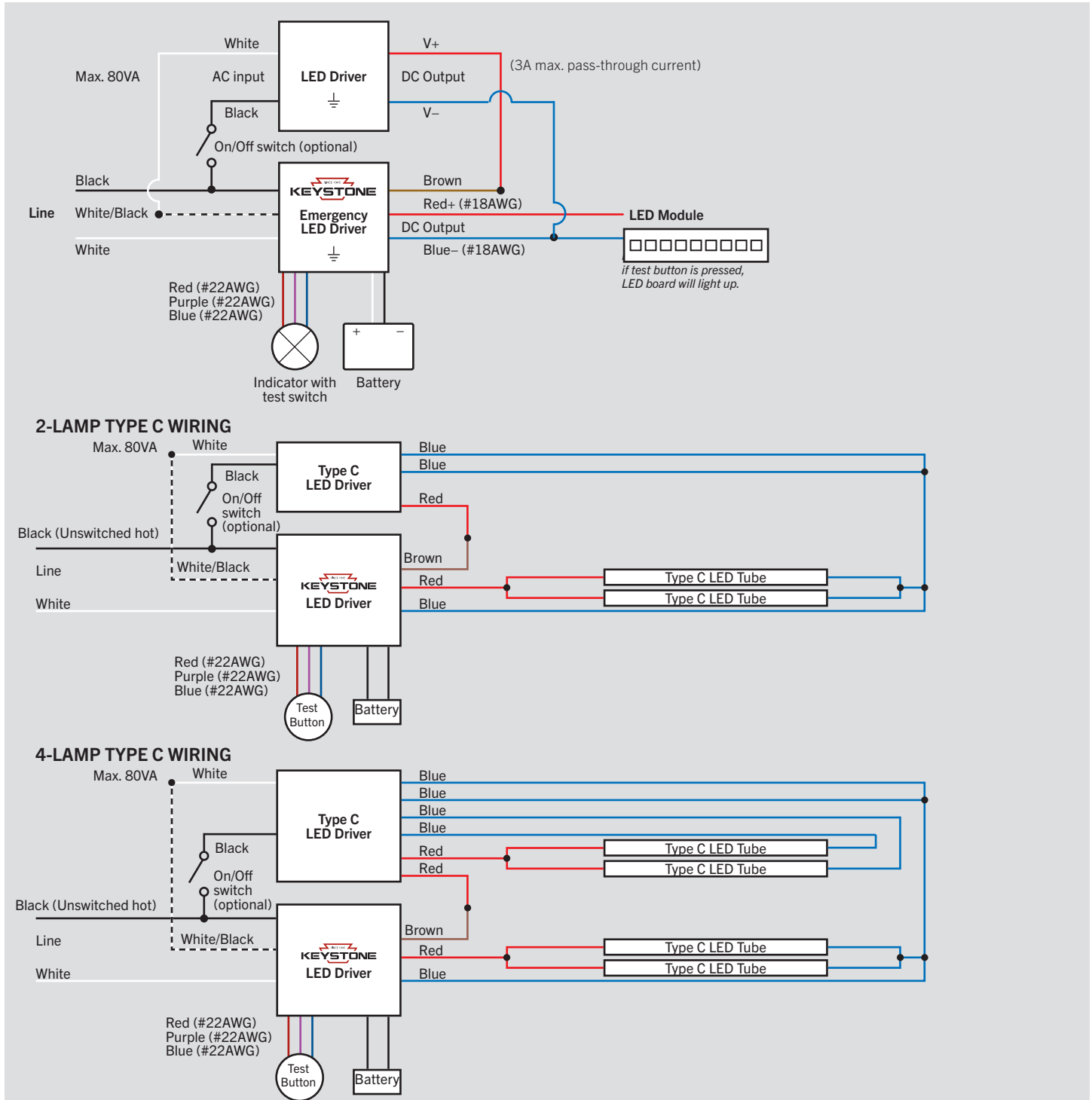
Length (L)	3.73" (94.8mm)
Width (W)	2.29" (58.2mm)
Height (H)	0.87" (22.2mm)
Mounting (M)	3.24" (82.2mm)



# KT-EMRG-LED-5C-500

## LED EMERGENCY BACK-UP DRIVER

### WIRING DIAGRAM



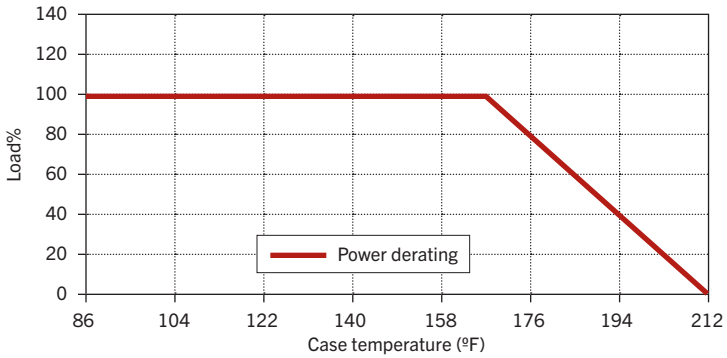




# KT-EMRG-LED-5C-500

## LED EMERGENCY BACK-UP DRIVER

### POWER DERATING VS CASE TEMPERATURE



Notes:  
 1. To maintain good battery lifespan during storage, recharging emergency LED driver annually is recommended.  
 2. For operation, wiring, and installation please refer to installation instruction.

### ORDERING INFORMATION

ORDER CODE	DESCRIPTION	PACKAGING STYLE	PACK QTY.	ITEM STATUS
KT-EMRG-LED-5C-500-IP	LED Emergency Back-Up, CEC Compliant	Individually Packaged	TBD	Active

### CATALOG NUMBER BREAKDOWN

# KT-EMRG-LED-5C-500-IP

- 1** Keystone Technologies
- 2** Emergency Back-Up
- 3** LED Driver
- 4** Nominal Wattage
- 5** CEC Compliant
- 6** Nominal Lumen Output
- 7** Packaging Style



# KT-EMRG-LED-5C-500-EN

## CONSTANT WATTAGE LED EMERGENCY BACK-UP



### DESCRIPTION

LED Emergency Back-Up Driver | Standard Side Exit Wire Leads | 5W Output

<b>DRIVER TYPE:</b> Constant Wattage LED Emergency
<b>MAX. OUTPUT POWER:</b> 5W
<b>INPUT VOLTAGE:</b> 120–277Vac ±10%
<b>OUTPUT VOLTAGE:</b> 20–60Vdc
<b>OUTPUT CURRENT:</b> 250–86mA
<b>WARRANTY:</b> 5 Years



### PRODUCT FEATURES

- Drives LED loads at 5W (nominal) for a minimum of 90 minutes
- Meets FCC Part 15 (Class B) consumer limits
- Short circuit overload and open load protection
- Suitable for dry and damp locations
- Safety Standard: UL 924, Complies with CEC Title 20 Efficiency Standards
- Operating temperature: 0°C/32°F to 55°C/131°F
- Input frequency: 50/60 Hz
- Test switch/Charging indicator light
- Battery capacity: 1200mAh
- Listed for field or factory installation: UL 924 and CSA C22.2 no. 141 emergency lighting compliant
- 3A max. pass-through current
- Battery capacity: High-Temperature, Maintenance-Free, LiFePO4 Battery, 9.6Vdc, 3 cell

### ELECTRICAL SPECIFICATIONS

Family	INPUT CHARACTERISTICS			OUTPUT CHARACTERISTICS		
	Input Voltage	Power Factor	Max. Current	Max. Output Power	Rated Output Current	Output Voltage
5W	120–277Vac	≥ 0.5	0.050A @ 120V 0.035A @ 240V 0.030A @ 277V	5W	250mA–86mA	20–60Vdc Class 2 Compliant

Emergency pack designed to deliver 5W to a constant current LED load. Approximate output is 500 lumens, assuming a nominal minimum efficacy of 100 lm/W.

### ENVIRONMENTAL SPECIFICATIONS

<b>Operating Temperature</b>	0°C/32°F to 55°C/131°F
<b>Storage Temperature</b>	-20°C/-4°F to 55°C/131°F
<b>Humidity</b>	5% to 95%
<b>MTBF</b>	284,000 hours at 40°C ambient (~55°C/131°F Case temp)
<b>Life Rating</b>	97,500 hours at 120Vac input, 100% load and 55°C/131°F case temperature
<b>Maximum Case Temperature</b>	55°C/131°F

### SAFETY AND EMC COMPLIANCE

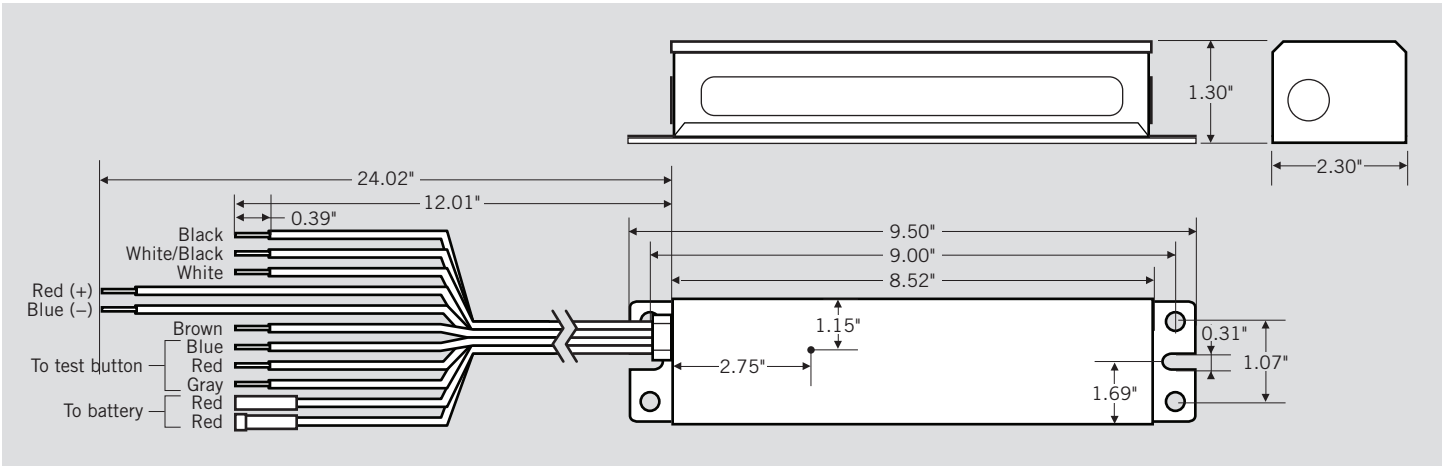
<b>UL/cUL</b>	UL 924
<b>FCC, 47CFR Part 15</b>	ANSI C63.4:2009 Class B (Consumer Limit)
<b>EN61000-3-2</b>	Harmonic Current Emissions Class C



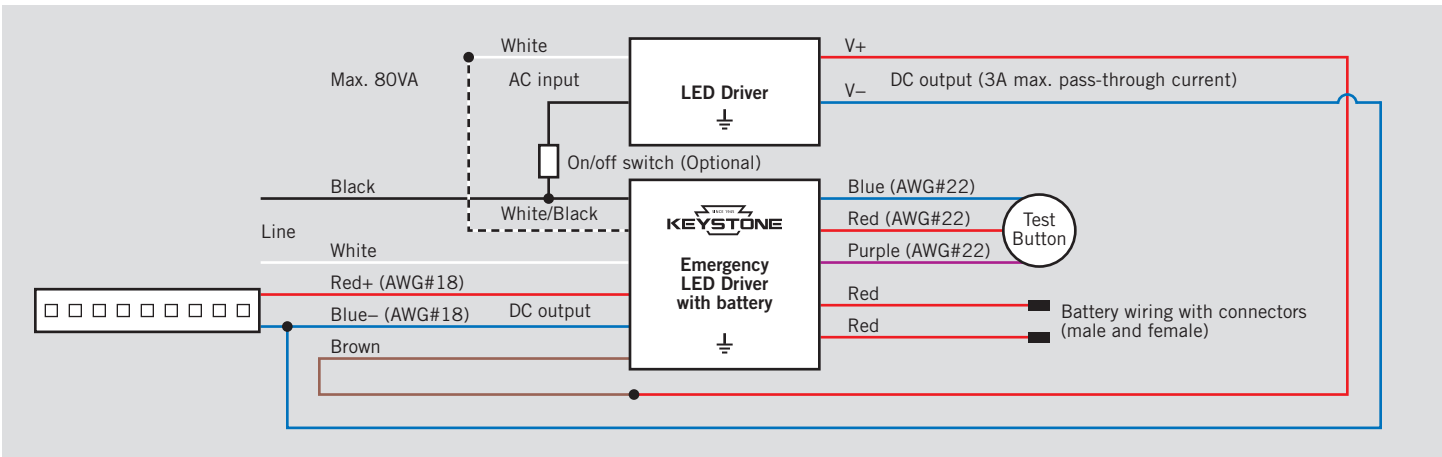
# KT-EMRG-LED-5C-500-EN

## CONSTANT WATTAGE LED EMERGENCY BACK-UP

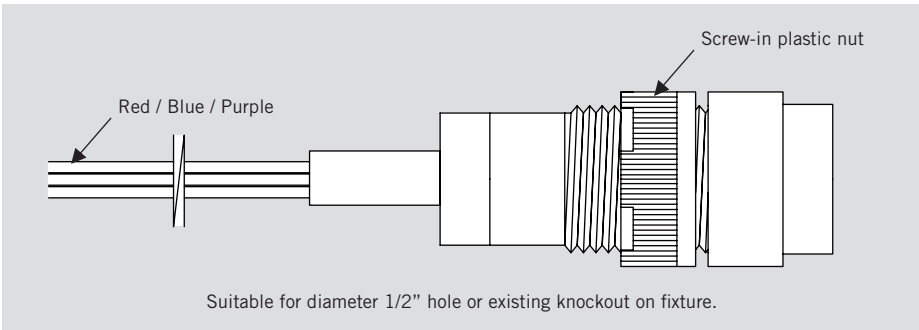
### PHYSICAL SPECIFICATIONS



### WIRING SPECIFICATIONS



### TEST SWITCH

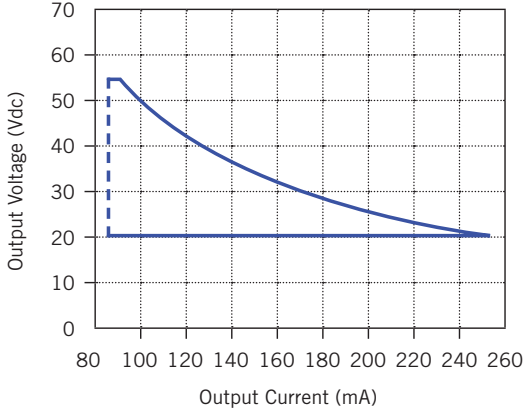




# KT-EMRG-LED-5C-500-EN

## CONSTANT WATTAGE LED EMERGENCY BACK-UP

### DRIVER OUTPUT WINDOW



### ORDERING INFORMATION

ORDER CODE	DESCRIPTION	PACK QUANTITY	EASY CODE	UPC
KT-EMRG-LED-5C-500-EN-IP	1-Piece LED Emergency Back-up with Standard Side Exit Leads	1	EAI-31	843654132426

### CATALOG NUMBER BREAKDOWN

# KT-EMRG-LED-5C-500-EN-IP

- 1** Keystone Technologies
- 2** Emergency Back-up Driver
- 3** LED Driver
- 4** Wattage Family
- 5** Nominal Lumen Output
- 6** 1-Piece Enclosure
- 7** Packaging Style



# KT-EMRG-LED-5C-500-EN /DF

## CONSTANT WATTAGE LED EMERGENCY BACK-UP



### DESCRIPTION

LED Emergency Back-Up Driver | Dual Flex Conduit | 5W Output | 120–277V Input

<b>DRIVER TYPE:</b> Constant Wattage LED Emergency
<b>MAX. OUTPUT POWER:</b> 5W
<b>INPUT VOLTAGE:</b> 120–277Vac $\pm$ 10%
<b>OUTPUT VOLTAGE:</b> 20–60Vdc
<b>OUTPUT CURRENT:</b> 250–86mA
<b>WARRANTY:</b> 5 Years



### PRODUCT FEATURES

- Drives LED loads at 5W (nominal) for a minimum of 90 minutes
- Meets FCC Part 15 (Class B) consumer limits
- Short circuit overload and open load protection
- Suitable for dry and damp locations
- Safety Standard: UL 924, Complies with CEC Title 20 Efficiency Standards
- Operating temperature: 0°C/32°F to 55°C/131°F
- Input frequency: 50/60 Hz
- Test switch/Charging indicator light and wall plate included
- Battery capacity: High-Temperature, Maintenance-Free, LiFePO4 Battery, 9.6Vdc, 3 cell
- Dual flex conduit fits into ½" knockouts
- Listed for field or factory installation: UL 924 and CSA C22.2 no. 141 emergency lighting compliant
- 3A max. pass-through current

### ELECTRICAL SPECIFICATIONS

Family	INPUT CHARACTERISTICS			OUTPUT CHARACTERISTICS		
	Input Voltage	Power Factor	Max. Current	Max. Output Power	Rated Output Current	Output Voltage
5W	120–277Vac	$\geq$ 0.5	0.050A @ 120V 0.035A @ 240V 0.030A @ 277V	5W	250mA–86mA	20–60Vdc Class 2 Compliant

Emergency pack designed to deliver 5W to a constant current LED load. Approximate output is 500 lumens, assuming a nominal minimum efficacy of 100 lm/W.

### ENVIRONMENTAL SPECIFICATIONS

<b>Operating Temperature</b>	0°C/32°F to 55°C/131°F
<b>Storage Temperature</b>	-20°C/-4°F to 55°C/131°F
<b>Humidity</b>	5% to 95%
<b>MTBF</b>	284,000 hours at 40°C ambient (~55°C/131°F Case temp)
<b>Life Rating</b>	97,500 hours at 120Vac input, 100% load and 55°C/131°F case temperature
<b>Maximum Case Temperature</b>	55°C/131°F

### SAFETY AND EMC COMPLIANCE

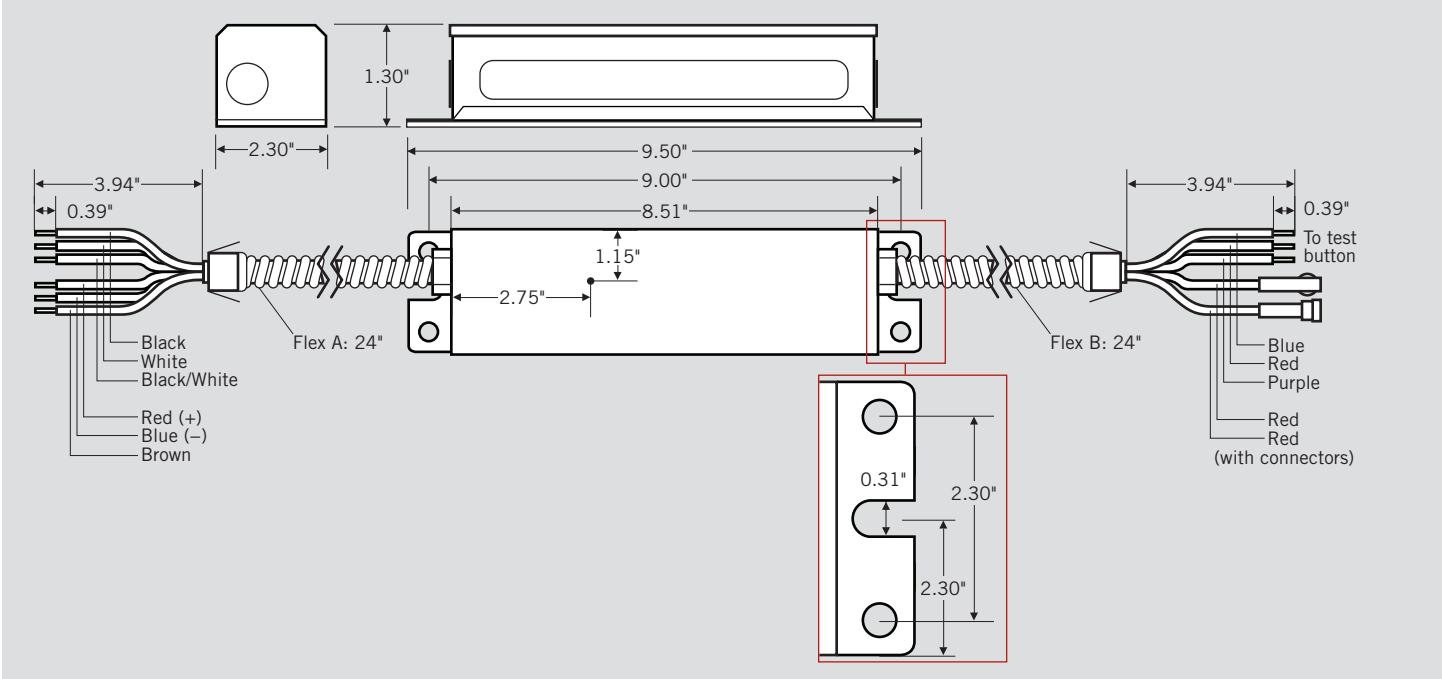
<b>UL/cUL</b>	UL 924
<b>FCC, 47CFR Part 15</b>	ANSI C63.4:2009 Class B (Consumer Limit)
<b>EN61000-3-2</b>	Harmonic Current Emissions Class C



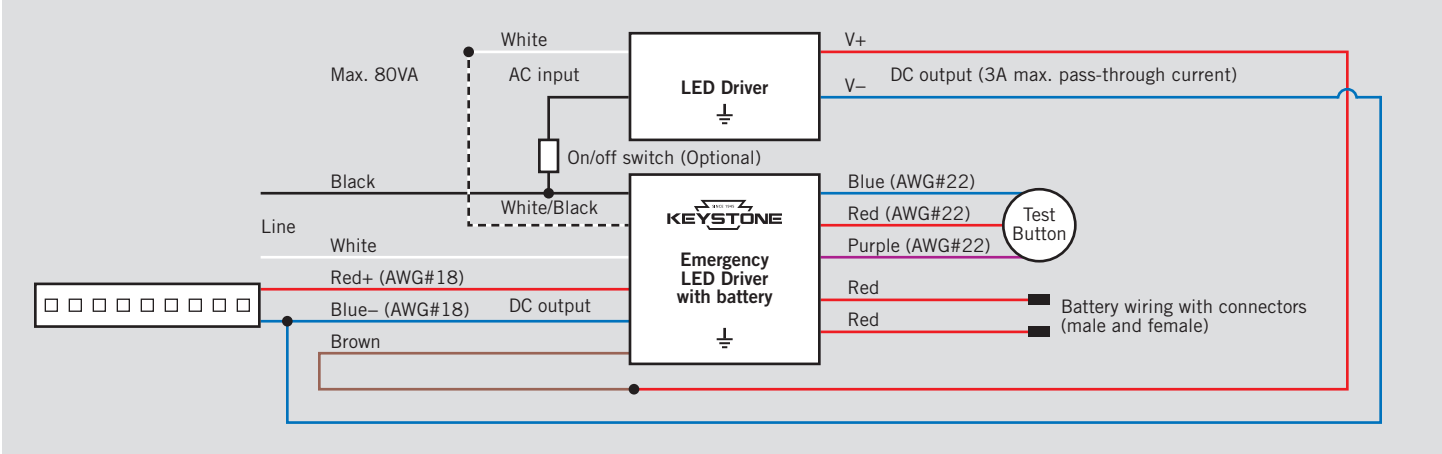
# KT-EMRG-LED-5C-500-EN /DF

## CONSTANT WATTAGE LED EMERGENCY BACK-UP

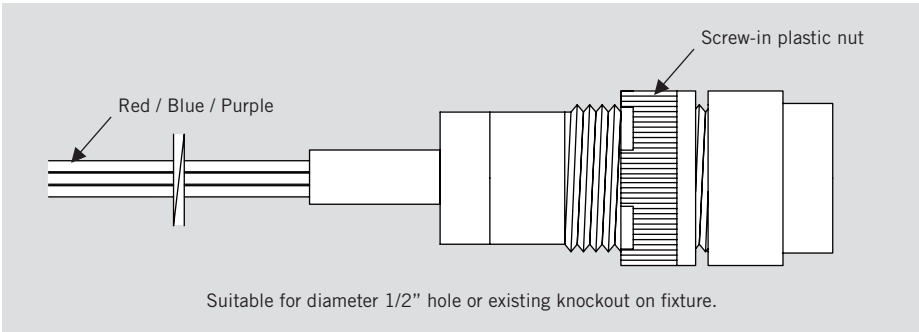
### PHYSICAL SPECIFICATIONS



### WIRING SPECIFICATIONS



### TEST SWITCH

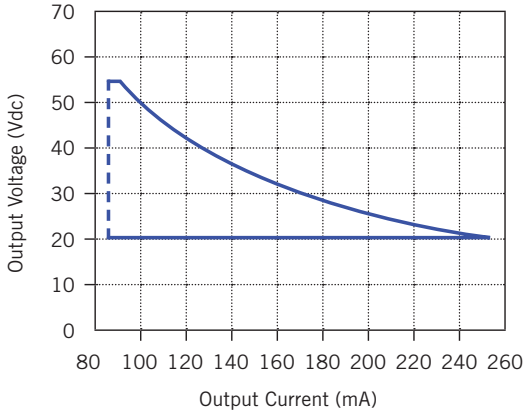




# KT-EMRG-LED-5C-500-EN /DF

## CONSTANT WATTAGE LED EMERGENCY BACK-UP

### DRIVER OUTPUT WINDOW



### ORDERING INFORMATION

ORDER CODE	DESCRIPTION	PACK QUANTITY	EASY CODE	UPC
KT-EMRG-LED-5C-500-EN /DF-IP	1-Piece LED Emergency Back-up with Dual Flex Conduit	1	RAR-74	843654132433

### CATALOG NUMBER BREAKDOWN

# KT-EMRG-LED-5C-500-EN /DF-IP

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

- 1 Keystone Technologies
- 2 Emergency Back-up Driver
- 3 LED Driver
- 4 Wattage Family
- 5 Nominal Lumen Output
- 6 1-Piece Enclosure
- 7 Dual Flex Conduit
- 8 Packaging Style



# KT-EMRG-LED-5C-500-K1

## CONSTANT POWER LED EMERGENCY BACK-UP DRIVER KIT

### DESCRIPTION

LED Emergency Back-Up Driver Kit | 5W Output | 500 Lumens  
120–277V Input | CEC T20 Compliant



<b>DRIVER TYPE:</b> Constant Power LED Emergency Back-Up Driver Kit
<b>MAX. OUTPUT POWER:</b> 5W, 500 lumens
<b>INPUT VOLTAGE:</b> 120–277Vac $\pm$ 10%
<b>NUMBER OF OUTPUTS:</b> One
<b>SAFETY STANDARD:</b> UL 924, Complies with CEC Title 20 Efficiency Standards
<b>LOCATION:</b> IP20 design for dry and damp location
<b>WARRANTY:</b> 5 Years

### ELECTRICAL SPECIFICATIONS

Input voltage range	120–277Vac $\pm$ 10%
Frequency	50/60Hz
Power factor	>0.5 under 120–277Vac input
Inrush current	7A @ 230V
Max input current	50mA @ 120V, 35mA @ 240V, and 30mA @ 277V
THD	<200% under 120–277Vac input
Output voltage	20–60Vdc Class 2 compliant. <i>Remarks:</i> the output power is valid for output voltage $\leq$ 58V; above that power will drop
Output current	250mA @ 20Vdc, 86mA @ 58Vdc
Output power	5W (constant), 500 lumens
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><b>Over voltage protection:</b> Hiccup mode. Protection will trigger when load voltage exceeds specified output voltage and will auto-recover after the fault mode is removed.</p> <p><b>Over current protection:</b> Hiccup mode. Protection will trigger when load current exceeds specified output current and will auto-recover after the fault mode is removed.</p> <p><b>Short circuit protection:</b> Hiccup mode. Protection will trigger when short circuit occurs and will auto-recover after the fault mode is removed.</p> <p><b>Over temperature protection:</b> Protection will trigger when driver overheats and auto-recover when cooled down.</p>
Emergency Operation	90 minutes
Battery	High-temperature, maintenance-free, LiFePO4 battery, 9.6Vdc, 3 cell
Recharge Time	24 hours
Battery Charging Current	307mA

### 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	284,000 hrs at 40°C/104°F ambient (–70°C/158°F case temp)
Life rating	80,000 hrs at 120Vac input, 100% load and 60°C/140°F case temp
Max case temperature	75°C/167°F for LED driver
Max ambient temperature	55°C/131°F for battery

### 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



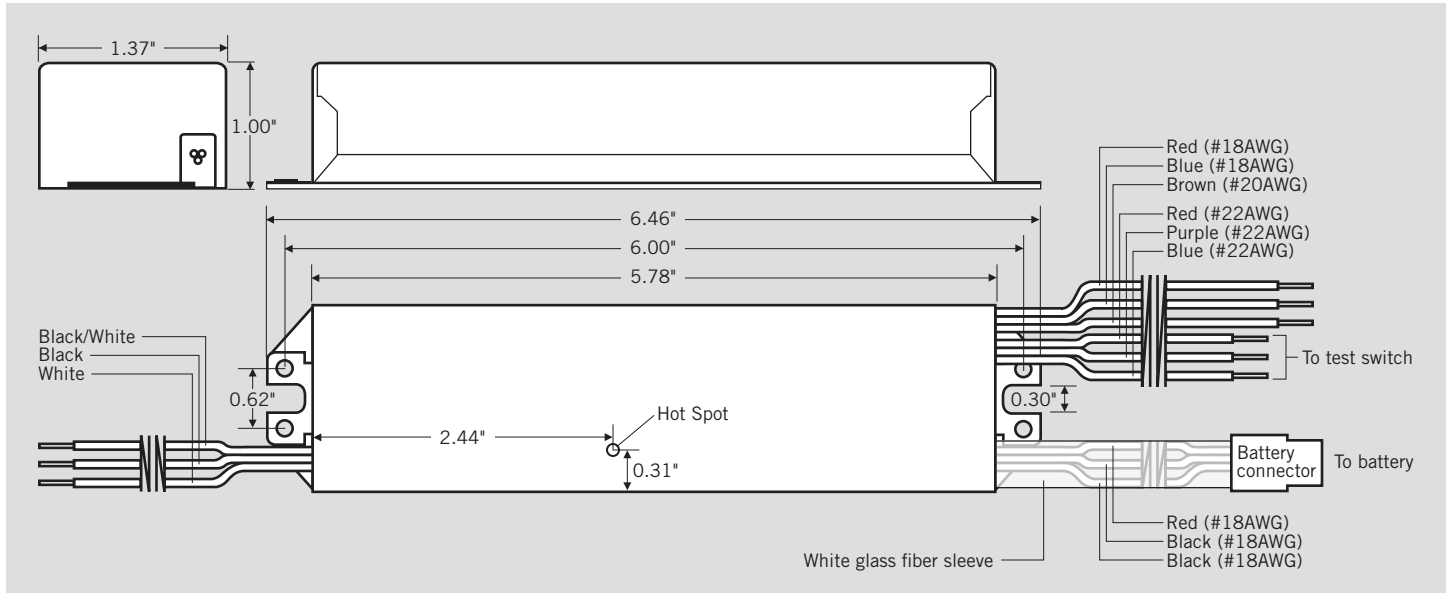


# KT-EMRG-LED-5C-500-K1

## CONSTANT POWER LED EMERGENCY BACK-UP DRIVER KIT

### DIMENSIONS AND WIRING SPECIFICATIONS

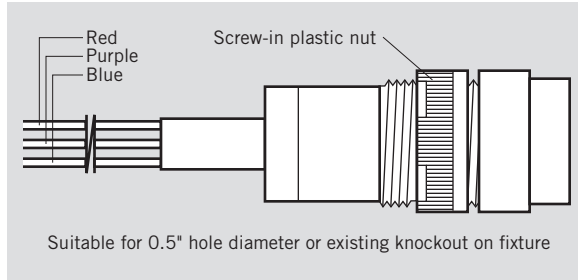
#### EMERGENCY LED DRIVER SPECIFICATIONS



#### WIRE SPECIFICATIONS

Input	Wire Color	Wire Gauge
	Black, White, Black/White	12", UL1316 #18AWG
Output	To LED module	Red, Blue 24", UL1316 #18AWG
	To LED driver	Brown 24", UL1015 #20AWG
	To battery connector	Red, Black 24", UL1015 #18AWG
	To test switch	Red, Blue, Purple 24", UL1430 #22AWG

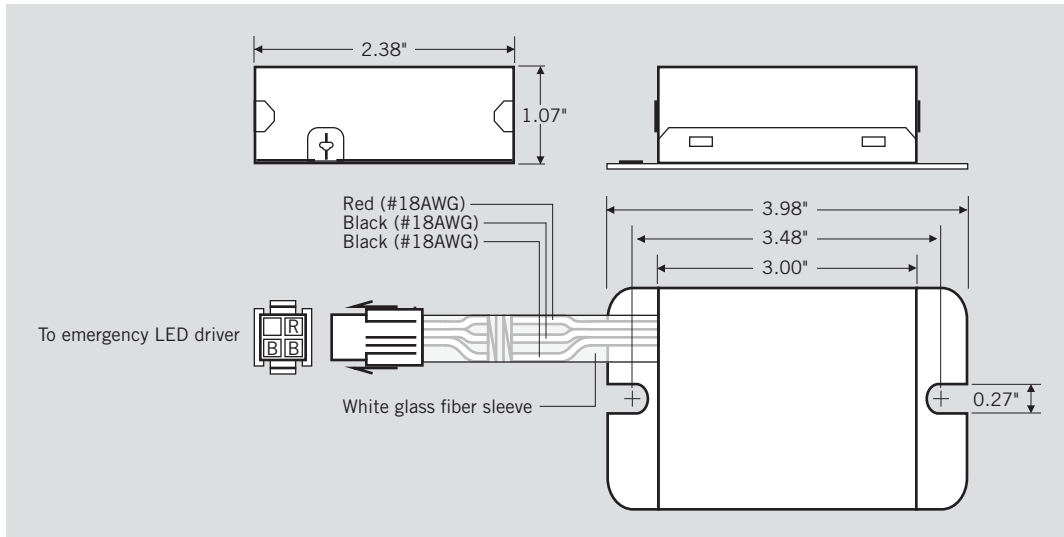
#### TEST SWITCH (3-WIRE) SPECIFICATIONS



#### LED DRIVER DIMENSIONS

Length	6.46" (164.0mm)
Width	1.37" (34.7mm)
Height	1.00" (25.4mm)
Mounting	6.00" (152.4mm)

#### BATTERY PACK SPECIFICATIONS



#### BATTERY PACK DIMENSIONS

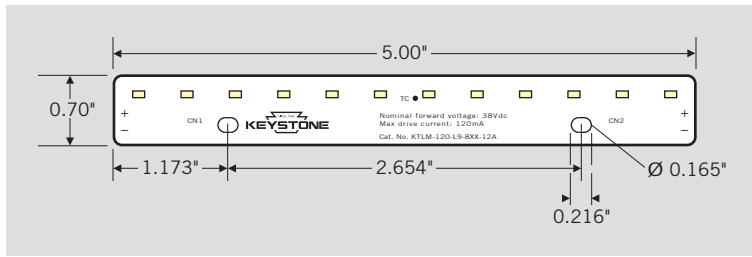
Length	3.98" (101.0mm)
Width	2.38" (60.4mm)
Height	1.07" (27.2mm)
Mounting	3.48" (88.4mm)



# KT-EMRG-LED-5C-500-K1

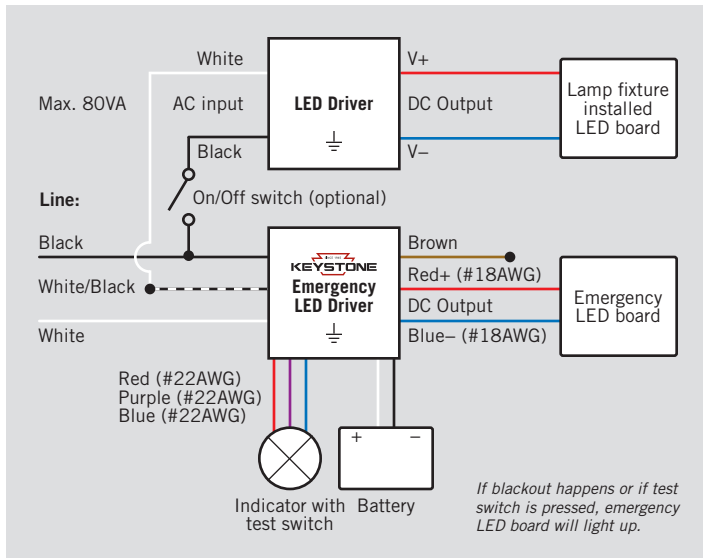
## CONSTANT POWER LED EMERGENCY BACK-UP DRIVER KIT

### LED MODULE SPECIFICATIONS

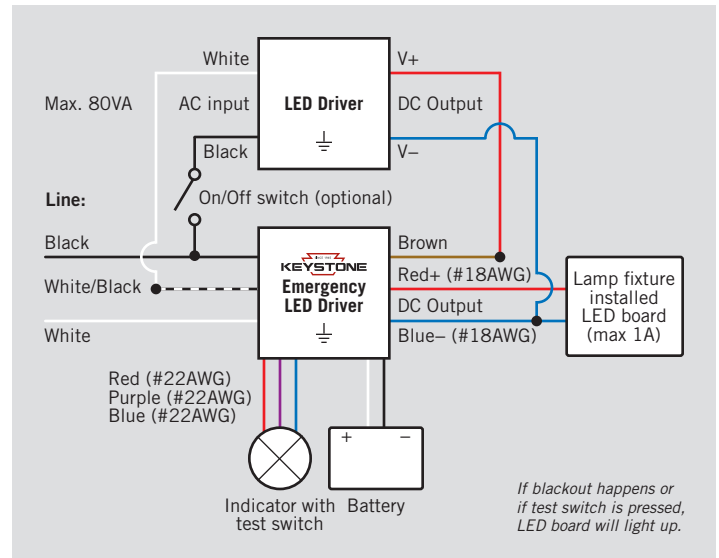


### WIRING DIAGRAMS

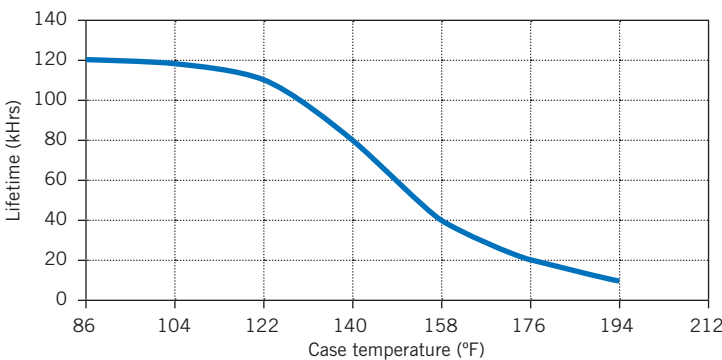
Connect emergency LED driver with emergency LED board



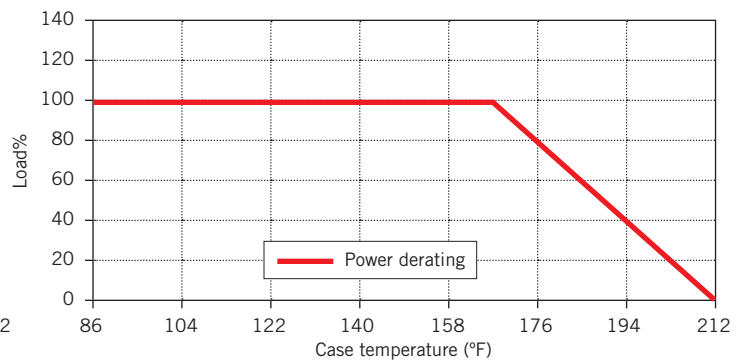
Connect emergency LED driver with lamp fixture installed LED board



### LIFETIME VS CASE TEMPERATURE



### POWER DERATING VS CASE TEMPERATURE



- Notes:
- To maintain good battery lifespan during storage, recharging emergency LED driver annually is recommended.
  - For operation, wiring, and installation please refer to installation instruction.



# KT-EMRG-LED-5C-500-K1

## CONSTANT POWER LED EMERGENCY BACK-UP DRIVER KIT

**ORDERING INFORMATION**

ORDER CODE	DESCRIPTION	PACK QTY.	ITEM STATUS
KT-EMRG-LED-5C-500-K1-IP	Constant Power LED Emergency Back-Up Driver Kit, CEC Compliant	12	Active

**CATALOG NUMBER BREAKDOWN**

# KT-EMRG-LED-5C-500-K1-IP

1
2
3
4
5
6
7
8

- 1 Keystone Technologies
- 2 Emergency Back-Up
- 3 LED Driver
- 4 Nominal Wattage
- 5 CEC Compliant
- 6 Nominal Lumen Output
- 7 Kit Version with Module
- 8 Packaging Style



# KT-EMRG-LED-5C-500-SEN

## CONSTANT-POWER EMERGENCY LED BACK-UP DRIVER



### DESCRIPTION

Constant-Power Emergency LED Back-Up Driver | 5W Output | 120–277V Input | CEC T20 Compliant

<b>DRIVER TYPE:</b> Constant-Power Emergency LED Back-Up Driver	<b>SAFETY STANDARD:</b> UL 924, Complies with CEC Title 20 Efficiency Standards
<b>MAX. OUTPUT POWER:</b> 5W	
<b>INPUT VOLTAGE:</b> 120–277Vac $\pm$ 10%	<b>LOCATION:</b> IP20 design for dry and damp locations
<b>NUMBER OF OUTPUTS:</b> One	<b>WARRANTY:</b> 5 Years

### ELECTRICAL SPECIFICATIONS

Input voltage range	120–277Vac $\pm$ 10%
Frequency	50/60Hz
Power factor	>0.5 under 120–277Vac input
Inrush current	7A @230V
Max input current	50mA @120V, 35mA @240V, and 30mA @277V
THD	<170% under 120–277Vac input
Output voltage	20–60Vdc Class 2 compliant Remarks: The output power is valid for output voltage $\leq$ 58V; above that, power will drop
Output current	250mA @ 20Vdc, 86mA @ 58Vdc
Output power	5W (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	<b>Over-voltage protection:</b> Hiccup mode. Protection will trigger when load voltage exceeds specified output voltage and will auto recover after the fault mode is removed. <b>Over-current protection:</b> Hiccup mode. Protection will trigger when load current exceeds specified output current and will auto recover after the fault mode is removed. <b>Short-circuit protection:</b> Hiccup mode. Protection will trigger when short circuit and will auto recover after the fault mode is removed.
Emergency Operation	90 minutes
Battery	High-temperature, maintenance-free, LiFePO <sub>4</sub> battery, 9.6Vdc, 3 cell
Recharge Time	24 hours
Battery Charging Current	307mA

### 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	284,000 hours at 40°C/104°F ambient (~55°C/131°F case temp)
Life rating	97,500 hours at 120Vac input, 100% load and 55°C/131°F case temp
Maximum ambient temperature	55°C/131°F

### SAFETY AND EMC COMPLIANCE

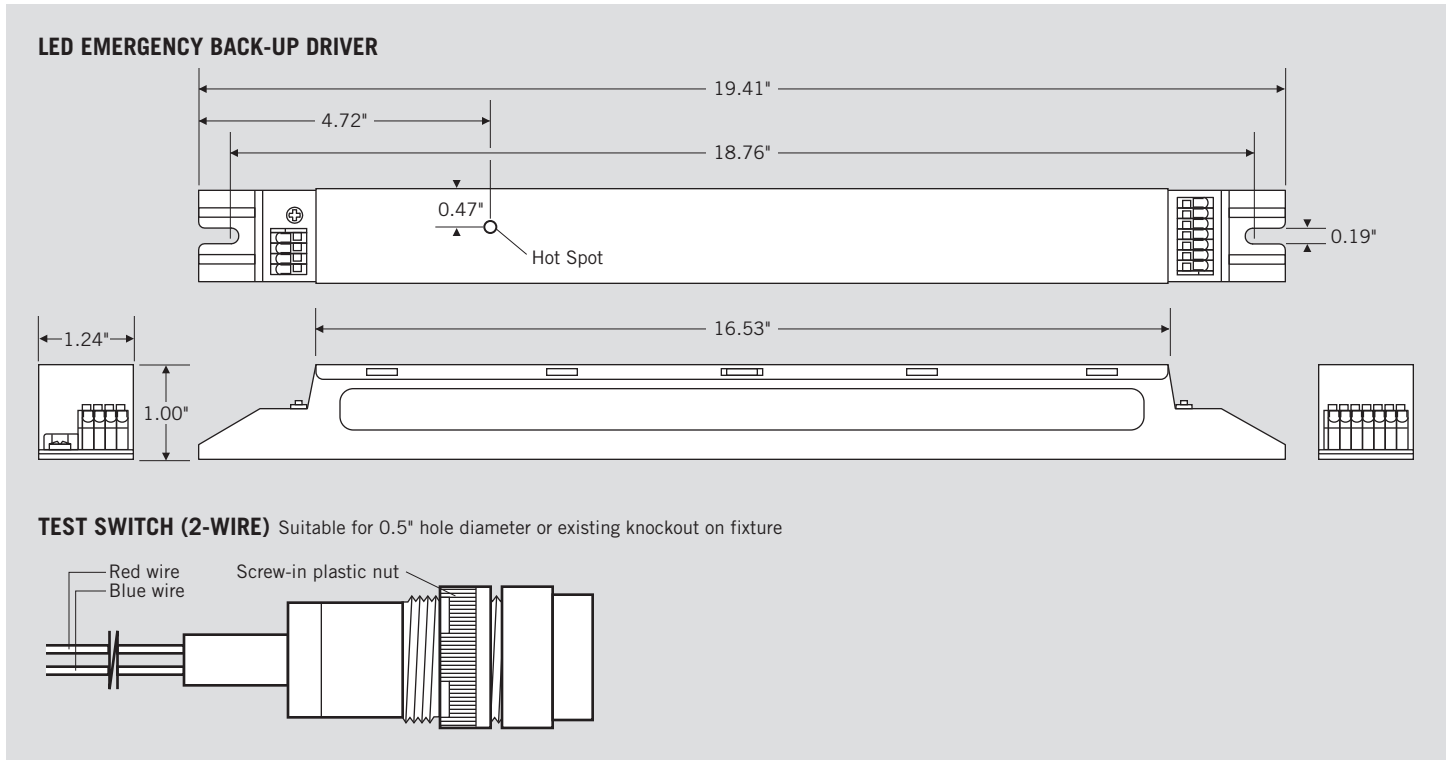
UL/cUL	UL 924, Complies with CEC Title 20 Efficiency Standards
FCC, 47CFR Part 15	ANSI C63.4:2009 Class B (consumer limit)
EN61000-3-2	Harmonic current emissions Class C



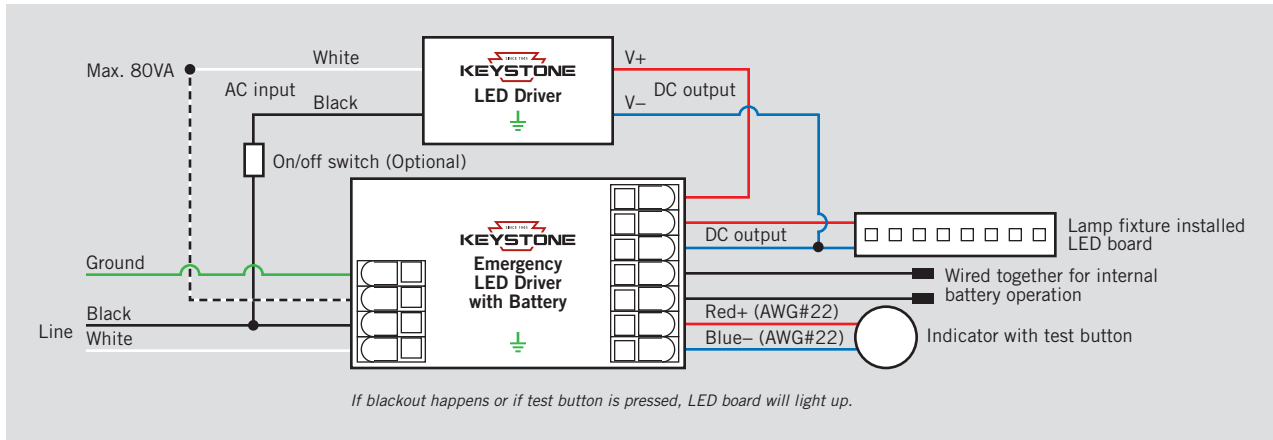
# KT-EMRG-LED-5C-500-SEN

## CONSTANT-POWER EMERGENCY LED BACK-UP DRIVER

### PHYSICAL SPECIFICATIONS



### WIRING DIAGRAM





# KT-EMRG-LED-5C-500-SEN

## CONSTANT-POWER EMERGENCY LED BACK-UP DRIVER

### ORDERING INFORMATION

ORDER CODE	DESCRIPTION	PACK QTY.	ITEM STATUS
KT-EMRG-LED-5C-500-SEN	LED Emergency Back-Up Driver, CEC Compliant	12	Active

### CATALOG NUMBER BREAKDOWN

# KT-EMRG-LED-5C-500-SEN

**1**      **2**      **3**      **4** **5**      **6**      **7** **8**

- 1** Keystone Technologies
- 2** Emergency Back-Up
- 3** LED Driver
- 4** Nominal Wattage
- 5** CEC Compliant
- 6** Nominal Lumen Output
- 7** Slim Case
- 8** 1-Piece Enclosure



# KT-EMRG-LED-9C-900-2

## CONSTANT POWER EMERGENCY LED DRIVER

### DESCRIPTION

Constant Power Emergency LED Driver | 9W Output | 120–277V Input



<b>DRIVER TYPE:</b> Constant Power Emergency LED Driver
<b>EMERGENCY OPERATION:</b> 120 min
<b>MAX. OUTPUT POWER:</b> 9W
<b>INPUT VOLTAGE:</b> 120–277Vac ±10%
<b>NUMBER OF OUTPUTS:</b> One
<b>SAFETY STANDARD:</b> UL 924, Complies with CEC Title 20 Efficiency Standards
<b>LOCATION:</b> IP20 design for dry and damp location
<b>WARRANTY:</b> 5 Years



### ELECTRICAL SPECIFICATIONS

Input voltage range	120~277Vac ± 10%
Frequency	50/60Hz
Power factor	>0.9 under 120~277Vac input
Inrush current	7A @230V
Max input current	50mA @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 ≤ 58V; above that, power will drop
Output current	600mA @20Vdc, 206mA @58Vdc
Output power	9W (constant)
Turn-on delay time	<1s
Overshoot	<10%
Ripple and noise (pk–pk)	<10%
Withstand voltage	Input to output, 2800Vdc, 2mA
Leakage current	Maximum 0.5mA @277Vac, 60Hz input
Protection	<b>Over-voltage protection:</b> Hiccup mode. Protection will trigger when load voltage exceeds specified output voltage and will auto-recover after the fault mode is removed. <b>Over-current protection:</b> Hiccup mode. Protection will trigger when load current exceeds specified output current and will auto-recover after the fault mode is removed. <b>Short-circuit protection:</b> Hiccup mode. Protection will trigger when short circuit occurs and will auto-recover after the fault mode is removed. <b>Over-temperature protection:</b> Protection will trigger when driver overheats and auto-recover when cooled down.
Emergency operation	120 minutes
Battery	High-temperature, maintenance-free, LiFePO <sub>4</sub> battery, 9.6Vdc, 3-cell
Recharge time	24 hours
Battery charging current	307mA

### 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	284,000 hrs @40°C/104°F ambient (~70°C/158°F case temp)
Life rating	80,000 hrs @120Vac input, 100% load (60°C/140°F case temp)
Maximum case temperature	75°C/167°F for LED driver
Maximum ambient temperature	55°C/131°F for battery

### 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

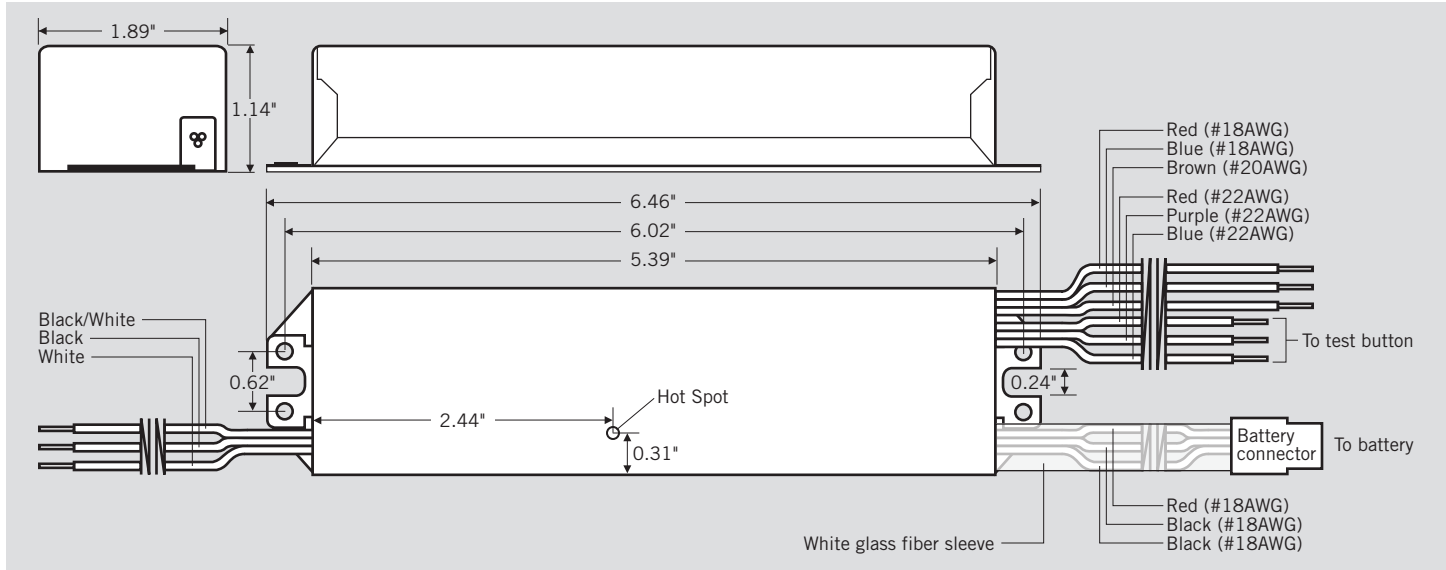


# KT-EMRG-LED-9C-900-2

## CONSTANT POWER EMERGENCY LED DRIVER

### DIMENSIONS AND WIRING SPECIFICATIONS

#### EMERGENCY LED DRIVER SPECIFICATIONS



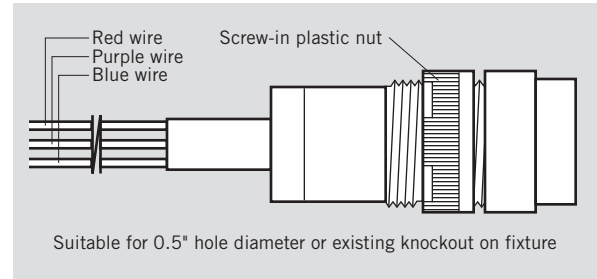
#### LED DRIVER DIMENSIONS

Length (L)	6.46" (164mm)
Width (W)	1.89" (48mm)
Height (H)	1.14" (29mm)
Mounting (M)	6.02" (153mm)

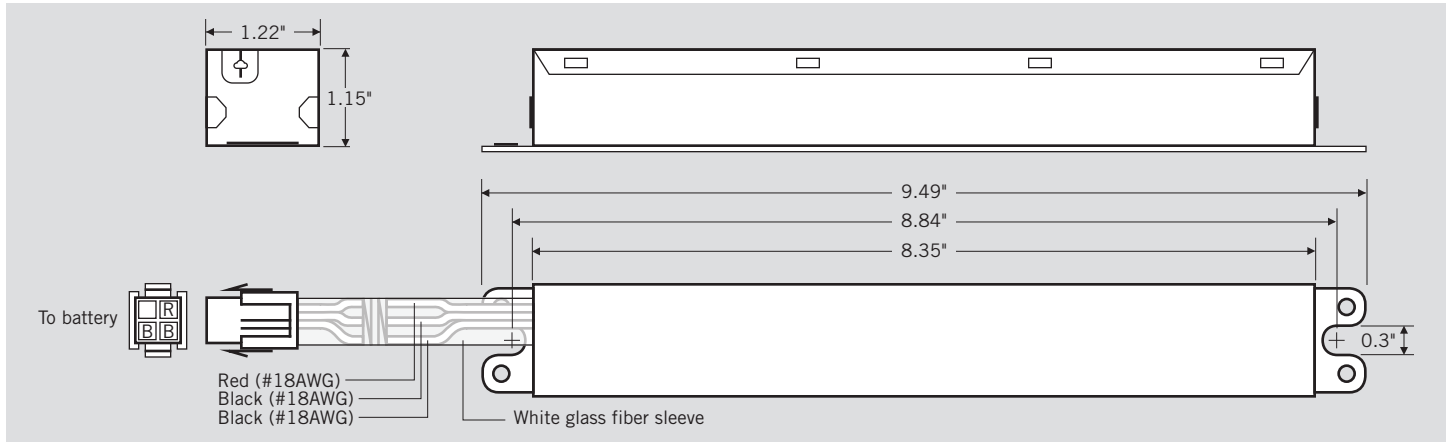
#### WIRE SPECIFICATIONS

Input		Black, White, Black/White	12", UL1316 #18AWG
Output	To LED module	Red, Blue	24", UL1316 #18AWG
	To LED driver	Brown	24", UL1430 #20AWG
	To battery connector	Red, Black, Black	24", UL1015 #18AWG
	To test button	Red, Blue, Purple	24", UL1430 #22AWG

#### TEST SWITCH (3-WIRE) SPECIFICATIONS



#### BATTERY PACK SPECIFICATIONS



#### BATTERY PACK DIMENSIONS

Length (L)	9.49" (241.6mm)
Width (W)	1.22" (31.1mm)
Height (H)	1.15" (29.2mm)
Mounting (M)	8.84" (224.5mm)

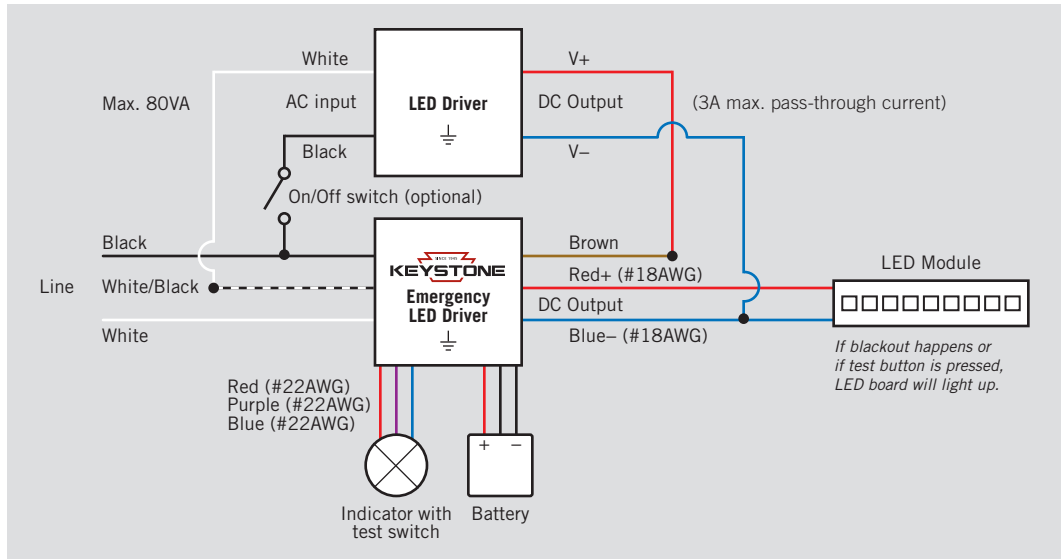




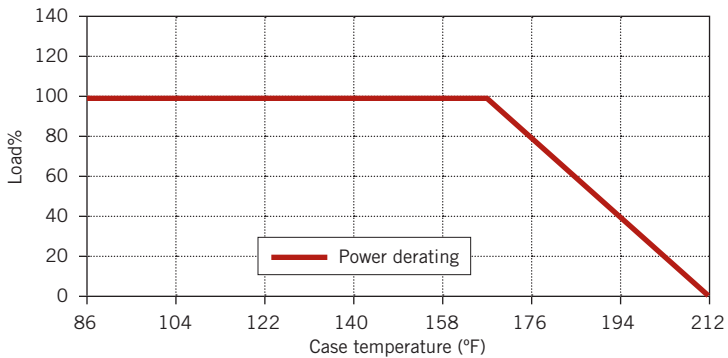
# KT-EMRG-LED-9C-900-2

## CONSTANT POWER EMERGENCY LED DRIVER

### WIRING DIAGRAM



### POWER DERATING VS CASE TEMPERATURE



Notes:  
 1. To maintain good battery lifespan during storage, recharging emergency LED driver annually is recommended.  
 2. For operation, wiring, and installation please refer to installation instruction.

### ORDERING INFORMATION

ORDER CODE	DESCRIPTION	PACK QTY.	ITEM STATUS
KT-EMRG-LED-9C-900-2	Constant Power Emergency LED Driver	12 sets/carton	Active

### CATALOG NUMBER BREAKDOWN

# KT-EMRG-LED-9C-900-2

- |  |   |
|--|---|
| <p><b>1</b> Keystone Technologies</p> <p><b>2</b> Emergency Back-Up</p> <p><b>3</b> LED Driver</p> <p><b>4</b> Nominal Wattage</p> | <p><b>5</b> CEC Compliant</p> <p><b>6</b> Nominal Lumen Output</p> <p><b>7</b> 120 Minutes of Emergency Operation</p> |
|--|---|



# KT-EMRG-LED-12-1200-AC

## CONSTANT WATTAGE LED EMERGENCY BACK-UP DRIVER

### DESCRIPTION

LED Emergency Back-Up Driver | Standard Side-Exit Wire Leads | 12W Output



RoHS  
Compliant

5 YEAR  
WARRANTY

**DRIVER TYPE:** Constant Wattage LED Emergency

**MAX. OUTPUT POWER:** 12W

**INPUT VOLTAGE:** 120–277Vac  $\pm 10\%$

**OUTPUT VOLTAGE:** 40–100Vdc

**OUTPUT CURRENT:** Load Dependent

**WARRANTY:** 5 Years

### PRODUCT FEATURES

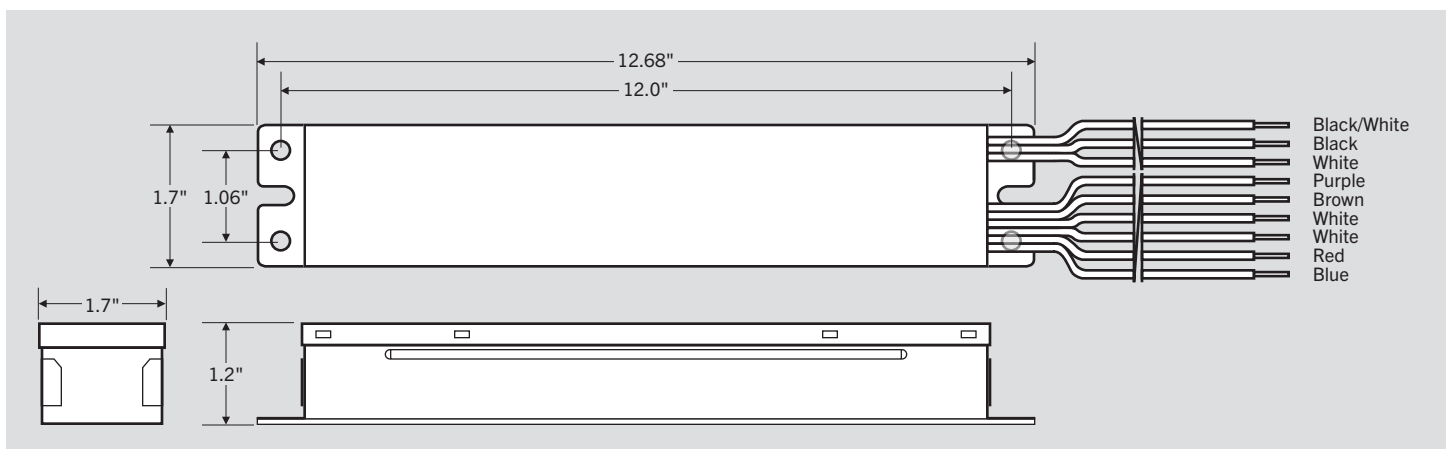
- Optimized for Keystone single-ended direct drive LED tubes. Contact Keystone for details on functioning with other Type B LED tubes
- Illuminates entire LED load at reduced output under emergency mode
- One-piece design with metal housing
- 2-in-1 LED test switch and indicator light included
- Not for use with dimmers
- Evaluated to UL 924 requirements
- 90-minute operation in emergency mode
- UL listed
- Operating temperature: 0°C/32°F to 50°C/122°F
- Input frequency: 50/60 Hz
- Safety Standard: UL 924, Complies with CEC Title 20 Efficiency Standards
- Li(NiCoMn)O<sub>2</sub> Battery

### ELECTRICAL SPECIFICATIONS

Family	INPUT CHARACTERISTICS			OUTPUT CHARACTERISTICS			
	Input Voltage	Power Factor	Max. Current	Max. Output Power	Rated Output Current	Output Voltage	Output Current
12W	120–277Vac	$\geq 0.35$	100mA @120V	10–12W	Load Dependent	40–100Vdc	200–750mA

Emergency pack designed to deliver 12W to a constant current LED load. Approximate output is 1200 lumens, assuming a nominal minimum efficacy of 100lm/W.

### PHYSICAL SPECIFICATIONS

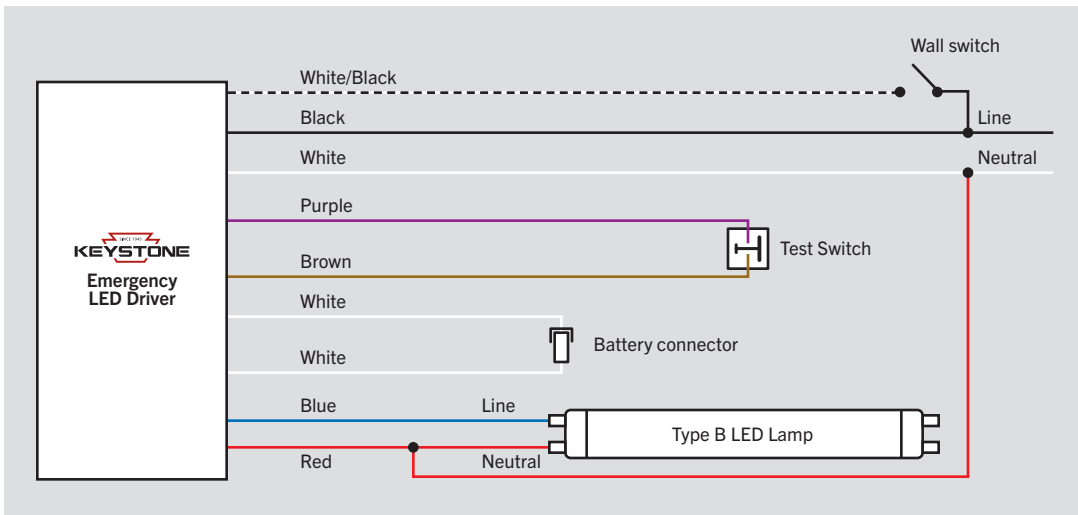




# KT-EMRG-LED-12-1200-AC

## CONSTANT WATTAGE LED EMERGENCY BACK-UP DRIVER

### WIRING DIAGRAM



### Wire Specifications

Wire Color	Wire Length	
	mm	Inches
Black/White	650 mm	25.60"
Black	800 mm	31.50"
White	800 mm	31.50"
Purple	1,200 mm	47.25"
Brown	1,200 mm	47.25"
White	320 mm	12.60"
White	320 mm	12.60"
Blue	1,200 mm	47.25"
Red	1,200 mm	47.25"

### ORDERING INFORMATION

ORDER CODE	DESCRIPTION	PACKAGING STYLE	PACK QTY.	ITEM STATUS
KT-EMRG-LED-12-1200-AC	1-Piece LED Emergency Back-Up with Standard Side-Exit Wire Leads	Individually Packaged	1	Active

### CATALOG NUMBER BREAKDOWN

# KT-EMRG-LED-12-1200-AC-IP

1 2 3 4 5 6 7

- 1 Keystone Technologies
- 2 Emergency Back-Up Driver
- 3 LED Driver
- 4 Wattage Family
- 5 Nominal Lumen Output
- 6 Alternating Current
- 7 Packaging Style



# KT-EMRG-LED-12-1200-AC /DF

## CONSTANT WATTAGE LED EMERGENCY BACK-UP DRIVER



### DESCRIPTION

LED Emergency Back-Up Driver | Dual Flex output | 120 - 277V input

<b>DRIVER TYPE:</b> Constant Wattage LED Emergency
<b>MAX. OUTPUT POWER:</b> 12W
<b>INPUT VOLTAGE:</b> 120–277Vac ±10%
<b>OUTPUT VOLTAGE:</b> 40–100Vdc
<b>OUTPUT CURRENT:</b> Load Dependent
<b>WARRANTY:</b> 5 Years

### PRODUCT FEATURES

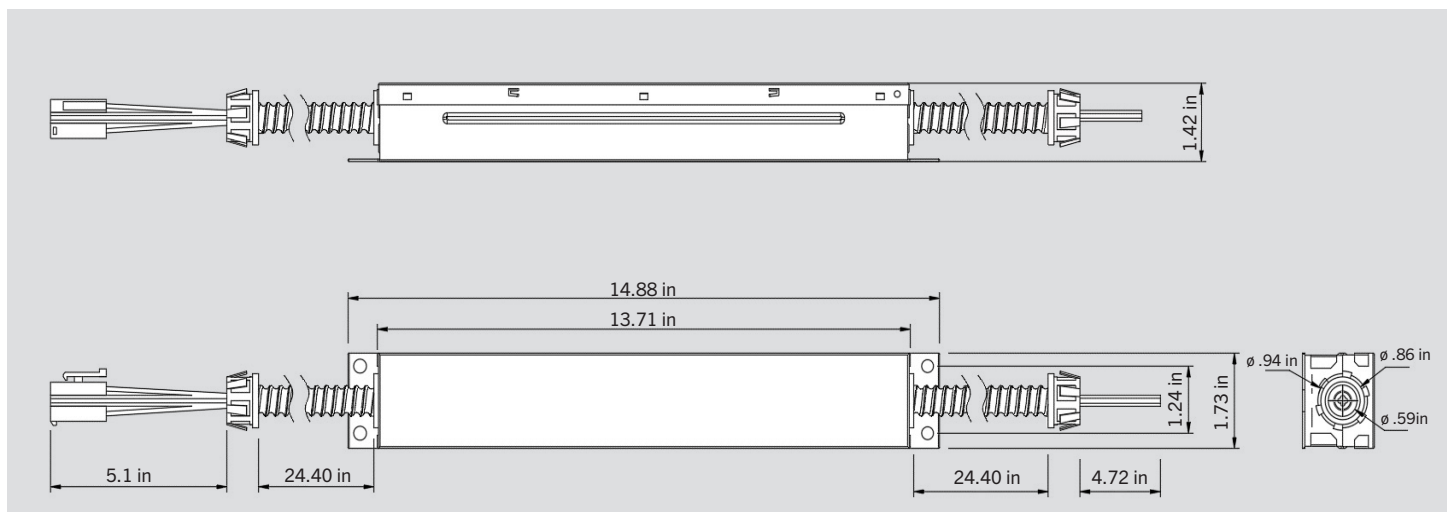
- Optimized for Keystone direct drive LED tubes. Contact Keystone for details on functioning with other Type B LED tubes
- Illuminates entire LED load at reduced output under emergency mode
- One-piece design with metal housing
- 2-in-1 LED test switch and indicator light included
- Not for use with dimmers
- Evaluated to UL 924 requirements
- 90-minute operation in emergency mode
- UL listed
- Operating temperature: 0°C/32°F to 50°C/122°F
- Input frequency: 50/60 Hz
- Safety Standard: UL 924, Complies with CEC Title 20 Efficiency Standards
- Dual-flex conduit fits into 1/2" knockouts

### ELECTRICAL SPECIFICATIONS

Family	INPUT CHARACTERISTICS			OUTPUT CHARACTERISTICS			
	Input Voltage	Power Factor	Max. Current	Max. Output Power	Rated Output Current	Output Voltage	Output Current
12W	120–277Vac	≥ 0.35	100mA @120V	10–12W	Load Dependent	40–100Vdc	200–750mA

*Emergency pack designed to deliver 12W to a constant current LED load. Approximate output is 1200 lumens, assuming a nominal minimum efficacy of 100lm/W.*

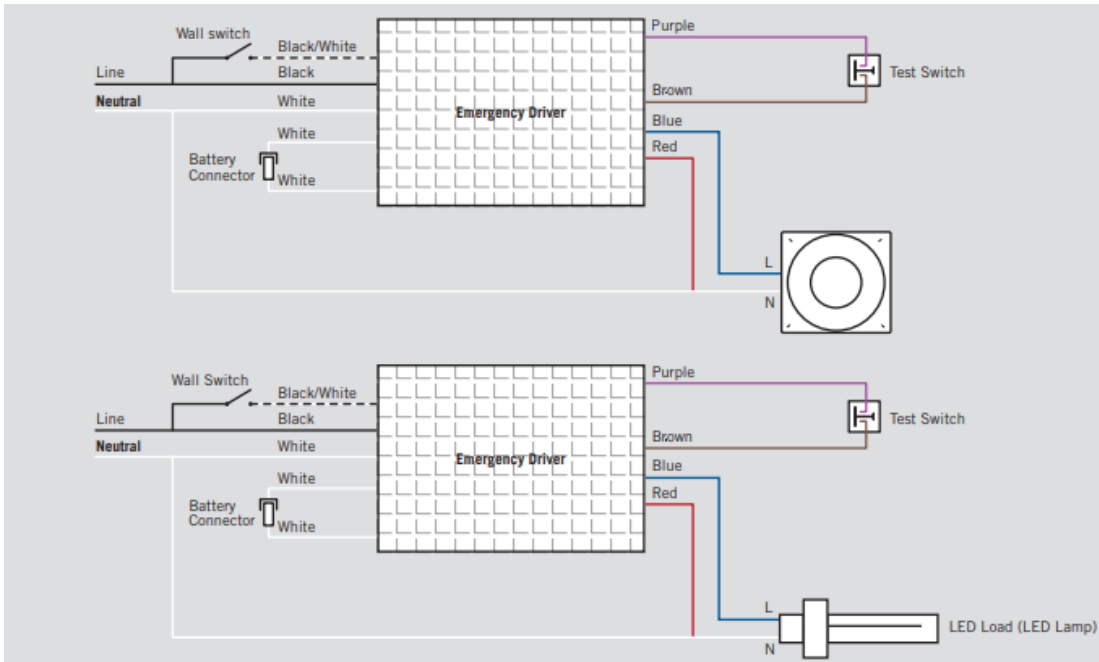
### PHYSICAL SPECIFICATIONS



# KT-EMRG-LED-12-1200-AC /DF

## CONSTANT WATTAGE LED EMERGENCY BACK-UP DRIVER

### WIRING DIAGRAM



### WIRE SPECIFICATIONS

Wire Color	Wire Length	
	mm	Inches
Black/White	760 mm	29.92"
Black	760 mm	29.92"
White	760 mm	29.92"
Purple	760 mm	29.92"
Brown	760 mm	29.92"
White	760 mm	29.92"
Blue	760 mm	29.92"
Red	760 mm	29.92"

### ORDERING INFORMATION

ORDER CODE	PACK QTY.	EASY CODE	UPC
KT-EMRG-LED-12-1200-AC /DF	1	MPM-43	843654139890

### CATALOG NUMBER BREAKDOWN

# KT-EMRG-LED-12-1200-AC /DF

1 2 3 4 5 6 7

- 1 Keystone Technologies
- 2 Emergency Back-Up Driver
- 3 LED Driver
- 4 Wattage Family
- 5 Nominal Lumen Output
- 6 Alternating Current
- 7 Dual Flex



**SMART//SAFE**  
LED EMERGENCY BACK-UP

# KT-EMRG-LED-12C-1200

## CONSTANT POWER EMERGENCY LED DRIVER

### DESCRIPTION

Constant Power Emergency LED Driver | 12W Output | 120–277V Input



**DRIVER TYPE:** Constant Power Emergency LED Driver

**MAX. OUTPUT POWER:** 12W

**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	TBD
Max input current	50mA @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 $\leq$ 58V; above that power will drop
Output current	600mA @ 20Vdc, 206mA @ 58Vdc
Output power	12W (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><b>Over voltage protection:</b> Hiccup mode. Protection will trigger when load voltage exceeds specified output voltage and will auto recover after the fault mode is removed.</p> <p><b>Over current protection:</b> Hiccup mode. Protection will trigger when load current exceeds specified output current and will auto recover after the fault mode is removed.</p> <p><b>Short circuit protection:</b> Hiccup mode. Protection will trigger when short circuit and will auto recover after the fault mode is removed.</p> <p><b>Over temperature protection:</b> Protection will trigger when driver overheats and auto-recovery when cooled down.</p>
Emergency Operation	90 minutes
Battery	High-temperature, maintenance-free, LiFePO <sub>4</sub> battery, 9.6Vdc, 3 cell
Recharge Time	24 hours
Battery Charging Current	307mA



# KT-EMRG-LED-12C-1200

## CONSTANT POWER EMERGENCY LED DRIVER

### ENVIRONMENTAL SPECIFICATIONS

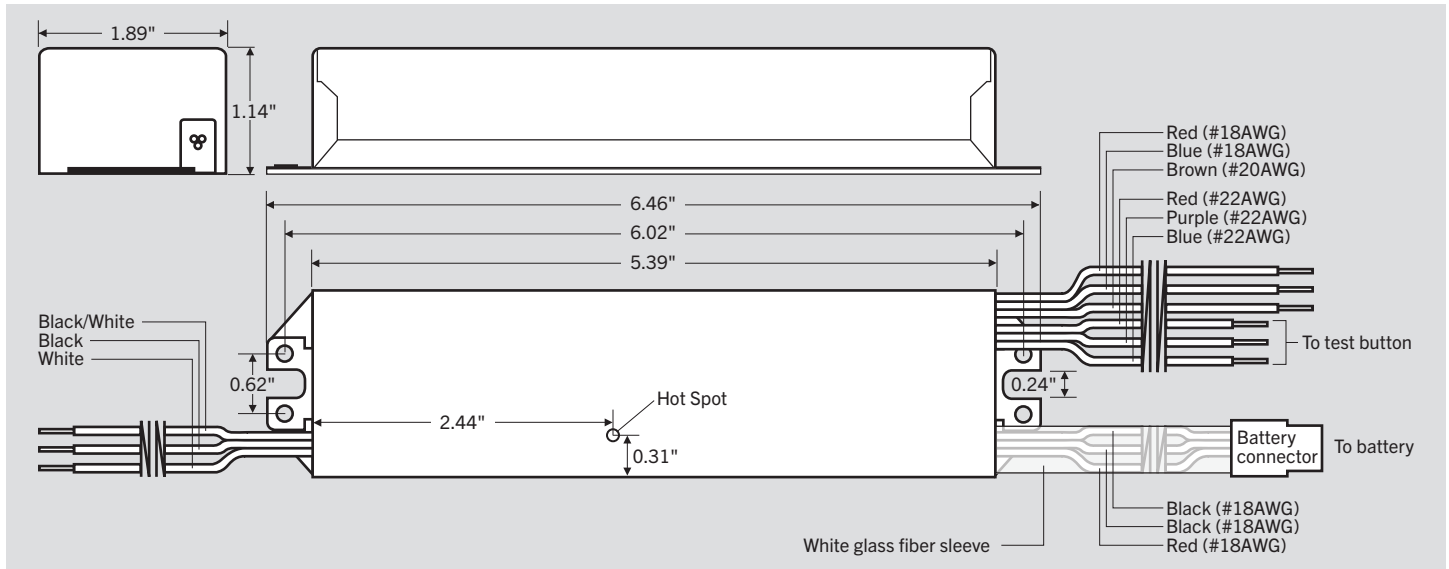
Operating temperature	0°C/32°F to 55°C/131°F
Storage temperature	-20°C/-4°F to 55°C/131°F
Humidity	5% to 95%
MTBF	TBD
Life rating	TBD
Maximum case temperature	75°C/167°F for LED driver
Maximum ambient temperature	55°C/131°F for battery

### 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

### DIMENSIONS AND WIRING SPECIFICATIONS

#### EMERGENCY LED DRIVER SPECIFICATIONS





# KT-EMRG-LED-12C-1200

## CONSTANT POWER EMERGENCY LED DRIVER

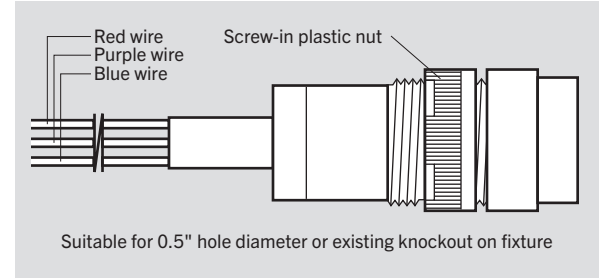
### LED DRIVER DIMENSIONS

Length (L)	6.46" (164mm)
Width (W)	1.89" (48mm)
Height (H)	1.14" (29mm)
Mounting (M)	6.02" (153mm)

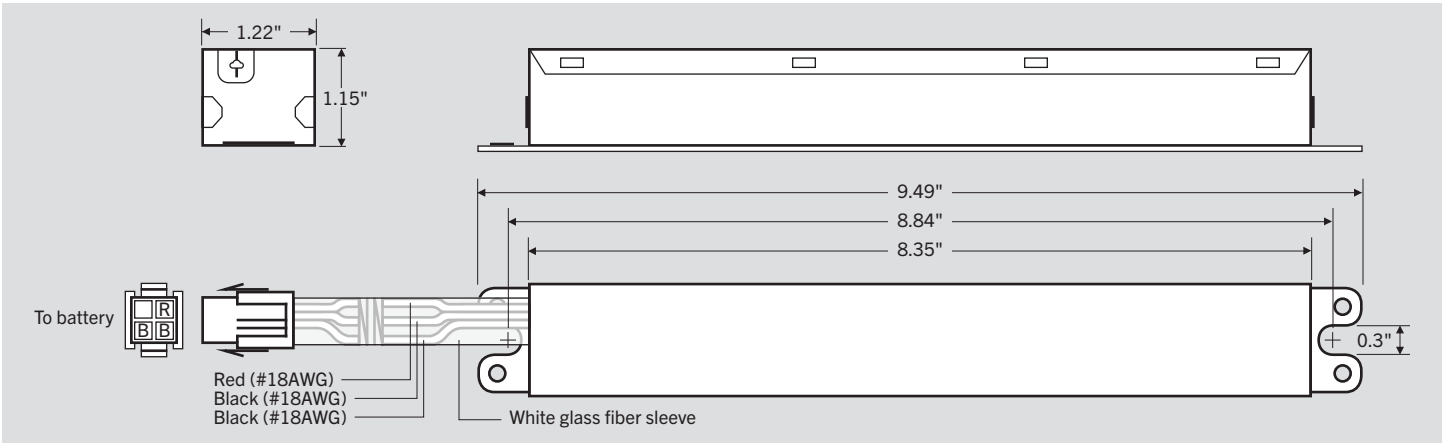
### WIRE SPECIFICATIONS

Input		Black, White, Black/White	12", UL1316 #18AWG
Output	To LED module	Red, Blue	24", UL1316 #18AWG
	To LED driver	Brown	24", UL1430 #20AWG
	To battery connector	Red, Black	24", UL1015 #18AWG
	To test button	Red, Blue, Purple	24", UL1430 #22AWG

### TEST SWITCH (3-WIRE) SPECIFICATIONS



### BATTERY PACK SPECIFICATIONS



### BATTERY PACK DIMENSIONS

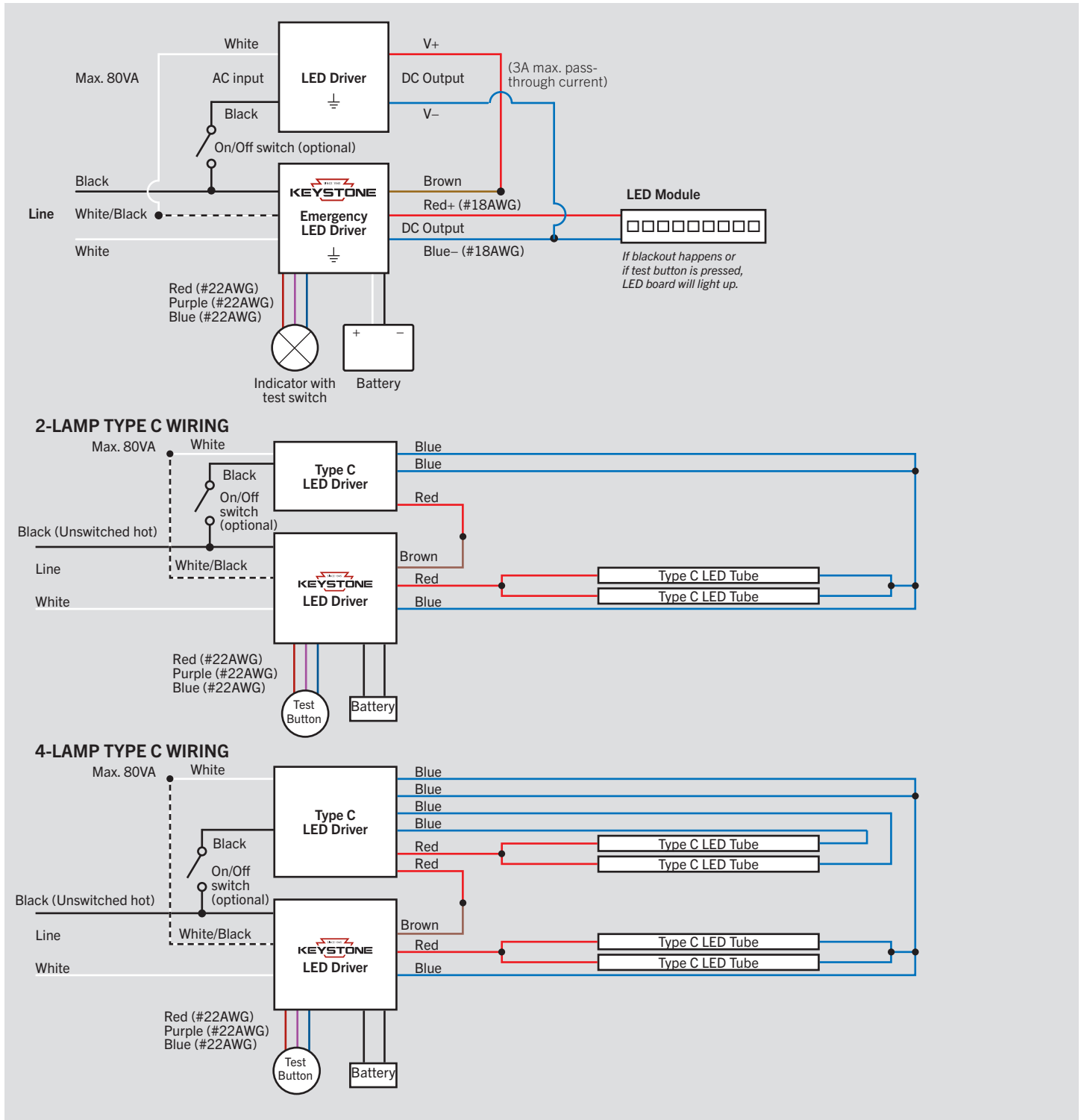
Length (L)	9.49" (241.6mm)
Width (W)	1.22" (31.1mm)
Height (H)	1.15" (29.2mm)
Mounting (M)	8.84" (224.5mm)



# KT-EMRG-LED-12C-1200

## CONSTANT POWER EMERGENCY LED DRIVER

### WIRING DIAGRAM

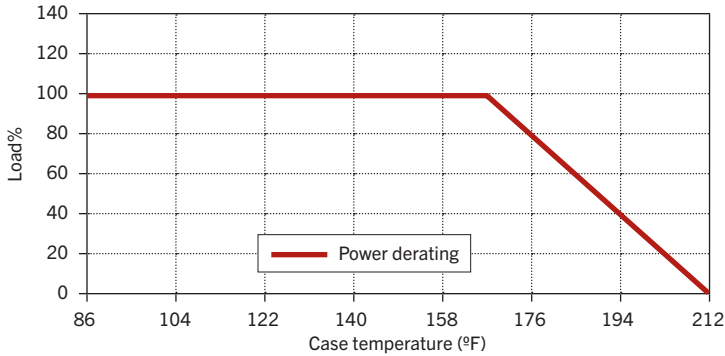




# KT-EMRG-LED-12C-1200

## CONSTANT POWER EMERGENCY LED DRIVER

### POWER DERATING VS CASE TEMPERATURE



Notes:  
 1. To maintain good battery lifespan during storage, recharging emergency LED driver annually is recommended.  
 2. For operation, wiring, and installation please refer to installation instruction.

### ORDERING INFORMATION

ORDER CODE	DESCRIPTION	PACKAGING STYLE	PACK QTY.	ITEM STATUS
KT-EMRG-LED-12C-1200-IP	Constant Power Emergency LED Driver	Individually Packaged	TBD	Active

### CATALOG NUMBER BREAKDOWN

# KT-EMRG-LED-12C-1200-IP

1
2
3
4
5
6
7

- 1 Keystone Technologies
- 2 Emergency Back-Up
- 3 LED Driver
- 4 Nominal Wattage
- 5 CEC Compliant
- 6 Nominal Lumen Output
- 7 Packaging Style



# KT-EMRG-LED-12C-1200-EN

## CONSTANT WATTAGE LED EMERGENCY BACK-UP

### DESCRIPTION

LED Emergency Back-Up Driver | Standard Side Exit Wire Leads | 12W Output



**DRIVER TYPE:** Constant Wattage LED Emergency

**MAX. OUTPUT POWER:** 12W

**INPUT VOLTAGE:** 120–277Vac ±10%

**OUTPUT VOLTAGE:** 20–54Vdc

**OUTPUT CURRENT:** 600–250mA

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

**WARRANTY:** 5 Years



### ELECTRICAL SPECIFICATIONS

Input voltage range	120–277Vac ± 10%
Frequency	50/60Hz
Power factor	>0.9 under 120–277Vac input
Inrush current	20A @ 120V
Max input current	50mA @120V, 35mA @240V, and 30mA @277V
THD	<20% under 120–277Vac input
Output voltage	20–60Vdc Class 2 compliant
Output current	600mA @ 20Vdc, 206mA @ 58Vdc
Output power	12W (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><b>Over voltage protection:</b> Hiccup mode. Protection will trigger when load voltage exceeds specified output voltage and will auto recover after the fault mode is removed.</p> <p><b>Over current protection:</b> Hiccup mode. Protection will trigger when load current exceeds specified output current and will auto recover after the fault mode is removed.</p> <p><b>Short circuit protection:</b> Hiccup mode. Protection will trigger when short circuit and will auto recover after the fault mode is removed.</p>
Emergency Operation	90 minutes
Battery	High-temperature, maintenance-free, LiFePO <sub>4</sub> battery, 9.6Vdc, 3 cell
Recharge Time	24 hours
Battery Charging Current	307mA

### 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 for battery

### SAFETY AND EMC COMPLIANCE

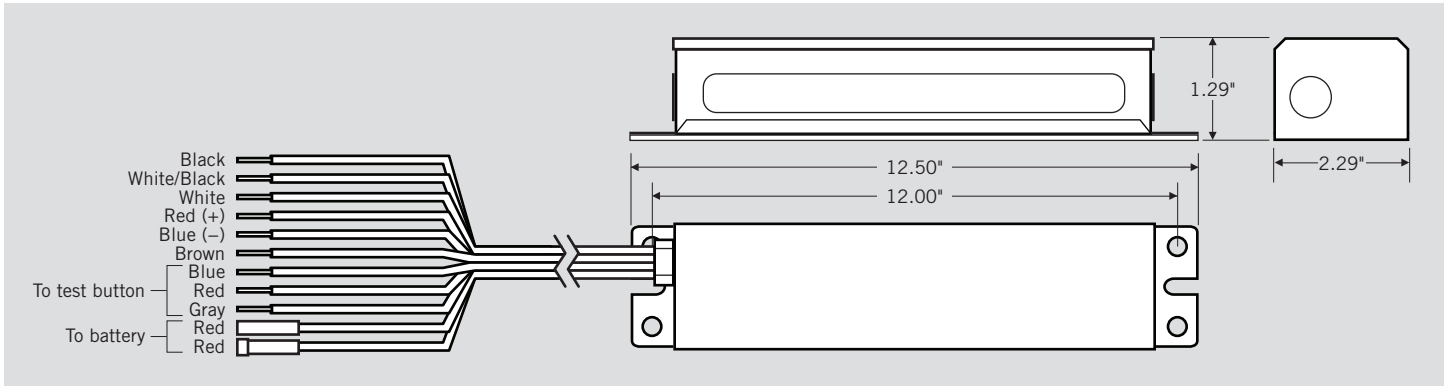
UL/cUL	UL 924
FCC, 47CFR Part 15	ANSI C63.4:2009 Class B (consumer limit)
EN61000-3-2	Harmonic current emissions Class C



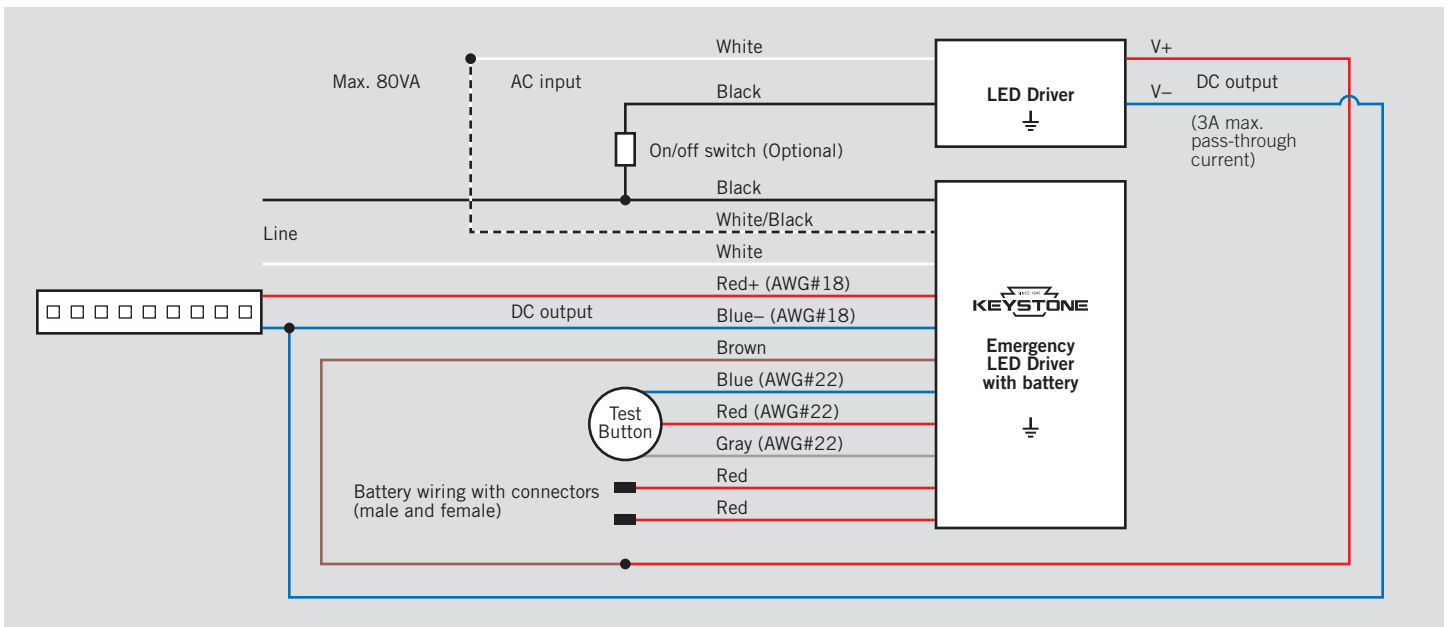
# KT-EMRG-LED-12C-1200-EN

## CONSTANT WATTAGE LED EMERGENCY BACK-UP

### PHYSICAL SPECIFICATIONS



### WIRING SPECIFICATIONS





# KT-EMRG-LED-12C-1200-EN

## CONSTANT WATTAGE LED EMERGENCY BACK-UP

### ORDERING INFORMATION

ORDER CODE	DESCRIPTION	PACKAGING STYLE	PACK QUANTITY	ITEM STATUS
KT-EMRG-LED-12C-1200-EN-IP	1-Piece LED Emergency Back-up with Standard Side Exit Leads	Individually Packaged	1	Active

### CATALOG NUMBER BREAKDOWN

# KT-EMRG-LED-12C-1200-EN-IP

1

2

3

4

5

6

7

- 1 Keystone Technologies
- 2 Emergency Back-up Driver
- 3 LED Driver
- 4 Wattage Family (CEC Compliant)
- 5 Nominal Lumen Output
- 6 1-Piece Enclosure
- 7 Packaging Style



# KT-EMRG-LED-12C-1200-EN /DF

## CONSTANT WATTAGE LED EMERGENCY BACK-UP

### DESCRIPTION

LED Emergency Back-Up Driver | Dual Flex Conduit | 12W Output | 120–277V Input



<b>DRIVER TYPE:</b> Constant Wattage LED Emergency
<b>MAX. OUTPUT POWER:</b> 12W
<b>INPUT VOLTAGE:</b> 120–277Vac $\pm$ 10%
<b>OUTPUT VOLTAGE:</b> 20–54Vdc
<b>OUTPUT CURRENT:</b> 600–250mA
<b>SAFETY STANDARD:</b> UL 924, Complies with CEC Title 20 Efficiency Standards
<b>WARRANTY:</b> 5 Years



### 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	50mA @120V, 35mA @240V, and 30mA @277V
THD	<20% under 120–277Vac input
Output voltage	20–60Vdc Class 2 compliant
Output current	600mA @ 20Vdc, 206mA @ 58Vdc
Output power	12W (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><b>Over voltage protection:</b> Hiccup mode. Protection will trigger when load voltage exceeds specified output voltage and will auto recover after the fault mode is removed.</p> <p><b>Over current protection:</b> Hiccup mode. Protection will trigger when load current exceeds specified output current and will auto recover after the fault mode is removed.</p> <p><b>Short circuit protection:</b> Hiccup mode. Protection will trigger when short circuit and will auto recover after the fault mode is removed.</p>
Emergency Operation	90 minutes
Battery	High-temperature, maintenance-free, LiFePO <sub>4</sub> battery, 9.6Vdc, 3 cell
Recharge Time	24 hours
Battery Charging Current	307mA

### 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 for battery

### SAFETY AND EMC COMPLIANCE

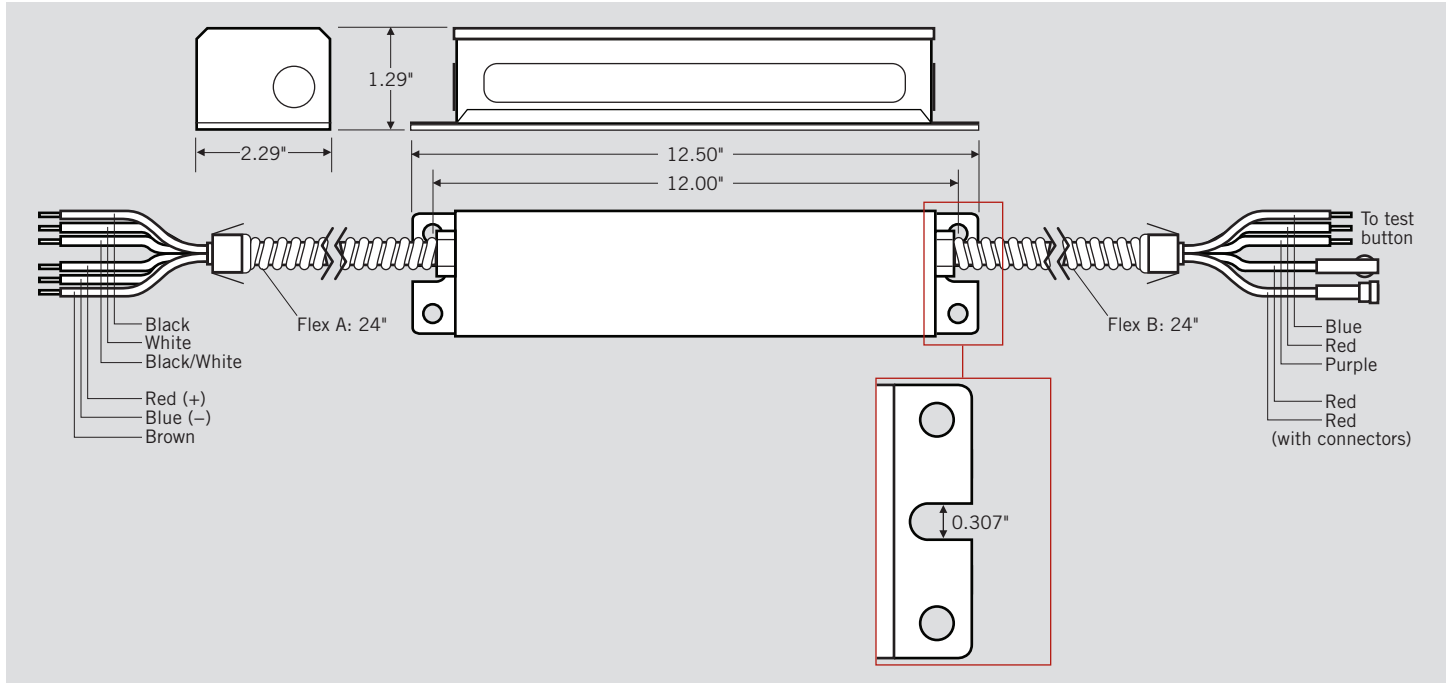
UL/cUL	UL 924
FCC, 47CFR Part 15	ANSI C63.4:2009 Class B (consumer limit)
EN61000-3-2	Harmonic current emissions Class C



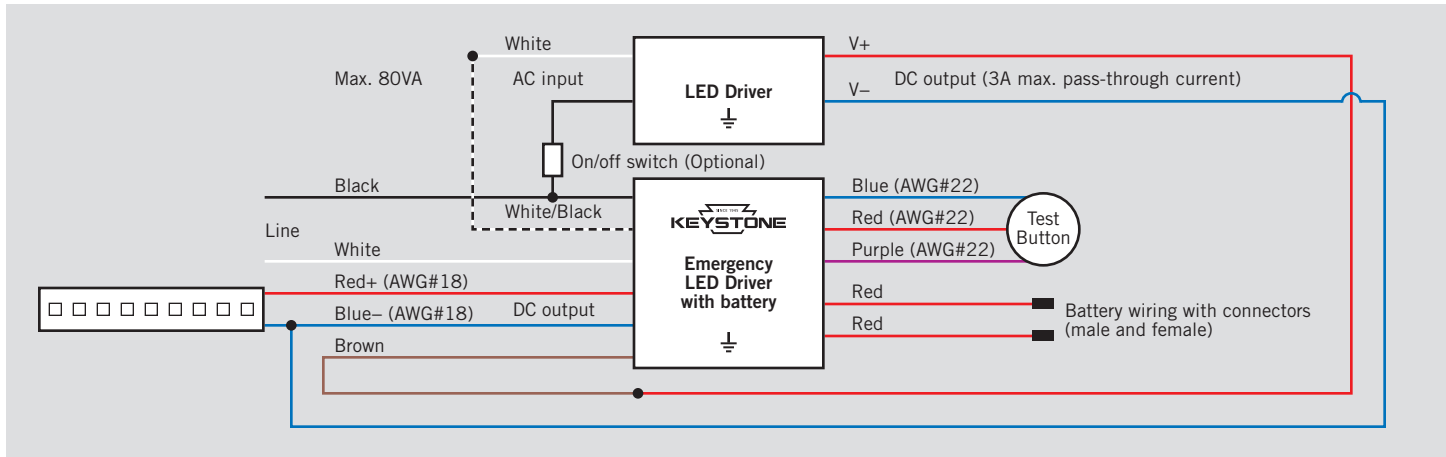
# KT-EMRG-LED-12C-1200-EN /DF

## CONSTANT WATTAGE LED EMERGENCY BACK-UP

### PHYSICAL SPECIFICATIONS



### WIRING SPECIFICATIONS





# KT-EMRG-LED-12C-1200-EN /DF

## CONSTANT WATTAGE LED EMERGENCY BACK-UP

### ORDERING INFORMATION

ORDER CODE	DESCRIPTION	PACKAGING STYLE	PACK QUANTITY	ITEM STATUS
KT-EMRG-LED-12C-1200-EN /DF-IP	1-Piece LED Emergency Back-up with Dual Flex Conduit	Individually Packaged	1	Active

### ALTERNATIVE OPTIONS

ORDER CODE	DESCRIPTION	PACKAGING STYLE	PACK QUANTITY	ITEM STATUS
KT-EMRG-LED-12C-1200-EN /RJSF-IP	1-Piece LED Emergency Back-up with Rear Junction Leads and Single Flex Conduit (Flex B)	Individually Packaged	1	Active
KT-EMRG-LED-12C-1200-EN-IP	1-Piece LED Emergency Back-up with Standard Wire Leads	Individually Packaged	1	Active

### CATALOG NUMBER BREAKDOWN

# KT-EMRG-LED-12C-1200-EN /DF-IP

1 2 3 4 5 6 7 8

- 1 Keystone Technologies
- 2 Emergency Back-up Driver
- 3 LED Driver
- 4 Wattage Family (CEC Compliant)
- 5 Nominal Lumen Output
- 6 1-Piece Enclosure
- 7 Dual Flex Conduit
- 8 Packaging Style





# KT-EMRG-LED-12C-1200-K1

## LED EMERGENCY BACK-UP DRIVER KIT

### DESCRIPTION

LED Emergency Back-Up Driver Kit | 12W Output | 1200 Lumens | 120–277V Input



<b>DRIVER TYPE:</b> Constant Power Emergency LED Driver
<b>MAX. OUTPUT POWER:</b> 12W
<b>INPUT VOLTAGE:</b> 120–277Vac $\pm$ 10%
<b>NUMBER OF OUTPUTS:</b> One
<b>SAFETY STANDARD:</b> UL 924
<b>LOCATION:</b> IP20 design for dry and damp location
<b>WARRANTY:</b> 5 Years



### ELECTRICAL SPECIFICATIONS

Input voltage range	120–277Vac $\pm$ 10%
Frequency	50/60Hz
Power factor	>0.9 under 120–277Vac input
Inrush current	TBD
Max input current	50mA @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 $\leq$ 58V; above that power will drop
Output current	600mA @ 20Vdc, 206mA @ 58Vdc
Output power	12W (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><b>Over voltage protection:</b> Hiccup mode. Protection will trigger when load voltage exceeds specified output voltage and will auto recover after the fault mode is removed.</p> <p><b>Over current protection:</b> Hiccup mode. Protection will trigger when load current exceeds specified output current and will auto recover after the fault mode is removed.</p> <p><b>Short circuit protection:</b> Hiccup mode. Protection will trigger when short circuit and will auto recover after the fault mode is removed.</p> <p><b>Over temperature protection:</b> Protection will trigger when driver overheats and auto-recovery when cooled down.</p>
Emergency Operation	90 minutes
Battery	High-temperature, maintenance-free, LiFePO <sub>4</sub> battery, 9.6Vdc, 3 cell
Recharge Time	24 hours
Battery Charging Current	307mA

### 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 case temperature	75°C/167°F for LED driver
Maximum ambient temperature	55°C/131°F for battery

### 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

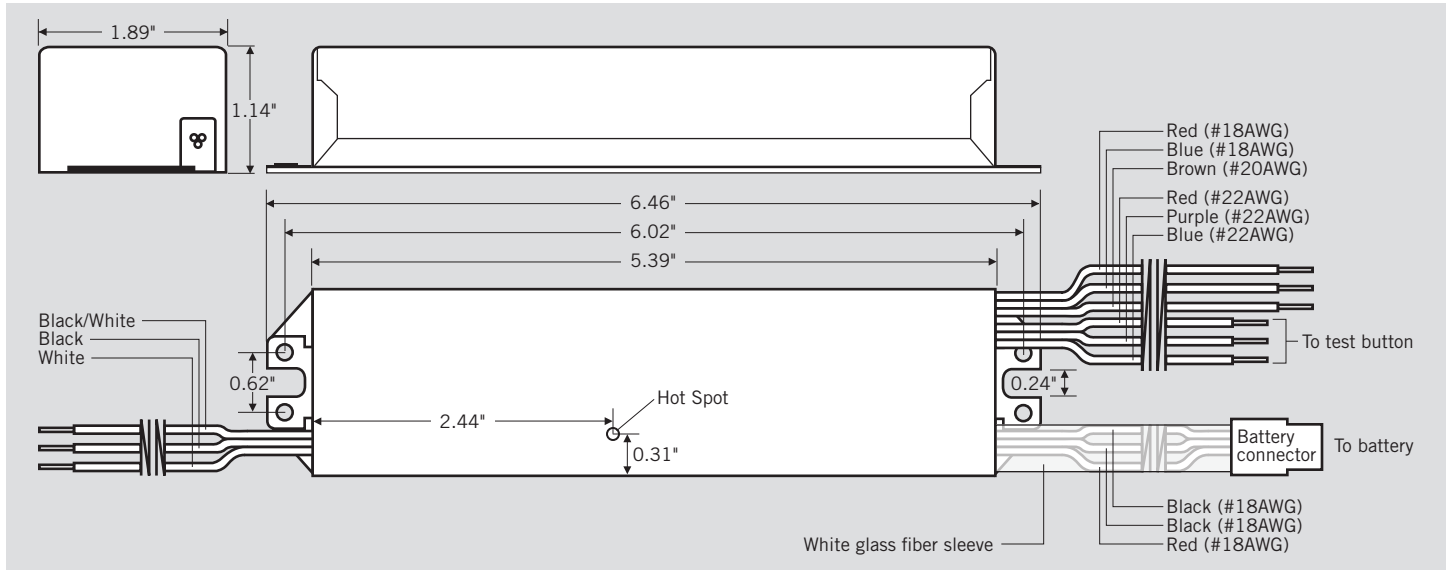


# KT-EMRG-LED-12C-1200-K1

## LED EMERGENCY BACK-UP DRIVER KIT

### DIMENSIONS AND WIRING SPECIFICATIONS

#### EMERGENCY LED DRIVER SPECIFICATIONS



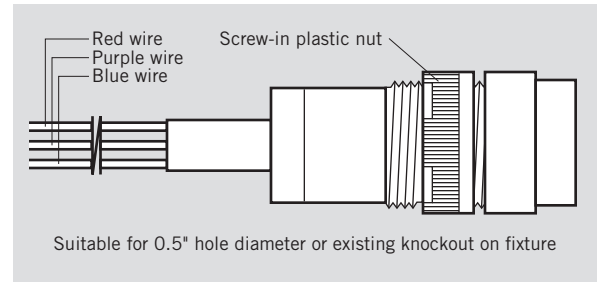
#### LED DRIVER DIMENSIONS

Length (L)	6.46" (92mm)
Width (W)	1.89" (48mm)
Height (H)	1.14" (29mm)
Mounting (M)	6.02" (153mm)

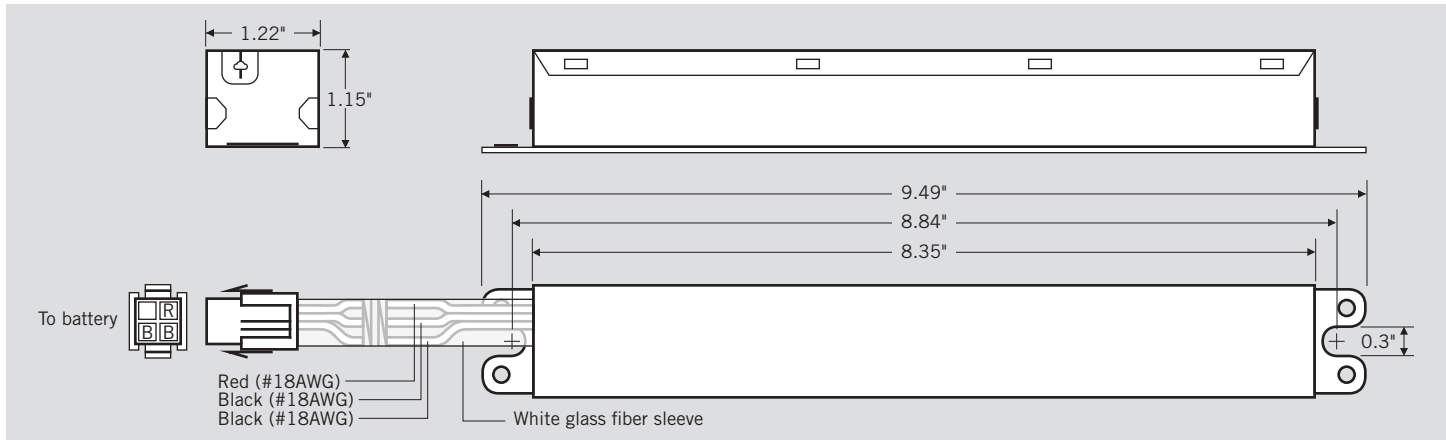
#### WIRE SPECIFICATIONS

Input		Black, White, Black/White	12", UL1316 #18AWG
Output	To LED module	Red, Blue	24", UL1316 #18AWG
	To LED driver	Brown	24", UL1430 #20AWG
	To battery connector	Red, Black	24", UL1015 #18AWG
	To test button	Red, Blue, Purple	24", UL1430 #22AWG

#### TEST SWITCH (3-WIRE) SPECIFICATIONS



#### BATTERY PACK SPECIFICATIONS



#### BATTERY PACK DIMENSIONS

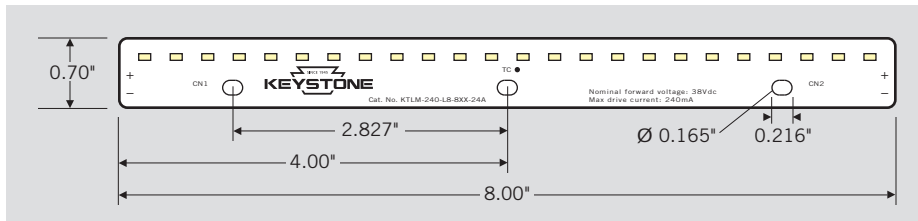
Length (L)	9.49" (241.6mm)
Width (W)	1.22" (31.1mm)
Height (H)	1.15" (29.2mm)
Mounting (M)	8.84" (224.5mm)



# KT-EMRG-LED-12C-1200-K1

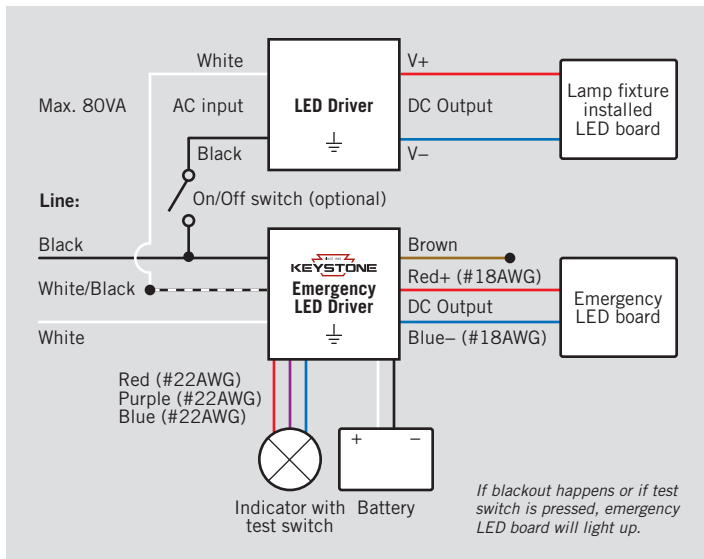
## LED EMERGENCY BACK-UP DRIVER KIT

### LED MODULE SPECIFICATIONS

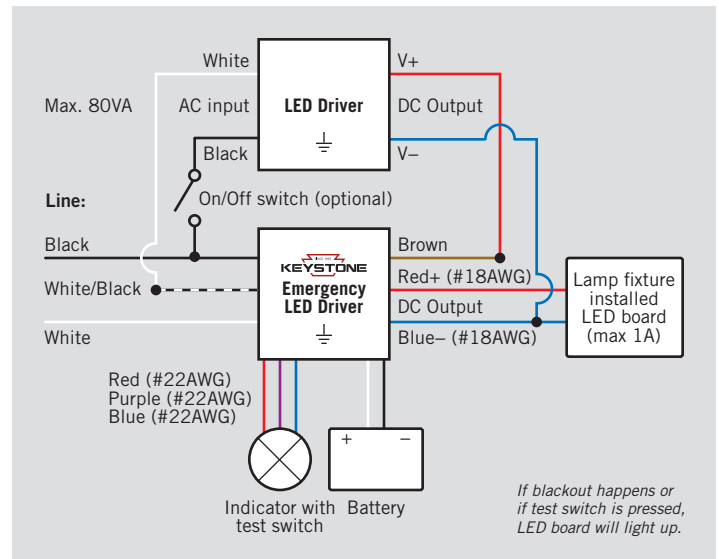


### WIRING DIAGRAMS

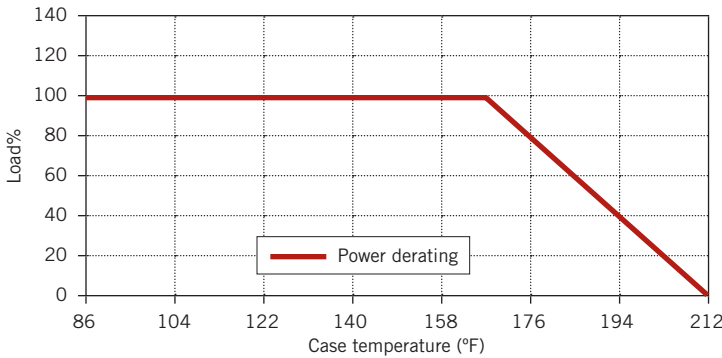
Connect emergency LED driver with emergency LED board



Connect emergency LED driver with lamp fixture installed LED board



### POWER DERATING VS CASE TEMPERATURE



- Notes:
- To maintain good battery lifespan during storage, recharging emergency LED driver annually is recommended.
  - For operation, wiring, and installation please refer to installation instruction.



# KT-EMRG-LED-12C-1200-K1

## LED EMERGENCY BACK-UP DRIVER KIT

### ORDERING INFORMATION

ORDER CODE	DESCRIPTION	PACKAGING STYLE	PACK QTY.	ITEM STATUS
KT-EMRG-LED-12C-1200-K1-IP	Constant Power Emergency LED Driver	Individually Packaged	TBD	Active

### CATALOG NUMBER BREAKDOWN

# KT-EMRG-LED-12C-1200-K1-IP

1 2 3 4 5 6 7 8

- |                         |                        |
|-------------------------|------------------------|
| 1 Keystone Technologies | 5 CEC Compliant        |
| 2 Emergency Back-Up     | 6 Nominal Lumen Output |
| 3 LED Driver            | 7 Kit                  |
| 4 Nominal Wattage       | 8 Packaging Style      |



# KT-EMRG-LED-12LT-1200-EN /DF

## CONSTANT WATTAGE LED EMERGENCY BACK-UP

### DESCRIPTION

LED Emergency Back-Up Driver | Dual Flex Conduit | 12W Output | 120-277V Input



<b>DRIVER TYPE:</b> Constant Wattage LED Emergency
<b>MAX. OUTPUT POWER:</b> 12W
<b>INPUT VOLTAGE:</b> 120-277Vac ±10%
<b>OUTPUT VOLTAGE:</b> 20-60Vdc
<b>OUTPUT CURRENT:</b> 600~206mA
<b>WARRANTY:</b> 5 Years



### PRODUCT FEATURES

- Operating temperature: -20°C/-4°F to 55°C/122°F
- Built in heater for low temperature operation
- Drives LED loads at 12W (nominal) for a minimum of 90 minutes
- Meets FCC Part 15 (Class B) consumer limits
- Short circuit overload and open load protection
- Suitable for dry and damp locations
- Evaluated to UL 924 standards
- Class 2 output
- Input frequency: 50/60 Hz
- Test switch/Charging indicator light and wall plate included
- Battery capacity: 3000mAh; LiFePO4
- Dual flex conduit fits into 1/2" knockouts
- Listed for field or factory installation: UL 924 and CSA C22.2 no. 141 emergency lighting compliant

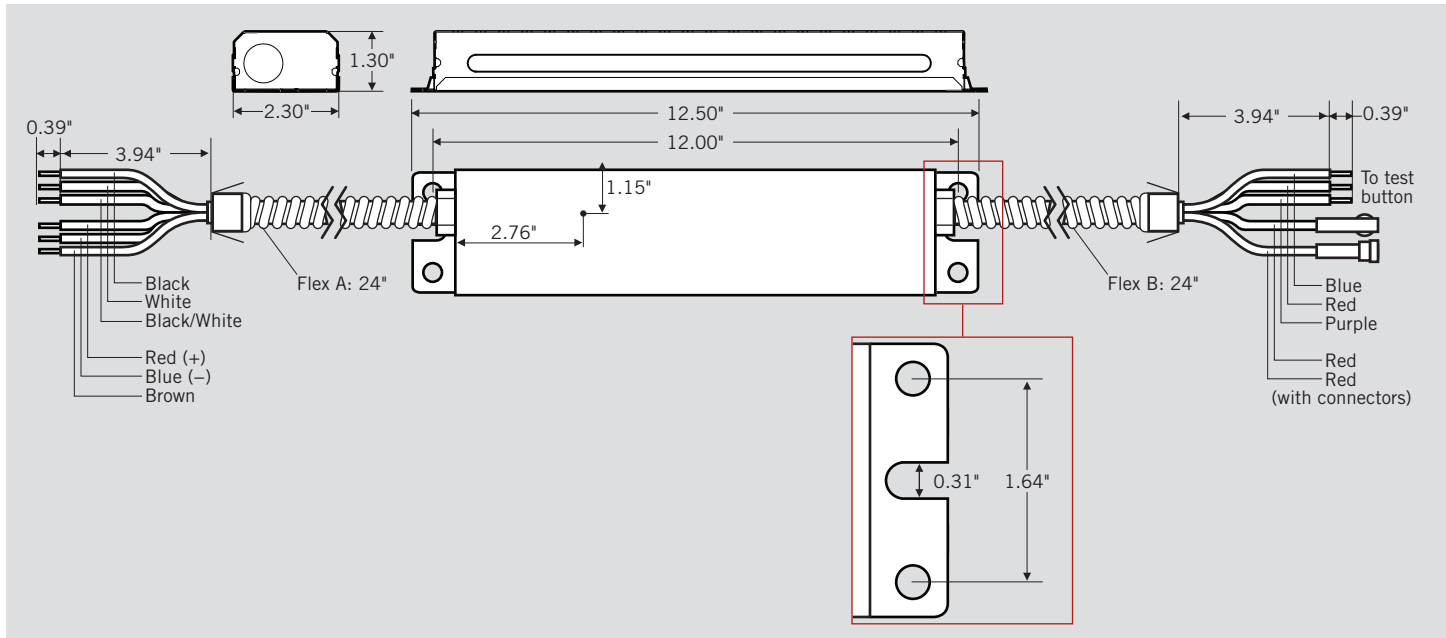
*Emergency Pack does not meet CEC T20 requirements. Not to be sold or offered for sale in California, except when sold wholesale in California for final retail sale outside the state.*

### ELECTRICAL SPECIFICATIONS

Family	INPUT CHARACTERISTICS				OUTPUT CHARACTERISTICS		
	Input Voltage	Power Factor	Max. Current Internal Heater On	Max. Current Internal Heater Off	Max. Output Power	Rated Output Current	Output Voltage
12W	120-277Vac	≥0.5	0.22A @ 120V 0.14A @240V 0.12A @277V	0.07A @120V 0.06A @240V 0.05A @277V	12W	600~206mA	20-60Vdc

*Emergency pack designed to deliver 12W to a constant current LED load. Approximate output is 1200 lumens, assuming a nominal minimum efficacy of 100 lm/W.*

### PHYSICAL SPECIFICATIONS

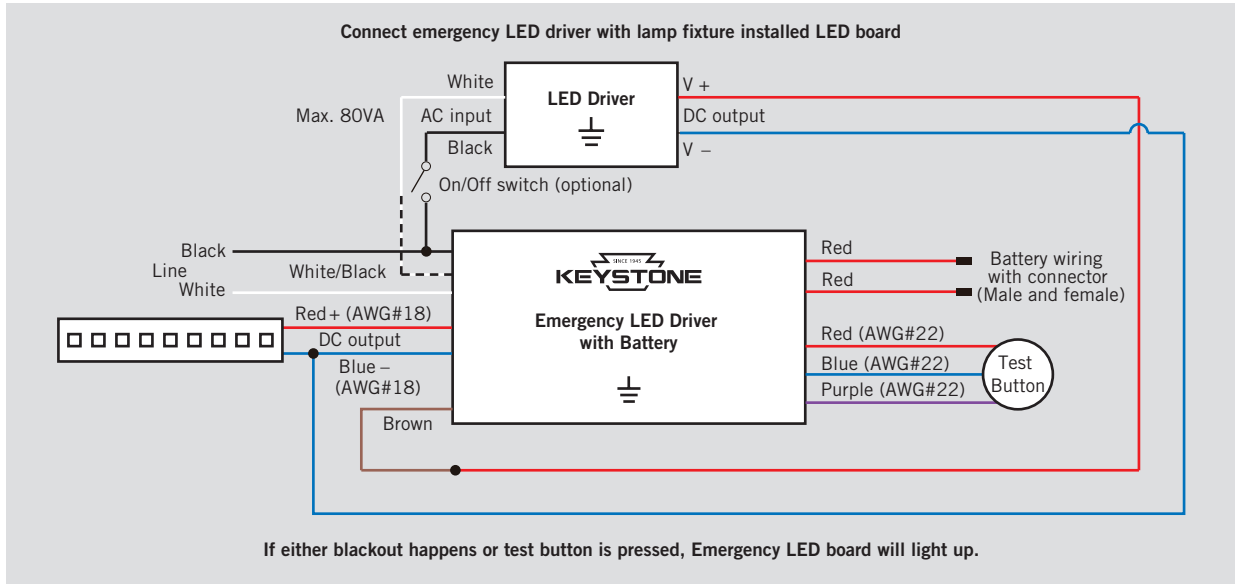
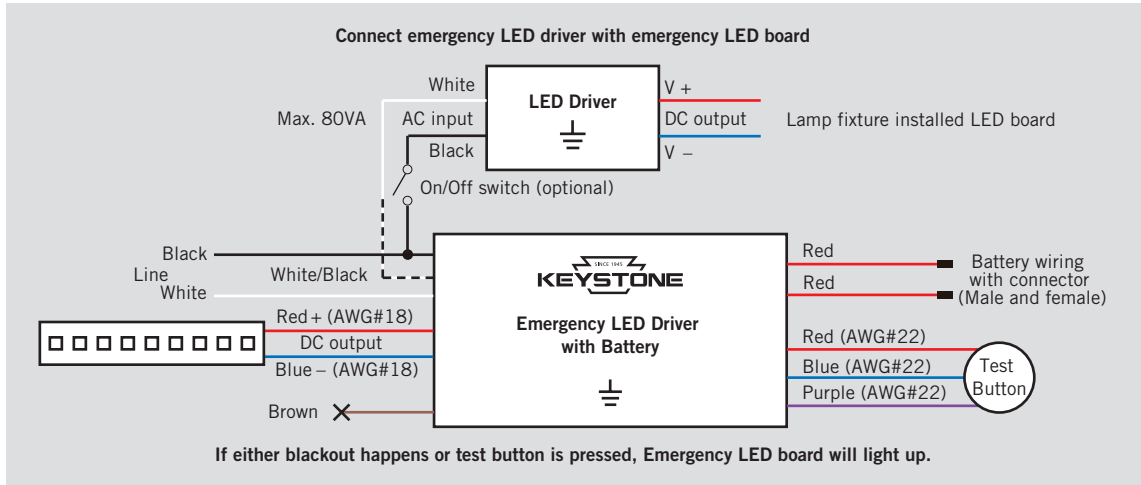




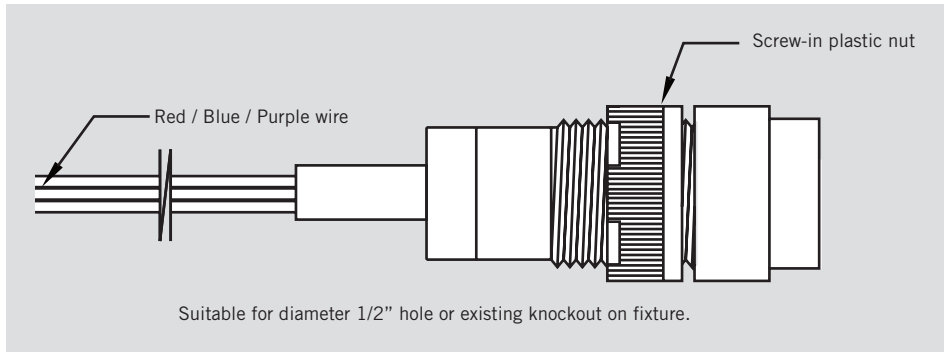
# KT-EMRG-LED-12LT-1200-EN /DF

## CONSTANT WATTAGE LED EMERGENCY BACK-UP

### WIRING SPECIFICATIONS



### TEST SWITCH SPECIFICATIONS





# KT-EMRG-LED-12LT-1200-EN /DF

## CONSTANT WATTAGE LED EMERGENCY BACK-UP

### ORDERING INFORMATION

ORDER CODE	DESCRIPTION	PACKAGING STYLE	PACK QUANTITY	ITEM STATUS
KT-EMRG-LED-12LT-1200-EN /DF-IP	1-Piece LED Emergency Back-up with Dual Flex Conduit	Individually Packaged	1	Active

### CATALOG NUMBER BREAKDOWN

# KT-EMRG-LED-12LT-1200-EN /DF-IP

1 2 3 4 5 6 7 8 9

- 1 Keystone Technologies
- 2 Emergency Back-up Driver
- 3 LED Driver
- 4 Wattage Family
- 5 Low Temperature
- 6 Nominal Lumen Output
- 7 1-Piece Enclosure
- 8 Dual Flex Conduit
- 9 Packaging Style



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

## CONSTANT POWER EMERGENCY LED DRIVER

### DESCRIPTION

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



<b>DRIVER TYPE:</b> Constant Power Emergency LED Driver
<b>MAX. OUTPUT POWER:</b> 20W
<b>INPUT VOLTAGE:</b> 120–277Vac $\pm 10\%$
<b>NUMBER OF OUTPUTS:</b> One
<b>SAFETY STANDARD:</b> UL 924, Complies with CEC Title 20 Efficiency Standards
<b>LOCATION:</b> IP20 design for dry and damp location
<b>WARRANTY:</b> 5 Years
<b>PASS-THROUGH CURRENT:</b> 3A max.



### ELECTRICAL SPECIFICATIONS

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

### ENVIRONMENTAL SPECIFICATIONS

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

### SAFETY AND EMC COMPLIANCE

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



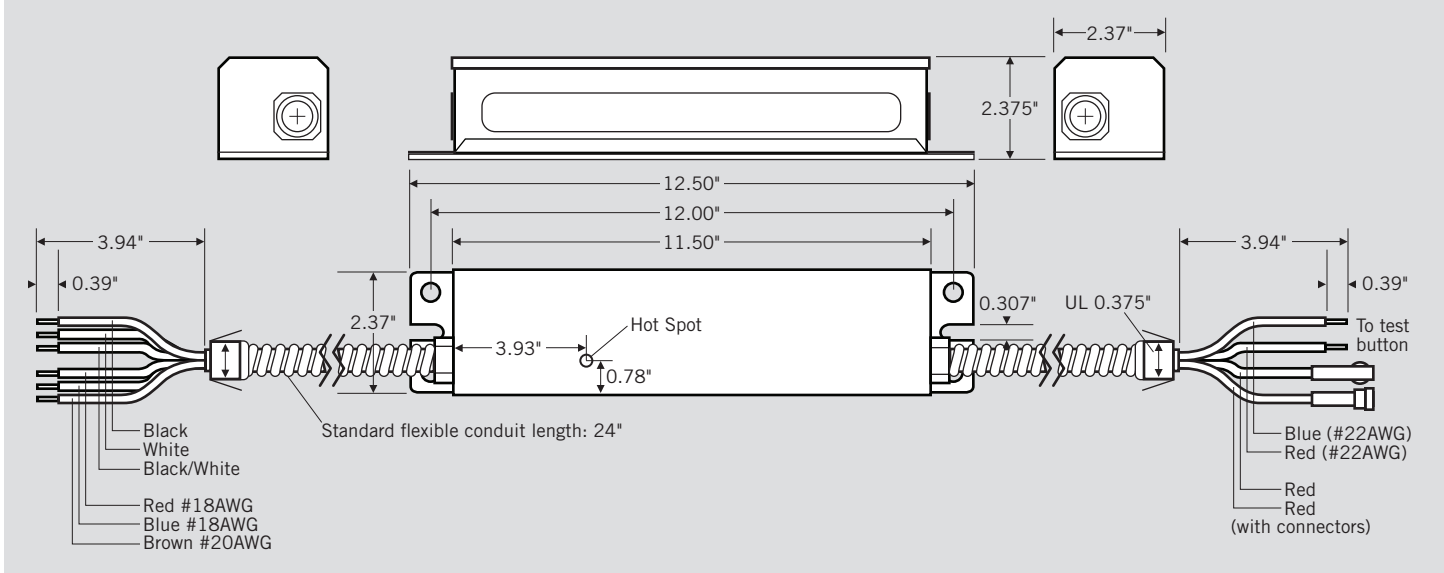


# KT-EMRG-LED-20SD-2000-EN /DF

## CONSTANT POWER EMERGENCY LED DRIVER

### DIMENSIONS AND WIRING SPECIFICATIONS

#### EMERGENCY LED DRIVER SPECIFICATIONS



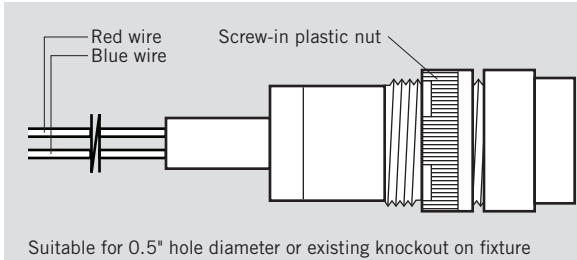
#### LED DRIVER DIMENSIONS

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



#### Test switch light indication

- Green color flashing: Charging battery (battery connector in contact)
- Green color light: Standby or in emergency mode
- Red color flashing 1 time: Cannot charge up battery
- Red color flashing 2 times: Battery voltage too low
- Red color flashing 3 times: Loading voltage too low (less than 20V)

#### Manual test sequences

- Quick discharge test: Press 1 time and hold; LED load will light up for a second
- 30-second test: Press 2 times and hold; LED load will light up for 30 seconds
- 90-minute test: Press 3 times and hold; LED load will light up for 90 minutes

#### Notes:

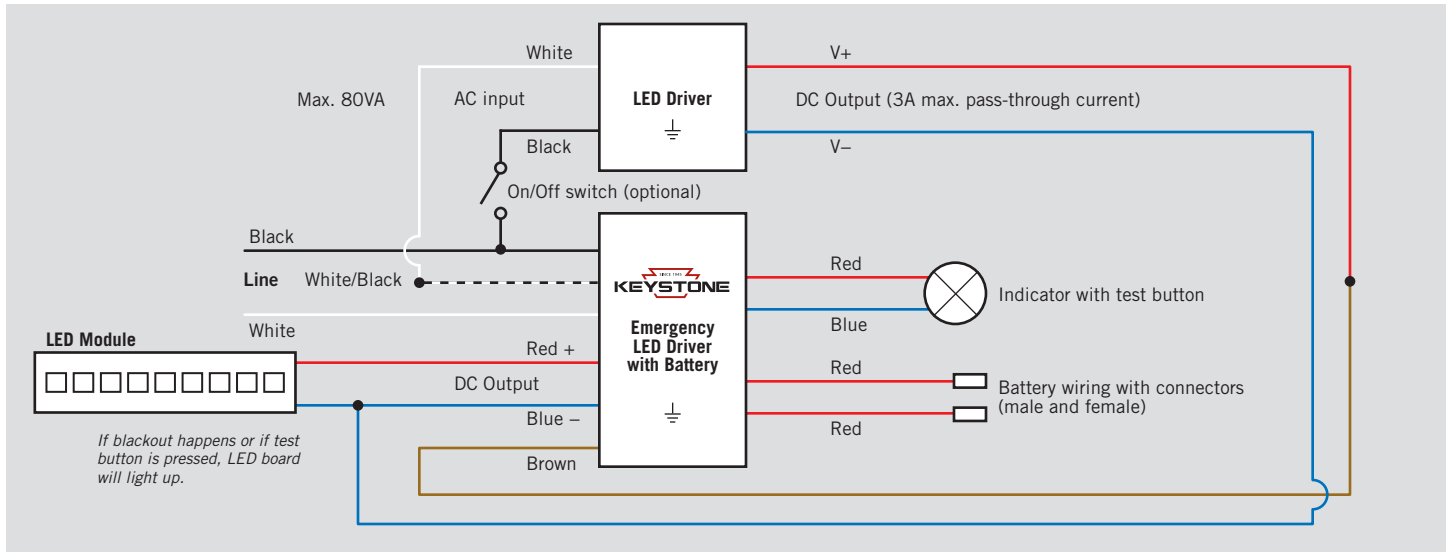
1. To maintain good battery lifespan during storage, recharge emergency driver annually.
2. For operation, wiring, installation, regular check, and maintenance, please refer to installation instruction and Life Safety Code.
3. Automatic Monthly and Annual Testing: Automatically conduct a 30-second test 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.



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

## CONSTANT POWER EMERGENCY LED DRIVER

### 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



# KT-EMRG-LED-40SD-5000-CEN /SF

## LED EMERGENCY BACK-UP DRIVER

### DESCRIPTION

LED Emergency Back-Up for UFO High Bays | 120-277V input

<b>DRIVER TYPE:</b> LED Emergency Converter
<b>MAX. OUTPUT POWER:</b> 40W
<b>INPUT VOLTAGE:</b> 120-277Vac $\pm$ 10%
<b>SAFETY STANDARD:</b> UL 924, Complies with CEC Title 20 Efficiency Standards
<b>OUTPUT VOLTAGE:</b> 150~200Vdc
<b>OUTPUT CURRENT:</b> 200-270mA
<b>WARRANTY:</b> 5 Years

**5 YEAR**  
WARRANTY



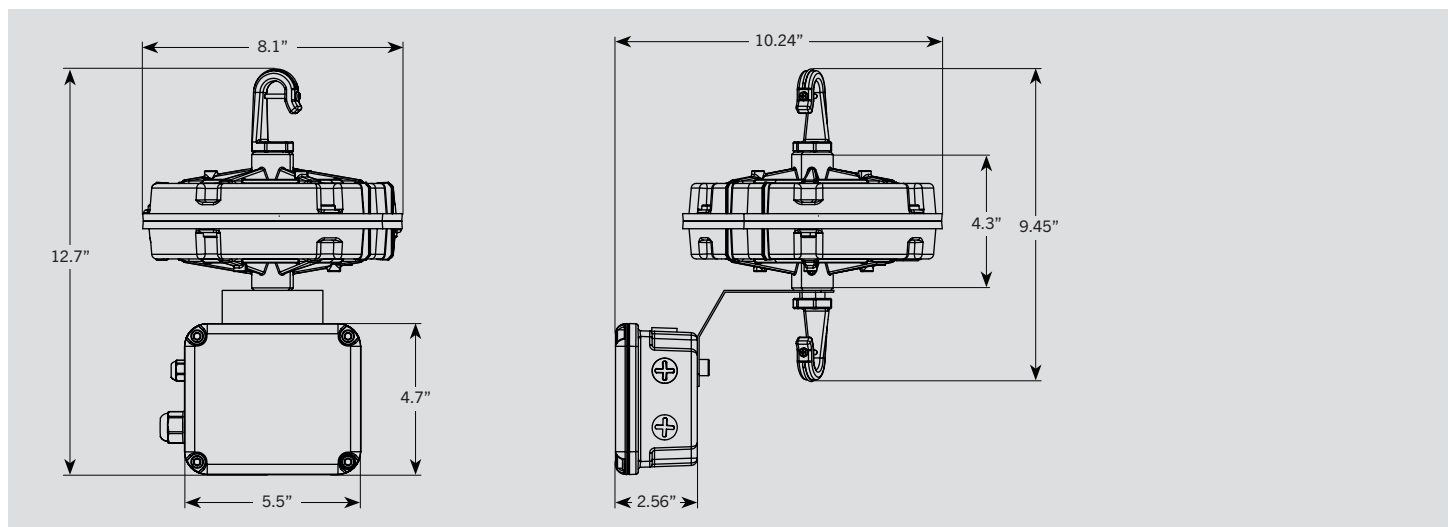
### PRODUCT FEATURES

- Emergency driver for use on a wide range of LED fittings to convert them from standard to emergency fitting
- One Piece 40W Constant Wattage Design with Self Diagnostics
- Single Flex Cable with Included J-Box
- CEC T20 Compliant
- Includes Instructions, J-Box, Test Remote, and Wiring Accessories
- Ambient operating temperature: 10°C/°F to 60°C/°F
- UL Listed for dry/damp locations
- IP65 Protection
- Output DC 150-200V
- Deep discharge protection
- Not intended for use in luminaires for high-risk task area lighting

### PRODUCT SPECIFICATIONS

Family	INPUT CHARACTERISTICS			OUTPUT CHARACTERISTICS		
	Input Voltage	Power Factor	Max. Current	Max Outut Power	Output Voltage	Output Current
40W	120-277Vac	> 0.6	150mA @ 120V	40W	150~200Vdc	200-270mA

### PHYSICAL SPECIFICATIONS



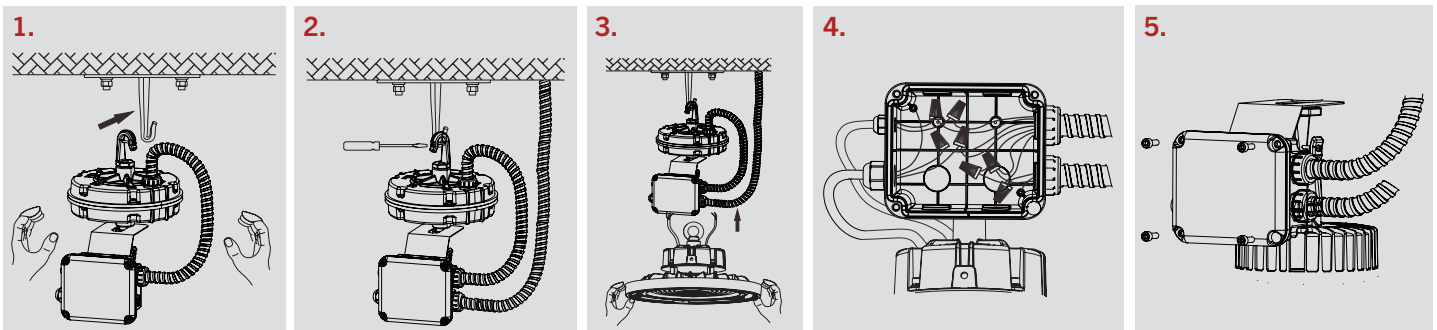


# KT-EMRG-LED-40SD-5000-CEN /SF

## LED EMERGENCY DRIVER

### INSTALLATION INSTRUCTIONS

1. Hang the emergency driver on the mounting hook.
2. Fasten the screw on the top hook of the emergency driver. Ensure all set screws on the installation are tightened.
3. Route AC power from the building into the J-Box
4. Install the luminaire onto the hook of the emergency driver, then lock the safety screw. Route the luminaire power and dimming cables through the pre-installed strain reliefs on the J-Box.
5. Open the front cover of the J-Box and wire according to the diagram below. Ensure the ground wires are connected to the J-Box ground wire.
6. Fasten all the screws of the front cover for the J-Box, and installation is complete.



### SELF-TEST MODE

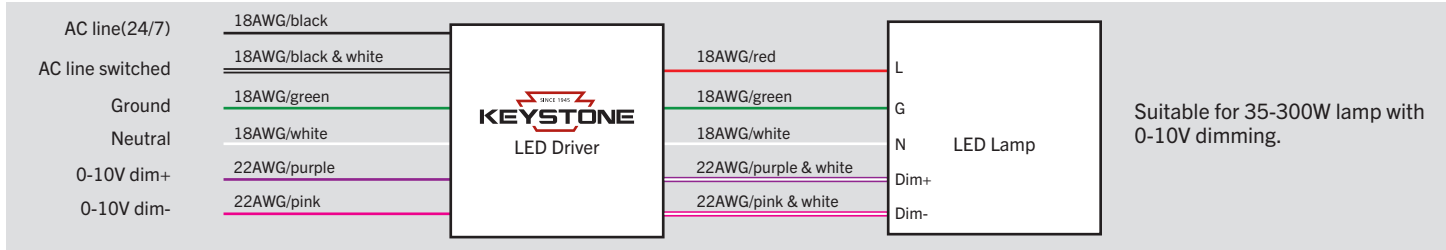
- **After connecting the AC wires and turning on the main power, the emergency driver will go in self-test mode for 3 seconds.**  
When in self-test mode:
  - 1) The indicator light will flash red every 2 seconds;
  - 2) If main power is off during self-test mode, emergency driver will go into discharging mode immediately and stop self-testing.
- **If the self-test fails, it goes into failure mode.**  
When in failure mode, the indicator will flash red every half second. Reasons for failure may include:
  - 1) The battery pack is not connected or it is broken.
  - 2) The load is not connected.
  - 3) A short circuit may be present.
  - 4) The dimming wires are not connected properly.
- **If the emergency driver passes the self test, it will go into charging mode:**  
The indicator will be constant red.
- **Remark:**  
If the battery voltage is lower than 30% rated voltage, the indicator will flash every 2 seconds.  
The emergency driver will only conduct self-test mode when the battery voltage is above 30% capacity.



# KT-EMRG-LED-40SD-5000-CEN /SF

## LED EMERGENCY DRIVER

### GENERAL WIRING DIAGRAM



Note: \*In accordance with NEC-20 410.69 2022, all 0-10V negative wires have been updated from gray to pink. Please contact Keystone for details

### ORDERING INFORMATION

Catalog Number	Easy Code	UPC
KT-EMRG-LED-40SD-5000-CEN /SF	UGW-62	843654144320

### CATALOG NUMBER BREAKDOWN

# KT-EMRG-LED-40SD-5000-CEN /SF

1
2
3
4
5
6
7
8

- 1** Keystone Technologies
- 2** Emergency
- 3** LED
- 4** Wattage
- 5** Self Diagnostic
- 6** Lumens
- 7** Circular Enclosed Construction
- 8** Slip Fitter