

150 WATT ITE POWER SUPPLIES

DESCRIPTION

The PUP150N3 series of AC/DC switching power supplies are for 150 watts of continuous output power. They are enclosed in a 94V-0 rated plastic case with an inlet of the IEC320/C14 or IEC320/C6 to mate with interchangeable cord for world-wide use. All models meet EN55032 and FCC class B emission limits, and comply with UL, CSA, IEC and CE requirements.

FEATURES

- No load power consumption less than 0.15 W
- Compliant with DoE level VI requirements
- Meet Energy Star EPS2.0 /ErP EC No 278/2009 (Lot 7)
- Meet EU CoC EPS V5 Tier 2
- Operating altitude up to 5000 meters
- Overvoltage protection (latch)
- Short-circuit protection (auto-recovery)
- Overpower protection (auto-recovery)
- Over temperature protection (latch)
- High Efficiency ≥ 89%
- With PFC circuit
- 100% burn-in at full rated load
- Compliant with RoHS requirements

INPUT SPECIFICATIONS

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

Input current: 1.6 A (rms) for 115 VAC 0.8 A (rms) for 230 VAC

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

OUTPUT SPECIFICATIONS

Output voltage /current: See rating chart.

Maximum output power: See rating chart.

Ripple and noise: 350 mV peak to peak maximum Overvoltage protection: Set at 125-155% of its nominal

output voltage

Overcurrent protection: All models protected to short

circuit conditions (auto-recovery)

Temperature coefficient: All outputs $\pm 0.04\%$ /°C maximum Transient response: Maximum excursion of 4% or better on

all models, recovering to 1% of final value within 500 us after a 25% step

load change

ENVIRONMENTAL SPECIFICATIONS

Operating temperature: 0° C to +40°C Storage temperature: -20°C to +80°C

Operating humidity: 20% to 80% non-condensing Storage humidity: 10% to 90% non-condensing

Temperature derating: Derate from 100% at +40°C linearly to

50% at +60°C

PUP150N3 SERIES



RoHS





SAFETY STANDARD APPROVALS



UL 62368-1, CSA C22.2 No. 62368-1 File No. E190414



TUV EN 62368-1

GENERAL SPECIFICATIONS

Hold-up time: 10 ms minimum at 100 VAC
Turn on delay time: 3 s maximum at 100 VAC

Power factor: 0.95 typical

Efficiency: 89% minimum at 110 VAC or 240 VAC.

Line regulation: ±0.5% maximum at full load

Inrush current: 100 A @ 115 Vac or 200 A @ 230 Vac at 25

 $^{\circ}\!\mathbb{C}$ cold start

Withstand voltage: 4242 VDC from input to output

2500 VDC from input to ground

MTBF: 200,000 hours at full load at 25°C ambient,

calculated per SR332

EMC Performance

EN55032: Class B conducted, Class B radiated

EN61000-3-2: Harmonic distortion, Class 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

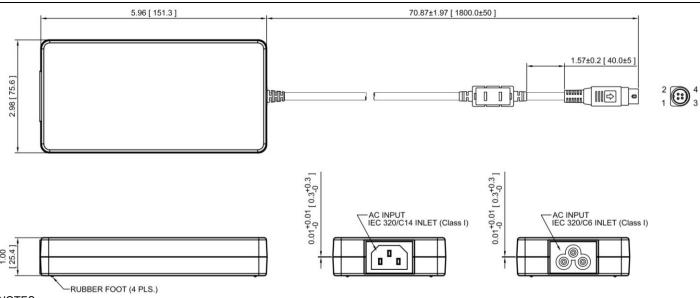
OUTPUT VOLTAGE/CURRENT RATING CHART

	Output						
Model ⁽¹⁾	V1	Min. Current	Max. Current	Tol.	Ripple & Noise ⁽²⁾	Max. Power	efficiency (typical) @ 115 / 230 Vac
PUP150N3-12	12 V	0 A	12.5 A	±5%	350 mV	150 W	90.4 /90.9%
PUP150N3S-12	12 V	0 A	12.5 A	±5%	350 mV	150 W	90.4 /90.9%
PUP150N3-13-2	19 V	0 A	7.89 A	±5%	350 mV	150 W	90.5 /91.4%
PUP150N3S-13-2	19 V	0 A	7.89 A	±5%	350 mV	150 W	90.5 /91.4%
PUP150N3-14	24 V	0 A	6.25 A	±5%	350 mV	150 W	91.4 /92.4%
PUP150N3S-14	24 V	0 A	6.25 A	±5%	350 mV	150 W	91.4 /92.4%
PUP150N3-19	54 V	0 A	2.77 A	±5%	350 mV	150 W	91.5 /92.4%
PUP150N3S-19	54 V	0 A	2.77 A	±5%	350 mV	150 W	91.5 /92.4%

NOTES:

- PUP150N3 models are equipped with IEC320/C14 inlet, and PUP150N3S models are equipped with IEC320/C6 inlet.
- Ripple and noise is maximum peak-to-peak voltage value measured at output within 20 MHz bandwidth, at rated line voltage and output load 2. ranges, and with a 47 µF tantalum capacitor in parallel with a 0.1 µF ceramic capacitor across the output.

MECHANICAL SPECIFICATIONS



NOTES:

- Dimensions shown in inches [mm] Tolerance 0.02 [0.5] maximum 1.
- 2.
- 3. Weight: 400 grams (0.88 lbs.) approx.
- Refer to Section titled "OPTIONAL OUTPUT CONNECTORS". Change suffix assigned for a selected connector to a wanted model 4. number, e.g. PUP150N3-14-B1, for ordering.
- The length of output cable for output voltage 12V is 59.06 [1500.0]. 5.
- V1 return (-) is electrically connected to incoming Earth Ground through a 1K ohm resistor as standard.

PIN CHART

I IN OHART										
PIN NO.	1	2	3	4	SHELL OF CONNECTOR					
Polarity	+V1	+V1	V1 Return	V1 Return	V1 Return					