Panasonic
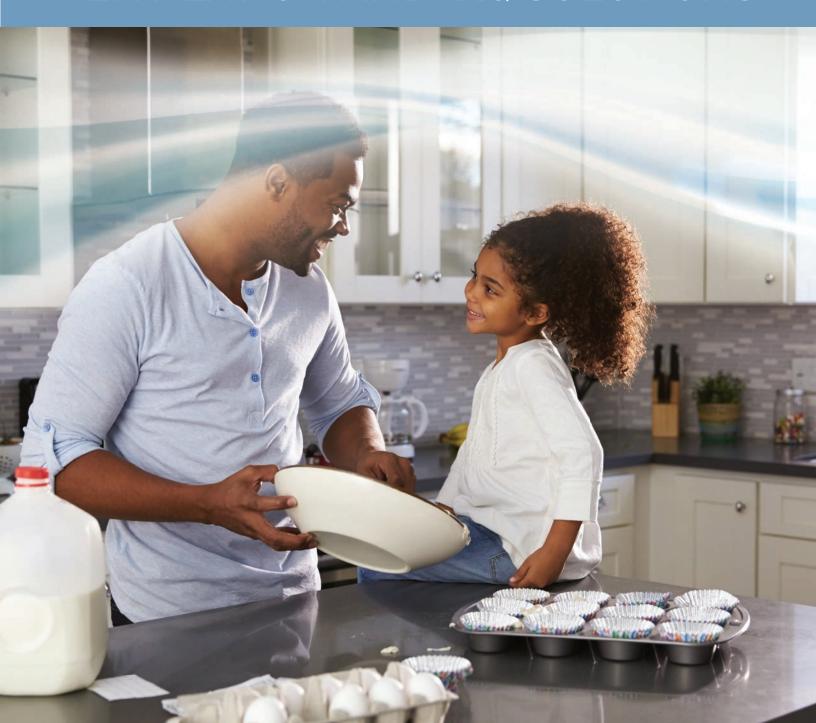
VENTILATION AND **IAQ** SOLUTIONS

AWARD WINNING COMMITMENT TO INNOVATION

Our long history of industry accolades continues. The Environmental Protection Agency recognized Panasonic with the 2021 ENERGY STAR® Partner of the Year Sustained Excellence award, which demonstrates exemplary commitment to leadership in energy efficiency and the ENERGY STAR® program.

Panasonic Advanced Ventilation and IAQ Solutions

1993	2003	2006		2007	2011	2012	2013	2014
WhisperCeiling	**Whisper**Fit	**Whisper**Green	**Whisper**Value	**Whisper**Comfort	**Whisper**Sense	**Whisper**Recessed	**Whisper**Green LED	**Whisper**Green Select
Quiet Solution	Retrofit Solution	ASHRAE 62.2 Compliance Solution	Multi-family Solution	Balanced Air Solution	CALGreen Compliance Solution	Design Solution	Ultimate Energy Efficient Fan/Light Solution	One Fan – Multiple IAQ Solutions

WITH GREAT POWER COMES GREAT VENTILATION AND HEALTHY LIVING

Panasonic ventilation fans give you the power. The power to easily remove unhealthy air and meet code. The power to reduce callbacks and build your reputation. The power to build healthy homes that guarantee customer satisfaction.

As part of our mission to promote clean indoor air and healthy homebuilding, Panasonic ventilation fans are built for power, brute strength, and the ability to move air more effectively.

That's why we engineer our fans to perform beyond the minimum 0.1" and 0.25" static pressure benchmarks. Panasonic ECM-motored models were the first ventilation fans on the market to overcome static pressure at the True Flow rating 0.375" level, more common on typical installations. The result? Optimum CFM output that expels unhealthy air and moisture, regardless of complicated duct runs.

With the power of Panasonic IAQ solutions, creating healthy homes and healthy families is easier than you think.

A LEGACY OF INNOVATION

2015		2017				2018	2020	2021	
WhisperFit EZ	SelectCycler	WhisperValue DC	Intelli-Balance 100	WhisperCeiling DC	WhisperSense DC	WhisperFresh Select	WhisperWarm DC	WhisperFit DC	Intelli-Balance 200
Retrofit Solution Customizable Airflow	Multi-family Solution ECM Motor Technology	Multi-Family Solution ECM Motor Technology	Code Compliant ERV for Any Climate Zone	Precision Spot Ventilation Solution ECM Motor Technology	CALGreen Compliance Solution ECM Motor Technology	Fresh Air Supply Fan Solution	Ventilation Fan/ Heater Combo	Retrofit Solution ECM Motor Technology	200 Energy Recovery Ventilator

Table of Contents

The Power of Panasonic

Rely on a higher power

Panasonic ventilation fans give you the power to virtually eliminate all your problems associated with under-performing ventilation. The power to remove unhealthy air and meet code on every project. The power to reduce callbacks and guarantee customer satisfaction. Most importantly, the power to build healthy homes that make healthy living a reality.

- Ensure code compliance
- Simplify design & installation
- Reduce callbacks
- Guarantee customer satisfaction

Understanding the importance of power rating

To move contaminated air and moisture out of the home effectively, high-powered ventilation is essential. Panasonic ventilation fans deliver incomparable air-moving power as tested and verified in real-world settings.

Panasonic fans are engineered to perform beyond the minimum 0.1" and 0.25" static pressure benchmarks, despite complicated duct runs. Our ECM-motored fans provide powerful CFM output and overcome static pressure at the 0.375" level more common on typical installations.

> **Did you know?**
>
> In field tests conducted by Lawrence Berkeley National Laboratory, nearly half of all installed ventilation fans fail the required airflow standards outlined in ASHRAE 62.2, despite their advertised CFM.

When you install a Panasonic ventilation fan you get the promised **True Flow rating** as listed on the box.

Certified & Code Compliant

Panasonic ventilation fans are certified by the Home Ventilating Institute (HVI) and ENERGY STAR® certified, where guidelines exist. Models can be used to comply with ASHRAE 62.2, the ventilation standard required by LEED for Homes, ENERGY STAR® for Homes 3.2, Indoor airPlus, CALGreen, NAHB Green Building Standard, EarthCraft and other building programs.

Commitment to Indoor Air Quality & Healthy Homes

Panasonic is a member of the Indoor Air Quality Association (IAQA). We are proud to join an organization that shares a belief we care about: providing good indoor air quality to consumers through our products and systems. As an IAQA member, we commit to uphold industry standards and guidelines to deliver products that remove contaminated air and improve indoor air quality for healthier homes.

Learn more at whyIAQmatters.com

Powerfully quiet
Panasonic ventilation fans not only deliver the highest power rating to effectively remove air impurities from your home, they offer whisper-quiet operation so you'll barely know its on.

Long Life
Permanently lubricated motors are engineered for trouble-free, continuous operation for 30,000 hours on AC motors, and upwards of 60,000 hours on DC (ECM) motors, along with rust-proof paint and galvanized housing.

Easy Installation
Integrated duct adapters, adjustable mounting brackets (up to 24" o.c.), fan/motor units that easily detach from the housing and uncomplicated wiring all lend to user-friendly installation. Double-hanger bar systems allow for ideal positioning. Flex-Z Fast® single-hinged bracket provides flexible, fast and easy installation on select models.

Energy Savings
When it comes to energy efficiency, our wattage requirements are among the lowest in the industry. Our fans have also been engineered to comply with ENERGY STAR® 4.0 requirements for increased efficiency (CFM/Watt), ensuring low cost, energy efficient operation.

Safety
WhisperGreen® Select models are protected by UL Class 2 Power Unit while all other models are equipped with thermal fuse protection. With the exception of the ERV's and fan/heaters, all models are UL listed for tub/shower enclosure when GFCI protected.

Airflow
A built-in plastic or metal damper (depending on model #) in all ceiling-mounted models helps prevent backdraft. Built-in metal flange provides blocking for penetrations through drywall as an air barrier, and assists with the decrease in leakage in the building envelope during blower door testing.

Lighting
All of our lighted models feature LED lighting that is ENERGY STAR® 2.0 certified and JA8 compliant for CA Title 24. They have 50,000 hours of rated life, along with an integrated <1W LED night light.

Green Manufacturing

All fan only models are RoHS Approved. Restriction of Hazardous Substances Directive (RoHS) restricts the use of the following six substances in the manufacturing process: Lead, Mercury, Cadmium, Hexavalent chromium [CR(VI)], Polybrominated biphenyls (PBB), and Polybrominated diphenyl ether (PBDE).

Warranty
6-Year warranty on ECM motors, 5-Year warranty on LED's, 3-Year warranty on AC motors and all other parts.

Note: All our ventilation fans are UL listed for tub/shower enclosure when GFCI protected except for WhisperFresh Select, Intelli-Balance 100/200, WhisperLine, WhisperComfort and WhisperWarm DC fans.

Powerful Ventilation & IAQ Solutions

WhisperRecessed® LED
VENTILATION FAN

Ideal Design Solution
- Architectural grade recessed fan/light
- ENERGY STAR® 2.1 certified LED lamp

WhisperFit® DC
VENTILATION FAN

Ideal Retrofit Solution
- Low profile, 5-5/8" housing depth
- Pick-A-Flow™ airflow selector

WhisperWarm® DC
VENTILATION FAN

Quiet, Fan/Heater Solution
- Quick, 1 minute warm up

ecoVent®

Cost effective, Spot Ventilation Solution
- Ideal for home builders
- Ventilation verification assurance

WhisperFresh™ Select
VENTILATION FAN

Fresh Air Supply Fan Solution
- ECM motor with Pick-A-Flow™ airflow dial
- Balanced ventilation solution with WhisperGreen Select or SelectCycler™

WhisperComfort®
VENTILATION FAN

Low Cost and Easy to Install Balanced Air Solution
- UL listed ceiling and wall mount spot ERV

Intelli-Balance™ 100
Intelli-Balance™ 200

Cost Effective, Code Compliant ERV for Any Climate Zone
- Two ECM motors with Pick-A-Flow™
- Built-in ASHRAE 62.2 timing function

SelectCycler®
WHOLE HOUSE VENTILATION SYSTEM

Lowest Cost Per HERS Point Solution
- Supply or balanced ventilation
- Designed to work with WhisperGreen Select fans

WhisperLine™
VENTILATION FAN

Remote Mount, In-line Spot Ventilation Solution
- Remote mount in-line fans for single or multiple inlets

ENERGY STAR

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WhisperValue® DC
VENTILATION FAN

Ideal Multi-Family Solution
- ECM motor and Pick-A-Flow™ airflow selector
- Super low profile, 3-3/8'' housing depth
- UL listed ceiling and wall mount

WhisperGreen® Select
VENTILATION FAN

One Fan - Multiple IAQ Solutions
- Customizable, all-in-one fan and fan/LED light combinations
- ECM Motor with Pick-A-Flow™ airflow selector
- Works with the SelectCycler system

WhisperWall®
VENTILATION FAN

Through the Wall Spot Ventilation
- Through-the-wall application

Recessed Inlet™

Design solution for exhaust or supply inlets
- Ideal for use with in-line fans and H/ERVs
- ENERGY STAR® 2.0 certified LED lamp fans

WhisperCeiling® DC
VENTILATION FAN

Precision Spot Ventilation Solution
- ECM motor with Pick-A-Flow™ airflow selector

WhisperSense® DC
VENTILATION FAN

Moisture Control for CALGreen Compliance Solution
- ECM Motor with Pick-A-Flow™ airflow selector
- Built-in dual motion and humidity sensors

WhisperControl™

Condensation Sensor Plus Solution
- Automatic dual humidity and temperature sensor

WhisperGreen® Select
VENTILATION FAN

One Fan – Multiple IAQ Solutions

WhisperGreen® Select assures you'll easily meet code on every project. **Field testing shows that 0.375" static pressure more accurately represents a typical installation. While most fans don't have the power to overcome the 0.375" level**, WhisperGreen® Select is purposely engineered for it.

Panasonic brings you the next wave of technological innovation, with a built-in **Pick-A-Flow**® airflow selector that provides the unique ability to select your required airflow (50-80-110 and 110-130-150 CFM models) with the simple flip of a switch.

WhisperGreen Select also offers a unique set of three patented **Plug 'N Play™** modules that allow you to further customize your fan.

Multi-Speed with Time Delay* (FV-VS15VK1)
Allows you to select the proper CFM settings to satisfy ASHRAE 62.2 continuous ventilation requirements. The fan runs continuously at a preset lower level (0, 30-100 or 0, 50-120 CFM, in 10 CFM increments), then elevates to a maximum level of operation (50-80-110 or 110-130-150 CFM) when the wall switch is turned on, or when the Motion Sensor or Condensation Sensor module is activated. A High/Low delay timer returns the fan to the preset CFM level after a period of time set by the user.
*Applies to both the pre-installed multi-speed with time delay, as well as the FV-VS15VK1 multi-speed with time delay Plug 'N Play module.

SmartAction® Motion Sensor (FV-MSVK1)
Automatically activates the fan when someone enters the room. Once the settings have been applied, the fan becomes truly automatic. This module also activates a 20 minute delay off timer for the fan.

Condensation Sensor (FV-CSVK1)
Helps control bathroom condensation to prevent mold and mildew. Sensor technology detects relative humidity and temperature to anticipate dew point, automatically turning the fan on to control humidity. Built-in Relative Humidity (RH) sensitivity adjustment (from 30%-80%) enables fine tuning for moist conditions and for satisfying CALGreen requirements. When the Condensation Sensor is used in conjunction with multi-speed functionality, the fan will ramp up to high speed when the Condensation Sensor detects moisture in the room. This module also activates a 20 minute delay off timer for the fan.

WhisperGreen Select | One Fan - Multiple IAQ Solutions

FV-0511VK2 50-80-110 CFM   4" or 6" Duct
FV-1115VK2 110-130-150 CFM   6" Duct

7-3/8" Depth

7-3/8" Depth

WhisperGreen Select Key Benefits:

- Precision, whole-house ventilation solution ideal for use in the bathroom, laundry room, sun room, basement or garage
- Pick-A-Flow® airflow selector (50-80-110 or 110-130-150 CFM models) combined with SmartFlow™ technology simplifies the selection process and ensures optimum performance to meet code and reduce callbacks
- Plug 'N Play™ modules provide three value-added features
- Elegant grille design
- Revolutionary ECM motor with SmartFlow™ Technology ensures optimal CFM output.
- Single-hinged Flex-Z Fast® bracket provides flexible, fast and easy installation
- Environmentally friendly 26 gauge housing using Zinc-Aluminum-Magnesium (ZAM) coating
- Dual access junction box
- Can be used to comply with ASHRAE 62.2, LEED, CALGreen, Indoor airPlus, California Title 24 and all Energy Star for Homes programs

True Flow
51 - 79 - 108 CFM
FV-0511VK2

True Flow
105 - 124 - 132 CFM
FV-1115VK2

HEALTHY AIR, HEALTHY HOME
True Flow ratings at **0.375"** static pressure provide powerful airflow to assure code compliant, healthy homes.

Multi-Speed with Time Delay**
(FV-VS15VK1)

***Optional Add-On Feature*

SmartAction® Motion Sensor**
(FV-MSVK1)

Condensation Sensor**:
RH sensitivity adjustment (30%-80%)
(FV-CSVK1)

Flex-Z Fast®:
Single-hinged Flex-Z Fast®
bracket provides flexible, fast and
easy installation

Plug 'N Play Receptacles & Pick-A-Flow™ Switch

1 Plug 'N Play Modules Sold Separately

2 Plug 'N Play Module Receptacles

3 Pick-A-Flow Airflow Selector Switch

*Industry research indicates static pressure in typical installations ranges from 0.20" to 0.375".

WhisperGreen Select

Characteristics	FV-0511VK2 (Base Fan)									FV-1115VK2 (Base Fan)								
Static pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	110	110	108	80	80	79	50	51	51	150	151	132	130	130	124	110	112	105
Noise (sones)	<0.3	0.8	-	<0.3	0.5	-	<0.3	0.4	-	<0.3	0.7	-	<0.3	0.4	-	<0.3	0.3	-
Power Consumption (Watts)	9.9	15.4	20.0	5.1	9.6	13.4	3.1	6.2	9.6	12.9	22.0	24.4	9.2	16.5	22.1	6.9	12.8	17.9
Energy Efficiency (CFMs/Watt)	11.1	7.1	5.4	15.7	8.3	5.9	16.2	8.3	5.3	11.7	6.8	5.4	14.2	7.9	5.6	16.0	8.7	5.8
Speed	920	1182	1356	795	1113	1315	722	1054	1266	684	916	1084	645	900	1080	625	894	1083
Amps (Current)	0.10	0.16	0.20	0.06	0.10	0.14	0.04	0.07	0.10	0.14	0.22	0.24	0.10	0.17	0.22	0.08	0.13	0.18
Power Rating (V/Hz)	120/60									120/60								

WhisperGreen Select

FV-0511VK2 + FV-VS15VK1 (Base Fan with Multi-Speed Time Delay Plug 'N Play™ Module)

Characteristics																											
Static pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	110	110	108	100	101	101	90	90	90	80	80	79	70	71	70	60	60	60	50	51	51	40	41	40	30	30	30
Noise (sones)	<0.3	0.8	-	<0.3	0.7	-	<0.3	0.6	-	<0.3	0.5	-	<0.3	0.5	-	<0.3	0.4	-	<0.3	0.4	-	<0.3	0.3	-	<0.3	0.3	-
Power Consumption (Watts)	9.9	15.4	20.0	7.9	13.1	17.8	6.5	11.2	16.0	5.1	9.6	13.4	4.3	8.5	12.1	3.7	6.9	10.5	3.1	6.2	9.6	2.7	5.5	7.8	2.4	4.6	6.8
Energy Efficiency (CFMs/Watt)	11.1	7.1	5.4	12.7	7.7	5.7	13.9	8.0	5.6	15.7	8.3	5.9	16.7	8.5	5.9	16.3	8.7	5.7	16.2	8.3	5.3	14.8	7.4	5.1	12.6	6.6	4.4
Speed	920	1182	1356	889	1164	1356	839	1135	1351	795	1113	1315	760	1112	1309	751	1061	1287	722	1054	1266	707	1057	1251	711	1039	1259
Amps (Current)	0.10	0.16	0.20	0.09	0.14	0.18	0.07	0.12	0.16	0.06	0.10	0.14	0.05	0.09	0.13	0.05	0.08	0.11	0.04	0.07	0.10	0.04	0.07	0.09	0.04	0.06	0.08
Power Rating (V/Hz)	120/60																										

WhisperGreen Select

FV-1115VK2 + FV-VS15VK1 (Base Fan with Multi-Speed Time Delay Plug 'N Play™ Module)

Characteristics																														
Static pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	150	151	132	130	130	124	120	120	122	110	112	105	100	100	97	90	90	90	80	81	80	70	71	70	60	60	60	50	50	50
Noise (sones)	<0.3	0.7		<0.3	0.4		<0.3	0.3		<0.3	0.3		<0.3	0.2		<0.3	0.3		<0.3	0.3		<0.3	0.4		<0.3	0.4		<0.3	0.5	
Power Consumption (Watts)	12.9	22.0	24.4	9.2	16.5	22.1	7.7	14.0	20.5	6.9	12.8	17.9	5.5	11.0	16.0	4.7	9.7	15.0	4.2	9.0	13.9	3.7	8.1	12.2	3.3	7.2	11.2	3.0	6.4	10.2
Energy Efficiency (CFMs/Watt)	11.7	6.8	5.4	14.2	7.9	5.6	15.7	8.6	6.0	16.0	8.7	5.8	18.2	9.1	6.0	19.1	9.3	6.0	19.0	9.0	5.7	19.2	8.8	5.8	18.2	8.3	5.3	17.3	8.1	5.1
Speed	684	916	1084	645	900	1080	633	895	1086	625	894	1083	615	898	1093	602	900	1099	608	912	1104	591	914	1109	608	913	1117	609	910	1116
Amps (Current)	0.14	0.22	0.24	0.10	0.17	0.22	0.09	0.15	0.21	0.08	0.13	0.18	0.07	0.12	0.16	0.06	0.10	0.15	0.05	0.10	0.14	0.05	0.09	0.13	0.04	0.08	0.12	0.04	0.07	0.11
Power Rating (V/Hz)	120/60																													

ECM SMART FLOW TECHNOLOGY

Flex-Z Fast®

ENERGY STAR

CALGreen

c(UL)us

WhisperGreen Select | One Fan - Multiple IAQ Solutions

FV-0511VKS2   30 to 110 CFM   4" or 6" Duct

WhisperGreen Select Key Benefits:

- Precision, whole-house ventilation solution ideal for use in the bathroom, laundry room, sun room, basement or garage
- Pick-A-Flow® airflow selector (50-80-110 or 110-130-150 CFM models) combined with SmartFlow™ technology simplifies the selection process and ensures optimum performance to meet code and reduce callbacks
- Plug 'N Play™ modules provide three value-added features
- Elegant grille design
- Revolutionary ECM motor with SmartFlow™ technology ensures optimal CFM output
- Light option (FV-0511VKSL2) incorporates a 10W dimmable LED chip panel with <1W LED night light, JA8 compliant for CA Title 24
- Single-hinged Flex-Z Fast® bracket provides flexible, fast and easy installation
- Environmentally friendly 26 gauge housing using Zinc-Aluminum-Magnesium (ZAM) coating
- Pre-installed multi-speed control module with high/low delay timer up to 60 minutes
- Dual access junction box
- Can be used to comply with ASHRAE 62.2, LEED, CALGreen, Indoor airPlus, California Title 24 and all Energy Star for Homes programs

7-3/8" Depth

True Flow
51 - 79 - 108 CFM

HEALTHY AIR, HEALTHY HOME
True Flow ratings at **0.375"** static pressure provide powerful airflow to assure code compliant, healthy homes.

FV-0511VKS2

WhisperGreen Select | One Fan/Light - Multiple IAQ Solutions

FV-0511VKSL2   30 to 110 CFM   4" or 6" Duct

7-3/8" Depth

LED Lighting

INCLUDES: 10 Watt dimmable LED chip panel/3000 Kelvin Warm White/90CRI/700 lumens/70 LPW/ENERGY STAR® 2.2 certified/JA8 compliant for CA Title 24/50,000 hours rated average life/<1W LED night light.

True Flow
51 - 79 - 108 CFM

HEALTHY AIR, HEALTHY HOME
True Flow ratings at **0.375"** static pressure provide powerful airflowt to assure code compliant, healthy homes.

FV-0511VKSL2

*Industry research indicates static pressure in typical installations ranges from 0.20" to 0.375".

WhisperGreen Select **Characteristics**	FV-0511VKS2 (Base Fan with Pre-installed Multi-Speed with Time Delay)																										
Static pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	110	110	108	100	101	101	90	90	90	80	80	79	70	71	70	60	60	60	50	51	51	40	41	40	30	30	30
Noise (sones)	<0.3	0.8	-	<0.3	0.7	-	<0.3	0.6	-	<0.3	0.5	-	<0.3	0.5	-	<0.3	0.4	-	<0.3	0.4	-	<0.3	0.3	-	<0.3	0.3	-
Power Consumption (Watts)	9.9	15.4	20.0	7.9	13.1	17.8	6.5	11.2	16.0	5.1	9.6	13.4	4.3	8.5	12.1	3.7	6.9	10.5	3.1	6.2	9.6	2.7	5.5	7.8	2.4	4.6	6.8
Energy Efficiency (CFMs/Watt)	11.1	7.1	5.4	12.7	7.7	5.7	13.9	8.0	5.6	15.7	8.3	5.9	16.7	8.5	5.9	16.3	8.7	5.7	16.2	8.3	5.3	14.8	7.4	5.1	12.6	6.6	4.4
Speed	920	1182	1356	889	1164	1356	839	1135	1351	795	1113	1315	760	1112	1309	751	1061	1287	722	1054	1266	707	1057	1251	711	1039	1259
Amps (Current)	0.10	0.16	0.20	0.09	0.14	0.18	0.07	0.12	0.16	0.06	0.10	0.14	0.05	0.09	0.13	0.05	0.08	0.11	0.04	0.07	0.10	0.04	0.07	0.09	0.04	0.06	0.08
Power Rating (V/Hz)	120/60																										

WhisperGreen Select **Characteristics**	FV-0511VKSL2 (Base Fan with LED Light and Pre-installed Multi-Speed with Time Delay)																										
Static pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	110	110	103	100	101	99	90	90	90	80	80	78	70	70	69	60	60	60	50	50	50	40	41	40	30	30	30
Noise (sones)	0.4	0.8	-	<0.3	0.8	-	<0.3	0.6	-	<0.3	0.5	-	<0.3	0.5	-	<0.3	0.4	-	<0.3	0.4	-	<0.3	0.4	-	<0.3	0.4	-
Power Consumption (Watts)	10.5	15.8	19.4	8.2	13.6	18.0	6.7	11.6	15.9	5.3	9.9	13.8	4.6	8.7	12.3	3.7	7.2	10.4	3.2	6.2	9.9	2.7	5.5	8.1	2.5	4.8	7.0
Energy Efficiency (CFMs/Watt)	10.5	6.9	5.2	12.2	7.4	5.5	13.5	7.8	5.7	15.3	8.2	5.6	15.8	8.4	5.8	16.2	8.4	5.8	15.7	8.1	5.1	14.8	7.4	4.9	12.0	6.3	4.3
Speed	958	1203	1375	908	1194	1372	868	1160	1357	811	1127	1341	785	1118	1321	750	1082	1282	730	1066	1281	710	1062	1275	720	1067	1272
Amps (Current)	0.11	0.16	0.19	0.09	0.14	0.18	0.08	0.12	0.16	0.06	0.10	0.14	0.06	0.10	0.13	0.05	0.08	0.11	0.04	0.07	0.10	0.04	0.07	0.09	0.04	0.06	0.08
Power Rating (V/Hz)	120/60																										

Pre-Installed Multi-Speed with Time Delay

**Optional Add-On Feature

SmartAction® Motion Sensor** (FV-MSVK1)

Condensation Sensor**: RH sensitivity adjustment (30%-80%) (FV-CSVK1)

Flex-Z Fast®: Single-hinged Flex-Z Fast® bracket provides flexible, fast and easy installation

Plug 'N Play Receptacles & Pick-A-Flow™ Switch

1. Pre-Installed Multi-Speed Module
2. Plug 'N Play Module Receptacles
3. Pick-A-Flow Airflow Selector Switch

WhisperGreen® Select | One Fan/Light - Multiple IAQ Solutions

FV-0511VKL2 50-80-110 CFM 4" or 6" Duct
FV-1115VKL2 110-130-150 CFM 6" Duct

WhisperGreen Select Key Benefits:

- Precision, whole-house ventilation solution ideal for use in the bathroom, laundry room, sun room, basement or garage
- Pick-A-Flow® airflow selector (50-80-110 or 110-130-150 CFM models) combined with SmartFlow™ technology simplifies the selection process and ensures optimum performance to meet code and reduce callbacks
- Plug 'N Play™ modules provide up to three value-added features
- Revolutionary ECM motor with SmartFlow™ technology ensures optimal CFM output
- Incorporates a 10W dimmable LED chip panel with <1W LED night light, JA8 compliant for CA Title 24
- Elegant grille design
- Single-hinged Flex-Z Fast® bracket provides flexible, fast and easy installation
- Environmentally friendly 26 gauge housing using Zinc-Aluminum-Magnesium (ZAM) coating
- Dual access junction box
- Can be used to comply with ASHRAE 62.2, LEED, CALGreen, Indoor airPlus, California Title 24 and all Energy Star for Homes programs

7-3/8" Depth

7-3/8" Depth

True Flow
50 - 78 - 103 CFM
FV-0511VKL2

True Flow
107 - 131 - 127 CFM
FV-1115VKL2

HEALTHY AIR, HEALTHY HOME
True Flow ratings at **0.375"** static pressure provide powerful airflow to assure code compliant, healthy homes.

Multi-Speed with Time Delay**
(FV-VS15VK1)

**Optional Add-On Feature

SmartAction® Motion Sensor**
(FV-MSVK1)

Condensation Sensor**:
RH Sensitivity Adjustment (30%-80%)
(FV-CSVK1)

Flex-Z Fast®:
Single-hinged Flex-Z Fast® bracket provides flexible, fast and easy installation

Plug 'N Play Receptacles & Pick-A-Flow™ Switch

1 Plug 'N Play Modules Sold Separately

2 Plug 'N Play Module Receptacles

3 Pick-A-Flow Airflow Selector Switch

LED Lighting

INCLUDES: 10 Watt dimmable LED chip panel/3000 Kelvin Warm White/90CRI/700 lumens/70 LPW/ENERGY STAR® 2.2 certified/JA8 compliant for CA Title 24/50,000 hours rated average life/<1W LED night light.

*Industry research indicates static pressure in typical installations ranges from 0.20" to 0.375".

WhisperGreen Select

FV-0511VKL2 (Base Fan with LED Light)

Characteristics									
Static pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	110	110	103	80	80	78	50	50	50
Noise (sones)	0.4	0.8	-	<0.3	0.5	-	<0.3	0.4	-
Power Consumption (Watts)	10.5	15.8	19.4	5.3	9.9	13.8	3.2	6.2	9.9
Energy Efficiency (CFMs/Watt)	10.5	6.9	5.2	15.3	8.2	5.6	15.7	8.1	5.1
Speed	958	1203	1375	811	1127	1341	730	1066	1281
Amps (Current)	0.11	0.16	0.19	0.06	0.10	0.14	0.04	0.07	0.10
Power Rating (V/Hz)	120/60								

WhisperGreen Select

FV-0511VKL2+ FV-VS15VK1 (Base Fan with LED Light and Multi-Speed Time Delay Plug 'N Play™ Module)

Characteristics																											
Static pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	110	110	103	100	101	99	90	90	90	80	80	78	70	70	69	60	60	60	50	50	50	40	41	40	30	30	30
Noise (sones)	0.4	0.8	-	<0.3	0.8	-	<0.3	0.6	-	<0.3	0.5	-	<0.3	0.5	-	<0.3	0.4	-	<0.3	0.4	-	<0.3	0.4	-	<0.3	0.4	-
Power Consumption (Watts)	10.5	15.8	19.4	8.2	13.6	18.0	6.7	11.6	15.9	5.3	9.9	13.8	4.6	8.7	12.3	3.7	7.2	10.4	3.2	6.2	9.9	2.7	5.5	8.1	2.5	4.8	7.0
Energy Efficiency (CFMs/Watt)	10.5	6.9	5.2	12.2	7.4	5.5	13.5	7.8	5.7	15.3	8.2	5.6	15.8	8.4	5.8	16.2	8.4	5.8	15.7	8.1	5.1	14.8	7.4	4.9	12.0	6.3	4.3
Speed	958	1203	1375	908	1194	1372	868	1160	1357	811	1127	1341	785	1118	1321	750	1082	1282	730	1066	1281	710	1062	1275	720	1067	1272
Amps (Current)	0.11	0.16	0.19	0.09	0.14	0.18	0.08	0.12	0.16	0.06	0.10	0.14	0.06	0.10	0.13	0.05	0.08	0.11	0.04	0.07	0.10	0.04	0.07	0.09	0.04	0.06	0.08
Power Rating (V/Hz)	120/60																										

WhisperGreen Select

FV-1115VKL2 (Base Fan with LED Light)

Characteristics									
Static pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	150	150	127	130	130	131	110	110	107
Noise (sones)	0.4	0.8		<0.3	0.5		<0.3	0.3	
Power Consumption (Watts)	14.9	22.5	23.8	10.4	17.9	25.4	7.5	13.4	18.8
Energy Efficiency (CFMs/Watt)	10.1	6.7	5.3	12.5	7.2	5.1	14.6	8.2	5.7
Speed	722	951	1105	682	932	1113	648	916	1108
Amps (Current)	0.15	0.22	0.23	0.11	0.18	0.25	0.08	0.14	0.19
Power Rating (V/Hz)	120/60								

WhisperGreen Select

FV-1115VKL2 + FV-VS15VK1 (Base Fan with LED Light and Multi-Speed Time Delay Plug 'N Play™ Module)

Characteristics																														
Static pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	150	150	127	130	130	131	120	120	118	110	110	107	100	100	99	90	91	92	80	80	80	70	70	70	60	61	60	50	52	53
Noise (sones)	0.4	0.8	-	<0.3	0.5	-	<0.3	0.4	-	<0.3	0.3	-	<0.3	0.3	-	<0.3	0.3	-	<0.3	0.3	-	<0.3	0.4	-	<0.3	0.4	-	<0.3	0.5	-
Power Consumption (Watts)	14.9	22.5	23.8	10.4	17.9	25.4	8.4	15.3	21.9	7.5	13.4	18.8	6.0	11.4	16.5	5.0	10.0	15.3	4.6	9.0	13.7	3.8	8.2	12.2	3.3	7.1	11.7	3.1	6.6	10.3
Energy Efficiency (CFMs/Watt)	10.1	6.7	5.3	12.5	7.2	5.1	14.2	7.8	5.4	14.6	8.2	5.7	16.7	8.8	6.0	18.2	9.2	6.0	17.4	8.9	5.8	18.5	8.6	5.7	18.2	8.5	5.1	16.7	7.9	5.1
Speed	722	951	1105	682	932	1113	670	922	1106	648	916	1108	636	917	1105	627	914	1102	625	910	1107	613	920	1113	610	912	1126	621	922	1109
Amps (Current)	0.15	0.22	0.23	0.11	0.18	0.25	0.09	0.16	0.21	0.08	0.14	0.19	0.07	0.12	0.17	0.06	0.11	0.16	0.06	0.10	0.14	0.05	0.09	0.13	0.04	0.08	0.13	0.04	0.08	0.11
Power Rating (V/Hz)	120/60																													

SMART FLOW ECM TECHNOLOGY

Flex-Z Fast®

ENERGY STAR

CAL Green

c(UL)us

SelectCycler | Low Cost, Whole House Ventilation Solution

Controller, Supply Damper & FanConnect™ Wall Switch Kit
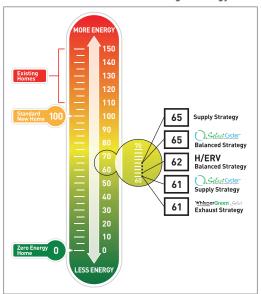**SACG2K-04/06/08/10**   4", 6", 8" or 10" Duct Options

SelectCycler Key Benefits:

- Ideal for single and multi-family construction
- Provides whole house ventilation control that's integrated into the home's Central HVAC system
- Durable, powered open/close damper alleviates damper chatter
- Controls WhisperGreen® Select (or any 110VAC ventilation fan), to provide supplemental ventilation as needed to meet ASHRAE 62.2
- Two operational modes help a home achieve the lowest cost per HERS point for either supply or balanced ventilation strategies
- Works in tandem with spot exhaust fan to achieve hybrid supply or balanced ventilation
- Features a patented setup process, including two simple options: Flow vs Time
- Digital display panel shows system status and aids in troubleshooting
- Fan/light wall switch can be programmed from the controller to provide a delay timer function

SelectCycler® offers the most cost effective solution for meeting ventilation code and minimizing the impact to your HERS Index.

HERS Index Per Ventilation Design Strategy*

MORE ENERGY

150	
140	
130	Existing Homes
120	
110	
100	Standard New Home 100
90	**65** Supply Strategy
80	**65** SelectCycler Balanced Strategy
70	**62** H/ERV Balanced Strategy
60	**61** SelectCycler Supply Strategy
50	**61** WhisperGreen Select Exhaust Strategy
40	
30	
20	
10	
0	Zero Energy Home 0

LESS ENERGY

ECM Motor and low watt consumption contribute to a low HERS Index Score and Cost Per HERS Point Index

Ventilation Cost Per HERS Point Index*

HIGH COST

$667	H/ERV Balanced Strategy
$325	SelectCycler Balanced Strategy
$275	Supply Strategy
$81	SelectCycler Supply Strategy
$38	WhisperGreen Select Exhaust Strategy

LOW COST

SelectCycler System Balanced Mode
Lowest cost per HERS point for **Balanced Ventilation**

SelectCycler System Hybrid Mode
Lowest cost per HERS point for **Supply Ventilation**

WhisperGreen® Select
Lowest cost per HERS point for **Exhaust Ventilation**

Modeling conducted by third-party RESNET Provider EPX/NRGLogic

Scan code to view SelectCycler animation

16

SelectCycler Kit (SACG2K)

Programmable Wall Mounted Controller
- Ideal for single and multi-family construction
- Calculates supply duct and exhaust fan run cycles to meet ASHRAE 62.2
- Patented algorithm calculates operation time to meet ASHRAE 62.2 ventilation requirements
- Allows for programmable hours of operation

Motorized Supply Damper
- Stainless steel, power open/close damper
- Available in 4", 6", 8" or 10" duct size
- Operating Voltage: 24VAC (up to 30VAC max)
- Current Draw: 0.07 A idle; 0.125 A for 15 second damper transit time
- Damper can be installed in any position

FanConnect™ Bathroom Fan/Light Wall Switch
- Compatible with single, or multi-speed fans, set to a single speed setting
- Light: 450 Watts @ 120VAC (blue wire)
- Fan: 150 Watts @ 120VAC (red wire)
- Operation: 120VAC +/– 10%

Optional Accessories
- The range hood pressure sensor works exclusively with the SelectCycler System to solve depressurization issues by allowing make up air to enter as soon as the range hood is turned on
- Hot and cold temperature sensors disable the fresh air damper in extreme temperatures

Range Hood Pressure Sensor (SACRR)
- Solves depressurization issues
- Max Operating Pressure –10kPa
- Pressure Range: 20 – 200 Pa +/–15%
- Operating Temperature: –40°C to 85°C

Unique, Low Cost Solution!

Hot Temperature Sensor (SACTG-H01)
- System control in extreme hot climates
- OFF Temperature: 95°F +/– 5°
- ON Temperature: 4°F lower
- Operation: 2A @ 24VAC

Cold Temperature Sensor (SACTG-C02)
- System control in extreme cold climates
- OFF Temperature: 35°F +/– 5°
- ON Temperature: 4°F higher
- Operation: 2A @ 24VAC

WhisperSense DC | Precision Spot Ventilation Solution, Moisture Control for CALGreen Compliance

FV-0511VQC1   50-80-110 CFM   4" or 6" Duct

7-3/8" Depth

FV-0511VQC1

True Flow
53 - 82 - 91 CFM

HEALTHY AIR HEALTHY HOME
True Flow ratings at **0.375"** static pressure provide powerful airflow to assure code compliant, healthy homes.*

WhisperSense DC Key Benefits:

- Precision spot ventilation fans ideal for use in the bathroom, laundry room, mud room, basement or garage
- Revolutionary ECM motor with SmartFlow™ technology ensures optimal CFM output
- Pick-A-Flow® airflow selector (50-80-110 CFM) combined with SmartFlow™ technology simplifies the selection process and ensures optimum performance to meet code and reduce callbacks
- Dual Sensor Technology (Motion & Moisture) provides built-in redundancy for the ultimate in automatic moisture and odor control
- Single-hinged Flex-Z Fast® bracket provides flexible, fast and easy installation
- Elegant grille design compliments the aesthetics of any room
- Can be used to comply with LEED, ENERGY STAR® Indoor airPlus, CALGreen, EarthCraft and CA Title 24

WhisperSense DC Characteristics	FV-0511VQC1								
Static pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	110	111	91	80	83	82	50	53	53
Noise (sones)	<0.3	0.9		<0.3	0.6		<0.3	0.4	
Power Consumption (Watts)	10.6	16.4	17.1	5.9	10.8	14.5	4.0	7.2	10.5
Energy Efficiency (CFMs/Watt)	10.6	6.9	5.3	13.6	7.7	5.7	12.5	7.4	5.1
Speed	957	1239	1382	821	1172	1351	756	1093	1195
Amps (Current)	0.18	0.26	0.27	0.11	0.18	0.24	0.07	0.13	0.18
Power Rating (V/Hz)	120/60			120/60			120/60		

Built-in Controls

Three ways the fan can function
- Motion on/Motion off
- Motion on/Humidity off
- Humidity on/Humidity off
- Variable humidity controls from 30-80% relative humidity (RH)
- Adjustable delay timer from 30 seconds to 60 minutes

SMART FLOW ECM TECHNOLOGY

Flex-Z Fast®

ENERGY STAR

CALGreen

c UL us

*Industry research indicates static pressure in typical installations ranges from 0.20" to 0.375".

WhisperFit DC | Ideal Retrofit Fan / Condensation Model

FV-0511VFC1   50, 80 or 110 CFM   4" or 3" Duct
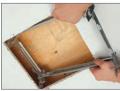
5-5/8" Depth

WhisperFit DC Key Benefits:

- Revolutionary ECM motor with SmartFlow™ Technology ensures optimal CFM output
- Built-in Pick-A-Flow® airflow selector allows you to select your required airflow of 50, 80, or 110 CFM with a simple flip of a switch
- Condensation Sensor model (FV-0511VFC1) provides hands-free operation and automatic moisture control
- Single-hinged Flex-Z Fast® bracket provides flexible, fast and easy installation
- Can be used to comply with ASHRAE 62.2, LEED, IAP and California Title 24
- Pre-installed alignment guides help guide adaptor assembly into place during installation for a tight precision fit
- Temporary clip molded into casing holds fan in place while installer fastens fan to can safely
- Plastic Standard 4˝ to 3˝ duct adapter with backdraft damper/shutter allows for better air tightness and to accommodate existing 3˝ ducting found in retrofit applications.

WhisperFit DC	FV-0511VFC1																	
Characteristics	4"			4"			4"			3"			3"			3"		
Static Pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	110	111	109	80	80	84	50	50	50	110	94	69	80	81	67	50	51	55
Noise (sones)	0.8	1.2	-	0.3	0.8	-	<0.3	0.4	-	2.0	1.5	-	0.8	1.4	-	<0.3	0.9	-
Power Consumption (watts)	10.2	14.6	17.9	5.9	9.4	13.2	4.0	7.1	10.0	17.1	16.4	13.6	8.8	13.0	13.5	4.6	7.7	10.8
Energy Efficiency (CFM/Watt)	11.0	7.7	6.2	13.9	8.7	6.5	13.5	7.6	5.4	6.6	5.9	5.2	9.4	6.5	5.2	11.5	7.0	5.3
Speed (RPM)	977	1222	1392	820	1142	1349	795	1152	1374	1341	1429	1476	1094	1357	1476	870	1205	1426
Current (amps)	0.18	0.24	0.28	0.11	0.16	0.22	0.08	0.13	0.17	0.27	0.26	0.22	0.15	0.21	0.22	0.09	0.14	0.18
Power Rating (V/Hz)	120/60																	

Installation is as Easy as 1-2-3!

Insert single-hinged Flex-Z Fast® installation bracket

Connect the wiring and attach duct to installation adapter

Install Fan

Pick-A-Flow® Airflow Selector Switch

INCLUDED:
4˝ to 3˝ Duct Adapter

Flex-Z Fast®

ENERGY STAR

c(UL)us

WhisperValue DC | Precision Spot Ventilation Solution, Ideal for Multi-Family

FV-0810VSS1 80 or 100 CFM 4" Oval Duct
FV-0510VSC1 50-80-100 CFM 4" Oval Duct

3-3/8" Depth

Lowest profile, perfect fit in a 2 x 4! Lowest profile ENERGY STAR® fan available – fits anywhere!

WhisperValue DC Key Benefits:

- Precision spot ventilation fan ideal for residential construction (single and multi-family) and manufactured homes
- Revolutionary ECM motor with SmartFlow™ Technology ensures optimal CFM output
- Pick-A-Flow® airflow selector combined with SmartFlow™ technology simplifies the selection process and ensures optimum performance to meet code and reduce callbacks
- FV-0810VSS1 incorporates Multi-Speed control with 20 minute time delay for ASHRAE 62.2 compliance
- FV-0510VSC1 features a built-in Condensation Sensor to control moisture in the bathroom for CALGreen compliance
- Unique L-Shaped bracket simplifies installation and provides strong support
- UL approved for ceiling or wall mount (actually fits in a 2 x 4 stud wall)
- Wall Installation reduces cost by eliminating the need to incorporate a radiation damper when penetrating fire rated ceilings, making it ideal for Multi-Family applications
- Can be used to comply with ASHRAE 62.2, LEED, Indoor airPlus and California Title 24

True Flow 76 - 84 CFM
FV-0810VSS1

True Flow 52 - 76 - 84 CFM
FV-0510VSC1

HEALTHY AIR, HEALTHY HOME
True Flow ratings at **0.375"** static pressure provide powerful airflow to assure code compliant, healthy homes.*

3 3/8"

Industry research indicates static pressure in typical installations ranges from 0.20" to 0.375".

WhisperValue DC	FV-0810VSS1																				
Characteristics	4" Oval Duct			4" Oval Duct			4" Oval Duct			4" Oval Duct			4" Oval Duct			4" Oval Duct			4" Oval Duct		
Static pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	100	101	83	80	81	75	70	72	70	60	64	65	50	52	52	40	41	42	30	31	30
Noise (sones)	0.9	1.3	-	0.4	0.8	-	<0.3	0.6	-	<0.3	0.6	-	<0.3	0.5	-	<0.3	0.5	-	<0.3	0.5	-
Power Consumption (Watts)	13.4	18.5	18.0	8.5	13.2	16.0	6.5	10.8	15.0	5.3	9.3	13.0	4.5	7.7	12.0	3.8	6.7	10.0	3.4	6.0	9.0
Energy Efficiency (CFMs/Watt)	7.5	5.5	4.6	10.0	6.5	4.7	11.2	6.9	4.7	11.8	7.2	5.0	12.1	7.3	4.3	11.8	6.9	4.2	10.2	6.0	3.3
Speed (RPM)	970	1197	1300	856	1114	1270	805	1088	1260	770	1076	1250	733	1050	1230	723	1037	1215	711	1033	1200
Amps (Current)	0.22	0.29	0.25	0.13	0.20	0.24	0.10	0.16	0.22	0.09	0.15	0.20	0.08	0.13	0.17	0.07	0.11	0.15	0.06	0.10	0.13
Power Rating (V/Hz)	120/60			0.25			120/60			120/60			120/60			120/60			120/60		

WhisperValue DC	FV-0510VSC1								
Characteristics	4" Oval Duct			4" Oval Duct			4" Oval Duct		
Static pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	100	101	83	80	81	75	50	52	52
Noise (sones)	0.9	1.3	-	0.4	0.8	-	<0.3	0.5	-
Power Consumption (Watts)	13.4	18.5	18.0	8.5	13.2	16.0	4.5	7.7	12.0
Energy Efficiency (CFMs/Watt)	7.5	5.5	4.6	10.0	6.5	4.7	12.1	7.3	4.3
Speed (RPM)	970	1197	1300	856	1114	1270	733	1050	1230
Amps (Current)	0.22	0.29	0.25	0.13	0.20	0.24	0.08	0.13	0.17
Power Rating (V/Hz)	120/60			120/60			120/60		

Pick-A-Flow® Airflow
Selector Switch
(FV-0510VSC1 Shown)

Optional 4" Oval to 3"
Round Duct Adapter
(Model #: FV-VS43R)

Condensation Sensor
RH sensitivity (30% – 80% RH)
adjustment
(FV-0510VSC Only)

Multi-Speed with 20 minute Time Delay
(FV-0810VSS1 Only)

Performance Curves on pages 52-56 / Dimensional Drawings on pages 57-61 / Compatibility for Applicable WhisperControl & EcoSwitch to Panasonic Fans on page 44

21

WhisperCeiling DC | Precision Spot Ventilation Solution

FV-0511VQ1 50-80-110 CFM 4" or 6" Duct
FV-1115VQ1 110-130-150 CFM 6" Duct

7-3/8" Depth

True Flow
FV-0511VQ1 53 - 82 - 91 CFM
FV-1115VQ1 85 - 85 - 85 CFM

HEALTHY AIR, HEALTHY HOME
True Flow ratings at **0.375"** static pressure provide powerful airflow to assure code compliant, healthy homes.*

WhisperCeiling DC Key Benefits:

- Precision spot ventilation fans ideal for use in the bathroom, laundry room, sun room, basement or garage
- Revolutionary ECM motor with SmartFlow™ technology ensures optimal CFM output
- Powerful CFM output overcomes 0.375" static pressure to assure code compliant, healthy homes
- Pick-A-Flow™ airflow selector (50-80-110 or 110-130-150 CFM models) combined with SmartFlow™ technology simplifies the selection process and ensures optimum performance to meet code and reduce callbacks
- Single-hinged Flex-Z Fast® bracket provides flexible, fast and easy installation
- Can be used to comply with ASHRAE 62.2, LEED, ENERGY STAR®, Indoor airPlus, EarthCraft and CA Title 24

WhisperCeiling DC Characteristics	FV-0511VQ1									FV-1115VQ1								
Static pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	110	111	91	80	83	82	50	53	53	150	152	85	130	131	85	110	110	85
Noise (sones)	<0.3	0.9	-	<0.3	0.6	-	<0.3	0.4	-	<0.3	0.7	-	<0.3	0.5	-	<0.3	<0.3	-
Power Consumption (Watts)	10.6	16.4	17.1	5.9	10.8	14.5	4.0	7.2	10.5	11.8	20.2	15.0	9.0	15.7	15.0	6.8	12.1	15.0
Energy Efficiency (CFMs/Watt)	10.6	6.9	5.3	13.6	7.7	5.7	12.5	7.4	5.1	12.9	7.6	5.7	14.7	8.5	5.7	16.4	9.2	5.7
Speed	957	1239	1382	821	1172	1351	756	1093	1195	698	925	1110	671	918	1108	636	900	1112
Amps (Current)	0.18	0.26	0.27	0.11	0.18	0.24	0.07	0.13	0.18	0.19	0.31	0.25	0.16	0.25	0.25	0.12	0.20	0.25
Power Rating (V/Hz)	120/60			120/60			120/60			120/60			120/60			120/60		

Pick-A-Flow® Airflow Selector Switch (FV-0511VQ1 Shown)

0511 MODEL 50 80 110 CFM 110 130 150 1115 MODEL

Flex-Z Fast®: Single-hinged Flex-Z Fast® bracket provides flexible, fast and easy installation

*Industry research indicates static pressure in typical installations ranges from 0.20" to 0.375".

WhisperCeiling | Quiet, Spot Ventilation Solution

FV-20VQ3 190 CFM 6" Duct
FV-30VQ3 290 CFM 6" Duct
FV-40VQ4* 390 CFM 6" Duct

9-9/32"
Depth

WhisperCeiling Key Benefits:

- Large volume (190-390) CFM options designed for light commercial applications
- AC motor
- UL listed for tub/shower enclosure when GFCI protected
- Can be used to comply with ASHRAE 62.2, LEED, Indoor airPlus, EarthCraft and California Title 24

*FV-40VQ4 does not comply with the ENERGY STAR® 4.0 requirement for increased efficiency (CFM/Watt).

WhisperCeiling (AC) Characteristics	FV-20VQ3		FV-30VQ3		FV-40VQ4*	
Static pressure in inches w.g.	0.1	0.25	0.1	0.25	0.1	0.25
Air Volume (CFM)	190	145	290	257	390	356
Noise (sones)	0.8	1.4	2.0	N/A	3.0	3.0
Power Consumption (Watts)	44.5	43.6	64.0	62.0	111.4	109.6
Energy Efficiency (CFMs/Watt)	4.6	3.6	4.5	4.1	3.5	3.3
Speed	761	949	877	990	793	874
Amps (Current)	0.34	0.33	0.53	0.52	0.99	0.98
Power Rating (V/Hz)	120/60		120/60		120/60	

WhisperValue® DC | Precision Spot Ventilation Solution, Ideal for Multi-Family

FV-0510VS1   50-80-100 CFM   4" Oval Duct

3-3/8" Depth

Lowest profile, perfect fit in a 2 x 4! Lowest profile ENERGY STAR® fan available – fits anywhere!

HEALTHY AIR, HEALTHY HOME
True Flow ratings at **0.375"** static pressure provide powerful airflow to assure code compliant, healthy homes.*

FV-0510VS1

WhisperValue DC Key Benefits:

- Revolutionary ECM motor with SmartFlow™ Technology ensures optimal CFM output
- Precision spot ventilation fan ideal for ideal for residential construction (single and multi-family) and manufactured homes
- Pick-A-Flow® airflow selector combined with SmartFlow™ technology simplifies the selection process and ensures optimum performance to meet code and reduce callbacks)
- UL approved for ceiling or wall mount – perfect fit in a 2 x 4 stud bay
- Wall installation eliminates the need and cost for a radiation damper
- Can be used to comply with ASHRAE 62.2, LEED, Indoor airPlus and California Title 24

WhisperValue DC	FV-0510VS1								
Characteristics	4" Oval Duct			4" Oval Duct			4" Oval Duct		
Static pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	100	100	83	80	81	75	50	53	52
Noise (sones)	0.9	1.3	-	0.4	0.8	-	<0.3	0.5	-
Power Consumption (Watts)	11.1	16.0	18.0	7.2	11.5	16.0	4.4	7.5	12.0
Energy Efficiency (CFMs/Watt)	9.2	6.4	4.6	11.4	7.2	4.7	12.8	7.9	4.3
Speed (RPM)	902	1121	1300	797	1070	1270	708	1025	1230
Amps (Current)	0.20	0.27	0.25	0.13	0.20	0.24	0.09	0.14	0.17
Power Rating (V/Hz)	120/60			120/60			120/60		

Pick-A-Flow® Airflow Selector Switch

Optional 4" Oval to 3" Round Duct Adapter (Model #: FV-VS43R)

WhisperValue DC Contractor Pack*

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

Housing Can	Motor/Grille Assembly	Complete Fan Unit	Master Pack
FV-0510VSA1	FV-0510VSB1	FV-0510VS1	4

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

*Industry research indicates static pressure in typical installations ranges from 0.20" to 0.375".

WhisperValue DC

Transfer Register Box
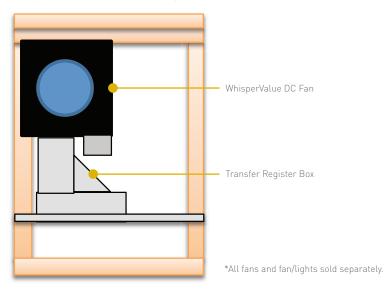
FV-JD

Transfer Register Box (TRB) – Room to Room Solution
Key Benefits:

- Designed for use with the WhisperValue DC fan and WhisperValue fan/light combinations
- Perfect for room-to-room powered circulation in Multi-family projects with ductless heat pumps and mini splits
- Powered 50 CFM transfer at less than 0.3 sone (based on FV-0510VS1)
- 26 gauge steel, fire code rated accessory, sold separately as model #FV-JD
- No need for a radiation damper like on jump ducts
- Works with standard size HVAC registers – 4" x 10" HVAC supply grille
- Can be used to comply with ASHRAE 62.2, LEED for Homes, CALGreen and all Energy Star for Homes programs

WhisperValue DC Fan & Transfer Register Box

WhisperValue DC Fan

Transfer Register Box

*All fans and fan/lights sold separately.

WhisperFit DC | Ideal Retrofit Fan Only Model

FV-0511VF1   50, 80, or 110 CFM   4" or 3" Duct

5-5/8" Depth

WhisperFit DC Key Benefits:

- Revolutionary ECM motor with SmartFlow™ Technology ensures optimal CFM output
- Built-in Pick-A-Flow™ airflow selector allows you to select your required airflow of 50, 80, or 110 CFM with a simple flip of a switch
- Single-hinged Flex-Z Fast® bracket provides flexible, fast and easy installation
- Can be used to comply with ASHRAE 62.2, LEED, IAP and California Title 24
- Pre-installed alignment guides help guide adaptor assembly into place during installation for a tight precision fit
- Temporary clip molded into casing holds fan in place while installer fastens fan to can safely
- Plastic Standard 4" to 3" duct adapter with backdraft damper/shutter allows for better air tightness and to accommodate existing 3" ducting found in retrofit applications.

WhisperFit DC	FV-0511VF1																	
Characteristics	4"			4"			4"			3"			3"			3"		
Static Pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	110	111	109	80	80	84	50	50	50	110	94	69	80	81	67	50	51	55
Noise (sones)	0.8	1.2	-	0.3	0.8	-	<0.3	0.4	-	2.0	1.5	-	0.8	1.4	-	<0.3	0.9	-
Power Consumption (watts)	10.2	14.6	17.9	5.9	9.4	13.2	4.0	7.1	10.0	17.1	16.4	13.6	8.8	13.0	13.5	4.6	7.7	10.8
Energy Efficiency (CFM/Watt)	11.0	7.7	6.2	13.9	8.7	6.5	13.5	7.6	5.4	6.6	5.9	5.2	9.4	6.5	5.2	11.5	7.0	5.3
Speed (RPM)	977	1222	1392	820	1142	1349	795	1152	1374	1341	1429	1476	1094	1357	1476	870	1205	1426
Current (amps)	0.18	0.24	0.28	0.11	0.16	0.22	0.08	0.13	0.17	0.27	0.26	0.22	0.15	0.21	0.22	0.09	0.14	0.18
Power Rating (V/Hz)	120/60																	

Installation is as Easy as 1-2-3!

1. Insert single-hinged Flex-Z Fast® installation bracket

2. Connect the wiring and attach duct to installation adapter

3. Install Fan

Pick-A-Flow® Airflow Selector Switch

INCLUDED:
4" to 3" Duct Adapter

Flex-Z Fast®   ENERGY STAR   c(UL)us

ecoVent® | Cost-effective, Spot Ventilation Solution

FV-07VBA1A + FV-07VBB1   4" Duct

4-6/8" Depth

True Flow 56 CFM

FV-07VBA1A + FV-07VBB1

HEALTHY AIR, HEALTHY HOME
True Flow ratings at **0.375"** static pressure provide powerful airflow to assure code compliant, healthy homes.*

EcoVent Key Benefits:

- Ideal for new residential construction (High Performance / ENERGY STAR® Single Family Production Builders and Manufactured Housing)
- The most cost effective 90 CFM spot ventilation fan on the market.
- The only 2-speed 70/90 CFM spot ventilation fan on the market (assures code compliance)
- Delivers a True Flow rating of 56 CFM at 0.375" static pressure (when set at the 90 CFM setting)
- Most coft effective ENERGY STAR® solution for home and manufacturing builders
- Adjustable, two speed (70/90 CFM) spot ventilation solution
- Small grille design complements the aesthetics of your bathroom, powder room or laundry room
- Fits in 2 x 6 construction
- Available in contractor packs only – housing and motor/grille packaged separately reduces risk of parts being lost or damaged on site
- Can be used to comply with ASHRAE 62.2, LEED and all Energy Star for Homes programs

EcoVent

SPECIFICATIONS	FV-07VBA1A + FV-07VBB1					
Characteristics (HVI tested data for 0.1" S.P.)	Standard Speed			High Speed		
Static Pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	**0.375***
Air Volume (CFM)	70	56	34	90	75	56
Noise (sones)	0.7	1.3	-	1.5	1.5	-
Power Consumption (watts)	20.0	20.0	20.0	24.0	24.0	24.0
Energy Efficiency (CFM/Watt)	3.5	2.8	1.7	3.8	3.1	2.3
Speed (RPM)	907	1200	1425	1019	1266	1450
Current (amps)	0.15	0.14	0.15	0.19	0.18	0.17
MAX. Current (amps)	0.25					
Power Rating (V/Hz)	120/60					

*Industry research indicates static pressure in typical installations ranges from 0.20" to 0.375".

Unique Solution!

Two Speed Fan Switch (70/90 CFM)

Scan code to view EcoVent installation

ECOVENT UNIVERSAL CAN CONTRACTOR PACKS

Model #	Description	Contents	Master Pack*
FV-07VBA1A	Universal Housing Can	Housing Can, Duct Adapter & Junction Box	4
FV-0 7VBB1	Motor/Grille Assembly	Motor & Grille	4

*Must order in quantities of 4, shipment will contain 1 box with 4 pieces of each item.

 ENERGY STAR   c(UL)us

*Industry research indicates static pressure in typical installations ranges from 0.20" to 0.375".

WhisperSense DC | Precision Spot Ventilation Solution, Moisture Control for CALGreen Compliance

FV-0511VQCL1   50-80-110 CFM   4" or 6" Duct

7-3/8" Depth

True Flow
50 - 82 - 86 CFM

FV-0511VQCL1

HEALTHY AIR, HEALTHY HOME
True Flow ratings at **0.375"** static pressure provide powerful airflowt to assure code compliant, healthy homes.*

WhisperSense DC Key Benefits:
- Precision spot ventilation fan/light ideal for use in the bathroom, laundry room, sun room, basement or garage
- Revolutionary ECM motor with SmartFlow™ technology ensures optimal CFM output
- Pick-A-Flow® airflow selector (50-80-110 CFM) combined with SmartFlow™ technology simplifies the selection process and ensures optimum performance to meet code and reduce callbacks
- One 10W dimmable LED chip panel with <1W LED night light for warm, long-life energy efficient illumination (night light must be wired separately)
- Single-hinged Flex-Z Fast® bracket provides flexible, fast and easy installation
- Elegant grille design compliments the aesthetics of any room
- Can be used to comply with LEED, ENERGY STAR®, Indoor airPlus, EarthCraft and JA8 compliant for CA Title 24

WhisperSense DC Characteristics	FV-0511VQCL1 (Fan/Light)								
Static pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	110	110	86	80	83	82	50	50	44
Noise (sones)	0.4	0.9		<0.3	0.6		<0.3	0.4	
Power Consumption (Watts)	10.9	16.1	16.8	6.0	11.0	14.6	3.9	7.1	10.0
Energy Efficiency (CFMs/Watt)	10.3	7.0	5.1	13.7	7.7	5.6	14.1	7.8	4.4
Speed	1016	1268	1398	867	1185	1370	768	1097	1315
Amps (Current)	0.18	0.26	0.26	0.11	0.19	0.24	0.07	0.12	0.17
Power Rating (V/Hz)	120/60			120/60			120/60		

Built-in Controls

LED Lighting
INCLUDES: One 10W Dimmable LED chip panel with <1W LED night/3000 Kelvin Warm White/90CRI/ 700 lumens/70 LPW/ ENERGY STAR® 2.0 certified/ JA8 compliant for CA Title 24/ 50,000 hours rated average life.

Pick-A-Flow® Airflow Selector Switch (FV-0511VQCL1 Shown)

Flex-Z Fast®: Single-hinged Flex-Z Fast® bracket provides flexible, fast and easy installation

SMART FLOW ECM TECHNOLOGY   **Flex-Z Fast®**   **ENERGY STAR**   **CALGreen**   c(UL)us

*Industry research indicates static pressure in typical installations ranges from 0.20" to 0.375".

WhisperRecessed LED | Design Solution for Fan/Light Combinations

FV-08VRE2   80 CFM   4" or 6" Duct

7-1/2" Depth

See Page 42 for Recessed Inlet, a light only option to match WhisperRecessed LED fan/light combinations.

WhisperRecessed LED Key Benefits:

- Includes (1) replaceable, 8W ENERGY STAR 2.0 certified, GU24 base LED lamp, JA-8 compliant for CA Title 24 and Title 20
- ENERGY STAR® rated architectural grade recessed fan with dimmable LED light
- Quiet , energy efficient and powerful 80 CFM ventilation hidden above the ceiling
- Ideal for use in the bathroom, living room or laundry room
- Beautiful lighting with 6" aperture and advanced luminaire design
- Can be used to comply with ASHRAE 62.2, CALGreen*, LEED, Indoor airPlus and JA8 compliant for CA Title24 & Title20

*Can be used to comply with CALGreen when controlled by the Panasonic Condensation Sensor Plus

WhisperRecessed LED Characteristics	FV-08VRE2	
Static pressure in inches w.g.	0.1	0.25
Air Volume (CFM)	80	66
Noise (sones)	1.0	0.8
Power Consumption (Watts)	18.5	17.6
Energy Efficiency (CFMs/Watt)	4.4	3.8
Speed	1342	1480
Amps (Current)	0.15	0.15
Power Rating (V/Hz)	120/60	

LED Lighting

(1) 8 Watt GU24 base LED lamp, /2700 Kelvin Warm White/>92CRI/720 lumens/90 LPW/ ENERGY STAR 2.0 certified, JA-8 compliant for CA Title 24 and Title 20, 25,000 rated average life.

29

WhisperFit DC | Ideal Retrofit Fan/Adjustable Color Temperature Model

FV-0511VFL1 50, 80 or 110 CFM 4" or 3" Duct
FV-0511VFL1K

5-5/8" Depth

(with 3" duct adapter)

WhisperFit DC Key Benefits:

- Revolutionary ECM motor with SmartFlow Technology ensures optimal CFM output
- Built-in Pick-A-Flow® airflow selector allows you to select your required airflow of 50, 80, or 110 CFM with a simple flip of a switch
- Lighted model incorporates one 10W dimmable LED chip panel with <1W LED night light for warm, long-life energy efficient illumination (night light must be wired separately)
- Adjustable color temperature model (FV-0511VFL1K) features three color temperatures of 3000K, 4000K, and 5000K which allows homeowners to adjust the light setting in the room
- Single-hinged Flex-Z Fast® bracket provides flexible, fast and easy installation
- Can be used to comply with ASHRAE 62.2, LEED, IAP and California Title 24
- Pre-installed alignment guides help guide adaptor assembly into place during installation for a tight precision fit
- Temporary clip molded into casing holds fan in place while installer fastens fan to can safely
- Plastic Standard 4" to 3" duct adapter with backdraft damper/shutter allows for better air tightness and to accommodate existing 3" ducting found in retrofit applications.

WhisperFit DC	FV-0511VFL1 / FV-0511VFL1K																	
Characteristics	4"			4"			4"			3"			3"			3"		
Static Pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	110	110	100	80	82	83	50	51	52	110	89	64	80	80	62	50	51	52
Noise (sones)	1.0	1.3	-	0.3	0.7	-	<0.3	0.4	-	1.5	1.4	-	0.7	1.3	-	<0.3	0.7	-
Power Consumption (watts)	11.0	15.0	16.4	6.6	10.4	13.8	4.2	7.4	10.0	17.4	15.1	12.6	9.3	13.4	12.5	4.9	8.0	10.5
Energy Efficiency (CFM/Watt)	10.2	7.5	6.2	12.4	8.1	6.1	12.5	7.2	5.5	6.4	6.0	5.1	8.9	6.2	5.1	10.8	6.8	5.2
Speed (RPM)	999	1243	1399	890	1207	1400	833	1181	1396	1376	1431	1476	1135	1392	1481	907	1233	1444
Current (amps)	0.18	0.25	0.27	0.12	0.18	0.22	0.08	0.13	0.17	0.28	0.24	0.21	0.16	0.22	0.21	0.09	0.14	0.18
Power Rating (V/Hz)	120/60																	

Installation is as Easy as 1-2-3!

1. Insert single-hinged Flex-Z Fast® installation bracket

2. Connect the wiring and attach duct to installation adapter

3. Install Fan

LED Lighting

Includes a 10 Watt dimmable LED chip panel/3000 Kelvin Warm White/90 CRI/700 lumens/70 LPW/ ENERGY STAR® 2.2 certified/JA8 compliant for CA Title 24/50,000 hours rated average life / <1W LED night light.

5000K
4000K
3000K

LED Lighting -
Adjustable Color Temperature Model (FV-0511VFL1K) (Fan/ LED with Adjustable Color Temperatures) combines energy efficient LED lighting with colorful room ambiance options of your choice. A switch under the grille lets occupants choose from three different LED color temperatures to match your décor in the room:

- Cool White 5000K
- Bright White 4000K
- Warm White 3000K

Pick-A-Flow® Airflow Selector Switch (FV-0511VFL1 Shown)

INCLUDED: 4" to 3" Duct Adapter

Flex-Z Fast®: Single-hinged Flex-Z Fast® bracket provides flexible, fast and easy installation

Flex-Z Fast®

ENERGY STAR

c(UL)us

WhisperCeiling DC | Precision Spot Ventilation Solution

FV-0511VQL1 50-80-110 CFM   4" or 6" Duct
FV-1115VQL1 110-130-150 CFM 6" Duct

7-3/8" Depth

WhisperCeiling DC Key Benefits:

- Precision spot ventilation fan/light ideal for use in the bathroom, laundry room, sun room, basement or garage
- Revolutionary ECM motor with SmartFlow™ Technology ensures optimal CFM output
- Pick-A-Flow® airflow selector (50-80-110 or 110-130-150 CFM models) combined with SmartFlow™ technology simplifies the selection process and ensures optimum performance to meet code and reduce callbacks
- Incorporates one 10W dimmable LED chip panel with <1W LED night light for warm, long-life energy efficient illumination (night light must be wired separately)
- Single-hinged Flex-Z Fast® bracket provides flexible, fast and easy installation
- Elegant grille design compliments the aesthetics of any room
- Can be used to comply with ASHRAE 62.2, LEED, ENERGY STAR®, Indoor airPlus, EarthCraft and JA8 compliant for CA Title 24

True Flow
50 - 82 - 86 CFM
FV-0511VQL1

True Flow
78 - 79 - 80 CFM
FV-1115VQL1

HEALTHY AIR, HEALTHY HOME
True Flow ratings at **0.375"** static pressure provide powerful airflow to assure code compliant, healthy homes.*

WhisperCeiling DC Characteristics	FV-0511VQL1 (Fan/Light)									FV-1115VQL1 (Fan/Light)								
Static pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	110	110	86	80	83	82	50	50	44	150	144	80	130	131	79	110	110	78
Noise (sones)	0.4	0.9	-	<0.3	0.6	-	<0.3	0.4	-	0.5	0.8	-	<0.3	0.7	-	<0.3	0.5	-
Power Consumption (Watts)	10.9	16.1	16.8	6.0	11.0	14.6	3.9	7.1	10.0	13.0	19.3	14.5	10.3	17.0	14.5	7.7	12.8	14.6
Energy Efficiency (CFMs/Watt)	10.3	7.0	5.1	13.7	7.7	5.6	14.1	7.8	4.4	11.7	7.5	5.5	12.8	7.8	5.4	14.5	8.7	5.3
Speed	1016	1268	1398	867	1185	1370	768	1097	1315	740	958	1124	722	949	1127	679	935	1126
Amps (Current)	0.18	0.26	0.26	0.11	0.19	0.24	0.07	0.12	0.17	0.21	0.30	0.24	0.17	0.27	0.23	0.13	0.22	0.23
Power Rating (V/Hz)	120/60			120/60			120/60			120/60			120/60			120/60		

LED Lighting

INCLUDES: One long life 10W Dimmable LED chip panel with <1W LED night light/ 3000 Kelvin Warm White/ 90CRI/700 lumens/70 LPW/ ENERGY STAR® 2.0 certified/ JA8 compliant for CA Title 24/ 50,000 hours rated average.

Pick-A-Flow® Airflow Selector Switch (FV-0511VQL1 Shown)

Flex-Z Fast®: Single-hinged Flex-Z Fast® bracket provides flexible, fast and easy installation

SMART FLOW ECM TECHNOLOGY

Flex-Z Fast®

ENERGY STAR

c(UL)us

*Industry research indicates static pressure in typical installations ranges from 0.20" to 0.375".

Performance Curves on pages 52-56 / Dimensional Drawings on pages 57-61 / Compatibility for Applicable WhisperControl & EcoSwitch to Panasonic Fans on page 44

31

WhisperValue DC | Precision Spot Ventilation Solution, Ideal Multi-Family Fan/Light

FV-0510VSL1   50-80-100 CFM   4" Oval Duct
FV-0810VSSL1   80 or 100 CFM   4" Oval Duct
FV-0510VSCL1   50-80-100 CFM   4" Oval Duct

3-3/8" Depth

WhisperValue DC Key Benefits*:

- Pick-A-Flow® airflow selector combined with SmartFlow™ technology simplifies the selection process and ensures optimum performance to meet code and reduce callbacks
- FV-0810VSSL1 incorporates Multi-Speed Control with 20 minute time delay for ASHRAE 62.2 compliance
- FV-0510VSCL1 features a built-in Condensation Sensor to control moisture in the bathroom
- UL approved for ceiling or wall mount – fits in a 2 x 4 stud wall
- Incorporates one 10W dimmable LED chip panel with <1W LED night light for warm, energy efficient illumination (night light must be wired separately)
- Unique L-Shaped bracket simplifies installation and provides strong support
- Wall Installation reduces cost by eliminating the need to incorporate a radiation damper when penetrating fire rated ceilings, making it ideal for Multi-Family applications
- Can be used to comply with ASHRAE 62.2, LEED, Indoor airPlus, JA8 compliant for CA Title 24 and CALGreen4

*Optional 4" oval to 3" round duct adapter (FV-VS43R) and Transfer Register Box (FV-JD) sold separately. *See page 25 for details.*

True Flow
52 - 76 - 84 CFM

HEALTHY AIR, HEALTHY HOME
True Flow ratings at **0.375"** static pressure provide powerful airflow to assure code compliant, healthy homes.*

FV-0510VSL1
FV-0810VSSL1
FV-0510VSCL1

3 3/8"

*Industry research indicates static pressure in typical installations ranges from 0.20" to 0.375".

WhisperValue DC	FV-0510VSL1 (Fan/Light)								
Characteristics	4" Oval Duct			4" Oval Duct			4" Oval Duct		
Static pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	100	101	83	80	81	75	50	52	52
Noise (sones)	0.9	1.3	-	0.4	0.8	-	<0.3	0.4	-
Power Consumption (Watts)	13.4	18.5	18.0	8.5	13.2	16.0	4.5	7.7	12.0
Energy Efficiency (CFMs/Watt)	7.5	5.5	4.6	10.0	6.5	4.7	12.1	7.3	4.3
Speed (RPM)	970	1197	1300	856	1114	1270	733	1050	1230
Amps (Current)	0.22	0.29	0.25	0.13	0.20	0.24	0.08	0.13	0.17
Power Rating (V/Hz)	120/60			120/60			120/60		

WhisperValue DC	FV-0810VSSL1 (Fan/Light)																				
Characteristics	4" Oval Duct			4" Oval Duct			4" Oval Duct			4" Oval Duct			4" Oval Duct			4" Oval Duct			4" Oval Duct		
Static pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	100	101	83	80	81	75	70	72	70	60	64	65	50	52	52	40	41	42	30	31	30
Noise (sones)	0.9	1.3	-	0.4	0.8	-	<0.3	0.6	-	<0.3	0.6	-	<0.3	0.4	-	<0.3	0.5	-	<0.3	0.5	-
Power Consumption (Watts)	13.4	18.5	18.0	8.5	13.2	16.0	6.5	10.8	15.0	5.3	9.3	13.0	4.5	7.7	12.0	3.8	6.7	10.0	3.4	6.0	9.0
Energy Efficiency (CFMs/Watt)	7.5	5.5	4.6	10.0	6.5	4.7	11.2	6.9	4.7	11.8	7.2	5.0	12.1	7.3	4.3	11.8	6.9	4.2	10.2	6.0	3.3
Speed (RPM)	970	1197	1300	856	1114	1270	805	1088	1260	770	1076	1250	733	1050	1230	723	1037	1215	711	1033	1200
Amps (Current)	0.22	0.29	0.25	0.13	0.20	0.24	0.10	0.16	0.22	0.09	0.15	0.20	0.08	0.13	0.17	0.07	0.11	0.15	0.06	0.10	0.13
Power Rating (V/Hz)	120/60			120/60			120/60			120/60			120/60			120/60			120/60		

WhisperValue DC	FV-0510VSCL1 (Fan/Light)								
Characteristics	4" Oval Duct			4" Oval Duct			4" Oval Duct		
Static pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
Air Volume (CFM)	100	101	83	80	81	75	50	52	52
Noise (sones)	0.9	1.3	-	0.4	0.8	-	<0.3	0.4	-
Power Consumption (Watts)	13.4	18.5	18.0	8.5	13.2	16.0	4.5	7.7	12.0
Energy Efficiency (CFMs/Watt)	7.5	5.5	4.6	10.0	6.5	4.7	12.1	7.3	4.3
Speed (RPM)	970	1197	1300	856	1114	1270	733	1050	1230
Amps (Current)	0.22	0.29	0.25	0.13	0.20	0.24	0.08	0.13	0.17
Power Rating (V/Hz)	120/60			120/60			120/60		

Pick-A-Flow® Airflow Selector Switch with 20 minute time delay (FV-0810VSSL1 Shown)

LED Lighting

INCLUDES: One 10W Dimmable LED chip panel with <1W LED night light for warm, energy efficient illumination. Panel specifications include: 3000 Kelvin Warm White/90CRI/700 lumens/ 70 LPW/ENERGY STAR® 2.0 certified/ JA8 compliant for CA Title 24/50,000 hours rated average life.

Optional 4" Oval to 3" Round Duct Adapter (Model #: FV-VS43R)

Optional Transfer Register Box (Model #: FV-JD)

Performance Curves on pages 52-56 / Dimensional Drawings on pages 57-61 / Compatibility for Applicable WhisperControl & EcoSwitch to Panasonic Fans on page 44

33

Intelli-Balance 100 | Cost Effective, Code Compliant ERV for Any Climate Zone

FV-10VEC2 (Cold Climate)   50 to 100 CFM   Four 4" or 6" Ducts
FV-10VE2 (Temperate Climate) 50 to 100 CFM Four 4" or 6" Ducts

8-7/8" Depth

True Flow
100 CFM

FV-10VE2
FV-10VEC2

HEALTHY AIR, HEALTHY HOME
True Flow ratings at **0.4"** static pressure provide powerful airflow to assure code compliant, healthy homes.*

(see page 56 for PQ curves)

Intelli-Balance 100 Key Benefits:

- Engineered for use in any North America Climate Zone
- Two (2) ECM motors with Smart Flow™ technology ensure optimum CFM output
- Pick-A-Flow® airflow selector (50 to 100 CFM) provides customizable airflow to create balanced, positive or negative pressure within the home
- Exclusive built-in ASHRAE 62.2 timing function helps ensure code compliance
- MERV 8 filter included; MERV 8 and MERV 13 replacements available
- Occupant controllable Boost function. Moves fan speed to high when activated.
- High efficiency exchange capillary core recovers heat and moisture
- Wall or ceiling mount; connect to existing ductwork or use as a standalone whole-house ventilation solution
- Can be used to meet green building code requirements and helps minimize the impact to your HERS index
- Model FV-10VEC2 meets Ontario, ENERGY STAR® and Novoclimat requirements**

Intelli-Balance 100	FV-10VEC2/FV-10VE2	
Characteristics	COLD/TEMPERATE CLIMATE	
Static pressure in inches w.g.	0.1	0.4
Net Exhaust Air Volume (CFM)	100	100
Net Supply Air Volume (CFM)	100	100
Power Consumption (Watts)	81	100
Power Rating (V/Hz)	120/60	
ENERGY STAR® Certified	YES	

FV-10VEC2

Supply Temperature		Net Air Flow		Power Consumed (Watts)	Sensible Recovery Efficiency	Apparent Sensible Effectiveness	Net Moisture Transfer
°C	°F	L/S	CFM				
Heating							
0	32	25	53	29	81	84	81
0	32	31	66	39	77	81	75
0	32	40	85	68	75	80	74
-25	-13	27	57	77	64	67	73
-25	-13	30	64	100	56	60	64
Cooling					Total Recovery Efficiency		
35	95	23	49	32	60		

FV-10VE2

Supply Temperature		Net Air Flow		Power Consumed (Watts)	Sensible Recovery Efficiency	Apparent Sensible Effectiveness	Net Moisture Transfer
°C	°F	L/S	CFM				
Heating							
0	32	25	53	29	81	84	81
0	32	31	66	39	77	81	75
0	32	40	85	68	75	80	74
Cooling					Total Recovery Efficiency		
35	95	23	49	32	60		

Built-In Controls

60 50 40 30 20 10   Min/Hr Min/Hr

100 90 80 70 60 50   Supply Air Air fourni (CFM)

100 90 80 70 60 50   Exhaust Air Air d'évacuation (CFM)

Accessories (Sold Separately):

FV-FL0810VE1: MERV 8 Replacement Filter
FV-FL1310VE1: MERV 13 Replacement Filter

FV-WC04VE1*
Optional Exterior Wall Cap

*FV-WC04VE1 is NOT recommended for use at CFM settings higher than 50 CFM.

ENERGY STAR

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*Highest CFM rating for supply and exhaust at 0.4 static pressure

** Meets strict energy efficiency guidelines set by Natural Resources Canada and is ENERGY STAR® certified for the Canadian market only.

Intelli-Balance™ 200 | Cost Effective, Code Compliant ERV for Any Climate Zone

FV-20VEC1 60 to 200 CFM Four 6" Ducts

True Flow 200 CFM

FV-20VEC1

HEALTHY AIR, HEALTHY HOME
True Flow ratings at **0.4"** static pressure provides powerful airflow to assure code compliant, healthy homes.*

Intelli-Balance 200 Key Features

- Engineered for use in any North America climate zone
- Two (2) ECM motors with Smart Flow™ technology ensure optimum CFM output
- Pick-A-Flow™ airflow selector (60 to 200 CFM) provides customizable airflow to create balanced, positive or negative pressure in the home
- Exclusive built-in ASHRAE 62.2 timing function helps ensure code compliance
- MERV 13 filter included; optional MERV 8 and MERV 13 replacements available
- High efficiency exchange capillary core recovers heat and balances moisture
- Total Recovery Efficiency: 70% at 95°F with net air flow of 71 CFM
- Wall or ceiling mount; connect to existing ductwork or use as a standalone whole-house ventilation solution
- Can be used to meet green building code requirements and helps minimize the impact to your HERS index
- Optional LCD wired wall control panel (FV-SW20VEC1) provides ERV status and remote control

Intelli-Balance™ 200	FV-20VEC1
Characteristics	COLD/TEMPERATE CLIMATE
Static pressure in inches w.g.	0.4
Net Exhaust Air Volume (CFM)	200
Net Supply Air Volume (CFM)	200
Power Consumption (Watts)	129
Power Rating (V/Hz)	120/60
ENERGY STAR® Certified	Yes*

LCD Wall Control Panel
FV-SW20VEC1 (Sold Separately)

Energy Performance

MODE	Supply Temperature		Net Air Flow		Power Consumed (Watts)	Sensible Recovery Efficiency	Apparent Sensible Effectiveness	Net Moisture Transfer
	°F	°C	L/S	CFM				
Heating	32	0	32	67	22	83%	86%	81%
	32	0	59	124	46	77%	79%	73%
	32	0	80	170	92	73%	77%	78%
	-13	-25	31	66	46	67%	69%	70%
	-13	-25	50	107	104	61%	64%	64%
Cooling						Total Recovery Efficiency		
	95	35	34	71	25	70%		
	95	35	64	135	56	61%		

Intelli-Balance Accessory Kits

Model No.	Description	Inlet Grille	Backdraft Damper	Clamp	Y-Adapter
FV-NLF04G	4" Inlet Grille + Metal Plate	1 (4")	-	-	-
FV-NLF06G	6" Inlet Grille + Metal Plate	1 (6")	-	-	-
PC-NLF04S	4" Single Inlet Kit	1 (4")	1 (4")	6	-
PC-NLF06S	6" Single Inlet Kit	1 (6")	1 (6")	6	-
PC-NLF04D	4" Double Inlet Kit	2 (4")	2 (4")	12	1 (4"- 4" x 2)
PC-NLF06D	6" Double Inlet Kit	2 (6")	2 (6")	12	1 (6"- 6" x 2)
PC-NLF64D	6"- 4" Double Inlet Kit	2 (4")	2 (4")	12	1 (6"- 4" x 2)
PC-NLF86Y	8"- 6" Y-Adapter	-	-	-	1 (8"- 6" x 2)
FV-NLF46RES	Recessed Inlet integrated dual 4" or 6" duct adaptor	-	-	-	-

¹ Meets strict energy efficiency guidelines set by Natural Resources Canada and is ENERGY STAR® certified for the Canadian market only

WhisperComfort® | Economical and Easy to Install Balanced Air Solution

FV-04VE1 40/20 CFM or 20/10 CFM   Two 4" Ducts

7-7/8" Depth

WhisperComfort Key Benefits:

- ERV balances air pressure by supplying fresh exterior air while exhausting stale interior air
- Low-rate continuous ventilation ideal for multi-family dwellings
- UL listed for ceiling or wall mount, making it ideal for multi-family applications
- MERV 6 supply filter and damper employed
- Exchange capillary core recovers temperature and moisture
- Dual setting air volume for 40/20 or 20/10 CFM
- Ideal for new air-tight houses built to meet energy-efficiency standards
- Compact size fits in walls and ceilings, and 2 x 8 construction
- Sensible Energy Recovery 66%
- Latent Energy Recovery 32%
- Does not require a condensate line or drain
- Can be used to comply with ASHRAE 62.2, LEED, Indoor airPlus, CALGreen and California Title 24

WhisperComfort	FV-04VE1		
Characteristics	40 CFM	20 CFM	10 CFM
Static pressure in inches w.g.	0.1	0.1	0.1
Air Volume Exhaust (CFM)	40	20	10
Air Volume Supply (CFM)	30	20	10
Noise (sones)	0.8	<0.3	N/A
Power Consumption (Watts)	23	21	17
Speed	1479	1292	1095
Current	0.15	0.10	0.09
Power Rating (V/Hz)	120/60		

Supply and exhaust air flows through a single exterior opening

FV-WC04VE1
Optional Exterior Wall Cap
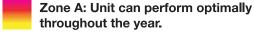
FV-EB04VE1
Optional Elbow

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Recommended Zones Map for WhisperComfort ERV

Operation Season

Zone A: Unit can perform optimally throughout the year.

Zone B: Unit can perform optimally March through November.*

Zone C: Unit can perform optimally April through November.**

Zone D: Panasonic does not recommend this unit due to extremely cold year-round weather.

Note: This map is based on average temperature readings over 10 years from 60 major cities in North America. Actual performance may vary depending on annual temperature differences and varying altitudes. Visit **www.ashrae.org/technology/page/1330** for the climate zone map adopted by ASHRAE.

*Alternates as balanced or exhaust only Dec-Feb when temperature is above or below freezing.

**Alternates as balanced or exhaust only Dec-March when temperature is above or below freezing.

WhisperWarm®DC | Quiet Fan/Heater/Light Solution

FV-0511VH1 50-80-110 CFM 4" Duct
FV-0511VHL1 50-80-110 CFM 4" Duct

7-3/4" Depth

LED Lighting:
Includes a 10 Watt Dimmable LED chip panel/3000 Kelvin Warm White/>90CRI/750 lumens/>70 LPW/ENERGY STAR 2.0 certified/JA-8 compliant for CA Title 24/50,000 hours rated average life /<1W LED night light included.

WhisperWarm DC Key Benefits:

- Precision spot ventilation fan/heater combo pairs a powerful ECM motor with SmartFlow™ technology for optimum airflow and CFM output
- Built-in 1600W Positive Temperature Coefficient heater delivers instant warm-up for ultimate comfort and Panasonic's legendary long-life operation
- Unique, adjustable grille with built-in diffuser offers superior directional heating
- Pick-A-Flow® and SmartFlow™ work together to assure required airflow (50-80-110 CFM), optimal exhaust power, code compliance and reduced callbacks
- Optional 10W dimmable LED chip panel with <1W LED night light is JA-8 compliant for CA Title 24 (night light wired separately)
- Flex-Z Fast® bracket enables fast, flexible room side installation
- Can be used to comply with ASHRAE 62.2

Specifications		WhisperWarm® DC™ (Fan/Heater)								
		FV-0511VH1								
		4"			4"			4"		
Characteristics (HVI tested data)	Static Pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
	Air Volume (CFM)	110	112	110	80	82	82	50	51	53
	Noise (sones)	0.7	1.5	-	<0.3	1.0	-	<0.3	0.8	-
	Power Consumption (watts)	12	19.0	26.0	7.7	13.3	18.2	4.7	8.6	12.3
	Energy Efficiency (CFM/Watt)	9.2	5.9	4	10.4	6.2	4.5	10.6	5.9	4.3
	Speed (RPM)	861	1090	1249	736	1008	1173	638	930	1112
	Current (amps)	0.24	0.37	0.49	0.16	0.26	0.35	0.10	0.18	0.25
	MAX. Current(amps)	0.50								
	Power Rating (V/Hz)	120/60								

Specifications		WhisperWarm® DC™ (Fan/Heater/Light)								
		FV-0511VHL1								
		4"			4"			4"		
Characteristics (HVI tested data)	Static Pressure in inches w.g.	0.1	0.25	0.375	0.1	0.25	0.375	0.1	0.25	0.375
	Air Volume (CFM)	110	111	99	80	81	82	50	52	53
	Noise (sones)	0.7	1.5	-	<0.3	1.0	-	<0.3	0.7	-
	Power Consumption (watts)	12.4	19.8	26.0	7.4	13.1	18.6	4.7	8.9	12.7
	Energy Efficiency (CFM/Watt)	8.9	5.6	3.8	10.8	6.2	4.4	10.6	5.9	4.2
	Speed (RPM)	885	1115	1265	745	1022	1194	654	943	1130
	Current (amps)	0.25	0.39	0.48	0.15	0.27	0.37	0.10	0.18	0.26
	MAX. Current(amps)	0.50								
	Power Rating (V/Hz)	120/60								

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*Industry research indicates static pressure in typical installations ranges from 0.20" to 0.375".

WhisperFresh™ Select

FV-15NLFS1 50-60-70-80-90-100-110-130-150 CFM 6" Duct

True Flow
50 - 134 CFM

FV-15NLFS1

HEALTHY AIR, HEALTHY HOME
True Flow ratings at **0.4"** static pressure provide powerful airflow to assure code compliant, healthy homes.*

(see page 55 for PQ curves)

WhisperFresh Select Key Benefits:

- Customizable fresh air supply fan featuring Pick-A-Flow® technology – one fan, you choose the CFM (50-150 CFM, in 10 CFM increments)
- Intelligent ECM motor with SmartFlow™ technology provides optimum CFM output for precision whole-house supply ventilation
- Operates as a stand-alone filtered supply fresh air solution to meet ASHRAE 62.2 requirements for make-up/supply air
- Capable of communicating with Panasonic's acclaimed WhisperGreen® Select to create a balanced ventilation solution
- Incorporates adjustable high humidity and low temperature dials for easy adjustments in any climate zone
- HVI-Certified for use with MERV 8 and MERV 13 filters. MERV 13 filter included, MERV 8 and MERV 13 replacements available
- HVI-Certified performance with MERV 13 filter installed
- Can be used to comply with ASHRAE 62.2, LEED and CA Title 24

CFM
Can be selected for 50/60/70/80/90/100 /110/130/150 CFM (9 settings).

Humidity Setting
Customizable fresh air supply based on humidity conditions of incoming air.

Temperature Setting
Customizable low temperature setting will shut fan off when incoming supply air is too cold.

Reset Button
Resets every time customer changes filter.

WhisperFresh Select Characteristics	FV-15NFLS1																																
Static pressure in inches w.g.	0.2	0.3	0.4	0.2	0.3	0.4	0.2	0.3	0.4	0.2	0.3	0.4	0.2	0.3	0.4	0.2	0.3	0.4	0.2	0.3	0.4	0.2	0.3	0.4	0.2	0.3	0.4	0.2	0.3	0.4	0.2	0.3	0.4
Air Volume (CFM)	150	150	130	140	140	130	130	129	130	120	118	116	110	110	109	100	100	100	90	88	90	80	80	80	70	69	70	60	60	60	50	50	50
Power Consumption (Watts)	27.3	32.0	-	24.8	29.0	-	22.6	25.0	-	19.4	23.0	-	16.7	20.0	-	15.3	18.0	21.0	13.5	15.0	19.0	12.4	14.0	17.0	10.0	13.0	15.0	9.3	11.0	14.0	8.2	10.0	12.0
Energy Efficiency (CFMs/Watt)	5.59	4.68	-	5.97	4.82	-	6.30	5.20	-	6.72	5.21	-	7.05	5.50	-	7.45	5.55	4.76	7.61	6.00	4.73	7.83	5.71	4.70	7.64	5.38	4.66	7.58	5.45	4.28	7.40	5.00	4.16
Speed	1314	-	-	1265	-	-	1235	-	-	1201	-	-	1152	-	-	1121	-	-	1086	-	-	1067	-	-	1033	-	-	1012	-	-	989	-	-
Current	0.41	0.46	-	0.26	0.42	-	0.33	0.38	-	0.29	0.34	-	0.25	0.31	-	0.23	0.28	0.32	0.20	0.25	0.29	0.18	0.22	0.26	0.16	0.21	0.24	0.15	0.18	0.22	0.13	0.16	0.21
Power Rating (V/Hz)	120/60																																

HVI-Certified performance with MERV 13 filter installed.

Accessories (Sold Separately):

FV-FL0815NL1: MERV 8 Replacement Filter

FV-FL1315NL1: MERV 13 Replacement Filter

WhisperWall® | Through the Wall Spot Ventilation Solution

FV-08WQ1 70 CFM 8" Duct

Exterior Hood included

WhisperWall Key Benefits:

- UL listed for through-the-wall application
- 10" galvanized sleeve and steel exterior hood included
- Can be used to comply with ASHRAE 62.2, LEED, Indoor airPlus and California Title 24

WhisperWall Characteristics	FV-08WQ1
Static pressure in inches w.g.	0.03
Air Volume (CFM)	70
Noise (sones)	1.1
Power Consumption (Watts)	18.0
Energy Efficiency (CFMs/Watt)	4.3
Speed	660
Current	0.20
Power Rating (V/Hz)	120/60

Performance Curves on pages 52-56 / Dimensional Drawings on pages 57-61 / Compatibility for Applicable WhisperControl & EcoSwitch to Panasonic Fans on page 44

40

WhisperLine™ | Remote Mount, In-line Spot Ventilation Solution

FV-10NLF1E	120 CFM	4" Duct
FV-20NLF1	240 CFM	6" Duct
FV-30NLF1*	340 CFM	6" Duct
FV-40NLF1*	440 CFM	8" Duct

WhisperLine Key Benefits:

- Remote mount in-line fan for single or multiple inlets
- Insulated housing to prevent condensation and noise
- Tapered duct adapter for easy connection
- 5 positions for installation
- Joist or truss attachment brackets included
- Suspension brackets included
- Can be used to comply with ASHRAE 62.2, LEED, Indoor airPlus and California Title 24

*FV-30NLF1 and FV-40NLF1 do not comply with the ENERGY STAR® 4.0 requirement for increased efficiency (CFM/Watt).

WhisperLine Characteristics	FV-10NLF1E			FV-20NLF1			FV-30NLF1*			FV-40NLF1*		
Static pressure in inches w.g.	0.2	0.3	0.4	0.2	0.3	0.4	0.2	0.3	0.4	0.2	0.3	0.4
Air Volume (CFM)	120	108	89	230	223	205	330	316	299	430	416	402
Power Consumption (Watts)	27.5	25.6	24.3	56.5	55.1	53.1	104	103	98.1	136	133	131
Energy Efficiency (CFMs/Watt)	4.4	4.4	3.9	4.1	-	-	3.2	-	-	3.3	-	-
Speed	1562	1596	1637	1260	-	-	1337	-	-	1178	-	-
Current	0.24	0.22	0.21	0.46	-	-	0.86	-	-	1.2	-	-
Power Rating (V/Hz)	120/60			120/60			120/60			120/60		

FV-NLF04G
WhisperLine Installation Kit

WhisperLine Installation Kits					
Model No.	Description	Inlet Grille	Backdraft Damper	Clamp	Y-Adapter
FV-NLF04G	4" Inlet Grille + Metal Plate	1 (4")	-	-	-
FV-NLF06G	6" Inlet Grille + Metal Plate	1 (6")	-	-	-
PC-NLF04S	4" Single Inlet Kit	1 (4")	1 (4")	6	-
PC-NLF06S	6" Single Inlet Kit	1 (6")	1 (6")	6	-
PC-NLF04D	4" Double Inlet Kit	2 (4")	2 (4")	12	1 (4"- 4" x 2)
PC-NLF06D	6" Double Inlet Kit	2 (6")	2 (6")	12	1 (6"- 6" x 2)
PC-NLF64D	6"- 4" Double Inlet Kit	2 (4")	2 (4")	12	1 (6"- 4" x 2)
PC-NLF86Y	8"- 6" Y-Adapter	-	-	-	1 (8"- 6" x 2)

PC-NLF04D
WhisperLine Installation Kit
4" Double Inlet

Performance Curves on pages 52-56 / Dimensional Drawings on pages 57-61 / Compatibility for Applicable WhisperControl & EcoSwitch to Panasonic Fans on page 44

41

Recessed Inlet™ | Design Solution for Exhaust or Supply Inlets

FV-NLF46RES   4" or 6" Duct

7-1/2" Depth

Recessed Inlet Key Benefits:

- Includes (1) replaceable, 8W ENERGY STAR 2.0 certified, GU24 base LED lamp, JA-8 compliant for CA Title 24 and Title 20
- Multi-purpose exhaust or supply recessed inlet is ideal for use with remote mount in-line fans and H/ERVs
- Can be used as a light only option matching the WhisperRecessed® LED fan with a dimmable LED light
- Incorporates an architectural grade recessed can light design
- Beautiful lighting with 6" aperture and advanced luminaire design
- IC rated

LED Lamp

INCLUDED: (1) 8 Watt GU24 base LED lamp /2700 Kelvin Warm White/>92CRI/720 lumens/90 LPW/ ENERGY STAR 2.0 certified, JA-8 compliant for CA Title 24 and Title 20, 25,000 rated average life.

UL CERTIFIED

Ventilation Controls

Selecting a suitable control that runs ventilation at the proper time and duration will ensure that both the occupant's health and building structure are protected.

There are several types of manual and automatic controls that can be applied to ventilation systems. Some controls are more suitable for intermittent or continuous ventilation. Select Panasonic fans incorporate built-in speed, delay and occupancy controls, making them ideal for both intermittent and continuous ventilation. However, note that for Panasonic's multispeed fans we do not recommend the use of any additional controls.

Manual controls: Manual controls require the occupant to activate the ventilation fan when needed. An example of a basic manual control is the Panasonic FV-WCSW21 On/Off rocker switch for light and fan control. There are other controls with functions available that may be more suitable to the occupant's lifestyle.

Manual timers: Electronic timers are more decorative and allow the occupant to select a time duration with the push of a button. Electronic timers do not produce the sometimes annoying ticking sound that crank timers are known for. WhisperGreen® Select and WhisperSense fans incorporate quiet electronic controls.

Occupancy (motion) sensors: Occupancy sensors are suitable for intermittent ventilation. An advantage is that the ventilation system will operate without having to rely on the occupant's interaction. The ventilation system will remain "on" and continue working for a duration after the occupant has left the room, much like a delay off timer. WhisperGreen Select fans can be customized to include an occupancy feature with the SmartAction® Motion Sensor Plug 'N Play™ module. WhisperSense fans have occupancy sensors integrated in the fan grille.

Humidity and moisture sensors: Dehumidistats and Condensation Sensors can be used to turn a ventilation system on/off when relative humidity reaches a certain level. These controls are most likely to be used in bathrooms to evacuate excessive moisture. Dehumidistats have a few disadvantages. One disadvantage is that seasonal changes in outdoor relative humidity necessitate seasonal readjustments to function optimally. Finally, it does not automatically remove odors. The new Panasonic FV-WCCS1 Condensation Sensor Plus features intelligent and advanced sensor technology that monitors humidity and temperature to anticipate dew point, automatically operating the fan to control moisture. It's built-in automatic seasonal adaptability with optional Moisture Sensitivity Selector also allows fine tuning for dry or moist environments. Panasonic's WhisperSense fans include both motion and humidity sensors for ultimate moisture control.

Automatic timers: Automatic timers operate fans at programmed times throughout the day. Typically a 24-hour programmable timer is used to run a fan in morning and evening hours when there is a high demand for ventilation. For continuous ventilation, the control can be programmed to operate throughout the day to help evacuate any accumulation of VOCs or other indoor air pollutants.

Controls can also be used in combination with each other to provide both intermittent and continuous ventilation. For example, a programmable timer may be used to cycle the fan on and off throughout the day to address overall indoor air quality. WhisperGreen Select fans with multi-speed capability, either pre-installed in or through the Plug 'N Play module, have been designed as an ideal double-duty fan providing both intermittent and continuous ventilation with an ECM motor activated by built-in speed, delay and occupancy controls. *The key to selecting the right control or combination of controls is to first understand the occupant's lifestyle and ventilation needs. Then select a control that provides proper ventilation with little or no involvement by the occupant.*

Compatibility for Applicable WhisperControl & EcoSwitch to Panasonic Fans

	Model	FV-WCCS1-W/A	FV-WCCS2-W/A	FV-WCD01-W/A	FV-WCD02-W/A	FV-WCSW11-W/A	FV-WCSW21-W/A	FV-WCSW31-W/A	FV-WCPT1-W
	Switch Type	Condensation Sensor On/Off	Condensation Sensor On/Off/Light	Countdown & Hourly Timer	Countdown & Hourly Timer	1 Function Control	2 Function Control	3 Function Control	SmartExhaust
WhisperGreen Select	FV-0511VK2	X		X		X			X
	FV-1115VK2	X		X		X			X
	FV-0511VKS2					X			
	FV-0511VKL2		X		X		X		
	FV-1115VKL2		X		X		X		
	FV-0511VKSL2					X	X**	X	
WhisperRecessed LED	FV-08VRE2		X		X	X			X
WhisperCeiling DC WhisperCeiling (AC)	FV-0511VQ1	X		X		X			X
	FV-1115VQ1	X		X		X			X
	FV-0511VQL1	X	X	X	X		X	X	X
	FV-1115VQL1	X	X	X	X		X	X	X
	FV-20VQ3	X		X		X			X
	FV-30VQ3	X		X		X			X
	FV-40VQ4	X		X		X			X
WhisperSense DC	FV-0511VQC1								
	FV-0511VQCL1					X	X**		
	FV-0511VFC1			X		X			
WhisperFit DC	FV-0511VF1	X		X		X			X
	FV-0511VFL1		X		X		X	X	X
WhisperValue DC	FV-0510VS1	X		X		X			X
	FV-0810VSS1			X		X			
	FV-0510VSC1			X		X			
	FV-0510VSL1						X	X	
	FV-0810VSSL1						X	X	
	FV-0510VSCL1		X				X	X	
EcoVent	FV-07VBA1	X		X		X			X
	FV-07VBB1	X		X		X			X
WhisperWall	FV-08WQ1	X		X		X			X
WhisperLine	FV-10NLF1E	X		X		X			X
	FV-20NLF1	X		X		X			X
	FV-30NLF1	X		X		X			X
	FV-40NLF1	X		X		X			
Intelli-Balance 100	FV-10VEC2					X	X		
	FV-10VE2					X	X		
Intelli-Balance 200	FV-20VEC1					X	X		
WhisperComfort	FV-04VE1						X		

WhisperSense, and WhisperGreen Select S/M models are not compatible with the above switches.

*Needs 1 control per function, excludes the heater.   **Switch is for light and night-light only.   ***Not for use with heat function.   ****For use with exhaust fan and light only.

WhisperControl™

Condensation Sensor Plus

On/Off—
FV-WCCS1-W (White),
FV-WCCS1-A (Light Almond)

On/Off/Light—
FV-WCCS2-W (White),
FV-WCCS2-A (Light Almond)

FV-WCCS1-W
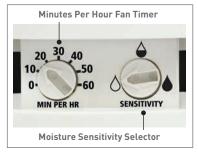
FV-WCCS2-A

Condensation Sensor Plus Key Benefits:

- Intelligent and advanced sensor technology monitors humidity and temperature to anticipate dew point, automatically operating the fan to control moisture
- Automatic seasonal adaptability with optional Moisture Sensitivity Selector allows fine tuning for dry or moist environments
- Adjustable Minutes Per Hour (MPH) Fan Timer ensures consistent and controlled ventilation throughout the day for compliance with ASHRAE 62.2
- Automatic Fan Control – 30 minute countdown timer initiates after moisture returns to normal levels
- Manual Fan Control – 20 minute countdown timer initiates once fan is turned on
- Blue LED indicates when the fan is on
- Commercial Grade – 8 Amp max load, 2 year limited warranty
- Engineered to efficiently control current LED lighting and DC motor loads
- For indoor use. Includes matching wall plate
- Can be used to comply with ASHRAE 62.2, LEED, ENERGY STAR® 3.0 and CALGreen
- **One year additional fan warranty available when a Panasonic WhisperCeiling, WhisperValue DC or WhisperFit DC fan/light is controlled by a Panasonic Condensation Sensor Plus**

WhisperControl Condensation Sensor Plus	FV-WCCS1-W/A	FV-WCCS2-W/A
Ground	Grounding	Grounding
Feature	Blue LED	Blue LED
Amperage	15 Amp	15 Amp
Maximum Fan Load	8 Amp	8 Amp
Voltage	120 Volts	120 Volts
Termination	6" Leads	6" Leads
Dry Contact Switching	24 Volt AC Input/Output	24 Volt AC Input/Output
Connections (Copper Wire Connections)	Use #14 or #12	Use #14 or #12
Max. Fluorescent Light Load	NA	400 Watt
Standard Certifications	UL/CSA Listed	UL/CSA Listed
Warranty	2 Year Limited	2 Year Limited

Timer and Sensor Settings

Minutes Per Hour Fan Timer

Moisture Sensitivity Selector

Moisture Sensitivity Selector Settings

High Sensitivity – Setting the Condensation Sensor Plus to it's most sensitive setting covers the widest range of humidity. This is a setting for dryer climates and/or larger rooms. In a very dry environment, higher sensitivity is needed.

Average Sensitivity – The Condensation Sensor Plus comes factory set to this most common setting.

Low Sensitivity – The least sensitive setting is used in hotter and more humid climates. In a very moist environment, low moisture sensitivity may be needed to avoid excessive fan run-time.

WhisperControl™

Preset Countdown and Hourly Timer

On/Off—
FV-WCD01-W (White),
FV-WCD01-A (Light Almond)

On/Off/Light—
FV-WCD02-W (White),
FV-WCD02-A (Light Almond)

FV-WCD01-W

FV-WCD02-A

Preset Countdown and Hourly Timer Key Benefits:

- Preset the fan timer anywhere from 5-60 minutes
- Adjustable Minutes Per Hour (MPH) Fan Timer ensures consistent and controlled ventilation throughout the day for compliance with ASHRAE 62.2
- Manual On/Off Fan Control
- Blue LED indicates when the fan is on
- Commercial Grade, 8 Amp max load, 2 year limited warranty
- Engineered to efficiently control current LED lighting and DC motor loads
- For indoor use. Includes matching wall plate
- Can be used to comply with ASHRAE 62.2, LEED and ENERGY STAR® 3.0

Preset Countdown and Hourly Timer	FV-WCD01-W/A	FV-WCD02-W/A
Ground	Grounding	Grounding
Feature	Blue LED Light	Blue LED Light
Amperage	8 Amp	8 Amp
Dry Contact Switching	24V AC input/output	24V AC input/output
Max. Fluorescent Light Load	N/A	400 Watt
Termination	6" Leads	6" Leads
Standard Certifications	UL/CSA Listed	UL/CSA Listed
Warranty	2 Year Limited	2 Year Limited

Timer Settings

Preset Countdown Fan Timer

Minutes Per Hour (MPH) Fan Timer

c **UL** us

ecoswitch™

FV-WCSW11-W (White)
FV-WCSW11-A (Light Almond)

1 Function EcoSwitch Key Benefits:

- Fan On/Off Switch
- Engineered to efficiently control current LED lighting and DC motor loads
- Back and side wiring terminals accept both solid and stranded wire to ease installation
- Full-rated current capacity with fluorescent or resistive loads. Motor capacity is 80% of switch rating
- Fits single gang box / Includes matching wall plate
- Commercial Grade

Specifications	FV-WCSW11-W/A
Ground	Grounding
Feature	Single Pole
Amperage	15 Amp
Voltage	120 Volt
Terminations	Quickwire Push-in, and Side Connection
Standards & Certifications	UL/CSA Listed
Warranty	2 Year Limited

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ecoswitch™

FV-WCSW21-W (White)
FV-WCSW21-A (Light Almond)

2 Function EcoSwitch Key Benefits:

- Multi-switch combination devices save space and add convenience
- Engineered to efficiently control current LED lighting and DC motor loads
- Common feed shunted internally to all switches
- Elegant decorator styling provides multiple controls in a single-gang wall box
- Fits single gang box / Includes matching wall plate
- Commercial Grade

Specifications	FV-WCSW21-W/A
Ground	Grounding
Feature	Single Pole / Single Pole
Amperage	15 Amp
Voltage	120 Volt
Terminations	Side Connection
Standards & Certifications	UL/CSA Listed
Warranty	2 Year Limited

ecoswitch™

FV-WCSW31-W (White)
FV-WCSW31-A (Light Almond)

3 Function EcoSwitch Key Benefits:

- Multi-switch combination devices save space and add convenience
- Engineered to efficiently control current LED lighting and DC motor loads
- Common feed shunted internally to all switches
- Elegant decorator styling provides multiple controls in a single-gang wall box
- Fits single gang box / Includes matching wall plate
- Commercial Grade

Specifications	FV-WCSW31-W/A
Ground	Grounding
Feature	Single Pole / Single Pole / Single Pole
Amperage	15 Amp
Voltage	120 Volt
Terminations	Quickwire Push-in, and Side Connection
Standards & Certifications	UL/CSA Listed
Warranty	2 Year Limited

ecoswitch™

FV-WCSW41-W (White only)

4 Function EcoSwitch Key Benefits:

- Single pole/double throw on-off-on switch, two single pole on-off switches
- Multi-switch combination saves space and adds convenience
- Common feed shunted internally to all switches
- Commercial grade
- Includes matching wall plate
- Elegant styling provides multiple controls in a single-gang wall box
- 2 year limited warranty

Specifications	FV-WCSW41-W/A
Ground	Grounding
Feature	Single pole / double throw on-off-on switch, two single pole on-off switches
Individual Switch Amperage	15 Amp
Total Switch Amperage	20 Amp
Voltage	120 Volt
Terminations	Quickwire and wire leads
Standards & Certifications	UL/CSA Listed
Warranty	2 Year Limited

SmartExhaust™
Controls

FV-WCPT1-W

Fan/Light Control
Delay Timer
Wall plate not included
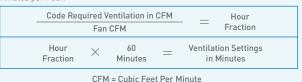
SmartExhaust™ Key Benefits:

- Earn LEED and ENERGY STAR® points for enhanced exhaust ventilation
- Replaces both fan and light switches for one easy operation
- Microprocessor technology provides precise ventilation times
- Programmable DELAY and VENTILATION settings
- Excess manual and/or delay operation is subtracted from the next hours programmed ventilation time
- Works with ALL incandescent, CFL, fluorescent and LED lights
- Make standard bath fans ASHRAE 62.2 compliant when used with ASHRAE 62.2 complaint fans

Configuring Ventilation Time

In order to properly set the VENTILATION time on your SmartExhaust™, you will need to know the code required CFM (Cubic Feet Per Minute) for your home and the Fan CFM. Follow this simple equation to calculate the VENTILATION minutes per hour.

$$\frac{\text{Code Required Ventilation in CFM}}{\text{Fan CFM}} = \text{Hour Fraction}$$

$$\text{Hour Fraction} \times 60\ \text{Minutes} = \text{Ventilation Settings in Minutes}$$

CFM = Cubic Feet Per Minute

SmartExhaust™ Settings:

VENTILATION setting allows the user to set the number of minutes per hour the fan should run.
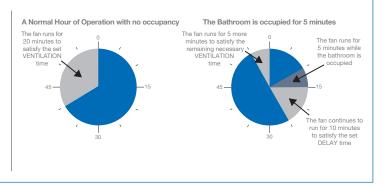
DELAY setting allows the user to set the number of minutes the fan should run after the bathroom light has been turned off. This setting provides additional run time for the fan to complete the remaining necessary ventilation after use. **SmartExhaust™** replaces an existing switch, there are no additional labor costs required for installation. Simple and economical fan and light operation is provided by one switch.

Example

The SmartExhaust™ has a microprocessor in it that reads the two settings dials. If for example the VENTILATION dial is set to 20 minutes/hour, the microprocessor will subtract 20 minutes from 60 minutes and determines that the SmartExhaust™ needs to come on 40 minutes into the hour and run for the remaining 20 minutes of that hour.

If the DELAY dial is set to 10 minutes and the light/fan switch is manually turned on for 5 minutes, the microprocessor will keep track of the 5 minutes of use. When the switch is turned off after the 5 minutes, the microprocessor will continue to run the fan for the 10 minutes of DELAY setting adding up to a total of 15 minutes. The 15 minutes will be subtracted from the total required 20 minutes of VENTILATION time. 55 minutes into the hour, the fan will turn on and run for the 5 additional minutes needed to complete the required ventilation.

See diagram for more details

A Normal Hour of Operation with no occupancy

The fan runs for 20 minutes to satisfy the set VENTILATION time

The Bathroom is occupied for 5 minutes

The fan runs for 5 more minutes to satisfy the remaining necessary VENTILATION time

The fan runs for 5 minutes while the bathroom is occupied

The fan continues to run for 10 minutes to satisfy the set DELAY time

EZSoffitVent™

Versatile Soffit Termination System

EZSV14

EZ Soffit Vent installed

EZ Soffit Vent Key Benefits:

- Patented termination system ideal for new residential construction
- First-to-market, HVI-Certified soffit vent helps optimize airflow by letting you complete all ducting before soffit panel install
- Designed to work with ventilation fans up to 110 CFM, using 4" ductwork
- Improves overall fan performance and reduces call backs due to poor airflow
- Versatile product design can be used for other applications such as: clothes dryer exhaust (as-shipped), fireplace combustion air intake[1], supply only ventilation system intake[1] up to 120 CFM and balanced ventilation systems (HRV/ERV), –exhaust and intake[1] up to 120 CFM
- Simple installation helps reduce total installed costs (callbacks, labor and parts)
- Unique design eliminates water intrusion costs associated with roof and/or wall terminations
- Snap-fits easily into mounting bracket and can be rotated 180 degrees to align with ducting
- Low resistance backdraft damper eliminates cold drafts and improves blower door test results

 1 - With any use for intake air, you must remove the damper. It's also recommended you add an insect screen (not included).

Ceiling Radiation Damper

PC-RD05C5

Radiation Damper Key Benefits:

- One damper for both Combustible and Non-Combustible Assembly Ratings
- Damper allows for two-stage construction; fan housing and damper sleeve during framing, fan/motor/damper installation after finishes
- Damper allows access to fan/motor/damper for maintenance
- Compatible with most Panasonic 10 1/4" 50 – 150 CFM fans, fan lights and fan with motion sensor
- Galvanized steel frame with 165°F fusible link
- High temperature, non-asbestos, reinforced fiber thermal fabric damper

	UL Approved for the Following Fan Models:
Damper Model PC-RD05C5	WhisperGreen Select, WhisperCeiling DC, WhisperSense DC, WhisperFit DC, WhisperValue DC

–UL and Warnock Hersey 555C classification for 1, 2 or 3 hour Non-Combustible Assemblies

–UL 555C classification for the following 1 hour UL Wood Truss Assembly Ratings: L521, L528, L546, L558, L562, L574, L576, L581, L583, L585, M509; P522, P-533, P-538, P-545 and P-547

Passive Inlet Vent

FV-GKF32S1

Inlet Vent Key Benefits:

Panasonic Passive Inlet provides make-up air to help balance indoor vs. outdoor air pressure.

- Foam pad reduces outdoor noise and condensation
- Insulation lining to prevent condensation
- Durable ABS and PP resin body
- 7 stainless steel installation screws included
- Sturdy open/close lever
- 2-position air delivery

Passive Inlet		FV-GKF32S1
Specifications	Air Volume Positions	2
	CFM Settings	12 & 18
Features	Open/Close Louver Setting	Yes
	Washable Air Filter	Yes
	Bug Screen	Yes
	3" x 12" Sleeve Included	Yes
	Body	ABS & PP
Installation	Wall Opening (diameter)	3 inch
	Installation Screw Included	Yes

Designer Grilles

FV-GL3TDA

FV-GL3TDB

Designer Grille Key Benefits:
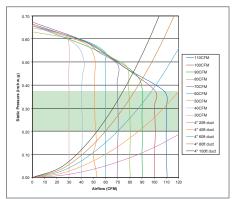
- Easy and affordable to change
- Change your grille to fit your room decor without compromising the performance and quality of the unit
- **Applicable Models**
  WhisperCeiling DC: FV-0511VQ1, FV-1115VQ1

	FV-GL3TDA	FV-GL3TDB
Characteristics		
Grille Size (inches sq.)	13	14-1/5
Shipping Gross Weight (lbs)	1.1	1.3
Trend Style Category	Traditional	Traditional
Material	ABS	ABS
UL Approved[1]	Yes	Yes
HVI Certified[1]	Yes	Yes
Mfg. in ISO 9001 Certified Facility	Yes	Yes
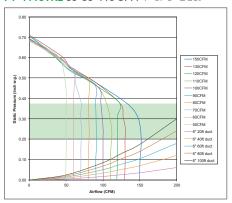
[1] Approved with applicable models.

WhisperGreen® Select
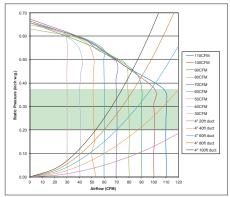
FV-0511VK2 30-110 CFM 4" or 6" Duct
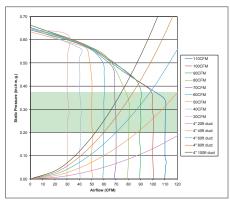
FV-1115VK2 50-80-110 CFM 4" or 6" Duct
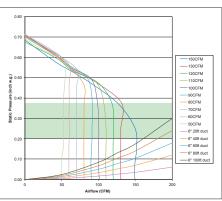
FV-0511VKS2 110-130-150 CFM 6" Duct
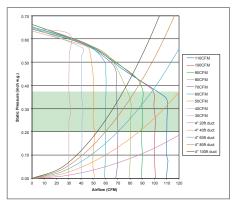
FV-0511VKL2 30-110 CFM 4" or 6" Duct

FV-1115VKL2 50-80-110 CFM 4" or 6" Duct
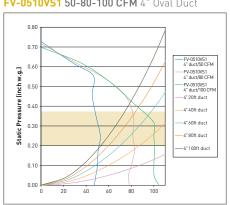
FV-0511VKSL2 110-130-150 CFM 6" Duct
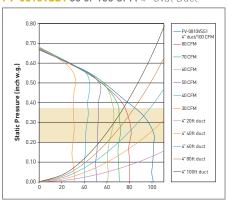
WhisperValue® DC
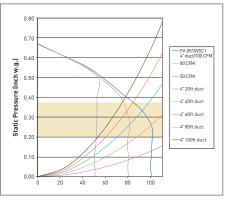
FV-0510VS1 50-80-100 CFM 4" Oval Duct

FV-0810VSS1 80 or 100 CFM 4" Oval Duct
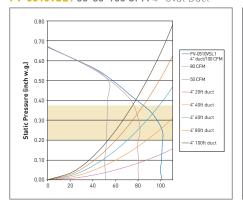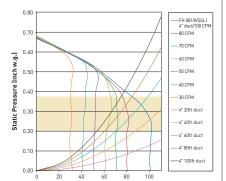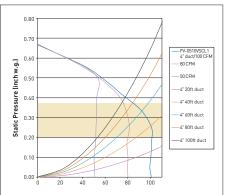
FV-0510VSC1 50-80-100 CFM 4" Oval Duct

FV-0510VSL1 50-80-100 CFM 4" Oval Duct

FV-0810VSSL1 80 or 100 CFM 4" Oval Duct

FV-0510VSCL1 50-80-100 CFM 4" Oval Duct

Note: Industry research indicates static pressure in typical installations ranges from 0.20" to 0.375". Panasonic's powerful ECM motored fans produce airflow rates that force through real-world static pressure.
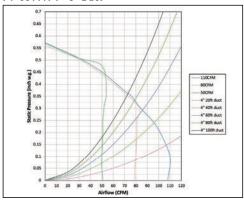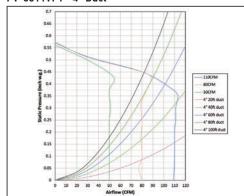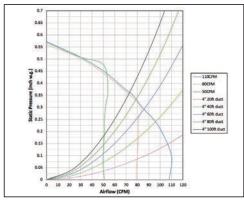
FV-0511VF1 - 3" Duct
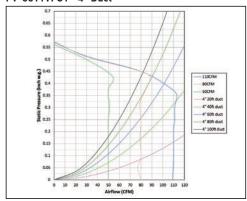
FV-0511VF1 - 4" Duct
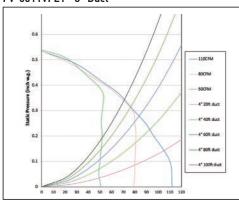
FV-0511VFC1 - 3" Duct
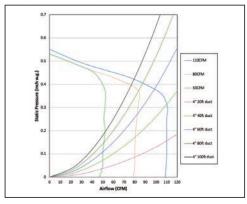
FV-0511VFC1 - 4" Duct
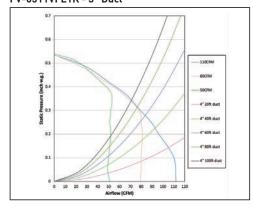
FV-0511VFL1 - 3" Duct
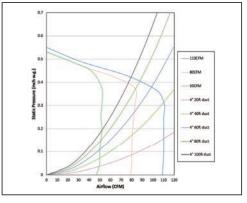
FV-0511VFL1 - 4" Duct

FV-0511VFL1K - 3" Duct

FV-0511VFL1K - 4" Duct

Note: Industry research indicates static pressure in typical installations range from 0.20" to 0.375". Panasonic's powerful ECM motored fans produce airflow rates that force through real-world static pressure.

WhisperCeiling®DC
VENTILATION FAN

FV-0511VQ1 50-80-110 CFM 4"or 6" Duct

Legend:
- FV-0511VQ1 110CFM
- 80CFM
- 50CFM
- 4" 20ft duct
- 4" 40ft duct
- 4" 60ft duct
- 4" 80ft duct
- 4" 100ft duct

Static Pressure (inch w.g.) vs Airflow (CFM)

FV-1115VQ1 110-130-150 CFM 6" Duct

Legend:
- FV-1115VQ1 150CFM
- 130CFM
- 110CFM
- 6" 20ft duct
- 6" 40ft duct
- 6" 60ft duct
- 6" 80ft duct
- 6" 100ft duct

Static Pressure (inch w.g.) vs Airflow (CFM)

FV-0511VQL1 50-80-110 CFM 4"or 6" Duct

Legend:
- FV-0511VQL1 110CFM
- 80CFM
- 50CFM
- 4" 20ft duct
- 4" 40ft duct
- 4" 60ft duct
- 4" 80ft duct
- 4" 100ft duct

Static Pressure (inch w.g.) vs Airflow (CFM)

FV-1115VQL1 110-130-150 CFM 6" Duct

Legend:
- FV-1115VQL1 150CFM
- 130CFM
- 110CFM
- 6" 20ft duct
- 6" 40ft duct
- 6" 60ft duct
- 6" 80ft duct
- 6" 100ft duct

Static Pressure (inch w.g.) vs Airflow (CFM)

WhisperCeiling®
VENTILATION FAN

FV-20VQ3 190 CFM 6" Duct

Legend:
- FV-20VQ3
- 20 Feet
- 40 Feet
- 60 Feet
- 80 Feet
- 100 Feet

Static Pressure (inch w.g.) vs Airflow (CFM)

FV-30VQ3 290 CFM 6" Duct

Legend:
- FV-30VQ3
- 20 Feet
- 40 Feet
- 60 Feet
- 80 Feet
- 100 Feet

Static Pressure (inch w.g.) vs Airflow (CFM)

FV-40VQ4 390 CFM 6" Duct

Legend:
- FV-40VQ3
- 20 Feet
- 40 Feet
- 60 Feet
- 80 Feet
- 100 Feet

Static Pressure (inch w.g.) vs Airflow (CFM)

Note: Industry research indicates static pressure in typical installations ranges from 0.20" to 0.375". Panasonic's powerful ECM motored fans produce airflow rates that force through real-world static pressure.

ecoVent®

FV-07VBA1A + FV-07VBB1 4" Ducts

4" Duct

- Veri-Boost™ Activated
- Standard Setting
- 20 Feet
- 40 Feet
- 60 Feet
- 80 Feet
- 100 Feet

Static Pressure (inch w.g.) / Airflow (CFM)

WhisperRecessed® LED
VENTILATION FAN

FV-08VRE2 80 CFM 4" or 6" Duct

- FV-08VRE2
- 4" 20ft duct
- 4" 40ft duct
- 4" 60ft duct
- 4" 80ft duct
- 4" 100ft duct
- 6" 20ft duct
- 6" 40ft duct
- 6" 60ft duct
- 6" 80ft duct
- 6" 100ft duct

Static Pressure (inch w.g.) / Airflow (CFM)

WhisperComfort®
VENTILATION FAN

FV-04VE1 40/20 CFM or 20/10 CFM 2 x 4" Ducts

- FV-04VE1 (Exhaust)
- FV-04VE1 (Supply)
- 20 Feet
- 40 Feet
- 60 Feet
- 80 Feet
- 100 Feet

Static Pressure (inch w.g.) / Airflow (CFM)

WhisperSense® DC
VENTILATION FAN

FV-0511VQC1 50-80-110 CFM 4" or 6" Duct

- FV-0511VQC1 110CFM
- 80CFM
- 50CFM
- 4" 20ft duct
- 4" 40ft duct
- 4" 60ft duct
- 4" 80ft duct
- 4" 100ft duct

Static Pressure (inch w.g.) / Airflow (CFM)

FV-0511VQCL1 50-80-110 CFM 4" or 6" Duct

- FV-0511VQCL1 110CFM
- 80CFM
- 50CFM
- 4" 20ft duct
- 4" 40ft duct
- 4" 60ft duct
- 4" 80ft duct
- 4" 100ft duct

Static Pressure (inch w.g.) / Airflow (CFM)

WhisperWarm® DC
VENTILATION FAN

FV-0511VH1 110 CFM 4" Duct

- 110CFM
- 80CFM
- 50CFM
- 4" 20ft duct
- 4" 40ft duct
- 4" 60ft duct
- 4" 80ft duct
- 4" 100ft duct

Static Pressure (inch w.g.) / Airflow (CFM)

FV-0511VHL1 110 CFM 4" Duct

- 110CFM
- 80CFM
- 50CFM
- 4" 20ft duct
- 4" 40ft duct
- 4" 60ft duct
- 4" 80ft duct
- 4" 100ft duct

Static Pressure (inch w.g.) / Airflow (CFM)

WhisperFresh™ Select
VENTILATION FAN

FV-15NLFS1 50-150 CFM 6" Duct

- 150CFM
- 140CFM
- 130CFM
- 120CFM
- 110CFM
- 100CFM
- 90CFM
- 80CFM
- 70CFM
- 60CFM
- 50CFM
- 6" 20ft duct
- 6" 40ft duct
- 6" 60ft duct
- 6" 80ft duct
- 6" 100ft duct

Static Pressure (inch w.g.) / Airflow (CFM)

*HVI-Certified performance with MERV 13 filter installed.

NOTE: WhisperFresh Select provides powerful operation at 0.4" static pressure

Intelli-Balance 100

FV-10VEC2/FV-10VE2 50-80-100 CFM
4 x 4" or 6" Ducts

Legend:
- Net Supply Air
- Net Exhaust Air

Intelli-Balance 200

FV-20VEC1 200 CFM
6" Ducts

Legend:
- Net Supply Air
- Net Exhaust Air

Recessed Inlet

FV-NLF46RES 4" or 6" Duct (Resistance Curve)*

- FV-NLF46RES
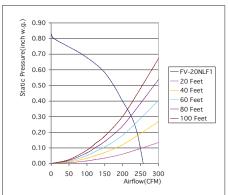
*Data is not HVI certified as there is no testing standard.

WhisperLine
VENTILATION FAN

FV-10NLF1E 120 CFM 4" Duct

- FV-10NLF1E
- 20 Feet
- 40 Feet
- 60 Feet
- 80 Feet
- 100 Feet

FV-20NLF1 240 CFM 6" Duct

- FV-20NLF1
- 20 Feet
- 40 Feet
- 60 Feet
- 80 Feet
- 100 Feet

FV-30NLF1 340 CFM 6" Duct

- FV-30NLF1
- 20 Feet
- 40 Feet
- 60 Feet
- 80 Feet
- 100 Feet

FV-40NLF1 440 CFM 8" Duct

- FV-40NLF1
- 20 Feet
- 40 Feet
- 60 Feet
- 80 Feet
- 100 Feet

WhisperGreen® *Select*

FV-0511VKS2

4" or 6" Duct

FV-1115VKS2

6"Duct

FV-0511VK1

4" or 6" Duct

FV-1115VK2

6" Duct

FV-0511VKSL2

4" or 6" Duct

FV-0511VKL2

4" or 6" Duct

FV-1115VKL2

6" Duct

WhisperSense® DC

FV-0511VQC1

4" or 6" Duct

FV-0511VQCL1

4" or 6" Duct

WhisperFit DC
VENTILATION FAN

FV-0511VF1

4" or 3" Duct

3"
4"
5-5/8"
10-1/4"   10-1/4"
13"   13"

FV-0511VFC1

4" or 3" Duct

3"
4"
5-5/8"
10-1/4"   10-1/4"
13"   13"

FV-0511VFL1

4" or 3" Duct

3"
4"
5-5/8"
10-1/4"   10-1/4"
13"   13"

WhisperValue DC
VENTILATION FAN

FV-0510VS1

4" Oval Duct

3-3/8"
5"
2-9/16"
10-1/4"   10-1/4"
13"   13"

3-3/8" housing depth.
Actual depth of a 2 x 4 is 3-1/2"!

FV-0810VSS1

4" Oval Duct

3-3/8"
5"
2-9/16"
10-1/4"   10-1/4"
13"   13"

3-3/8" housing depth.
Actual depth of a 2 x 4 is 3-1/2"!

FV-0510VSC1

4" Oval Duct

3-3/8"
5"
2-9/16"
10-1/4"   10-1/4"
13"   13"

3-3/8" housing depth.
Actual depth of a 2 x 4 is 3-1/2"!

FV-0510VSL1

4" Oval Duct

3-3/8"
5"
2-9/16"
10-1/4"   10-1/4"
13"   13"

3-3/8" housing depth.
Actual depth of a 2 x 4 is 3-1/2"!

FV-0810VSSL1

4" Oval Duct

3-3/8"
5"
2-9/16"
10-1/4"   10-1/4"
13"   13"

3-3/8" housing depth.
Actual depth of a 2 x 4 is 3-1/2"!

FV-0510VSCL1

4" Oval Duct

3-3/8"
5"
2-9/16"
10-1/4"   10-1/4"
13"   13"

3-3/8" housing depth.
Actual depth of a 2 x 4 is 3-1/2"!

FV-07VBA1A + FV-07VBB1

4" Duct

FV-08VRE2

4"or 6" Duct

WhisperCeiling® DC
VENTILATION FAN

FV-0511VQ1

4"or 6" Duct

FV-1115VQ1

6" Duct

FV-0511VQL1

4"or 6" Duct

FV-1115VQL1

6" Duct
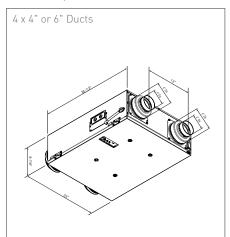
WhisperCeiling®
VENTILATION FAN

FV-20VQ3

6" Duct

FV-30VQ3

6" Duct

FV-40VQ4

6" Duct

Intelli-Balance 100

FV-10VEC2 / FV-10VE2

4 x 4" or 6" Ducts

Intelli-Balance 200

FV-20VEC1

6" Ducts

WhisperComfort

FV-04VE1

2 x 4" Ducts

WhisperWarm DC
VENTILATION FAN

FV-0511VH1

4" Duct

FV-0511VHL1

4" Duct

WhisperFresh Select
VENTILATION FAN

FV-15NLFS1

WhisperWall®
VENTILATION FAN

New Construction 8" diam. opening

Remodeling

WhisperLine
VENTILATION FAN

Inlet grille and 4" duct adapter height 3-1/2"
Inlet grille and 6" duct adapter height 5"

WhisperLine Installation Kits								
Fan Model	A	B	C	D	E	F	G	H
FV-10NLF1E	13-3/8"	9-1/2"	17-5/16"	7-7/8"	12-5/8" – 22-3/4"	5/16"	4"	11"
FV-20NLF1	13-3/8"	9-1/2"	21-5/8"	9-7/16"	12-5/8" – 24-7/16"	5/16"	6"	11"
FV-30NLF1	15-11/32"	10-5/8"	23-5/8"	11"	12-5/8" – 26"	5/16"	6"	12-1/8"
FV-40NLF1	16-1/2"	13-3/8"	22"	11"	12-5/8" – 26"	5/16"	8"	14-7/8"

Recessed Inlet™

FV-NLF46RES

4"or 6" Duct

Sizing
Information and Instructions

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.

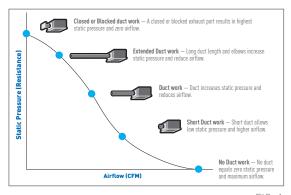Performance Curves are listed on **pages 52–56.**

Static Pressure (Resistance) / **Airflow (CFM)**

Closed or Blocked duct work — A closed or blocked exhaust port results in highest static pressure and zero airflow.

Extended Duct work — Long duct length and elbows increase static pressure and reduce airflow.

Duct work — Duct increases static pressure and reduces airflow.

Short Duct work — Short duct allows low static pressure and higher airflow.

No Duct work — No duct equals zero static pressure and maximum airflow.

FIG. A

Equivalent Duct Length				
Duct Diameter				
		3"	4"	6"	8"
Duct	Smooth 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
	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 feet	30 feet	40 feet	40 feet
Device	Roof Jack	30 feet	30 feet	40 feet	40 feet
Elbow	Adjustable	15 feet	15 feet	20 feet	20 feet

FIG. B

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 ft x 10 ft x 8 ft ceiling bathroom using 12 foot long, 4 inch diameter aluminum flex duct, one elbow, one 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 ft x 10 ft = 80 sq.ft.

Step 3: Calculate your required CFM

1 CFM x 80 sq.ft. = 80 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

15 ft + 15 ft + 30 ft = 60 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 feature. 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.

Step 6: Use the EDL calculated in Step 4 to check on the performance curve for the fan selected in Step 5. Performance curves for all Panasonic fans can be found on pages 52-56. Compare your calculated EDL to the curves for different EDLs on the performance curve for your selected product. Where they cross will tell you what airflow to expect. For the 60 feet of EDL in the example, interpolate between the curve for 50 feet and the one for 75 feet.

Installation
A practical guide to Panasonic
fan installation

Proper fan installation is necessary to optimize performance. The following points outline installation techniques to help achieve optimum performance.

IMPORTANT: In order to reduce elbows and optimize fan performance, install the fan with the exhaust port pointed in the direction of the termination point. Be sure to use the duct diameter size specified for the selected fan. Reducing the duct diameter (at any point in the duct run) will create substantial static pressure and reduce the fan's performance by as much as 90%. Increasing the duct size almost always improves both sound and airflow performance
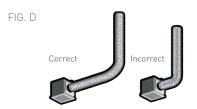
Selecting Duct: A smooth surface duct allows for optimum airflow. See Figure C. For best results, use galvanized sheet metal or possibly PVC. Flexible aluminum duct is durable, easy to install and often used. However, the ridges in aluminum flexible duct increase static pressure and can reduce airflow and fan performance. This results in lower CFMs, higher noise levels and higher energy consumption. The degree to which performance is affected depends on the length of duct, number and degree of elbows.

Sagging or weaving a fan duct will also increase static pressure and reduce a fan's performance. When using a flexible aluminum duct, support the entire length of the duct with braces or hangers to keep it as straight as possible for the entire run. If the duct lies across the attic, do not allow it to sag between each joist. Also, avoid weaving duct through trusses.

Using dryer duct connectors made of nylon or vinyl is not recommended due to high static pressure caused by its ridges and curvature. Insulated flexible duct must be fully extended to avoid added resistance.

Elbows: Rule number one is to avoid elbows and bends whenever possible. However, the fact is that many installations require at least one elbow, as shown in Figure D. There are two precautions you can take when installing elbows to achieve optimum airflow.

First, allow a 2-3 foot straight run out of the fan before the first elbow. This allows airflow to be uniform before passing through the first elbow. An installation that has a 90-degree elbow immediately after the fan exhaust port will cause air to flow back into the fan. This will reduce fan performance and increase noise. (Figure D)

FIG. D

Correct   Incorrect

Second, use a long radius angle, as shown in Figure E, to help ensure optimum airflow and minimum airflow noise.

FIG. E

Preferred   Typical

The shortest, smooth inner surface duct with the least number of elbows will provide optimum fan airflow

Troubleshooting Advice:

1. During fan installation, the tape on the duct connector holding the damper shut must be removed.

2. Confirm with your contractor if screws were used to attach the duct to the fan. The damper may not open if obstructed by screws.

3. Check that the backdraft dampers on wall caps and roof jacks are able to move freely. Routine inspections are recommended as birds and other pests may inhabit these areas.

4. Ductwork must be connected securely to wall caps and roof jacks.

FIG. C

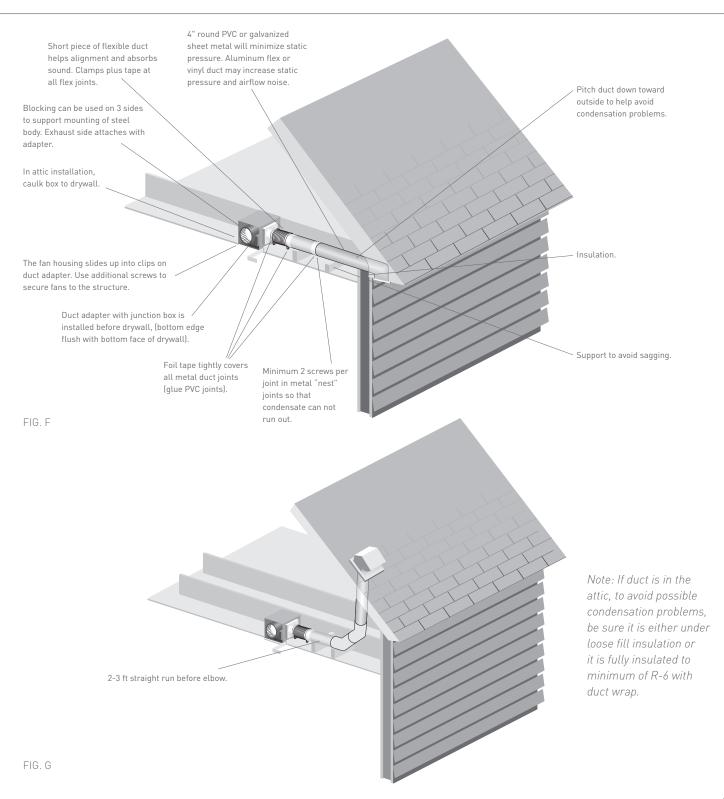Best
PVC or Galvanized

Better
Aluminum Flex

Good
Insulated Flex

*A straight run over joists is better than the duct 'dipping' into each joist bay which will increase static pressure and, eventually, deposit water in the 'dips'.

Short piece of flexible duct helps alignment and absorbs sound. Clamps plus tape at all flex joints.

4" round PVC or galvanized sheet metal will minimize static pressure. Aluminum flex or vinyl duct may increase static pressure and airflow noise.

Pitch duct down toward outside to help avoid condensation problems.

Blocking can be used on 3 sides to support mounting of steel body. Exhaust side attaches with adapter.

In attic installation, caulk box to drywall.

The fan housing slides up into clips on duct adapter. Use additional screws to secure fans to the structure.

Insulation.

Duct adapter with junction box is installed before drywall, (bottom edge flush with bottom face of drywall).

Foil tape tightly covers all metal duct joints (glue PVC joints).

Minimum 2 screws per joint in metal "nest" joints so that condensate can not run out.

Support to avoid sagging.

FIG. F

2-3 ft straight run before elbow.

Note: If duct is in the attic, to avoid possible condensation problems, be sure it is either under loose fill insulation or it is fully insulated to minimum of R-6 with duct wrap.

FIG. G

Panasonic