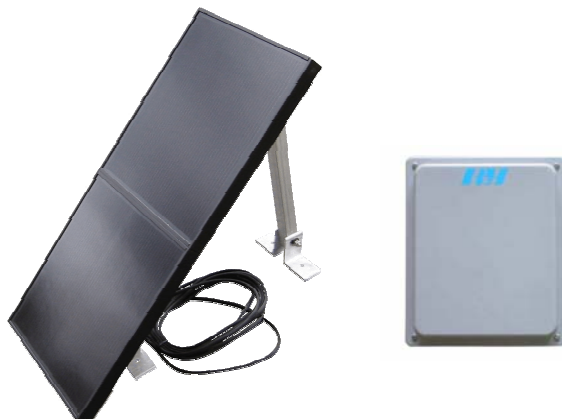


**RLH Industries, Inc.**  
**40 Watt Solar Power Supply p/n: 8806-1250-06**



**Description**

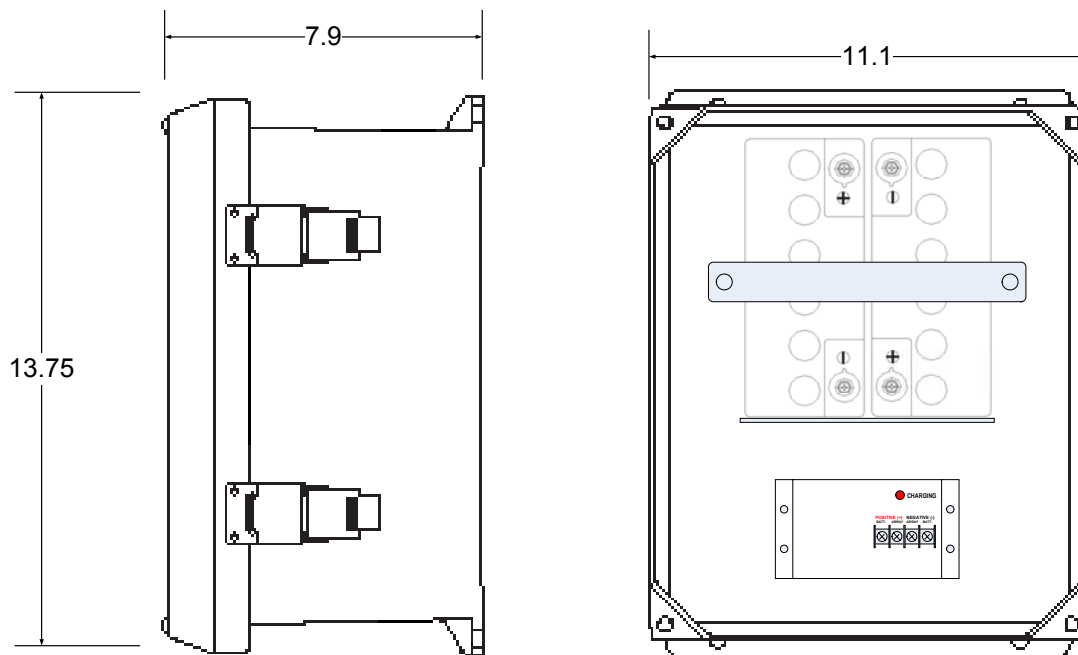
The 40W RLH solar power supply is a fully integrated solution to provide 24VDC remote powering of up to 3 watts (120mA). RLH solar power supplies are engineered with highly efficient solar electric modules to ensure reliable operation in any geographical region. The battery box can be ordered for indoor or outdoor installation.

The Supply consists of:

- (1)- 40W solar panel with aluminum mounting bracket
- (1)- 30' 12awg outdoor wire
- (1)- Wall mount indoor housing H10"xW8"xD7" (outdoor housing 12x10x7")
- (2)- 12V 20.0AH batteries
- (1)- Battery charge regulator

**Specifications**

Solar panel type	40W, (2) ST20
Operating voltage	24V
Rated current output	1.29A
Maximum voltage output	31.2V
Short circuit current	1.54A
Open circuit voltage	45.8V
Wind loading	50lb/sq
Panel dimensions, (HxWxD)	30"x24"x3"
Circuit protection	Diode across solar array input
Fuse rating	3A
Battery capacity	20.0A/Hr. (146 hours typical with max. load)
Temp. Limits	-40°F to +158°F (-40°C to +70°C)
Maximum recommended load	120mA @ 24VDC



**Outdoor Battery Box (Optional)**

**Battery Charge Regulator**

The battery charge regulator allows maximum array current to flow into the battery through a blocking diode. When the batteries are fully charged the solar array is shorted to a shunt resistor. A temperature sensor adjusts charging current with ambient temperature change.

**Low Battery Alarm Option**

The solar power supply can be ordered with an optional low battery alarm circuit. The alarm is activated when the batteries reach 24.0V and is deactivated at 27.0V. The relay consumes 30mA when activated.

A separate terminal block is provided for the normally open and the normally closed connection, this option can be ordered by adding “LBA” to the end of the solar power supply part number. An E&M connection can be ordered by adding “EM” to the end of the part number for connection to RLH 4-Wire E&M Fiber Optic Link Card “E&M Input”.

**Wiring**

Connect wire leads from solar panel to the “Solar Input” terminal. The positive wire lead from the solar panel is marked with red tape. The 3A fuse should be installed after the solar panel input is connected. The equipment to be powered is connected to the “24VDC Output” terminal.

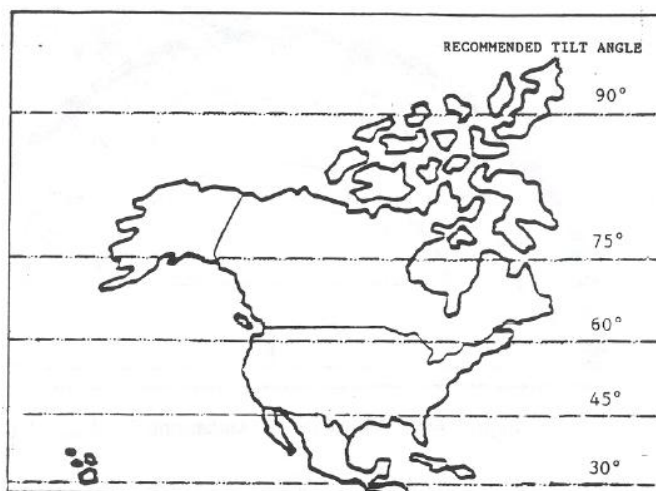
**Panel Mounting Hardware:**

Aluminum mounting brackets provide convenient solar panel attachment to a wall or pole. The bracket can be configured for vertical or horizontal panel mounting.



**Solar Panel Installation**

- The Solar Power Supply must be located so that the solar panels are facing south.
- The location should be free of shadow between the hours of 9:00am and 3:00pm
- For the maximum power generation, the solar panels must be situated with the proper amount of tilt for the latitude of installation. Refer to the latitudinal chart to determine the proper amount of tilt for your location. Note that all figures refer to angle from horizontal.



**Latitudinal Chart for Recommended Tilt Angle**

**Ordering Information:**

Part Number	Description
8806-1250-06	40W Solar Power Supply w/ 20AH Battery and Regulator
8806-1250-06O	40W Solar Power Supply w/ Outdoor Battery Box
8806-1250-06LBA	40W Solar Power Supply w/ Low Battery Alarm
8806-1250-06EM	40W Solar Power Supply w/ E&M Alarm
8806-1250-06RB	20.0AH Replacement Batteries