



Series: **SPS3-12VDC**

## Off-grid Solar Power System with Minimum 3-day Reserve Power

### FEATURES & BENEFITS

- 3-day Minimum System Reserve Power
- Provides Regulated 12 Vdc Output
- Weatherproof Enclosure
- Preassembled, Prewired, Ready-To-Install
- Deep-cycle Maintenance Free Battery

### APPLACATIONS

- Wireless Sensors, Transmitters, Base Stations
- Process Controls, Instrumentation
- Oil & Gas Instrumentation
- Irrigation Drip System, Water Pumping, Valves
- Pond Aeration Systems

### DESCRIPTION

Models come pre-wired and include either an Aluminum, or Fiberglass, weatherproof enclosure with a gasketed hinged door. Each model includes all the required system components to get you up and running right out of the box. Just mount and connect the included solar panel, Install and connect your equipment, flip the internal circuit breaker and you done.

#### Solar Panel

High performance design that provide excellent low light performance. Panels feature a heavy duty extruded aluminum frame with high transparency, low-iron tempered glass.

#### Charge Controller

Specifically designed for 12 Volt System charging, the controller in this system features precise voltage and current regulation and over voltage cut off protection.

#### Deep-cycle SLA Battery

Maintenance free, long life, high-energy sealed Lead Acid design provides years of reliable service under the most extreme conditions.



**GENERAL SPECIFICATIONS**

**Operating Temperature:** -40 to 140 °F (-40 to 60 °C)

**System Battery/Controller Enclosure**

**(-26, -35, -55 models):** Fiberglass/Plastic Blend NEMA 4X

**(-75, -100, -110 models):** Aluminum, Rainproof

**Minimum Battery Reserve Time:** 3 days (72 hrs)

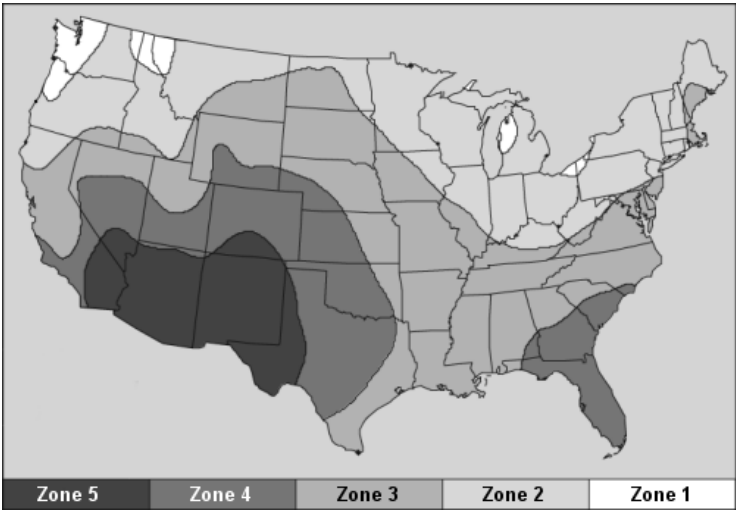
**Regulated Output:** 12 Vdc

**Estimated Battery Life:** 3+ Years\*

*Complete System Includes Solar Panel, Charge Controller, Deep-cycle Battery, weatherproof Fiberglass Enclosure, Earth Grounding Kit, Solar Power Cables, Panel and Enclosure Mounting Kit.*

**How to Select the Correct Solar Power System for Your Application**

1. Identify the zone your system will be installed from the map on the right.
2. Use the formula below to determine the amp hours per day your equipment requires. This is done by multiplying the operating current by the number of hours per day your equipment will be required to operate.
3. Based on the zone the solar power system will be installed and the amp hour per day requirement, use the chart below to identify a corresponding "Output Capacity" letter.
4. Use the model number charts below to locate the correct "Output capacity" letter and select your model number.



**Example:**

(Equipment Current Draw +10%) X (Equipment Run Time in Hours = Load-amp Hrs/day  
0.14 + 0.014 = 0.154 (Amps) X 24 (Hrs) = 3.7 Load-amp Hrs/day

Based on this example you would pick:  
Letter "B4" for Zone 5, "C4" for Zones 3 or 4, "D4" for Zone 2, and "F4" for Zone 1.

Load-amp Hrs/day	2	3	4	5	7	10	12	15	17	20	25	30	35
Zone 1	C2	E3	F4	G5	H7	I10	J12	K15	L17	-	-	-	-
Zone 2	B2	C3	D4	E5	F7	G10	H12	I15	J20	K25	L30	-	-
Zone 3	B2	B3	C4	D5	E7	F10	G12	H15	H17	I20	J25	K30	L35
Zone 4	A2	B3	C4	C5	D7	F10	F12	G15	H17	H20	I25	J30	K35
Zone 5	A2	B3	B4	C5	D7	D10	F12	F15	G17	G20	H25	I30	J35

<b>Model Number</b>	<b>SPS3-12VDC-10W-26</b>	<b>SPS3-12VDC-20W-35</b>	<b>SPS3-12VDC-30W-55</b>
<b>Output Capacity (Letter Code)</b>	<b>A2</b>	<b>B2, B3, B4</b>	<b>C2, C3, C4, C5</b>
<b>Solar Panel Capacity</b>	10 Watt, 18V	20 Watt, 18V	30 Watt, 18V
<b>Charge Controller</b>	6 A	6 A	6 A
<b>Battery Capacity</b>	12V, 26 Ah	12V, 35 Ah	12V, 55 Ah
<b>Enclosure Size</b>	12 X 8 x 6.4" (304 x 203 x 162mm)	12 X 8 x 6.4" (304 x 203 x 162mm)	13.8 x 11.9 x 6.8" (351 x 302 x 173 mm)

<b>Model Number</b>	<b>SPS3-12VDC-40W-55</b>	<b>SPS3-12VDC-50W-75</b>	<b>SPS3-12VDC-60W-75</b>
<b>Output Capacity (Letter Code)</b>	<b>D4, D5, D7, D10</b>	<b>E5, E7</b>	<b>F7, F10, F12, F15</b>
<b>Solar Panel Capacity</b>	40 Watt, 18V	50 Watt, 18V	60 Watt, 18V
<b>Charge Controller</b>	6 A	6 A	6 A
<b>Battery Capacity</b>	12V, 55 Ah	12V, 75 Ah	12V, 75 Ah
<b>Enclosure Size</b>	13.8 x 11.9 x 6.8" (351 x 302 x 173 mm)	16 x 16 x 10" (406 x 406 x 254 mm)	16 x 16 x 10" (406 x 406 x 254 mm)

<b>Model Number</b>	<b>SPS3-12VDC-80W-75</b>	<b>SPS3-12VDC-120W-110</b>	<b>SPS3-12VDC-140W-110</b>
<b>Output Capacity (Letter Code)</b>	<b>G10, G12, G15, G17, G20</b>	<b>H12, H15, H17, H20, H25</b>	<b>I10, I12, I15, I20, I25, I30</b>
<b>Solar Panel Capacity</b>	80 Watt, 18V	120 Watt, 18V	140 Watt, 18V
<b>Charge Controller</b>	10 A	10 A	10 A
<b>Battery Capacity</b>	12V, 75 Ah	12V, 55 Ah(x2)	12V, 55 Ah(x2)
<b>Enclosure Size</b>	16 x 16 x 10" (406 x 406 x 254 mm)	18 x 18 x 18" (457 x 457 x 457 mm)	18 x 18 x 18" (457 x 457 x 457 mm)

<b>Model Number</b>	<b>SPS5-12VDC-180W-110</b>	<b>SPS5-12VDC-240W-200</b>	<b>SPS5-12VDC-280W-200</b>
<b>Output Capacity (Letter Code)</b>	<b>J17, J25, J30, J35</b>	<b>K20, K30, K35</b>	<b>L17, L25, L35</b>
<b>Solar Panel Capacity</b>	180 Watt, 18V	240 Watt, 18V	280 Watt, 18V
<b>Charge Controller</b>	20 A	20 A	20 A
<b>Battery Capacity</b>	12V, 55 Ah(x2)	12V, 100 Ah(x2)	12V, 100 Ah(x2)
<b>Enclosure Size</b>	18 x 18 x 18" (457 x 457 x 457 mm)	18 x 18 x 18" (457 x 457 x 457 mm)	18 x 18 x 18" (457 x 457 x 457 mm)

\*Battery life is dependent on total system load, depth of charge cycles and ambient temperature conditions.

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Note: Continued product improvements make specifications subject to change without notice.  
Check [www.imagineinstruments.com](http://www.imagineinstruments.com) for the latest product information and updates

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