

# Specification Submittal Data / Panasonic Ventilation Fan/Light

#### **Description**

Customizable ceiling mount ventilating fan, low sone and rated for continuous operation. NGBS certified. ENERGY STAR® rated and certified by the Home Ventilating Institute (HVI). Evaluated by the Underwriters Laboratories and conforms to both UL and cUL standards.

#### Motor/Blower:

- Enclosed brushless ECM smart motor technology rated for continuous operation
- Adjustable ventilation rates at 30-110 CFM
- Power rating of 120 volts and 60 Hz
- UL and cUL listed for tub/shower enclosure when GFCI protected
- Motor equipped with thermal cutoff fuse
- Removable permanently lubricated plug-in motor

#### **Housing:**

- Environmentally friendly 26 gauge housing using Zinc-Aluminum-Magnesium (ZAM) coating
- Built-in damper reduces back draft and helps with blower door testing
- 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
- Suitable for installation in ceilings insulated up to R60
- Articulating and expandable installation bracket up to 24"

#### Grille:

- New architectural grille design complements the aesthetics of any room
- Attaches directly to housing with torsion springs
- Includes a motion sensor cap for use as a cover when the motion sensor Plug 'n Play<sup>®</sup> module has not been selected

#### **Warranty:**

- ECM Motor: 6 Years from original purchase date
- LED Panel: 5 Years from original purchase date
- ALL Parts: 3 Years from original purchase date

### **Architectural Specifications:**

Customizable ceiling mount ventilation fan with 5 CCT (3000K/3500K/4000K/5000K/6000K) LED lighted slim grille with night light, ENERGY STAR® rated with built-in 110/80/50 CFM speed selector and multi-speed module for 30-150 CFM Continuous Ventilation. Home Ventilating Institute (HVI) Certified at 0.1, 0.25, 0.375, and 0.5" w.g. at all speeds 30-40-50-60-70-80-90-100-110 CFM

6" Duct as Certified by the Home Ventilating Institute (HVI) – ENERGY STAR MOST EFFICIENT 2024

@ 0.1 w.g., 110/80/50 CFM with <0.3 sone and with energy efficiency no more than 15.6/16.9/13.7 CFM/Watt

@ 0.25 w.g., 110/80/50 CFM with <0.3 sone and with energy efficiency no more than 8.9/8.5/7.2 CFM/Watt

@ 0.375 w.g., 110/80/50 CFM with energy efficiency no more than 6.2/5.9/5.3 CFM/Watt @ 0.5" w.g., 106/80/50 CFM with energy efficiency no more than 4.7/4.5/4.1 CFM/Watt Utilizing 4" Duct with 6" to 4" reducer as Certified by the Home Ventilating Institute (HVI) – @ 0.1 w.g., 110/80/50 CFM with <0.3 sone and with energy efficiency no more than 10.3/12.6/13.0 CFM/Watt

@ 0.25 w.g., 110/80/50 CFM with no more than 0.6/0.5/0.4 sones and with energy efficiency no more than 6.7/7.3/6.7 CFM/Watt

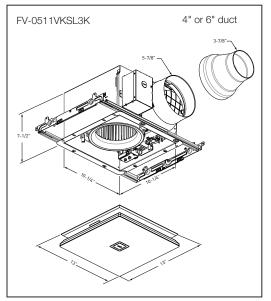
@ 0.375 w.g., 110/80/50 CFM with energy efficiency no more than 5.1/5.3/4.9 CFM/Watt @ 0.5" w.g., 100/80/50 CFM with energy efficiency no more than 4.0/4.1/3.7 CFM/Watt

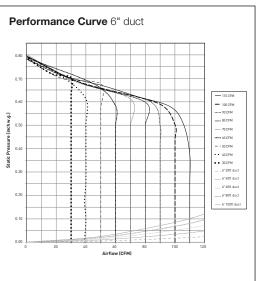
The motor shall be enclosed with brushless ECM motor engineered to run continuously. ECM motor speed shall automatically increase when the fan senses static pressure to maintain selected CFM. Power rating shall be 120v/60Hz. Plug 'N Play® modules provide additional features such as Multi-Speed 30-110 CFM with Time Delay, Condensation Sensor, SmartAction Motion Sensor, Dual Motion Sensor + Condensation Sensor and Wi-Fi Module. Fan shall be RoHS Compliant and UL and cUL listed for tub/shower enclosure when GFCI protected. Also suitable for installation in ceilings insulated up to R60. Fan can be used to comply with NGBS, ASHRAE 62.2, LEED, ENERGY STAR® IAP, EarthCraft, and California Title-24.



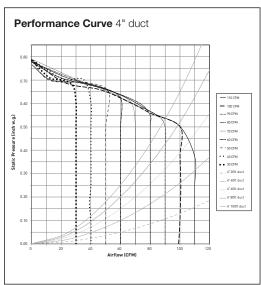
#### **ECM Motor Technology:**

When fan senses static pressure, its speed is automatically increased to ensure that the desired CFM is not compromised, which allows the fan to perform as rated.





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





# Plug 'N Play® Modules

Plug 'N Play® modules provide up to three additional features. Select from Multi-Speed with Time Delay, Motion Sensor, and Condensation Sensor.



#### FV-VS15VK1: Multi-Speed with Time Delay

Allows you to select the proper CFM settings to satisfy ASHRAE 62.2 continuous ventilation requirements. The fan runs continuously at a pre-set lower level (0, 30-100 CFM, in 10 CFM increments), then elevates to a maximum level of operation (50-80-110 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 pre-set CFM level after a period of time set by the user.



#### FV-MSVK1: Motion Sensor

Automatically activates 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.



#### FV-CSVK1: Condensation Sensor

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. When the condensation sensor is used in conjunction with multi-speed functionality, the fan will kick 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.



## FV-CMVK3: Smart Action® Motion Sensor + Condensation Sensor

Turns the base fan on or boosts to higher speed when condensation or motion are detected. Installer / User can choose the desired operation, thanks to advanced automation. Only one slot is required.



#### WP100PBA: Smart WiFi® Module

The Wi-Fi control module connects, monitors and controls through Wi-Fi the ventilation fan's features (motion sensor, light, etc.) with the Swidget app.



											Whi	sper0	Freer	ı® Se	lect (	Fan +	Ligh	t): F\	/-051	1VKS	L3K															
Duct Diameter (inches)																		6																		
Static Pressure in inches w.g.	0.1	0.25	0.375	0.5	0.1	0.25	0.375	0.5	0.1	0.25	0.375	0.5	0.1	0.25		0.5	0.1	0.25	0.375	0.5	0.1	0.25	0.375	0.5	0.1	0.25	0.375	0.5	0.1	0.25	0.375	0.5	0.1	0.25	0.375	0.5
Air Volume (CFM)	110	110	110	106	100	100	100	100	90	90	90	90	80	80	80	80	70	70	70	70	60	60	60	60	50	50	50	50	40	40	40	40	30	30	30	30
Noise (sones)	<0.3	<0.3			<0.3	0.3			<0.3	<0.3			<0.3	<0.3			<0.3	<0.3			<0.3	<0.3			<0.3	<0.3			<0.3	<0.3			<0.3	<0.3		
Power Consumption (watts)	7.1	12.4	18.1	22.7	6.1	11.7	16.5	21.9	5.5	10.6	15.2	19.4	4.8	9.5	13.7	17.9	4.5	8.7	12.7	16.5	4.0	8.0	11.4	14.7	3.7	7.2	10.1	13.5	3.2	6.2	9.2	12.6	3.0	5.8	8.5	11.6
Energy Efficiency (CFM/Watt)	15.6	8.9	6.2	4.7	16.5	8.6	6.1	4.6	16.4	8.5	6.0	4.7	16.9	8.5	5.9	4.5	15.8	8.2	5.6	4.3	15.3	7.7	5.3	4.2	13.7	7.2	5.3	4.1	13.2	7.0	4.8	3.6	10.7	5.7	4.2	3.2
Speed (RPM)	644	945	1138	1304	621	948	1132	1297	614	943	1131	1296	608	933	1126	1298	610	928	1139	1300	611	946	1143	1292	610	937	1132	1301	589	929	1139	1322	599	950	1148	1309
Amps (Current)	0.12	0.21	0.30	0.36	0.11	0.19	0.26	0.34	0.10	0.18	0.24	0.31	0.09	0.16	0.22	0.28	0.08	0.15	0.21	0.27	0.08	0.14	0.19	0.24	0.07	0.13	0.17	0.23	0.06	0.11	0.16	0.21	0.06	0.10	0.15	0.20
MAX. Amps (Current)	AX. Amps (Current) 0.36																																			
ENERGY STAR Qualified		Yes																																		

											Whi	sper(	Greei	ı® Sel	lect (	Fan +	Ligh	t): FV	-051	1VKS	LЗK															
Duct Diameter (inches)																		4	-																	
Static Pressure in inches w.g.	0.1	0.25		0.5	0.1	0.25	0.375	0.5	0.1	0.25	0.375	0.5	0.1	0.25		0.5	0.1	0.25	0.375	0.5	0.1	0.25	0.375	0.5	0.1	0.25	0.375	0.5	0.1	0.25	0.375	0.5	0.1	0.25	0.375	0.5
Air Volume (CFM)	110	110	110	100	100	100	100	100	90	90	90	90	80	80	80	80	70	70	70	70	60	60	60	60	50	50	50	50	40	40	40	40	30	30	30	30
Noise (sones)	<0.3	0.6			<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	0.3			<0.3	0.3		
Power Consumption (watts)	10.7	16.5	22.1	24.8	8.7	14.6	19.1	24.3	7.2	12.6	17.2	21.9	6.4	11.2	15.1	19.7	5.6	9.6	14.0	17.8	4.6	8.5	11.7	15.7	3.9	7.5	10.4	13.7	3.4	6.5	9.4	12.4	2.9	5.7	8.3	11.7
Energy Efficiency (CFM/Watt)	10.3	6.7	5.1	4.0	11.7	7.0	5.3	4.2	12.7	7.4	5.4	4.2	12.6	7.3	5.3	4.1	12.6	7.4	5.1	3.9	13.2	7.1	5.1	4.0	13.0	6.7	4.9	3.7	12.5	6.5	4.6	3.4	11.0	5.6	3.8	2.7
Speed (RPM)	834	1079	1240	1373	801	1060	1223	1372	759	1031	1203	1360	735	1008	1188	1354	712	981	1187	1342	675	977	1163	1327	628	959	1152	1319	612	950	1148	1312	605	940	1140	1310
Amps (Current)	0.17	0.26	0.34	0.38	0.15	0.24	0.31	0.38	0.13	0.21	0.28	0.35	0.11	0.19	0.25	0.32	0.10	0.16	0.23	0.28	0.09	0.15	0.20	0.25	0.07	0.13	0.18	0.23	0.07	0.12	0.16	0.21	0.06	0.10	0.14	0.19
MAX. Amps (Current)	MAX. Amps (Current) 0.38																																			
ENERGY STAR Qualified	Yes																																			

Model	Quantity	Comments	Project:
			Location:
			Architect:
			Engineer:
			Contractor:
			Submitted by:
			Date:

For complete Installation Instructions visit na.panasonic.com/us/iaq

**IAQ Division** Two Riverfront Plaza Newark, NJ 07102

na.panasonic.com/us/iaq







