

# **SIL-310 NL**















# 60 Cell

# Monocrystalline PV Module









#### CHUBB

\* Chubb provides error and omission insurance to Silfab Solar Inc

### INDUSTRY LEADING WARRANTY

All our products include an industry leading 25-year product workmanship and 30-year performance warranty.

#### 35+ YEARS OF SOLAR INNOVATION

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 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**

Silfab 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.

#### **III** LIGHT AND DURABLE

Engineered to accommodate low load bearing structures up to 5400Pa. The light-weight frame is exclusively designed for wide-ranging racking compatibility and durability.

#### **UALITY MATTERS**

Total automation ensures strict quality controls during the entire manufacturing process at our 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 our partners 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-310 NL mono PERC		
Test Conditions		STC	NOCT	
Module Power (Pmax)	Wp	310	234	
Maximum power voltage (Vpmax)	V	32.44	29.2	
Maximum power current (Ipmax)	A	9.56	8.0	
Open circuit voltage (Voc)	V	39.69	36.71	
Short circuit current (Isc)	A	10.22	8.38	
Module efficiency	%	18.2	17.2	
Maximum system voltage (VDC)	V	1000		
Series fuse rating	A	20		
Power Tolerance	Wp	0 to +10		

 $Measurement conditions: STC 1000 \text{ W/m}^2 \cdot \text{AM 1.5} \cdot \text{Temperature 25 °C} \cdot \text{NOCT 800 W/m}^2 \cdot \text{AM 1.5} \cdot \text{Measurement uncertainty} \leq 3\% \text{ Measurement uncertainty} = 1.5 \text{ Measurement uncertainty} =$ 

<ul> <li>Sun simulator calibration reference modules from Fraunhofer Institute. Electrical characteristics ma</li> </ul>	by vary by $\pm 5\%$ and power by 0 to $\pm 10\%$ .

Temperature Coefficient Isc   0.064 %/°C						
Temperature Coefficient Voc  Temperature Coefficient Pmax  -0.36 %/°C  NOCT (± 2°C)  Operating temperature  45 °C  Mechanical Properties and Components  Metric  Module weight  18.6 kg ±0.2 kg  41 ±0.4 lbs  Dimensions (H x L x D)  Maximum surface load (wind/snow)*  Hail impact resistance  Cells  Glass  Glass  Galss  Gables and connectors (refer to installation manual)  Backsheet  Frame  Anodized Aluminum (Black)  Bypass diodes  Bypass diodes  3.0 in mon PERC  Anodized Aluminum (Black)  Bypass diodes  Module work manship warranty  Linear power performance guarantee  10.28 %/°C  10.36 %/°C  10.40 /*S °C  1	Temperature Ratings	SIL-310 NL mono PERC				
Temperature Coefficient Pmax  NOCT (± 2°C)  Operating temperature  Mechanical Properties and Components  SIL-310 NL mono PERC  Metric  Imperial  Module weight  Dimensions (H x L x D)  Maximum surface load (wind/snow)*  Hall impact resistance  Cells  Glass  Glass  Glass  Cables and connectors (refer to installation manual)  Backsheet  Frame  Backsheet  High durability, superior hydrolysis resistance, multi-layer dielectric film  Frame  Module weight  18.6 kg ±0.2 kg  41 ±0.4 lbs  Imperial  Metric  Imperial  Metric  Imperial  41 ±0.4 lbs  Metric  Imperial  41 ±0.4 lbs  1700 mm x 1000 mm x 38 mm  66.9 in x 39.4 in x 1.5 in  4000 Pa rear load / 5400 Pa front load N/m²  83.5/112.8 lb/ft^²  80 25 mm at 83 km/h  81 in at 51.6 mph  60 - Si mono PERC - 5 busbar  158.75 x 158.75 mm  60 - Si mono PERC - 5 busbar  60.25 x 6.25 lnch  60.25 in high transmittance, tempered, DSM  anti-reflective coating  Anti-reflective coating  Anti-reflective coating  47.2 in, Ø 0.22 in, MC4 compatible  High durability, superior hydrolysis resistance, multi-layer dielectric film  Frame  Anodized Aluminum (Black)  Bypass diodes  3 diodes-30SQ045T (45V max DC blocking voltage, 30A max forward rectified current)  Junction Box  Warranties  Module product workmanship warranty  Lipear power performance guarantee  30 years	Temperature Coefficient Isc	0.064 %/°C				
NOCT (± 2°C) 45 °C  Operating temperature -40/+85 °C  Mechanical Properties and Components SIL-310 NL mono PERC  Metric Imperial  Module weight 18.6 kg ±0.2 kg 41 ±0.4 lbs  Dimensions (H x L x D) 1700 mm x 1000 mm x 38 mm 66.9 in x 39.4 in x 1.5 in  Maximum surface load (wind/snow)* 4000 Pa rear load / 5400 Pa front load N/m² 83.5/112.8 lb/ft^²  Hail impact resistance Ø 25 mm at 83 km/h Ø 1 in at 51.6 mph  Cells 60 - Si mono PERC - 5 busbar 60 - Si mono PERC - 5 busbar 158.75 x 158.75 mm 6.25 x 6.25 lnch  Glass 3.2 mm high transmittance, tempered, DSM anti-reflective coating anti-reflective coating anti-reflective coating anti-reflective coating  Cables and connectors (refer to installation manual) 1200 mm, Ø 5.7 mm, MC4 compatible 47.2 in, Ø 0.22 in, MC4 compatible  Backsheet High durability, superior hydrolysis resistance, multi-layer dielectric film  Frame Anodized Aluminum (Black)  Bypass diodes 3 diodes-30SQ045T (45V max DC blocking voltage, 30A max forward rectified current)  Junction Box UL 3730 Certified, IP67 rated  Warranties SIL-310 NL mono PERC  Module product workmanship warranty 25 years**  Linear power performance guarantee	Temperature Coefficient Voc	-0.28 %/°C				
Operating temperature    Mechanical Properties and Components   SIL-310 NL mono PERC	Temperature Coefficient Pmax	-0.36 %/°C				
Methanical Properties and ComponentsMetricImperialModule weight18.6 kg ±0.2 kg41 ±0.4 lbsDimensions (H x L x D)1700 mm x 1000 mm x 38 mm66.9 in x 39.4 in x 1.5 inMaximum surface load (wind/snow)*4000 Pa rear load / 5400 Pa front load N/m²83.5/112.8 lb/ft^2Hail impact resistanceØ 25 mm at 83 km/hØ 1 in at 51.6 mphCells60 - Si mono PERC - 5 busbar 158.75 x 158.75 mm60 - Si mono PERC - 5 busbar 6.25 x 6.25 lnchGlass3.2 mm high transmittance, tempered, DSM anti-reflective coating0.126 in high transmittance, tempered, DSM anti-reflective coatingCables and connectors (refer to installation manual)1200 mm, Ø 5.7 mm, MC4 compatible47.2 in, Ø 0.22 in, MC4 compatibleBacksheetHigh durability, superior hydrolysis resistance, multi-layer dielectric filmFrameAnodized Aluminum (Black)Bypass diodes3 diodes-30SQ045T (45V max DC blocking voltage, 30A max forward rectified current)Junction BoxUL 3730 Certified, IP67 ratedWarrantiesSIL-310 NL mono PERCModule product workmanship warranty25 years**Linear power performance guarantee30 years	NOCT (± 2°C)	 45 ℃				
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Hail impact resistance  Cells  Cells  Glass  Glass  Gabes and connectors (refer to installation manual)  Backsheet  Frame  Bypass diodes  Bypass diodes  Warranties  Module product workmanship warranty  Minimize (158,75 mm)  158,75 x 158,75 mm  15	Dimensions (H x L x D)	1700 mm x 1000 mm x 38 mm	66.9 in x 39.4 in x 1.5 in			
Cells  Glass  Glass  Cables and connectors (refer to installation manual)  Backsheet  Frame  Bypass diodes  Bypass diodes  Warranties  Module product workmanship warranty  Golass  Golass  Golass  Anno PERC - 5 busbar  6.25 x 6.25 Inch  6.25 x 6.2	Maximum surface load (wind/snow)*	4000 Pa rear load / 5400 Pa front load N/m <sup>2</sup>	83.5/112.8 lb/ft^2			
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Linear power performance guarantee 30 years	Warranties	SIL-310 NL mono PERC				
Linear nower nerformance guarantee	Module product workmanship warranty	25 years**				
$\geq$ 97% end 1st year   ≥ 90% end 12th year   ≥ 82% end 25th year   ≥ 80% end 30th year	Linear newer performance guarantee	30 years				
	Linear power performance guarantee	≥ 97% end 1 <sup>st</sup> year   ≥ 90% end 12 <sup>th</sup> year	≥ 82% end 25 <sup>th</sup> year	≥ 80% end 30 <sup>th</sup> year		

Certifications

Product

Factory

ULC ORD C1703, CEC listed, IEC 62716 Ammonia Corrosion; IEC61701:2011

Salt Mist Corrosion Certifed, UL Fire Rating: Type 2 ISO9001:2015

**Ⅲ** Modules Per Pallet: 26

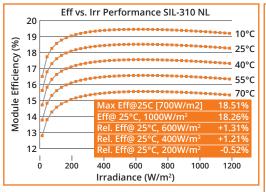
Pallets Per Truck: 36

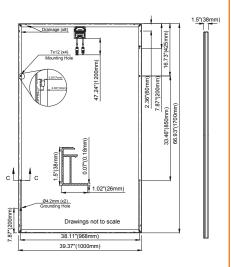
**III** Modules Per Truck: 936

\*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 www.silfabsolar.com.

Third-party generated pan files from Fraunhofer-Institute for Solar Energy Systems ISE are available for download at: www.silfabsolar.com/downloads







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