



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



## SPI700ACAG

**(80PLUS Gold, RoHS Compliant)**

**700 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   |
|--------------|--------------|--------------|-----------------|-------------|------------|------------------|
| <b>+3.3V</b> | <b>0.1A</b>  | <b>12A</b>   | <b>28/6A</b>    | <b>±5%</b>  | <b>±1%</b> | <b>50mV P-P</b>  |
| <b>+5V</b>   | <b>0.2A</b>  | <b>12A</b>   | <b>13.5/28A</b> | <b>±5%</b>  | <b>±1%</b> | <b>50mV P-P</b>  |
| <b>+12V1</b> | <b>0.1A</b>  | <b>8A</b>    | <b>18A</b>      | <b>±5%</b>  | <b>±1%</b> | <b>120mV P-P</b> |
| <b>+12V2</b> | <b>0A</b>    | <b>8A</b>    | <b>18A</b>      | <b>±5%</b>  | <b>±1%</b> | <b>120mV P-P</b> |
| <b>+12V3</b> | <b>0A</b>    | <b>8A</b>    | <b>18A</b>      | <b>±5%</b>  | <b>±1%</b> | <b>120mV P-P</b> |
| <b>+12V4</b> | <b>0A</b>    | <b>8A</b>    | <b>18A</b>      | <b>±5%</b>  | <b>±1%</b> | <b>120mV P-P</b> |
| <b>-12V</b>  | <b>0A</b>    | <b>0.25A</b> | <b>0.5A</b>     | <b>±10%</b> | <b>±2%</b> | <b>200mV P-P</b> |
| <b>+5Vsb</b> | <b>0A</b>    | <b>1.5A</b>  | <b>3.5A</b>     | <b>±5%</b>  | <b>±1%</b> | <b>50mV P-P</b>  |

### 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<sub>AC</sub> 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<sub>sb</sub> peak current is 4A (less than 0.5S)

\*+3.3V & +5V total output does not exceed 160W  
when +5V is loaded to 28A, then +3.3V maximum load is 6A  
when +3.3V is loaded to 28A, then +5V maximum load is 13.5A

\*+12V1 & +12V2 & +12V3 & +12V4 total output does not exceed 672W(56A)

**Sparkle Power Inc.**

**Main Office**

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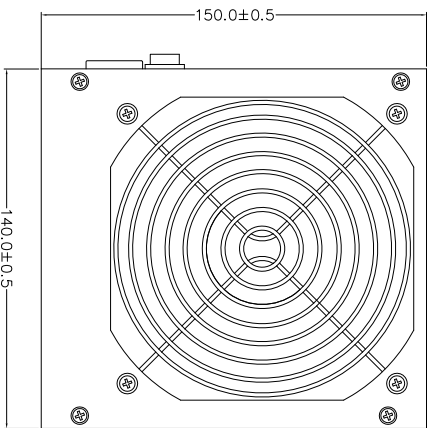
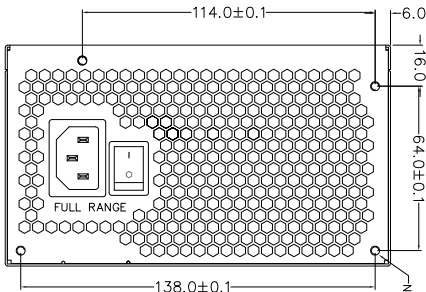
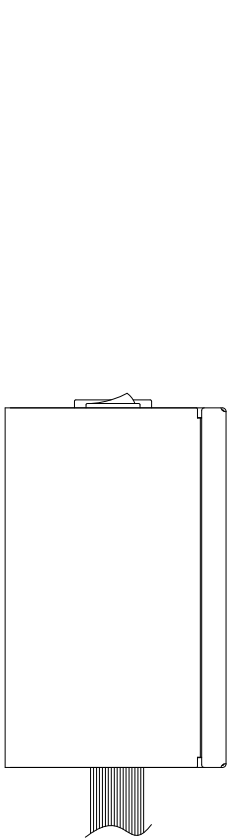
**Sparkle Power Inc.**

**Los Angeles Office**

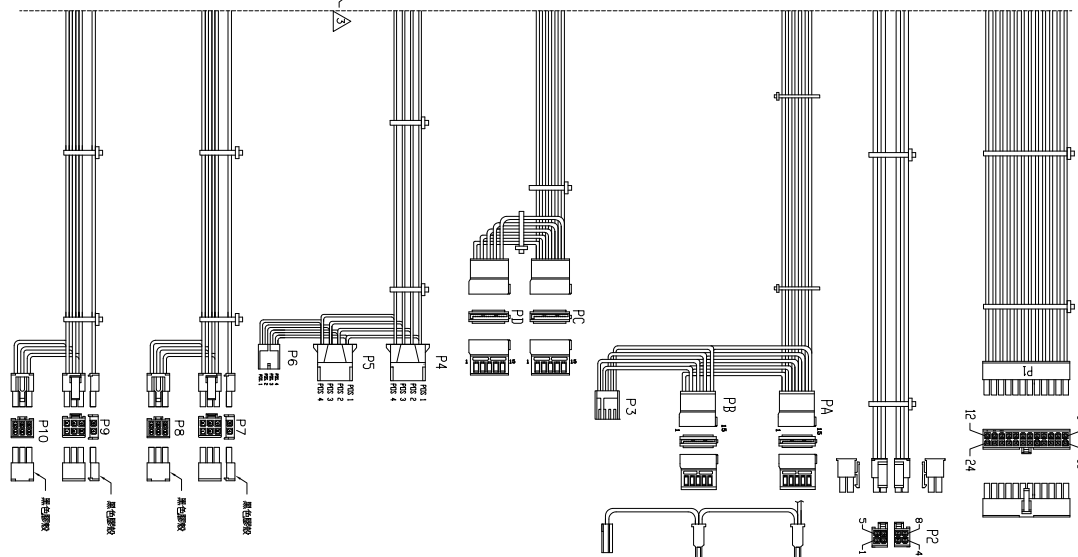
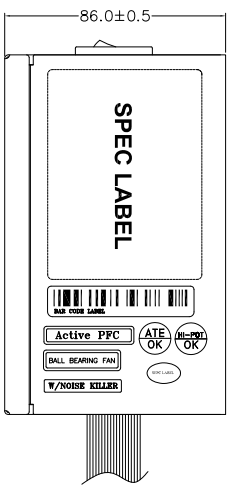
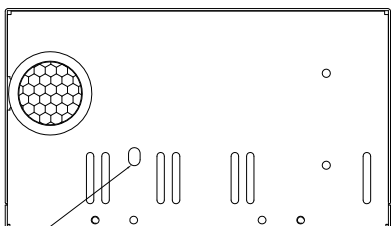
17071 Green Drive  
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| REF. ID. NO. | SIGNAL | WIRE COLOR        | FUNCTION             | CABLE LENGTH |
|--------------|--------|-------------------|----------------------|--------------|
| P1           | 1      | +3.3VDC ORANGE    | 18 Wires 500 ± 28 mm | 500 ± 28 mm  |
|              | 2      | +5VDC ORANGE      | 18 Wires 500 ± 28 mm |              |
|              | 3      | RED               | 18 Wires 500 ± 28 mm |              |
|              | 4      | +5VDC RED         | 18 Wires 500 ± 28 mm |              |
|              | 5      | COIL BLACK        | 18 Wires 500 ± 28 mm |              |
|              | 6      | +5VDC RED         | 18 Wires 500 ± 28 mm |              |
| P2           | 1      | COIL BLACK        | 18 Wires 500 ± 28 mm | 500 ± 28 mm  |
|              | 2      | COIL BLACK        | 18 Wires 500 ± 28 mm |              |
|              | 3      | COIL BLACK        | 18 Wires 500 ± 28 mm |              |
|              | 4      | COIL BLACK        | 18 Wires 500 ± 28 mm |              |
|              | 1      | +12VDC YEL./BLACK | 18 Wires 500 ± 28 mm |              |
|              | 2      | +12VDC YEL./BLACK | 18 Wires 500 ± 28 mm |              |
|              | 3      | +12VDC YEL./BLACK | 18 Wires 500 ± 28 mm |              |
|              | 4      | +12VDC YEL./BLACK | 18 Wires 500 ± 28 mm |              |
|              | 1      | +3.3VDC ORANGE    | 18 Wires 500 ± 28 mm |              |
|              | 2      | +3.3VDC ORANGE    | 18 Wires 500 ± 28 mm |              |
| P3           | 1      | +5V RED           | 22 Wires 100 ± 10mm  | 100 ± 10mm   |
|              | 2      | COIL BLACK        | 22 Wires 100 ± 10mm  |              |
|              | 3      | COIL BLACK        | 22 Wires 100 ± 10mm  |              |
|              | 4      | COIL BLACK        | 22 Wires 100 ± 10mm  |              |
| P4           | 1      | +12V YEL/BLU      | 18 Wires 550 ± 28 mm | 550 ± 28 mm  |
|              | 2      | COIL BLACK        | 18 Wires 550 ± 28 mm |              |
| P5           | 1      | +5V RED           | 18 Wires 100 ± 10mm  | 100 ± 10mm   |
|              | 2      | COIL BLACK        | 18 Wires 100 ± 10mm  |              |
| P6           | 1      | +12V YEL/BLU      | 22 Wires 100 ± 10mm  | 100 ± 10mm   |
|              | 2      | COIL BLACK        | 22 Wires 100 ± 10mm  |              |
| P7           | 1      | +12V YEL./WHITE   | 18 Wires 100 ± 10mm  | 100 ± 10mm   |
|              | 2      | COIL BLACK        | 18 Wires 100 ± 10mm  |              |
| P8           | 1      | +12V YEL./WHITE   | 18 Wires 100 ± 10mm  | 100 ± 10mm   |
|              | 2      | COIL BLACK        | 18 Wires 100 ± 10mm  |              |
| P9           | 1      | +12V YEL./BLU     | 18 Wires 450 ± 28 mm | 450 ± 28 mm  |
|              | 2      | +12V YEL./BLU     | 18 Wires 450 ± 28 mm |              |
|              | 3      | +12V YEL./BLU     | 18 Wires 450 ± 28 mm |              |
|              | 4      | COIL BLACK        | 18 Wires 450 ± 28 mm |              |
|              | 5      | COIL BLACK        | 18 Wires 450 ± 28 mm |              |
|              | 6      | COIL BLACK        | 18 Wires 450 ± 28 mm |              |
| P10          | 1      | +12V YEL./BLU     | 20 Wires 100 ± 10mm  | 100 ± 10mm   |
|              | 2      | +12V YEL./BLU     | 20 Wires 100 ± 10mm  |              |
|              | 3      | +12V YEL./BLU     | 20 Wires 100 ± 10mm  |              |
|              | 4      | COIL BLACK        | 20 Wires 100 ± 10mm  |              |

UNIT:mm



AIR FLOW



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

SPI P/N.:SPI700ACAG

MODEL NO. : SPI700ACAG TITLE: ASSY

R&D(1) PE

DRAWN

DATE

NDV.10.2010

SHEET: 1 OF 1 REV:03

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