



Standby power

> Case History

El Corte Ingles Hipercor, Spain

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Where:

Xanadu Shopping Mall, Madrid, Spain

What:

A 2.8 MVA standby power system featuring two PowerCommand® C1400D5 generator sets and switchgear from Cummins Power Generation

Purpose:

To provide emergency standby power for all the critical electrical systems at an anchor department store in a major shopping complex

Primary choice factors:

Cummins Power Generation was chosen based on its outstanding reputation for reliable power systems and superior service

Standby power system shows retailer's dedication to customer service, quality

MADRID, SPAIN — For El Corte Ingles, Spain's largest retailer with over 123 department stores throughout the country and € 15 billion (\$18.3 billion USD) in annual sales, quality merchandise and superb customer service are keys to continuing success. As part of this dedication to quality and service, El Corte Ingles has made it a point to install large standby generators in its stores to prevent utility outages from inconveniencing its customers or interrupting the flow of business. With an aggressive expansion plan to add four to six new stores a year, El Corte Ingles turned to Cummins Power Generation Inc. for help in providing standby power systems that keep the lights on and the checkout lines moving.

The Xanadu Mall in a southern suburb of Madrid boasts many stores, shops and restaurants, as well as an enormous indoor skiing complex complete with falling snow regardless of the weather outdoors. Anchoring this impressive, modern mall is El Corte Ingles Hipercor, the Spanish version of a "hypermarket" that sells everything from groceries to clothing to sports equipment. Hipercor Xanadu has installed two 1.4 MVA C1400D5 generator sets operating at 50 Hz to provide



One of two 1.4 MVA C1400D5 generator sets that supply standby power for the El Corte Ingles at Hipercor Xanadu shopping mall.



Switchgear from Cummins Power Generation provides critical control during power outages or monthly testing.

standby emergency power in the event of a utility outage. The generators feature PowerCommand digital master control systems for trouble-free operation and rapid paralleling.

Power for critical systems

“The generators are designed to supply emergency power for critical electrical loads at the Hipercor Xanadu,” said the chief of maintenance for the store complex.

“The power is used to supply such systems as security cameras, ventilation, escalators, food refrigeration, computer systems and from 60 to 80 percent of all the lighting in the store.”

The standby power system is contained in three separate rooms on the ground floor of the store: one holds the two generator sets and Cummins switchgear; another holds the fuel tanks for each engine; and the third houses the low-voltage main switching network and transfer switches. Cooling for the generator sets is provided by remote radiators located on the roof of the building and incorporated into the building’s chiller system. A number of the building’s chillers are kept operating when under generator-only power in order to provide cooling for the generators.

Automatic operation

At the store’s central service panel, the utility mains and the generator mains come together for routing to the various loads. Under normal operating conditions, the utility mains supply all of the store’s loads. When a loss of utility power is detected, a start order is sent

to the two standby generators which start at the same time, synchronize and run in parallel. Under typical utility failure conditions, power would be restored to critical systems within about 12 seconds.

Maintenance ensures reliability

To make sure the generators, switchgear and control system are always ready to produce emergency power, they are given a test run once every two weeks — with and without load. During testing situations, the PowerCommand digital master control allows the load to be gradually shifted from the utility to the standby generators so there is no interruption of power to any loads. All of the maintenance and testing on the generators is done by Crima, a local service company with which El Corte Ingles has had long experience. The PowerCommand digital master control assists in its own maintenance by providing data on more than 200 critical items.

Customers at El Corte Ingles Hipercor should never have to endure any power outage that will interrupt their shopping experience thanks to the standby power system from Cummins Power Generation. It is part of the customer commitment of El Corte Ingles to make shopping a quality experience. The similar commitment of Cummins Power Generation to quality equipment and customer service has not gone unnoticed. “El Corte Ingles chose Cummins Power Generation because of the reliability of their products, their fast service and the care they give us,” the chief of maintenance concluded.

For more information about integrated standby power systems, contact your local Cummins Power Generation distributor or visit www.cumminspower.com.

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