PM224
Supervised Linear Power Supply/Charger

Installation Guide

Overview:

Altronix PM224 supervised linear power supply/charger converts a low voltage AC input to a filtered and regulated 24VDC, 750mA continuous power-limited output.

Specifications:

Input:
- 24VAC/40VA.

Output:
- 24VDC output.
- 750mA continuous supply current.
- Filtered and electronically regulated output.
- Thermal and short circuit protection with auto reset.

Supervision:
- AC fail supervision (form "C" contacts).
- Low battery supervision (form "C" contacts).

Battery Backup:
- Built-in charger for sealed lead acid or gel type batteries.
- Automatic switchover to stand-by battery when AC Fails.
- PTC battery protection.

Additional Features:
- AC input and DC output LED indicators.
- Includes battery leads.

Board Dimensions (L x W x H approximate)**:**
5.25" x 2.75" x 1.15"
(133.4mm x 69.9mm x 29.2mm).

Installation Instructions:

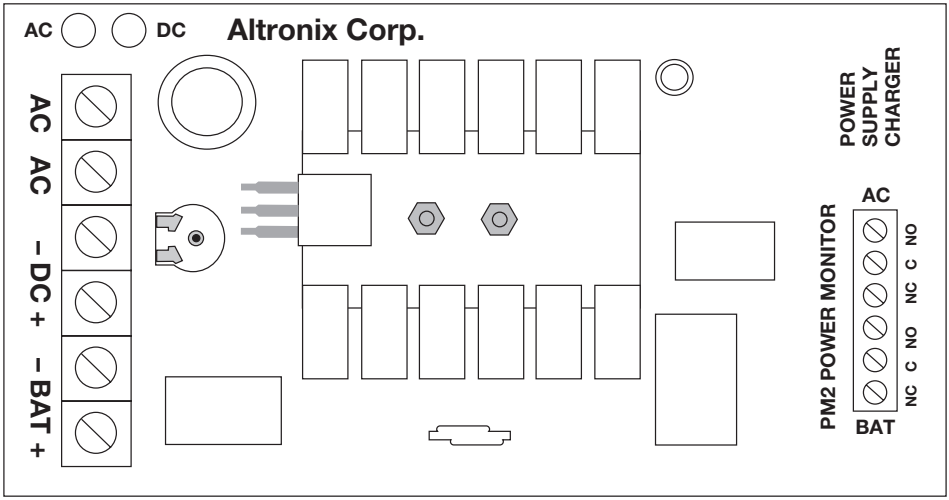
1. Mount PM224 in the desired location/enclosure (mounting hardware included).
2. Connect proper transformer (24VAC, 40VA) to terminals marked [AC].
3. Measure output voltage before connecting devices. This helps avoiding potential damage.
4. Connect devices to be powered to the terminals marked [– DC +], carefully observing polarity.
5. 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 unit (battery leads included).
   Note: When batteries are not used a loss of AC will result in the loss of output voltage.
6. Connect appropriate signaling notification devices to AC Fail & Low battery supervisory relay output terminals marked [N.C., C, N.O.].
   Note: During normal operation (AC and battery connected) the N.C. and C relay contacts will be in the closed position and the N.O. and C relay contacts will be in the open position.
   These contacts are rated at 2A, 120VAC.

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. Short circuit or thermal overload condition.
OFF	OFF	No DC output. Loss of AC. Discharged or no battery present.

Terminal Identification:

Terminal Legend	Function/Description
AC / AC	Low voltage AC input (24VAC / 40VA min.). Altronix part # TP2440.
– DC +	24VDC 750 mA continuous power-limited 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.
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 2A @ 120VAC / 28VDC.
– BAT +	Stand-by battery connections. Maximum charge rate 200mA.



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