



L.T.F

Dimmable Low Voltage LED Driver - CLASS 2

96W DS96W UniDriver 100-305V Series Constant Voltage



Efficiency	higher than 85%
Power Factor	>95%
Cast TC*	85C° Max.
Protection	Input / Output
Storage	-30°C / +90°C
Humidity	95% RH Max.
IP Rating	IP 67
Class	Class 2 Power Supply
Dimming	Triac/ELV/0-10V



RoHS



FCC Part 15
Class B compliant



FEATURES

- All-In-One dimming capabilities; Triac, ELV, and 0-10V dimming
- Meets California Title 24 requirements
- Universal input voltage; 100-305V AC
- Isolated output power per NEC and UL safety requirements
- UL recognized/ Listed, UL8750, UL1310
- Auto-reset ; Short circuit, Overload and Thermal protection
- Superior thermal performance
- Aluminum case with high W/m.K encapsulating material
- Low profile, small form factor, ultra slim design
- < 30% flicker with excellent dimming range
- Class 2 power supply and other than Class 2 options
- Efficient, high power factor, low THD, FCC Class B

Constant Current				
Model #	Input	Output Voltage	Output Current	Available Form Factors
DS96W24VUD-3002	100-305V AC 50/60Hz 0.09 Amp > 0.90 PF < 20% THD	24VDC	4000mA	BR1, LI14

MECHANICAL SPECS.

Available Form Factors	Dimensions
"BR1"	193x57x35.5mm
"LI14"	631x31.4x29mm

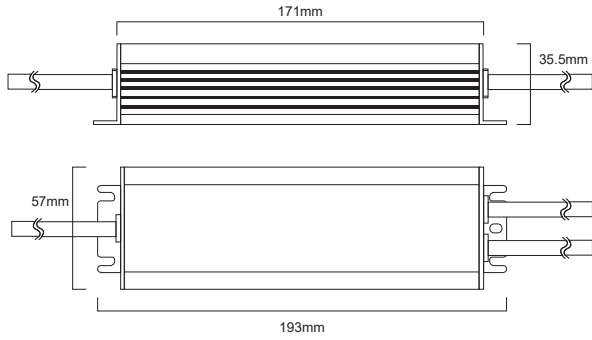


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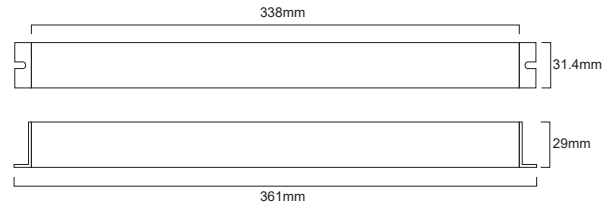
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BR1



LI14





96W DC Class 2 Power Supply DS96W Aluminum Case Series 100-277V



Efficiency	higher than 85%
Power Factor	>95%
Case TC*	85°C Max
Protection	Input / Output
Storage	-40°C / +85°C
Humidity	95% RH max
IP Rating	IP 60
Class	Class 2 power supply
Dimming	0-10 Dimming
Optional Dimming	Phase Dimming



FCC Part 15
Class B compliant



FEATURES

- UL8750, EN61347, UL1310, UL48, cUL, CE, TUV, KAMA, CQC compliant
- FCC Part 15/18 Class B and EN55015 compliant
- Meet the RoHS directive; IP66 compliant,
- Suitable for high-temperature, high-dust location
- Suitable for indoor or outdoor applications
- Suitable in standard electrical junction boxes
- Compact, lightweight
- Single output, ranged from 4VDC up to 114VDC
- Active PFC reduces power consumption
- Isolation between primary and secondary

ENVIRONMENTAL SPECIFICATIONS

1. Operating temperature: -30 to +60°C
2. Storage temperature range: -40 to +85°C
3. Humidity: 5% - 95%RH
4. Cooling: Free air cooling Convection
5. Vibration Frequency: 5-55Hz/2g, 30 minutes
6. Impact resistance: 1g/s
7. MTBF: 462,000 hours at full load and 40°C ambient conditions
8. LIFE: 90,000 hours at full load and 40°C ambient conditions
9. Warranty: 30,000 hours at full load and 40°C ambient conditions
10. EMC:

Compliant to CISPR 22 CLASS B, CISPR 14-1 CLASS B, GB4343. 1-2003, GB17625.1-2003

- Continuous interference voltage test conforming to GB4343-2003+A1, CISPR 14-1: 1997, EN55014-1:1997-5
- Intermittent interference voltage test conforming to GB4343-2003+A1, CISPR 14-1: 1997, EN55014-1:1997-5
- Interference power test conforming to GB4343-2003+A1, CISPR 14-1:1997, EN55014-1:1997-6
- Harmonic currents test conforming to GB4343-2003+A1, CISPR 14-1:EN 61000-3-2:1995
- RF Electromagnetic Field Immunity test conforming to GB/T13926.3, IEC61000-4-3, PrEN55014-2 Section 6.5
- Electrical fast transient/burst immunity test conforming to GB/T13926.4, IEC61000-4-4, PrEN55014-2 section 6.2
- Voltage dips and short interrupts immunity test conforming to IEC61000-4-11
- Voltage variations immunity test conforming to IEC61000-4-11
- Electrostatic discharge immunity test conforming to IEC61000-4-11

* Under confirmed thermal condition



ELECTRICAL SPECIFICATIONS

- Input range: 90 to 305VAC
- Frequency: 47- 63HZ
- Power Factor: > 95% at full load.
- Inrush current: < 40A at 25C, 230V, cold start.
- Input current: 1.2A at 120V
- Efficiency: Up to 92% typical at 230Vac Full Load.
- Maximum power: 96W
- Load regulation accuracy: $\pm 4\%$, Current accuracy: $\pm 3\%$
- Start-up delay: 1000 ms at Worst case.
- Turn-on overshoot in the output current: < 10%.
- Ripple & Noise: < 20% Peak-peak 20MHz Bandwidth.
- Optional DC Dimming control: 0-10Vdc, 2mA, 2-wire.
- Optional RD Dimming control: 3-wire 50K Ω Resistance Dimming.
- Leakage current: 400uA (typical).
- Hold up time: half cycle.
- Output over-voltage protection function: Less than 1.3 times the maximum output voltage.
- Output over-current protection: Less than 1.1 times the maximum output current.
- Output short circuit protection: Unlimited short-circuit, or long-term short-circuit, self-recovery after withdrawal.
- Energy Star: No-load power consumption less than the fixed type constant current 0.5W (at 120V input).

Constant Current						
Model #	Output Voltage Range	Output Constant Current	Current Accuracy	Power Factor	Output Power	Typical Efficiency
DS96W0350C	95~286V DC	350mA	$\pm 3\%$	95%	100W	92%
DS96W0450C	74~222V DC	450mA	$\pm 3\%$	95%	100W	92%
DS96W0700C	47~143V DC	700mA	$\pm 3\%$	95%	100W	92%
DS96W1050C	32~95V DC	1050mA	$\pm 3\%$	95%	100W	92%
DS96W1400C	24~71V DC	1400mA	$\pm 3\%$	95%	100W	91%
DS96W1750C	19~57V DC	1750mA	$\pm 3\%$	95%	100W	91%
DS96W2100C	16~48V DC	2100mA	$\pm 3\%$	95%	100W	91%
DS96W2450C	14~41V DC	2450mA	$\pm 3\%$	95%	100W	91%
DS96W2800C	12~36V DC	2800mA	$\pm 3\%$	95%	100W	90%
DS96W3150C	10~32V DC	3150mA	$\pm 3\%$	95%	100W	90%
DS96W3570C	9~28V DC	3570mA	$\pm 3\%$	95%	100W	90%
DS96W4200C	8~24V DC	4200mA	$\pm 3\%$	95%	100W	90%
DS96W5000C	7~20V DC	5000mA	$\pm 3\%$	95%	100W	89%
DS96W5550C	6~18V DC	5550mA	$\pm 3\%$	95%	100W	89%



Constant Voltage							
Model #	Output Voltage Current	Maximum Output Current	Minimum Output Current	Current Accuracy	Power Factor	Output Power	Typical Efficiency
DS96W286V	286V DC	330mA	20mA	±3%	95%	100W	92%
DS96W222V	222V DC	430mA	25mA	±3%	95%	100W	92%
DS96143V	143V DC	700mA	40mA	±3%	95%	100W	92%
DS96W95V	95V DC	1000mA	60mA	±3%	95%	100W	92%
DS96W71V	71V DC	1350mA	80mA	±3%	95%	100W	91%
DS96W57V	57V DC	1680mA	100mA	±3%	95%	100W	91%
DS96W48V	48V DC	2000mA	120mA	±3%	95%	100W	91%
DS96W41V	41V DC	2340mA	140mA	±3%	95%	100W	91%
DS96W36V	36V DC	2660mA	150mA	±3%	95%	100W	90%
DS96W32V	32V DC	3000mA	180mA	±3%	95%	100W	90%
DS96W28V	28V DC	3420mA	200mA	±3%	95%	100W	90%
DS96W24V	24V DC	4000mA	230mA	±3%	95%	100W	90%
DS96W20V	20V DC	480mA	260mA	±3%	95%	100W	89%
DS96W18V	18V DC	5330mA	300mA	±3%	95%	100W	89%

Note: Typical power factor measured at 220VAC input, full load. Maximum efficiency measured at 220VAC input, full load.

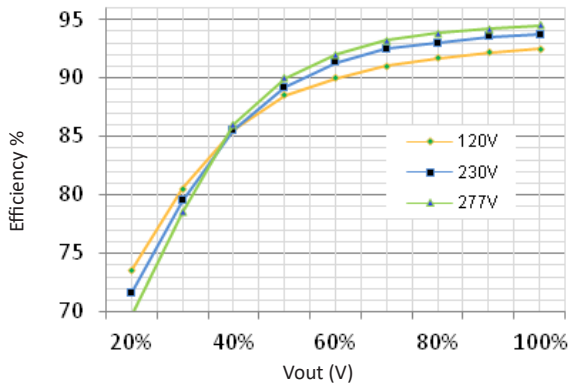
DIMMING OPTIONS

1. Optional DC Dimming control:
 - a. 0-10V DC Dimming Mode.
 - b. Input Voltage Range 0-10Vdc, Output constant current Adjustable range: 10%-MAX. When input >10V , Constant current output for maximum value. When input ≤ 0V (Include input open circuit), Constant current output for 10%.
 - c. Input impedance 5KΩ, dimming response time : 20ms.
 - d. Input Current: MAX. 2mA.

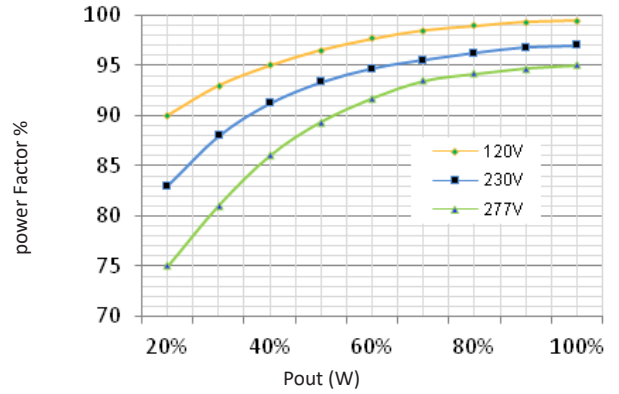


TECHNICAL SPECS.

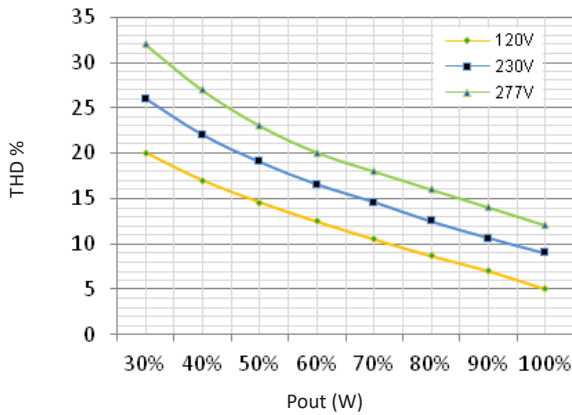
Efficiency vs. Vout at 80°C case



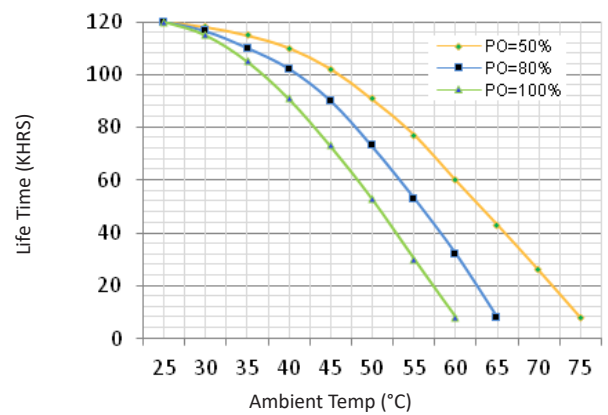
PF vs. Pout at 80°C case



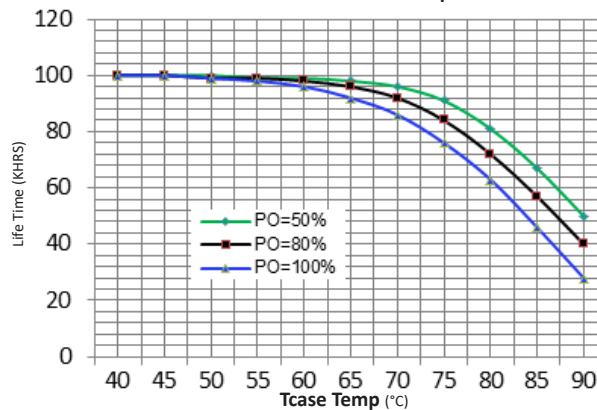
THD vs. Pout



Life Time vs. Ambient Temp



Life Time vs. Tcase Temp





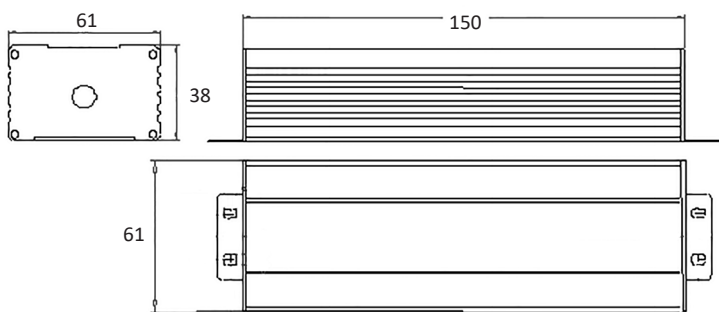
INSTALLATION SPECIFICATIONS

- Aluminum metal enclosure, Used with thermal conductivity and flame retardant glue potting.
- AC input for connection the three core ANSI/UL1015/AWG18 temperature 105 °C core copper wire connection, Cable Length: 150mm, Stripping on the tin: 10mm.
- DC output for connection the two core ANSI/UL1569/AWG14 temperature 105 °C core copper wire, Cable Length: 150mm, Stripping on the tin: 10mm.
- The dimmer control input is the two copper wires, ANSI/UL1569/AWG24 & temperature 105 ° C, Cable Length: 150mm, Stripping on the tin: 10mm.
- Where: 0-10V input — Purple wire, GND — Grey wire.
- This product has two Φ3.6mm mounting holes.

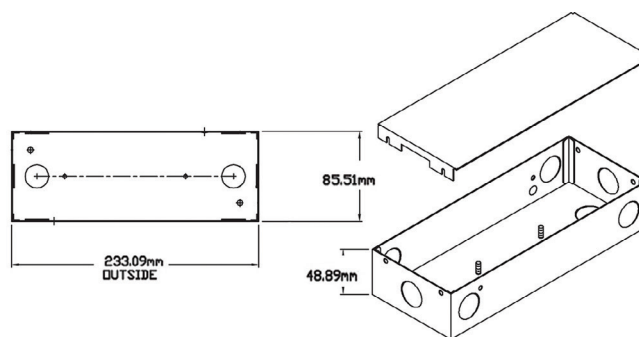
MECHANICAL SPECS.

Available Form Factors	Dimensions
"L17"	150X61X38mm
Remote Enclosure	
"G2"	233.1X85.5X48.9mm
"G3"	280X103X56mm

L17



G2: -RE MODELS



G3 : -REO MODELS

