

Xantrex™ GT Series Grid Tie Solar Inverters



The Xantrex™ Grid Tie Solar Inverter (GT Series) is designed to convert photovoltaic (PV) electricity produced by solar modules into utility-grade power that can be used by the home or sold to the local electrical utility. Offering high efficiency (up to 96.0 %), clean aesthetics, high reliability, and a low installed cost, through ease of installation and integrated features, the GT Series is a proven, high-frequency design in a compact enclosure.

The GT Series may be installed as a single inverter, for a single PV array, or in a multiple-inverter configuration for large PV systems.

Technology

- ▶ An NEC compliant, integrated DC/AC disconnect, standard in the GT Series, eliminates the need for external DC (PV) disconnects, and in some jurisdictions, AC disconnects
- ▶ Large heat-sink offers extraordinary heat dispersion without the need for a cooling fan
- ▶ Liquid crystal display (LCD) provides instantaneous information – power level, daily and lifetime energy production, PV array voltage and current, utility voltage and frequency, time online “selling”, fault messages, and installer-customized screens
- ▶ LCD vibration sensor allows the tap of a finger to turn backlight on and cycle through display screens

Installation

- ▶ Flexible module selection and sizing due to wide PV input MPPT tracking voltage range
- ▶ Lightweight and versatile mounting bracket
- ▶ Easy access DC (photovoltaic) and AC (utility) terminal block simplifies wiring
- ▶ Rugged NEMA 3R inverter enclosure allows reliable indoor and outdoor installations

Performance

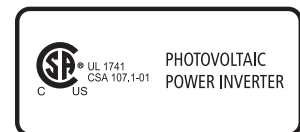
- ▶ Best-in-class efficiency to maximize solar system return on investment
- ▶ Accurate MPPT tracking ensures maximum energy harvest under any conditions
- ▶ FCC Part B compliance provides less external electronic interference

Serviceability

- ▶ 10-year standard warranty
- ▶ Sealed inverter enclosure can be quickly separated from the wiring box allowing DC/AC connections to remain intact in the unlikely event the inverter needs to be serviced



Standard
10-year
warranty



Xantrex Technology Inc.

Customer Service/Technical Support

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Xantrex™ GT Series Grid Tie Solar Inverters

Electrical Specifications - Output

Models	GT5.0		GT4.0N		GT3.8		GT3.3N		GT2.8	
Nominal output power	240 V	208 V	240 V	208 V	240 V	208 V	240 V	208 V	240 V	208 V
Maximum AC power output	5000 W	4500 W	4000 W	3800 W	3800 W	3500 W	2800 W	2700 W	2800 W	2700 W
AC output voltage (nominal)	240 V	208 V	240 V	208 V	240 V	208 V	240 V	208 V	240 V	208 V
AC output voltage range	211-264 Vac 183-229 Vac									
AC frequency (nominal)	60 Hz									
AC frequency range	59.3 - 60.5 Hz									
Maximum continuous output current	21 A	22 A	16.7 A	18.3 A	15.8 A	16.8 A	13.8 A	14.9 A	11.7 A	13.0 A
Maximum output over-current protection	30 A		25 A		20 A	25 A	20 A		15 A	
Maximum utility backfeed current	0 A									
Total harmonic distortion (THD)	< 3 %									
Power factor	> 0.99 % (at rated power), > 0.95 % (full power range)									
Utility monitoring, islanding protection	UL1741-2005 / IEEE 1547									
Output characteristics	Current source									
Output current waveform	True sine wave									

Electrical Specifications - Input

Maximum array open-circuit voltage	600 Vdc									
MPPT voltage range (CEC & CSA)	240 - 550 Vdc		240 - 480 Vdc		195 - 550 Vdc		200 - 400 Vdc		195 - 550 Vdc	
MPPT operating range	235 - 550 Vdc		235 - 550 Vdc		195 - 550 Vdc		200 - 550 Vdc		193 - 550 Vdc	
Maximum input current	22.0 Adc	20.0 Adc	18.0 Adc	17.0 Adc	20.8 Adc	19.5 Adc	17.5 Adc	16.5 Adc	15.4 Adc	14.9 Adc
Maximum array short-circuit current	24.0 Adc									
Reverse-polarity protection	Short-circuit diode									
Ground-fault protection	GF detection, IDIF > 1 A									
Maximum inverter efficiency	95.9%	95.5%	96.0%	95.7%	95.9%	95.6%	95.9%	95.6%	95.0%	94.6%
CEC efficiency	95.5%	95.0%	95.5%	95.0%	95.0%	95.0%	95.5%	95.0%	94.0%	93.5%
CEC part number	GT5.0-NA-240/208		GT4.0N-NA-240/208		GT3.8-NA-240/208		GT3.3N-NA-240/208		GT2.8-NA-240/208	
Night-time power consumption	1 W									

Environmental Specifications

Operating temperature range	-13°F to 149°F (-25°C to 65°C)									
Enclosure type	NEMA 3R (outdoor rated)									
Inverter weight	58.0 lb (25.8 kg)		58.0 lb (25.8 kg)		58.0 lb (25.8 kg)		49.0 lb (22.2 kg)		49.0 lb (22.2 kg)	
Shipping weight	65.0 lb (27.2 kg)		65.0 lb (27.2 kg)		65.0 lb (27.2 kg)		57.0 lb (25.9 kg)		57.0 lb (25.9 kg)	
Inverter dimensions (H x W x D)	28 1/2 x 16 x 5 3/4" (72.4 x 40.3 x 14.5 cm)									
Shipping dimensions (H x W x D)	34 x 20 1/2 x 10 5/16" (86.6 x 51.8 x 26.2 cm)									

Mechanical Specifications

Mounting	Wall mount (mounting bracket included)									
Input and output terminal	AC and DC terminals accept wires sizes of #14 to #6 AWG									
PV / Utility disconnect	Eliminates need for external PV (DC) disconnect. Complies with NEC requirements									
Cooling	Convection cooled, fan not required									
Display	Backlit, two-line, 16-character liquid crystal display provides instantaneous power, daily and lifetime energy production, PV array voltage and current, utility voltage and frequency, time online "selling", fault messages, and installer-customizable screens									
Communications	Integrated RS232 and Xanbus™ RJ45 communication ports									
Wiring box	PV, utility, ground, and communications connections. The inverter can be separated from the wiring box.									
Warranty	10-year standard									
Model name (negative ground)	GT5.0-NA-240/208 UL-05		GT4.0N-NA-240/208 UL-05		GT3.8-NA-240-/208 UL-05		GT3.3N-NA-240/208 UL-05		GT2.8-NA-240/208 UL-05	
Part number (negative ground)	864-1009		864-1008		864-1032		864-1006		864-1001	
	Positive ground inverters are also available									

Regulatory Approvals

Certified to UL1741 1st Edition: 2005 version CSA 107.1-01 CSA 2 C22.2 No.107-1-01 general use power power supplies.