## [. Window Mount Type Ventilating Fan Model Comparison



| Model | Voltage | Frequency | CFM/SONE AT STATIC Pressure (ps-inches of H20) |  |  |  |  | RPM | Watts* <br> FOR AMCA | FOR IEC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | inches of H2O 0 |  | 0.02 | 0.04 | 0.06 |  |  |  |
| FV-15WA1 | 220V | 60 Hz | $\begin{gathered} \text { CFM } \\ \text { Sones } \end{gathered}$ | $\begin{aligned} & 124 \\ & 3.6 \end{aligned}$ | $\begin{aligned} & 109 \\ & 4.5 \end{aligned}$ | $\begin{aligned} & 91 \\ & 4.1 \end{aligned}$ | $\begin{gathered} 79 \\ 4 \end{gathered}$ | 2021 | 19.6 | 18 |
|  | 240 V | 50 Hz | $\begin{gathered} \text { CFM } \\ \text { Sones } \end{gathered}$ | $\begin{aligned} & 124 \\ & .5 \end{aligned}$ | $\begin{aligned} & 109 \\ & 4.5 \end{aligned}$ | $\begin{aligned} & 93 \\ & 4.1 \end{aligned}$ | $\begin{aligned} & 78 \\ & 3.8 \end{aligned}$ | 2062 | 18.2 | 16 |
| FV-20WA1 | 220 V | 60 Hz | CFM | $\begin{aligned} & 206 \\ & 3.7 \end{aligned}$ | $\begin{aligned} & 144 \\ & .8 \end{aligned}$ | $\begin{aligned} & 124 \\ & 3.5 \end{aligned}$ | $\begin{aligned} & 94 \\ & 3.3 \end{aligned}$ | 1385 | 18.4 | 17 |
|  | 240 V | 50 Hz | $\begin{aligned} & \text { CFM } \\ & \text { Sones } \end{aligned}$ | $\begin{aligned} & 165 \\ & 3.4 \end{aligned}$ | $\begin{aligned} & 153 \\ & 3.3 \end{aligned}$ | $\begin{aligned} & 141 \\ & 3.4 \end{aligned}$ | $\begin{aligned} & 131 \\ & 3.4 \end{aligned}$ | 1375 | 18.6 | 17.5 |


| Model | Voltage | Frequency | CFM/SONE AT STATIC Pressure (ps-inches of $\mathrm{H}_{2} \mathrm{O}$ ) |  |  |  |  | RPM | Watts* <br> FOR AMCA | Watts** <br> FOR IEC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | inches of $\mathrm{H}_{2} \mathrm{O}$ | 0 | 0.01 | 0.02 | 0.03 |  |  |  |
| FV-15WU4 | 220V | 60 Hz | $\begin{gathered} \text { CFM } \\ \text { Sones } \end{gathered}$ | $\begin{aligned} & 105 \\ & 0.9 \end{aligned}$ | $\begin{aligned} & 94 \\ & 0.9 \end{aligned}$ | $\begin{aligned} & 79 \\ & 2.2 \end{aligned}$ | $\begin{aligned} & 66 \\ & 2.4 \end{aligned}$ | 1425 | 9.7 | 8.9 |
|  | 240V | 50 Hz | $\begin{gathered} \text { CFM } \\ \text { Sones } \end{gathered}$ | $\begin{aligned} & 124 \\ & 1.4 \end{aligned}$ | $\begin{aligned} & 115 \\ & 1.6 \end{aligned}$ | $\begin{aligned} & 104 \\ & 1.8 \end{aligned}$ | $\begin{aligned} & 94 \\ & 3.7 \end{aligned}$ | 1722 | 10.3 | 9.5 |
|  |  |  | inches of $\mathrm{H}_{2} \mathrm{O}$ | 0 | 0.02 | 0.03 | 0.04 |  |  |  |
| FV-20WU4 | 220 V | 60 Hz | $\begin{gathered} \text { CFM } \\ \text { Sones } \end{gathered}$ | $\begin{aligned} & 188 \\ & 0.8 \end{aligned}$ | $\begin{aligned} & 129 \\ & 1.2 \end{aligned}$ | $\begin{aligned} & 112 \\ & 1.8 \end{aligned}$ | $\begin{aligned} & 88 \\ & 1.4 \end{aligned}$ | 980 | 19.2 | 17.9 |
|  | 240 V | 50 Hz | $\begin{gathered} \text { CFM } \\ \text { Sones } \end{gathered}$ | $\begin{aligned} & 221 \\ & 1.8 \end{aligned}$ | $\begin{aligned} & 168 \\ & 16 \end{aligned}$ | $\begin{aligned} & 141 \\ & 22 \end{aligned}$ | $\begin{aligned} & 118 \\ & 20 \end{aligned}$ | 1096 | 18.5 | 17.2 |

Performance certified is for installation type A: Free Inlet, Free Outlet. Performance ratings include the effects of a shutter. The Speed (RPM) and Watts rating Shown are at the static pressurre of 0inch of H 20 . The sound ratings shown are eoudness values in fan sones at 5 ft . 11.5 m ) in a hemispherical free field calculated per AMCA International Standard 301 . Values shown are for installation type A. Free Inlet hemispherical sone levels.

* the Watts rating is only tor AMCA test method and it is the the static pressure of oinch of $H 20$.
$* *$ the Watts rating is only for IEC test method and the AMCA Certified Ratings seal does not apply to IEC test method watts.


## Panasonic



# VENTILATING FAN 

ELECTRIC SHUTTER SERIES

## L- Rain proof and wind resistible



## ■ Easy installation


[. FV-15WH3T / FV-20WH3T


Panasonic Ecology Systems Co., Ltd. and Panasonic Life Solutions Vietnam Co., Ltd. certify that the window mount series models shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 21 and AMCA of the AMCA Certified Ratings Program

I Electrically Operated Shutter
I Advance design hood structure to prevent from rain and wind
Suitable for thickness of 3 mm to 25 mm
Simple and Easy installation, no need of any silicon seal or gasket

■. Dimensions (Unit:mm)

[] Specifications

| Model | Voltage | Frequency | CFM/SONE AT STATIC Pressure (ps-inches of $\mathrm{H}_{2} \mathbf{O}$ ) |  |  |  |  | RPM | Watts* <br> FOR AMCA | FOR IEC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | inches of $\mathrm{H}_{2} \mathrm{O}$ | 0 | 0.05 | 0.1 | 0.15 |  |  |  |
| FV-15WH3T | 220V | 60 Hz | $\begin{gathered} \text { CFM } \\ \text { Sones } \end{gathered}$ | $\begin{aligned} & 127 \\ & 3.0 \end{aligned}$ | $\begin{aligned} & 94 \\ & 3.6 \end{aligned}$ | $\begin{aligned} & 63 \\ & 3.5 \end{aligned}$ | $\begin{aligned} & 31 \\ & 3.9 \end{aligned}$ | 2440 | 14.6 | 13 |
|  | 240 V | 50 Hz | $\begin{gathered} \text { CFM } \\ \text { Sones } \end{gathered}$ | $\begin{aligned} & 127 \\ & 2.3 \end{aligned}$ | $\begin{aligned} & 95 \\ & 2.7 \end{aligned}$ | $\begin{aligned} & 68 \\ & 3.5 \end{aligned}$ | $\begin{aligned} & 50 \\ & 20 \end{aligned}$ | 2537 | 16 | 15 |
| FV-20WH3T | 220 V | 60 Hz | $\begin{gathered} \text { CFM } \\ \text { Sones } \end{gathered}$ | $\begin{gathered} 250 \\ 3 \end{gathered}$ | $\begin{aligned} & 188 \\ & 3.9 \end{aligned}$ | $\begin{aligned} & 127 \\ & 4.5 \end{aligned}$ | $\begin{aligned} & 78 \\ & 4.2 \end{aligned}$ | 1517 | 24.4 | 22 |
|  | 240 V | 50 Hz | $\begin{gathered} \text { CFM } \\ \text { SoMes } \end{gathered}$ | $\begin{aligned} & 230 \\ & 2.8 \end{aligned}$ | $\begin{aligned} & 147 \\ & 3.8 \end{aligned}$ | $\begin{aligned} & 103 \\ & 3.4 \end{aligned}$ | $\begin{aligned} & 53 \\ & 4 \end{aligned}$ | 1333 | 23.4 | 22 |

Performance certified is for installation type $A$ : Free Inlet, Free Outlet. Performance ratings include the effects of inlet grille and shutter. The Speed (IRPM) and
Watts rating shown are at the static pressure of 0 inch of $H 20$. The sound ratings shown are loudness values in fan sones at 5 ft. 11.5 m$)$ in a hemispherical free
 field calculated per AMCA International Standard 301. Values shown are for instalation type $A$.
*the Watts rating is only for $A M C A$ test method and it is at the static pressure of 0 inch of $H 2$.
the Watts rating is only for AMCA test method and it is at the static pressure of 0 inch of H 2 O . . F .

## ■ Auto Shutter

The backdraft shutters will be opened by air pressure during operation and closed automatically for air-tightness when the fan is switched off.
[]. Advanced Blade Design


## () Higher Static Pressure

Newly designed blade can sustain higher static pressure that can withstand more pressure from outside wind.

## (1) Easy Maintenance



The blade can be detached by simply loosening the spinner
that facilitates the periodical maintenance.



Toilet


Office

■ FV-15WA1 / FV-20WA1


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I Automatic shutter
I High Performance Condenser motor with thermo cut-off
I Well lubricated bearing for long life operation
I Propeller fan incorporated with advance blade design
| Removable blade for easy maintenance

■) Dimensions (Unit:mm)

[.] Specifications

| Model | Voltage | Frequency | CFM/SONE AT STATIC Pressure (ps-inches of $\mathrm{H}_{2} \mathrm{O}$ ) |  |  |  |  | RPM | Watts* FOR AMCA | Watts** <br> FOR IEC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | inches of $\mathrm{H}_{2} \mathrm{O}$ | 0 | 0.02 | 0.04 | 0.06 |  |  |  |
| FV-15WA1 | 220 V | 60 Hz | CFM Sones | $\begin{aligned} & 124 \\ & 3.6 \end{aligned}$ | $\begin{aligned} & 109 \\ & 4.5 \end{aligned}$ | $\begin{aligned} & 91 \\ & 4.1 \end{aligned}$ | $\begin{gathered} 79 \\ 4 \end{gathered}$ | 2021 | 19.6 | 18 |
|  | 240 V | 50 Hz | CFM Sones | $\begin{aligned} & 124 \\ & 2.5 \end{aligned}$ | $\begin{aligned} & 109 \\ & 4.5 \end{aligned}$ | $\begin{aligned} & 93 \\ & 4.1 \end{aligned}$ | $\begin{aligned} & 78 \\ & 3.8 \end{aligned}$ | 2062 | 18.2 | 16 |
| FV-20WA1 | 220 V | 6 Hz | $\begin{gathered} \text { CFM } \\ \text { Sones } \end{gathered}$ | $\begin{aligned} & 206 \\ & 3.7 \end{aligned}$ | $\begin{aligned} & 144 \\ & .8 \end{aligned}$ | $\begin{aligned} & 124 \\ & 3.5 \end{aligned}$ | $\begin{aligned} & 94 \\ & 3.3 \end{aligned}$ | 1385 | 18.4 | 17 |
|  | 240 V | 50 Hz | CFM Sones | $\begin{aligned} & 165 \\ & 3.4 \end{aligned}$ | $\begin{aligned} & 153 \\ & 3.3 \end{aligned}$ | $\begin{aligned} & 141 \\ & 3.4 \end{aligned}$ | $\begin{aligned} & 131 \\ & 3.4 \end{aligned}$ | 1375 | 18.6 | 17.5 |

 per AMCA International Standard 301 . Values shown are for instalation type $A$ : Free Inlet hemi
$*$ the Watts rating is only for $A M C A$ test method and it is at the static pressure of 0 inch of $H 20$.
**e Watts rating is only for AMCA test method and it is at the static pressure of 0 inch of H 2 O . . FC est method watts.
\# High performance condenser motor with long life bearing

- Low power consumption ( $50 \%$ down VS previous model)
- Low noise level ( $6 \%$ down VS previous model)
- Long life up to 40,000 hours (1.5 time VS previous model) - Comply with IPX4 (outside)


■ Advanced Blade Design
 that streamlines airflow from every direction

Air Foil Chip is to reduce turbulence at rear edge, and curature of front edge is improved for smooth airflow that minimizes fan noise as well.


■ Strengthened Shutter Structure

- Durable
- Sustainable to strong wind


Bathroom


Toilet


Office
[. FV-15WU4 / FV-20WU4


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I HP condenser motor with thermal cutoff

- Well lubricated bearing for long life operation

I Propeller fan incorporated with advanced blade design
I Shutter operated by pull cord
I Metallic shutter axis

■ Dimensions (Unit:mm)


| Model | A | B | C | D | E | F | G | H |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FV-15WU4 | 150 | 210 | 97 | 43 | 54 | 37 | 177 | 149 |
| FV-20WU4 | 200 | 271 | 98 | 36 | 62 | 36 | 237 | 201 |

[7] Specifications

| Model | Voltage | Frequency | CFM/SONE AT STATIC Pressure (ps-inches of $\mathrm{H}_{2} \mathrm{O}$ ) |  |  |  |  | RPM | Watts* <br> FOR AMCA | Watts** <br> FOR IEC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | inches of $\mathrm{H}_{2} \mathrm{O}$ | 0 | 0.01 | 0.02 | 0.03 |  |  |  |
| FV-15WU4 | 220 V | 60 Hz | $\underset{\text { Com }}{\text { Cos }}$ | $\begin{aligned} & 105 \\ & 0.9 \end{aligned}$ | $\begin{aligned} & 94 \\ & 0.9 \end{aligned}$ | $\begin{aligned} & 79 \\ & 2.2 \end{aligned}$ | $\begin{aligned} & 66 \\ & 2.4 \end{aligned}$ | 1425 | 9.7 | 8.9 |
|  | 240 V | 50 Hz | CFM Sones | $\begin{aligned} & 124 \\ & 1.4 \end{aligned}$ | $\begin{aligned} & 115 \\ & 1.6 \end{aligned}$ | $\begin{aligned} & 104 \\ & 1.8 \end{aligned}$ | $\begin{aligned} & 94 \\ & 3.7 \end{aligned}$ | 1722 | 10.3 | 9.5 |
|  |  |  | inches of $\mathrm{H}_{2} \mathrm{O}$ | 0 | 0.02 | 0.03 | 0.04 |  |  |  |
| FV-20WU4 | 220 V | 60 Hz | CFM Sones | $\begin{aligned} & 188 \\ & 0.8 \end{aligned}$ | $\begin{aligned} & 129 \\ & 1.2 \end{aligned}$ | $\begin{aligned} & 112 \\ & 1.8 \end{aligned}$ | $\begin{aligned} & 88 \\ & 1.4 \end{aligned}$ | 980 | 19.2 | 17.9 |
|  | 240 V | 50 Hz | CFM Sones | $\begin{aligned} & 221 \\ & 1.8 \end{aligned}$ | $\begin{aligned} & 168 \\ & 1.6 \end{aligned}$ | $\begin{aligned} & 141 \\ & 2.2 \end{aligned}$ | $\begin{aligned} & 118 \\ & 2.0 \end{aligned}$ | 1096 | 18.5 | 17.2 |

 per AMCA International Standard 301 . Values shown are for instalation type $A$ : Free Inlet hem
$*$ the Watts rating is only for $A M C A$ test method and it is at the static pressure of 0 inch of $H 20$
the Watts rating is only for AMCA test method and it is at the static pressure of 0 inch of H 2 O . . F EC test method watts.

