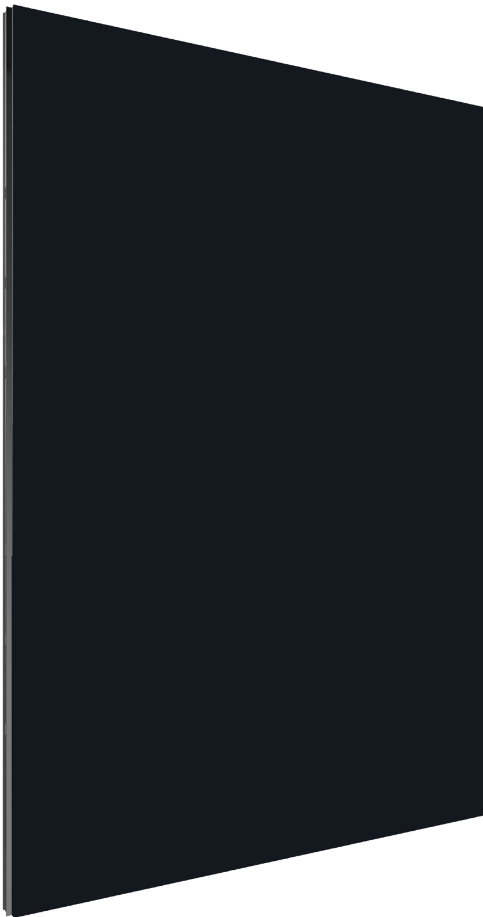




Series 6 Plus V2.

420-450 Watt Thin Film Solar Module

Series 6 Plus V2 incorporates CuRe technology, First Solar's latest groundbreaking semiconductor innovation that virtually eliminates long-term degradation and delivers more lifetime energy per nameplate watt. Built on the field-tested Series 6 Plus platform, the advanced design also provides reduced balance of system, shipping, and operating costs.



More Lifetime Energy per Nameplate Watt

- Industry's best (0.1%) warranted degradation rate
- Superior temperature coefficient, spectral, and shading response
- No power loss from LID or LeTID
- Anti-reflective coated glass enhances energy production
- Added bifacial energy yield



Innovative Module Design

- Under-mount frame provides the cleaning and snowshedding benefits of a frameless module while protecting edges against breakage
- Innovative SpeedSlot mounting feature delivers the industry's fastest installation times and lowest mounting hardware costs
- Dual junction box design reduces wire management complexity and cost



Unmatched Quality and Reliability

- End-to-end manufacturing process for globally consistent quality
- Tested and certified to IEC standards and beyond
- Durable glass/glass construction
- Immune to and warranted against power loss from cell cracking
- 12-year Limited Product Warranty



Industry's Most Eco-efficient PV Solution

- Industry leading carbon footprint, water footprint and energy payback time
- Globally available PV module recycling services

17.9%
HIGH BIN EFFICIENCY

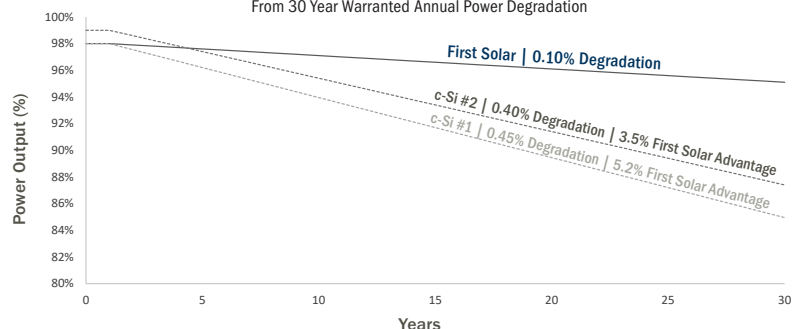
30YR
LINEAR PERFORMANCE
WARRANTY¹

98%
WARRANTY START POINT

0.1%
WARRANTED ANNUAL
DEGRADATION RATE

First Solar Lifetime Energy Advantage

From 30 Year Warranted Annual Power Degradation



Learn more about First Solar
and Series 6 Plus V2
at firstsolar.com/S6

Series 6 Plus V2.

Electrical Specifications



LEADING THE WORLD'S
SUSTAINABLE ENERGY FUTURE

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

SERIES 6 PLUS V2 MODEL TYPE: FS-6XXXA-P-B-2 (XXX = NOMINAL POWER)

Nominal Power ³ (-0/+5%)	P _{MAX} (W)	420		425		430		435		440		445		450	
		STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI
Nominal Power	P _{MAX} (W)	420	429	425	434	430	439	435	444	440	449	445	454	450	459
Voltage at P _{MAX}	V _{MAX} (V)	176.5	176.5	177.5	177.5	178.5	178.5	179.6	179.6	180.6	180.6	181.6	181.6	182.6	182.6
Current at P _{MAX}	I _{MAX} (A)	2.38	2.43	2.39	2.44	2.41	2.46	2.42	2.47	2.44	2.49	2.45	2.50	2.46	2.51
Open Circuit Voltage	V _{OC} (V)	225.5	225.5	226.1	226.1	226.8	226.8	227.4	227.4	228.1	228.1	228.7	228.7	229.4	229.4
Short Circuit Current	I _{SC} (A)	2.64	2.69	2.64	2.70	2.65	2.70	2.65	2.71	2.66	2.71	2.66	2.72	2.67	2.72
Efficiency (%)	%	16.7		16.9		17.1		17.3		17.5		17.7		17.9	
Maximum System Voltage	V _{SYS} (V)	1500 ⁶													
Limiting Reverse Current	I _R (A)	5.0													
Maximum Series Fuse	I _{CF} (A)	5.0													

TEMPERATURE CHARACTERISTICS

Module Operating Temperature Range	(°C)	-40 to +85
Temperature Coefficient of P _{MAX}	T _K (P _{MAX})	-0.23%/°C [Temperature Range: 15°C to 75°C]
Temperature Coefficient of V _{OC}	T _K (V _{OC})	-0.22%/°C
Temperature Coefficient of I _{SC}	T _K (I _{SC})	+0.04%/°C
Nominal Operating Cell Temperature	(°C)	43
Bifaciality Factor	%	15±5%

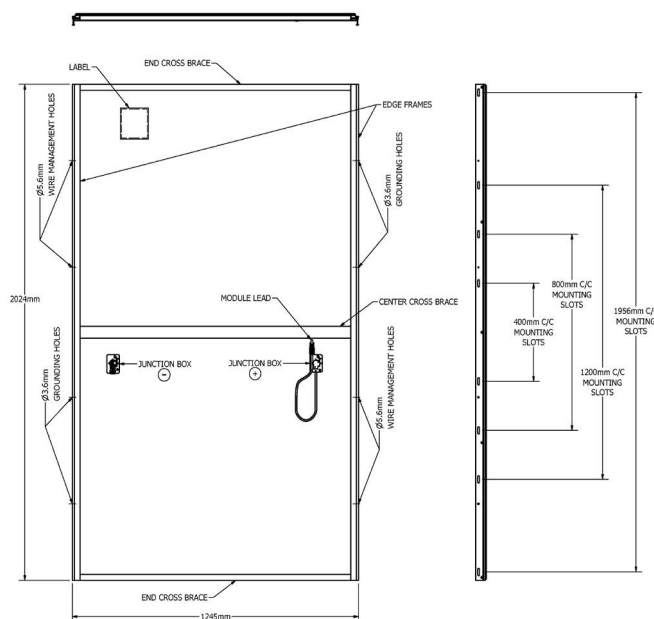
PACKAGING INFORMATION

Model Type	Modules Per Pack	Packs per 40' Container
FS-6XXXA-P-B-2	28	18

MECHANICAL DESCRIPTION

Module/Glass Length	2024mm/2016mm
Module/Glass Width	1245mm/1216mm
Module/Glass Area	2.52m ² /2.45m ²
Module Weight	34.0kg
Leadwire ⁷	2.5mm ² , 733mm (+) & Bulkhead (-)
Connectors	TE Connectivity PV4-S or alternate
Junction Box	IP68 Rated
Bypass Diode	N/A
Cell Type	Thin film CdTe semiconductor, up to 268 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	+/- 2400Pa

Mechanical Specifications



Certifications & Tests⁸

CERTIFICATIONS AND LISTINGS

IEC 61215:2021 & 61730-1:2016⁶, CE
IEC 61701 Salt Mist Corrosion
IEC 60068-2-68 Dust and Sand Resistance
IEC 62716 Ammonia Corrosion
UL 61730 1500V Listed



EXTENDED DURABILITY TESTS

IEC TS 63209-1 Extended Stress Test
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

Install in portrait only

- Limited power output and product warranties subject to warranty terms and conditions
- All ratings ±10%, unless specified otherwise. Specifications are subject to change
- Measurement uncertainty applies
- Frontside electrical ratings
- Bifacial Name Plate Irradiance, as per IEC 61215:2021
- IEC 61730-1: 2016 Class II
- Leadwire length from junction box exit to connector mating surface
- Testing Certifications/Listings pending

Disclaimer

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