

VENTERGY SERIES® BLENDING / FILTERING VENTILATOR MODEL BVS 120 AND 200

PRODUCT **SPECIFICATIONS** and TECHNICAL DATA

Ventergy Series® ventilator fans represent years of engineering development to combine the energy efficiency and sound performance of a forward curved fan, with the durability and pressure characteristics of a backward inclined impeller fan.

General: BVS Series blending ventilators are highly versatile continuous duty rated units for residential applications, and meet ENERGY STAR efficiency criteria for low energy consumption. The BVS is designed to provide fresh outdoor air, blended for tempering with indoor air drawn from bedrooms or areas typically not served by a central thermostat, before filtering and distributing this air to the main living areas of the home. Thermal comfort is enhanced because warmer air is drawn naturally from the heated living areas to the cooler bedrooms.

The BVS is designed to filter both indoor and incoming fresh air, and prevent the introduction of contaminants as a result of unwanted infiltration through leaks in the building's envelope. By slightly pressurizing the structure, the BVS also reduces risk of back-drafting heating appliances, water heaters, and fireplaces. Quiet continuous-duty energy efficient external rotor motors with permanently sealed bearings provide many years of maintenance-free performance.

Construction: The BVS series fans are constructed of heavy gauge galvanized steel to prevent corrosion caused by moisture. The cabinet is internally lined with UL rated, acoustic closed-cell foam vapor barrier insulation. This allows for installation directly above living space, or in unheated plenum spaces without concern for noise or condensation. Duct connecting collars may be relocated on the fan intake manifold to accommodate differing installation requirements.

Fan and Motor: The fan motor is an energy efficient permanent split capacitor type, or external rotor design. Totally sealed to protect against moisture and contaminants, it incorporates permanently lubricated sealed bearings and automatic reset thermal overload protection. It is designed and certified for continuous duty or intermittent operation.

The fan uses a backward inclined impeller design that minimizes dust collection on





BVS 120 / 200: 120 V, 60 Hz., 0.35/0.53 amp., 43/66 W Max., 2146/2960 RPM

| Above ratings are intended for sizing electrical wring only. Actual consumption will be lower. | |
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| ELECTRICAL AND AIRFLOW PERFORMANCE* | | | | | | | | | | | |
|-------------------------------------|---------|------|----------|-------------------------|-----|-----|-----|-----|--|--|--|
| | Nominal | | Watts at | CFM vs. Static Pressure | | | | | | | |
| Model | RPM | HP | .2" Ps | 0" | .2" | .4" | .6" | .8" | | | |
| BVS-120 | 2146 | 0.06 | 43 | 186 | 152 | 122 | 94 | 67 | | | |
| BVS-200 | 2960 | 0.08 | 66 | 261 | 236 | 210 | 186 | 162 | | | |

*Certified airflow rating at 0.2" w.g. is derated from actual test results per HVI Certification procedure 920.

blades, effecting airflow performance. Each fan is statically and dynamically balanced at the factory to eliminate vibration and ensure quiet operation. The entire motor and fan assembly is mounted on a drop-down hinged access panel for service and inspection, and can be removed from the fan without disassembly of the ducting connections.

Fan Controls: The fan can be operated manually, or automatically by a programmable timer, dehumidistat, or other appropriate electronic switch device. The fan may also be operated in conjunction with a variable speed control.

Airflow Controls and Balancing: Each return and fresh air duct takeoff includes an automatic self balancing airflow regulator that ensures precise flow rates at each point independent of duct lengths. A passively controlled element in each duct run inflates or deflates automatically in response to system pressure to maintain specified airflow rates.

Filters: Each BVS comes standard with a disposable type pleated MERV 8 filter to comply with ASHRAE 62.2 and ENERGY STAR standards. Permanent washable electrostatic type filters are also available.

Accessories: To ensure specified performance, each BVS is supplied with compatible supply and return air grilles, corresponding rough-in boots with back draft dampers, and fresh air intake weather hood. Accessory packages are available to accommodate applications ranging from single bedroom apartments to five bedroom houses.

Locating and Installing the Fan: The compact dimensions and versatile mounting options permit installation above drop ceilings, between ceiling joists, or within a small soffit locations. They can be installed either horizontally or vertically.

Performance: Fan airflow and energy performance shall be tested in accordance with HVI standards.

PRODUCT FEATURES



Typical Specification

Blending Ventilator Fan: American ALDES Ventilation Corporation, Florida (1-800-7749). ALDES model BVS120 or BVS200. Florida (1-800-255-

General: The fan shall be continuous duty type with a backward inclined centrifugal blower housed in a multi-port enclosure specifically designed residential and commercial use. The fan shall be safety tested per UL standards and bear the agency listing certified mark, and be approved for use over cooking areas and tub/ shower enclosures when used with GFCI branch circuiting. The fan must meet the ENERGY STAR performance criteria for energy efficiency and bear the ENERGY STAR mark

Construction: The housing shall be of a minimum 22 gauge steel with a G90 galvanized coating or baked enamel paint finish. All interior surfaces of the housing shall be lined with a UL recognized non-porous closed cell foam insulation to allow installation above ceilings and in unheated spaces without concern for condensation or absorption of water. The unit shall not exceed 8 " in total height to allow mounting within ceiling/floor joist spaces. The blower shall be external rotor motor centrifugal type with backward inclined impeller blades. The motor and blower assembly shall be mounted on a drop-down hinged access panel so as to permit removal from the housing without disassembly of the ducting connections. The filter must be accessible from a hinged drop-down access panel adjacent to the motor access. The intake duct connections shall be dimensioned so as to accept constant airflow regulators with a secure fit. The intake duct dimensions shall be nominal 4" and 5" round.

The discharge duct dimension shall be nominal 6" round. The fan housing and intake duct collar(s) shall be designed to allow removal and repositioning in the field to accommodate different installation requirements. Mounting brackets shall be provided for attachment to the fan housing allowing vertical or horizontal installations

Motor: The motor shall be direct drive external rotor, high efficiency PSC type with permanently lubricated sealed ball bearings and designed for continuous operation. The motor shall have automatic thermal overload protection and must be totally sealed to protect against contaminants and moisture. Naturally vented air-over motors are not acceptable.

Electrical: The fan shall operate on 115V, 50/60Hz, single-phase current. The motor shall be listed for use with a solid-state speed control.

Filter: The fan shall be provided with an approved 1" pleated panel type disposable filter meeting the ASHRAE standard MERV 8 rating. An optional permanent electrostatic filter shall be provided where specified. The filter shall be fully removable without the use of any tools and without disassembling internal partitions.

Constant Airflow Regulators: Each return air and fresh air intake collars shall include an integral constant airflow control device that operates on duct system pressures, and maintains specified airflow rates over a range of 0.2" to 0.8" Ps w.g. Devices shall be installed in the duct connections and calibrated at the factory to the airflow rates as indicated on the drawings. The device shall not exhaust any air to the outside during operation





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