

PVS-50 (208 V)

PVS-50 (240 V)

PVS-50 (480 V)

Unparalleled 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.

Power Efficiency

Power Level	Output Power ¹	Efficiency ²
10%	5 kW	90.5%
20%	10 kW	95.0%
30%	15 kW	95.9%
50%	25 kW	96.3%
75%	37.5 kW	96.4%
100%	50 kW	96.0%

¹ 305V minimum ² 480V model

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

Wide thermal operating range: -40° C (-40° F) to 85° C (185° F)

Conformal coated to withstand extreme humidity and air-pollution levels

Proven Reliability

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

Low Maintenance

Modular components make service efficient

Safety

UBC Seismic Zone 4 compliant

Built-in DC and AC disconnect switches

Integrated DC two-pole disconnect switch isolates the inverter (with the exception of the GFDI circuit) from the photovoltaic power system to allow inspection and maintenance

Built-in isolation transformer

Protective covers over exposed power connections

PV Inverters | PowerGate Plus 50 kW



PowerGate Plus 50 kW Specifications

UL/CSA

Input Parameters

Maximum Array Input Voltage	600 VDC	•
Input Voltage Range (MPPT; Full Power)	305–600 VDC	•
Maximum Input Current	172 ADC	•

Output Parameters

Output Voltage Range (L-L)	183–229 VAC	208 VAC	•
	211–264 VAC	240 VAC	•
	422–528 VAC	480 VAC	•
Nominal Output Voltage	208 VAC	•	
	240 VAC	•	
	480 VAC	•	
Output Frequency Range	59.3–60.5 Hz	•	
AC Voltage Range (Standard)	-12%/+10%	•	
Nominal Output Frequency	60 Hz	•	
Number of Phases	3	•	
Maximum Output Current per Phase	139A	208 VAC	•
	121A	240 VAC	•
	60A	480 VAC	•
CEC-Weighted Efficiency	95.5%	•	
Maximum Continuous Output Power	50kW (50 kVA)	•	
Tare Losses	75.48 W	208 VAC	•
	93.97 W	240 VAC	•
	76.48 W	480 VAC	•
Power Factor at Full Load	>0.99	•	
Harmonic Distortion	<3% THD	•	

Temperature

Operating Ambient Temperature Range (Full Power)	-20° C to +50° C	•
Storage Temperature Range	-30° C to +70° C	•
Cooling	Forced Air	•

• Standard ◦ Optional



Output Options

PowerGate Plus 50 kW

UL/CSA	208 VAC Output
	240 VAC Output
	480 VAC Output

Streamlined Design

With all components encased in a single, space-saving enclosure, PowerGate Plus PV inverters are easy to install, operate, and maintain.

Single Cabinet with Small Footprint

Convenient access to all components

Large in-floor cable glands make access to DC and AC cables easy

Rugged Construction

Engineered for outdoor environments

Output Transformer

Provides galvanic isolation

Matches the output voltage of the PV inverter to the grid

PowerGate Plus 50 kW Specifications		UL/CSA
Noise		
Noise Level	<65 dB(A)	•
Combiner		
Number of Inputs and Fuse Rating	4 (80 ADC)	○
	5 (63 ADC)	○
Inverter Cabinet		
Enclosure Rating	NEMA 3R	•
Enclosure Finish (14-Gauge, Powder-Coated G90 Steel)	RAL-7032	•
Cabinet Dimensions (Height x Width x Depth)		74" x 45" x 26.875"
Cabinet Weight		1,732 lbs.
Transformer		
Integrated Internal Transformer		•
Low Tap Voltage ¹	20%	•
Testing and Certification		
UL1741, CSA 107.1-01, IEEE 1547, IEEE C62.41.2, IEEE C62.45, IEEE C37.90.1, IEEE C37.90.2		•
UBC Zone 4 Seismic Rating		•
Warranty		
Five Years		•
Extended Warranty (up to 10, 15, or 20 years)		○
Extended Service Agreement		○
Intelligent Monitoring		
Satcon PV View® Plus		○
Satcon PV Zone®		○
Third-Party Compatibility		•

- Standard
- Optional

¹ 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.

Note: Specifications are subject to change.

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