

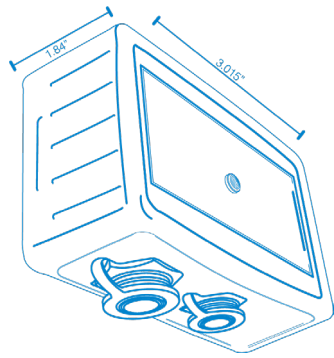
# ECLIPSE

Remote Disconnect





## Where the ECLIPSE Can Be Used



**WIND GENERATION**  
Inverter-based wind turbine systems

**SOLAR FARM**  
Utility or commercial small to mid-sized dedicated solar arrays

**MICROGRID**  
Campus deployments with multiple inverters

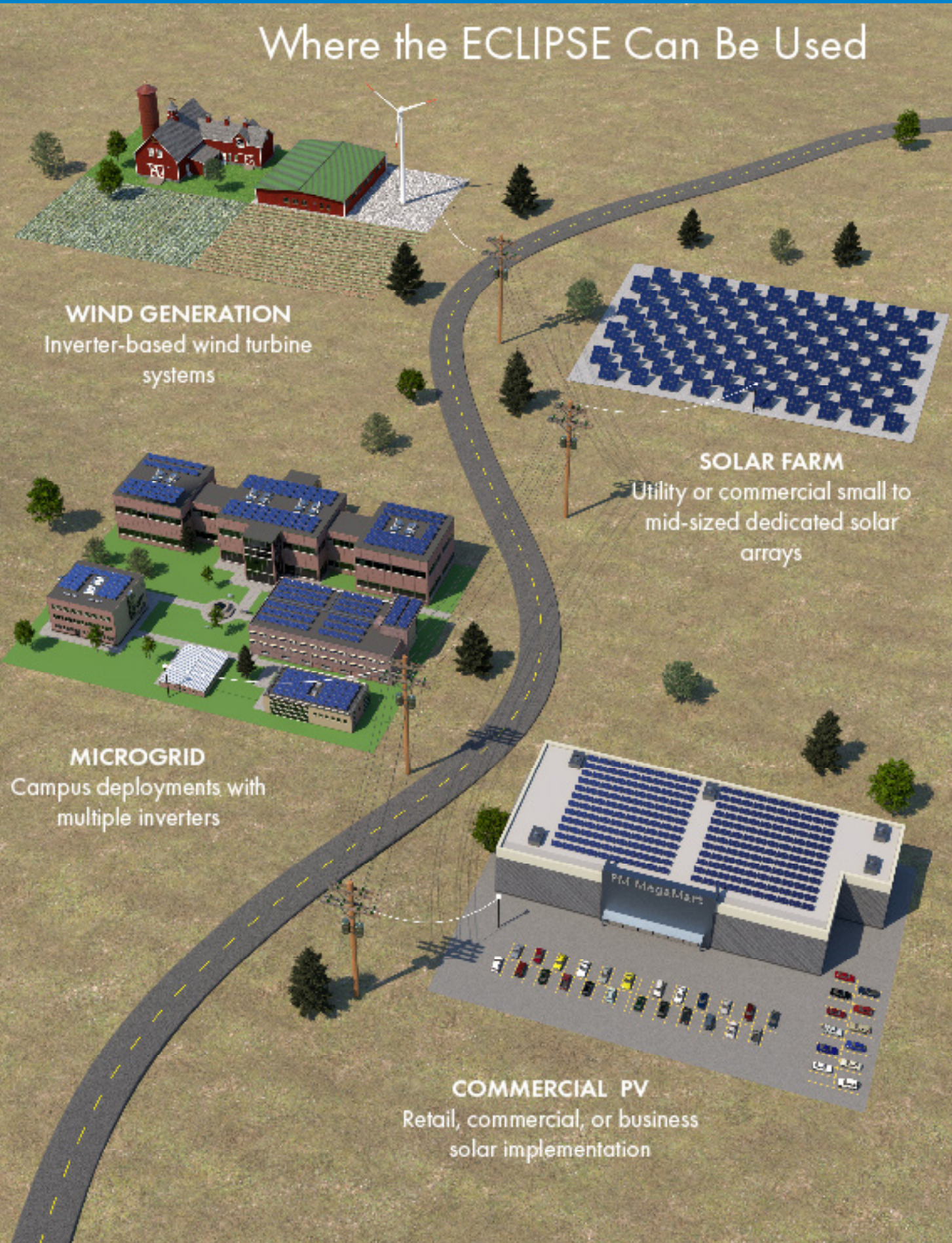
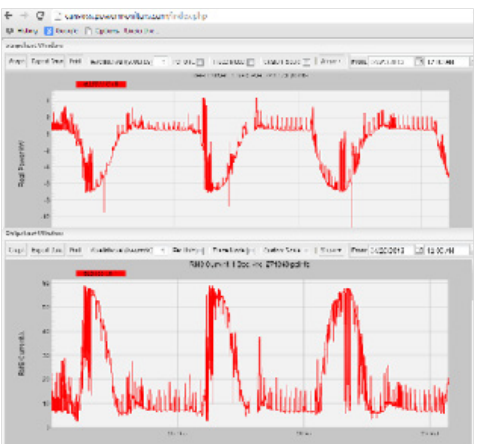
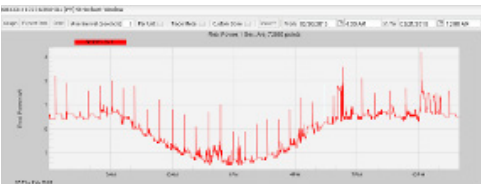
**COMMERCIAL PV**  
Retail, commercial, or business solar implementation



## The ECLIPSE vs Existing Solution

The Eclipse is the first all-in-one solution for monitoring and controlling DER inverters. Utility-friendly features such as the rugged, 70-300VAC internal power supply, embedded cell modem and antenna, weatherproof enclosure, and SCADA friendly interface dramatically lower the cost making installation and management extremely efficient. Flexible Form C dry contacts, 120V digital inputs, and optional 3 phase voltage, current and power monitoring provide maximum flexibility and the data needed to track voltage regulation and inverter effects on the distribution network. Optional cloud-based Canvass access enables email/SMS notifications, data storage, historical reporting, and engineering data analysis in a web browser.

Requirements	Eclipse	Other Solution
Rack	Not required	Purchased Separately
Switching Controller & Relay	Included	Purchased Separately
Weather-resistant Enclosure	Included	Purchased Separately
Power Supply	Included	Purchased Separately
Antenna	Included	Purchased Separately
Cell Modem	Included	Purchased Separately
Recloser	Not needed	Purchased Separately
Assembly	Not needed	Yes
Ease of Installation & Integration	Easy	Difficult
Solution Support	24/7	None
Troubleshooting	Single vendor support	Multi product/multi vendor support
Cost	\$	\$\$\$\$\$





## Features & Benefits

### Features

- Dry Contact Outputs for Inverter Control
- 120V Digital Inputs for Inverter Status
- Voltage, Current and Power Monitoring
- Email and SMS Alerting
- Cloud-Based Data Storage and Analysis
- SCADA Compatible
- Internal Antenna and Cell Modem
- Weatherproof Enclosure
- Line-Powered

### Benefits

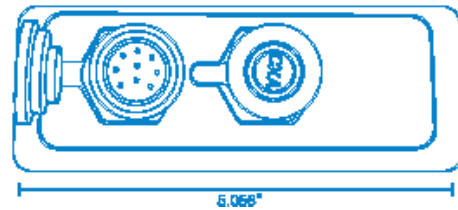
- Economic and Scalable Solution for Control and Monitoring of DERs
- On-Demand Monitoring of Power Flow Activity and Effects of Voltage Regulation
- Real-Time Notification and Alerting of Voltage and/or Unexpected Inverter Behavior
- Installed and On-Line in Minutes
- Extend SCADA to Small and Mid Sized DER Systems
- Create Custom or Leverage Pre-Built Reports

## 24/7 Technical Support

### Call Us Anytime

PMI products include unlimited phone support from our expert Technical Support team at no charge, seven days a week, twenty-four hours a day.

If you can't find the answer to your question on our website, give us a call at (800) 296-4120.



## Specifications

### RELAY OUTPUTS

Output Type	Dry Contact Form C (1 normally open, 1 normally closed)
Number of Outputs	2 Independent Relays
Max Switching Voltage	120V
Max Switching Current	4 amps

### DIGITAL INPUTS

Input Type	High Impedance
Number of Inputs	2
Min Sense Voltage	60V
Nominal Sense Voltage	120V
Max Sense Voltage	150V

### VOLTAGE

Input Range	70-300 V RMS
Measurement Channel	3
Accuracy	0.50%
Resolution	0.1 V

### CURRENT

Measured Quantities	20, 200 A w/ TLARS w/ FCTs
Accuracy	1%
Measurement Channel	3

### POWER

Accuracy	1%
Measurement Channel	3

### COMMUNICATION

Standard	Embedded Cell Modem
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### ENVIRONMENTAL

Temperature Range	-22° F to 130° F
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### PHYSICAL DIMENSIONS

Size	5.06" L × 3.35" W × 1.84" H
Weight	Less than 1 lb
Case	NEMA 4X

## Need to Control Distributed Energy Resources?

### Perfect For 25kW - 1000kW Distributed Energy Resource (DERs) Control and Monitoring

Take control of PV, wind, and other DER generation with the Eclipse! Whether customer or utility-owned inverters, the Eclipse provides a low-cost, reliable mechanism to insure remote generation is disconnected during line maintenance or restoration, out of tolerance voltage conditions, or to prevent islanding. Track DER power flow, voltage regulation, and volt/VAR optimization with optimal Eclipse current/voltage/power monitoring, and cloud-based data analysis tools.



## Quick Easy Steps DER Control & Monitoring

- Mount the Eclipse to outside or inside of inverter cabinet. The Eclipse is small enough to fit in many inverter cabinets, and its weatherproof NEMA4X enclosure allows it to be mounted outside if needed. The AC power supply, modem, and antenna are all embedded in the Eclipse, so no extra components are needed.
- Connect the Eclipse dry contact outputs to the inverter control inputs. Form C outputs give maximum wiring flexibility to accommodate any inverter configuration.
- Connect the Eclipse 120V digital inputs to the inverter AC or status outputs.
- Connect AC power to the Eclipse. The 70-300VAC, CAT IV power supply requires no external fusing or protection.
- Connect using DNP3 to SCADA, using the Eclipse embedded cell modem. The inverter is now under SCADA control, using the Eclipse contact outputs and digital inputs.
- Using the optional 3 phase voltage and current inputs, RMS voltage, current, real and reactive power, and power factor are available in SCADA.
- Using the optional Canvass connection, email and SMS alerts are available for voltage, current, or power alerts, along with cloud-based data storage and analysis.

## CANVASS™

### Cloud-based DER Monitoring

- Use a web browser to see the state of your distribution system at a glance in a map-based display
- Access stripcharts, histograms, and daily profile graphs
- Compare voltage, current and power from different locations, and find correlations across a distribution system

### Live Data and Event Notifications

- Programmable email and text message alerts for voltage threshold exceedences, outages, or other events
- Get real-time readings in the device status window
- View up-to-the-minute data anywhere with a web browser
- Combine with Boomerangs for full distribution monitoring

### Applications

- DER generation tracking
- Voltage regulation
- VAR flow analysis
- End-of-Line Monitoring

