CAMPBELL SCIENTIFIC®
WHEN MEASUREMENTS MATTER

SOLAR800
Solar-Resource Assessment Station

Bankable Data

Met station for general-purpose solar-resource assessment

Overview

The Solar800 is a turn-key, solar-measurement data-acquisition system specifically designed for solar-resource assessment. The Solar800 provides the on-site data essential for a thorough understanding of a project site's solar resources and variability. The system is designed with fast-to-field features that simplify and expedite installation: no system coding required, quick-deploy installation components and guide, and simple-to-configure software. Data retrieval is easy and flexible. Options include: FTP, email, Modbus, DNP 3, and LoggerNet capability.

Benefits and Features

❯ High reliability and longevity with a Campbell Scientific CR800 Measurement and Control Datalogger

❯ Factory fabrication, programming, and testing minimizes field wiring errors, reduces deployment time, and eliminates system programming

❯ High measurement quality delivered by high-resolution analog channels on the datalogger combined with ISO 9060 thermopile pyranometers

❯ Easy, turn-key installation

❯ Battery-backed system enables continuous data collection, even during power outages and network failure

❯ Easy and flexible data retrieval

❯ Supports TCP/IP functionality, including: HTTP web server, FTP, and email send for data viewing and retrieval

❯ Supports Modbus, DNP 3, PakBus, and SunSpec protocols

❯ Ships with quick-deploy installation guide, system schematics, and engineering documentation

❯ Retains the powerful, modular nature of the Campbell Scientific product line, allowing for user-defined modifications and customization

Technical Description

The Solar800 takes 1-second measurements and stores data at user-defined intervals for global horizontal irradiance, plane of array (POA) irradiance, wind speed, wind direction, precipitation, temperature, relative humidity (optional), and barometric pressure (optional).

The Solar800 is designed for continuous outdoor use, with power supply options ensuring continuous operation in most locations. The system is available with multiple communications options, giving maximum flexibility in data collection and monitoring methods.

No coding is required to set up and operate a Solar800. To facilitate easy setup and turn-key operation, the Solar800 comes with configuration software.

For comprehensive details, visit: **www.campbellsci.eu/solar800**

Specifications

-NOTE-

The Solar800 has components that have their own specifications.

To review these specifications, refer to the appropriate products below:
- 》 *CR800 Measurement and Control Datalogger*
- 》 *NL201 Network Link Interface*
- 》 *LP02-L Pyranometer*
- 》 *03002-L Wind Sentry Set*
- 》 *109 Temperature Probe*
- 》 *TE525-L Rain Gage*
- 》 *BP24 24 Ah 12 V Sealed Rechargeable Battery with Mounts*
- 》 *CH150 12 V Charging Regulator*
- 》 *SP20 20 W Solar Panel*
- 》 *CM203 3 ft Crossarm with CM210 Mounting Kit*
- 》 *CM106B 7 to 10 ft Galvanized-Steel-Tubing Tripod*
- 》 *PWENC16/18 Prewired Enclosure, 16 x 18 inches*

Operating Temperature	-25° to +50°C
Measurement Sampling Frequency	1 Hz (typical)
Statistical Data Storage Frequency	1 to 10 min (typical)

Power Requirements

Voltage	9.6 to 16 Vdc
Typical Current Drain	0.7 to 16 mA (measurements)
Maximum Current Draw	136 mA (two-way communications)
Power Loss System Runtime	》 1 week (using continuous two-way communication) 》 > 1 month (using no communications)

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