Silfab SOLAR

Los Angeles • Toronto • Minneapolis

SLG-X
Bifacial

BAA ARRA TARIFF FREE | 30 30-YEAR GUARANTEE | AUTOMATED MANUFACTURING | JUST-IN-TIME | DNV TOP PERFORMER | TIER 1 BANKABLE $$$ | HIGH EFFICIENCY

360 Wp 72 Cell

Ultra-High-Efficiency Bifacial PV Module Clear Backsheet

CE | TÜV | Intertek | Fraunhofer ISE

REVOLUTIONIZING NORTH AMERICAN BIFACIAL TECHNOLOGY

Silfab's Bifacial 360 ultra-high-efficiency modules are optimized with premium N-Type bifacial cells up to 21.5% front efficiency (23.2% module efficiency with up to 30% back side contribution). Designed to be architecturally distinct and delivering low-degradation and maximum power density.

REVOLUTIONIZING NORTH AMERICAN QUALITY

Silfab's fully-automated manufacturing facility ensures precision engineering is applied at every step. Superior reliability and performance combine to produce the lowest defect rate in the industry.

REVOLUTIONIZING NORTH AMERICAN CUSTOMIZED SERVICE

Silfab's 100% North American based team leverage just-in-time manufacturing to deliver unparalleled on-time delivery and flexible project solutions.

HIGHEST BIFACIAL FACTOR

85% of bifaciality factor ($\varepsilon_{ff\ rear} = \varepsilon_{ff\ front} \times 0.85$), using an N-type cell compared to the ≈ 50% bifaciality factor of a P-type cell.

ENSURES MAXIMUM POWER

360 Wp (front side STC) equal to 451.9 Wpe (Watt Peak Equivalent) with 30% Bifacial gain.

PID RESISTANT

Anti PID (Potential Induced Degradation) technology.

HIGHEST AUTOMATION

With over 35 years of industry experience, Silfab's technical team are pioneers in PV technology and are dedicated to an innovative approach that provides superior manufacturing processes including: infra-red cell sorting, glass washing, automated soldering and meticulous cell alignment.

1000 VOLTS

Designed for high-voltage systems of up to 1000 V. 1500 V quoted upon request.

ARCHITECTURAL DESIGN

Esthetically designed for premium installations.

LID NEAR ZERO

Virtually no LID (Light Induced Degradation) resulting in more power in year one vs. conventional technology.

REAR FACE UP TO 30%

Rear face contribution up to +30%.

BUILT BY INDUSTRY EXPERTS

The Silfab Bifacial PV module introduces technology developed in partnership with the German institute of research ISC Konstanz and Silfab Solar.

★ 30-YEAR GUARANTEE

100% EL testing = Bankable 30-year performance warranty and the lowest defect rate in the industry at 44 PPM.

★ LINEAR POWER PERFORMANCE GUARANTEE

Over 88.4% guarantee at the end of the 30th year. Lower power reduction (<0.3%) compared to standard 0.8%/year.

POSITIVE TOLERANCE

(-0/+5W) module sorting achieves the maximum electrical performance of the PV system.

44 PPM DEFECT RATE*

Silfab's long-term experience on process and PV technology combined with top quality materials, independent supply chain management, strict quality controls and 100% EL testing = lower defect.*As of December 31, 2016.

AVAILABLE IN

Silver Frame Only
Black Frame on Special Request

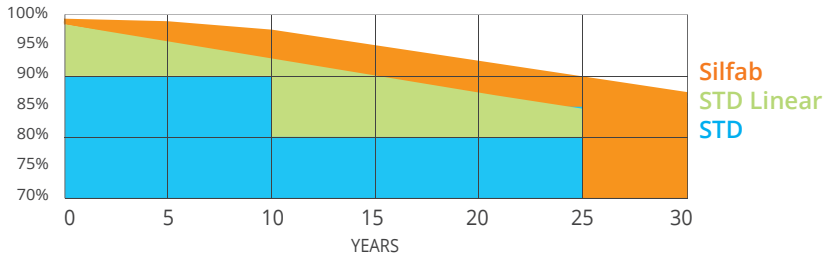
MADE IN NORTH AMERICA

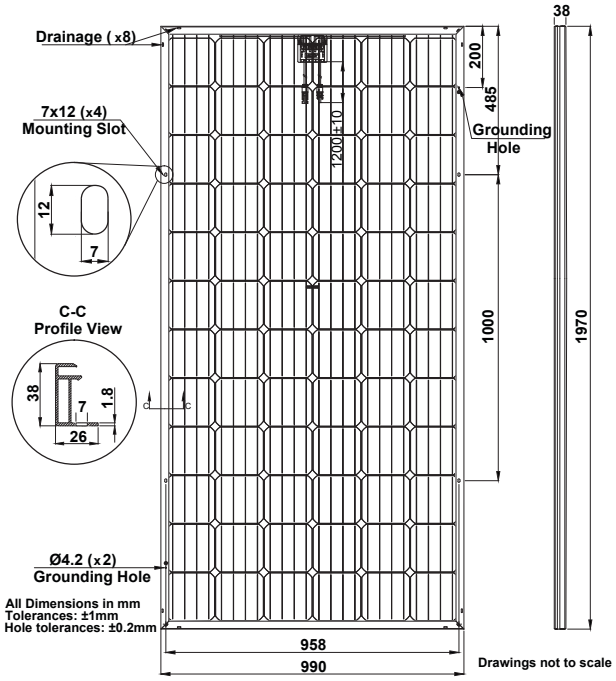
SLG-X 360 Bifacial (72 Cell)		STC at Front + Irradiance % on back side				
Electrical Specifications	STC at Front	15%	20%	25%	30%	NOCT at Front
Pmp (W)	360.0	405.9	421.2	436.5	451.9	274.5
Imp (A)	8.9	9.95	10.33	10.68	11.04	6.8
Vmp (V)	40.3	39.44	39.46	39.52	39.53	40.3
Isc (A)	9.7	10.57	10.98	11.38	11.77	7.7
Voc (V)	47.5	47.81	47.86	47.90	47.98	47.0
Efficiency	18.46%	20.81%	21.60%	22.38%	23.17%	17.6%

Measurement conditions: STC 1000 W/m2 • AM 1.5 • Temperature 25 °C • NOCT 800 W/m² • AM 1.5 • Temperature 20 °C • Measurement uncertainty ≤ 3% • Sun simulator calibration reference modules from Fraunhofer Institute. Electrical characteristics may vary by ±5% and power by -0/+5W.

Output Power Advantages	STD	Silfab
LID after first week of installation	3.0%	0.3%
Power degradation from 1st to 12th year	0.6%	0.4%
Power degradation from 13th to 30th year	0.75%	0.4%

Power Warranty Comparison

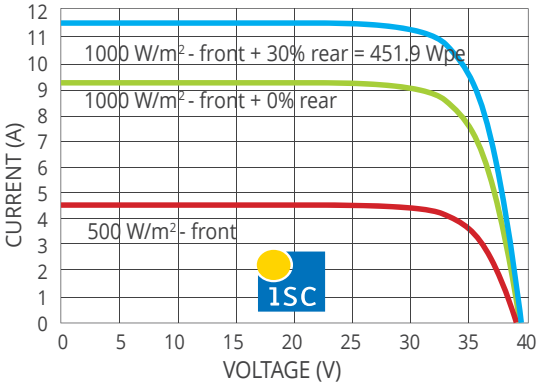




Warning: Read the installation and User Manual before handling, installing and operating modules.

Temperature Coefficients (at 1000 W/m², 25°C, AM1.5)		SILFAB SLG-X BIFACIAL
Temperature Coefficient Isc	%/C	0.041
Temperature Coefficient Voc	%/C	-0.280
Temperature Coefficient Pmax	%/C	-0.415
NOCT	°C	43 ± 2
Operating Conditions		**SILFAB SLG-X BIFACIAL**
Max system Voltage Vsys	1000 VDC	Safety Class II
Max reverse Current Ir	15A	Fire rating C
Maximum surface load (wind/snow) Maximum static load, front 5400 Pa (112 lb/ft-sq) back 2400 Pa (50 lb/ft-sq)	Front 5400 Pa Back 2400 Pa	Permitted module temperature -40°C/+85°C
Hail Impact Resistance		Ø 25 mm at 83 km/h
Mechanical Properties and Components		**SILFAB SLG-X BIFACIAL**
Module weight (± 1 kg)	kg	23
Dimensions (H x L x D; ± 1mm)	mm	1970 x 990 x 38
Cells		Bifacial N-type cell, monocrystalline, 4 busbar, 156.75 x 156.75 mm
Glass		3.2 mm high transmittance, tempered, antireflective coating
Encapsulant		PID-resistant POE
Backsheet		Multilayer polyester-based
Frame		Anodized Al
Bypass Diodes		3 diodes-45V/12A
Cables and connectors (see installation manual)		1200 mm ø 5.7 mm (4 mm²), MC4 compatible
Warranties		**SILFAB SLG-X BIFACIAL**
Module product warranty		12 years
Linear power performance guarantee		30 years ≥ 99.3% end of 1st year ≥ 95% end of 12th year ≥ 88.4% end of 30th year
Certifications		**SILFAB SLG-X BIFACIAL**
Product		ULC ORD C1703, UL 1703, CEC listed
		UL Fire Rating: Type 2 (Type 1 on request)
Factory		ISO 9001:2008

Typical I-V curve 360W



Third-party generated pan files from PV Evolution Labs available for download at: www.silfab.ca/downloads

TOP PERFORMER 2017 DNV·GL PV MODULE RELIABILITY SCORECARD

- Pallet Count: 30
- Container Count: 750

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