Features SP-6B & SPS-6B:
- Small – Light – Efficient – Clean Power
- Universal AC Input 90-250vac
- Extraordinary Brown Out Capability, Operational from 60-264vac
- 12vdc 5A/24vdc 3A Switch Selectable
- Input and Output Surge Protection
- Precise Battery Regulation for Wet, AGM, and sealed Lead Acid Battery(s)
- Power Limited Output with Thermal Protection
- Reverse Battery Protection
- AC, Trouble, and DC LED's
- Battery Online, No Drop or Switch Over with AC Power Fail
- Quality Manufactured in the USA

SPS-6B Supervised Features:
- UL Listed Access Control & Burglar Alarm systems (UL294 UL603 & ULC5302)
- Relay “C” Contacts Indicates AC Power Status
- Relay “C” Contacts Indicates Low Battery
- Amber LED Indicates Power Normal
- Battery Cut-Off Relay Disconnects Battery(s) when Depleted
- DC Output is Class II Power Limited

Partial list of ordering examples:
- SP-6B 12v/24v Power supply/charger module
- SPS-6B Supervised Power supply/charger module
- -E (PS-1485) Mounted in 9”x14” Enclosure
- -1ACI (PDD-8ACI) With 1, 8 Output Access Control Interface
- -1PCI (PDD-8PCI) With 1, 8 Output Power Control Interface
- -FT (PDD-FT) With 1, EOL Fire Transfer Relay
- SPS-6ED8 SPS-6E with 8 fused class II outputs
- SPS-6EC8 SPS-6E with 8 PTC CB class II outputs

Description / Instructions

The SP & SPS-6B are heavy duty self contained, efficient, clean, linear performance off-line switching power supplies that are slide switch selectable between 12vdc at 5 Amps, and 24vdc at 3 Amps. Both have a precision lead acid battery(s) charger that obtains maximum battery life while providing a 12vdc or 24vdc uninterruptible power supply for access control security systems. The universal AC input allows these power supplies to be powered anywhere in the world without any alteration. The SP & SPS-6B have exceptional brown out capability with operation down to 60vac. The SP & SPS-6B have an extensive filtering system that provides linear output performance. The SP & SPS-6B are electronically protected against Battery(s) reversal, shorting or overloading. The DC output is power limited, and thermally protected. Each of these protective features will self-restore.

Before connecting load and battery(s), slide 12v/24v selector switch to desired voltage. **Caution**, damage can occur when switched with DC output load. Confirm proper voltage before connecting devices.

The SPS-6B is UL Listed and has the additional supervisory features of a Battery disconnect relay when battery(s) are depleted, a set of form “C” relay contacts that indicates AC power failure, a set of form “C” relay contacts to indicate low battery(s) and the DC...
### Specifications / Instructions

**AC Input: L, N, G - 3P Terminal block**

*Safety block with recessed hardware insulation that will accept up to 12AWG*

<table>
<thead>
<tr>
<th>L= Line, N= Neutral, and G = Ground</th>
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<tbody>
<tr>
<td>Optional 3 wire line cord P/N: ..............</td>
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<tr>
<td>AC Input (UL Rating) input/Watts ..........</td>
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<tr>
<td>AC Input Operational .....................</td>
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**AC LED Indicator (Next to AC Input Terminal Strip)**

The AC indicator is a bi-color green and red led. This LED off with AC at the terminals would indicate a blown fuse link. A blown AC fuse link would indicate catastrophic failure and must be returned to the factory for repair.

**DC Voltage Selector Switch**

The selector switch is on the right side of DC Output Terminal Block. As marked on board, up is 24vdc and down is 12vdc. **CAUTION** To prevent damage, remove DC load and battery(s) connections before switching selector switch up or down.

**DC Outputs: 2P Terminal block**

Note: There is up to a 10 second delay for initial turn on.

| Output voltage Nominal .................. | 12vdc/24vdc |
| Output voltage Typical .................. | AC on 13.70/27.40 |
| Output Voltage full operating range .. | 9.8–13.8vdc/19.6–28vdc |
| Output continuous current (UL rating) | 5A/3A |

**AC Line regulation**

| 85–264vac | .03%Typ |

**Load regulation no load to max**

| .25%Typ |

**Thermal runaway Protection**

| Yes |

**Switching Frequency**

| 132KHz |

**AC Status Output Relay: 3P Terminal block**

*Three position AC fail terminal block marked “NO, C, NC” are shown in the Normal, energized, AC ON condition.*

**Trouble Output: 3P Terminal block**

*Three position trouble terminal block marked “NO, C, NC” are shown in the Normal, energized, no trouble condition.*

**DC LED Indicator**

*(Adjacent to battery Header)*

- **Red:** Battery Charging: (Header plug marked [–Bat+])
- **Caution:** To avoid spark, apply AC before connecting battery cable to battery.

The battery charger is precision set to float charge 12V or 24V sealed or wet lead acid batteries. Two 12V batteries are connected in series for 24V. A 12” battery cable assembly is provided that plugs from module to battery. Red (+) 12vdc, Black (–) Neg.

**Trouble battery voltage (low)**

| 12.1vdc/24.2vdc |

**Battery Cutoff Relay**

On Green Normal

| 9.8vdc/19.6vdc |

**Battery Cutoff Voltage**

| 9.8vdc/19.6vdc |

**Battery Cutoff internal relay contacts**

| 15A |

**Battery Cutoff Relay**

*Battery Cutoff Relay is normally energized for fail-safe operation.*

**Physical**

- **SP/SPS-6B Module Dimensions:** 6.05”Lx3.87”Wx2.28”H
- **Equipment includes:** 7/16” standoffs, not provided with module only.

**Mounting Holes Center to Center**

| 4.50”W x 3.41”H |

**SPS-6B module only Weight**

| 12.4oz |

**SPS-6E (SPS-6B in enclosure)**

| 14” x 9” x 3.50” |

**SPS-6E (with enclosure) Weight**

| 6.85Lbs |

**Safety**

- **SP-6B & SP-6B meets safety**
  - UL1950 & EN60950

### Maintenance

The power supply and stand by battery(s) should be tested at least once a year as follows:

1. Check LED’s for normal state. **AC ON Green, Trouble Normal ON Green, DC ON Red.**
2. Check output voltage with normal load. For 12v setting, voltage should read between 13.60 and 13.80vdc and 27.1 and 27.6vdc on the 24v setting. This assures proper voltage to float charge batteries.
3. Disconnect AC input. **AC LED should be off,** all other LED’s should remain normal.
4. Check DC Output to be above 12.0vdc for 12v setting and 24.0vdc for 24v setting. This checks standby batteries to be operational. **Sealed lead acid batteries have a typical life of 3 to 5 years.**
5. Re Apply AC and verify AC LED ON.