



# SMP7PM Supervised Power Supply/Charger

## Overview:

The SMP7PM is a supervised power supply that converts a low voltage AC input into 12VDC or 24VDC output with 6 amp continuous supply current.

## Specifications:

### Input:

- Input 28VAC  
(Voltage Output/Transformer Selection Table).

### Output:

- 12VDC or 24VDC selectable output.
- 6 amp supply current.
- Output fuse is rated 15A/32V.
- Filtered and electronically regulated outputs.
- Short circuit and thermal overload protection.

### Battery Backup:

- Built-in charger for sealed lead acid or gel type batteries.
- Maximum charge current 0.7 amp.

### Battery Backup (cont'd):

- Zero voltage drop when switching over to battery backup.

### Supervision:

- AC fail supervision (form "C" contacts).
- Battery presence and low battery supervision (form "C" contacts).

### Indicators:

- AC input and DC output LED indicators.

### Board Dimensions (W x L x H approximate):

7.045" x 4.266" x 1.25" (108.36mm x 179mm x 31.8mm).

## Voltage Output/Transformer Selection Table:

Output VDC	Switch Position	Max. Load DC	Transformer Requirements (Recommended Altronix Part #'s)
12VDC	SW1 Closed	6 amp	24VAC or 28VAC / 175VA (T2428175)
24VDC	SW1 Open	6 amp	24VAC or 28VAC / 175VA (T2428175)

## Installation Instructions:

The SMP7PM should be installed in accordance with The National Electrical Code and all applicable Local Regulations.

1. Mount the SMP7PM in the desired location/enclosure.
2. Set the SMP7PM to the desired DC output voltage by setting the SW1 switch (*Fig. 1a, pg. 2*) to the appropriate position (*Voltage Output/Transformer Selection Table*).
3. Connect proper transformer to the terminals marked [AC] (*Voltage Output/Transformer Selection Table*).  
Use 18 AWG or larger for all power connections (Battery, DC output).

**Keep power-limited wiring separate from non power-limited wiring (115VAC / 60Hz Input, Battery Wires).  
Minimum 0.25" spacing must be provided.**

**CAUTION: Do not touch exposed metal parts. Shut branch circuit power before installing or servicing equipment.  
There are no user serviceable parts inside. Refer installation and servicing to qualified service personnel.**

4. Measure output voltage before connecting devices. This helps avoiding potential damage.
5. Connect devices to be powered to the terminals marked [- DC +].
6. When the use of stand-by batteries is desired, they must be lead acid or gel type. Connect battery to the terminals marked [- BAT +] on the board (battery leads included). Use two (2) 12VDC batteries connected in series for 24VDC operation.

**Note:** When batteries are not used, a loss of AC will result in the loss of output voltage.

7. Connect appropriate trouble reporting devices to AC Fail & Low battery supervisory relay outputs marked [NC, C, NO]. Use 22 AWG to 18 AWG for AC Fail / Low Battery reporting.  
AC Failure will report in 5 minutes. For a 6 hour delay on reporting cut resistor J1.

## LED Diagnostics:

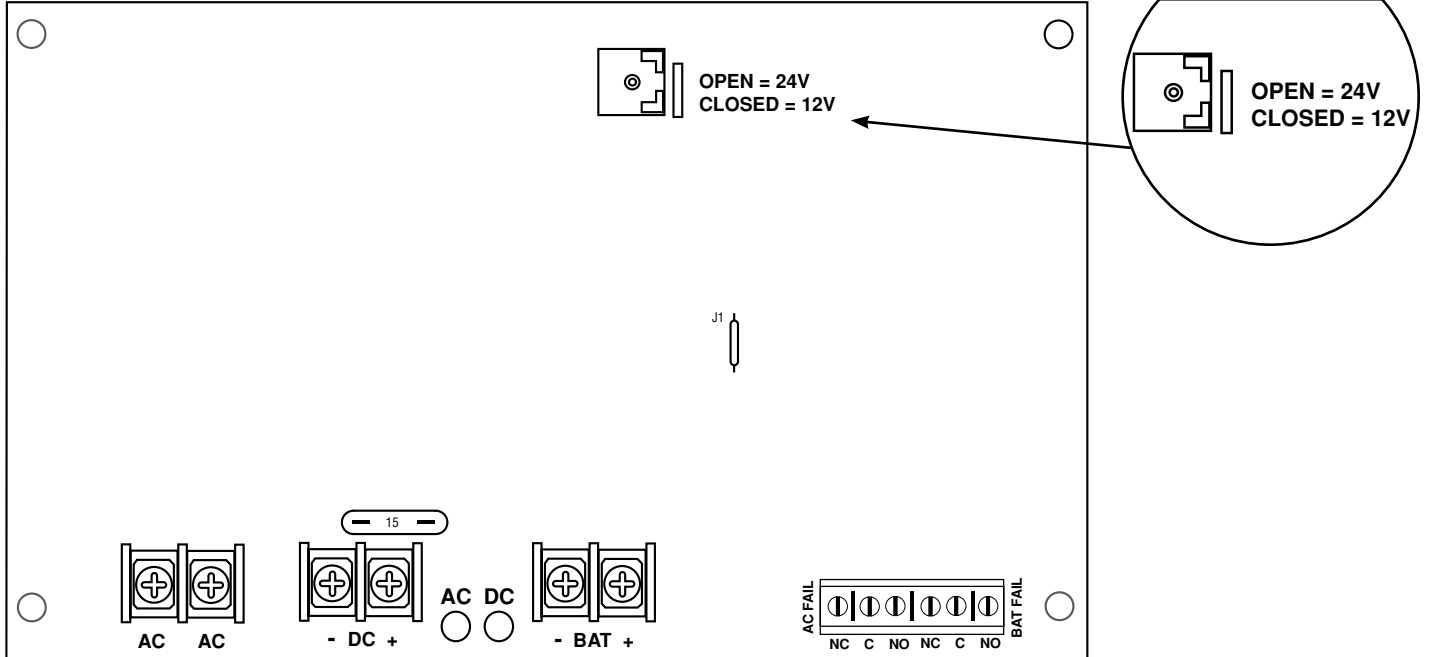
Red (DC)	Green (AC)	Power Supply Status
ON	ON	Normal operating condition
ON	OFF	Loss of AC, Stand-by battery supplying power
OFF	ON	No DC output
OFF	OFF	Loss of AC. Discharged or no stand-by battery. No DC output

### Terminal Identification:

Terminal Legend	Function/Description
AC/AC	Low voltage AC input (24VAC or 28VAC / 175VA).
- DC +	12VDC / 24VDC @ 6 amp continuous output.
AC FAIL NC, C, NO	Used to notify loss of AC power, (e.g. connect to audible device or alarm panel). Relay normally energized when AC power is present. Contact rating 1 amp @ 28VDC.
Low Battery NC, C, NO	Used to indicate low battery condition, (e.g. connect to alarm panel). Relay normally energized when DC power is present. Contact rating 1 amp @ 28VDC
- BAT +	Stand-by battery connections. Maximum charge rate 0.7 amp.

Fig. 1

Fig. 1a



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