



<b>Model</b> Technology included	The Vroom Solar 3000™ (VS3000™) Smart Solar Management (SSM) featuring Vroom Forecaster
<b>DC Input Data</b> Max recommended PV power for module STC DC voltage Min - Max PV strings in parallel	Max Array input combination of 7.5kw (as long as max VOC and min VMP is within bounds of the configuration) Min VMP 170vdc   Max VOC 300vdc 1-3 (with the correct MC4 Y-branch connectors for parallel sets)
<b>Output Data AC</b> AC nominal power Surge Capacity Nominal AC voltage range AC frequency Max output current (@120VAC) Amperage Per Circuit Adjustable power factor AC output	3000 W 4500 watts for 100 ms Single phase, 120VAC (100-130VAC) 60hz 25 amps total 15 amp re-settable fuse above each circuit Variable based on load type Priority load: Outlet 1 (first), 2 (second), 3 (third), 4 (fourth)
<b>AC Input Data</b> AC amperage  2-wire start feature Inlet	Max 30 amps from UPS w/integrated battery, generator or utility grid Automatically utilized if present in generator 30 amp RV/Marine inlet (120V), NEMA L5-30P Twist & Lock Plug
<b>Solar-Direct Efficiency</b> Typical Efficiency	Up to 98% (based on initial tests)
<b>Protection Devices</b> DC reverse, polarity protection DC Disconnect AC short circuit protection Maximum input voltage protection Minimum input voltage protection	Yes Yes Yes Yes, up to 420vdc Yes
<b>Communications</b>	Bluetooth Low-Energy (BLE) capable
<b>General data</b> Dimensions (LxWxD) Weight Operating ambient temperature range Operating humidity Cooling Protection degree DC connection AC connection Display	16"x12"x6" <30lbs -20F to 120F, -29C to 49C* 95% RH Natural convection IP11, NEMA Rating 2 MC4 Standard outlets LEDs showing available power
<b>Certifications</b>	Designed to UL1741 standards
*	Design protocols included that if the internal temp approaches internal components max limits, the VS3000™ will throttle the loads down so as to not overheat the unit.

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## THE VROOM 3000™

solar-direct, smart solar management (SSM) control center, featuring the Vroom Forecaster

*Vroom Solar is changing the way solar power is delivered. Engineered with the precision and durability inspired by aerospace and military standards, the Vroom 3000™ is the only solar-direct personal power station that won't be shut down completely by a battery that fails.*

Current hybrid and off-grid solar systems must be paired with inverter/battery combos or the grid to operate. With the Vroom 3000™ Control Center and its **Smart Solar Management** intelligence, *neither a battery nor a grid attachment is required*, but can be added as an *optional* backup power source.

**Smart Solar Management (SSM)** is a fully integrated, fully automated power management system that delivers AC output power to the end-user's microgrid in the *most efficient and accurate way possible*, with three industry-first advantages:

1. **Industry-Leading Personal Power Plant Flexibility:** A fully integrated Automatic Transfer Switch (ATS) allows the end-user's choice of an *optional* UPS w/integrated battery, generator, or even the grid to power the Vroom Solar AC outlets if solar energy is not enough to sustain loads connected (or at night). This is when the **Smart Solar Management** system truly shines. When available solar energy wanes, individual outlets are automatically and instantly switched from solar-direct power to alternate power (if available), with outlet (4) being the first to switch. As solar energy becomes available again, alternate power is immediately turned off and solar-direct power automatically resumes (reset is not required). The Vroom 3000™ inverter is *unique in managing a constantly variable input and output and yet maintaining a perfectly stable sine wave*. No other inverter on the market today can do this.
2. **Industry-Leading Personal Power Plant Load Management:** The Vroom 3000™ has the industry-first ability (**Vroom Forecaster**) to calculate available power output on attached solar panels with no load applied (or required). Vroom's **Forecaster** displays this available power data through a "solar fuel gauge" on the front panel of the VS3000™. The benefit is *predictive power management vs. reactive power management*. Our unique method delivers real-time power availability information to our power delivery infrastructure resulting in more powerful solar output, delivered faster and more smoothly to the AC outlets and connected loads. This revolutionary technology also allows the Vroom 3000™ to work effectively with any connected solar panels.

**SSM** manages the user's solar energy onsite with our patent-pending load management technology, which provides the capability of managing multiple connected loads based on the *end-user's priority*. AC power is distributed through (4) fused receptacles (standard 110-volt outlets, each with an integrated 15-amp, resettable fuse), each having an internal priority level assigned. The end-user plugs in loads based on self-selected priority: *outlet (1) has the highest priority*, followed by outlets (2) through (4) in that order. Like an automatic

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transmission, power is cycled through the outlets, based on available, *predictive* input power and load draw. If an alternate energy source is not used and solar-direct is the only power source, each outlet will turn off, based on its priority level, as solar energy wanes.

And if an alternate power source is attached, a simple color-coded light system tells the end-user when an outlet is running on solar and when it's switched to an AC input backup source. Each outlet is protected by a single, main circuit breaker for the AC output and is equipped with a 3-color LED that changes colors to identify its current power source as: Solar Direct, Alternate Power, or No Power.

3. **Industry-Leading Personal Power Plant Efficiency:** *Only the Vroom 3000™ can produce a stable microgrid solution directly off of the sun's rays.* We refer to the Vroom 3000™ as a "solar-centric" personal power station; it uses solar-direct power as its *primary source* because it is clean, renewable, sustainable energy that is available almost anywhere. To ensure the system is as efficient as possible, **SSM** will always make solar-direct the primary source of power and deliver the power based on primary need and maximum utilization. This proprietary design delivers an industry-leading efficiency (up to **98% efficient**) in converting sunlight to usable AC power (no battery or grid needed to produce power instantly), making it the *most efficient* technology available on the market today.

Vroom Solar's **Smart Solar Management (SSM)** system is the end-user's assurance that their input power source and load management priority selections are being managed and optimized at all times, with no permitting, no hardwiring, no electrician, no programming, no moving parts, and no maintenance required.

The Vroom Solar 3000™ system is perfect for cycle-charging items that have their own batteries (thus removing the need for a central battery) and delivering solar power to where it's needed, *wherever it's needed*.

**The Vroom 3000™ with Smart Solar Management. Game-changing, "Plug Into the Sun... Anywhere" reliability, with a lower cost and a smaller footprint.**



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