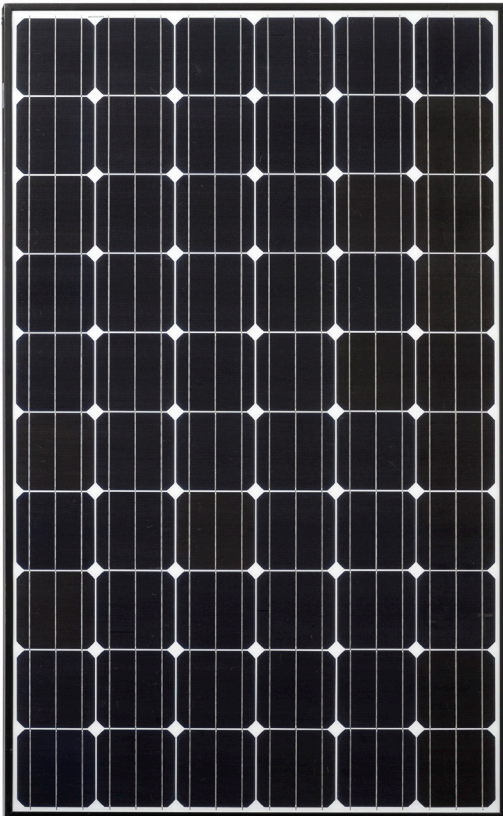


HIGH-POWER, HIGH-ENERGY PV MODULES

For years, the industry's most selective customers have turned to First Solar for our commitment to manufacturing excellence, module reliability, and financial stability. But those who require maximum power-density have had to go elsewhere...until now. Introducing the First Solar TetraSun line of high-performance mono-crystalline PV modules. Our proprietary technology offers a step-function improvement in power per cell and more energy per Watt installed versus conventional crystalline offerings because we redesigned the cell architecture and manufacturing process from the ground up for superior performance.



– INDUSTRY LEADING POWER OUTPUT

First Solar's breakthrough, proprietary mono-crystalline technology produces approximately 20% more power per panel versus conventional crystalline offerings making them ideally suited for rooftop, carport and space-constrained applications. More power per panel means less time and money spent on installation and more power and revenue from the same site area. The result is superior returns for installers and system owners.

– INDUSTRY LEADING ENERGY PRODUCTION

First Solar TetraSun PV modules have one of the lowest temperature co-efficients of any crystalline PV technology and are designed to eliminate effects like LID and PID which degrade module performance of conventional crystalline modules. As a result, TetraSun modules produce up to 10% more energy than standard crystalline modules with the same power rating and 25%+ more energy versus conventional crystalline solutions using the same site area. Greater energy production results in greater system revenue.

– PREMIUM QUALITY AND RELIABILITY

First Solar's commitment to developing superior products and ability to stand behind our offerings is unmatched in the solar industry. We invest more in research and development than any other PV manufacturer and have the strongest financial position in the industry so our customers can buy with confidence. First Solar TetraSun PV modules are manufactured in an ISO 9001 (quality), 14001 (environment), and 18001 (safety) certified facility and are IEC 61215, IEC 61730, IEC 61701 and JET certified.

FIRST SOLAR TETRASUN PV MODULE

ELECTRICAL SPECIFICATIONS AND RATINGS AT STC^{1,2}

MODEL NAME		TS-290	TS-295	TS-300
Rated Power (-0%/+5%)	P _{MPP} (W)	290	295	300
Module Efficiency	%	17.7	18.0	18.3
Voltage at P _{MAX}	V _{MPP} (V)	34.17	34.43	34.69
Current at P _{MAX}	I _{MPP} (A)	8.50	8.58	8.66
Open Circuit Voltage	V _{OC} (V)	41.4	41.7	42.0
Short Circuit Current	I _{SC} (A)	9.20	9.27	9.35
Maximum System Voltage	V _{SYS} (V)	1000 DC (IEC)		
Limited Reverse Current	I _R (A)	15		
Series Fuse Rating		15A		
TEMPERATURE CHARACTERISTICS				
Normal Operating Cell Temperature	NOCT	46°C		
Temperature Coefficient of P _{MAX}	T _K (P _{MAX})	-0.35%/K	-0.33%/K	-0.31%/K
Temperature Coefficient of V _{OC}	T _K (V _{OC})	-0.26%/°C		
Temperature Coefficient of I _{SC}	T _K (I _{SC})	+0.04%/°C		
Operating Temperature		-40°C Minimum 85°C Maximum		

¹ All ratings ±10%, unless specified otherwise. Specifications are subject to change.

² Standard Test Conditions (STC) 1000W/m², AM 1.5, 25°C

PHYSICAL CHARACTERISTICS

Solar Cells	60 156 x 156mm First Solar High-Efficiency Mono-Crystalline Cells
Front Glass	Anti-Reflective Coated Tempered Glass
Junction Box	IP-67 Rated with 3 Bypass Diodes
Output Cables	1000mm cables / Kitani Connectors
Frame	Anodized Aluminum
Approximate Weight	18.2kg
Dimension (L x W x H)	1640 x 1000 x 34 mm
Module Area	1.64m ²

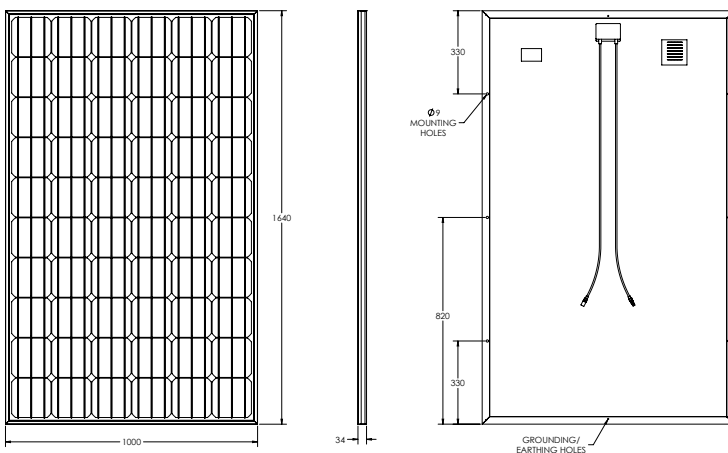
PACKAGING SPECIFICATIONS

Modules per pallet	29
Pallets per 40' container	28
Pallet Dimensions (L x W x H)	1684 x 1044 x 1213 mm
Approximate Pallet Weight	572kg

WARRANTIES

25-year Limited Power Warranty
10-year Limited Workmanship Warranty

MECHANICAL DRAWING



Disclaimer

The information included in this preliminary 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 preliminary Module Datasheet.

The First Solar logo, First Solar™, and all products denoted with ® are registered trademarks, and those denoted with a ™ are trademarks of First Solar, Inc. TS High-Performance Module | APR 2015 Preliminary Draft | © Copyright 2015, First Solar, Inc.



First Solar®

www.firstsolar.com