Panasonic

WhisperValue® DC™
VENTILATION FAN

IAQ Product Knowledge Training
WhisperValue®DC™
April, 2020

Panasonic Overview

- Company Details
  - $72.5 Billion USD$ (fiscal year 2019)
  - 101 Yrs. in business; founded in 1918
  - #10 "World's Best Regarded Companies in 2017", per Forbes
  - #81 "Top 100 Best Global Brands of 2019", per Interbrand

- Company Mission

A Better Life, A Better World

Panasonic is committed to creating a better life and a better world,
continuously contributing to the evolution of society and
to the happiness of people around the globe.

- IAQ Mission: Dedicated to delivering healthy indoor living solutions, so everyone thrives.

US HQ- Newark, NJ

Panasonic

Panasonic IAQ Value Proposition

- ***Panasonic is the only residential indoor air quality solutions supplier that delivers exhaust fans with verified, installed performance at .375" s.p. and a first-to-market healthy home system.***
  - *Create the perfect exhaust fan for the space with optional Plug N' Play modules; motion and/or condensation sensors for hands-free operation; dimmable and recessed LED lighting and decorative grilles to complement any room décor; heaters for increased comfort. High-performance ERV's maintain balanced ventilation.*
  - *COSMOS Healthy Home System engineered exclusively for Panasonic maximizes safety and comfort by monitoring, controlling, and improving air quality in the home.*
  - *Endless IAQ solutions meet any building code, consumer preference, and budget.*

Panasonic

WhisperValue® DC™
Ventilation Fan

Good for Multi-family -6 sku's (plus 2 sku's in project packs)

- Pick-A-Flow speed selector - one fan, choose the CFM (50-80-100 CFM or 80-100 CFM).
- Available in:
  - Fan only, single high speed (50, 80, 100 CFM) and built-in dual speed (80 and 100 CFM high speed; low speed down to 30 CFM for continuous operation).
  - Fan single high speed/condensation sensor (50, 80, 100 CFM high speed); fan will run 20 min. before turning off.
  - Fan/LED light & NL, single high speed (50, 80, 100 CFM) and built-in dual speed (80 and 100 CFM high speed, low speed down to 30 CFM for continuous operation).
  - Fan/LED Light & NL, single high speed/condensation sensor; fan will run 20 min. before turning off.
- Brushless DC motor with SmartFlow technology.
- Fan/lights:10W dimmable LED chip panel with <1W LED night light .
- Housing size 10-1/4 x 10-1/4 x 3-3/8; fits in 2x4 construction –*lowest profile ENERGY STAR® rated fan on the market.*
- Ceiling <u>and</u> wall mount installation for fans only; ceiling mount only or fan/lights.
- Built-in 4" oval duct collar, also compatible with 4" round duct; optional 24 gauge steel, fire code rated 4" oval to 3" round duct adaptor sold separately (Model # FV-VS43R).
- UL listed for tub/shower enclosure when GFCI protected.
- Unique L-shaped bracket simplifies installation and provides strong support.
- PC-RD05C5 Ceiling Radiation Damper available.
- Project Packs: housing and motor/grille are packaged separately for flexibility during installation.
  - FV-0510VSA1 housing; packed and order in case/4
  - FV-0510VSB1 motor/grille assembly; packed and order in cases/4
- Warranty: 6 years ECM Motor, 5 years LED, 3 years all other parts.

FV-0510VS1 single speed
FV-0810VSS1 dual speed
FV-0510VSC1 condensation

3-3/8" Depth

Lowest profile, perfect fit in a 2 x 4!

FV-0510VSL1 single speed
FV-0810VSSL1 dual speed
FV-0510VSCL1 condensation

Panasonic

4

Brushless DC Motor & SmartFlow™ Technology

- **SMARTFLOW**: Intelligent, self-adjusting SmartFlow technology senses the amount of resistance in the duct run and automatically adjusts the fan speed to deliver optimal CFM output, even in the case of a complicated duct run.

- **RELIABILITY**: Brushless DC brushless motor fans are engineered to outlast popular AC models by as much as 70%, reducing the frequency of motor replacement.

- **LESS NOISE**: Brushless DC motor fans are precision engineered for low sound down to <0.3 sones, the lowest tested sound rating for an exhaust fan.

- **LESS POWER CONSUMPTION/LESS ENERGY COST**: Brushless DC brushless motor fans use 85% less power than popular AC motor exhaust fans; Panasonic fans run on as little as 4 watts.

- **EFFICIENCY**: Brushless DC motor fans exceed ENERGY STAR requirements by as much as 800%.

True-Flow

- Panasonic performance is differentiated by utilizing our HVI Certified **TRUE-FLOW** Ratings.

    - CFM's @.375" w.g. static pressure.

    - Reflects real-world installations to ensure code compliancy and to prevent costly callbacks.

    - Industry research indicates static pressure in typical installations ranges from 0.2" to 0.4" static pressure.

    - Certified by HVI.

HVI-certified True Flow ratings at **0.375"** static pressure provide powerful CFM output to assure code compliant, healthy homes.

LED Lighting

- Long life, 10W dimmable LED chip panel with <1W LED night light for warm, long-life energy efficient illumination (night-light must be wired separately).
- LED Panel Specifications:
  - 3000 Kelvin Warm White
  - 90 CRI
  - 700 lumens/70 LPW, *the highest LPW in the industry*
  - ENERGY STAR® 2.0 certified
  - JA-8 compliant for CA Title 24
  - 50,000 hours rated average life

FV-0510VSL1

Panasonic

Optional Built-in Controls

- Multi-Speed Control for ASHRAE 62.2 compliance
  - Allows you to select the proper CFM setting to satisfy ASHRAE 62.2 continuous ventilation requirements.
  - Fan runs continuously at a preset lower level [0, 30-80, in 10 CFM increments), then elevates to a maximum level of operation (80 or 100 CFM) when the wall switch is turned on.

Multi-speed: for FV-0810VSS1 & FV-0810VSSL1

- Condensation Sensor to control moisture in the bathroom
  - 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 enables fine-tuning for moist conditions and for satisfying CALGreen requirements.
  - Fan will run for 20 minutes before turning off.

Condensation Sensor: for FV-0510VSC1 & FV-0510VSCL1

Panasonic

Housing Depth

- 3-3/8" Housing Depth: lowest profile ENERGY STAR®* fan available – fits anywhere!
- Unique L-Shaped bracket simplifies installation and provides strong support.
- UL approved for ceiling or wall mount (fits in a 2 x 4 stud wall); ceiling mount only for fan/lights.
- 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.

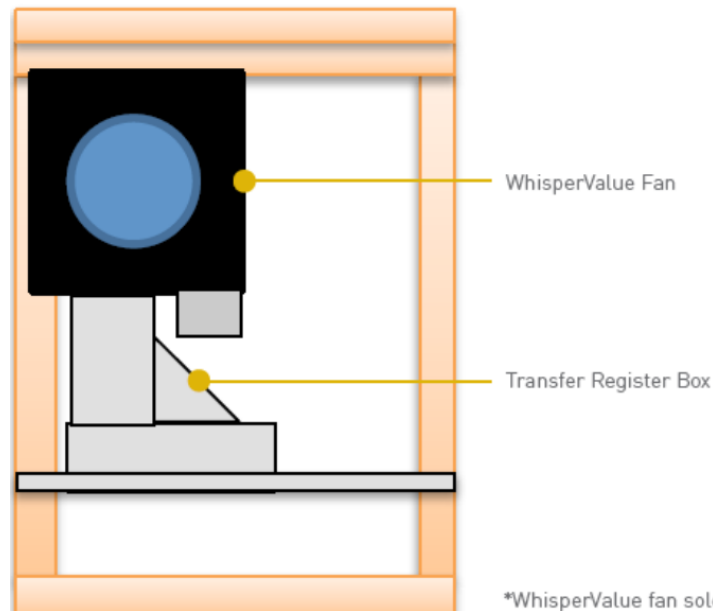Panasonic

Optional Accessories (sold separately)

- FV-VS43R: 24-gauge steel, fire code rated 4" oval to 3" round duct adapter provides installation flexibility in duct layout and design.
- FV-JD Transfer Register Box
  - Designed exclusively for use with WhisperValueDC fan and fan/light combinations .
  - Provides room-to-room air distribution in multi-family projects with ductless heat pumps.
  - 26-gauge steel, fire code rated.
  - No need for a radiation damper as on jump ducts.
  - Compatible with standard size HVAC registers – 4" x 10" HVAC supply grille.

WhisperValue Fan

Transfer Register Box

*WhisperValue fan sold separately.

FV-VS43R

FV-JD

Panasonic

Contractor Pack -available for FV-0510VS1 only

- Store the components separately without fear of parts getting lost or damaged on site.
- Contractor Pack includes four complete fans; housing and motor/grille assembly are packaged separately for flexibility during installation.
- Must be ordered in multiples of 4; master carton contains one box with 4 units.

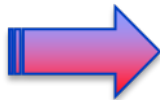| Universal Housing Can	Motor/Grille Assembly	Complete Fan Unit	Master Pack
FV-0510VSA1	FV-0510VSB1	FV-0510VS1	4

Panasonic

Ducting

Optimum airflow from:
- ✓ Smooth metal ducting.
- ✓ Large diameter ducting.
- ✓ Short run.
- ✓ Fewest number of turns.
- ✓ Good-quality termination point, such as Panasonic EZ Soffit Vent.

Attach 4" or 6" duct to the fan's duct adaptor

Secure the connection using qualified tape

EZSV14 Soffit Vent

Panasonic

PC-RD05C5 Ceiling Radiation Damper

- Metal fire box with fuse-activated curtain that prevents flames from passing through the product, in case of fire.

- Regionally in building code for multi-family projects that are above 4 floors.

- Combustible Assemblies: UL 555C listed for use in a 1-hour fire-rated wood truss floor ceiling and roof/ceiling designs.*

- Non-Combustible Assemblies: UL 555C listed for use in a 1, 2 or 3 hour fire rated floor ceiling and roof/ceiling designs.**

- 5-year warranty.

- UL approved for: WhisperValue.

- Must be ordered in multiples of 6 (case pack).

PC-RD05C5

*Damper sleeve allows for fan/motor access for ongoing maintenance or framing/drywall/paint installation staging.

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

Panasonic

EZ Soffit Vent

- Patented, high performance, versatile soffit termination system ideal for new residential construction.
- First-to-market, HVI-Certified soffit vent helps optimize airflow by letting contractor complete all ducting before soffit panel install.
- Unique design helps fan overcome 0.375" static pressure to effectively remove moist, polluted air.
- Improves overall fan performance and reduces costly call backs due to poor airflow.
- Unique design eliminates water intrusion costs associated with roof and/or wall terminations.
- EZ Soffit Vent body 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.
- Designed for ventilation fans up to 110 CFM, using 4" ductwork.

EZSV14

Panasonic

WhisperValueDC- Good for Multi-family

- **Target Markets**
  - Multi-Family
  - Production Single Family
  - Manufactured Housing
  - Bathroom Renovation/Remodeling
  - Hotel/Lodging
  - Student Living
  - Assisted Living

- **Target Audience**
  - Developers
  - Production Builders
  - Remodelers
  - Architects/Engineers
  - Homeowners

- **Target Projects**
  - New construction
  - Renovation/Remodeling
  - ASHRAE 62.2
  - ENERGY STAR® certified homes
  - LEED for homes
  - Green building programs

Panasonic

Competitive Benchmark- 50-80-100 CFM Fan

FAN ONLY		Panasonic			Broan-NuTone			Delta	
		WhisperValue			LoProfile DC			Slim	
Model#		FV-0510VS1			LP50100DC			SLM80-110	
MOTOR		ECM / DC			DC			DC	
Pick-A-Flow		☑			☑			80/110	
Hanger Bar		L-shaped bracket			Hanger bars			Suspension Bracket	
UL listed for wall mount		☑			☑			☑	
Frame Size (in)		3-3/8 x 10-1/4 x 10-1/4			4 x 10-1/2 x 11-3/8			4 x 10-1/2 x 11-1/4	
		☑			☑				
0.1"w.g.	Duct Size (in)	4 oval			4 oval			4 oval	
	Air Flow (CFM)	110	80	50	100	80	50	110	80
	Sones	0.9	0.4	<0.3	1.2	0.6	<0.3	1.2	0.4
	Power Consumption (Watts)	11.1	7.2	4.4	11.1	6.3	4.0	15.0	7.5
	Energy Efficiency (CFM/Watt)	9.2	11.4	12	10.5	13.3	13.2	7.3	10.6
0.25"w.g.	Air Flow (CFM)	100	81	53	101	80	52	110	80
	Sones	1.3	0.8	0.5	112	1.5	1.3	1.5	1.2
	Power Consumption (Watts)	16.0	11.5	7.5	16.0	11.4	7.8	22.0	12.8
	Energy Efficiency (CFM/Watt)	6.4	7.2	7.9	6.5	7.3	7.0	5.0	6.2
0.375"w.g.	Air Flow (CFM)	83	75	52	-	-	-	-	-
	Power Consumption (Watts)	18.0	16.0	12.0	-	-	-	-	-
	Energy Efficiency (CFM/Watt)	4.6	4.7	4.3	-	-	-	-	-

Panasonic Advantages:

- TRUE-FLOW CFM's @.375" w.g. static pressure, reflecting real-world installations to ensure code compliancy and to prevent costly callbacks.
- 3-3/8" housing depth – actually fits in a 2x4 stud wall!
- Series also includes model FV-0510VSC1 Fan (50, 80, 100 CFM high speed) with built-in condensation sensor; fan will run 20 min. before turning off. No other manufacturer offers this in low profile design.

Panasonic

Competitive Benchmark- 50-80-110 CFM Fan/LED Light

FAN ONLY		Panasonic	Broan-NuTone	Delta
		WhisperValue	LoProfile DC	Slim
Model#		FV-0510VSL1	LP50100DC	SLM80-110LED
MOTOR		ECM / DC	DC	DC
Pick-A-Flow		☑	☑	80/110
Hanger Bar		L-shaped bracket	Hanger bars	Suspension Bracket
UL listed for wall mount		☑	☑	☑
Frame Size (in)		3-3/8 x 10-1/4 x 10-1/4	4 x 10-1/2 x 11-3/8	4 x 10-1/2 x 11-1/4

		Duct Size (in)	4 oval			4 oval			4 oval	
0.1"w.g.		Air Flow (CFM)	100	80	50	100	80	50	110	80
		Sones	0.9	0.4	<0.3	1.2	0.6	<0.3	1.2	0.4
		Power Consumption (Watts)	12.4	8.5	4.5	11.1	6.3	4.0	15.0	7.5
		Energy Efficiency (CFM/Watt)	8.2	10.0	12.1	10.5	13.3	13.2	7.3	10.6
0.25"w.g.		Air Flow (CFM)	101	81	52	101	80	52	110	80
		Sones	1.3	0.8	0.5	1.2	1.5	1.3	1.5	1.2
		Power Consumption (Watts)	18.0	13.2	7.7	16.0	11.4	7.8	22.0	12.8
		Energy Efficiency (CFM/Watt)	5.7	6.5	7.3	6.5	7.3	7.0	5.0	6.2
0.375"w.g.		Air Flow (CFM)	83	75	52	-	-	-	-	-
		Power Consumption (Watts)	18.0	16.0	12.0	-	-	-	-	-
		Energy Efficiency (CFM/Watt)	4.6	4.7	4.3	-	-	-	-	-

Panasonic Advantages:

- TRUE-FLOW CFM's @.375" w.g. static pressure, reflecting real-world installations to ensure code compliancy and to prevent costly callbacks.
- 3-3/8" housing depth – actually fits in a 2x4 stud wall!
- Series also includes model FV-0510VSCL1 Fan/LED Light (50, 80, 100 CFM high speed) with built-in condensation sensor; fan will run 20 min. before turning off. No other manufacturer offers this in low profile design.

Panasonic

Collateral

us.panasonic.com/ventfans

- Technical Specifications

- Installation/Service Manuals

- Submittal Sheets and Architectural Specifications

Panasonic