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Standby Power for Data Center

Case History

SaskTel — Telecom Data Center

Where:

Saskatoon, Saskatchewan, Canada

What:

QSK95 high-horsepower generator set (3,250 kW); Model C3250 D6e

Purpose:

Standby power for leading Canadian telecom provider data center

Primary Choice Factors:

The combination of three factors gave SaskTel a high degree of confidence that the QSK95 high-horsepower (HHP) generator set would provide maximum reliability for their data center operations: SaskTel's trust in Cummins Western Canada personnel due to an existing partnership; Hands-on experience in the reliability of Cummins generators; the robust standby power of the 3,250 kW with best-in-class fuel and footprint economies.

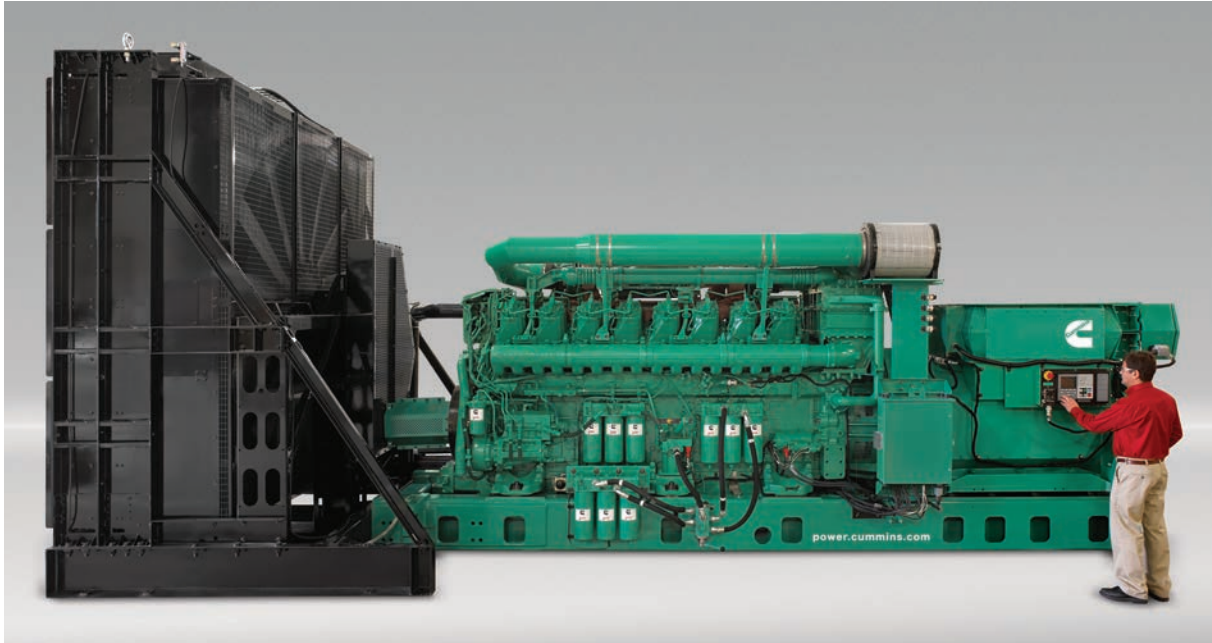
Distributor:

Cummins Western Canada

3,250 kW QSK95 Offers Best-Available Server Room Protection

SaskTel is a leading Information and Communications Technology (ICT) provider in Saskatchewan, Canada, with more than 1.4 million customer connections. Since 2005, the telecom leader has deployed a Cummins 1,750 kW generator set for reliable standby power in their downtown Saskatoon data center location. In recent years, Cummins Western Canada (distributor) established itself as a trusted partner to SaskTel, providing switchgear in the Saskatoon data center and commissioning a new complete power system in another location.

As SaskTel evaluated their planning for future growth, they determined the existing 1,750 kW generator set did not offer adequate capacity to match growth goals. In order to maximize the capacity and reliability of its downtown Saskatoon data center location SaskTel issued a request for proposal for a robust standby generator set.



The 3,250 kW HHP QSK95 generates the highest kilowatt per square-foot ratio in its class.

When they became aware of the new QSK95 HHP, with 3,250 kW of standby power and best-in-class fuel and footprint economies, they found it fit their needs perfectly. SaskTel awarded the bid to Cummins Western Canada for its combination of value, product reliability and service, and ordered the installation of the first QSK95 in Canada.

With any project implementation, Cummins' ultimate goal is to deliver optimum products to its customers with the highest possible service levels at all times. Bryan Haza, territory manager for Cummins Western Canada, explained that this installation was no exception.

"Uptime for the SaskTel data center was of the utmost importance. With the QSK95, we were able to provide SaskTel a dependable system that reduced the frequency of service and minimized downtime during service events."

The 3,250 kW HHP QSK95 Series generator set offered many differentiating features that SaskTel was excited to take advantage of, including:

- Highest kilowatt per square-foot ratio in its class provides more power in a smaller footprint
- Robust, high-speed, 16-cylinder QSK95 engine offers best-in-class fuel economy
- Ease of access to critical service tasks simplifies maintenance
- Doubling the time between most service intervals lowers cost of ownership
- Data center continuous (DCC) rating places no limitation on number of operating hours

In addition, SaskTel continues to utilize Cummins products because of their longstanding relationship. Haza explained that reliable products and exceptional service have been the key to establishing this trust.

"Our partnership with SaskTel has developed over the years because we've provided products that have exceeded their expectations and consistently delivered high service levels," he said. "SaskTel knows it can count on Cummins and Cummins Western Canada to keep its data centers running," he added.

Taking Standby Power to New Heights

The SaskTel QSK95 installation in its downtown Saskatoon location was unique in many respects. The third floor position of the generator set room presented the installation team with its primary challenge. Not only would the 3,250 kW HHP generator set need to be brought in with a crane and placed on the third floor, but one 300-ton crane would be needed to assemble a hoist crate and lift the unit into position.

To allow ample room for the safe assembly of the crane, lifting of the generator set and subsequent hoist crane disassembly, the installation team worked with SaskTel and Saskatoon city leaders to close the affected city block for several days.

"Installation of the QSK95 was not an easy task," said Haza. "Closing a downtown street on a Saturday meant that execution needed to be flawless to minimize the impact on the community. Project management teams from SaskTel, Cummins Western Canada, Alliance Energy, PCL and Cummins worked together for several months to ensure that everything was in place on the day of the installation," he added.



Months of logistical planning ensured a successful installation.

The installation took place during the third week of July 2015. As planned, the city block was shut down. The setup crane, a Liebherr LTM 1220 (275T), assembled the large crane, a Liebherr LTM 1500 (620T). To get the 3,250 kW HHP generator set to its eventual position on the third floor, the 620T had to first lift the unit over the sixth floor of the SaskTel building and then lower it through a removable roof in the third floor generator room. Once the generator set was situated, Cummins Western Canada proceeded with the installation and commissioning of a power system comprised completely of Cummins components.

When the installation was completed, SaskTel was pleased to have upgraded its data center protection with a generator set that offered the highest performance in its class. Haza felt that the successful installation only increases the potential for the QSK95 to be deployed throughout Canada.

“Installation of the QSK95 at SaskTel was a major accomplishment, and SaskTel understands that the dependability of Cummins and the QSK95 is vital for its customers,” said Haza. “As the data center market continues to grow in Canada, we are excited that the QSK95 will play a vital role in data protection for all Canadians,” he added.

In the months since installing the 3,250 kW HHP generator set, SaskTel has witnessed firsthand the power and performance of the QSK95. Now more than ever, they are well-equipped to meet their service level objectives.

For more information contact your local Cummins distributor at power.cummins.com.



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