

Case Study

Successful Power Quality Measurement for a new Data Centre

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One of our services is Power Quality Monitoring (PQM). Analysis of monitoring data allows clients to consider their power systems in terms of quality. Assessments can be carried out to check for presence of transients, surges, harmonics, distortion and fluctuation as well as many other parameters.

HPES Technical Solutions Ltd (HPES) were asked to provide engineering assistance for Power Quality Monitoring (PQM) at a newly built data centre in southern England. As the data centre was approaching the final stages, it needed to have all backup systems tested prior to handover.

The data centre's incoming operator required a variety of successful test values to be assured that the facility was fit for purpose. In particular, definitive proof was required that potential transients, swells, and other disruptions that can be associated with the use of backup power arrangements, were not seen on the power systems connecting to the data halls.

18 LOCATIONS HAD TO BE SEPARATELY AND SIMULTANEOUSLY MONITORED WITH THE INSTRUMENTS TIME SYNCHRONISED 18 locations had to be separately and simultaneously monitored with the instruments time synchronised. The use of appropriate equipment, its installation and proper use was vital. Chauvin Arnoux Qualistar + C.A. 8336 instruments were selected as being most appropriate for the monitoring as they provided excellent accuracy for trend measurement and detail of transients.





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A site survey ensured that the instruments would be suitable for the environment and that they could be installed safely and appropriately. During this survey, a C.A. 8336 was fitted, and sample data was obtained for the client.

In order to make absolutely certain the parameters requested by the client could be seamlessly provided, HPES' testing and monitoring engineers received a full day of face-to-face training from Chauvin Arnoux at one of HPES' customers' sites - a theatre

HPES' TESTING AND MONITORING **ENGINEERS RECEIVED A** FULL DAY OF FACE-TO-FACE TRAINING FROM CHAUVIN ARNOUX

in Southeast London. The detailed training covered the most intricate level of operation of the instruments and provided skills and understanding which would allow the team to provide everything the client needed.

The team used a step by step run book throughout - compiled and followed by HPES for every part of the project. This included the checking of the instruments upon receipt, installation into the power system, setting them up with the correct configuration depending upon location, and removing them at the end of the project.

C.A. 8336





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The project was carried out with no negative impact upon the operation of the data centre's power systems. HPES' methods ensured that the client's timetable and testing events were unaffected by either our monitoring or the removal of data required during their tests.

Data was securely managed with both physical and cloud backup carried out at every stage. HPES' deliverable, the data, was provided directly to the client in a file and folder structure they requested to facilitate efficient and uncomplicated comparison of information.

On completion of the project the client had all the data they required. This data was supplied in a format which allowed them to accurately assess the capability of their systems and all with no disruption to their operations. ON COMPLETION OF THE PROJECT THE CLIENT HAD ALL THE DATA THEY REQUIRED.

For more information about this project or any others we have worked on please contact us:

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