



TITAN

SOLAR PANEL

60 Cell Monocrystalline PV Module



CHUBB*

*Chubb provides error and omission insurance to Silfab Solar, Inc.

SIL-340 NL
POWERED BY
SILFAB SOLAR



INDUSTRY LEADING WARRANTY

The Titan Solar Panel is manufactured by Silfab Solar and includes an industry leading 25-year product workmanship and 30-year performance warranty.

MAXIMUM ENERGY OUTPUT

Leveraging over 35+ years of worldwide experience in the solar industry, Silfab is dedicated to superior manufacturing processes and innovations such as Bifacial and Back Contact technologies, to ensure our partners, such as Titan Solar have the latest in solar innovation.

NORTH AMERICAN QUALITY

Silfab is the leading automated solar module manufacturer in North America. Utilizing premium quality materials and strict quality control management to deliver the highest efficiency, premium quality PV modules 100% made in North America.



BAA / ARRA COMPLIANT

Panels are designed and manufactured to meet Buy American Act Compliance. The US State Department, US Military and FAA have all utilized Silfab panels in their solar installations.

LIGHT AND DURABLE

Engineered to accommodate high wind load conditions for test loads validated up to 4000Pa uplift. The light-weight frame is exclusively designed for wide-ranging racking compatibility and durability.

QUALITY MATTERS

Total automation ensures strict quality controls during the entire manufacturing process at ISO certified facilities.

DOMESTIC PRODUCTION

Silfab Solar manufactures PV modules in two automated locations within North America. Our 500+ North American team is ready to help Titan Solar win the hearts and minds of customers, providing customer service and product delivery that is direct, efficient and local.

AESTHETICALLY PLEASING

All black sleek design, ideal for high-profile residential or commercial applications.

PID RESISTANT

PID Resistant due to advanced cell technology and material selection. In accordance to IEC 62804-1.

Electrical Specifications		SIL-340 NL mono PERC	
Test Conditions		STC	NOCT
Module Power (Pmax)	Wp	340	241
Maximum power voltage (Vpmax)	V	33.7	30.4
Maximum power current (Ipmax)	A	10.1	7.9
Open circuit voltage (Voc)	V	40.9	37.1
Short circuit current (Isc)	A	10.5	8.3
Module efficiency	%	20.0	17.7
Maximum system voltage (VDC)	V	1000	
Series fuse rating	A	20	
Power Tolerance	Wp	+/-3%	

Measurement conditions: STC 1000 W/m² ± 1%, AM 1.5, Temperature 25 °C ± 0.5 °C, NOCT 800 W/m² ± 1%, AM 1.5, Measurement uncertainty ± 2%
*Sun simulator calibration reference modules from Fraunhofer Institute, Electrical characteristics may vary by ±5% and power by ±1-2%.

Temperature Ratings		SIL-340 NL mono PERC	
Temperature Coefficient Isc		0.064 %/°C	
Temperature Coefficient Voc		-0.28 %/°C	
Temperature Coefficient Pmax		-0.36 %/°C	
NOCT (± 2 °C)		45 °C	
Operating temperature		-40/+85 °C	

Mechanical Properties and Components		SIL-340 NL mono PERC	
Module weight		41 ± 0.4 lbs	
Dimensions (H x L x D)		66.9 in x 39.4 in x 1.5 in	
Maximum surface load (wind/snow)*		83.5/112.8 lb/ft ²	
Hail impact resistance		1 in at 51.6 mph	
Cells		60 - Si mono PERC - 5 busbar, 6.25 x 6.25 inch	
Glass		0.126 in high transmittance, tempered, DSM anti-reflective coating	
Cables and connectors (refer to installation manual)		47.2 in, 0.022 in, MC4 from Stäubli	
Backsheet		High durability, superior hydrolysis and UV resistance, multi-layer dielectric film, fluorine-free PV backsheet	
Frame		Anodized Aluminum (Black)	
Bypass diodes		3 diodes-30SQ045T (45V max DC blocking voltage, 30A max forward rectified current)	
Junction Box		UL 3730 Certified, IEC 62790 Certified, IP67 rated	

Warranties		SIL-340 NL mono PERC	
Module product workmanship warranty		25 years**	
Linear power performance guarantee		30 years	
		≥ 97.1% end 1 st year	≥ 91.6% end 12 th year
		≥ 85.1% end 25 th year	≥ 82.6% end 30 th year

Certifications		SIL-340 NL mono PERC	
Product		ULC ORD C1703, UL1703, CEC Listed***, UL 61215-1/-1-1/-2, UL 61730-1/-2, IEC 61215-1/-1-1/-2***, IEC 61730-1/-2***, CSA C22.2 #61730-1/-2***, IEC 62715 Ammonia Corrosion, IEC 61701:2011 Salt Mist Corrosion Certified, UL Fire Rating: Type 2	
Factory		ISO 9001:2015	

*** Modules Per Pallet: 26
*** Pallets Per Truck: 36
*** Modules Per Truck: 936

*Warning: Read the Safety and Installation Manual for mounting specifications and before handling, installing and opening modules.

**12 year extendable to 25 years subject to registration and conditions outlined under "Warranty" at www.silfab.com.

***September 2020 expected completion date.

PAN files generated from 3rd party performance data are available for download at: www.silfab.com/downloads

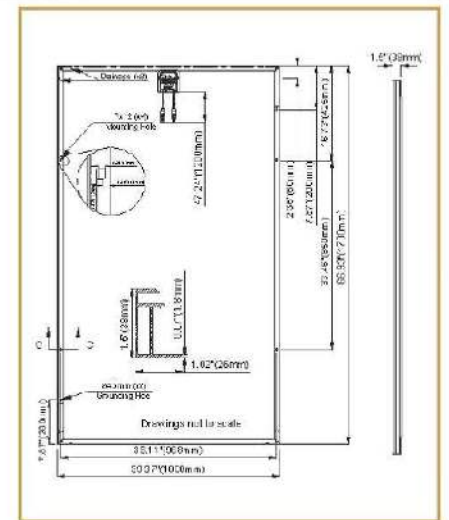


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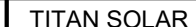


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ISSUED FOR PERMIT				01-28-21 JG AF				ENGINEER CONTACT INFORMATION ENGIPARTNERS LLC C.A. 32661 255 GIRALDA AVE CORAL GABLES, FL 33134 DESIGN@ENGIPARTNERS.COM 833 - 888 - 3644				ENGINEERING STAMP  signed by Rafael A Gonzalez Soto Date: 2021.01.31 19:25:48 -05'00'				CONTRACTOR CONTACT INFORMATION TITAN SOLAR POWER FL 12221 N US HIGHWAY 301 THONOTASASSA, FL 33592 (813) 982 -9001 #EC13008093				CONTRACTOR LOGO 				JONATHAN MOSER				PV MODULES DATASHEET																			
PROJECT ADDRESS:																																															
249 SE SECLUSION GLEN LAKE CITY, FL 32025																																															
PARCEL NUMBER:				10-4S-17-08305-003																				PROJECT ID:				TSP64089				ENGINEER OF RECORD:				ENG. RAFAEL A. GONZALEZ SOTO, PE				SHEET TITLE:				D-1			
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Power Optimizer

For North America

P320 / P340 / P370 / P400 / P401 / P405 / P485 / P505



POWER OPTIMIZER

PV power optimization at the module-level

- Specifically designed to work with SolarEdge inverters
- 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
- Meets NEC requirements for arc fault protection (AFCI) and Photovoltaic Rapid Shutdown System (PVRSS)
- Module-level voltage shutdown for installer and firefighter safety

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Power Optimizer For North America

P320 / P340 / P370 / P400 / P401 / P405 / P485 / P505

Optimizer model (typical module compatibility)	P320 (for 60-cell modules)	P340 (for high-power 60-cell modules)	P370 (for higher-power 60 and 72-cell modules)	P400 (for 72 & 96-cell modules)	P401 (for high-power 60 and 72 cell modules)	P405 (for high-voltage modules)	P485 (for high-voltage modules)	P505 (for higher current modules)	
INPUT									
Rated Input DC Power ⁽¹⁾	320	340	370	400	405	485	505	W	
Absolute Maximum Input Voltage (Voc at lowest temperature)	48		60	80	60	125 ⁽²⁾	83 ⁽²⁾	Vdc	
MPPT Operating Range (Isd)	8 - 48		8 - 60	8 - 80	8-60	12.5 - 105	12.5 - 83	Vdc	
Maximum Short Circuit Current (Isd)		11		10.1	11.75	11	14	Adc	
Maximum DC Input Current		13.75		12.5	14.65	12.5	17.5	Adc	
Maximum Efficiency				99.5				%	
Weighted Efficiency				98.8			98.6	%	
Overvoltage Category				II					
OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREGE INVERTER)									
Maximum Output Current				15				Adc	
Maximum Output Voltage			60			85		Vdc	
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREGE INVERTER OR SOLAREGE INVERTER OFF)									
Safety Output Voltage per Power Optimizer				1 ± 0.1				Vdc	
STANDARD COMPLIANCE									
EMC				FCC Part 15 Class B, IEC61000-6-2, IEC61000-6-3					
Safety				IEC62109-1 (class II safety), UL1741					
Material				UL94 V-0, UV Resistant					
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)	129 x 153 x 27.5 / 5.1 x 6 x 1.1	129 x 153 x 33.5 / 5.1 x 6 x 1.3	129 x 153 x 29.5 / 5.1 x 6 x 1.16	129 x 159 x 49.5 / 5.1 x 6.3 x 1.9	129 x 162 x 59 / 5.1 x 6.4 x 2.3			mm / in	
Weight (including cables)	630 / 1.4	750 / 1.7	655 / 1.5	845 / 1.9	1064 / 2.3			gr / lb	
Input Connector			MC4 ⁽³⁾		Single or dual MC4 ⁽³⁾⁽⁴⁾	MC4 ⁽³⁾			
Input Wire Length			0.76 / 0.52					m / ft	
Output Wire Type / Connector			Double Insulated / MC4						
Output Wire Length	0.9 / 2.95			1.2 / 3.9				m / ft	
Operating Temperature Range ⁽⁵⁾			-40 - +85 / -40 - +185					°C / °F	
Protection Rating			IP68 / NEMA6P						
Relative Humidity			0 - 100					%	

(1) Rated power of the module at STC will not exceed the optimizer "Rated Input DC Power". Modules with up to +5% power tolerance are allowed.
(2) NEC 2017 requires max input voltage be not more than 80V.
(3) For other connector types please contact SolarEdge.
(4) For dual version for parallel connection of two modules use P485-IN1MDMM. In the case of an odd number of PV modules in one string, installing one P485 dual version power optimizer connected to one PV module. When connecting a single module seal the unused input connectors with the supplied pair of seals.
(5) For ambient temperature above +85°C / +185°F power de-rating is applied. Refer to Power Optimizers Temperature De-Rating Technical Note for more details.

PV System Design Using a SolarEdge Inverter ⁽⁶⁾	Single Phase HD-Wave	Single phase	Three Phase for 208V grid	Three Phase for 277/480V grid	
Minimum String Length (Power Optimizers)	P320, P340, P370, P400, P401 P405, P485, P505	8 6	10 8	18 14	
Maximum String Length (Power Optimizers)		25	25	50 ⁽⁸⁾	
Maximum Power per String	5700 (5000 with SE7600-US - SE11400-US)	5250	6000 ⁽⁹⁾	12750 ⁽¹⁰⁾	W
Parallel Strings of Different Lengths or Orientations		Yes			

(6) For detailed string sizing information refer to: http://www.solaredge.com/sites/default/files/string_sizing_na.pdf
(7) It is not allowed to mix P405/P485/P505 with P320/P340/P370/P400/P401 in one string.
(8) A string with more than 30 optimizers does not meet NEC rapid shutdown requirements; safety voltage will be above the 30V requirement.
(9) For 208V grid: it is allowed to install up to 5,500W per string when the maximum power difference between each string is 1,000W.
(10) For 277/480V grid: it is allowed to install up to 15,000W per string when the maximum power difference between each string is 2,000W.

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REV				DATE		CAD	QC	C.A. 32661 255 GIRALDA AVE CORAL GABLES, FL 33134				DESIGNED BY		12221 N US HIGHWAY 301				PROJECT ADDRESS:			
								DESIGN@ENGINEPARTNERS.COM				Date: 2021.01.31 19:25:57 -05'00'		THONOTASASSA, FL 33592				249 SE SECLUSION GLEN LAKE CITY, FL 32025			
								833 - 888 - 3644						#EC13008093				PARCEL NUMBER:		PROJECT ID:	
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Single Phase Inverter with HD-Wave Technology

for North America

SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US /
SE7600H-US / **SE10000H-US** / SE11400H-US



12-25
YEAR
WARRANTY

INVERTERS

Optimized installation with HD-Wave technology

- Specifically designed to work with power optimizers
- Record-breaking 99% weighted efficiency
- Quick and easy inverter commissioning directly from a smartphone using the SolarEdge SetApp
- Fixed voltage inverter for longer strings
- Integrated arc fault protection and rapid shutdown for NEC 2014 and 2017, per article 690.11 and 690.12
- UL1741 SA certified, for CPUC Rule 21 grid compliance
- Small, lightweight, and easy to install both outdoors or indoors
- Built-in module-level monitoring
- Optional: Faster installations with built-in consumption metering (1% accuracy) and production revenue grade metering (0.5% accuracy, ANSI C12.20)

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Single Phase Inverter with HD-Wave Technology for North America

SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US /
SE7600H-US / **SE10000H-US** / SE11400H-US

MODEL NUMBER	SE3000H-US	SE3800H-US	SE5000H-US	SE6000H-US	SE7600H-US	SE10000H-US	SE11400H-US	
APPLICABLE TO INVERTERS WITH PART NUMBER	SEXXXH-XXXXBXX4							
OUTPUT								
Rated AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400 @ 240V 10000 @ 208V	VA
Maximum AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400 @ 240V 10000 @ 208V	VA
AC Output Voltage Min.-Nom.-Max. (211 - 240 - 264)	✓	✓	✓	✓	✓	✓	✓	Vac
AC Output Voltage Min.-Nom.-Max. (183 - 208 - 229)	-	✓	-	✓	-	-	✓	Vac
AC Frequency (Nominal)	59.3 - 60 - 60.5 ⁽¹⁾							Hz
Maximum Continuous Output Current @240V	12.5	16	21	25	32	42	47.5	A
Maximum Continuous Output Current @208V	-	16	-	24	-	-	48.5	A
Power Factor	1, Adjustable - 0.85 to 0.85							
GFDI Threshold	1							A
Utility Monitoring, Islanding Protection, Country Configurable Thresholds	Yes							
INPUT								
Maximum DC Power @240V	4650	5900	7750	9300	11800	15500	17650	W
Maximum DC Power @208V	-	5100	-	7750	-	-	15500	W
Transformer-less, Ungrounded	Yes							
Maximum Input Voltage	480							Vdc
Nominal DC Input Voltage	380				400			Vdc
Maximum Input Current @240V ⁽²⁾	8.5	10.5	13.5	16.5	20	27	30.5	Adc
Maximum Input Current @208V ⁽²⁾	-	9	-	13.5	-	-	27	Adc
Max. Input Short Circuit Current	45							Adc
Reverse-Polarity Protection	Yes							
Ground-Fault Isolation Detection	600ka Sensitivity							
Maximum Inverter Efficiency	99	99.2						%
CEC Weighted Efficiency	99						99 @ 240V 98.5 @ 208V	%
Nighttime Power Consumption	< 2.5							W

⁽¹⁾ For other regional settings please contact SolarEdge support.

⁽²⁾ A higher current source may be used; the inverter will limit its input current to the values stated.

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