

SPS-2M2 24VDC - 2A - 2 Power Limited Outputs – Supervised Power Supply/Charger module

SPS-3.6M2 12VDC - 3.6A - 2 Power Limited Outputs - Supervised Power Supply/Charger module

SPS-2M2E SPS-2M2 mounted in Enclosure

SPS-3.6M2E SPS-3.6M2 mounted in Enclosure

Made in the USA with a Lifetime Warranty

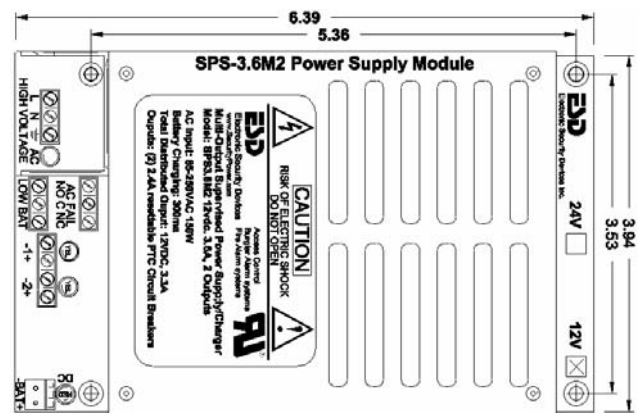
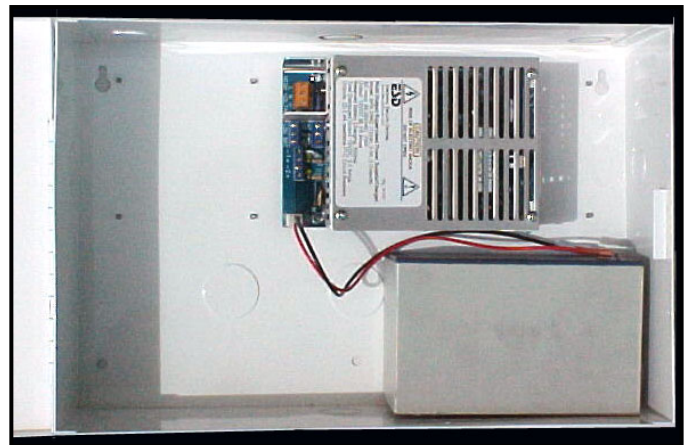
Features:

- Super Clean DC Outputs – May be used wherever Linear Power is required or Recommended.
- Universal Input: 85vac–260vac Tolerates Brownouts
- Self contained No External Transformer Required
- Precision Battery Charging and Output Regulation.
- Two Outputs On-board are Class II Power Limited with PTC Circuit Breakers
- Indicating LED’s for AC, DC Power, and Each Output
- AC Fail Alarm Form C Contacts
- Low Battery Alarm Form C Contacts
- Battery Cut-off Relay Prevents Deep Discharge
- Battery is Float Charged for Faster Charging with No Switch Over when AC fails.
- Thermally Protected
- Short Circuit Protection
- Plug-in Battery Cable is Provided
- UL and CUL Listed for Access Control Burglar and Fire
- Compliant with EN 61204-3 Class A



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SPS-3.6M2E



Description

The SPS-2M2 and SPS-3.6M2 are part of our SPS-36 Series Linear performance power supplies. They are clean, efficient, heavy duty, low frequency off line switching power supplies with precision battery charger and power supervision. These supplies are so clean that they can be used anywhere a linear or switching supply is recommended. The filtering and switching systems we use are very similar to what you would find on high quality computers. Even though the SPS-2M2 (24V) and the SPS-3.6M2 (12V) are both 50 watt power supplies utilizing the same printed wiring board, we offer separate 12V and 24V models for optimum performance. The universal input of 85vac to 260vac allows them to be used anywhere in the world without adjustments to the power input. The ability to run at very low AC voltages allows the SPS-2M2 and SPS-3.6M2 to tolerate brownouts very well. The SPS-2M2 and SPS-3.6M2 are fully self-contained and isolated

from the line to all world safety standards. Each power supply weighs less than 1.5 lbs and occupies less than 1/2 of a cubic foot of cabinet space.

The SPS-2M2 and SPS-3.6M2 become an uninterruptible power supply when a stand by battery(s) is connected with the battery cable provided. These supplies have a special power limiting circuit that allows the batteries to be float charged across the output without lock up or chirping on and off. The battery(s) is protected with an automatic resetting circuit breaker and diode for over current and accidental reversed battery hookup. Precision float charging means faster recovery time and longer life for the battery(s). There is no switch over or voltage drop when input power fails. Standby battery(s) can be of any capacity between 4 and 100 Amp hours. The SPS-2M2 24VDC is rated for 1.7 Amps of continuous



Electronic Security Devices
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06/03/08 © Technical Literature jdb SPS2M2 & SPS3.3M2 specifications subject to change
/products/SPS-23/SPS23MTechSales.doc

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SPS-2M2 & SPS-3.6M2 Supervised Power Supply/Charger Continued

current, while the SPS-3.6M2 12VDC is rated for 3.3 Amps continuous current. Power Supervision uses 3 relays and electronics to indicate 3 levels of the stand by battery(s). The ACFAIL relay detects a small drop in DC voltage and provides a form C contact set to indicate the AC has failed and the supply is running on Standby Batteries. The LOW Bat relay provides form C contacts

to indicate the battery(s) is low. Either of these form C contacts can be used to signal a buzzer and/or other signaling device. A 3rd relay with electronics is used to disconnect the battery from the Power Supply and Load at the end of its service limit, preventing deep discharge that will damage the battery(s). All three relays are normally energized for fail safe operation.

Specifications

AC Input: 3P Terminal block in high voltage barrier
Line, Neutral, and Earth Ground

AC Input/Hz/Watts 85-260vac/47-63Hz/75W

AC Input Rating 90-250vac

Universal AC input does not require any selection switching.

Earth ground terminal must be connected to earth ground.

AC LED Indicator Green

AC Line Fuse Link - *Inside unit for catastrophic failure.*

This fuse is not field replaceable. A blown fuse would be indicated by the AC LED off with AC power applied.

DC Outputs: 4P Terminal block 28-14 gauge

Nominal Voltage SPS-2M2/SPS-3.6M2 24/12vdc

Typical Voltage SPS-2M2/SPS-3.6M2 .. 27.3/13.65vdc

Total continuous output total of all outputs 1-2

SPS-2M2/SPS-3.6M2 1.7A/3.3A

SPS-2M2 Outputs #1 & #2 Power Limited Class II PTC circuit breaker rating 1.42A

SPS-3.6M2 Outputs #1 & #2 Power Limited Class II PTC circuit breaker rated 2.4A

DC Output LED Indicators (2 LED's adjacent to each Output #1 & #2) LED's Yellow

Main DC Power LED Red

Typical Output Ripple & Noise SPS-2M2/SPS-3.6M2
.....50mv/25mv pp

Current Overload Protection Electronic & PTC's

Battery PTC Protection SPS-2M2/SPS-3.6M2 2.4A/4A

Switching Frequency 27KHz

Supervisory Functions:

AC Fail Contacts: 3P Terminal block – annunciates AC fail – “C” contacts “NO, O, NC” 2A/120vac

Three position AC fail & Trb terminal blocks marked “NO, C, NC” are shown in the Normal, energized, AC On condition.

Note: AC fail is detected by a slight drop in DC output voltage. Relay trip point is approximately 99% battery capacity.

Low battery Contacts: 3P Terminal block 28-14 awg annunciates low battery contacts “NO, O, NC” 2A/120vac

Low battery trip point 24/12V 22.0/11.0vdc

AC fail, Low Battery, and Battery cut-off Relays are normally energized for fail-safe operation.

Battery Disconnect trip points 24/12v 20.0/10.0

Battery Charging: (Header plug marked [-Bat+]) 12” battery cable provided. 24” and 36” long battery cables are available. The battery charger is precision

set to float charge 12V or 24V sealed, gel, wet, or AGM lead acid batteries. Two 12V batteries are connected in series for 24V. The Amp Hour (AH) capacity must be above 4AH and the practical limit is 100AH. The supplies have been evaluated at UL with a 40 Ah battery.

The Amp Hour recharge rate equals:

DC Output Amps Rating – DC load Amps + .3A

See charge/discharge table on instructions.

Environmental:

Humidity 95% RH Non Condensing

Ts Storage Temperature -40°C – 85°C

Ot Operating Temperature Range 100% rating:

Ot Power module only -20 – 46°C

Ot with E-1485 Enclosure on wall -20 – 36°C

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

Over temp inside (Output is reduced by 1/3) . 71°C

Mechanical Characteristics:

SPS-2M2/SPS-3.6M2 weight (module only) 1.5 lbs

SPS-2M2E/SPS-3.6M2E weight in enclosure ... 7.2 lbs

SPS-2M2/SPS-3.6M2 (module only) size:

..... 6.40H” x 3.95”W x 2.35”D

SPS-2M2 & SPS-3.6M2 module mounting holes center to center (4 holes) 5.36”H x 3.54”W

“RT” Rain Tight NEMA 3 outdoor 6”Wx8”Hx4”D

“E” Enclosure size 14W” x 9H” x 3.5”D

“E” Enclosure mounting holes C to C ... 12.74” x 6.98”

Note: For knock out and mounting locations, see graphic drawing of SPS-3.6M2E on Installation Instructions



Approvals:

EMI conducted and radiated EN61204-3 Class A, Safety EN60950

UL 294 Access Control, UL 603 Burglar Systems, UL 1076 Proprietary Burglar, UL 1481 Fire Alarm Systems C603-M1988, ULC C1076, ULC S318 Burglar systems CSA 22.2 #205 Signal Equipment file # S8102

The sub assemblies are UL Recognized

The finished products in the enclosure are UL Listed
RoHS Lead Free