

SILFAB
COMMERCIAL **NTC**

SIL-590 XM+
BIFACIAL

SILFAB
SOLAR®



• NEXT-GENERATION N-TYPE CELL TECHNOLOGY

Manufactured exclusively in the USA.

- Improved Shade Tolerance
- Improved Low-Light Performance
- Increased Performance in High Temperatures
- Efficient Bifacial Energy Yield
- Enhanced Durability
- Reduced Degradation Rate
- 25-Year Product Warranty/
30-Year Performance Warranty



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ELECTRICAL SPECIFICATIONS		590		
Test Conditions		STC	BSTC	NOCT
Module Power (Pmax)	Wp	590	643.7	435.5
Maximum power voltage (Vpmax)	V	44.79	44.79	41.21
Maximum power current (Ipmax)	A	13.17	14.37	10.57
Open circuit voltage (Voc)	V	52.50	52.56	48.29
Short circuit current (Isc)	A	13.91	15.17	11.17
Module efficiency	%	22.8%		
Maximum system voltage (VDC)	V	1500		
Series fuse rating	A	30		
Power Tolerance	Wp	0 to +10		
Bifaciality Factor	%	80+-10		

Performance conditions: Measurement tolerance $\leq 3\%$ • Standard Test Conditions (STC): 1000 W/m², AM 1.5, Temperature 25 °C • Nominal Operating Cell Temperature (NOCT): 800 W/m², AM 1.5 • Bifacial Standard Test Conditions (BSTC): 1000 W/m² + $\phi \times 135$ W/m², $\phi = 80\%$, AM 1.5 • Electrical characteristics may vary by $\pm 5\%$.

MECHANICAL PROPERTIES / COMPONENTS	METRIC	IMPERIAL
Module weight	28.5 kg ± 0.2 kg	62.8 lbs ± 0.4 lbs
Dimensions (H x L x D)	2278 mm x 1133 mm x 35 mm	89.7 in x 44.6 in x 1.4 in
Maximum surface load (wind/snow)*	2400 Pa rear load / 5400 Pa front load	50.1 lb/ft ² rear load / 112.8 lb/ft ² front load
Hail impact resistance	ϕ 25 mm at 83 km/h	ϕ 1 in at 51.6 mph
Cells	144 Half cells - N-Type Silicon solar cell 182 mm x 91 mm	144 Half cells - N-Type Silicon solar cell 7.16 in x 3.58 in
Glass	3.2 mm high transmittance, tempered, anti-reflective coating	0.126 in high transmittance, tempered, anti-reflective coating
Cables and connectors (refer to installation manual)	1350 mm, ϕ 5.7 mm, EVO2 from Staubli	53.1 in, ϕ 0.22 in (12 AWG), EVO2 from Staubli
Backsheet	High durability, superior hydrolysis and UV resistance, multi-layer dielectric film, transparent PV backsheet	
Frame	Anodized Aluminum (Silver)	
Junction Box	UL 3730 Certified, IEC 62790 Certified, IP68 rated, 3 diodes	

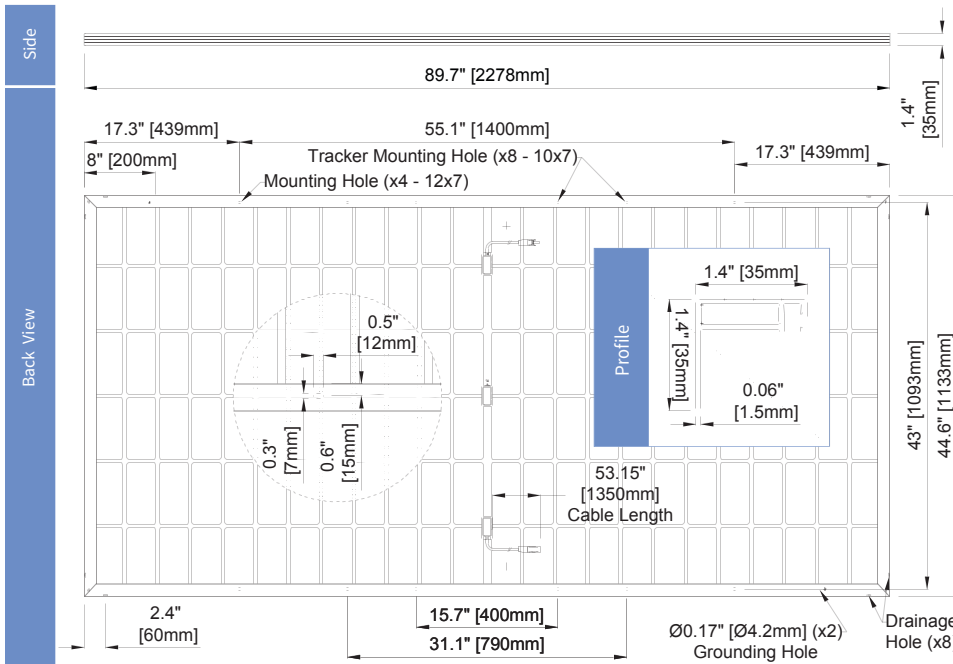
TEMPERATURE RATINGS		WARRANTIES	
Temperature Coefficient Isc	0.04 %/°C	Module product workmanship warranty	25 years**
Temperature Coefficient Voc	-0.24 %/°C	Linear power performance guarantee	30 years
Temperature Coefficient Pmax	-0.29 %/°C		$\geq 98\%$ end 1st yr
NOCT ($\pm 2^\circ\text{C}$)	45 °C		$\geq 94.7\%$ end 12th yr
Operating temperature	-40/+85 °C		$\geq 90.8\%$ end 25th yr $\geq 89.3\%$ end 30th yr

CERTIFICATIONS		SHIPPING SPECS	
Product	UL 61215, UL 61730, CSA C22.2#61730, IEC 61215, IEC 61730, IEC 61701 (Salt Mist Corrosion), IEC 62716 (Ammonia Corrosion), CEC Listed, UL Fire Rating: Type 1	Modules Per Pallet:	29
Factory	ISO9001:2015	California (Pallets per load)	21
		Others (Pallets per load)	22

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

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

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



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