



# KTLD-100-UV-24V-MC2

## CONSTANT VOLTAGE LED DRIVER

### DESCRIPTION

LED Driver | 96W | 120-277Vac Input  
24Vdc Output | 0-4000mA Output Current



Class 2

**SAM**



**RoHS**  
Compliant



**5 YEAR**  
WARRANTY

### ELECTRICAL SPECIFICATIONS

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input Voltage Range       | 120/277Vac $\pm$ 10%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Frequency                 | 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Power Factor              | >0.95 at Full Load Condition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Max. Input Current        | 1.1A @ 120Vac Input and 0.45A @ 277Vac Input                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| THD                       | <30% at Full Load Condition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Output Tolerance          | $\pm$ 5% at Full Load Condition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Turn-On Delay Time        | $\leq$ 0.5s at Full Load Condition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Overshoot                 | <10% at Full Load Condition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| No Load Power Consumption | <2.5W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Ripple and Noise (pk-pk)  | $\leq$ 5%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Protection                | <ul style="list-style-type: none"> <li>• <b>Over Voltage Protection:</b> Hiccup mode. Protection will trigger when load voltage exceed 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 exceed 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> <li>• <b>Over Temperature Protection:</b> Protection will trigger when driver overheat and auto-recovery when cooled down.</li> </ul> |
| Surge Rating              | 2kV, ANSI/IEEE C62.41                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

### ENVIRONMENTAL SPECIFICATIONS

|                                                   |                                                                                                          |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Operating Temperature                             | -20 to 50°C                                                                                              |
| Storage Temperature                               | -40 to 85°C                                                                                              |
| Humidity                                          | 5% to 90%                                                                                                |
| MTBF                                              | > 200,000 hours when operated at nominal input and output conditions, and at $T_c \leq 75^\circ\text{C}$ |
| Life Rating                                       | > 50,000 hours at Full Load, $75^\circ\text{C}$ / $167^\circ\text{F}$ Case Temperature                   |
| Maximum Case Temperature                          | $90^\circ\text{C}/194^\circ\text{F}$                                                                     |
| Maximum Case Temperature (tc) for 5-Year Warranty | $75^\circ\text{C}/167^\circ\text{F}$                                                                     |

### SAFETY AND EMC COMPLIANCE

|                    |                         |
|--------------------|-------------------------|
| UL/cUL             | UL 8750, Class 2        |
| FCC, 47CFR Part 15 | ANSI C63.4:2009 Class A |



# KTLD-100-UV-24V-MC2

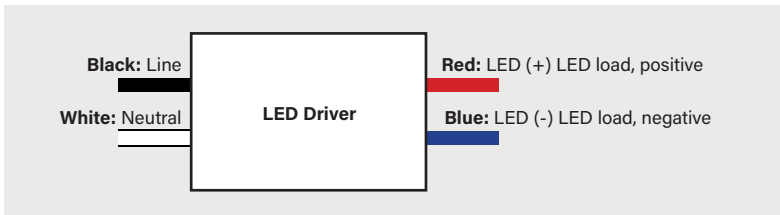
## CONSTANT VOLTAGE LED DRIVER

### PRODUCT SPECIFICATIONS

| Max. Output Power | Output Current | Output Voltage | OCV   | Typical Efficiency at 120V | Typical Efficiency at 277V | Class 2 |        |
|-------------------|----------------|----------------|-------|----------------------------|----------------------------|---------|--------|
|                   |                |                |       |                            |                            | US      | Canada |
| 96W               | 0-4000mA       | 24Vdc          | 25.7V | 88%                        | 91%                        | ✓       | ✓      |

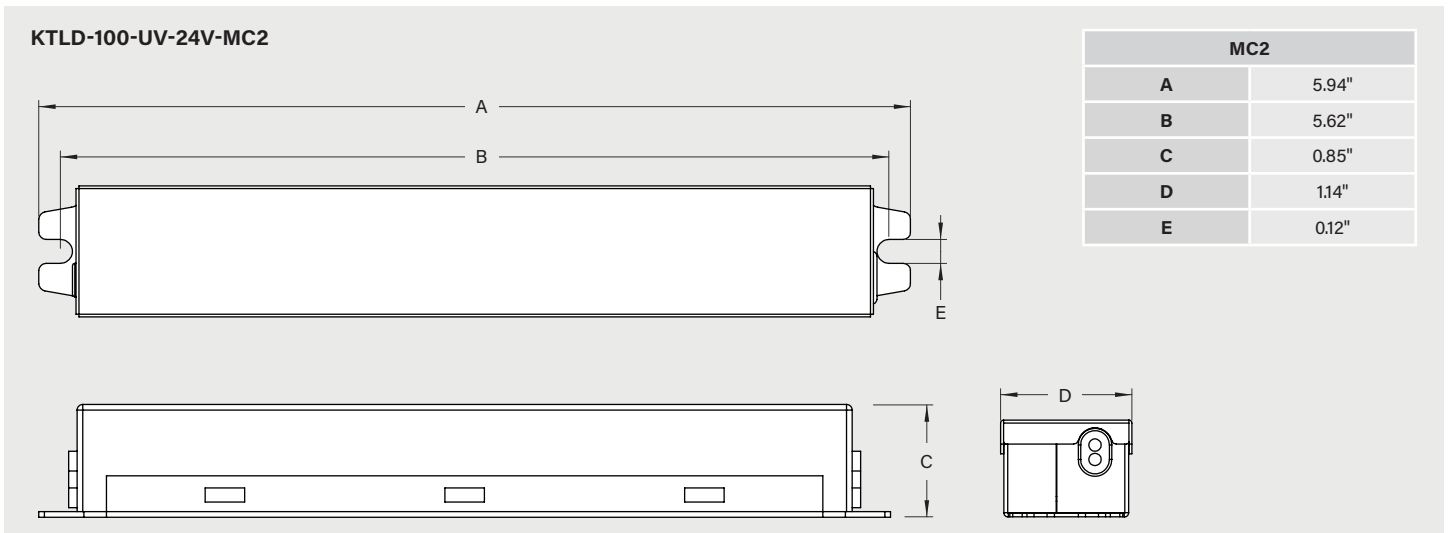
### WIRING SPECIFICATIONS

#### WIRING DIAGRAM



|               |                                      |
|---------------|--------------------------------------|
| <b>Input</b>  | 8" UL 14030 #18AWG (Black and White) |
| <b>Output</b> | 8" UL 14030 #18AWG (Red and Blue)    |

### PHYSICAL SPECIFICATIONS



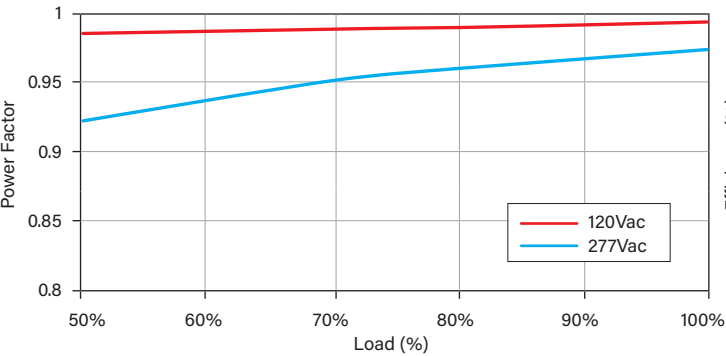


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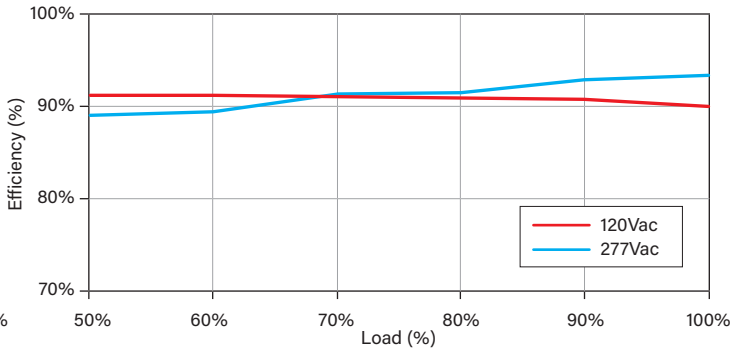
## CONSTANT VOLTAGE LED DRIVER

### CHARACTERISTIC CURVES

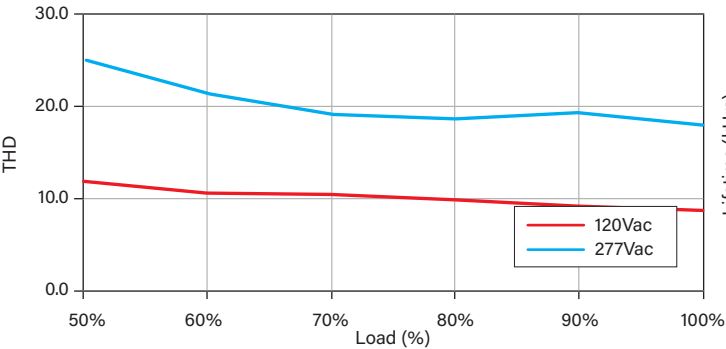
POWER FACTOR VS LOAD



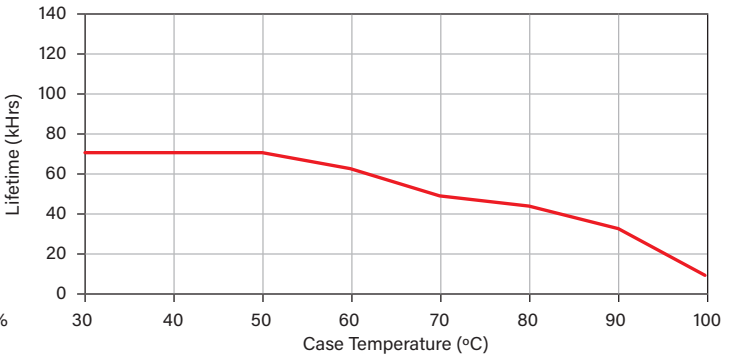
EFFICIENCY VS LOAD



THD VS LOAD



LIFETIME VS CASE TEMPERATURE



### ORDERING INFORMATION

| Catalog Number         | Packaging Style | Pack QTY | Item Status | UPC          | Easy Code |
|------------------------|-----------------|----------|-------------|--------------|-----------|
| KTLD-100-UV-24V-MC2-CP | Carton Pack     | 100      | Quick Ship  | 890949020364 | SCX-82    |

### CATALOG NUMBER BREAKDOWN

# KTLD-100-UV-24V-MC2-CP

1 2 3 4 5 6

- |                                    |                       |
|------------------------------------|-----------------------|
| 1 Keystone Technologies LED Driver | 4 Max. Output Voltage |
| 2 Max. Output Wattage              | 5 Case Style          |
| 3 120-277V Input                   | 6 Packaging Style     |