SICAM 8
Power Automation Platform

HW
SICAM A8000

ENERGY AUTOMATION PRODUCTS

SICAM A8000 - Automation and remote terminal units

siemens.com/sicam-a8000

The SICAM A8000 is a modular device series designed specifically for telecontrol and automation applications. It provides a comprehensive solution for remote monitoring, control, and automation of energy systems across industries and infrastructure. The platform is highly versatile, offering integration of hardware and software with modular designs that allow customization based on specific use cases. The SICAM A8000 supports up to 200,000 data points, making it ideal for managing large-scale energy networks efficiently

Highlights

✓ Increased EMC stability of up to 5 kV (IEC 60255), making it suitable for direct use in substations

Integrated short-circuit indicator functionality allows network monitoring

Modular design allows tailored application solutions

Detachable display for maximum flexibility (applies to device CP-8010/12)

Cloud connectivity enables secure real-time data transfer for monitoring and analytics

Benefits

- High investment security through the use of international standards such as IEC 61850, IEC 60870 5 101/103/104
- Fulfills high cybersecurity requirements with the integrated crypto chip and IPSec encryption for secure data communication
- Time and cost savings thanks to easy installation and maintenance – plug and play
- Reduction in inventory costs due to the modular platform with versatile application options
- Adaptability to existing communication infrastructures using multiple interfaces and integrated LTE modem available

SIEMENS

SICAM A8000 – module types

- Processor modules (up to 14 interfaces)
- Power supplies (DC 24-60 V; 110-220 V; AC 230 V)
- Ethernet communication modules
- Expansion modules for max. 16 I/O lines
- Digital input module (DC 24 V; 48/60 V; 110 V; 220 V)
- Digital output module (DC 24-220 V; AC 110/230 V)
- Transistor output (DC 24-60 V)
- Analog input module
  (-20/+20 mA; -10/+10 V; Pt 100)
- Analog output module
  (-20/+20 mA; -10/+10 mA; -10/+10 V)
- Input current/voltage (1A / 5 A; LoPo; up to 250 V)

The universal digital and analog input/output modules can be plugged in any order and are suitable for the smallest spaces due to their module width of 30 mm.

Communication interfaces and protocols

- IEC 60870-5-101/-103/-104, Modbus RTU / TCP
- IEC 61850 Ed1/Ed2 Client & Server incl. GOOSE
- DNP3 Master/Slave serial, TCP/IP
- Further protocols on request
- CP-8010
  - 3xRJ45 (Eth) and 3x serial interfaces
  - Integrated ZigBee module to connect sensors
- CP-8012
  - 3xRJ45 (Eth) and 3x serial interfaces
  - Integrated LTE modem with GPRS fallback
  - Integrated ZigBee module to connect sensors
- CP-8031
  - 2x RJ45 (Eth) and 2x serial interfaces
- CP-8050
  - 2x RJ45 (Eth), 1x RS232 (RJ45), 1x RS485, 10x RJ45 (Eth) with CI-modules

Auxiliary voltage

- DC 24-60 V (12 W or 45 W)
- DC 110-220 V (12 W or 45 W)
- AC 230 V (45 W)
- Redundancy possible

Real-time clock

- +/- 2 ppm, time synchronization via NTP, SNTP

Inputs / outputs

- CP-8050: max. 2048 I/Os with up to 16 I/O lines, 8 expansion modules each

Electromagnetic compatibility

- IEC 60870-2-1, IEC 61010, IEC 60255-5, IEC 61000-4, EN 55022, CE marking

Temperature range

- From -40°C to +70°C

Housing specification

- Plastic housing for DIN rail mounting
- Dimensions CP-8010/12:
  153x160x123 mm (W / H / D)
- Dimensions CP-8031/50, CI, PS and expansion modules: 30x132x124 mm (W / H / D)

Special features

- Data storage via SD memory card
  (storage of parameters and device firmware)
- Freely programmable user programs as per IEC 61131-3

Security standards

- IEC 62351 series
- BDEW white paper conformity
- IEC 62443-4-2 certified

Security features

- Integrated crypto chip
- IPsec encryption
- https protocol
- Firmware signature
- Security logbook

↗ Online shop - Industry Mall

↗ Catalog: SICAM Substation Automation

↗ Webinar series: SICAM 8 - Power Automation Platform