



**PROTEK POWER**

# PUP270 AC/DC Switching Power Supply Series (240-270W)

**Features:**

- No load power consumption less than 0.15W
- Compliant with DoE level VI/CoC EPS V5 tier 2 requirements
- Meets energy star EPS2.0/ErP lot 7
- With PFC circuit
- Operating altitude up to 5000 meters
- Wide input range 90 to 264 VAC
- 100% burn-in
- Overvoltage protection (latch)
- Overcurrent protection
- Over temperature protection (latch)
- Compliant with RoHS requirements



CE  
RoHS



**Description:**

The PUP270 series of AC/DC switching power supplies are for 240-270 watts of continuous output power. They are enclosed in a 94V-0 rated plastic cases 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.

| Part Number   | Output Voltage | Min. Current | Max. Current | Tolerance | Ripple & Noise | Wattage | Average Efficiency @115/230 Vac |
|---------------|----------------|--------------|--------------|-----------|----------------|---------|---------------------------------|
| PUP270-12-S   | 12V            | 0A           | 20.00A       | ±5%       | 240mV          | 240W    | 89/89%                          |
| PUP270-13-2-S | 19V            | 0A           | 14.21A       | ±5%       | 300mV          | 270W    | 89/89%                          |
| PUP270-14-S   | 24V            | 0A           | 11.25A       | ±5%       | 300mV          | 270W    | 89/89%                          |
| PUP270-18-S   | 48V            | 0A           | 5.62A        | ±5%       | 500mV          | 270W    | 89/89%                          |
| PUP270-19-S   | 54V            | 0A           | 5.00A        | ±5%       | 550mV          | 270W    | 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



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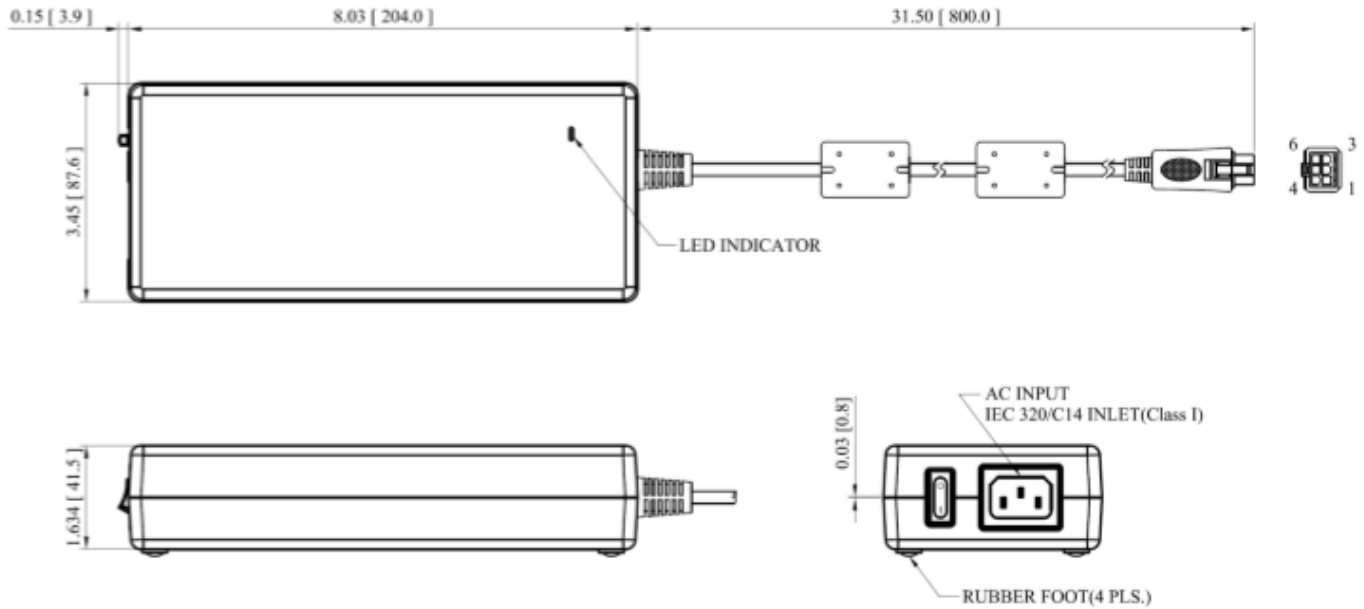
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| <b>Specifications</b>                            |  |
|--|--|
| <b>Safety Standards &amp; EMC Specifications</b> |  |
| Safety Standard Approvals                        | UL 62368-1 File No. E190414<br>CSA C22.2 No. 62368-1<br>TÜV EN 62368-1   |
| EMI Standard                                     | EN55032, FCC, and VCCI Class B (radiated and conducted)  |
| EMC Performance                                  | EN61000-3-2: Harmonic distortion, Class D<br>EN61000-3-3: Line flicker<br>EN55024<br>EN61000-4-2: ESD, ±15 KV air and ±8 KV contact<br>EN61000-4-3: Radiated immunity, 3V/m<br>EN61000-4-4: Fast transient/burst, ±1 KV<br>EN61000-4-5: Surge, ±1 KV diff., ±2 KV com.<br>EN61000-4-6: Conducted immunity, 3Vrms<br>EN61000-4-8: Magnetic field immunity, 1A/m<br>EN61000-4-11: Voltage dip immunity, 30% reduction for 500ms, and >95% reduction for 10ms |
| <b>Input Specifications</b>                      |  |
| Input Voltage Range                              | 90 to 264 Vdc  |
| Input Frequency Range                            | 47 to 63Hz   |
| Input Current                                    | 2.7A (rms) for 115 VAC or 1.4A (rms) for 230 VAC Maximum   |
| Earth Leakage Current                            | 3.5mA max. @ 264 VAC, 63Hz   |
| <b>Output Specifications</b>                     |  |
| Output Connection Type                           | JWT Mini - Fit receptacle,<br>P/N: C4202H00-2x3P with female terminal C4202T2*-2 or equivalent, mating with JWT socket C4201H0*-2x3P and male terminal C4201T2*-2 or equivalent.<br>It also mates with JWT headers C4201WR*-2x3P, C4201WV*-2x3P, or equivalent.  |
| Over Voltage Protection                          | Set at 110–140% of its nominal output voltage  |
| Over Current Protection                          | All models protected to short circuit conditions   |
| 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  |
| <b>Environmental Specifications</b>              |  |
| Operating Temperature                            | 0°C → +40°C (41°C to 60°C with derating)   |
| Storage Temperature                              | -20°C → 80°C   |
| Storage Humidity                                 | 10% to 90% non-condensing  |
| <b>General Specifications</b>                    |  |
| Hold-up Time                                     | 10ms minimum at 100 VAC  |
| Turn on Delay Time                               | 3s maximum at 100 VAC  |
| Power Factor                                     | 0.98 Typical @ 115 VAC   |
| Line Regulation                                  | ±0.5% maximum at full load   |
| Inrush Current                                   | 90A @ 115 VAC or 180A @ 230 VAC at 25°C cold start   |
| Withstand Voltage                                | 4242 VDC input to output, 2500 VDC input to ground   |
| MTBF   | 300,000 hours at full load at 25°C ambient, calculated per SR332   |



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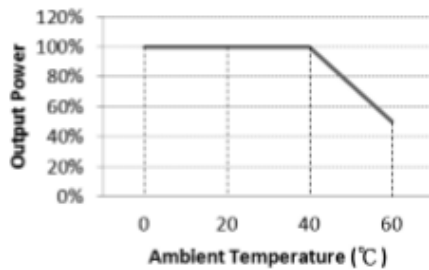
## Diagrams



### NOTES:

1. Dimensions shown in inches [mm]
2. Tolerance 0.02 [0.5] maximum
3. Weight: 1100 grams (2.425 lbs.) approx.
4. Output connector is JWT Mini - Fit receptacle, P/N: C4202H00-2x3P with female terminal C4202T2\*-2 or equivalent, mating with JWT socket C4201H0\*-2x3P and male terminal C4201T2\*-2 or equivalent. It also mates with JWT headers C4201WVR\*-2x3P, C4201WV\*-2x3P, or equivalent.
5. V1 return (-) is electrical connected to incoming Earth Ground through two 1.2K ohm resistors as standard.

## OUTPUT POWER DERATING CURVE



## PIN CHART

| PIN | 1   | 2   | 3   | 4         | 5         | 6         |
|-----|-----|-----|-----|-----------|-----------|-----------|
|     | +V1 | +V1 | +V1 | V1 Return | V1 Return | V1 Return |