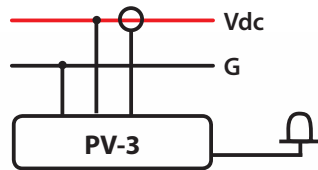


# Electrocorder

Model:  
PV-3



Solar irradiance, 0-1500W·m<sup>-2</sup>

PV system output Vdc to 300V

PV system output Idc to 300A

Complete with Electrosoft energy analysis software

Sealed to IP65/NEMA 12/4

Monitor charging circuits, PV (photovoltaic) cell, DC motor, and many other applications.

Data stored in non-volatile memory.

Memory capacity of 32,000 (True RMS) values per channel (10bit), up to 300 days continuous recording.

Selectable averaging period from 1 second to 60 minutes.

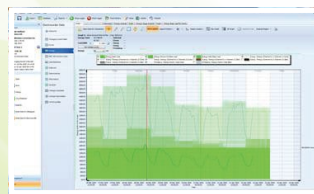
Accuracy:

1V – 5V < 2% of reading

6V – 60V < 1% of reading

60V – 300V ~2% of reading

Kit includes data logger, fused voltage input leads, DC current probe, pyranometer, USB lead, 12Vdc PSU, Electrosoft software and a carry case.



The advantage of ElectroCorder products over most others is that our Data Loggers constantly sample information (recording the Minimum, Maximum and Average reading) over the set period. Many other products only take 'snap shots' of what is going on and can miss 99.9% of the data that is critical to your analysis.

The PV-3 is specifically designed to accurately monitor one DC voltage channel, 1V to 300Vdc and one DC current channel -10A to +10A, -100A to +100A. This allows you to monitor charger performance and PV (photovoltaic) cell output, as well as many other applications like DC motors.

Setting up the Electrorecorder PV-3 is easy, suitable for non-technical staff. Using the supplied (free) Windows software, Electrosoft, input the location details for the logging and choose the logging period. Electrosoft will print the necessary dispatch/ return documentation including user instructions. All data is included in a database of dispatches and returns, allowing you to track the location of multiple loggers.

Why is the Electrorecorder better than other similarly priced competitors? The Electrorecorder range uses a constant sampling technique, unlike the single reading of competitors. When the loggers start to record, they sample every channel 16 times per cycle, a cycle is 16ms at 60Hz. At the end of each averaging period, 3 quantities are saved for each channel: the True RMS average, the Max, which is the highest cycle value during the period and the Min, the lowest cycle value. This means that it will record all the

peaks and troughs which are one cycle or longer.

The voltage and current levels are stored with dates and times. With the backup battery, the Electrorecorder can continue to record for up to a year.

The recorded data is uploaded to a PC via the supplied USB cable. Using Electrosoft, the recorded current levels with dates and times can be viewed in both tabular and graphical form, exported to a spreadsheet or saved to file. Graphs can be printed showing the recorded levels and the allowable tolerance bands. These results may then be discussed with the customer.

On the logger, recording is signified by a flashing green light. A red light advises users that the unit has completed recording.

The PV-3 has a current range  $\pm 10A$  &  $\pm 100A$ .

### Technical specifications (subject to change without notice)

Recorded Values	Records minimum, average & maximum irradiance, voltage & current
Minimum And Maximum Time Resolution	Always 20ms
Supplied Pyranometer Sensor Accuracy	$\pm 2\%$ of range
Measurement Range	0-1500W.m <sup>-2</sup>
Irradiance Measurement Accuracy	Typically 5% of range
Pyranometer Input Lead Length	16' (feet)
Voltage Measurement Range	1 to 300Vdc
Input Impedance	10M $\Omega$
Voltage (Dc) Measurement Accuracy	1V – 5V < 2%, 60V model, 6V – 60V < 1%, 60V – 300V ~2%
Voltage Input Lead Length	6' (feet)
Current Measurement Range	$\pm 10A$ & $\pm 100A$ selectable range
Current Measurement Accuracy	<5% of selected range
Current Input Lead Length	4' (feet)
Sampling Frequency	800Hz (every 1.25ms)
Data Recorded	Avg, max & min irradiance, voltage & current values during the averaging period
Memory Capacity	192kB able to record 32,000 levels per channel
Memory Type	Non-volatile SEEPROM
Memory - Averaging Period & Duration	1 sec to 60 mins (1 sec gives 2 hrs logging, 60 min gives 300 days logging)
Real-Time Clock Accuracy	Greater than 0.001%
Battery Life While Logging	Unlimited – 12Vdc PSU option & battery backup or 1 day on battery power only
Battery Type	Unit contains four 9V Alkaline batteries (E-Block, PP3, 1604A)
Communications Interface Type	USB
Environmental (Temp & Sealing)	-10C to +40C or +14°F to +104°F, Sealed to IP65

### Warranty & Calibration

All Accsense Electrorecorder products carry a \*Lifetime back to base warranty covering manufacturing defects and component failures. Each unit is individually calibrated during testing.

\*Refer to website for full terms and conditions.

### Conformity

Emissions EN55022:1994B, (EN50081-1:1992). Immunity EN50082-2:1995, following the provisions of EMC directive 89/336/EEC. Recording std EN50160:1994. LVD 72/23/EEC with respect to EN60065. (IEC-61010). All models certified (light industrial, 3V/m).