

Power Light Commercial Solution 400 (PowerLCS 400)

AlsoEnergy now offers a cost-effective standardized solution for light commercial PV systems. This solution is designed for 3-phase systems with up to 16 external inverters. Performance data is uploaded to the PowerTrack or LocusNOC monitoring applications which provide a suite of tools and analytics for asset managers. The PowerLCS 400 is able to provide inverter direct monitoring across all supported inverter technologies. This is a successor product for the Locus LGate 320, providing access to AlsoEnergy software applications for your light commercial systems.



Standardized PowerLCS 400 system includes:

- Data Logger with LCD touchscreen display
- Energy Meter with 3 solid core CTs (revenue grade accuracy)
- Weather Station with Irradiance Sensor, mounting bracket, and Module Temperature Sensor
- 5 port Ethernet Switch
- NEMA4 weatherproof enclosure
- Optional 4G Cell Modem (requires the addition of a cellular plan to utilize the cell modem)

Solution Features

- Up to 16 external inverters
- Modbus via RS-485 or TCP connections to inverters
- Cellular or Ethernet connectivity
- Remote firmware updates
- 5 minute data granularity
- Uploads at 2 hour intervals
- Satisfies most US agency reporting requirements
- For systems up to 325kW utilizing 480V inverters (140kW @ 208V)
- All parts except irradiance sensor and cell modem covered with standard AlsoEnergy 5-year warranty

End-to-end solutions from AlsoEnergy provide the convenience and security of a single source provider for hardware, software, services, and support over the project lifecycle. Software features may include advanced performance analytics and diagnostics, integrated CMMS job ticketing, and fleet management tools for asset managers such as reports, KPI displays, and financial analysis.

Specifications

PLCS-400 / PLCS-400-CM

Assembly

Enclosure dimensions	15.7" x 15.7" x 7.9" (400mm x 400mm x 200mm)
Enclosure rating	NEMA4
Operating temperature	-13° to 158°F (-25° to 70°C), <95% relative humidity non-condensing
Power supply	120-277VAC
Ports	Three available 10/100 Ethernet ports

Datalogger

Devices supported	Up to 16 inverters – only inverters supported as external devices
Storage	Removable 2GB industrial rated micro SD card
Serial	RS-485 with integrated 120 ohm termination resistor
Primary protocols	Modbus TCP, Modbus RTU, most proprietary inverter protocols
Touch screen	Color, resistive touch screen 2" by 2.75"
Warranty	Standard 5 year warranty

Meter

Voltage inputs	90-600VAC
Accuracy	Class 0.5S
CTs	3 solid core CTs with 1.25 inch opening; rated input up to 400 Amp
CT accuracy	±0.5% revenue grade accuracy
Regulatory	UL listed 508A
Warranty	Standard 5 year warranty

Cell Modem

Cellular Data	LTE Cat M1
Warranty	1 year

Irradiance Sensor

Pyranometer type	Silicon cell with mounting bracket
Absolute accuracy	±5%
Dimensions	Height x diameter: 1.12" x 0.93" (28.32mm x 23.5mm)
Wiring	Includes 5 meters of twisted-pair, shielded wire with Santoprene jacket
Operating Temperature	-13° to 131° F (-25° to 55° C)
Warranty	1 year against defects in materials and workmanship

Panel Temperature Sensor

Form	Thermal tab disk with 10 ft lead to an outdoor enclosure with a 4-20mA transmitter
Sensor type	Platinum RTD 1K
Mounting	Self-adhesive ring for attaching to a solar module
Operating Temperature	-40 to 185°F (-40 to 85°C)
Transmitter range	Transmitter can be extended 1000 ft from enclosure with 18AWG cable
Warranty	Standard 5 year warranty



Supported Inverters List

PLCS-400 / PLCS-400-CM

ABB	TRIO-20.0/27.6-TL-OUTD-US
Chint Power Systems	SCA-14/20KTL-DO/US-480
	SCA-23/28KTL-DO/US-480
	SCA-36KTL-DO/US-480
	SCA-50/60KTL-DO/US-480
Delta	M24/28/36/42U
	M60/80U
Fronius	Symo 10.0/12.0-3 208-240
	Symo 15.0-3 208
	Symo 10.0/12.5/15.0/17.5/20.0/22.7/24.0-3 480
Ginlong	Solis-25/30/36/40K-US-SW
	Solis-50K-US-SW
Huawei	SUN2000-25/30KTL-US
	SUN2000-33/36/40KTL-US
SMA	Sunny Tripower 12000/15000/20000/24000/30000TL-US
	Sunny Tripower CORE1 33/50/62-US
SolarEdge	SE9/14.4KUS
	SE10/20/30/33.3KUS
	SE66.6KUS
	SE100KUS
Solectria	PVI 14TL
	PVI 23/28/36TL
	PVI 50/60TL
SunGrow	SG60KU-M

New inverters are regularly added. Please ask your Sales Representative about inverter compatibility outside this list, or send your query to contactus@alsoenergy.com.