



The dual axis solar tracker (Model No.: V-SOL-2A2P) is an all-weather positioning platform used to point specialized instruments/sensors at the sun's movement across the sky. It is fully automatic and does not require a computer or software installation to control the tracking of Sun movement. The integrated GPS receiver automatically configures location and time data. An RS-232 port allows for software upgrades. The high- efficiency gear drive system requires no maintenance. The tough and distinctive cast aluminum housing has an integrated tripod stand with leveling feet. A side plate with mountings for a pyrheliometer is included as standard and a second side mounted plate can be fitted for an additional pyrheliometer.

Specifications:

• Axis of Motion	Two Axis
• Pointing Accuracy	+/-0.2°
• Resolution	0.01°
• Transmission	Stepper motor Gear driven (no belt)
• Internal Clock	GPS Synchronized
• Torque	30Nm
• Payload Capacity	30Kg
• Max. Angular Velocity	5° /s
• Azimuth Rotation	540°
• Zenith Rotation	-90° to +90°
	without shading ball assembly
	-5° to +95°
	with shading ball assembly
• Over Rotation Protection	Optical Sensor
• Methodology	The system has a GPS (Global Positioning System) to acquire data i.e. Latitude, Longitude and exact GMT time etc. The movement of the sun
(Microcontroller and GPS	

based control)	tracker is controlled by stand alone 16 Bit low power MCU system (using GPS data) only. High sensitivity external antenna -159db, Low noise LNA & SAW band pass filter. There is no such dependency on a PC, laptop, palmtop or any other computer or data logger, after initial configuration, for unattended continuous tracking of the Sun.	
• Power Up	Automatic Zero tracking	
• Manual Adjustment	Provision of manual adjustment & orientation also provided for fine tuning after zero tracking on initial power up.	
• Operating Temperature	0 to 60°C -40 to 60°C	(without heater) (with heater & AC Mains operation)
• Environmental Protection	IP65	Suitable for all weather use
• Connectivity	RS232 (9600 baud)	(optional Ethernet/Wifi)
• Mounting	Tripod (balancing screws & spirit bubble provided)	Flat surface is required for installation
• Local Indications	Bright LEDs visible in sunlight	Power, Tracking & GPS synchronizing status.
• Mounting provision	Two Pyrheliometer Two Pyranometers	Mounting kit provided (if opted) Top Plate provided (if opted)
• Shading Ball assembly	For two nos. Pyranometer sensors	(If opted) Shading ball assembly with one or two shading ball arrangement (either or both can be used) for two nos. pyranometer sensors are provided
• Power Requirements	12V/4A (Max)	Optional : Battery, charging unit (mains/ Solar) & Solar panel & Tripod stand for mounting solar panel.
• Maintenance	Zero maintenance	(if operating on solar & batteries, lead acid batteries need annual replacement)

Ordering Guide:

SN	Description	Model No.
1	Tracker with Two Pyrheliometer mounting position	V-SOL-2A2P
2	Tracker with Two Pyrheliometer & Two Pyranometer mounting position	V-SOL-2A2P-P
3	Tracker along with Shading Ball Assembly for	V-SOL-2A2P-PS



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**** Drawing / specifications are subjected to change at any time without prior notice as per manufacturing suitability.**