

Solar FlexRack *TDP*TM 2.0 Trackers + First Solar Series 4



**SOLAR
FLEXRACK**TM
A Division of Northern States Metals

The High Yield Advantage

Solar FlexRack is one of the market's most trusted brands in solar racking solutions. Innovative, dependable and cost-competitive solar trackers, fixed tilt racking and project services, dramatically reduce project risks for solar project asset owners and EPCs.

Combine Solar FlexRack's proven track record with First Solar's advanced Series 4 modules for higher project energy yields and ultra-dependable solar project installations.

Solar FlexRack Racking Features

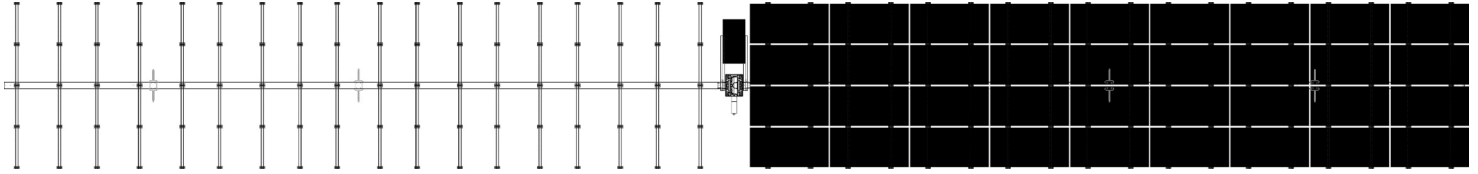
- First Solar Series 4 modules are mounted 4 high in landscape to maximize energy density
- Flexible configurations are available for 1,000V or 1,500V systems supporting up to 4 x 70 (1000V) and 4 x 75 (1500V)
- Fully pre-assembled module interface bracket and vertical rail system safeguard the modules' glass-on-glass construction, reducing installation costs
- Pre-installed clamps for best-in-class construction and shorter installation times
- Module mounting clamps are First Solar approved and field proven
- Independent high-density rows coupled with a module design that is robust against shading in landscape orientation delivers superior land usage and power generation

The System Features

- The high-density design provides a completely integrated & efficient solution
- Higher performance than conventional modules in high temperatures, high humidity, and extreme desert and coastal environments
- Proven track record of reliability and industry-leading durability
- A fully bankable solution with a lower levelized cost of energy that delivers better system performance in real world conditions



Solar FlexRack TDP™ 2.0 Trackers for First Solar Series 4



Standard landscape configuration of First Solar Series 4 modules mounted on Solar FlexRack TDP 2.0 Trackers. Full array not pictured.

Materials

Module Mounting Hardware	Aluminum, Sanoprene™ and Magni 500 coating
Racking Hardware	Hot Dip Galvanized (HDG)
Racking Structure	G90, ASTM 1057, Hot Dip Galvanized (HDG) per ASTM123 or greater for high corrosion areas
Foundations	Hot Dip Galvanized (HDG) per ASTM123

Design

Orientation	4 High in landscape (preferred)
Array Configuration	Optimized for 1000V or 1500V @4x60
Rotational Range	+/- 55°
Environmental	Up to 50 psf snow and -30° C temperatures
Racking Slope Tolerance	10% e/w and n/s slope accommodation governed by post installation capabilities (does not adversely affect design)
Racking Snow/Wind Loading	Per ASCE7-10 local site specific requirements
Ground Coverage Ratio (GCR)	Combined racking and module solution is flexible & tolerates higher than typical GCR (.33 to .50)
Foundations	SAT is designed to incorporate optimal string sizes allows for 7 posts per 180 modules
Foundation Types	W-sections, roll formed smartpost, round post, ground screw, helical pier, ballast (pre-cast or cast in place)
Module Mounting Types	Pre-assembled aluminum clamps with Santoprene isolation
Warranty & Design Life	10-year controls, 20-year product, 30-year service on (HDG) components
Design Standards	Per ASCE7-10 local site-specific requirements, UL2703

Controls & Actuation: Single Axis Tracker (SAT)

Drive	Distributed (slew drive), 24 volts dc motor, 1Ø
Controls	Integrated and optimized with self powered (optional) and wireless communication
Bearing	Bearing UV-rated PTFE – no lubrication needed
Wiring	No external wiring to controller for power or comms.
Construction	Mechanical connections bolted

40 Years & Over 2.0 Gigawatts

Solar FlexRack, a division of Northern States Metals, is an integrated solar company that offers custom-designed, fixed tilt ground mount and single-axis solar tracking systems in the commercial, community solar and utility-scale solar mounting industries. Solar FlexRack offers full turnkey packages including engineering, geotechnical, pullout testing, field, layout, and installation services to address the actual site conditions of an installation and provide a full scope of services from design to delivery and installation. Solar FlexRack has completed over 2 GW of solar racking installations in 40 states across America and five countries globally.

For more information on Solar FlexRack visit: www.solarflexrack.com

