



20 Watt — LP20W Series Small & Efficient Series

CONSTANT CURRENT LED DRIVER WITH ONE 20 Watt OUTPUT

US & CN LED CLASS 2

Part Number: LP20W Series
Product mark: YG
Manufactory: Shenzhen YIGUANG technology co., Ltd
Driving mode: Constant current with safety isolation
Technology: Single-Stage PFC & PSR technology
Output Power: 20 Watt
Input voltages: 100 to 277 VAC (maximum : 90-305 VAC)
Efficiency: Up to 91%
Suitable: For LED lamp driver
Warranty: 5 years



Enclosure



Size \ Unit	Inch	Millimeter
Case Length	2.71	69.00
Case Width	2.72	69.20
Case Height	1.02	26.00

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, Iout < 900mA models
rated lifetime 50,000 hours, Tc 73°C, Iout ≥ 900mA models
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 200Vdc
8. Active PFC reduces power consumption
9. Isolation between primary and secondary

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 @ 80°C (Tc): 580,000 hours @ full load per MIL-217F notice 2

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: <20A at 25°C, 120V, cold start
- Input current: 0.25A at 120V
- Efficiency: 85% (typical), 91% (maximum), at full load, 220V
- Maximum output power: 20W
- Constant current regulation: ±3% over input line variation, load regulation accuracy: ±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

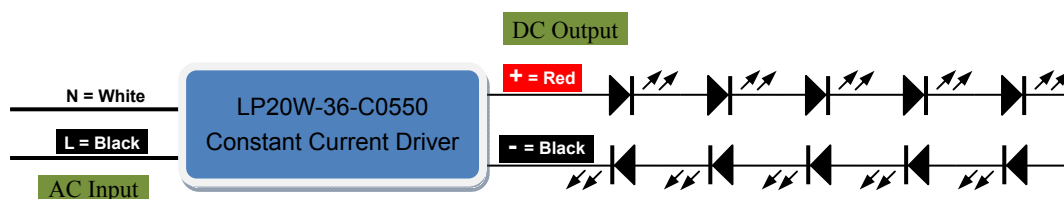
20W Constant current versions:

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	LP20W-200-C0100	No	No	120~200 V	100 mA	±5%	0.92	20 Watt	91%
2	LP20W-150-C0130	No	No	90~150 V	130 mA	±5%	0.92	20 Watt	91%
3	LP20W-100-C0200	No	No	60~100 V	200 mA	±5%	0.92	20 Watt	90%
4	LP20W-57-C0350	Yes	Yes	34~57 V	350 mA	±5%	0.92	20 Watt	90%
5	LP20W-48-C0420	Yes	Yes	29~48 V	420 mA	±5%	0.92	20 Watt	89%
6	LP20W-43-C0465	Yes	Yes	26~43 V	465 mA	±5%	0.92	20 Watt	89%
7	LP20W-40-C0500	Yes	Yes	24~40 V	500 mA	±5%	0.92	20 Watt	88%
8	LP20W-36-C0550	Yes	Yes	21~36 V	550 mA	±5%	0.92	20 Watt	88%
9	LP20W-28-C0700	Yes	Yes	17~28 V	700 mA	±5%	0.92	20 Watt	87%
10	LP20W-24-C0830	Yes	Yes	14~24 V	830 mA	±5%	0.92	20 Watt	87%
11	LP20W-22-C0900	Yes	Yes	13~22 V	900 mA	±5%	0.92	20 Watt	86%
12	LP20W-18-C1110	Yes	Yes	11~18 V	1110 mA	±5%	0.92	20 Watt	86%
13	LP20W-15-C1330	Yes	Yes	9~15 V	1330 mA	±5%	0.92	20 Watt	85%
14	LP20W-12-C1700	Yes	Yes	7~12 V	1700 mA	±5%	0.92	20 Watt	84%

Note:

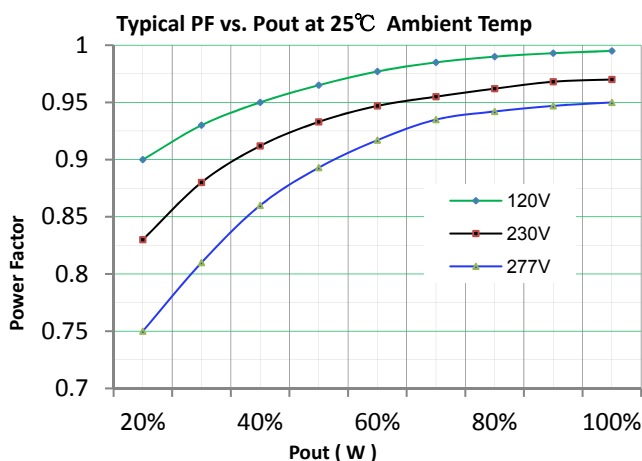
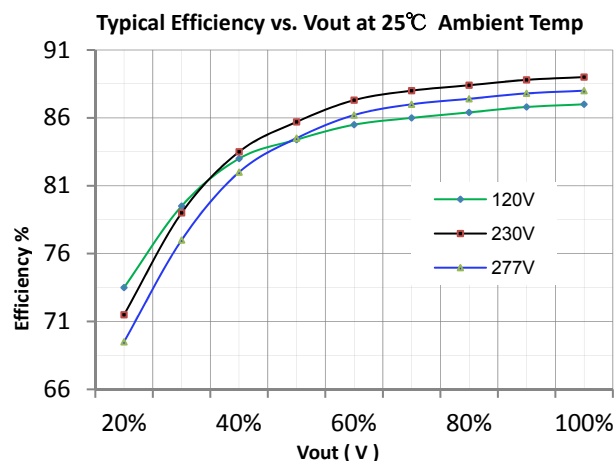
1. Typical power factor measured at 220VAC input, full load.
2. Maximum efficiency measured at 220VAC input, full load.

Typical Applications:

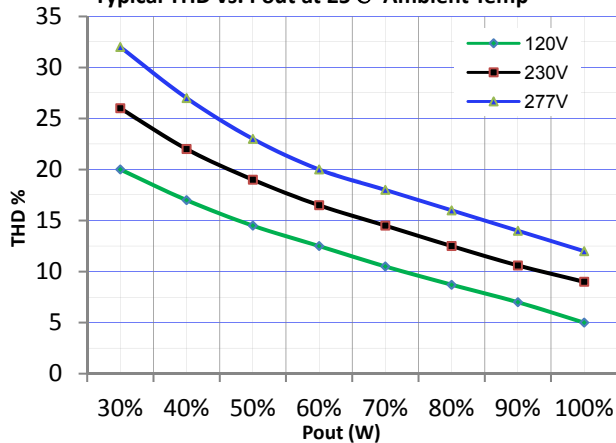


LED driver recommended application the following conditions.

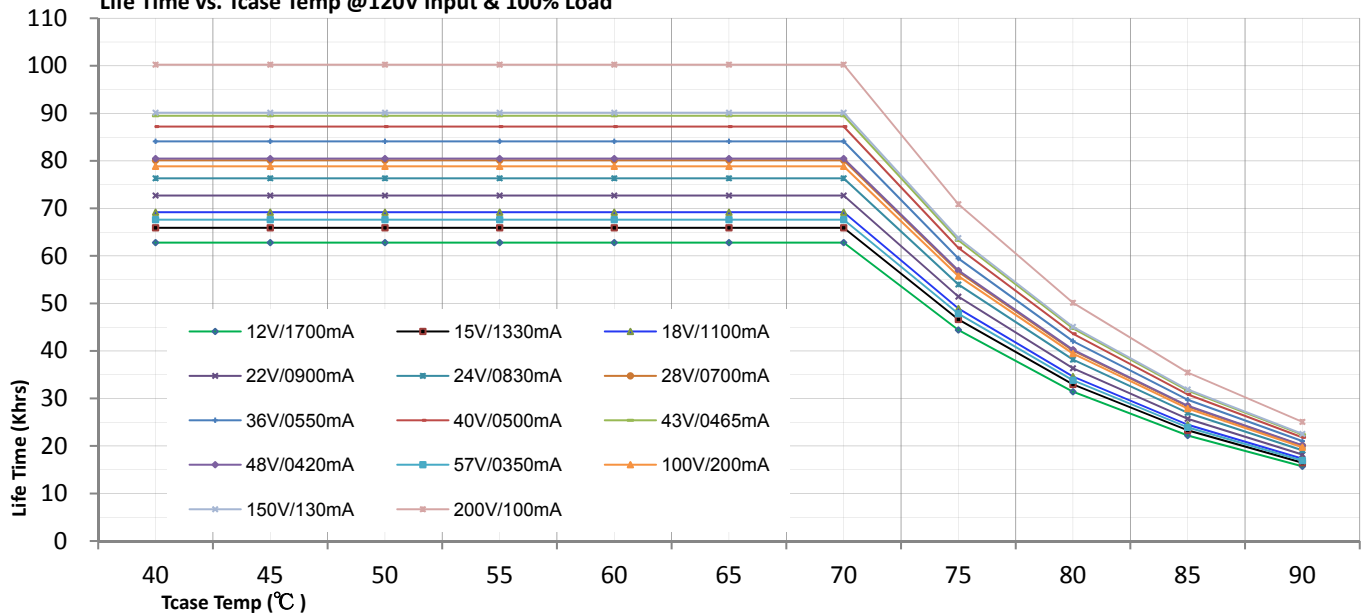
LED forward voltage: $V_F = 3.0V \sim 3.5V$, LED forward current $I_F = 550 \text{ mA}$.



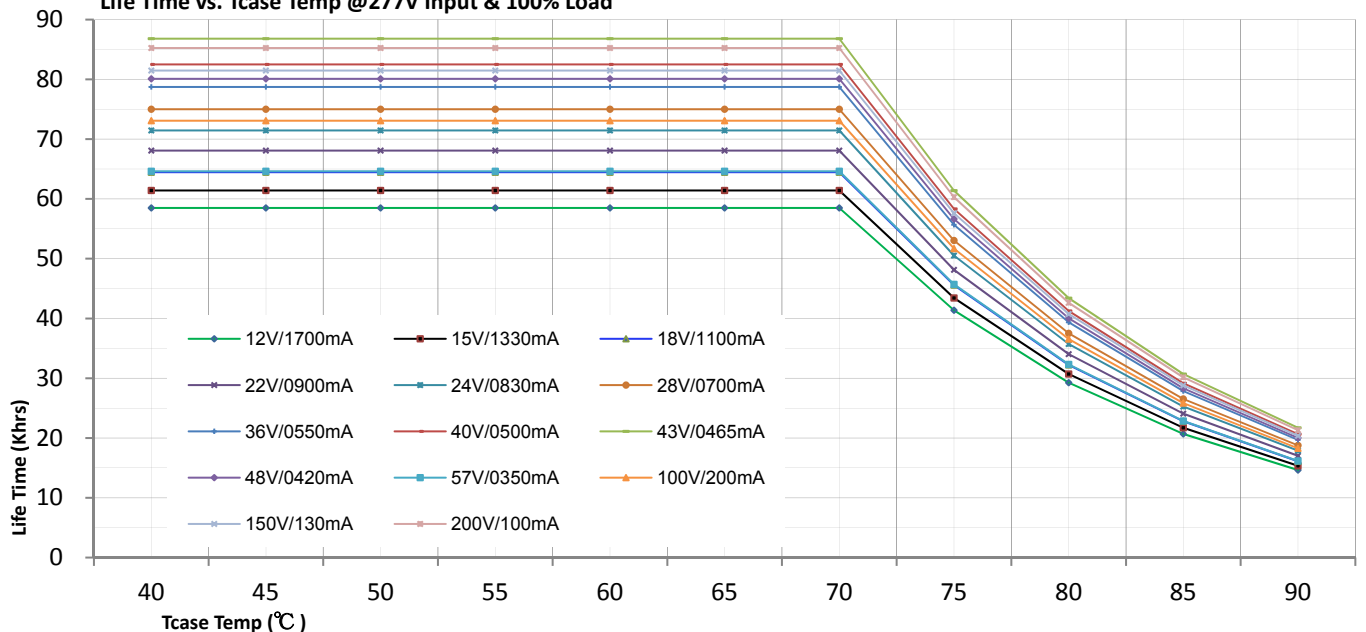
Typical THD vs. Pout at 25°C Ambient Temp



Life Time vs. Tcase Temp @120V Input & 100% Load



Life Time vs. Tcase Temp @277V Input & 100% Load



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 105°C core copper wire;

Cable length: 150mm, stripping on the tin: 10mm

Where: L — black wire, N — white wire;

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

Cable length: 150mm, stripping on the tin: 10mm

Including: DC+ — red wire, DC- — black wire;

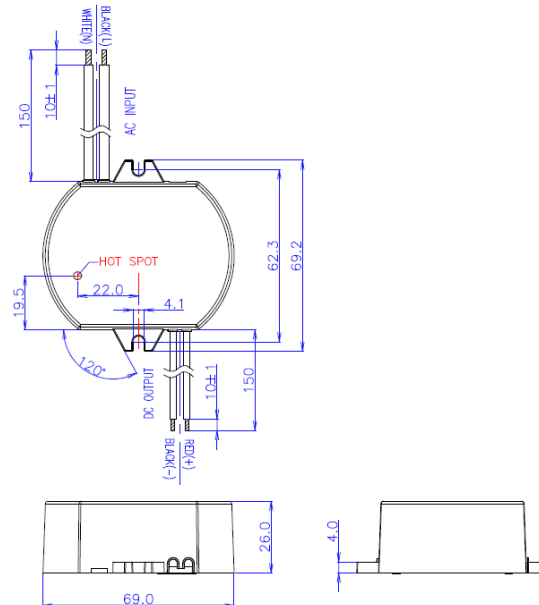
This product has two $\Phi 3.6\text{mm}$ mounting holes for the positioning of the products used to install.

Order ID:

P/N: LP20W-36-C0550

Description: 20W, 36Vdc voltage max, constant current 550mA, constant current mode.

Product size:



Note: may set your favorite parameter, but make sure the power is under limit.