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Certificate of Appropriateness
Date: 12/13/16

Solar Electric Proposal 18 Panels

Matt Power
22 Dow Street
Portland, ME 04102

Your Solar Design Specialist:
Zach Nugent
znugent@revisionenergy.com
(207) 712-2511
November 30, 2016

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Why ReVision?

With more than 5,000 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 performance and 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 volume 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.

We are proud to be a Certified B Corporation • ReVisionEnergy.com

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—5.76 KW SOLAR ELECTRIC SYSTEM —

- (18) LG High Efficiency NeON 2 320 Watt Solar Module or equivalent
- (1) SolarEdge 5000w grid-tied solar electric inverter with Arc-Fault Protection
- (18) SolarEdge P320 DC Optimizer for 60 Cell PV Modules up to 320w.
- (1) PanelClaw Polar Bear III Ballasted Racking system - 10 array tilt

ENVIRONMENTAL BENEFITS

- Produces roughly 5,835 kWhs of clean, renewable electricity annually
- Your solar panels will provide about 45% of your current electric usage
- Offset about 5,433 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.

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PAYMENT OPTIONS

ment, whether you choose to purchase it upfront or utilize our "Own Your Power" financing
w" option offers the greatest savings over the life of the system, while "Own Your Power" allows
ı the benefits of solar ownership for no money down and a fixed monthly payment.

BUY IT NOW - CASH PURCHASE

$21,944 GROSS INSTALLED COST

-$6,583 30% FEDERAL TAX CREDIT

$15,361 COST AFTER INCENTIVES

Includes cash discount

Lock in at $0.11/kWh
for 25-year cost of electricity

Save $13,885 over 25 years
instead of paying for utility power

Do Nothing vs. Solar Cash Purchase

Buy It Now Cash Flow

How Did You Get These Numbers?

This financial model features: 1) expected solar kWh production based on site specifics and a combination of NREL and proprietary weather data (including expected snow load for your region), and 2) existing electricity rates with 3% annual rise. While we do our best to build an accurate (and conservative) model, treat this as an ESTIMATE only. Project economics and assumptions reflect current net metering rules as of the proposal date. A number of external factors affect the economic performance of the system.

Pricing expires 30 days from November 30, 2016

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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 no 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 loan amount will be **$25,487**. Information on how to apply is at the end of this proposal.

Lock in at $0.16/kWh for 25-year cost of electricity

Save $6,108 over 25 years instead of paying for utility power

$152/month payment for 12 years

Do Nothing vs. Solar Loan

Solar Loan Cash Flow

How Did You Get These Numbers?

This financial model features: 1) expected solar kWh production based on site specifics and a combination of NREL and proprietary weather data (including expected snow load for your region), and 2) existing electricity rates with 3% annual rise. While we do our best to build an accurate (and conservative) model, treat this as an ESTIMATE only. A number of external factors affect the economic performance of the system.

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SOLAREDGE POWER OPTIMIZER

The SolarEdge power optimizer is a DC/DC converter which is connected by installers to each PV module or embedded by module manufacturers. The SolarEdge power optimizers increase energy output from PV systems by constantly tracking the maximum power point (MPPT) of each module individually. Furthermore, the power optimizers monitor the performance of each module and communicate performance data to the SolarEdge monitoring portal for enhanced, cost-effective module-level maintenance. Each power optimizer is equipped with the unique SafeDC™ feature which automatically shuts down modules' DC voltage whenever the inverter or grid power is shut down.

The MPPT per module allows for flexible installation design with multiple orientations, tilts and module types in the same string. When working with SolarEdge Inverters, SolarEdge power optimizers automatically maintain a fixed string voltage, allowing installers even greater flexibility with longer strings and strings of different lengths in order to design optimal PV systems.

The SolarEdge power optimizers are compatible with c-Si and thin-film modules and have a 25 year warranty.

SOLAREDGE SYSTEM MONITORING VIA INTERNET PORTAL

The SolarEdge Monitoring Portal (monitoring.solaredge.com/) is the online service for remote system monitoring. You can easily monitor, analyze and compare PV systems at the individual panel level from any PC connected to the Internet. Current system data is available 24/7 and presented in a way that is easy to understand. The portal is easy to operate, very user-friendly and has comprehensive analysis options. Mobile monitoring apps are available for both Apple and Android devices.

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WE ARE A CERTIFIED B CORP

are leading a global movement to redefine success in
neeting higher standards of transparency, accountability, and
Corps are distinguishing themselves in a cluttered
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/

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INCENTIVES

he following incentives:

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

WARRANTIES

We install our systems by exacting standards honed over 15+ years of experience in the Northeast, and only install the highest-quality equipment. With over 5,000 systems built, very few have ever had issues, but rest assured that your solar energy equipment has long-lived warranties from the manufacturer, backed by ReVision Energy as your single point of contact:

- LG Solar provides a 12-year product warranty on materials and workmanship and an Industry leading 25 year power output warranty
- SolarEdge includes a 12 year warranty for its 5,000 watt inverters
- SolarEdge includes a 25 year warranty for power optimizers
- ReVision Energy provides a 5 year warranty on all labor.

ReVision Energy is your single point of contact for service and support for the life of the system. We are a mature company with deep roots in New England and will be here to ensure you get the maximum value from your renewable energy investment. You will never be forced to deal directly with a vendor for a warranty claim.

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, 120+ 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
- Interconnection Application Fee for your local Utility

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NCLUDE:

tility service and transformers at the pole. If the utility company requires upgrades to utility e customer will be notified prior to proceeding. An estimate for such additional work will be a change order will be agreed upon prior to proceeding.

- Professional Engineer Structural Review (required by some jurisdictions) of the project unless specifically noted in the Major Components section of the proposal. Any structural reinforcement required is beyond the scope of this proposal and will be charged on a time and materials basis. This requirement will be determined prior to project installation. The system deposit (less $500) may be refunded if you decide not to proceed with the structural improvements and project installation.

PAYMENT TERMS

- 1/3 due upon agreement of contract
- 1/3 due 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: $7,242. 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
142 Presumpscot St
Portland, ME 04103

You may also submit a credit card payment by calling us: (207) 221-6342.

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 znugent@revisionenergy.com for next steps.

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SPECIAL NOTES

ction predictions are based on weather data specific to your location and adjusted based on your site. Snow accumulation and shading of the array will effect system production. We have to factor these into performance estimates, however production will vary from year to year. s 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 of 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.

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Bear III
ounting System

PRODUCT AND COST EVOLUTION

System Level Approach

Low-cost mounting components provide savings early in the project development process. However, when you are looking to lower the total installed cost, from delivery to a fully wired system, details make the difference. Polar Bear® III combines critical system features, A-to-Z project support, and long-term product reliability into a single low-cost platform. The system components, delivery, and installation procedures have been jointly designed to deliver a lower total cost and better service experience.

The Polar Bear® III takes the best features, service, and reliability from PanelClaw's earlier flat roof systems and combines them into a single platform.

panelclaw®

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Flat Roof Mounting System

panelclaw®

ST EVOLUTION

Trusted Roof Integrity

Polar Bear® III reduces potential long-term roof damage with fully captured ballast, integrated roof protection pads and a system design that allows for free water flow.

Accelerated Construction

The engineered design emphasizes built-in features to improve construction efficiencies:

- Three major components, light-weight and easy to move
- Pre-installed bolts to quickly mount Ballast Trays
- Single-module tilt-up to facilitate must-have access to roof, wiring and maintenance

Safety and Reliability

Polar Bear III is the result of PanelClaw's data-driven test program to improve PV reliability. Polar Bear III is proven technology based on hundreds of megawatts of project experience.

Three Components

Support

- Easy-to-handle components that weigh less than 2.5 pounds
- Integrated recycled rubber roof protection pads
- Pre-drilled holes for wire management cabling options

Ballast Tray

- Angled fit with locking end-tab to fully capture ballast blocks
- Hemmed edges and chamfered corners prevent wiring from coming into contact with sharp edges

Claw

- Attachment to module using standard module mounting holes
- UL 2703 certified for electric bonding and grounding

Applications
Flat roof (max slope 5°)

Fully ballasted or mechanically attached

Module Tilt Angle
10° nominal

Shading Ratio
2.3:1 and 2:7:1

Module-to-Module Spacing
21.88" and 18.38"

Platform Load
~1.9 - 8 psf

Module Orientation
Landscape

Module Attachment
Standard module mounting holes

Basic Wind Speed
Up to 120 mph
(>120 mph by approval)

Wind Exposure Category
B and C (D by approval)

Seismic Compatibility
C, D, E and F

Warranty and Certifications
25 year warranty

UL 2703 certification

System Fire Rating
Class A with Type 1 and Type 2 modules

Made in USA

© 2015 PanelClaw, Inc.

Printed on recycled paper

(978) 688.4900 | sales@panelclaw.com

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Innovation for a Better Life

LG NeON™ 2

LG320N1C-G4 | LG315N1C-G4 | LG310N1C-G4 | LG305N1C-G4

60 cell

LG's new module, NeON™ 2, adopts Cello technology. Cello technology replaces 3 busbars with 12 thin wires to enhance power output and reliability. NeON™ 2 demonstrates LG's efforts to increase customer's values beyond efficiency. It features enhanced warranty, durability, performance under real environment, and aesthetic design suitable for roofs.

APPROVED PRODUCT
KM 564573 BS EN 61215
Photovoltaic Modules

Enhanced Performance Warranty

LG NeON™ 2 has an enhanced performance warranty. The annual degradation has fallen from -0.7%/yr to -0.6%/yr. Even after 25 years, the cell guarantees 2.4%p more output than the previous NeON™ modules.

High Power Output

Compared with previous models, the LG NeON™ 2 has been designed to significantly enhance its output efficiency, thereby making it efficient even in limited space.

Aesthetic Roof

LG NeON™ 2 has been designed with aesthetics in mind; thinner wires that appear all black at a distance. The product may increase the value of a property with its modern design.

Outstanding Durability

With its newly reinforced frame design, LG has extended the warranty of the NeON™ 2 for an additional 2 years. Additionally, LG NeON™ 2 can endure a front load up to 6000 Pa, and a rear load up to 5400 Pa.

Better Performance on a Sunny Day

LG NeON™ 2 now performs better on sunny days thanks to its improved temperature coefficiency.

Double-Sided Cell Structure

The rear of the cell used in LG NeON™ 2 will contribute to generation, just like the front; the light beam reflected from the rear of the module is reabsorbed to generate a great amount of additional power.

About LG Electronics

LG Electronics is a global player who has been committed to expanding its capacity, based on solar energy business as its future growth engine. We embarked on a solar energy source research program in 1985, supported by LG Group's rich experience in semi-conductor, LCD, chemistry, and materials industry. We successfully released the first Mono X® series to the market in 2010, which were exported to 32 countries in the following 2 years, thereafter. In 2013, NeON™ (previously known as Mono X® NeON) won "Intersolar Award", which proved LG is the leader of innovation in the industry.

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J™2

LG320N1C-G4 **LG315N1C-G4** **LG310N1C-G4** **LG305N1C-G4**

	6 x 10
	LG
	Monocrystalline / N-type
	156.75 x 156.75 mm / 6 x 6 inch
# of Busbar	12 (Multi Wire Busbar) NEW
Dimensions (L x W x H)	1640 x 1000 x 40 mm
	64.57 x 39.37 x 1.57 inch
Front Load	6000 Pa / 125 psf NEW
Rear Load	5400 Pa / 113 psf NEW
Weight	17.0 ± 0.5 kg / 37.48 ± 1.1 lbs
Connector Type	MC4, MC4 Compatible, IP67
Junction Box	IP67 with 3 Bypass Diodes
Length of Cables	2 x 1000 mm / 2 x 39.37 inch
Glass	High Transmission Tempered Glass
Frame	Anodized Aluminum

Certifications and Warranty

Certifications (In Progress)	IEC 61215, IEC 61730-1/-2, UL 1703,
	ISO 9001, IEC 62716 (Ammonia Test),
	IEC 61701(Salt Mist Corrosion Test)
Module Fire Performance	Type 2 (UL 1703)
Product Warranty	12 years NEW
Output warranty of Pmax (measurement Tolerance ± 3%)	Linear warranty* NEW

* 1) 1st year: 98%, 2) After 2nd year: 0.6%p annual degradation, 3) 83.6% for 25 years

Temperature Coefficients

NOCT	46 ± 3 °C
Pmpp	-0.38 %/°C NEW
Voc	-0.28 %/°C
Isc	0.03 %/°C

Characteristic Curves

Electrical Properties (STC *)

	320 W	315 W	310 W	305 W
MPP Voltage (Vmpp)	33.6	33.2	32.8	32.5
MPP Current (Impp)	9.53	9.50	9.45	9.39
Open Circuit Voltage (Voc)	40.9	40.6	40.4	40.1
Short Circuit Current (Isc)	10.05	10.02	9.96	9.93
Module Efficiency (%)	19.5	19.2	18.9	18.6
Operating Temperature (°C)	-40 ~ +90			
Maximum System Voltage (V)	1000			
Maximum Series Fuse Rating (A)	20			
Power Tolerance (%)	0 ~ +3			

* STC (Standard Test Condition): Irradiance 1000 W/m², Module Temperature 25 °C, AM 1.5
* The nameplate power output is measured and determined by LG Electronics at its sole and absolute discretion.
* The typical change in module efficiency at 200 W/m² in relation to 1000 W/m² is -2.0%.

Electrical Properties (NOCT*)

	320 W	315 W	310 W	305 W
Maximum Power (Pmpp)	234	230	226	223
MPP Voltage (Vmpp)	30.7	30.4	30.0	29.7
MPP Current (Impp)	7.60	7.58	7.54	7.49
Open Circuit Voltage (Voc)	37.9	37.6	37.4	37.1
Short Circuit Current (Isc)	8.10	8.08	8.03	8.01

* NOCT (Nominal Operating Cell Temperature): Irradiance 800 W/m2, ambient temperature 20 °C, wind speed 1 m/s

Dimensions (mm/in)

* The distance between the center of the mounting/grounding holes.

LG Life's Good

North America Solar Business Team
LG Electronics U.S.A. Inc
1000 Sylvan Ave, Englewood Cliffs, NJ 07632

Contact: lg.solar@lge.com
www.lgsolarusa.com

Product specifications are subject to change without notice.
DS-N2-60-C-G-F-EN-50427

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01/04/2015

Innovation for a Better Life

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INVERTERS

Single Phase Inverters

For North America

SE3000A-US / SE3800A-US / SE5000A-US / SE6000A-US / SE7600A-US / SE10000A-US / SE11400A-US

The best choice for SolarEdge enabled systems

- Integrated arc fault protection (Type 1) for NEC 2011 690.11 compliance
- Superior efficiency (98%)
- Small, lightweight and easy to install on provided bracket
- Built-in module-level monitoring
- Internet connection through Ethernet or Wireless
- Outdoor and indoor installation
- Fixed voltage inverter, DC/AC conversion only
- Pre-assembled Safety Switch for faster installation
- Optional – revenue grade data, ANSI C12.1

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Single Phase Inverters for North America

SE3000A-US / SE3800A-US / SE5000A-US / SE6000A-US / SE7600A-US / SE10000A-US / SE11400A-US

	SE3000A-US	SE3800A-US	SE5000A-US	SE6000A-US	SE7600A-US	SE10000A- US	SE11400A-US	
	3000	3800	5000	6000	7600	9980 @ 208V 10000 @240V	11400	VA
Max. AC Power Output	3300	4150	5400 @ 208V 5450 @240V	6000	8350	10800 @ 208V 10950 @240V	12000	VA
AC Output Voltage Min.-Nom.-Max.[1] 183 - 208 - 229 Vac	-	-	✓	-	-	✓	-	
AC Output Voltage Min.-Nom.-Max.[1] 211 - 240 - 264 Vac	✓	✓	✓	✓	✓	✓	✓	
AC Frequency Min.-Nom.-Max.[1]	59.3 - 60 - 60.5 (with HI country setting 57 - 60 - 60.5)							Hz
Max. Continuous Output Current	12.5	16	24 @ 208V 21 @ 240V	25	32	48 @ 208V 42 @ 240V	47.5	A
GFDI	1							A
Utility Monitoring, Islanding Protection, Country Configurable Thresholds	Yes							Yes
INPUT								
Recommended Max. DC Power[2] (STC)	3750	4750	6250	7500	9500	12400	14250	W
Transformer-less, Ungrounded	Yes							
Max. Input Voltage	500							Vdc
Nom. DC Input Voltage	325 @ 208V / 350 @ 240V							Vdc
Max. Input Current[3]	9.5	13	16.5 @ 208V 15.5 @ 240V	18	23	33 @ 208V 30.5 @ 240V	34.5	Adc
Max. Input Short Circuit Current	45							Adc
Reverse-Polarity Protection	Yes							
Ground-Fault Isolation Detection	600kΩ Sensitivity							
Maximum Inverter Efficiency	97.7	98.2	98.3	98.3	98	98	98	%
CEC Weighted Efficiency	97.5	98	97.5 @ 208V 98 @ 240V	97.5	97.5	97 @ 208V 97.5 @ 240V	97.5	%
Nighttime Power Consumption	< 2.5				< 4			W
ADDITIONAL FEATURES								
Supported Communication Interfaces	RS485, RS232, Ethernet, ZigBee (optional)							
Revenue Grade Data, ANSI C12.1	Optional[4]							
Rapid Shutdown – NEC 2014 690.12	Functionality enabled when SolarEdge rapid shutdown kit is installed[5]							
STANDARD COMPLIANCE								
Safety	UL1741, UL1699B, UL1998 , CSA 22.2							
Grid Connection Standards	IEEE1547							
Emissions	FCC part15 class B							
INSTALLATION SPECIFICATIONS								
AC output conduit size / AWG range	3/4" minimum / 16-6 AWG				3/4" minimum / 8-3 AWG			
DC input conduit size / # of strings / AWG range	3/4" minimum / 1-2 strings / 16-6 AWG				3/4" minimum / 1-2 strings / 14-6 AWG			
Dimensions with Safety Switch (HxWxD)	30.5 x 12.5 x 7 / 775 x 315 x 172		30.5 x 12.5 x 7.5 / 775 x 315 x 191		30.5 x 12.5 x 10.5 / 775 x 315 x 260			in / mm
Weight with Safety Switch	51.2 / 23.2		54.7 / 24.7		88 .4 / 40.1			lb / kg
Cooling	Natural Convection				Fans (user replaceable)			
Noise	< 25				< 50			dBA
Min.-Max. Operating Temperature Range	-13 to +140 / -25 to +60 (-40 to +60 version available[6])							˚F / ˚C
Protection Rating	NEMA 3R							

(1) For other regional settings please contact SolarEdge support.
(2) Limited to 125% for locations where the yearly average high temperature is above 77˚F/25˚C and to 135% for locations where it is below 77˚F/25˚C. For detailed information, refer to http://www.solaredge.us/files/pdfs/inverter_dc_oversizing_guide.pdf
(3) A higher current source may be used; the inverter will limit its input current to the values stated.
(4) Revenue grade inverter P/N: SExxxxA-US000NNR2
(5) Rapid shutdown kit P/N: SE1000-RSD-S1
(6) -40 version P/N: SExxxxA-US000NNU4

RoHS

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Power Optimizer

Module Add-On For North America

P300 / P320 / P400 / P405

POWER OPTIMIZER

Power Optimizer • Power Optimizer • Power Optimizer
25 Years Warranty

PV power optimization at the module-level

- Up to 25% more energy
- Superior efficiency (99.5%)
- Mitigates all types of module mismatch losses, from manufacturing tolerance to partial shading
- Flexible system design for maximum space utilization
- Fast installation with a single bolt
- Next generation maintenance with module-level monitoring
- Module-level voltage shutdown for installer and firefighter safety

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SolarEdge Power Optimizer

Module Add-On for North America

P300 / P320 / P400 / P405

	P300 (for 60-cell modules)	P320 (for high-power 60-cell modules)	P400 (for 72 & 96-cell modules)	P405 (for thin film modules)	
INPUT					
Rated Input DC Power[1]	300	320	400	405	W
Absolute Maximum Input Voltage (Voc at lowest temperature)	48		80	125	Vdc
MPPT Operating Range	8 - 48		8 - 80	12.5 - 105	Vdc
Maximum Short Circuit Current (Isc)	10	11	10		Adc
Maximum DC Input Current	12.5	13.75	12.5		Adc
Maximum Efficiency	99.5				%
Weighted Efficiency	98.8				%
Overvoltage Category	II				
OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREDGE INVERTER)					
Maximum Output Current	15				Adc
Maximum Output Voltage	60			85	Vdc
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE INVERTER OFF)					
Safety Output Voltage per Power Optimizer	1				Vdc
STANDARD COMPLIANCE					
EMC	FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3				
Safety	IEC62109-1 (class II safety), UL1741				
RoHS	Yes				
INSTALLATION SPECIFICATIONS					
Maximum Allowed System Voltage	1000				Vdc
Compatible inverters	All SolarEdge Single Phase and Three Phase inverters				
Dimensions (W x L x H)	128 x 152 x 27.5 / 5 x 5.97 x 1.08		128 x 152 x 35 / 5 x 5.97 x 1.37	128 x 152 x 48 / 5 x 5.97 x 1.89	mm / in
Weight (including cables)	770 / 1.7		930 / 2.05	930 / 2.05	gr / lb
Input Connector	MC4 Compatible				
Output Wire Type / Connector	Double Insulated; MC4 Compatible				
Output Wire Length	0.95 / 3.0		1.2 / 3.9		m / ft
Operating Temperature Range	-40 - +85 / -40 - +185				˚C / ˚F
Protection Rating	IP68 / NEMA6P				
Relative Humidity	0 - 100				%

[1] Rated STC power of the module. Module of up to +5% power tolerance allowed.

PV SYSTEM DESIGN USING A SOLAREDGE INVERTER[2]	SINGLE PHASE	THREE PHASE 208V	THREE PHASE 480V	
Minimum String Length (Power Optimizers)	8	10	18	
Maximum String Length (Power Optimizers)	25	25	50	
Maximum Power per String	5250	6000	12750	W
Parallel Strings of Different Lengths or Orientations	Yes			

[2] It is not allowed to mix P405 with P300/P400/P600/P700 in one string.

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