
ARTICLE

ABB's PCS100 SFC powering Emirates Team New Zealand's base during the America's Cup regatta



Emirates Team New Zealand (ETNZ), twice winner of the America's Cup, is taking on the grueling experience in challenging conditions this year in San Francisco, which includes the Louis Vuitton Cup from July 7th to September 22nd. An experienced team, many expect the Kiwis to be among the top challengers. Led by managing director Grant Dalton and skipper Dean Barker, ETNZ will once again carry the hopes of their nation into battle, in the America's Cup. ABB, Official Supplier to Emirates Team New Zealand, has supplied a PCS100 SFC, that will power ETNZ's base during this period.

In previous years, ETNZ's base was constructed using new and existing 40 foot containers and canvas tents that were wired in New Zealand. A new and economical solution was desired that would make it easier to convert the supplied voltage from the San Francisco base (480 V 60 Hz) to the New Zealand base (400 V 50 Hz). Thanks to ABB's leading edge technology, this could be achieved using a 250 kVA PCS100 SFC. ABB's highly efficient system (95 percent) coupled with its compact design, will provide seamless power conversion to feed a base with 80 employees and a hospitality area (the Waka (1) from the Rugby World Cup 2011).

Bishman's Project Manager, Sean Nelson commented about the SFCs advantages, regarding operational cost and delivery time to San Francisco, "It was the only sensible solution that was highly reliable, was available in time and was cost effective". Another unique feature critical to the reliability of the converted output supply is the built-in redundancy capability which is an intrinsic feature of the modular system design. In an unlikely event where either a single rectifier or inverter module encounters a fault, and stops functioning, the master controller that oversees the power modules will provide a warning notification but will allow the system to continue to operate until maintenance can be scheduled. With a campaign budget of over 100 million, it was essential that reliability of the PCS100 SFC operating 24/7 in a foreign base would prevail.

ETNZ has become a household name in New Zealand following their consecutive wins in the America's Cup in 1995 and 2000. In doing this, they became the first team from a country outside the United States to win and then defend the America's Cup. Their successes in America's Cup competitions have contributed to New Zealand's reputation for producing world-class boat designers and sailors.

(1) Waka: Canoes of the Maori of New Zealand.

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