PUMA AIR

OPERATING AND MAINTENANCE INSTRUCTIONS

TWIN FAN EXTRACT DIRECT DRIVEN UNITS – RUN & STANDBY

DESCRIPTION

All units are manufactured to a very high standard of construction.

The casing, internal fan plates, lid and spigots are formed from 18 swg or 16 swg mild steel plate. The units are generally finished in an attractive RAL 5017 blue polyester powder coat for weather proof units. Internal units have galvanised panels or powder coated to RAL 9005 satin black.

The supply and extract fans are of the double inlet, direct drive centrifugal type fitted with single phase motors to class E insulation. They are sized to suit the duty required with allowances for internal pressure drop within the unit. The extract air section is insulated with 25mm thick pyrosorb class O insulation, this has excellent noise absorption qualities and anti-condensation properties.

OPERATION

The twin fan units generally require a 240 Vac single phase supply. Where specified a 380/415 V ac 3 phase and neutral supply may be required (check serial plate on side of unit or sales literature).

Each unit is provided with cable entry glands and suitable terminal block. This is wired through a mains isolator switch.

Internal speed control devices for each fan are available to commission fan airflow duties when required.

All twin fan extract units require a Puma auto changeover panel to operate correctly.

When energised, the selected fan will run as the duty fan, if the fan fails then an airflow switch automatically switches on the standby fan and illuminates a fan fail (red) light on the auto changeover panel (see data sheet on auto changeover panels for differences in the basic and deluxe panel models). The duty fan can be manually selected by the fan selector switch on the auto changeover panel.

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INSTALLATION

The unit must be situated in a position with sufficient access to the removable panel/s. A distance given on the certified drawing of the unit must be allowed for access to the serviceable components.

The units are suitable for floor mounting on 'tico' pad or anti-vibration isolators if required (by others). Flexible connections may be required between spigot connections and solid ductwork if noise levels are appropriate (by others).

Twin fan extract units are available as weather proof versions (denoted WTFE). Anti-vibration isolators are recommended when installed on flat roofs.

SERVICE AND MAINTENANCE

The mains supply to all units must be disconnected at source before removing the lid.

The airflow failure switches should be checked for free movement and electrical conductance.

These fans are fitted with direct drive motors with sealed for life bearings that require no maintenance.

Refer to Puma colour technical sales leaflet for further information regarding dimensions, weights and unit performance and fan curves.

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FAULT FINDING

FAN/MOTOR FAILS TO RUN

1. Check the unit is connected correctly, as per the supplied wiring diagram.
2. Check the mains supply.
3. Check the control circuit fuse.
4. Is there a voltage at the fan? Yes would indicate motor failure or a neutral/phase problem. If no follow steps 4-7 below.
5. Check the mains isolator fitted to the side of the unit, if ok is the SR link (where fitted L1 L2 or SR1 SR2) in place.
6. Check the fan fuse, located below the isolator.(single phase fans only)
7. Three phase fans and belt driven units check the MCB is on, and the fan overload is on by pushing the manual reset button(red) on the fan contactor.(usually situated to the side of the fan on the fan plate left or right depending on handing of the unit)
8. If the MCB keeps tripping check the phases are ok, on belt drive units check the belt tension is correct and the fan motor overload is set to the rating of the motor. See motor serial plate for size/rating.

Most faults/problems can be resolved by following the above if the unit still fails to work correctly please contact Puma Air Movement Ltd for technical assistance.