



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



SPI650ACAG

(80PLUS Gold, RoHS Compliant)

**650 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	12A	26/6A	±5%	±1%	50mV P-P
+5V	0.2A	12A	12.8/26A	±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 150W
when +5V is loaded to 26A, then +3.3V maximum load is 6A
when +3.3V is loaded to 26A, then +5V maximum load is 12.8A

*+12V1 & +12V2 & +12V3 & +12V4 total output does not exceed 600W(50A)

Sparkle Power Inc.

Main Office

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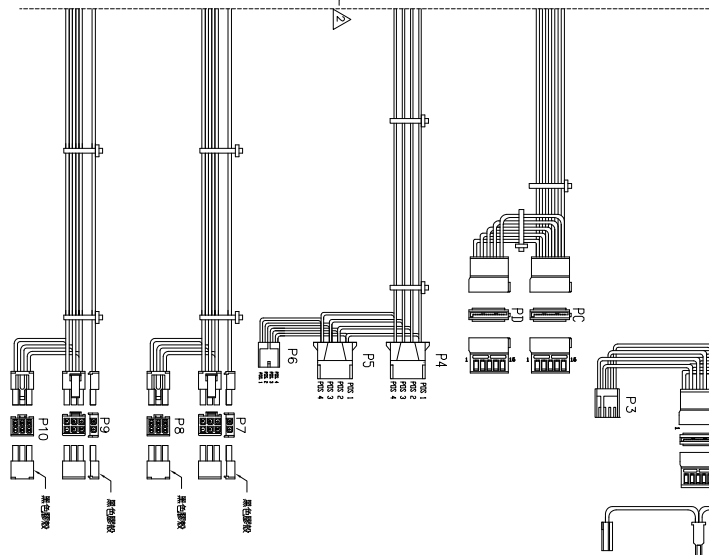
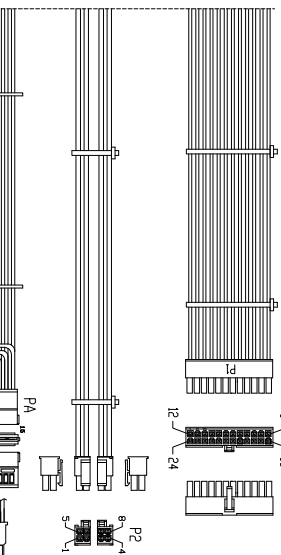
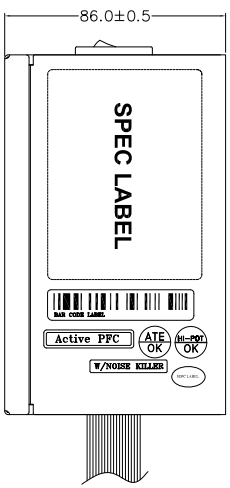
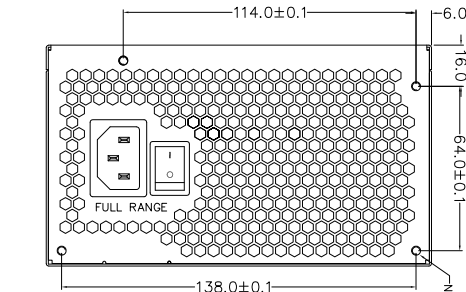
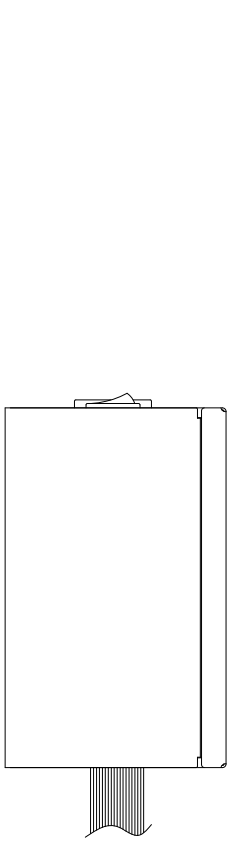
Sparkle Power Inc.

Los Angeles Office

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REF. ID. NO.	SIGNAL	WIRE COLOR	GAUGE	CONDUCTOR TYPE	CABLE LENGTH
P1	1	+3.3VDC ORANGE	18	WATER-PROOF COIL WIRE	500 ± 38 mm
	2	+3.3VDC ORANGE	18	COIL WIRE	
	3	+5VDC RED	18	COIL WIRE	
	4	+5VDC RED	18	COIL WIRE	
	5	COM BLACK	18		
	6	COM BLACK	18		
P2	1	+5VDC RED	18		500 ± 38 mm
	2	COM BLACK	18		
	3	COM BLACK	18		
	4	COM BLACK	18		
	5	+12VDC YEL./BLACK	18		
	6	+12VDC YEL./BLACK	18		
	7	+12VDC YEL./BLACK	18		
	8	+12VDC YEL./BLACK	18		
	9	+12VDC YEL./BLACK	18		
	10	+12VDC YEL./BLACK	18		
P3	1	+5VDC RED	18		100 ± 10mm
	2	COM BLACK	18		
	3	COM BLACK	18		
	4	COM BLACK	18		
	5	+12VDC YEL./BLACK	18		
	6	+12VDC YEL./BLACK	18		
	7	+12VDC YEL./BLACK	18		
	8	+12VDC YEL./BLACK	18		
	9	+12VDC YEL./BLACK	18		
	10	+12VDC YEL./BLACK	18		
	11	+12VDC YEL./BLACK	18		
	12	+12VDC YEL./BLACK	18		
	13	+12VDC YEL./BLACK	18		
	P4	1	+5VDC RED	18	
2		COM BLACK	18		
3		COM BLACK	18		
4		COM BLACK	18		
5		+12VDC YEL./BLACK	18		
6		+12VDC YEL./BLACK	18		
P5	1	+5VDC RED	18		100 ± 10mm
	2	COM BLACK	18		
	3	COM BLACK	18		
	4	COM BLACK	18		
	5	+12VDC YEL./BLACK	18		
	6	+12VDC YEL./BLACK	18		
P6	1	+5VDC RED	18		100 ± 10mm
	2	COM BLACK	18		
	3	COM BLACK	18		
	4	COM BLACK	18		
	5	+12VDC YEL./BLACK	18		
	6	+12VDC YEL./BLACK	18		
P7	1	+5VDC RED	18		100 ± 10mm
	2	COM BLACK	18		
	3	COM BLACK	18		
	4	COM BLACK	18		
	5	+12VDC YEL./BLACK	18		
	6	+12VDC YEL./BLACK	18		
P8	1	+5VDC RED	18		100 ± 10mm
	2	COM BLACK	18		
	3	COM BLACK	18		
	4	COM BLACK	18		
	5	+12VDC YEL./BLACK	18		
	6	+12VDC YEL./BLACK	18		
P9	1	+5VDC RED	18		100 ± 10mm
	2	COM BLACK	18		
	3	COM BLACK	18		
	4	COM BLACK	18		
	5	+12VDC YEL./BLACK	18		
	6	+12VDC YEL./BLACK	18		
P10	1	+5VDC RED	18		100 ± 10mm
	2	COM BLACK	18		
	3	COM BLACK	18		
	4	COM BLACK	18		
	5	+12VDC YEL./BLACK	18		
	6	+12VDC YEL./BLACK	18		

UNIT:mm



- NOTE:
1. ALL THE LENGTH OF OUTPUT WIRES EXCLUDE HOUSING.
 2. 產地標識作業務指示加印。

SPI P/N: SPI650ACAG

MODEL NO. : SPI650ACAG

TITLE: ASSY

DRAWN

SHEET: 1 OF 1 REV:02

R&D(1)

PE

DRAWN

DATE

NDV.10.2010

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