# Xantrex<sup>™</sup> XW System Overview



# xantrex Smart choice for power

XW60 - 48 XW45 - 48 XW40 - 24



# 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
   Xanbus -enabled Network communication
   Efficient, power factor corrected, high current,
- mu**l**tistage battery charging
- Configurable auxiliary output

# 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

Full output current up to 45°C without thermal derating Integrated & configurable PV ground fault protection

### Accessories

### XW System Control Panel (XW SCP)

The XW SCP is a Xanbus<sup>—</sup> 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<sup>—</sup> 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.



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).

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



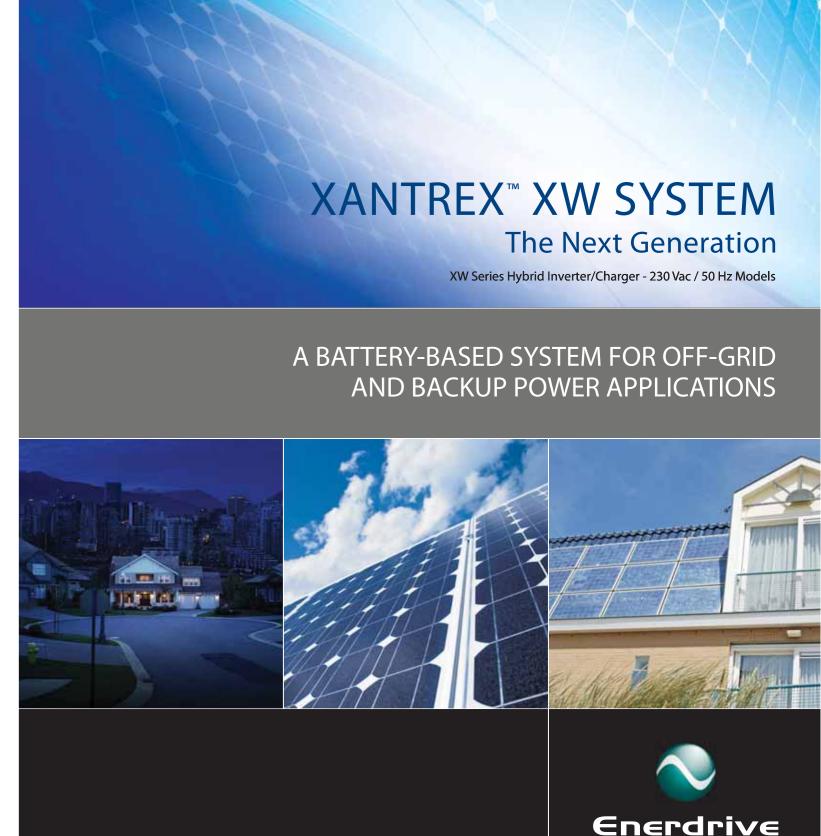
### XW Series Hybrid Inverter/Charger - 230 Vac / 50 Hz Models

	XW6048-230-50	XW4548-230-50	XW4024-230-50
Continuous output power	6.000 W	4.500 W	4.000 W
Surge rating	12.000 W	9.000 W	8.000 W
Surge current	53 A rms	40 A rms	35 A rms
Waveform	True sine wave	True sine wave	True sine wave
Peak efficiency	95,4 %	95,6 %	94,0 %
Idle consumption - search mode	< 7 W	< 7 W	< 7 W
AC connections	AC1 (grid), AC2 (generator)	AC1 (grid), AC2 (generator)	AC1 (grid), AC2 (generator)
AC input voltage range (bypass/charge mode)156 to 280 Vac (230 V nominal)		156 to 280 Vac (230 V nominal)	156 to 280 Vac (230 V nominal)
AC input frequency rangby(pass/charge	mo)de 40 to 68 Hz (50 Hz nominal)	40 to 68 Hz (50 Hz nominal)	40 to 68 Hz (50 Hz nominal)
AC output voltage	230 Vac +/- 3%	230 Vac +/- 3%	230 Vac +/- 3%
Maximum AC pass through current	56 A	56 A	56 A
AC output continuous current	26,1 A	19,6 A	17,4 A
AC output frequency	50 Hz +/- 0,1 Hz	50 Hz +/- 0,1 Hz	50 Hz +/- 0,1 Hz
Total harmonic distortion	< 5% at rated power	< 5% at rated power	< 5% at rated power
Typical transfer time	8 ms	8 ms	8 ms
DC current at rated power	131 A	96 A	178 A
Utility-interactive	Disabled (default), AC voltage range 198 to 253 Vac, AC frequency range 49,1 to 50,9 Hz		
DC input voltage range	44 to 64 V	44 to 64 V	22 to 32 V
Continuous charge rate	100 A	85 A	150 A
Power factor corrected charging	PF (0,98)	PF (0,98)	PF (0,98)
Mechanical Specifications			
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Mounting  Inverter dimensions (H v W v D)	Wall mount, backplate included		
Inverter dimensions (H x W x D)	580 x 410 x 230 mm	E3 ka	F2 kg
Inverter weight	57 kg 711 x 565 x 267 mm (28 x 22.25 x 10.	52 kg	52 kg
Shipping dimensions Shipping weight	60 kg	55 kg	55 kg
Supported battery types	Flooded (default), Gel, AGM, custom	33 kg	33 kg
Battery bank size	100 to 10000 Ah		
Battery temperature sensor	Included	Included	Included
Non volatile memory	Yes	Yes	Yes
Display panel	Status LEDs indicate AC In status, faul	ts/warnings, equalize mode, On/Off and equ	
M. Istala and a safe and a	Three-character display indicates output power or charge current		
Multiple unit configurations	Single phase: up to 3 parallel units. Th	<u> </u>	V 1 76
System network	Xanbuš	Xanbuš	Xanbuš
Warranty	5 years	5 years	5 years
Part number	865-1035	865-1040	865-1045
Environmental specifications			
Enclosure type	IP 20 (sensitive electric components sealed inside enclosure)		
Operational temperature range	-25 to 70 °C	-25 to 70 °C	-25 to 70 °C
Accessories			
	Ontional VIII System Control Day 1	onitors and configures all devices as	d to Vanhue <sup>TM</sup> Naturale
Remote display	Optional XW System Control Panel monitors and configures all devices connected to Xanbus™ Network		
Generator support	Optional XW Automatic Generator Start module connects to Xanbus™ Network. Automatically activates generator to recharge de battery bank or assist inverter with heavy loads		
Conduit Box	Optional XW Conduit Box encloses the bottom of the inverter and protects the cabling. Provides knockouts for 20 mm, 25 mm, 32 mm, 60 mm, and 65 mm conduit		
Solar Charge Controller	Optional XW Solar Charge Controller with maximum power point tracking delivers the maximum energy available from the PV array to the batter		

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XW Hybrid Inverter/Charger

XW Solar Charge Controller

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<sup>™</sup> XW System Applications

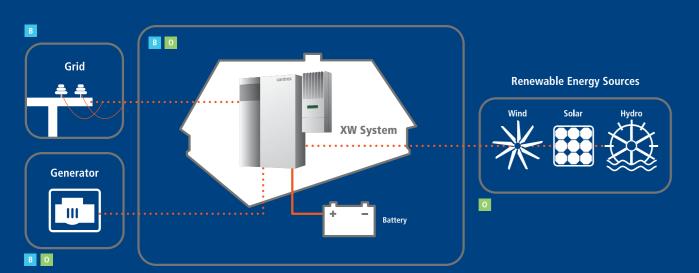
### Off-Grid Power

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.

### 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 applications up to 18 kilowatts (kW), and commercial applications up to 36 kW in a three-phase configuration. Designed for off-grid and back-up applications, the XW can operate with generators and renewable energy sources to provide reliable power every time.

### **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
- 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)

