



MAXIMUM RELIABILITY IN THE OPERATION OF PHOTOVOLTAIC, BESS AND HYBRID PLANTS

SICAM Power Control for PV, BESS and Hybrid Plants

[siemens.com/sicam-powercontrol](https://www.siemens.com/sicam-powercontrol)

SIEMENS

One application

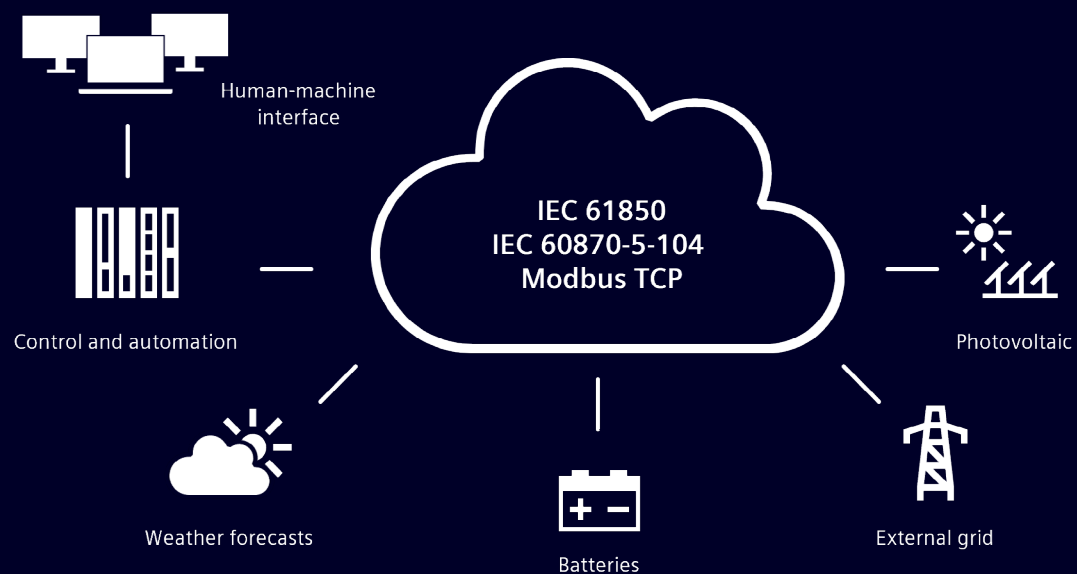
Modular functions

Designed to scale

Benefits at a glance

- Intelligent and optimized control of PV, BESS and hybrid power plants
- Maximum yield through fully redundant architecture, tracking of key performance indicators, and early warnings
- Full and future proof grid code compliance through fine-grained, customizable, and future adaptable control scheme settings
- Rapid deployment through pre-built, tested, and integration-ready project-templates
- Maximum protection against hacker attacks due to highest security standards

Plant Control – Configuration



A power plant control solution you can rely on

Active power control

- Ramp control (MPPT Control)
- Active power control
- Frequency-dependent active power control

Reactive power control

- Advanced reactive power control functions (Q limitation, Q-V-characteristic in over- and undervoltage range, Q-P-characteristic)
- Power Factor control (PF control, $\cos \phi$)
- Grid voltage control
- Q Priority
- Q Max/Min Limitation
- Q Limitation dependent on Grid Voltage

Grid stability support functions

- Dynamical power reserve for frequency stabilization
- Coordinated plant startup after grid fault

Battery control

- Grid stabilizing mode
- Renewable Smoothing mode
- SOC Balancing
- SOC Target
- Dynamic Basepoints for charging Management
- Battery management for battery in droop mode
- Manual Mode/Dispatcher Mode

Available plant startup modes

- Plant startup initiated by inverters
- Automatic startup and shutdown sequence initiated by photovoltaic plant control

SCADA features

- Plant overview
- Real time plant data
- Alarm and event monitoring

Security

- End-to-end security through IPSec
- Compliance with latest cybersecurity standards (NERC CIP, ISO/IEC 27001, IEC 62443, IEC 62351)

Communication

- Standard communication protocols like IEC 61850, IEC 60870-5-104, IEC 60870-5-101, Modbus TCP



Why SICAM Power Control?

SICAM Power Control provides:

- A flexible control solution for various applications
- Communication via all common protocols
- Flexibility for future expansions
- Intuitive operation via the integrated web browser user interface SICAM WEB
- Maximum protection through comprehensive security functions

A solution to fit all your needs

SICAM Power Control for PV, BESS & Hybrid Plants

Seamless integration or smart migration

Reliable plant control in a compact format.
Seamless integration through pre-engineered, pre-tested, and ready to integrate systems delivery. Secure communication between all levels local control system and remote operation center. Perform maintenance via Web browser and integrated web server.

Software-hardware combinations

Choose from one of two software-hardware combinations:

1. Benefit from our cost-effective pre-configured control cabinets. They are small and their robust design makes them suitable for even the toughest environmental conditions.
2. Gain more flexibility with an individualized configuration of our standardized hardware and software options.



Gain the reliability you need and the security you can count on.
Discover SICAM Power Control for PV, BESS & Hybrid Plants.



CONTACT

We would be happy to tell you more, either in person or electronically.

[siemens.com/sicam-powercontrol](https://www.siemens.com/sicam-powercontrol)

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The requested performance features are binding only when they are expressly agreed upon in the concluded contract.