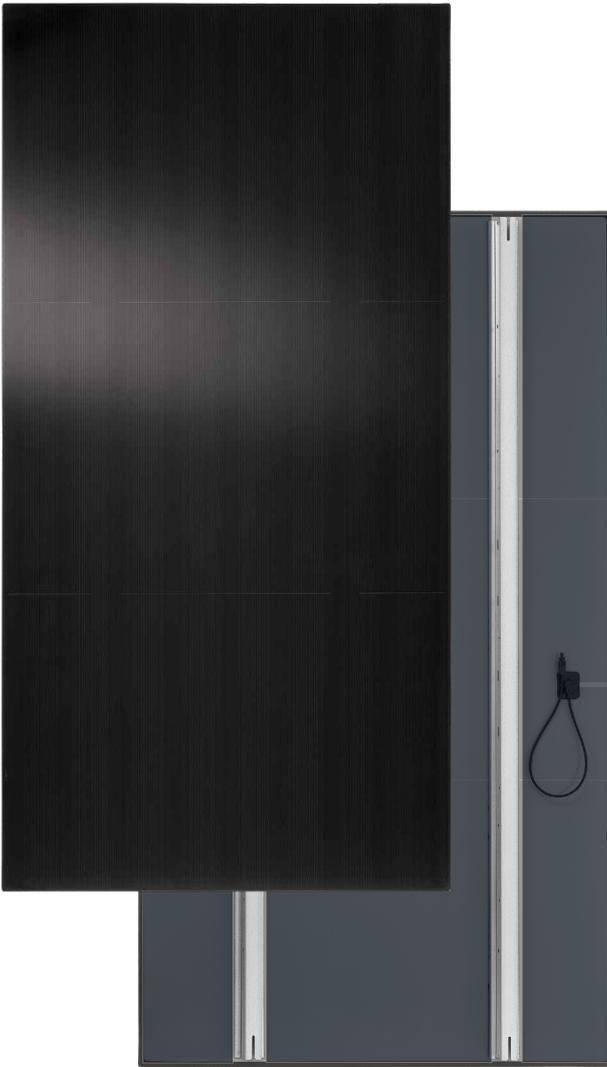




# Series 7 TR1 V2.

## 525-550 Watt Thin Film Solar Module

Series 7 TR1 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 7 TR1 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

- Optimized back rail mount design enhances installation velocity
- Frameless design improves soiling and snow shedding
- 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



### America's Solar Company

- Designed, responsibly sourced, and manufactured in the USA

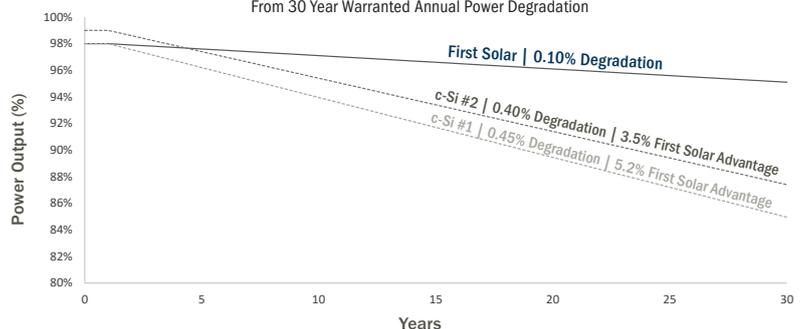
**19.7%**  
HIGH BIN EFFICIENCY

**30YR**  
LINEAR PERFORMANCE  
WARRANTY

**98%**  
WARRANTY START POINT

**0.1%**  
WARRANTED ANNUAL  
DEGRADATION RATE<sup>1</sup>

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



Learn more about First Solar and Series 7 TR1 V2 at [firstsolar.com/S7](https://firstsolar.com/S7)

# Series 7 TR1 V2.

## Electrical Specifications



LEADING THE WORLD'S  
SUSTAINABLE ENERGY FUTURE

RATINGS AT STANDARD TEST CONDITIONS (1000W/m<sup>2</sup>, AM 1.5, 25°C)<sup>2</sup>

SERIES 7 TR1 V2 MODEL TYPES: FS-7XXXA-TR1-2 (XXX = NOMINAL POWER)

Nominal Power <sup>3</sup> (-0/+5%) P <sub>MAX</sub> (W)	525		530		535		540		545		550	
	STC <sup>4</sup>	BNPI <sup>5</sup>	STC	BNPI								
Nominal Power P <sub>MAX</sub> (W)	525	536	530	541	535	546	540	551	545	556	550	561
Voltage at P <sub>MAX</sub> V <sub>MAX</sub> (V)	184.7	184.7	185.6	185.6	186.4	186.4	187.3	187.3	188.2	188.2	189.0	189.0
Current at P <sub>MAX</sub> I <sub>MAX</sub> (A)	2.84	2.90	2.86	2.91	2.87	2.93	2.88	2.94	2.90	2.96	2.91	2.97
Open Circuit Voltage V <sub>OC</sub> (V)	230.6	230.6	231.2	231.2	231.7	231.7	232.3	232.3	232.8	232.8	233.4	233.4
Short Circuit Current I <sub>SC</sub> (A)	3.06	3.12	3.06	3.12	3.07	3.13	3.07	3.13	3.08	3.14	3.08	3.14
Efficiency (%)	18.8		19.0		19.1		19.3		19.5		19.7	
Maximum System Voltage V <sub>SYS</sub> (V)	1500 <sup>6</sup>											
Limiting Reverse Current I <sub>R</sub> (A)	5.0											
Maximum Series Fuse I <sub>CF</sub> (A)	5.0											

### TEMPERATURE CHARACTERISTICS

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

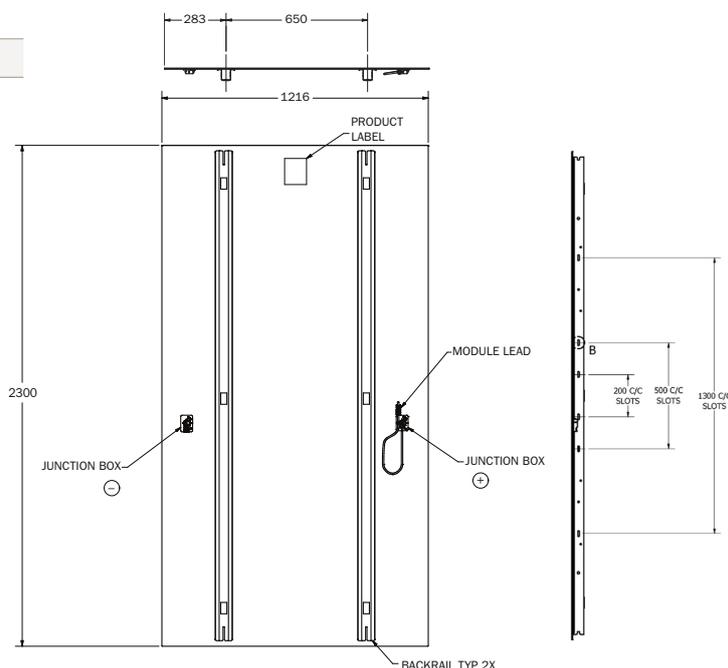
### PACKAGING INFORMATION

Model Type	Modules Per Pack	Packs per 53' Container
FS-7XXXA-TR1-2	44	10

### MECHANICAL DESCRIPTION

Length	2300mm
Width	1216mm
Area	2.80m <sup>2</sup>
Module Weight	38.4kg
Leadwire <sup>7</sup>	2.5mm <sup>2</sup> , 650mm (+) & 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
Back Rail Material	Galvanized steel
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 & Tests<sup>8</sup>

### CERTIFICATIONS AND LISTINGS

IEC 61215:2021 & 61730-1:2016<sup>6</sup>, 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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