

## CASE STUDY

# SMALL COMPUTER ROOM - DAIKIN AIR CONDITIONING



### Air Options was asked to review site to offer a new solution to assist with keeping critical IT equipment cool.

IT and Comms cooling is critical and there comes a point when these systems require fixed Air Conditioning systems to ensure these remain operational at a stable temperature.

We attended site to review existing cooling systems in place as well as discuss current and proposed IT / load to ensure that any new unit was sized correctly.

The server rack had no fixed cooling, but it was a small wall fan window mounted to assist with reliving hot air at peak times. Whilst this was functional with limited IT equipment, as the load increases this became less effective.

We occasionally find the use of similar fans/ extraction fans in comms / server rooms and these can assist with temperature control, however the client wished to upgrade improve.

The solution was to supply and install a single wall mounted type unit as manufactured by Daikin, from the FAA range of commercial wall mounted units. These are specifically designed for the application and historically have been very resilient and robust solutions.

For this installation we had to use some internal trunking to conceal pipework internally with the outdoor unit being located a few meters away externally at low level.

The system was installed / pressure tested and commissioned then test run and demonstrated to the client.

With these installations we also:

- Recommend hard wired controllers where available to assist with checking modes / set points and fault code reporting.
- Install "Tank" pumps below units as these are more reliable given the 24/7 cooling nature.
- Set systems up for "auto-restart" after power failure.
- Consider indoor placement to allow for additional future units.

In this instance a single unit was installed, but it was indoor located to allow for a second unit to be fitted in the future should IT equipment be increased or additional backup and resilience be needed.

The Client now has a stable comms room kept to a constant 22 Degrees and no longer needs to worry about critical IT equipment over heating.

Building:	Office Building
Location:	London
Manufacturer:	Daikin
Heating & Cooling:	YES - System Set To Cooling Only
Refrigerant:	R32
Objectives:	Upgrade / Improve Cooling
Energy Savings :	Inverter Technologies
Budget :	>£5K
Timescale :	1 Week

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No matter how large or small your project may be,  
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