WELCOME!

From now on, you are a member of the UPGREEN family!

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DIY PLAN / Do it yourself plan Ready to go permit package



THE POWER YOU DESERVE

Inside you will find

Financial Analysis Bill of Materials Site Plan and PV Layout Wire Diagram Mounting System Equipment (Technical Specifications) Step by Step Installation Terms and conditions Contact



Welcome,

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The UPGREEN TEAM





FINANCIAL ANALYSIS

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Proposal for Bart Simpson

Recommended System Option

10.24 kW System Size

\$1,623

Estimated Annual Electricity Bill Savings \$17,849 Total System Price

\$11,602 Net System Price



System Hardware

Solar Panels LG Electronics Inc. 10.240 kW Total Solar Power 32 x 320 Watt Panels (LG320N1K-A5) 15,230 kWh per year Inverter SolarEdge 9.737 kW Total Inverter Rating 1 x SE3800H-US [240V] (CAN), 1 x SE6000A-US (240V) (CAN)

P370 Power Optimizer SolarEdge P370 Power Optimizer for 60/72 cell modules 32 x P370

Warranties: 25 Year Panel Product Warranty, 25 Year Panel Performance Warranty



System Performance



105% Energy From Solar

System Performance Assumptions: System Total losses: 8.3%, Inverter losses: 2.0%, Optimizer losses: 1.2%, Shading losses: 5.7%, Performance Adjustment: 0%, Output Calculator: System Advisor Model 2020.02.29.r2. Panel Orientations: 12 panels with Azimuth 181 and Slope 19, 20 panels with Azimuth 180 and Slope 33.

Environmental Benefits

Solar has no emissions. It just silently generates pure, clean energy.



Each Year

105% of c02, s0x & N0x 11 tons Avoided CO2 per year 326,361 Car km avoided Over System Lifetime 2,098 Trees planted

234 Long haul flights avoided



Electricity Bill Savings



First Year Monthly Bill Savings

Lifetime Bill Savings

Month	Electricity Consumption (before solar)	Solar Generation	Utility Bill (before solar)	Utility Bill (after solar)	Estimated Savings (from solar)
Jan	1,357 kWh	702 kWh	\$159	\$80	\$79
Feb	1,064 kWh	1,013 kWh	\$125	\$12	\$113
Mar	1,086 kWh	1,397 kWh	\$128	\$7	\$122
Apr	955 kWh	1,656 kWh	\$114	\$7	\$107
May	1,039 kWh	1,690 kWh	\$123	\$7	\$116
Jun	1,281 kWh	1,673 kWh	\$150	\$7	\$143
Jul	1,565 kWh	1,781 kWh	\$187	\$7	\$181
Aug	1,491 kWh	1,708 kWh	\$174	\$7	\$167
Sep	1,250 kWh	1,296 kWh	\$147	\$7	\$140
Oct	1,081 kWh	1,089 kWh	\$128	\$7	\$121
Nov	1,027 kWh	687 kWh	\$122	\$7	\$115
Dec	1,278 kWh	537 kWh	\$150	\$-69	\$219

Your projected energy cost is calculated by considering a 3.0% increase in energy cost each year, due to trends in the raising cost of energy. This estimate is based on your selected preferences, current energy costs and the position and orientation of your roof to calculate the efficiency of the system. Projections are based on estimated usage of 14476 kWh per year, assuming Residential Service - Zone II Electricity Tariff.

Your electricity tariff rates may change as a result of installing the system. You should contact your electricity retailer for further information.



Net Financial Impact Cash

Payment Option: Cash

\$42,094

\$11,602



Utility Bill Savings

Net System Cost

Estimated Net Savings

Annual Savings From Going Solar

Cumulative Savings From Going Solar





\$9,878 Net Present Value 8.9 years Discounted Payback

Period

263%

Total Return on Investment Rate of Return on Investment

152%

Year	Electricity Consumption	Solar Generation	Utility Bill (before solar)	Utility Bill (after solar)	Annual Savings (from solar)	System Costs Including Incentives	Net Savings	Cumulative Impacts
2020	14,476 kWh	15,231 kWh	\$1,707	\$84	\$1,623	\$11,602	\$-9,979	\$-9,979
2021	14,476 kWh	15,185 kWh	\$1,758	\$94	\$1,664	\$0	\$1,664	\$-8,315
2022	14,476 kWh	15,139 kWh	\$1,811	\$104	\$1,707	\$0	\$1,707	\$-6,608
2023	14,476 kWh	15,094 kWh	\$1,865	\$114	\$1,751	\$0	\$1,751	\$-4,857
2024	14,476 kWh	15,049 kWh	\$1,921	\$125	\$1,796	\$0	\$1,796	\$-3,061
2025	14,476 kWh	15,004 kWh	\$1,979	\$136	\$1,843	\$0	\$1,843	\$-1,217
2026	14,476 kWh	14,959 kWh	\$2,038	\$146	\$1,892	\$0	\$1,892	\$675
2027	14,476 kWh	14,914 kWh	\$2,099	\$157	\$1,942	\$0	\$1,942	\$2,617
2028	14,476 kWh	14,869 kWh	\$2,162	\$169	\$1,994	\$0	\$1,994	\$4,611
2029	14,476 kWh	14,824 kWh	\$2,227	\$180	\$2,047	\$0	\$2,047	\$6,658
2030	14,476 kWh	14,780 kWh	\$2,294	\$192	\$2,103	\$0	\$2,103	\$8,760
2031	14,476 kWh	14,736 kWh	\$2,363	\$203	\$2,159	\$0	\$2,159	\$10,920
2032	14,476 kWh	14,691 kWh	\$2,434	\$216	\$2,218	\$0	\$2,218	\$13,138
2033	14,476 kWh	14,647 kWh	\$2,507	\$228	\$2,279	\$0	\$2,279	\$15,417



BILL OF MATERIALS

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Bill of Materials

Total Equipment Cost

\$17,849

I0kW solar Roof mounted

Best local suppllier option:

Solar Store ABC Ltd.

email: info@solarstoreabc.com phone: +4 (519) 000-0000



РУ Аттау	Part Number	Description	QTY	Unit cost (\$)	Total Price (\$CAD)
Solar PV Module	LG320N1K-A5	400W High Efficiency LG NeON®2	32	\$ 268	\$ 8,576
Power Optimizer	P3 70	Solar Edge P370	32	\$ 55	\$ I,760
MC4 FEMALE	32.0016P0001-UR	Staubli MC4 connector	5	\$ 2	\$ 8
MC4 MALE	32.0017P0001-UR	Staubli MC4 connector	5	\$ 2	\$ 8
#10 RPVU 90 BLACK	#10 RPVU 2C	PV Wire #10 AWG	60	\$ I	\$ 48
#10 RPVU 90 RED	#10 RPVU 2C	PV Wire #10 AWG	60	\$ I	\$ 48
			077		
Inverters	Part number	Decription	QIT	Unit cost (\$)	Total Price (\$CAD)
PV Inverter #1	SE6000 A-US (240V)	PV Inverter, 6kVV 240Vac	1	\$ 1,111	\$ 1,111
PV Inverter #2	SE3800H-US (240V)	PV Inverter, 3.8kW 240Vac	1	\$ 995	\$ 995
Mounting System	Part number	Decription	ΟΤΥ	Unit cost (\$)	Total Price (SCAD)
Rail	120002-04400	Schletter Solo05 - 4.4 m - Pitched n	16	\$ 29	\$ 462
Flashing plate	9999215004	Schletter EJOT Flashing Kit - Pitche	59	\$ 8	\$ 446
Splice	129060-001	Schletter Splice, Solo-Profi, Kit - Pite	12	\$ 3	\$ 33
Connection	Klick Top HB, Slot 11x3	Schletter Klick Top HB, Slot 11x35r	59	\$ 3	\$ 157
Mid Clamp	135002-005	Schletter Rapid clamp 30-39 mm - F	56	\$ 1	\$ 45
End Clamp	135007-140	Schletter Rapid 5k End clamp 40 m	24	\$ I	\$ 24
Balance of System	Part number	Decription	QTY	Unit cost (\$)	Total Price (\$CAD)
EMT Conduit		1/2" EMT, 10ft	7	\$ 27	\$ 189
	NQ18L1	NQ Panelboard Interior,	I	\$ 700	\$ 700
Inverter panelboard	MH26WP	Enclosure Box	I	\$ 1,180	\$ 1,180
	PK27GTA	Loadcentre Equipment Ground bar	I	\$ 28	\$ 28
Utility Disconnect	CD222 NRB	60A 2P3W 240V NEMA 3R FUSIBL	I	\$ 198	\$ 198
AC Wire		#6 RW90 Cu	18	\$ 2	\$ 27
Other Costs		Decription	QTY	Unit cost (\$)	Total Price (\$CAD)
Upgreen DIY Package			1	\$ 1,017	\$ 1,017
Interconnection Study Fee			1	\$ 315	\$ 315
Bi-directional meter			I	\$ 475	\$ 475
Total					\$ 17,849.00



SITE PLAN AND PV LAYOUT

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2409 GREENPOWER ROAD CITY, PROVINCE POSTAL CODE

10kWdc Grid Tie Solar PV PROJECT NUMBER: RES-123-CAN ISSUED FOR CONSTRUCTION

SITE INFORMATION					
ESA PLAN REVIEW NO.	TBD				
ESA PERMIT NO.	TBD				
ESA INSPECTOR	TBD				
CUSTOMER	XXXXX				

	SHEET SUMMARY
PV-E0	COVER PAGE
PV-E1	SITE PLAN
PV-E2	PV STRING AND ARRAY LAYOUT
PV-E3	SINGLE LINE DIAGRAM
PV-E4	LABELLING
PV-E5	RACKING DETAILS



Rev	Description	Date	Drawn By
01	Preliminary		JC
02	Issue for Permits		JC, JP





Rev	Description	Date	Draw
01	Preliminary		JC
02	Issue for Permits		JC,

RES-123-CAN

ARRAY LAYOUT

SCALE: Custom

MODULE SPECIFICATIONS					
BRAND	LG Elec	LG Electronics			
MODEL	LG320N1K-A5				
Vmp	33.3 V				
Voc	40.8	V			
Imp	9.62	А			
lsc	10.19 A				
Тѵос	-0.27 V/°C				
Tisc	0.2944 A/°C				

INVERTER SPECIFICATIONS						
	INV	/ #1	INV #2			
BRAND	SOLAR EDGE TECHN	NOLOGIES	SOLAR EDGE TECHNOLOGIES			
MODEL	SE6000A-US (240V)		SE3800H-US (240)	/)		
NOMINAL POWER (KW)	6	KWac	3.8	KWac		
DC INPUT VOLTAGE	750	VDC	600	VDC		
MAX. DC INPUT VOLT	600	VDC	480	VDC		
RATED AC GRID VOLTAGE	240	VAC	240	VAC		
MAX. CONT OUTPUT CURRENT	25	AMPS	16	AMPS		
# MPPT INPUT	1		1			

OPTIMIZER SPECIFICATIONS				
BRAND	SOLAR EDGE			
MODEL	P370			
QTY	32	V		
MAX DC INPUT POWER	370	w		
MAX INPUT VOLT	60	A		
MAX INPUT CURRENT	11	A		





INSTALLATION REQUIREMENTS:

- 1. MODULE TO MODULE CONDUCTORS, ROW TO ROW ARRAY WIRING, AND PV STRING HOMERUNS MUST BE SECURELY FASTENED TO MODULE MOUNTING SYSTEM, CONTAINED IN CABLE TRAY RACEWAY, OR HOUSED IN CONDUIT. CONDUCTORS CANNOT BE IN CONTACT WITH THE ROOF AND/OR BALLAST AT ANY POINT
- 2. SEE SINGLE LINE DRAWING FOR ADDITIONAL DETAILS (PV-E3.1)
- CONTRACTOR/INSTALLER TO OBTAIN APPROVAL IF PV 3. WIRING DEVIATES FROM UPGREEN-SUPPLLIED DRAWINGS
- 4. THIS PROJECT HAS BEEN DESIGNED IN COMPLIANCE WITH THE NBCC 2015 TO WITHSTAND A BASIC WIND SPEED OF 110MPH AND SNOWFALL OF 1.35 KPA.
- THE SOLAR PV INSTALLATION SHALL NOT OBSTRUCT ANY 5. PLUMBING, MECHANICAL OR BUILDING ROOF VENTS.
- 6. CONDUCTORS AND CONDUITS MOUNTED ON ROOF SHALL BE MINIMUM 3.8 INCH ABOVE ROOF SURFACE.
- 7. PANEL SIZE: 1686 X 1016 X 40 MM / 66.38 X 40 X 1.57 INCH
- 8. PANEL WEIGHT: 18 KG(39.7LBS)
- 9. PANEL TO ROOF EDGE SPACING: 8 IN
- 10. VERTICAL GAP BETWEEN PANELS: 1 IN
- 11. HORIZONTAL GAP BETWEEN PANELS: 1 IN
- 10. MATERIAL
- 10.1. MATERIALS USED OUTDOORS SHALL BE SUNLIGHT/UV-RESISTANT AND LISTED FOR OUTDOOR LOCATIONS ALL EXPOSED CONDUCTOR MUST BE MARKED SUNLIGHT/UV-RESISTANT
- 10.2. MATERIALS USED SHALL BE DESIGNED TO WITHSTAND THE MOST EXTREME TEMPERATURE TO WHICH THEY WILL BE EXPOSED.

Rev	Description	Date	Drawn By	Sheet Name			
01	Preliminary		JC	ARRAY LAYOUT			
02	Issue for Permits		JC, JP				
				Designed By	Oh a st Title		
				Info	PV-E	2.1	
				Project number	Sheets	Issue	Sheet Number
				RES-123-CAN			

COMPANY CONTACT INFO



info@upgreen.ca +1 (905) 617-4519

PROJECT

2409 GREENPOWER ROAD - SAMPLE 10 kW Solar PV- Grid Tie

SITE LOCATION



PROJECT INFORMATION

Project Latitude	50°25'14"	Min. Ambient Temp.	-25°C
Project Longitude	-104°31'23"	Max. Ambient Temp.	40°C
Utility Name	Hydro Company	Meter Number	ABC123
Wind Exposure Category	В	Wind Speed	100
Risk Category	П	Interconnection Voltage	0

Engineering Stamp

Customer Bart Simpson

Location 2409 Greenpower Rd

City

Province Postal Code

		ARRAY	NFORMATION				
		A	RRAY 1				
Module Nam	е		LG320N1K-A5				
Inverter			SE6000A-US				
Tilt Angle 26	No. of	Modules 20	DC String Length	10	No. of Strings	2	
ARRAY 2							
Module Name			LG320N1K-A5				
Inverter			SE3800A-US				
Tilt Angle 15	No. of	Modules 12	DC String Length	12	No. of Strings	1	
		A	RRAY 3				
Module Name							
Inverter							
Tilt Angle	No. of	Modules	DC String Length		No. of Strings		

WIRE DIAGRAMS

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SINGLE LINE DIAGRAM



			СС	OMPANY	CONTACT I	NFO		
IRCE ION. DO DEVICE			8	Ů	PGRI Enewable en	EEN VERGY		
SHUTDOWN		info@upgreen.ca +1 (905) 617-4519						
/, 2018		PROJECT 2409 GREENPOWER ROAD - SAMPLE 10 kW Solar PV- Grid Tie						
				SITE I	OCATION			
		PROJECT INFORMATION						
		Project Latitu	ude	50°25'14"	Min. Ambient Te	emp25°C		
1		Project Long	itude	-104°31'23"	Max. Ambient Te	emp. 40°C		
		Utility Name		Hydro Compan	Ny Meter Number	ABC123		
3	ERVICE	Wind Exposu Category	ure	В	Wind Speed	100		
Ý		Risk Categor	у	II	Interconnectic Voltage	0		
M	1 4	Engineering Stamp Customer Bart Simpson Location 2409 Greenpower Rd City Province Postal Code						
				ARRAY	INFORMATION			
		Module N	lame	A	LG320N1K-A5			
		Inverte	ər		SE6000A-US			
		Tilt Angle 2	26 No.	of Modules 20	DC String Length 1	10 No. of Strings 2		
<u> </u>		Module N	lame		LG320N1K-A5			
		Inverte	er		SE3800A-US			
		Tilt Angle 1	15 No.	of Modules 12	DC String Length	12 No. of Strings 1		
				A	ARRAY 3			
		Module N	lame er					
		Tilt Angle	No.	of Modules	. DC String Length -	No. of Strings		
Drawn By	Sheet Name	L						
JC JC, JP 		SING	LE	LINE	DIAGRA	M		
	Designed By Info		Sheet 1	PV-E3	3.1			
	Project number RES-123-C	AN	Sheets	·	Issue	Sheet Number		

SYSTEM LABELLING

SCALE: Custom



								CON	/IPANY C	ONTACT IN	FO
	1	INV BRK QTY: XX	R				info@	♥ ● ●upgre		PGRE NEWABLE ENE +1 (905) 67	EN RGY 17-4519
1 -US		INVERTE SOLAR EDGE38	R #2	6			PROJE 2409	CT 9 GREI 10 k	ENPOWE	ER ROAD - S PV- Grid Tie	SAMPLE
									SITE LC	OCATION	
Y 6kW GE 240V NT 25A	MA MA	OTAL RATED CAP X. OPERATING V(AX. OPERATING C	ACITY 3 OLTAGE URREN	8.8kW 240V T 16A							
NNECT	TED]									,
								PRC	DJECT IN	IFORMATIO	N
	E THAN						Project Latitu	ıde	50°25'14"	Min. Ambient Temp	р25°С
E							Project Long	itude -	-104°31'23"	Max. Ambient Tem	p. 40°C
]					Utility Name	Hy	dro Company	Meter Number	ABC123
							Category		В	Wind Speed Interconnection	100
							Risk Categor	у	II	Voltage	0
DLTA H RA	∝ IC S PID	SYSTEM E SHUTDO	EQU DWN	IPPE I	ED		Customer Location	Bart Si 2409 G City Provinc Postal	mpson Greenpower ce Code	Engineer Rd	ing Stamp
									ARRAY INI	FORMATION	
	PV	-RSD					Module N	ame	ARF	RAY 1 LG320N1K-A5	
							Inverte	er		SE6000A-US	1
							Tilt Angle 2	6 No. of	Modules 20 D	C String Length 10	No. of Strings 2
					/N I		Module N	ame	ARF	RAY 2 LG320N1K-A5	
JLIAIC KAPID SHUIDOWN					Inverte	er		SE3800A-US			
יוח	$S \cap O$	NNECT					Tilt Angle 1	5 No. of	Modules 12	C String Length 12	No. of Strings 1
							Module N	ame	ARF	KAY 3	
							Inverte	er			
		D					Filt Angle	No. of	Modules D	OC String Length	No. of Strings
01 02	ls	Description Preliminary ssue for Permits	Date 	JC JC JC, JP	/	Sheet Name		LAB	BELLIN	IG	
					[Designed By Info		Sheet Title	[°] PV-E4.1		
						Project number RES-123-C	AN	Sheets	Is	sue Sł	neet Number

MOUNTING SYSTEM

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EQUIPMENT

Technical specifications

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When you go solar, ask for the brand you can trust: LG Solar

About LG Electronics

LG Electronics is a global leader in electronic products in the clean energy markets by offering solar PV panels and energy storage systems. The company first embarked on a solar energy source research program in 1985, supported by LG Group's vast experience in the semi-conductor, LCD, chemistry and materials industries. In 2010, LG Solar successfully released is first Monol% series to the market, which is now available in 32 countries. The NeDM[®] (previous MonoX[®] NeON), NeDM[®]2, NeDM[®]2, BFacial won the "intersolar AMRAD" in 2013, 2015 and 2016, which demonstrates LGS leadership and immostation in the solar industry.



LG NeON[®]2 Black

LG320N1K-V5

General Data				
Cell Properties (Material/Type)	Monocrystalline/N-type			
Cell Maker	LG			
Cell Configuration	60 Cells (6 x 10)			
Number of Busbars	12EA			
Module Dimensions (L x W x H)	1,686mm x 1,016mm x 40 mm			
Weight	17.1 kg			
Glass (Material)	Tempered Glass with AR Coating			
Backsheet (Color)	Black			
Frame (Material)	Anodized Aluminium			
Junction Box (Protection Degree)	IP 68 with 3 Bypass Diodes			
Cables (Length)	1,000mm x 2EA			
Connector (Type/Maker)	MC 4/MC			

Certifications and Warranty

Certifications OHSAS Salt Mist Corrosion Test Ammonia Corrosion Test Module Fire Performance Fire Rating Class (Solar Module Product Warranty Solar Module Output Warranty

roved: 1st Year 98%, from 2-24th year: 0.33%/year

Temperature Characteristics

NMOT Pmax Voc lsc * NMOT (Wind spee

Electrical Properties (NMOT)

	- /				
Model		LG320N1K-V5			
Maximum Power (Pmax)	[W]	239			
MPP Voltage (Vmpp)	[V]	31.2			
MPP Current (Impp)	[A]	7.67			
Open Circuit Voltage (Voc)	[V]	38.3			
Short Circuit Current (Isc)	[A]	8.19			

I-V Curves





Product specifications are subject to change without notice.

LG320N1K-V5_AUS odf



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Operating Temperature [°C] -40 ~+90 Maximum System Voltage [V] 1.000(UL). 1000(IEC) Maximum Series Fuse Rating [A] 20 5,400/113 Mechanical Test Load (Front) [Pa/psf] Mechanical Test Load (Rear) [Pa/psf] 4,000/84 * Test Load = Design load x Safety Factor (1.5)

[W]

[V]

[A]

[%]

[%]

Packaging Configuration

Number of Modules per Pallet	[EA]	25
Number of Modules per 40ft HQ Container	[EA]	650
Packaging Box Dimensions (L x W x H)	[mm]	1,750 x 1,120 x 1,221
Packaging Box Gross Weight	[kg]	464







LG320N1K-V5

320

33.3

9.62

40.8

10.19

18.7

ture 25 °C. AM 1.5



50001

erity 6

2013

150 14001 pe 2 (UL 1703) IL 790. ULC/ORD C Years

	[°C]	42±3	~
	[%/°C]	-0.36	
	[%/°C]	-0.27	
	[%/°C]	0.03	
Nominal Module Operating Ter of 1 m/c Spectrum AM 1 5	nperature): I	rradiance 800 W/m2, Ambient temperature 20 °C,	Ų

Model		LG320N1K-V5
Maximum Power (Pmax)	[W]	239
MPP Voltage (Vmpp)	[V]	31.2
MPP Current (Impp)	[A]	7.67
Open Circuit Voltage (Voc)	[V]	38.3
Short Circuit Current (Isc)	[A]	8.19





SolarEdge 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

USA - GERMANY - ITALY - FRANCE - JAPAN - CHINA - AUSTRALIA - THE NETHERLANDS - ISRAEL

www.solaredge.us

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INVERT



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	
OUTPUT								
Nominal AC Power Output	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 MinNomMax. ⁽¹⁾ 183 - 208 - 229 Vac	-	-	1	-	-	1	-	
AC Output Voltage MinNomMax. ⁽¹⁾	1	1	1	1	1	1	1	
AC Frequency MinNomMax. ⁽¹⁾		L	l 9.3 - 60 - 60.5 (v	l vith HI country :	l. setting 57 - 60 -	60.5)		Hz
Max Continuous Output Current	12.5	16	24 @ 208V	25	32	48 @ 208V	47.5	^
CT21 The state			21 @ 240V			42 @ 240V	47.5	
GFDI Inresnola				1	•••••	•••••		A
Utility Monitoring, Islanding Protection	1, Country Coan	gurable Inresh	olds	Yes				Yes
Maximum DC Dawar (CTC)	4050	5100	6750	8100	10250	13500	15350	147
Transformer loss Upgrounded	4050	5100	6750	8100	10250	13500	15350	
Max Input Voltage		••••••••	•••••	EOO	•••••	•••••	•••••	Vdc
New DC leave Veltage			225	000	© 240V	•••••	•••••	Vuc
Nom. De input voitage			16.5 @ 208V	@ 2087 / 350 (<u>w 240v</u>	33 @ 208V		vuc
Max. Input Current ⁽²⁾	9.5	13	15.5 @ 240V	18	23	30.5 @ 240V	34.5	Adc
Max. Input Short Circuit Current				45				Adc
Reverse-Polarity Protection				Yes				
Ground-Fault Isolation Detection				600ko Sensitiv	ity			
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, RS2	32, Ethernet, Zij	gBee (optional)			
Revenue Grade Data, ANSI C12.1				Optional ⁽³⁾		••••••		
Rapid Shutdown - NEC 2014 690.12		Functiona	ality enabled whe	en SolarEdge ra	pid shutdown k	it is installed ⁽⁴⁾	••••••	
STANDARD COMPLIANCE								
Safety			UL1741, I	UL1699B, UL19	98 , CSA 22.2			
Grid Connection Standards				IEEE1547			••••••	
Emissions				FCC part15 clas	is B		•••••	
INSTALLATION SPECIFICATIONS								
AC output conduit size / AWG range		3/4"	minimum / 16-6	AWG		3/4" minimu	m / 8-3 AWG	
DC input conduit size / # of strings /		3/4″ minim	um / 1-2 strings	/ 16-6 AWG		3/4" minimum	n / 1-2 strings /	
AWG range				, 10-0 AWG		14-6	AWG	
Dimensions with Safety Switch		30.5 x 12	2.5 x 7.2 / 775 x 3	315 x 184		30.5 x 12	5 x 10.5 /	in /
(HXWXD) Woight with Safoty Switch	E1 2	/ 22 2	·····	EA7/247		//5×3	15 X 260	mm lb / ka
weight with safety switch	51.2	23.2			Natural	00.4	/ 40.1	
					convection			
Cooling		Natural C	Convection		and internal	Fans (user r	eplaceable)	
					fan (user			
					replaceable)	L		
Noise		<	25		L	< 50		dBA
MinMax. Operating Temperature		-1	L3 to +140 / -25 t	o +60 (-40 to +6	60 version availa	able ⁽⁵⁾)		*F / *C
Relige		•••••	•••••	NEMA 20	•••••			
1 rotection nating	4		•••••	NEIVIA 3R	•••••		<i>y</i>	

For other regional settings please contact SolarEdge support.
For other regional settings please contact SolarEdge support.
A higher current source may be used; the inverter will limit its input current to the values stated.
Revenue grade inverter /PM: SExxxxA-LS0X0NNR2 (for 7600W inverter:SE7600A-US002NNR2).
Rapid shutdown kit P/N: SE1000-RSD-S1.
-40 version P/N: SExxxxA-LS0X0NNUA (for 7600W inverter:SE7600A-US002NNU4).





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	4	0	80	125	Vdc			
(Voc at lowest temperature)	4	0	00	123	vuc			
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	12.5 13.75 12.5						
Maximum Efficiency		99.5						
Weighted Efficiency		98.8						
Overvoltage Category			11					
OUTPUT DURING OPERATION (PON	VER OPTIMIZER CONN	IECTED TO OPERATIN	G SOLAREDGE INVE	RTER)				
Maximum Output Current 15								
Maximum Output Voltage		60 85						
OUTPUT DURING STANDBY (POWE	R OPTIMIZER DISCON	NECTED FROM SOLAF	REDGE INVERTER OR	SOLAREDGE INVERTER	R OFF)			
Safety Output Voltage per Power								
Optimizer		1						
STANDARD COMPLIANCE								
EMC		FCC Part15 Class B, IEC	51000-6-2, IEC61000-6	5-3				
Safety		IEC62109-1 (class	s II safety), UL1741					
RoHS		Y	es					
INSTALLATION SPECIFICATIONS								
Maximum Allowed System Voltage		10	000		Vdc			
Compatible inverters	All	SolarEdge Single Phase	and Three Phase inve	rters				
	128 x 151	2 x 27.5 /	128 x 152 x 85 /	128 x 152 x 48 /				
Dimensions (W x L x H)	5 x 5.97	7 x 1.08	5 x 5.97 x 1.37	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 Co	mpatible					
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 / 1	NEMA6P					
Relative Humidity		0 -	100		%			
¹⁰ Rated STC power of the module. Module of up to +5% power tolerance allowed.								
PV SYSTEM DESIGN USING			LASE 208V	TUPEE DUASE 490V				
A SOLAREDGE INVERTER ⁽²⁾	SINGLE PHASE	INKEEPT	1A3E 208V	THREE PHASE 400V				
Minimum String Length	8	1		18				
(Power Optimizers)	U			10				
Maximum String Length	25	-	25	50				
(Power Optimizers)	23		····					
Maximum Power per String	5250	60	000	12750	W			
Parallel Strings of Different Lengths		~	65					
or Orientations		1	C3	Ť				

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



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STEP BY STEP (INSTALLATION PROCEDURE)

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DIY STEP BY STEP

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TERMS AND CONDITION

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DIY PLAN / Do it yourself plan Ready to go permit package



ANY QUESTIONS? stay connected with us

How to apply for your permit

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