



# D700C20UNVPW-L/LS

## 700mA Programmable LED Driver

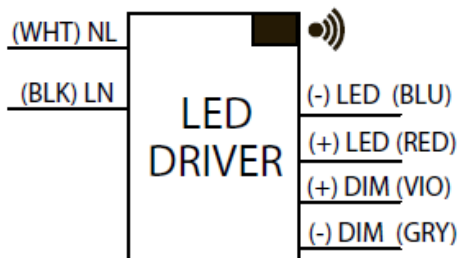
- Universal (120-277V) Input Voltage
- Class 2, 20W Constant Current Output with 0-10V dimming
- Full featured programmability with Wireless Programming



| Performance                                    |  |
|--|--|
| Input Voltage                                  | 120 ~ 277 Vac                                    |
| Input Current Max                              | 0.20 /120V 0.09 / 277V                           |
| Input Power Max                                | 24W  |
| Input Frequency                                | 50 - 60 (Hz)                                     |
| Power Factor                                   | > 0.95 @ max load                                |
| THD max  | < 20 % @ max load                                |
| Output Voltage<br>(Refer to Power Curve Chart) | 16V to 29V @ 0.70 Amps<br>16V to 56V @ 0.36 Amps |
| Max. Output Current                            | 700mA  |
| Min. Dimming Current                           | 4mA  |
| Output Power                                   | 20W  |
| Standby Power                                  | < 2.8W @120Vac<br>< 3.5W @ 277Vac                |
| Line Regulation                                | ±3 %   |
| Load Regulation                                | ±5 %   |
| Output Current Ripple                          | <10% (Pk-Pk/avg)                                 |
| Inrush Current*                                | 120V: 18A / 310uS                                |
| Peak / >10% Duration                           | 277V: 42A / 286uS                                |
| LED Start Up Time                              | <500mS initial, <600mS full<br>CA T-24 Compliant |

\* Source impedance per NEMA 410

### Wiring Diagram:



Use wire extraction tool to remove wires from connectors

| Physical  |                       |
|---|-----------------------|
| Length  | 4.95 in               |
| Width   | 2.39 in               |
| Height  | 1.00 in               |
| Mounting Length (L)   | 4.61" (mounting feet) |
| Mounting Length (LS)  | 2.00" (#8-32 studs)   |
| Weight (lbs)  | 1.0                   |
| Wire Trap / Plug-in Connectors for 16-20 AWG Solid Wire Strip Length 0.33in |                       |

| Environmental         |   |
|-----------------------|---|
| EMI and RFI           | Meets FCC part 15 (Class A) Non-Consumer Limits |
| Sound Rating          | Class A   |
| Operating Temperature | -40°C to 50°C (-40°F to 122°F)                  |
| Storage Temperature   | -40°C to 85°C (-40°F to 185°F)                  |
| Warranty Tc           | 85°C max for 50k Hr Life                        |
| Protection Rating     | UL Dry & Damp                                   |
| Transient Protection  | IEEE C62.41 2.5kV                               |

### Protection

Over Voltage, Under Voltage, Short Circuit, Over Temp Safety:

UL 8750 & CSA 250.13  
UL Class P



### Ordering Information

| Order Number        | Description         | Qty/Carton |
|---------------------|---------------------|------------|
| D700C20UNVPW-L010C  | Multi-Exit          | 20         |
| D700C20UNVPW-LS010C | Bottom Exit w/Studs | 20         |



Application and operation performance specification information subject to change without notification.



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## Programmable Features

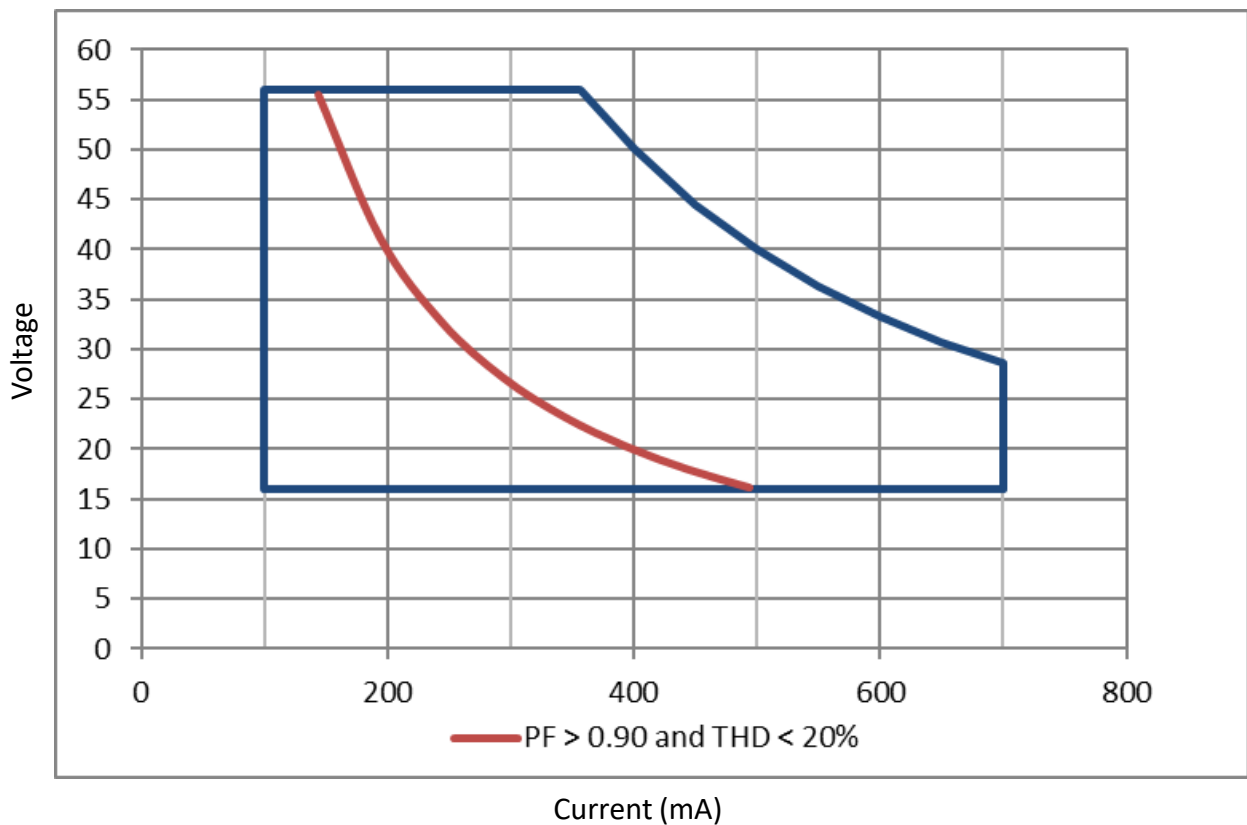
|   |
|---|
| Output Current  |
| Minimum Dimming Level                                     |
| Dim-to-Off  |
| Dimming Curve<br>(Linear, Linear Soft Start, Logarithmic) |
| Lumen Maintenance   |

\*Refer to application notes EVD10 and EVD11 at [www.unvlt.com](http://www.unvlt.com) for additional information on programmable features.

## Programming System

|                  |                              |
|------------------|------------------------------|
| Software         | EVERset Programming Software |
| Hardware         | LDPC000A Configuration Tool  |
| Driver Interface | Wireless via RFID            |

## Driver Operating Range:

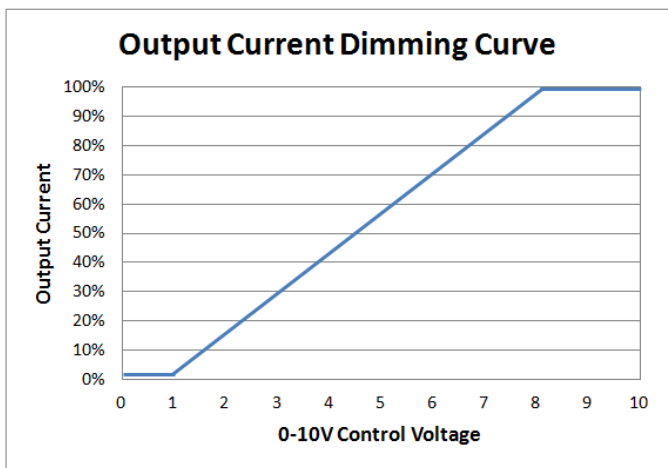


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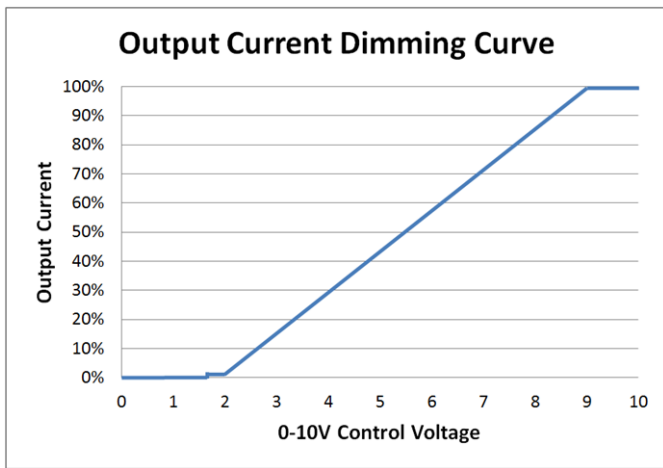


## 0-10V Dimming

### Linear Dimming to 1%



### Linear Dimming w/ Dim-to-Off



\* Driver ships with Dim-to-Off disabled. Dim-to-Off must be enabled through the EVERset programming software.

### 0-10V Analog Dimming Interface

- Analog 0 to 10 Vdc Voltage Control
- Use Violet (+) & Gray (-) for connection to 0-10 Vdc.
- 10V = maximum output
- 0V = dim-to-off or programmed minimum dimming level
- 0-10V interface can be wired as Class 1 or Class 2 Circuit.
- Driver will source a maximum of 165uA for control needs.
- Controller must sink current from the 0-10V control leads.

### Programmable Dimming Features

| Feature                       | Range   | Factory Default           |
|-------------------------------|---|---------------------------|
| Maximum Output Current        | 100 - 700mA   | default = 700mA           |
| Minimum Dimming Level         | 4 - 350mA   | default = 7mA             |
| Dimming Curve                 | (Linear, Linear Soft Start, Logarithmic w/ factor 1 to 7) | default = Linear          |
| Dimming Control Voltage Range |   |                           |
| Max Bright Control Voltage    | 7 - 9Vdc  | default = 8Vdc            |
| Min Dim Level Control Voltage | 1 - 3Vdc  | default = 1Vdc            |
| Dim-to-Off                    | 0.1 - 1.7Vdc  | default = 0Vdc (disabled) |

\* Refer to application note EVD10 at [www.unvlt.com](http://www.unvlt.com) for additional information on programmable dimming features.



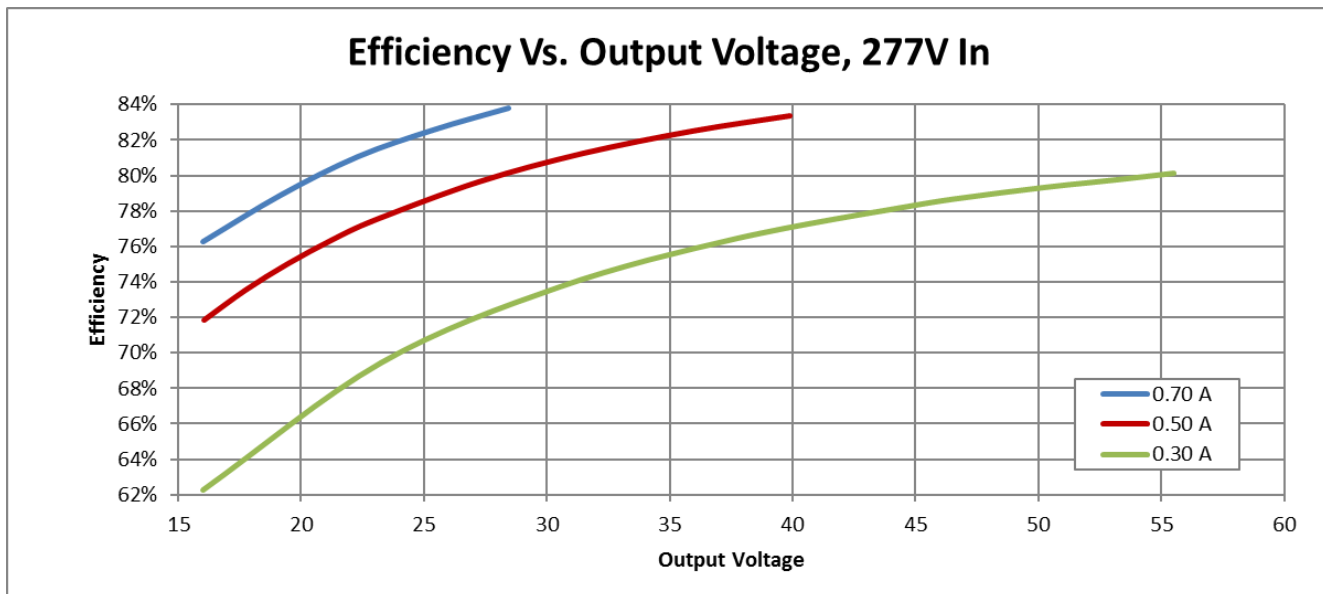
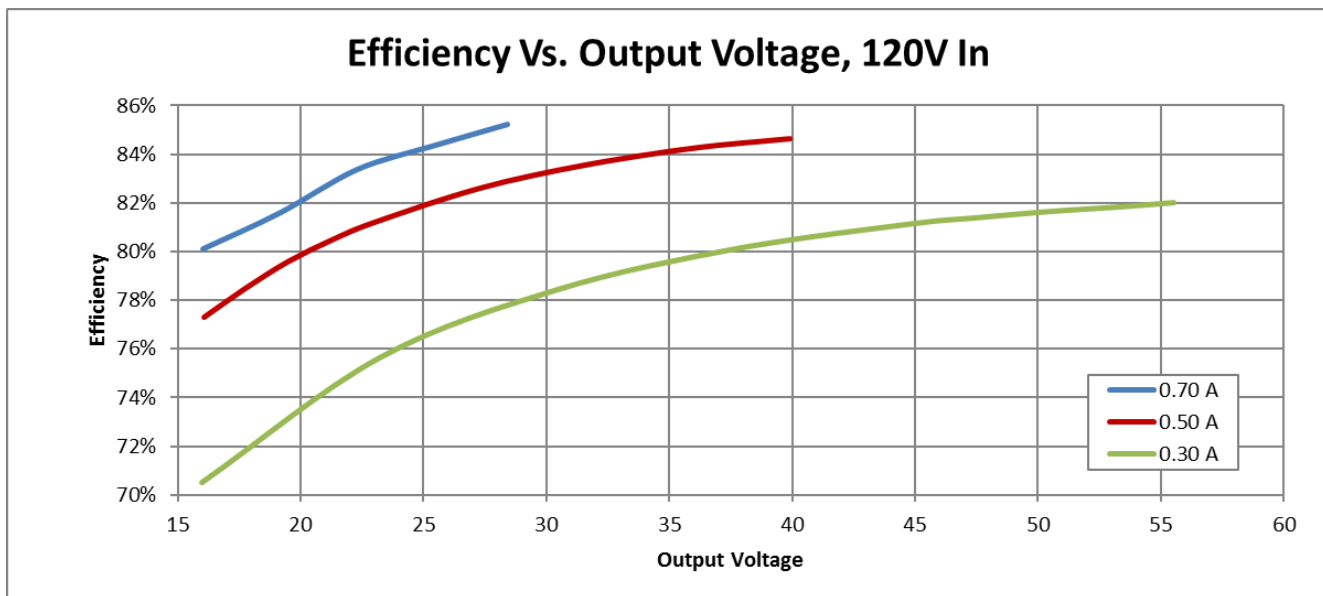
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## Performance: Efficiency

Typical performance measurements are shown. The charts are to be used as a guideline and not for specification use.



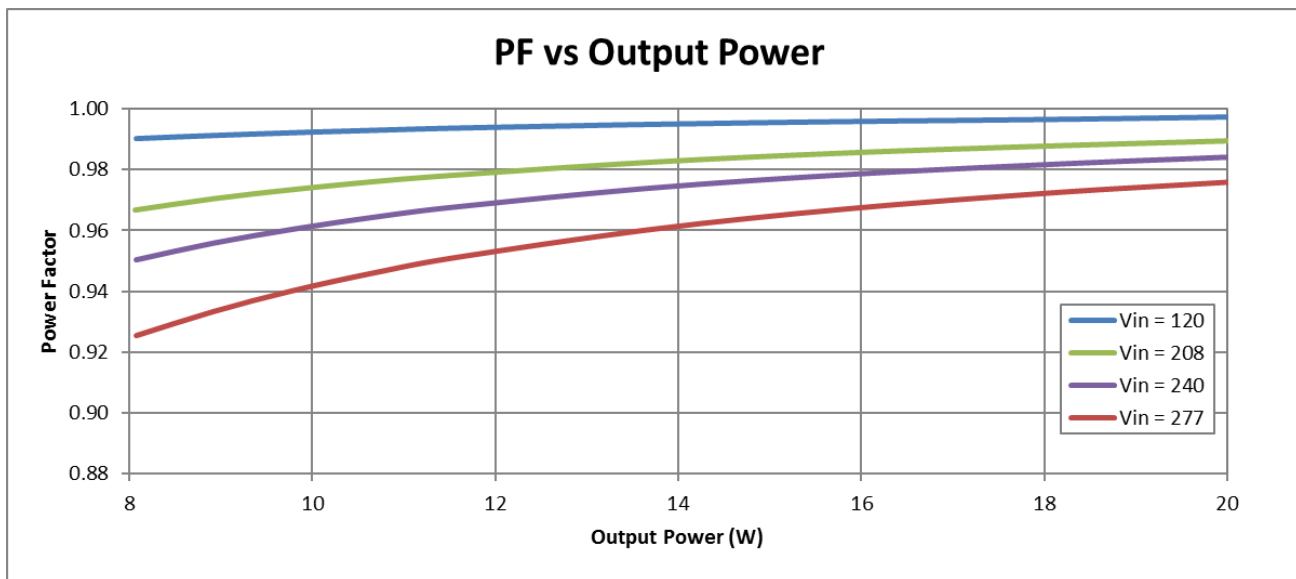
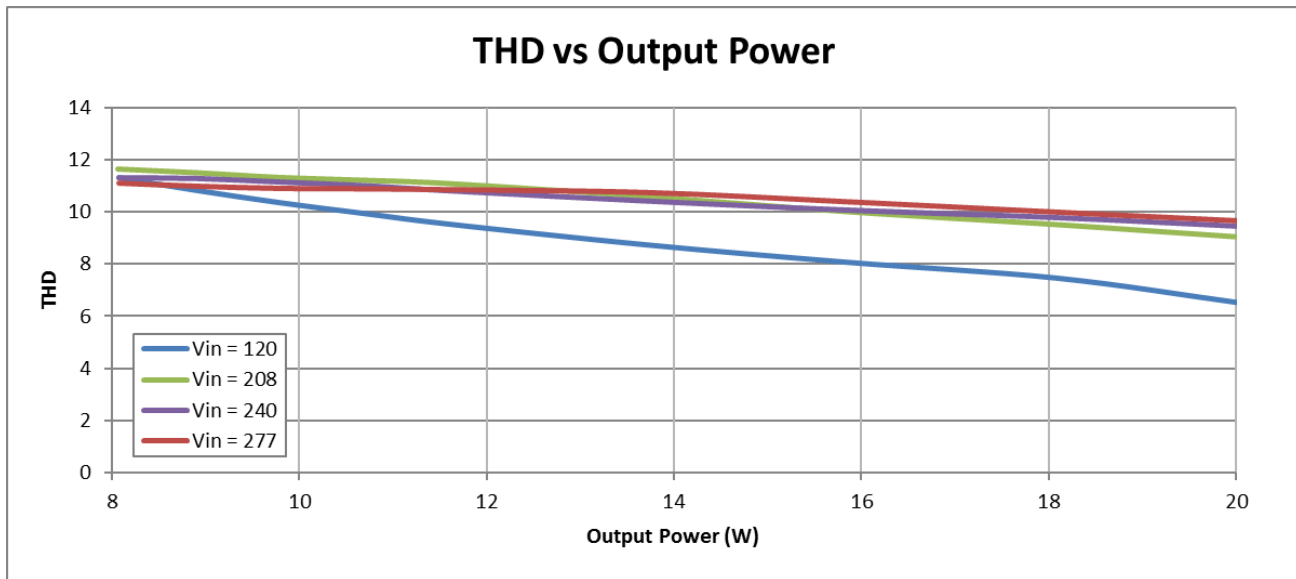
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## Performance: Total Harmonic Distortion, & Power Factor

Typical performance measurements are shown. The charts are to be used as a guideline and not for specification use.



Output power based on maximum rated output current and varying load voltages.

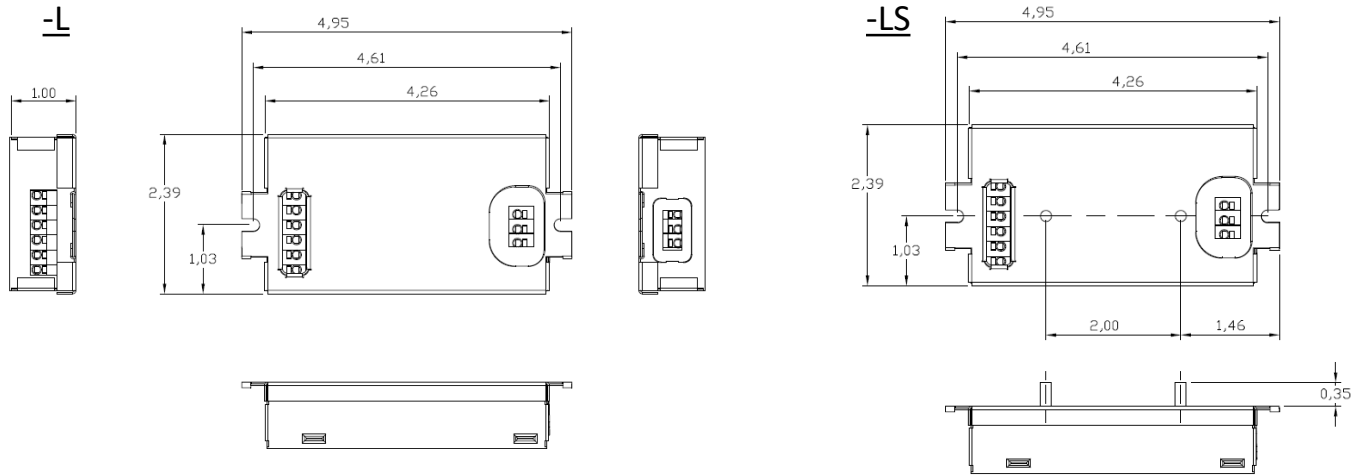


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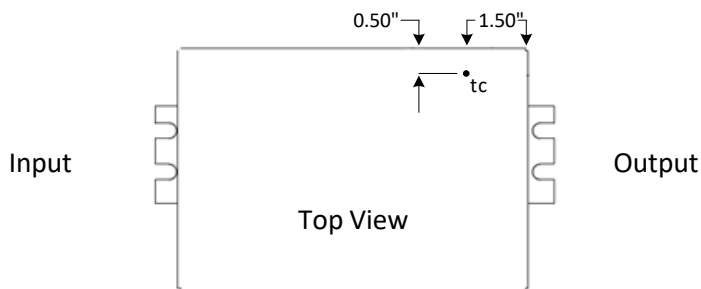
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## Dimensional Diagram:



LS Provides lead exits at the bottom only

## Tc Location:



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| Transient Protection                        |                         |                               |
|---|-------------------------|-------------------------------|
| Transient                                   | Differential Mode (L-N) | Common Mode (L-G, N-G, L&N-G) |
| IEEE C62.41 100kHz Ring Wave (200A maximum) | > 2.5kV                 | > 2.5kV                       |

| Isolation |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|
| Isolation | Input     | Output    | 0-10V     | Enclosure |
| Input     | -         | 2xU + 1kV | 2xU + 1kV | 2xU + 1kV |
| Output    | 2xU + 1kV | -         | 2xU + 1kV | 700V      |
| 0-10V     | 2xU + 1kV | 2xU + 1kV | -         | 2xU + 1kV |
| Enclosure | 2xU + 1kV | 700V      | 2xU + 1kV | -         |

U = Max Input Voltage

FCC Statement: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### Warranty:

Universal Lighting Technologies warrants to the purchaser that each power supply will be free from defects in material or workmanship for a period of 5 years from the date of manufacture when properly installed per instructions and under normal operating conditions of use. Call 1-800-225-5278 for technical assistance.



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