



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

**SPI220LE5**  
**(80PLUS, RoHS Compliant)**  
**220/250 Watts Flex ATX Switching Power Supply**

**Features**

- Complied with Flex ATX and ATX12V 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, NEMKO EN60950 -1(CB Report) CE

**Input Characteristics**

**Input Range:** 90 ~ 264Vac, Full Range Input  
**Frequency:** 47 ~ 63Hz  
**Input Current:** Max 5A @ 115Vac, 3A @ 230Vac  
**Inrush Current:** No damage.

**Output Characteristics**

Output Voltage	Minimum Load	Normal Load	Maximum Load	Load Reg.	Line Reg.	Ripple & Noise
+3.3V	0.5A	7A	14A	± 5%	± 1%	50mV P-P
+5V	0.5A	8A	16A	± 5%	± 1%	50mV P-P
+12V1	1.0A	8A	16A	± 5%	± 1%	120mV P-P
+12V2	1.0A	5A	10A	± 5%	± 1%	100mV P-P
-12V	0.0A	0.4A	0.8A	± 10%	± 1%	120mV P-P
+5Vsb	0.0A	1.25A	2.5A	± 5%	± 1%	50mV P-P

\*220W (50°C): +3.3V, +5V, and +12V total output cannot exceed 207W.  
 \*250W (25°C): +3.3V, +5V, and +12V total output cannot exceed 237W  
 \*+3.3V and +5V total output not exceed 110W  
 \* Total output for this subject power supply is 250W

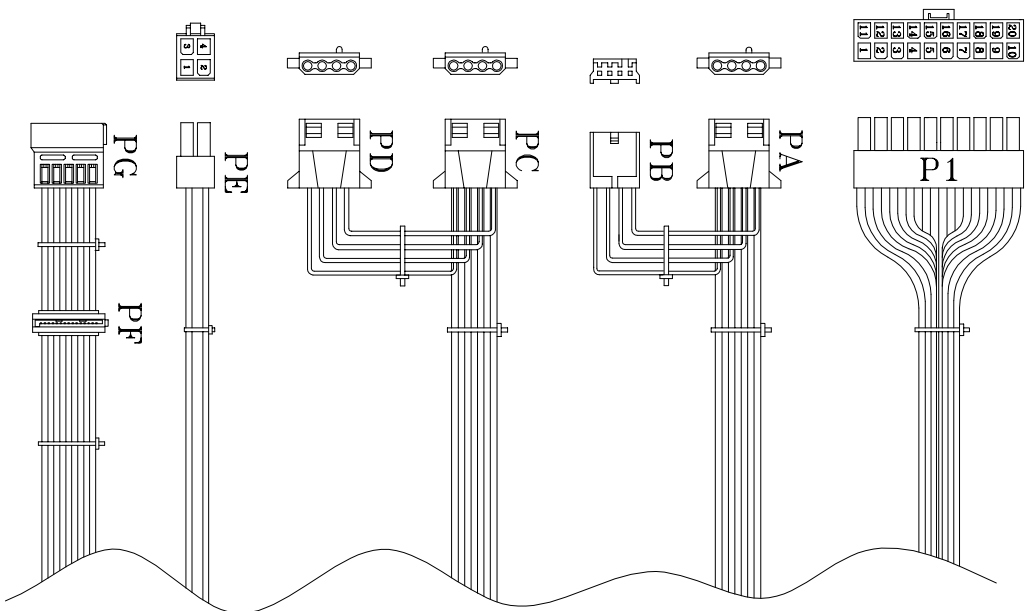
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**Specification**

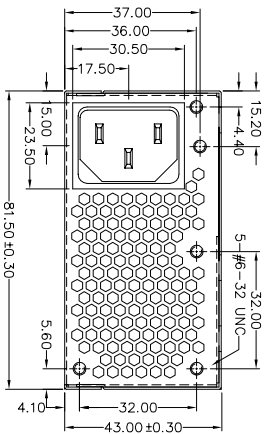
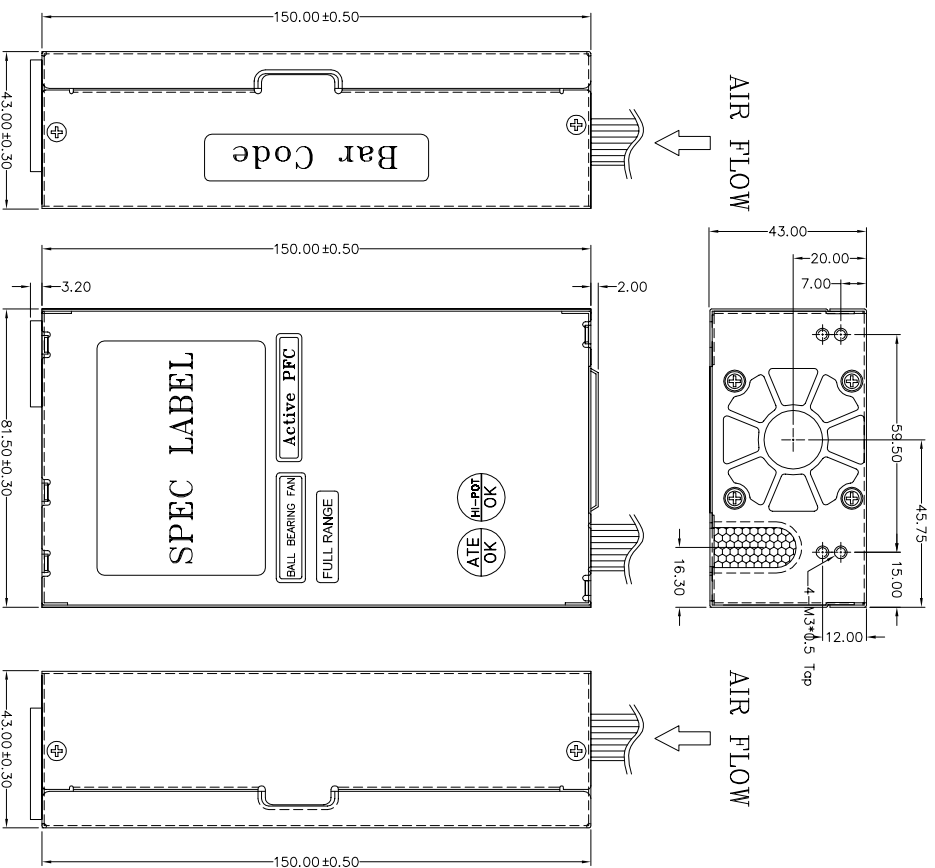
- **Temperature Range:** Operating 0° C ~ +25° C on 250W output load or 0° C ~ +50° C on 220W output load ; storage & shipping -20° C ~ +80° C
- **Humidity:** 5 ~ 90% on operating, 5 ~ 95% on storage
- **Dielectric Withstand:** Primary frame ground 1800V AC for 1 second
- **Efficiency:** typical up to **80%**
- **Rise time:** Less than 20ms
- **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):** 150x81.5x43mm /6x3.2x1.7inch



**NOTE:**

1. ALL THE LENGTH OF OUTPUT WIRES EXCLUDE HOUSING.
2. 產地標籤依業務指示加貼.

**PS:80 PLUS**



REF. D.	PIN NO.	SIGNAL	WIRE COLOR	GAUGE	CONNECTOR TYPE	LENGTH
P1	1	+3.3V	ORANGE	20	MOLEX	200±15
	2	+3.3V	ORANGE	20	MOLEX	39-01-2200
	3	COM	BLACK	20	2200 or EQUIV.	
	4	+5V	RED	20		
	5	COM	BLACK	20		
PA	6	+5V	RED	20		
	7	COM	BLACK	20		
	8	PW-OK	GRAY	24		
	9	+5V/B	PURPLE	20		
	10	+12V2	YELLOW	20		
	11	+3.3V	ORANGE	20		
	12	-12V	BLUE	24		
	13	COM	BLACK	20		
	14	PS-ON	GREEN	24		
	15	COM	BLACK	20		
PB	16	COM	BLACK	20		
	17	COM	BLACK	20		
	18					
	19	+5V	RED	20		
PC	20	+5V	RED	20		
	1	+12V2	YELLOW	20	AMP	250±15
	2	COM	BLACK	20	1-460±4-0mm or EQUIV.	
	3	COM	BLACK	20		
PD	4	+5V	RED	20		
	1	+12V2	YELLOW	20	AMP	150±10
	2	COM	BLACK	20	1-460±4-0mm or EQUIV.	
	3	COM	BLACK	20		
PE	4	+5V	RED	20		
	1	COM	BLACK	20	MOLEX	310±15
	2	COM	BLACK	20	39-01-2040	
	3	+12V1	Yel./Blk	20	or EQUIV.	
PF	4	+12V2	YELLOW	20		
	1	COM	BLACK	20	CL271HS0	310±15
	2	COM	BLACK	20	1-5P	
	3	+5V	RED	20	or EQUIV.	
	4	COM	BLACK	20		
PG	5	+3.3V	ORANGE	20		
	1	+12V2	YELLOW	20	CL270H00	150±10
	2	COM	BLACK	20	1-5P	
	3	+5V	RED	20	or EQUIV.	

**FSP P/N.:9PA220\*\*\*\***  
**SPI P/N.:SPI220LE5**

MODEL NO. : SPI220LE5	TITLE: ASSY	SHEET: 1 OF 1	REV:01
R&D	PE	DRAWN	DATE
INTERIOR COUNTERSIGN:			Nov.14.2006

樂家龍