Satcon PowerGate Plus PV inverters are the world’s most widely deployed solutions, powering many of the largest commercial and utility-scale solar installations.

Advanced Performance
With their advanced system intelligence, next-generation EDGE® MPPT technology, and industrial-grade engineering, PowerGate® Plus inverters maximize system uptime and power production, even in cloudy conditions.

Utility-Ready Features
- Open communication protocol, compatible with virtually any third-party monitoring system and easily integrated into SCADA systems allowing fast communications
- Remote control of real and reactive power
- Low-voltage ride through
- Power factor control
- Simplified grid interconnection

EDGE MPPT
- Provides rapid and accurate control that boosts PV plant kilowatt yield
- Provides a wide range of operation across all photovoltaic cell technologies

Printed Circuit Board Durability
- Conformal coated to withstand extreme humidity and air-pollution levels

Profitable PV Power
The Satcon® PowerGate® Plus 75 kW PV inverters have a significant impact on the profitability dynamic of large-scale solar PV systems. With its system intelligence, next-generation EDGE® MPPT technology and industrial-grade engineering, the PowerGate Plus 75 kW inverters maximize system uptime and power production, even in the harshest environments.

Advanced, Rugged, and Reliable
Engineered from the ground up to meet the demands of large-scale installations, Satcon PV inverters feature an outdoor-rated enclosure, advanced monitoring and control capabilities and EDGE, Satcon’s next-generation MPPT solution.

Proven Performance
The proven leader in solar PV inverter solutions for commercial installations, Satcon sets the standards for efficient large-scale power conversion.

Increased PV Plant Yield
At the heart of PowerGate Plus is EDGE, Satcon’s next-generation power optimization solution. With rapid and accurate MPPT control, EDGE increases PV plant kWh yield by extending the production window of arrays, enabling them to operate at optimal voltage and current levels for longer periods of time—even in varied sun conditions. To maximize efficiency, EDGE improves the performance of all PV technologies, including fixed and tracking solar arrays, enabling you to get the most from your investment.
Streamlined Design
With all components encased in a single, space-saving enclosure, PowerGate Plus PV inverters are easy to install, operate and maintain.

Rugged Construction
• Engineered for outdoor environments
• Wide thermal operating range: from -4° F to +122° F (-20° C to +50º C) without derating
• Solar shield attached to exterior of enclosure dissipate solar radiation, reduce heat buildup
• Single cooling fan
• Single cabinet with small footprint

Easy Maintenance
• Modular components make service efficient
• Convenient access to all components
• Customizable large in-floor cable gland plates make installation of DC and AC cables easy
• Integrated DC two-pole disconnect switch isolates the inverter, with the exception of the GFDI (Ground Fault Detection and Interruption) circuit, from the photovoltaic power system to allow inspection and maintenance

Proven Reliability
Rugged and reliable, PowerGate Plus PV inverters are engineered from the ground up to meet the demands of large-scale installations.

Safety
• UBC seismic Zone 4 compliant
• Built-in DC and AC disconnect switches
• Protective covers over exposed power connections

Output Transformer
• Provides galvanic isolation
• Matches the output voltage of the PV inverter to the grid

### PowerGate Plus 75 kW Specifications

<table>
<thead>
<tr>
<th>PowerGate Plus 75 kW Specifications</th>
<th>UL/CSA</th>
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</thead>
<tbody>
<tr>
<td><strong>Input Parameters</strong></td>
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</tr>
<tr>
<td>Input Voltage Range</td>
<td>315-600 VDC</td>
</tr>
<tr>
<td>Maximum Array Input Voltage</td>
<td>600 VDC</td>
</tr>
<tr>
<td>Maximum Operating Input Current¹</td>
<td>248 ADC</td>
</tr>
<tr>
<td>PV Array Configuration</td>
<td></td>
</tr>
<tr>
<td>Positive Ground</td>
<td></td>
</tr>
<tr>
<td>Negative Ground</td>
<td></td>
</tr>
<tr>
<td><strong>DC Input Combiner Options</strong></td>
<td></td>
</tr>
<tr>
<td>Combiner Bus Bar Inputs</td>
<td>6</td>
</tr>
<tr>
<td>Number of Inputs and Fuses</td>
<td>5 x 100A</td>
</tr>
<tr>
<td></td>
<td>6 x 80A</td>
</tr>
<tr>
<td><strong>Transformer</strong></td>
<td></td>
</tr>
<tr>
<td>Integrated Transformer²</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Efficiency</strong></td>
<td></td>
</tr>
<tr>
<td>Maximum³</td>
<td>96.6%</td>
</tr>
<tr>
<td>CEC</td>
<td>96%</td>
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<tr>
<td><strong>Output Parameters</strong></td>
<td></td>
</tr>
<tr>
<td>Nominal Power</td>
<td>75 kW</td>
</tr>
<tr>
<td>Nominal Output Voltage</td>
<td></td>
</tr>
<tr>
<td>208 VAC</td>
<td>240 VAC</td>
</tr>
<tr>
<td>480 VAC</td>
<td></td>
</tr>
<tr>
<td>Output Voltage Range, [-12%/10%]</td>
<td></td>
</tr>
<tr>
<td>183-229 VAC</td>
<td>211-264 VAC</td>
</tr>
<tr>
<td>422-526 VAC</td>
<td></td>
</tr>
<tr>
<td>Maximum Output Current/Phase</td>
<td></td>
</tr>
<tr>
<td>208 A</td>
<td>181 A</td>
</tr>
<tr>
<td>91 A</td>
<td></td>
</tr>
<tr>
<td>Standby Consumptions (tare losses</td>
<td></td>
</tr>
<tr>
<td>including control power and aux.)</td>
<td></td>
</tr>
<tr>
<td>65 W</td>
<td>72 W</td>
</tr>
<tr>
<td>70 W</td>
<td></td>
</tr>
<tr>
<td>Nominal Output Frequency, 3-Phase</td>
<td></td>
</tr>
<tr>
<td>60 Hz</td>
<td></td>
</tr>
<tr>
<td>Maximum Harmonic Distortion</td>
<td>&lt;3% THD</td>
</tr>
<tr>
<td>Power Factor, Full Load</td>
<td>&gt;99%</td>
</tr>
<tr>
<td>Dynamic Power Factor Control</td>
<td>+/- 0.8</td>
</tr>
<tr>
<td>Power Curtailment</td>
<td>0-100%, 1% steps</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td></td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td></td>
</tr>
<tr>
<td>(Nominal Power)</td>
<td>-4° F to +122° F (-20° C to +50º C) (Opt. -40° C to +50º C)</td>
</tr>
<tr>
<td>Storage Temperature Range</td>
<td></td>
</tr>
<tr>
<td>-22° F to +158° F (-30° C to +70º C)</td>
<td></td>
</tr>
<tr>
<td>Cooling</td>
<td>Forced Air</td>
</tr>
<tr>
<td>Noise Level (Distance of 3 m)</td>
<td>&lt;65 dB(A)</td>
</tr>
<tr>
<td>Relative Humidity (Non-Condensing)</td>
<td>up to 90%</td>
</tr>
</tbody>
</table>
PowerGate Plus 75 kW Specifications

UL/CSA

Enclosure

Dimensions (H x W x D) | 80 x 57 x 31 in. (203 x 145 x 78 cm)
Weight | 2,150 lbs. (977 kg)
Finish | RAL 7032
Protection Rating | NEMA 3R/IP44

Warranty and Services

Five Year Warranty
Extended Warranty
(1 and 5 year increments)
Preventative Maintenance Agreement
Uptime Guarantee
Design Services
APEX Project Management

Communication Interface

Modbus RS485
Modbus TCP/IP

Monitoring

PV View Plus
PV Zone
Third-Party Compatibility

Regulations and Standards Conformity

UL1741, CSA 107.1, IEEE 1547, IEEE C62.41.2, IEEE C62.45, IEEE C37.90.1, IEEE C37.90.2

UBC Zone 4 Seismic Rating

Energy Efficiency Protection (EEP)
Satcon provides a wide range of optional value-added services to protect your investment across the entire lifecycle of your project.

Design Services
Satcon’s Design Services organization can guide you through all phases of project development using our broad experience and engineering skills.

APEX Project Management
Satcon APEX™ Project Management ensure that your project comes in on time and on budget.
• Project planning
• Logistics
• Project supervision
• Mitigating risk, maximizing ROI

Warranty and Services

• Help desk
• Training programs
• Support services
• Extended warranty
• Preventative maintenance plans
• 99% Uptime Guarantee

PowerGate Plus Options

• Satcon Smart Subcombiners: Intelligent string monitoring
• Fused input combiners
• Satcon communication card: CCM Gateway
• Weather station
• PV View Plus monitoring system
• PV Zone

www.Satcon.com

Please visit Satcon’s Resource Library for additional tools and product information, including:
• Satcon’s product configurator
• Satcon’s string sizing calculator
• Training and support resources:
  – On-demand video training
  – Articles, white papers and case studies

Output Options

Power Level | Efficiency
---|---
10% | 92.6%
20% | 95.6%
30% | 96.3%
50% | 96.7%
75% | 96.6%
100% | 96.3%

* 240V model

1 Calculated at nominal power and minimum DC voltage.
2 The 20% boost tap on the isolation transformer increases the AC voltage output range for applications where the solar array DC operating voltage is at or near the lower end of the DC input range. This boost allows for continued inverter operation at lower DC voltage input levels.
3 Calculated with auxiliary power.
4 Dependent on options selected.
5 Requires Preventative Maintenance Agreement.
6 NOTE: All specifications are subject to change.