



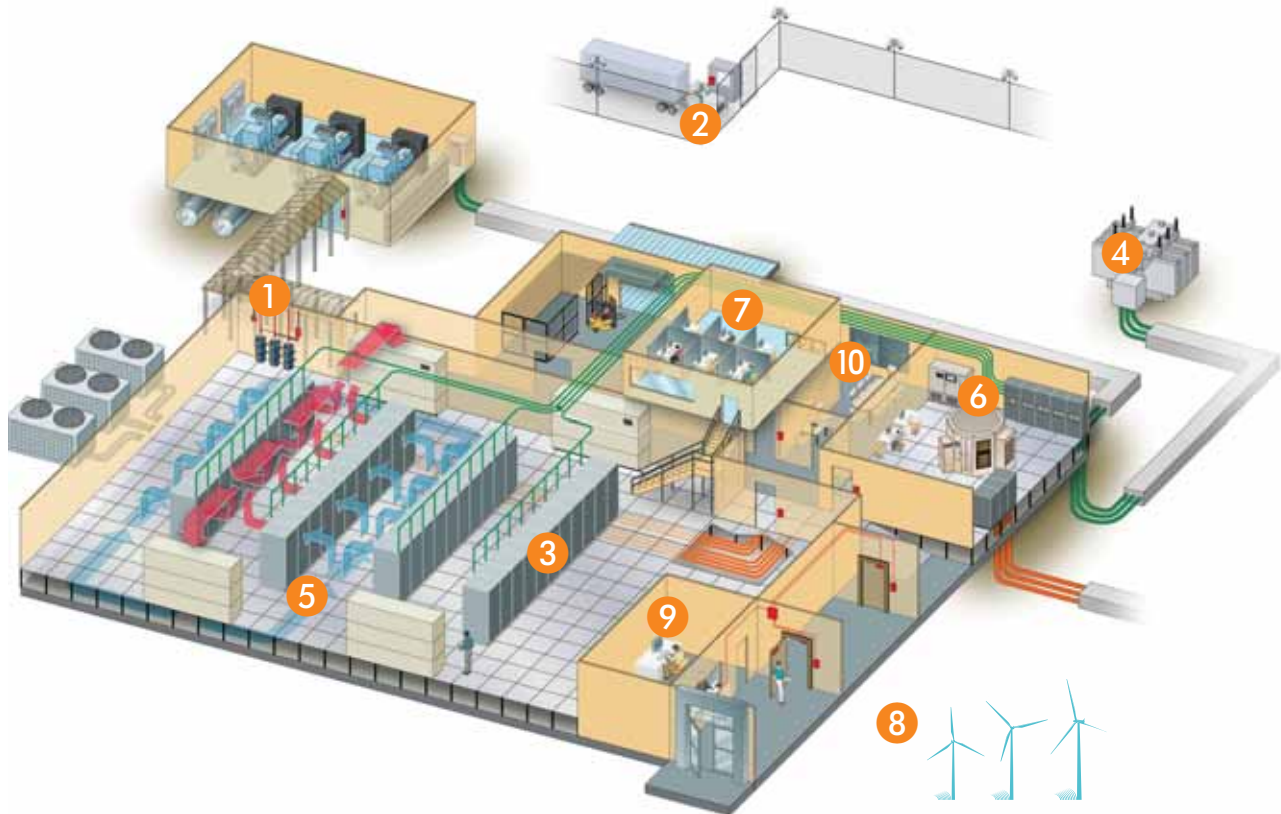
SIEMENS

Critical Power

Power Distribution Solutions

www.usa.siemens.com/pds

Siemens energy management solutions provide a window to your entire energy system.



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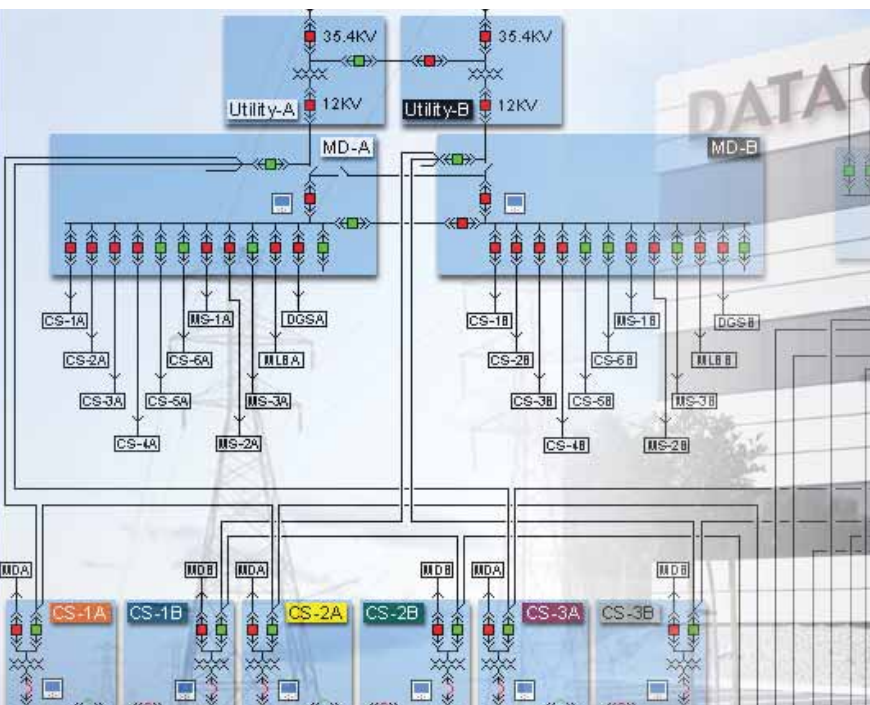
Siemens Power Distribution Solutions

Managing critical power facilities' electrical, mechanical and IT systems

Siemens Power Distribution Solutions provides a comprehensive energy monitoring solution that can deliver real time information about your facility to ensure reliable 24x7 uptime while utilizing the lowest energy possible. Whether you are designing a fault tolerant, mission critical infrastructure or intelligently balancing the IT workloads to optimize energy usage and control costs, you need a reliable and industry proven monitoring solution. Siemens solutions will provide all this, while

allowing you to manage the actual power consumption and peak power utilization from the high and low voltage distribution equipment, to generators, alternative energy sources, UPS, PDU, RPP, environmental and detection systems, as well as other components from the IT support infrastructure like server rack monitoring.

Siemens provides the flexibility to meet all your critical power needs whether you're building a traditional enterprise facility or a more modular containerized design, Siemens advanced WinPM. net or Powermanager platforms can provide the solution.



Siemens energy and power monitoring software solutions

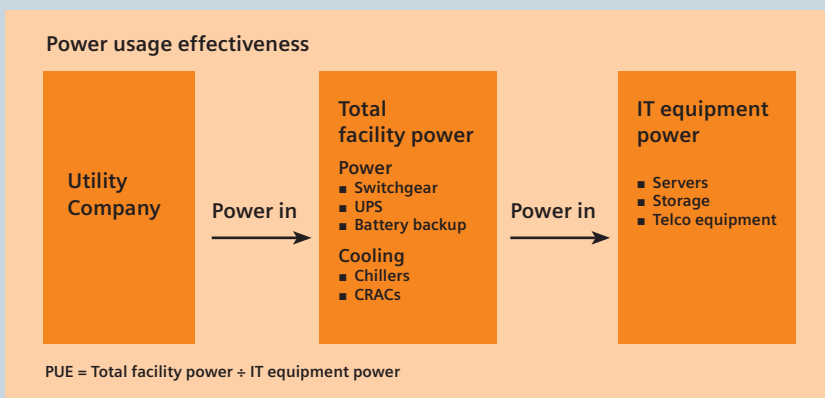
Powered by WinPM.net or Powermanager software, the Siemens energy management system puts the right information into the hands of facilities engineers, energy managers, support staff, and executive management to help them manage their energy systems. Infrastructure issues can be more effectively addressed by monitoring the equipment efficiency and energy goals.

The Siemens energy management solution allows for better planning of system expansions and managing energy issues and provides instant notification when faults occur within the

facility or complex. Siemens portfolio of advanced hardware, software products, combined with our service and support, serve as the foundation for your energy management system, allowing you to achieve your energy management goals.

Seamless creation of Historical Trend and Power Quality reports which can be distributed in both HTML and Excel formats, provide the necessary data for your facility to make proactive decisions. Reports can even be automatically printed or emailed at certain times or in response to a predefined system condition.

Siemens energy management software provides advanced reports for equipment loading, power quality and energy allocation as well as custom data management reports with PUE, carbon footprint and more.



Custom Reports can be utilized for calculating power usage effectiveness data center indexed effectiveness.

Advanced reports for load profile, power quality, billing/cost allocation as standard tools to manage your facility.

Siemens total energy management solutions: reliable and precise



Reliable power quality and flexibility

A Siemens designed solution using the advanced WinPM.Net or Powermanager platforms, coupled with high quality Siemens meters, breakers, relays, and more will result in a powerful tool, helping to analyze, identify and correct power issues before they become critical. Instant notification by email or alarm is also available when power quality issues such as harmonics, transients, and common voltage or current sag/swell disturbances occur.

Siemens Power Distribution Solutions provides the flexibility to manage the existing infrastructure, while allowing for future expansion as your facility grows. Easy integration with any vendor's equipment, using standard communication protocols and methods, allow combining of critical alerts and real time data into one comprehensive system. The ability of the Siemens system to integrate multiple vendors' products into a complete facility infrastructure monitoring system provides cost savings and improves overall reliability.

Informative

Siemens Power Distribution Solutions provides a facility monitoring solution that can provide you with the reports and the data you need for your operation. Complete power, efficiency and loading analysis from the incoming utility power to individual server racks and servers.





Application engineering capabilities

Provides:

- Power quality reliability and analysis
- Utilities cost allocation and billing
- Utilities usage aggregation
- Load preservation
- Equipment monitoring
- Facility monitoring and automation
- Sequence of event recording
- Preventative maintenance
- Electrical asset management



The Siemens Power Distribution Solutions Application Engineering team provides the required experience and knowledge to implement any system regardless of the size or complexity.

Siemens Application Engineers are highly skilled professionals who understand how to combine the best PMC software and hardware to create solutions that exceed our customer's expectations.

Key market expertise:

- Commercial Construction:
 - New / Retrofit
 - Tenant / Sub Billing
- Critical Power:
 - Data Centers
 - Hospitals
 - JCAHO
- Government:
 - Local, State and Federal Government EPACT projects
 - Universities
 - Airports
- Industrial Applications:
 - Petro – Chem
 - Cement
 - Food and Beverage
 - Waste water
 - Automotive

PDS custom solutions:

- LAN – WAN based solutions using our WinPM.Net web-based software
- Custom power metering logic
- Custom billing, energy usage or load profile reports
- Integration of other utilities like gas, water, steam, air and more
- Custom interactive one-line, elevation or floor plan graphics
- Third party hardware and software integration
- Extensive alarm configuration and implementation
- Custom data logging and data retrieval
- Siemens or others plant factory witness testing
- On-site and remote hands-on system training
- Overall PMC project management

Application engineer capabilities:

- Communication network topology approval drawings
- Project management plan for the PMC system
- Interface to Siemens Apogee building management system
- Power monitoring workstations and server configuration
- Final as-built operation and maintenance manuals
- Integrate with Siemens medium voltage, low voltage switchgear and motor control centers
- Integration with Siemens Industrial Automation components and Software WinCC / PCS 7
- System communication troubleshooting
- Site Acceptance Test procedure (SAT), Method of Procedures (MOP), Factory Acceptance Test procedure (FAT)
- On-site startup and commissioning

Siemens energy management systems are a powerful suite of products, software and services that monitor and report energy consumption taking your facility to the next level.

Advanced logic and control

Create intelligent logic for custom alarms, demand control, automated power factor correction, peak shaving, load predictions, or load shedding.

Power quality analysis

Display waveforms to correlate phase-to-phase relationships between voltages and currents. Determine which direction faults occurred, line or load side. Plot transients, power surges, voltage sags, and CBEMA curves. Locate the cause of electrical anomalies using advanced directional disturbance detection which will indicate if the problem is from the utility or from facility equipment downstream. View the harmonic and power quality events for detailed analysis providing waveform captures and power values with millisecond timestamp indications for detailed sequence of events recording and analysis.

Power quality event notification

Receive instant notification by email or alarm when power quality issues such as harmonics, transients, sag/swell or voltage disturbances occur.

Compatible devices

Siemens energy management software has the ability to connect to any Modbus RTU, Modbus TCP, SEAbus, ION, XML and third party devices providing the ability to tie in a large array of devices. The Siemens energy management software is backwards compatible with older Siemens devices, so you can upgrade your monitoring system without replacing existing equipment.

Multiple vendor integration

Siemens Power Distribution Solutions team has the experience and knowledge integrating equipment from multiple vendors using industry standard communication protocols. Manage all of your critical power equipment from a single-point monitoring and control system.

Asset management

Efficient equipment maintenance means doing what you need, when you need to. — Intelligent breakers, power meters and protective relays alert operators as to when system events create conditions where product or apparatus maintenance may be required. Generator run time, breaker history, and other system parameters can be tracked and reported to help schedule shutdowns and preventive maintenance schedules.

Future expansion/open connectivity

Look for pockets of untapped power potential before the next capital expansion. Maximize your system by connecting to existing installed equipment.

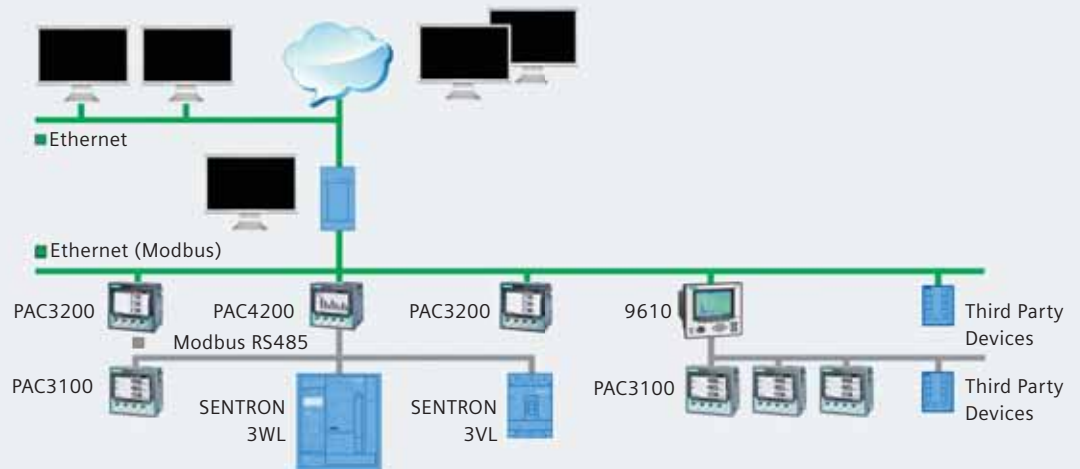
Remotely monitor emergency power

Display realtime information from generators, solar, wind, UPS's, and other standby power systems that are vital to critical power applications.

Operation and monitoring
Windows or web clients

Data processing
SENTRON Powermanager server

Data detection
Measuring/protection devices





advantages to you....

- Technical experts
- Single source supplier
- Available 24/7, 365 days a year
- Reduced total cost of ownership (TCO)
- Avoid unscheduled downtime with preventive maintenance

SIEPRO service products

Modular SIEPRO service products enable you to customize a technical service agreement to meet your organization's maintenance needs over the entire life cycle of your installation. Including SIEPRO products in your TSA will provide the following benefits:

- Substantial savings versus "on demand" purchases
- Optimized scaling of your maintenance organization
- Assurance that your installation is operating at maximum performance and availability

Telephone and Internet

Priority support

When you need help right now, choose the support coverage that fits your business:

24 hours x 7 days a week

8 hours x 5 days a week

Extended support

With extended support, you can request blocks of support hours for specific projects and tasks. We can customize this support service to meet your individual needs.

Remote service

Remote service provides support and diagnostics via data line to save you time and money. Technical support specialists directly access your system for real-time troubleshooting to provide maximum uptime.

Technical account liaison

A technical account liaison provides consulting and guidance on all aspects of support through familiarity with the application, your business goals and processes, and your maintenance and engineering staff.

In addition to a site visit to assess your installation and support requirements, the technical account liaison will conduct monthly reviews with your staff to ensure you are receiving maximum payback on your investment.

Field services

Block of hours

Purchase field service hours in 40 hour increments for preventative, predictive or emergency services.

Embedded engineer

Full-time, on-site support from a certified Siemens professional.

Emergency support

Purchase emergency service hours in 40 hour increments to ensure the fastest possible response time.

Maintenance programs

Packaged maintenance programs available for:

- System performance checks
- Run diagnostics
- Analyze power quality
- Visual inspections of key system components
- Database trim and backup

Training

Operation and maintenance

Siemens training offers a broad range of educational services, providing quality and excellence to the automation industry. Targeted product and system training provides the student with practical, hands-on experience.

Customized on-site training

On-site training is excellent for large groups or when individual, one-on-one instruction is needed. When the trainer visits your facility, product training will be conducted on your specific installation. Classroom lectures, and trouble-shooting techniques specific to your installation are covered in detail during the training session.

Software update service

The software update service enables you to take advantage of enhancements to the most current software versions. A site evaluation is conducted to determine necessary upgrade requirements prior to the Software Update Service.

Answers for infrastructure.

■ Megatrends driving the future

The megatrends - demographic changes, urbanizations, climate change, and globalization - are shaping the world today. These have an unprecedented impact on our lives and on vital actions of our economy.

■ Innovative technologies to answer the associated toughest questions

Throughout a 160-year history of proven research and engineering talent, with more than 50,000 active patents, Siemens has continuously provided its customers with innovations in the areas of healthcare, energy, industry, and infrastructure - globally and locally.

■ Increase productivity and efficiency through complete building life cycle management

Siemens offers intelligent integrated solutions for industry, commercial and residential buildings, and public infrastructure. Over the entire facility's life cycle our comprehensive and environmentally conscious portfolio of products, systems, solutions, and services for low-voltage power distribution and electrical installation technology, building automation, fire safety and security ensures the:

- Optimum comfort and highest energy efficiency in buildings
- Safety and security for people, processes and assets
- Increased business productivity.

Siemens Industry, Inc.
5400 Triangle Parkway
Norcross, GA 30092

1-800-241-4453
info.us@siemens.com

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