



KTLD-100-UV-SC3000-56-VDIM-U4

CONSTANT CURRENT PROGRAMMABLE LED DRIVER

DESCRIPTION

LED Driver | 100W | 120–277V Input | 1500–3000mA Programmable Output Current

Class P



TOTAL POWER: 100W	OUTPUT CURRENT: 1500–3000mA
INPUT VOLTAGE: 120–277Vac $\pm 10\%$	DIMMING: 0–10V
INPUT FREQUENCY: 50/60 Hz	WARRANTY: 5 Years



PRODUCT FEATURES

- 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%
- Auxiliary Power: 12Vdc; 200mA max.
- -40°C/-40°F to 50°C/122°F operating temperature
- 90°C/194°F maximum case temperature
- Input frequency: 50/60 Hz
- Programmable output current via Keystone supplied programming jig
- Class A Sound Rating

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 SmartCurrent Programmable LED Driver, the SmartCurrent Cradle, and a computer.



ELECTRICAL SPECIFICATIONS

Input Voltage Range	120–277Vac $\pm 10\%$
Frequency	50/60 Hz
Power Factor	>0.9 under 120–277Vac Input with 80–100% load condition (for all output currents)
Inrush Current	20A @277
Max. Input Current	1.02A @120V, 0.53A @240V and 0.46A @277V
THD	<20% under 120–277Vac input with 80–100% load condition (for all output currents)
Load Regulation	$\pm 2\%$
Line Regulation	$\pm 1\%$
Output Tolerance	$\pm 5\%$ at full load condition
Turn-On Delay Time	<0.75 seconds at full load condition
Overshoot	<10% at full load condition
No Load Power Consumption	<2W
Ripple and Noise (pk–pk)	<3%
Withstand Voltage	Input to output, 2,800Vdc, 2mA
Leakage Current	Maximum 0.5mA at 277Vac, 60Hz input
Protection	• Over Voltage Protection: Hiccup mode. Protection will trigger when load voltage exceeds specified output voltage and will auto recover after the fault mode is removed. • Over Current Protection: Hiccup mode. Protection will trigger when load current exceeds specified output current and will auto recover after the fault mode is removed. • Short Circuit Protection: Hiccup mode. Protection will trigger when short circuit and will auto recover after the fault mode is removed. • Over Temperature Protection: Protection will trigger when driver overheats and auto-recovery when cooled down.



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ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40°C/-40°F to 50°C/122°F
Storage Temperature	-40°C/-40°F to 85°C/185°F
Humidity	5% to 95%
MTBF	198,000 hours at 40°C ambient (~70°C Case temp)
Life Rating	85,000 hours at 120Vac input, 100% load and 60°C/140°F case temperature
Maximum Case Temperature	90°C/194°F

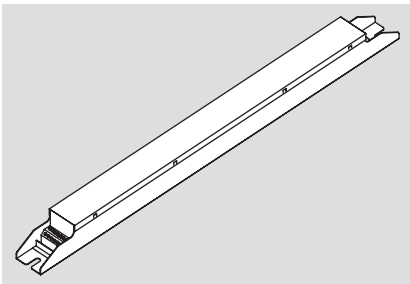
SAFETY AND EMC COMPLIANCE

UL/cUL	UL 8750, Class P, Type HL, UL1310 Class 2
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

PRODUCT SPECIFICATIONS

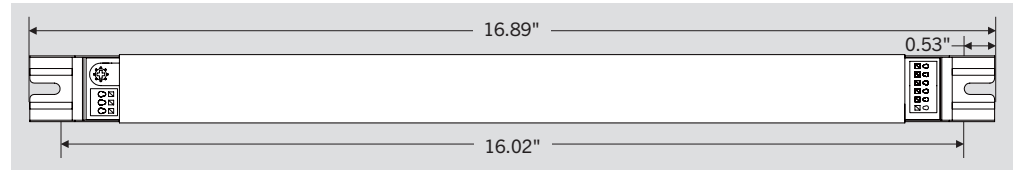
Max. Output Power	Output Current	Output Voltage	OCV	Typical Efficiency at 120V	Typical Efficiency at 240V	Typical Efficiency at 277V	Remote Mounting Distance (#18 AWG)	Class 2	
								US	Canada
100W	1500–3000mA	10–56V	60V	89%	90%	91%	12 ft.	✓	

PHYSICAL SPECIFICATIONS

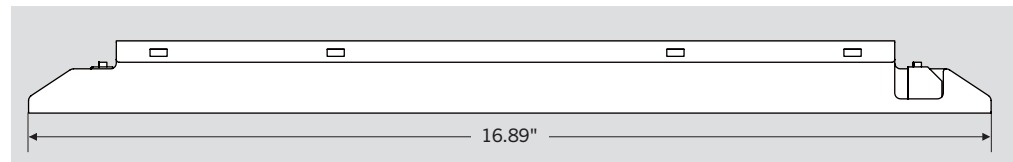


LENGTH	16.89"
WIDTH	1.18"
HEIGHT	1.00"
MOUNTING	16.02"
CASE STYLE	U4
CASE MATERIAL	Metal

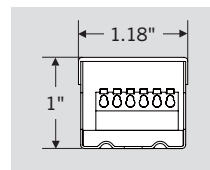
TOP VIEW



FRONT VIEW



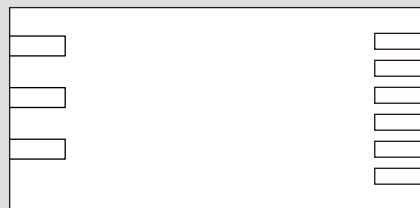
SIDE VIEW



WIRING SPECIFICATIONS

INPUT	Terminal Block
OUTPUT	Terminal Block
DIMMING	Terminal Block

Ground
Neutral
Live



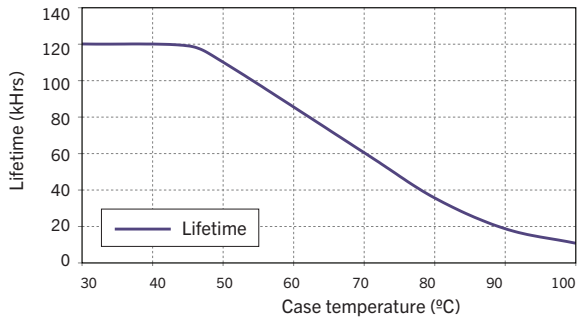
VO (-): LED load, negative (-)
VO (+): LED load, positive (+)
BTIN: For bluetooth module connection
Aux 12Vdc (+): Auxiliary 12Vdc output, positive (+)
RTN: Dimming and auxiliary output, negative (-)
Dimming (+): Dimming, positive (+)



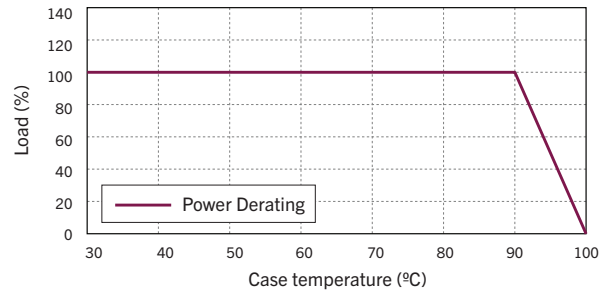
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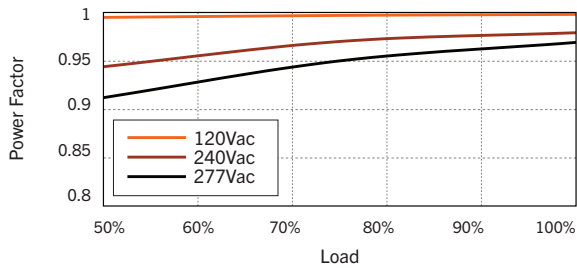
LIFETIME VS CASE TEMPERATURE



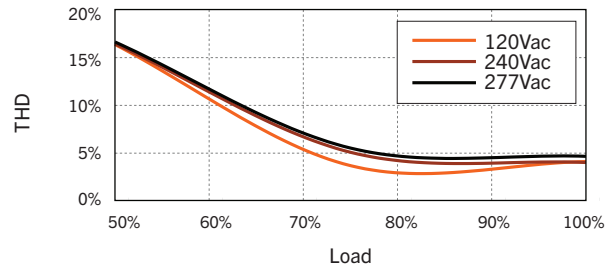
POWER DERATING VS CASE TEMPERATURE



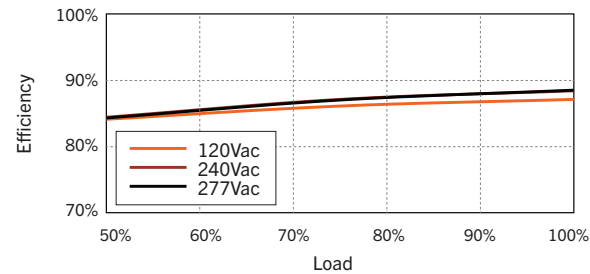
POWER FACTOR VS LOAD



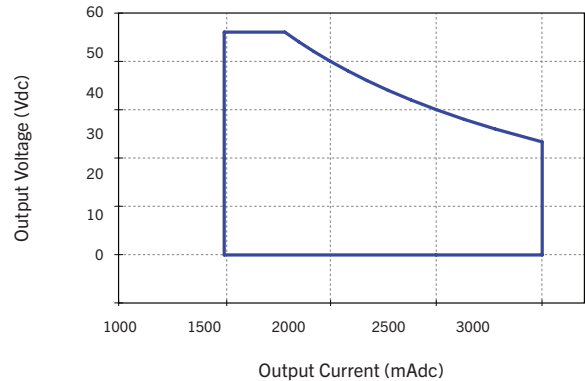
THD VS LOAD



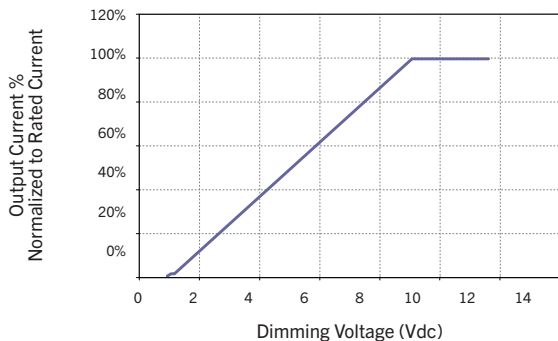
EFFICIENCY VS LOAD



LED DRIVER OUTPUT WINDOW



0-10V DIMMING CURVE (FULL LOAD)



*Graphs are with driver programmed to max output current



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ORDERING INFORMATION

ORDER CODE	PACKAGING STYLE	PACK QUANTITY	ITEM STATUS
KTLD-100-UV-SC3000-56-VDIM-U4	Carton Pack	20	Quick Ship

PACKAGING

1.1IBS / UNIT : 20PCS / CARTON ; 1040PCS / PALLET	
Carton Size	19.7 in x 10.65 in x 5.32 in
Carton Weight	25.36 lbs
Case Material	Metal

CATALOG NUMBER BREAKDOWN

KTLD-100-UV-SC3000-56-VDIM-U4

1	2	3	4	5	6	7	8
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