



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

**FSP650-802U (Active PFC & RoHS Compliant)**  
**650 Watts, 2U Switching Power Supply**

**Features**

- Complied with ATX, ATX12V and EPS12V standard
- Active Power Factor Correction (PFC) meet EN61000-3-2
- High efficiency and reliability
- Remote ON/OFF function
- Internal 12V DC fan included
- Noise Killer (thermal fan speed control function)
- Low noise and ripple
- Complies with FCC part 15 subpart J class B 115Vac operation, and CISPR 22 class B at 230Vac operation
- Output over voltage, short circuit, and over current protection
- 100% Hi-pot, ATE, and burn-in tested
- Re-settable power shut down
- Approved by UL60950, CSA C22.2 NO. 60950, TUV EN60950 or VDE EN60950, NEMKO EN60950 (CB Report), CE

**Input Characteristics**

**Input Range:** 95 ~ 265Vac (RMS), Full Range Input  
**Frequency:** 47 ~ 63Hz  
**Input Current:** 8A (RMS) @115Vac, 4A (RMS) @230Vac  
**Inrush Current:** 50A Max @115Vac, 50A Max @230Vac cold start

**Output Characteristics**

Output Voltage	Minimum Load	Maximum Load	Load Reg.	Line Reg.	Ripple & Noise
+3.3V	0.5A	30A	± 5%	± 1%	50mV P-P
+5V	0.5A	30A	± 5%	± 1%	50mV P-P
+12V1	0.3A	12.5A	± 5%	± 1%	120mV P-P
+12V2	0.3A	12.5A	± 5%	± 1%	120mV P-P
+12V3	0.5A	14A	± 5%	± 1%	120mV P-P
+12V4	0.3A	8A	± 5%	± 1%	120mV P-P
-5V	0.0A	0.3A	± 10%	± 1%	120mV P-P
-12V	0.0A	0.8A	+9%/-5%	± 2%	120mV P-P
+5Vsb	0.0A	2.0A	± 5%	± 1%	50mV P-P

\*+5V and +3.3V total output not exceed 220W  
 \*+3.3V, +5V, and +12V total output cannot exceed 630W(+12V Outputs shall not exceed 45A)  
 \* This subject power supply is 650W

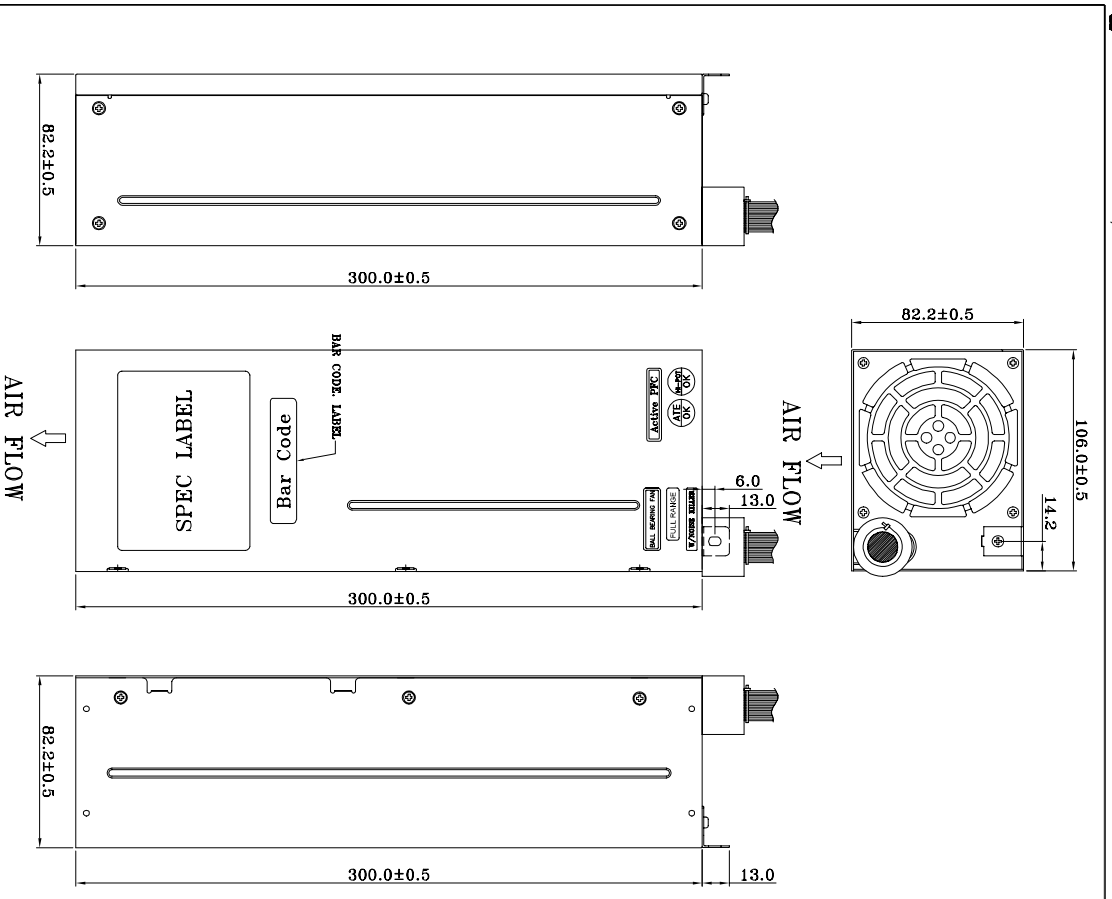
**Sparkle Power Inc.**  
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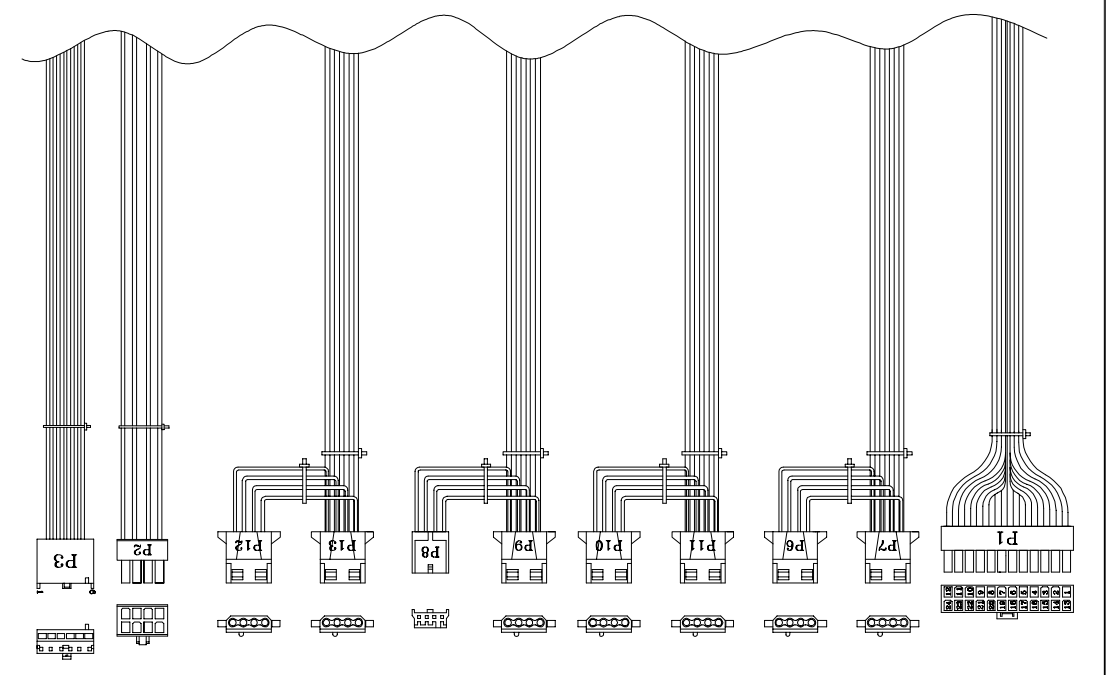
**Specification**

- **Temperature Range:** Operating: 0°C ~ +50°C on full load; storage & shipping: -20°C ~ +70°C
- **Humidity:** 5 ~ 95% on operating and storage
- **Dielectric Withstand:** Input to frame ground 1800 VAC for 1 second
- **Efficiency:** 70% at minimum measured at nominal AC 115VAC with maximum load on all outputs
- **Rise time:** Less than 70ms
- **Hold-up Time:** 20ms minimum at nominal input voltage
- **Power Good Signal:** Power on delay time 100 ~ 500ms, off delay 1ms minimum (TTL and CMOS compatible)
- **Leakage Current:** Not exceed 3.5mA at 264Vac, 50Hz
- **MTBF:** 100,000 hours on maximum load at +25°C
- **Dimensions (LxWxH):** 300x106x82.2mm/11.8x4.2x3.2inch

**Sparkle Power Inc.**  
**Los Angeles Office**  
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UNIT:mm



REF. ID.	PIN NO.	SIGNAL	WIRE COLOR	GAUGE	CONNECTOR TYPE	CABLE LENGTH
P1	1	+3.3VDC	ORANGE	18	MOLEX 39-01-2240 or EQUIV.	500±15mm
	2	+3.3VDC	ORANGE	18		
	3	COM	BLACK	18		
	4	+5VDC	RED	18		
	5	COM	BLACK	18		
	6	+5VDC	RED	18		
	7	COM	BLACK	18		
	8	PW-OK	GRAY	18		
	9	+5VSB	PURPLE	18		
	10	+12V3	YELLOW/BLUE	18		
	11	+12V3	YELLOW/BLUE	18		
	12	+3.3VDC	ORANGE	18		
	13	+3.3VDC	ORANGE	18		
P2	1	+12V1	YELLOW/BLACK	18	MOLEX 39-01-2080 or EQUIV.	500±15mm
	2	+12V2	YELLOW	18		
	3	COM	BLACK	18		
	4	COM	BLACK	18		
	5	+12V1	YELLOW/BLACK	18		
	6	+12V1	YELLOW/BLACK	18		
	7	+12V2	YELLOW	18		
	8	+12V2	YELLOW	18		
	9	COM	BLACK	18		
	10	COM	BLACK	18		
P3	1	COM	BLACK	18	MOLEX 90331 or EQUIV.	500±15mm
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+3.3VDC	ORANGE	18		
P8	1	+12V3	YELLOW/BLUE	22	AMP 1-480424-0 or EQUIV.	200±10mm
	2	COM	BLACK	22		
	3	COM	BLACK	22		
	4	+5V	RED	22		
P9	1	+12V3	YELLOW/BLUE	18	AMP 1-480424-0 or EQUIV.	450±15mm
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+5V	RED	18		
P10	1	+12V4	YELLOW/WHITE	18	AMP 1-480424-0 or EQUIV.	200±10mm
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+5V	RED	18		
P11	1	+12V4	YELLOW/WHITE	18	AMP 1-480424-0 or EQUIV.	450±15mm
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+5V	RED	18		
P12	1	+12V4	YELLOW/WHITE	18	AMP 1-480424-0 or EQUIV.	450±15mm
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+5V	RED	18		
P13	1	+12V4	YELLOW/WHITE	18	AMP 1-480424-0 or EQUIV.	450±15mm
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+5V	RED	18		
P14	1	PS-ON	GREEN	18	AMP 1-480424-0 or EQUIV.	450±15mm
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+5V	RED	18		
P15	1	PS-ON	GREEN	18	AMP 1-480424-0 or EQUIV.	450±15mm
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+5V	RED	18		
P16	1	PS-ON	GREEN	18	AMP 1-480424-0 or EQUIV.	450±15mm
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+5V	RED	18		
P17	1	PS-ON	GREEN	18	AMP 1-480424-0 or EQUIV.	450±15mm
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+5V	RED	18		
P18	1	PS-ON	GREEN	18	AMP 1-480424-0 or EQUIV.	450±15mm
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+5V	RED	18		
P19	1	PS-ON	GREEN	18	AMP 1-480424-0 or EQUIV.	450±15mm
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+5V	RED	18		
P20	1	PS-ON	GREEN	18	AMP 1-480424-0 or EQUIV.	450±15mm
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+5V	RED	18		
P21	1	PS-ON	GREEN	18	AMP 1-480424-0 or EQUIV.	450±15mm
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+5V	RED	18		
P22	1	PS-ON	GREEN	18	AMP 1-480424-0 or EQUIV.	450±15mm
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+5V	RED	18		
P23	1	PS-ON	GREEN	18	AMP 1-480424-0 or EQUIV.	450±15mm
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+5V	RED	18		
P24	1	PS-ON	GREEN	18	AMP 1-480424-0 or EQUIV.	450±15mm
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+5V	RED	18		

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

MODEL NO. : FSP650-802U(S033)	TITLE: ASSY	SHEET: 1 OF 1	REV: 01
R&D	PE	DRAWN	DATE
INTERIOR COUNTERSIGN:			Aug.26.2005
			黃鈺婷

FSP P/N.:9PB6500206  
 SPI P/N.:FSP650-802UR

Mechanical Drawing(外觀/機構圖)表單編號700P-0111