

Sun Tie XR Grid Tie Inverter (2003 Model)

1.5 kW / 2.5 kW Sine wave



Converts solar power to AC power

The Sun Tie XR inverter converts DC energy generated by a solar array into utility grade AC power turning any household into a solar power plant. The Sun Tie XR efficiently sells excess power back to the utility, significantly reducing monthly electric bills. With Sunsweep™ Maximum Power Point Tracking (MPPT) technology, the Sun Tie XR harvests the maximum amount of energy available from the solar array as environmental conditions change.

Features

- ▶ Quiet, efficient operation, utilizing high frequency solid-state design.
- ▶ Durable construction designed to accommodate harsh environments.
- ▶ 1.5 kW and 2.5 kW continuous output models.
- ▶ Standard scrolling LCD display shows system status, power output, AC volts, array input voltage and energy harvest.
- ▶ Standard 5 year warranty (applicable to products manufactured after Feb 03).
- ▶ Incorporates all AC and DC disconnects, PVGFP, combiner board, and the required electrical components for an NEC code compliant system installation this simplifies system complexity and reduces installation time at the site.

System Expandability

- ▶ Nominal 48 volt DC input allows entry level systems as small as four modules.
- ▶ 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 Accessories

- ▶ The optional remote meter (STRMUPG) can be easily installed inside the home allowing homeowners to monitor system status and performance.
- ▶ The optional rainshield (STRS) allows the Sun Tie XR to be located in an outdoor location, minimizing DC wire length.

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Electrical Specifications

Model	STXR1500	STXR2500	
AC Output Voltage (Nominal)	240 VAC	240 VAC	
AC Output Voltage Range	211-264 VAC	211-264 VAC	
Continuous Power (@ 45°C)	1500 VA	2500 VA	
Efficiency (Peak)	91%	91%	
AC Output Characteristics	Current source	Current source	
Frequency (Nominal)	60 Hz	60 Hz	+0.5 Hz, -0.7 Hz default per IEEE929 & UL 1741
DC Input Voltage (Nominal)	48 VDC	48 VDC	Typically 4 nominal 12 VDC PV modules, in series
Sunsweep MPPT Voltage Range	44-85 VDC	44-85 VDC	
Full Power Output	52-85 VDC	52-75 VDC	
Absolute Max PV Open Circuit Voltage	120 VDC	120 VDC	
Waveform	Sine wave	Sine wave	Voltage referenced - current source
Total Harmonic Distortion	Less than 5% at rated power per IEEE929 and UL 1741 (all models)		

General 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		
	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)		
Warranty	5 years (applicable to products manufactured after Feb 03)		
Part Numbers	STXR1500, STXR2500 - Sun Tie XR Inverters		
	STRS - Rainshield		
	STRMUPG - Remote Meter		

Features & Options

Forced Air Cooling	Standard thermally controlled eight speed 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 AC/DC Protection	Standard on all models

Regulatory Approvals

UL Listed to UL 1741 - 1st Edition

cUL Listed to CSA 22.2 No. 107.1-95