Whisper Green







FV-05VK3 50 CFM 4" or 6" Duct FV-08VK3 80 CFM 4" or 6" Duct FV-11VK3 110 CFM 4" or 6" Duct

WhisperGreen Key Benefits:

- SmartFlow[™] technology for optimal CFM output
- Fully enclosed DC motor for long life rated for 60,000 hours continuous run
- Integrated dual 4" or 6" duct adaptor
- Fits 2 x 8 construction
- UL listed for tub/shower enclosure when used with a GFCI protected circuit
- Can be used to comply with ASHRAE 62.2, LEED, IAP, California Title 24 and WA Ventilation Code

Whisper Ceiling"







FV-08VQ5 80 CFM 4" or 6" Duct FV-11V05 110 CFM 4" or 6" Duct

FV-05V05 50 CFM 4" or 6" Duct FV-15V05 150 CFM 6" Duct

WhisperCeiling Key Benefits:

- · Quiet, yet powerful ideal for new and remodel residential applications
- Integrated 4" or 6" duct adaptor on 50-110 CFM models
- Large volume (190-390) CFM options available for light commercial use
- Fits 2 x 8 construction
- Detachable 4" to 3" duct adaptor included
- UL listed for tub/shower enclosure when used with a GFCI protected circuit
- · Can be used to comply with ASHRAE 62.2, LEED, IAP, EarthCraft, California Title 24 and WA Ventilation Code

Whisperfi



FV-08VF2 80 CFM 4" or 3" Duct FV-11VF2 110 CFM 4" or 3" Duct



INCLUDED: 4" to 3" adaptor

WhisperFit Key Benefits:

- · Low profile housing design Ideal for remodeling projects and manufactured structured homes
- Fits in 2 x 6 and 2 x 8 construction
- Detachable 4" to 3" duct adaptor included
- · UL listed for tub/shower enclosure when used with a GFCI protected circuit
- · Can be used to comply with ASHRAE 62.2, LEED, IAP, California Title 24 and WA Ventilation Code

Whisper Valu





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FV-08VS3 80 CFM 4" Oval Duct FV-10VS3 100 CFM 4" Oval Duct

Fits in nearly every ceiling cavity.

Optional 24 gauge, fire code rated 4" oval to 3" round duct adaptor, sold separately (Model # FV-VS43R)

WhisperValue Key Benefits:

- · Ideal for residential construction (single and multi-family) and manufactured homes
- 3-3/8" housing depth lowest profile ENERGY STAR fan available
- UL approved for ceiling or wall mount actually fits in a 2 x 4 stud bay
- · Wall installation eliminates the need for a radiation damper
- Can be used to comply with ASHRAE 62.2, LEED, IAP, California Title 24 and WA Ventilation Code

WhisperValue U-Can Contractor Pack

Universal Housing Can	Motor/Grille Assembly		Master Pack
FV-05-10VSA3	FV-05VSB3	FV-05VS3	4
FV-05-10VSA3	FV-08VSB3	FV-08VS3	4
FV-05-10VSA3	FV-10VSB3	FV-10VS3	4

The Contractor Pack includes 4 complete fans. The housing and motor/grille are packaged separately for flexibility during installation.

*Must order in quantities of 4, shipment will contain 1 box with 4 units.

Single Speed Fans (On/Off)

Whisper Green

WhisperGreen	FV-0	FV-05VK3		FV-08VK3		FV-11VK3		
Characteristics	1 1-051kg		1 V-00VK0					
Static pressure in inches w. g.	0.1	0.25	0.1	0.25	0.1	0.25		
Air Volume (CFM)	50	54	80	79	110	112		
Noise (sones)	<0.3	0.3	<0.3	0.4	0.3	0.8		
Power Consumption (Watts)	4.3	7.5	7.0	11.0	11.5	16.2		
Energy Efficiency (CFMs/Watt)	12.4	7.7	12.1	7.6	9.7	70		
Speed	749	1101	832	1130	953	1229		
Current	0.05	0.02	0.02	0.01	0.21	0.30		
Power Rating (V/Hz)	120/60		120/60		120/60			

Whisper Ceiling

WhisperCeiling	FV-05VQ5		FV-08VQ5		FV-11VQ5		FV-15VQ5		
Characteristics		10-00100							
Static pressure in inches w. g.	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25	
Air Volume (CFM)	50	36	80	62	110	91	150	127	
Noise (sones)	<0.3	0.4	< 0.3	0.4	<0.3	0.5	<0.3	0.5	
Power Consumption (Watts)	11.1	11.7	14.7	14.5	21.1	20.7	28.4	27.3	
Energy Efficiency (CFMs/Watt)	4.7	3.2	5.8	4.5	5.3	4.5	5.3	4.7	
Speed	731	1060	829	1089	950	1161	691	911	
Current	0.09	0.10	0.12	0.12	0.18	0.17	0.24	0.23	
Power Rating (V/Hz)	120	120/60		120/60		120/60		120/60	

Whisperfit

WhisperFit	FV-08VF2				FV-11VF2			
Characteristics	4" Duct		3" Duct		4" [Duct	3" Duct	
Static pressure in inches w. g.	0.1	0.25	0.1	0.25	0.1	0.25	0.1	0.25
Air Volume (CFM)	80	60	70	53	110	94	90	78
Noise (sones)	0.8	1.0	0.8	1.1	1.5	1.5	1.5	2.0
Power Consumption (Watts)	24.5	24.3	24.5	24.2	33.1	32.8	33.0	32.7
Energy Efficiency (CFMs/Watt)	3.3	2.5	2.9	2.2	3.4	2.9	2.9	2.5
Speed	757	956	845	1007	830	1000	1029	1128
Current	0.20	0.20	0.20	0.20	0.27	0.28	0.27	0.28
Power Rating (V/Hz)	120/60					120)/60	

Whisper Value"

WhisperValue	FV-05VS3		FV-0	BVS3	FV-10VS3		
Characteristics	4" Oval Duct		4" Oval Duct		4" Oval Duct		
Static pressure in inches w. g.	0.1	0.25	0.1	0.25	0.1	0.25	
Air Volume (CFM)	60	53	80	72	100	92	
Noise (sones)	0.4	1.0	1.0	1.2	1.4	1.5	
Power Consumption (Watts)	15.9	16.3	21.2	21.5	29.6	29.9	
Energy Efficiency (CFMs/Watt)	3.8	3.3	3.8	3.3	3.4	3.1	
Speed (RPM)	706	980	778	997	868	1056	
Current (amps)	0.13	0.14	0.18	0.18	0.25	0.26	
Power Rating (V/Hz)	120/60		120/60		120/60		

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Sizing

Information and Instructions

Fan Selection Guide

- 1. What is the size of the bathroom?
- a. Need 1 CFM (cubic foot per minute) per square foot
- b. Length x Width = CFM
 (length) x (width) = (Total CFM needed)
- c. Example: 8 ft length x 10 ft wide = 80 CFM is needed to properly ventilate the bathroom
- 2. What features are needed/wanted? Fan only? Light? Heat? Variable speed? Motion? Humidity? Time delay?
- **3.** What type of construction is available? Truss size is necessary if it is smaller than 2×8 construction so the selected fan housing size will fit the installation.
- a. 2 x 8 construction can use any fan combination
- b. 2 x 6 construction can use fan combinations that fit 2 x 6 or 2 x 4 construction
- c. 2 x 4 construction can use fan combinations that fit 2 x 4 construction
- **4.** Now that you know the CFM needed, the features wanted and the construction size, you are ready to find your fan combination.

Equivalent Duct Length (EDL)

The Equivalent Duct Length Table (Figure B) shows you how to calculate the equivalent straight duct length in order to overcome static pressure. The EDL chart helps ensure fan performs as expected under the airflow resistance caused by the listed components.

A ventilating fan's performance is plotted on a graph called a performance curve. The performance curve shows airflow in cubic feet per minute (CFM) along the horizontal axis and static pressure (resistance) along the vertical axis. Figure A shows how a performance curve works. The fan with a "Closed Duct" has high-static pressure and no airflow; and the fan with "No Duct" has low static pressure and high airflow. In reality, an installed fan will be somewhere in between these two points.

Sizing and Selecting a Ceiling Mounted Fan:

Proper sizing requires that you determine the needed CFM, the square footage of the room or home, and the length and type of duct.

Example: Sizing for an $8 \times 10 \times 8$ ceiling bathroom using 12 ft long, 4 in diameter aluminum flex duct, 1 elbow, 1 wall cap.

Step 1: Determine application

Bathroom = 1 CFM/square foot

Step 2: Calculate the area to be ventilated in square feet.

Assuming an 8 ft ceiling: room length x width = area in square feet

$$8 \text{ ft x } 10 \text{ ft} = 80 \text{ sq ft}$$

Step 3: Calculate your required CFM

Step 4: Use the Equivalent Duct Length chart above to calculate duct run.

4a. 12 ft aluminum flex duct x 1.25 = 15 ft

4b. One elbow = 15 ft EDL

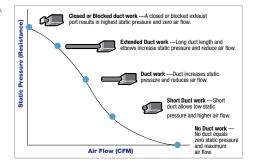
4c. One wall cap = 30 ft EDL

This is the equivalent duct length (or resistance) the fan must overcome to move air through the duct to the outside.

Step 5: Review models in catalog pages to find a model with desired features. Features may include light fixture, heater or low-profile housing.

Note: Check with your local building inspector to confirm that these methods are accepted in your area.

FIG. A



Equivalent Duct Length										
Duct Diameter										
3" 4" 6" 8"										
Duct	Smooth Metal	Metal Same as measured duct length								
Material	Flex Aluminum	1.25 x duct length	1.25 x duct length	1.5 x duct length	1.5 x duct length					
Waterial	Insulated Flex	1.5 x duct length	1.5 x duct length	1.75 x duct length	1.75 x duct length					
Terminal	Wall Cap	30 ft	30 ft	40 ft	40 ft					
Device	Roof Jack	30 ft	30 ft	40 ft	40 ft					
Elbow	Adjustable	15 ft	15 ft	20 ft	20 ft					

FIG. B

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