



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



SPI600ACAG

(80PLUS Gold, RoHS Compliant)

**600 Watts ATX12V 2.3 Switching Power Supply
Meet 2010 ErP**

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.

Input Characteristics

Input Range: 90 ~ 264Vac, Full Range Input

Frequency: 47 ~ 63Hz

Input Current: Max 6A @ 115Vac, 3A @ 230Vac

Inrush Current: No damage.

Output Characteristics

	MINIMUM LOAD	NORMAL LOAD	MAXIMUM LOAD	LOAD REG.	LINE REG.	RIPPLE & NOISE
+3.3V	0.1A	10A	24/6A	±5%	±1%	50mV P-P
+5V	0.2A	10A	12.1/24A	±5%	±1%	50mV P-P
+12V1	0.1A	8A	18A	±5%	±1%	120mV P-P
+12V2	0A	8A	18A	±5%	±1%	120mV P-P
+12V3	0A	8A	18A	±5%	±1%	120mV P-P
+12V4	0A	8A	18A	±5%	±1%	120mV P-P
-12V	0A	0.25A	0.5A	±10%	±2%	200mV P-P
+5Vsb	0A	1.5A	3.5A	±5%	±1%	50mV P-P

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:** 87% minimum, typical up to 90%
- **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):** 140x150x85.8mm / 5.5x5.9x3.4inch

*+12V1,2,3,4 Peak current is 20A (less than 10mS)

*+5V_{sb} peak current is 4A (less than 0.5S)

*+3.3V & +5V total output does not exceed 140W

when +5V is loaded to 24A, then +3.3V maximum load is 6A

when +3.3V is loaded to 24A, then +5V maximum load is 12.1A

*+12V1 & +12V2 & +12V3 & +12V4 total output does not exceed 540W(45A)

Sparkle Power Inc.

Main Office

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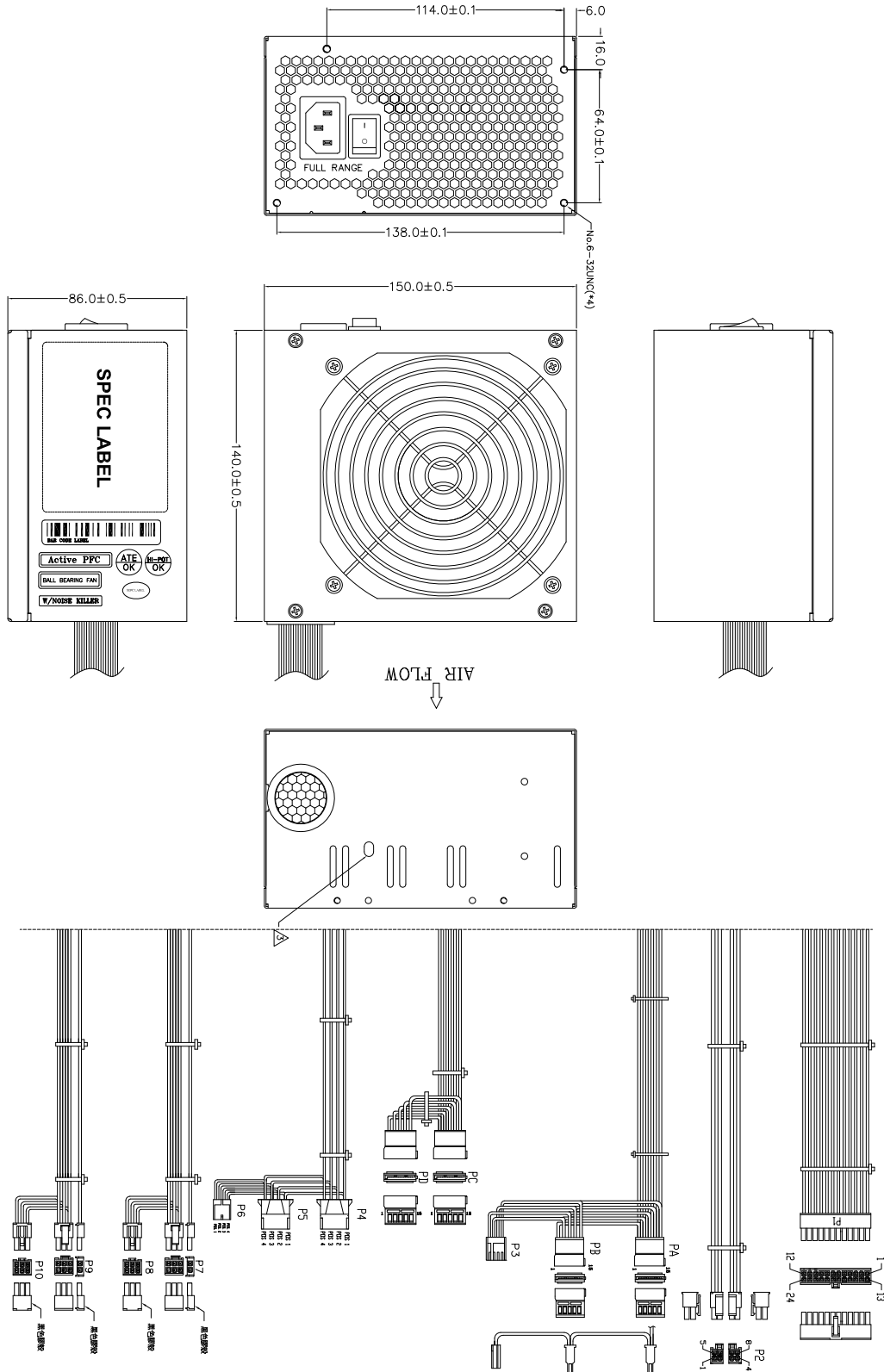
Los Angeles Office

17071 Green Drive
City of Industry, CA 91745
TEL: 626-839-7180
FAX: 626-839-3395



REF ID	REF	SYMBOL	WIRE COLOR	WIRE GAUGE	CONDUCTOR TYPE	CLAMP LENGTH
P1	1	+3.30V	ORANGE	18	SP-01-0400	500 ±0.5mm
	2	+3.30V	ORANGE	18	SP-01-0400	500 ±0.5mm
	3	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	4	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	5	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	6	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	7	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	8	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	9	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	10	COM	BLACK	18	SP-01-0400	500 ±0.5mm
P2	1	+12V	YELLOW	18	SP-01-0400	500 ±0.5mm
	2	+12V	YELLOW	18	SP-01-0400	500 ±0.5mm
	3	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	4	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	5	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	6	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	7	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	8	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	9	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	10	COM	BLACK	18	SP-01-0400	500 ±0.5mm
P3	1	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	2	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	3	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	4	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	5	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	6	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	7	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	8	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	9	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	10	COM	BLACK	18	SP-01-0400	500 ±0.5mm
P4	1	+12V	YELLOW	18	SP-01-0400	500 ±0.5mm
	2	+12V	YELLOW	18	SP-01-0400	500 ±0.5mm
	3	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	4	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	5	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	6	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	7	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	8	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	9	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	10	COM	BLACK	18	SP-01-0400	500 ±0.5mm
P5	1	+12V	YELLOW	18	SP-01-0400	500 ±0.5mm
	2	+12V	YELLOW	18	SP-01-0400	500 ±0.5mm
	3	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	4	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	5	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	6	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	7	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	8	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	9	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	10	COM	BLACK	18	SP-01-0400	500 ±0.5mm
P6	1	+12V	YELLOW	18	SP-01-0400	500 ±0.5mm
	2	+12V	YELLOW	18	SP-01-0400	500 ±0.5mm
	3	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	4	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	5	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	6	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	7	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	8	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	9	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	10	COM	BLACK	18	SP-01-0400	500 ±0.5mm
P7	1	+12V	YELLOW	18	SP-01-0400	500 ±0.5mm
	2	+12V	YELLOW	18	SP-01-0400	500 ±0.5mm
	3	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	4	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	5	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	6	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	7	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	8	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	9	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	10	COM	BLACK	18	SP-01-0400	500 ±0.5mm
P8	1	+12V	YELLOW	18	SP-01-0400	500 ±0.5mm
	2	+12V	YELLOW	18	SP-01-0400	500 ±0.5mm
	3	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	4	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	5	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	6	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	7	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	8	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	9	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	10	COM	BLACK	18	SP-01-0400	500 ±0.5mm
P10	1	+12V	YELLOW	18	SP-01-0400	500 ±0.5mm
	2	+12V	YELLOW	18	SP-01-0400	500 ±0.5mm
	3	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	4	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	5	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	6	+5.0V	RED	18	SP-01-0400	500 ±0.5mm
	7	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	8	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	9	COM	BLACK	18	SP-01-0400	500 ±0.5mm
	10	COM	BLACK	18	SP-01-0400	500 ±0.5mm

UNIT:mm



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

MODEL NO. :	R&D(1)	PE	TITLE: ASSY	SHEET: 1 OF 1	REV:03
			DRAWN	DATE	
				NDV.10.2010	

Mechanical Drawing(外觀/機構圖)表單編號7000P-0111