

SunWize® Power Stations

For Continuous Loads of 75 to 3000 Watts

SunWize Power Stations are complete, integrated solar power systems designed for site loads requiring 12/24/48VDC or 110V-240V, 50Hz/60Hz AC voltage. Wired to NEC standards, each Power Station provides safe and reliable power without the expense of installing utility power. The solar array tilt is easily adjustable to maximize solar energy output. The systems are mounted on galvanized steel structures or trailers engineered to withstand harsh environments and high wind loads.

Proven solution: Solar has successfully powered thousands of critical applications worldwide for more than 30 years.

Reliability: SunWize systems allow your equipment to operate where power quality and reliability are a concern or where utility power does not exist in the most rugged environments.

Cost-effective: SunWize systems are cost-effective solutions providing continuous power to critical loads. Set up and installation time are minimized for rapid deployment.

Installation flexibility: Power Station ground mounts are designed according to site characteristics. Considerations can include surface uniformity, anchoring requirements, site area size, and wind loads to ensure longevity and durability.

Shipping and handling: SunWize systems are designed to withstand rugged transportation to remote sites. Each subsystem is fully assembled and factory tested before shipment.



SunWize 880W Power Station



SunWize PSG7200 Hybrid Power Station



SunWize PSG7680 Hybrid Power Station

Key Features and Benefits:

- Meets your equipment electrical power requirements
- System load verified for voltage tolerances and duty cycle of operation
- System design verified for performance criteria, reliability and function
- Geographic location analysis provided
- Standard product line flexibility allows customization
- Cost-effective design maximizes space efficiency
- Solid state electronics
- UL, FM and CSA listed components
- 20/25-year solar module warranty
- Full system warranty for one year
- Pre-assembled for easy installation
- No environmental impact
- Low operating and maintenance costs
- Complete systems reduce specifying and buying time
- Data logging and remote control software
- Hybrid options and project services available

SunWize® Power Stations

Power Station Technical Specifications

Environmental Specification

Ambient Temperature	-30°C to 50°C
Relative humidity	100% condensing
Altitude	3000m max
Wind Speed	110MPH sustained class C exposure
Seismic	Zone 4

Electrical Specification

Operating voltage range	From 12V up to 48VDC nominal
Array load current	From 60A up to 320A
Temperature compensation	Standard on all models
Array wattage	880 – 8200W
Battery capacity	260 – 7000Ah

The System

- Provides uninterrupted power to the load with a power reliability of 99.5% worst case month based on weather and insolation data specific to the site.
- Battery designed for 5 days (120hrs) of autonomy based on average low temperature.
- Hybrid system: designed to work with engine genset or fuel cell to offset PV contribution and provide uninterrupted power to the load with power reliability of 100% worst case; battery designed for 3 days (72hrs) of autonomy based on average low temperature.

The Modules

- Include conduit ready junction boxes.
- Comply with industry standard wind exposure of 110MPH sustained, 133MPH gust.
- Impact resistant for 1 inch (25mm) hail at terminal velocity.

The Batteries

- Designed for solar applications in deep-cycle operation.
- Battery life rated for greater than 500 cycles to 80% DOD (12V cells) and 1200 cycles to 80% DOD (2V cells). Total battery life varies with application temperature and load characteristics.
- Maintenance free and require no watering or equalizing charge.

The Controls

- Low voltage load disconnect, factory set for battery type and system voltage used. Set standard at 80% battery depth-of-discharge.
- Standard PV charge controls up to 60A each are passive cooled. Higher power configurations up to 320A are fan cooled with advanced MPPT controls to optimize energy contribution.
- Standard AC controls: AC inverter with up-to 12kW of power output, 10kW battery charging capability with integral genset controls.

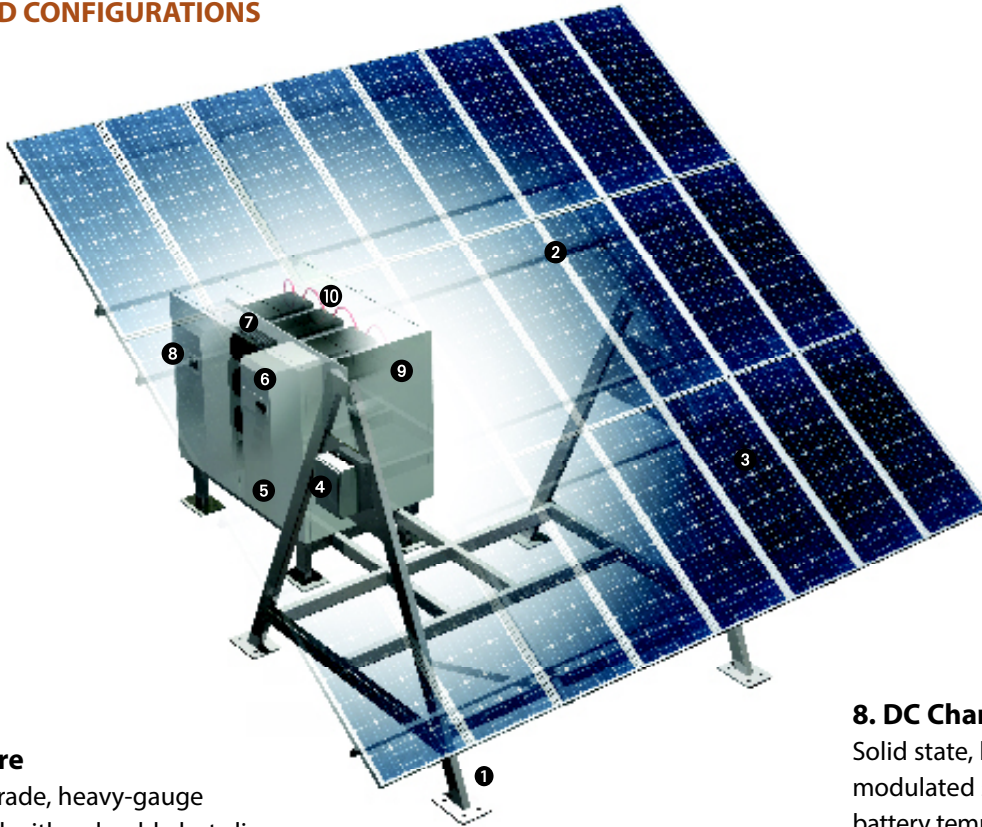
Protection and Safety

- NEC compliant circuit protection.
- Finger safe terminal blocks and covers on all switches and breakers.
- All wiring is routed in liquid tight conduit for protection from damage and the elements.
- Surge protection options protect both solar and load equipment from transients.

SunWize® Power Stations

Power Station Model Information

STANDARD CONFIGURATIONS



1. Structure

Industrial grade, heavy-gauge steel coated with a durable hot-dip galvanized finish. Available in standard platforms from 900-3600Wp (peak watts) on a single structure.

2. Adjustable Solar Array

Solar array tilt is easily adjustable from 15-55 degrees.

3. Solar Modules

Solar array, consisting of high-efficiency, crystalline silicon modules, provides reliable charging in all climates.

4. DC Combiner Box

Provides solar array circuit disconnects and surge protection. Simplifies assembly and testing.

5. System Control Enclosure

The control enclosure is a NEMA 3R powder-coated steel box housing the power distribution components, charge control and inverter/charger electronics,

disconnects, system monitoring and control components. Enclosure features rainproof vents and key lockable doors.

6. AC and DC Distribution Panels

Customer AC and DC breaker panels conform to U.S. National Electric Code, providing overload and surge protection. Offers flexibility for multiple loads.

7. Inverter/Battery Charger

Microprocessor-controlled high-efficiency, sine wave inverter with three stage temperature compensated battery charger. Peak conversion efficiency of 96%, protection circuitry, LCD display with user and setup menus. Configurable from 3-12kW.

8. DC Charge Controller

Solid state, low frequency, pulse-width modulated solar charge control with battery temperature compensation and automatic nighttime disconnect. Configurations available from 60A to 320A. Utilizes standard and maximum power point tracking (MPPT) technologies.

9. Battery Enclosure

Standard battery PSF-style enclosure features white powder-coated steel construction, lockable front-opening doors, NEMA 3R louvered vented design. T-Style chest enclosures for smaller battery configurations feature white powder-coated aluminum construction and a pad-lockable, NEMA 3R vented lid. Enclosure sizes vary to accommodate batteries sized from 210AH to 3000AH.

10. Battery Bank

Standard system includes maintenance-free, 12V sealed, lead-acid batteries. For larger capacities, 2V industrial cells are available.

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Power Station Model Information

STANDARD CONFIGURATIONS

System Voltage: 12 Volts / 24 Volts / 48 Volts

Enclosure Mounting Style

- Front opening hinged door
- Top opening hinged

Structure Type

- 60" x 85" steel ground mount w/leveling feet
- 60" x 85" steel ground mount w/leveling feet and rear skid
- 80" x 102" steel ground mount
- 80" x 102" steel ground mount w/rear skid
- 80" x 120" steel ground mount
- 80" x 120" steel ground mount w/rear skid
- HD on-road trailer w 80" x 102" steel mount

Enclosure Finish

- Powder-coated white aluminum, Nema 3R
- Powder-coated white steel, Nema 3R
- SS-304 stainless steel, Nema 3R

Structure Finish

- Hot dipped galvanized
- Gray Powder coat over hot dipped galvanized

Local Metering

- LCD charge control display
- LCD charge control display w/external mounting

System Standard Options:

- Remote Monitoring Option

Power Panel Options

- 3.0kW max 120VAC 60Hz
- 4.5kW max 120/240 60Hz
- 6.0kW max 120/240 60Hz



SunWize 1800W Power Station

Power Panel Options: (continued)

- 12kW max 120/240 60Hz
- 9.0kW max 208 3-PHASE 60Hz
- 3.0kW max 230VAC 50Hz

Genset Options

- Light duty, 3600 RPM, air-cooled LP engine 8.5–12kW
- Medium duty, 1800 RPM, liquid-cooled LP engine 10–20kW
- Heavy duty, 1800 RPM, liquid-cooled LP engine 30–60kW
- Medium duty, 1800 RPM, air-cooled diesel engine 6–15kW
- Medium duty, 1800 RPM, liquid-cooled diesel engine 10–20kW
- Heavy duty, 1800 RPM, liquid-cooled diesel engine 30–60kW

Fuel Cell Options

- Fuel cell, DC, 1.2kW
- Fuel cell, DC, 2.0kW