

## Automatic Weather Station for Wireless Solar Meter and Weather Monitoring AWS-I Sunipod AWS-I

Solar weather station measures and records wind speed and direction, air temperature and relative humidity, barometric pressure, solar radiation, and rain specifically for solar power generation applications.

### HIGHLIGHTS

- State of the art sensors
- Wireless transmitters in unlicensed spectrum.
- Measures solar radiation.
- Rainfall data (inches or mm): 1-hour, 24-hour, one week, one month and total since last reset.
- Wind chill and Dew point temperature display (°F or °C).
- Wind speed (mph, m/s, km/h, knots, Beaufort).
- Wind direction display with compass.
- Weather forecast tendency.
- Weather alarm modes for: Temperature, humidity, wind chill, dew point, rainfall, wind speed, air pressure, storm warning.
- Barometric pressure (in Hg or Pa).
- Temperature display in °F or °C.
- All minimum and maximum values recorded along with time stamp.
- Very simple to install.
- Weather data from base station with adjustable measuring intervals can be recorded and uploaded to PC.
- USB port for easy connection to your PC.
- 12 or 24-hour time display.



### APPLICATIONS:

- Diesel Generator Alternative Using Solar Power Plants
- Lower Your Electric Bill Using Solar Power Stations

**SPECIFICATIONS**

Weather Station	AWS-I
Temperature Range	-40°C to 65°C
Storage	128 kbytes of nonvolatile flash RAM
Power Requirements	16 to 22 VDC
Radio Type	Spread spectrum 2.4 GHz
PC Connectivity	
Via USB	I/O data rate: 9600 bps
Antenna	
Description	Omni directional, ¼ wave, whip (fully enclosed in weatherproof housing)
Gain	0 dBd
Transmission Range	½ mile line of sight
Sensors	
Air Temperature	
Sensor	Thermistor
Operating Range	-40°C to 65°C
Temperature Accuracy	±0.5°C
Relative Humidity	
Sensor	Precision, temperature corrected, bulk polymer
Rh Accuracy	±5% for 90% to 100% Rh; ±3% for 10% to 95% Rh
Barometric Pressure	
Sensor	Piezoresistive transducer
Range	15 to 115 kPa (4.43 to 33.96 inches of Hg)
Accuracy	< ±1.5% of full scale reading, ±1.5kpa (0°C to +85°C), ±0.443 Hg
Rain Gauge	
Sensor	Tipping Bucket
Orifice	7.75 in <sup>2</sup> (50 cm <sup>2</sup> )
Resolution	0.04" (1mm)
Solar Radiation	
Sensor	Silicon pyranometer
Spectral Range	300 to 1100 nm
Accuracy	±2.5%
Operational Range	0 – 2000 W/m <sup>2</sup>
Temperature Range	-40°C to 65°C
Wind Direction	
Sensor	Vane
Range	360° mechanical, 352° electrical
Linearity	1%
Sensitivity	~1 m/s
Wind Speed	
Sensor	Cup anemometer
Starting Threshold	0.78 m/s

Specifications included in this datasheet are subject to change without notice. Electric data without guarantee.

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