

# GT100E Grid Tie Inverter

## 100 kW Three-Phase Inverter



The Xantrex GT100E Grid Tie Inverter is based on a reliable platform that is used in grid-connect photovoltaic and wind turbine applications in North America and Europe. Easy to install and operate, the GT100E automates start up, and shut down. It incorporates advanced Maximum Power Point Tracking Technology to maximize the energy harvested from a PV array. To minimize power losses during the conversion process, the inverter's switching technology uses insulated gate bi-polar transistors. Multiple inverters can be paralleled for large power installations. Designed for European PV installations, the GT100E meets all applicable CE requirements, is approved by the TÜV Rheinland and fulfills the royal Decree RD1663/2000.

### Features

- ▶ Digital Signal Processor (DSP) based controls with self-diagnostics and LCD for display of operating status
- ▶ Inverter shut off and disconnects
- ▶ Over- and under-voltage and frequency protection, shutting down the inverter.
- ▶ Anti-islanding protection - prevents back-feeding inverter-generated power to the grid in the event of a utility outage
- ▶ User definable power tracking allows the user to match the inverter to the array, as well as to adjust delay periods to customize system shutdown sequences
- ▶ Graphical user interface software for real time communications, monitoring, and control

### Options

- ▶ Remote monitoring via telephone modem
- ▶ Faults notification via modem
- ▶ Data acquisition and logging
- ▶ Warranty extension up to 20 years
- ▶ Performance warranty contract

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### Electrical Specifications

Continuous Power Rating	100 kW AC
Nominal DC Power Rating	105 kW DC
Nominal AC Voltage	400 VAC three phase
Nominal AC Frequency	50 Hz
Line Power Factor	> 0.99 above 20% rated power
Maximum AC Line Current	164 amps AC
AC Current Distortion	< 3% THD at rated power
Max. Open Circuit Voltage	650 VDC
Power Tracking Window Range	330 to 600 VDC
Max. DC Input Current	319 amps DC
Peak Inverter Efficiency	95.5% (includes transformer)
European Weighted Efficiency	94.6% (includes transformer)
Standby Tare Losses	93 W

### General Specifications

Ambient Temperature Range	-10 °C to +45 °C
Enclosure Environmental Rating	IP21
Enclosure	Rittal TS Series
Weight	955 kg
Dimensions (H x W x D)	196 x 120 x 60 cm
Altitude	up to 2000 m without de-rating
Relative Humidity	0 to 95% non-condensing

### Features & 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, 80-character, 20 characters with keypad
Disconnects (AC & DC)	Integral to inverter assembly
Isolation Transformer	Integral to inverter assembly
Communications Software	Graphical user interface software for real time communications and control
Data Acquisition and Logging	Adjustable
Interfaces	Telephone modem for remote monitoring and faults notification via modem, RS232

### Approvals & Safety

The GT100E is compliant to applicable European Directive and CE marked :   
 ▶ EMC Directive: EN 50081-2, EN 50082-2  
 ▶ Low Voltage Directive: EN 50178

The GT100E complies with the requirements of VDEW

The GT100E is approved by the TÜV Rheinland

The GT100E complies with the requirements of the Royal Decret (RD 1663/2000), Spain

Note: Specifications are subject to change without notice.