


**SMART CURRENT
FLEX**

KTLD-50-UV-P1400-55-VDIM-XX-LT1

CONSTANT CURRENT PROGRAMMABLE LED DRIVER

DESCRIPTION

LED Driver | 50W | 120-277V Input | 140-1400mA Programmable Output Current

Class P RoHS Compliant 10 YEAR LIMITED WARRANTY

TOTAL POWER: 50W	OUTPUT CURRENT: 140 –1400mA
INPUT VOLTAGE: 120–277Vac ±10%	DIMMING: 0–10V
INPUT FREQUENCY: 50/60 Hz	WARRANTY: 10 Year Limited



PRODUCT FEATURES

- Linear Form Factor, Metal Casing
- 0-10V Dimming, Compliant with ANSI C137.1
- True 1% Dimming over full Output Current Range
- Programmable Output in 1mA Increments
- Flicker Free, T24: JA8 & IEE1789 Compliant
- Programmable Settings via Keystone Programming Kit
- For Indoor Applications
- Class A Sound Rating
- Optional 12-24V Programmable Aux Power

PROGRAMMING FEATURES

- Output Current Set Range: 140–1400 mA
- Minimum Output Current: 1.4 mA
- Minimum Dimming Level (1-10%, 0.5% Increments)
- Dimming Curve (Linear, Log, Square)
- Dim to Off (Enable/Disable)
- Luminous Decay Compensation (Enable/Disable)
- End of Life Feedback (Enable/Disable)
- Thermal Foldback Temperature Selection

WHAT'S NEEDED? The Programmable LED Driver, the Programming Kit, the Connection Cable, and a computer.



ELECTRICAL SPECIFICATIONS

Input Voltage Range	120–277Vac ±10%
Frequency	50/60 Hz
Power Factor	>0.95 at 45–100% Load (V _{in} @ 120Vac), >0.90 at 45–100% Load (V _{in} @ 277Vac)
Inrush Current	15.1 A _{peak} , i ² t = 0.0467 A ² s @ 120V, 35.1 A _{peak} , i ² t = 0.259 A ² s
Max. Input Current	<0.57A (V _{in} @ 120 Vac), <0.26A (V _{in} @ 277V ac)
THD	<20% at 45-100%, V _{in} @ 120-277 Vac
Load Regulation	± 5%
Line Regulation	± 3%
Output Tolerance	± 5% at full load condition
Turn-On Delay Time	<0.5 seconds at 400–1400mA, Cold Start
Overshoot	<10% at full load condition
No Load Power Consumption	<1.5W
Ripple and Noise (pk-pk)	<3%
Withstand Voltage	Input to output, 2,800Vdc, 2mA
Leakage Current	<0.75 mA, V _{in} @ 277Vac, 60Hz
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.
Surge Rating	2.5 kV Ring Wave, 2 kV Combination Wave
Dimming Sink Current	200uA



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PRODUCT SPECIFICATIONS

Max. Output Power	Output Current	Output Voltage	OCV	Typical Efficiency at 120V	Typical Efficiency at 277V	Remote Mounting Distance (#18 AWG)	Class 2	
							US	Canada
50W	140-1400mA	8-55V	60V	88% @ 900mA, 55V	89% @ 900mA, 55V	26 ft.	✓	✓

OPTIONAL AUX POWER SPECIFICATIONS

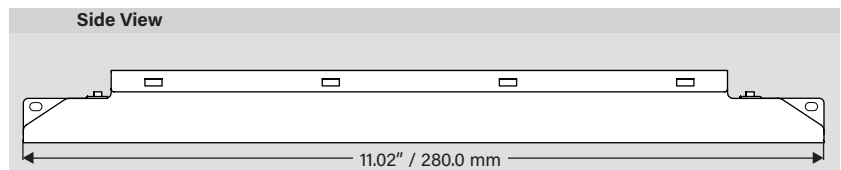
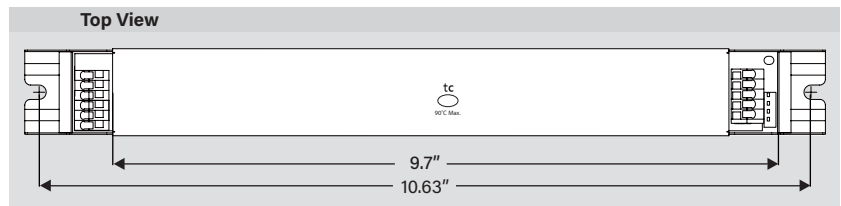
Max. Output Power	Voltage Range
1W	12-24V Programmable

WIRING SPECIFICATIONS

INPUT	Terminal Block
OUTPUT	Terminal Block
DIMMING	Terminal Block

PHYSICAL SPECIFICATIONS

	LENGTH	11.02"
	WIDTH	1.18"
	HEIGHT	0.83"
	MOUNTING	10.63"
	CASE STYLE	LT1
	CASE MATERIAL	Metal



Wiring

KTLD-50-UV-P1400-55-VDIM-LT1 (without AUX)

Black: Line	Red: LED (+) LED load, positive
Black: Line	Blue: LED (-) LED load, negative
White: Neutral	Purple: DIM (+) Dimming, positive
White: Neutral	Pink: DIM (-) Dimming, negative
Green: Ground	Yellow: NC No Connection
Green: Ground	

KTLD-50-UV-P1400-55-VDIM-CR-LT1 (with AUX)

Black: Line	Red: LED (+) LED load, positive
Black: Line	Blue: LED (-) LED load, negative
White: Neutral	Purple: DIM (+) Dimming, positive
White: Neutral	Pink: DIM (-) / AUX (-) Dimming & AUX, negative
Green: Ground	Yellow: AUX (+) AUX, positive
Green: Ground	

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-30°C/-22°F to 50°C/122°F
Storage Temperature	-40°C/-40°F to 85°C/185°F
Humidity	5% to 95% RH
MTBF	>200,000 Hours, Full Load at 25°C/77°F Ambient Temperature
Life Rating	>50,000 Hours, Full Load at 80°C/176°F Case Temperature
Maximum Case Temperature	90°C/194°F
Maximum Case Temperature (tc) for 5-Year Warranty	80°C/176°F

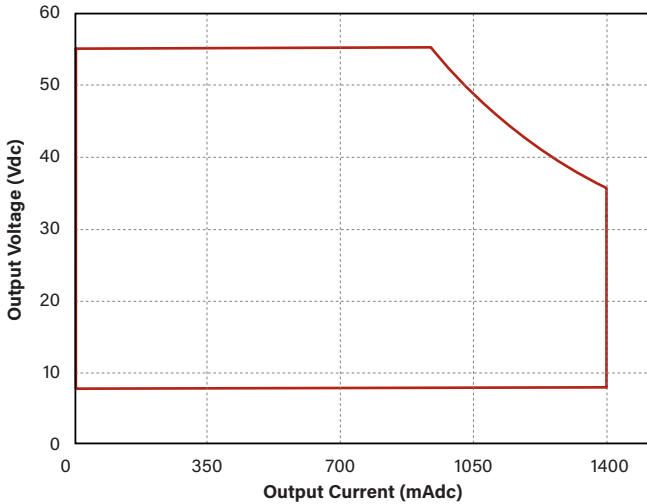
SAFETY AND EMC COMPLIANCE

UL/cUL	UL 8750 Class P CAN/CSA-C22.2 No. 250.13
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

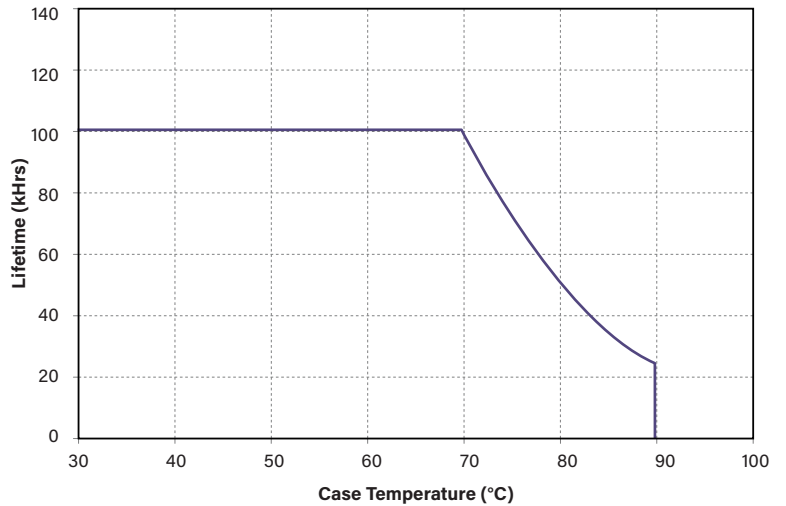
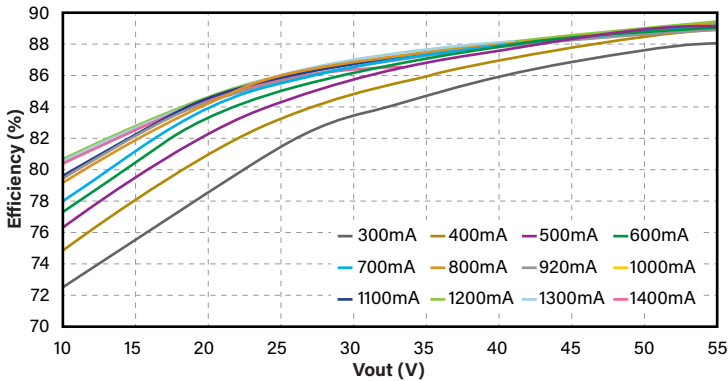
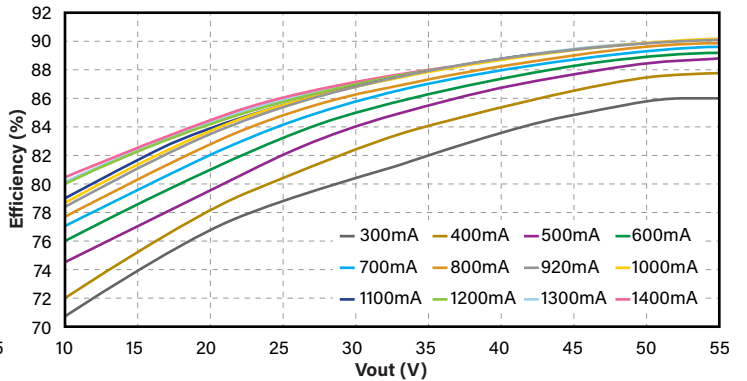
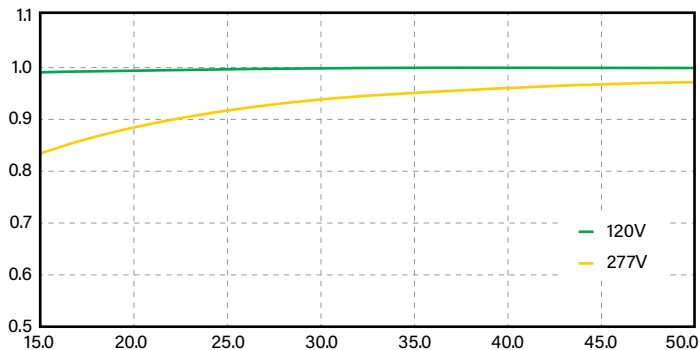
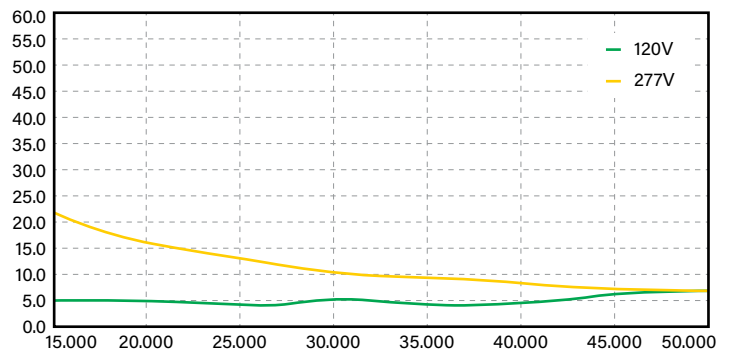

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LED DRIVER OUTPUT WINDOW


Note: driver is in constant power mode from 900mA to 1400mA.

LIFETIME VS CASE TEMPERATURE

EFFICIENCY (120V)

EFFICIENCY (277V)

POWER FACTOR vs OUTPUT POWER

THD vs OUTPUT POWER




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ORDERING INFORMATION

ORDER CODE	PACKAGING STYLE	PACK QUANTITY	ITEM STATUS	UPC	EASY CODE
KTLD-50-UV-P1400-55-VDIM-LT1	Carton Pack	63	Quick Ship	843654108803	JUL-57
KTLD-50-UV-P1400-55-VDIM-CR-LT1	Carton Pack	63	Quick Ship	843654159058	KYA-02

CATALOG NUMBER BREAKDOWN

KTLD-50-UV-P1400-55-VDIM-XX-LT1

1

2

3

4

5

6

7

8

9

1 Keystone Technologies LED Driver

2 Max. Output Wattage

3 120-277V Input

4 Programmable

5 Max. Output Current

6 Max. Output Voltage

7 0-10V Dimming

8 Aux Power

9 Case Style

8 Aux Power

	No Aux
CR	Aux