



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

**FSP220-50LH**  
**(80PLUS Silver, RoHS Compliant)**  
**220 Watts Flex ATX Switching Power Supply**



**Features**

- Complied with Flex ATX 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
- 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 : UL/CUL60950-1 2<sup>nd</sup> TUV EN60950-1 2<sup>nd</sup>, CB 60950-1 2<sup>nd</sup> , FCC, EMC

**Input Characteristics**

**Input Range:** 90 ~ 264Vac, Full Range Input  
**Frequency:** 47 ~ 63Hz  
**Input Current:** Max 4A @ 115Vac, 2A @ 230Vac  
**Inrush Current:** No Damage

**Output Characteristics**

Output Voltage	Minimum Load	Normal Load	Maximum Load	Load Reg.	Ripple & Noise
+3.3V	0.1A	5A	10A	± 5%	50mV P-P
+5V	0.2A	7A	14A	± 5%	50mV P-P
+12V	0.6A	7A	14A	± 5%	120mV P-P
-12V	0A	0.15A	0.3A	± 10%	120mV P-P
+5Vsb	0A	1.25A	2.5A	± 5%	50mV P-P

\*+3.3V and +5V total output not exceed 80W  
 \* Total output for this subject power supply is 220W

**Specification**

- **Temperature Range:** Operating: 0°C ~ +50°C on full load; storage & shipping: -20°C ~ +80°C
- **Humidity:** 85% on operating, 95% on storage
- **Dielectric Withstand:** Primary frame ground 1800V AC for 2 second
- **Efficiency: Typical > 88%**
- **Rise time:** Less than 20ms
- **Hold-up Time:** 16 ms 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):** 150x81.5x40.5mm / 5.9x3.2x 1.6inch

**Sparkle Power Inc.**  
**Main Office**  
 1000 Rock Avenue  
 San Jose, CA 95131  
 TEL: 408-519-8888  
 FAX: 408-519-9999  
 E-MAIL: [info@sparklepower.com](mailto:info@sparklepower.com)

**Sparkle Power Inc.**  
**Los Angeles Office**  
 17071 Green Drive  
 City of Industry, CA 91745  
 TEL: 626-839-7180  
 FAX: 626-839-3395