

The XW System consists of several devices, components, and optional accessories that, when installed together, create a renewable energy power system that can be customized to suit off-grid or backup applications.

Field-serviceable, with out-of-the-box network capability, the complete Xantrex XW System consists of a high-efficiency XW Inverter/Charger, the XW Solar Charge Controller, the XW Automatic Generator Start and the XW System Control Panel.

Xantrex™ XW System Applications

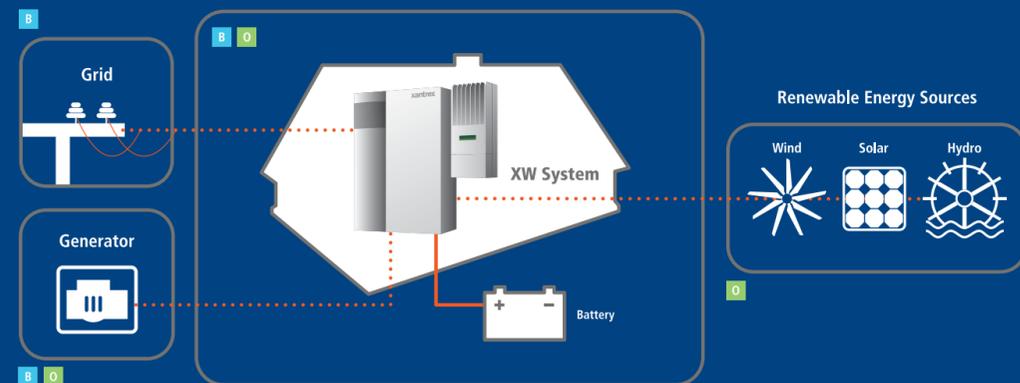
O Off-Grid Power

The Xantrex XW System can process multiple forms of incoming power making it a popular choice for off-grid applications (those not connected to the grid), as it provides homes with a completely autonomous supply of electricity. Most applications use solar arrays, but a wind generator, micro-hydro generator, and/or a fuel generator can also be incorporated into the system.

B Backup Power

Grid-connected homes can also benefit from the use of a Xantrex XW System as the inverter will automatically detect a grid failure and instantly switch to backup power stored in the battery bank. When the grid is active, the XW System will monitor and regulate battery charging to ensure the batteries are ready to supply backup power when the grid fails.

The diagram below explains these two system applications:



The XW Hybrid Inverter/Charger (XW) is a true sine wave inverter/charger that incorporates a DC to AC inverter, a battery charger, and an AC auto-transfer switch. It is the foundation for battery-based residential and commercial applications up to 18 kilowatts (kW). Designed for off-grid and back-up applications, the XW can operate with generators and renewable energy sources to provide full-time or backup power.

Key Features:

- ▶ True sine wave output
- ▶ Unsurpassed surge capacity - innovative Full Digital Control regulates voltage to prevent a drop during a power surge. Full 200% rated output power is delivered to the load
- ▶ Single and three phase configuration possible
- ▶ Multiple units can be paralleled (maximum of 3 for up to 18 kW total output)
- ▶ Non volatile memory
- ▶ Dual AC inputs (grid & generator)
- ▶ Configurable auxiliary output
- ▶ Full control of generator
- ▶ Efficient, power factor corrected, high-current, multistage battery charging (minimizes recharge time, and electricity/fuel costs, and prolongs battery life)
- ▶ CE marked
- ▶ Easier and less expensive to install – mounting bracket is included
- ▶ Local display on inverter shows output power, charge current and battery level, to provide system status at-a-glance
- ▶ Xanbus™ Network provides plug-and-play networkability (no need for separate hub or router)

The Xantrex Solar Charge Controller (XW SCC) is a photovoltaic (PV) charge controller that tracks the electrical maximum power point of a PV array to deliver the maximum available current for charging batteries. The XW SCC can be used with 12, 24, 36, 48, and 60-volt DC battery systems.

Key Features:

- ▶ Maximum Power Point Tracking (MPPT) algorithm harvests up to 30% more energy from a PV array
- ▶ Integrated PV ground-fault protection for negative grounded arrays
- ▶ Ultra-reliable, convection-cooled design does not require a cooling fan – large, aluminium, die-cast heat-sink allows full output current up to 45°C without thermal derating
- ▶ Can also be used with other battery-based solar energy systems
- ▶ Configurable auxiliary power output
- ▶ Two-line, 16-character liquid crystal display (LCD) and four buttons for configuration and system monitoring in stand-alone applications
- ▶ Input over-voltage and under-voltage protection, output over-current protection, and backfeed (reverse current) protection (warning and fault messages appear on LCD when unit shuts down as a protective measure)
- ▶ Includes Battery Temperature Sensor (BTS) to provide temperature-compensated battery charging
- ▶ Communicates settings and activity to other Xanbus™-enabled devices, such as the Xantrex XW Hybrid Inverter/Charger(s), XW System Control Panel (XW SCP), XW Automatic Generator Start (XW AGS), and other XW Solar Charge Controllers (XW SCC)





1 XW Hybrid Inverter/Charger

- ▶ True sine wave output
- ▶ Unprecedented surge capacity (2x nominal power)
- ▶ Local display panel
- ▶ Dual AC inputs (grid & generator)
- ▶ Single and three phase configuration possible
- ▶ Multiple units can be paralleled (maximum 3 units for up to 18 kW total)
- ▶ Xanbus™ -enabled Network communication
- ▶ Efficient, power factor corrected, high current, multistage battery charging
- ▶ Non volatile memory
- ▶ Configurable auxiliary output

3 XW Solar Charge Controller (optional)

- ▶ 60 amp max current to charge 12 to 60 Vdc battery bank
- ▶ Dynamic Maximum Power Point Tracking will work with array voltages up to 150 Voc
- ▶ Up to 30% more harvest from PV array than other PWM charge controllers
- ▶ User-friendly interface
- ▶ Convection cooled
- ▶ Full output current up to 45°C without thermal derating
- ▶ Integrated & configurable PV ground fault protection



XW Automatic Generator Start (optional)

- ▶ Compatible with common 2 and 3-wire start generators
- ▶ Configurable start and stop settings
- ▶ Quiet-time & exercise settings
- ▶ LED display status



XW System Control Panel

- ▶ Full-featured user interface for system configuration and monitoring
- ▶ Xanbus™ Network ready
- ▶ Powered through network connection – “hub” not required
- ▶ Acoustic indicator alarm

XW System Control Panel (XW SCP)

The XW SCP is a Xanbus™-enabled device featuring a graphical, backlit LCD screen that displays system configuration and diagnostic information. Large keypad buttons, an intuitive onscreen menu system, and plain text status messages make it easy to configure and operate all devices connected to the Xanbus™ Network. The XW SCP gives a single point of control to setup and monitor an entire system, which may consist of multiple XW Inverter/Chargers, XW Solar Charge Controllers, etc.

Interfaces with:

XW Hybrid Inverter/Charger(s), XW Solar Charge Controller(s), XW Auto Generator Start



XW Automatic Generator Start (XW AGS)

The XW AGS is a Xanbus™-enabled device that can automatically activate a generator to provide an XW Series Inverter/Charger with power to recharge depleted batteries or assist with heavy loads. Compatible with popular generators, the XW AGS adds intelligence to power management and eliminates time spent monitoring batteries and inverter loads. The XW AGS can be customized to suit each user's needs. A user can define whether the generator should be activated by low-battery voltage, thermostat operation, or load size on the inverter(s). A quiet -time setting prevents the generator from starting at inconvenient times. LED lights display the status of the XW AGS, while all user-defined settings are programmed through the system control panel (XW SCP).

Interfaces with:

XW Hybrid Inverter/Charger(s), XW Solar Charge Controller(s), and XW System Control Panel



XW Conduit Box – Optional

The optional XW Conduit Box encloses the bottom of the XW Inverter/Charger and protects the cabling. Internal wire barriers keep communications wires separate from AC and DC power cables. The XW Conduit Box provides multiple knockouts for 3/4" (20 mm), 1" (25 mm), 1.25" (32 mm), 2.25" (60 mm), 2.5" (65 mm) conduit and may be required depending on the local electrical code.

Interfaces with:

XW Hybrid Inverter/Charger



A BATTERY-BASED SYSTEM FOR OFF-GRID AND BACKUP POWER APPLICATIONS

