Series 7 FT1
525-550 Watt Thin Film Solar Module

Series 7 FT1 modules combine First Solar’s thin film technology with a larger form factor and an innovative new back rail mounting system to deliver improved efficiency and unmatched lifetime energy performance for utility-scale PV projects.

More Lifetime Energy per Nameplate Watt
- Industry’s best (0.3%) warranted degradation rate
- Superior temperature coefficient, spectral and shading response
- No power loss from LID or LeTID
- Anti-reflective coated glass enhances energy production

Optimized Module Design
- Back rail mounting design has been optimized for fixed tilt applications
- Frameless design improves soiling performance
- 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
- 25-year Linear Performance Warranty
- 10-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

Domestically Manufactured
- Manufactured in India, for the Indian market

19.7%
HIGH BIN EFFICIENCY

25YR
LINEAR PERFORMANCE WARRANTY

98%
WARRANTY START POINT

0.3%
WARRANTED ANNUAL DEGRADATION RATE

Learn more about First Solar and Series 7 FT1 at firstsolar.com/S7

First Solar | 0.30% Degradation
From 25 Year Warranted Annual Power Degradation

First Solar Lifetime Energy Advantage
From 25 Year Warranted Annual Power Degradation
Series 7 FT1

Electrical Specifications

MODEL TYPES: FS-7XXXA-FT1 (XXX = NOMINAL POWER)

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

<table>
<thead>
<tr>
<th>Nominal Power² (G/±5%)</th>
<th>P_MAX (W)</th>
<th>525</th>
<th>530</th>
<th>535</th>
<th>540</th>
<th>545</th>
<th>550</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiency (%)</td>
<td>%</td>
<td>18.8</td>
<td>19.0</td>
<td>19.1</td>
<td>19.3</td>
<td>19.5</td>
<td>19.7</td>
</tr>
<tr>
<td>Cell Efficiency (%)</td>
<td>%</td>
<td>19.7</td>
<td>19.9</td>
<td>20.1</td>
<td>20.3</td>
<td>20.4</td>
<td>20.6</td>
</tr>
<tr>
<td>Voltage at P_MAX</td>
<td>V_MAX (V)</td>
<td>186.0</td>
<td>186.9</td>
<td>187.8</td>
<td>188.7</td>
<td>189.6</td>
<td>190.4</td>
</tr>
<tr>
<td>Current at P_MAX</td>
<td>I_MAX (A)</td>
<td>2.82</td>
<td>2.84</td>
<td>2.85</td>
<td>2.86</td>
<td>2.88</td>
<td>2.89</td>
</tr>
<tr>
<td>Open Circuit Voltage</td>
<td>V_OC (V)</td>
<td>226.1</td>
<td>226.7</td>
<td>227.2</td>
<td>227.7</td>
<td>228.2</td>
<td>228.8</td>
</tr>
<tr>
<td>Short Circuit Current</td>
<td>I_SC (A)</td>
<td>3.04</td>
<td>3.05</td>
<td>3.06</td>
<td>3.06</td>
<td>3.07</td>
<td>3.08</td>
</tr>
<tr>
<td>Maximum System Voltage</td>
<td>V_SYS (V)</td>
<td>1500²</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Limiting Reverse Current</td>
<td>I_L (A)</td>
<td>5.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum Series Fuse</td>
<td>I_F (A)</td>
<td>5.0</td>
<td></td>
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</tr>
</tbody>
</table>

TEMPERATURE CHARACTERISTICS

Module Operating Temperature Range (°C) | -40 to +85

Temperature Coefficient of P_MAX | T_P_MAX | -0.32%/°C (Temperature Range: 25°C to 75°C)

Temperature Coefficient of V_OC | T_V_OC | -0.28%/°C

Temperature Coefficient of I_SC | T_I_SC | +0.04%/°C

Nominal Operating Cell Temperature (°C) | 43

MECHANICAL DESCRIPTION

| Length | 2300mm |
| Width | 1216mm |
| Area | 2.80m² |
| Module Weight | 36.8kg |
| Leadwire³ | 2.5mm², 500mm (+) & 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 |

Certifications & Tests

CERTIFICATIONS AND LISTINGS

IEC 61215:2021 & 61730-1:2016 CE
IEC 61701 Salt Mist Corrosion
IEC 60068-2-68 Dust and Sand Resistance
IEC 62716 Ammonia Corrosion
UL 61730 1500V Listed
BS

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

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