PROTEK POWER

TT Electronics
POWER PARTNERS

PUP180N3 AC/DC Switching Power Supply Series

Features:

- No load power consumption less than 0.15W
- Compliant with DoE level VI requirements
- Meets energy star EPS2.0/ErP EC No 278/2009 (lot 7)
- Meets EU CoC EPS V5 Tier2
- Operating altitude up to 5000 meters
- Overvoltage protection (latch)
- Short circuit protection (auto-recovery)
- Overcurrent protection (auto-recovery)
- Over temperature protection (latch)
- High efficiency ≥89%
- With PFC circuit
- 100% burn-in at full rated load
- Compliant with RoHS requirement

CE
RoHS
VI
c UL us LISTED

Description:

The PUP180N3 series of AC/DC switching power supplies are for 180 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.

Part Number	Output Voltage	Min. Current	Max. Current	Tolerance	Ripple & Noise	Wattage	Average Efficiency @115/230 Vac
PUP180N3-13-2	19V	0A	9.47A	±5%	350mV	180W	89/91%
PUP180N3S-13-2	19V	0A	9.47A	±5%	350mV	180W	89/91%
PUP180N3-14	24V	0A	7.50A	±5%	350mV	180W	90/92%
PUP180N3S-14	24V	0A	7.50A	±5%	350mV	180W	90/92%
PUP180N3-19	54V	0A	3.34A	±5%	350mV	180W	91/93%
PUP180N3S-19	54V	0A	3.34A	±5%	350mV	180W	91/93%

NOTES:
1. PUP180N3 models are equipped with IEC320/C14 inlet, and PUP180N3S models are equipped with IEC320/C6 inlet.
2. 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 tantalum capacitor in parallel with a 0.1 µF ceramic capacitor across the output.

TT Electronics | Power Partners, Inc
43 Broad Street Suite B206, Hudson, MA 01749, USA. t: +1 (978) 567-9600

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Specifications	
Safety Standards & EMC Specifications	
Safety Standard Approvals	UL 62368-1 File No. E190414 CSA C22.2 No. 62368-1 TÜV EN 62368-1
EMI Standard	EN55032, FCC, and VCCI Class B (radiated and conducted)
EMC Performance	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, 3V/m EN61000-4-4: Fast transient/burst, ±1 KV EN61000-4-5: Surge, ±1 KV diff., ±2 KV com. EN61000-4-6: Conducted immunity, 3Vrms EN61000-4-8: Magnetic field immunity, 1A/m EN61000-4-11: Voltage dip immunity, 30% reduction for 500ms, and >95% reduction for 10ms
*Consult with TT Electronics for information on additional country safety approvals	
Input Specifications	
Input Voltage Range	90 to 264 Vdc
Input Frequency Range	47 to 63Hz
Input Current	1.8A (rms) for 115 VAC or 0.9A (rms) for 230 VAC Maximum
Earth Leakage Current	250µA max. @ 264 VAC, 60Hz
Output Specifications	
Output Connection Type	4-Pin Mini Din
Over Voltage Protection	Set at 125–155% of its nominal output voltage
Over Current Protection	All models protected to short circuit conditions (auto-recovery)
Temperature Coefficient	All outputs ±0.04%/°C maximum
Transient Response	Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500 µs after a 25% step load change
Environmental Specifications	
Operating Temperature	0°C → +40°C (41°C to 60°C with derating)
Storage Temperature	-20°C → 80°C
Operating Humidity	20% to 80% non-condensing
Storage Humidity	10% to 90% non-condensing
General Specifications	
Hold-up Time	10ms minimum at 100 VAC
Turn on Delay Time	3s maximum at 100 VAC
Power Factor	0.95 Typical
Line Regulation	±0.5% maximum at full load
Inrush Current	100A @ 115 Vac or 200A @ 230 Vac at 25°C cold start
Withstand Voltage	4242 VDC input to output, 2500 VDC input to ground
MTBF	200,000 hours at full load at 25°C ambient, calculated per SR332

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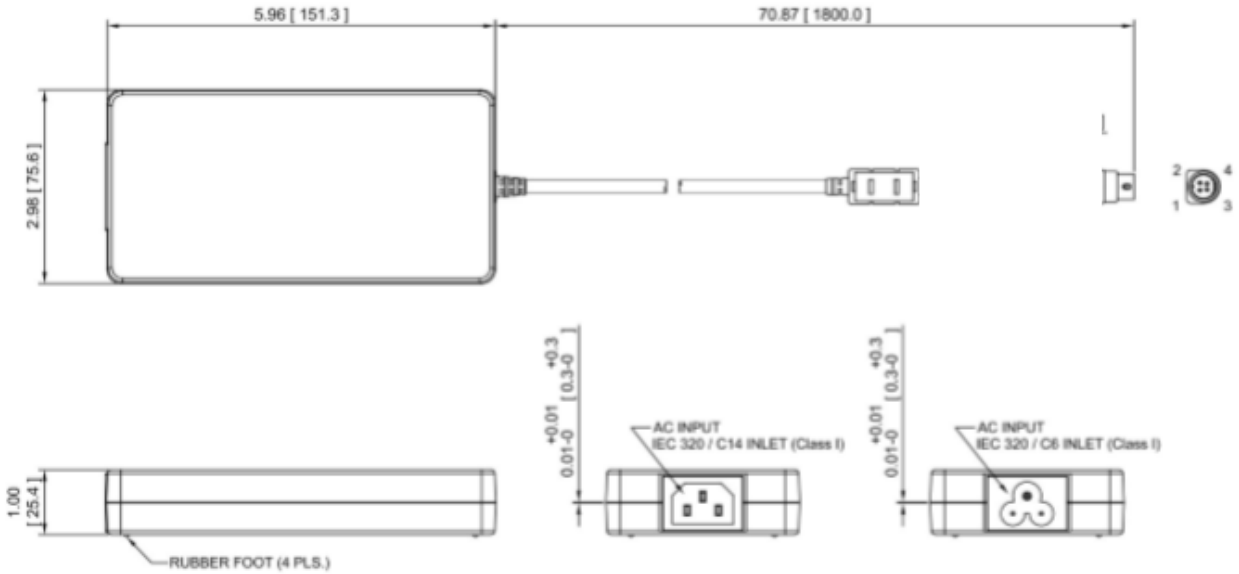
Diagrams



NOTES:
1. Dimensions shown in inches [mm]
2. Tolerance 0.02 [0.5] maximum
3. Weight: 428 grams (0.95 lbs.) approx.
4. V1 return (-) is electrically connected to incoming Earth Ground through 1K ohm resistor as standard.

PIN CHART

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

OUTPUT POWER DERATING CURVE