



# Solar Electric System Proposal

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# Why ReVision?

With more than 4,000 solar energy systems installed in Maine, New Hampshire and Massachusetts during our first ten years in business, ReVision Energy is the most experienced renewable energy company in the northeast. We offer custom engineered solar hot water and solar electricity for homes, businesses, schools and nonprofit organizations.

## EXPERIENCE

To ensure maximum longevity in a relatively harsh northern climate, our systems are designed by engineers from Brown, Dartmouth, MIT, UMaine and UNH. Our professional solar technicians carry NABCEP certifications and have state electrical and plumbing licenses.

## VALUE

We install more solar than anyone in Maine and New Hampshire, which means we can pass more savings on to you. We stock the highest quality components so you get the very best value for your renewable energy dollar.

## SERVICE

We are a full-service renewable energy company offering design, installation, sales, and the best customer service in the business. We back our installations with a workmanship guarantee above industry norms and provide customers with a 24 hour emergency number.

## COMMUNITY

ReVision Energy is committed to making a difference in the communities in which we work and live. We donate our time and resources to schools and nonprofits with a passion to create a sustainable future for coming generations.

## —8.85 KW SOLAR ELECTRIC SYSTEM —



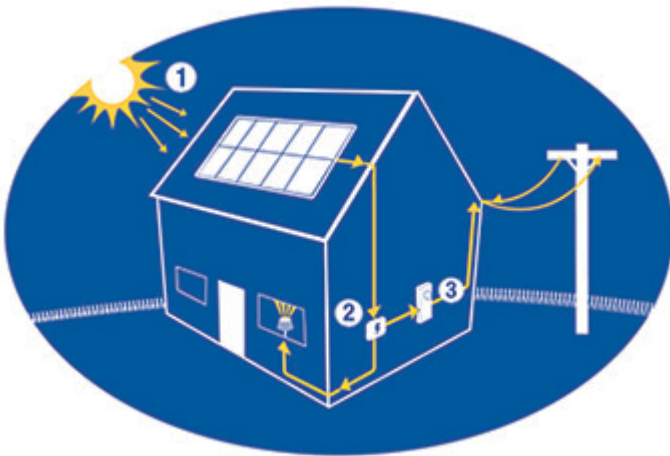
- (29) LG High Efficiency Mono X NeON 305 Watt Solar Module or equivalent
- (1) SMA Sunny Boy 7000 TL-22 Series Transformer-less grid-tied solar electric inverter with dual maximum power point tracking ([www.sma-america.com](http://www.sma-america.com))
- (1) Installation of Web Connection monitoring option for SMA Sunny Boy inverters; includes Web Connect Card, wiring and initial set-up to internet
- Collectors to be mounted in three rows on the southwest facing dormer roof.

### ENVIRONMENTAL BENEFITS



- Produces roughly 9,485 kWhs of clean, renewable electricity annually
- Your solar panels will provide about 97% of your current electric usage
- Offset about 8,707 lbs of carbon pollution each year

### HOW IT WORKS



1. Sun hits solar panels, creating DC electricity.
2. Solar inverter converts DC into AC electricity, which feeds main electric panel. Solar powers any loads (TV, computers, lights, etc.) when resource is available.
3. Any excess electricity is fed to the grid, earning a credit on your electric bill. When no sun is available, you use power from the grid as you do now. The utility company will record production and usage of solar credits, which carry forward month-to-month up to a year.

## PAYMENT OPTIONS

Solar is a great investment, whether you choose to purchase it upfront or utilize our "Own Your Power" financing program. The "Buy it Now" option offers the greatest savings over the life of the system, while "Own Your Power" allows you to lock in the benefits of solar ownership for no money down and a fixed monthly payment.

### BUY IT NOW - CASH PURCHASE

**\$27,998 GROSS INSTALLED COST**  
 -\$8,399 30% FEDERAL TAX CREDIT

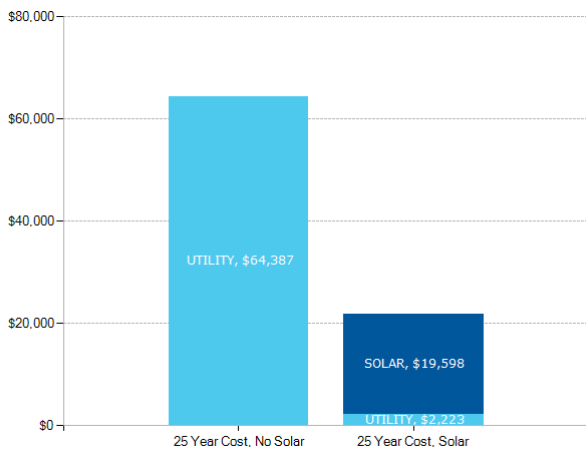
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**\$19,598 COST AFTER INCENTIVES**  
*\*Cash discount included*

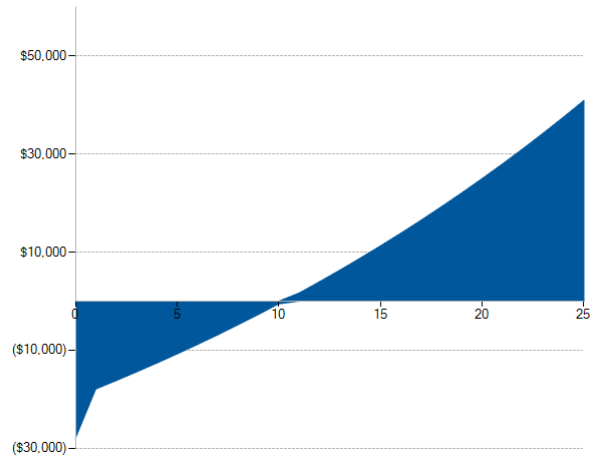
**Lock in at \$0.09/kWh**  
for 25-year cost of electricity

**Save \$42,565 over 25 years**  
instead of paying for utility power

**Do Nothing vs. Solar Cash Purchase**



**Buy It Now Cash Flow**



*\* Estimates only, based on professionally modeled solar production vs. your existing electricity rate with 3% utility rate increase each year for 25 years*

**Pricing expires 30 days from July 9, 2015**

**OWN YOUR POWER FINANCING OPTION**



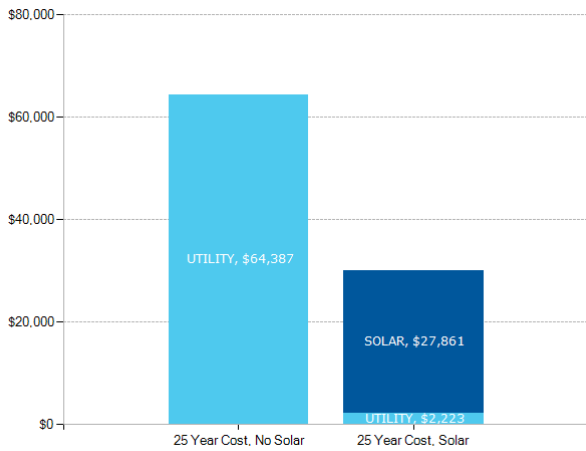
Our "Own Your Power" loans offer financing for solar that requires no home equity, no appraisal, no closing costs. The financing consists of two loans: a 0% interest, 12-month, no-payment loan in the amount of any federal and state incentives and a 12-year 2.99% fixed interest loan for the remaining balance. The total amount to be financed is \$32,518. Information on how to apply at the end of this proposal.

**Lock in at \$0.12/kWh**  
for 25-year cost of electricity

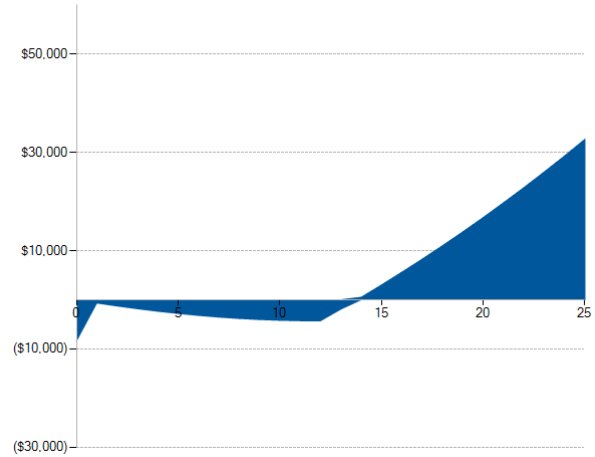
**Save \$34,302**  
over 25 years instead of paying for utility power

**\$193/month**  
payment for 12 years

**Do Nothing vs. Solar Loan**



**Solar Loan Cash Flow**



\* Estimates only, based on professionally modeled solar production vs. your existing electricity rate with 3% utility rate increase each year for 25 years

**Pricing expires 30 days from July 9, 2015**

## WE ARE A CERTIFIED B CORP

Certified B Corporations are leading a global movement to redefine success in business. By voluntarily meeting higher standards of transparency, accountability, and performance, Certified B Corps are distinguishing themselves in a cluttered marketplace by offering a positive vision of a better way to do business. Certified B Corps are competing to be not just ‘The Best in the World’, but ‘The Best for the World’.

The “B” stands for “Benefit” Corporation and denotes that a business has committed itself to a defined set of non-traditional business practices that benefit employees, customers and the broader community by creating a positive impact on society and the environment. Unlike traditional corporations, Certified B Corporations are legally required to consider the impact of their decisions not only on their shareholders, but also on their stakeholders (e.g., workers, suppliers, community, consumers, and the environment).

At ReVision Energy we have always prided ourselves on being a mission driven company that makes a substantial effort to embody our values in every interaction with customers, with suppliers, with the community and of course also with each other. Being certified as a B Corporation is a validation of those efforts and joins us with a community of over 1,300 like minded businesses worldwide who all agree that business is not just about profits, but can and should be a source for positive social and environmental change in the world. Learn more about what it means to be a B Corp and the other exceptional companies that have earned the certification at: <http://www.bcorporation.net/what-are-b-corps/why-b-corps-matter>



## IN THE COMMUNITY

ReVision Energy envisions a future where renewable energy is the basis of all things we take for granted in modern life: home and business lighting, heating, communications, transportation. This transition is necessary for environmental reasons, but also comes with powerful economic benefits, and offers the opportunity to create a more equitable society.

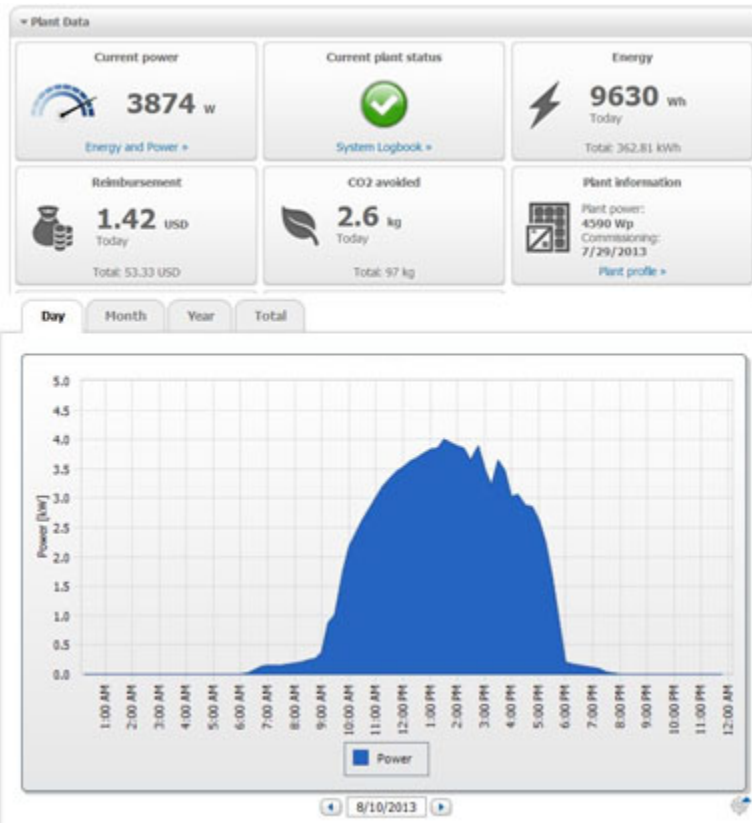
A renewable energy economy means more money that is currently exported to foreign countries or corporate conglomerates stays local. This is especially beneficial to nonprofit organizations, who have to do extraordinary work on often limited budgets.

We work to realize this future every day. We are deeply committed to the nonprofit, faith-based, and governmental organizations in our communities and work to create creative ways to allow these entities to take advantage of renewable energy (such as our charitable investing division) in addition to generous direct giving.

Our staff members also tend to be very active local community-members, and our company offers paid volunteer time as a key benefit. Learn more about our efforts to support the community at: <http://www.revisionenergy.com/about-revision/corporate-giving/>



## SYSTEM MONITORING VIA INTERNET PORTAL



Your system includes access to SMA's proprietary SunnyPortal web-based data-monitoring system. It is a free service supported and maintained by the inverter manufacturer, SMA, with initial set-up by ReVision Energy.

This web-based tool allows you to view solar array performance in real-time from any location with access to the internet, as well as mobile devices using an iOS or Android app.

The view at left shows standard features - current array production, production over time, and offset displayed in both financial terms (based on a price per kWh) and environmental savings.

Monthly production reports and error notifications may also be sent to you and ReVision Energy via email. This allows us to monitor system performance and ensure proper operation.

## EMERGENCY POWER SUPPLY

With most grid-tied inverters, when the grid loses power, the solar array shuts down. The SMA TL (transformer-less) inverter allows up to 1,500 watts of daytime energy to be isolated from the grid and fed directly to a dedicated 120-volt power outlet, which is located at the inverter.

When utility power is not available, simply flip a switch to energize the dedicated inverter outlet. In general, small devices such as cell phone and laptop chargers or portable radios may be powered, while large appliances like refrigerators, freezers and well pumps may not.

The power provided by the Secure Power Supply will vary with sun conditions, so connected loads may be shut off if sun exposure is limited. The Secure Power Supply gives you the peace of mind and convenience of having independent power production as long as the PV system is operating.



## INCENTIVES

This system qualifies for the following incentives:

The solar system is eligible for a 30% federal tax credit. This credit (not deduction) is subtracted directly from an existing tax liability. Please consult with your accountant or tax professional to ensure that you will be eligible for the tax credit.

## WARRANTIES

Each component is warranted separately.

LG Solar provides a 10-year product warranty on materials and workmanship and an Industry leading 25 year power output warranty

SMA provides a 10 year warranty on the inverter(s)

ReVision Energy provides a 5 year warranty on all labor and services the manufacturers' warranty of the various components.

## SCOPE OF WORK

The quoted price for this system includes the following:

Professional site review and assessment with shade analysis prior to installation

All materials necessary to mount and wire the solar electric system. This includes all disconnects, fusing, conduit, wiring and metering complete through interconnection at your main electric panel to meet both the National, State and local electrical code requirements.

All labor required for installation. ReVision Energy designs and installs solar energy systems using in house resources. Our systems come with over 12 years of solar energy development experience, 80+ full time team members and thousands of systems in operation. Our team is comprised of Professional Engineers, Master Electricians, dedicated project managers and installation crew participating in our US Division of Labor Certified Apprentice Program. Each Member of our team is OSHA certified insuring that we're in full safety compliance for a safe and professional installation for your home or business.

Assistance applying for a Net Energy Billing permit with your local utility.

The price does not include:

Application fee for Net Energy Billing permit with your local utility (CMP or Emera)

## PAYMENT TERMS

**Own Your Power:** 20% due upon agreement of contract (drawn from GreenSky account)

**Buy it Now:** 1/3 due upon agreement of contract, 1/3 upon delivery of major equipment to the site

Balance due upon completed installation

## GET THE PROJECT STARTED

Ready to get started? Let's go! The process varies depending on whether you are purchasing the system (Buy it Now) or using our financing option (Own Your Power).

### PROCEED WITH BUY IT NOW

In order for us to reserve your system's equipment and secure your place in our queue, we request a deposit of: \$9,239.

This deposit is fully refundable until we receive a signed contract and order the parts for your project.

Please mail a check payable to ReVision Energy to:

ReVision Energy  
91 West Main St  
Liberty, ME 04949

You may also submit a credit card payment by calling us: (207) 589-4171.

### PROCEED WITH OWN YOUR POWER

"Own Your Power" financing is provided through our partner Greensky Credit. Greensky offers fast and easy loan approval on the phone or online, and you can expect to receive a response within 15 minutes letting you know the total amount of financing you have qualified for. The financing is an unsecured loan product that requires no home equity and no appraisal or closing costs. Loan qualification is based primarily on stated income and individual credit history.

If you have not already, you will need to apply for financing. You can do so on Greensky's website: <http://greenskycredit.com/consumer/>

Or call **866-936-0602** and provide the dealer ID: **81007942** and plan **1442**.

Once your Own Your Power financing is approved, contact [hans@revisionenergy.com](mailto:hans@revisionenergy.com) for next steps.

## SPECIAL NOTES

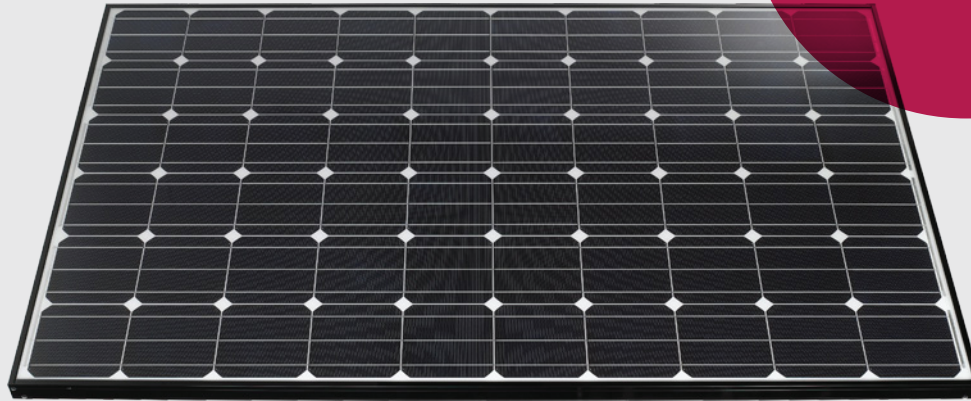
System production predictions are based on weather data specific to your location and adjusted based on conditions at your site. Snow accumulation and shading of the array will effect system production. We have done our best to factor these into performance estimates, however production will vary from year to year. Data estimates based on that of NREL PVWatts: <http://pvwatts.nrel.gov/>.

However, such estimates are for informational purposes only. Due to the large number of variables affecting efficiency and performance that are beyond ReVision Energy's control, ReVision Energy makes no warranty or guaranty that the equipment or system installed in accordance with this proposal shall perform in accordance with such estimates.

Estimates of federal tax credits and state rebates are provided to the best to our knowledge. We will assist with processing of state and local rebates, however, note that some rebate programs are first-come first-serve with limited funding and we cannot guarantee you will receive them. Also, the state rebate may be taxed as income depending on your tax filing. ReVision Energy does not provide tax advice; we recommend you consult with a professional tax advisor to review eligibility for federal solar incentives prior to making a purchasing decision.



Innovation  
for a Better Life



Mono X™ NeON

LG305N1C-B3

## 60 cell

Introducing Mono X™ NeON module series, which uses highly efficient n-type materials, an elaborate process control adopting a semiconductor processing solution and a double-sided structure. Our R&D concentrates on developing a product that is not only efficient, but strives to increase practical value for customers.

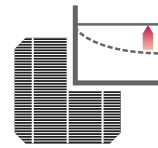


KM 564573 BSEN 61215  
Photovoltaic Modules



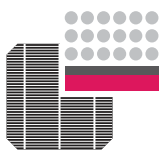
### N-Type Material

Mono X™ NeON uses n-type cells, boasting higher mobility of electric charge, resulting in higher generation efficiency.



### Near Zero LID (Light Induced Degradation)

The n-type cells used in Mono X™ NeON have almost no boron, which may cause the initial efficiency to drop, leading to less LID.



### Nano Level Control

Mono X™ NeON uses the Nano-level process control predominant in semiconductor processing process, which ensures less electric loss from internal defects.



### Double-Sided Cell Structure

The rear of the cell used in Mono X™ NeON is designed to contribute to generation; the light beam reflected from the rear of the module is reabsorbed to generate a great amount of additional power



Light Weight



Convenient Installation



EL Test



Current Sorting



Linear Warranty



Positive Power Tolerance

#### About LG Electronics

LG Electronics is a multinational corporation committed to expanding its capacity with solar energy business as its future growth engine. Our a solar energy source research program was launched in 1985, backed by LG Group's rich experience in semi-conductors, LCD, chemistry and electronic materials industry. We successfully released the first Mono X™ series to the market in 2010 which exported to 32 countries in 2 years. In 2013, Mono X™ NeON won "Intersolar Award", which proved its leading innovation in the industry.



# SUNNY BOY 3000TL-US / 3800TL-US / 4000TL-US / 5000TL-US / 6000TL-US / 7000TL-US / 7700TL-US



SB 3000TL-US-22 / 3800TL-US-22 / 4000TL-US-22 / 5000TL-US-22 / 6000TL-US-22 / 7000TL-US-22 / 7700TL-US-22



**THE WORLD'S ONLY  
SECURE POWER SUPPLY**



OUTLET NOT INCLUDED

### Certified

- UL 1741 and 1699B compliant
- Integrated AFCI meets the requirements of NEC 2011 690.11

### Innovative

- Secure Power Supply provides daytime power during grid outages

### Powerful

- 97.6% maximum efficiency
- Wide input voltage range
- Shade management with OptiTrac Global Peak MPP tracking

### Flexible

- Two MPP trackers provide numerous design options
- Extended operating temperature range

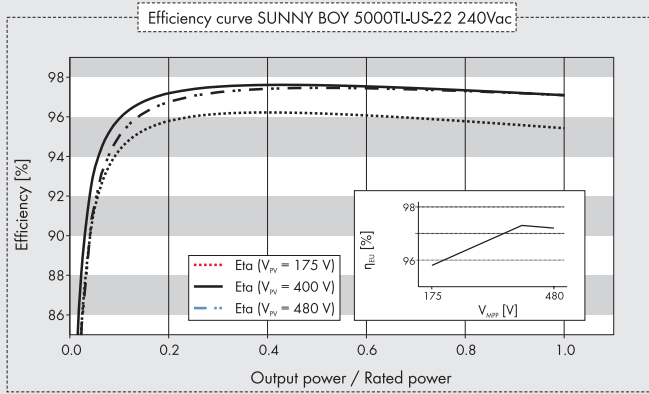
## SUNNY BOY 3000TL-US / 3800TL-US / 4000TL-US / 5000TL-US / 6000TL-US / 7000TL-US / 7700TL-US

Setting new heights in residential inverter performance

The Sunny Boy 3000TL-US/3800TL-US/4000TL-US/5000TL-US/6000TL-US/7000TL-US/7700TL-US represents the next step in performance for UL certified inverters. Its transformerless design means high efficiency and reduced weight. Maximum power production is derived from wide input voltage and operating temperature ranges. Multiple MPP trackers and OptiTrac™ Global Peak mitigate the effect of shade and allow for installation at challenging sites. The unique Secure Power Supply feature provides daytime power in the event of a grid outage. High performance, flexible design and innovative features make the Sunny Boy TL-US series the first choice among solar professionals.



Technical data	Sunny Boy 3000TL-US		Sunny Boy 3800TL-US		Sunny Boy 4000TL-US	
	208 V AC	240 V AC	208 V AC	240 V AC	208 V AC	240 V AC
<b>Input (DC)</b>						
Max. usable DC power (@ cos φ = 1)	3200 W		4200 W		4200 W	
Max. DC voltage	600 V		600 V		600 V	
Rated MPPT voltage range	175 - 480 V		175 - 480 V		175 - 480 V	
MPPT operating voltage range	125 - 500 V		125 - 500 V		125 - 500 V	
Min. DC voltage / start voltage	125 V / 150 V		125 V / 150 V		125 V / 150 V	
Max. operating input current / per MPP tracker	18 A / 15 A		24 A / 15 A		24 A / 15 A	
Number of MPP trackers / strings per MPP tracker			2 / 2			
<b>Output (AC)</b>						
AC nominal power	3000 W		3330 W	3840 W	4000 W	
Max. AC apparent power	3000 VA		3330 VA	3840 VA	4000 VA	
Nominal AC voltage / adjustable	208 V / ●	240 V / ●	208 V / ●	240 V / ●	208 V / ●	240 V / ●
AC voltage range	183 - 229 V	211 - 264 V	183 - 229 V	211 - 264 V	183 - 229 V	211 - 264 V
AC grid frequency; range	60 Hz / 59.3 - 60.5 Hz		60 Hz / 59.3 - 60.5 Hz		60 Hz / 59.3 - 60.5 Hz	
Max. output current	15 A		16 A		20 A	
Power factor (cos φ)	1		1		1	
Output phases / line connections	1 / 2		1 / 2		1 / 2	
Harmonics	< 4%		< 4%		< 4%	
<b>Efficiency</b>						
Max. efficiency	97.2%	97.6%	97.2%	97.5%	97.2%	97.5%
CEC efficiency	96.5%	96.5%	96.5%	97.0%	96.5%	97.0%
<b>Protection devices</b>						
DC disconnection device			●			
DC reverse-polarity protection			●			
Ground fault monitoring / Grid monitoring			● / ●			
AC short circuit protection			●			
All-pole sensitive residual current monitoring unit			●			
Arc fault circuit interrupter (AFCI) compliant to UL 1699B			●			
Protection class / overvoltage category			1 / IV			
<b>General data</b>						
Dimensions (W / H / D) in mm (in)			490 / 519 / 185 (19.3 / 20.5 / 7.3)			
DC Disconnect dimensions (W / H / D) in mm (in)			187 / 297 / 190 (7.4 / 11.7 / 7.5)			
Packing dimensions (W / H / D) in mm (in)			617 / 597 / 266 (24.3 / 23.5 / 10.5)			
DC Disconnect packing dimensions (W / H / D) in mm (in)			370 / 240 / 280 (14.6 / 9.4 / 11.0)			
Weight / DC Disconnect weight			24 kg (53 lb) / 3.5 kg (8 lb)			
Packing weight / DC Disconnect packing weight			27 kg (60 lb) / 3.5 kg (8 lb)			
Operating temperature range			-40 °C ... +60 °C (-40 °F ... +140 °F)			
Noise emission (typical)	≤ 25 dB(A)		< 25 dB(A)		< 25 dB(A)	
Internal consumption at night	< 1 W		< 1 W		< 1 W	
Topology	Transformerless		Transformerless		Transformerless	
Cooling	Convection		Convection		Convection	
Electronics protection rating	NEMA 3R		NEMA 3R		NEMA 3R	
<b>Features</b>						
Secure Power Supply	●		●		●	
Display: graphic	●		●		●	
Interfaces: RS485 / Speedwire/Webconnect	○/○		○/○		○/○	
Warranty: 10 / 15 / 20 years	●/○/○		●/○/○		●/○/○	
Certificates and permits (more available on request)	UL 1741, UL 1998, UL 1699B, IEEE1547, FCC Part 15 (Class A & B), CAN/CSA C22.2 107.1-1					
NOTE: US inverters ship with gray lids						
Type designation	SB 3000TL-US-22		SB 3800TL-US-22		SB 4000TL-US-22	



### Accessories



Speedwire/Webconnect interface  
SWDM-US-10



RS485 interface  
DM-485CB-US-10



Fan kit for SB 3000/3800/  
4000/5000TL-US-22  
FANKIT02-10

● Standard feature ○ Optional feature – Not available  
Data at nominal conditions

Sunny Boy 5000TL-US		Sunny Boy 6000TL-US		Sunny Boy 7000TL-US		Sunny Boy 7700TL-US	
208 V AC	240 V AC	208 V AC	240 V AC	208 V AC	240 V AC	208 V AC	240 V AC
5300 W	6300 W	6300 W	7300 W	8000 W			
600 V	600 V	600 V	600 V	600 V			
175 - 480 V	210 - 480 V	210 - 480 V	245 - 480 V	270 - 480 V			
125 - 500 V	125 - 500 V	125 - 500 V	125 - 500 V	125 - 500 V			
125 V / 150 V	125 V / 150 V	125 V / 150 V	125 V / 150 V	125 V / 150 V			
30 A / 15 A	30 A / 15 A	30 A / 15 A	30 A / 18 A	30 A / 18 A			

2 / 2

4550 W	5000 W	5200 W	6000 W	6000 W	7000 W	6650 W	7680 W
4550 VA	5000 VA	5200 VA	6000 VA	6000 VA	7000 VA	6650 VA	7680 VA
208 V / ●	240 V / ●	208 V / ●	240 V / ●	208 V / ●	240 V / ●	208 V / ●	240 V / ●
183 - 229 V	211 - 264 V	183 - 229 V	211 - 264 V	183 - 229 V	211 - 264 V	183 - 229 V	211 - 264 V
60 Hz / 59.3 - 60.5 Hz	60 Hz / 59.3 - 60.5 Hz	60 Hz / 59.3 - 60.5 Hz	60 Hz / 59.3 - 60.5 Hz	60 Hz / 59.3 - 60.5 Hz	60 Hz / 59.3 - 60.5 Hz	60 Hz / 59.3 - 60.5 Hz	60 Hz / 59.3 - 60.5 Hz
22 A	25 A	25 A	29.2 A	29.2 A	32 A	32 A	32 A
1	1	1	1	1	1	1	1
1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2
< 4%	< 4%	< 4%	< 4%	< 4%	< 4%	< 4%	< 4%

97.2%	97.6%	97.0%	97.4%	96.8%	96.8%	96.8%	97.3%
96.5%	97.0%	96.5%	97.0%	96.5%	96.5%	96.5%	96.5%

I / IV

490 / 519 / 185 (19.3 / 20.5 / 7.3)	490 / 519 / 185 (19.3 / 20.5 / 7.3)	490 / 519 / 185 (19.3 / 20.5 / 7.3)	490 / 519 / 185 (19.3 / 20.5 / 7.3)
187 / 297 / 190 (7.4 / 11.7 / 7.5)	187 / 297 / 190 (7.4 / 11.7 / 7.5)	187 / 297 / 190 (7.4 / 11.7 / 7.5)	187 / 297 / 190 (7.4 / 11.7 / 7.5)
617 / 597 / 266 (24.3 / 23.5 / 10.5)	617 / 597 / 266 (24.3 / 23.5 / 10.5)	617 / 597 / 266 (24.3 / 23.5 / 10.5)	617 / 597 / 266 (24.3 / 23.5 / 10.5)
370 / 240 / 280 (14.6 / 9.4 / 11.0)	370 / 240 / 280 (14.6 / 9.4 / 11.0)	370 / 240 / 280 (14.6 / 9.4 / 11.0)	370 / 240 / 280 (14.6 / 9.4 / 11.0)
24 kg (53 lb) / 3.5 kg (8 lb)	24 kg (53 lb) / 3.5 kg (8 lb)	24 kg (53 lb) / 3.5 kg (8 lb)	24 kg (53 lb) / 3.5 kg (8 lb)
27 kg (60 lb) / 3.5 kg (8 lb)	27 kg (60 lb) / 3.5 kg (8 lb)	27 kg (60 lb) / 3.5 kg (8 lb)	27 kg (60 lb) / 3.5 kg (8 lb)
-40 °C ... +60 °C (-40 °F ... +140 °F)	-40 °C ... +60 °C (-40 °F ... +140 °F)	-40 °C ... +60 °C (-40 °F ... +140 °F)	-40 °C ... +60 °C (-40 °F ... +140 °F)
< 29 dB(A)	< 29 dB(A)	< 29 dB(A)	< 29 dB(A)
< 1 W	< 1 W	< 1 W	< 1 W
Transformerless	Transformerless	Transformerless	Transformerless
Convection	Fan	Fan	Fan
NEMA 3R	NEMA 3R	NEMA 3R	NEMA 3R

●	●	●	●
○/○	○/○	○/○	○/○
●/○/○	●/○/○	●/○/○	●/○/○

UL 1741, UL 1998, UL 1699B, IEC61547, FCC Part 15 (Class A & B), CAN/CSA C22.2 107.1-1

SB 5000TL-US-22	SB 6000TL-US-22	SB 7000TL-US-22	SB 7700TL-US-22
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More efficient



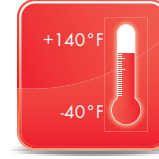
Shade management



Easier



Secure Power Supply



Broad temperature range



Flexible communications

# A NEW GENERATION OF INNOVATION

THE SUNNY BOY TL-US RESIDENTIAL SERIES HAS YET AGAIN REDEFINED THE CATEGORY.

## Transformerless design

The Sunny Boy 3000TL-US / 3800TL-US / 4000TL-US / 5000TL-US / 6000TL-US / 7000TL-US / 7700TL-US are transformerless inverters, which means owners and installers benefit from high efficiency and lower weight. A wide input voltage range also means the inverters will produce high amounts of power under a number of conditions.

Additionally, transformerless inverters have been shown to be among the safest string inverters on the market. An industry first, the TL-US series has been tested to UL 1741 and UL 1699B and is in compliance with the arc fault requirements of NEC 2011.

## Increased energy production

OptiTrac™ Global Peak, SMA's shade-tolerant MPP tracking algorithm, quickly adjusts to changes in solar irradiation, which mitigates the effects of shade and results in higher total power output. And, with two MPP trackers, the TL-US series can ably handle complex roofs with multiple orientations or string lengths.

An extended operating temperature range of -40 °F to +140 °F ensures power is produced

in all types of climates and for longer periods of time than with most traditional string inverters.

## Secure Power Supply

One of many unique features of the TL-US residential series is its innovative Secure Power Supply. With most grid-tied inverters, when the grid goes down, so does the solar-powered home. SMA's solution provides daytime energy to a dedicated power outlet during prolonged grid outages, providing homeowners with access to power as long as the sun shines.

## Simple installation

As a transformerless inverter, the TL-US residential series is lighter in weight than its transformer-based counterparts, making it easier to lift and transport. A new wall mounting plate features anti-theft security and makes hanging the inverter quick and easy. A simplified DC wiring concept allows the DC disconnect to be used as a wire raceway, saving labor and materials.

The 3800TL-US and 7700TL-US models allow installers to maximize system size and energy production for customers with 100 A and 200 A service panels.

## Leading monitoring and control solutions

The new TL-US residential line features more than high performance and a large graphic display. The monitoring and control options provide users with an outstanding degree of flexibility. Multiple communication options allow for a highly controllable inverter and one that can be monitored on Sunny Portal from anywhere on the planet via an Internet connection. Whether communicating through RS485, or SMA's new plug-and-play WebConnect, installers can find an optimal solution to their monitoring needs.

## Wide Power Class Range

Whether you're looking for a model to maximize a 100 A service panel or trying to meet the needs of a larger residential PV system, the Sunny Boy TL-US with Secure Power Supply has you covered. Its wide range of power classes—from 3 to 7.7 kW—offers customers the right size for virtually any residential application. The TL-US series is not only the smartest inverter on the planet, it's also the most flexible.

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