



EMAIR

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FFS

The versatile FFS fresh air units are purposefully designed and built for installation in data centre plant rooms and white spaces, where the introduction of external fresh air is required in designated areas. Besides the introduction of the fresh air, the units are equipped to prevent external airborne contaminants, such as smoke, from being introduced into the data centre.

Primarily designed for use in data centres, with high concentrations of mechanical equipment and air change rates as low as 1 per hour, individual units are suitable for room areas up to 250m².

The Fan Filter Units may be used as stand alone systems, incorporating a smoke detection system, but are more commonly used in combination with an alarm generating system, such as smoke detection, gas suppression, HSSD systems, etc.,(by others) , which are generally already present in data centres.

The unit assembly comprises of three self contained modules - a fan and air sampling section accommodating the smoke detector, sampling probes or measuring nozzles, a bypass damper section and a filter section.

The continuous fan operation draws in the outside air through the external louvre, across the air sampling points and in to the fan chamber. During normal operation, the air is supplied to the data centre space via the damper and filter section. Should the presence of smoke be detected by the system, the damper is closed via a failsafe actuator. The closure of the damper isolates the filter section and re-cycles the air flow externally.

The fan ensures that the air is being constantly monitored, even in the event of an alarm activation. Once the conditions for the alarm have been overcome the damper opens to resume normal supply air flow.

The standard FFS unit features

- EU2 washable pleated primary filter
- 304 Stainless steel painted casing
- By-pass damper section
- Forward curve centrifugal fan - 200v/1ph/50Hz which is continuously powered.
- Failsafe actuator which drives the damper - actuators may be 220v or 24v, spring return, on/off or 2..10v signal dependant on system application.
- ON/OFF switch
- 220V single phase power connection
- Units can be mounted on standard brick walls or double skin container type applications
- Low pressure
- Easy installation - wall frame and external louvre included

Various custom sizes, assemblies, finishes and filter efficiencies are available on request.

Model	Airflow	Power input (fan)		Fan speed
FFS250	70 l/s	125W	0.58A	1150 rpm
FFS500	140 l/s	245W	1.07A	2380 rpm
FFS750	210 l/s	250W	1.14A	2490 rpm

Minimum external operating conditions - temperature -20°C



