Suntactics Solar Tracker Specifications

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Solar Panel Usage

Panels per tracker	4 Panels, Panels not included
Standard Panel Size	<= 74"H x 41"W
Large Panel Size	Max height 84" x >41" wide. May require modifications
Total weight with panels	300-350 lbs
Footprint with panel array flat position	84" x 120" Depending on panel size
Solar Railing	Ironridge XR100 Standard rails
Panel Mount Fasteners	Standard Panel clamps, Ironridge "Camo" clamps

Compliance

Codes and Standards	IBC 2018, CBC 2019, ASCE 7-16, ACI 318-14
Wind Resistance	Certified, in accordance (A SEE7-10) 120mph
Concrete	Slab on grade and footings 3000psi
Rebar Reinforcement	Typical ASTM A615:GR 60
Bolts,Anchor Bolts	ASTM A307;Galvanized

Structural

Steel Post	67 inches high, 4"x4" square tube, 14" plate, 4 - 3/4" holes, 8" centers.
Frame	T-6061 Aluminum tig welded upper frame
Hardware	Stainless Fasteners
Pivot bearings	12 high load bronze powder bearings, 6 thrust bearings
Machine design	CNC, Laser cut, Tig welded. Cad designed

Foundation

Pier Hole Depth	3-4 feet, 5 Feet in colder ground freeze climates
Pier Hole Width	18-20"
Square pad alternative	6'x 6' x 6" with outer skirt depth 6"
Pier Material	Concrete, rebar reinforced
Distance Between Trackers	15-25' Based on placement, diagonal or back tracker

Power Capabilities

Stationary Power	1.4 - 1.6 Kw depending on PV power rating
Power rate delivery per tracker	Daily Average 6-10kWh, Depending on Season, Up to 40% more power
Estimated ROI	3-5 years depending on Kwh rates

Mechanical Drive

Actuator N/S	12-24 volt, 1500N (330Lbs), 14" stroke
Actuator E/W	12-24 Volt, 1500N (330Lbs)), 18" stroke
Actuator power consumption	1 amp spike, .5 amp average
Azimuth Tracking	60 degrees West, 60 degrees East, Approximate
Altitude Tracking	40 degrees Down, 100 Degrees up
Tracking Type	Tilt-Tip
Tracking Directions	Dual Axis

Solar Tracking Control and Features

Solar tracking control module	Dual axis sensor, Motor drive relays, Programmable (preset at factory)
Battery Assist	4S, 2600 mAh battery, provides controller power, charged with solar.
Manual override	Move the tracker with the push of a button
Return to East at sunset	Controller can be programmed to perform actions at sunset
Sleep mode power	50 Milliamps
Light level Settings	Programmable light sensing helps tracking properly in overcast conditions
Interval cycle	Programmable duty cycle. For example track every 5 minutes.
On board power battery	Useful for manual movement and tracking return
Solar assisted	Uses power from one panel in the array for power, other options available
Anemometer upgrade	Sense wind speed and direct tracker to flat position