Sparkle Power Inc.
A Leading Power Supply Manufacturer Website:
www.sparklepower.com



FSP500-50ERN

(80PLUS Silver, RoHS Compliant)

500 Watts ATX12V 2.3 Switching Power Supply

Meet 2013 ErP

Support C6/C7 idle states for Haswell CPU

Features

- Complied with ATX12V 2.3 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, CE

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
- **Dielectric Withstand:** Primary to frame ground 1800V_{AC} for 1 second
- **Efficiency: 85%** minimum, typical up to **88%**
- **Rise time:** Less than 20ms
- **Hold-up Time:** 17ms minimum: at 115V/60Hz (80% Load)
- **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):**140x150x86mm / 5.5x5.9x3.4inch

Input Characteristics

Input Range: 90 ~ 264Vac, Full Range Input
Frequency: 47 ~ 63Hz
Input Current: Max 8A @ 115Vac, 4A @ 230Vac
Inrush Current: No damage.

Output Characteristics

	MINIMUM LOAD	NORMAL LOAD	MAXIMUM LOAD	LOAD REG.	LINE REG.	RIPPLE & NOISE
+3.3V	0.2A	10A	24/7.5A	±5%	±1%	50mV P-P
+5V	1A	9A	9/20A	±5%	±1%	50mV P-P
+12V	0.05A	20A	39A	±5%	±1%	120mV P-P
-12V	0A	0.25A	0.3A	±10%	±2%	200mV P-P
+5Vsb	0A	1A	3A	±5%	±1%	50mV P-P

+5Vsb peak current is 3.5A(less then 0.5S).

Supports C6/C7 idle states for Haswell CPU(+12V min. load 0.05A)

*+3,3V & +5V total output not exceed 120W.
When +5V is loaded to 20A, then +3.3V maximum load is 7.5A
When +3.3V is loaded to 24A, then +5V maximum load is 9A

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