

450-480 Watts
Up to 19.0% Efficiency

HIGH-POWER PV MODULES

First Solar Series 6 CuRe modules represent the next evolutionary leap forward in thin film module design. Built on the Series 6 *Plus* platform, Series 6 CuRe modules deliver the same industry-leading quality and reliability, along with improved efficiency, unmatched lifetime energy performance, and lower LCOE for a superior return on investment.



HIGHEST LIFETIME ENERGY

- More energy produced per nameplate watt over its lifetime compared to c-Si due to a superior degradation rate, temperature coefficient, spectral response and shading behavior
- No power loss from LID or LeTID mechanisms that affect c-Si modules
- Anti-reflective coated glass enhances energy production



INNOVATIVE MODULE DESIGN

- Under-mount frame provides the cleaning and snow-shedding benefits of a frameless module while protecting edges against breakage
- Innovative SpeedSlots™ combine the robustness of bottom mounting with the speed of top clamping while utilizing fewer fasteners to achieve the industry's fastest installation times and lowest mounting hardware costs
- Dual junction box design optimizes module-to-module connections and eliminates the need for wire management

INDUSTRY'S BEST WARRANTED DEGRADATION RATE¹

98% WARRANTY START POINT

0.2% WARRANTED ANNUAL DEGRADATION RATE



BEST IN-CLASS RELIABILITY & DURABILITY

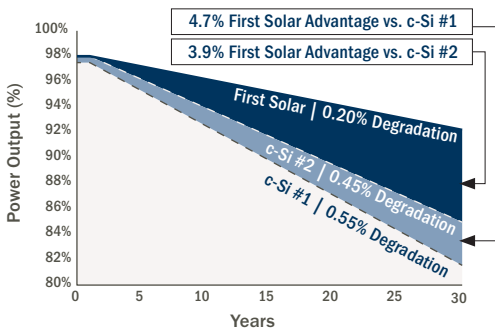
- Manufactured under one roof with 100% traceable QA/QC
- Independently tested and certified for reliable performance that exceeds IEC standards in high temperature, high humidity, extreme desert and coastal applications
- Inherently immune to and warranted against power loss from cell cracking
- Durable glass/glass construction



BEST ENVIRONMENTAL PROFILE

- Fastest energy payback time in the industry
- Carbon footprint that is 2.5X lower and a water footprint that is 3X lower than mono crystalline silicon panels on a life cycle basis
- Global PV module recycling services available through First Solar or customer-selected third-party

First Solar Lifetime Energy Advantage
From 30 Year Warranted Annual Power Degradation



- 30-Year Linear Performance Warranty
- 12-Year Limited Product Warranty
- Industry's first and only Cell Cracking Warranty

FIRST SOLAR SERIES 6 CuRe

MODEL TYPES: FS-6XXX-C / FS-6XXXA-C / FS-6XXX-C-I / FS-6XXXA-C-I
(XXX = NOMINAL POWER)

RATINGS AT STANDARD TEST CONDITIONS (1000W/m², AM 1.5, 25°C)²

| | P _{MAX} (W) | 450 | 455 | 460 | 465 | 470 | 475 | 480 |
|-------------------------------------|----------------------|-------------------|-------|-------|-------|-------|-------|-------|
| Nominal Power ³ (-0/+5%) | | | | | | | | |
| Efficiency (%) | % | 17.9 | 18.1 | 18.3 | 18.5 | 18.7 | 18.9 | 19.0 |
| Cell Efficiency (%) | % | 19.3 | 19.5 | 19.7 | 19.9 | 20.1 | 20.3 | 20.5 |
| Voltage at P _{MAX} | V _{MAX} (V) | 179.9 | 181.0 | 182.2 | 183.4 | 184.6 | 185.8 | 187.0 |
| Current at P _{MAX} | I _{MAX} (A) | 2.50 | 2.51 | 2.52 | 2.54 | 2.55 | 2.56 | 2.57 |
| Open Circuit Voltage | V _{OC} (V) | 221.7 | 222.4 | 223.1 | 223.9 | 224.6 | 225.3 | 226.0 |
| Short Circuit Current | I _{SC} (A) | 2.66 | 2.66 | 2.66 | 2.67 | 2.67 | 2.67 | 2.67 |
| Maximum System Voltage | V _{SYS} (V) | 1500 ⁵ | | | | | | |
| Limiting Reverse Current | I _R (A) | 5.0 | | | | | | |
| Maximum Series Fuse | I _{CF} (A) | 5.0 | | | | | | |

RATINGS AT NOMINAL OPERATING CELL TEMPERATURE OF 45°C (800W/m², 20°C air temperature, AM 1.5, 1m/s wind speed)²

| | P _{MAX} (W) | 339.8 | 343.7 | 347.4 | 351.1 | 354.9 | 358.6 | 362.5 |
|-----------------------------|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Nominal Power | | | | | | | | |
| Voltage at P _{MAX} | V _{MAX} (V) | 168.2 | 169.3 | 170.3 | 172.1 | 173.1 | 174.1 | 175.1 |
| Current at P _{MAX} | I _{MAX} (A) | 2.02 | 2.03 | 2.04 | 2.04 | 2.05 | 2.06 | 2.07 |
| Open Circuit Voltage | V _{OC} (V) | 211.0 | 211.7 | 212.4 | 213.1 | 213.8 | 214.5 | 215.2 |
| Short Circuit Current | I _{SC} (A) | 2.14 | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.16 |

TEMPERATURE CHARACTERISTICS

| | | |
|---|------------------------------------|---|
| Module Operating Temperature Range | (°C) | -40 to +85 |
| Temperature Coefficient of P _{MAX} | T _K (P _{MAX}) | -0.28%/°C [Temperature Range: 25°C to 75°C] |
| Temperature Coefficient of V _{OC} | T _K (V _{OC}) | -0.24%/°C |
| Temperature Coefficient of I _{SC} | T _K (I _{SC}) | +0.04%/°C |

MECHANICAL DESCRIPTION

| | |
|----------------------------|--|
| Length | 2024mm |
| Width | 1245mm |
| Area | 2.52m ² |
| Module Weight | 34.9kg (FS-6XXX-C / FS-6XXXA-C) 34.2kg (FS-6XXX-C-I / FS-6XXXA-C-I) |
| Leadwire ⁶ | 2.5mm ² , 733mm (+) & Bulkhead (-) |
| Connectors | TE Connectivity PV4-S, MC4-EVO 2, or alternate |
| Junction Box | IP68 Rated |
| Bypass Diode | N/A |
| Cell Type | Thin film CdTe semiconductor, up to 264 cells |
| Frame Material | Anodized Aluminum |
| Front Glass | Heat strengthened |
| Back Glass | Heat strengthened |
| Encapsulation | Laminate material with edge seal |
| Frame to Glass Adhesive | Silicone |
| Load Rating ^{7,8} | 2400Pa |

PACKAGING INFORMATION

| Model Type | Modules Per Pack | Packs per 40' Container |
|----------------------------|------------------|-------------------------|
| FS-6XXX-C / FS-6XXXA-C | 27 | 18 |
| FS-6XXX-C-I / FS-6XXXA-C-I | 29 | 18 |

Disclaimer

The information included in this Module Datasheet is subject to change without notice and is provided for informational purposes only. No contractual rights are established or should be inferred because of user's reliance on the information contained in this Module Datasheet. Please refer to the appropriate Module User Guide and Module Product Specification document for more detailed technical information regarding module performance, installation and use.

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CERTIFICATIONS AND TESTS ⁴

IEC

61215:2016 & 61730-1:2016⁵, CE
61701 Salt Mist Corrosion
60068-2-68 Dust and Sand
Resistance

UL

UL 61730 1500V Listed

REGIONAL CERTIFICATIONS

InMetro SII
BIS
MyHijau
Buy American Act (BAA) Compliant

EXTENDED DURABILITY TESTS

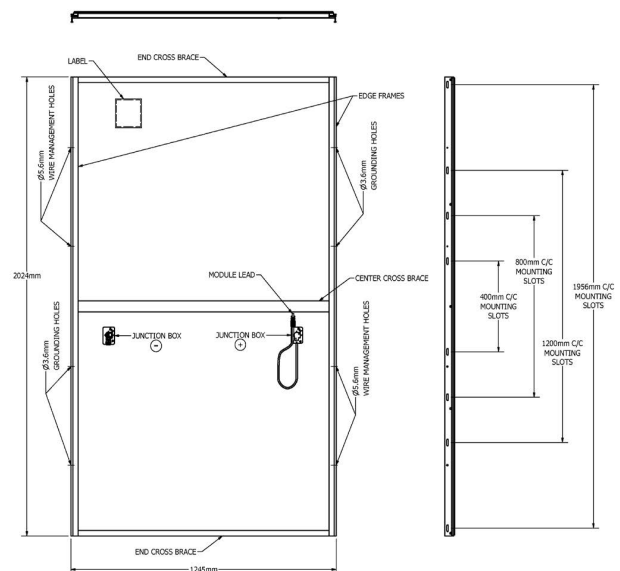
ANSI/CAN/CSA-C450-18
Long-Term Sequential
Thresher Test
PID Resistant

QUALITY & EHS

ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
ISO 14064-3:2006
EPEAT Silver Registered



MECHANICAL DRAWING



Install in portrait only

- Limited power output and product warranties subject to warranty terms and conditions
- All ratings $\pm 10\%$, unless specified otherwise. Specifications are subject to change
- Measurement uncertainty applies
- Testing Certifications/Listings pending
- IEC 61730-1: 2016 Class II
- Leadwire length from junction box exit to connector mating surface
- 1500Pa tentative load rating for 1956mm mounting slots. Higher loads may be acceptable, subject to testing
- Model Types FS-6XXX-C-I and FS-6XXXA-C-I meet UL 61730 with a reduced mechanical design load. Consult Module User Guide for additional details