

# Elevation 4™ Framed Solar Module

STO-135A / STO-140A / STO-145A / STO-150A



## Superior Energy Yield

- Up to 10% more energy than crystalline silicon in most climates
- Industry leading temperature coefficient (-0.26%/°C) provides greater energy yield in most operating conditions
- Proprietary cell and circuit design minimizes impact of shade and debris  
CEC listed, PTC/STC ratio of 92.9%



## Leading Performance and Reliability

- Potential Induced Degradation (PID) resistant and free of Light Induced Degradation (LID) effects
- Designed and tested to survive harsh conditions

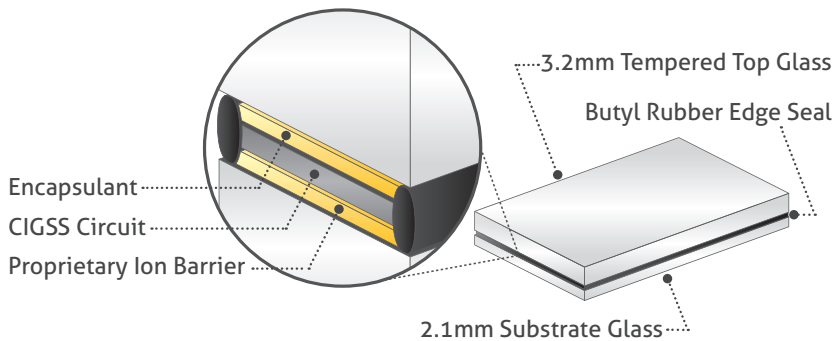


## Certifications and Advanced Tests

- IEC 61646 1000V, IEC 61730 1000V, CE
- UL1703 1000V Class C Fire Rating (Class A Flame Spread), Fire Type 3
- PID Free, IEC 61701 Salt Mist (severity 6)
- ISO 9001:2008
- CSI Eligible (CA-USA), CEC Listed (Australia), OGPE (Puerto Rico)
- Restriction of Hazardous Substances (RoHS) compliant



## Circuit Protection System®



## Reliable and Durable with Stion CPS®

Proprietary Circuit Protection System®

Moisture Ingress Protection

Dual Glass Durability

Resistant to effects of Potential Induced Degradation (PID)



## Made in the USA

- All of Stion's modules are designed and manufactured in the United States under the highest quality standards



## STO-135A / STO-140A / STO-145A / STO-150A

### Electrical Data\*

Nominal Power, P <sub>max</sub> (W)	135	140	145	150
Module Efficiency (%)	12.4%	12.9%	13.3%	13.8%
V <sub>mpp</sub> (V)	58.2	59.8	61	62.7
I <sub>mpp</sub> (A)	2.32	2.34	2.38	2.39
V <sub>oc</sub> (V)	77.4	78.8	79.6	80.8
I <sub>sc</sub> (A)	2.62	2.65	2.68	2.72
Series Fuse Rating (A)	7			
Maximum System Voltage (V-dc)	1000 (UL & IEC)			
Temp. Coefficient (P <sub>mpp</sub> )	-0.26%/°C			
Temp Coefficient (V <sub>oc</sub> )	-0.24%/°C			
Temp Coefficient (I <sub>sc</sub> )	0.004%/°C			
Factory Binning (W)	+ / - 2.5			
NOCT**	45.6°C			

\* Measured at Standard Testing Conditions (STC): 25°C, 1000 W/m<sup>2</sup>, AM 1.5 after factory light soaking. All ratings are ± 10% unless noted otherwise.

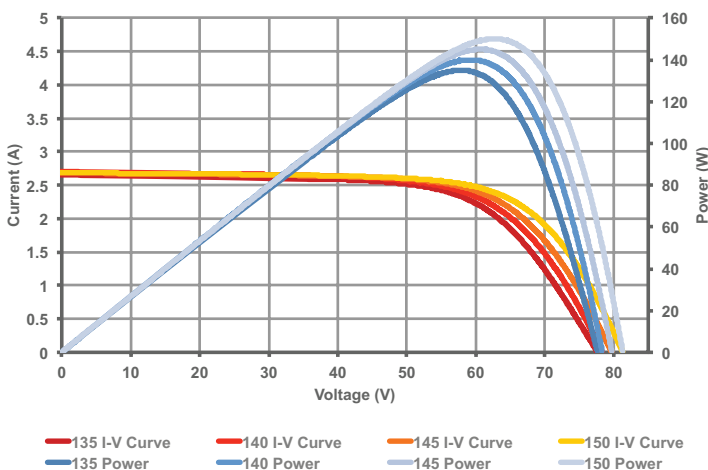
\*\* Normal Operating Cell Temperatures (NOCT): 800 W/m<sup>2</sup>, 20°C air temperature, 1m/s wind speed

Relative efficiency reduction of maximum power from an irradiance of 1,000 W/m<sup>2</sup> to 200 W/m<sup>2</sup> at 25°C is approximately 7% with a standard deviation of 3%.

### Normal Operating Cell Temperature Conditions

Nominal Power, P <sub>max</sub> (W)	102	106	110	114
V <sub>mpp</sub> (V)	53.8	55.3	56.4	58
I <sub>mpp</sub> (A)	1.91	1.92	1.95	1.96
V <sub>oc</sub> (V)	70.3	71.5	72.3	73.3
I <sub>sc</sub> (A)	2.17	2.19	2.22	2.25

### I-V Curves



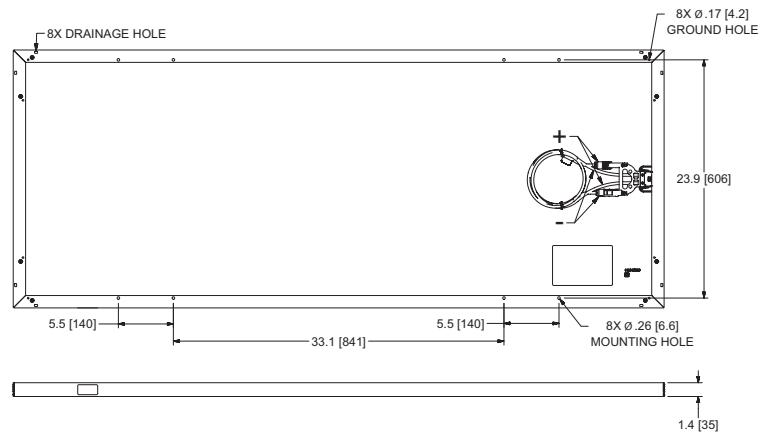
### Warranty and Qualifications

Limited Power	90% at 10 years, 80% at 25 years
Workmanship	10 years



Caution! Read Safety & Installation Manual before handling, installing or operating Stion products. Specification included in this datasheet are subject to change without notice.

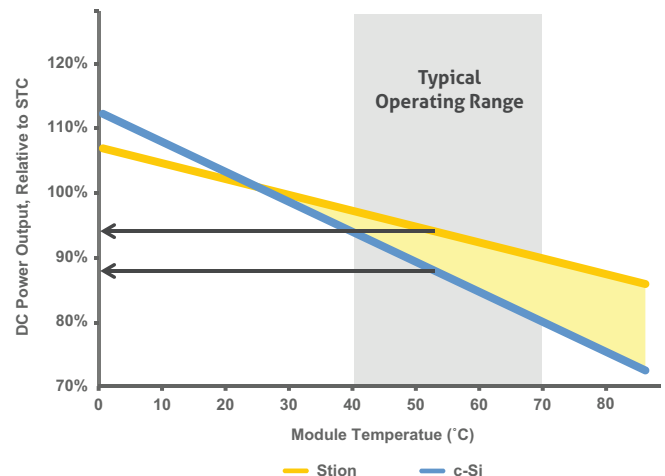
### Dimensions Inches [mm]



### Mechanical Data

Width	25.8 in (656 mm)
Length	65.2 in (1656 mm)
Thickness	1.4 in (35.0 mm)
Weight	37.0 lbs (16.8 kg)
Total Area	11.68 ft <sup>2</sup> (1.09 m <sup>2</sup> )
Cable	PV Wire, 14 AWG Cable 39 3/8 in (1 m)
Connectors	MC-4 type
J-Box	IP 67 rated
Frame	Black Anodized Aluminum
Front Glass	3.2mm tempered with anti-reflective coating
Back Glass	2.1mm annealed float
Mechanical / Wind Load	2400 Pa (50 psf)

### Industry Leading Warm Temperature Performance



### Packaging Configuration

STO	Modules Per Box: 25
	Modules Per 40' Container: 975