



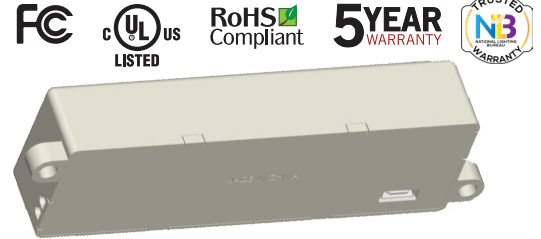
# KTLD-12-UV-SC500-56-VDIM-AF1/USB

## CONSTANT POWER PROGRAMMABLE LED DRIVER

### DESCRIPTION

LED Driver | 12W | 120–277V Input | 120–500mA Programmable Output Current

<b>TOTAL POWER:</b> 12W	<b>OUTPUT CURRENT:</b> 120–500mA
<b>INPUT VOLTAGE:</b> 120–277Vac ±10%	<b>DIMMING:</b> 0–10V
<b>INPUT FREQUENCY:</b> 50/60 Hz	<b>WARRANTY:</b> 5 Years



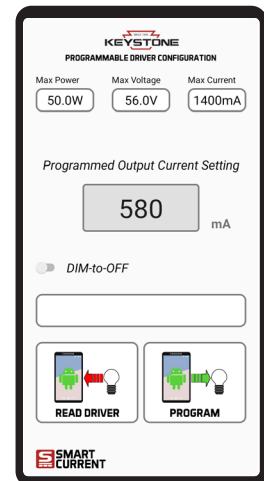
### PRODUCT FEATURES

- Built in USB-C Port for easy programming
- Meets FCC Part 15 (Class B) consumer limits
- Short circuit overload and open load protection
- Dimmable with 0–10V dimmer (down to 1% at max. output current)
- THD: <20%
- –40°C/–40°F to 60°C/140°F operating temperature
- 90°C/194°F maximum case temperature
- Input frequency: 60 Hz
- Programmable output current via USB-C cable and an Android device (plus Keystone app) or PC (plus Keystone software)

### PROGRAMMING FEATURES

- Drive current (10mA increments)
- Minimum dimming level (1%, 3%, 5%, 7%, or 10%)
- Dimming curve (linear log, inverse log, or square-law)
- Minimum dimming voltage (1V, 1.5V, or 2V)
- Maximum dimming voltage (7V, 8V, or 9V)
- Dim-to-off voltage (0.8V, 1V, 1.2V, or N/A)
- Thermal foldback temperature (75°C/167°F, 80°C/176°F, 85°C/185°F, or 90°C/194°F)

**WHAT'S NEEDED?**  
A Smart Current Programmable LED Driver, USB-C Cable, and a computer or phone



### REQUIRED ACCESSORIES

Order Code	Description
KTLD-SC-USBC	USB-C to USB-C Cable

### ELECTRICAL SPECIFICATIONS

<b>Input Voltage Range</b>	120–277Vac ±10%
<b>Frequency</b>	50/60 Hz
<b>Power Factor</b>	>0.9 under 120Vac Input with 80~100% load condition (for all output currents)
<b>Inrush Current</b>	TBD
<b>Max. Input Current</b>	TBD
<b>THD</b>	<20% under 120Vac input with 80~100% load condition (for all output currents)
<b>Load Regulation</b>	± 2%
<b>Line Regulation</b>	± 1%
<b>Output Tolerance</b>	± 5% at full load condition
<b>Turn-On Delay Time</b>	<0.50 seconds at full load condition
<b>Overshoot</b>	<10% at full load condition
<b>No Load Power Consumption</b>	<1W
<b>Ripple and Noise (pk-pk)</b>	<10%
<b>Withstand Voltage</b>	Input to output, 2,800Vdc, 2mA
<b>Leakage Current</b>	Maximum 0.5mA at 277Vac, 60Hz input
<b>Protection</b>	<ul style="list-style-type: none"> <li>• <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.</li> <li>• <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.</li> <li>• <b>Short Circuit Protection:</b> Hiccup mode. Protection will trigger when short circuit and will auto recover after the fault mode is removed.</li> </ul>



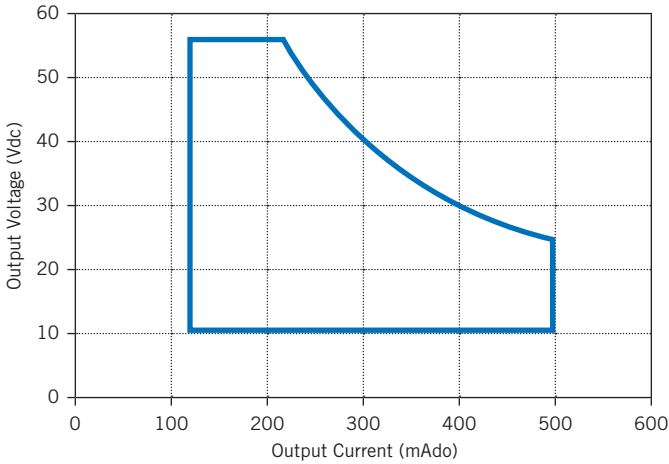
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## CONSTANT POWER PROGRAMMABLE LED DRIVER

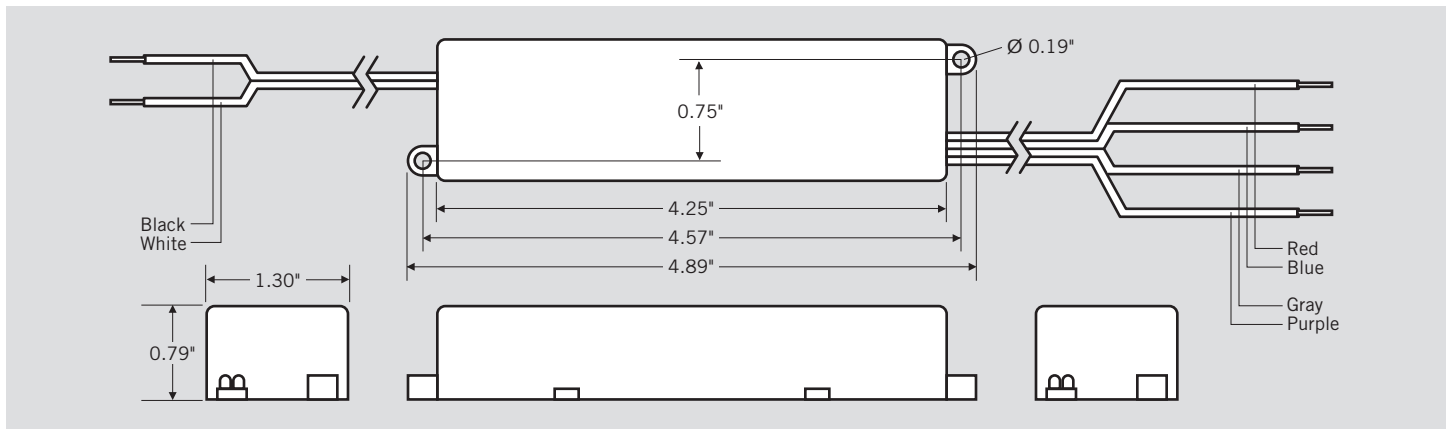
### PRODUCT SPECIFICATIONS

Max. Output Power	Output Current	Output Voltage	OCV	Typical Efficiency at 120V	Typical Efficiency at 240V	Typical Efficiency at 277V	Remote Mounting Distance (#22 AWG)	Class 2	
								US	Canada
12W	120-500mA	10-56V	60V	TBD	TBD	TBD	24 ft.	✓	

### LED DRIVER OUTPUT WINDOW



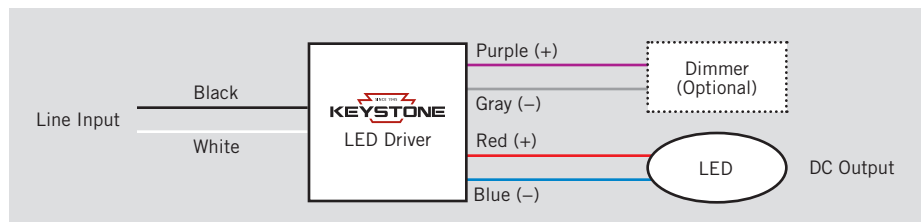
### PHYSICAL SPECIFICATIONS



### WIRING SPECIFICATIONS

Input	Black	12.00", UL 1316 #18AWG
	White	12.00", UL 1316 #18AWG
Output	Blue	12.00", UL 1430 #22AWG
	Red	12.00", UL 1430 #22AWG
	Purple	12.00", UL 1430 #22AWG
Dimming	Gray	12.00", UL 1430 #22AWG
	Gray	12.00", UL 1430 #22AWG

### WIRING DIAGRAM





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## CONSTANT POWER PROGRAMMABLE LED DRIVER

### ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40°C/-40°F to 60°C/140°F
Storage Temperature	-40°C/-40°F to 85°C/185°F
Humidity	5% to 95%
MTBF	TBD
Life Rating	TBD
Maximum Case Temperature	90°C/194°F

### SAFETY AND EMC COMPLIANCE

UL/cUL	UL 8750 pending
CE	EN61347-1, EN61347-2-13
FCC, 47CFR Part 15	ANSI C63.4:2009 Class B (consumer limit)
EN61000-3-2	Harmonic Current Emissions Class C

### ORDERING INFORMATION

ORDER CODE	PACKAGING STYLE	PACK QUANTITY	ITEM STATUS
KTLD-12-UV-SC500-56-VDIM-AF1-CP/USB	Carton Pack	TBD	Quick Ship

### CATALOG NUMBER BREAKDOWN

# KTLD-12-UV-SC500-56-VDIM-AF1-CP/USB

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- 1 Keystone Technologies LED Driver
- 2 Max. Output Wattage
- 3 120–277V Input
- 4 Smart Current
- 5 Max. Output Current
- 6 Max. Output Voltage
- 7 0–10V Dimming
- 8 Case Style
- 9 Packaging Style
- 10 USB Port