

Sun Tie XR

Connect the Power of the Sun to Your Utility Meter

Grid-tie Technology

- ▶ The 240 VAC, 60 Hz output inverter operates in concert with the utility, producing utility grade AC power from DC energy generated by a PV array, without the need for batteries.
- ▶ The Sun Tie XR efficiently produces AC power that is consumed at the site or sells excess power back to the utility, significantly reducing monthly electric bills.
- ▶ With Sunsweep™ Maximum Power Point Tracking (MPPT) technology, the solar array is carefully managed by the inverter to produce the maximum amount of DC power.
- ▶ The optional remote meter (STRM) can be located 50 ft away from the inverter and can track the overall system performance, monitoring days, weeks, and even months.
- ▶ The optional rainshield (STRS) allows the Sun Tie XR to be located in an outdoor location, minimizing DC wire run length.

Features

- ▶ Quiet, efficient operation, utilizing high frequency solid-state design.
- ▶ Durable construction designed to accommodate harsh environments.
- ▶ 1.0 kW, 1.5 kW, 2.0 kW, and 2.5 kW continuous output models.
- ▶ Front panel LCD display shows system status and power production information.
- ▶ Standard 2 year warranty with an optional extension to 5 years.

All-In-One Design

- ▶ Includes the required electrical components for an NEC code compliant system installation.
- ▶ Incorporates all AC and DC disconnects, PVGFP, combiner board, and a lightning arrester, which simplifies system complexity and installation time at the site.

System Expandability

- ▶ Requires a nominal 48 VDC PV array to produce AC power, allowing the system to enable with a small PV array, lowering the barrier for expensive entry costs.
- ▶ System expansion can be accomplished at a later date by adding additional “strings” of four modules in series.
- ▶ Multiple Sun Tie XR units can be installed at a single site when the PV array exceeds the capacity of a single inverter.



Optional remote monitor

Electrical Specifications	STXR1000	STXR1500	STXR2000	STXR2500	
AC Output Voltage (Nominal)	240 VAC	240 VAC	240 VAC	240 VAC	
AC Output Voltage Range	211-264 VAC	211-264 VAC	211-264 VAC	211-264 VAC	
Continuous Power (@ 25 °C)	1000 VA	1500 VA	2000 VA	2500 VA	
Efficiency (Peak)	92%	92%	94%	94%	
AC Output Characteristics	Current source	Current source	Current source	Current source	
Frequency (Nominal)	60 Hz	60 Hz	60 Hz	60 Hz	+0.5 Hz, -0.7 Hz default per IEEE929 and UL 1741
DC Input Voltage (Nominal)	48 VDC	48 VDC	48 VDC	48 VDC	Typically 4 nominal 12 VDC PV modules, in series
Sunsweep MPPT Voltage Range	44-85 VDC	44-85 VDC	44-85 VDC	44-85 VDC	
Full Power Output	52-85 VDC	52-85 VDC	52-85 VDC	52-75 VDC	
Absolute Maximum PV Open Circuit Voltage (Voc)	120 VDC	120 VDC	120 VDC	120 VDC	

Mechanical Specifications

Operating Temperature Range	-38 °F to 113 °F (-39 °C to 45 °C) (A full temperature versus performance curve is available in the manual)
Enclosure Type	Outdoor, powder coated aluminum enclosure, fully screened, rainproof - optional rainshield required for outdoor installation
Unit Weight	35 lb (16 kg)
Shipping	40 lb (18 kg)
Inverter Dimensions	33" H x 13" W x 5" D (83 cm H x 34 cm W x 13 cm D)
Shipping Dimensions	38" H x 16" W x 10" D (94 cm H x 39 cm W x 24 cm D)
Mounting	Vertical wall mount only
Altitude	15,000' (4,572 m)

Features and Options

Forced Air Cooling	Standard dual speed DC brushless fan
Islanding Protection	Standard over/under AC voltage and frequency detection plus active islanding protection - meets IEEE 929 and UL 1741 requirements
User Display	Standard backlit alphanumeric LCD display for system status and daily energy harvest (Wh)
AC Disconnect	Standard double-pole 15 amp, 240 VAC branch rated circuit breaker
DC Disconnect	Standard single-pole 100 amp, DC rated circuit breaker
Remote Monitor	STRM - optional remote display unit for status, resettable Wh meter, tech menu, and daily energy harvest with 50' cable
Rain Shield	STRS - optional protective rain shield required for outdoor installation
PV Ground Fault Protection System	Standard on STXR1500 and STXR2500
PV Combiner Board	Standard on STXR1500 and STXR2500 with 6 fused inputs, 20 amps maximum per input
Lightning Arrestor	
Combined AC/DC Protection	Standard on all models

Common Specifications

Waveform	Sine wave, voltage referenced
Total Harmonic Distortion	Less than 5% at rated power per IEEE929 and UL 1741
Listings	UL Listed to UL 1741 - 1999 and cUL Listed to CSA 22.2 No. 107.1-95