






Global Defense Systems

Innovative Homeland Security

GDSSPS6.5M4 Battery Specification Sheet (GDSSPS6.5M4)

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.**
- ▶ **Multi-Outputs on Board are Class II Power Limited with PTC Circuit Breakers** except Output #1 of SPS-6.5M4
- ▶ **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 Assembly is Provided**
- ▶ **Quality Manufactured in the USA with Lifetime Warranty**
- ▶ **UL and CUL Listed**   
UL603 Burglar Alarm Systems
UL294 Access Control
UL1481 & NFPA72 Fire Alarm Systems
- ▶ **Compliant with EN55022 & FCC A & B**



Description

The GDSSPS6.5M4 is a clean, efficient, heavy duty, low frequency off line switching power supply with precision battery charger and power supervision. This supply is 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 GDSSPS6.5M4 (12V) is both 100 watt power supplies utilizing the same printed wiring board, it offers separate 12V and 24V models for optimum performance. The universal input of 85vac to 260vac allows it to be used anywhere in the world without adjustments to the power input. The GDSSPS6.5M4 is operational down to 60vac to tolerate brownouts very well. The GDSSPS6.5M4 is 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 ½ of a cubic foot of cabinet space. The GDSSPS6.5M4 becomes 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 any capacity between 4 and 40 Amp hours.

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The SPS-6.5M4 12VDC is rated for 6 Amps of continuous current. The SPS-6.5M4 has 500ma reserved for charging. Power Supervision uses 3 relays and electronics to indicate 3 levels of the stand by battery(s). The ACFAIL relay 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 a form C

contact set 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.

Specifications

AC Input: 3P Terminal block in high voltage barrier

Line, Neutral, and Earth Ground

AC Input/Hz/Watts 85-260vac/47-63Hz/150W

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:

Nominal Voltage GDSSPS6.5M4 24/12vdc Typical

Voltage GDSSPS6.5M4 27.5/13.75vdc

Total continuous output total of all outputs 1-4

GDSSPS6.5M4 3A/6A

Output #1 GDSSPS6.5M4 PTC Circuit Breaker continuous rating class II power limited..... 3.5A/1.93A

Note: Output #1 on GDSPS6.5M4 is non power limited

Output #2-#4 GDSSPS6.5M4 Circuit Breaker continuous rating power limited class II1.42A/2.4A

DC Output LED Indicators (4 LED's adjacent to each output #1 - #4) Yellow

Typical Output Ripple & Noise GDSSPS6.5M4 50mv/25mv pp

Current Overload Short Circuit Protection Yes

Battery PTC protection GDSSPS6.5M4 3A/6A **Main**

Power DC LED adjacent to battery connector.. RED

Temperature (internal) thermal cut back 160°F

Ambient Operating Temperature Range-30°F to 120°F

Storage Temperature -60°F to 190°F

Switching Frequency 43KHz

Supervisory Functions:

Battery Cutoff Voltage GDSSPS6.5M4

..... 20.4/10.2 VDC

Battery Cutoff internal relay contacts 15A

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

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

Low battery Output: 3P Terminal black – annunciates Low battery “C” contacts “NO, O, NC” 2A/120vac

Low battery trip GDSSPS6.5M4 . 22.0/11.0vdc

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

Battery Charging: (Header plug marked [-Bat+])

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. The Amp hour capacity must be above 4Ah. The supplies are UL rated to 40 amp hour capacity.

Note: The GDSSPS6.5M4 has .5 Amps in reserve for Battery Charging. See charge/discharge table on instructions.

Mechanical Characteristics:

GDSSPS6.5M4 weight (module only) .. 1.5 lbs

GDSSPS6.5M4 (module only) size:

..... 6.40H” x 3.95”W x 2.35”D

GDSSPS6.5M4 module mounting holes

center to center (4 holes) 5.36”H x 3.54”W

“E” Enclosure size inside dimensions

..... 14W” x 9H” x 3.5”D”

“E” Enclosure mounting holes center to center (4 holes)

..... 12.74” x 6.98”

Note: For knock out and mounting locations, see graphic drawing of GDSSPS6.5M4E on

Installation Instructions

Approvals:



EMI conducted and radiated EN5022 CISPR-22 A, FCC A&B

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

Specifications are subject to Change without notice