

PFC delivers cost and energy saving for the sensational Bling ride

ABB Power Factor Correction (PFC) technology has enabled the Pleasure Beach, Blackpool to make optimum use of its existing power supply and reduce the running costs of its latest ride.

Background

Pleasure Beach, Blackpool is one of Britain's biggest tourist attractions. Famed the world over for its rides and entertainment it welcomes 6.2 million visitors every single year. Its policy of continuous investment in new rides and entertainment ensures that it remains a favourite place for adults and youngsters alike to visit.

The addition of new rides and attractions puts constant pressure on the local electricity network and calls for innovative ways of managing the supply and cost of power.

In 2004 the Pleasure Beach added the Bling ride at a cost of £2 million. The ride which takes its name from the world of pop culture takes people for a 60mph speed spin in three different directions at up to 100ft above the ground.

Managing demand and supply

The Bling ride demands considerable amounts of power and the owners of the park looked to ABB to help them deliver the electricity required without having to undertake a total upgrade to the power network supplying the Pleasure Beach.

The ride places a big demand on the existing three-phase power network. It was expected to draw around 1400A per phase. With the installation of ABB's power factor correction equipment the supply current needed was reduced to 1200A per phase which, in turn, has meant that the power needed to operate the ride was cut by approximately 25 per cent.

The power factor correction installation consists of one bank of capacitors totalling 300kVAR.



The Bling ride.

With total energy savings running at up to £2,000 per month during the peak season the ABB equipment is expected to pay for itself in less than three years.

ABB not only provided the power factor correction equipment, it also installed a new transformer and switchboard control, as well as making the connection to the electricity network, which involved liaising with the local distribution network operator (DNO), United Utilities.



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