LGate 310

COMMERCIAL SOLAR MONITORING SOLUTION

Locus Energy's LGate 310 is a revenue-grade web-based monitoring solution for light commercial solar photovoltaic systems. It is designed to collect, store and upload a wide array of energy data allowing both system installers and owners to efficiently manage solar assets.

The LGate 310 can monitor nearly any type of solar energy system. Regardless of inverter or panel type, it can measure energy production with a high degree of accuracy. It features a digital, polyphase socket meter paired with an industrial-grade datalogger and Internet gateway. The meter is installed with standard socket base and connects via RS485 to the datalogger. Performance data is aggregated and uploaded automatically to the Locus Energy Smart Monitoring website which provides custom tools and analytics to all project stakeholders.

DATA COLLECTION

Energy data is collected from the Itron Sentinel® meter and passed digitally to the datalogger. Additional system performance data can be collected directly from meteorological sensors and supported inverters. All data feeds are stored in non-volatile memory and then uploaded with unique identifiers to provide maximum flexibility as to how the data is presented online.

NETWORK CONNECTIVITY

The LGate 310 is a plug and play device supporting a range of connectivity options. It can communicate over Ethernet or cellular networks. Data is transmitted only in outbound sessions over open ports requiring no additional network or firewall configuration. The connection and commissioning process is further simplified by the LGate's LED lights which indicate communication status without installers having to log in or call home.

ABOUT LOCUS

Locus Energy develops web-based asset management software for renewable energy systems. We provide monitoring, analytics and data services for deployments of solar photovoltaic and solar thermal technology. By leveraging Locus' products, renewable finance companies and integrators can drive down the cost and complexity of energy monitoring while making it much easier to maintain and service an installed client base. Founded in 2007, Locus is based in New York City and serves clientele across the world.
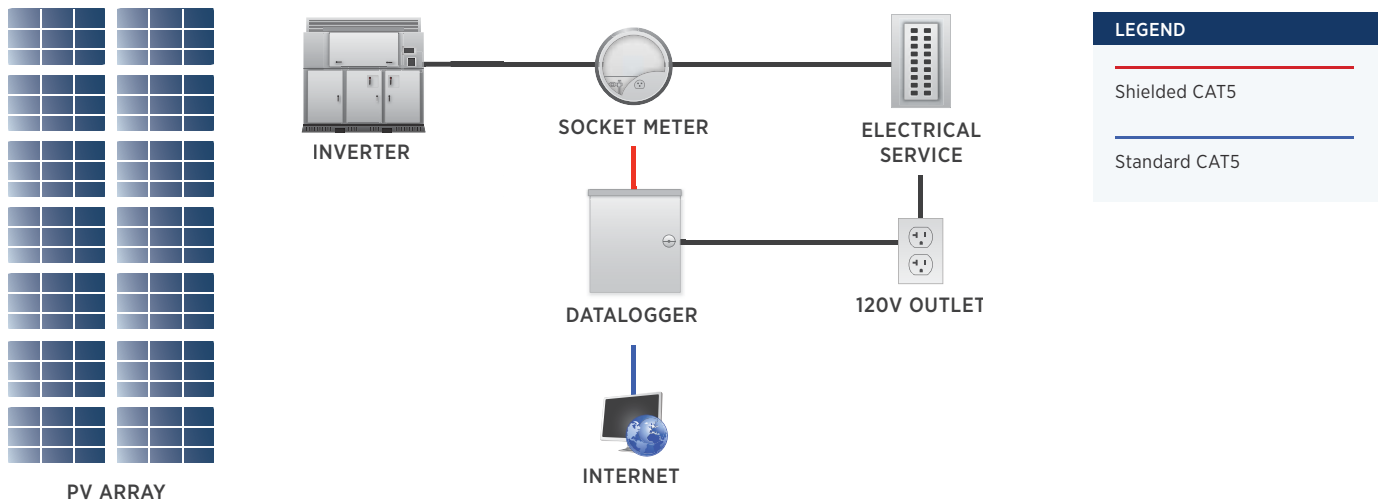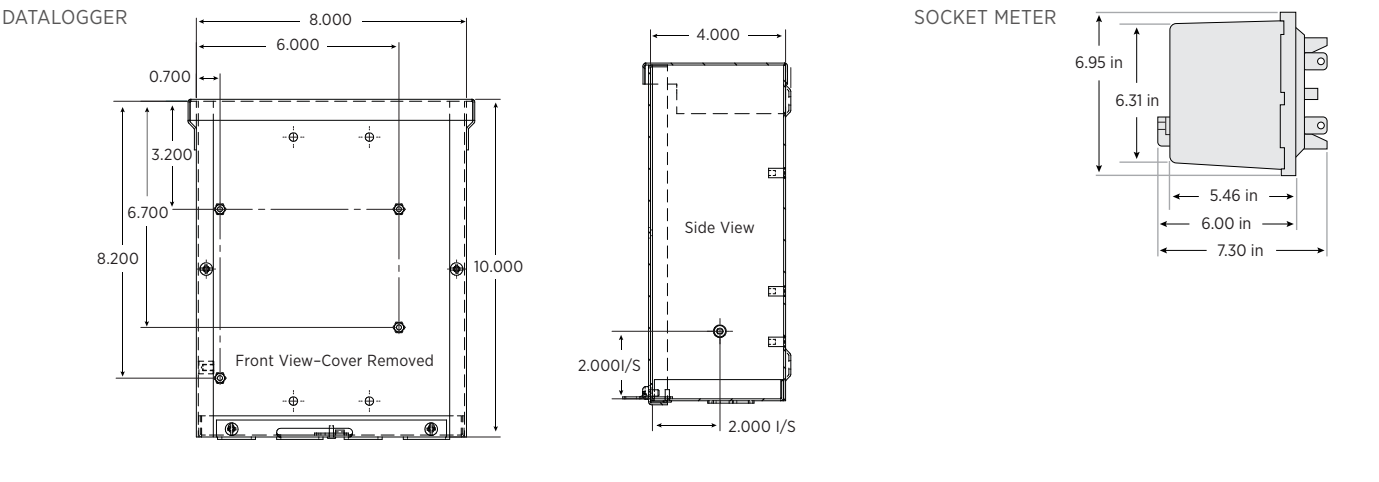
SOLUTIONS

Locus Energy offers Smart Monitoring software services tailored to the following groups to help maximize the performance of renewable assets:

- Installers
- Financiers
- Utilities
- OEMs
- Regulators

DIAGRAM – TYPICAL CONFIGURATION

INVERTER

SOCKET METER

ELECTRICAL SERVICE

DATALOGGER

120V OUTLET

INTERNET

PV ARRAY

DIMENSIONS

DATALOGGER

8.000
6.000
0.700
3.200
6.700
8.200
10.000
Front View–Cover Removed

4.000
Side View
2.000 I/S
2.000 I/S

SOCKET METER

6.95 in
6.31 in
5.46 in
6.00 in
7.30 in

SPECIFICATIONS

DATALOGGER

Processor	ARM9 embedded CPU
OS	Custom version of Linux 2.6, OTA firmware updates
Memory	128 MB RAM
Logging interval	1 to 60 minutes, user selectable (default 5 minutes)
Display	USB-based handheld LCD (optional)

I/O

RS485 2 wire and 4 wire terminals

Modbus

USB

KYZ Pulse

COMMUNICATIONS

LAN	RJ45 10/100 Ethernet, full half duplex, auto polarity
Cellular	GSM/CDMA
Networking	DHCP or static IP

POWER METER

Accuracy	ANSI 12.20 class 0.2%
Voltage Inputs	120 - 480 VAC
Phases	Polyphase
Meter Forms	Class 20, 150, 200 and 320

COMPLIANCE

DATALOGGER:	METER:
IEC 61010 (Safety)	FCC Part 15 (Class B)
FCC 15 Part B	ANSI C37.90.1: 1989
IEC 60068-2-27 (Mechanical shock)	ANSI C62.41: 1991
IEC 60068-2-6 (Mechanical vibration)	
CFR 47 ANSI C63.4 (Radiated emissions)	
CAN/CSA – C22.2 (61010-1)	

PHYSICAL

Enclosure	NEMA 3R Type
Weight	6 lb 12 oz – datalogger, 4 lb - meter
Dimensions	10" x 8.25" x 4.25" – datalogger, 6.95" x 7.28" x 7.3" – meter
Environment	-20 to 70C, 95% RH, non-condensing
Warranty	5 year limited warranty for data logger

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