



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



## R-SPI650ACAG

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

**650 Watts ATX12V V2.3 EPS12V V2.92 Switching Power Supply (Meet 2013 ErP)**

### Features

- Complied with ATX12V V2.3 EPS12V V2.92 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 10A@100-127Vrms/60Hz  
Max 5A@200-240Vrms/50Hz

**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<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 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**

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