OPEL® Solar

Harnessing the sun
through concentration

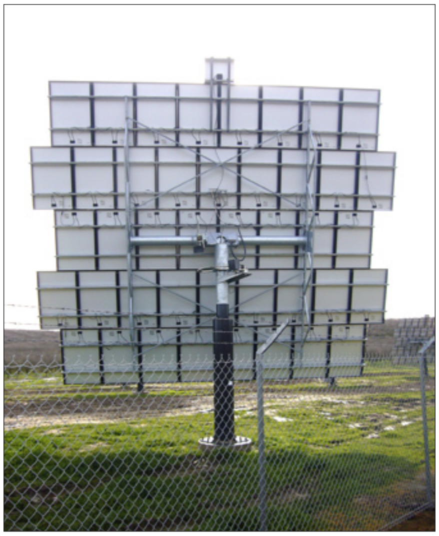
SF-45
Dual Axis Tracker

High Performance

The **SF-45** has a tracking accuracy of ±1° which can be improved by means of an optional solar probe down to ±0.1° to ensure that the panels production potential is fully utilized.

Large Scale

The **SF-45** is a large capacity tracker that has been specifically designed for applications requiring a solar tracker capable of holding a large number of solar modules.
The high performance **SF-45** dual axis tracker can be customized to fit any size panel, for applications that involve large high wattage PV or solar thermal panels.



Ease of Installation

The **SF-45** dual axis tracker can be assembled by a two man team without any field welding and secured to the ground by means of a concrete poured foundation.

Cost Effective Networking

The large scale **SF-45** tracker control system has networking capabilities which allow for the sharing of common resources in a solar field, such as a GPS unit, which provides accurate time and pin point location updates, and an Anemometer to protect the trackers in the event of extreme wind conditions. The networking capabilities also allow for remote monitoring and programming, reducing the onsite maintenance costs.

Reliability

The OPEL **SF-45** has been in production for the past 10 years and can be seen operating at high performance levels in installations around the world.

1. The estimate is based on data from NREL's PV Watts calculator comparing solar collectors on a fixed installation at Latitude Tilt and the same number of panels mounted on the dual axis tracker at a location in Southern California.

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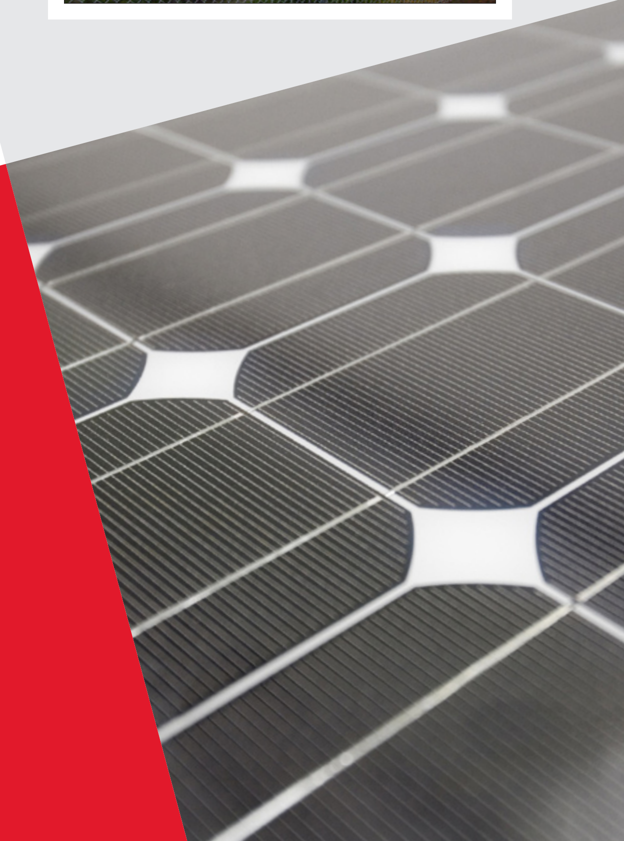


In a typical application, the high performance SF-45 dual axis tracker can increase the yield of silicon flat plate panels as much as 45% compared to fixed installations [1].

Physical Data

Type	2 axis
Height when vertical	242 in (6.1 m)
Width	275 in (7 m)
Depth when horizontal	236 in (6 m)
Total weight	1275 lbs (578 kg)
Frame weight	600 lbs (272 kg)
Wind resistance	90 mi/hr (145 km/hr)
Limited warranty	5 years [1]

Electrical Characteristics

Operating voltage	12 V
Consumption	200 Wh/day
Tracking accuracy (open loop)	±1°
Tracking accuracy (closed loop with sun sensor)	Typical: ±0.1° Maximum [3]: ±0.3°

Capacities

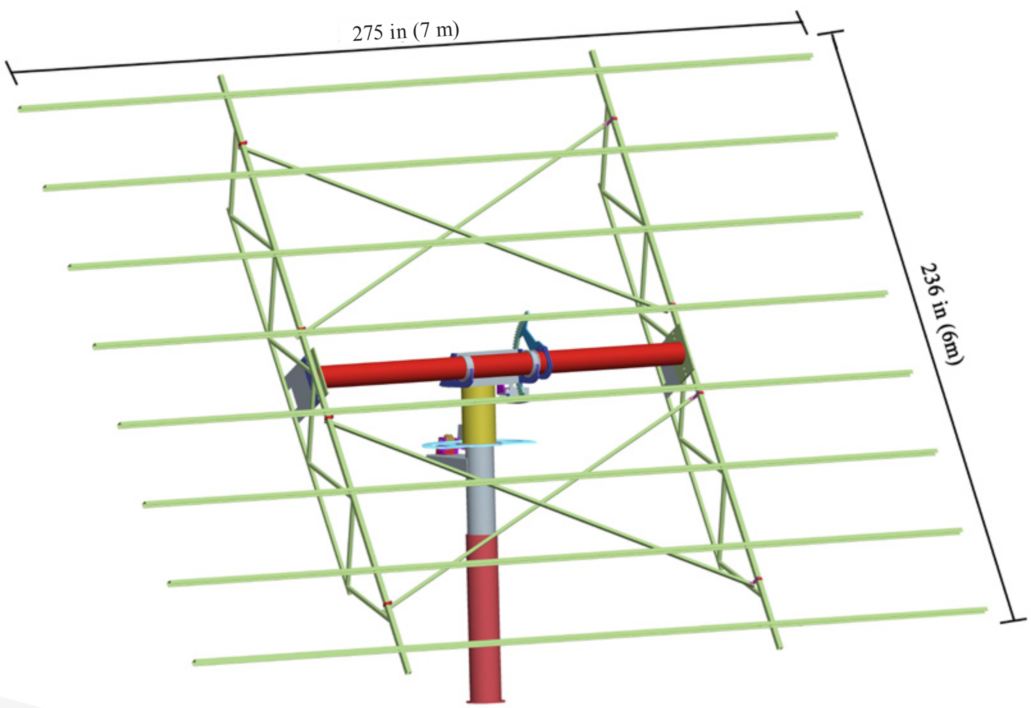
Module area	236 x 275 in (5.9 x 7 m)
Electrical yield (approx.) [2]	6300 W
Weight capacity	1650 lb (748 kg)
Weight fully loaded	2925 lb (1327 kg)
Rotation in azimuth	205°
Inclination angle range	90°

Shipping Dimensions

Volume	67 cu ft (1.9 m^3)
Length (max)	324 in (8.2 m)
Weight	1275 lb (578 kg)
Number per container	14

1. Warranty: Ten Year Repair, Replacement Warranty. Freedom from defects in materials and workmanship under normal application, installation, use and service conditions. Please refer to our detailed limited warranty for additional details.
2. Based on installing thirty-six 175 W PV panels (1.57 x 0.808 m)
3. Operating under wind conditions and cloudy skies

Diagram



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