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Ingenuity for life

Photovoltaic Plant Control – a SICAM application

Maximum reliability in operating photovoltaic power plants

siemens.com/photovoltaicplantcontrol

Seamless operation. Maximum security. Maximum reliability.

Benefits at a glance

Maximum efficiency by maximum yield and transparancy using optimized control schemes

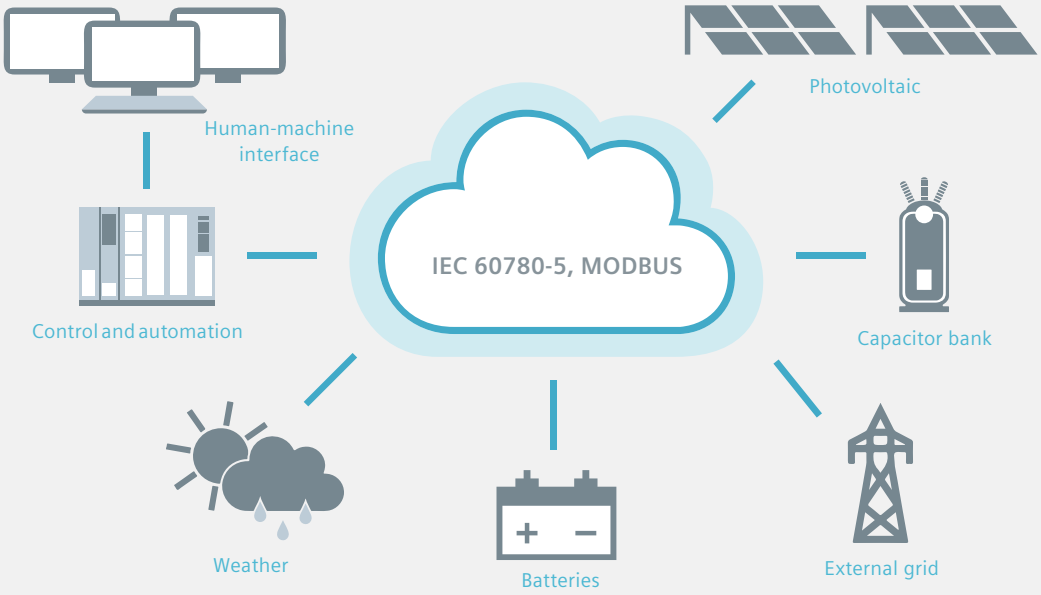
Excellent grid quality by reliably meeting the stringent regulatory requirements

Cost effective operation based on state of the art SICAM platform

Comprehensive integration of renewable energy meets the climate protection targets that promote CO_2 reduction

Ressource-efficient use protects the environment and maximizes output

Photovoltaic Control – Configuration



A photovoltaic plant control you can rely on

Active power control
- Ramp control (MPP mode)
- Active power control
- Frequency-dependent active power control

Reactive power control
- Reactive power control (Q absolute value)
- Power Factor control (cos φ)
- Grid voltage dependent reactive power control
- Voltage control

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

Grid stability support functions
- Active power curtailment
- Automatic increase/decrease of active power depending on grid frequency with adjustable power reserve
- Coordinated ramp controlled active power output after plant restart

SCADA features
- Real time plant data
- Full archive and reporting functionality
- Alarm and event monitoring
- Plant overview with optimized inverter output view
- Plant overview with geographical display for detection of inverter location
- Interface for weather data from external provider

Communication
- Standard communication protocol like Modbus TCP, IEC61850, IEC 60870-5-101, IEC 60870-5-104

Hardware options
- Redundant controller (2 separate controllers with separate power supply)
- Redundant SCADA server (2 separate servers)

Why a SICAM application?

Siemens product family provides:

Flexible communication through a wide range of protocols and common transmission media

Scalable base product for seamless continuity

Intuitive operation utilizing the SICAM Toolbox II and SICAM WEB

Interdisciplinary engineering made possible by standardized configuration

High level of protection through comprehensive security protocols

A solution to fit all your needs

Photovoltaic Plant Control – a SICAM application

Smart migration, seamless integration

Intelligent power management in a compact space, Photovoltaic Plant Control can be seamlessly integrated into existing control systems. Earn points through the solid interplay between automation and remote control. Thanks to open interfaces and international standards, the solution supports unlimited migration. Perform maintenance through intuitive plug-and-play functionality.

Software-hardware combinations

Choose from one of two software-hardware combinations:

1. Gain more flexibility with an individualized configuration of standardized hardware and software blocks.
2. Benefit from a flexible control solution for photovoltaic plant control with a cost-effective preconfigured photovoltaic vontrol cabinet. Its small, rugged housing design is optimal for new and retrofit installations.

The photovoltaic control cabinet uses the compact, flexible, and powerful SICAM A8000 telecontrol and automation system.

Gain the reliability you need and the security you can count on. Discover Siemens' Photovoltaic Plant Control – a SICAM application.
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