

# Engineered to optimize First Solar® technology.

## DuraTrack® HZ v3 with First Solar

The latest evolution of the DuraTrack HZ v3 features an optimized interface for mounting First Solar thin-film modules. Together, these two powerhouses deliver superior energy performance and reliability to your solar plants.



### **RAPIDCLAMP™**

RapidClamp utilizes First Solar's Series 6 innovative Speedslot. As simple as SET-CLICK-CLAMP Array's patented single bolt module clamp ensures error-proof alignment of Series 6 module N-S and E-W. Installers torque a single bolt to securely fasten and ground the module for installation in as little as 11 seconds per module.



### **HIGHEST POWER DENSITY.**

Combine the high density made possible by the DuraTrack HZ v3 with First Solar's thin film module performance advantage for winning returns. You can boost production within a tight footprint by taking advantage of up to 6% higher tracker density and no module gaps.



### **LEADING TERRAIN ADAPTABILITY.**

DuraTrack HZ v3 flexibly linked architecture, with articulating driveline joints and forgiving tolerances, creates the most adaptable system on the market for following natural land contours while creating the greatest power generation potential from every site.



### **FEWER COMPONENTS. GREATER RELIABILITY.**

Reducing the number of sensitive components has resulted in the highest operational uptime in the industry. Many other trackers have 166 potential failure points for every 1 in the DuraTrack HZ v3. First Solar modules also have years of proven reliability in harsh environments.



### **ZERO SCHEDULED MAINTENANCE.**

The tracker's gearboxes are sealed and lubricated for life, resulting in zero scheduled maintenance. All tracker rows self-calibrate twice daily, ensuring each row is always at the optimal tracking angle. Uninterrupted module rows with First Solar Series 6 create a robot-ready design permitting autonomous module cleaning.

**OUR EXPERIENCE. YOUR ADVANTAGE**

Array Technologies made history in 2013 with the successful integration of First Solar thin-film modules on single-axis solar trackers at the 265 MW Mt. Signal Solar. The largest thin-film solar tracking facility in North America at the time, it boasts more than three million First Solar thin-film modules mounted on a DuraTrack HZ single-axis tracking system.

**THE ARRAY ADVANTAGE**

Array Technologies is the worldwide leader in tracking solutions for utility and commercial solar electric generation systems, with multiple gigawatts across the globe. After 30 years in the industry, Array's innovations in solar tracking continue to provide the best leveled cost of electricity through reliable, easy to install and maintain systems. Array Technologies' solutions are engineered in the USA.

**ARRAY TECHNOLOGIES, INC.**

3901 Midway Place NE  
Albuquerque, NM 87109 USA

+1 505.881.7567  
+1 855.TRACKPV (872.2578)  
+1 505.881.7572

sales@arraytechinc.com

**arraytechinc.com**

**30 GW** YEARS OF OPERATION

**167x** FEWER COMPONENTS THAN COMPETITIVE TRACKERS

**STRUCTURAL & MECHANICAL FEATURES/SPECIFICATIONS**

Tracking Type	Horizontal single axis
Less than 1 Drive Motor / MW	~1 MW DC
String Voltage	Up to 1,500V DC
Maximum Linked Rows	32 rows for both Series 4 & 6
Maximum Row Size	Series 4 - 240 Modules Series 6 - 78 Modules
Drive Type	Rotating gear drive
Motor Type	2 HP, 3 PH, 480V AC
East-West/North-South Dimensions	Site / module specific
Array Height	Series 4 - 54" standard, adjustable Series 6 - 48" standard, adjustable (48" min. height above grade)
Ground Coverage Ratio (GCR)	Flexible, 32.5-45% typical, others supported on request
Terrain Flexibility	N-S tolerance: 0-15% standard, 26% optional; Driveline: 40° in all directions
Modules Supported	First Solar Series 4 & Series 6
Tracking Range of Motion	± 52° standard, ± 62° optional
Operating Temperature Range	-30°F to 140°F (-34°C to 60°C)
Module Configuration	Series 4 - Four in landscape Series 6 - One in portrait
Module Attachment	Series 4 - Array's single-fastener bracket with integrated grounding attaches to First Solar module interface bracket containing pre-installed clips Series 6 - Compatible with Array patented single-fastener module clamps with integrated grounding, Series 6 with Speed Slot™ is seamlessly compatible with Array's RapidClamp® module clamps with integrated grounding
Materials	Pre-galv steel, HDG steel and aluminum structural members, as required
Allowable Wind Load (ASCE 7-10)	120 mph, 3-second gust exposure C, custom designs available for higher wind speeds
Wind Protection	Failure free passive mechanical system protects against wind damage without the use of complex communications systems, batteries — no power required

**ELECTRONIC CONTROLLER FEATURES/SPECIFICATIONS**

Solar Tracking Method	Algorithm with GPS input
Control Electronics	MCU plus Central Controller
Data Feed	MODBUS over Ethernet to SCADA system
Night-time Stow	Yes
Tracking Accuracy	± 2° standard, field adjustable
Backtracking	Yes, optional. Adjust to optimize

**INSTALLATION, OPERATION & MAINTENANCE**

PE Stamped Structural Calculations & Drawings	Yes
On-site Training and System Commissioning	Yes
Connection Type	Fully bolted connections, no welding
In-field Fabrication Required	No
Dry Slide Bearings and Articulating Driveline Connections	No lubrication required
Scheduled Maintenance	None required
Module Cleaning Compatibility	Robotic, Tractor, Manual

**GENERAL**

Annual Power Consumption (kWh per 1 MW)	400 kWh per MW per year, estimate
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