



### **DESCRIPTION**

The PUP25 series of AC-DC switching power supplies are for 15-25 watts of continuous output power. They are enclosed in a 94V-0 rated plastic case with an IEC320/C14 inlet to mate with interchangeable cord for world-wide use. All models meet EN55022, EN55024 and FCC class B emission limits and comply with UL, CSA, IEC and CE requirements.

#### **PUP25 SERIES**

**(**E

**RoHS** 



### **FEATURES**

- No load power consumption less than 0.1w
- Meet efficiency level VI
- Meet energy star EPS2.0 /ErP lot 7
- Operating altitude up to 5000 meters
- Overvoltage protection (auto-recovery)
- Short-circuit protection (auto-recovery)
- Overcurrent protection (auto-recovery)
- High Efficiency
- 100% burn-in at full rated load
- Compliant with RoHS requirements
- Meets LPS

# **SAFETY STANDARD APPROVALS**



UL 60950-1, CSA C22.2 No. 60950-1 File No. E190414



TUV EN 60950-1

### INPUT SPECIFICATIONS

Input voltage: 90-264 VAC Input frequency: 47-63 Hz

Input current: 0.8A (rms) for 115 Vac

0.45A (rms) for 230 Vac

Touch current: 250 µA max. @ 264 VAC, 60 Hz

### **GENERAL SPECIFICATIONS**

Hold-up time: 8 ms minimum at 115 VAC
Turn on delay time: 3 s maximum at 115 VAC
Efficiency: 83% minimum at full load
Line regulation: ±0.5% maximum at full load

Inrush current: 30 A @ 115 VAC or 60 A @ 230 VAC

at 25  $^{\circ}\mathbb{C}$  cold start

Withstand 1500 VAC from input to ground and output

voltage: MTBF: 1,000,000 hours at full load at  $25^{\circ}$ C

ambient, calculated per SR332

Ingress Protection: IP22 Compliant

### **OUTPUT SPECIFICATIONS**

Output voltage /current: See rating chart.

Maximum output power: See rating chart.

Ripple and noise: See rating chart.

Overvoltage protection: Set at 115-180% of its nominal output

voltage

Overcurrent protection: Protect to short circuit conditions
Temperature coefficient: All outputs ±0.04% / Cmaximum
Transient response: Maximum excursion of 4% or bette

Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500 us after a 25% step

load change

**EMC** Performance

EN55022(CISPR 22): Class B conducted, Class B radiated FCC: Class B conducted, Class B radiated VCCI: Class B conducted, Class B radiated EN61000-3-2: Harmonic distortion, Class A and D

EN61000-3-3: Line flicker

EN55024

EN61000-4-2: ESD,±8 KV air and ±4 KV contact
EN61000-4-3: Radiated immunity, 3 V/m
EN61000-4-4: Fast transient/burst, ±1 KV
EN61000-4-5: Surge, ±1 KV diff., ±2 KV com.
EN61000-4-6: Conducted immunity, 3 Vrms
EN61000-4-8: Magnetic field immunity, 1 A/m

EN61000-4-11: Voltage dip immunity, 30% reduction for 500

ms, and >95% reduction for 10 ms

### **ENVIRONMENTAL SPECIFICATIONS**

Operating temperature:  $0^{\circ}C$  to +60°C (See Derating)

Storage temperature:  $-20^{\circ}$ C to  $+80^{\circ}$ C

Operating humidity: 20% to 80% non-condensing
Storage humidity: 10% to 90% non-condensing
Derating: Derate output power linearly from 100% at 40°C to 50% at 60°C

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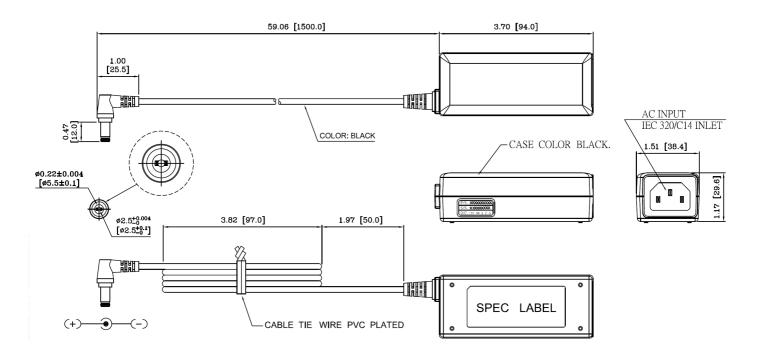
# **OUTPUT VOLTAGE/CURRENT RATING CHART**

	Output						Average efficiency
Model	V1	Min. Current	Max. Current	Tol.	Ripple & Noise <sup>(1)</sup>	Max. Power	(typical) @ 115 / 230 Vac
PUP25-10	5 V	0 A	3.00 A	±5%	120 mV	15 W	83 /83%
PUP25-12	12 V	0 A	2.08 A	±5%	120 mV	25 W	87 /88%
PUP25-13-2	19 V	0 A	1.32 A	±5%	190 mV	25 W	88 /89%
PUP25-14	24 V	0 A	1.04 A	±5%	240 mV	25 W	89 /89%

### NOTES:

1. Ripple and noise is maximum peak-to-peak voltage value measured at output within 20 MHz bandwidth, at rated line voltage and output load ranges, and with a 47 μF electrolytic capacitor in parallel with a 0.1 μF ceramic capacitor across the output.

# **MECHANICAL SPECIFICATIONS**



### NOTES:

- 1. Dimensions shown in inches [mm]
- 2. Tolerance 0.02 [0.5] maximum
- 3. Weight: 255.80 grams (0.5627 lbs.) approx.
- 4. Output return (-) is electrically connected to incoming Earth Ground through a 0 ohm resistor as standard.

# **PIN CHART**

MODEL	CONNECTION			
Polarity	+			