



Based on proven photovoltaic inverter technology, the Xantrex PV Inverter S Series 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 and diagnostics, and allows for remote fault clearing and remote software updates to reduce field visits.

Utility-Interactive Renewable Energy

- ▶ Utility-interactive, three-phase inverter in 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.
- ▶ Listed by the CEC in California and NYSERDA in New York.
- ▶ Automatic operation includes start-up, shut-down, self-diagnosis, and fault detection.

Features

- ▶ Efficient design with peak system efficiency in excess of 94% including transformer losses.
- ▶ High efficiency copper wound 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 shutdown 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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S Series PV Inverter

Electrical Specifications

Models	PV100S-208 - HE	PV100S-480 - HE	PV225S-480 - P
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 A rms	121 A rms	271 A rms
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	300 to 600 Vdc	300 to 600 Vdc	300 to 600 Vdc
Max. DC input current	357 Adc	357 Adc	781 Adc
Max. ripple current	5%	5%	5% (of rated current)
CEC efficiency (with transformer)	94.5%	95%	94.5%
Standby tare losses	100 W	96 W	107 W

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)	1000 lb (454 kg)	1000 lb (454 kg)	2300 lb (1043 kg)
Weight (transformer)	1400 lb (635 kg)	1400 lb (6635 kg)	2350 lb (1066 kg)
Inverter dimensions (H x W x L)	82 x 60.25 x 22" (2080 x 1530 x 560 mm)	82 x 60.25 x 22" (2080 x 1530 x 560 mm)	88.5 x 80 x 32" (2250 x 2030 x 810 mm)
Transformer dimensions (H x W x L)	44 x 50 x 34" 1120 x 1270 x 860 mm	44 x 50 x 34" 1120 x 1270 x 860 mm	49.5 x 61.5 x 35.5" 1260 x 1560 x 900 mm
Altitude	6,600' (2,012 m)		
Relative humidity (non-condensing)	0 to 95%		
Array configuration	Monopole (negative and positive 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, 80 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 - HE	1-152797-01
PV100S-480 - HE	1-152798-01
PV225S-480 - HE	1-152802-01
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.