



CENTRAL EXHAUST VENTILATORS FOR LOW RISE MULTI-FAMILY HOUSING

MPV 200 & MPV 300 Series

PRODUCT
SPECIFICATIONS
AND TECHNICAL
DATA

259-12-22-94

These multi-port ventilators are highly versatile fan units for residential and light commercial applications. The most popular use is central exhaust ventilation of bathrooms, kitchens, laundry, exercise rooms, offices, etc. with one exhaust discharge duct to the outdoors. The most obvious benefit of the centralized exhaust system is quiet operation, eliminating noisy ceiling mounted bath fans. In addition, with the increased tightness of construction for energy efficient buildings, there is a growing need for mechanical ventilation for indoor air quality. These fans are designed to serve this dual purpose, providing effective local ventilation, with the provision to run from several hours a day to continuously, as needed. Quiet, energy efficient permanent split capacitor motors with permanently sealed bearings provide many years of trouble-free performance. The motors draw less power than many single bath fans, yet can replace from four to twelve such units.

Controls: For multi-family applications the fans are generally run continuously. For commercial applications they may be operated with a cycle timer corresponding to business hours. The fans may also be used with motor speed controls. They are also approved for use over cooking areas so that (with appropriate ducting meeting local code requirements) they can ventilate from an exhaust grille over a cooking surface or directly from a range hood.



Airflow Balancing: The flow rates can be set with either manually adjustable grilles, volume dampers, or with preset ALDES Constant Airflow Regulators (CAR's). For units with many duct runs, and widely varying duct lengths, the CARs are the only viable method of airflow balancing. The CAR's can be installed in the intake duct

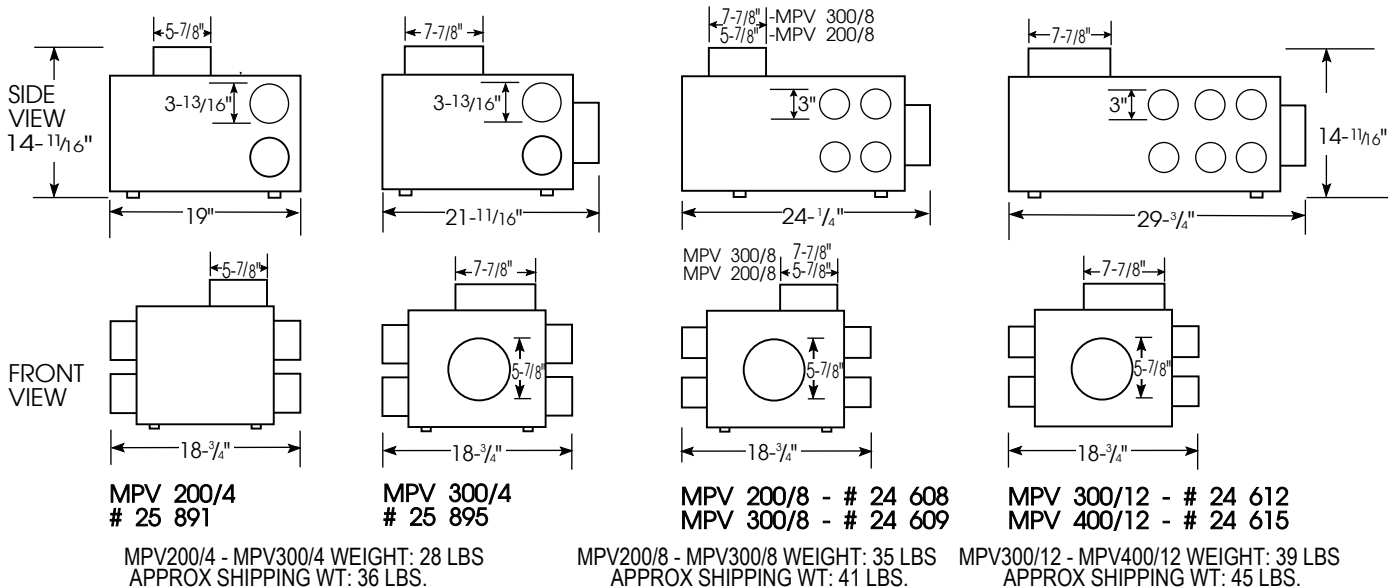
fittings on the fan, or at the register box for the exhaust grilles, etc. The passively controlled silicone bulb in the CAR's inflates or deflates automatically in response to system pressure to maintain constant airflow independent of duct length.

The CAR is the key to balancing airflows—assuring balanced airflows at all exhaust points independent of duct length and good installations with no need to prove airflows. See the CAR brochure and Multi-Point Ventilation Systems for Low Rise Multi-Family Buildings brochure for more details.



TABLE OF AIRFLOWS AND DUCT LENGTHS						
AIRFLOW CFM	Intake Duct to fan				Fan Discharge Duct (Flexible) Assumes Low pressure drop venthood	
	Maximum Duct Length from grille to fan (FT)				TOTAL EXHAUST RATE (CFM)	MAXIMUM LENGTH (FT)
	3" Smooth Duct	3" Flexible Duct	4" Smooth Duct	4" Flexible Duct		
10	225	180	900	640	MPV 200 Models 75 to 150 150 to 250	W/6" duct: 25' 10'
15	105	90	400	300		
20	65	50	260	180		
25	45	30	175	120		
30	30	25	130	85		
35	25	20	95	65	MPV 300 Models 150 to 300	W/8" duct: 10'
40	20	15	75	50		
45	15	10	60	40		
50	10	10	50	30		
50	10	10	50	30		
MPV 300 ONLY						
	6" Smooth Duct		6" Flexible Duct			
50	400		250			
75	200		120			
100	110		70			
125	70		50			
150	50		30			

*NOTE: 3" Ducting may be substituted for 4" diameter duct to permit installation in partition walls. Smaller diameter ducting has increased resistance to airflow. For each foot of 3" ducting substituted for 4" diameter duct reduce the allowable duct length by 3 feet. If longer duct runs are required than permitted in the table above use smooth ducting and/or increase the diameter.



Locating & Installing the Fan: The fan is insulated so it may be installed in unheated spaces, such as an attic. All ducting through unheated spaces must be insulated. However, cyclical operation, with long off periods may still cause water to condense in the ducting and fan housing due to slow exfiltration of warm moist air. For this reason, with cyclical operation, ALDES offers sleeves with backdraft dampers to block air flow during the off-cycle. With cyclical operation it is advisable to locate the fan within a heated space, whenever possible. With continuous operation, the risk of condensation is dramatically reduced.

ELECTRICAL DATA	
MPV 200	MPV 300
120V.	120 V.
60 Hz.	60 Hz.
1.2 amp.	1.5 amp.
125 W.	145 W.
1600 RPM	1500 RPM

Above ratings are intended for sizing electrical wiring only. Actual consumption will be lower. See power curve data.

Typical Specification

Multi-Port Exhaust Fan: American ALDES Ventilation Corporation, Sarasota, FL (1-800-255-7749) ALDES model MPV 200/4 (or MPV200/8; 300/4; 300/8; 300/12, as appropriate). The fan shall be a centrifugal blower housed in a multi-port enclosure specifically designed for moderate size residential and light commercial ventilation use. The fan shall be UL listed and labeled, and approved for use over cooking areas.

Construction. The housing shall be of painted or galvanized steel. The motor shall be out of the airstream. The blower shall be of galvanized steel, forward curved. The motor and blower shall be factory balanced for minimal vibration and noise. The motor blower shall be mounted on the housing cover to permit removal from the housing without disassembly of the ducting connections or removal of the housing. The cover shall be secured with screws for easy disassembly. The housing shall be insulated with interior vapor barrier for operation in unheated spaces with reduced risk of condensation. Mounting supports shall be provided to permit hanging by support chains, rods, or other approved means. Resilient rubber feet to permit placement on a flat surface also shall be provided. 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" (for MPV200/4 and 300/4) or 3" (for MPV 200/8, 300/8, and 300/12). An additional 6" intake port shall be provided on the model MPV 300/4, (or MPV300/8 and 300/12) to permit connection to a remote auxiliary plenum, collector or main duct.

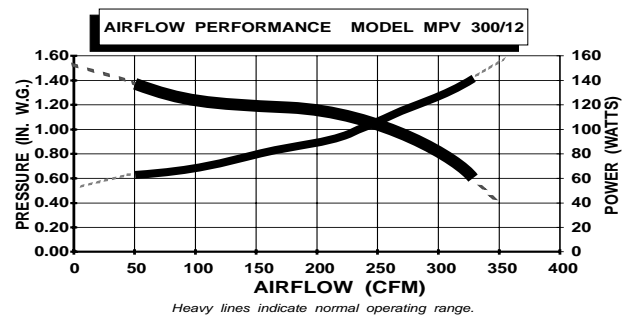
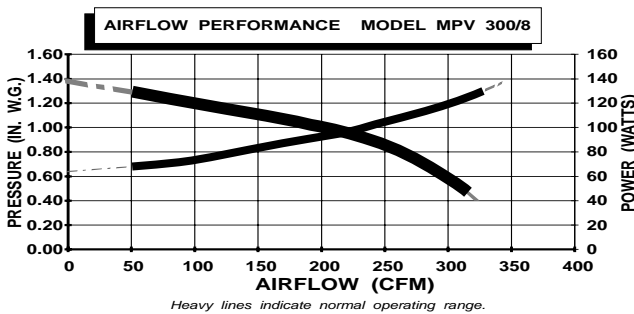
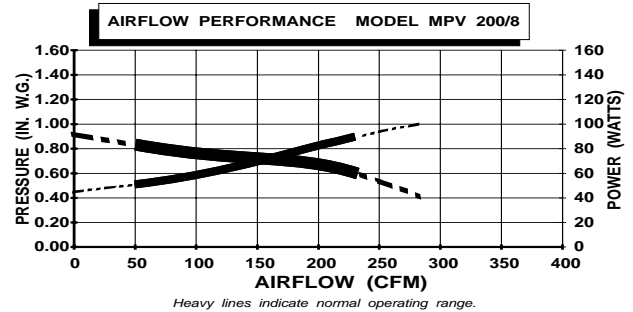
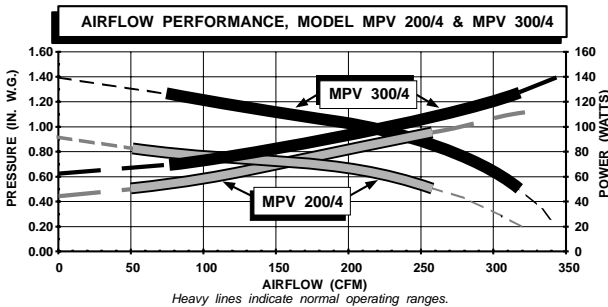
Motor. The motor shall be of Class A insulation, with permanent split capacitor, permanently lubricated sealed bearings, and equipped with automatic reset thermal overload protection. The motor shall operate with the axis horizontal.

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

Constant Airflow Regulators shall be installed in the duct connections or at the register boxes with the following airflow rates (select as appropriate) [3" Diam.: 10, 15, 20, 25, 30, 35 CFM; 4" Diam.: 10, 15, 20, 25, 30, 35, 45, 50 CFM; 6" Diam.(MPV300/4, 300/8, 300/12 models only): 75, 100, 125, 150 CFM]

Refer to the MPV system specifications for compatible controls, wall/roof caps, etc.

MATHIEWS GRAPHIC DESIGN-941-358-0862



WARRANTY

The entire unit is guaranteed for 3 years, from date of shipment, against all manufacturing defects provided the material has been installed and operated per manufacturer's instructions and under normal conditions. Warranty is limited to the repair or replacement of the material upon its return freight prepaid to our factory. *This warranty is not transferable and is limited to the original end user.*

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