



## Solar Tracker Sunflower ST-12(STD-12)

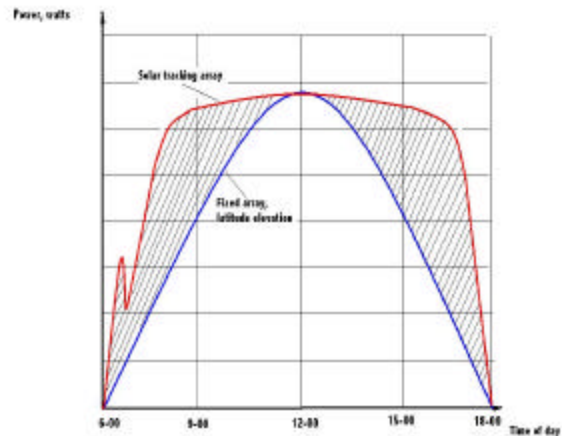
**automatic tracking frame positioning for brightest spot in sky**  
**single/dual axis linear actuators design**  
**easy to assemble , maintenance free**  
**total surface solar modules up to 12sq. m.**  
**very light and durable**  
**designed to withstand the wind 130 km/hour**  
**structural aluminum 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.



***Polar mount round pole***



**TABLE 1 SI-12 TRACKER SPECIFICATION**

Tracker model	Total surface solar module	Tracking East –West	Elevation	Pole size	Total weight (without pc)	Type of tracking controller	Type of motor	Frame
ST-12	12 sq. m	170 degrees	0-90 degree	100x100mm	43 kg	12-48 Volt DC Electric with PV sensors	Linear actuator 36-inch HD DC 36Volt	Four vertical channels 32x60x4mm Maximum length 3250mm Cross bars: Angle 65x65x5mm- 2.17 Rectangular 102x76x2.5mm-2.17m*
STD-12					57kg	Two controller 12-48 Volt DC Electric with PV sensors	Two Linear actuator 36-inch HD DC 36Volt	



**ST12 Tracker**



**STD12 Tracker**

**Mounting and foundation**

Pole:

Square 100mmx100mm, 6mm thickness

length 2.5m above the ground, 1.25 meter in the ground

Concrete support cube 1.5x1.5x1m above the ground (only recommended, depends of soil conditions)

**Packing and delivery**

Aluminium frame bundle 2200x102x76mm

3250x65x80mm

Carton box with Polar mount: 450x450x200mm

Assembling bolts and nuts

Carton box 1200mmx230mmx160mm with: heavy duty actuator 36-inch

Tracking controller STU-48

Assembling instruction

\* For STD-12 option only: Carton box 1200mmx230mmx160mm with: Heavy duty actuator 36-inch

Gross weight 48kg (62kg for STD-12)

Mounting pole is optional.