DuraTrack® HZ v3
with First Solar

RELIABILITY IS POWER.

THE (R)EVOLUTION IN TRACKER DESIGN CONTINUES

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.

THE MOST RELIABLE TRACKER UNDER THE SUN

EVOLVES FURTHER FOR SEAMLESS INTEGRATION WITH FIRST SOLAR MODULES.

GREATEST 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.

HIGHEST PERFORMANCE.

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.

OPTIMIZED INSTALLATION.

With the fewest fasteners of any option, DuraTrack HZ v3 provides a seamless mounting solution for First Solar modules. This streamlines the most labor-intensive step, adding up to big savings. The robust mounting interface is designed and tested to withstand up to 2400 pascals.

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 that 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.

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

DuraTrack® HZ v3
with First Solar

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 more than 28 years in the industry, Array's innovations in solar tracking continue to provide the best levelized cost of electricity through reliable, easy to install and maintain systems. Array Technologies' solutions are engineered in the USA.

STRUCTURAL & MECHANICAL FEATURES/SPECIFICATIONS	
Tracking Type	Horizontal single axis
MW per Drive Motor	~ 1MW 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 – 72 modules
Drive Type	Rotating gear drive
Motor Type	2 HP, 3 PH, 480V AC
Motors per 1 MW AC	1 – 2, depending on module power rating and DC/AC ratio
East-West / North-South Dimensions	Site / module specific
Array Height	Series 4 – 57" standard, adjustable Series 6 – 48" standard, adjustable (48" min height above grade)
Ground Coverage Ratio (GCR)	Flexible, 32.5 – 45% typical
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
Materials	HDG steel and aluminum structural members
Allowable Wind Load (IBC 2012)	115 mph, 3-second gust exposure C, custom designs available for higher wind speeds
Wind Protection	Passive mechanical system relieves wind and obstruction damage — 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 production.
INSTALLATION, OPERATION & MAINTENANCE	
PE Stamped Structural Calculations & Drawings	Yes
On-site Training & System Commissioning	Yes
Connection Type	Fully bolted connections, no welding
In-field Fabrication Required	No
Dry Slide Bearings & 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, estimated
Land Area Required per 1 MW	Approx. 5.75 – 6.5 acres per MWDC @ 33% GCR (site and design specific)
Energy Gain vs. Fixed-Tilt	Up to 25%, site specific
Warranty	10 year structural, 5 year drive & control components
Patent Numbers	US patent 8,459,249 US patent 9,581,678 B2 and patents pending
Codes and Standards	UL Certified (3703 & 2703); IEC 62817

UL LISTED IEC 62817 CE

REV 09.20.2018