

**SIEMENS**

*Ingenuity for life*



## Energy automation at the click of a mouse

Available online via  
the Siemens Industry Mall

[siemens.com/energy-automation-products](https://www.siemens.com/energy-automation-products)

# Siemens Industry Mall – digitalize your procurement process – now also for energy automation products



Your access to the Industry Mall is personalized.

Our Industry Mall online catalog and ordering system is your gateway to the convenient world of automation and drive technology – and that also now includes energy automation products.

## Raise efficiency – lower costs

The Industry Mall allows you to process every stage of procurement from the selection of products, ordering, and delivery tracking to service provision and direct downloads – from anywhere and at any time.

In order to use the full functionality of our Industry Mall, we offer you personalized access. Once you're registered, our system opens up numerous options for the efficient organization of your business processes.

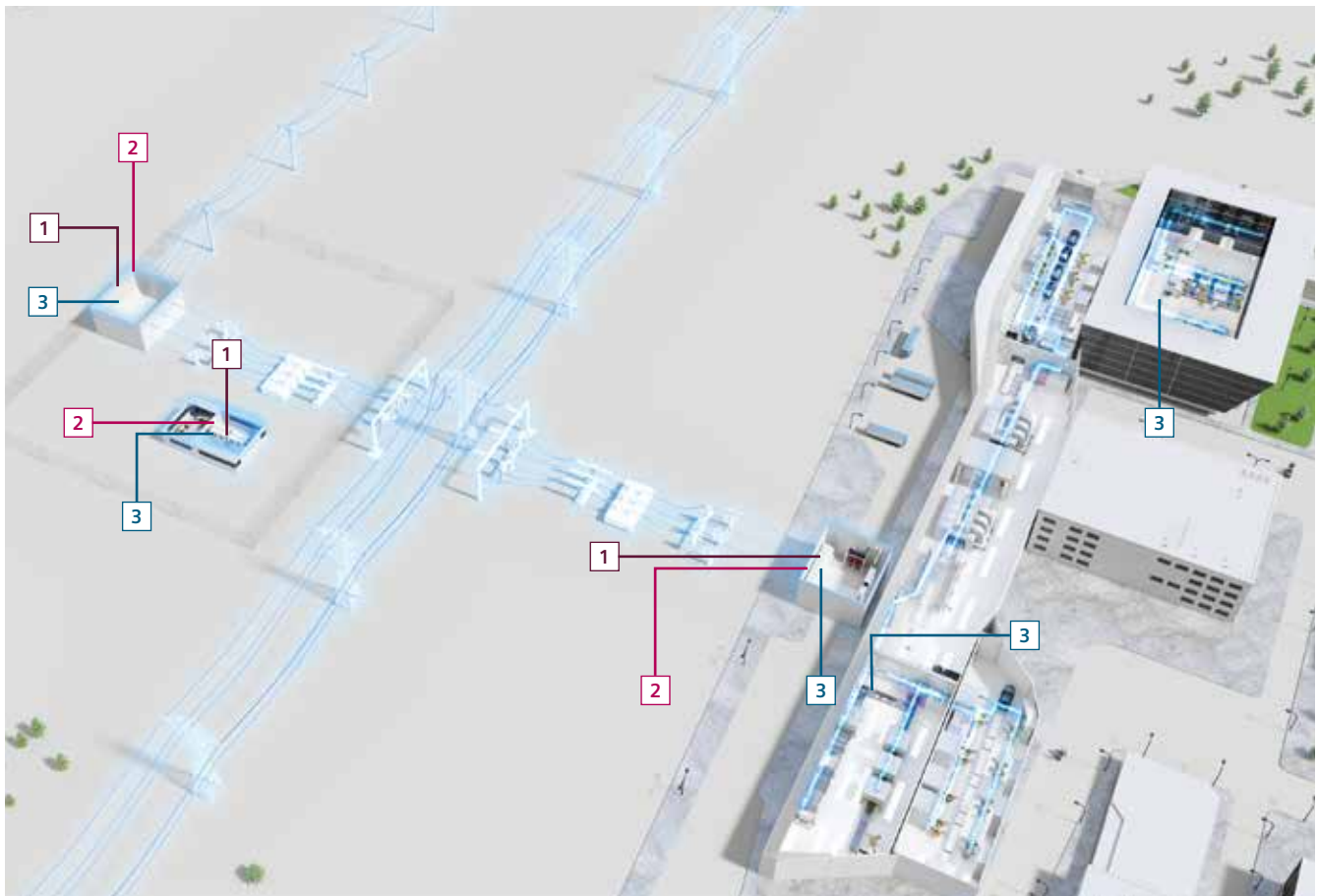
## Your advantages:

- Personalized view with corresponding prices and discounts
- Simple search function based on article numbers
- Up-to-date product descriptions and information
- Validity check of the order numbers
- Online ordering process with order overview and order tracking

# Energy automation with strong brands

Siemens has the largest installed base of energy automation solutions worldwide.

Siemens offers suitable products and systems for power utilities and industrial customers from the process level to the control system.



## 1 SIPROTEC and Reyrolle – protection relays

With the SIPROTEC and Reyrolle series of protection relays products, you not only ensure the permanent availability and stability of your supply grid, but you also reliably safeguard your equipment against damage.

## 2 SICAM – station control and telecontrol technology

From large-scale power plants to secondary substations: The SICAM product family offers smart, customized solutions for all applications and for every aspect of the automation, controlling, and remote monitoring of power plants.

## 3 SICAM – power quality and measurement

The recording and documentation of parameters relevant for the supply quality serve as an important step for the identification of possible weak points and for the initiation of suitable remedial measures.

# SIPROTEC and Reyrolle protection relays

Always perfectly protected



## Efficient coverage of numerous protection functions

With the SIPROTEC and Reyrolle brands, Siemens is one of the leading manufacturers of digital protection relays. More than 1.5 million protection relays (including > 0.4 million with IEC 61850 protocol) are in operation worldwide, providing a secure and reliable solution for power supply grids.

## Largest installed base, proven in operation

Protection relays detect electrical faults and malfunctions in equipment quickly and reliably. You can disconnect them selectively and thus guarantee plant protection and a high degree of supply reliability and grid stability.

## Optimized protection for every application

- **SIPROTEC 5** – the new, modular protection concept for all applications
- **SIPROTEC 4** – proven protection relays with large installed base
- **SIPROTEC Compact** – maximum protection in minimum space
- **Reyrolle** – devices with withdrawable-unit design for distribution networks

## Customer benefits

- Flexible device families with comprehensive protection functions for all applications facilitate stockkeeping and engineering
- All common communication interfaces such as PROFIBUS or PROFINET IO are supported, thereby facilitating matching to existing communication infrastructures
- Simple engineering and parameterization with DIGSI-Software (based on STEP 7 and TIA Portal)
- Integrated security: All devices fulfill the highest Cyber Security requirements including the BDEW Whitepaper (German Association of Energy and Water Industries) and NERC CIP (North American Electric Reliability Corporation, Critical Infrastructure Protection)

# SICAM substation automation

Automation, remote control, and monitoring of power grids



## The universal solution for controlling, signaling, and telecontrol

SICAM products encompass a wide variety of hardware and software solutions for energy automation, distribution automation, and telecontrol in systems of power suppliers and industrial companies.

## Reliable and future-proof operation

SICAM substation automation monitors various settings, including those for manufacturing equipment, controls switchgears, and automates operating processes.

## Wide product palette for every application

SICAM substation automation, distribution network automation, and remote terminal units (RTUs):

- **SICAM A8000** – Controlling and telecontrol for small to medium data volumes
- **SICAM TM** – Controlling and telecontrol for medium data volumes
- **SICAM AK 3** – Controlling and telecontrol for large data volumes
- **SICAM SCC** – HMI for WinCC-based switchgear control
- **SICAM PAS** – System for the energy automation of switchgear

## Customer benefits

- Modularity of the platform for many different application options and reduced stockkeeping
- Application of international standards such as IEC 61850 for long-term investment protection
- Integrated crypto chip and IPsec encryption for fulfilling high Cyber Security requirements
- Plug-and-play functionality of the modules for time and cost savings in installation and maintenance

# SICAM

## power quality and measurement

Safeguarding power quality and supply



### Avoiding loss of power quality effectively

The power supply grid has to continually compensate for fluctuations in the power quality, so that connected devices can continue to operate reliably without significant loss of performance. Fluctuations occur, for example, as a result of unusually high loads, changes in the state of the grid, or external influences such as lightning.

### Secure and efficient operation

SICAM power quality and measurement supports power utilities as well as industrial customers. With SICAM, Siemens provides solutions for precise measurement, acquisition and signaling of necessary information for ascertaining, adapting, and improving power quality continuously.

### Complete portfolio for maximum performance and highest efficiency:

- Power meters: **SICAM P50, P55, P850, MMU**  
Acquisition, display, and transmission of measured values for energy management
- Power quality recorders: **SICAM P855, Q100, Q200**  
Acquisition, visualization, recording, and analysis as well as transmission of electrical measured values
- Digital measuring transducer: **SICAM T**  
Acquisition of electrical measured quantities for output at analog outputs and the communications interface
- Digital fault recorder: **SICAM 7KE85**  
High-performance fault recorder with integrated measurement of synchrophasors (PMU). Ideally suitable for monitoring the entire energy value chain, from generation to distribution.

### Customer benefits

- The acquisition of electrical measured quantities at individually defined measurement points makes your grid transparent
- Clear, transparent real-time visualization of the power quality at the control station or on a PC helps to assure power quality
- Storage and analysis of long-term operating data enables retroactive verification of the power quality
- Identification of weak spots in the grid highlights where action is needed to protect the power supply



Energy automation products: online information, selection, and ordering.

## Simple online ordering, reliable delivery

### Find the product you want with just a few mouse clicks

In the Siemens Industry Mall, an intuitive user interface helps you easily access selected products in our portfolio. All data is continuously updated so that you are always up to date – complete with information on availability, delivery dates, and purchase prices.

You can perform search functions and set product group filters for the components you need in a matter of minutes. It's quite simple and is done using article numbers or product descriptions.

### Convenient integration into your processes

With Open Catalog Interface (OCI) and the PunchOut interface we offer you two open and standardized catalog data interfaces for transferring shopping cart data into your procurement system. You can access up-to-date catalog data of the Industry Mall, add items to your shopping cart, and then transfer this data back to your own procurement system.

Register your own personalized access now free of charge:  
[www.siemens.com/industry-mall](http://www.siemens.com/industry-mall)

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

For all products using security features of OpenSSL the following shall apply:

This product includes software developed by the OpenSSL Project for use with the OpenSSL Toolkit ([www.openssl.org](http://www.openssl.org)).

This product includes cryptographic software written by Eric Young ([eay@cryptsoft.com](mailto:eay@cryptsoft.com)).