



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



**SPI4002UB**  
**(RoHS Compliant)**  
**400 Watts ATX/EPS12V 2U Switching Power Supply**

**Features**

- Complied with ATX12V/ EPS12V 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 : UL,CSA22.2 NO or CUL 60950-1, TUV or VDE, EMC,FCC ,CE, CB report.

**Input Characteristics**

**Input Range:** 90 ~ 264Vac, Full Range Input  
**Frequency:** 47 ~ 63Hz  
**Input Current:** Max 6A @ 115Vac, 3A @ 230Vac  
**Inrush Current:** 80A @ 115Vac, 120A @ 230Vac at cold start

**Output Characteristics**

Output Voltage	Minimum Load	Normal Load	Maximum Load	Load Reg.	Ripple & Noise
+3.3V	0.5A	10A	20A	± 5%-4%	50mV P-P
+5V	0.5A	10A	20A	± 5%-4%	50mV P-P
+12V1	0.2A	9A	18A	± 5%-5%	120mV P-P
+12V2	0.5A	8A	16A	± 5%-5%	120mV P-P
-12V	0.0A	0.25A	0.5A	± 9%-5%	120mV P-P
-5V	0.0A	0.1A	0.2A	± 5%-5%	100mV P-P
+5Vsb	0.1A	1.25A	2.5A	± 5%-4%	50mV P-P

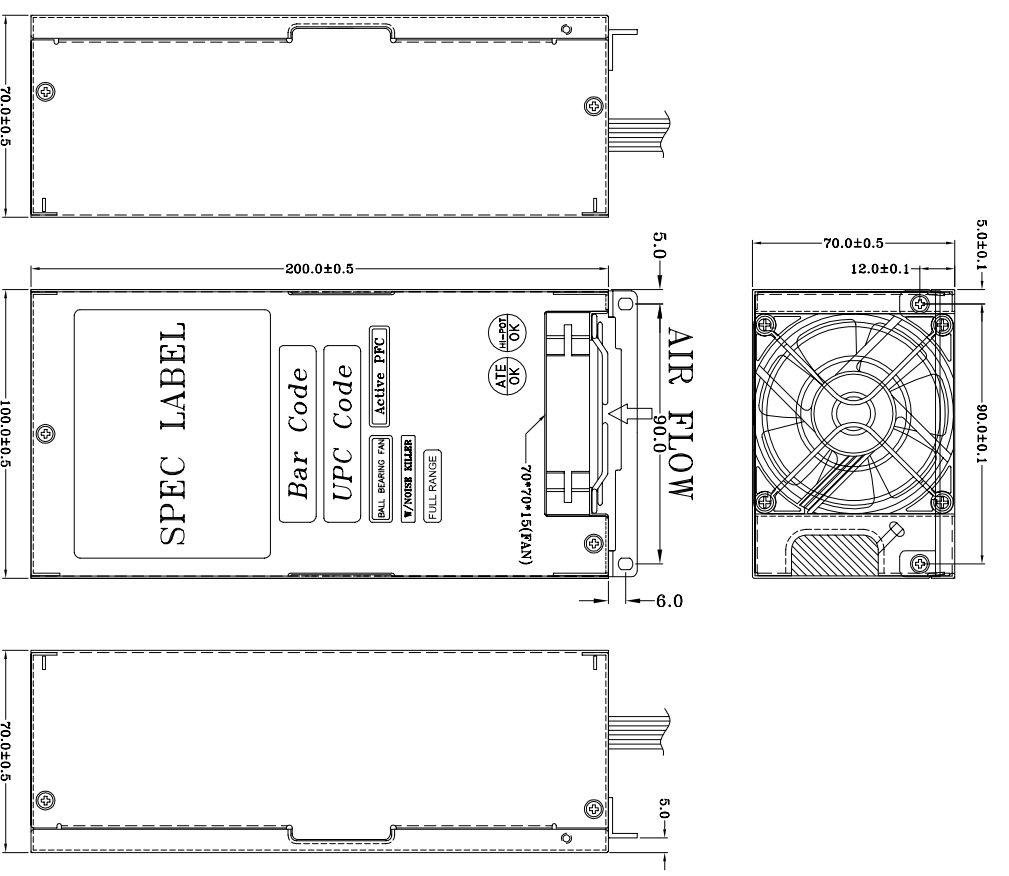
\*+3.3V and +5V total output not exceed 140W  
 \*+12V1 and +12V2 total output not exceed 30A  
 \* Total output for this subject power supply is 400W

**Specification**

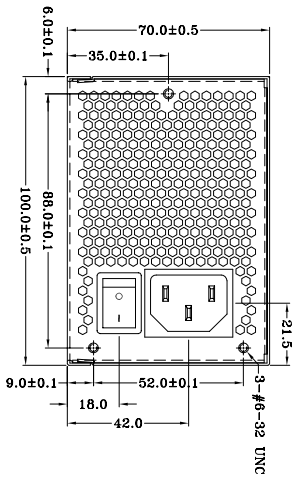
- **Temperature Range:** Operating: 0°C ~ +50°C on full load; storage & shipping: -20°C ~ +80°C
- **Humidity:** 5-95% on operating,5- 95% on storage
- **Dielectric Withstand:** Primary frame ground 1800V AC for 1 second
- **Efficiency:** 70% at minimum measured at nominal AC main voltage and frequency with maximum load on all output
- **Rise time:** Less than 50ms
- **Hold-up Time:** 18 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):** 200x100x70mm /7.9x3.9x 2.7 inch

**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

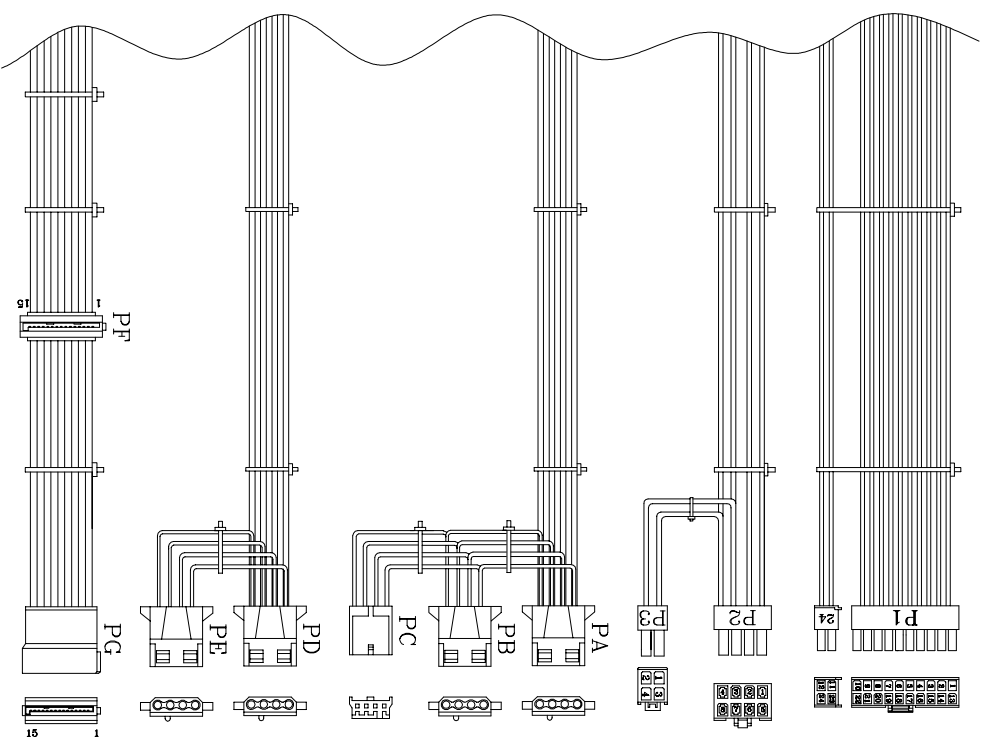


UNIT:mm



FSP研發部  
96.11.16  
暫用文件

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



REF. ID.	PN	SIGNAL	WIRE COLOR	GAUGE	CONNECTOR TYPE	CABLE LENGTH
P1	1	+3.3VDC	ORANGE	18	J17	500±15mm
	2	+3.3VDC	ORANGE	18	C4202H02	
	3	COM	BLACK	18	-A20P+	
	4	+5VDC	RED	18	C4202H02	
	5	COM	BLACK	18	-A4P+	
P2	6	+5VDC	RED	18	OR EQUIV	
	7	COM	BLACK	18		
	8	PR-OK	GRAY	18		
	9	+5V8B	PURPLE	18		
	10	+12V2	YELLOW	18		
	11	+12V2	YELLOW	18		
	12	+3.3VDC	ORANGE	18		
	13	+3.3VDC	ORANGE	18		
	14	-12VDC	BBLUE	18		
	15	COM	BLACK	18		
P3	16	PS-ON	GREEN	18		
	17	COM	BLACK	18		
	18	COM	BLACK	18		
	19	COM	BLACK	18		
	20	-5V	WHITE	18		
	21	+5VDC	RED	18		
	22	+5VDC	RED	18		
	23	+5VDC	RED	18		
	24	COM	BLACK	18		
	25	COM	BLACK	18		
PA	1	COM	BLACK	18	MOLEX 39-01-500±15mm	
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	COM	BLACK	18	2080 or EQUIV.	
PB	1	+12V1	YELLOW/BLACK	18		
	2	+12V1	YELLOW/BLACK	18		
	3	COM	BLACK	18		
	4	+12V2	YELLOW	18		
PC	1	COM	BLACK	18	MOLEX 39-01-100±10mm or EQUIV.	
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+5V	RED	22		
PD	1	+12V2	YELLOW	18	AMP 1-460424-0150±10mm or EQUIV.	
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+5V	RED	18		
PE	1	+12V2	YELLOW	18	AMP 1-460424-0150±10mm or EQUIV.	
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	+5V	RED	22		
PF	1	+12V2	YELLOW	18	AMP 1-460424-0150±10mm or EQUIV.	
	2	COM	BLACK	18		
	3	+5V	RED	18		
	4	COM	BLACK	18		
PG	1	+3.3VDC	ORANGE	18	CL1271HS0 500±15mm or EQUIV.	
	2	COM	BLACK	18		
	3	COM	BLACK	22		
	4	+5V	RED	22		
	5	+3.3VDC	ORANGE	18	CL1270H00 200±10mm or EQUIV.	

FSP P/N.:9PA400\*\*\*\*  
SPI P/N.:SPI4002UB-B204

MODEL NO. : SPI4002UB	TITLE: ASSY	SHEET: 1 OF 1	REV:01
R&D	PE	DRAWN	DATE
INTERIOR COUNTERSIGN:			Nov.16.2007
			樂家龍