

Suntactics Solar Tracker Specifications



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www.suntacticssolartrackers.com

Solar Panel Mounting Detail

Panels per tracker	4 Panels, Panels not included
Standard Panel Size (4 per tracker)	<= 78"H, <=46"W
Max Panel Size With Modifications (4 per tracker)	84" x <=45"
Total weight without panels	165 lbs
Total weight with panels(not included)	285- 325 lbs depending on panel weight (typical 40-50 lbs each)
Total tracker footprint with panel array flat position	90" x 120" Depending on panel size
Solar Railing	Ironridge XR100 Standard rails
Panel mount clamping	Standard panel clamps or Camo clamps from Ironridge brand (not included)

Compliance

Codes and Standards	IBC 2018/CBC 2022, 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 5/8" <=12"
Engineering	Engineering stamp available upon request.

Structural

Steel Post	67" high, 4"x4" x 3/16" standard steel square tube, 14" x 1/4" plate, welded gussets post to plate, multiple 3" weld joints, 4 - 3/4" holes on plate, 8" centers
Upper Frame (H-Frame)	96" x 36" x 2" tubes. (3/16" tube thickness). T-6061
Pivot bar	Multiple dimensions 3/16" and 1/4" tube thicknesses. T6061
Hardware	Stainless Fasteners, bolts nuts, pins
Pivot bearings	12 high load bronze powder bearings, 4 thrust bearings
Construction	CNC, Laser cut, Tig welded.

Foundation

Pier Hole Depth	3-4 feet, 5 Feet in colder ground freeze climates
Pier Hole Diameter	24"
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 without movement.	1.4 - 1.6 Kw depending on PV power rating
Solar power with movement	Daily Average 6-10kWh, Depending on Season, Up to 40% more power

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	.5-1 Amp, during movement
Azimuth Tracking East to West from flat position	60 degrees down West, 60 degrees down East, Approximate
Altitude Tracking South to North from flat position	40 degrees down towards South from flat position. Adjustable.
Tracking Type	Tilt-Tip (non rotating head) Dual Axis

Solar Tracking Control and Features

Solar tracking control module	Dual axis type, light sensor, configurable settings
Battery Assist	4S, 2600 mAh battery, provides controller power, charged with solar.
Manual override	Move the tracker manually as needed
Return to East at sunset	Controller can be easily configured 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.
Solar assisted power to move tracker	Uses solar power to charge on-board battery, auxiliary solar panel included
Anemometer upgrade	Sense wind speed and direct tracker to desired position(ie flat position)