## **SILFAB** PRIME **NTC**

SILFAB SOLAR

SIL-420/430 QD



# SOLAR TECHNOLOGY REIMAGINED FOR TODAY'S WORLD

Silfab's breakthrough in advanced N-type solar cell technology delivers premium all-black solar panels of unmatched performance and reliability.

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ELECTRICAL SPECIFICATIONS		420		430	
Test Conditions		STC	NOCT	STC	NOCT
Module Power (Pmax)	Wp	420	313	430	321
Maximum power voltage (Vpmax)	V	32.87	30.55	33.07	30.74
Maximum power current (Ipmax)	А	12.78	10.25	13.01	10.43
Open circuit voltage (Voc)	V	37.68	35.34	37.76	35.42
Short circuit current (Isc)	А	13.51	10.89	13.81	11.14
Module efficiency	%	21.5%	20.1%	22.1%	20.6%
Maximum system voltage (VDC)	V	1000			
Series fuse rating	А	25			
Power Tolerance	Wp	0 to +10			

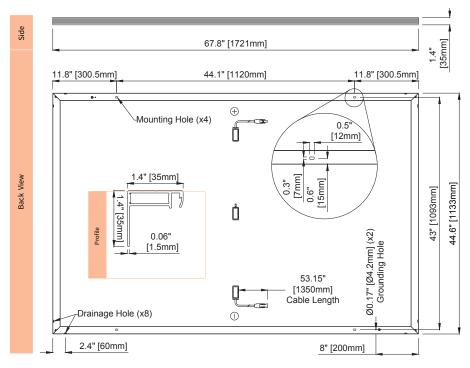
 $Measurement\ conditions:\ STC\ 1000\ W/m^2\bullet AM\ 1.5\bullet Temperature\ 25\ ^\circ C\bullet NOCT\ 800\ W/m^2\bullet AM\ 1.5\bullet Measurement\ uncertainty \le 3\%$ Sun simulator calibration reference modules from Fraunhofer Institute. Electrical characteristics may vary by  $\pm 5\%$  and power by 0 to  $\pm 10$  W.

MECHANICAL PROPERTIES / COMPONENTS	METRIC	IMPERIAL	
Module weight	21 kg ± 0.2 kg	46.3 lbs ± 0.4 lbs	
Dimensions (H x L x D)	1721 mm x 1133 mm x 35 mm	67.8 in x 44.6 in x 1.37 in	
Maximum surface load (wind/snow)*	TBD	TBD	
Hail impact resistance	ø 25 mm at 83 km/h	ø 1 in at 51.6 mph	
Cells	108 Half cells - TOPCon (N-Type) Silicon solar cell 182 mm x 91 mm	108 Half cells - TOPCon (N-Type) Silicon solar cell 7.16 in x 3.58 in	
Glass	3.2 mm high transmittance, tempered, antireflective coating	0.126 in high transmittance, tempered, antireflective coating	
Cables and connectors (refer to installation manual)	1350 mm, ø 5.7 mm, MC4 from Staubli	53.1 in, ø 0.22 in (12 AWG), MC4 from Staubli	
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 (45 V max DC blocking voltage, 30 A max forward rectified current)		
Junction Box	UL 3730 Certified, IEC 62790 Certified, IP68 rated		

TEMPERATURE RATINGS		WARRANTIES		
Temperature Coefficient Isc	+0.064 %/°C	Module product workmanship warranty	25 years**	
Temperature Coefficient Voc	-0.28 %/°C	Linear power performance guarantee	30 years	
Temperature Coefficient Pmax	-0.36 %/°C		≥ 98% end 1st yr ≥ 94.7% end 12th yr	
NOCT (± 2 °C)	45 °C		≥ 94.7% end 12th yr ≥ 90.8% end 25th yr	
Operating temperature	-40/+85 °C		≥ 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 Listing***, UL Fire Rating: Type 2	Modules Per Pallet:	26 or 26 (California)
		Pallets Per Truck	32 or 30 (California)
			832 or 780 (California)
Factory	ISO9001:2015	Modules Per Truck	

- **A** 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.
- Certification and CEC listing in progress.



### **SILFAB SOLAR INC.**

800 Cornwall Ave Bellingham WA 98225 USA T +1 360.569.4733 info@silfabsolar.com

#### SILFABSOLAR.COM

1770 Port Drive Burlington WA 98233 USA

T +1 360.569.4733

240 Courtneypark Drive East Mississauga ON L5T 2Y3 Canada

T +1 905.255.2501

**F** +1 905.696.0267

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