



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

**FSP500-80MR1 (Active PFC & RoHS Compliant)**  
**500 Watts, 1+1 Redundant Switching Power Supply**

**Features**

- Hot Swappable/Hot Plug-able 1+1 Redundant
- Complied with ATX, ATX12V and EPS12V standard
- Active Power Factor Correction (PFC) meet EN61000-3-2
- High efficiency and reliability
- Remote ON/OFF function
- Internal 12V DC fan included with Noise Killer (Fan speed control )
- Low noise and ripple
- Smart I<sup>2</sup>C Communication
- Led indication, Green for PS ok. Amber for PS OTP,OVP,OCP,UVP and Fan Fail
- Complies with FCC part 15 subpart J class B 115Vac operation, and CISPR 22 class B at 230Vac operation
- Output over voltage, short circuit, and over current protection
- 100% Hi-pot, ATE, and burn-in tested
- Re-settable power shut down
- Approved by UL60950, CSA C22.2 NO. 60950, TUV EN60950 or VDE EN60950, NEMKO EN60950 (CB Report), CE

**Input Characteristics**

**Input Range:** 90 ~ 264Vac (RMS), Full Range Input

**Frequency:** 47 ~ 63Hz

**Input Current:** 10A (RMS) @115Vac, 5A (RMS) @230Vac

**Inrush Current:**55A Max @115Vac,55A Max @230Vac cold start

**Output Characteristics**

| Output Voltage | Minimum Load | Maximum Load | Peak | Load Reg. | Line Reg. | Ripple & Noise |
|----------------|--------------|--------------|------|-----------|-----------|----------------|
| +3.3V          | 0.5A         | 24A          |      | ± 5%      | ± 1%      | 50mV P-P       |
| +5V            | 0.5A         | 24A          |      | ± 5%      | ± 1%      | 50mV P-P       |
| +12V1          | 0.5A         | 15A          | 17A  | ± 5%      | ± 1%      | 120mV P-P      |
| +12V2          | 0.5A         | 15A          | 17A  | ± 5%      | ± 1%      | 120mV P-P      |
| +12V3          | 0.5A         | 15A          | 17A  | ± 5%      | ± 1%      | 120mV P-P      |
| +12V4          | 0.5A         | 15A          | 17A  | ± 5%      | ± 1%      | 120mV P-P      |
| -12V           | 0.0A         | 0.3A         |      | +9%/-5%   | ± 2%      | 120mV P-P      |
| +5Vsb          | 0.1A         | 3.0A         |      | ± 5%      | ± 1%      | 50mV P-P       |

\*+5V and +3.3V total output not exceed 140W

\*+12V Max Current not exceed 36A.(360W)

\* This subject power supply is 500W

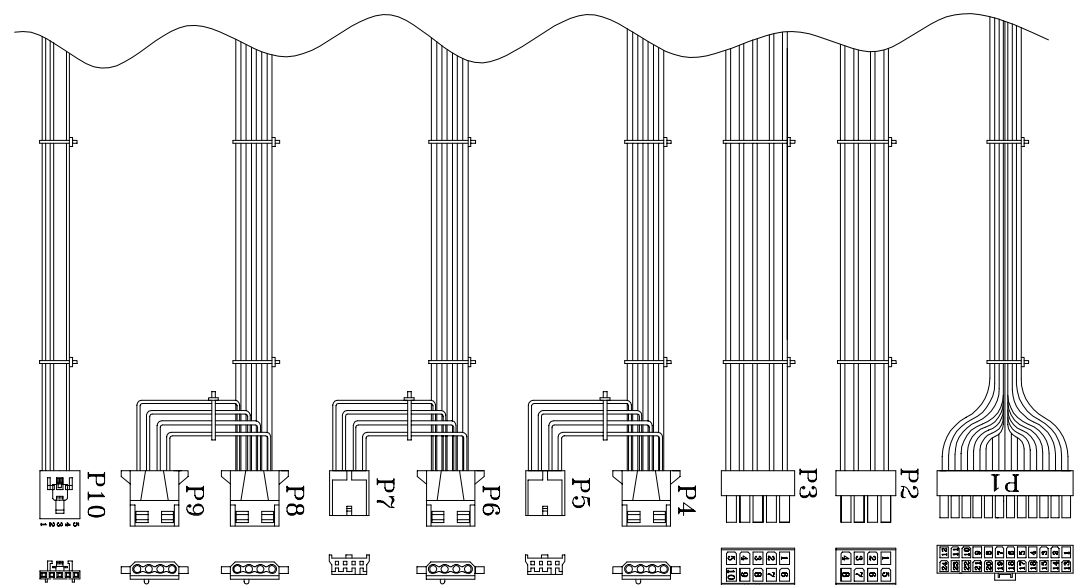
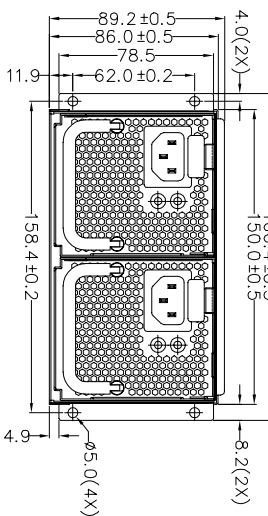
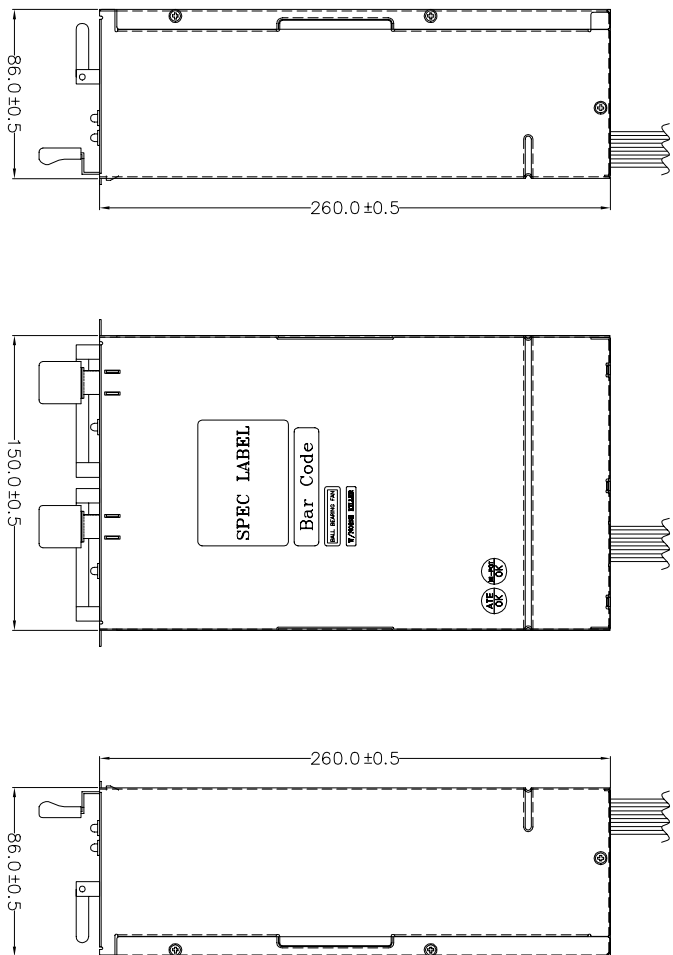
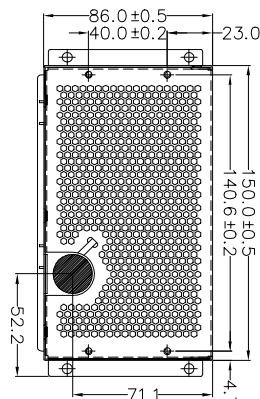


**Specification**

- **Temperature Range:** Operating: 0°C ~ +50°C on full load; storage & shipping: -40°C ~ +70°C
- **Humidity:** 5 ~ 95% on operating and storage
- **Dielectric Withstand:** Input to frame ground 1800 VAC for 1 second
- **Efficiency:** 70% at minimum measured at nominal AC 115VAC with maximum load on all outputs
- **Rise time:** Less than 70ms
- **Hold-up Time:** 20ms minimum at nominal input voltage
- **Power Good Signal:** Power on delay time 100 ~ 1000mS, off delay 1mS minimum (TTL and CMOS compatible)
- **Leakage Current:** Not exceed 3.5mA at 264Vac, 50Hz
- **MTBF:** 100,000 hours on maximum load at +25°C
- **Dimensions (LxWxH):**260x150x86mm/10.2x5.9x3.4inch

**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



| REF. ID. | PIN | SIGNAL    | WIRE       | GAUGE | CONNECTOR      | CABLE LENGTH |
|----------|-----|-----------|------------|-------|----------------|--------------|
| P1       | 1   | +3.3VDC   | ORANGE     | 18    | 10P18          | 500±15mm     |
|          | 2   | +3.3VDC   | ORANGE     | 18    | 10P18          |              |
|          | 3   | COM       | BLACK      | 18    | 2240 or EQUIV. |              |
|          | 4   | +5VDC     | RBD        | 18    |                |              |
|          | 5   | +5V sense | RBD        | 20    |                |              |
|          | 6   | COM       | BLACK      | 18    |                |              |
|          | 7   | COM       | BLACK      | 18    |                |              |
|          | 8   | PSN       | BLACK      | 18    |                |              |
|          | 9   | +5VSR     | PURPLE     | 20    |                |              |
|          | 10  | +12V3     | Yel./BLU   | 18    |                |              |
| P2       | 1   | +12V3     | Yel./BLU   | 18    |                |              |
|          | 2   | +12V3     | Yel./BLU   | 18    |                |              |
|          | 3   | +3.3VDC   | ORANGE     | 18    |                |              |
|          | 4   | +3.3VDC   | ORANGE     | 18    |                |              |
|          | 5   | +5VDC     | RBD        | 18    |                |              |
|          | 6   | COM       | BLACK      | 18    |                |              |
|          | 7   | COM       | BLACK      | 18    |                |              |
|          | 8   | PSN       | BLACK      | 18    |                |              |
|          | 9   | +5VSR     | PURPLE     | 20    |                |              |
|          | 10  | +12V3     | Yel./BLU   | 18    |                |              |
| P3       | 1   | +3.3VDC   | ORANGE     | 18    |                |              |
|          | 2   | +3.3VDC   | ORANGE     | 18    |                |              |
|          | 3   | COM       | BLACK      | 18    |                |              |
|          | 4   | COM       | BLACK      | 18    |                |              |
|          | 5   | COM       | BLACK      | 18    |                |              |
|          | 6   | COM       | BLACK      | 18    |                |              |
|          | 7   | COM       | BLACK      | 18    |                |              |
|          | 8   | COM       | BLACK      | 18    |                |              |
|          | 9   | COM       | BLACK      | 18    |                |              |
|          | 10  | COM       | BLACK      | 18    |                |              |
| P4       | 1   | +5VDC     | RBD        | 18    |                |              |
|          | 2   | +5VDC     | RBD        | 18    |                |              |
|          | 3   | COM       | BLACK      | 18    |                |              |
|          | 4   | COM       | BLACK      | 18    |                |              |
|          | 5   | COM       | BLACK      | 18    |                |              |
|          | 6   | COM       | BLACK      | 18    |                |              |
|          | 7   | COM       | BLACK      | 18    |                |              |
|          | 8   | COM       | BLACK      | 18    |                |              |
|          | 9   | COM       | BLACK      | 18    |                |              |
|          | 10  | COM       | BLACK      | 18    |                |              |
| P5       | 1   | +12V1     | Yel./BLACK | 18    |                |              |
|          | 2   | +12V2     | YELLOW     | 18    |                |              |
|          | 3   | +12V2     | YELLOW     | 18    |                |              |
|          | 4   | COM       | BLACK      | 18    |                |              |
|          | 5   | COM       | BLACK      | 18    |                |              |
|          | 6   | COM       | BLACK      | 18    |                |              |
|          | 7   | COM       | BLACK      | 18    |                |              |
|          | 8   | COM       | BLACK      | 18    |                |              |
|          | 9   | COM       | BLACK      | 18    |                |              |
|          | 10  | COM       | BLACK      | 18    |                |              |
| P6       | 1   | +5V       | RBD        | 18    |                |              |
|          | 2   | +5V       | RBD        | 18    |                |              |
|          | 3   | COM       | BLACK      | 18    |                |              |
|          | 4   | COM       | BLACK      | 18    |                |              |
|          | 5   | COM       | BLACK      | 18    |                |              |
|          | 6   | COM       | BLACK      | 18    |                |              |
|          | 7   | COM       | BLACK      | 18    |                |              |
|          | 8   | COM       | BLACK      | 18    |                |              |
|          | 9   | COM       | BLACK      | 18    |                |              |
|          | 10  | COM       | BLACK      | 18    |                |              |
| P7       | 1   | +12V4     | Yel./WHITE | 18    |                |              |
|          | 2   | +12V4     | Yel./WHITE | 18    |                |              |
|          | 3   | COM       | BLACK      | 18    |                |              |
|          | 4   | +5V       | RBD        | 18    |                |              |
|          | 5   | +5V       | RBD        | 18    |                |              |
|          | 6   | COM       | BLACK      | 18    |                |              |
|          | 7   | COM       | BLACK      | 18    |                |              |
|          | 8   | COM       | BLACK      | 18    |                |              |
|          | 9   | COM       | BLACK      | 18    |                |              |
|          | 10  | COM       | BLACK      | 18    |                |              |
| P8       | 1   | +12V4     | Yel./WHITE | 18    |                |              |
|          | 2   | +12V4     | Yel./WHITE | 18    |                |              |
|          | 3   | COM       | BLACK      | 18    |                |              |
|          | 4   | +5V       | RBD        | 18    |                |              |
|          | 5   | +5V       | RBD        | 18    |                |              |
|          | 6   | COM       | BLACK      | 18    |                |              |
|          | 7   | COM       | BLACK      | 18    |                |              |
|          | 8   | COM       | BLACK      | 18    |                |              |
|          | 9   | COM       | BLACK      | 18    |                |              |
|          | 10  | COM       | BLACK      | 18    |                |              |
| P9       | 1   | +5V       | RBD        | 18    |                |              |
|          | 2   | COM       | BLACK      | 18    |                |              |
|          | 3   | COM       | BLACK      | 18    |                |              |
|          | 4   | +5V       | RBD        | 18    |                |              |
|          | 5   | +5V       | RBD        | 18    |                |              |
|          | 6   | COM       | BLACK      | 18    |                |              |
|          | 7   | COM       | BLACK      | 18    |                |              |
|          | 8   | COM       | BLACK      | 18    |                |              |
|          | 9   | COM       | BLACK      | 18    |                |              |
|          | 10  | COM       | BLACK      | 18    |                |              |
| P10      | 1   | SDA       | BLU        | 22    |                |              |
|          | 2   | SCL       | WHT        | 22    |                |              |
|          | 3   | COM       | BLACK      | 22    |                |              |
|          | 4   | COM       | BLACK      | 22    |                |              |
|          | 5   | COM       | BLACK      | 22    |                |              |
|          | 6   | COM       | BLACK      | 22    |                |              |
|          | 7   | COM       | BLACK      | 22    |                |              |
|          | 8   | COM       | BLACK      | 22    |                |              |
|          | 9   | COM       | BLACK      | 22    |                |              |
|          | 10  | COM       | BLACK      | 22    |                |              |

P/N.:9PR5000100

NOTE:

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

UNIT:mm

|                          |             |               |             |
|--------------------------|-------------|---------------|-------------|
| MODEL NO. : FSP500-80MR1 | TITLE: ASSY | SHEET: 1 OF 1 | REV:01      |
| R&D                      | PE          | DRAWN         | DATE        |
| INTERIOR COUNTERSIGN:    |             |               | Oct.07.2005 |

樂家龍