



RPPL Series

DATA SHEET

Outdoor Remote Power Systems

Features

- Complete Remote Power Solution for Off-Grid operation
- Weatherproof, UV resistant, outdoor enclosures
- Enclosures can be Wall or Pole Mounted
- High Performance Valve Regulated Sealed Lead Acid Batteries
- Advanced battery charge controller protects against overcharge and over discharge

Applications

- Wireless Base Stations and Clients
- Surveillance Cameras
- Wireless Bridge and Repeaters
- Remote Sensors
- Remote Lighting
- Backup Power Systems



Description

The RemotePro® PL series (RPPL) outdoor power systems are designed for applications that require a primary off-grid power source to run various electronics. The sealed and weatherproof Polycarbonate enclosures hold up to four 12V 8.5AH batteries. The enclosures are hinged and gasket sealed. They can accept a padlock or tamper seal.

The enclosures can be mounted to a wall or pole with the included mounting bracket system.

The high quality solar panels have a 25year power output guarantee. The 30W solar panels can be mounted to a 51mm to 101mm (2" to 4") diameter pole or alternately to a wall with the included bracket kit.

Features include an advanced battery charge controller to protect against over-charging or over-discharging of the valve regulated sealed lead acid batteries. Most of the RPPL systems include a controller with built in POE inserter and DCDC converter to supply 24V or 48V POE from the 12V or 24V battery system. Enclosures have multiple ports for CAT5/6 cable, antenna cables/connectors or other cabling. They are vented to prevent residual buildup of hydrogen gas.

Batteries are an Advance Glass Matt (AGM) type which have good all temperature performance.



30W Solar Mount



Inside Enclosure

Specifications

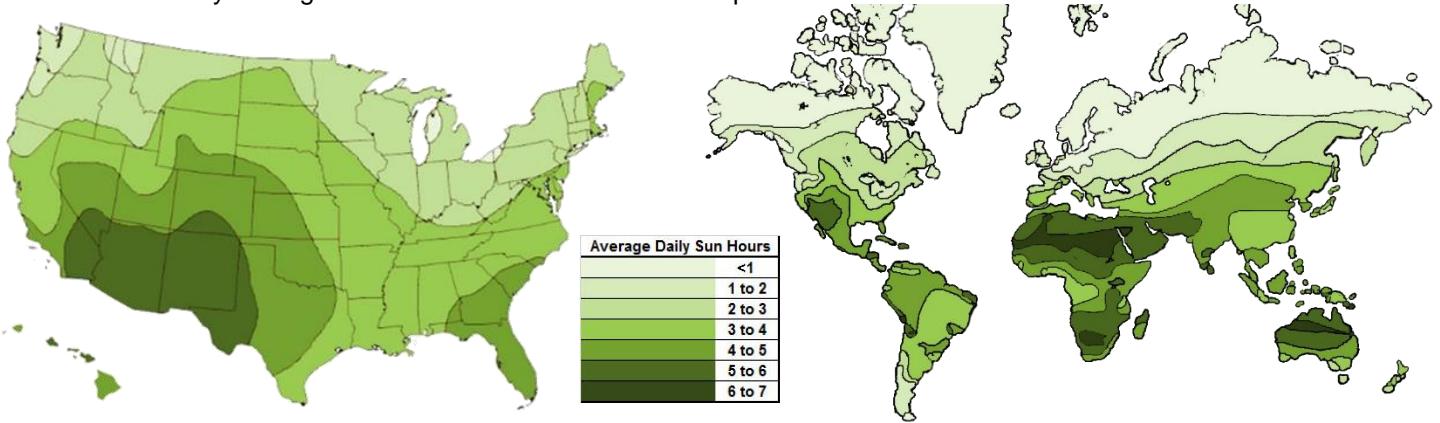
	RPPL12-36-30	RPPL1224-36-30	RPPL1248-36-30	RPPL24-18-30	RPPL2424-18-30	RPPL2448-18-30
Rated Power Generation	8W					
Reserve Time @ Rated Power	27hrs					
POE Output Voltage (DC)	No POE Out	24V1.2A 48V.62A	24V1.2A 48V.62A	No POE Out	24V1.2A 48V.62A	24V1.2A 48V.62A
Secondary Volts Out (DC)	12V 20A	12V 1.5A	12V 1.5A	24V 20A	24V 1.5A	24V 1.5A
Battery Capacity (Amp Hrs)	34Ah					
Battery Voltage (DC)	12V			24V		
Battery Type	Valve Regulated Sealed Lead Acid / Absorbent Glass Mat (AGM)					
Battery Life	5 Years					
Controller Type	PWM	Dual Input: Solar/POE, Dual Output: Battery Voltage/POE with DCDC Converter		PWM	Dual Input: Solar/POE, Dual Output: Battery Voltage/POE with DCDC Converter	
Overcharge Protection	14.4V			28.6V		
Over-discharge protection	11.0V			22.0V		
Over-discharge recovery volts	12.5V			24.5V		
Controller Self Consumption	< 0.5W					
Enclosure Type	Polycarbonate					
Enclosure External Size	17.5 x 12.5 x 6" (445x318x152mm)					
Enclosure Internal Size	14 x 10 x 5" (356x254x127mm)					
Solar Panel Dims	26" X 16" (654 x 401mm)					
Operating Temperature	-30°C to +60°C (-22°F to 140°F)					
System Weight (no batteries)	22lb (10kg)					
Battery Weight	22lb (10kg)					
Wind Speed Rating	110MPH (49m/s)					
Warranty	3 Years					

System Ordering:

Model #	Continuous Power Generation	Enclosure Type	Battery Voltage	PoE Output Voltage	Battery Capacity	Solar Panel Size
RPPL12-36-30	8W	Polycarbonate	12VDC	---	34Ah	30W
RPPL1224-36-30	8W	Polycarbonate	12VDC	24V	34Ah	30W
RPPL1248-36-30	8W	Polycarbonate	12VDC	48V	34Ah	30W
RPPL24-18-30	8W	Polycarbonate	24VDC	---	34Ah	30W
RPPL2424-18-30	8W	Polycarbonate	24VDC	24V	34Ah	30W
RPPL2448-18-30	8W	Polycarbonate	12VDC	48V	34Ah	30W

Design tools:

Utilize the below map to help determine the average Peak Sun-hours in a location and the calculation tables to determine the right system. Specific system may need to be larger to account for fewer Peak Sun-hours in certain locations. Minimum Peak Sun-hour/day generally occur in the winter months and tend to be approximately one half of the annual daily average Peak Sun-Hours found on the maps below.



	A	B	C	D	A x B	A x B x D	
Item (PD)	Model Number	Quantity	Power(W)	Voltage (V) <small>*should be consistent for all devices</small>	hrs/day	Total Power (W)	Energy/day (Wh/day)
<i>Example 1</i> Camera	X	2	2.4	24	12	4.8	57.6
<i>Example 2</i> Access Point	EZGO-0214	1	5.5	24	24	5.5	132
Total						E	F
<i>Example total</i>						10.3W	189.6 Wh/day

	Example	Actual	
Minimum Peak Sun-hours <small>*winter estimate approximation = Average x 0.5¹</small>	G	3	Sun-hours/day
Days of Autonomy (days with little or no sun)	H	3	Days
System DC voltage	I	24	Volts
Minimum Solar module size (Watts)	$(F \div G) \times 2$	126.4	Watts
<small>* It is recommended for the module to supply enough energy to power the system for a day, plus 1 extra day, thus the "x 2", less conservative: x 1, more conservative: x 3</small>			
Minimum Battery bank (amp hours)	$(F \div I) \times 2 \times H$	47.4	Ah
<small>* Be sure the voltage requirements of all Powered Devices are the same. If DC-DC or DC-AC conversions are required, be sure to go back and add those devices to the system power requirements. "2x" limits batteries to 50% maximum discharge.</small>			

For best performance, make sure the RemotePro® system chosen meets the minimum module and battery bank for the system. Maps are for reference only. Check with local resources for more accurate data on solar insolation for the install site. More solar irradiance information can be found at www.nrel.gov

For further information contact:

Tyconsystems.com

