



Based on proven PV inverter technology, the Xantrex S Series photovoltaic (PV) grid tie inverter offers a number of new capabilities. The integrated transformer features a night time disconnect that reduces tare losses and a soft start circuit to reduce inrush current. A standard Graphical User Interface on a four line, 80 character display allows for onsite control, data monitoring and diagnostics. The optional communications kit supports remote monitoring, diagnostics, and allows for remote fault clearing and remote software updates to reduce field visits.

Utility Interactive Renewable Energy

- ▶ Utility interactive, three-phase inverter with 100 kW and 225 kW models. Multiple inverters may be paralleled for larger power installations.
- ▶ Night time disconnect to reduce tare loss.
- ▶ Optional communications kit with modem for data logging, diagnostics, remote fault clearing and remote software updating.
- ▶ Designed for cost-effectiveness, high performance, easy installation, and reliability.
- ▶ Advanced Maximum Power Point Tracker (MPPT) technology maximizes PV array output.
- ▶ Meets or exceeds IEEE 519, 929, and 1547. Certified to UL 1741 and FCC Part 1.
- ▶ Automatic operation includes start-up, shut-down, self-diagnosis, and fault detection.

Features

- ▶ Efficient design, with peak system efficiency, including transformer losses, in excess of 94%.
- ▶ High efficiency Wye-Wye transformer.
- ▶ Digital Signal Processor (DSP) based controls with self-diagnostics.
- ▶ Inverter shut off toggle switch.
- ▶ Over- and under-voltage and frequency protection, shutting down the inverter in compliance with UL1741.
- ▶ Anti-islanding protection: prevents back-feeding inverter-generated power to the grid in the event of a utility outage.
- ▶ User definable power tracking matches the inverter to the array.
- ▶ Adjustable delay periods customize system shut-down sequences.
- ▶ Remote communications using dial-up, wireless, or local area network.
- ▶ Graphical user interface on four line, 80 character display.

Commercial Scale Photovoltaic Power Conversion Center



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PV Inverter S Series

Electrical Specifications

Models	PV100S-208	PV100S-480	PV225S-480
Continuous Power Rating	100 kW	100 kW	225 kW
Nominal AC Input Voltage	208 VAC	480 VAC	480 VAC (three phase, +10% / -12%)
Nominal AC Input Frequency	60 Hz	60 Hz	60 Hz (+0.5 Hz / -0.7 Hz)
Line Power Factor	> 0.99	> 0.99	> 0.99 (above 20% rated power)
Maximum AC Line Current	278 Arms	121 Arms	271 Arms
AC Current Distortion	< 5% THD	< 5% THD	< 5% THD (at rated power)
Max. Open Circuit Voltage	600 VDC	600 VDC	600 VDC
Power Tracking Window Range	330 to 600 VDC	330 to 600 VDC	330 to 600 VDC
Max. DC Input Current	319 amps DC	319 amps DC	710 amps DC
Max. Ripple Current	< 5%	< 5%	< 5% (of rated current)
Peak Inverter Efficiency	> 95%	> 95%	> 96% (without XFMR)
Peak Inverter Efficiency with Transformer	> 94%	> 94%	> 94%
Standby Tare Losses	< 90 watts	< 100 watts	< 105 watts

General Specifications

Temperature Range			
Ambient	-4 °F to 122 °F (-20 °C to 50 °C)		
Storage	-40 °F to 122 °F (-40 °C to 50 °C)		
Enclosure Environmental Rating	NEMA 3R	NEMA 3R	NEMA 3R
Enclosure	Powder coated galvanneal folded steel enclosure		
Weight (inverter)	1100 lb (499 kg)	1100 lb (499 kg)	2300 lb (1043 kg)
Weight (transformer)	1500 lb (680 kg)	1500 lb (680 kg)	2350 lb (1066 kg)
Inverter Dimensions (H x W x D)	83x76x20"	83x76x20"	88.5x80x32"
	211x193x51cm	211x193x51cm	225x203x81cm
Transformer Dimensions (H x W x D)	44x49x27"	44x49x27"	49.5x61.5x35.5"
	112x124x68 cm	112x124x68 cm	126x156x90 cm
Altitude	6,000' (1,829 m)		
Relative Humidity (non-condensing)	0 to 95%		
Array Configuration	Monopole (negative grounded)		

Features & Options

Cooling Method	Forced convection cooling
Protective Functions	AC over / under voltage, AC over / under frequency, ground over current, over temperature, AC and DC over current, DC over voltage
User Display	Standard - LCD, four lines, eighty characters, with on/off toggle switch
AC Disconnect	Standard - Load break rated; standard and integral to inverter assembly
DC Disconnect	Standard - 600 VDC load break rated; standard and integral to inverter assembly
Isolation Transformer	High efficiency Wye-Wye isolation transformer standard and integral to inverter assembly
Communications Software	Optional - Serial communications and control software - dial-up, wireless, or LAN
Combiner Enclosures	Optional - 10 or 12 pole, with or without diodes, NEMA 3R wall mount enclosure
Part Numbers	
PV100S-208	1-152435-01
PV100S-480	1-152416-01
PV225S-480	1-152447-01
Communications	1-152674-01 (Dial-up), 1-152659-01 (Wireless), 1-152658-01 (LAN)

Regulatory Approvals

Certified to UL Standard 1741, UL File No. E199356

Specifications subject to change without notice.