silicon energy™

Cascade Series

PV Module and Installation System

Grown in Washington

Silicon Energy's mission is to manufacture quality PV systems specifically for the US market that advance durability, longevity of performance and aesthetics.

The Cascade Series PV Module and Installation System has some unique features that differentiate it from other PV systems presently on the market.

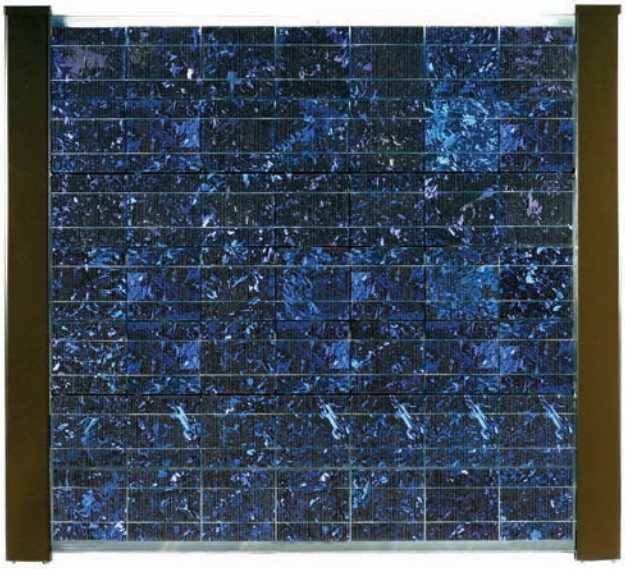
PV Module Features:

- High efficiency crystalline silicon cells manufactured from silicon locally processed in Washington State
- Strong and durable glass on glass construction
- Double glass module construction allows light to pass between cells
- Six bypass diodes per module provide improved performance in partial shade
- Highest fire rating - Class A
- 20-year limited power warranty, 2-year materials and workmanship

Installation System Features:

- Cascade design allows water, snow and ice to easily flow off
- Increased air flow behind modules increases performance
- Mounting system conceals and protects wires for a clean wireless look
- Installs on standard 4-foot centers – specifically designed for the US market
- Aesthetically pleasing modern appearance. Custom colors available (architectural bronze standard)





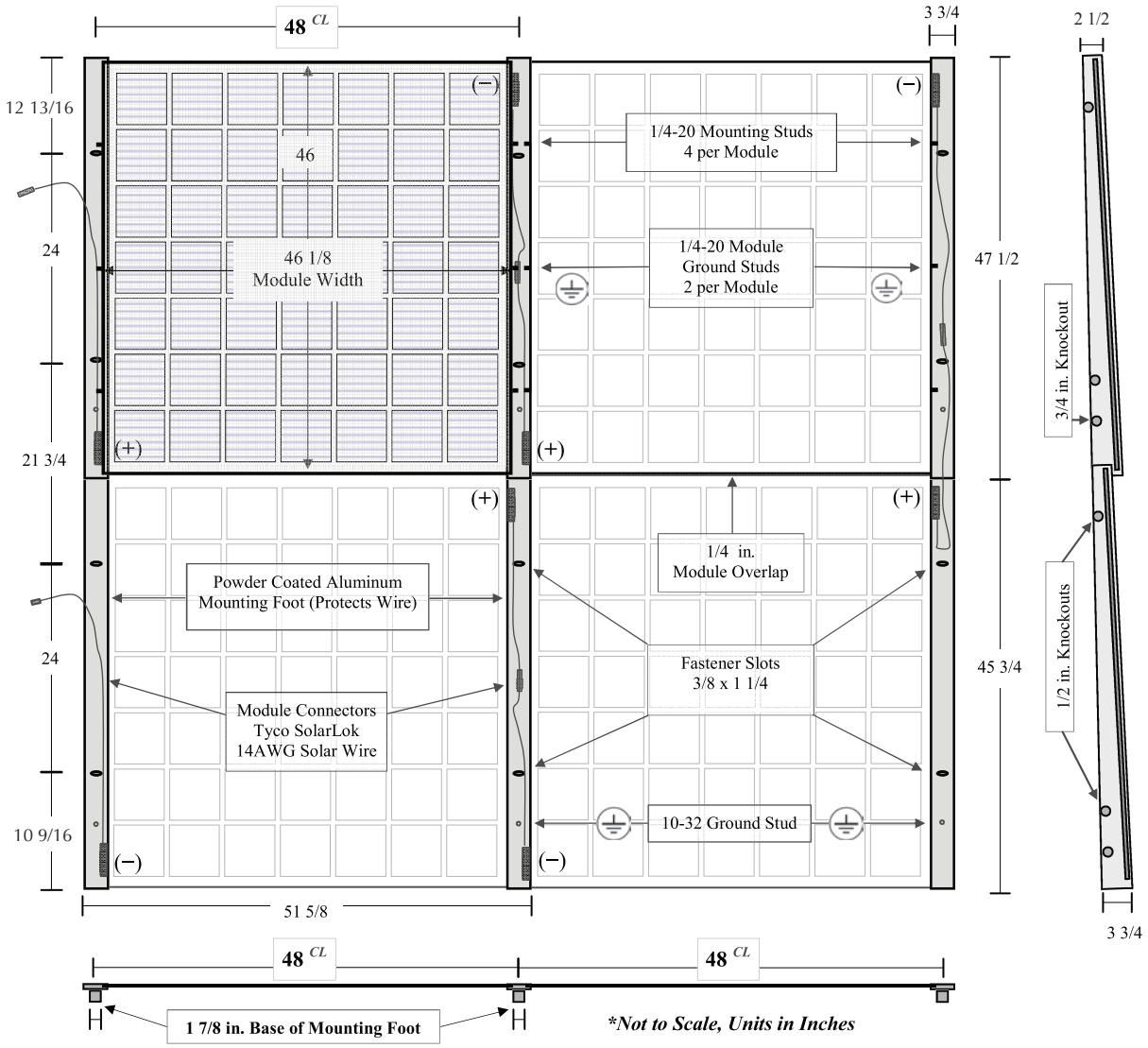


Made in Washington

Electrical Characteristics	SiE160	SiE165	SiE170	SiE175
Rated Power (Pmax) Watts	160	165	170	175
Maximum Power Voltage (Vmp)	24.7	24.8	24.8	24.9
Maximum Power Current (Imp)	6.5	6.7	6.9	7.0
Open Circuit Voltage (Voc)	29.9	30.0	30.0	30.1
Short Circuit Current (Isc)	7.6	7.7	7.8	7.8
Maximum System Voltage	600	600	600	600
Series Fuse Rating Amps	15	15	15	15
Temperture Coefficient of Pmax (%/ºC)	-0.566	-0.566	-0.566	-0.566
Temperture Coefficient of Voc (%/ºC)	-0.389	-0.389	-0.389	-0.389
Temperture Coefficient of Isc (%/ºC)	0.109	0.109	0.109	0.109

** Standard test conditions (STC) at 1000w/m², AM 1.5 spectrum, 77ºF/25ºC cell temp.*

Mechanical Specifications and Ratings	
Weight (module + mounts)	58 lbs (~65 lbs /~4.1 lbs/ft²)
Cells	49 crystalline silicon cells wired in series (7 x 7)
Diodes	6 bypass diodes per module
Construction	Front: 0.125 in. high transmisivity tempered glass Back: 0.125 in. tempered glass / Encapsulant: DuPont PV5300
Frame	0.09in aluminum alloy 5032 H32 - 1/4-20 stainless steel studs with flange nuts
Mounting Foot	0.125 in. powder coated aluminum alloy 5032 H32
Slope of Module	1.85º (minimum mounting surface angle 5º)
Temperature Range	-40 to 194ºF (-40 to 90ºC)
Design Load	125 psf
Fire Rating	Class A
Connectors (Wire)	Tyco SOLARLOK (14 AWG Solar Wire, length ~32 in.)



Complies to UL1703, specifications subject to change without notice.

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