

# Xantrex™ GT500 E Grid Tie Solar Inverter specifications

## Electrical specifications

Nominal power rating (AC)	500 kW AC
Nominal AC voltage	315 Vac three phase (other voltage levels on request)
Nominal AC frequency	50 Hz (60 Hz optional)
Line power factor	> 0,99 above 20% rated power (optional 0,93 leading to 0,93 lagging with grid interactive feature)
AC current distortion	< 3% THD at rated power
Max AC line current	1040 A
Night consumption	< 100 W
Min DC voltage for feed-in	450 Vdc (495 Vdc for grid interactive option)
Max DC current	1120 Adc
Max open circuit voltage	930 Vdc
Power Tracking window range	450 to 830 Vdc (495 to 880 Vdc for grid interactive option, reduced current above 820 Vdc)
Max efficiency	98,1% (98,3% for grid interactive option)
European efficiency	97,6% (97,9% for grid interactive option)

## General specifications

Ambient temperature range	-10°C to 45°C
Enclosure environmental rating	IP20
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 to 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, four-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
Combiner Boxes	Optional feature (information on request)
Container solution	Optional feature (information on request)

## Approvals and safety

GT500 E complies with applicable European directives
GT500 E complies with the requirements of BDEW and VDE 0126
GT500 E complies with the Royal Decree, Spain
GT500 E complies with the requirements of the ENEL (DK5940)
GT500 E complies with the applicable French Decree

Note: Specifications subject to change without notice.

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## Schneider Electric

As a global specialist in energy management with operations in more than 100 countries, Schneider Electric offers integrated solutions across multiple market segments, including leadership positions in energy and infrastructure, industrial processes, building automation, and data centres/networks, as well as a broad presence in residential applications. Focused on making energy safe, reliable, and efficient, the company's 114,000 employees achieved sales of more than 18.3 billion euros in 2008, through an active commitment to help individuals and organisations "Make the most of their energy™"  
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# Get the maximum power out of the sun

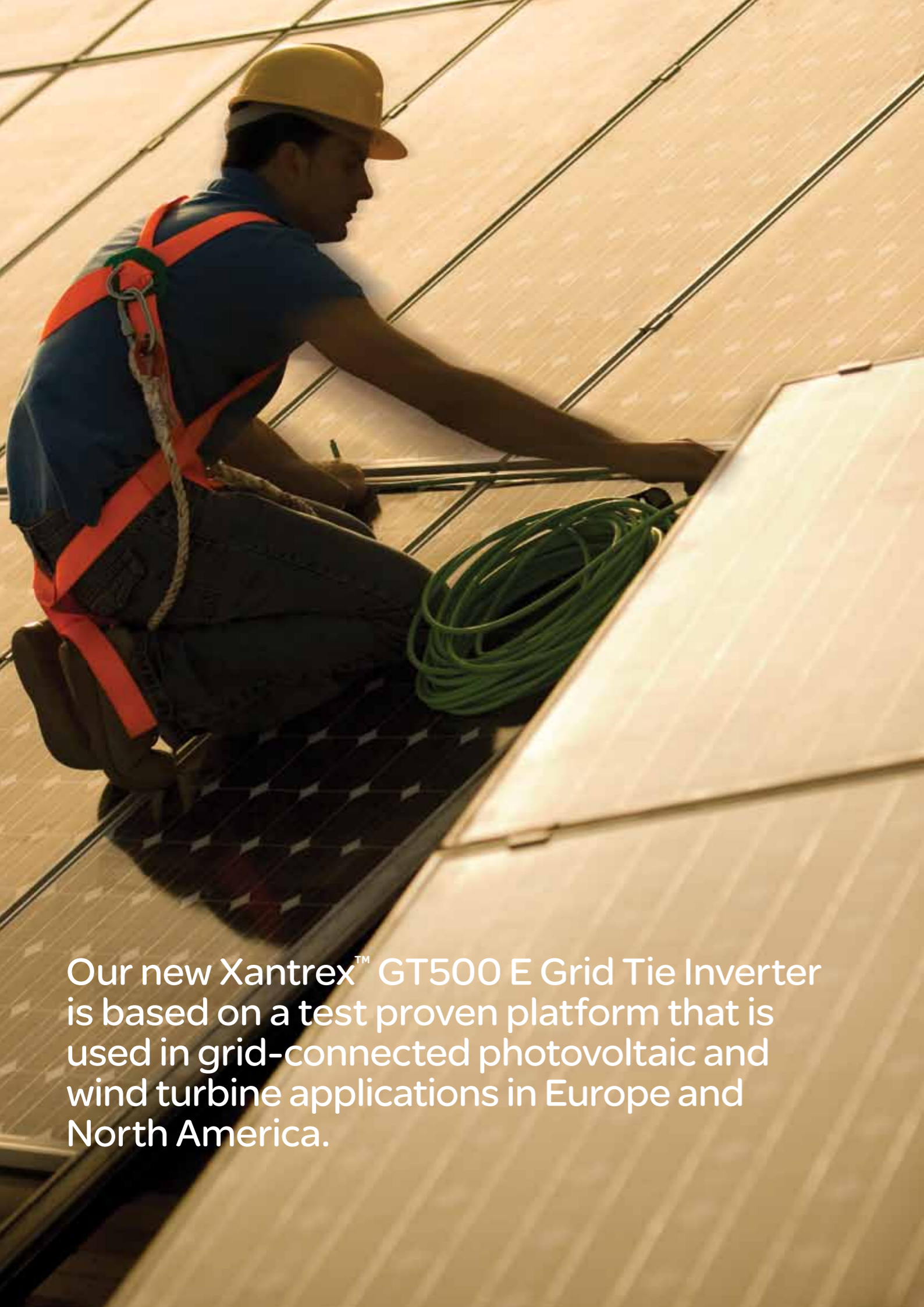


## Three Phase Xantrex™ GT500 E Grid Tie Solar Inverter



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

**Schneider**  
Electric



Our new Xantrex™ GT500 E Grid Tie Inverter is based on a test proven platform that is used in grid-connected photovoltaic and wind turbine applications in Europe and North America.



**Springerville solar array:** Our 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.



#### **Three Phase GT500 E Grid Tie Solar Inverter**

- 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

#### **Expandable and easy to operate**

The Xantrex™ GT500 E 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 Xantrex GT500 E 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 Xantrex GT500 E is designed to meet all CE requirements and produced by a manufacturing partner in Germany.

#### **Built-in protection features**

The Xantrex GT500 E 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 Xantrex GT500 E 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. Schneider Electric offers extended warranty and performance guarantee packages.

#### **Software and display**

The Xantrex GT500 E 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**

Schneider Electric is committed to the European solar market. Schneider Electric has installed and commissioned multiple grid tie inverters all over Europe.

#### **Rigorous performance testing**

During the design process the Xantrex GT500 E are extensively tested 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 our engineers to find and fix product defects that may not be discovered by testing methods typically used by other inverter manufacturers.



Xantrex GT500 E installation at Almería, Spain.