## Samlex

## **Battery Watch**

The battery watch is a smart piece of equipment which automatically detects battery voltages between 7V and 32V. It can be used to monitor approximate battery state-of-charge on 12- and 24-volt battery systems.

Three LEDs - green, red and yel-

low - light in various combinations to indicate battery voltage. An audio alarm can be set to sound at high or low voltage levels and all settings are programmable by the user with a push button on the front panel.

Description	Item code	Price
Samlex battery watch	028-02257	\$60

## **AEE Solar Digital DC Volt & Amp Meters**



Measure amps and volts in 12-, 24- or 48-volt systems with these high-quality, low-cost LCD digital meters. The surface mount, 3" x 2" x 1" plastic enclosure can be attached to wood or metal surfaces with two screws. Terminal strip on the back of the meter accepts 14 to 22 AWG wire.

Amp meters are available with a 100A/100mV shunt for measuring up to 100 amps with 0.1 amp resolution, a 500A/50mV shunt to measure up to 500 amps with 1 amp resolution, or without a shunt for installations with a shunt already in place. Current draw is only 20mA. Amp meters are bi-directional, so they can be used to read loads, showing negative numbers, or to read charging sources, displaying positive numbers.

Amp meter requires 4-conductor wire; volt meter requires 2-conductor wire. Use 22 gauge or larger for up to 50 feet. Use 18 gauge for up to 150 feet. 2-year warranty.

Description	Item code	Price
Digital volt meter 11 to 65 VDC	028-09228	\$42
Digital amp meter w/o shunt	028-09257	\$42
Digital amp meter w/ 100A shunt	028-09259	\$65
Digital amp meter w/ 500A shunt	028-09261	\$65

**Analog Amp Meters** 



These high quality amp meters mount in a 72mm square hole. The meter movement is very smooth and accurate. The shunt is built into the 30-amp meter so it can be in series with the load to be measured on the negative or positive wire. The 60-amp meter comes with a separate shunt. The mounting plate in the table below holds 1 meter and mounts in a 2-gang wiremold deep switch box.

Description	Item code	Price
Analog meter 0-30A DC	028-07332	\$18
Analog meter 0-60A DC	028-07362	\$18
Mounting plate for 2-gang wiremold box	028-09015	\$5

## Hoyt Induction Amp Meters



These meters read DC amps from a wire that is placed in the slot frame on the rear of the meter case. No electrical connection is needed. The 30-amp meter will work with wires up to 8 gauge. The dual-range meter has a 75-amp scale and a 600-amp scale and works with wire up to 20 gauge.

Description	Item code	Price
Hoyt 30A induction meter	028-08045	\$29
Hoyt 75A induction meter	028-08047	\$29
Dual Range 0-75 / 0-600 ADC	028-08049	\$35

## Mastech **Digital Multimeter**

Test diodes and measure DC volts, AC volts, up to 10 amps AC or DC current, ohms and continuity with this 9-volt powered digital multimeter (battery included). This inexpensive troubleshooting tool is made in China.

Dimensions are 2.75" x 5" x 1".

Description	Item code	Price
Digital multimeter	028-08031	\$19





#### **Tech Tip: Amp-Hour Meters**

With the use of an amp-hour meter, you can tell the condition of your batteries at a glance. An amp-hour meter is the best indicator of your system's condition. As you use power, the meter counts how many amp-hours are used as negative numbers. As the battery is charged, the meter goes backwards, toward zero. When the battery is full, the meter reads zero. This type of meter is a must for nickel-cadmium and nickel-iron batteries, where it is hard to tell state of charge from voltage, or specific gravity. The main destroyer of lead acid batteries is sulfation caused by undercharging. These sophisticated meters help you keep track of your batteries state of charge so you can keep them charged. Get maximum life out of your batteries and save money and system down time. Note: amp-hour meters lose accuracy if batteries are always run in a very discharged state.

## Xantrex

#### LinkLITE Meter

The LinkLITE monitor can measure amps up to 999 (depending on the shunt used) and amp-hours up to 999. It selectively displays voltage, net amps, consumed amp-hours and remaining battery capacity in percentage. It is equipped



with an internal programmable alarm relay, to run a generator when needed or to turn off devices when the battery voltage exceeds programmable boundaries. For use on 12- and 24-volt systems. A 500A/50mV shunt is included. 1-year warranty.

#### LinkPRO Meter

The LinkPRO has all the features of the LinkLITE, but measures amps up to 9999 (depending on the shunt used) and amp-hours up to 9999. The LinkPRO also includes a time remaining display, battery temperature sensor input, additional programmable alarm relay functions, communication/



expansion port, and storage of a wide range of historical event data in internal memory. The LinkPRO Communications Kit includes an isolated meter to RS-232 interface box and interface cable. The LinkPRO Battery Monitor replaces and expands the features of the XBM Battery Monitor. For use on 12- and 24-volt systems. 500A/50mV shunt is included. 1-year warranty.

Description	Item code	Price
LinkLITE – meter w/ 500A/50mV shunt	028-01141	\$270
LinkPRO – meter w/ 500A/50mV shunt	028-01142	\$320
Temperature sensor – for LinkPRO only 32' (10m)	028-01123	\$75
Connection Kit -50' (15m) - for LITE/PRO	028-01122	\$115
Communication Kit – LinkPRO only	028-01120	\$225
Mounting bracket	028-09014	\$7
Bulk meter wire 8-conductor 18 AWG (price/ft.)	050-01252	\$0.40

#### TM-500A



The TM-500A is similar to the TriMetric meter in a special package with fuse and fuse holder. An improved display shows volts, amps, amp-hours and percent, without changing mode. It is very easy to install and use. Installation is simplified with a special shunt that includes a phone-type jack. Install the shunt, plug the special six-conductor cable into the shunt and meter and all the connections are made! The meter includes displays for the number of days since fully charged and cumulative amp-hours, and has recharge, low-voltage and full-charge indicators. Comes with a 50' six-conductor cable with jacks, fuse, and a special 500A/50mV shunt. 2550 amp-hours is the maximum battery size it can keep track of. Use the 48-volt adapter for 48-volt systems.

Dimensions: 4.55" x 4.55" x 1.725". 2-year warranty.

Xantrex model	Description	Item code	Price
TM-500A	Amp-hour meter w/ shunt	028-01405	\$375
TM-500NS	Amp-hour meter w/o shunt	028-01403	\$325
TM48	48-volt adapter	028-01413	\$75
TC50	50' cable	028-01422-A	\$36

**METERS & MONITORING** 

## Bogart Engineering TriMetric 2025 and 2025-RV





This updated version of the 2020 amp-hour meter operates on 12, 24 or 48 volts. It reads volts, amps and amp-hours on an LED display. Amp-hours can be displayed in actual amp-hour numbers or as "% full". An LED indicates a charging battery and flashes when it is fully charged. Another LED flashes when batteries should be recharged or equalized, and during low battery voltage. It also records minimum and maximum voltage, number of days since last charge, days since last equalized, and total lifetime amp-hours withdrawn from the batteries. The TriMetric can be located hundreds of feet away from batteries using inexpensive 4-conductor twisted-pair meter wire. A shunt is required for operation. Use the 500-amp shunt if you have a 12V inverter larger than 800 watts or a 24V inverter larger than 1600 watts. Use a 1000-amp 100mV shunt for systems with stacked XW inverters or where continuous current is over 300 amps. The 1000A/100mV shunt has the same resistance as the 500A/50mV shunt and may be used interchangeably. Order the shunt separately. Allows for a maximum battery bank size of 2500 amp-hours. The positive lead to the TriMetric should be fused with a 1-amp fuse. Flush mount or use wiremold box to mount. Made in USA. Dimensions: 4.5" x 4.75". 2-year warranty.

TriMetric and accessories	Item code	Price
TriMetric 2025A amp-hour meter	028-00021	\$230
TriMetric 2025-RV amp-hour meter	028-00022	\$230
Surface mount box for 2025	028-00026	\$14
500A/50mV shunt	028-09253	\$35
100A/100mV shunt	028-09245	\$35
1000A/100mV shunt	028-09254	\$70
4-conductor 22 AWG wire	050-01243	\$0
4-conductor 18 AWG wire	050-01237	\$1

PentaMetric and accessories	Item code	Price
PentaMetric display unit PM-100D	028-00011	\$240
PentaMetric input unit PM-5000U	028-00013	\$262
Computer interface PM-100C	028-00015	\$120
Temperature sensor TS-1	028-00018	\$36
500A/50mV shunt	028-09253	\$35
100A/100mV shunt	028-09245	\$35
8-conductor 22 AWG wire / per foot*	050-01255	\$0.36

\* 8-conductor wire is ok for measurig one battery. One additional conductor will be required for two batteries.

## Pentametric Battery Monitor



The Pentametric monitor measures 1 or 2 battery systems with a common negative. With one battery system, battery current plus two charging sources/loads can be measured.

The new Pentametric battery monitor system offers a lot more capability than the TriMetric monitor. The complete system consists of 3 parts: input unit (near batteries), display unit (shown here) and computer interface unit. It can monitor up to 3 shunts: For example;

measure total solar input and wind input independently in addition to monitoring battery "state of charge." You can access the data with display unit with LCD display and buttons up to 1000 feet from the batteries. An optional computer interface with Windows software allows you to control and read out all data from the computer. It has a relay output to control a generator or external alarm and it has audible and visual alarms for high and low battery conditions. 2-year warranty.

\* 8-conductor wire is ok for measuring one battery. One additional conductor is required for two batteries. See table bottom left.

#### **Basic measurements:**

- 2 voltage channels: 8-100 volts. (For example you can monitor volts from two-battery systems).
- 3 amperage channels ±.01-200 amps (with 100A/100mV shunt). ± 0.1-1000 amps (with 500A/50mV or 1000A/10mV shunt). Each of these requires a separate shunt.
- Temperature -20 to +65 degrees C.

#### Secondary measurements:

- Amp-hour (3 channels): to ±83,000 amp-hours
- Cumulative (negative) battery amp-hours (2 channels)
- Smoothed (time filtered) amps
- Volts (2 channels): 0-100 volts
- Watts (2 channels) ±.01- 20,000 watts
- Watt-hours (2 channels) ±21,000 kilowatt hours
- Battery % full (2 channels) 0-100%
- Days since batteries charged (2 channels) .01-250 days
- Days since batteries equalized (2 channels) .01-250 days

#### **Data logging functions**

There are 3 types of data logging functions. With the computer interface all 3 types can be output to spreadsheet file.

- 1. In Periodically Logged Data mode you can record any or all of the following at regular intervals ranging from once per day to once per minute: amp-hours (3 channels), watt hours (2 channels), Temperature max/min (1 channel), volts (1 channel), amps (1 channel)
- 2. The Battery Discharge Voltage Profile logs volts and amps every time the charge level changes by 5% (or 10%) for 1 or 2 battery systems.
- 3. Battery Cycle Efficiency documents system efficiency for up to 2 battery systems.

# **METERS & MONITORING**

## **AC Kilowatt-Hour Meters**

#### **AC Kilowatt-Hour Meter**



These utility-grade have been removed from service and reconditioned and certified. If you are selling power back to the utility grid, you can keep track of how much power your system is generating. Order one of the raintight meter bases to mount and connect wires to the EZ-Read cyclometer. For use on 120 or 120/240 VAC systems. Maximum current 200 amps.

The ITRON LDC meter is the standard utility grade meter you see on most homes.

The 028-03042 five terminal meter (Form 12S) is used for tracking the power fed back to the grid from an OutBack 120 VAC grid-tie system. Often used for Green Tag sales.

Description	Item code	Price
Kilowatt hour meter w/ EZ-Read cyclometer	028-03015	\$34
Kilowatt hour meter ITRON LCD Digital 240V CL200	028-03012	\$32
Kilowatt hour meter 12S LCD 120V for OutBack grid-tie	028-03042	\$200

#### **Kilowatt-Hour Meter Sockets**





We stock two types of kilowatt hour meter bases.

The Milbank brand sheet metal base is 8" W x 11.5" H (shown with meter mounted). Both are for single phase 2- or 3-wire 100amp service and both come with sealing ring. Raintight, NEMA 3R rated for outdoor use and UL Listed.

The 5-terminal socket is rated at 200 amps, 480 VAC and is used with the 12S meter.

The low-cost cast, round base has 1-1/2" threaded holes in the top and bottom. It is not UL Listed.

Description	Item code	Price
Kilowatt hour meter socket 120/240VAC - round	028-03025	\$16
Kilowatt hour meter socket 120/240VAC NEMA 3R	028-03031	\$94
Kilowatt hour meter socket 120 V 5 term for OutBack GT	028-03047	\$80

## Kill-a-Watt

#### **AC Meter**

This kilowatt hour meter is easy to set up and use. It gives the user power usage information for individual appliances, displaying true power consumed (including power factor information), and keeps track of cumulative kilowatt hours, cumulative time the meter has been plugged in, and the amount of money the electricity consumed costs. A 15-amp circuit breaker protects against overloads. UL Listed.



Description	Item code	Price
Kill-A-Watt portable kilowatt hour meter	028-02005	\$36

## Solar Energy Technologies

## EnergyTraker Solar PV200 Data Logger system



This affordable comprehensive solar electric monitoring system offers local PV system monitoring and data logging on a PC. The user-friendly analytical software allows viewing of the data and printing screen plots and data reports The price is low enough to meet budget requirements for residential and small commercial applications and there are no monthly monitoring fees.

The package comes with the EnergyTraker Solar PV200 Series Data Logger and standard professional data logging PC software, (1) 100-amp PV220 split-core AC current transformer and (1) 100 amp DC current sensor, (1) DC array high voltage in-line attenuator module for negative ground systems, (1) AC plug-in wall transformer, serial-to-USB adapter, Serial DB9 cable, (2) 7-foot Cat5 cables.

The Solar PV200 Series Data Logger will accept use of up to (2) DC current sensors and (2) DC voltage sensors for use with (2) separate solar arrays, up to (4) AC current transformers for (2) separate single phase inverter outputs and grid power monitoring, a single irradiance sensor and a

single outdoor rated temperature sensor. Additional SET sensors are not included in the system package and must be ordered separately. The EnergyTraker Solar PV200 Series can accept use of an SET wireless serial modem between the data logger and PC, and an addressable IP module for remote monitoring and operation over the internet.

Model	Description	Item code	Price
PV220	EnergyTraker PV220 Data Logging system	028-00401	\$1,749
AC-CT100	100 amp split core (.75" opening) AC current transformer	028-00420	\$129
DC-CS185	100 amp solid core (.85" core opening) DC current sensor	028-00424	\$129
TP-PV200	-10°F to 200°F temperature sensor (outdoor rated)	028-00431	\$75
IR-P100	Irradiance sensor (pyranometer) with mounting bracket	028-00438	\$299
SDS-LS110	Addressable IP serial device server for internet use	028-00442	\$259
WSM-300	Wireless serial modem pair 300-foot range	028-00447	\$459



## The Energy Detective (TED)



#### **TED 5000 Data Loggers**

The TED 5000 Series displays up-to-the-second energy use and cost information in a sleek, easy-toread handheld display. It shows current energy consumption in kilowatts (kW), up-to-the-moment energy costs in dollars and cents per hour (\$/hr); it will display kilowatt hours (kWh) consumed during a given day as well as their cost, and the cost and quantity of kWh consumed during any part of a billing cycle. Check projected energy use for your current billing cycle in kWh, projected energy cost for current billing cycle, peak electrical demand so far this billing cycle in kW, peak use so far in the current billing cycle measured in \$/hr, current voltage, maximum and minimum voltage, current Energy Rate (Tariff) in dollars and cents per kilowatt hour \$/kWh, and current date and time. The TED Gateway provides the TED system with added functionality and data accessibility. It receives and stores energy data internally. From there it can be relayed to the new TED 5000 Display via ZigBee wireless. The Gateway stores 60 minutes of per-second data, 2 days of per-minute data, 90 days of hourly-data, 24 months of daily-data, and 10 years of monthly-data.

Your real-time and historical data can be viewed on your computer by utilizing the Gateway's Ethernet jack, IP chip, and embedded TED Footprints software (Windows, Mac, and Linux compatible). Additionally, when you connect the Gateway to your wireless router, you can access your data from any computer or mobile device with internet access.

Model 5002-C comes with all the components necessary to monitor PV system energy output and home or business energy usage, and includes the sleek, wireless TED 5000 display. The data is logged/graphed separately, but can also be seen in aggregate as well. Works with Google PowerMeter. Model 5002-G includes no monitor for users who choose to simply access their data via computer.

Model	Description	Item code	Price
5002-C	TED 5000 monitor with Gateway and wireless display	028-00507	\$319
5002-G	TED 5000 monitor with Gateway (no display)	028-00509	\$279
5000 Display	Additional wireless display with charging stand	028-00521	\$49



# **METERS & MONITORING**

#### Why Use Monitoring Tools?

Residential and commercial system owners and installers can benefit from remote monitoring services for renewable energy systems. These services provide knowledge and control over energy system generation and demand and are remotely accessible via the internet. Monitoring systems typically consist of a local device that connects to the energy system, collects data, and communicates with the monitoring service provider's central data center. Using such a service, residential and commercial system owners can remotely monitor their solar electric installations and see the impact of changes in consumption as well as problems such as tree shading or equipment degradation over time. Installers can check system performance, diagnose problems, and take corrective actions quickly and cost-effectively – often without ever leaving their office. Over time, individual solar energy generation and demand fluctuates. Periodic meter readings provide only a summary view of energy consumption, revealing little or nothing about PV generation efficiency or short-term performance issues. Good monitoring and display tools can help reveal trends, transient issues, cost-saving opportunities and emerging issues. They feature real-time and historical system performance graphs and downloadable data. Additionally, they provide the independent third-party, revenue-grade monitoring and reporting required to collect performance-based financial incentives.

### **Draker Laboratories, Inc.** Sentalis Performance Monitoring

Draker Lab's Sentalis monitoring line was designed for the commercial scale solar power market. It is an end-to-end solution that includes everything needed for high performance solar monitoring: field instrumentation, remote data collection, data hosting, and a web-based user interface. The web interface includes a portfolio overview, a project overview, performance trends, advanced analytical tools, alarms, and a raw data viewer. Draker also offers a full suite of services to ensure that your solar monitoring installation goes smoothly. Their trained field technicians can provide installation and commissioning support and user training. It has a 5-year warranty.

Draker use industrial grade Campbell Scientific hardware that is built to last in harsh environments.

The simple and intuitive web interface has a portfolio overview for viewing status of multiple sites on a single screen. Login protected data feeds can be set to send different data to different user groups. It has system level performance analysis for easy comparison of actual vs. expected system output, with advanced alarms.

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Draker part #	Sentalis - PV base package	Item code	Price
	Sentalis - PV base station w/ NEMA 4X enclosure		
	Wireless cell modem and annual data plan service		
	Revenue grade energy meter w/ CTs		
SPV-10	Plane of array irradiance pyranometer (silicon)	029-05610	\$9,385
	Back of module temperature sensor		
	Sentalis web-based interface / per year		
	Sentalis interface admin configuration		
	Environmental Sensor Add-Ons		
SPV-11	Ambient temperature (with 100' cable)	029-05611	\$572
SPV-12	Wind speed (with 100' cable)	029-05612	\$863
SPV-13	Wind direction (with 100' cable)	029-05613	\$690
	Web Services Add-Ons		
SPV-21	Project kiosk / public display (not including monitor)	029-05621	\$3,450
SPV-22	Reports (expected vs. actual output) - (billing inputs)	029-05622	\$1,139
SPV-23	Animated schematic representation	029-05623	\$863
	Field Support + Accessories		
SPV-30	Load analysis - revenue grade Energy Meter (with CTs up to 2000 amps)	029-05630	\$2,705
SPV-31	Load analysis - Revenue grade energy meter (with CTs up to 3500 amps)	029-05631	\$3,450
SPV-32	Install support or on-site design per day	029-05632	\$1,140
SPV-33	On site commissioning services per day	029-05633	\$1,140
SPV-34	On site training per day	029-05634	\$1,140

## **DECK Monitoring**

#### **Solar Monitoring Solution**

DECK Monitoring was designed with residential and commercial system owners and installers in mind. DECK Monitoring's simple, powerful, and field-proven monitoring and display services work with your residential or commercial solar electric or wind system to provide web-based visual displays.

DECK Monitoring allows system owners to see, track and share their energy production in real time on the internet via a graphicsrich public online dashboard, increasing customer satisfaction. A highly configurable alarm, and contractor notes settings, allows the installer or system owner to receive automatic alerts instantly in case of an inverter failure or an under-reporting system. Monitor energy generation, demand, irradiance, and performance data down to the string level – with user-defined real time and historical reporting capabilities.

This remote monitoring solution allows you to manage and view your solar energy system or whole-building energy usage in a single view. You can view your system anytime, anywhere using a web browser or any internet-connected device. Residential and commercial installers can assure customers that their renewable energy system is operating properly. DECK provides views for post-installation support, alerting you to failure issues and providing tools for remote trouble-shooting. The DECK service also generates the regular reports required for performance-based financial incentives available under programs such as California's CSI.

#### **Residential Monitoring Service**

DECK's Residential Monitoring Service gives the residential system owner the monitoring and visualization tools to understand their solar energy system. The residential solution allows you to improve your net metering results and reduce your electricity bill by managing your energy use.

The image at right is a typical simple view showing real-time and historical data about energy generation, the building's energy usage, and environmental information. Energy information can be selected to show daily, weekly, monthly and yearly comparisons. A simple Flash application shows consumers "How Solar Works" as well.

DECK offers inverter-direct monitoring for many grid-tie inverters as well as revenue-grade, inverterindependent monitoring that can be used for power purchase agreements, performance incentives and renewable energy credit trading. Residential monitoring systems are for home users only, are single phase, and measure only kWh, not volts and amps.

As with the commercial service, solar integrators who install residential monitoring for their clients also get full access to the DECK admin panel at no extra charge. This allows integrators to track performance of all of their DECK Monitored systems in one view, set custom alarms and reminders, and keep service notes online.



### **Commercial Monitoring Service**

With DECK's Commercial Monitoring Service you get an accurate and real-time view of your savings and production whenever and wherever you need it. It allows you to view your whole-building energy picture by monitoring one or many building systems in a single view. Pricing is based on the actual monitoring services delivered, not on the kW size of the job.

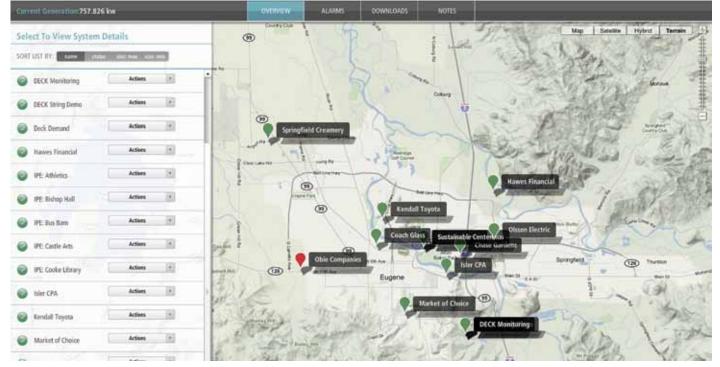
This graphically intuitive solar monitoring solution allows you to view your solar energy production in a single dashboard view. The Project Details and About tabs allows the customer to include their own pictures and text in dedicated areas to describe and promote their green investment. The DECK dashboard can be easily integrated into a customer's website, providing ready made green PR and awareness. The DECK service also generates the regular reports required for performance-based financial incentives available under programs such as California's CSI, where DECK is listed as a Private Data Provider (PDP).

For large projects, DECK also provides string monitoring on the DC side, which allows integrators, owners and PPAs to ensure that their system is operating at peak efficiency. DECK's advanced string outlier graph shows at a glance if any strings are underperforming, while giving the integrator the ability to adjust the tolerance level to prevent false alarms due to shading or other factors. String monitoring can easily pay for itself in a large system by providing alerts if a string underperforms, which otherwise would pass unnoticed.

DECK Monitoring includes ANSI standard revenue-grade meter with 2% accuracy and meets metering and reporting requirements of California EPBB and PBI programs and of all states requiring revenue-grade meters. All packages include hardware, 5 years of hosted monitoring services and 5 years of warranty coverage. Weather data and building load are options that can be added to the monitoring package. Broadband internet access is required for standard systems. Cellular modems are optional.

Indoor and outdoor kiosk and flat screen display options are also available and are a great way for a customer to promote their green investment in a public place such as a lobby or elsewhere their place of business. The DECK Administration Panel is also included at no extra cost. This password-protected Admin Panel allows you to keep track of all of your customers in one map view and to be alerted of system issues and inverter errors.

DECK P/#	DECK Commercial Monitoring w/ 5 years monitoring	Item code	Price
CM5YP001	Commercial solar monitoring equipment and service package	029-04000	\$4,195
CMAMS001	Add-on energy meter w/CTs (100A-2400A) unidirectional	029-04002	\$1,140
CMAMS002	Add-on energy meter w/CTs (100A- 1600A) bidirectional	029-04004	\$2,635
WS5YP001	Weather station standard w/5 yrs. monitoring included	029-04005	\$2,399
WS5YP002	Weather station with wind speed & direction	029-04006	\$3,959
WP2PP001	Wireless outdoor send/receive connection (1500 ft.) - 2 units	029-04009	\$1,500
WP2PP002	Wireless outdoor send or receive connection (1500 ft.) - 1 unit	029-04015	\$750
CB08S00	String monitoring and UL combiner for up to 8 strings	029-04010	\$2,100
CB16S001	String monitoring and UL combiner up to 16 strings	029-04011	\$3,960
CMG00001	Cellular modem for gateway (no internet service)	029-04012	\$720
EDI5YA001	PDP reporting	029-04013	\$420
N4REO001	NEMA 4 outdoor enclosure	029-04016	\$360
INVDIR001	System config. per commercial inverter (allows subarray monitoring)	029-04017	\$480
CS5YP001	Current Sensor 200ADC max; reading w/ 5-yr. monitoring	029-04029	\$480
	Display options		
KTSIP001	Kiosk preconfigured indoor	029-04007	\$7,195
KTSOP001	Kiosk preconfigured outdoor	029-04008	\$18,000
LCD50001	50" monitoring LCD display with preconfigured PC	029-04023	\$4,800
HPTSP001	Touchscreen flat panel PC/display preconfigured	029-04024	\$3,595
STORB001	How Solar Works (story board) 4' x 3'	029-04025	\$3,600
	Monitoring extension options		
CM5YE001	Commercial solar monitoring 5-year extension	029-04001	\$1,800
CI5YE001	Commercial inverter monitoring 5-year extension	029-04028	\$300
CM5YM001	Add-on meter 5-year monitoring extension	029-04003	\$300
WS5YE001	Weather station 5-year extension	029-04026	\$300
ST5YE001	String monitoring 5-year extension (per string)	029-04027	\$60



Please call us with any questions! Our contact information is on the cover.

**METERS & MONITORING**