

For dependable power every time

Conext TX series and Conext XW series

Grid-tie and off-grid solutions for residential and small commercial



Make the most of your energySM

Schneider
ElectricTM

>> Your power,
your way.





Schneider Electric is the global leader in energy management.



Our innovative products help you get the most efficient solar harvest.

Solutions for residential and small buildings

Innovative photovoltaic (PV) solutions that give you world-class, reliable performance. We are committed to providing outstanding solar solutions, products, and services.

Schneider Electric at a Glance

From its creation in 1863 as a producer of iron and steel, Schneider Electric has evolved to become a global leader in energy management. Along the way, we have contributed to the transformation of industries with an innovative, international, and responsible mindset. Today, with operations in over 100 countries and more than 130,000 employees, the Schneider Electric mission is to help people make the most of their energy.

Schneider Electric Solar Business

As the global specialist in energy management, Schneider Electric provides complete photovoltaic solutions for any size installation, from grid-tie residential rooftops and utility-scale farms to off-grid solar and battery backup application. Our innovative products help you to get the most efficient solar harvest from your installation, and you benefit from having a single supplier for all of your components. Our products and solutions are present at every link in the energy chain and contribute to your total energy savings.

Why Partner with Schneider Electric?

- We have over 170 years of worldwide leadership in power electronics and electric distribution technologies.
- We have, as a single supplier, complete photovoltaic solutions from residential rooftops to utility-scale farms.
- We back our standard and extended warranties with an unmatched level of service.




15%

The expected annual growth rate increase for solar PV energy generation.

Source: World Energy Outlook
© OECD/IEA, 2011

45+

Over 45 U.S. States offer an incentive for residential solar installations.

A man with curly hair, wearing a blue sweater and dark jeans, sits in a white armchair, smiling while using a silver laptop. In the foreground, a young girl with long brown hair, wearing a pink and white plaid shirt, lies on a white shag rug, smiling and looking at a silver tablet. The background shows a modern living room with dark wood paneling, a dining table with a white mug, and warm lighting.

>> Your system,
your way.



Choose the solar solution that is right for you

The configuration of your system depends on the type of electrical loads connected and on the total power consumption of those loads.

The Schneider Electric photovoltaic packages efficiently transfer your harvested solar energy from panel to plug. These products address common issues including inverter efficiency, shading, and roof placement. Whether you want a simple system tied to the grid or a system that works independent of the grid, Schneider Electric has the solar solution that is right for you.

Grid-tie power

The Conext™ TX Grid Tie Solar Inverter (Conext TX Series) converts photovoltaic electricity produced by solar modules into utility-grade power that can be used by the home or sold to a local electrical utility. Offering high performance, clean aesthetics, innovative features, and easy installation, the Conext TX Series provides great value in a compact, high-frequency design. The Conext TX Series may be installed as a single inverter for a single PV array or in a multiple-inverter configuration for large PV systems or three-phase applications.

A Conext XW solar system provides up to 36 kW by using modular components. All components communicate with each other with out-of-the-box network capability. They include the XW Inverter/Charger, the XW Solar Charge Controller, the XW Automatic Generator Start (AGS), and the XW System Control Panel (SCP).

Backup power

The Conext XW System is the ideal solution for homes connected to the utility grid, where owners want to incorporate a renewable energy system with backup power. The grid-interactive functionality allows excess energy that is generated to be exported to the grid, and allows the grid to act as an additional energy source to charge the system's batteries. Grid-connected homes can also benefit 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 Conext XW System will monitor and regulate battery charging to ensure the batteries are ready to supply backup power when the grid fails.

Off-grid power

The Conext 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. The Conext XW System can parallel up to four Conext XW Inverter/Chargers for single- or three-phase systems. With a robust 6 kW power rating and 12 kW of real power output to start loads, homeowners feel comfortable knowing there is power to spare.

> Conext TX Series



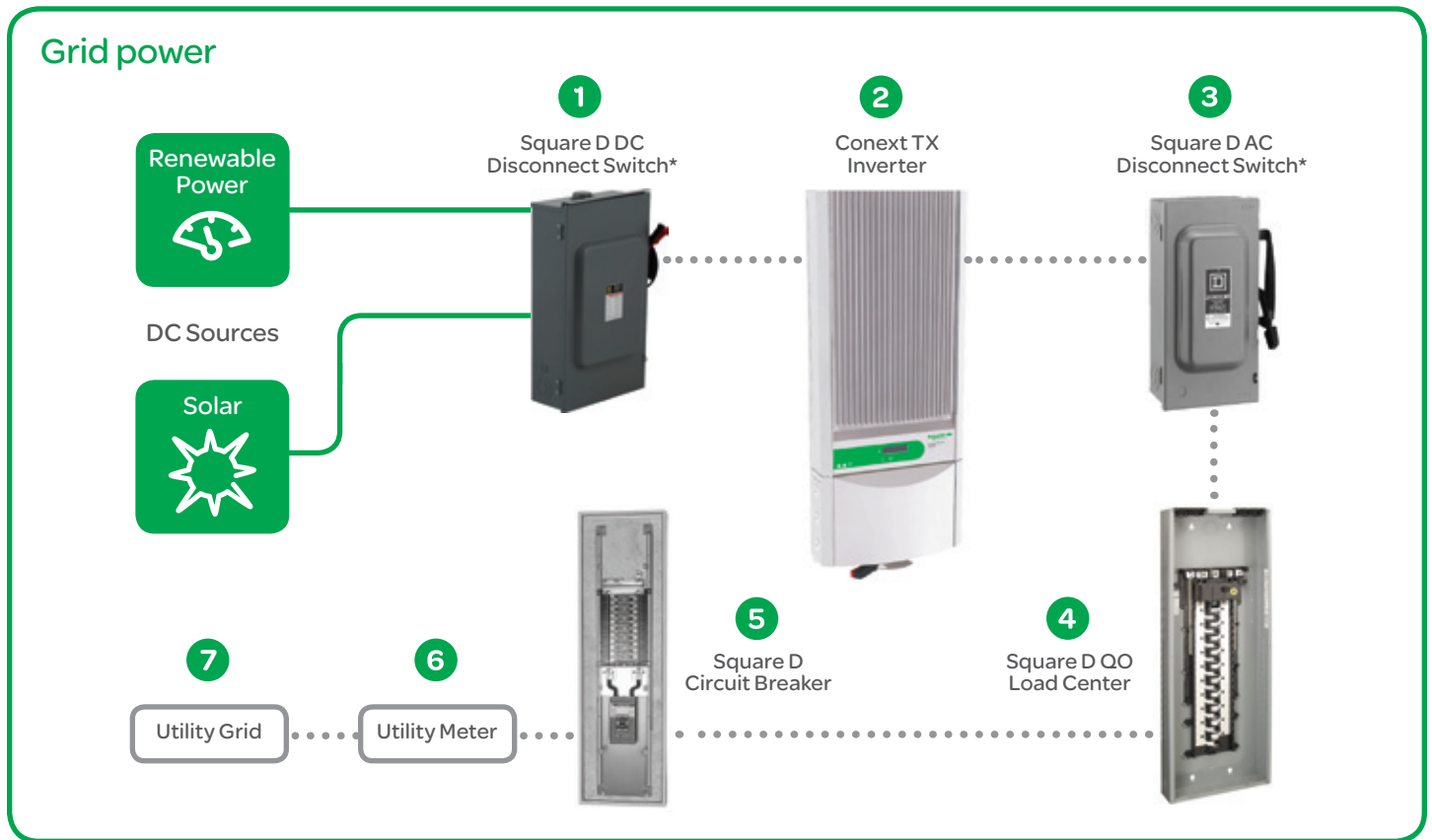
> Conext XW Series featuring solar charge controller MPPT 80 600 and XW Power Distribution Panel (PDP)

Solutions for grid-tie power

Schneider Electric delivers key solar and electrical components, further mitigating costs related to maintenance from multiple manufacturers.

Our complete grid-tie electrical system provides you with turnkey renewable power systems designed to suit all of your requirements. The simplicity of one packaged Electrical Balance of Systems solution creates convenience through one vendor, one delivery schedule, and one source of accountability.

Schneider Electric Conext TX System



Key Components of the Schneider Electric Electrical Balance of Systems Solution for a 4 kW to 6 kW System

- 1 Square D™ DC Disconnect Switch**
- 2 Conext TX Inverter**
- 3 Square D AC Disconnect Switch**
- 4 Square D QO™ Load Center**
- 5 Square D Circuit Breaker**
- 6 Utility Meter**
- 7 Utility Grid**

(*Optional equipment — dependent upon system configuration)



1 Square D DC Disconnect Switches

Square D by Schneider Electric has a product offering that spans 30 – 100 A, two- and three-pole fusible and non-fusible Heavy Duty Safety Switches. All Square D brand Heavy Duty Safety Switches with DC ratings (two- and three-pole fusible and non-fusible) are Underwriters Laboratories® (UL) Listed for use on DC applications when properly wired. Although the Conext TX Series Grid Tie Inverter has an integrated DC disconnect, should your installation require an additional external DC disconnect, possible Square D product recommendations for your 3.0 kW system include:

DC Disconnect Switch HU362RB



- Safety Switch
- Non-Fusible
- Heavy Duty
- 600 V, 60 A, Three-Pole
- NEMA® 3R Outdoor Enclosure

DC Disconnect Switch HU363RB



- Safety Switch
- Non-Fusible
- Heavy Duty
- 600 V, 100 A, Three-Pole
- NEMA 3R Outdoor Enclosure

2 Schneider Electric Inverter

Excellent Energy Harvest — Wide maximum power point tracking (MPPT) window maximizes energy harvest and innovative Fast Sweep MMPT increases energy harvested in shaded installations.

Superior Design — A 600 V Square D DC/AC safety disconnect is included for a clean, compact installation. A large heat sink offers excellent heat dispersion without the need for a cooling fan. Without the need for a fan or external DC disconnects, the Conext TX is pleasingly lightweight.

Easy to Install and Service — The sealed inverter enclosure can be quickly separated from the wiring box allowing DC/AC connections to remain intact during a service event. The easy access DC/AC terminal blocks simplify wiring. The Conext TX is lightweight and lends itself to versatile mounting brackets.

Conext TX Series Grid Tie Inverters



- 3.3 kW Inverter that converts PV array voltage to 208/240 V
- Available power levels 2.8, 3.0, 3.8, 5.0 kW
- NEMA 3R outdoor enclosure
- Fully compliant with NEC®, UL, and CSA

3 Square D AC Disconnect Switches

Should your installation require an additional external AC disconnect (Conext TX Series Grid Tie Inverter has an integrated AC disconnect), Square D General Duty Safety Switches can accommodate a variety of residential installations. Possible Square D AC disconnects for your 3.0 kW system:

AC Disconnect Switch D222NRB



- Safety Switch
- Fusible
- General Duty
- 240 V, 60 A, Two-Pole
- NEMA 3R Outdoor Enclosure

AC Disconnect Switch D223NRB



- Safety Switch
- Fusible
- General Duty
- 240 V, 100 A, Two-Pole
- NEMA 3R Outdoor Enclosure

4 5 Square D QO Load Centers and Circuit Breakers

Square D Load Centers are the leading choice of electrical contractors and electricians. Every feature of the QO Load Breakers also has features no other manufacturer can offer. These quality, industry-exclusive products keep Square D ahead of the competition and are builders' and electrical contractors' first choice in electrical protection. Every residential application will require a unique combination of Square D QO Load Centers and QO Circuit Breakers. For a custom recommendation, please contact your local Schneider Electric representative. A 3.0 kW system may include:

Load Center QO140M225



- QO Series Main Breaker
- 240 V, 200 A, 1PH, 30SP

Load Center QONQ42MS400



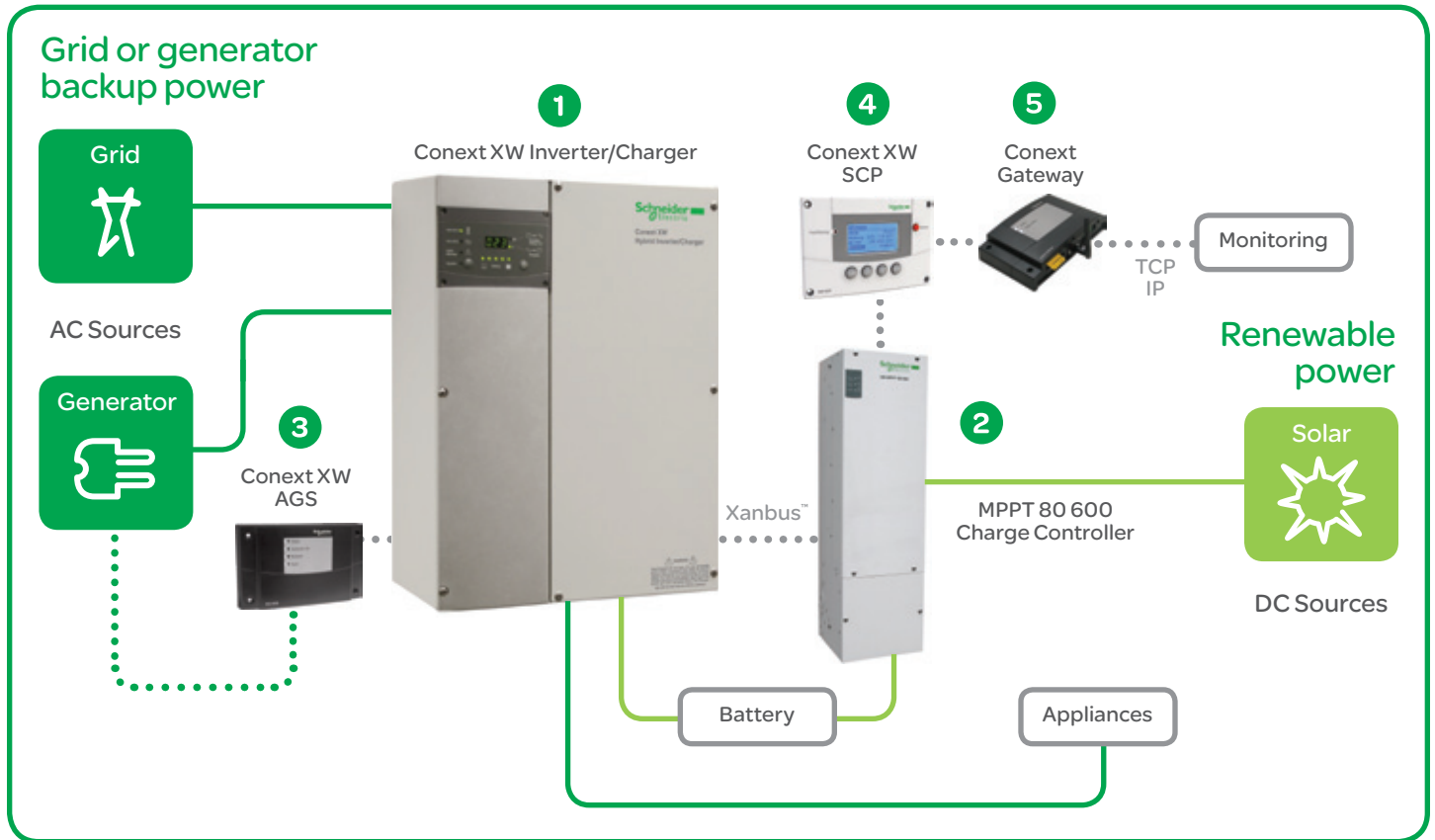
- NQ Series Main Breaker
- 400 A, 42 Casket, 1PH, AL

Solutions for backup and off-grid power

Schneider Electric delivers key solar and electrical components, further mitigating costs related to maintenance from multiple manufacturers.

Our complete off-grid solar system provides you with turnkey renewable power systems designed to suit all of your requirements. The simplicity of one packaged Electrical Balance of Systems solution creates convenience through one vendor, one delivery schedule, and one source of accountability.

Schneider Electric Conext XW System



Key Components of the Schneider Electric Electrical Balance of Systems Solution for a 3.0 kW System

- 1 Conext XW Inverter/Charger
- 2 MPPT 80 600 Solar Charge Controller
- 3 Conext XW Automatic Generator Start
- 4 Conext XW System Control Panel
- 5 Conext Gateway



1 Schneider Electric Inverter/Charger

Delivers the power, efficiency, and flexibility to meet your unique needs. Use the built-in network and sync ports for seamless communication to synchronize invert and charge modes. Take advantage of the auxiliary AC input's wide voltage range and be prepared for its unprecedented surge capacity:

Conext XW Series Inverter/Chargers



- True sine wave AC output
- Dual AC inputs: grid and generator
- High-current, multistage, PF-corrected battery charger
- 120/240 Vac, 60 Hz; parallel units for more power
- Convertible to 120 Vac, 60 Hz operation
- Configurable for 120/208 Vac three-phase operation

2 Schneider Electric Solar Charge Controllers

MPPT 80 600 Solar Charge Controller



- Accepts array voltages up to 600 V, increasing installation flexibility and reducing installation cost
- Fast Sweep maximum power point tracking delivers maximum power even with shading or fast-moving clouds
- 80 A charge current from large PV arrays with just two strings
- Configurable for positive, negative, and ungrounded PV systems
- Integrated PV ground-fault protection
- Configurable auxiliary output

MPPT 60 150 Solar Charge Controller



- Maximum power point tracking delivers maximum power even with shading or fast-moving clouds
- 60 A charge current
- Integrated PV ground-fault protection
- Does not require a cooling fan
- Selectable two- or three-stage charging algorithms

3 4 5 Schneider Electric Accessories

Should your installation require an additional external AC disconnect (Conext TX Series Grid Tie Inverter has an integrated AC disconnect), Square D General Duty Safety Switches can accommodate a variety of residential installations. Possible Square D AC disconnects for your 3.0 kW system:

Conext XW Automatic Generator Start (Gateway)



- Automatically activates a generator to provide a Conext XW Inverter/Charger with power to recharge a depleted battery bank or provide additional power for heavy loads
- Compatible with common two- and three-wire start generators
- Configurable start and stop settings
- Quiet-time and exercise settings
- LED display status

Conext XW System Control Panel



- Gives a single point of control to setup and monitor an entire system, which may consist of multiple Conext XW Inverter/Chargers, XW MPPT Solar Charge Controllers, and other components
- Full-featured user interface for system configuration and monitoring
- Xanbus Network ready
- Powered through network connection — “hub” not required acoustic indicator alarm

Communications Gateway



- Can monitor a network consisting of up to eight XW devices
- Wi-Fi®/Ethernet module with 10/100 Base-T or 802.11 b/g
- Can be configured to send energy and alarm reports via email
- Graphical interactive solar monitoring software



Reliability testing is an accelerated stress test that identifies potential weaknesses which may be uncovered during the life span of the product.

Building trust through proven performance

Designing robust solar products

Schneider Electric solar products and solutions are designed to the highest standards and undergo robust Design for Quality and Reliability practices as well as reliability testing throughout the product development cycle.

These tests help both product reliability and overall customer satisfaction and aim to continuously improve robustness of the design proactively.

Key aspects of Design for Quality and Reliability

- > WCA (worst-case analysis)
- > Useful life analysis
- > Design standard check
- > D-FMEA (design failure modes and effects analysis)
- > A-FMEA (application failure modes and effects analysis)
- > FIT/MTBF (failure in time/mean time between failures) prediction
- > List of preventive maintenance parts for field serviceable products
- > Reliability testing

Product life cycle reliability testing

- > Qualification of major design improvements
- > Continual reliability monitoring to ensure the same level of reliability throughout the product life cycle

Types of reliability testing during product development cycle

- > THB (temperature humidity bias)
- > Salt-fog testing
- > HALT (highly accelerated life test): product evaluation process during which thermal stress is combined with vibration and the product's functionality is tested at these combined environments
- > MEOST (multiple environmental over stress testing): advanced version of HALT; the difference is in combining more stressors based on product application
- > STRESSORS: temperature step/shock, vibration, power, input DC voltage, output AC voltage, and frequency cycling
- > Custom reliability testing: used for our large three-phase inverters; tested in walk-in chamber

Reliability testing



Extreme weather conditions



Vibrations



Input/output usage profiles



Combined stresses

For more information, visit
www.schneider-electric.com/us
and enter key code **w902v**.

Enter key code

> OK



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