



### Outdoor Remote Power Systems

#### Features

- Complete 1.4KW to 2.2KW Remote Power Solutions for Off-Grid Operation.
- Supports up to 360W continuous power with 6hrs peak sun.
- Weatherproof Outdoor Enclosures with up to 1440Ah Battery
- Expandable Ground Mounted Solar Mount
- High Performance Sealed Lead Acid AGM Batteries
- MPPT Solar Charge Controllers with RS485 Interface
- Thermostatically Controlled Ventilation



RPAL 1.4KW  
Solar System

#### Applications

- Wireless Base Stations
- Remote Lighting
- Surveillance Cameras
- Wireless Bridge and Repeaters
- Off-Grid Power
- Remote Cabins

#### Description

The RemotePro® 1440+W Series outdoor power systems are designed for applications that require a primary off-grid power source. The vented weatherproof enclosures have generous space available inside for mounting customer equipment. Multiple mounting brackets are welded inside the enclosure for mounting DIN rails or flat plates.

The systems are available with MPPT temperature compensated solar charge controllers with an RS485 interface for remote monitoring with a Tycon TPDIN-Monitor-WEB3 or TP-SC-WIFI adapter. The solar controllers turn off the load automatically if the battery voltage drops too low, in order to preserve battery life. The load turns on automatically once the battery voltage recovers.

The outdoor enclosures are diamond plate aluminum ground mounted type. They are hinged and gasket sealed with locking closures. They have four cable gland ports for CAT5/6 cable, antenna cables/connectors or other cabling. Included is a thermostatically controlled fan assembly which turns on automatically when the temperature exceeds 45°C.

The high quality solar panels have a 25 year power output guarantee and a +5W output tolerance.

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

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.

The solar mount includes the concrete anchors that are necessary for mounting. Tilt adjustment range is 10-65 deg and can be adjusted by one person. The mount can be expanded to 6 panels (Kit# TPSPM-350x6-AdapterKit). This is useful if more solar capacity is needed in the future.

**Specifications**

	<b>RPSTL</b>	<b>RPAL</b>
<b>Battery Type</b>	Maintenance Free, Non-Spillable, Valve Regulated Sealed Lead Acid, AGM	Maintenance Free, Non-Spillable, Valve Regulated, Sealed, Pure Lead Carbon AGM
<b>Battery Life</b>	5+ years	
<b>Controller Type</b>	24/48V MPPT with display and RS485 Interface	
<b>Controller Outputs</b>	30A Wire Terminal	
<b>Bulk Charge</b>	28.8V @ 24V Battery 57.6V @ 48V Battery	
<b>Float Charge</b>	27.6V @ 24V Battery 55.2V @ 48V Battery	
<b>Over-discharge protection</b>	22.2V @ 24V Battery 44.4V @ 48V Battery	
<b>Over-discharge recovery volts</b>	25.2V @ 24V Battery 50.4V @ 48V Battery	
<b>Controller Self Consumption</b>	<1W	
<b>Enclosure Type</b>	ENC-STL-24x24x16 Pole/Wall Mount, Powder Coat Steel	ENC-AL-65x28x18 Ground Mount, Diamond Plate Aluminum
<b>Enclosure Size</b>	23.9 x 23.9 x 16.1" (608 x 608 x 409.5mm)	65 x 28 x 18" (1651 x 711 x 457mm)
<b>Internal Mount Features</b>	DIN Rail/Flat Plate Mounting Brackets Welded to Door and Back	
<b>Solar Panel Dims (L x W x T)</b>	1440W Solar Array 78 x 154 x 1.6" (1980 x 3912 x 40mm) 2160W Solar Array 117 x 154 x 1.6" (2970 x 3912 x 40mm)	
<b>Operating Temperature</b>	-30°C to +60°C (-22°F to 140°F)	
<b>System Weight (no batteries)</b>	524 lb (238 kg) 4 Panel System	491 lb (223kg) 4 Panel System 588 lb (267 kg) 6 Panel System
<b>Battery Weight</b>	40.3 lb (18.3 kg) (Each 50Ah Battery)	127 lb (57.6 kg) (Each 180Ah Battery)
<b>Wind Speed Rating</b>	90MPH	
<b>Warranty</b>	3 Years	



*RPSTL Enclosure interior  
without batteries or controller*



*RPAL Diamond Plate Aluminum Ground Mount*



*24/48V 60A MPPT Controller  
with RS485 Interface*



*AGM 12V 52Ah Battery*



*AGM 12V 180Ah Battery*

## System Ordering:

Model #	Enclosure Type	Battery Voltage	Battery Capacity @12V	Rated Continuous Power with 6hrs Peak Sun	Backup Time @ Rated Power	Controller Type	Output	Solar Panel Size
RPSTL24/48M-400-1440	Large Steel	24/48V	400Ah	100W	>24hrs	24/48 MPPT	24/48V 30A	1440W
RPAL24/48M-14-1440	Ground Mount Aluminum	24/48V	1440Ah	315W	>27hrs	24/48 MPPT	24/48V 30A	1440W
RPAL48M-14-2160	Ground Mount Aluminum	48V	1440Ah	360W	>24hrs	24/48 MPPT	48V 30A	2160W

## Part Number Definition:

### RPAL 24/48M-14-14

*Enclosure Type*  
 STL – Large Steel  
 AL – Ground Mount Alum

*Battery Volts, Ctrl Type*  
 24/48M – 24/48V MPPT  
 48M – 48V MPPT

*12V Battery Capacity*  
 400 – 400Ah  
 720 – 720Ah  
 14 – 1.44KAh

*Solar Panel Output*  
 720 – 720 Watt  
 1440 – 1440 Watt  
 2160 – 2160 Watt



RPSTL 1.4KW 4 Panel Solar System



RPAL 2.1KW 6 Panel Solar System



1.4KW 4 Panel Solar Mount – 10-65 deg Tilt, ground mount

## Available Accessories



TPDI-Monitor-WEB3 V2 Remote Monitor with RS485 Interface + TPDI-CABLE-485



TP-SC-WIFI WiFi Adapter for MPPT

For further information contact:

[Tyconsystems.com](http://Tyconsystems.com)

