

Outdoor Remote Power Systems

Features

- Complete 720W Remote Power Solution for Off-Grid Operation.
- Supports up to 157W continuous power with 6hrs peak sun.
- Weatherproof Outdoor Enclosures with up to 720Ah Battery
- Expandable Ground Mounted Solar Mount
- High Performance Sealed Lead Acid AGM Batteries
- MPPT Solar Charge Controllers with RS485 Interface
- Thermostatically Controlled Ventilation



RPSTL 720W
Solar System

Applications

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

Description

The RemotePro® 720W 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. 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 RPAL48 has a 48V MPPT with 7 port GigE PoE switch and various controls for email alerts and remote monitoring. 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 powder coated steel pole mount or diamond plate aluminum ground mount. They are hinged and gasket sealed with locking closures. They have 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 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 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 hold 4 panels (Kit # TPSM-350x4-AdapterKit) or 6 panels (Kit# TPSM-350x6-AdapterKit). This is useful if more solar capacity is needed in the future.

Specifications – Controller Specific

	12/24 MPPT	12/48 MPPT	48V MPPT/PoE Switch
Controller Type	MPPT with display and RS485		Manageable MPPT with 7 port GigE PoE Switch. Remote Monitoring.
Controller Outputs	20A or 30A Wire Terminal		4 Port 802.3at or 24V Passive, 3 Port 24/48V 30W Passive PoE. Aux Port 24/48V 2.5A
Bulk Charge	14.4V @ 12V Battery 28.8V @ 24V Battery	14.4V @ 12V Battery 28.8V @ 24V Battery 57.6V @ 48V Battery	57.6V @ 48V Battery
Float Charge	13.8V @ 12V Battery 27.6V @ 24V Battery	13.8V @ 12V Battery 27.6V @ 24V Battery 55.2V @ 48V Battery	55.2V @ 48V Battery
Over-discharge protection	11.1V @ 12V Battery 22.2V @ 24V Battery	11.1V @ 12V Battery 22.2V @ 24V Battery 44.4V @ 48V Battery	44.4V @ 48V Battery (user settable)
Over-discharge recovery volts	12.6V @ 12V Battery 25.2V @ 24V Battery	12.6V @ 12V Battery 25.2V @ 24V Battery 50.4V @ 48V Battery	50.4V @ 48V Battery (User Settable)
Controller Self Consumption	<1W	<1W	<3.5W

Specifications – Enclosure Specific

	RPSTL	RPAL
Battery Type	Maintenance Free, Non-Spillable, Valve Regulated Sealed Lead Acid, AGM	Maintenance Free, Non-Spillable, Valve Regulated, Sealed, Pure Lead Carbon AGM
Battery Life		5+ years
Enclosure Type	ENC-STL-24x24x16 Pole/Wall Mount, Powder Coat Steel	ENC-AL-65x18x20 Ground Mount, Diamond Plate Aluminum
Enclosure Size	23.9 x 23.9 x 16.1" (608 x 608 x 409.5mm)	65 x 18 x 20" (1651 x 457 x 508mm)
Internal Mount Features	DIN Rail/Flat Plate Mounting Brackets Welded to Door and Back	
Solar Panel Dims (L x W x T)	720W Solar Array 78 x 77 x 1.6" (1980 x 1956 x 40mm)	
Operating Temperature		-30°C to +60°C (-22°F to 140°F)
System Weight (no batteries)	377 lb (171 kg)	394 lb (179 kg)
Battery Weight	40.3 lb (18.3 kg) (Each 50Ah Battery)	127 lb (57.6 kg) (Each 180Ah Battery)
Wind Speed Rating		90MPH
Warranty		3 Years



AGM 12V 52Ah Battery

RPSTL Enclosure interior
without batteries or controller

AGM 12V 180Ah Battery

RPAL Diamond Plate
Aluminum Ground Mount

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
RPSTL12/24M-200-720	Large Steel	12/24V	200Ah	50W	>24hrs	12/24 MPPT	12/24V 30A	720W
RPSTL12/24M-400-720	Large Steel	12/24V	400Ah	100W	>24hrs	12/24 MPPT	12/24V 30A	720W
RPSTL12/48M-400-720	Large Steel	12/24/48V	400Ah	100W	>24hrs	12/48 MPPT	12/24/48V 30A	720W
RPAL12/48M-720-720	Ground Mount Aluminum	12/24/48V	720Ah	157W	>24hrs	12/48 MPPT	12/24/48V 30A	720W
RPAL48-720-720	Ground Mount Aluminum	48V	720Ah	157W	>24hrs	48V MPPT with 7 port PoE Switch	24/48V 200W	720W

Part Number Definition:**RPSTL 12/24M-400-720**

Enclosure Type
 S - Small Aluminum
 L - Large Aluminum
 STL - Large Steel
 AL - Ground Mount Alum

Battery Voltage, Ctrl Type
 12/24 - 12/24V PWM
 12/24M - 12/24V MPPT
 12/48M - 12/24/48V MPPT
 48 - 48V MPPT with 7 port PoE Switch

12V Storage Capacity
 100 - 100Ah
 200 - 200Ah
 400 - 400Ah
 720 - 720Ah
 14 - 1.44KAh

Solar Panel Output
 85 - 85 Watt
 170 - 170 Watt
 340 - 340 Watt
 720 - 720 Watt



RPAL 720W Solar System



720W Solar Mount – 10-65 deg Tilt, ground mount



For further information contact:
Tyconsystems.com

