

ILPA100VU SERIES



100W Water-Proof Constant Voltage LED Driver

- Wide Input Voltage 90 to 305VAC, 47 to 63Hz
- Constant Output Voltage Available From 12VDC Thru 105VDC
- Over Voltage, Over Current, Short Circuit, Lighting, and Over Temperature Protection
- High Efficiency (up to 93%)
- Active Power Factor Correction (PFC) (99% typical)
- IP67 Waterproof Rating, Metal Housing
- Comply with UL8750 & EN61347 Safety Regulation (Pending)

3 Year Warranty

Approvals:   IP67 

Single Output

| Part Number | Output Voltage | Max. Output Current | Efficiency (220VAC, Full Load) | Over Voltage Protection Min / Typ / Max | Max. Output Power |
|------------------|----------------|---------------------|--------------------------------|---|-------------------|
| ILPA100VU-S012ST | 12 VDC | 8.33 A | 91% | 14V / 15V / 16V | 100W |
| ILPA100VU-S024ST | 24 VDC | 4.05A | 93% | 27V / 30V / 34V | 100W |
| ILPA100VU-S036ST | 36 VDC | 2.75 A | 93% | 40V / 47V / 50V | 100W |
| ILPA100VU-S042ST | 42 VDC | 2.25 A | 93% | 47V / 52V / 57V | 100W |
| ILPA100VU-S048ST | 48 VDC | 1.95 A | 92% | 54V / 59V / 63V | 100W |
| ILPA100VU-S054ST | 54 VDC | 1.75 A | 93% | 60V / 68V / 75V | 100W |
| ILPA100VU-S081ST | 81 VDC | 1.23 A | 93% | 91V / 95V / 100V | 100W |
| ILPA100VU-S105ST | 105 VDC | 0.95 A | 93% | 120V / 125V / 140V | 100W |

Electrical Characteristics

| Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
|-------------------------------|--|------|------|------|------|
| Input Voltage | Operating Voltage | 90 | | 305 | VAC |
| Input Frequency | | 47 | | 63 | Hz |
| Output Power Range | Vin=90 to 264VAC | 0 | | 100 | W |
| Input Current (Low Line) | Io=Full load, Vin=115VAC | | | 1.20 | A |
| Input Current (High Line) | Io=Full load, Vin=230VAC | | | 0.60 | A |
| High Line Inrush Current | Io=Full load, 25°C, Cool start, Vin=230VAC | | | 65 | A |
| Power Factor Correction | Vin=110VAC | 99 | | | % |
| Power Factor Correction | Vin=220VAC | 96 | | | % |
| Efficiency | Io=Full Load, Vin=230VAC | | | 93 | % |
| No-Load Power Consumption | No Load, Vin=230VAC | | | 1.5 | W |
| Line Regulation | Io=Full Load | | | 1 | % |
| Load Regulation | Vin=230VAC | | | 2 | % |
| Over Voltage Protection | Latch mode. The power unit shall return to normal operation only after the power is turn-on again. (Please refer to output table.) | | | | |
| Over Current Protection | | 110 | 135 | 180 | % Io |
| Over Temperature Protection | | | 110 | | °C |
| Short Circuit Protection | No damage shall occur when any output operating in a short circuit condition. The power supply shall be self-recovery when the fault condition is removed. | | | | |
| Output Overshoot / Undershoot | When power on or off | | | 10 | % |
| Start Up Time | Io=Full Load, Vin=100VAC | | | 3 | S |
| Ripple & Noise (Peak to Peak) | Measured by 20 MHz bandwidth oscilloscope and the output paralleled a 0.1 uF ceramic capacitor and a 10 uF electrolytic capacitor. | | | 2 | % Vo |

Conditions

| Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
|---|-----------------|--------|------|------|-------|
| Operating Temperature | | -35 | | 70 | °C |
| Storage Temperature | | -40 | | 85 | °C |
| Relative Humidity | | 5 | | 95 | % |
| Operation temperature at 25°C, calculated per MIL-HDBK-217F | | 0.439M | | | Hours |
| Life Time at 25°C ambient temperature | | 0.193M | | | Hours |
| No output power derating from -35°C to 60°C | | | | | |

Approvals and Compliance

| Parameter | Standards |
|----------------------------|---|
| EMI | EN55015 |
| EMS | EN61000-3-2, EN61000-3-3, EN61000-4-2, EN61000-4.3, , EN61000-4-4, , EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-1-1, EN61547 |
| Safety UL/c-UL, T-mark, CE | UL8750 Compliant to UL1310 Class 2, UL1012, UL935, CSA-C22.2 No. 0, CSA-C22.2 No. 107.1, CSA-C22.2 No.250.0, EN61347-1,EN61347-2-13 |
| Waterproof | IP67 Rating |

Mechanical

| Parameter | Specification |
|-----------------------|---|
| Dimension, Net Weight | 184x67.5x37mm (7.24x2.66x1.46 inches), 950g approx. |
| Input Electric Wire | 650mm, Black(ACL), White(ACN), Green(GND) |
| Output Electric Wire | 220mm, Red(V+), Black(V-) |

