Member of the platform SICAM 8

ENERGY AUTOMATION PRODUCTS

SICAM PPC Compact –

Photovoltaic Plant Control

Maximum economics and grid code compliance for small and medium-sized photovoltaic systems

siemens.com/sicam-ppc-compact

Wherever energy flows

SICAM PPC Compact (Photovoltaic Plant Control), based on SICAM 8, supports the integration of large rooftop photovoltaic systems and small to medium-sized ground-mounted Photovoltaic power plants into power grids.

Integration of Photovoltaic Systems brings various opportunities but also challenges to project developers and plant operators. This includes compliance with the increasingly demanding Grid Codes.

SICAM PPC Compact from Siemens can manage these challenges!

- Compliance with grid connection conditions, e.g., reduction of power infeed at the request of the grid operator
- Ensuring maximum performance of the PV plant

Functionality

The installation of SICAM PPC Compact takes place on SICAM A8000 CP-8031or SICAM CP-8050 in conjunction with the SICAM Device Manager.

The operation is enabled by the integrated SICAM Web Dashboard.

SICAM PPC Compact can also receive setpoints from remote control centers via standard protocols like IEC 60850-5-101/104 or DNP 3.0.

The SICAM PPC Compact transmits power setpoints to the connected Photovoltaic inverters or sub-controllers.

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SICAM PPC Compact allows different functionalities for inverter control to be configured

- Aktiv Power control
  - Max. active power (MPPT Control)
  - Active power limitation (P Limit)
  - Active power control w/o PID and feedback loop
- Reactive Power and Voltage Control
  - Reactive Power Control inactive
  - Reactive Power Control (Q Control)
  - Voltage Control
  - Q(V) Control (Voltage droop control)
    - Q(V) point based curve
    - Q(V) VDE based curve
  - Q(P) Control
  - Power Factor Control (CosPhi or TanPhi)
  - Reactive Power Priority (Q Priority)
- Frequency response control
  - Maximum power capability reduction with falling frequency
  - Frequency Sensitive mode for Over- and Under frequency (FSM O/U)
  - Limited Frequency Sensitive mode for Over- and Under frequency (LFSM O/U)
  - Power adjustment in case of frequency deviation P(f)
- Fault Ride Trough

Connection of PV inverters, sub-controllers (data log-gers), meters and grid operator

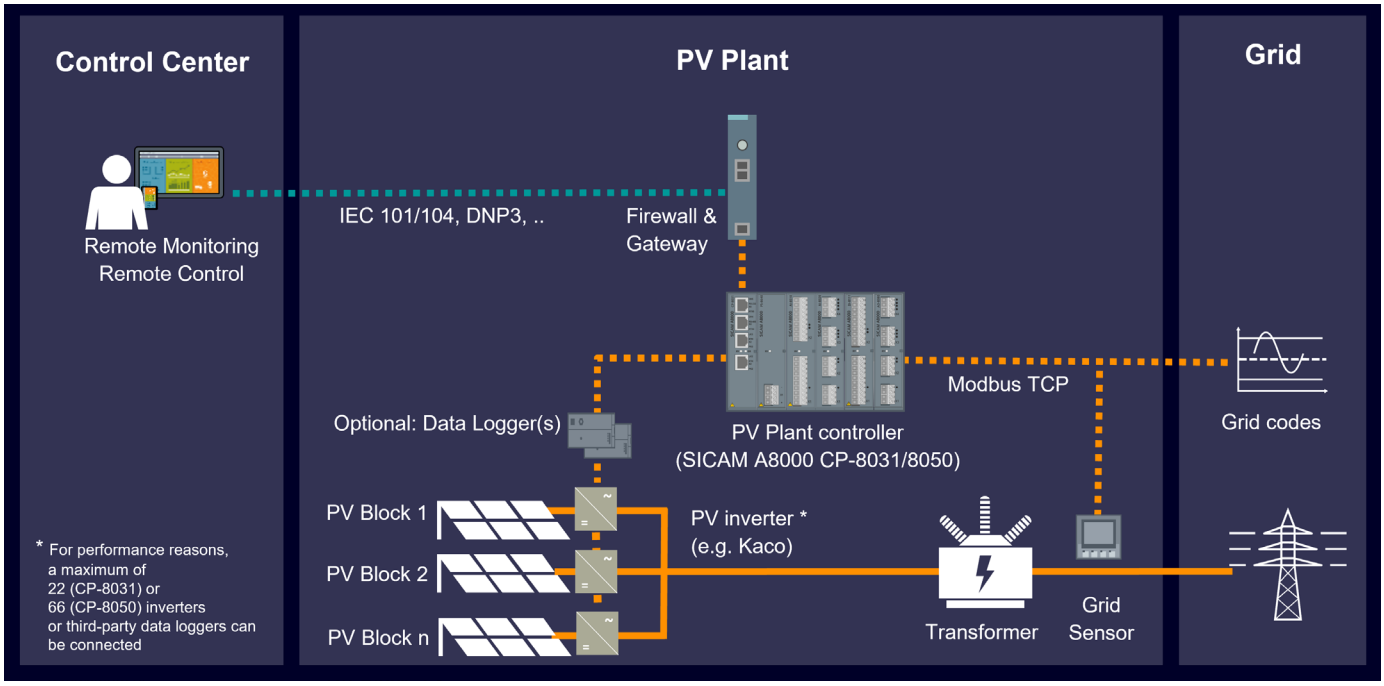
- IEC 61850
- IEC 60870-5-104
- IEC 60870-5-10
- Modbus TCP

Areas of application

- Real estate
- Industrial sites
- Business Parks
- Small and mid-sized ground-mounted PV parks

Limitations

- SICAM A8000 CP-8031: max. 22 inverters or controllers/data loggers
- SICAM A8000 CP-8050: max. 66 inverters or controllers/data loggers
- Maximum total system power: 50 MWp



Configuration Example: Photovoltaic System Control with SICAM A8000 CP-8031/8050

Siemens AG
Smart Infrastructure
Electrification & Automation
Mozartstrasse 31c
91052 Erlangen

Siemens Industry Inc.
3617 Parkway Lane
Peachtree Corners, GA 30092
United States