



SMP5PM - Supervised Power Supply/Charger

Overview:

SMP5PM is a supervised power supply/charger that converts a low voltage AC input, into a 12VDC or 24VDC selectable output, with 4 amp of continuous supply current (see specifications).

Specifications:

Input:

- 24VAC or 28VAC
(See Voltage Output/Transformer Selection Table).

Output:

- 12VDC or 24VDC selectable output.
- 4 amp supply current.
- 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 0.3 amp.

Battery Backup (cont'd):

- Zero voltage drop when switching over to battery backup.

Supervision:

- AC fail supervision (form “C” contacts).
- Low battery supervision (form “C” contacts).

Indicators:

- AC input and DC output LED indicators.

Board Dimensions (W x L x H approximate):

7” x 4.05” x 1.35” (177.8mm x 102.87mm x 34.29mm)

Voltage Output/Transformer Selection Table:

| Output VDC | Switch Position | Max. Load DC | Transformer Requirements |
|------------|-----------------|--------------|-----------------------------------|
| 12VDC | SW1 Closed | 4 amp | 24VAC or 28VAC / 100VA (T2428100) |
| 24VDC | SW1 Open | 4 amp | 24VAC or 28VAC / 175VA (T2428175) |

Note: Transformers with higher VA ratings may be used for all output voltages above as long as you do not exceed 28VAC or 45VDC.

Installation Instructions:

The SMP5PM should be installed in accordance with the National Electrical Code and all applicable Local Regulations.

1. Mount SMP5PM board in the desired location/enclosure.
2. Set SMP5PM to the desired DC output voltage via SW1 (*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).
Use 22 AWG to 18 AWG for power-limited circuits (AC Fail/Low Battery reporting).
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 signaling notification devices to AC Fail & Low battery supervisory relay outputs marked [NC, C, NO].

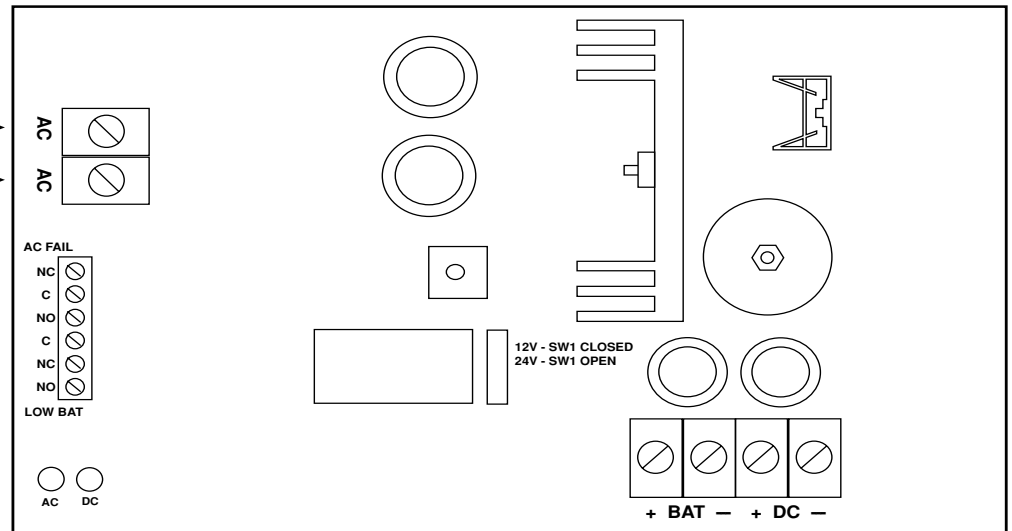
LED Diagnostics:

| 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 standby by battery. No DC output. |

Terminal Identification:

| Terminal Legend | Function/Description |
|--------------------------|--|
| AC/AC | Low voltage AC input (<i>Voltage Output/Transformer Selection Table</i>). For 12VDC output use 16VAC or higher with 85VA power rating or higher. For 24VDC output use 28VAC with 140VA power rating or higher. Caution: Do not apply voltages above 28VAC (28VAC is maximum input rating) |
| + DC - | 12VDC/24VDC @ 4 amp continuous output. |
| AC FAIL NC, C, NO | Used to notify loss of AC power, e.g. connect to audible device or alarm NC, C, NO panel. Relay normally energized when AC power is present. Contact rating 1 amp @ 120VAC / 28VDC |
| Low Battery NC, C, NO | Used to indicate low battery condition, e.g. connect to alarm panel. NC, NO, C Relay normally energized when DC power is present. Contact rating 1 amp @ 120VAC / 28VDC. Low battery threshold: 12VDC output threshold set @ approximately 10.5VDC, 24VDC output threshold set @ approximately 21VDC. |
| + BAT - | Stand-by battery connections. Maximum charge rate 0.3 amp. |

Maximum input
voltage not to
exceed 28VAC



Altronix is not responsible for any typographical errors. Product specifications are subject to change without notice.

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- 2 -

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