



Standby power

> Case History

Tesco Lotus Supercenter at Kanchanaburi, Thailand

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Where:

Tesco Lotus Supercenter at Kanchanaburi, Thailand

What:

A 800DFHD generator set, powered by a QST30G4 engine, rated at 1000 kVA from Cummins Power Generation

Purpose:

To provide backup to the grid power supply required by the supercenter for the functioning of lighting and pumps during the 17 opening hours daily, and also to meet the 24/7 cold storage and after-hours emergency signage and lighting requirements

Primary choice factors:

Reliability of product, impressive track record with client, low noise levels

Cummins Power Generation provides solid power backup for major supermarket chain in Thailand

BANGKOK, THAILAND — Tesco Lotus was incorporated in Thailand in 1998, as a joint venture between Ek-Chai Distribution System Co. Ltd., the Thai subsidiary of U.K.-based retailer Tesco PLC, and the CP Group of Thailand. Since then, a large number of Tesco Lotus Supercenters (hypermarts) and supermarkets have been opened throughout the country — some 20 supercenters in Bangkok and 27 upcountry. Tesco Lotus also facilitates imports into Thailand and the export of Thai-manufactured products to the U.K. Thailand is one of Tesco PLC's only six sourcing hubs for its global operations, and is the U.K. Group's Asian training center for the regional development of its integrated technology platform.

Tesco Lotus has been a key Cummins Power Generation customer, with 22 Cummins gensets installed at 11 supercenters, as well as at a supermarket and the data center at the Tesco Lotus Head Office in Bangkok, and at six supercenters and the distribution center at Wangnoi outside the city.

In addition, a new Tesco Lotus supermarket currently under construction at Charansanitwongse Street, Bangkok, will also have Cummins Power Generation gensets for standby.



Cummins Power Generation's range of gensets provide reliable backup power to the Tesco Lotus chain.

One of the most recent standby genset installations for Tesco Lotus is at the Kanchanaburi Supercenter in Central Thailand. Diethelm Thailand has installed a 800DFHD genset powered by a QST30G4 engine for standby to the grid supply. One of the key characteristics of the genset is the low noise level of not more than 85 dBA at one meter.

At over 6,000 square meters, the Kanchanaburi Supercenter operates 17 hours a day, serving a daily average of 2,000 shoppers. Standby power is important not only during operation hours, to ensure the functioning of elevators, escalators, lighting and pumps, but also to meet the round-the-clock cold storage and after-hours emergency signage and lighting requirements. The genset is rated at 1000 kVA against the total power requirement of 1500 kVA.

"The strong point of Cummins Power Generation gensets is reliability, which is extremely important to the client, especially since the supermarket and hypermarket environments demand 24-hour climate control for perishable items," said Mr. Bunjong Jaroenkitpoolphon of SNB Consultant Co. Ltd., the consultants for the Kanchanaburi Supercenter.

"We have established a strong track record with Tesco Lotus, having installed 22 gensets, and we continue to work very closely with them on other projects," said Mr. Udom Charoenpong of Diethelm Thailand, the Cummins Power Generation distributor.

Meanwhile, a range of Cummins Power Generation gensets provides trustworthy support for Tesco Lotus's other outlets in and outside Bangkok. There are two 1125DFLE gensets powered by KTA50G8 engines and one 400DFEK genset powered by a QSX15G8 engine at the Distribution Centre at Wangnoi. Also upcountry, the supercenters in Chon Buri, Nakhonratsima and Udon Thani have a 1005DFLC genset



Cummins Power Generation gives you PowerCommand preintegrated digital power systems — systems that are designed, built, tested and serviced by a single-source manufacturer.

each. The gensets are powered by KTA50G3 engines. An 800DFHD genset powered by a QST30G4 engine is operational at the Samui supercenter, while a 580DFHA genset powered by a QST30G1 engine is on standby duty at the Trang supercenter.

In Bangkok, a 1005DFLC genset powered by a KTA50G3 engine supports operations at each of the Tesco Lotus Supercenters in Bang Khae, Bangyai, Chaeng Wattana, Laksi, Prachachuen, Rama 3, Rama 4, Ramindra Artnarong, Rattanatibet and Sukhumvit 50. In the case of the supercenter in Bangkok, a 400DFEK genset powered by a QSX15G8 engine provides standby power. The supermarket at Pong Phet has a 512DFGB genset powered by a VTA28G5 engine.

PowerCommand for Control

A key feature of the genset application at the Tesco Lotus Supercenter at Kanchanaburi is the PowerCommand® Control System. This field-proven control system offers several attractive features, including: integrated digital governing and voltage regulation; analog and digital metering; digital engine monitoring systems; smart-starting systems that regulate the fuel system based on engine temperature to improve stability and starting time and limit smoke; battery monitoring systems that test the genset batteries; AmpSentry true alternator protection; and more.

Microprocessor controls built into the PowerCommand system allow the genset and transfer switch to access critical performance data and communicate that data to each other, as well as to other building management systems. The control capabilities include diagnostics, testing, feedback functions and corrective actions for enhancing system reliability and maximizing building operations. The controls run continuously, which means PowerCommand can detect failures even when not in use.

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

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