OLS250 - Offline Switching Power Supply/Charger

Overview:

The OLS250 is a power supply/charger that converts 115VAC / 60Hz input into a 24VDC @ 10 amp continuous supply current (see specifications).

Specifications:

Input:

- 115VAC, 50/60Hz, 1.9 amp.

Output:

- 24VDC output.
- 10 amp continuous supply current.
- Filtered and electronically regulated output.
- Short circuit and thermal overload protection.

Battery Backup:

- Built-in charger for sealed lead acid or gel type batteries.
- Automatic switch over to stand-by battery when AC fails.
- Maximum charge current 0.7 amp.

Supervision:

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

Visual Indicators:

- AC input and DC output LED indicators.

Features:

- Power ON/OFF switch.
- Includes battery leads.

Board Dimensions *(W x L x H)*:

4.5" x 7.25" x 1.75" (114.3mm x 184.1mm x 44.45mm).

Installation Instructions:

The OLS250 should be installed in accordance with The National Electrical Code and all applicable Local Regulations.

1. Mount the OLS250 in the desired location/enclosure.
2. Slide [Power ON/OFF] switch to OFF position *(Fig. 1, pg. 2)*.
3. Connect AC power to the terminals marked [L & N], connect ground to the terminal marked [G] *(Fig. 1, pg. 2)*.
   Use 18 AWG or larger for all power connections (Battery, DC output, AC input).
   Use 22 AWG to 18 AWG for AC Fail/Low Battery reporting *(Fig. 1, pg. 2)*.
   Keep power-limited wiring separate from non power-limited wiring (115VAC 50/60Hz 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. Slide [Power ON/OFF] switch to ON position *(Fig. 1, pg. 2)*.
5. Measure output voltage before connecting devices. This helps avoiding potential damage.
6. Slide [Power ON/OFF] switch to OFF position *(Fig. 1, pg. 2)*.
7. Connect devices to be powered to the terminals marked [– DC +] *(Fig. 1, pg. 2)*.
8. When the use of stand-by batteries is desired, they must be lead acid or gel type. Connect two (2) 12VDC batteries connected in series to the terminals marked [– BAT +] (battery leads included) *(Fig. 1, pg. 2)*.
   Note: When batteries are not used, a loss of AC will result in the loss of output voltage.
9. Slide [Power ON/OFF] switch to ON position *(Fig. 1, pg. 2)*.
10. Connect appropriate signaling notification devices to AC Fail & Low battery supervisory relay outputs marked [N.C., C, N.O.] *(Fig. 1, pg. 2)*.

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	Loss of AC. Discharged or no stand-by battery. No DC output.

Terminal Identification:

Terminal Legend	Function/Description
L, G, N	Connect 115VAC to these terminals: L to Hot, N to Neutral, G to ground.
– DC +	24VDC @ 10 amp continuous supply current.
AC FAIL N.C., C, N.O.	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 N.C., C, N.O.	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. Low battery threshold: 24VDC output threshold set @ approximately 21VDC.
– BAT +	Stand-by battery connections. Maximum charge rate 0.7 amp.

Fig. 1