

SPS-6 Series 12/24vdc 5A/3A Power supplies/Charger
SPS-6 12v/24v Supervised Power Supply/Charger module
SP-6 12v/24v Power Supply/Charger module
“E” adds PS-1485 9”x14” Enclosure
“ACI” adds PDD-8ACI 8 input/output Access Control Relays with EOL Fire Interface
“PCI” adds PDD-8PCI 8 output distribution with EOL Fire Interface module
“FT” adds PDD-FT Fire Transfer Relay with EOL Interface
SPS-6ED8 SPS-6E with 8 fused Class II Outputs
SPS-6EC8 SPS-6E with 8 PTC Class II Outputs
 See comments regarding PTC's on PDM Distribution [Tech Sales](#)
All made with a Lifetime Warranty in the USA

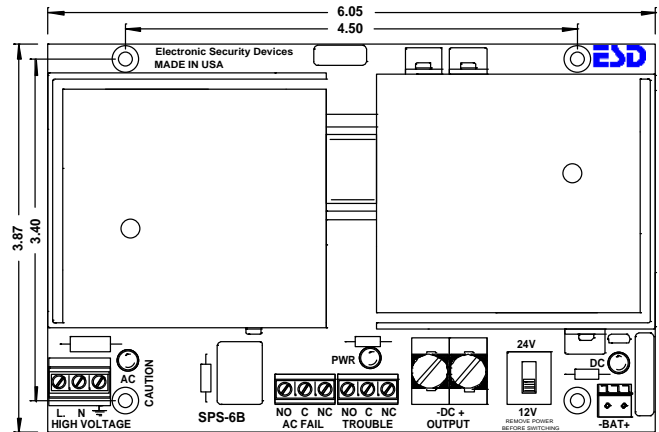


Features SP-6B & SPS-6B:

- **Small – Light – Efficient – Clean Power**
- **Universal AC Input 90-250vac**
- **Excellent Brown Out Capability Operational from 60-264vac**
- **12vdc 5A/24vdc 3A Switch Selectable**
- **All Outputs are Class II power limited**
- **Very Clean Output that will operate most readers**
- **Input and Output Surge Protection**
- **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**

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**



Description

The SP & SPS-6B are heavy duty self contained, efficient, clean, 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 clean 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 a very clean output that can power most readers and sensitive equipment. Each is

electronically protected against Battery(s) reversal, shorting or overloading. The DC outputs are all class II 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 that disconnects the battery(s) when they are depleted preventing deep discharge. Also there is a set of form “C” relay contacts that indicates AC power failure and

6/1/10 © Technical Literature jdb SP/SPS-6B specifications subject to change
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SPS-6B 12v/24v Series Power Supply continued

another set of form "C" relay contacts to indicate low battery(s). Depending on load, low battery trouble

indicates about 70% battery capacity remaining.

Specifications

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

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

L= Line, N= Neutral, and G = Ground

Optional 3 wire line cord P/N: HA-LC3SZIP

AC Input Rating 90-250vac/150W/50-60Hz

AC Input Operational 60-264vac

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

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.

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 full operating range 9.8–13.8vdc/19.6–28vdc

Output continuous current rating 12v/24v 5A/3A

AC Line regulation 85-264vac03%Typ

Output ripple & noise at full load . 180/50mv pp/rms Typ

Current Overload Short Circuit Protection Yes

Thermal runaway Protection Yes

Faults are auto restart

Switching Frequency 132KHz

All Outputs are Class II Power limiting Yes

DC LED Indicator (Adjacent to battery Header) Red

SPS-6B Supervised added features:

AC Status Output Relay: 3P Terminal block

AC Fail "C" contacts rating 2A/120vac

Trouble Output: 3P Terminal block - annunciates low battery "C" contacts rating 2A/120vac

AC Fail & Trouble are each have a three position terminal block marked "NO, C, NC" are shown in the Normal, energized, no fault condition.

Trouble battery voltage (low) 12.1vdc/24.2vdc

Trouble LED Indicator On Green Normal

Battery Cutoff

Battery Cutoff Voltage 9.8vdc/19.6vdc

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

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 15" battery cable assembly is provided that plugs from module to battery. Red (+) 12vdc, Black (-) Neg.

Typical float charge 12v/24v 13.65Vdc/27.3Vdc

Optional 36" battery cable (1) P/N: WA-36IBAT

Battery(s), any type of lead acid 12v 4AH-40AH

UL evaluated 7AH

Battery(s) recharge 400ma max

Battery(s) average recharging current 250ma

Battery(s) PTC self resetting Circuit Breaker 6A PTC

Battery(s) Reverse hookup protection Yes

To estimate the recharge time in hours for depleted battery(s), multiply the AH rating times 4 (AH x 4). As an example, a 24v system with two depleted 12v 7AH batteries would take about 28 hours to re-charge. See

<http://www.securitypower.com/an3batby.pdf> for battery standby selection table.

Environmental:

Humidity 95% RH Non Condensing

Ts Storage Temperature -40°C – 85°C

Ot Operating Temperature Range 100% rating:

Ot Power module only -20 – 44°C

Ot with E-89 Enclosure on wall -20 – 33°C

each 3% load reduction increases Ot by +1°C

Over temp shut down Temp 150°C

Mechanical characteristics:

SP/SPS-6B Module Dimensions 6.05"Lx3.87"Wx2.28"H
Height includes 7/16" standoffs, not provided with module.

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



Approvals:

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

SPS-6 and all of its accessories are UL Listed US and C for Access Control & Burglar alarm systems UL294, UL603 & I:C5302

RoHs Lead Free