### + Window Mount Type Ventilating Fan Model Comparison

Model	Voltage	Frequency	CFM/SONE AT	STATIC Pro	essure (ps	-inches of	H₂O)	RPM	Watts*	Watts**
	Voltage	ricquency	inches of H₂O	0	0.05	0.1	0.15		FOR AMCA	FOR IEC
4 5 4 4 1 6 7	220V	60Hz	CFM Sones	127 3.0	94 3.6	63 3.5	31 3.9	2440	14.6	13
15WHCT	240V	50Hz	CFM Sones	127 2.3	95 2.7	68 3.5	50 2.8	2537	16	15
20WHCT	220V	60Hz	CFM Sones	250 3	188 3.9	127 4.5	78 4.2	1517	24.4	22
	240V	50Hz	CFM Sones	230 2.8	147 3.8	103 3.4	53 4	1333	23.4	22

Model	Voltage	Frequency	CFM/SONE AT	H₂O)	RPM	Watts*	Watts**			
Model	Voltage	ricquency	inches of H₂O	0	0.02	0.04	0.06		FOR AMCA	FOR IEC
15WAA	220V	60Hz	CFM Sones	124 3.6	109 4.5	91 4.1	79 4	2021	19.6	18
15WAAMN	240V	50Hz	CFM Sones	127 2.3	109 4.5	93 4.1	78 3.8	2062	18.2	16
20WAA 20WAAMN	220V	60Hz	CFM Sones	250 3	147 3.8	124 3.5	94 3.3	1385	18.4	17
	240V	50Hz	CFM Sones	230 2.8	153 3.3	141 3.4	131 3.4	1375	18.6	17.5

Model	Voltage	Frequency	CFM/SONE AT	STATIC Pr	essure (ps	-inches of	H₂O)	RPM	Watts*	Watts**
Model	Voltage		inches of H₂O	0	0.01	0.02	0.03		FOR AMCA	FOR IEC
15WUD	220V	60Hz	CFM Sones	105 0.9	94 0.9	79 2.2	66 2.4	1425	9.7	8.9
15WUDMN	240V	50Hz	CFM Sones	124 1.4	115 1.6	104 1.8	94 3.7	1722	10.3	9.5
			inches of H₂O	0	0.02	0.03	0.04			
20WUD	220V	60Hz	CFM Sones	188 0.8	129 1.2	112 1.8	88 1.4	980	19.2	17.9
20WUDMN	240V	50Hz	CFM Sones	221 1.8	168 1.6	141 2.2	118 2.0	1096	18.5	17.2

Performance certified is for installation type A: Free Inlet, Free Outlet. Performance ratings include the effects of inlet grille and shutter. The Speed (RPM) and Watts rating shown are at the static pressure of 0 inch of H2O. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) 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 for AMCA test method and it is at the static pressure of 0 inch of H2O. \*\* the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

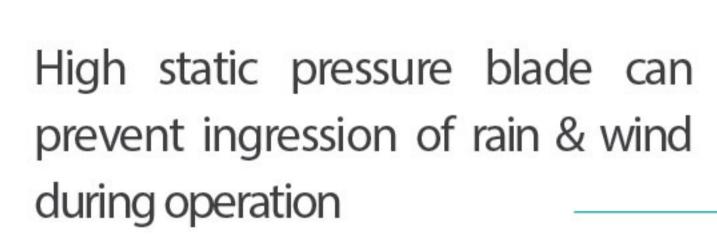




## FEATURES OF ELECTRIC SHUTTER SERIES

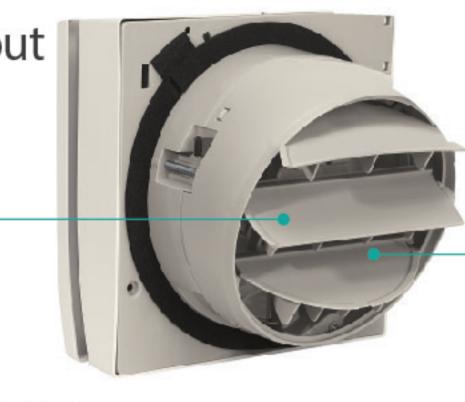
#### + Rain proof and wind resistible

Hood structure forprevention of rain water ingression





Newly designed shutter can keep out entry of rain water effectively



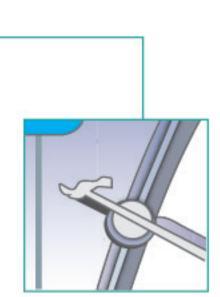
Bent End Structure of the shutter can block the backflow of outside wind

No Gasket / No Silicon Seal

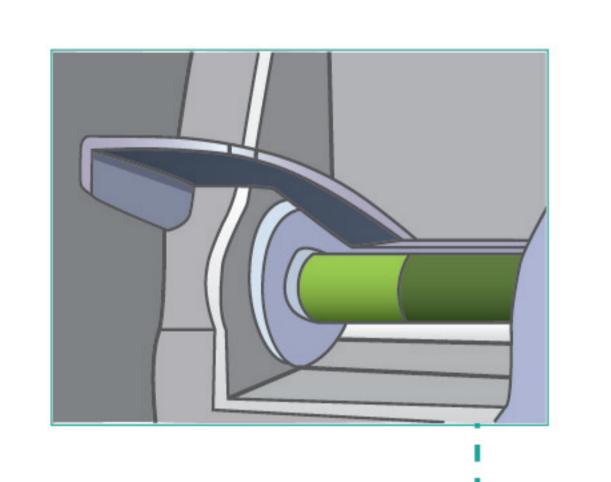
water leakage to indoor

Attached packing tightly closes

to the glass plate that gets rid of

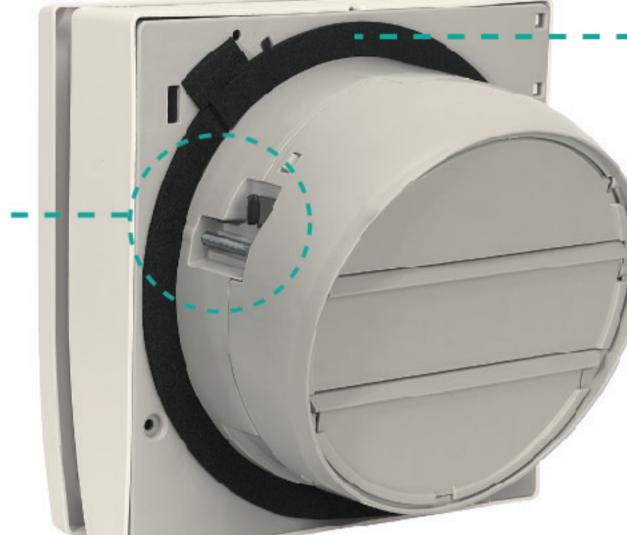


#### + Easy installation



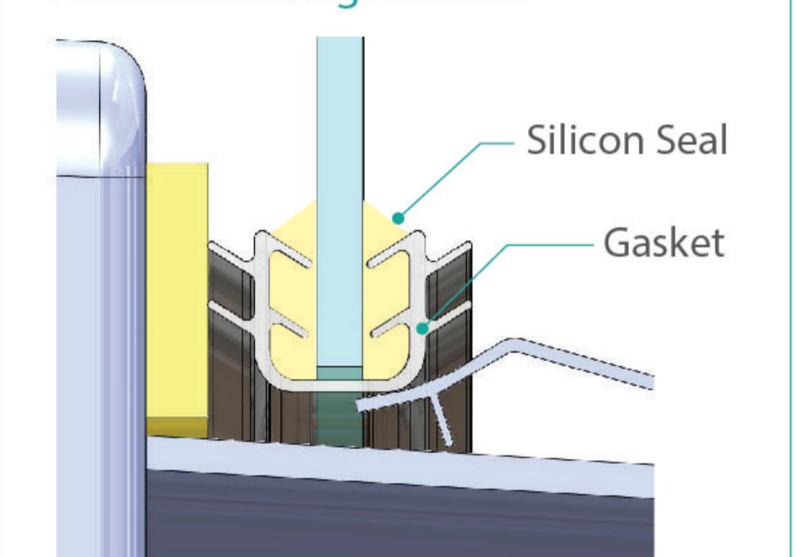
#### **Mounting Bracket**

Unique design of mounting bracket can fix the fan on glass plate with simple process

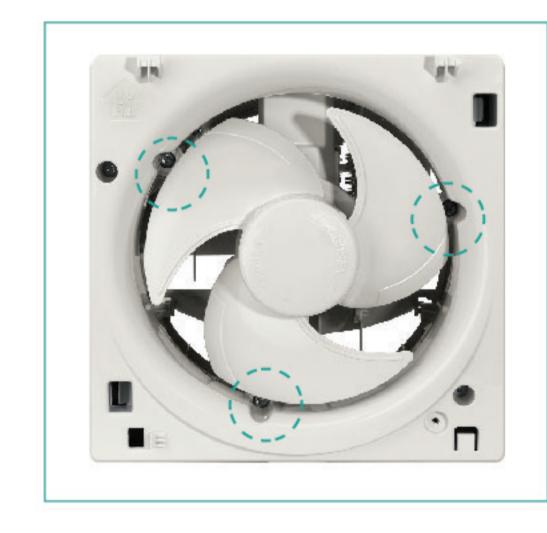


#### **Pervious Setting Method**

Packing ---------

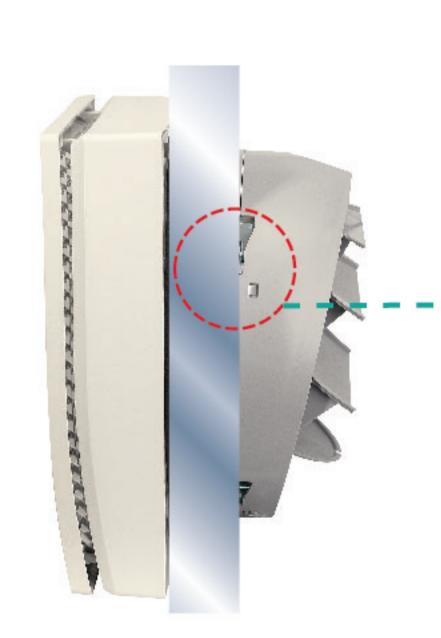


Both gasket & silicon seal are not required for FV-15WH3T/FV-20WH3T



e.g. 15WHCT Orifice is not necessary to detach for installation. Simply fix the fan on glass plate by screws ar front.

New mounting design allows the fan to be fixed on glass plate of thickness from 3mm up to 25mm with ease

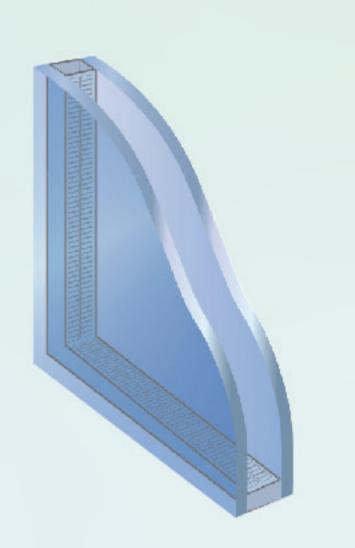


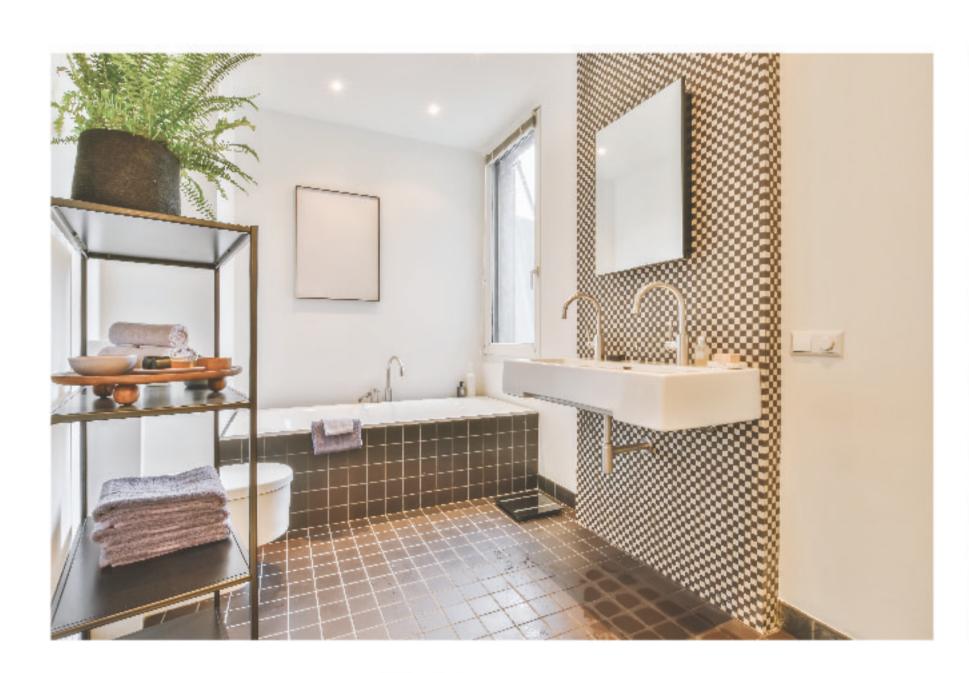
Applicable Glass Thickness

3mm-25mm

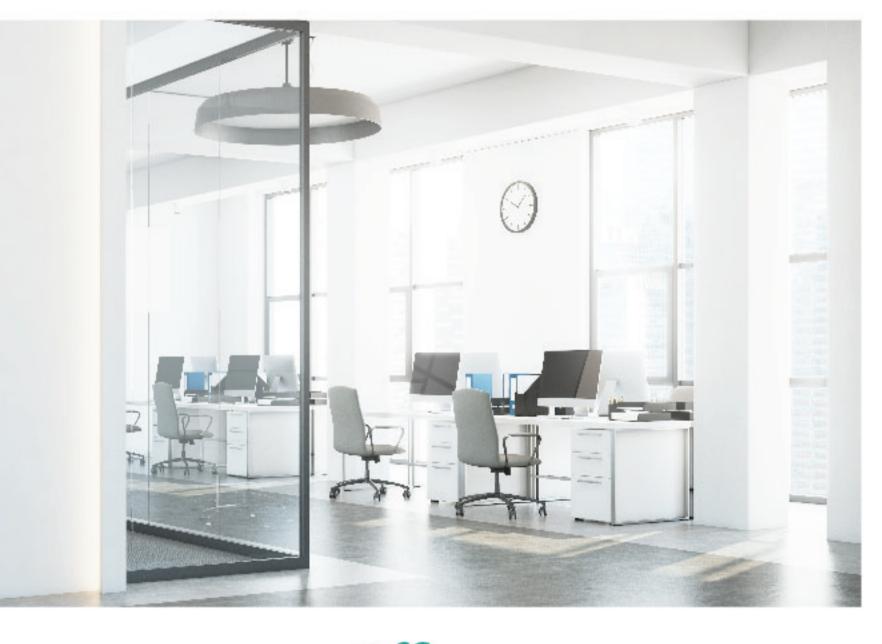
#### Double glass

Often called insulated glass, this kind of glassis constructed of two panes of glass set apart to allow airspace in between. This airspace acts as a buffer which obstructs the transfer of heat from one side of the glass to the other.









Bathroom

**Toilet** 

# ELECTRIC SHUTTER SERIES VENTILATING FAN



#### 15WHCT / 20WHCT

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

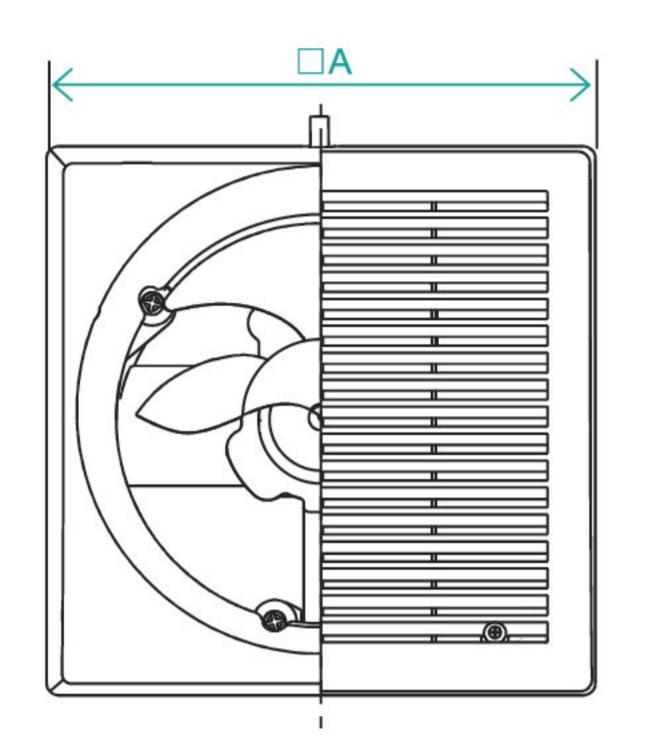


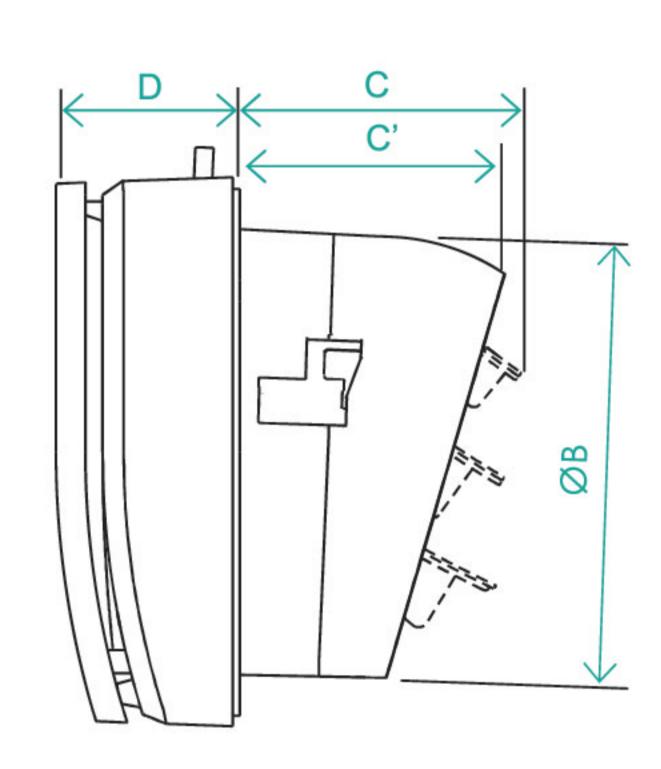
KDK Company, Division of PES and Panasonic Life Solutions Vietnam Co., Ltd. certify that the window mount series models shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.



#### Dimensions (Unit: mm)

Model	Α	В	С	C'	D
15WHCT	224	182	117	111	72
20WHCT	288	243	120	117	74





#### Specifications

Model	Voltage	Frequency	CFM/SONE AT	CFM/SONE AT STATIC Pressure (ps-inches of H₂O)					Watts*	Watts**
		riequency	inches of H₂O	0	0.05	0.1	0.15	RPM	FOR AMCA  14.6	FOR IEC
1 EVALUET	220V	60Hz	CFM Sones	127 3.0	94 3.6	63 3.5	31 3.9	2440	14.6	13
15WHCT	240V	50Hz	CFM Sones	127 2.3	95 2.7	68 3.5	50 2.8	2537	16	15
2014/116T	220V	60Hz	CFM Sones	250 3	188 3.9	127 4.5	78 4.2	1517	24.4	22
20WHCT	240V	50Hz	CFM Sones	230 2.8	147 3.8	103 3.4	53 4	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 (RPM) and Watts rating shown are at the static pressure of 0 inch of H2O. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA International Standard 301. Values shown are for installation type A: Free Inlet hemispherical sone levels.

<sup>\*</sup> the Watts rating is only for AMCA test method and it is at the static pressure of 0 inch of H2O. \*\* the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

# FEATURES OF AUTOMATIC SHUTTER SERIES

#### + Auto Shutter

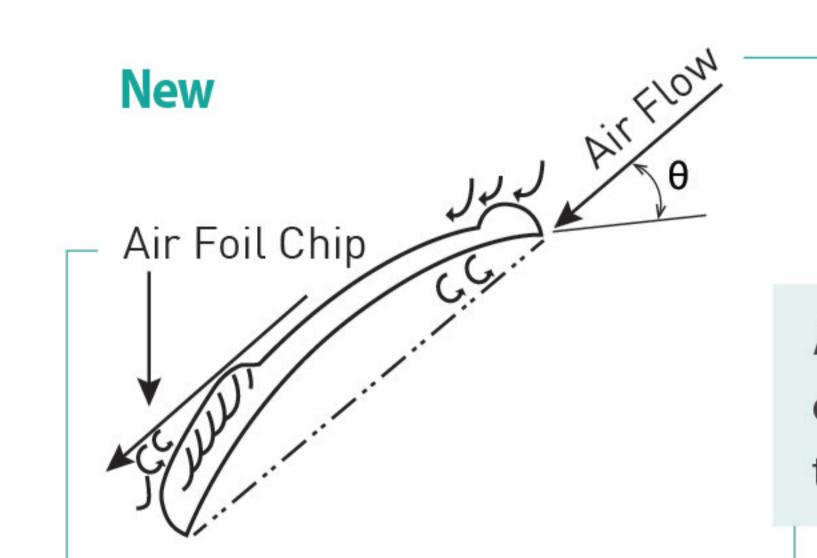
The backdraft shutters will be opened by air pressure during operation and closed automatically for air-tightness when the fan is switched off.





#### + Advanced Blade Design



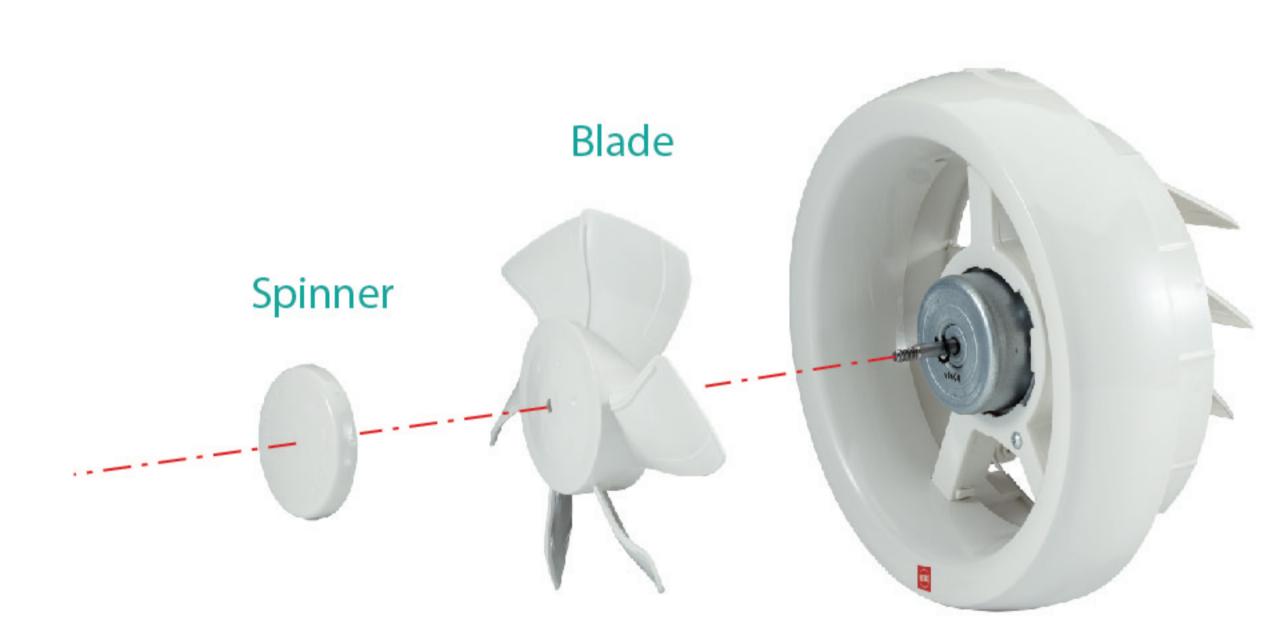


Leading Edge forms no obstacle to airflow that streamlines airflow from every direction

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.

#### + Higher Static Pressure

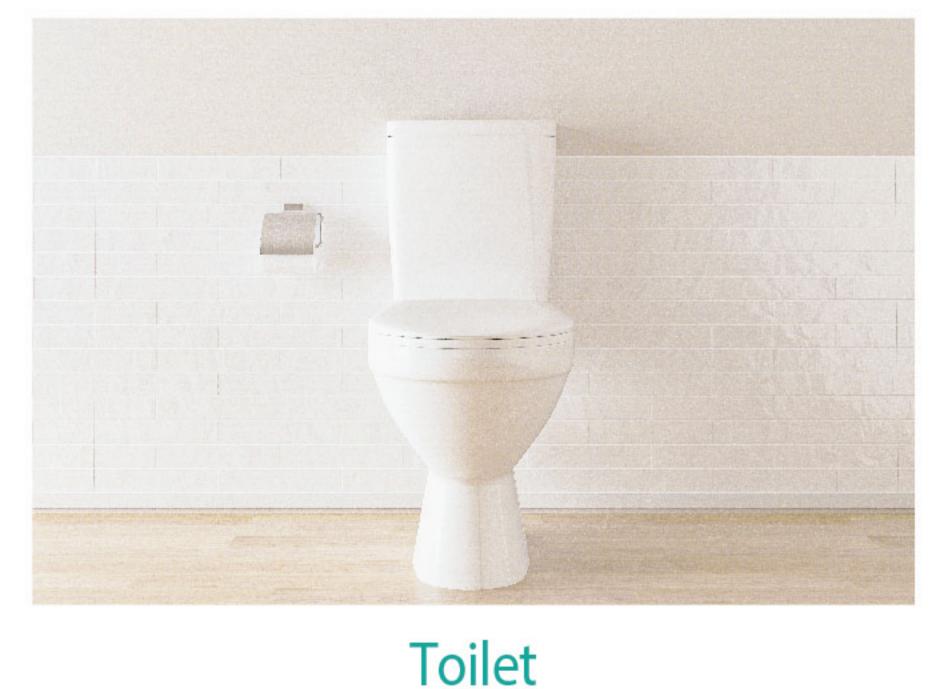
Newly designed blade can sustain higher static pressure that can withstand more pressure from outside wind.

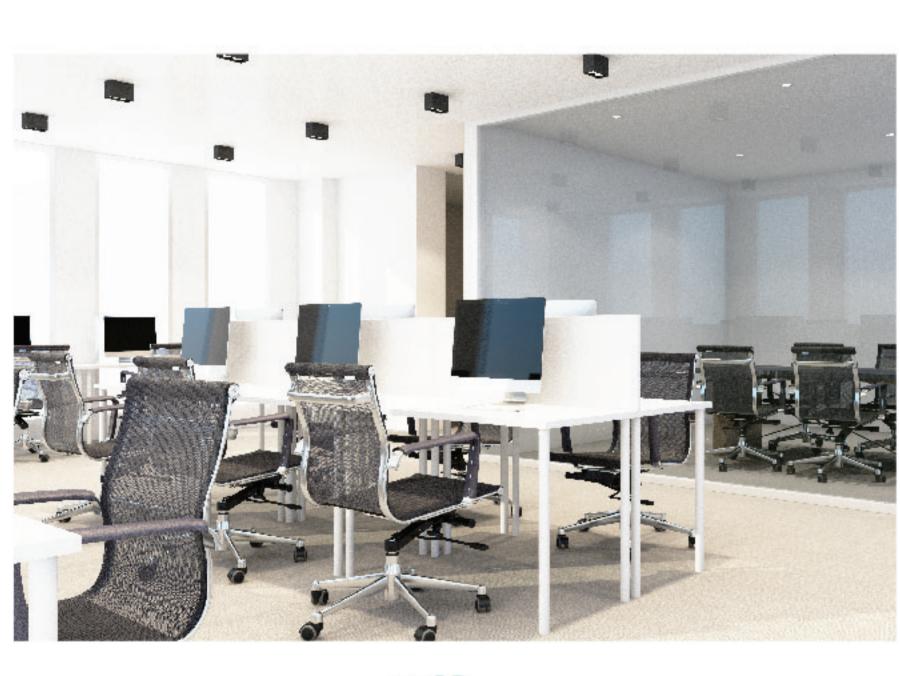


#### + Easy Maintenance

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







Bathroom

Office

# AUTOMATIC SHUTTER SERIES VENTILATING FAN



#### 15WAA / 15WAAMN / 20WAA / 20WAAMN

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

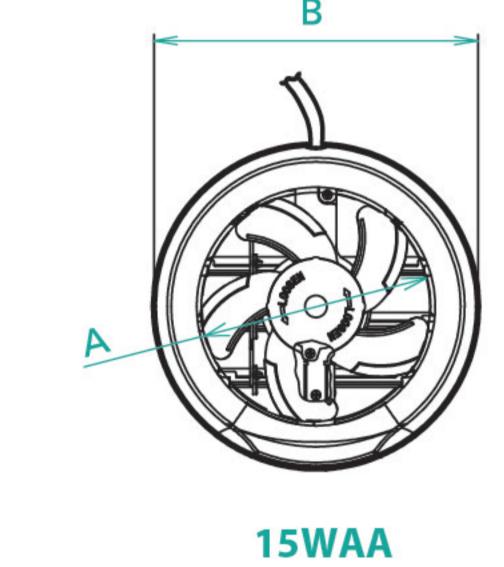
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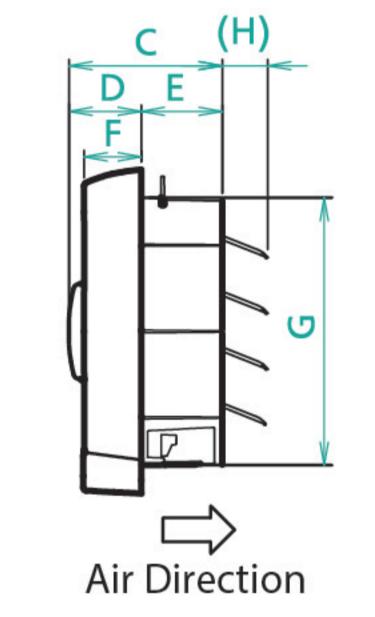


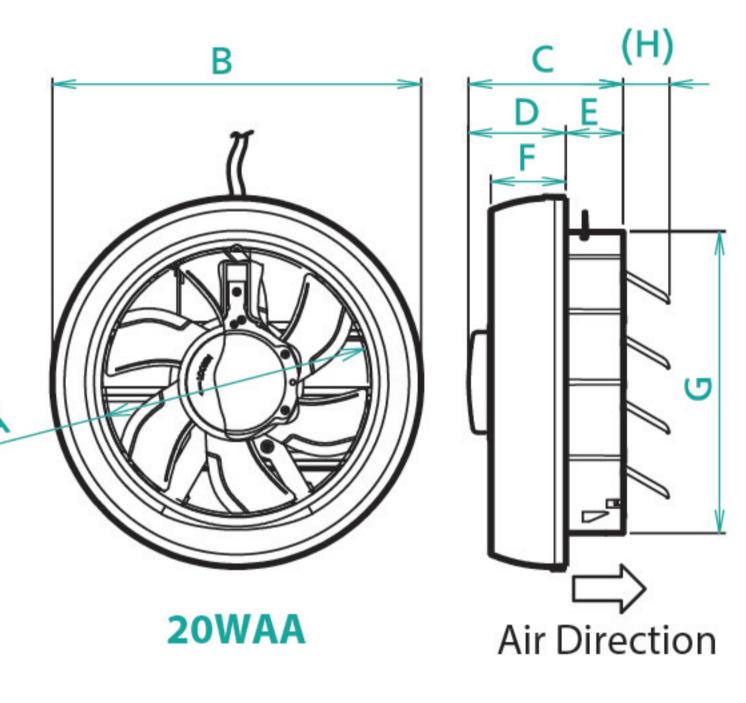


#### Dimensions (Unit: mm)









#### Specifications

Model	Voltage	Frequency	CFM/SONE AT	STATIC Pro	essure (ps	-inches of	H <sub>2</sub> O)	RPM	Watts*	Watts**
		rrequency	inches of H₂O	0	0.02	0.04	0.06		FOR AMCA	FOR IEC
15WAA	220V	60Hz	CFM Sones	124 3.6	109 4.5	91 4.1	79 4	2021	19.6	18
15WAAMN	240V	50Hz	CFM Sones	127 2.3	109 4.5	93 4.1	78 3.8	2062	18.2	16
20WAA	220V	60Hz	CFM Sones	250 3	147 3.8	124 3.5	94 3.3	1385	18.4	17
20WAAMN	240V	50Hz	CFM Sones	230 2.8	153 3.3	141 3.4	131 3.4	1375	18.6	17.5

Performance certified is for installation type A: Free Inlet, Free Outlet. Performance ratings include the effects of inlet grille and shutter. The Speed (RPM) and Watts rating shown are at the static pressure of 0 inch of H2O. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) 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 for AMCA test method and it is at the static pressure of 0 inch of H2O.

3

<sup>\*\*</sup> the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

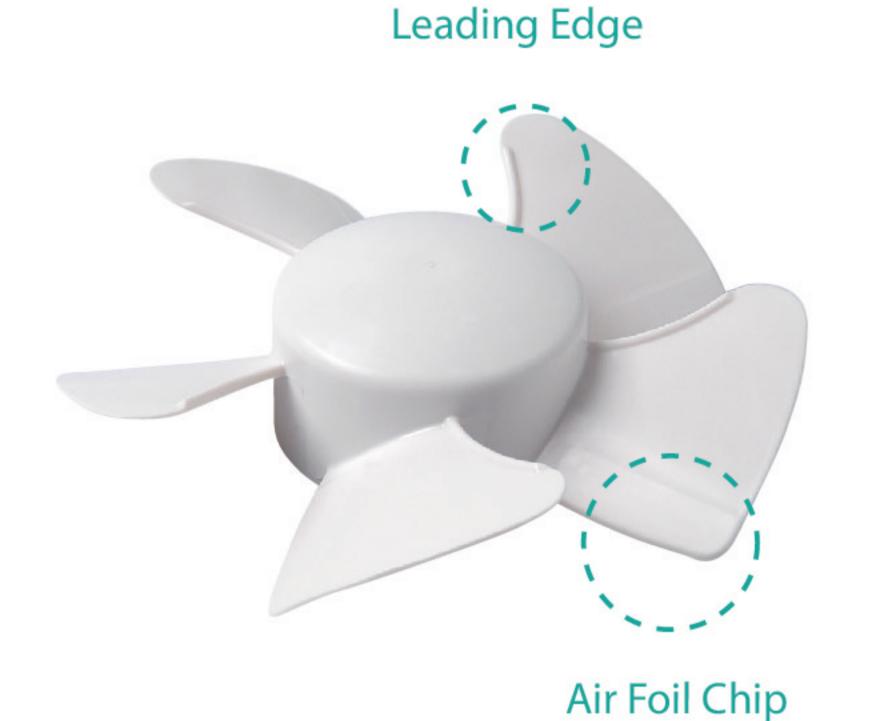
# FEATURES OF CORD-OPERATED SHUTTER SERIES

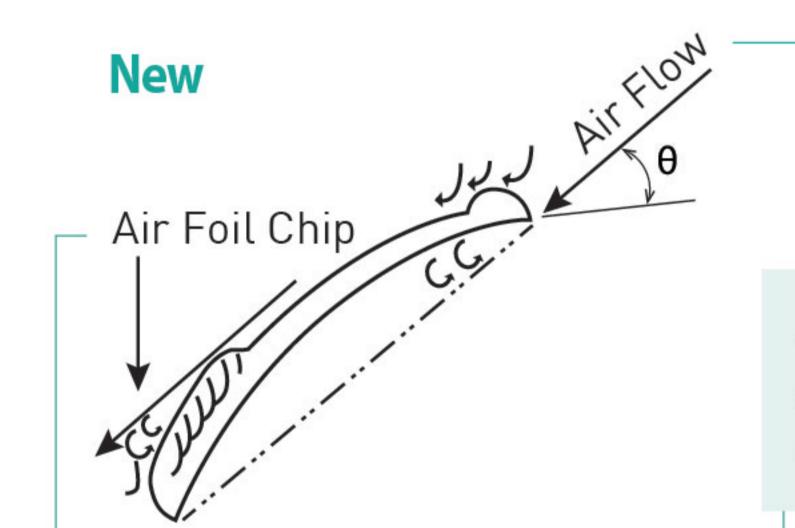
# + High performance condenser motor with long life bearing

- 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





Leading Edge forms no obstacle to airflow 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.

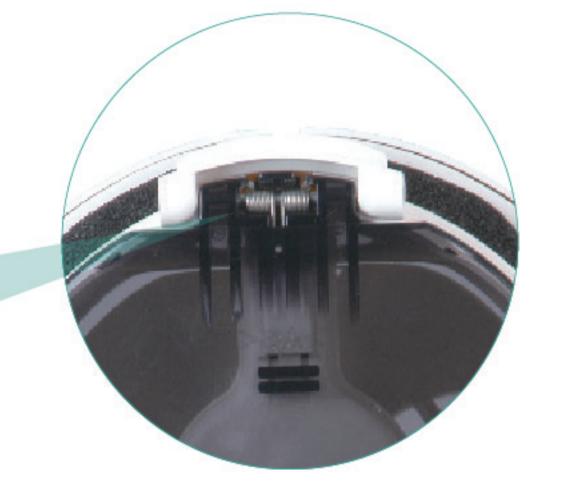
### + Easy Maintenance

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

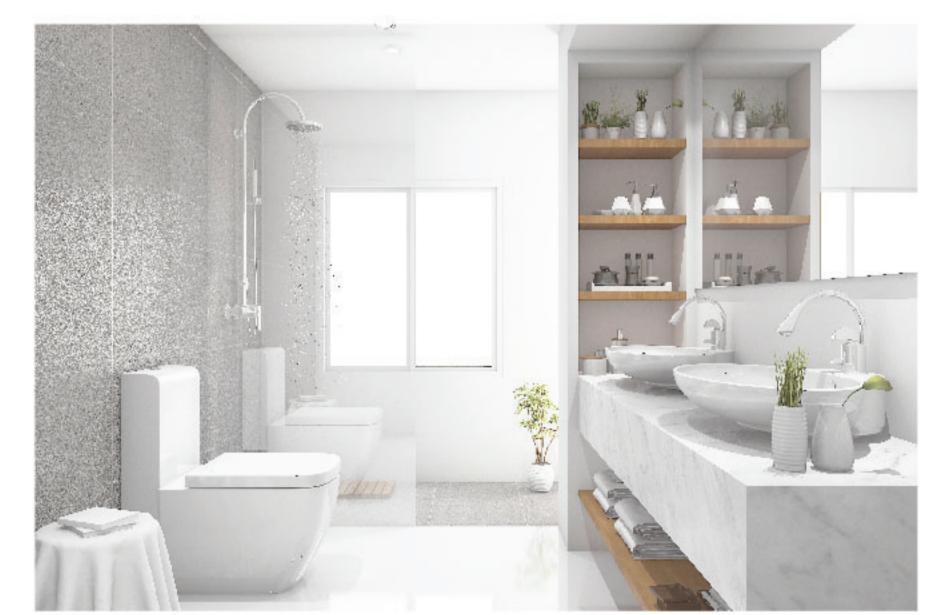
#### + Strengthened Shutter Structure







- Durable
- Sustainable to strong wind







**Bathroom** 

**Toilet** 

Office

# CORD-OPERATED SHUTTER SERIES VENTILATING FAN

#### 15WUD / 15WUDMN / 20WUD / 20WUDMN

- + HP condenser motor with thermal cutoff
- + Well lubricated bearing for long life operation
- + Propeller fan incorporated with advanced blade design
- + Shutter operated by pull cord
- + Metallic shutter axis

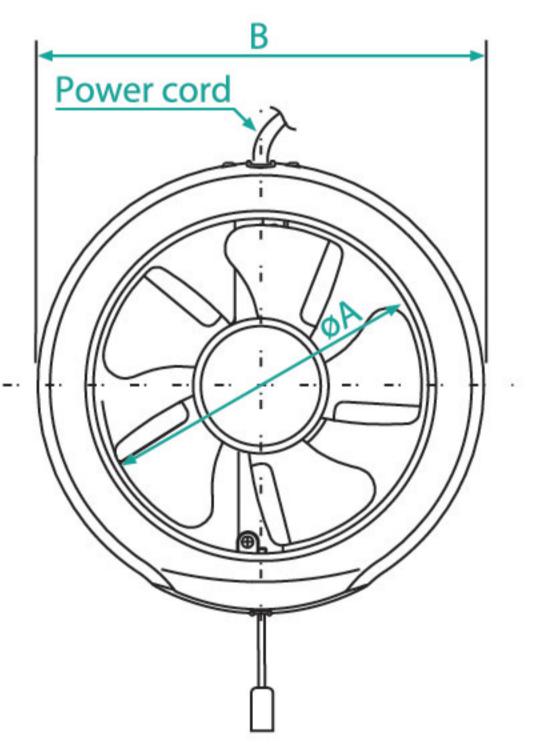
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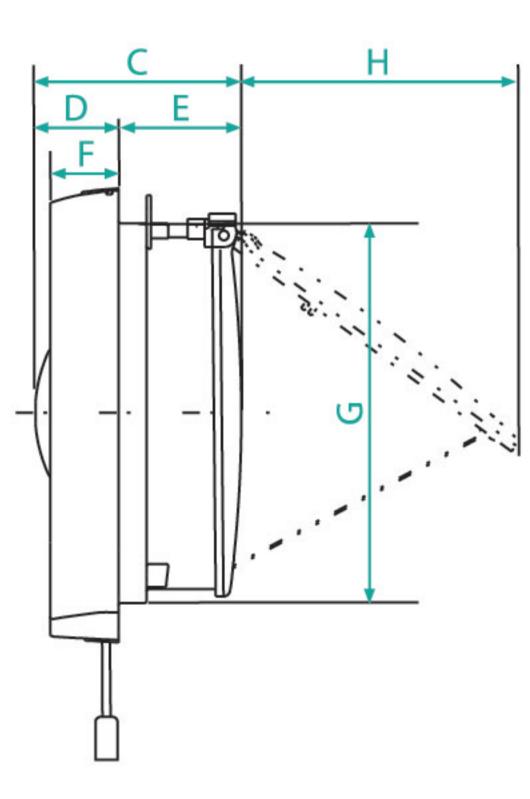




#### Dimensions (Unit: mm)

Model	Α	В	С	D	E	F	G	Н
15WUD	150	210	97	43	54	37	177	149
20WUD	200	271	98	36	62	36	237	201





#### Specifications

Model	Voltage	Frequency	CFM/SONE AT	STATIC Pr	essure (ps	s-inches of	H₂O)	RPM	Watts*	Watts**
			inches of H₂O	0	0.01	0.02	0.03		FOR AMCA	FOR IEC
15WUD	220V	60Hz	CFM Sones	105 0.9	94 0.9	79 2.2	66 2.4	1425	9.7	8.9
15WUDMN	240V	50Hz	CFM Sones	124 1.4	115 1.6	104 1.8	94 3.7	1722	10.3	9.5
			inches of H₂O	0	0.02	0.03	0.04			
20WUD	220V	60Hz	CFM Sones	188 0.8	129 1.2	112 1.8	88 1.4	980	19.2	17.9
20WUDMN	240V	50Hz	CFM Sones	221 1.8	168 1.6	141 2.2	118 2.0	1096	18.5	17.2

Performance certified is for installation type A: Free Inlet, Free Outlet. Performance ratings include the effects of inlet grille and shutter. The Speed (RPM) and Watts rating shown are at the static pressure of 0 inch of H2O. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) 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 for AMCA test method and it is at the static pressure of 0 inch of H2O.

**5** 

<sup>\*\*</sup> the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.