Product brochure

Prefabricated power solutions

Fast deploying, pre-tested systems with a low total cost of ownership

Powering Business Worldwide

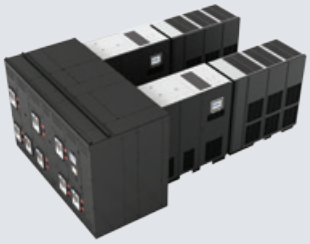
Building a new facility or expanding your existing power capacity can sometimes feel like you're stuck between a rock and a hard place.

You need to do it fast, keep spending in check and get a quality product that will last—a combination that doesn't typically fit together: fast, cost effective and high quality. That is unless you're talking about prefabricated power solutions.

Eaton's prefabricated power solutions are fully designed and integrated systems that arrive system tested and require minimal assembly. They have a low total cost of ownership (TCO), can be customized to meet most technical requirements and deploy quickly so you can add units as you grow.

They combine several products to support shorter lead times, faster deployment and reduced risk during design and implementation. And since it's a pre-configured setup that's tested as a system before deployment, you're getting consistent, repeatable designs that can be mirrored across multi-phase and multi-location sites.

These solutions come in three configurations:



1. Connected

- UPS and switchgear with up to four connected UPS modules per system
- Up to 5000 amps
- Fully customizable
- Used in gray space of traditionally constructed buildings and in custom containers

2. Centralized

- UPS, batteries and switchboard on a skid
- Up to 550 kVA
- Used in gray space of traditionally constructed buildings and warehouse environments

3. Contained

- UPS, batteries, switchgear, HVAC units, fire and safety equipment and a container for it all
- 825 and 1100 kVA
- Used in warehouse environments, disaster situations, outdoors and more—a data center critical power system in a box

Connected

The Connected configuration is a high quality, tested design that directly connects UPS modules, switchgear, static switches, controls and any monitoring or human machine interface (HMI) components, forming a single continuous system. It's ideal for permanent medium, large, hyperscale and multi-tenant data centers that are building new facilities, expanding or retrofitting existing facilities or problem solving to achieve optimal operations.

The Connected system gets you to market faster in two ways. First, submittals, purchasing, engineering and system-level test procedures are completed before delivery. And second, direct buss connections simplify installation by eliminating the need for pipe and wire. Besides the savings on materials, this also means it can be installed in a third of the time of a conventional component-based system.

Benefits include:

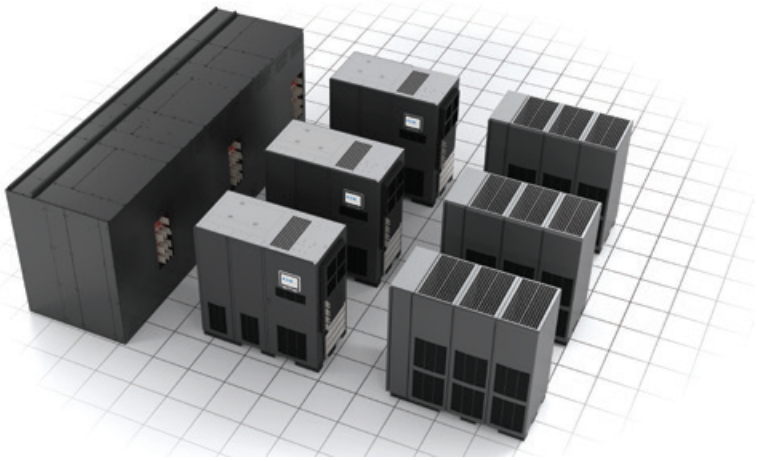
- Customization options to meet your power needs
- Faster time to market
- Saving $50,000 to $75,000 per UPS module deployed
- Reduced risk of errors that can happen in installation, resulting in unplanned downtime
- A continuous, integrated power quality system for high availability requirements with built-in communication
- Factory testing of the switchgear and UPS as a system once inter-connection wiring is incorporated

Success story: Faster installation needed

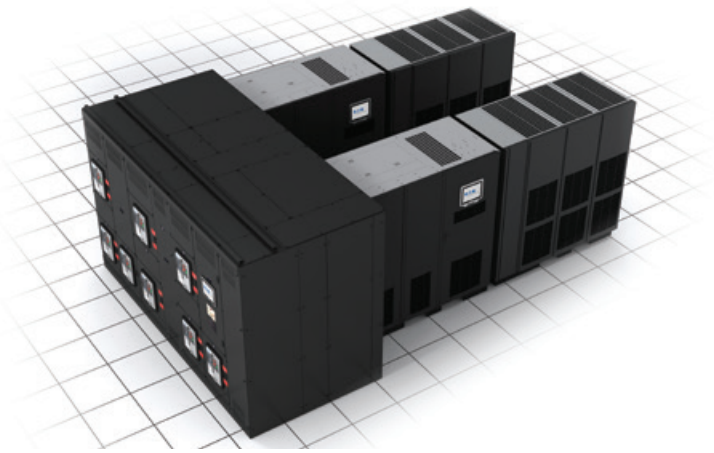
Challenge: A large e-business company was deploying multi-module systems separately and experiencing delays due to long installation times.

Solution: We offered a way to speed up installation and ensure consistency—a prefabricated solution that arrived pre-wired and pre-tested for fast deployment. We identified a system design that would work and began putting it together.

Result: The company started with one system, but after installation ordered 11 more because it did what we said it would—cut deployment time.



Connected configuration with three UPS modules in separated position before installation is completed



Connected configuration with two UPS modules after installation is completed

Centralized

The Centralized configuration incorporates a UPS, switchboard, batteries and all interconnections on a skid platform for fast deployment. Available in a convenient size of 550 kVA, it allows you to modularly add capacity as you need it, working well in all sizes of data centers. Similar to the Connected system, it can be used when building new facilities, expanding or retrofitting existing facilities or problem solving to achieve optimal operations.

Benefits include:

- A space-saving design, giving you more flexibility in the gray space
- Arriving pre-wired and pre-tested as one piece with casters on the bottom, reducing installation time by 75 percent
- Being able to add capacity with another skid to parallel the system, expanding your electrical infrastructure as your IT load grows
- Saving $50,000 to $75,000 per UPS module deployed

The casters on the bottom of the skid allow for a flexible data center layout since you can move it with a battery-powered forklift, if needed. They also make it ideal for disaster recovery sites and temporary or mobile data centers.

Did you know?

You can also integrate advanced management controls with your prefabricated power solution. For example, our NOAA weather monitoring module works with your HMI and SCADA system to monitor weather in your area every 15 minutes. When user-selected events are detected—temperature, humidity, barometric pressure, etc.—the system takes pre-programmed actions to make sure your data center is protected from any type of weather threat. Actions can range from shifting your UPS into a power-saving mode like Eaton's Energy Saver System so you can operate at 99 percent efficiency to moving the UPS into a high alert, double-conversion state.

Contained

The Contained configuration is a single container with a UPS, switchgear, batteries, HVAC units and all associated fire and safety equipment inside. It can be deployed quickly to expand existing power capacity, incorporated into greenfield modular facilities or used in disaster recovery situations.

With a 99 percent efficient UPS that's available in 825 or 1100 kVA power ratings, it's the most efficient container on the market. Installation requires only a utility input and facility connection—getting you running faster. It can also be permanently installed outside of existing structures since it includes an HVAC system to regulate internal temperatures.

Benefits include:

- Fast deployment and a design that allows for flexible placement
- Reduced design and construction costs and chances of downtime during construction
- Shortened design cycles through consistency and quality of design
- Arrival when and where you need it as a configured, pre-tested unit on a flatbed, reducing shipping costs
- Eaton services support from 240 field technicians located across North America—your single point of contact when an alarm goes off

Contained configuration ships on the back of a flatbed truck

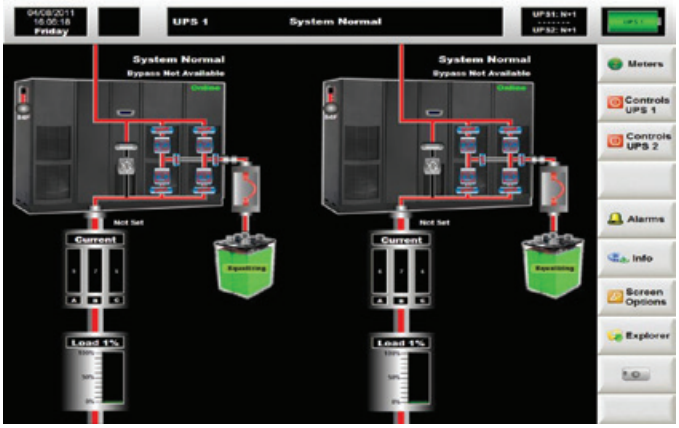
Containers include the UPS and batteries on one wall and switchgear on the other

Software, monitoring and service

To keep your system operating efficiently, consider adding power management software, monitoring capabilities and a service contract. Software allows you to remotely interface with and control your connected devices, giving you a better pulse on how your data center is performing. And when you bundle that with remote monitoring from a third-party vendor like Eaton®, you get the added peace of mind that your systems are being continuously monitored by power experts who will notify you if there's a problem.

For centralized on-site monitoring and control, you can add an HMI—ranging from 10 inches in size to more than 40 inches. This level of control provides you with metering data monitoring of more than 200 protocols; synced controls for UPSs, batteries, power distribution units and switchgear breakers based on building alarms; touch screen controls; and more.

A service contract rounds out your management and monitoring needs, helping achieve your goal of 100 percent uptime. From guaranteed response times in the event of a critical alarm to preventive maintenance plans and remote monitoring, service is like your insurance policy for business continuity.



An HMI can be added to your system and customized to meet your unique needs

Pre-deployment system testing

A unique feature of these solutions is pre-deployment testing at the factory. This involves testing all system components—UPS, batteries, power distribution, HVAC units, fire suppression, etc.—individually and as part of the larger system. It speeds up the installation process, reduces commissioning risks and time, and gives you peace of mind that you're getting a high quality, reliable system that works on day one.

Why Eaton prefabricated power solutions?

- Reduce time to UPS operation by up to 40 percent through improved lead times, reduced installation time and minimal commissioning time
- Lower TCO thanks to high levels of efficiency (99 percent) that don't expose you to unnecessary risks
- Superior control with power management software, service and an HMI
- Three configurations to meet your needs across the data center lifecycle
- Vertical integration from design to engineering to build-out

To learn more about Eaton's prefabricated power solutions, visit:
Eaton.com/prefab

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