

Xantrex™ GT100 & GT250 Grid Tie Solar Inverters



Xantrex™ GT Series Grid Tie Solar Inverters are based on a reliable platform that is used in grid-connected photovoltaic (PV) and wind turbine applications throughout North America and Europe.

The Xantrex GT100 and GT250 incorporate an advanced Maximum Power Point Tracking (MPPT) algorithm to maximize the energy harvested from a PV array. To reduce power losses during the conversion process, the inverter uses the latest switching devices and a high-efficiency transformer to achieve a weighted CEC efficiency of 96%.

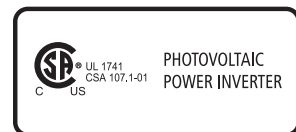
To ensure reliability, the Xantrex GT100 and GT250 and their sub-components are tested using Highly Accelerated Life Testing (HALT). HALT combines thermal and vibration technologies to stress a product beyond its specifications. This enables Xantrex to develop products and test them to a much higher standard than other inverter manufacturers. High reliability of the Xantrex GT100 and GT250 reduces system downtime and results in higher energy production.

Product Features

- ▶ Ultra-efficient design with industry-leading CEC efficiency of 96%, including isolation transformer
- ▶ Integrated design with transformer and AC/DC disconnects in one unit
- ▶ Night-time disconnect to reduce tare loss
- ▶ Integrated ground-fault detection and interruption
- ▶ Soft-start circuit to reduce nuisance trips
- ▶ Sealed design does not require filters or external air to cool sensitive components
- ▶ Back and sides of unit designed for zero clearance installations to minimize inverter space requirements
- ▶ Wiring access points on bottom, sides, and back of inverter
- ▶ Removable air outlet allows inverter to be mated with venting ductwork
- ▶ Designed for forklift or sling transportation
- ▶ Zinc coated and powder coated steel enclosure for maximum corrosion resistance
- ▶ Designed for maximum reliability with film-type capacitors, bus bars in the power path, and uses compression lugs and disc springs to maintain torque
- ▶ Bright fluorescent green vacuum display with UV cover for ease of reading in sunlight
- ▶ Standard five year warranty with optional extensions to 10 years and 15 years (100 A, 150 A or 200 A fuses)

Product Options

- ▶ Fused sub-array combiner integrated in the inverter enclosure
- ▶ Positive-ground configuration
- ▶ RS485/Modbus or RS232 remote communication interface
- ▶ Preventative maintenance programs
- ▶ Service contracts that include an uptime guarantee



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General Specifications

	GT100-208	GT100-480	GT250-480
Maximum continuous output power	100 kW	100 kW	250 kW
Nominal output voltage	208 Vac	480 Vac	480 Vac (line to line, +10%-12%)
Nominal output frequency	60 Hz	60 Hz	60 Hz (+0.5 Hz / -3.0 Hz)
Nominal output current	278 A rms	121 A rms	301 A rms
Maximum output fault current	1100 A _{peak}	1100 A _{peak}	1400 A _{peak} (duration of 0.008 sec)
Power factor	> 0.99	> 0.99	> 0.99
DC input voltage range	300-600 Vdc	300-600 Vdc	300-600 Vdc
Peak power tracking voltage range	300-480 Vdc	300-480 Vdc	300-480 Vdc
Maximum input current	347 Adc	347 Adc	867 Adc
Maximum input short-circuit current	460 Adc	460 Adc	1214 Adc
Maximum backfeed current	0 Adc	0 Adc	0 Adc
Peak inverter efficiency	96.2%	96.7%	96.8%
CEC efficiency	95.0%	96.0%	96.0%
Night-time power consumption	< 100 W	< 100 W	< 100 W
Maximum output over-current protection	400 A	200 A	400 A

Mechanical Specifications

Operating temperature range	-5°F to 122°F (-15°C to 50°C)		
Enclosure rating	NEMA 3R (outdoor rating)		
Enclosure	Zinc coated and powder coated steel enclosure		
Unit weight	3000 lb (1361 kg)	3000 lb (1361 kg)	4450 lb (2018 kg)
Inverter dimensions (H x W x D)	73.3 x 67.0 x 46.1" 1862 x 1702 x 1171 mm	73.3 x 67.0 x 46.1" 1862 x 1702 x 1171 mm	86.3 x 90.0 x 46.1" (Removable air intake reduces depth by 12" for fitting through doors) 2192 x 2286 x 1171 mm
Noise	< 70 dBA		
Altitude	up to 6600' (2012 m) without de-rating		
Relative humidity	0 to 95% non-condensing		

Features & Options

Cooling method	Forced convection cooling/sealed design
AC/DC disconnect	Standard and integrated within the inverter enclosure
Isolation transformer	Standard and integrated within the inverter enclosure
User display	Standard bright fluorescent green vacuum display
Ground-fault detection/interruption	Standard and integrated within the inverter enclosure
Communications	Optional RS485/Modbus and RS232 communications interface kit
Sub-array combiner	Optional and integrated within the inverter enclosure, 100 A, 150 A or 200 A circuits

Regulatory Approvals

Certified to UL 1741 (2005 Edition) and CSA 107.1-01
Tested to IEEE 1547
FCC Part 15 Class A

Specifications subject to change without notice.