



**Sparkle Power Inc.**  
A Leading Power Supply  
Manufacturer  
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## **FSP450-60ETN**

**(80PLUS Platinum, RoHS Compliant)**

**450 Watts ATX12V V2.3 EPS12V V2.92 Switching  
Power Supply (Meet 2013 ErP)**

### **Features**

- Complied with ATX12V V2.3 EPS12V V2.92 standard
- Active Power Factor Correction (PFC) meet EN61000-3-2
- High efficiency and reliability
- Compatible with European Union Directive 2002/95/EC (Restriction on Hazardous Substances).
- Remote ON/OFF function
- Internal 12V DC fan included
- Noise Killer (thermal fan speed control function)
- Low noise and ripple
- Output over voltage, short circuit, and over current protection
- 100% Hi-pot, ATE, and burn-in tested
- Re-settable power shut down
- Complies with FCC part 15 subpart J class B 115Vac operation, and CISPR 22 class B at 230Vac operation
- Approved by CUL/UL60950-1, TUV EN60950-1, CB 60950-1 report, FCC, EMC.

### **Input Characteristics**

**Input Range:** 90 ~ 264Vac, Full Range Input

**Frequency:** 47 ~ 63Hz

**Input Current:** Max 8A at 100-127Vrms@60Hz,  
Min 4A at 200-240Vrms@50Hz.

**Inrush Current:** No damage.

### **Output Characteristics**

	MINIMUM LOAD	NORMAL LOAD	MAXIMUM LOAD	LOAD REG.	LINE REG.	RIPPLE & NOISE
<b>+3.3V</b>	<b>0.1A</b>	<b>12A</b>	<b>16/1.5A</b>	<b>±5%</b>	<b>±1%</b>	<b>50mV P-P</b>
<b>+5V</b>	<b>0.2A</b>	<b>12A</b>	<b>6.5/16A</b>	<b>±5%</b>	<b>±1%</b>	<b>50mV P-P</b>
<b>+12V1</b>	<b>0.1A</b>	<b>9A</b>	<b>18A</b>	<b>±5%</b>	<b>±1%</b>	<b>120mV P-P</b>
<b>+12V2</b>	<b>0A</b>	<b>9A</b>	<b>18A</b>	<b>±5%</b>	<b>±1%</b>	<b>120mV P-P</b>
<b>-12V</b>	<b>0A</b>	<b>0.15A</b>	<b>0.3A</b>	<b>±10%</b>	<b>±2%</b>	<b>200mV P-P</b>
<b>+5Vsb</b>	<b>0A</b>	<b>1.5A</b>	<b>3A</b>	<b>±5%</b>	<b>±1%</b>	<b>50mV P-P</b>



### **Specification**

- **Temperature Range:** Operating: +0°C ~ +40°C on full load  
Storage & Shipping: -40°C ~ +70°C
- **Humidity:** 5-85% on operating, 5-95% on storage
- **Efficiency:** 89% minimum, typical up to 92%
- **Rise time:** 15ms maximum
- **Hold-up Time:** 17ms minimum at nominal input voltage
- **Power Good Signal:** Power on delay time 100 ~ 500ms, off delay 1ms minimum (TTL and CMOS compatible)
- **Leakage Current:** Less than 3.5mA at 264Vac, 50Hz
- **MTBF:** 100,000 hours on maximum load at +25°C
- **Dimensions (LxWxH):** 140x150x85.8mm / 5.5x5.9x3.4inch

- (1) +3.3V & +5V total output not exceed 85W.  
When +5V is load to 16A, the +3.3V maximum load is 1.5A.  
When +3.3V is load to 16A, the +5V maximum load is 6.5A.
- (2) +12V1 & +12V2 total output not exceed 408W(34A).
- (3) All outputs shall be safety-isolated from the AC mains and share a common return. This common return must be connected to supply chassis.
- (4) Voltages and ripple are measured at the load side of mating connectors with a 0.1uF monolithic ceramic capacitor paralleled by a 10uF electrolytic capacitor across the measuring terminals.

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