

## About Xantrex

Xantrex Technology Inc. ([www.xantrex.com](http://www.xantrex.com)) is a world leader in the development, manufacturing and marketing of advanced power electronic products and systems for the renewable, portable, mobile, and programmable power markets. The company's products convert raw electrical power from any central, distributed, or backup power source into high-quality power required by electronic and electrical equipment. Headquartered in Vancouver, British Columbia, the company has facilities in Arlington, Washington; Livermore, California; Elkhart, Indiana; Barcelona, Spain; and Reading, England. Xantrex is publicly listed on the Toronto Stock Exchange under the ticker symbol "XTX".



**xantrex**  
Smart choice for power

**Xantrex Technology Inc.**  
Headquarters  
8999 Nelson Way  
Burnaby, British Columbia  
Canada V5A 4B5  
604 422 8595 Phone  
604 420 1591 Fax

Europe  
Edificio Diagonal 2A,  
C/ Constitución 3, 4<sup>ta</sup>  
08960 Sant Just Desvern  
Barcelona, Spain  
+34 93 470 5330 Phone  
+34 93 473 6093 Fax

[europesales@xantrex.com](mailto:europesales@xantrex.com)

Xantrex partner:

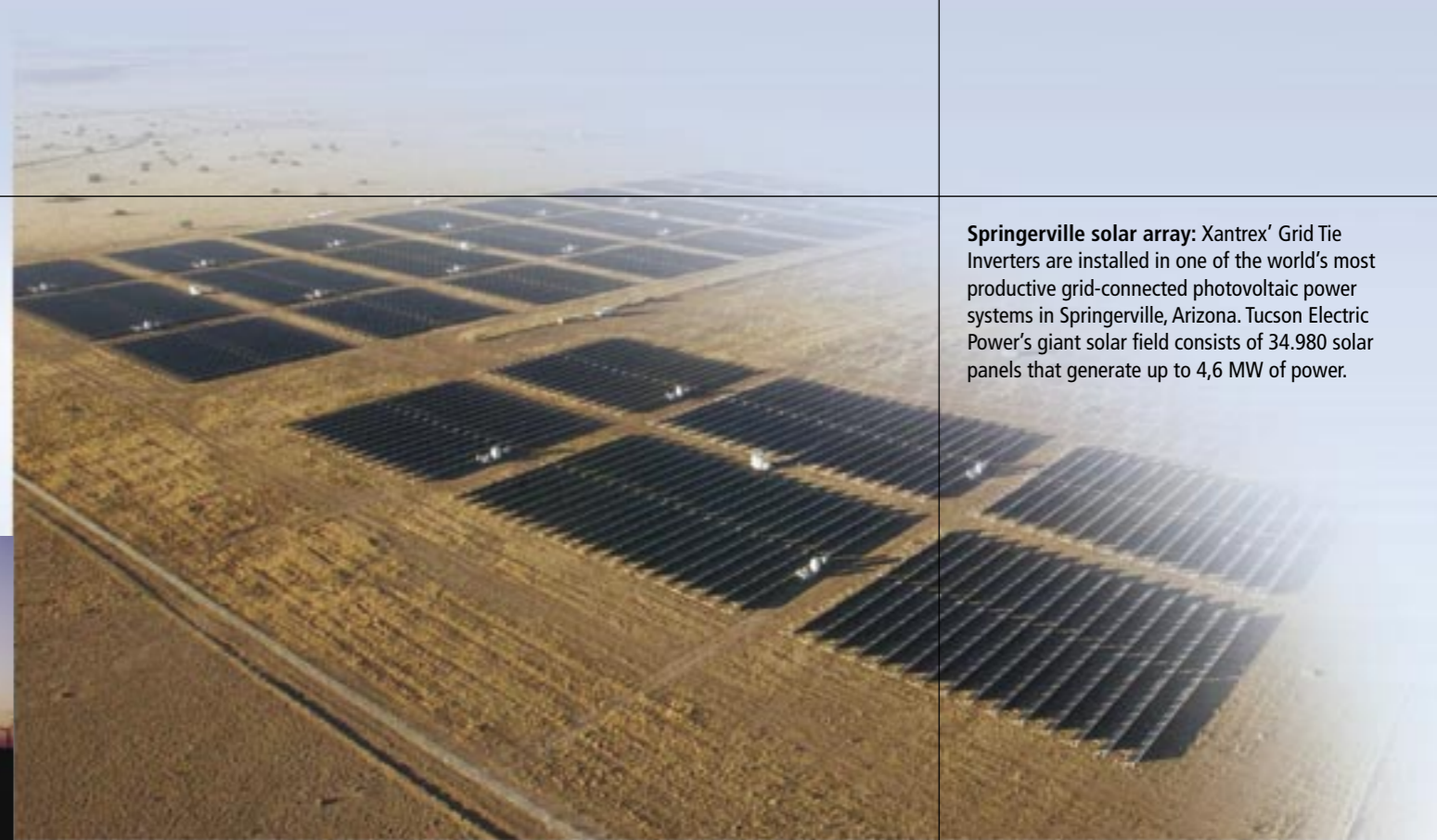
## Xantrex GT500E Grid Tie Inverter

500 kW three-phase power conversion system for grid-connected photovoltaic arrays



# Xantrex GT500E Grid Tie Inverter – The Smart Choice for PV Systems

More than 250,000 customers around the world rely on Xantrex inverters and system components to bring them electricity every day. Our new GT500E Grid Tie Inverter is based on a reliable platform that is used in grid-connected photovoltaic and wind turbine applications in North America and Europe. In the last decade, our technology has generated more than 3000 megawatts of power conversion capacity.



**Springerville solar array:** Xantrex' Grid Tie Inverters are installed in one of the world's most productive grid-connected photovoltaic power systems in Springerville, Arizona. Tucson Electric Power's giant solar field consists of 34,980 solar panels that generate up to 4,6 MW of power.

## Expandable and Easy to Operate

The GT500E is a 500 kilowatt three-phase power conversion system for grid-connected photovoltaic arrays. Designed to be easy to install and operate, it automates start-up, shutdown, and fault detection. With user-definable power tracking that matches the inverter to the array and adjustable delay periods, users are able to customize system start up and shut down sequences. Multiple inverters are easily paralleled for larger power installations. The design allows direct integration to a low voltage or medium voltage grid using one step voltage transformation to any required grid voltage.

The integrated combiner box/master slave configuration is designed to connect to two inverters, which allows an optimized energy harvest during periods of low irradiance.

## Efficient and Cost-effective

The GT500E incorporates advanced Maximum Power Point Tracking Technology (MPPT) to maximize the energy harvested from a PV array. And to reduce power losses during the conversion process, the inverter's state-of-the-art switching technology uses insulated gate bi-polar transistors (IGBT). So you get the best results from your photovoltaic system.

## Manufactured in Europe

The GT500E is designed to meet all CE requirements. The GT500E is produced by a manufacturing partner in Germany.

## Built-in Protection Features

The GT500E offers applicable protection features including over and under voltage and frequency safeguards. Its anti-islanding protection prevents the inverter from feeding power to the grid in the event of a utility outage. It has an inverter shut off and reset toggle switch.

## Service and Warranty

The GT500E comes with a standard warranty that covers parts and labor. Our customer service network, based in Germany and Spain, will provide installation and commissioning support, product training, and a hotline and maintenance service across Europe. Xantrex offers extended warranty and performance guarantee packages.

## Software and Display

The GT500E has an onboard LCD display with a four-line, twenty-character display to show detailed operating status. The inverter comes with software that provides an overview of the status of the system in real time. The software's graphical user interface offers the option to provide real time communications directly with a PC or via a modem connection. It also has diagnostic and archive functionality.

## European References

Xantrex is committed to the European solar market. Xantrex has installed and commissioned multiple grid tie inverters in Germany and Spain. Important clients like HaWi Energietechnik GmbH, Dachland GmbH, EnBW Regional AG, Phönix Sonnen Strom AG, Siliken S.L., Grupo Enerpal, Alternativas Energeticas Vaquero S.L. and Solon AG have trusted the reliability of Xantrex inverters.

## High Reliability

GT500E high reliability means reduced system down time and higher energy production. To ensure the GT500E is a dependable, high quality product, Xantrex engineers tested it extensively during the design process on a component level, using an evaluation method called Highly Accelerated Life Testing (HALT). HALT combines powerful thermal and vibration technologies to stress a product beyond its specifications. This enables Xantrex engineers to find and fix product defects that may not be discovered by testing methods typically used by other inverter manufacturers. Xantrex's sophisticated HALT techniques go beyond conventional testing, which results in improved product reliability and quality.

## Electrical Specifications

Nominal power rating (AC)	500 kW
Nominal AC voltage	315 V
Nominal AC frequency	50 Hz (optional 60 Hz)
Line power factor	> 0,99 above 20% rated power
AC current distortion	< 3% THD at rated power
Max AC line current	920 A
Stand-by tare losses	< 100 W
Night consumption	< 100 W
Min DC voltage for feed-in	450 V
Suggested PV power	560 kWp
Max DC current	1120 A
Max open circuit voltage	880 V
Power Tracking window range	450 V - 800 V
Max efficiency	98,10%
European efficiency	97,30%

## General Specifications

Ambient temperature range	-10° - 45°C
Enclosure environmental rating	IP21
Enclosure	Rittal TS Series
Weight	1770 kg
Dimensions (H x W x D)	211,2 x 240,6 x 60,5 cm
Altitude	up to 1500 m without de-rating
Relative humidity	0 - 95% non-condensing

## Features and Options

Cooling method	Forced convection cooling
Protective functions	AC over/ under voltage, AC over / under frequency, over temperature, AC and DC over current, DC over voltage
User display standard	LCD, 4-line, 20-character with keypad
Disconnects (AC and DC)	Integral to inverter assembly
Communications software	Graphical user interface software for real time communications and control
Data acquisition and logging	Adjustable
Interfaces	Webserver or telephone modem for remote system monitoring & fault notification
Combiner Boxes	Optional feature (information on request)
Container solution	Optional feature (information on request)

## Approvals and Safety

The GT500 complies with applicable European Directives  
The GT500 complies with the requirements of VDEW

Note: Specifications subject to change without notice

## Xantrex GT500E Grid Tie Inverter:

- ▶ Extremely reliable
- ▶ High energy production due to direct conversion to medium voltage and master slave option
- ▶ Easy to install: flexible AC and DC connectivity
- ▶ Local service network
- ▶ Worldwide experience in large grid connected photovoltaic arrays
- ▶ Manufactured in Germany