

# Wi-Fi Solar Power System

## Off-Grid Wireless Networks

- Expand your wireless mesh beyond conventional boundaries
- 24/7 power for locations without power utility service
- Designed to provide reliable power with 7 day autonomy (cloud coverage)
- Cost effective alternative to trenching and laying conduit where AC power is not available
- Systems are optimized for geography regions with different solar resources



Wi-Fi Solar Power System

Alpha's Wi-Fi Solar Power System (SPS) provides portable, wireless power to outdoor wireless access points and is a less expensive solution than utility connection in many remote locations. The rugged design of the SPS makes it ideal for installations in harsh, outdoor environments. These systems are an attractive alternative to generators and are an efficient source of

energy for small loads. The Wi-Fi Solar Power System's features include temperature compensated PWM battery charging to extend battery life, integral lightning protection, code-compliant wiring and circuit protection. To minimize installation time and eliminate errors, these systems have pre-connectorized cables.

### Wi-Fi Solar Power Systems

Models:	SPS48-340/108G <sup>1</sup>	SPS48-680/216G <sup>2</sup>
<b>General Specifications</b>		
Daily Rated Energy Production:	Approx. 450W-hrs per day (with average daily solar insolation 2.5kWh/m <sup>2</sup> /day)	Approx. 510W-hrs per day (with average daily solar insolation 1.4kWh/m <sup>2</sup> /day)
Design Autonomy:	5 to 7 days (batteries fully charged, for daily rated energy production)	
Operating Temperature:	-10 to 50°C / 14 to 122°F	-10 to 50°C / 14 to 122°F
PV Module:	2 170W PV modules	4 170W PV modules
Panel Nominal Voltage:	24V	24V
Dimensions H x W x D (in/mm):	62 x 32.5 x 1.8 / 1574.8 x 825.5 x 45.7 Array: 62 x 65 / 1574.8 x 1651	62 x 32.5 x 1.8 / 1574.8 x 825.5 x 45.7 Array: 124 x 65 / 3149.6 x 1651
Weight (lb/kg):	37.5 / 17 per PV module	37.5 / 17 per PV module
Module Efficiency:	13.1%	13.1%
<b>Battery</b>		
Type:	Deep cycle, gelled-electrolyte lead-acid	Deep cycle, gelled-electrolyte lead-acid
Capacity (100hrs, 25°C/77°F):	108AH	216AH
System Enclosure (Control, Battery):	Alpha Technologies PWE-3 Pole Mount / UPE-3 Ground Mount	Alpha Technologies PWE-8 Pole Mount / UPE-8 Ground Mount
Dimensions H x W x D (in/mm):	33.5 x 26 x 15 / 850 x 660 x 381	36.88 x 30.25 x 16 / 937 x 768 x 406
Enclosure Loaded Weight (lb/kg):	325 / 147	690 / 313
<b>Electrical</b>		
Nominal Output Voltage:	48Vdc	48Vdc
Low Voltage Load Disconnect:	LVD Setting = 46Vdc	LVD Setting = 46Vdc
Low Voltage Load Reconnect:	LVR Setting = 50.4Vdc	LVR Setting = 50.4Vdc
High Voltage PV Disconnect:	HVD Setting = 56.4Vdc	HVD Setting = 56.4Vdc
Note: <sup>1</sup> The SPS 48-340/108G produces 18.8 continuous watts <sup>2</sup> The SPS 48-340/216G produces 21.3 continuous watts		