



Solar Tracker ST-4

- **automatic tracking frame positioning for brightest spot in sky**
- **single axis linear actuators design**
- **easy to assemble , maintenance free**
- **total surface solar modules up to 4sq. m.**
- **very light and durable**
- **designed to withstand the wind 150km/hour**
- **excellent solution for portable solar power generation**
- **structural aluminum module support frame**
- **seasonal angles manual or automatic adjustments**
- **electronic MOSFET transistors tracker controller works from 12 volts to 48 volts power supply**
- **2-years warranty**

Performance and construction

Solar tracking systems SUNFLOWER ST series increase the energy output of PV array about 30% - 55% compared to the fixed PV array with the same rated output power.

Automatic seasonal tracking also increase annual energy output 5-7%

Efficiency use of tracker depends of the latitude of the region and time of season: in New South Wales at summer time maximum increase of daily energy output is 55%, in Tasmania at winter daily energy gain reduces to 30%.

Tracked array produce maximum energy equally from early the morning to the late afternoon.

At reduced light intensity the dark sensor returns tracker automatically to the morning east position.

Heavy-duty low speed actuator is completely protected against overload.

Electronic Controller Unit works in 5 seconds pulse working and 30 min waiting period mode.

Two Photovoltaic sensors always pointing the unit to the brightest spot in sky.

MOSFET transistors make Control Unit more reliable compared to the conventional units on relays.

During accelerated tests tracker performed 4,000 tracking cycles, representing 11 years of field operation. Little wear only has been observed on components of the driving unit



TABLE 1 ST-4 TRACKER SPECIFICATION

Total surface of solar modules	Tracking East –West	Elevation	Pole size	Total weight	Type of tracker controller	Type of motor	Frame
4 sq. m	170 degrees	0-90 degrees	89 mm, or 100x76mm	23 kg (without pole)	12-48 Volt DC Electric with PV sensors	Linear actuator 24-inch DC 12 Volt	Two vertical channels 32x60x4mm Maximum length 3250mm* Cross bars: Angle 65x65x5mm- 1m* Rectangular 102x76x2.5mm-1m*

*Please call us to arrange maximum length of channels

Mounting and foundation

Pole : outer diameter 89mm,4mm thickness;
length 1.8m above the ground, 1.25 meter in the ground with a concrete support 0.7 m3

Packing and delivery

Aluminium frame bundle 3250x100x100mm
Carton box 410x450x200mm with Polar mount, Assembling bolts and nuts
Carton box 800mmx160mmx90mm with: actuator 24-inch
Tracking controller STU-48
Assembling instruction
Gross weight 29kg
Mounting pole is optional
Portable version available with easy assembling cross supported aluminum rectangular mounting pole, 100mm x 76mm , 1520mm

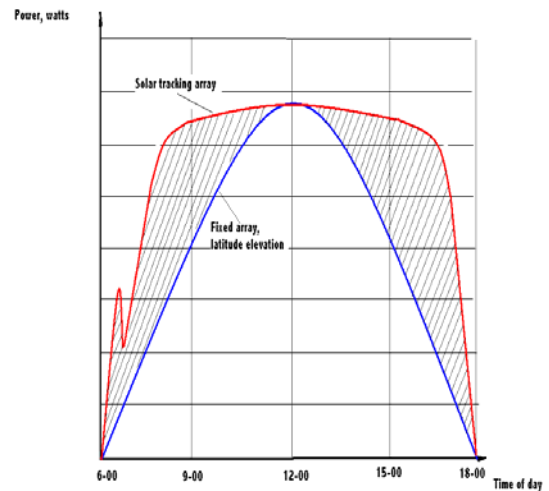


Fig.1 Sunny day power/time dependence