

96 Watt — LA96W Series Small & Efficient Series

CONSTANT CURRENT LED DRIVER WITH ONE 96 Watt OUTPUT

US & CN LED DRIVER CLASS 2

Part Number: LA96W Series
Product mark: YG
Manufactory: Shenzhen YIGUANG technology co., Ltd
Driving mode: Constant current & voltage with isolation
Technology: Single-Stage PFC & PSR technology
Output Power: 96 Watt
Input voltages: 100 to 277 VAC (maximum : 90-305 VAC)
Efficiency: Up to 92%
Suitable: For LED lamp driver
Warranty: 5 years



Special Features:

1. UL8750, UL1310 Class 2, CSA22.2 safety compliant
2. FCC 47CFR PART 15 compliant
3. rated lifetime 50,000 hours, Tc 75°C
4. Meet the RoHs directive, IP65 compliant
5. Suitable for high-temperature, high-dust location
6. Inrush Current Limiting Circuitry: AC line to line 1.5 kV, eliminates circuit breaker tripping, switch arcing and relay failure
7. Single output, ranged from 7Vdc up to 274Vdc
8. Active PFC reduces power consumption
9. Isolation between primary and secondary



Size \ Unit	Inch	Millimeter
Case Length	6.28	159.60
Case Width	2.38	60.50
Case Height	1.50	38.00

Environmental:

1. Operating temperature: Tc 90°C (max), Reference Ta -40 to +60°C
2. Storage temperature range: -40 to +85°C
3. Humidity (non-condensing): 5% - 95%RH
4. Cooling: free air cooling convection
5. Vibration frequency: 5-55Hz/2g, 30 minutes; impact resistance: 1g/s
6. MTBF @ 75°C (Tc): 430,000 hours @ full load per MIL-217F notice 2
7. EMC: Compliant to CISPR 22 CLASS B, CISPR 14-1 CLASS B, GB4343. 1-2003, GB17625.1-2003
 - a. Continuous interference voltage test conforming to GB4343-2003+A1, CISPR 14-1: 1997, EN55014-1:1997-5
 - b. Intermittent interference voltage test conforming to GB4343-2003+A1, CISPR 14-1: 1997, EN55014-1:1997-5
 - c. Interference power test conforming to GB4343-2003+A1, CISPR 14-1:1997, EN55014-1:1997-6
 - d. Harmonic currents test conforming to GB4343-2003+A1, CISPR 14-1:EN 61000-3-2:1995
 - e. RF Electromagnetic Field Immunity test conforming to GB/T13926.3, IEC61000-4-3, PrEN55014-2 Section 6.5
 - f. Electrical fast transient/burst immunity test conforming to GB/T13926.4, IEC61000-4-4, PrEN55014-2 section 6.2
 - g. Voltage dips and short interrupts immunity test conforming to IEC61000-4-11
 - h. Voltage variations immunity test conforming to IEC61000-4-11
 - i. Electrostatic discharge immunity test conforming to IEC61000-4-11

Electrical Specifications:

- Input voltage range: 100 to 277 VAC (maximum voltage range: 90-305 VAC)
- Frequency: 47- 63Hz
- Power factor: > 0.90 at full load, total harmonic distortion(THD): <20% more than 80% load
- Inrush current: <70A at 25°C, 120V, cold start
- Input current: 1.10A at 120V

- Efficiency: 86% (typical), 92% (maximum), at full load, 220V
- Maximum output power: 96 W
- Constant current regulation: $\pm 3\%$ over input line variation, load regulation accuracy: $\pm 4\%$
- Start-up time: < 1 s, output overshoot: $< 10\%$
- Leakage current: 300uA (typical)
- Hold up time: half cycle
- Output over-voltage protection function, output over-current protection function
- Output short circuit protection: auto-recovery

Safety & Compliance:

UL8750, CSA22.2, FCC, IP65 compliant



96W Constant current versions:

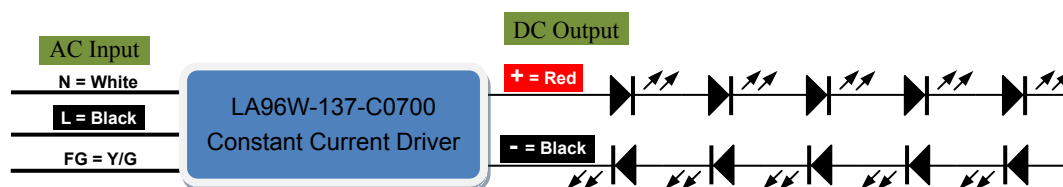
No.	Part Number	US Class 2	CN Class 2	Output Voltage Range	Output Constant Current	Current Accuracy	Power ⁽¹⁾ Factor	Output Power	Max. ⁽²⁾ Eff.
1	LA96W-274-C0350	No	No	164~274Vdc	350mA	$\pm 5\%$	0.90	96W	92%
2	LA96W-213-C0450	No	No	127~213Vdc	450mA	$\pm 5\%$	0.90	96W	92%
3	LA96W-137-C0700	No	No	82~137Vdc	700mA	$\pm 5\%$	0.90	96W	91%
4	LA96W-92-C1050	No	No	55~92Vdc	1050mA	$\pm 5\%$	0.90	96W	91%
5	LA96W-69-C1400	No	No	41~69Vdc	1400mA	$\pm 5\%$	0.90	96W	90%
6	LA96W-54-C1750	Yes	Yes	32~54Vdc	1750mA	$\pm 5\%$	0.90	96W	90%
7	LA96W-48-C2000	Yes	Yes	29~48Vdc	2000mA	$\pm 5\%$	0.90	96W	89%
8	LA96W-43-C2230	Yes	Yes	26~43Vdc	2230mA	$\pm 5\%$	0.90	96W	88%
9	LA96W-39-C2450	Yes	Yes	23~39Vdc	2450mA	$\pm 5\%$	0.90	96W	88%
10	LA96W-36-C2660	Yes	Yes	22~36Vdc	2660mA	$\pm 5\%$	0.90	96W	88%
11	LA96W-30-C3150	Yes	Yes	18~30Vdc	3150mA	$\pm 5\%$	0.90	96W	87%
12	LA96W-24-C4000	Yes	Yes	14~24Vdc	4000mA	$\pm 5\%$	0.90	96W	87%

96W Constant Voltage versions:

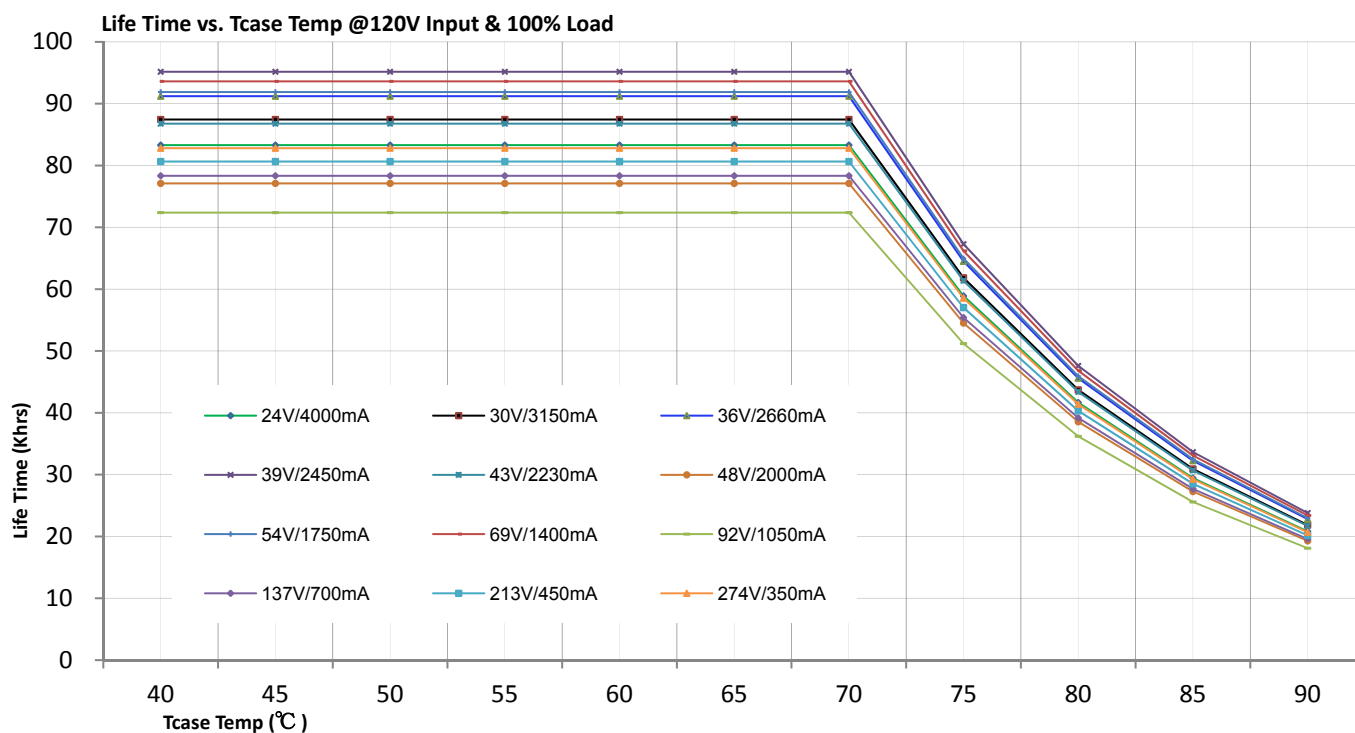
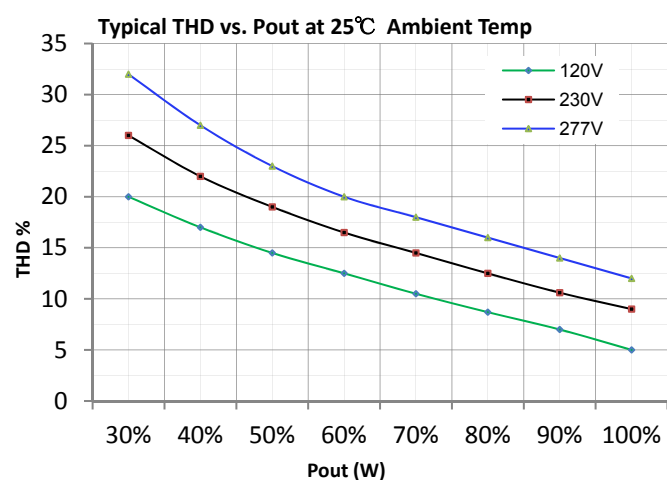
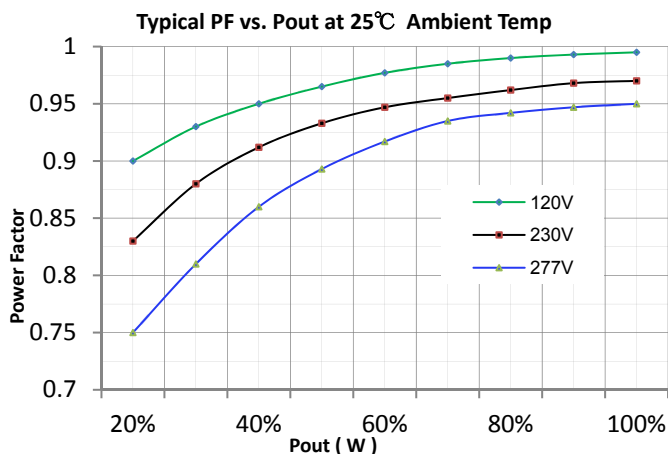
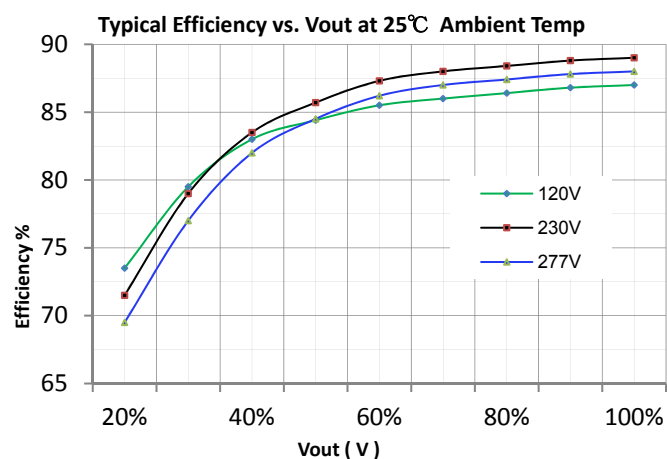
No.	Part Number	US Class 2	CN Class 2	Output Voltage	Maximum Output Current	Voltage Accuracy	Power ⁽¹⁾ Factor	Output Power	Max. ⁽²⁾ Eff.
1	LA96W-36	Yes	Yes	36Vdc	2660mA	$\pm 5\%$	0.90	96W	88%
2	LA96W-24	Yes	Yes	24Vdc	4000mA	$\pm 5\%$	0.90	96W	87%
3	LA96W-12	Yes	Yes	12Vdc	8000mA	$\pm 5\%$	0.90	96W	86%

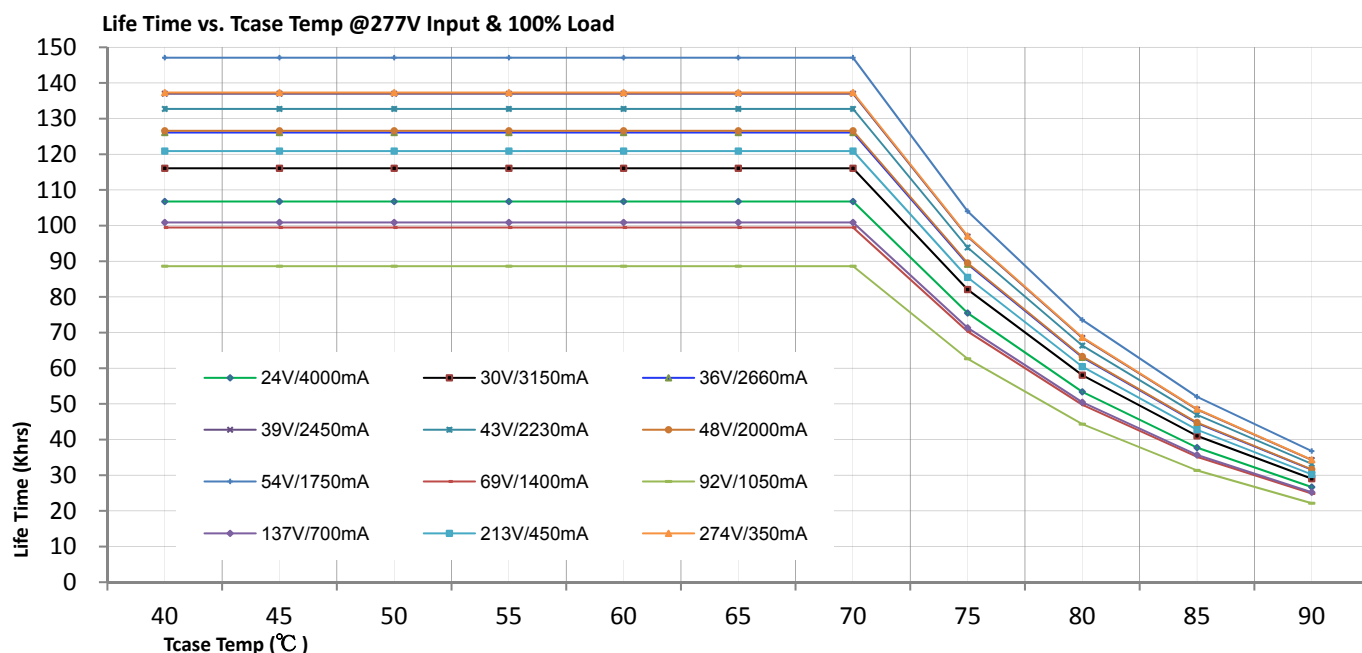
Note: 1. Typical power factor measured at 220VAC input, full load.
2. Maximum efficiency measured at 220VAC input, full load.

Typical Applications:



LED forward voltage: $V_F = 3.0V \sim 3.5V$, LED forward current $I_F = 700$ mA





Installation:

ABS + PC plastic shell;

Used with thermal conductivity and flame retardant glue potting;

AC input for connection the two cores ANSI/UL1015/AWG18 high temperature more than 105 °C wire connection;

Cable Length: 150mm, stripping on the tin: 10mm.

Where: L — black wire, N — white wire, FG — yellow / green;

DC output for connection the two cores ANSI/UL1569/AWG18 high temperature more than 105 °C wire connection;

Cable Length: 150mm, stripping on the tin: 10mm.

Where: DC+ — red, DC- — black;

This product has two $\Phi 3.6\text{mm}$ mounting holes.

Order ID:

P/N: LA96W-137-C0700

Description: 96W, 137Vdc voltage max, constant current 700mA, constant current mode.

Product size: