

OLS20 - Offline Power Supply/Charger

CONNECTOR #1

Overview:

OLS20 power supply/charger converts 115VAC 50/60Hz input into a 12VDC @ 1 amp or 24VDC @ 0.5 amp of continuous supply current (refer to specifications). This general purpose power supply has a wide range of application for access control and security system accessories that require additional power.

Fig. 1

Specifications:

Input:

• Input 115VAC 50/60Hz, 0.5 amp.

Output:

- 12VDC or 24VDC selectable operation.
- 0.5 amp continuous supply current @ 24VDC 1 amp continuous supply current @ 12VDC.
- 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 0.5 amp.
- Automatic switch over to stand-by battery when AC fails.

Additional Features:

- AC input and DC output LED indicators.
- Operating temperature: -20°C to 50°C.
- Includes battery leads.

Board Dimensions (approximate):

2.52" x 3" x 1.3" (63.55mm x 76.2mm x 33mm).

Specified at 25° C ambient.

Voltage Output Selection Table:

Output VDC	Switch Position	Max. Load DC
12VDC	SW 1 - ON	1.2 amp
24VDC	SW1 - OFF	0.5 amp

AC DC DC PTC2 SW1 OFF-24V ON-12V SW1 OFF-24V SW1 O

Installation Instructions:

The OLS20 should be installed in accordance with the National Electrical Code and all applicable Local Regulations.

- 1. Mount the OLS20 in the desired location/enclosure.
- 2. Set the OLS20 to the desired DC output voltage via SW1 (refer to Voltage Output Selection Table).
- 3. Connect AC power to connector #1 (Fig. 1) (black & white flying leads) and ground (green flying lead) Use 18 AWG or larger for all power connections (Battery, AC input).

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. Measure output voltage before connecting devices. This helps avoiding potential damage.
- 5. Connect devices to be powered to the terminals marked [-DC +] (Fig. 1).
- 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 +] (Fig. 1).

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.



For continuous protection against fire replace fuse with the same type and rating 5mm - 20mm, 250V, 2A.

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: Black to Hot, White to Neutral, Green to ground.	
+ DC -	12VDC @ 1.2 amp continuous supply current. 24VDC @ 0.5 amp continuous supply current.	
- BAT +	Stand-by battery connections. Maximum charge rate 0.3 amp.	

