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Solar Panel Guide Specification Data Sheet

Sun Pacific Power Corp.
SPP/PVM220PS
SPP/PVM215PS



# Sun Pacific Power Corporation

Building A Brighter Future

Data sheet: Model SPP/PVM220PS; 200-240 watts

Solar Modules Made in the USA

### SPP/PVM220PS Series Photovoltaic Modules

Peak Power: 200-240Wp

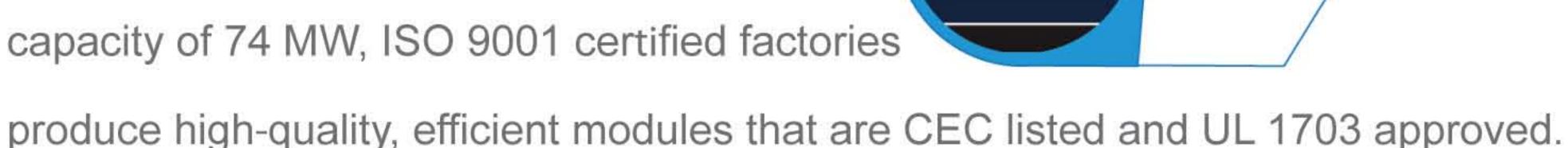
- 60 multicrystalline solar cells connected in series
- For residential, commercial and utility grid-tied applications
- Output power tolerance of -0% +5%
- Robust, anodized aluminum frame and tempered glass
- Tyco junction box, easy click SOLARLOK® connectors and cables

### Quality, Reliability, and kWh Yield

SPP modules are powered by industry acknowledged high performance, reliable silicon cells. The modules have been designed and engineered with over 20 years of industry experience. Rigorous durability and performance tests are performed to ensure each module's lifetime performance and maximum kWh yield.

Affordable Domestic Photovoltaic Panels

SPP PV modules are domestically sourced and produced. With an annual manufacturing capacity of 74 MW, ISO 9001 certified factories

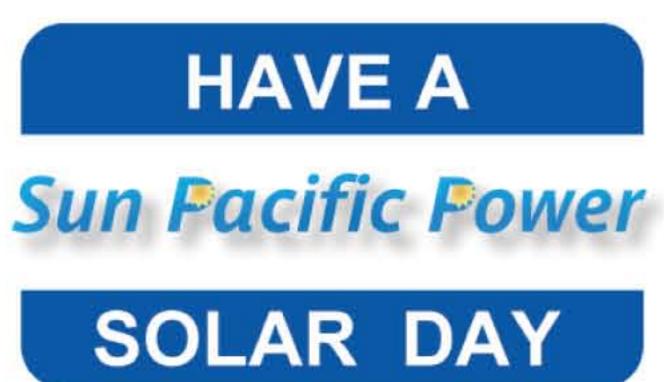


### Services and Support

We work closely with solar power providers, installers, energy service companies and financiers to develop & deliver your renewable energy system.

#### A Sustainable Solution

High quality photovoltaic solar modules, predictable and controlled energy sourcing, on site energy supply.



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Model: SPP/PVM220PS Photovoltaic Modules

| Electrical Characteristics (STC) |                 |                |                |               |               |                      |
|----------------------------------|-----------------|----------------|----------------|---------------|---------------|----------------------|
| Model<br>SPP/PVM220PS-           | Pmax<br>(watts) | Vmax<br>(V dc) | lmax<br>(A dc) | Voc<br>(V dc) | lsc<br>(A dc) | Module<br>Efficiency |
| (ZZZZ)200(X)                     | 200             | 27.8           | 7.29           | 36.2          | 7.81          | 12.4                 |
| (ZZZZ)205(X)                     | 205             | 28.2           | 7.36           | 36.4          | 7.87          | 12.7                 |
| (ZZZZ)210(X)                     | 210             | 28.6           | 7.43           | 36.7          | 7.93          | 13.1                 |
| (ZZZZ)215(X)                     | 215             | 29.0           | 7.50           | 36.9          | 7.99          | 13.4                 |
| (ZZZZ)220(X)                     | 220             | 29.4           | 7.57           | 37.1          | 8.05          | 13.7                 |
| (ZZZZ)225(X)                     | 225             | 29.7           | 7.66           | 37.4          | 8.11          | 14.0                 |
| (ZZZZ)230(X)                     | 230             | 30.1           | 7.73           | 37.6          | 8.17          | 14.3                 |
| (ZZZZ)235(X)                     | 235             | 30.5           | 7.79           | 37.9          | 8.24          | 14.6                 |
| (ZZZZ)240(X)                     | 240             | 30.8           | 7.88           | 38.1          | 8.30          | 14.9                 |

| No.                        |  |  |  |  |
|----------------------------|--|--|--|--|
| Mechanical Characteristics |  |  |  |  |
| Solar Cells                | 60 multicrystalline 6 " silicon cells (156mm x156mm) in series |  |  |  |
| Front Cover                | 5/32" High Transmission Tempered Glass, 90.7% Transmittance    |  |  |  |
| Encapsulant                | EVA  |  |  |  |
| Back Cover                 | White Polyester  |  |  |  |
| Frame                      | Clear anodized aluminum, Double walled                         |  |  |  |
| Diodes                     | 3 SL1515 (16A) bypass diodes                                   |  |  |  |
| Junction Box               | Tyco Solarlok with bypass diodes, UL 1703 compliant            |  |  |  |
| Output Cables              | 12 AWG, 1.2 meters long with Standard Cable Coupler            |  |  |  |
| Mechanical Load            | Method 41, 45 lbs/ft <sup>2</sup>                              |  |  |  |
| External Dimensions        | 64.51" x 38.65" x 1.39"; 1638mm x 982 mm x 35 mm               |  |  |  |
| Weight                     | 50 lbs; 22.7 Kg  |  |  |  |
| Fire Rating                | Class C  |  |  |  |

| <b>-</b> | 1.39*    | 38,65*<br>37,25*<br>4.53*<br>1.00*<br>1.00*<br>4.76* |
|----------|----------|--|
|          |          | ø.201 GROUNDING HOLE  TYCO SOLARLOK JUNCTION BOX     |
|          | 46.375*  | CABLES (12AVG) 48.38°                                |
|          | 6.50*    | Ø.201<br>GROUNDING HOLE                              |
| L        | <u> </u> | CLEAR ANDDIZED SOLARLOK CABLE COUPLER                |

| Operating Module Temperature    | -40 to 85°C         |  |
|---------------------------------|---------------------|--|
| Maximum Series Fuse Rating      | 15 A                |  |
| Nominal Voltage                 | 24 V                |  |
| Limiting Reverse Current        | 8.3 A               |  |
| Maximum system voltage          | 600V                |  |
| Power output tolerance          | -0/+4.999 watts     |  |
| Current Temperature Coefficient | 0.04 to 0.08 %/°C   |  |
| Voltage Temperature Coefficient | -0.45 to -0.36 %/°C |  |
| Power Temperature Coefficient   | -0.68 to -0.52 %/C  |  |

|                     |        | PVM220PS- | PVM220PS- |
|---------------------|--------|-----------|-----------|
| Parameter           | Symbol | SPP156210 | SPP156230 |
|                     | Pmax   | 153.69    | 168.88    |
|                     | Vpmax  | 25.43     | 26.73     |
| Performance at NOCT | Ipmax  | 6.04      | 6.31      |
| NOCI                | Voc    | 33.08     | 34.32     |
|                     | Isc    | 6.57      | 6.70      |

- 5 year limited warranty on materials and workmanship
- 12 year limited warranty on 90% of power output
- 25 year limited warranty on 80% of power output
  - 25 panels/pallet
  - certified to UL 1703 standards

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