# ASCO PowerQuest Critical Power Management System





# **POWER MANAGEMENT CHALLENGES**

Today more than ever, continuous electrical power is essential for providing mission-critical services to the people and organizations that need them. Whether it's a hospital that provides critical care, a data center with strict service level obligations, or a telecommunications site with a public safety function, services cannot be delivered without reliable, cost effective power.



To ensure power reliability, engineers, managers, and technicians must understand the status and condition of critical power equipment at all times; anticipate power issues before problems occur; and quickly and effectively respond to power events. Managers must also ensure availability and reliability while complying with regulatory requirements and reducing costs. Because facilities rely on equipment from multiple manufacturers, managers often face multiple challenges to effective power management.



# **POWER MANAGEMENT SOLUTION**

The ASCO PowerQuest Critical Power Management System (CPMS) provides a scalable comprehensive solution for managing critical power equipment and systems. The CPMS monitors and assesses data from sources such as engine-generators, transfer switches, power control switchgear, load banks, surge protection equipment, circuit breakers, and more. It monitors power conditions and events, and then provides alerts and notifications via emails and text messages according to user-configured settings. The CPMS sends information to local or remote displays, and to building management systems via Modbus, BACnet, and SNMP.

Unlike most traditional electrical power monitoring systems, the CPMS provides for direct control of ASCO transfer switches and load banks. It can also control engine generators from major manufacturers, including **Caterpillar, Cummins, MTU, Generac, and Kohler**. Monitoring and control is provided through a single, intuitive user interface that eliminates the need to train personnel on systems from multiple manufacturers.





# **KEY CAPABILITIES**

**ADVANCED ENHANCED** 

Offering a wide-range of monitoring and control capabilities, the ASCO CPMS platform can optimize critical power systems and manage power assets in applications ranging from small-scale systems to power systems at multiple sites.

- SIMPLE System Visualization: Understand system status in a single view
  - Real-Time Monitoring: Gain clearer insight for quicker decisions
  - Alarming & Notification: Learn about system events and conditions

Event Logging: Simplify forensic analysis by viewing all device events in a single record

- Energy Trending: Increase efficiency, manage capacity, and reduce costs
- Automated Reporting: Streamline and enhance operational compliance

Reference Library: View drawings and facility documentation where you need them, when you need them

Dynamic One-Line Diagrams: View detailed, electrical one-line diagrams of your facility's power system System and Facility Dashboards: Displays for key values and indicators, formated to user specifications Visual Event Playback: View sequential system events for forensic assessment

# SAMPLE CPMS SCREENS



**Real-Time Monitoring & System Visualization:** 



Summary screens provide the most important information instantly. They provide the ability to initiate engine starts and load transfers



## **Automated Reports:**

Automatically generate and distribute reports that comply with NFPA, CALEA, Joint Commission, and CMS requirements



## **One-Line Diagrams:**

Display data directly on a custom diagram of your facility's power system

## **Alarming & Notification:**

Receive real-time alarm and event messages via email, text messages, and alarm dashboards

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# **Event Logging:**

Automatically log power system events for forensic evaluation



## **Reference Library:**

Instantly access power system drawings and documentation at any connected display

# **EXAMPLE CPMS CONFIGURATIONS**

ASCO's highly scalable CPMS can be configured to optimize systems of every size. In the following diagrams, representative configurations for each CPMS platform along with the capabilities they provide.

# Simple Power System - 5710 CPMS Platform

Even the simplest ASCO CPMS solutions provide system visualization and user-configurable alarming and notification. With any ASCO CPMS, users can monitor power sources and test transfer switches and engine-generators using local or remote touchscreen, or with many popular web-enabled devices.



## Enhanced Power System - 5750/5790 CPMS Platforms

From engine-generators to distribution equipment, the ASCO CPMS works with a wide variety of devices to provide unparalleled insight into the status and condition of power systems and equipment. It unifies information from across your power system to enable assessment and control at a central location.



Model 5750 Manages Up To 64 Devices Model 5790 Manages Up To 128 Devices

# **Advanced and Multi-Site Applications - 5900 SERIES Platforms**

All of ASCO's CPMS capabilities can be scaled to make power systems of every size easier to monitor and manage. CPMS components can connect power equipment from a single power system, multiple systems within a building, multiple buildings on a single campus, or multiple sites at distant locations. Whether across the building or across the world, users can view power information for an entire network and manage equipment from a single center of expertise or remote client.



Engineered to Specification

# **CPMS EQUIPMENT**

ASCO Critical Power Monitoring System platforms include advanced CPMS software and servers designed to meet a wide range of power management needs. Additional ASCO devices collect data and provide connectivity to create or add to power management networks. ASCO CPMS servers, power meters, power quality meters, and connectivity devices are used to create systems that provide benefits that are unmatched in the industry.

ASCO's CPMS solutions are supported by a wide range of monitoring and control equipment. Consult an ASCO representative to learn more about the optimal CPMS solution for your critical power management application.

## 5700 & 5900 SERIES CRITICAL POWER MANAGEMENT PLATFORMS

At the center of every ASCO power management system is a CPMS server. In the 5700 SERIES, three models provide a comprehensive range of features for monitoring and controlling power systems with up to 128 devices and 100 clients. The 5900 SERIES models serve the largest and most sophisticated systems. They can be customized to meet virtually any power monitoring and management need.

## **COMMON FEATURES**

Every ASCO 5700 and 5900 SERIES CPMS provides the following features:

- Real-time equipment monitoring and remote access
- Information sharing with power and building management systems via Modbus, BACnet, and SNMP
- Real-time notifications about power events and alarms via email, text messages, and SNMP
- A single intuitive interface for controlling engine-generators, transfer switches, load banks, and more

	CAPABILITIES				
	SIMPLE	ENHANCED	ADVANCED		
	5710	5750/5790	5900 SERIES		
System Visualization	Х	Х	Х		
Real-Time Monitoring	Х	Х	Х		
Alarming & Notification	Х	Х	Х		
Event Logging	—	Х	Х		
Energy Trending	—	Х	Х		
Automated Reports	—	Х	Х		
Reference Library	—	Х	Х		
System & Facility Dashboards	Optional	Optional	Х		
Facility One-Line Diagrams & Drawings	Optional	Optional	Х		
Visual Event Playback	Optional	Optional	Х		

Redundant servers, data storage, and power supplies are available on specific models. For detailed information about the 5700 and 5900 SERIES CPMS solutions, see our brochure entitled "ASCO 5700/5900 SERIES CPMS Platforms".

#### **5200 SERIES Power Meters**

ASCO 5200 SERIES Power Meters are used to monitor, display, and communicate key electrical measurements that are critical to understanding the status and condition of power sources and loads. These meters provide the CPMS with information needed to make key decisions about energy, utilization, and load planning. For detailed information about the 5200 SERIES models, see our brochure entitled "ASCO 5210 Digital Power Meter".



ASCO Model 5210 Power Meter

## 5400 SERIES Power Quality Meters

ASCO Power Quality Meters can be used to increase power reliability while decreasing infrastructure and energy costs. These meters continuously record waveforms at high-speed and identify transients, voltage sags, voltage swells, and harmonics. This information is retained for assessment, reporting, and forensic evaluation. ASCO Sequence of Event Recorders time-stamp power data at the source equipment to enable chronological review of power system events with millisecond accuracy. For detailed information about the 5400 SERIES models, see our brochure entitled "ASCO 5400 SERIES CPMS Power Quality Meters".





ASCO Model 5490 Power Quality Meter

ASCO Model 5400 SERIES Display

## **5100 SERIES Connectivity Units**

Every CPMS relies an Ethernet network to communicate with monitored equipment. CPMS Connectivity Units integrate signals from ASCO power devices and equipment form other manufacturers via discrete inputs, RS-485 and other Ethernet devices.

By installing ASCO's 5100 SERIES connectivity units, it is easy to create fast, effective, CPMS networks. CPMS transmits signals and data over copper up to 300 feet and over multi-mode fiber up to one mile. Multiple connectivity units can be used to extend communication distances further.



To help ensure availability for critical applications, ASCO offers Managed Connectivity Units that can be used to create ring networks, provide redundant communication pathways. If one fiber cable becomes inoperable, signals and data will still reach all units in the network.



# ASCO TECHNOLOGY, SUPPORT, AND SERVICE

For more than 125 years, ASCO has led the critical equipment industry by providing the most reliable transfer switching and power management products available. ASCO's unparalleled technology, support and service enable customers meet and exceed every challenge for providing reliable electrical power to facilities around the world. ASCO solutions include the following products and services.

#### **Transfer Switches**

ASCO introduced the first commercial Automatic Transfer Switch in 1925, and has led the industry ever since. We design, manufacture, and support the widest range of transfer switch designs, including Open Transition, Closed Transition, Delayed Transition, Slow-Load, Isolation-Bypass, and Service Entrance-Rated ATSs in amperages for every application.

#### **Power Control Systems**

ASCO's Control Systems reliably manage multiple power sources and execute complex power control sequences. Our experience, knowledge, and project management expertise produce technical solutions that other manufacturers just cannot deliver.

#### Power Management Systems

Our PowerQuest<sup>®</sup> Critical Power Management System offers scalable, unified communication and power management tools for facilities of every size. Interactive tools allow organizations to apply power expertise to a single device or to systems worldwide with the touch of a button or a swipe of a screen. A single unified user interface simplifies management and control of power and facility equipment from every major manufacturer.

#### Load Banks, Fire Pump Controllers, and Surge Protective Devices

ASCO load banks, surge protective devices, and fire pump controllers monitor, test, and control critical equipment in facilities worldwide.

#### **Custom Engineering**

Whether it's' an automatic transfer switch, paralleling gear, a power monitoring solution, or other critical equipment, ASCO can provide engineering services for any application. Our engineers provide unmatched expertise for solving the most demanding applications in our industry.

#### **Expert Service**

ASCO employs factory-trained technicians wherever our products are in service. Quick response, thorough assessment, and quality maintenance and repairs are the hallmarks the ASCO Power Services experience.

#### **Customer Support**

From initial sales support to application engineering, quality manufacturing, equipment installation, and facility commissioning, our experts know how to get projects right. Whether it's off-the-shelf equipment or a highly customized solution, ASCO experts provide the most comprehensive support in the business. Representatives are available in our customer service center 24 hours per day, 365 days per year.

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