



40W Dimmable Constant Current LED Driver
PDA040W Waterproof LED Driver with 0-10V Dimming



Features

- Class 2 Output per UL1310
- OVP, OCP, Over-Load and Short-Circuit Protection & Brownout Protection
- IP67 Rated
- ≥ 0.9 Power Factor Correction & THD <20%

Applications

- Down lights
- Area Lights
- Architectural lighting

Safety Approvals

- cUL/UL 8750
- Class 2 Output per UL1310
- CE
- IEC/EN61347-1, IEC/EN61347-2-13

Mechanical Characteristics

- Length: 162.5mm (6.39in)
- Width: 43mm (1.69in)
- Height: 32mm (1.26in)
- Weight: 342g (12.1oz)

Output Specifications

| Model | DC Output Voltage | | | Output Current | Output Power |
|--------------|-------------------|------|------|----------------|--------------|
| | Min. | Typ. | Max. | | |
| PDA040W-700B | 37.8V | - | 54V | 700mA | 38W |
| PDA040W-1A0B | 26.6V | - | 38V | 1050mA | 40W |
| PDA040W-1A4B | 18.2V | - | 26V | 1400mA | 37W |

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INPUT:

AC Input Voltage Rating
100VAC to 277VAC

AC Input Frequency
47~63Hz

Maximum Input Current
≤ 0.8A

Leakage Current
0.25mA maximum

Power Factor
≥ 0.9

THD
< 20%

OUTPUT:
Output Current Ripple
<40%

Efficiency

| Model | Typical Efficiency |
|--------------|--------------------|
| PDA040W-700B | 89% |
| PDA040W-1A0B | 88% |
| PDA040W-1A4B | 88% |

Auxiliary Power Supply
12V semi regulated (11-14Vdc)
0-10mA

Voltage Dimming Function:
0-10VDC

Resistive Dimming*

Resistor must be placed between Dim+ and Dim- for operation.
See following page for dimming table.

Environmental:

Temperature

Operation case +75°C
Non-operation -40 to +80°C
Operating Humidity 20 to 95%

*Output derates from 50°C to 62°C Ta

EMC

FCC 47 Part 15 Class B, EN55015 Class B

Immunity

IEC61000-4-2
IEC61000-4-4
IEC61000-4-5
IEC61000-4-11

Dielectric Withstand (Hi-pot) Test

Primary to secondary: 3000VAC for 1 minute, 10mA

Insulation Resistance

Primary to secondary: >10M Ohm 500VDC, 1 Minute

FEATURES:

Short-Circuit Protection

The PSU will withstand a short circuit across the outputs without damage

Input Over Current Protection

The input power line will be fused with a 2A/300V fuse

Output Over-voltage Protection

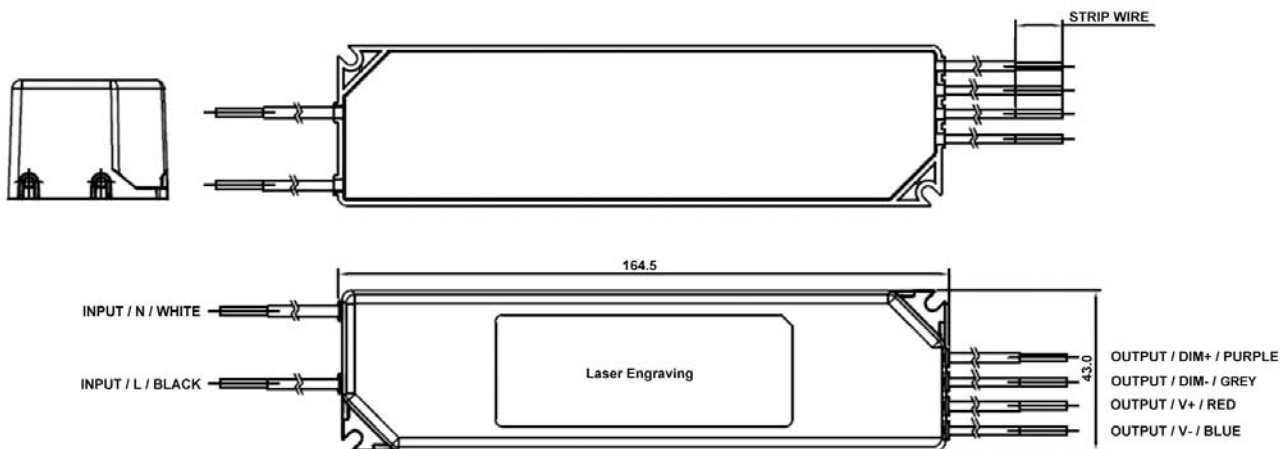
Auto shutdown

Input / Output Connections

| Position | Terminal Color | Specification | Length |
|----------|----------------|------------------|--------|
| Input | Black | AWG16 Solid Wire | 350mm |
| | White | AWG16 Solid Wire | 350mm |
| Output | Red | AWG18 Solid Wire | 350mm |
| | Blue | AWG18 Solid Wire | 350mm |
| Dim+ | Purple | AWG20 Solid Wire | 350mm |
| Dim- | Grey | AWG20 Solid Wire | 350mm |

Warranty

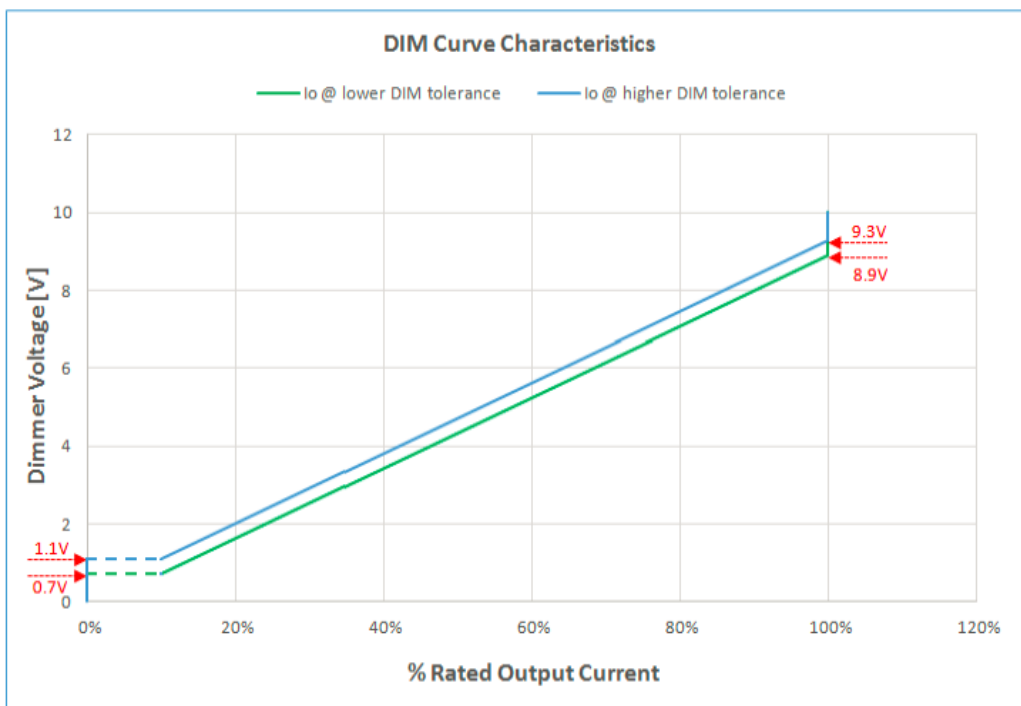
5 Years



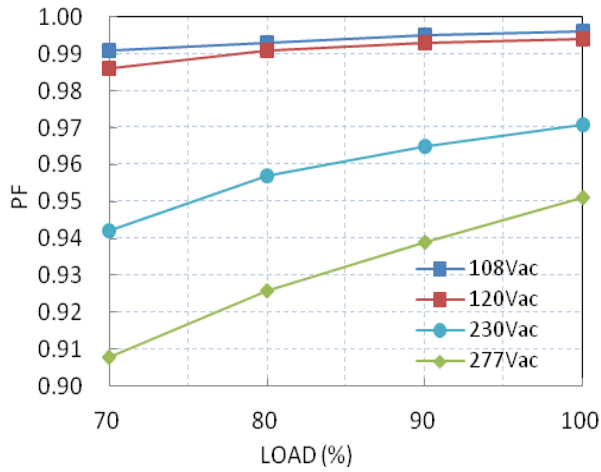
Dimming Characteristics

Resistive Dimming Functions

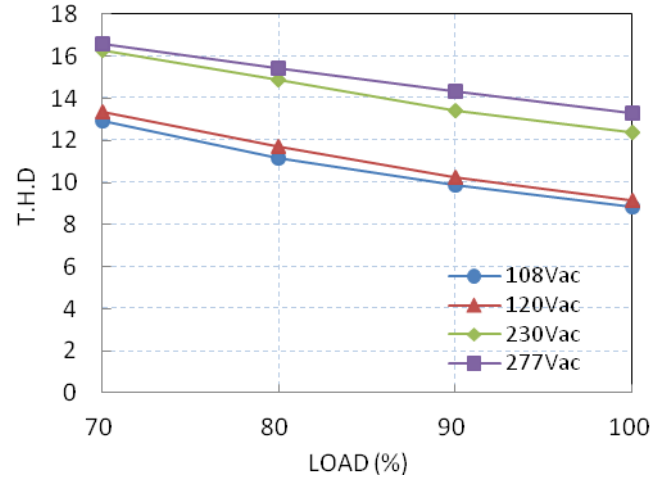
| Resistance Value | 0kΩ | 9kΩ | 13kΩ | 23kΩ | 45kΩ | 68kΩ | 91kΩ |
|------------------|-----|------|------|------|------|------|------|
| Dim Voltage | 0V | 0.9V | 1.3V | 2.3V | 4.5V | 6.8V | 9.1V |
| Output Current | Off | Off | 15% | 25% | 50% | 75% | 100% |



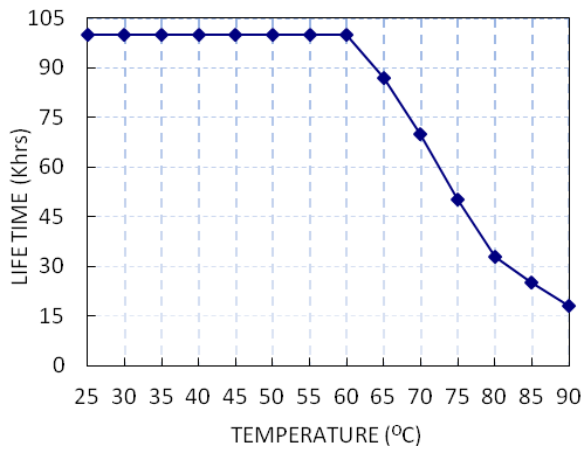
Power Factor vs. Load



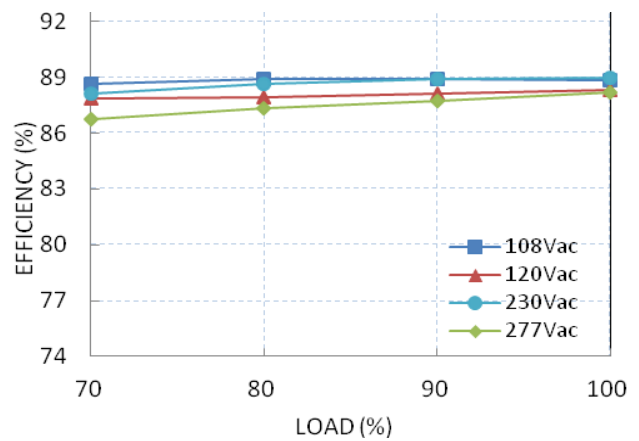
Total Harmonic Distortion vs. Load



Lifetime vs. Tc

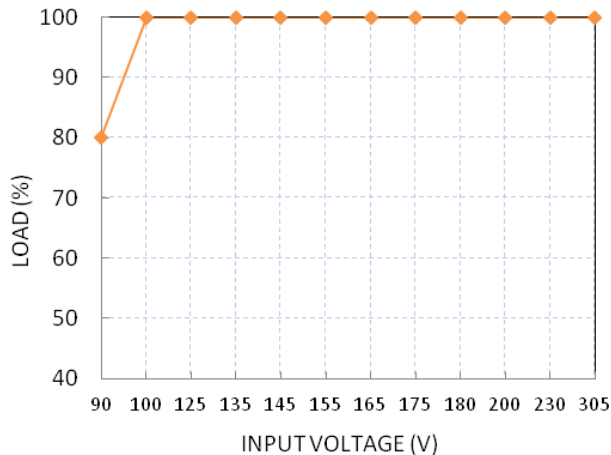


Efficiency vs. Load (PDA040W-700B)



Temperature Rating

Static Characteristic: Load vs. Input Voltage



Derating Curve: Load vs Ta

