CASE STUDY

CLASSROOM AIR CONDITIONING INSTALLATION



Our team were asked to assist with cooling to two internal classrooms suffering from high temperatures during the summer months.

Air Options has installed multiple systems within schools over the years, with these varying between wall / cassette / ceiling mounted versions and with many of these systems still being in service some 20 years later.

We attended site to review the areas investigating the best possible option, with consideration of budget / plant location / comfort and usability. The site level reviews area of the classrooms / occupants / solar and fabric gains to calculate the rating of the system, using industry leading software and extensive industry knowledge. Once the load / demand has been calculated, we reviewed all manufactures making final unit selections with this scheme using Fujitsu's latest R32 wall mounted units from their ASYG / AOYG range of products.

The Fujitsu wall mounted units offer an excellent retrofit installation with these offering excellent coverage and value for money.

The design was to utilise separate "split" type units with each of the classrooms having a separate indoor unit connecting to an independent outdoor unit located at roof level. The Independent nature of the indoors allows for each classroom to be controlled to separate set points and timer schedules benefiting levels of control and energy efficiency.

Control of these units was via Infra Red remote that allowed for the remote controller to be locked away / removed by staff once preset. Whilst primarily designed to offer cooling, these systems also benefits from heating function which could be used as a heating backup source.

As with all our current installations where we are able we offered the units with the very latest R32 refrigerant, this has a lower Global Warming Potential than traditional R410a systems and has been extensively bench tested at our own offices prior to use being satisfied with efficiency / reliability and performance.

Since this installation Air Options has subsequently installed additional wall units to external Portacabins for the school with a similar design. These additional units where also fitted with external security cages to ensure protection from moving parts \prime fans etc and prevention of damage.

Building:	School
Location:	Essex
Manufacturer:	Fujitsu
Ventilation:	N/A
Filtration:	Manufacturer Standard Integral)
Heating & Cooling:	Yes
Objectives:	Cooling Via Latest R32 Refrigerant Systems
Budget:	£5 - £10K
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