



150 WATT SWITCHING POWER SUPPLIES

PUP150 SERIES



DESCRIPTION

The PUP150 series of AC/DC switching power supplies are for 150 watts of continuous output power. They are enclosed in a 94V-1 rated polyphenylene-oxide case with an IEC 320/C14 inlet to mate with interchangeable cord for world-wide use. All model meet CISPR 22 and FCC class B emission limits, and comply with UL,CSA,IEC and CE requirements.

Note: Warranty period for PUP150 series is one year.



FEATURES

- High Efficiency
- Low Ripple & Noise
- Overvoltage protection
- Short-circuit protection
- Overpower protection
- Over temperature protection
- 100% burn-in at full rated load
- Standby consumption less than 1W
- Compliant with RoHS requirements

New!!

Safety Standard Approvals :



UL60950-1, CSA C22.2 No. 60950-1
File No. E137410



Nemko EN60950: 2000
Certificate No. P05205366

INPUT SPECIFICATIONS

Input voltage : 90 to 260VAC
 Input frequency : 47 to 63Hz
 Input current : 2.0A (rms) for 115VAC
 1.0A (rms) for 230VAC
 Earth leakage current : 150uA max. @ 115VAC, 60Hz
 (Touch current) 250uA max. @ 230VAC, 50Hz

OUTPUT SPECIFICATIONS

Output voltage/current : See rating chart
 Total output power : See rating chart
 Ripple and noise : 380mV peak to peak maximum
 Overvoltage protection : Set at 110-140% of its nominal output voltage
 Overcurrent protection : All models protected to short circuit conditions
 Temperature coefficient : All outputs $\pm 0.04\%$ / $^{\circ}\text{C}$ maximum
 Transient response : Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500us after a 25% step load change

ENVIRONMENTAL SPECIFICATIONS

Operating temperature : 0 $^{\circ}\text{C}$ to +40 $^{\circ}\text{C}$
 Storage temperature : -20 $^{\circ}\text{C}$ to +80 $^{\circ}\text{C}$
 Relative humidity : 10% to 90% non-condensing

GENERAL SPECIFICATIONS

Hold-up time : 3 msec minimum at 100VAC
 Turn on delay time : 5 S maximum at 100VAC
 Power Factor : 0.95 typical
 Efficiency : 88% min at 110VAC or 240VAC.
 Line regulation : $\pm 0.5\%$ maximum at full load
 Inrush current : No damage
 Withstand voltage : 3000VAC from input to output
 1500VAC from input to ground
 100,000 hours at full load at 25 $^{\circ}\text{C}$ ambient, calculated per MIL-HDBK- 217F
 MTBF :

EMC Performance (EN55024)

EN55022: 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 D
 EN61000-3-3: Line flicker
 EN61000-4-2: ESD, $\pm 8\text{KV}$ air and $\pm 4\text{KV}$ contact
 EN61000-4-3: Radiated immunity, 3V/m
 EN61000-4-4: Fast transient/burst, $\pm 1\text{KV}$
 EN61000-4-5: Surge, $\pm 1\text{KV}$ diff., $\pm 2\text{KV}$ com.
 EN61000-4-6: Conducted immunity, 3Vrms
 EN61000-4-8: Magnetic field immunity, 1A/m
 EN61000-4-11: Voltage dips, 30% reduction for 500ms and >95% reduction for 10ms

UNIVERSAL INPUT

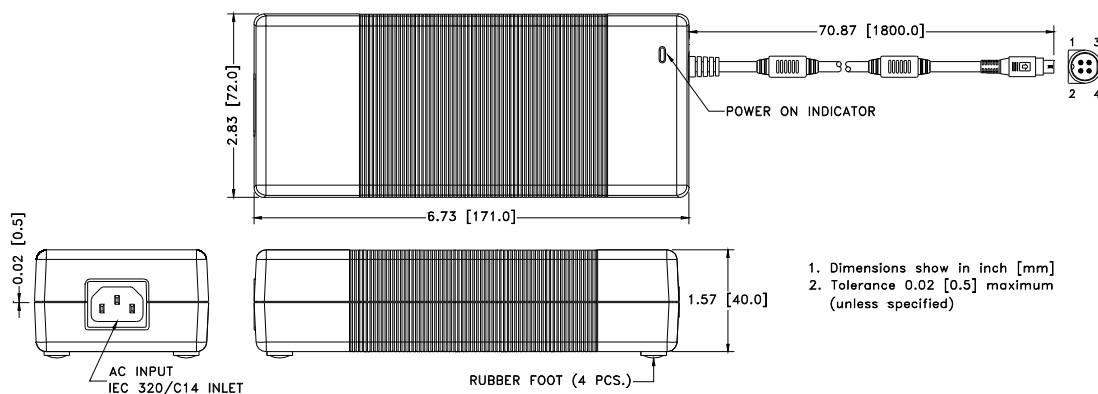
PUP150 SERIES

OUTPUT VOLTAGE/CURRENT RATING CHART

MODEL	Vnom.	Imax.	Output			Maximum Output Power
			Imin.	Tol.		
PUP150-12	12V	12.5A	0A	5%	150W	
PUP150-13	15V	10.0A	0A	5%	150W	
PUP150-13-2	19V	7.89A	0A	5%	150W	
PUP150-13-3	20V	7.5A	0A	5%	150W	
PUP150-14	24V	6.25A	0A	5%	150W	

NOTE: Ripple and noise: Peak-to-peak with 20MHz bandwidth and 47uF tantalum capacitor in parallel with a 0.1uF ceramic capacitor at rated line voltage and load ranges.

MECHANICAL SPECIFICATIONS



NOTES:

1. Dimensions shown in inch [mm]
2. Tolerance 0.02 [0.5] maximum
3. Weight: 800 grams approx.
4. See [pages 6-27 to 6-28](#) for optional output connector. Add the suffix assigned for a selected connector to a wanted model number, e.g. PUP150-14-B1, for ordering.
5. The length of output cable for PUP150-12 is 37.4 (950.0)

PIN CHART

MODEL	PIN	1	2	3	4	Shell of connector
PUP150-12	PUP150-13	Output +V	Output +V	Return	Return	Return
PUP150-13-2	PUP150-13-3					
PUP150-14						