

PVmet™ Weather Station

Comprehensive Environmental Monitoring Solution

The RainWise PVmet™ family of weather stations offers a powerful add-on to any solar plant monitoring system. Featuring accurate sensors and standard communication integration, the PVmet™ is an economical addition to insure the highest PV panel output.

The **PVmet™- 330** is our **Complete Weather Data station**. It features sensors specific to PV power generation. This low cost station, full data station is compact and simple to install.

Features

- Global Solar Irradiance Sensor
 - Optional Plane of Array Irradiance Sensor
 - 1 or 2 PV Back-of-PV Panel Temp Sensor(s)
 - Ambient Air Temperature Sensor
 - Wind Speed Sensor
 - Wind Direction Sensor
 - Relative Humidity Sensor
 - Barometric Pressure Sensor
 - Rain Gauge Sensor
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- Ethernet Modbus TCP Option Available
 - Available with Private Labeling for OEM
 - SunSpec Pending



Sensors & Options

Ambient Air Temperature.

Housed in a passive solar shield.

Global Irradiance and Plane-of-Array Irradiance.

The irradiance sensors are adjustable and can be set to provide global irradiance (when horizontal) or plane -of-array irradiance when installed to match the PV panel angle.



PVmet™ –330***Back-of-Module Temperature.***

These sensors are attached to the back of the PV panel using thermal conductive adhesive tape. They provide accurate panel temperatures, an important parameter for efficiency monitoring. One sensor is shipped with each system. The **PVmet™-330** supports two sensors. The second may be purchased separately.

***Wind Speed and Direction***

A mini-aervane anemometer provides both wind speed and direction information.

Communications

The **PVmet™-330** has a single, 2-wire, half duplex, RS-485 port. Termination can be enabled or disabled using a jumper located near the RS-485 screw terminals.

By default the **PVmet™-330** is configured to operate as a Modbus slave at address 60. The register set is located at address 200.

For users that wish to change settings, a configuration mode is provided. A simple terminal emulator application such as HyperTerminal is required to make

Installation

The **PVmet™-330's** compact, lightweight design makes installation quick and easy. Various mounting options are available, including the RainWise Mono Mount. The **PVmet™-330** is supplied with a detachable mast section that can secure to an existing structure.

All electrical connections are made using screw terminals. Standard sensors are factory installed. As a user/installer the only connections required are power, communications and external BOM sensors. Removing the front cover accesses the connections. The cover is secured with 4 screws.

For OEM customers the **PVmet™-330** can be supplied with factory installed power and communication cable. This completely eliminates the need for the installer to remove the cover.

Customization

The **PVmet™-330** can also be customized to support customer specific sensors. This service is only available to volume OEM customers.