



SMP10PM High Current Power Supply/Charger

Overview:

The SMP10PM is a high current power limited supply/charger that will convert a low voltage AC input, into a 12VDC or 24VDC power limited output, with 10 amp of continuous supply current (see specifications).

Specifications:

Input:

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

Output:

- Field selectable 12VDC - 24VDC output.
- 10 amp total continuous supply current (includes battery charging).
- Filtered and electronically regulated outputs.

Battery Backup:

- Built-in charger for sealed lead acid or gel type batteries.
- Maximum charge current 700mA.
- Zero voltage drop when switching over to battery backup.

Supervision:

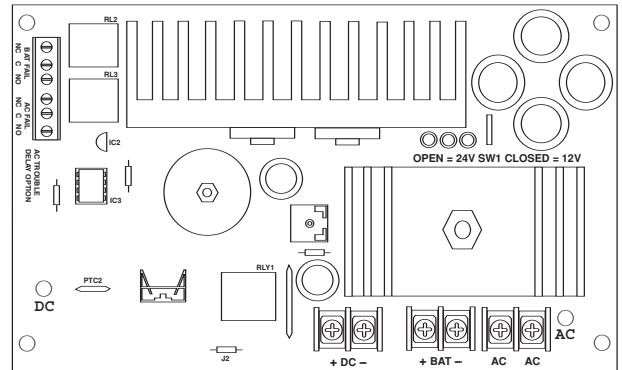
- AC fail supervision (form "C" contact, 1 amp 28VDC or 115VAC).
- Low battery and battery presence supervision (form "C" contact).

Additional Features:

- AC input and DC output LED indicators.
- Short circuit and thermal overload protection.
- Includes battery leads.

Board Dimensions (approximate): 7.0"L x 4.25"W x 2.0"H

Specified at 25° C ambient.



Voltage Output/Transformer Selection Table:

Voltage	Switch Position	Transformer
12VDC @ 10 amp continuous supply current	Closed	24VAC or 28VAC / 175VA (Altronix model T2428175)
24VDC @ 6 amp continuous supply current	Open	24VAC or 28VAC / 175VA (Altronix model T2428175)
24VDC @ 10 amp continuous supply current	Open	24VAC or 28VAC / 300 VA (Altronix model T2428300)

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 SMP10PM should be installed in accordance with The National Electrical Code and all applicable Local Regulations.

1. Mount the SMP10PM in desired location/enclosure.
2. Set the SMP10PM to desired DC output voltage via SW1 (see Voltage Output/Transformer Selection Table).
3. Connect proper transformer to terminals marked AC (see 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 avoid potential damage.
5. Connect devices to be powered to terminals marked + DC -.

6. When the use of stand-by batteries are desired, they must be lead acid or gel type.
Connect battery to terminals - BAT + as marked on the unit (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 if desired.

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 (<i>see Voltage Output/Transformer Selection Table</i>). For 12VDC output use 28VAC or higher with 175 VA power rating or higher. For 24VDC output use 28VAC with 175VA power rating or higher. Caution: Do not apply voltages above 28VAC (28VAC is maximum input rating).
+ DC -	DC output terminals
AC FAIL NC, C, NO	Used to indicate loss of AC power, (e.g. connect to audible device or alarm panel). AC report delay is approx. 1 min. Relay normally energized when AC power is present. Contact rating 1amp @ 120VAC / 28VDC.
Low Battery NC, C, NO	Used to indicate low battery or battery presence condition, (e.g. connect to audible device or alarm panel). Battery presence delay is approx. 3 mins. Circuit will restore 5 secs. after battery is detected. Relay normally energized during proper battery operation. Contact rating 1 amp @ 120VAC / 28VDC. Low battery threshold: 12VDC output threshold set @ approximately 10.5VDC, 24VDC output threshold set @ approximately 21VDC. Battery Presence: 12 or 24VDC battery presence threshold is approximately 4VDC. Battery presence is automatically tested about every 5 mins. If battery is determined absent, the unit will automatically test for presence about every 5 secs.
- BAT +	Stand-by battery connections. Maximum charge rate 700mA.

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