Extract Fans/Twin Fans
Twinimum - Compact Twin Fan Unit

1.1. General

A. Provide a compact twin fan unit to meet the performance and configuration as indicated in the schedule and detail drawings. The compact twin fan unit shall be tested to BS848 and shall be of the Twinimum compact twin fan type as manufactured by VES Andover Ltd a company accredited with BS EN ISO 9001:2008.

1.2. Unit Construction

A. The unit shall be provided pre-assembled comprising of a rigidly constructed single skinned galvanised sheet steel case, twin centrifugal scroll fans with direct drive motor.

B. The unit shall have rectangular or circular duct spigots as indicated in the schedule and detail drawings.

C. The unit case shall incorporate high quality leak resistant gaskets on service doors and panels.

D. The unit shall be fitted with flame retardant acoustic lining as standard to ensure maximum thermal insulation and reduced noise transmission.

E. Access for maintenance shall be via a removable lid, allowing access for the cleaning or removal of internal components where permitted by unit construction and indicated in the schedule and detail drawings.

F. The unit shall be supplied as standard with feet & anti-vibration mounts

G. The Unit casework & spigots shall be provided naturally finished in high quality galvanised steel.

H. The unit shall be designed to be secured to a suitable base, wall or ceiling, ensuring the use of correct fixings for the application and taking into account individual unit weight as indicated in the schedule and detail drawings.

1.3. Fans

A. The fan impellors shall be of galvanised steel forward curved blade construction for rigidity and long life. The impellors shall be statically and dynamically balanced to VDE2060 G2.5 for smooth running & extended life.

B. The fan impellors shall be mated with aerodynamic fan scrolls for high efficiency and low noise generation.

C. The fan impellors are supplied as standard in natural galvanised finish. The fan scrolls shall be supplied epoxy painted black to RAL9005.

1.4. Motors

A. The unit shall be provided with twin fans incorporating external rotor motors to insulation class F, IP44 environmental protection rating & shall be supplied with thermal protection cutout as standard.

B. The motors & attached fan impellors shall be fully AV isolated from the fan scroll, ensuring optimal mechanical isolation & maximum possible noise reduction.

1.5. Operation Environment

A. The unit shall be designed to operate in ambient temperatures from -20°C up to 50°C, and can run continuously at up to 80% humidity level.

1.6. Controls

A. The unit shall be designed to be fully compatible with speed control systems designed to operate from a 0-10v BMS i.e Air Quality or Temperature sensor according to schedule.

B. The unit shall be supplied with a single fan speed controller with support for an optional AF type auto-changeover panel supplied by VES as indicated in the schedule.

C. The Auto-changeover panel shall allow automatic failure detection with changeover, 12 hour duty sharing, 24hr operation or 230V remote signal (start/stop) from external time clock, switch or PIR etc. Automatic changeover & failure detection shall be triggered by external shutter micro switch or pressure switch signals.

D. The Auto-changeover panel shall incorporate a run-on timer with 0 or 15 minute run on period.

E. The Auto-changeover panel shall incorporate a volt-free indication of fan running or common fan failure, and include individual fan fuses.

F. The Auto-changeover panel shall perform automatic diagnostic fan tests prior to full duty running.

G. The Auto-changeover panel shall be available with fitted 7 day time clock, on/off 24V remote signal support and 24V fire alarm shutdown as indicated in the schedule.

H. The Auto-changeover panel shall be compatible with a remote status indicator as indicated in the schedule.

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