

25 Watt — PP25W Series

Small & Efficient Series & constant current LED driver with one 25 watt output



Product family features

- Driving mode: Constant current with safety isolation
- Technology: Single-Stage PFC & PSR technology
- Output Power: 25 Watt
- Input voltages: 100 to 277 VAC (maximum : 90-305 VAC)
- Efficiency: Up to 91%
- Suitable: For LED lamp driver
- Warranty: 5 years
- UL8750, UL1310 Class 2, CSA22.2 safety compliant
- FCC 47CFR PART 15 compliant
- Meet the RoHS directive, IP65 compliant
- Suitable for high-temperature, high-dust location
- Inrush Current Limiting Circuitry: AC line to line 1.5 kV, eliminates circuit breaker tripping, switch arcing and relay failure
- Single output, ranged from 7Vdc up to 200Vdc
- Active PFC reduces power consumption
- Isolation between primary and secondary

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: <25A at 25°C, 120V, cold start
- Input current: 0.27A at 120V
- Efficiency: 85% (typical), 91% (maximum), at full load, 220V
- Maximum output power: 25W
- 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

Environmental

- Operating temperature: Tc 90°C (max), Reference Ta -40 to +60°C
- Storage temperature range: -40 to +85°C
- Humidity (non-condensing): 5% - 95%RH
- Cooling: free air cooling Convection
- Vibration frequency: 5-55Hz/2g, 30 minutes; impact resistance: 1g/s
- MTBF @ 75°C (Tc): 560,000 hours @ full load per MIL-217F notice 2
- LIFE @ 75°C (Tc): 50,000 hours @ full load
- 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

Product datasheet

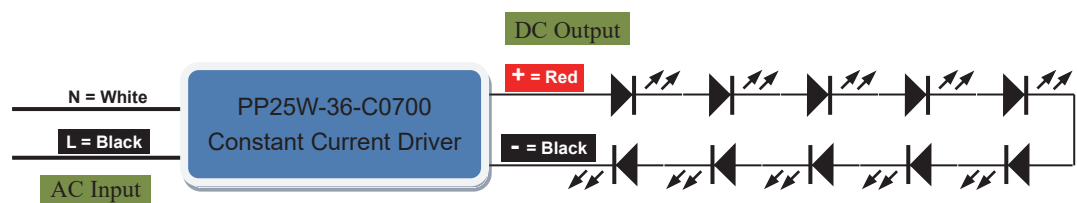
Technical data

Electrical Parameter

Product Modle	US Class 2	CN Class 2	Output VoPTage Range(V)	Output Constant Current (mA)	Current Accuracy	Power Factor	Output Power(W)	Max Eff
PP25W-200-C0120	No	No	120-200	120	±5%	0.90	25	91%
PP25W-150-C0160	No	No	90-150	160	±5%	0.90	25	91%
PP25W-100-C0250	No	No	60-100	250	±5%	0.90	25	91%
PP25W-72-C0350	No	No	43-72	350	±5%	0.90	25	90%
PP25W-62-C0400	No	No	37-62	400	±5%	0.90	25	90%
PP25W-56-C0450	Yes	Yes	34-56	450	±5%	0.90	25	90%
PP25W-48-C0520	Yes	Yes	29-48	520	±5%	0.90	25	89%
PP25W-43-C0580	Yes	Yes	26-43	580	±5%	0.90	25	89%
PP25W-36-C0700	Yes	Yes	21-36	700	±5%	0.90	25	88%
PP25W-28-C0850	Yes	Yes	17-28	850	±5%	0.90	25	88%
PP25W-24-C1040	Yes	Yes	14-24	1040	±5%	0.90	20	87%
PP25W-20-C1250	Yes	Yes	13-20	1250	±5%	0.90	25	86%
PP25W-12-C2100	Yes	Yes	7-12	2100	±5%	0.90	25	85%

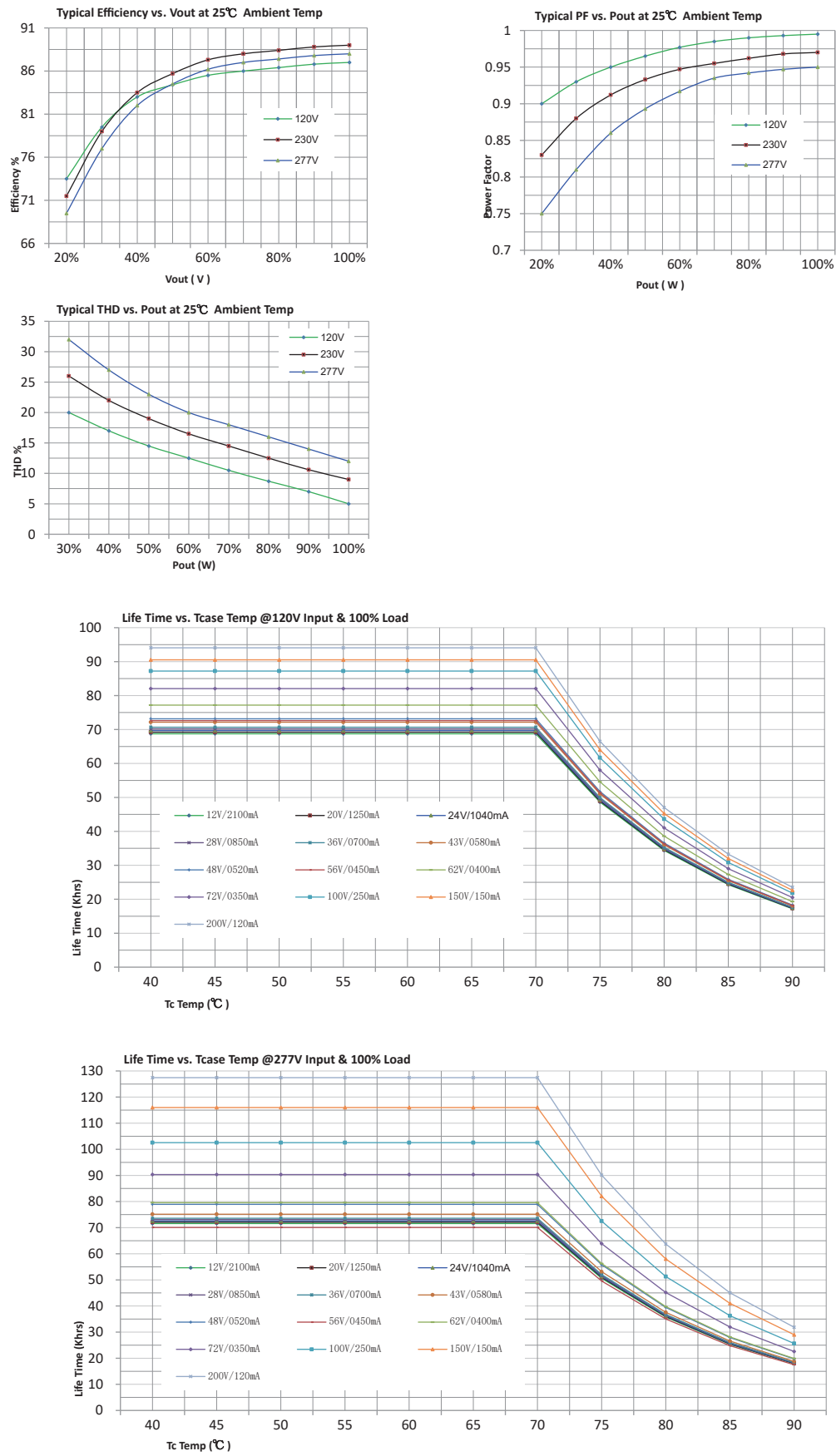
Note: Typical power factor measured at 220VAC input, full load
Maximum efficiency measured at 220VAC input, full load

Typical Applications



LED driver recommended application the following conditions
LED forward voltage: VF = 3.0V~3.5V, LED forward current IF = 700 mA

Characteristic Curve



Product datasheet

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 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 more than 105°C copper wire

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

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

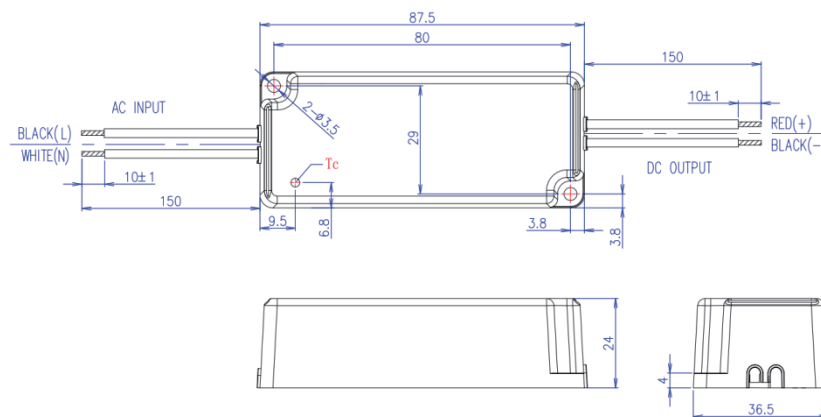
This product has two $\Phi 3.6\text{mm}$ mounting holes for the positioning of the products used to install

Order ID

P/N: PP25W-36-C0700

Description: 25W, 36Vdc voltage max, constant current 700mA max, constant current mode

Product size



Note:

This Tc point, the corresponding product model is PP25W-48-C0520