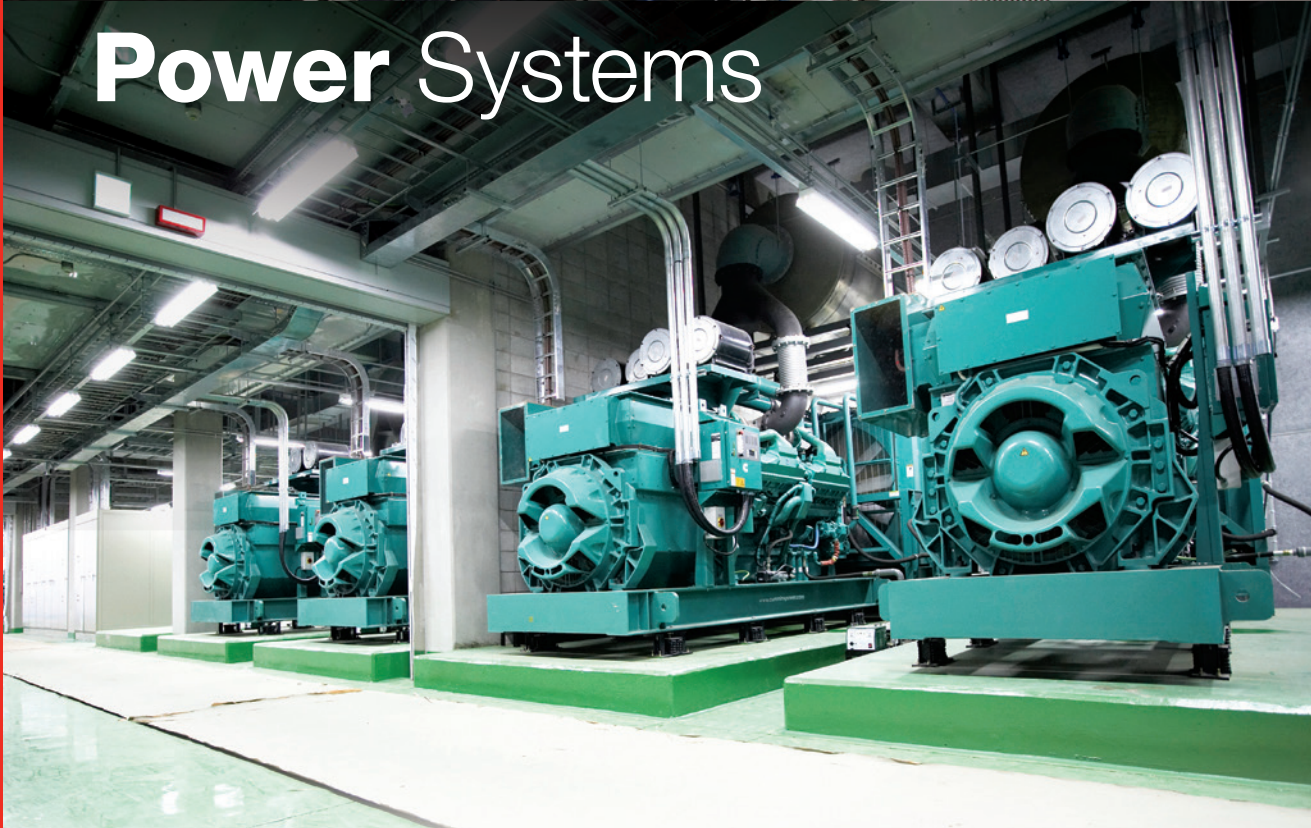




**Data Center**



**Power Systems**

Global Resources — Focused Innovation — Engineered Reliability

# **Data centers are fundamental to business.**

**Whether serving as the backbone of a search engine enterprise or large colocation network, or supporting essential information management for large institutions, data center operation is mission-critical to many of today's most important businesses.**

**To keep pace with business, new data center installations take place under shortened deadlines and increased expectations for reliability. Cummins responds to these challenges with power systems that deliver the best available technology and a support network offering industry-leading global expertise.**



A comprehensive, global approach to data center reliability.  
We call it **Data Power** from Cummins.



### **Expanding Globally**

Enterprise footprints seemingly grow at the speed of data. But putting more data centers in more countries doesn't mean changing how you do things. Cummins maintains a vast network of data center experts in every corner of the world, trained and equipped to execute on customers' central specifications, while also tending to specific regional requirements — from electrical codes to contractor relationships. Global consistency means no surprises, whether your next deployment is in Shanghai or Chicago.



### **Best Available Technology**

Best-in-class data centers often demand specialized power system capabilities. Our data center-focused experts continuously develop and apply new technologies. Specialized in-engine advancements and aftertreatment systems permit environmentally responsible power system usage, even in the most stringent locations. Advanced paralleling systems provide true digital control of startup, synchronization and no-break power transitions in 10 seconds or less. And custom data center load ratings allow for unlimited hours of operation with no restrictions on average variable load factor.



### **Five Nines Engineering**

For today's data centers, aspiring to 99.999% availability is the ultimate goal. Designing power systems that meet the highest levels of uptime — like the Uptime Institute's Tier IV standard for full fault tolerance — requires expert attention to system architecture and requisite equipment redundancy, while also avoiding unnecessary duplication that may impede system reliability. Cummins's system engineers are among the industry's most experienced and are supported by a global team of Cummins distributors to ensure smooth onsite installation and commissioning, and complete life cycle support.



### **Industry-Leading, Two-Year Warranty**

Only Cummins offers a best-in-class, two-year warranty for generator sets with data center specific ratings: emergency standby power (ESP) and Cummins' data center continuous (DCC). As further evidence of our commitment to reliability, the warranty provides unmatched assurance for data centers around the world.



# Data Center Backup Power

## **Achieving Uptime Reliability Through Focused Innovation**

Data center design and deployment are fraught with unique challenges, especially when designing backup power systems that unfailingly deliver power under emergency scenarios. While data center requirements are as varied as the industries they support, one thing remains constant: uptime reliability is the ultimate objective. With our unwavering focus on innovation, Cummins has pioneered technologies that set the standard for modularity and reliability in data center backup power systems.

## **Continuous Power Ratings Tailored to Data Center Requirements**

Cummins has developed a new diesel generator power output ratings category for data center applications to ensure total reliability and dependability for data center operators. Data Center Continuous (DCC) is defined as the maximum power which the generator is capable of delivering continuously to a constant or varying electrical load for unlimited hours in a data center application. The new ratings greatly simplify the engineering design process and make it easier for customers to achieve site certification from the Uptime Institute.

## **Total Life Cycle Support and Project Management**

A Cummins standby power system is backed by the industry's most comprehensive support, whether in your office, in your facilities, or anywhere in between. From design and installation to commissioning and support, we manage every aspect of your backup power system. That's why many of the world's largest and fastest-expanding enterprises consistently work with the dedicated data center resources at Cummins.

### **In Your Office**

- Design consultation for Uptime certification and other industry standards
- Specification development
- Systems integration engineering
- Emissions compliance

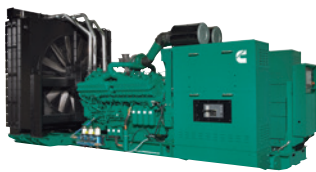
### **In Your Data Center**

- Single point of contact for installation and commissioning
- Seamless integration with building infrastructure
- Contractor relationship support
- Emergency service response
- Planned exercising and maintenance

# Accountability for the complete power system

*A complete power system from Cummins addresses every aspect of fail-safe power delivery for the data center—no matter how far you expand or how complex your power system topology. We manufacture and assemble all of the key components, exercising the industry's highest degree of design and performance control.*

## High-horsepower Generator Sets



Rugged, fuel-efficient engines, high-performance alternators and on-board digital

control systems comprise the most trusted and reliable generator sets in the world. Sophisticated emission control technologies and tailored data center load ratings are two of our most important data center innovations.

## Power Distribution



PowerCommand® paralleling systems integrate paralleling controls on generator sets, low or medium

voltage power sections, automatic transfer switches, and a digital master control (DMC) for supervisory functions. A distributed logic concept is critical for meeting data center redundancy requirements, ensuring generators continue to function under multiple failure response modes.

Cummins automatic transfer switches feature PowerCommand control technology for easy operation and a robust, high-contact-force design to withstand thousands of switching cycles. A full line of standard switches is available for the entire range of power systems. Custom-engineered switches are available to fit unique data center requirements.

## Digital Controls Technology



PowerCommand® microprocessor-based controls comprise the industry's best single-source solution, capable

of integrating generator sets, automatic transfer switches and paralleling systems into a complete system. Modular systems are easily configured to meet data center requirements, including paralleling, non-paralleling and basic control scenarios.

## Remote Monitoring and Control



PowerCommand remote monitoring and control capabilities provide visibility to power system performance — whether in the data center or off-site. Operators can monitor engine and alternator data, control system status, power transfer connection status and load level from any computer using a Web browser.

# Extensive, expert distribution network no other company can offer

## Approximately 600 Branch Locations in More Than 190 Countries and Territories

In almost every corner of the world, an expert Cummins distributor is the first line of support for application, commissioning, troubleshooting and aftermarket service requirements for every aspect of the power system. Data center owners and operators need only one point of contact for the entire power system, saving time and simplifying complicated integration and service scenarios. With sales staff and service technicians numbering in the thousands, and local parts inventory, Cummins distributors provide complete power system accountability to data centers worldwide. They know they can depend on Cummins for mission-critical power on demand.



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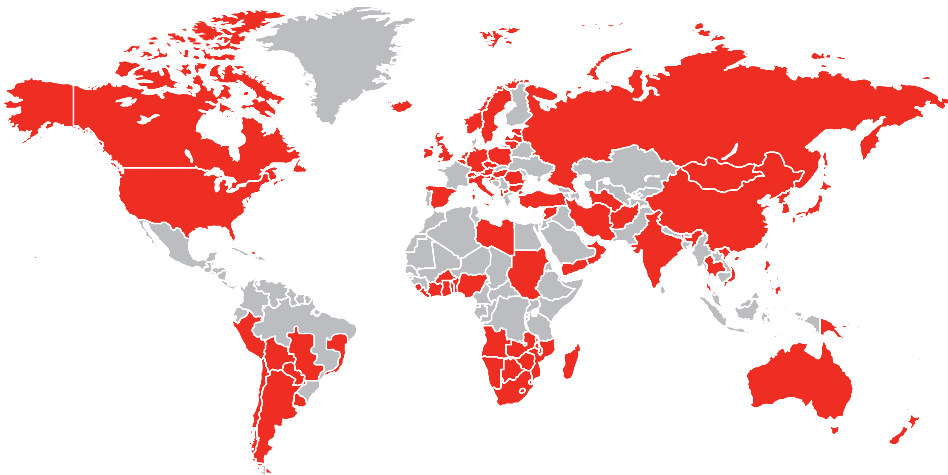
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### Legend

- Company Owned/Joint Venture
- Independently Owned



**Global Data Center Expertise**  
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**Our energy working for you.™**  
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