

# PVmet™ 500 SERIES

Inverter companies worldwide have chosen RainWise as the #1 provider of meteorological stations for our proven reliability, easy deployment and accurate data. **Why?**

### Performance Benefits

- EKO precision solar sensors for efficient monitoring
- Operates over a broad range of temperature
- Easy set-up & fully assembled

### Tested Tough

- Durable & weather resistant • Ultra-violet inhibited
- Stainless steel hardware • Optional add-on sensors

### Multiple Communication Protocols

- SunSpec certified or compliant
- Integration via MODBUS RTU interface using RS-485



## FEATURES & OPTIONS

### SUPPORTS

- (3) Irradiance Sensors
- (4) Back-of-Panel Temp Sensors

### SENSORS

- Ultra Sonic Anemometer (Optional)
- Mini-Aervane (Optional)
- Ambient Temperature
- Relative Humidity
- Barometric Pressure
- Rain Gauge (Optional)



All RainWise PVmet Weather Stations are available with high-precision EKO pyranometers



## SPECSHEET PVmet 500

**Power Requirements** 10 to 30 VDC at 50mA

### Operating Environment

Temperature: - 40° to 60°C (- 40° to 140°F)  
Relative Humidity: 0-100%, Condensing

### Solar Irradiance Sensor Capabilities

Silicon Diode  
Thermopile  
Reference Cell  
Sensitivity: Down to 5uV per W/m<sup>2</sup>  
Analog Input: 0 to +/-2.5V  
Update Rate: 1Hz  
Resolution: 1W/m<sup>2</sup>

### Ambient Air Temperature Sensor

Range: - 40° to 80°C (- 40° to 176°F)  
Accuracy: +/- 0.3°C (.54°F)  
Thermal Time Constant: 30 sec.  
Resolution: 0.1°C

### Ultra Sonic Anemometer

Speed Range: 0.25-45 m/s (0.56 -100 MPH)  
Sensitivity: 0.13 m/s (0.29 MPH)  
Direction Range: Range: 0-359°  
Sensitivity: +/- 1°  
Independent of weather conditions  
Resolution: 0.1 m/s Resolution: 1°

### Back of Module (BOM) Temperature Sensors

Range: - 40° to 80°C(- 40° to 176°F)  
Accuracy: +/- 0.3°C (.54°F)  
Thermal Time Constant: 270 sec.  
Cable Length: 7.62m (25 ft)  
Resolution: 0.1°C

### Materials

Polyvinyl Chloride, Acrylonitrile Butadiene Styrene, Stainless Steel, Anodized Aluminum, Lexan®, Makrolon® 2658.

### RS-485 Serial Port

Mode: 2-Wire Half Duplex

Baud Rate: 9600, 19,2k  
Termination: Selectable

### Electronics

Lead-free RoHS Compliant

### Physical

Packaged Dimensions: 73.99cm x 35.56cm x 20.32cm (29" x 14" x 8")  
Packaged Weight: 3.17 kg (7 lbs.)



# PVmet™ 500 SERIES

EPCs worldwide  
choose RainWise Weather  
Stations for their versatility,  
reliability, precision &  
EASY installation

## Introducing

The RainWise PVmet 500 SERIES is the first multifunctional, component-based professional weather station designed and built specifically for PV efficiency monitoring.

RainWise PVmet™ Weather Stations provide strategic environmental data that will increase the value of any on-site monitoring system.

All RainWise weather stations are shipped to you fully assembled and factory calibrated, for rapid out-of-the-box installation with standard MODBUS RTU interface and all are SunSpec Certified.

