



# MODEL SERIES SPS-00W-XX

## SOLAR POWER SUPPLIES

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### DESCRIPTION

**Detcon Model Series SPS** are self contained, pre-assembled 12 VDC solar power supplies designed specifically for heavy industrial applications. Each system consists of a rechargeable battery, solar energy panel and a battery controller-charge circuit designed to supply continuous DC power sufficient enough to operate a wide range of industrial automation products. Gas detection sensors, process measurement devices, remote data acquisition systems and audio visual alarm stations are just a few examples. These pre-assembled solar power supplies (SPS) are available in 4 different power levels with one rated for use in Division 1 electrically classified areas, one for Division 2 locations and 2 for general purpose non-hazardous locations.

**Model SPS-01W-DV1** is specifically designed to provide continuous power to wireless field devices that operate on less than 1 watt. The internal battery is a plug-in/rechargeable lithium ion assembly capable of delivering 10AH of energy. The battery assembly is an intelligent design that includes an advanced fuel gauge circuit. A digital output provides charge level status and can be used as a preemptive diagnostic tool. The battery and the solar panel are housed in cast aluminum enclosures suitable for installation and use in Class 1; Division 1, Group C-D hazardous locations.

#### Estimated Panel Output

Average Sun Hours per Day	1	2	3	4	5	6
Average Amp Hours per Day	.081	.162	.243	.324	.405	.486

Model SPS-01W-DV1 is stackable to create higher output arrays. Additional panels are wired in parallel and increase the average amp hours per day to suit the power requirements of the field devices.

**Model SPS-10W-GP** is specifically designed to provide continuous power to wireless field devices that operate on less than 10 watts. The internal battery is a sealed lead acid assembly capable of delivering 18AH of energy. The battery and battery controller are housed in a 316 stainless steel enclosure suitable for outdoor installation and use general purpose non-hazardous locations. The solar panel is packaged in a 316 stainless steel frame with a 2" pipe mount bracket.

#### Estimated Panel Output

Average Sun Hours per Day	1	2	3	4	5	6
Average Amp Hours per Day	.54	1.08	1.62	2.16	2.70	3.24

**Model SPS-20W-GP** is specifically designed to provide continuous power to wireless field devices that operate on less than 20 watts. The internal battery is a sealed lead acid assembly capable of delivering 18AH of energy. The battery and battery controller are housed in a 316 stainless steel enclosure suitable for outdoor installation and use in general purpose non-hazardous locations. The solar panel is packaged in a 316 stainless steel frame with a 2" pipe mount bracket.

#### Estimated Panel Output

Average Sun Hours per Day	1	2	3	4	5	6
Average Amp Hours per Day	1.08	2.16	3.24	4.32	5.40	6.48

**Model SPS-40W-DV2** is specifically designed to provide continuous power to wireless field devices that operate on less than 40 watts. The internal battery is a sealed lead acid assembly capable of delivering 36AH of energy. The battery and battery controller are housed in a 316 stainless steel enclosure suitable for outdoor installation and use in Class 1; Division 2, locations. The solar panel is packaged in a 316 stainless steel frame with a 2" pipe mount bracket.

#### Estimated Panel Output

Average Sun Hours per Day	1	2	3	4	5	6
Average Amp Hours per Day	2.23	4.46	6.74	8.93	11.16	13.39



Model SPS-01W-DV1



Model SPS-10W-GP  
 SPS-20W-GP  
 SPS-40W-DV2

## SPECIFICATIONS

Model Number	SPS-01W-DV1	SPS-10W-GP	SPS-20W-GP	SPS-40W-DV2
Panel Voltage	24 VDC	12 VDC	12 VDC	12 VDC
Panel Power Rating	1.5 Watts	10 Watts	20 Watts	40 Watts
Electrical Classification	Class 1: Div1 Group C-D	Non-Hazardous	Non-Hazardous	Class 1; Div 2 Groups A,B,C,D
Panel Mounting	Adjustable Tilt 2" Pipe Mount	Adjustable Tilt 2" Pipe Mount	Adjustable Tilt 2" Pipe Mount	Adjustable Tilt 2" Pipe Mount
Panel Warranty	10 Year	10 Year	10 Year	10 Year
Battery-Controller Enclosure	Cast Aluminum	316 SS	316 SS	316 SS
Enclosure Dimensions	7" x 9" x 3"	12" x 10" x 6"	12" x 10" x 6"	12" x 10" x 6"
Controller Rating	24 VDC, 200mA	12 VDC, 8 Amps	12 VDC, 8 Amps	12 VDC, 8 Amps
Low Voltage Disconnect	Yes	Yes	Yes	Yes
Controller Warranty	5 Year	5 Year	5 Year	5 Year
Battery Type	Lithium Ion	Lead Acid	Lead Acid	Lead Acid
Battery Voltage	12 VDC	12 VDC	12 VDC	12 VDC
Battery AH Rating	10 AH	18 AH	18 AH	36 AH

## ORDER GUIDE

PN 975-SPS01W-DV1	<b>Model SPS-01W-DV1</b> 1.5 watt solar power supply complete with solar panel and battery charger/controller circuit in Division 1 enclosure
PN 975-SPA01W-DV1	<b>Model SPA-01W-DV1</b> 1.5 watt solar panel array in Division 1 enclosure
PN 976-000303-000	Rechargeable lithium ion plug-in battery pack, 12 VDC, 10 AH
PN 975-SPS10W-GPU	<b>Model SPS-10W-GP</b> 10 watt solar power supply complete with rechargeable sealed lead acid battery, solar panel and battery controller circuit in non-classified area 316 stainless steel enclosure
PN 975-SPS20W-GPU	<b>Model SPS-20W-GP</b> 20 watt solar power supply complete with rechargeable sealed lead acid battery, solar panel and battery controller circuit in non-classified area 316 stainless steel enclosure
PN 975-SPS40W-DV2	<b>Model SPS-40W-DV2</b> 40 watt solar power supply complete with rechargeable sealed lead acid battery, solar panel and battery controller circuit in Division 2, 316 stainless steel enclosure