

# Applications Engineering Case Study

## University Performance Optimised Data Centre Cooling

### Rationale

Liverpool John Moores University, LJMU, is a public research University in the City of Liverpool. It has 20,635 students. The University chose a containerised data centre solution for its main data processing location, Norton Tower.

The Hewlett Packard performance optimised data centre ( POD ) has to be available online 24/7/365.

Cooling of the POD is critical and LJMU needed a resilient and reliable cooling system to ensure that the POD was maintained at a specifically controlled temperature at all times.

The product chosen to provide the cooling system is manufactured by Stulz, a leading manufacturer of business critical cooling plant for data centres.



### Design Process

Enertec were commissioned to provide a total turnkey solution for the associated systems within cooling plant.

3 No. 80kw Stulz CSI Indoor chillers and 3 No. rooftop condenser units were installed to provide an N+1 configuration to ensure that the 180kw POD was kept at optimum cooling capacity under all data processing load conditions.

A 1000 litre buffer vessel and auto pressurisation system was designed and installed by Enertec to ensure that the coolant circuit operating pressure is maintained.



### Delivery

The new system was pre fabricated off site ensuring that minimum site pipework and bracketry was formed on site.

The total solution was installed within the project plan timeframe and the system was commissioned by a team of engineers from Hewlett Packard and Enertec. Enertec now manage the maintenance and operation of the systems on behalf of LJMU.

Additional Data Centre cooling systems are now in the design stage to meet the increasing data processing demands of the University.