RPSTL RemotePro™

DATA SHEET

Outdoor Remote Power Systems

Features

- **Complete Remote Power Solution for Off-Grid Operation**
- **Weatherproof Outdoor Enclosure with up to 400Ah Battery**
- **Enclosures can be Wall or Pole Mounted**
- **High Performance Sealed Lead Acid Batteries**
- **PWM and Manageable MPPT Charge Controllers**
- **Thermostatically Controlled Ventilation**

Applications

- **Wireless Base Stations**
- **Wireless Bridge and Repeaters**
- **Remote Lighting**
- **Surveillance Cameras**
- **Off Grid Power**
- **Backup Power Systems**

Description

The RPSTL RemotePro™ series outdoor power systems are designed for applications that require a primary off-grid power source to run various equipment. The vented weatherproof enclosures have generous space available inside for mounting customer equipment. A 19” 1U rackmount feature is integral to the enclosure as are multiple DIN Rail mounts.

All enclosures are hinged and gasket sealed with locking latches for security. The latches can be locked using a standard customer supplied padlock.

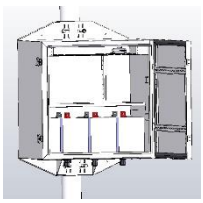
The enclosures can be mounted to a wall or pole with the included mounting bracket system. Poles up to 11” diameter can be accommodated.

The high quality solar panels have a 25year power output guarantee. The 320W panel can be mounted to a pole or wall with the included side-of-pole mounting system. The 500W and 1000W panel systems come with a top-of-pole mount which includes the pole and concrete anchors for anchoring the flanged pole to a foundation.

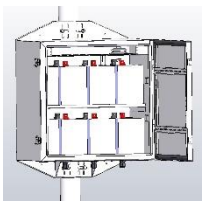
The 48V battery systems feature a state-of-the-art manageable, temp compensated, MPPT charge controller with integrated monitoring/control and 7 port gigabit PoE switch. The outputs are 24VDC/48VDC selectable via the web interface or SNMP. The 12V and 24V battery systems come with a 20A PWM solar controller. Enclosures have three cable gland ports for CAT5 cable, antenna cables/connectors or other cabling. The enclosures include a thermostatically controlled fan which turns on automatically when the temperature exceeds 45°C.

Batteries are a Non-Spillable Valve Regulated Sealed Lead Acid Advance Glass Matt (AGM) type which have excellent temperature and deep discharge performance. Expected battery life exceeds 5years.

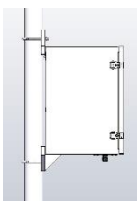
The systems come with all cabling required to connect the batteries to the controller and 20’ outdoor rated cable to connect the solar panels to the controller.



RPSTL with 200Ah of battery



RPSTL with 400Ah of battery



RPSTL Side View

320W Solar Mount

500/1000W Solar Mount

RPSTL RemotePro™ Series

Specifications

	RPSTL12-200-320	RPSTL12-400-320	RPSTL24-100-320	RPSTL24-200-320	RPSTL48-100-320	RPSTL48-100-500	RPSTL48-100-1000
Rated Power Generation	65W	80W	65W	80W	80W	125W	125W
Reserve Time @ Rated Power	18hrs	30hrs	18hrs	30hrs	30hrs	19hrs	19hrs
POE Output Voltage (DC)	No PoE				24/48V Selectable		
Secondary Volts Out (DC)	12V-15V	12V-15V	24V-29V	24V-29V	24/48V Selectable		
Battery Capacity (Amp Hrs)	200Ah	400Ah	200AH	400Ah	400Ah	400Ah	400Ah
Battery Voltage (DC)	12V	12V	24V	24V	48V	48V	48V
Battery Type	Maintenance Free Non Spillable Valve Regulated Sealed Lead Acid AGM						
Battery Life	5+years						
Controller Type	PWM				Manageable Temp Compensated MPPT with 7Gigabit PoE ports		
Overcharge Protection	14.4V	14.4V	28.6V	28.6V	59.2V		
Over-discharge protection	11.0V	11.0V	22V	22V	45.8V to 47.8 – settable in web interface		
Over-discharge recovery volts	12.0V	12.0V	24.8V	24.8V	48.1V to 49.2V – settable in web interface		
Controller Self Consumption	<0.5W				3.5W Typical		
Enclosure Type	2” to 11” Pole/Wall Mount, Powder Coat Steel						
Enclosure External Size	24.1 x 24.1 x 17.5" (612.5 x 612.5 x 445.6mm)						
Enclosure Internal Size	23.9 x 23.9 x 16.1" (608 x 608 x 409.5mm)						
Internal Mount Features	1U 19” Rackmount (13.9” depth), 4” Long Din Rails(4), Din Rail Mounts(4)						
Solar Panel Dims	67.5” x 52.5” (1.7m x 1.3m)					66” x 79” (1.6m x 2m)	132” x 79” (3.4m x 2m)
Operating Temperature	-30°C to +60°C (-22°F to 140°F)						
System Weight (no batteries)	158lb (72kg)					407lb (185kg)	487lb (221kg)
Battery Weight	152lb (69kg)	304lb (138kg)	152lb (69kg)	304lb (138kg)	304lb (138kg)	304lb (138kg)	304lb (138kg)
Wind Speed Rating	90MPH						
Warranty	2 Years						

RPSTL 12-100-320

Enclosure Type
STL - Powder Coat Steel

Battery Voltage
12 - 12V
24 - 24V
48 - 48V

Storage Capacity
100 - 100Ah @ Rated Volts
200 - 200Ah @ Rated Volts
400 – 400Ah @ Rated Volts

Solar Panel Output
320 - 320 Watt
500 - 500 Watt
1000 - 1000 Watt

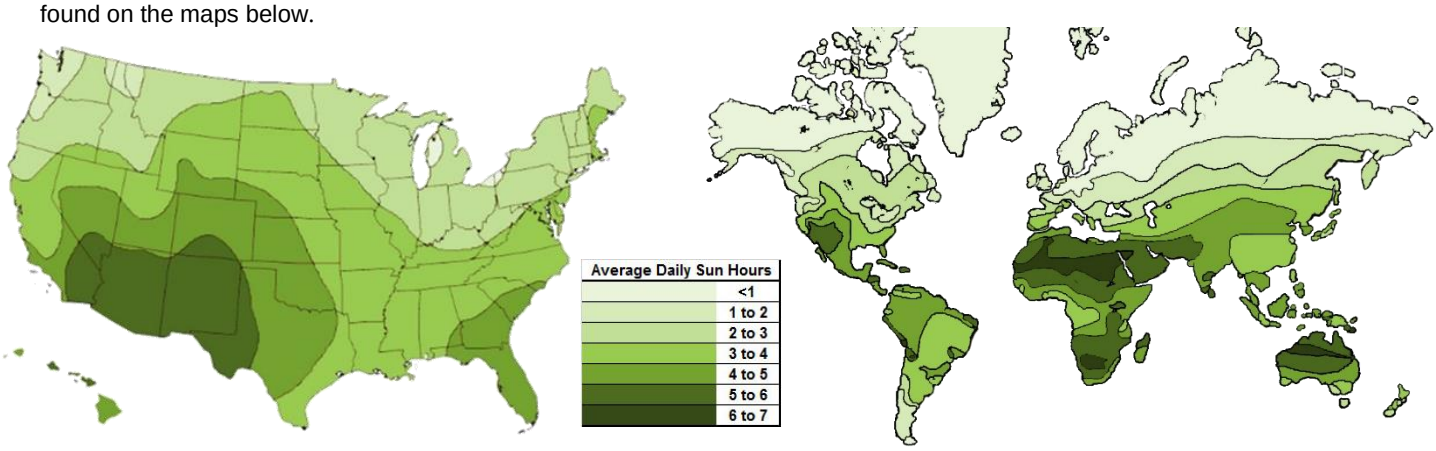
System Ordering:

Model #	Continuous Power Generation (6hrs peak sun)	Backup Time	Battery Voltage	PoE Output Voltage	12V Battery Capacity	Solar Panel Size
RPSTL12-200-320	65W	18hrs	12VDC	---	200Ah	320W
RPSTL12-400-320	80W	30hrs	12VDC	---	400Ah	320W
RPSTL24-100-320	65W	18hrs	24VDC	---	200Ah	320W
RPSTL24-200-320	80W	30hrs	24VDC	---	400Ah	320W

RPSTL48-100-320	80W	30hrs	48VDC	48/24VDC	400Ah	320W
RPSTL48-100-500	125W	19hrs	48VDC	48/24VDC	400Ah	500W
RPSTL48-100-1000	125W @ 3hrs sun	19hrs	48VDC	48/24VDC	400Ah	1000W

Design tools: *Use http://tyconsystems.com/index.php/resources/tools for simplified calculations.*

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) *should be consistant for all devices	hrs/day	Total Power (W)	Energy/day (Wh/day)
Example 1	Camera	X	2	2.4	24	12	4.8	57.6
Example 2	Access Point	EZGO-0214	1	5.5	24	24	5.5	132
							E	F
						Total		
						Example total	10.3W	189.6 Wh/day

		Example	Actual	
Minimum Peak Sun-hours *winter estimate approximation = Average x 0.5 [1]	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 ÷ G) x 2	126.4		Watts
* 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				
Minimum Battery bank (amp hours)	(F ÷ I) x 2xH	47.4		Ah
* 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.				

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.
[1]More solar irradiance information can be found at *www.nrel.gov*

For further information contact:

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RoHS compliant

TYCON systems

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