

## ■ SCHNEIDER ELECTRIC IS THE DRIVING FORCE BEHIND WIMBLEDON ROOF

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Leading energy management specialist Schneider Electric served up an ace when it came to supplying the right drives and control system to facilitate Wimbledon's new centre court roof.

The retractable roof was a demanding project, with a number of specific requirements. The structure needs to be able to close in ten minutes, spanning 77 metres across the width of the court. Each of the drive elements have to be controlled to within a fraction of a millimetre and the roof has to be deployed from one single button.

After studying the detailed requirements of the project, Schneider Electric specified and supplied a complete solution to control the locking mechanisms of the roof. Firstly, 64 Schneider Electric Altivar 71 variable speed drives (VSD) were used to control its security, unlocking each truss in turn for the closure of the roof. Using a VSD gives the added control to reduce the risk of damage to the equipment. The roof has to be closed at a maximum speed of 214mm per second. In addition, the Altivar range of VSDs was used as a solution with PLCs and Ethernet communications network to offer an easy installation and simplicity of integration with other products.

To facilitate communication between all of these drives, Modicon Premium PLC (Programmable Logic Controller) system with Ethernet was specified to act as the basis for the communication network. One Modicon Premium CPU was specified for each of the trusses, with an additional Master CPU for data gathering and overall control of the system. The PLCs are continually monitoring the position of the roof and ensure it opens and closes within eight minutes, while maintaining a tolerance at 30mm end to end. Each PLC ensures the roof is controlled to a 0.1mm resolution, therefore if the roof alignment deviates more than 0.1mm then the PLC stops movement.

By looking at the project as a whole and not the individual requirements, Schneider Electric was better placed to meet its demands. The solution implemented by Schneider Electric and its partners has proved a success, moving the 3,000 tonne roof within the tight timeframes.

Richard Beighton, Industry Marketing Manager from Schneider Electric said: “We have been working on the Wimbledon roof for a number of years due to the challenging nature of the project. Our products were ideally placed to meet the needs of Wimbledon, and our approach to providing a whole solution was the only way to tackle this. To see the roof working and the benefit this brings to the tennis players and fans, is a great achievement for Schneider Electric.”

For more information about Schneider Electric or the large range of Altivar VSDs please visit: [www.schneider-electric.co.uk](http://www.schneider-electric.co.uk) or call 0870 608 8 608.

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**Notes to editor:**

**About Schneider Electric**

Schneider Electric, the global specialist in energy management, offers integrated solutions making energy safer, more reliable, efficient and productive in the energy and infrastructure, industry, data centres and networks, buildings and residential markets. With sales of €18.3 billion in 2008, the company's 114,000 employees in 102 countries help individuals and organisations make the most of their energy.

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