



IAQ Product Knowledge Training
WhisperCeiling® 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 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.*

- Best performance: unequalled installed performance and quiet operation at .375 SP.
- Pick-A-Flow speed selector - one fan, choose the CFM (50-80-110 CFM or 110-130-150 CFM).
- Brushless DC motor with SmartFlow™ technology.
- Fan/lights: 10W dimmable LED chip panel with <1W LED night light.
- Housing: 10-1/4" x 10-1/4" x 7-3/8"... fits in 2x8 construction.
- Ceiling mount only.
- Integrated dual 4" or 6" duct adapter (up to 110 CFM models).
- UL listed for tub/shower enclosure when used with a GFCI protected circuit.
- Flex-Z Fast™ installation bracket for fast, flexible and easy installation.
- PC-RD05C5 Ceiling Radiation Damper available.
- Target markets: new and remodel, residential & light commercial, ENERGY STAR homes, hospitality.
- Can be used to comply with ASHRAE 62.2, LEED, Cal-Green and ENERGY STAR® for Homes 3.0.
- Warranty: 6 years ECM Motor, 5 years LED, 3 years all other parts.



FV-0511VQ1, FV-1115VQ1



FV-0511VQL1, FV-1115VQL1

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-0511VQL1, FV-1115VQL1

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.



Flex-Z Fast™ Installation Bracket

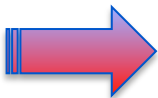
Simple installation system for all your new construction and renovation projects .

1



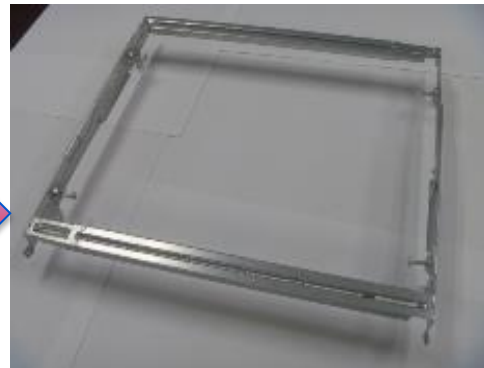
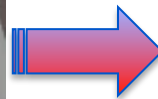
Single-hinge articulating joints to easily position bracket in between the joist and/or through ceiling hole.

2



Easily position bracket in between the joist or ceiling hole.

3



Extend bracket to desired length.

Fan Installation



Position the Flex-Z Fast™ bracket in between the joist



Secure bracket to joist by screwing in all 4 sides of bracket



Unscrew & remove junction box and duct adaptor from fan



Screw the junction box and duct adaptor onto the bracket



Insert housing containing the motor assembly into the center of the bracket



Screw the housing's metal flange to each connection point on the bracket



Plug in the fan and screw the housing to each connection point of the junction box & duct adaptor

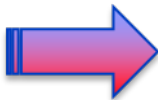
Ducting

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



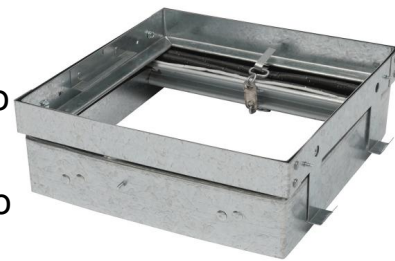
Secure the connection using qualified tape



EZSV14 Soffit Vent

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: WhisperCeiling
- 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

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

WhisperCeiling DC: Best for New Construction

■ Target Markets

- Custom/Production Single Family
- Multi-Family
- Renovation/Remodeling
- Hotel/Lodging

■ Target Audience

- Builders
- Remodelers
- Designers
- Architects/Engineers
- Homeowners



■ Target Projects

- New construction
- ASHRAE 62.2
- ENERGY STAR® 3.0 homes
- LEED for Homes
- Green building programs
- Federally funded weatherization
- Assisted Living

Competitive Benchmark- 50-80-110 CFM Fan

FAN ONLY		Panasonic			Broan-NuTone			Delta	
		WhisperCeiling			Flex DC			Breez	
Model#		FV-0511VQ1			AE50-110DC			SIG80-110	
MOTOR		ECM / DC			DC			DC	
Pick-A-Flow		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			80, 110	
Hanger Bar		Flex-Z Fast			Snap-fit			Extension Bracket	
Frame Size (in)		7-3/8 x 10-1/4 x 10-1/4			5-3/4 x 9-1/4 x 10			7-1/4 x 9-5/8 x 9-5/8	
E.S. Most Efficient 2019		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>									
0.1" w.g.	Duct Size (in)	4			4			4	
	Air Flow (CFM)	110	80	50	110	80	50	110	80
	Sones	<0.3	<0.3	<0.3	0.9	0.5	<0.3	<0.3	<0.3
	Power Consumption (Watts)	10.6	5.9	4.0	10.6	6.5	3.4	8.2	6.2
	Energy Efficiency (CFM/Watt)	10.6	13.6	12.5	10.4	12.6	14.7	15.3	15.4
0.25" w.g.	Air Flow (CFM)	111	83	53	105	71	36	110	80
	Sones	0.9	0.6	0.4	1.4	0.9	0.5	0.8	0.5
	Power Consumption (Watts)	16.4	10.8	7.2	14.9	9.4	5.3	14.1	9.9
	Energy Efficiency (CFM/Watt)	6.9	7.7	7.4	7.0	7.6	6.7	8.7	9.0
0.375" w.g.	Air Flow (CFM)	91	82	53	-	-	-	-	-
	Power Consumption (Watts)	17.1	14.5	10.5	-	-	-	-	-
	Energy Efficiency (CFM/Watt)	5.3	5.7	5.1	-	-	-	-	-

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

Fan/LED Light		Panasonic			Broan-NuTone			Delta	
		WhisperCeiling			Flex DC			Breez Signature	
Model#		FV-0511VQL1			AE50-110DCL			SIG80-110LED	
MOTOR		ECM / DC			DC			DC	
Pick-A-Flow		☑			☑			80, 110	
JA8 Compliant LED Light		☑			☑			☑	
Hanger Bar		Flex-ZFast			Snap-fit			Extension Bracket	
Frame Size (in)		7-3/8 x 10-1/4 x 10-1/4			5-3/4 x 9-1/4 x 10			7-7/8 x 9-5/8 x 9-5/8	
E.S. Most Efficient 2019		☑			☑			☑	
Smart Home Compatible		☑			X			X	
0.1"w.g.	Duct Size (in)	4			4			4	
	Air Flow (CFM)	110	80	50	110	80	50	110	80
	Sones	0.4	<0.3	<0.3	0.9	0.4	<0.3	<0.3	<0.3
	Power Consumption (Watts)	10.9	6	3.9	10.6	6.5	3.4	9.7	6.8
	Energy Efficiency (CFM/Watt)	10.3	13.7	14.1	10.4	12.6	14.7	12.7	13.8
0.25"w.g.	Air Flow (CFM)	110	83	50	105	71	36	110	80
	Sones	0.9	0.6	0.4	1.4	0.9	0.5	0.8	0.5
	Power Consumption (Watts)	16.1	11.0	7.1	14.9	9.4	5.3	15.5	9.9
	Energy Efficiency (CFM/Watt)	7.0	7.7	7.8	7.0	7.6	6.7	9.0	8.4
0.375"w.g.	Air Flow (CFM)	86	82	44	-	-	-	-	-
	Power Consumption (Watts)	16.8	14.6	10.0	-	-	-	-	-
	Energy Efficiency (CFM/Watt)	5.1	5.6	4.4	-	-	-	-	-

us.panasonic.com/ventfans

- Technical Specifications
- Installation/Service Manuals
- Submittal Sheets and Architectural Specifications