



**Sparkle Power Inc.**  
A Leading Power Supply  
Manufacturer  
[www.sparklepower.com](http://www.sparklepower.com)



## FSP400-60ETN

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

**400 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 6.3A at 100-127Vrms@60Hz,  
Min 3A 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>8A</b>    | <b>18A</b>     | <b>±5%</b>  | <b>±1%</b> | <b>120mV P-P</b> |
| <b>+12V2</b> | <b>0A</b>    | <b>8A</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 372W(31A).
- (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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