

# RayTracker GC

Rugged, Reliable, Cost-Effective Solar Tracking



RayTracker GC by Energy Innovations is a single-axis solar tracker for ground-mount and carport-mount applications that maximizes the energy yield of a photovoltaic system.

The RayTracker™ GC solar tracker supports a wide range of the leading, available PV panel types. By using RayTracker GC in your PV system, you will be assured of best-in-class engineering and on-going support. The Energy Innovations™ team developed RayTracker GC with a focus on performance, reliability and low installed cost.

## Significant Energy Yield Increase

- Up to 38%<sup>1</sup> increase in annual energy production compared to flat PV panels
- Proprietary, tracker-to-tracker Shade Avoidance Technology
- Low actuation energy use
- Precision distributed actuation for increased tracking accuracy over entire installation

## Flexible and Low-Cost Installation

- Factory pre-assembled components significantly reduce installation time and labor
- Actuator-per-tracker and fractional trackers maximize layout flexibility
- Structure is factory finished with a long-life, exterior powder coat
- Supply chain in place to deliver product in high volumes

## Built-in Reliability

- Actuator and one structural element are the only moving parts
- Custom, low-friction bearings cycle-tested beyond product lifetime under full load
- Microprocessor- and GPS-based controller requires no adjustment or calibration
- Certified for up to 85mph/136kph wind zones and Seismic Zone 4
- Stowing feature for maintenance
- Night time 10° automatic stow for panel run-off
- Mechanism obstruction sensing and automatic recovery
- Anti-theft panel security fastener kit available
- Designed for 25-year field deployment<sup>2</sup>

## Quality First

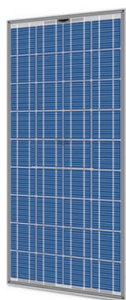
- PE-Stamped engineering package for structural engineering and permitting
- Actuator is custom engineered by major US manufacturer to RayTracker requirements
- Two (2) year limited warranty on parts<sup>3</sup>
- Proudly built in the USA

# RayTracker GC

## Technical Specifications

<b>Annual Energy Increase</b>	Over flat PV	Up to 38% <sup>1</sup>
<b>Operating Specifications</b>	Tracking Accuracy	+/- 5° is typical; +/- 10° is maximum
	Range of Motion	+/- 45° from zenith
	Tracking Method	GPS, time-derived positioning with proprietary Shade Avoidance Technology
<b>Installation Zoning</b>	Wind (withstanding)	85mph/136kph (maximum) (3-second gust) (Exposure D) (ASCE 07-05/IBC 1997/CBC 2007)
	Seismic	Zone 4 (UBC/CBC)
<b>Hardware Components</b>	Dimensions	Length: 79.7ft (23.4m) Height: ~6ft (1.8m) Width: Varies by panel, see below
	Weight	~1800 lbs, 817 kg
	Panel Attachment Method	Bolting from bottom to ensure no shading
	Included	Horizontal beams, bearings, vertical post caps, actuator assembly and 1 controller per 12 trackers
	Not included	PV panels, vertical posts, foundations/supports, wiring, PV panel wire strain reliefs, and panel grounding hardware
<b>Stowing</b>	Method	Manual switch between stowing and normal operation
	Configurations	0° user-initiated stowing, 10° autonomous stowing at night
<b>Controller Specifications</b>	Architecture	Centralized controller with microprocessor (per 12 trackers)
	Shade Avoidance Technology	Included in controller
	Actuator and controller energy consumption	12 Watt-hours per day (typical)

## Supported Panels



Panel Name	Tracker Width	Panels per Tracker
Evergreen ES-190/195/200	76in (1.93m)	30
Kyocera KD 205GX-LP	79in (2.0m)	30
Sharp ND-216U1F	79in (2.0m)	28
Suntech STP-170/175/180-24/Ab-1	64in (1.63m)	30
Suntech STP-190/200/210-18/Ub	79in (2.0m)	32
Suntech STP-260/270/280-24/Vb	79in (2.0m)	24

Additional panels are supported. Contact us for details.

[www.energyinnovations.com](http://www.energyinnovations.com)  
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The Energy Innovations mission is to deliver cost effective, grid-competitive solar electric power.

<sup>1</sup> Performance estimates are for reference only. Estimates are generated by Energy Innovations using PWWatts Version 1 Software from the National Renewable Energy Laboratory (<http://www.nrel.gov>, [www.pvwatts.org](http://www.pvwatts.org)). Site engineers planning to install RayTracker should use their software of choice to estimate performance as results may vary for a particular location and set of environmental conditions. <sup>2</sup> Design process included applying sound engineering, state-of-the-art software tools and 3rd party standards and reviews, as well as accelerated life testing on key components. End user is required to maintain tracker to specification. <sup>3</sup> The only warranty from Energy Innovations, Inc. is set forth in the express warranty statement that accompanies the product or services. Nothing herein shall be construed as an additional warranty.