

Solar Inverter System Metering and Disconnects

Grown in Washington

The Silicon Energy Solar Inverter System brings proven UL listed components and prewired convenience together in one easy to install package. At the core of this product is a light weight, high efficiency, batteryless grid-tie inverter that manages the DC power from the solar array(s) and converts it to AC power for use in your home or business.



Features:

- Qualifies for Washington State Solar Incentives – Recognized as Washington Made by the Department of Revenue.
- High Efficiency Performance – Transformerless inverter design provides up to 96.8% efficiency providing industry-leading performance.
- Dual Maximum Power Point Tracking (MPPT) – 2 separate arrays can be independently tracked for optimized performance and greater installation flexibility.
- Wide MPPT Operating Range – Operates from 90 to 580VDC to increase energy production during cloudy and low light conditions.
- Proven Reliability – NEMA 4 rated enclosure combined with a rugged inverter design has proven itself reliable in the field worldwide.
- Reduced Installation Time – Factory prewired with NEMA 3R AC and DC disconnects reduces installation time.
- Residential or Commercial – 240VAC split phase standard with optional 208/277VAC single phase settings.
- Solar Production Ready – Utility meter socket included for solar production metering (*meter provided separately by the utility*).
- Safe Operation – Complies with US safety standards (*UL1741/IEEE1547*).
- Built-in Communications – RS-485 communications interface (*USB for service/updates*).
- 10-year warranty

Specifications subject to change without notice.



Solar Inverter System Specifications

Parameters	SiE-SIS-3.0	SiE-SIS-4.2
Input (DC)	PVI-3.0-OUTD-US	
Nominal DC Power	3120 W	4380 W
Total Max DC Power	3500 W	4820 W
Operating MPPT Voltage Range	90 – 580VDC (360VDC nominal)	
Full Power MPPT Range	160 – 530 VDC	200 – 530 VDC @ 240/208VAC 220 – 530 VDC @ 277VAC
Max Voltage	600 VDC	
Start up/Activation Voltage	200 VDC nominal (adjustable from 120 – 350 VDC)	
Number of MPPT Inputs	2	
Max DC Power per Input	2000 W	3000 W
Max DC Current per Input	10A (12.5A short circuit (Isc))	16A (20A short circuit (Isc))
Thermal Protected DC Varistor	4	
DC Connection/Disconnect	GE THN2261RDC Model 10; 30A; 600VDC; NEMA 3R 2- Pole (AWG#12 - #2AWG Cu/Al)	
Output (AC)		
Nominal AC Power	3000 W	4200 W
Max AC Power	3300 W	4600 W
AC Grid Connection	Split phase 240VAC – Single phase 208/277VAC	
Nominal AC Voltage	Default 240VAC – Optional setting for 208/277VAC	
AC Voltage Range	240VAC (211-264) 208VAC (183-228) 277VAC (244-304)	
Nominal AC Frequency	60 Hz	
Continuous AC Current	14.5A @ 240/208VAC 12A @ 277VAC	20 A
Maximum Over Current Protection	20A @ 240/208VAC 15A @ 277VAC	25 A
AC Side Varistor	2 (live- neutral/live- PE)	
AC Disconnect	GE THN3361R Model 10; 30A; 600VAC; NEMA 3R 3- pole (AWG#12- #2AWG Cu/Al)	
Line Power Factor	1	
AC Current Distortion	< 2% at rated power with sine wave voltage	
Max Efficiency	96.8%	
CEC Efficiency	96%	
Feed in Power Threshold	20 W	
Night Time Consumption	< 2 W	
Isolation	NO (transformerless topology)	
Meter Socket/AC Connection	Milbank U5929, 100A; 600VAC; NEMA 3R Line and Load(AWG #12 - 1/0 Cu/Al) Ground (AWG #14 - #4 Cu/Al)	
ENVIRONMENTAL		
Cooling	Passive	
Ambient Temp. Range	- 13F/- 25C to 140F/60C	
Max Operating Altitude	6000 ft	
Acoustical Noise	< 50 dBA @ 1mt	
NEMA Rating	NEMA 4X	
Relative Humidity	0- 100% Condensing	
Communications	RS485 (USB for service only)	
Panel Footprint (W x H x D)	44 x 35 x 9 in (powder coated aluminum)	
Panel Weight	93 lbs.	

* Note 5th jaw kit is needed for 208VAC. Milbank U5929 is not compatible with most utility 277VAC solar production meters.

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