Panasonic

Panasonic Ventilation Fans & Air Moving Equipment Product Catalogue 2025



Ventilation Fans & Air Moving Equipment

PRODUCT CATALOGUE

Panasonic®

Panasonic Marketing Middle East & Africa FZE
P.O. Box 17985, Dubai, U.A.E.
Tel: +971 8007262, Email: customercare@ae.panasonic.com, www.panasonic.com

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- Specifications are subject to change without prior notice.

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ABOUT PANASONIC

Milestone

1918

1918 Matsushita Electric Housewares Manufacturing Works Co. was established
1950 Sales of National electric fan in Japan started
1956 Osaka Denki Seiki Co., Ltd was jointly incorporated by Matsushita Electric Industrial Co., Ltd. and Nihon Denki Seiki Co., Ltd.
1958 Export of National electric fan to oversea markets started
1959 National mark adopted

1960

1962 Osaka Denki Seiki Co., Ltd was renamed to Matsushita Seiko Co., Ltd
1966 English letter adopted in brand logo NATIONAL

1970

1973 New logo and mark used National

1980

1981 International Fan Manufacturing Co., Ltd [IFCO] was set up in Hong Kong
1989 IFCO was renamed as Matsushita Seiko Hong Kong International Manufacturing Co., Ltd [HIMCO]

1990

1993 Shunde Matsushita Seiko Co., Ltd [SHUMCO] was set up in China
1995 Beijing Great Wall Matsushita Seiko Air Conditioning Equipment Co., Ltd (BGMAC) was set up in China
1999 Set up Oversea Marketing Headquarter in HIMCO, which was renamed to Panasonic Ecology Systems Hong Kong Co., Ltd. (PESHK) in 2004, and further changed to Panasonic Life Solutions (Hong Kong) Co., Ltd. (PLSHK) in 2019

2000

2003 Matsushita Seiko Co. Ltd. was renamed as Matsushita Ecology Systems Co., Ltd. (MESC)
SHUMCO was renamed as Guangdong Matsushita Seiko Co., Ltd. [GDMESC] in 2003 and further changed to Panasonic Ecology Systems Guangdong Co. Ltd. (PESESGD) in 2006
2004 National brand was unified as the brand Panasonic Panasonic
2005 BGMAC was merged with PESESGD and renamed to PESESGD-BJ
2008 MESC was renamed as Panasonic Ecology Systems Co., Ltd. (PESES)

2010

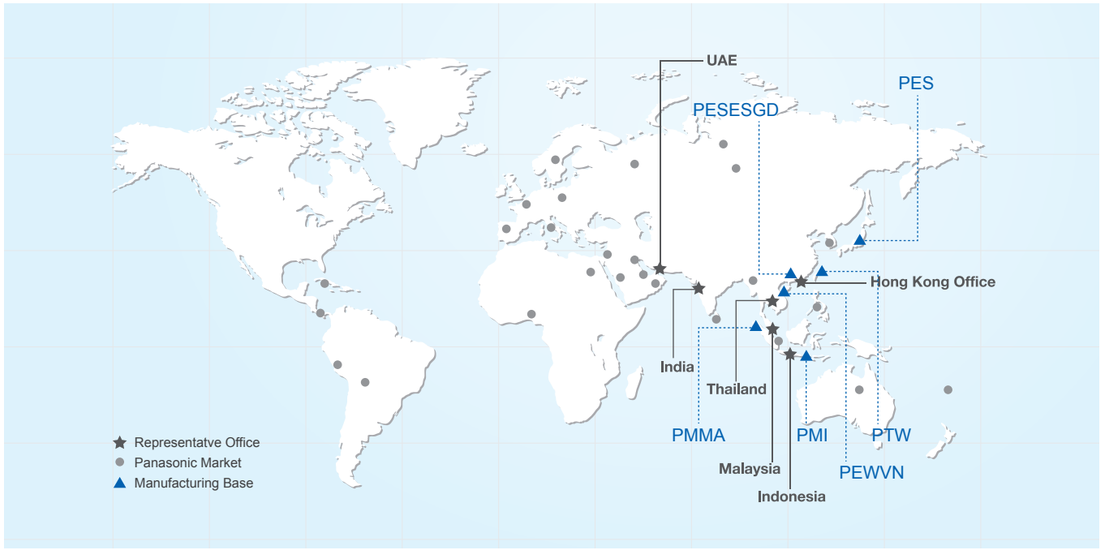
2012 Joined as a member of Panasonic Eco Solutions Company
2018 100th anniversary of Panasonic
2021 PEWVN (Panasonic Electric Works Vietnam Co. Ltd.) was set up in Vietnam

2020

2023 Joined as a member of Panasonic HVAC (Heating & Ventilation AC) Company

MARKET MAP

Panasonic has set up businesses in various countries, securely building its reputation and brand value in the minds of its customers. Looking forward, in addition to continuous development in existing markets, we will explore new business in potential markets throughout other fast-growing regions aggressively.



DISTRIBUTOR LIST

Region	Country	Customer	
GCC	UNITED ARAB EMIRATES	AFP	Al Futtaim Panatech LLC
	SAUDI ARABIA	Al Manara	Al Manara Electric Trad. Co. Ltd.
	KUWAIT	EASA	Easa Husain Al-Yousifi & Sons Co.
	OMAN	Omasco	Oman Marketing and Services Company LLC
	QATAR	HMAF	Hamad and Mohamad Al Futtaim Co. LL
NON GCC	IRAQ	Al Manzil	Al Manzil Electronics DMCC
	JORDAN	Atout	Omar Al-Atout Trading Est.
	PAKISTAN	NAGINA	NAGINA ELECTRONICS
AFRICA	EGYPT	BTC	BTC Electronics
	GAMBIA	OKI	O.K.I General Trading
	KENYA	Thames	THAMES ELECTRICALS LTD
	NIGERIA	Cannon	Cannon Fander Limited
	SEYCHELLES	KIM KOON	KIM KOON & CO PTY LTD
		Orchid	GLOBAL ORCHID TRADING FZE
	TANZANIA	Jackys	Jacky's Gulf FZE
		Mainmoon	Maimoon Hardware Co. Ltd

PRODUCT CERTIFICATION

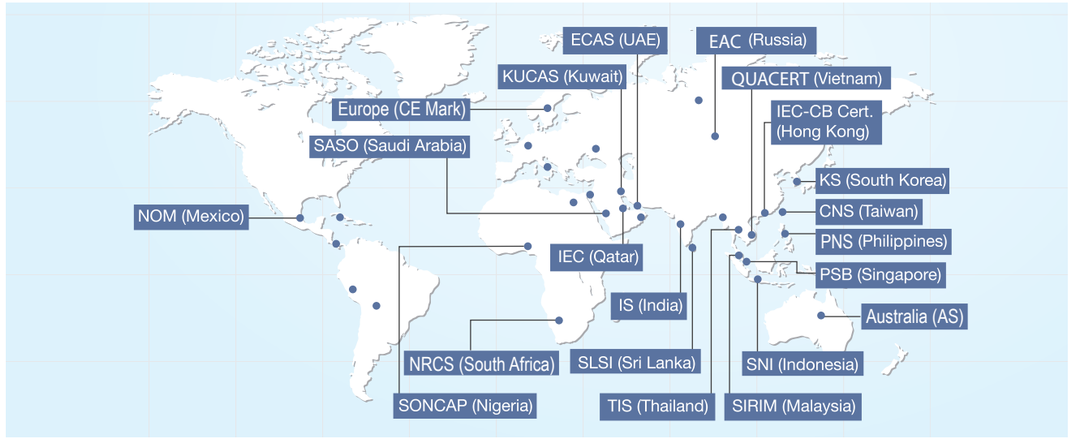
To ensure safety, Panasonic products are designed and manufactured according to either the standards of JIS (Japan Industrial Standard) or IEC (International Electrotechnical Commission). Test certificates are awarded by recognized test laboratories that further prove the reliability of our products.



CB Test Certificate

CB Test Certificate is issued to products in compliance with the applicable requirement of IEC standard under CB Scheme set by IEC .
The acronym CB Scheme simply means "Certification Bodies' Scheme"

In addition, different safety certifications are also acquired to fulfill the requirement in different countries.



Furthermore, the performance of Panasonic products are qualified by external authority.

AMCA Mark, USA

AMCA (Air Movement And Control Association International. Inc.) of The United States for ventilation products

2024 PRODUCT HIGHLIGHT

Panasonic Ventilation Fans



1 24-HOUR COMFORT

Empowering Every Moment Around the Clock.
Bringing 24-Hour Comfort, 365 Days of Fresh Air Excellence.

Reduce CO_2 Emission

Alleviate Global Warming

Reduce Electric Bill Expenditure



Fan is able to perform at constant airflow regardless of elbows in pipe.

Fan speed automatically increased to ensure the desired airflow.

Fan is able to perform as rated.

2 CONSTANT PERFORMANCE by Intelligent Technology

Motor Type	DC Motor Model	AC Motor Model
Model	FV-24JR2	FV-24CH9
Static Pressure [Pa]	0	0
Air Volume [CMH]	160	188
Power Consumption at 0 Pa [W]	7	20.5
Energy Efficiency [CMH / Watt]	22.9	3.1

Power consumption comparison between DC motor series and non-DC motor series
Note: Values measured at 220V 60Hz.

ECO

SAVE UP TO 66%



FV-24JR2
FV-24JA2

DC Motor

Energy Saving

Fresh Air

3 ENERGY SAVING

High Air Volume Ceiling Mount Type Ventilation Fans

Our Product was Developed to Overcome...

Highly Bending Ventilation Ducts

Noisy Operation Sound

Insufficient Air Exhaust

POWERFUL EXHAUSTION

Air volume up to **210 CMH**

*Values measured at 230V 50Hz or 240V 50Hz



FV-24CH9



IAQ

INDOOR AIR QUALITY

The Importance of

INDOOR AIR QUALITY

We care about the food we eat and the water that we drink, but what about AIR?

It is important to take care of the ONE thing we consume the most...



*1 "Air and Humans – From a Physiological Viewpoint" (1999) by UCHIYAMA Iwao (National Institute of Public Health of Japan)

*2 "Heat Stroke Environmental Health Manual (2009)" from the Ministry of the Environment, Government of Japan

*3 "Basic Data Sheet of Agriculture, Forestry, and Fisheries, Statistics Regarding The Food Self-Sufficiency Rate" from Ministry of Agriculture, Forestry and Fisheries of Japan

VENTILATION

Air Supply

Prevent entrance of unwanted substances

- Energy Recovery Ventilator
- Ventilation Fan (reversible type)

Air Exhaust

Reduce unwanted substances indoor

- Ventilation Fan
- Range hood
- Thermo Ventilator
- Energy Recovery Ventilator

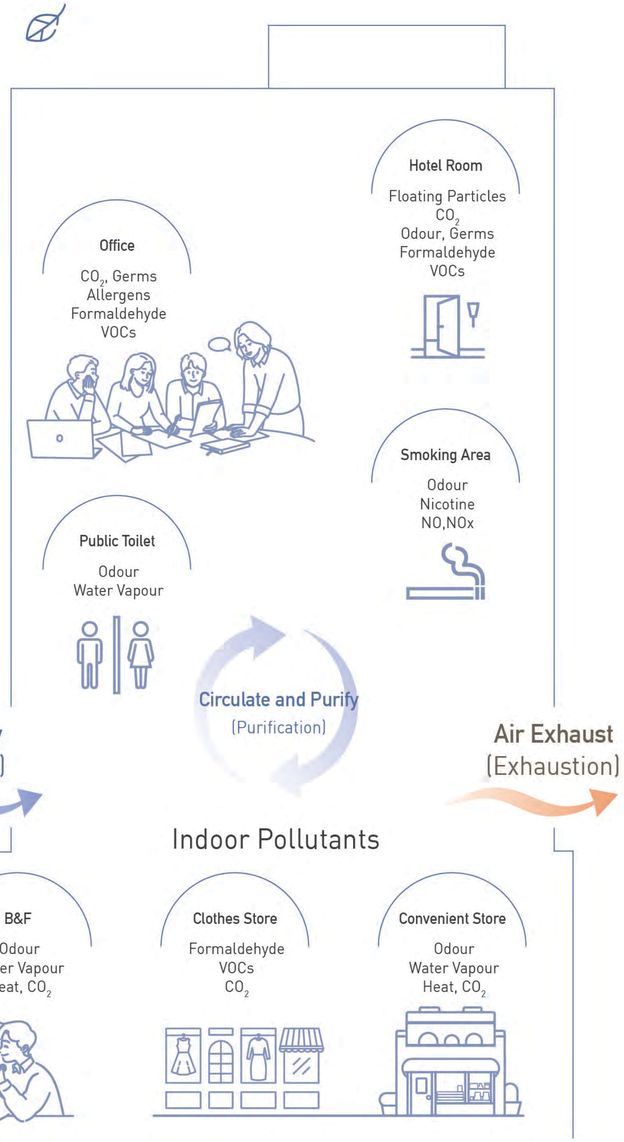
CIRCULATE & PURIFY

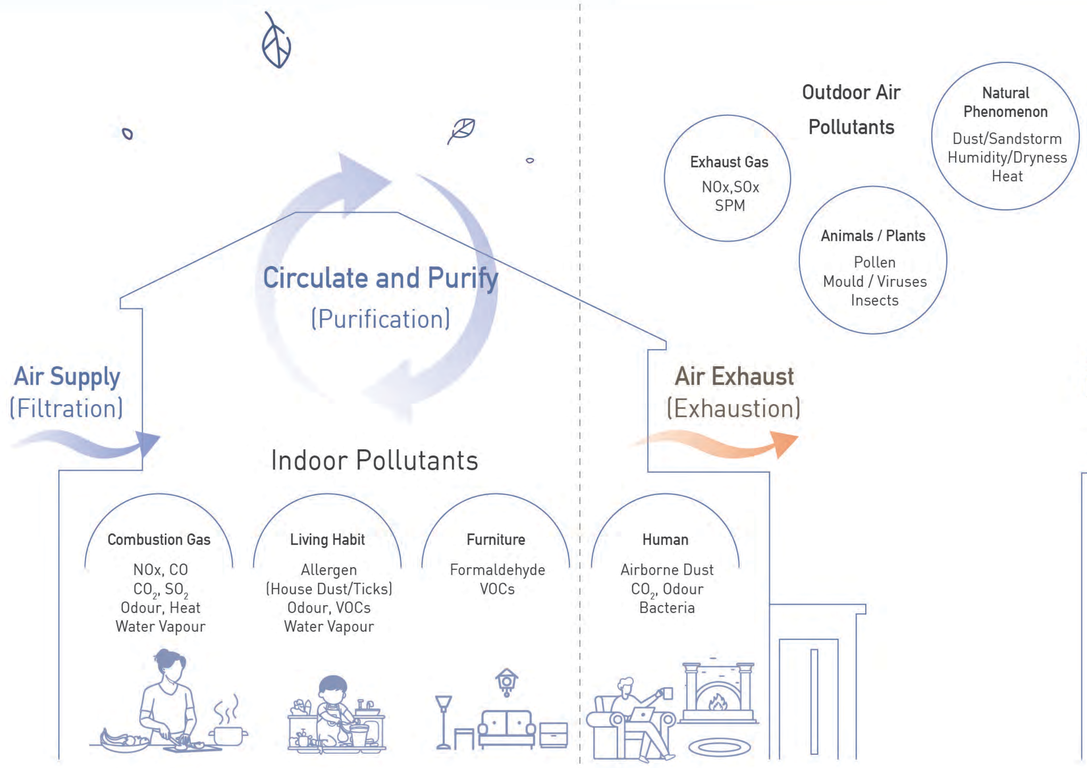
Ventilate and purify air

- Ceiling Fan
- Electric Fan

Air Supply
Air Exhaust
Air Circulation

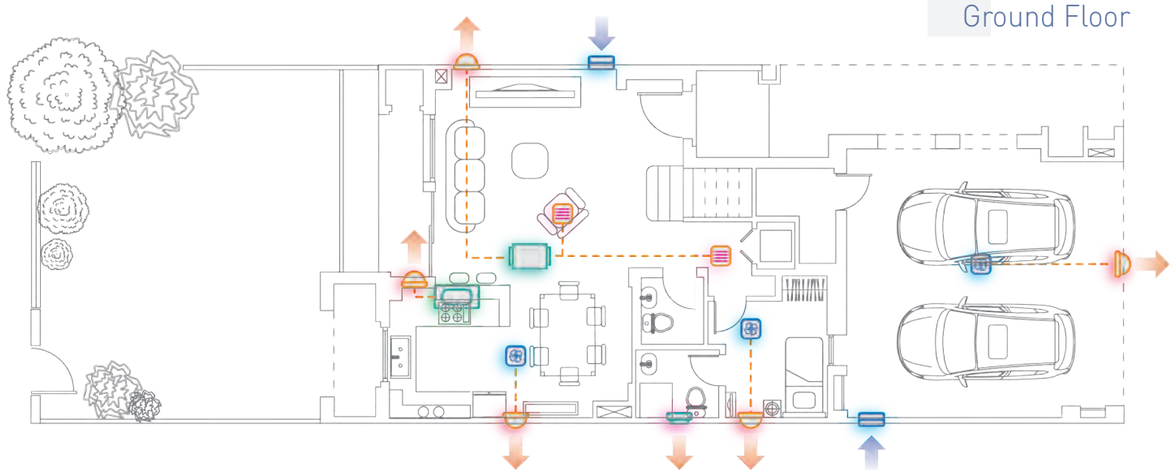
3 core Panasonic solutions
to enhance indoor air quality



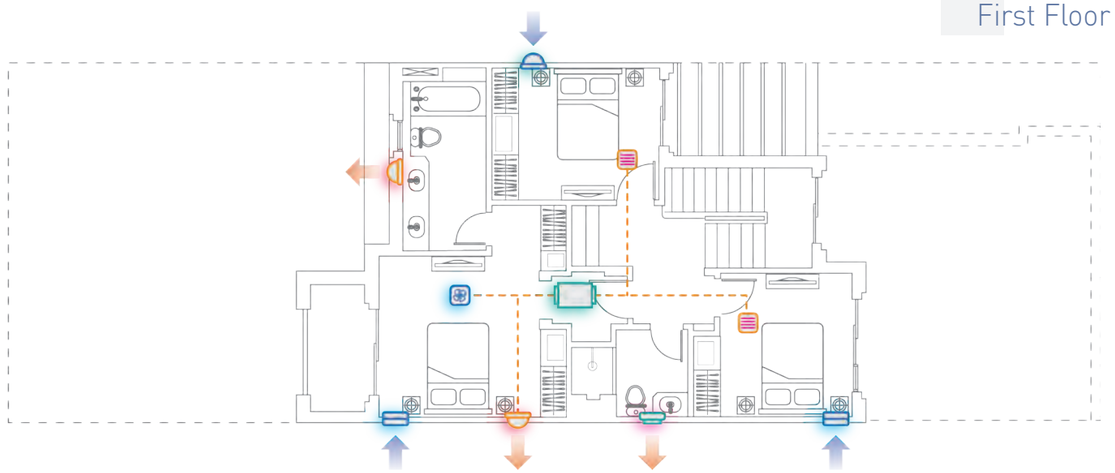


REDEFINING YOUR INDOOR ENVIRONMENT

Ground Floor



First Floor

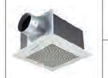


Installation Simulation (2-storey villa as example)



- Ceiling Mount Type Ventilation Fan
- Wall Mount Type Ventilation Fan
- Cabinet Fan (In-line Fan)
- Range Hood
- Intake Grille
- Exhaust Grille
- Vent Cap / Pipe Hood
- Intake
- Exhaust

PRODUCT SUMMARY

Product	Series		Model	DC Motor	Super Low Noise Level	Fire Resistant	Voltage/ Frequency	Air Volume [CFM]	Consumption [W]	RPM	Page
Ceiling Mount Type Ventilation Fan	DC Motor Series		FV-24JR2	✓	-	-	220V/60Hz	88	10	853	023
							240V/50Hz	88	10	853	
			FV-24JA2	✓	-	-	220V/60Hz	88	10	839	024
							240V/50Hz	88	10	839	
	Super Quiet Series		FV-17CU9	-	✓	-	220V/60Hz	44	10	664	025
							240V/50Hz	51	10	728	
			FV-24CD8	-	✓	-	220V/60Hz	94	17.6	750	026
							240V/50Hz	104	18.8	800	
			FV-24CU9	-	✓	-	220V/60Hz	83	13	585	027
							240V/50Hz	89	13	614	
			FV-24CH9	-	✓	-	220V/60Hz	109	22	791	
							240V/50Hz	117	21	861	
			FV-27CH9	-	✓	-	220V/60Hz	180	36	578	028
							240V/50Hz	198	38	618	
			FV-32CD9	-	✓	-	220V/60Hz	229	53	609	029
							240V/50Hz	257	57	668	
			FV-32CH9	-	✓	-	220V/50H (Hi)	312	55	710	030
							220V/50H (Lo)	235	45	570	
				-	✓	-	220V/60Hz (Hi)	309	61	695	
							220V/60Hz (Lo)	230	47	540	
				-	✓	-	230V/50Hz (Hi)	327	59	740	
							230V/50Hz (Lo)	253	49	590	
				-	✓	-	240V/50Hz (Hi)	341	64	770	
							240V/50Hz (Lo)	265	53	615	
	Metal Series		FV-24CMU1	-	-	✓	220V/60Hz	55	13	495	031
							240V/50Hz	55	14	562	
			FV-24CMH1	-	-	✓	220V/60Hz	94	25	681	
							240V/50Hz	108	27	753	
			FV-27CMH1	-	-	✓	220V/60Hz	208	46	615	032
							240V/50Hz	219	46	669	
	Standard Series		FV-38CD8	-	-	-	220V/60Hz	356	109	670	033
							240V/50Hz	387	119	730	
			FV-38CD8 05	-	-	-	240V/50Hz	387	119	730	

Product	Series		Model	Silent Stream Fan	Auto Shutter	Louver	Voltage/ Frequency	Air Volume [CFM]	Consumption [W]	RPM	Page
Wall Mount Type Ventilation Fan	Metallic Series		FV-20AS2	-	✓	-	220V/60Hz	330	25.5	1,358	037
							240V/50Hz	296	22.4	1,252	
			FV-20AS2 05	-	✓	-	240V/50Hz	296	22.4	1,252	
			FV-25AS2	-	✓	-	220V/60Hz	522	35.5	1,266	
							240V/50Hz	486	35.1	1,194	
			FV-25AS2 05	-	✓	-	240V/50Hz	486	35.1	1,194	
			FV-30AS2	-	✓	-	220V/60Hz	637	39.8	1,088	
							240V/50Hz	706	38.1	1,175	
			FV-30AS2 05	-	✓	-	240V/50Hz	706	38.1	1,175	
	Automatic Shutter Series		FV-15AST1	-	✓	-	220V/60Hz	157	20.6	1,533	038
							240V/50Hz	154	20.1	1,453	
			FV-20AU1	✓	✓	-	220V/60Hz	370	23.5	1,430	039
							240V/50Hz	339	23.0	1,303	
			FV-25AU1	✓	✓	-	220V/60Hz	542	33.2	1,387	
							240V/50Hz	542	31.0	1,252	
			FV-30AU1	✓	✓	-	220V/60Hz	655	35.3	938	
							240V/50Hz	696	34.8	964	
			FV-20AL1	✓	✓	✓	220V/60Hz	334	23.5	1,398	040
							240V/50Hz	301	23.0	1,278	
			FV-25AL1	✓	✓	✓	220V/60Hz	471	33.2	1,224	
							240V/50Hz	482	32.1	1,217	
			FV-30AL1	✓	✓	✓	220V/60Hz	510	35.3	876	
							240V/50Hz	571	35.3	896	

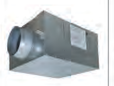
PRODUCT SUMMARY

Product	Series		Model	Silent Stream Fan	Auto Shutter	Louver	Voltage/ Frequency	Air Volume [CFM]	Consumption [W]	Page
Wall Mount Type Ventilation Fan	Bathroom Seriesa		FV-10EGK2	-	-	✓	220V/50Hz	45	4.3	043
							240V/50Hz	45	5.0	
			FV-15EGK2	-	-	✓	220V/50Hz	95	5.7	
							240V/50Hz	97	6.5	
			FV-10EGS2	-	-	✓	220V/50Hz	45	4.3	044
							240V/50Hz	45	5.0	
			FV-15EGS2	-	-	✓	220V/50Hz	91	5.7	
							240V/50Hz	97	6.5	

Product	Series		Model	Electrically Operated Shutter	Auto Shutter	Cord-operated Shutter	Voltage/ Frequency	Air Volume [CFM]	Consumption [W]	RPM	Page
Window Mount Type Ventilation Fan	Electric Shutter Series		FV-15WH3T	✓	-	-	220V/50Hz	135	13	2,290	048
							220V/60Hz	135	13	2,375	
							230V/50Hz	135	14	2,305	
							240V/50Hz	135	15	2,315	
			FV-20WH3T	✓	-	-	220V/50Hz	262	20	1,370	
							220V/60Hz	283	22	1,470	
							230V/50Hz	262	21	1,375	
							240V/50Hz	262	22	1,380	
	Automatic Shutter Series		FV-15WA1	-	✓	-	220V/60Hz	127	14.6	2,440	050
							240V/50Hz	127	16	2,537	
			FV-20WA1	-	✓	-	220V/60Hz	250	24.4	1,517	
							240V/50Hz	230	23.4	1,333	
	Cord-operated Shutter Series		FV-15WU4	-	-	✓	220V/60Hz	105	9.7	1,425	052
							240V/50Hz	124	10.3	1,722	
			FV-20WU4	-	-	✓	220V/60Hz	188	19.2	980	
							240V/50Hz	221	18.5	1,096	

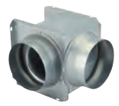
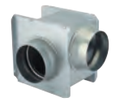
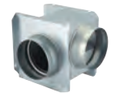
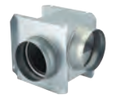
PRODUCT SUMMARY

Product	Series		Model	Reversible	Durable Powder Coating	Shutter	Metal Large Blade Assembly	Voltage/ Frequency	Air Volume [CFM]	Consumption [W]	RPM	Page
Industrial Ventilation Fan	Shutter Series		FV-40KAU1	-	✓	✓	✓	220V/ 50hz	1,105	47	1,230 – 1,370	054
								230V/ 50Hz	1,130	52	1,250 – 1,390	
								240V/ 50Hz	1,151	59	1,270 – 1,410	
								230V/ 60Hz	1,254	67	1,400 – 1,540	
			FV-40KUT	-	✓	-	✓	220V/ 50Hz	1,212	61	1,175	055
								220V/ 60Hz	1,289	76	1,260	
	High Pressure Series		FV-25GS5	✓	✓	Optional	-	220V/ 60Hz	788	61	1,570	056
								240V/ 50Hz	701	48	1,400	
			FV-30GS5	✓	✓	Optional	-	220V/ 60Hz	1,308	129	1,460	
								240V/ 50Hz	1,177	106	1,315	
			FV-35GS5	✓	✓	Optional	-	220V/ 60Hz	1,850	178	1,640	
								240V/ 50Hz	1,615	130	1,435	
			FV-40GS5	✓	✓	Optional	-	220V/ 60Hz	2,677	294	1,550	057
								240V/ 50Hz	2,135	164	1,440	
			FV-45GS4	✓	✓	Optional	-	220V/ 60Hz	3,278	346	1,563	058
								240V/ 50Hz	2,854	277	1,430	
			FV-50GS4	✓	✓	Optional	-	220V/ 60Hz	3,884	347	1,080	
								240V/ 50Hz	3,354	293	968	
			FV-60GS4	✓	✓	Optional	-	220V/ 60Hz	5,038	384	1,088	
								240V/ 50Hz	4,402	289	980	
			FV-45GT4	✓	✓	Optional	-	220V/ 50Hz	3,249	220	1,450	059
								220V/ 60Hz	3,779	330	1,690	
			FV-50GT4	✓	✓	Optional	-	220V/ 50Hz	4,097	320	1,400	
								220V/ 60Hz	4,715	475	1,590	
			FV-60GT4	✓	✓	Optional	-	220V/ 50Hz	5,544	310	940	
								220V/ 60Hz	6,427	450	1,070	

Product	Series		Model	Twin Flow Fan	Noise Absorption Material	Single Phase	Three Phase	Voltage/ Frequency	Air Volume [CFM]	Consumption [W]	RPM	Page
Cabinet Fan	Standard Series		FV-12NS3	✓	✓	✓	-	220V/60Hz	114	26	1,460	063
								240V/50Hz	102	27	1,342	
			FV-15NS3	✓	✓	✓	-	220V/60Hz	200	45	1,520	
								240V/50Hz	193	47	1,373	
			FV-18NS3	✓	✓	✓	-	220V/60Hz	274	80	1,470	064
								240V/50Hz	281	84	1,342	
			FV-18NF3	✓	✓	✓	-	220V/60Hz	417	128	1,420	
								240V/50Hz	429	135	1,327	
			FV-20NS3	✓	✓	✓	-	220V/60Hz	469	170	1,380	065
								240V/50Hz	517	175	1,328	
			FV-23NL3	✓	✓	✓	-	220V/60Hz	655	350	1,400	
								240V/50Hz	688	347	1,342	
			FV-25NS3	✓	✓	✓	-	220V/60Hz	940	460	1,380	066
								240V/50Hz	963	481	1,305	
			FV-25NF3	✓	✓	✓	-	220V/60Hz	1,016	680	1,420	
								240V/50Hz	1,057	537	1,330	
	Three Phase Series		FV-25SW3	✓	✓	-	✓	380V/50Hz	2,354	940	1,375	067
								380V/60Hz	2,648	1,450	1,530	
			FV-25SM3	✓	✓	-	✓	380V/50Hz	3,060	1,180	1,345	
								380V/60Hz	3,237	1,750	1,470	
			FV-28NX3	✓	✓	-	✓	380V/50Hz	1,530	600	1,295	068
								380V/60Hz	1,560	840	1,380	

PRODUCT SUMMARY

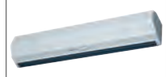
Product		Model	External Rotor Motor	Fan Blades	Voltage/ Frequency	Air Volume [CFM]	Consumption [W]	RPM	Page
In-line Centrifugal Fan		FV-10MM1	✓	Plastic	240V/50Hz	150	57	2,606	071
		FV-12MM1	✓	Plastic	240V/50Hz	185	58	2,580	
		FV-15MM1	✓	Plastic	240V/50Hz	388	97	2,495	
		FV-16MM1	✓	Plastic	240V/50Hz	429	128	2,311	
		FV-20MM1	✓	Plastic	240V/50Hz	536	174	2,535	
		FV-25MM1	✓	Plastic	240V/50Hz	550	165	2,643	072
		FV-31MM1	✓	Metal	240V/50Hz	950	238	2,519	073

Product		Model	Single Phase	Adjustable Outlet Direction	Page
Mini Sirocco Fan		FV-10CG2	✓	✓	077
		FV-12CG2	✓	✓	
		FV-14CG2	✓	✓	
		FV-16CG2	✓	✓	
		FV-17CG2	✓	✓	
		FV-19CG2	✓	✓	
		FV-21CG2	✓	✓	

Product	Series		Model	2-speed Selection	Slim Design	Voltage/ Frequency	Air Volume [CMH]	Air Volume [CFM]	RPM	Page
Range Hood	Twin Motor Series		FV-90HQU1	✓	✓	220V/50Hz (Hi)	785	462	993	083
						220V/50Hz (Lo)	484	285	570	
						220V/60Hz (Hi)	779	459	905	
						220V/60Hz (Lo)	464	273	594	
						240V/50Hz (Hi)	775	456	911	
						240V/50Hz (Lo)	523	308	653	

Product	Series		Model	Quick Response Sensor	Lamp Super alleru-buster Filter	ON/OFF Switch for Heater	Safety Check Indicator	Voltage/ Frequency	Air Velocity [m/s]	Page
Hand Dryer	Standard Series		FJ-T09A3	✓	✓	✓	✓	220V/50Hz	90 - 110	087
								220V/60Hz	90 - 110	
								230V/50Hz	90 - 110	
								230V/60Hz	90 - 110	
			FJ-T09B3	✓	✓	✓	✓	220V/50Hz	90 - 110	
								220V/60Hz	90 - 110	
								230V/50Hz	90 - 110	
								230V/60Hz	90 - 110	

PRODUCT SUMMARY

Product	Type	Series		Model	Cross Flow Fan	Sirocco Fan	Metal Blade Bush	Air Deflection Plate	2-speed Selection	Remote Control	Door Contact Sensor	Push Button Switch	Page
Air Curtain	Cross Flow Type	Remote Control Series		FY-3009G1	✓	-	✓	✓	✓	✓	-	-	091
				FV-4009G1	✓	-	✓	✓	✓	✓	-	-	
				FV-3012G1	✓	-	✓	✓	✓	✓	-	-	
				FV-4012G1	✓	-	✓	✓	✓	✓	-	-	
				FV-3015G1	✓	-	✓	✓	✓	✓	-	-	
				FV-4015G1	✓	-	✓	✓	✓	✓	-	-	
		Sensor Series		FV-3009D1	✓	-	✓	✓	✓	-	✓	-	092
				FV-4009D1	✓	-	✓	✓	✓	-	✓	-	
				FV-3012D1	✓	-	✓	✓	✓	-	✓	-	
				FV-4012D1	✓	-	✓	✓	✓	-	✓	-	
				FV-3015D1	✓	-	✓	✓	✓	-	✓	-	
				FV-4015D1	✓	-	✓	✓	✓	-	✓	-	
		Standard Series		FV-3009U1	✓	-	✓	✓	✓	-	-	✓	093
				FV-4009U1	✓	-	✓	✓	✓	-	-	✓	
				FV-3012U1	✓	-	✓	✓	✓	-	-	✓	
				FV-4012U1	✓	-	✓	✓	✓	-	-	✓	
				FV-3015U1	✓	-	✓	✓	✓	-	-	✓	
				FV-4015U1	✓	-	✓	✓	✓	-	-	✓	
	Sirocco Type	900 Series		FY-08ESN	-	✓	-	✓	✓	-	-	✓	095
				FY-10ESN	-	✓	-	✓	✓	-	-	✓	
				FY-12ESN	-	✓	-	✓	✓	-	-	✓	
				FY-14ESN	-	✓	-	✓	✓	-	-	✓	
		1200 Series		FY-08ELN	-	✓	-	✓	✓	-	-	✓	096
				FY-10ELN	-	✓	-	✓	✓	-	-	✓	
				FY-12ELN	-	✓	-	✓	✓	-	-	✓	
				FY-14ELN	-	✓	-	✓	✓	-	-	✓	

Product	Series		Model	Remote Control	Regulator Control	Pull Switch	3-speed Selection	5-speed Selection	OFF Timer	Metal Blades	360° Oscillation	Page
Celling Fan	Remote Control Series		F-56UPG	✓	-	-	✓	-	✓	✓	-	099
	Regulator Control Series		F-48TZ5	-	✓	-	-	✓	-	✓	-	100
			F-56TZ5	-	✓	-	-	✓	-	✓	-	
			F-60TZ5	-	✓	-	-	✓	-	✓	-	
			F-48TZ2	-	✓	-	-	✓	-	✓	-	101
			F-56TZ2	-	✓	-	-	✓	-	✓	-	
			F-48XZ5	-	✓	-	-	✓	-	✓	-	102
			F-56XZ5	-	✓	-	-	✓	-	✓	-	
			F-48XZ2	-	✓	-	-	✓	-	✓	-	103
			F-56XZ2	-	✓	-	-	✓	-	✓	-	
Electric Fan	Cycle Fan		F-409Q	-	✓	-	-	✓	-	✓	✓	106
	Wall Fan		F-309U	-	-	✓	✓	-	-	-	-	107
			F-409U	-	-	✓	✓	-	-	✓	-	
			F-409M	✓	-	-	✓	-	✓	-	-	108

CEILING MOUNT TYPE VENTILATION FAN

Achieve reduction of power consumption and noise by the optimized product structure



Long Life

Highly Efficient

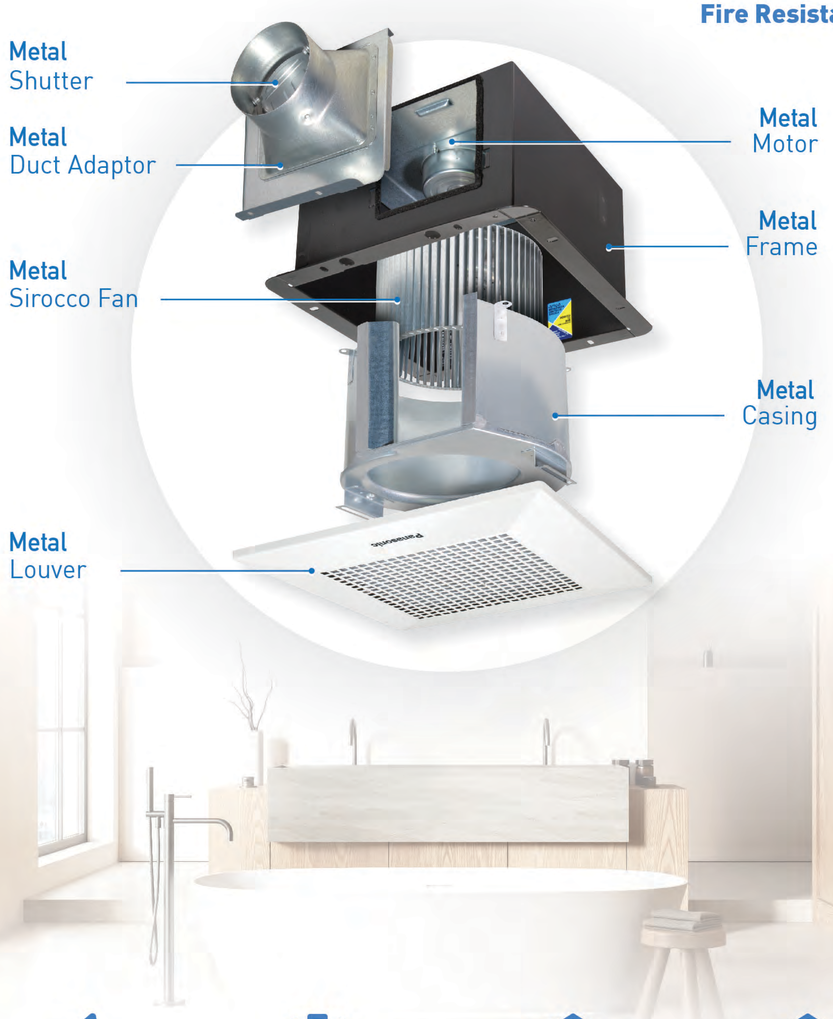
Super Low Noise

Easy Installation

Scan for more information

FV-24CMU1 / FV-24CMH1 / FV-27CHM1

Fire Resistant



High Performance

Easy Installation & Maintenance

Safe*

Durable

*Metallic structure can reduce the fire risk spread to other area from fire affected compartment through the ducting.

DC MOTOR SERIES

Usage: Bathroom | Toilet | Living Room | Corridor | Office | Retail Store

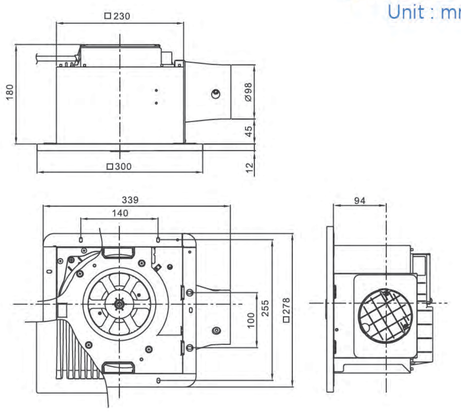
24-Hour Ventilation
Installation: 230 x 230mm
Duct Type: Ø100mm



FV-24JR2

- DC (Direct Current) motor
- Auto operation by motion sensor
- Constant airflow
- Automated air volume adjustment
- Delay timer (15 minutes)
- Resonance–Noise–Absorption Structure
- Motor insulation Class E
- IP protection: IPX2

Dimension
Unit : mm



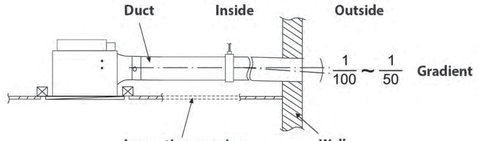
Panasonic Ecology Systems Guangdong Co., Ltd. certifies that the Ceiling Mount Type Ventilation Fan – DC Motor Series shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Specification

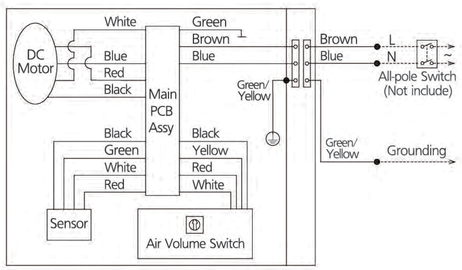
Model	Voltage [V]	Frequency [Hz]	Speed	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)								RPM	Watts*	Watts**
				Inches of H_2O	0	0.1	0.125	0.25	0.375	0.5	0.625		For AMCA	For IEC
FV-24JR2	220	60	Hi	CFM	88	88	88	88	63	34	5	853	10	8
				Sones	0.7	1.0	1.0	1.3	1.7	1.8	3.1			
	240	50	Hi	CFM	88	88	88	88	63	34	5	853	10	8
				Sones	0.7	1.0	1.0	1.3	1.7	1.8	3.1			

Performance certified is for installation type B: Free inlet, Ducted outlet. Performance ratings include the effects of an inlet grille and backdraft shutter. Speed (RPM) shown is nominal. Performance is based on actual speed of test. 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 B: 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 H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Installation Example



Wiring Diagram



DC MOTOR SERIES

Usage: Bathroom | Toilet | Living Room | Corridor | Office | Retail Store

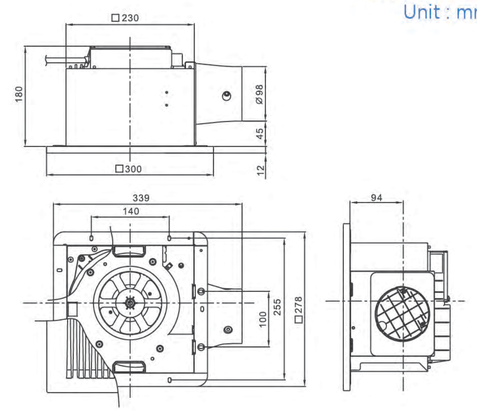
24-Hour Ventilation
Installation: 230 x 230mm
Duct Type: Ø100mm



FV-24JA2

- DC (Direct Current) motor
- Constant airflow
- Automated air volume adjustment
- Delay timer (15 minutes)
- Resonance–Noise–Absorption Structure
- Motor insulation Class E
- IP protection: IPX2

Dimension
Unit : mm



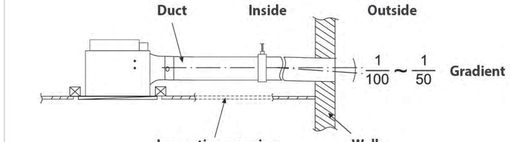
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Specification

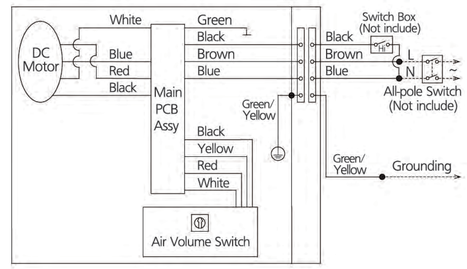
Model	Voltage [V]	Frequency [Hz]	Speed	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)								RPM	Watts*	Watts**
				Inches of H_2O	0	0.1	0.125	0.25	0.375	0.5	0.625		For AMCA	For IEC
FV-24JA2	220	60	Hi	CFM	88	88	88	88	63	34	5	839	10	8
				Sones	0.6	0.9	1.0	1.4	1.6	1.9	3.2			
	240	50	Hi	CFM	88	88	88	88	63	34	5	839	10	8
				Sones	0.6	0.9	1.0	1.4	1.6	1.9	3.2			

Performance certified is for installation type B: Free inlet, Ducted outlet. Performance ratings include the effects of an inlet grille and backdraft shutter. Speed (RPM) shown is nominal. Performance is based on actual speed of test. 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 B: 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 H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Installation Example



Wiring Diagram

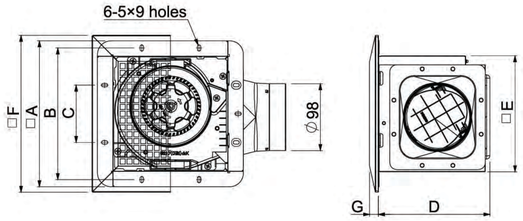


Usage: Bathroom | Toilet | Living Room | Corridor | Office | Retail Store

24-Hour Ventilation
Installation: 170 x 170mm
Duct Type: Ø100mm



Dimension
Unit : mm



A	B	C	D	E	F	G	Duct Size
214	194	84	164	170	230	13	Ø100

FV-17CU9

- Half pitch condenser motor with thermal cut-off
- Well-lubricated ball bearing for long life operation
- Effective control of air turbulence with taper blade
- Curve-shaped backdraft shutter
- Super low noise
- Motor insulation Class B
- IP protection: IPX2

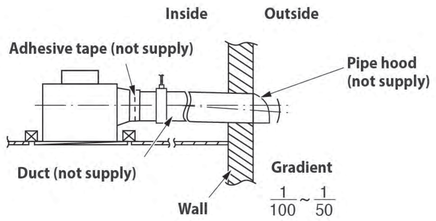
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Specification

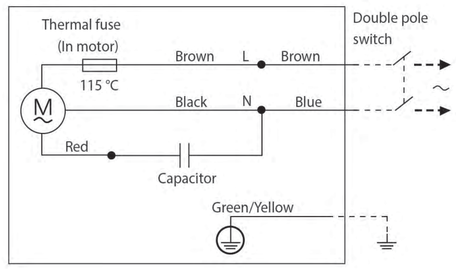
Model	Voltage [V]	Frequency [Hz]	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)				RPM	Watts*	Watts**
			Inches of H_2O	0	0.1	0.125		For AMCA	For IEC
FV-17CU9	220	60	CFM	44	32	29	664	10	10
			Sones	0.3	0.5	0.6			
	240	50	CFM	51	43	40	728	10	9.5
			Sones	0.3	0.4	0.5			

Performance certified is for installation type B: Free inlet, Ducted outlet. Performance ratings include the effects of an inlet grille and backdraft shutter. Speed (RPM) shown is nominal. Performance is based on actual speed of test. 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 B: Free inlet hemispherical sone levels.
* the Watts rating is for AMCA test method and it is at the static pressure of 0 inch of H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Rating Seal does not apply to IEC test method watts.

Installation Example



Wiring Diagram

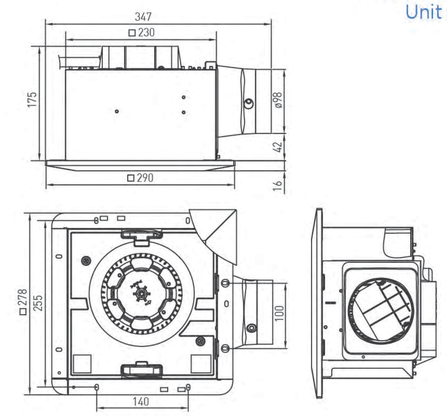


Usage: Bathroom | Toilet | Living Room | Corridor | Office | Retail Store

24-Hour Ventilation
Installation: 230 x 230mm
Duct Type: Ø100mm



Dimension
Unit : mm



FV-24CD8

- Super low noise
- Well-lubricated ball bearing for long life operation
- Effective control of air turbulence with taper blade
- Resonance-Noise-Absorption Structure
- Reverse flow prevention shutter
- Pre-installed power cord
- Motor insulation Class E
- IP protection: IPX2

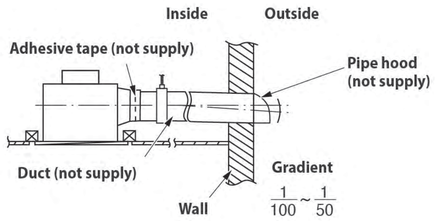
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Specification

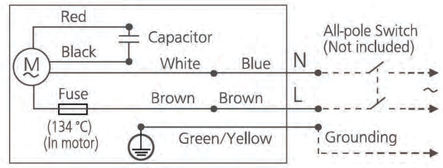
Model	Voltage [V]	Frequency [Hz]	Speed	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)					RPM	Watts*	Watts**
				Inches of H_2O	0	0.1	0.125	0.25		For AMCA	For IEC
FV-24CD8	220	60	Hi	CFM	94	79	77	58	750	17.6	16.5
				Sones	0.6	0.7	0.7	1.5			
	240	50	Hi	CFM	104	90	85	63	800	18.8	17.5
				Sones	0.8	0.9	1.0	1.6			

Performance certified is for installation type B: Free inlet, Ducted outlet. Performance ratings include the effects of an inlet grille and backdraft shutter. Speed (RPM) shown is nominal. Performance is based on actual speed of test. 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 B: 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 H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Installation Example



Wiring Diagram



SUPER QUIET SERIES

Usage: Bathroom | Toilet | Living Room | Corridor | Office | Retail Store

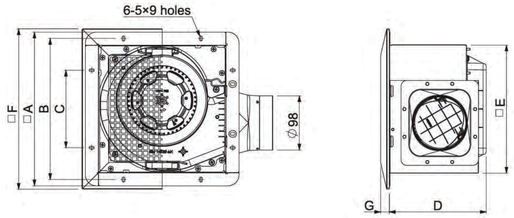
24-Hour Ventilation
Installation: 233 x 233mm
Duct Type: Ø100mm



FV-24CU9 / FV-24CH9

- Half pitch condenser motor with thermal cut-off
- Well-lubricated ball bearing for long life operation
- Effective control of air turbulence with taper blade
- Curve-shaped backdraft shutter
- Super low noise
- Motor insulation Class B
- IP protection: IPX2

Dimension
Unit : mm



A	B	C	D	E	F	G	Duct Size
278	255	140	175	233	290	16	Ø100

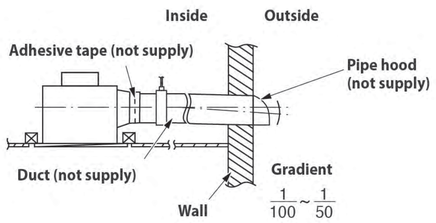
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Specification

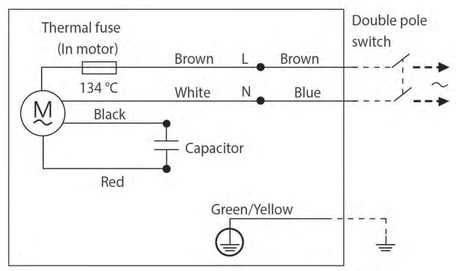
Model	Voltage [V]	Frequency [Hz]	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)						RPM	Watts*	Watts**
			Inches of H_2O	0	0.1	0.125	0.25	0.375		For AMCA	For IEC
FV-24CU9	220	60	CFM	83	73	68	46	-	585	13	13.5
			Sones	0.4	0.5	0.6	1.3	-			
	240	50	CFM	89	77	75	51	-	614	13	12
			Sones	0.5	0.7	0.7	1.4	-			
FV-24CH9	220	60	CFM	109	99	96	75	48	791	22	20.5
			Sones	1.0	0.9	1.0	1.3	2.2			
	240	50	CFM	117	109	96	73	33	861	21	19.5
			Sones	1.2	1.2	1.2	1.3	1.8			

Performance certified is for installation type B: Free inlet, Ducted outlet. Performance ratings include the effects of an inlet grille and backdraft shutter. Speed (RPM) shown is nominal. Performance is based on actual speed of test. 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 B: 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 H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Installation Example



Wiring Diagram



SUPER QUIET SERIES

Usage: Bathroom | Toilet | Living Room | Corridor | Office | Retail Store

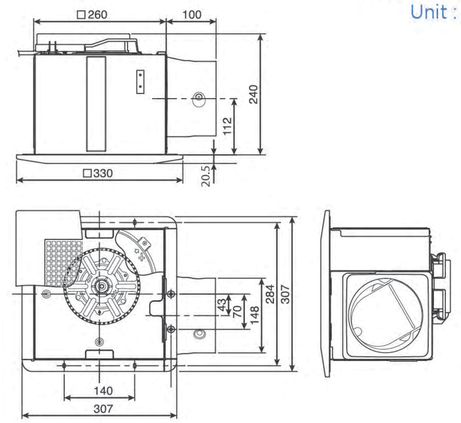
24-Hour Ventilation
Installation: 260 x 260mm
Duct Type: Ø150mm



FV-27CH9

- Super low noise
- Well-lubricated ball bearing for long life operation
- Effective control of air turbulence with taper blade
- Resonance-Noise-Absorption Structure
- Pre-installed power cord
- 2 speed selectable
- Motor insulation Class E
- IP protection: IPX2

Dimension
Unit : mm



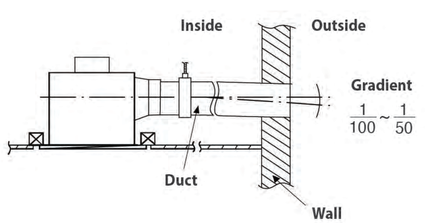
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Specification

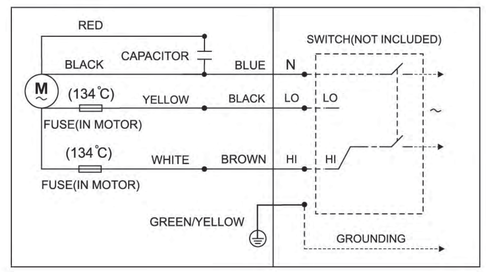
Model	Voltage [V]	Frequency [Hz]	Speed	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)							RPM	Watts*	Watts**
				Inches of H_2O	0	0.1	0.125	0.25	0.375	0.5		For AMCA	For IEC
FV-27CH9	220	60	Hi	CFM	180	160	154	117	76	34	578	36	33
				Sones	1.0	1.1	1.3	1.7	2.5	2.5			
	240	50	Hi	CFM	198	179	172	128	78	28	618	38	34
				Sones	1.4	1.5	1.6	1.8	2.6	2.6			

Performance certified is for installation type B: Free inlet, Ducted outlet. Performance ratings include the effects of an inlet grille and backdraft shutter. Speed (RPM) shown is nominal. Performance is based on actual speed of test. 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 B: 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 H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Installation Example



Wiring Diagram



SUPER QUIET SERIES

Usage: Bathroom | Toilet | Living Room | Corridor | Office | Retail Store

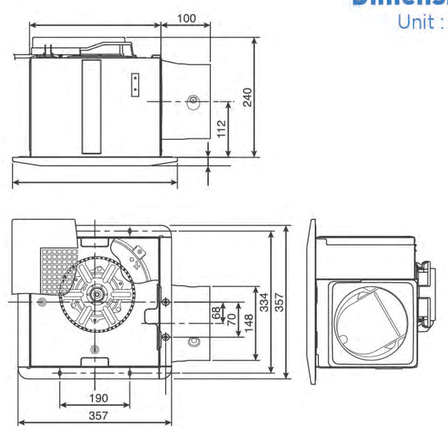
24-Hour Ventilation
Installation: 310 x 310mm
Duct Type: Ø150mm



FV-32CD9

- Super low noise
- Well-lubricated ball bearing for long life operation
- Effective control of air turbulence with taper blade
- Resonance-Noise-Absorption Structure
- Pre-installed power cord
- 2 speed selectable
- Motor insulation Class E
- IP protection: IPX2

Dimension
Unit : mm



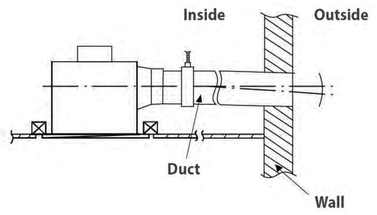
Panasonic Ecology Systems Guangdong Co., Ltd. certifies that the Ceiling Mount Type Ventilation Fan – Super Quiet Series shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Specification

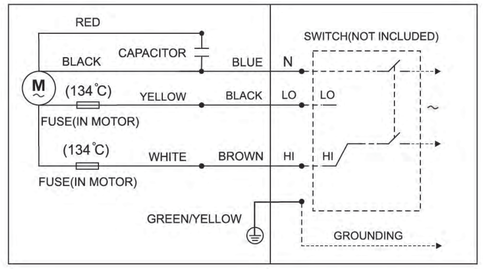
Model	Voltage [V]	Frequency [Hz]	Speed	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)								RPM	Watts*	Watts**
				Inches of H_2O	0	0.1	0.125	0.25	0.375	0.5	0.625		For AMCA	For IEC
FV-32CD9	220	60	Hi	CFM	229	201	195	159	123	86	49	609	53	48
				Sones	1.2	1.3	1.4	1.7	2.2	2.7	3.3			
	240	50	Hi	CFM	257	236	230	192	147	99	53	668	57	50
				Sones	1.6	1.7	1.8	1.9	2.5	3.0	3.6			

Performance certified is for installation type B: Free inlet, Ducted outlet. Performance ratings include the effects of an inlet grille and backdraft shutter. Speed (RPM) shown is nominal. Performance is based on actual speed of test. 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 B: 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 H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Installation Example



Wiring Diagram



SUPER QUIET SERIES

Usage: Bathroom | Toilet | Living Room | Corridor | Office | Retail Store

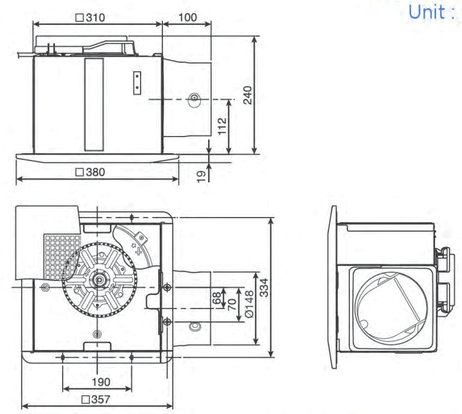
24-Hour Ventilation
Installation: 310 x 310mm
Duct Type: Ø150mm



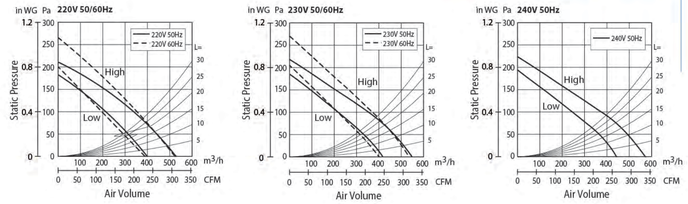
FV-32CH9

- Half pitch condenser motor with thermal cut-off
- Well-lubricated ball bearing for long life operation
- Resonance-Noise-Absorption Structure
- Effective control of air turbulence with taper blade
- Reverse flow prevention shutter
- Pre-installed power cord
- 2 speed selectable
- Motor insulation Class E
- IP protection: IPX2

Dimension
Unit : mm



Performance Data

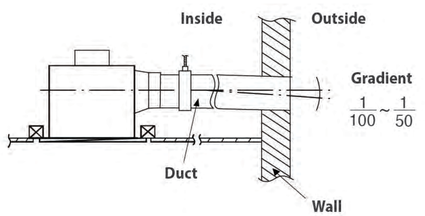


Specification

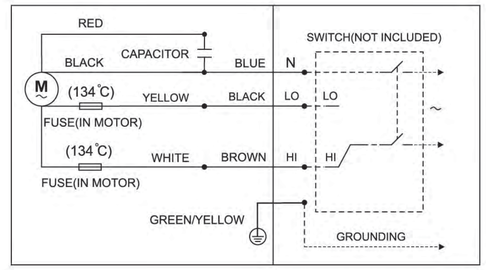
Model	Voltage [V]	Frequency [Hz]		Air Volume [CMH]	Air Volume [CFM]	Consumption [W]	RPM	Noise [dB(A)]	Weight [kg]	Installation Space [mm]	Duct Size [mm]
FV-32CH9	220	50	Hi	530	312	55	710	41	5.6	320 x 320	Ø150
			Lo	400	235	45	570	34			
		60	Hi	525	309	61	695	40.5			
			Lo	390	230	47	540	33			
	230	50	Hi	555	327	59	740	42			
			Lo	430	253	49	590	35.5			
	240	50	Hi	580	341	64	770	43			
			Lo	450	265	53	615	37			

Note: RPM data is for reference only, values may vary subject to different conditions.
Test Condition:
Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa.
The values of noise level is A weighted average sound pressure level, the mean values are measured by our company, within +3 to -7 dB tolerance.
The values of noise level are measured at 1 m apart from the side of fan body when ducts are connected on outlet side.
The values of air volume are the mid-points of results measured by our company, within ±10% tolerance.

Installation Example



Wiring Diagram



METAL SERIES

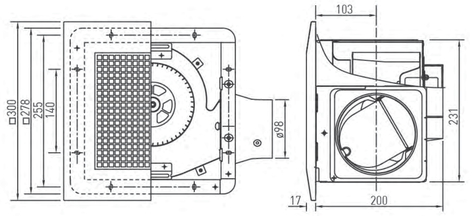
Usage: Bathroom | Toilet | Living Room | Corridor | Office | Retail Store

Fire Resistant
24-Hour Ventilation
Installation: 240 x 240mm
Duct Type: Ø100mm

Dimension
Unit : mm

Fire Resistant





FV-24CMU1 / FV-24CMH1

- All metal structure design
- Well-lubricated ball bearing for long life operation
- Metallic components to improve fire resistance
- Reverse flow prevention shutter
- Motor insulation Class E
- IP protection: IPX2

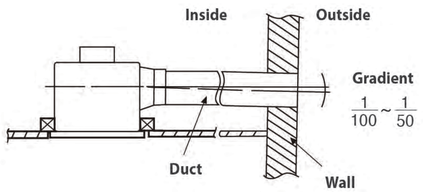
Panasonic Ecology Systems Guangdong Co., Ltd. certifies that the Ceiling Mount Type Ventilation Fan – Metal Series shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Specification

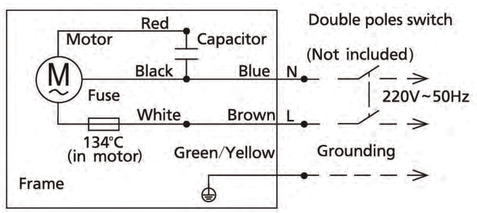
Model	Voltage [V]	Frequency [Hz]	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)						RPM	Watts*	Watts**
			Inches of H_2O	0	0.1	0.125	0.25	0.375		For AMCA	For IEC
FV-24CMU1	220	60	CFM	55	40	37	20	-	495	13	12
			Sones	0.3	0.7	0.8	1.6				
	240	50	CFM	55	44	41	24	-	562	14	13
			Sones	0.3	0.8	1.0	1.4				
FV-24CMH1	220	60	CFM	94	85	83	72	54	681	25	23
			Sones	1.0	1.4	1.5	1.9	2.3			
	240	50	CFM	108	98	95	77	44	753	27	25
			Sones	1.4	1.8	1.9	2.1	2.2			

Performance certified is for installation type B: Free inlet, Ducted outlet. Performance ratings include the effects of an inlet grille and backdraft shutter. Speed (RPM) shown is nominal. Performance is based on actual speed of test. 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 B: 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 H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Installation Example



Wiring Diagram

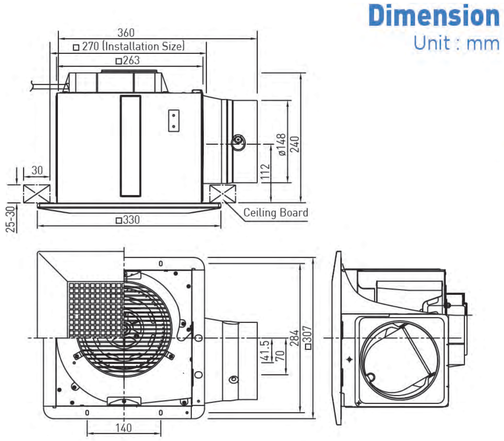


METAL SERIES

Usage: Bathroom | Toilet | Living Room | Corridor | Office | Retail Store

Fire Resistant
24-Hour Ventilation
Installation: 270 x 270mm
Duct Type: Ø148mm

Dimension
Unit : mm



Fire Resistant



FV-27CMH1

- All metal structure design
- Well-lubricated ball bearing for long life operation
- Metallic components to improve fire resistance
- Reverse flow prevention shutter
- Motor insulation Class E
- IP protection: IPX2

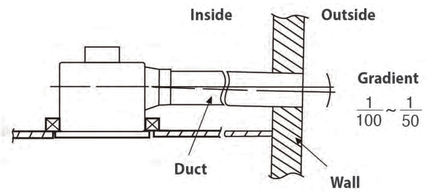
Panasonic Ecology Systems Guangdong Co., Ltd. certifies that the Ceiling Mount Type Ventilation Fan – Metal Series shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Specification

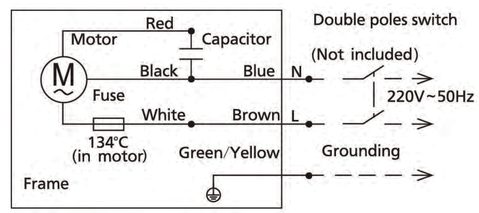
Model	Voltage [V]	Frequency [Hz]	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)							RPM	Watts*	Watts**
			Inches of H_2O	0	0.1	0.125	0.25	0.375	0.5		For AMCA	For IEC
FV-27CMH1	220	60	CFM	208	184	178	144	108	79	615	46	43
			Sones	1.6	1.7	1.7	2.3	3.2	3.5			
	240	50	CFM	219	194	188	150	110	70	669	46	43
			Sones	1.9	1.9	2.0	2.4	3.4	3.1			

Performance certified is for installation type B: Free inlet, Ducted outlet. Performance ratings include the effects of an inlet grille and backdraft shutter. Speed (RPM) shown is nominal. Performance is based on actual speed of test. 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 B: 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 H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Installation Example



Wiring Diagram



STANDARD SERIES

Usage: Bathroom | Toilet | Living Room | Corridor | Office | Retail Store

24-Hour Ventilation
Installation: 375 x 375mm
Duct Type: Ø150mm

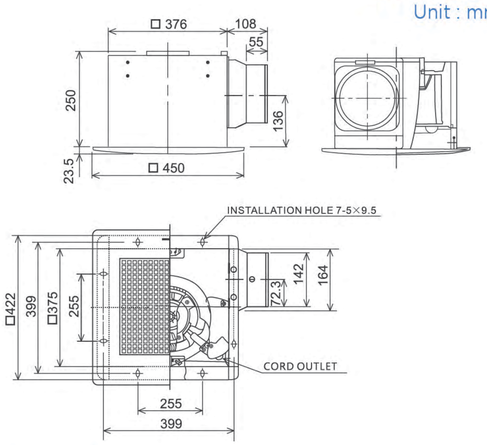


FV-38CD8 / FV-38CD8 05

- High-Low speed selectable
- Condenser motor with thermal cut-off
- Well-lubricated ball bearing for long life operation
- High performance sirocco fan
- Motor insulation Class E

Dimension

Unit : mm



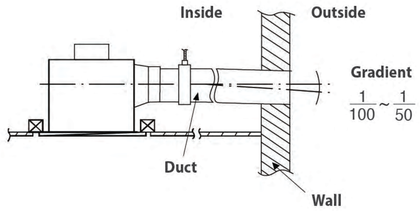
Panasonic Ecology Systems Guangdong Co., Ltd. certifies that the Ceiling Mount Type Ventilation Fan – Standard Series shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Specification

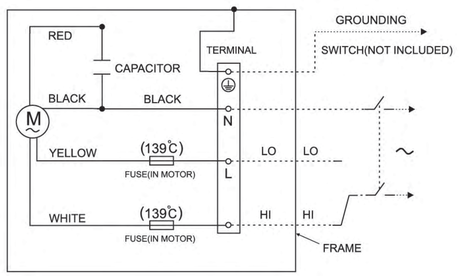
Model	Voltage [V]	Frequency [Hz]		CFM / SONE AT STATIC Pressure (ps-inches of H_2O)									RPM	Watts*	Watts**
				Inches of H_2O	0	0.1	0.125	0.25	0.375	0.5	0.625	0.75	0.875		For AMCA	For IEC
FV-38CD8	220	60	Hi	CFM	356	334	329	305	273	236	199	162	125	670	109	98
				Sones	3.4	3.5	3.6	3.7	3.9	4.2	5.1	5.7	6.2			
FV-38CD8 FV-38CD8 05	240	50	Hi	CFM	387	367	362	336	305	259	212	165	117	730	119	104
				Sones	4.0	4.1	4.2	4.3	4.4	4.7	5.3	5.7	6.2			

Performance certified is for installation type B: Free inlet, Ducted outlet. Performance ratings include the effects of an inlet grille and backdraft shutter. Speed (RPM) shown is nominal. Performance is based on actual speed of test. 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 B: 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 H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Installation Example



Wiring Diagram



WALL MOUNT TYPE VENTILATION FAN

Contemporary

Low-Noise

Safe



FEATURES

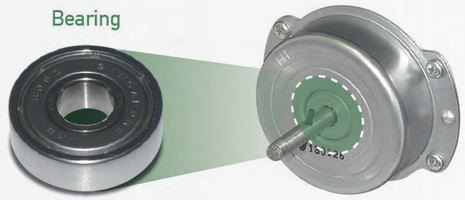
SMART DESIGN

The new flat design creates a feeling of floating upon installation on wall. Meanwhile, slim louver is designed for the louver series. Such minimalistic elements integrate seamlessly with the interior space.



Only applicable for model:
FV-20AU1/FV-25AU1/FV-30AU1/
FV-20AL1/FV-25AL1/FV-30AL1/

NEW HALF PITCH MOTOR & BEARING



Half pitch condenser motor and
well-lubricated ball bearing are used

All motors are equipped with thermal fuses which would stop when they are overheated. It can prevent further temperature rise and minimize the risk of fire hazard.

EQUIPPED WITH THERMAL FUSE

All motors are equipped with thermal fuses which stop the operation of the fans when they are overheated. It can prevent further temperature rise and reduce the risk of potential fire hazard of the motors.

SILENT STREAM FAN

Only applicable for model:
FV-20AU1/FV-25AU1/FV-30AU1/
FV-20AL1/FV-25AL1/FV-30AL1/

Silent Stream Fan



New Blade design applies advanced aerodynamic principle that optimizes the blade shape.

3D Sickle Blade

New Blade design adopts an increased blade size and airfoil curve optimization. It can increase the air volume by the adjusted blade shape which can match the airflow. Furthermore, it can lower the noise by evening the airflow velocity with the silent wing.

*Features above are only applicable to some of the models

METALLIC SERIES

Usage: Bathroom | Office | Retail Store

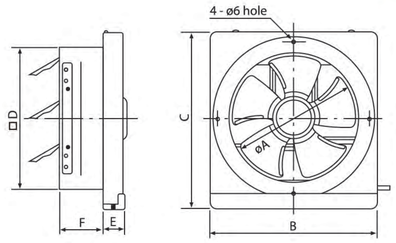
Metallic Structure
20 Series Installation: 240 x 240mm
25 Series Installation: 290 x 290mm
30 Series Installation: 340 x 340mm



FV-20AS2 / FV-25AS2 / FV-30AS2
FV-20AS2 05 / FV-25AS2 05 / FV-30AS2 05

- Condenser motor with thermal cut-off
- Well-lubricated ball bearing for long life operation
- High performance propeller fan adopted
- Automatic shutter
- Powder painted metallic orifice, blade and oil cup
- Detachable oil cup
- Motor insulation Class E
- IP protection: IPX4 (outside)

Dimension
Unit : mm



Model	A	B	C	D	E	F
FV-20AS2 / FV-20AS2 05	200	300	312	240	50	90
FV-25AS2 / FV-25AS2 05	250	350	362	290	45	90
FV-30AS2 / FV-30AS2 05	300	400	412	340	45	90

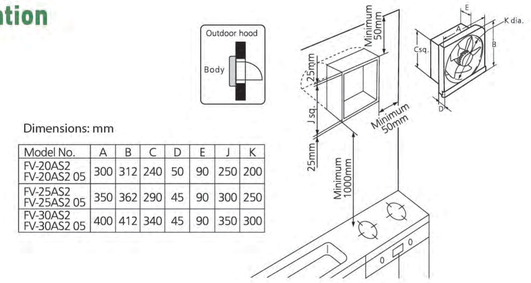
Panasonic Ecology Systems Guangdong Co., Ltd. certifies that the Wall Mount Type Ventilation Fan – Metallic Series shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Specification

Model	Voltage [V]	Frequency [Hz]	CFM/SONE AT STATIC Pressure (ps-inches of H_2O)				RPM	Watts*	Watts**
			inches of H_2O	0	0.025	0.05		For AMCA	For IEC
FV-20AS2	220	60	CFM Sones	330 1.7	259 1.9	183 3.9	1,358	25.5	21.5
	240	50	CFM Sones	296 1.5	198 1.7	151 3.2	1,252	22.4	19.5
FV-20AS2 05	240	50	CFM Sones	296 1.5	198 1.7	151 3.2	1,252	22.4	19.5
FV-25AS2	220	60	CFM Sones	522 1.9	414 1.6	240 2.2	1,277	35.5	30.5
	240	50	CFM Sones	486 2.0	434 2.0	314 2.4	1,194	35.1	29.5
FV-25AS2 05	240	50	CFM Sones	486 2.0	434 2.0	314 2.4	1,194	35.1	29.5
FV-30AS2	220	60	CFM Sones	637 2.0	400 2.7	85 2.2	1,088	39.8	34.5
	240	50	CFM Sones	706 2.9	620 2.3	498 2.2	1,175	38.1	34.0
FV-30AS2 05	240	50	CFM Sones	706 2.9	620 2.3	498 2.2	1,175	38.1	34.0

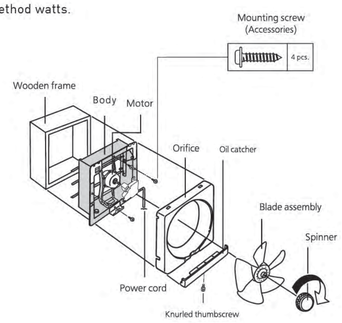
Performance certified is for installation type A: Free inlet, Free outlet with partition. Performance ratings include the effects of backdraft shutter. The speed (RPM) and Watts rating shown are at the static pressure of 0 inch of H_2O. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA International Standard 301. Values shown are for installation type B: 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 H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Installation



Dimensions: mm

Model No.	A	B	C	D	E	J	K
FV-20AS2 FV-20AS2 05	300	312	240	50	90	250	200
FV-25AS2 FV-25AS2 05	350	362	290	45	90	300	250
FV-30AS2 FV-30AS2 05	400	412	340	45	90	350	300



AUTOMATIC SHUTTER SERIES

Usage: Bathroom | Office | Retail Store

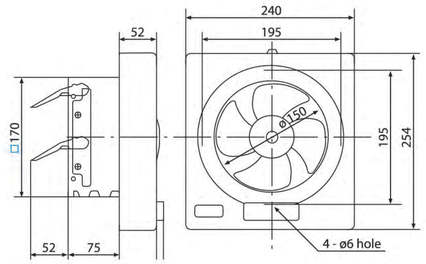
Metallic Structure
Orifice Equipped with Oil Cup
Installation: 170 x 170mm



FV-15AST1

- Condenser motor with thermal cut-off
- Well-lubricated ball bearing for long life operation
- High performance propeller fan adopted
- Automatic shutter with plastic cushions
- Orifice equipped with oil cup
- Motor insulation Class E
- IP protection: IPX4 (outside)

Dimension
Unit : mm



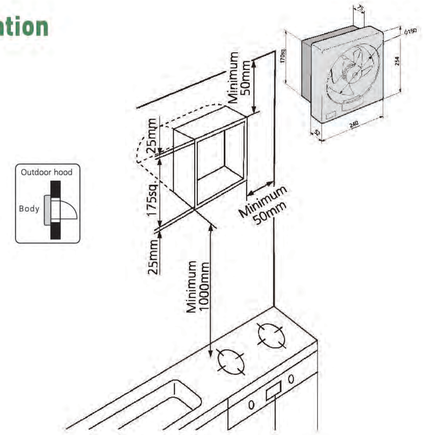
Panasonic Ecology Systems Guangdong Co., Ltd. certifies that the Wall Mount Type Ventilation Fan – Automatic Shutter Series shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

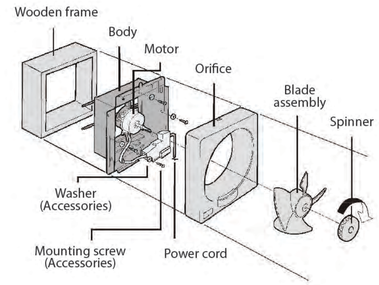
Specification

Model	Voltage [v]	Frequency [Hz]	CFM/SONE AT STATIC Pressure (ps-inches of H_2O)				RPM	Watts*	Watts**
			inches of H_2O	0	0.025	0.05		For AMCA	For IEC
FV-15AST1	220	60	CFM Sones	157 2.5	122 1.9	65 2.3	1,533	20.6	19.0
	240	50	CFM Sones	154 1.7	120 1.4	63 2.1	1,453	20.1	19.0

Performance certified is for installation type A: Free inlet, Free outlet with partition. Performance ratings include the effects of backdraft shutter. The speed (RPM) and Watts rating shown are at the static pressure of 0 inch of H_2O. 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 B: 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 H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Installation





AUTOMATIC SHUTTER SERIES

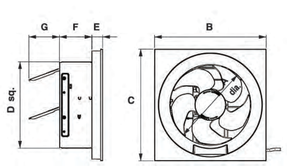
Usage: Bathroom | Toilet | Office | Retail Store

Flat Surface Design
Silent Stream Fan
Automatic Shutter

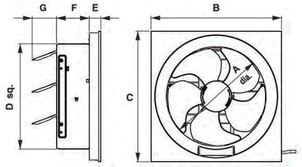
Silent Stream Fan



Dimension
Unit : mm



FV-20AU1



FV-25AU1 / FV-30AU1

Model	A	B	C	D	E	F	G
FV-20AU1	223	310	310	240	30	90	85
FV-25AU1	273	360	360	290	32	90	67
FV-30AU1	317	410	410	340	32	90	83

FV-20AU1 / FV-25AU1 / FV-30AU1

- Flat surface design
- Silent stream fan
- Half pitch condenser motor with thermal cut-off
- Well-lubricated ball bearing for long life operation
- Automatic shutter
- Motor insulation Class B
- IP protection: IPX4 (outside)

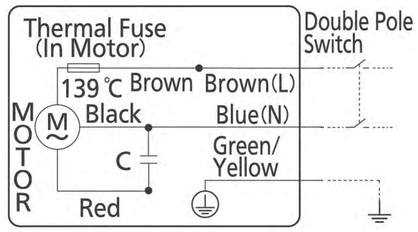
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Specification

Model	Voltage	Frequency	CFM/SONE AT STATIC Pressure (ps-inches of H_2O)					RPM	Watts*	Watts**
			inches of H_2O	0	0.02	0.04	0.06		For AMCA	For IEC
FV-20AU1	220V	60Hz	CFM Sones	370 2.1	328 2.1	274 2.2	227 2.5	1,430	23.5	22.0
	240V	50Hz	CFM Sones	339 2.0	295 2.1	257 2.0	200 4.5	1,303	23.0	21.5
FV-25AU1	220V	60Hz	CFM Sones	542 2.4	504 2.3	460 1.9	361 2.5	1,387	33.2	31.0
	240V	50Hz	CFM Sones	542 3.6	493 3.2	443 3.0	394 3.1	1,252	31.0	29.0
FV-30AU1	220V	60Hz	CFM Sones	655 2.0	567 1.6	456 1.9	242 2.4	938	35.3	33.0
	240V	50Hz	CFM Sones	696 2.0	580 1.8	491 1.6	340 2.2	964	34.8	32.5

Performance certified is for installation type A: Free inlet, Free outlet with partition. Performance ratings include the effects of a backdraft shutter for Model AU1. The speed (RPM) and Watts rating shown are at the static pressure of 0 inch of H_2O. 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 only for AMCA test method and it is at the static pressure of 0 inch of H_2O.
**the Watts rating only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Wiring Diagram



AUTOMATIC SHUTTER LOUVER SERIES

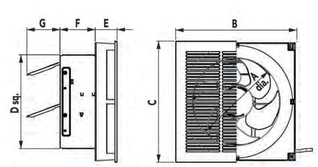
Usage: Bathroom | Toilet | Office | Retail Store

Louver for Safety Protection
Silent Stream Fan
Automatic Shutter

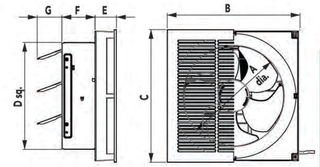
Silent Stream Fan



Dimension
Unit : mm



FV-20AL1



FV-25AL1 / FV-30AL1

Model	A	B	C	D	E	F	G
FV-20AL1	223	310	310	240	56	90	85
FV-25AL1	273	360	360	290	58	90	67
FV-30AL1	317	410	410	340	58	90	83

FV-20AL1 / FV-25AL1 / FV-30AL1

- Slim louver design
- Silent stream fan
- Half pitch condenser motor with thermal cut-off
- Well-lubricated ball bearing for long life operation
- Automatic shutter
- Motor insulation Class B
- IP protection: IPX4 (outside)

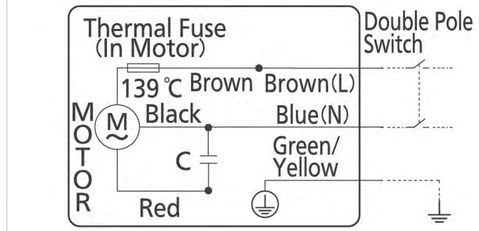
Panasonic Electric Works Vietnam Co., Ltd. certifies that the Wall Mount Type Ventilation Fan – Automatic Shutter Series shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Specification

Model	Voltage	Frequency	CFM/SONE AT STATIC Pressure (ps-inches of H_2O)					RPM	Watts*	Watts**
			inches of H_2O	0	0.02	0.04	0.06		For AMCA	For IEC
FV-20AL1	220V	60Hz	CFM Sones	334 2.8	296 2.7	256 3.1	197 3.9	1,398	23.5	22.0
	240V	50Hz	CFM Sones	301 2.5	274 2.5	234 2.7	175 2.8	1,278	23.0	21.5
FV-25AL1	220V	60Hz	CFM Sones	471 3.4	411 3.2	350 2.9	250 3.0	1,224	33.2	31.0
	240V	50Hz	CFM Sones	482 4.2	438 4.1	389 3.8	328 3.8	1,217	32.1	30.0
FV-30AL1	220V	60Hz	CFM Sones	510 2.5	446 2.0	372 3.0	219 2.1	867	35.3	33.0
	240V	50Hz	CFM Sones	571 3.1	494 2.6	411 2.5	263 3.3	896	35.3	32.5

Performance certified is for installation type A: Free inlet, Free outlet with partition. Performance ratings include the effects of inlet grille and backdraft shutter for Model AL1. The speed (RPM) and Watts rating shown are at the static pressure of 0 inch of H_2O. 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 only for AMCA test method and it is at the static pressure of 0 inch of H_2O.
**the Watts rating only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Wiring Diagram

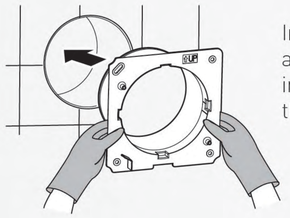


FEATURE OF BATHROOM SERIES

Easy Installation - Pipe Hood Series

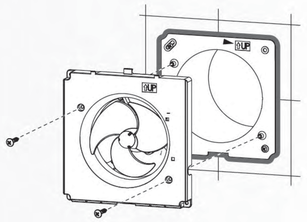
With the supplied accessories, it only takes a few steps to complete the installation.

STEP 1



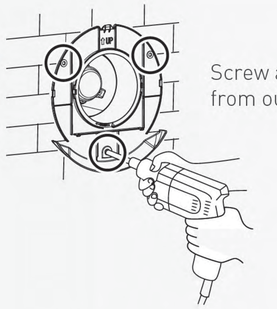
Insert the duct and fix from inside wall, then caulk.

STEP 2



Connect power wires and fix the fan.

STEP 3



Screw and fix from outside wall.

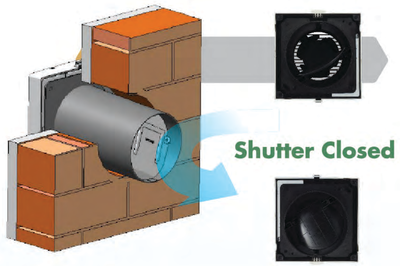
STEP 4



Hang and fix the pipe hood, then caulk.

Note: For detailed installation methods, please refer to installation steps in the manual.

Easy Installation



Back Draft Shutter

Shutter Series (For Vertical Shaft) only

Wind from outside may come indoor through the duct when the fan is not operating. The back draft shutter is designed to cover the duct hole to block wind and water.

All Accessories Included

The product comes bundled with all required accessories. It conveniently saves the hassle of seeking necessary accessories around.

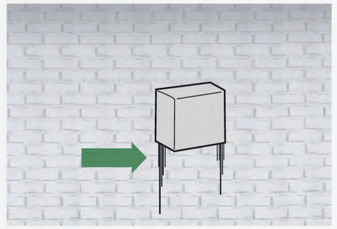
Pipe Hood Series



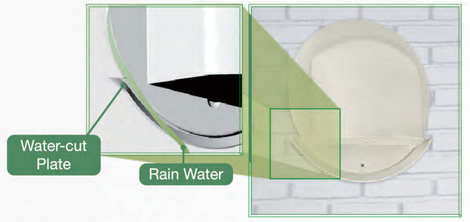
Trace-Prevention

Pipe Hood Series Only

When it rains, rainwater dripping along the side of pipe hood may cause trace marks on wall. The exclusively designed duct ring catches and drains the water away to avoid forming trace marks.



With a standard pipe hood, rain water may cause trace mark on the wall.



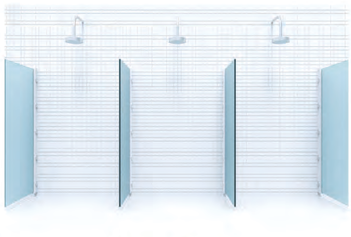
The water cut plate catches the rain and drains it without leaving trace mark on the wall.



Bathroom



Toilet



Shower Room

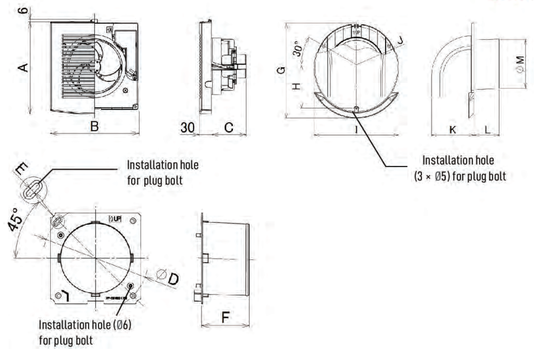
Usage: Bathroom | Toilet

Advanced Blade Design
Easy Installation
Pipe Hood Equipped



Dimension

Unit : mm



FV-10EGK2 / FV-15EGK2

Model	A	B	C	D	E	F	G	H	I	J	K	L	M
FV-10EGK2	176	170	83	177	6	100	250	107	220	99	99	82	118
FV-15EGK2	230	220	86	231	6	100	310	142	270	123	138	82	161

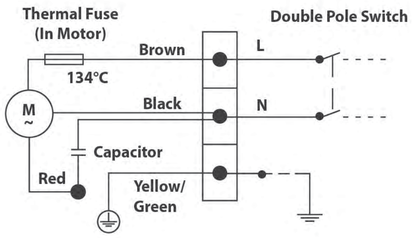
- Pipe hood series
- Powerful exhaust of excessive moisture and odour
- Prevent rain water trace by water-cut plate at duct ring
- Half pitch condenser motor with thermal cut-off
- Well-lubricated ball bearing for long life operation
- Motor insulation Class E
- IP protection IPX4 (outside)

Specification

Model	Voltage [V]	Frequency [Hz]	Air Volume [CFM]	Consumption [W]	Noise [dB(A)]	RPM	Wall Installation		Ceiling Installation	Net Weight [kg]
							Hole Size [mm]	Wall Thickness [mm]	Hole size [mm]	
FV-10EGK2	220	50	45	4.3	33.0	2,660	Ø130~140	100~150	Ø130~140	1.0
	240	50	45	5.0	33.0	2,690				
FV-15EGK2	220	50	95	5.7	36.0	2,265	Ø175~185	100~150	Ø175~185	1.3
	240	50	97	6.5	37.0	2,390				

Notes:
1.The value of power consumption, air volume and noise are specified at the static pressure of 0 Pa.
2.The value of air volume is the mean value which is measured by our company.
3.The value of noise level is measured at 1m apart from the left, the right and the directly below of product, then get the average of three values.
4.The value of noise level is A weight average sound pressure level, the mean value is measured by our company.

Wiring Diagram



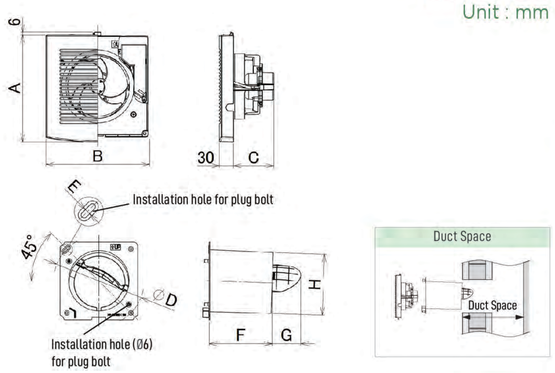
Usage: Bathroom | Toilet

Advanced Blade Design
Automatic Shutter
Shutter Equipped



Dimension

Unit : mm



FV-10EGS2 / FV-15EGS2

Model	A	B	C	D	E	F	G	H
FV-10EGS2	176	170	83	177	6	145	45	111
FV-15EGS2	230	220	86	231	6	155	75	155

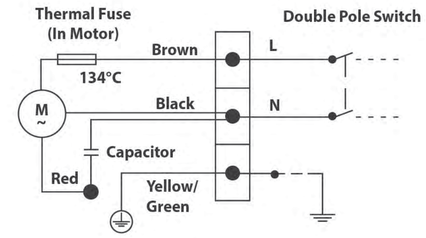
- Shutter series (for vertical shaft)
- Powerful exhaust of excessive moisture and odour
- Half pitch condenser motor with thermal cut-off
- Well-lubricated ball bearing for long life operation
- Motor insulation Class E
- IP protection IPX4 (outside)

Specification

Model	Voltage [V]	Frequency [Hz]	Air Volume [CFM]	Consumption [W]	Noise [dB(A)]	RPM	Wall Installation		Ceiling Installation	Net Weight [kg]
							Hole Size [mm]	Duct Space [mm]	Hole size [mm]	
FV-10EGS2	220	50	45	4.3	35.0	2,665	Ø120~125	>205	Ø130~140	0.8
	240	50	45	5.0	35.0	2,685				
FV-15EGS2	220	50	91	5.7	36.0	2,130	Ø165~170	>240	Ø175~185	1.0
	240	50	97	6.5	37.0	2,240				

Notes:
1.The value of power consumption, air volume and noise are specified at the static pressure of 0 Pa.
2.The value of air volume is the mean value which is measured by our company.
3.The value of noise level is measured at 1m apart from the left, the right and the directly below of product, then get the average of three values.
4.The value of noise level is A weight average sound pressure level, the mean value is measured by our company.

Wiring Diagram



WINDOW MOUNT TYPE VENTILATION FAN

Low-Noise

High Performance

Durable



Scan for more information

ELECTRIC SHUTTER SERIES

Able to maintain airtightness



AUTOMATIC SHUTTER SERIES

Able to maintain airtightness



CORD-OPERATED SHUTTER SERIES

Can be easily installed in any glass window



FEATURES OF ELECTRIC SHUTTER SERIES

Rain proof and wind resistible

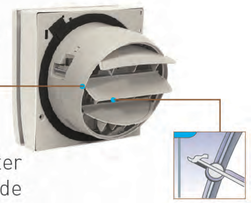
Hood structure for prevention of rain water ingression

High static pressure blade can prevent ingression of rain & wind during operation

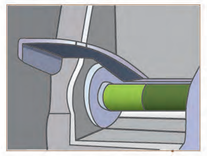


The newly designed shutter can keep out entry of rain water effectively

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



Easy installation



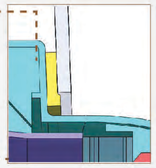
Mounting Bracket

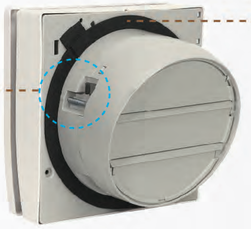
Unique design of mounting bracket can fix the fan on glass plate with simple process

Packing

No Gasket / No Silicon Seal

Attached packing is tightly closed to the glass plate that gets rid of water leakage to indoor

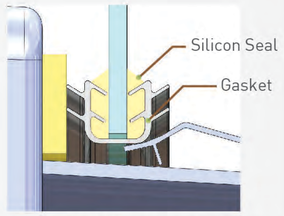






e.g. FV-15WH3T
Orifice is not necessary to detach for installation.
Simply fix the fan on glass plate by screws ar front.

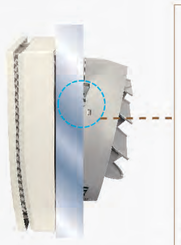
Pervious Setting Method



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

High adaptability

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

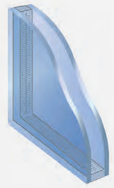




Applicable Glass Thickness
3mm-25mm

Double glass

Often called insulated glass that consists of two panes of glass set apart to allow airspace in. This airspace acts as a buffer which obstructs the transfer of heat from one side of the glass to the other.





Bathroom



Toilet



Office

ELECTRIC SHUTTER SERIES

Usage: Bathroom | Toilet | Office | Retail Store

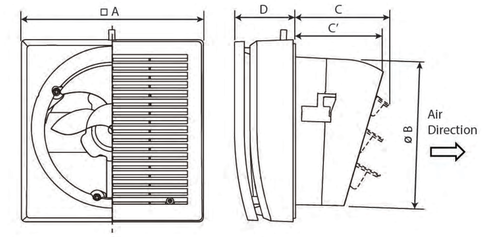
Louver for Protection
Electric Shutter
Rain proof and wind resistible



FV-15WH3T / FV-20WH3T

- Electrically operated shutter
- Advanced design hood structure to prevent rain and wind
- Suitable for window glass with thickness from 3mm to 25mm
- Simple and easy installation, no need of any silicon seal or gasket
- Motor insulation Class E
- IP protection: IPX4 (outside)

Dimension
Unit : mm



Model	A	B	C	C'	D
FV-15WH3T	224	182	117	111	72
FV-20WH3T	288	243	120	117	74

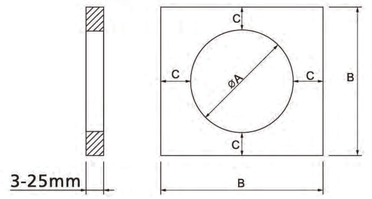
Panasonic Ecology systems Co., Ltd. and Panasonic Electric Works Vietnam Co., Ltd. certify that the Window Mount Type Ventilation Fan – Electric Shutter Series shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Specification

Model	Voltage [V]	Frequency [Hz]	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)					RPM	Watts*	Watts**
			Inches of H_2O	0	0.05	0.1	0.15		For AMCA	For IEC
FV-15WH3T	220	60	CFM	127	94	63	31	2,440	14.6	13
			Sones	3.0	3.6	3.5	3.9			
	240	50	CFM	127	95	68	50	2,537	16	15
			Sones	2.3	2.7	3.5	2.8			
FV-20WH3T	220	60	CFM	250	188	127	78	1,517	24.4	22
			Sones	3	3.9	4.5	4.2			
	240	50	CFM	230	147	103	53	1,333	23.4	22
			Sones	2.8	3.8	3.4	4			

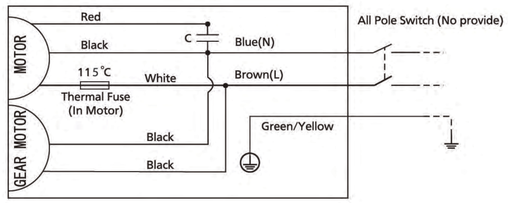
Performance certified is for installation type A: Free inlet, Free outlet with partition. Performance ratings include the effects of a shutter. The Speed (RPM) and Watts rating shown are at the static pressure of 0 inch of H_2O. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) 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 H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Installation



Model	A	B	C
FV-15WH3T	186 ~ 188mm	390mm Min	100mm Min
FV-20WH3T	247 ~ 250mm	450mm Min	100mm Min

Wiring Diagram



FEATURES OF AUTOMATIC SHUTTER SERIES

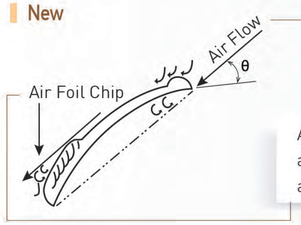
Auto Shutter

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



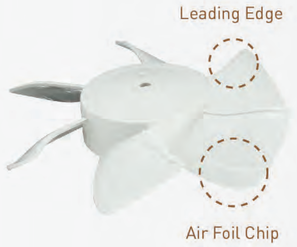
Advanced Blade Design

New



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.



Half pitch condenser motor with well-lubricated ball bearing

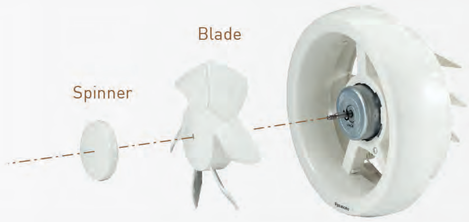
- Low power consumption (50% down VS previous model)
- Low noise level (6% down VS previous model)
- Long life up to 40,000 hours (1.5 time VS previous model)
- Comply with IPX4 (outside)



Half pitch condenser motor and well-lubricated ball bearing are used

Easy Maintenance

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





Bathroom



Toilet



Office

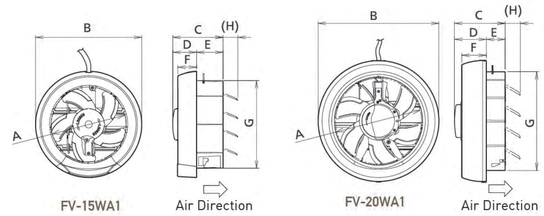
AUTOMATIC SHUTTER SERIES

Usage: Bathroom | Toilet | Office | Retail Store

Automatic Shutter
Advanced Blade Design
Easy Maintenance



Dimension
Unit : mm



Model	A	B	C	D	E	F	G	H (Max)
FV-15WA1	150	212	100	47	53	38	175	(30)
FV-20WA1	206	290	122	76	46	59	237	(36)

FV-15WA1 / FV-20WA1

- Automatic shutter
- Half pitch condenser motor with thermal cut-off
- Well-lubricated ball bearing for long life operation
- Propeller fan incorporated with advanced blade design
- Removable blade for easy maintenance
- Motor insulation Class E
- IP protection: IPX4 (outside)

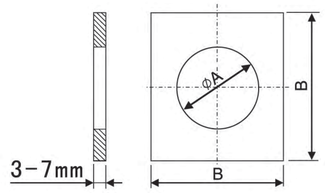
Panasonic Ecology systems Co., Ltd. and Panasonic Electric Works Vietnam Co., Ltd. certify that the Window Mount Type Ventilation Fan – Automatic Shutter Series shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Specification

Model	Voltage [V]	Frequency [Hz]	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)					RPM	Watts*	Watts**
			Inches of H_2O	0	0.02	0.04	0.06		For AMCA	For IEC
FV-15WA1	220	60	CFM	124	109	91	79	2,021	19.6	18
			Sones	3.6	4.5	4.1	4			
	240	50	CFM	124	109	93	78	2,062	18.2	16
			Sones	2.5	4.5	4.1	3.8			
FV-20WA1	220	60	CFM	206	147	124	94	1,385	18.4	17
			Sones	3.7	3.8	3.5	3.3			
	240	50	CFM	165	153	141	131	1,375	18.6	17.5
			Sones	3.4	3.3	3.4	3.4			

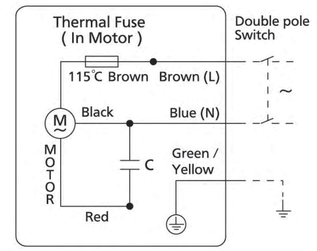
Performance certified is for installation type A: Free inlet, Free outlet with partition. Performance ratings include the effects of a shutter. The Speed (RPM) and Watts rating shown are at the static pressure of 0 inch of H_2O. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) 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 H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Installation



Model	A	B
FV-15WA1	186 ~ 188mm	⩾250mm
FV-20WA1	247 ~ 250mm	⩾300mm

Wiring Diagram



FEATURES OF CORD-OPERATED SHUTTER SERIES

Strengthened Shutter Structure

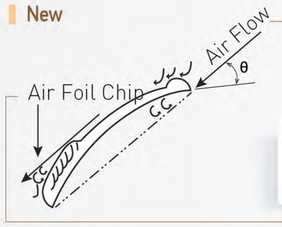
- Durable
- Sustainable to strong wind



Metallic shutter axis is used as the supporter for movement of shutter that provides a better endurance.

Advanced Blade Design

New



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.

Leading Edge



Air Foil Chip

Half pitch condenser motor with well-lubricated ball 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)



Half pitch condenser motor and well-lubricated ball bearing are used

Easy Maintenance

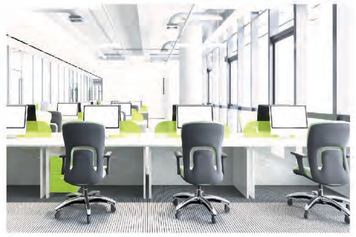
The blade can be detached by simply loosening the spinner, that facilitates the periodical maintenance.



Bathroom



Toilet



Office

CORD-OPERATED SHUTTER SERIES

Usage: Bathroom | Toilet | Office | Retail Store

Cord-operated Shutter
Advanced Blade Design
Metallic Shutter Axis

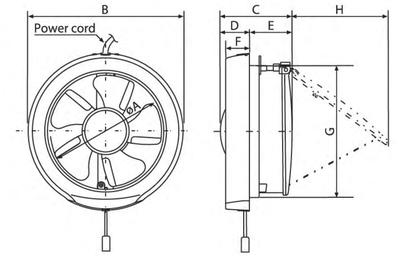


FV-15WU4 / FV-20WU4

- Half pitch condenser motor with thermal cut-off
- Well-lubricated ball bearing for long life operation
- Propeller fan incorporated with advanced blade design
- Shutter operated by pull cord
- Metallic shutter axis
- Motor insulation Class E
- IP protection: IPX4 (outside)

Dimension

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

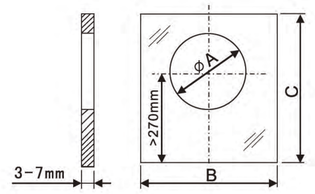
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Specification

Model	Voltage [V]	Frequency [Hz]	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)					RPM	Watts*	Watts**
			Inches of H_2O	0	0.01	0.02	0.03		For AMCA	For IEC
FV-15WU4	220	60	CFM	105	94	79	66	1,425	9.7	8.9
			Sones	0.9	0.9	2.2	2.4			
	240	50	CFM	124	115	104	94	1,722	10.3	9.5
			Sones	1.4	1.6	1.8	3.7			
			Inches of H_2O	0	0.02	0.03	0.04			
FV-20WU4	220	60	CFM	188	129	112	88	980	19.2	17.9
			Sones	0.8	1.2	1.8	1.4			
	240	50	CFM	221	168	141	118	1,096	18.5	17.2
			Sones	1.8	1.6	2.2	2.0			

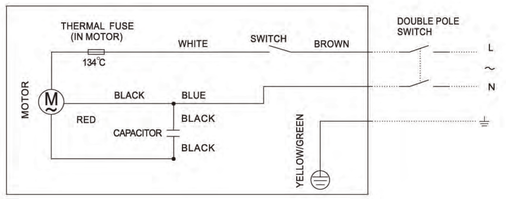
Performance certified is for installation type A: Free inlet, Free outlet with partition. Performance ratings include the effects of a shutter. The Speed (RPM) and Watts rating shown are at the static pressure of 0 inch of H_2O. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) 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 H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Installation



Model	A	B	C
FV-15WU4	186 ~ 188mm	⩾250mm	⩾400mm
FV-20WU4	247 ~ 250mm	⩾300mm	⩾420mm

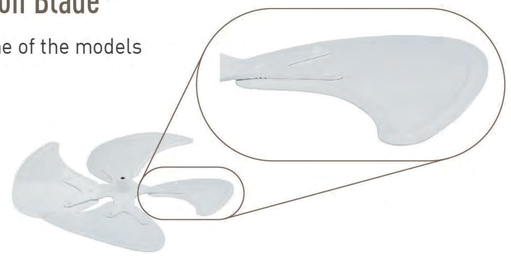
Wiring Diagram



INDUSTRIAL TYPE VENTILATION FAN

Fans with 3D Wave-shaped Cross Section Blade*

*The 3D wave-shaped blade only applicable to some of the models



Low-Noise

High Performance

Durable



Scan for more information

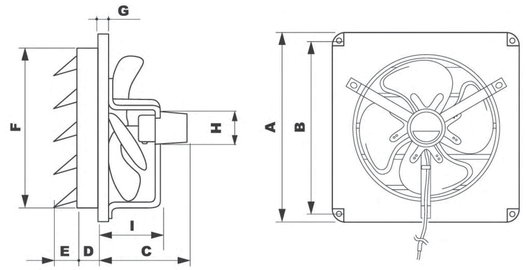
SHUTTER SERIES

Usage: Factory | Warehouse | Retail Store | Commercial Kitchen

High Pressure
Rust Resistant
Shutter



Dimension
Unit : mm



FV-40KAU1

Model	A	B	C	D	E	F	G	H	I
FV-40KAU1	510	480	215	40	55	434	10	126	130

- With shutter
- Durable powder coating for rust resistance
- High performance condenser motor with thermal cut-off
- Operable at an ambient temperature range from -10°C to +50°C
- Motor insulation Class E
- IP protection: IPX4 (outside)

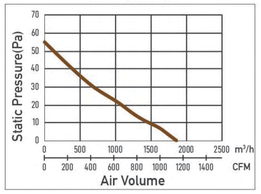
Specification

Voltage [V]	Frequency [Hz]	Air Volume [CMH]	Air Volume [CFM]	Current [A]	Input [W]	Noise [dB(A)]	RPM	Weight [kg]	Installation Space WxL [mm]
220	50	1,880	1,105	0.260	47	51	1,230~1,370	6.4	444 x 444
230		1,920	1,130	0.270	52	51	1,250~1,390		
240		1,960	1,151	0.290	59	51	1,270~1,410		
230	60	2,130	1,254	0.310	67	52.5	1,400~1,540		

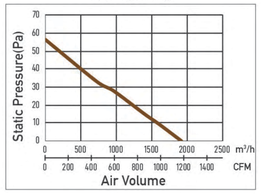
1. RPM data is for reference only. Values may vary depending on different conditions.
2. The value of power consumption, air volume and noise are specified at the static pressure of 0 Pa.
3. The value of air volume is the mean value which is measured by our company.
4. The value of noise level is measured at 1m apart from the left, the right and the front of product, then get the average of three values.
5. The value of noise level is A weight average sound pressure level, the mean value is measured by our company.

Performance Data

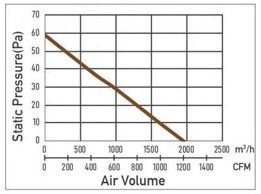
220V(50Hz)



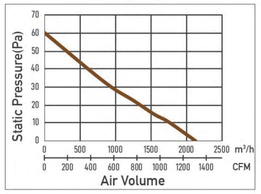
230V(50Hz)



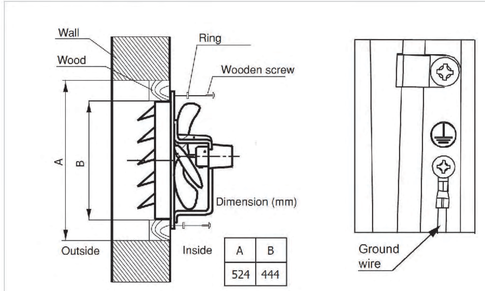
240V(50Hz)



230V(60Hz)

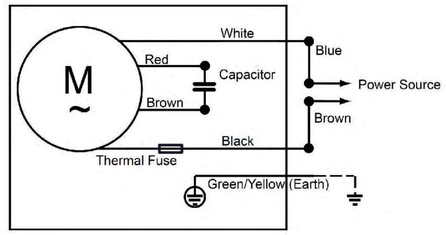


Installation



A	B
524	444

Wiring Diagram



SHUTTER SERIES

Usage: Factory | Warehouse | Retail Store | Commercial Kitchen

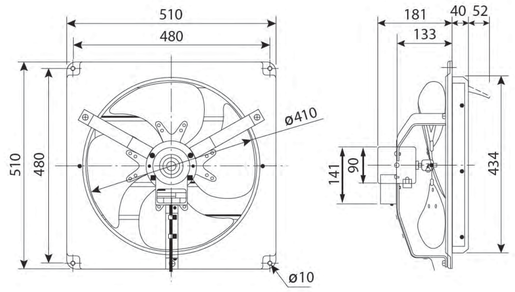
High Pressure
Rust Resistant
Shutter



FV-40KUT

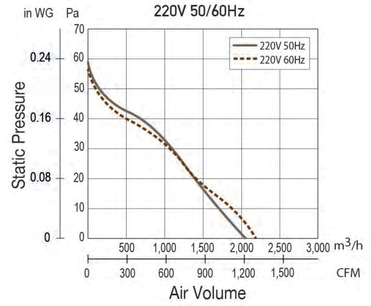
- Metal large blade assembly for abundant air volume
- Powerful, efficient and durable condenser motor
- Operable at an ambient temperature range from -10°C to +50°C
- Motor insulation Class E

Dimension
Unit : mm



Model	A	B	C	D	E	F	G	H	I	J	K
FV-40KUT	510	480	410	133	40	52	141	90	434	10	181

Performance Data

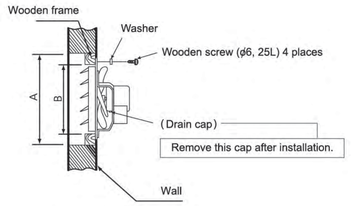


Specification

Model	Voltage [V]	Frequency [Hz]	Air Volume [CMH]	Air Volume [CFM]	Consumption [W]	RPM	Noise [dB(A)]	Weight [kg]
FV-40KUT	220	50	2,060	1,212	61	1,175	49	6.4
		60	2,190	1,289	76	1,260	51	

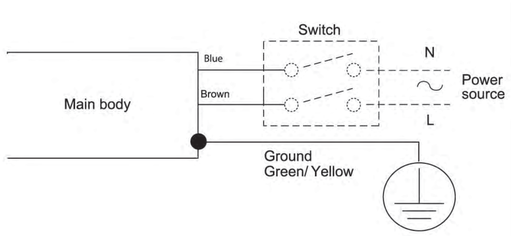
Note: The values in Specification table are representative characteristic values at 220V, 50/60Hz.
RPM data is for reference only. Values may vary subject to different conditions.

Installation



Model	A	B
FV-40KUT	534	444

Wiring Diagram



HIGH PRESSURE SERIES

Usage: Factory | Warehouse | Retail Store | Commercial Kitchen

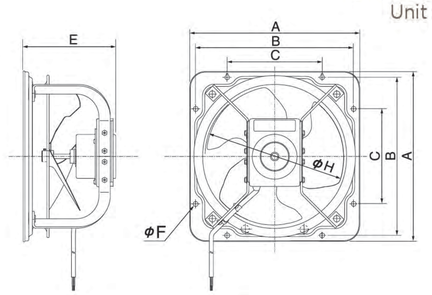
Single Phase
Reversible
Optional Shutter



FV-25GS5 / FV-30GS5 / FV-35GS5

- Bell mouth construction with distinctive wave-shaped blade
- Durable powder coating
- Operable at an ambient temperature range from -10°C to +50°C
- Possible to install horizontally or vertically
- Motor insulation Class E
- IP protection: IPX4 (outside)

Dimension
Unit : mm



Model	A	B	C	D	E	F	G	H
FV-25GS5	327	298	165	-	171	10	-	250
FV-30GS5	378	349	210	-	200	10	-	300
FV-35GS5	467	434	250	-	236	12	-	300

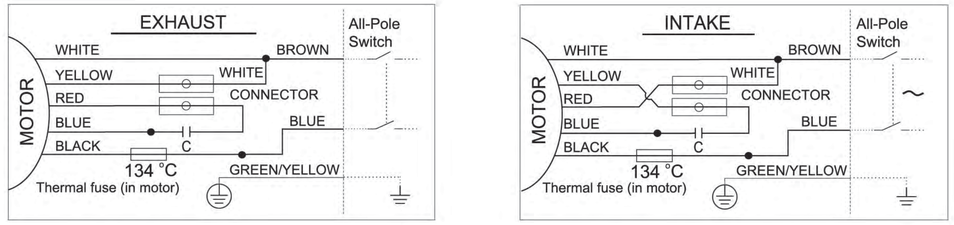
Panasonic Ecology Systems Guangdong Co., Ltd. certifies that the Industrial Ventilation Fan – High Pressure Series shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Specification

Model	Voltage [V]	Frequency [Hz]	CFM / SONE AT STATIC Pressure (ps-inches of H_2O) Inches of H_2O	0	0.05	0.075	0.1	0.125	0.25	0.375	RPM	Watts* For AMCA	Watts** For IEC
FV-25GS5	220	60	CFM	788	742	715	686	647	-	-	1,570	61	57
			Sones	4.9	4.7	4.5	4.5	4.6	-	-			
	240	50	CFM	701	657	633	600	565	187	-	1,400	48	44
			Sones	3.8	3.6	3.6	3.5	3.6	8.6	-			
FV-30GS5	220	60	CFM	1,308	1,247	1,217	1,184	1,153	772	-	1,460	129	119
			Sones	9.0	9.0	9.1	9.0	9.1	9.4	-			
	240	50	CFM	1,177	1,119	1,090	1,058	1,026	561	243	1,315	106	98
			Sones	5.5	5.5	5.6	5.6	5.8	11.1	12.0			
FV-35GS5	220	60	CFM	1,850	1,788	1,752	1,712	1,669	1,456	600	1,640	178	161
			Sones	11.9	11.6	12.0	12.4	13.6	14.6	13.4			
	240	50	CFM	1,615	1,548	1,506	1,458	1,411	1,147	390	1,435	130	122
			Sones	8.6	8.2	8.2	8.0	8.0	12.6	13.4			

Performance certified is for installation type A: Free inlet, Free outlet with partition. Performance ratings do not include the effects of appurtenances (accessories). 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. Speed (RPM) shown is nominal. Performance is based on actual speed of test.
* the Watts rating is only for AMCA test method and it is at the static pressure of 0 inch of H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Wiring Diagram

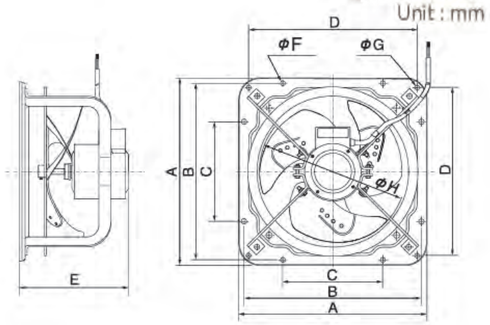


Usage: Factory | Warehouse | Retail Store | Commercial Kitchen

Single Phase
Reversible
Optional Shutter



Dimension
Unit : mm



Model	A	B	C	D	E	F	G	H
FV-40GS5	518	485	280	460	274	12	12	400

FV-40GS5

- Bell mouth construction with distinctive wave-shaped blade
- Durable powder coating
- Operable at an ambient temperature range from -10°C to +50°C
- Possible to install horizontally or vertically
- Motor insulation Class B
- IP protection: IPX4 (outside)

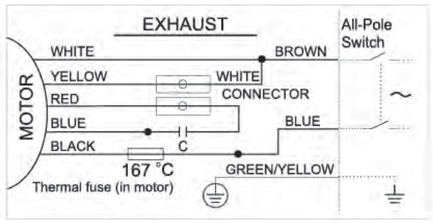
Panasonic Ecology Systems Guangdong Co., Ltd. certifies that the Industrial Ventilation Fan – High Pressure Series shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

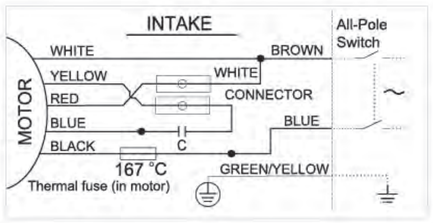
Specification

Model	Voltage [V]	Frequency [Hz]	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)								RPM	Watts*	Watts**
			Inches of H_2O	0	0.05	0.075	0.1	0.125	0.25	0.375		For AMCA	For IEC
FV-40GS5	220	60	CFM	2,677	2,581	2,535	2,488	2,440	2,170	2,050	1,550	294	270
			Sones	20.0	20.0	19.7	19.4	19.3	18.9	19.9			
	240	50	CFM	2,135	2,607	2,035	2,000	1,965	1,800	1,480	1,440	164	151
			Sones	9.0	8.5	8.7	8.7	8.7	13.0	14.2			

Performance certified is for installation type A: Free inlet, Free outlet with partition. Performance ratings do not include the effects of appurtenances (accessories). 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. Speed (RPM) shown is nominal. Performance is based on actual speed of test.
* the Watts rating is only for AMCA test method and it is at the static pressure of 0 inch of H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Wiring Diagram





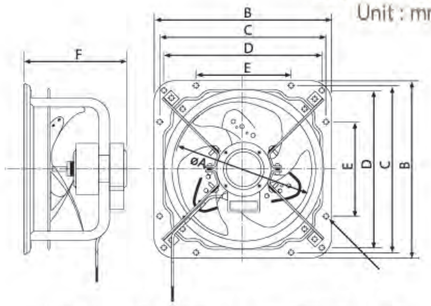
HIGH PRESSURE SERIES

Usage: Factory | Warehouse | Retail Store | Commercial Kitchen

Single Phase
Reversible
Optional Shutter



Dimension
Unit : mm



Model	A	B	C	D	E	F	G
FV-45GS4	450	570	540	-	320	297	12
FV-50GS4	500	659	620	560	355	315	15
FV-60GS4	620	760	720	650	400	320	15

FV-45GS4 / FV-50GS4 / FV-60GS4

- Bell mouth construction with distinctive wave-shaped blade
- Durable powder coating
- Operable at an ambient temperature range from -10°C to +50°C
- Possible to install horizontally or vertically
- Motor insulation Class E

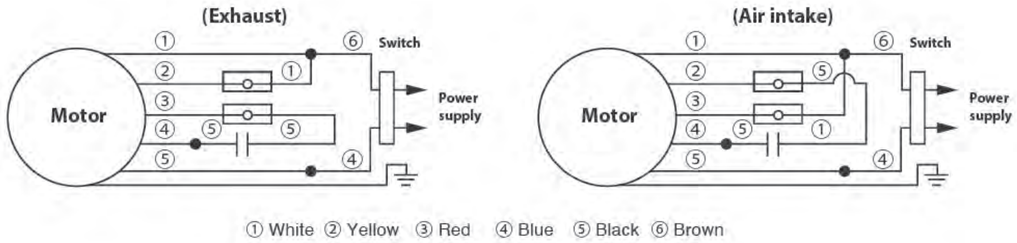
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Specification

Model	Voltage [V]	Frequency [Hz]	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)					RPM	Watts*	Watts**
			Inches of H_2O	0	0.2	0.3	0.4		For AMCA	For IEC
FV-45GS4	220	60	CFM	3,278	3,131	3,001	2,795	1,563	346	325
			Sones	10.0	10.4	10.6	10.8			
	240	50	CFM	2,854	2,648	2,454	2,030	1,430	277	241
			Sones	7.8	7.7	7.8	9.4			
FV-50GS4	220	60	CFM	3,884	3,443	3,090	2,501	1,080	347	326
			Sones	10.9	11.3	11.5	11.8			
	240	50	CFM	3,354	2,854	2,266	912	968	293	271
			Sones	11.7	13.8	14.5	15.4			
FV-60GS4	220	60	CFM	5,038	4,349	3,943	3,560	1,088	384	361
			Sones	10.1	9.8	9.5	10.1			
	240	50	CFM	4,402	3,855	3,366	2,972	980	289	263
			Sones	10.3	8.6	8.5	11.5			

Performance certified is for installation type A: Free inlet, Free outlet with partition. Performance ratings do not include the effects of appurtenances (accessories). 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. Speed (RPM) shown is nominal. Performance is based on actual speed of test.
* the Watts rating is only for AMCA test method and it is at the static pressure of 0 inch of H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Wiring Diagram



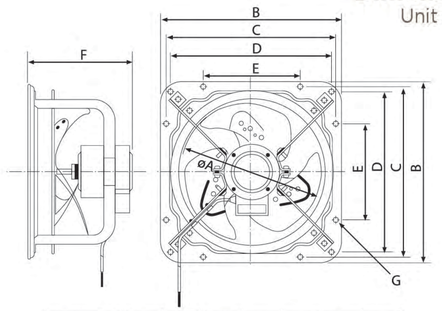
Usage: Factory | Warehouse | Retail Store | Commercial Kitchen

Three Phase
Reversible
Optional Shutter



Dimension

Unit : mm

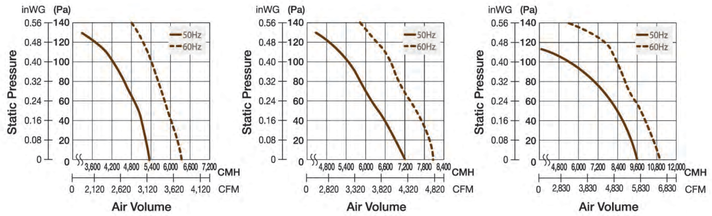


Model	A	B	C	D	E	F	G
FV-45GT4	450	570	540	-	320	297	12
FV-50GT4	500	659	620	560	355	304	15
FV-60GT4	620	760	720	650	400	320	15

FV-45GT4 / FV-50GT4 / FV-60GT4

- Bell mouth construction with distinctive wave-shaped blade
- Durable powder coating
- Operable at an ambient temperature range from -10°Cto +50°C
- Possible to install horizontally or vertically
- Motor insulation Class E

Performance Data

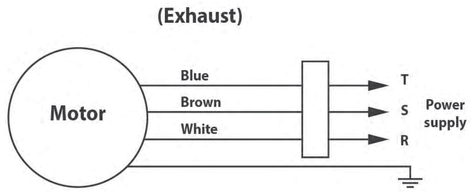


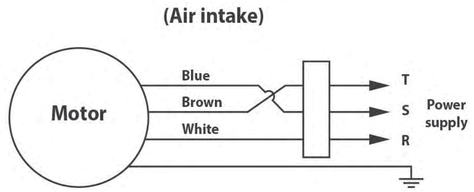
Specification

Model	Voltage [V]	Frequency [Hz]	Air Volume [CMH]	Air Volume [CFM]	Consumption [W]	RPM	Noise [dB(A)]	Weight [kg]
FV-45GT4	380	50	5,520	3,249	220	1,450	52	18.5
		60	6,420	3,779	330	1,690	56	
FV-50GT4	380	50	6,960	4,097	320	1,400	54	28.5
		60	8,010	4,715	475	1,590	58	
FV-60GT4	380	50	9.420	5,544	310	940	49	34
		60	10,920	6,427	450	1,070	53	

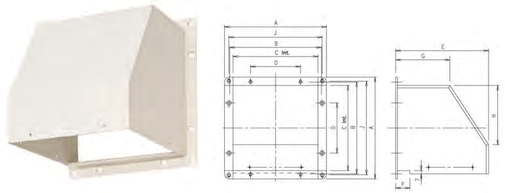
Note: The values in Specification table are representative characteristic values at 380V, 50/60Hz.
RPM data is for reference only. Values may vary subject to different conditions.

Wiring Diagram





Outside Rain Hoods for High-Pressure Series



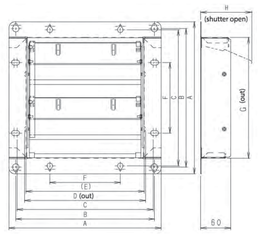
Dimension
Unit : mm

Model	Material	Size	A	B	C	D	E	F	G	H	I
FY-HMX253	Stainless Steel	(25cm/10")	330	298	278	165	300	47	175	196	303
FY-HMS253	Steel										
FY-HMX303	Stainless Steel	(30cm/12")	381	349	329	210	350	55	203	232	354
FY-HMS303	Steel										
FY-HMX353	Stainless Steel	(35cm/14")	468	434	41	250	400	63	235	284	433
FY-HMS353	Steel										
FY-HMX403	Stainless Steel	(40cm/16")	519	485	452	280	450	71	260	320	484
FY-HMS403	Steel										
FY-HMX453	Stainless Steel	(45cm/18")	574	540	507	320	500	79	285	359	539
FY-HMS453	Steel										
FY-HMX503	Stainless Steel	(50cm/20")	660	620	574	355	550	86	330	406	625
FY-HMS503	Steel										
FY-HMX603	Stainless Steel	(60cm/24")	760	720	674	400	670	106	380	482	725
FY-HMS603	Steel										

Shutters for High-Pressure Series



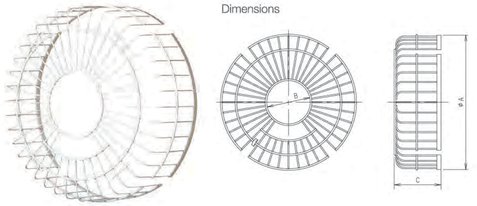
Automatic shutters



Dimension
Unit : mm

Model	Size	A	B	C	D	E	F	G	H	No of Shutter
FY-GAS253	(25cm/10")	330	303	298	258	263	165	268	137	2
FY-GAS303	(30cm/12")	381	354	349	319	314	210	319	122	3
FY-GAS353	(35cm/14")	468	433	434	389	384	250	389	137	3
FY-GAS403	(40cm/16")	519	484	485	440	435	280	440	122	4
FY-GAS453	(45cm/18")	574	539	540	492	487	320	492	137	5
FY-GAS503	(50cm/20")	660	625	620	545	540	355	545	122	5
FY-GAS603	(60cm/24")	760	725	720	662	657	400	662	122	6

Wire-Guards for High-Pressure Series



Dimension
Unit : mm

Model	Size	A	B	C
FY-GGS253	(25cm/10")	330	303	298
FY-GGS303	(30cm/12")	381	354	349
FY-GGS353	(35cm/14")	468	433	434
FY-GGS403	(40cm/16")	519	484	485
FY-GGS453	(45cm/18")	574	539	540
FY-GGS503	(50cm/20")	660	625	620
FY-GGS603	(60cm/24")	760	725	720

CABINET FAN (IN-LINE FAN)

Low-Noise

Energy Saving

Compact

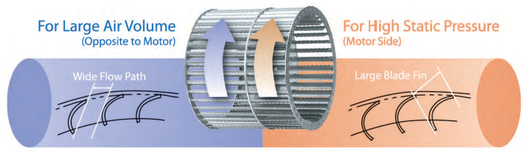


Scan for more information

FEATURES

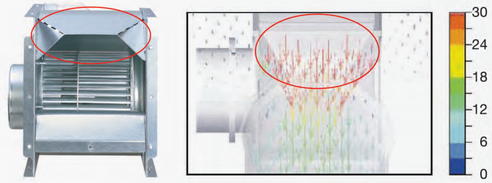
Low-noise Design

The newly developed twin flow fan achieves a better airflow inside the fan casiang. It is divided into two portions which can generate large air volume and high static pressure respectively.



Tapered Scroll

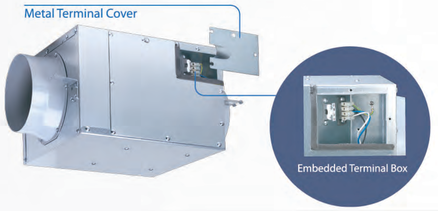
Wind velocity varies according to the shape of the casing. The tapered scroll at the casing minimizes turbulence induced by uneven wind velocity inside the casing.



Internal Wind Velocity Distribution – Airflow Analysis

Embedded Terminal Box

Terminal box is embedded into the product frame. The wiring to power supply is covered with metal enclosure that enhances the durability and safety level.

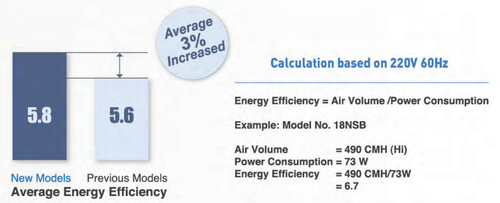


High Static Pressure

The distinctive design of twin flow fan and fan casing enable operation with high static pressure, which is approximate 10% average increased when compared with previous models. This increases the flexibility in your planning of ventilating system.

Energy Saving

The new structure design improves fan performance by increasing energy efficiency by 3%. In addition, energy saving is assured by reducing motor power consumption significantly.

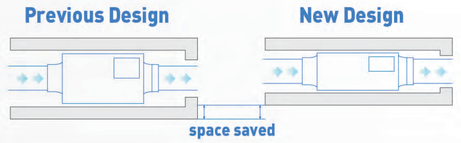


Noise Reduction

With the twin flow fan and fan casing structure, the new models minimize the transmission of noise and reduce it by 6% while maintaining air volume. This technology creates a more tranquil and pleasant environment.

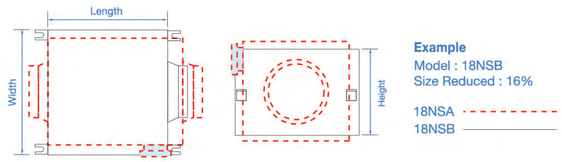
Easy Installation

A slim, compact and light body allows easy installation in narrow ceiling space, when compared with previous models.



Compact Size

With the newly designed structure, the product size is reduced by 9%, which increases the flexibility in installation.

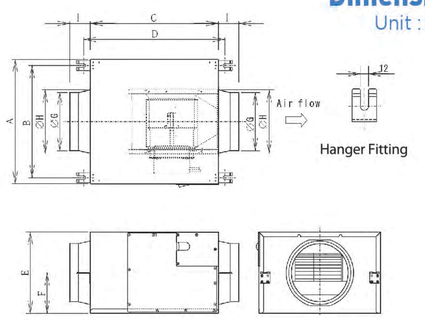


Usage: Living Room | Shopping Mall | Restaurant

Sirocco Fan
Low Noise Design
Compact Size



Dimension
Unit : mm



FV-12NS3 / FV-15NS3

- Long life condenser motor with thermal cut-off
- Twin flow fan (sirocco fan)
- Fan casing with tapered scroll
- Embedded terminal box
- Noise absorption material adopted
- Motor insulation Class E
- IP protection: IPX2

Model	A	B	C	D	E	F	G	H	I
FV-12NS3	290	250	291	335	184	92	97	112	51
FV-15NS3	290	250	302	346	206	103	103	164	60

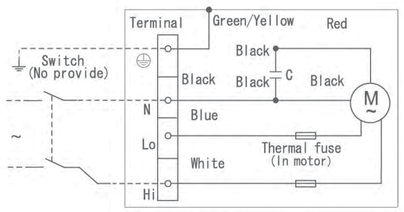
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Specification

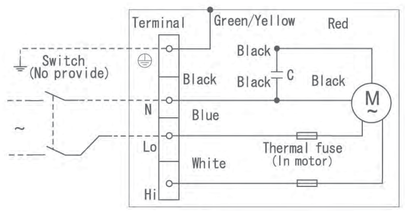
Model	Voltage [V]	Frequency [Hz]	Speed	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)										RPM	Watts*	Watts**
				Inches of H_2O	0	0.1	0.125	0.25	0.375	0.5	0.75	1	1.25	1.5		For AMCA	For IEC
FV-12NS3	220	60	Hi	CFM	114	105	102	87	65	-	-	-	-	-	1,460	26	23
				Sones	1.5	1.4	1.4	1.3	1.4	-	-	-	-	-			
	240	50	Hi	CFM	102	90	86	67	39	-	-	-	-	-	1,342	27	22
				Sones	2.0	1.7	1.6	1.4	1.5	-	-	-	-	-			
FV-15NS3	220	60	Hi	CFM	200	183	177	149	118	83	-	-	-	-	1,520	45	42
				Sones	2.7	2.5	2.4	2.3	2.2	2.0	-	-	-	-			
	240	50	Hi	CFM	193	177	172	139	94	20	-	-	-	-	1,373	47	37
				Sones	3.7	3.4	3.2	2.6	2.5	2.8	-	-	-	-			

Performance certified is for installation type D: Ducted inlet, Ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories). Speed (RPM) shown is nominal.
Performance is based on actual speed of test. 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 D: ducted inlet hemispherical sone levels. Ratings do not include the effect of duct end correction.
* the Watts rating is only for AMCA test method and it is at the static pressure of 0 inch of H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Wiring Diagram



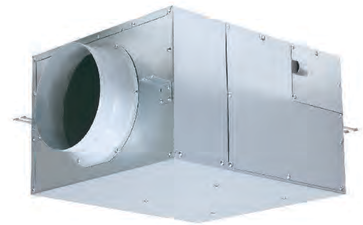
High Notch



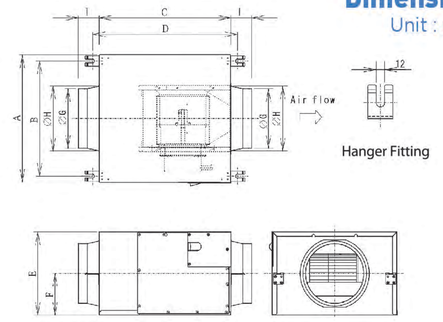
Low Notch

Usage: Living Room | Shopping Mall | Restaurant

Sirocco Fan
Low Noise Design
Compact Size



Dimension
Unit : mm



FV-18NS3 / FV-18NF3

- Long life condenser motor with thermal cut-off
- Twin flow fan (sirocco fan)
- Fan casing with tapered scroll
- Embedded terminal box
- Noise absorption material adopted
- Motor insulation Class E
- IP protection: IPX2

Model	A	B	C	D	E	F	G	H	I
FV-18NS3	316	276	338	382	232	116	145	163	60
FV-18NF3	376	336	397	441	254	127	195	211	70

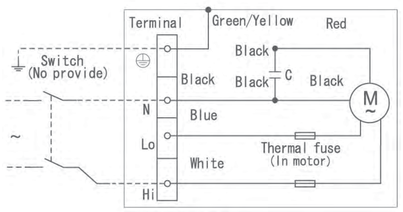
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Specification

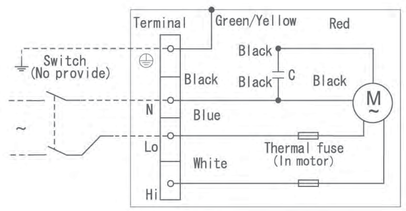
Model	Voltage [V]	Frequency [Hz]	Speed	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)										RPM	Watts*	Watts**
				Inches of H_2O	0	0.1	0.125	0.25	0.375	0.5	0.75	1	1.25	1.5		For AMCA	For IEC
FV-18NS3	220	60	Hi	CFM	274	261	258	241	222	196	137	-	-	-	1,470	80	73
				Sones	3.3	3.1	3.0	2.9	2.7	2.6	2.7	-	-	-			
	240	50	Hi	CFM	281	263	259	232	200	163	34	-	-	-	1,340	84	68
				Sones	4.8	4.4	4.4	3.8	3.4	3.0	2.9	-	-	-			
FV-18NF3	220	60	Hi	CFM	417	399	395	373	347	318	237	-	-	-	1,420	128	119
				Sones	4.0	3.9	3.9	3.9	3.6	3.5	3.4	-	-	-			
	240	50	Hi	CFM	429	406	400	381	344	290	78	-	-	-	1,327	135	104
				Sones	5.6	5.4	5.4	5.1	4.6	4.3	4.2	-	-	-			

Performance certified is for installation type D: Ducted inlet, Ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories). Speed (RPM) shown is nominal.
Performance is based on actual speed of test. 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 D: ducted inlet hemispherical sone levels. Ratings do not include the effect of duct end correction.
* the Watts rating is only for AMCA test method and it is at the static pressure of 0 inch of H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Wiring Diagram



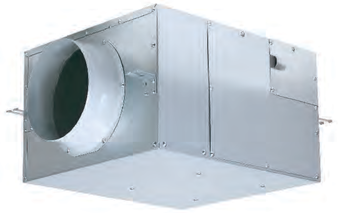
High Notch



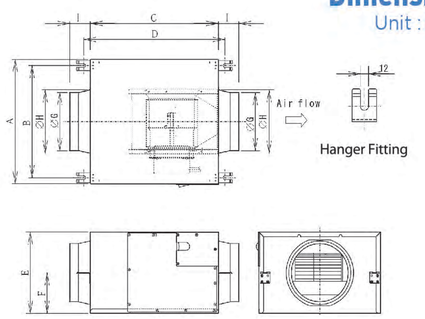
Low Notch

Usage: Living Room | Shopping Mall | Restaurant

Sirocco Fan
Low Noise Design
Compact Size



Dimension
Unit : mm



FV-20NS3 / FV-23NL3

- Long life condenser motor with thermal cut-off
- Twin flow fan (sirocco fan)
- Fan casing with tapered scroll
- Embedded terminal box
- Noise absorption material adopted
- Motor insulation Class E
- IP protection: IPX2

Model	A	B	C	D	E	F	G	H	I
FV-20NS3	416	376	441	485	272	136	195	211	70
FV-23NL3	468	469	469	513	298	149	195	211	70

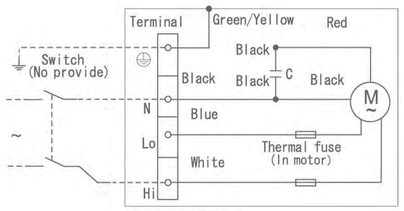
Panasonic Ecology Systems Guangdong Co., Ltd. certifies that the Cabinet Fan – Standard Series shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Specification

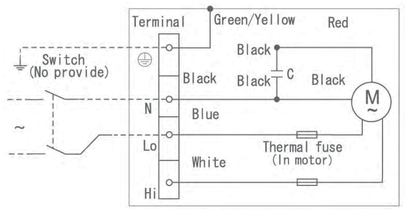
Model	Voltage [V]	Frequency [Hz]	Speed	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)										RPM	Watts*	Watts**
				Inches of H_2O	0	0.1	0.125	0.25	0.375	0.5	0.75	1	1.25	1.5		For AMCA	For IEC
FV-20NS3	220	60	Hi	CFM	469	459	456	444	433	413	354	275	-	-	1,380	170	159
				Sones	4.0	4.0	3.9	3.8	3.9	4.0	4.1	4.2	-	-			
	240	50	Hi	CFM	517	500	495	464	424	382	265	110	-	-	1,328	175	155
				Sones	6.0	5.8	5.8	5.4	5.1	4.8	4.5	4.5	-	-			
FV-23NL3	220	60	Hi	CFM	655	642	640	625	611	597	555	505	440	-	1,400	350	310
				Sones	6.0	6.0	5.9	5.9	5.7	5.7	5.8	5.8	5.8	-			
	240	50	Hi	CFM	688	670	664	642	614	579	493	388	199	-	1,342	347	260
				Sones	8.8	8.6	8.4	8.1	8.0	7.6	7.2	6.7	6.6	-			

Performance certified is for installation type D: Ducted inlet, Ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories). Speed (RPM) shown is nominal.
Performance is based on actual speed of test. 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 D: ducted inlet hemispherical sone levels. Ratings do not include the effect of duct end correction.
* the Watts rating is only for AMCA test method and it is at the static pressure of 0 inch of H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Wiring Diagram



High Notch

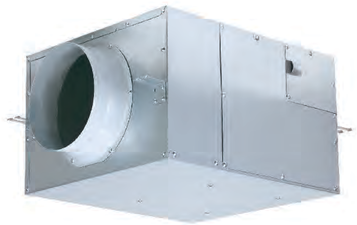


Low Notch

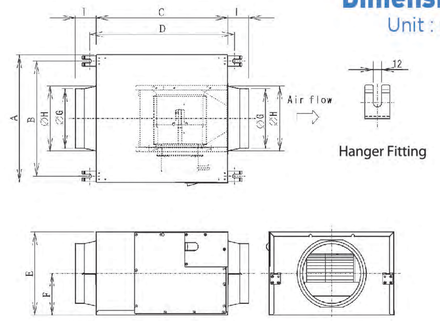
STANDARD SERIES

Usage: Living Room | Shopping Mall | Restaurant

Sirocco Fan
Low Noise Design
Compact Size



Dimension
Unit : mm



FV-25NS3 / FV-25NF3

- Long life condenser motor with thermal cut-off
- Twin flow fan (sirocco fan)
- Fan casing with tapered scroll
- Embedded terminal box
- Noise absorption material adopted
- Motor insulation Class E
- IP protection: IPX2

Model	A	B	C	D	E	F	G	H	I
FV-25NS3	494	450	505	549	334	167	240	255	85
FV-25NF3	494	450	505	549	334	167	240	255	85

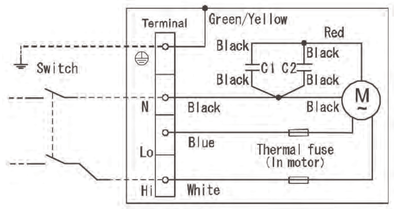
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Specification

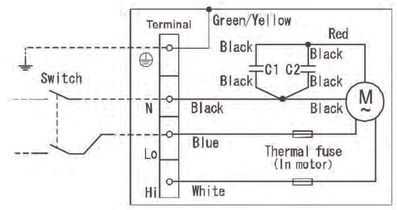
Model	Voltage [V]	Frequency [Hz]	Speed	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)										RPM	Watts*	Watts**
				Inches of H_2O	0	0.1	0.125	0.25	0.375	0.5	0.75	1	1.25	1.5		For AMCA	For IEC
FV-25NS3	220	60	Hi	CFM	940	924	919	899	877	857	790	710	610	502	1,380	460	425
				Sones	7.1	7.1	7.1	7.0	6.8	6.8	6.7	6.7	6.7	6.9			
	240	50	Hi	CFM	963	938	935	906	868	822	719	567	395	-	1,305	481	370
				Sones	10.1	9.8	9.7	9.3	9.2	8.8	8.0	7.5	8.2	-			
FV-25NF3	220	60	Hi	CFM	1,016	1,000	995	975	954	933	875	803	710	590	1,420	680	520
				Sones	8.2	8.2	8.2	8.2	7.9	7.9	7.8	7.6	7.5	7.5			
	240	50	Hi	CFM	1,057	1,048	1,040	1,010	972	922	811	660	473	-	1,330	537	430
				Sones	12.1	11.9	11.5	11.1	10.6	9.8	8.7	8.7	10.3	-			

Performance certified is for installation type D: Ducted inlet, Ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories). Speed (RPM) shown is nominal.
Performance is based on actual speed of test. 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 D: ducted inlet hemispherical sone levels. Ratings do not include the effect of duct end correction.
* the Watts rating is only for AMCA test method and it is at the static pressure of 0 inch of H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Wiring Diagram



High Notch



Low Notch

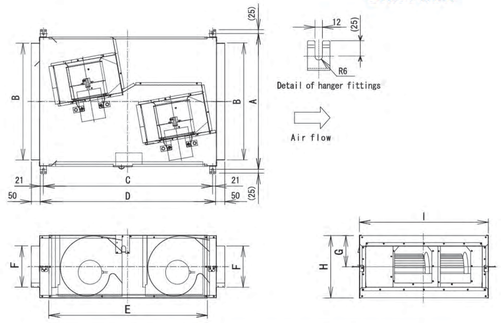
Usage: Living Room | Shopping Mall | Restaurant

Sirocco Fan
Low Noise Design
Compact Size



Dimension

Unit : mm

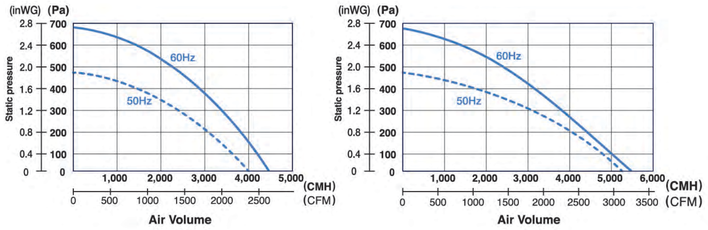


Model	A	B	C	D	E	F	G	H	I
FV-25SW3	809	496	1,010	1,052	942	246	185	370	766
FV-25SM3	809	696	1,010	1,052	942	246	185	370	766

FV-25SW3 / FV-25SM3

- Long life condenser motor with thermal cut-off
- Twin flow fan (sirocco fan)
- Fan casing with tapered scroll
- Embedded terminal box
- Noise absorption material adopted
- Motor insulation Class F
- IP protection: IPX2

Performance Data

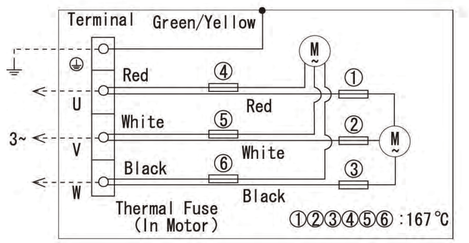


Specification

Model	Phase	Voltage [V]	[Hz]	Consumption [W]	RPM	Air Volume [CMH]	[CFM]	Noise [dB(A)]	Weight [kg]	Duct Size [mm]	Impeller Diameter [mm]
FV-25SW3	3	380	50	940	1,375	4,000	2,354	43	60	250 x 250	250
			60	1,450	1,530	4,500	2,648	45			
FV-25SM3	3	380	50	1,180	1,345	5,200	3,060	45	60	250 x 700	250
			60	1,750	1,470	5,500	3,237	46			

Note: The value in specification tables are representative characteristic value at 380V 50/60Hz
RPM data is for reference only. Values may vary subject to different conditions.

Wiring Diagram



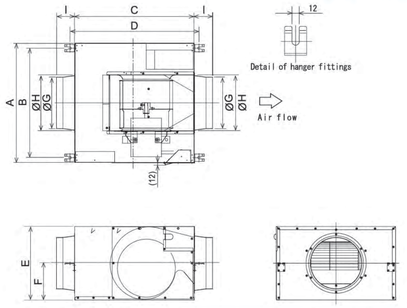
Usage: Living Room | Shopping Mall | Restaurant

Sirocco Fan
Low Noise Design
Compact Size



Dimension

Unit : mm

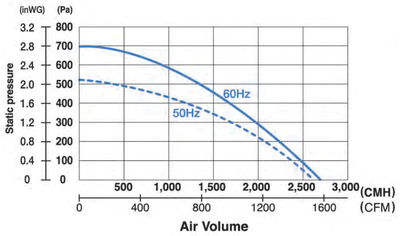


Model	A	B	C	D	E	F	G	H	I
FV-28NX3	554	510	557	601	342	171	240	255	85

FV-28NX3

- Long life condenser motor with thermal cut-off
- Twin flow fan (sirocco fan)
- Fan casing with tapered scroll
- Embedded terminal box
- Noise absorption material adopted
- Motor insulation Class F
- IP protection: IPX2

Performance Data

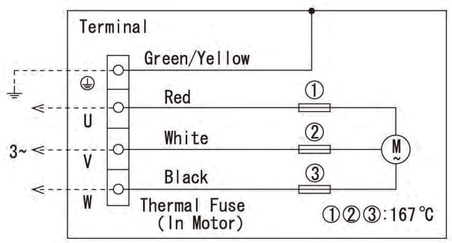


Specification

Model	Phase	Voltage [V]	[Hz]	Consumption [W]	RPM	Air Volume [CMH]	[CFM]	Noise [dB(A)]	Weight [kg]	Duct Size [mm]	Impeller Diameter [mm]
FV-28NX3	3	380	50	600	1,295	2,600	1,530	44	28	Ø250	280
			60	840	1,380	2,650	1,560	45			

Note: The value in specification tables are representative characteristic value at 380V 50/60Hz
RPM data is for reference only. Values may vary subject to different conditions.

Wiring Diagram



IN-LINE CENTRIFUGAL FAN

High Performance

Long Life

Low-Noise

Safe



FEATURES

High Precision Engineering

Features a high-performance external rotor motor, integrated thermal protector, and premium ball bearings to ensure consistent and dependable operation.



Long Operational Lifespan

Engineered for longevity, supporting continuous use for up to 40,000 hours.

Long Life

Low Noise & Vibration

Double-sided dynamically balanced fan blades provide smooth, quiet, and vibration-free performance.



FV-10MM1/FV-12MM1/FV-15MM1/
FV-16MM1/FV-20MM1/FV-25MM1



FV-31MM1

Optimized Airflow Design

Centrifugal structure with Class F insulation above for enhanced performance and safety.

Robust Protection

IP44-rated enclosure safeguards against dust and water ingress for reliable operation in demanding environments.

Dust &
Water-resistant

IN-LINE CENTRIFUGAL FAN

Usage: Commercial | Residential

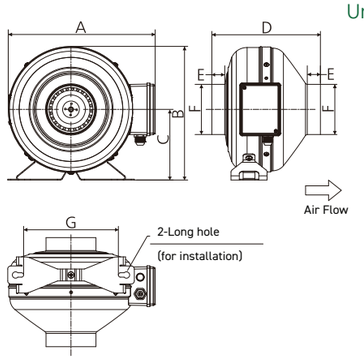
Centrifugal Fan
Low Noise Design
IP44 Protection



FV-10MM1 / FV-12MM1 / FV-15MM1
FV-16MM1 / FV-20MM1

- Equipped with a high-performance external rotor motor
- Premium ball bearings
- Integrated thermal protector
- Long Operational Lifespan
- Low Noise & Vibration
- Optimized Airflow Design
- Motor Insulation Class F
- IP protection: IP44

Dimension
Unit : mm



Model	A	B	C	D	E	ØF	G	Duct Dimension
FV-10MM1	285	258	137	213	26	97	196	Ø100
FV-12MM1	285	258	137	203	26	123	196	Ø125
FV-15MM1	375	348	181	266	25	147	267	Ø150
FV-16MM1	375	348	181	260	25	157	267	Ø160
FV-20MM1	375	348	181	245	25	197	267	Ø200

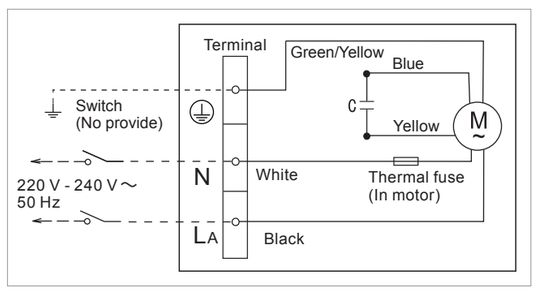
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Specification

Model	Voltage [V]	Frequency [Hz]	CFM/SONE AT STATIC Pressure (ps-inches of H_2O)												RPM	Watts*	Watts**
			inches of H_2O	0.000	0.121	0.201	0.402	0.603	0.804	1.005	1.206	1.507	1.808	2.009	2.411		FOR AMCA	FOR IEC
FV-10MM1	240	50	CFM	161	152	146	125	108	87	66	-	-	-	-	-	2,606	63	57
			Sones	8.8	8.5	8.4	8.0	7.5	7.2	6.9								
FV-12MM1	240	50	CFM	197	178	169	144	121	100	74	49	-	-	-	-	2,580	63	58
			Sones	9.9	9.5	9.3	8.8	8.4	8.0	7.6	7.1							
FV-15MM1	240	50	CFM	413	390	375	332	288	246	203	163	106	-	-	-	2,495	104	97
			Sones	11.1	10.9	10.8	10.5	10.2	10.2	10.2	10.9	10.6						
FV-16MM1	240	50	CFM	487	462	440	390	337	294	250	212	146	-	-	-	2,311	136	128
			Sones	10.6	10.3	10.3	10.1	10.2	10.3	11.1	10.5	9.1						
FV-20MM1	240	50	CFM	553	523	506	460	421	379	332	284	229	163	121	-	2,535	181	174
			Sones	11.2	10.9	10.8	10.2	9.9	9.6	9.7	10.2	12.2	12.5	12.9				

Performance certified is for installation type D: Ducted inlet, Ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories). Speed (RPM) shown is nominal.
Performance is based on actual speed of test. 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 D: ducted inlet hemispherical sone levels. Ratings do not include the effect of duct end correction.
* the Watts rating is for AMCA test method and it is at the static pressure of 0 inch of H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Rating Seal does not apply to IEC test method watts.

Wiring Diagram



IN-LINE CENTRIFUGAL FAN

Usage: Commercial | Residential

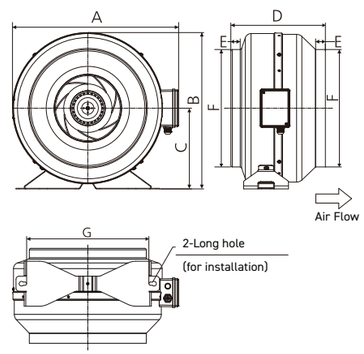
Centrifugal Fan
Low Noise Design
IP44 Protection



FV-25MM1

- Equipped with a high-performance external rotor motor
- Premium ball bearings
- Integrated thermal protector
- Long Operational Lifespan
- Low Noise & Vibration
- Optimized Airflow Design
- Motor Insulation Class F
- IP protection: IP44

Dimension
Unit : mm



A	B	C	D	E	ØF	G	Duct Dimension
375	348	181	219	25	247	267	Ø250

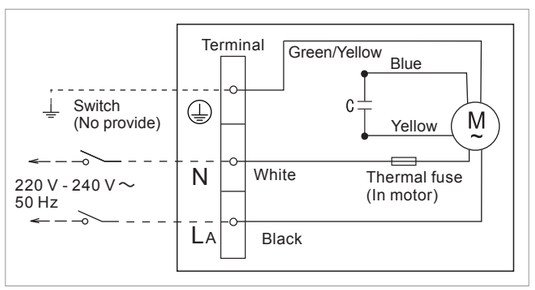
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Specification

Model	Voltage [V]	Frequency [Hz]	CFM/SONE AT STATIC Pressure (ps-inches of H_2O)												RPM	Watts*	Watts**
			inches of H_2O	0.000	0.121	0.201	0.402	0.603	0.804	1.005	1.206	1.507	1.808	2.009	2.411		FOR AMCA	FOR IEC
FV-25MM1	240	50	CFM	555	532	515	474	436	394	352	307	250	186	140	-	2,643	178	165
			Sones	11.7	11.2	11.1	10.5	10.1	9.7	9.3	9.1	10.0	12.3	13.1				

Performance certified is for installation type D: Ducted inlet, Ducted outlet.
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Values shown are for installation type D: ducted inlet hemispherical sone levels. Ratings do not include the effect of duct end correction.
* the Watts rating is for AMCA test method and it is at the static pressure of 0 inch of H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Rating Seal does not apply to IEC test method watts.

Wiring Diagram



IN-LINE CENTRIFUGAL FAN

Usage: Commercial | Residential

Centrifugal Fan
Low Noise Design
IP44 Protection

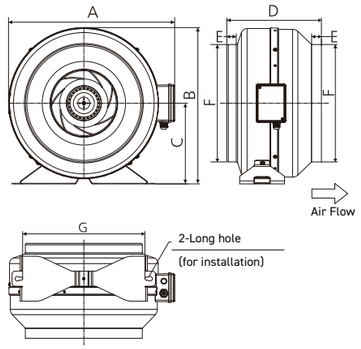


FV-31MM1

- Equipped with a high-performance external rotor motor
- Premium ball bearings
- Integrated thermal protector
- Long Operational Lifespan
- Low Noise & Vibration
- Optimized Airflow Design
- Motor Insulation Class H
- IP protection: IP44

Dimension

Unit : mm



A	B	C	D	E	ØF	G	Duct Dimension
445	416	215	255	26	313	327	Ø315

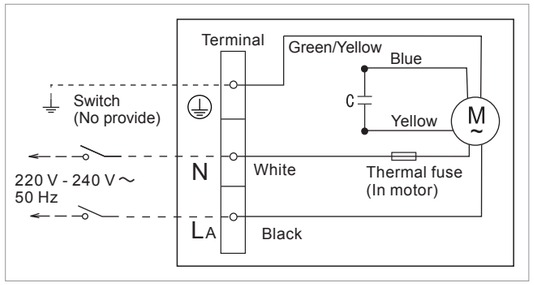
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Specification

Model	Voltage [V]	Frequency [Hz]	CFM/SONE AT STATIC Pressure (ps-inches of H_2O)												RPM	Watts*	Watts**
			inches of H_2O	0.000	0.121	0.201	0.402	0.603	0.804	1.005	1.206	1.507	1.808	2.009	2.411		FOR AMCA	FOR IEC
FV-31MM1	240	50	CFM	953	908	883	805	709	601	504	438	366	307	263	159	2,519	246	238
			Sones	17.7	17.1	16.5	15.6	14.4	12.5	12.0	12.1	13.6	17.4	20.0	21.1			

Performance certified is for installation type D: Ducted inlet, Ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories). Speed (RPM) shown is nominal.
Performance is based on actual speed of test. 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 D: ducted inlet hemispherical sone levels. Ratings do not include the effect of duct end correction.
* the Watts rating is for AMCA test method and it is at the static pressure of 0 inch of H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Rating Seal does not apply to IEC test method watts.

Wiring Diagram



MINI SIROCCO FAN

High Performance

Durable

Easy Installation



Scan for more information

FEATURES

More Compact

With the optimal air passage design, the body size is compact. It enables easy installation in narrow and limited space environment.

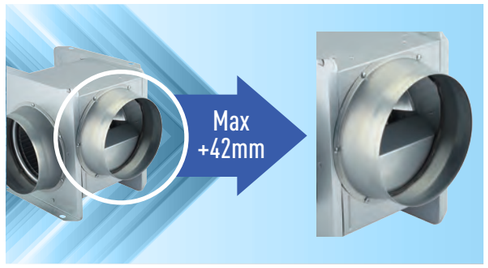
Simplified Maintenance

By unitizing the fan and motor as one single unit, the impeller can be replaced and cleaned without removing the duct. It facilitates more user-friendly maintenance.



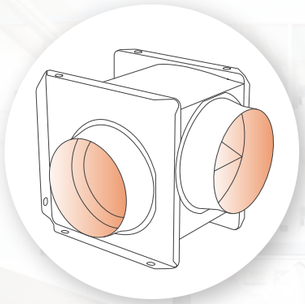
Higher Duct Connectivity

Compared to previous models, there has been improvement on the adapter design. With the extended adapter, duct connectivity is enhanced.



Easy Installation

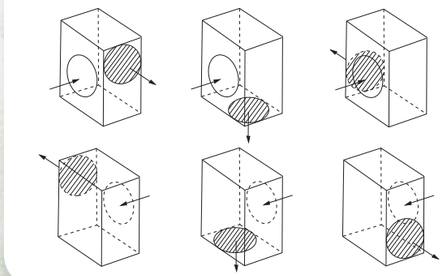
The inlet and outlet of the sirocco fan are of the same size for easy connection to a ducted system. The fan can be mounted on the ceiling.



Adjustable Outlet Direction

With the mounting feet on the fan body, installation has become easier. Outlet direction is adjustable to fit vertical or horizontal position.

Various installing patterns satisfy different installation space



MINI SIROCCO FAN

Usage: Locations where high air volume is needed

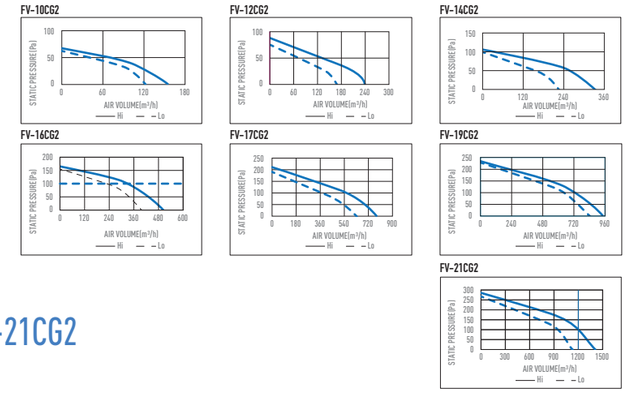
Optimal Air Passage
High Duct Connectivity
Easy Installation



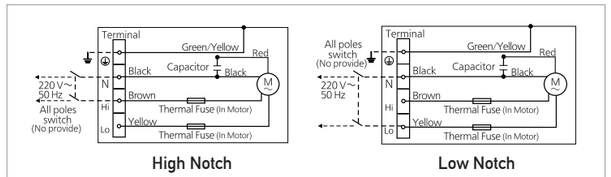
FV-10CG2 / FV-12CG2 / FV-14CG2
FV-16CG2 / FV-17CG2 / FV-19CG2 / FV-21CG2

- Compact size for narrow space installation
- Extended adapter for higher connectivity
- Long life induction motor with thermal cut-off
- Well-lubricated ball bearing for long life operation
- Highly efficient sirocco fan designed for powerful airflow
- Outlet direction adjustable to vertical or horizontal position
- Motor IP rating:
  Class E for FV-10CG2, FV-12CG2, FV-14CG2, FV-16CG2, FV-17CG2 & FV-19CG2
  Class F for FV-21CG2
- IP production: IPX2

Performance Data



Wiring Diagram



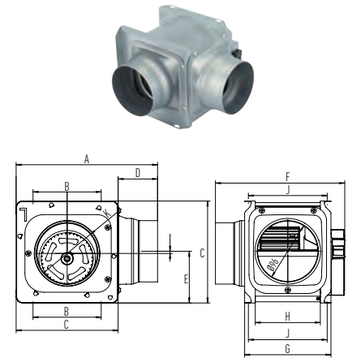
Specification

Model	Voltage [V]	Frequency [Hz]	Speed Level	Air Volume [CMH]	RPM	Consumption [W]	Noise Level [dB]		Weight [kg]
							Inlet	Side	
FV-10CG2	220	50	Hi	154	1,295	15	41.0	28.0	1.9
			Lo	115	1,020	12	35.5	24.0	
FV-12CG2			Hi	250	865	22	44.0	29.0	2.5
			Lo	175	615	16	32.0	19.0	
FV-14CG2			Hi	332	1,165	35	50.0	34.0	2.8
			Lo	226	815	28	40.0	26.0	
FV-16CG2			Hi	509	955	50	49.0	35.0	5.6
			Lo	405	765	43	43.5	30.0	
FV-17CG2			Hi	791	725	86	50.0	36.0	10.1
			Lo	640	590	70	44.0	31.0	
FV-19CG2			Hi	947	875	121	55.0	41.0	10.2
			Lo	857	780	105	51.5	37.0	
FV-21CG2			Hi	1,420	1,315	238	67.0	54.0	14.6
			Lo	1,143	1,080	182	60.0	47.0	

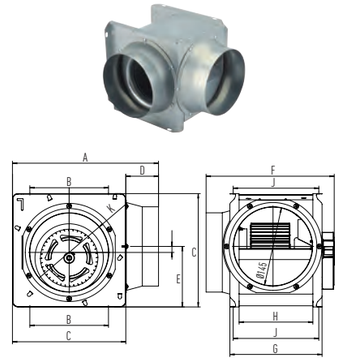
Notes:
1. The values of rated input, air volume and noise are specified at the static pressure of 0 Pa.
2. The values of noise level is A weighted average sound pressure level, the mean values are measured by our company, within +3 and -7 tolerance.
3. The values of noise level are measured at the 1.5m apart from the inspection panel of the fan body when ducts are connected on both inlet and outlet side. It is based on the assumption that the noise of fan body propagates to room inside.
4. The values of air volume are the mid-points of results measured by our company, with ±10% tolerance.
5. RPM data is for reference only. Values may vary subject to different condition.
6. The above parameters are subject to change without a prior notice.

DIMENSIONS

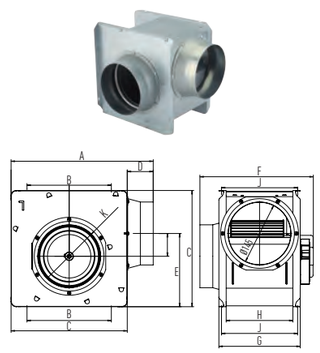
FV-10CG2



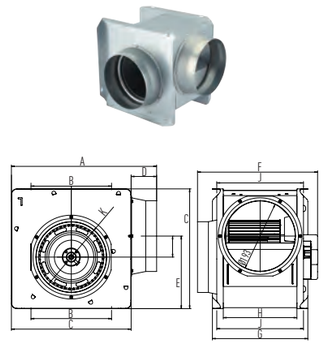
FV-12CG2 / FV-14CG2



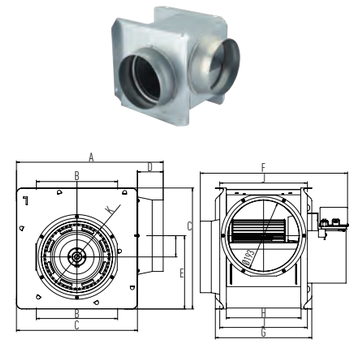
FV-16CG2



FV-17CG2 / FV-19CG2



FV-21CG2



Unit : mm

Model	A	B	C	D	E	F	G	H	J	K	Connector Duct
FV-10CG2	226	109	163	63	83	207	138	104	126	96	Ø100
FV-12CG2	269	145	209	60	112	236	170	136	158	145	Ø150
FV-14CG2											
FV-16CG2	330	196	270	60	170	264	189	155	177	145	Ø150
FV-17CG2	400	222	330	70	200	331	263	203	239	193	Ø200
FV-19CG2											
FV-21CG2	400	222	330	70	200	402	263	204	239	193	Ø200

PIPE HOOD

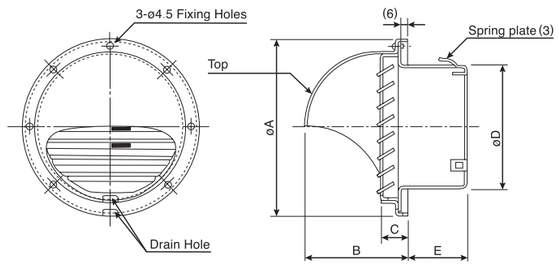


With Net	Without Net
FV-MGX100P	FV-MCX100P
FV-MGX150P	FV-MCX150P

- High strength
  – adopt 0.5mm thickness SUS 304 stainless steel
- Excellent anti-rust capability
  – hood part coated with metallic silver paint prevents oxidation of material
- Easy installation
  – 3 pcs of spring clip facilitate duct / pipe connection
- 2.5mm x 2.5mm net keep out ingress of small particles and insects from outside (FV-MGX100P & FV-MGX150P)
- It is recommended to use pipe hood with net at intake terminal while without net at exhaust.

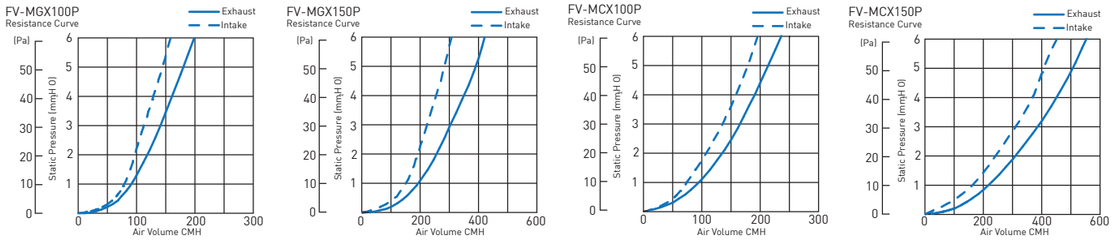
Dimension

Unit : mm



Model	A	B	C	D	E
FV-MGX100P	141	79	20	97	48
FV-MGX150P	190	106	23	147	53
FV-MCX100P	141	79	20	97	48
FV-MCX150P	190	106	23	147	53

Performance Data



Specification

Model	Diameter of Applicable Pipe [mm]	Material	Dimension of Net [mm]
FV-MGX100P	100	Stainless Steel	2.5 x 2.5
FV-MGX150P	150	Stainless Steel	2.5 x 2.5
FV-MCX100P	100	Stainless Steel	-
FV-MCX150P	150	Stainless Steel	-

VENT CAP

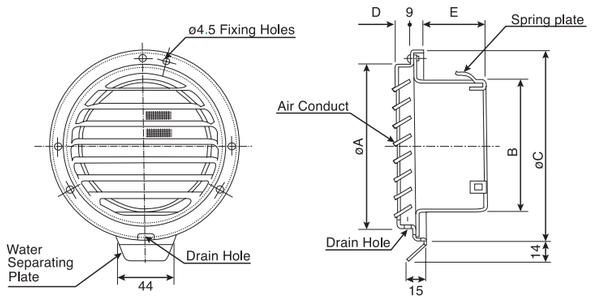


With Net	Without Net
FV-VGX100P	FV-VCX100P
FV-VGX150P	FV-VCX150P

- High strength
  – adopt 0.5mm thickness SUS 304 stainless steel
- Easy installation
  – 3 pcs of spring clip facilitate duct / pipe connection
- 2.5mm x 2.5mm net keep out ingress of small particles and insects from outside (FV-VGX100P & FV-VGX150P)
- It is recommended to use vent cap with net at intake terminal while without net at exhaust.

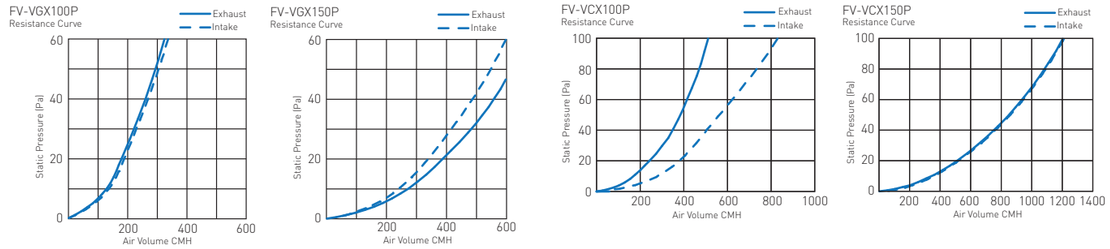
Dimension

Unit : mm



Model	A	B	C	D	E
FV-VGX100P	120	97	145	13	47
FV-VGX150P	169	147	195	18	52
FV-VCX100P	120	97	145	13	47
FV-VCX150P	169	147	195	18	52

Performance Data



Specification

Model	Diameter of Applicable Pipe [mm]	Material	Dimension of Net [mm]
FV-VGX100P	100	Stainless Steel	2.5 x 2.5
FV-VGX150P	150	Stainless Steel	2.5 x 2.5
FV-VCX100P	100	Stainless Steel	-
FV-VCX150P	150	Stainless Steel	-

Range Hood

Powerful

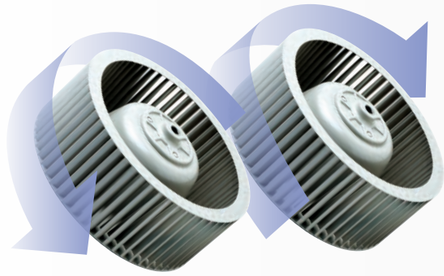
Easy to Clean

Slim Design



Scan for more information

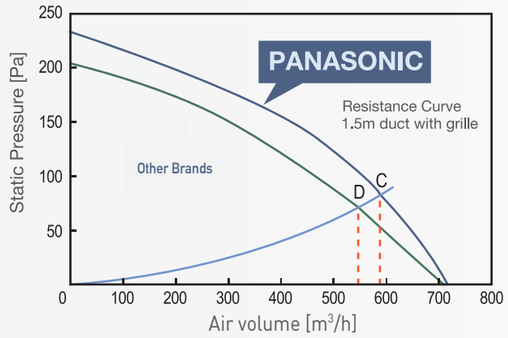
FEATURES

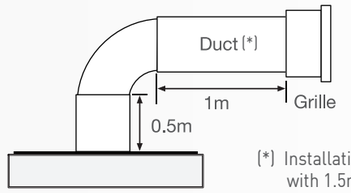


Sirocco Fan

The adopted sirocco fans can outperform the turbo fans while keeping the noise level low.

A typical range hood installation involves a long duct with at least one bending like the diagram below. Under a condition of adopting 1.5m long duct with a grille that results a static pressure of 80Pa, Panasonic range hood's air volume can reach 580 m^3/h at Point C while some other brands can only reach 530 m^3/h at Point D as illustrated in the graph on the left.





(*) Installation of Rangehood with 1.5m duct and grille.

Example

Comparison of Suction Power	Air volume [m^3/h]								
	Without duct	5m duct		10m duct		15m duct		1.5m duct grille (*)	
Panasonic	720	650	89%	610	84%	560	77%	580(C)	79%
Other Brand	720	610	85%	540	75%	480	67%	530(D)	74%



Kitchen



Canteen



Cafeteria

TWIN MOTOR SERIES

Usage: Kitchen

2-speed Selection
Easy Maintenance
Slim Design



Dark Gray



Silver



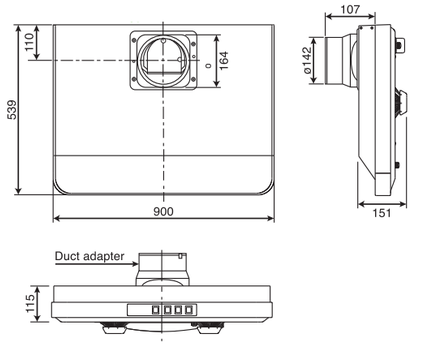
Rocker Switch

FV-90HQU1

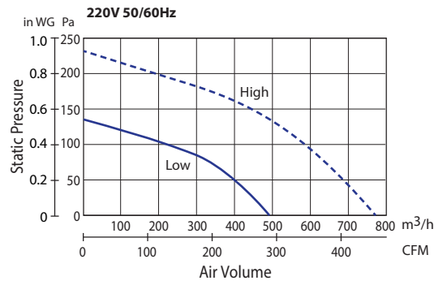
- 2 motors with 2 sirocco fans adopted
- Individual control of motors with 2-speed selection
- Rocker switch
- Easy detachable for cleaning
- Slim designed main body with only 115mm thickness
- Colour option: silver / dark gray
- Motor insulation Class E

Dimension

Unit : mm



Performance Data

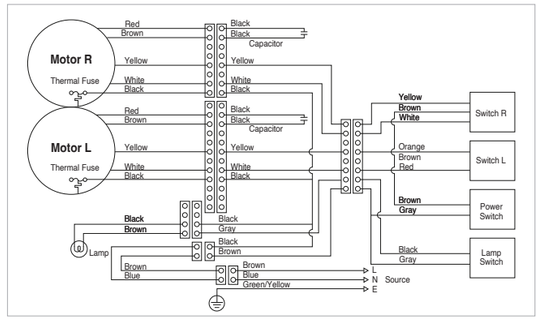


Specification

Model	Voltage			Air Volume		Consumption	RPM	Noise	Weight	Duct Size
	[V]	[Hz]		[CMH]	[CFM]	[W]		[dB(A)]	[kg]	[mm]
FV-90HQU1	220	50	Hi	785	462	152	993	52	18	Ø150
			Lo	484	285	75	570	38		
		60	Hi	779	459	127	905	53		
			Lo	464	273	69	594	41		
	240	50	Hi	775	456	136	911	52.7		
			Lo	523	308	80	653	43		

Test Condition
- Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa
- The values of noise level is A weighted average sound pressure level, the mean values are measured by our company, within +3 to -7 dB tolerance
- The values of noise level are measured at 1 m apart from the side of fan body when ducts are connected on outlet side
- The values of air volume are the mid-points of results measured by our company, within ±10% tolerance

Wiring Diagram





HAND DRYER

Quick Drying

Anti-bacterial

Safe



Scan for more information

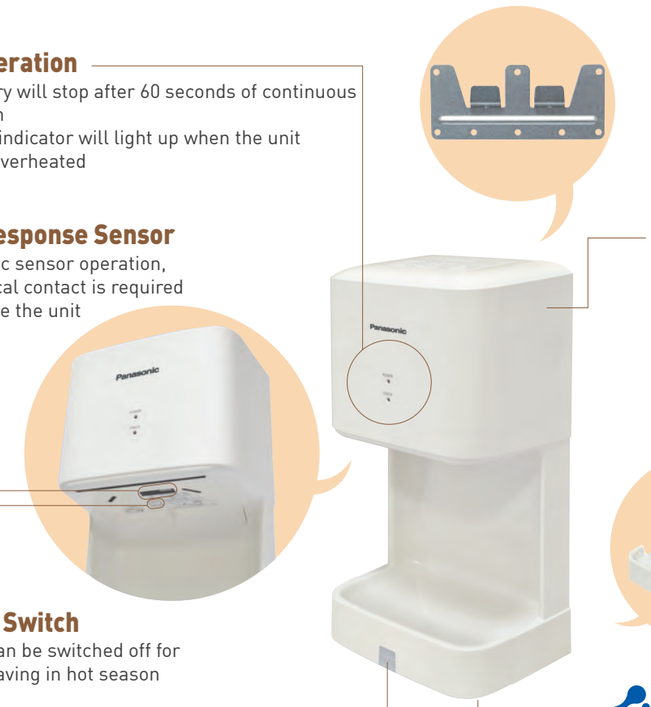
FEATURES

Safe Operation
- Power Dry will stop after 60 seconds of continuous operation
- "Check" indicator will light up when the unit detects overheated

Quick Response Sensor
- Automatic sensor operation, no physical contact is required to activate the unit

Heater ON/OFF Switch
- Heater can be switched off for energy saving in hot season

Full Tank Indicator (FJ-T09A3 only)
- Remind you for cleaning up the water tank when it is full



Easy Installation
- Metallic bracket for wall hanging attached
- Stylish and streamline design fits most interior

Anti-bacteria Material
- The product body is adopted with anti-bacteria material to prevent the growth of bacteria and germs in the warm and humid environment of washroom



Drain Pan
(FJ-T09A3 only)
- Drain the pan can reduce water dripping on the floor to aviod slippery

SUPER alleru-buster

Super alleru-buster Filter
- The filter is equipped to ensure the air blow to your hand is clean

Quick Drying with 3 way Airflow

Wide Nozzle
Blow off water droplets on the whole palm with wide airflow

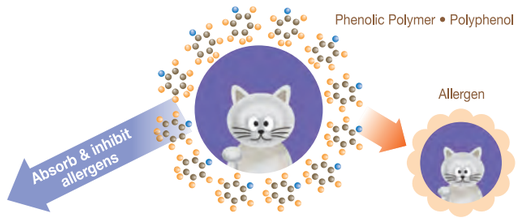
Spot Nozzle
Dry fine water droplets by rubbing hands with spot airflow



2 kinds of nozzle, wide nozzle and spot nozzle, are equipped at front and rear of drying chamber respectively for efficient drying.The structure realizes quick drying in only 4-9 seconds.

What is Super alleru-buster?

Super alleru-buster can inhibit up to serveral types of allergen



SUPER alleru-buster

Testing Organization: The Osaka Municipal Technical Research Institute.
Testing Method: To measure the level of reduction in cat's dandruff by Enzyme-linked Immuno Sorbent Assay.



Restroom



Fast Food Restaurant



Changing Room



Food Court

STANDARD SERIES

Usage: Toilet

Anti-bacterial Body
Auto Sensor
IPX1 Protection


FJ-T09B3

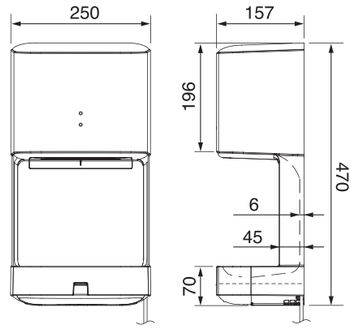

FJ-T09A3

FJ-T09A3 / FJ-T09B3

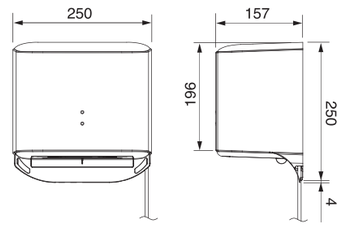
- Powerful air velocity
- Automatic operation by infra-red motion sensor
- Super alleru-buster filter equipped
- Anti-bacteria material for product body
- ON/OFF switch for heater
- Safety check indicator
- Auto stop after 60 seconds of continuous operation
- Motor insulation Class E
- IP protection: IPX1
- FJ-T09A3 only: Drain pan and water tank equipped with full tank indicator

Dimension

Unit : mm



FJ-T09A3



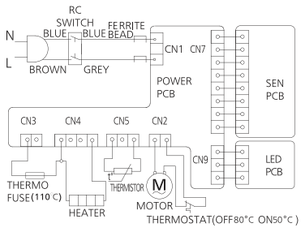
FJ-T09B3

Specification

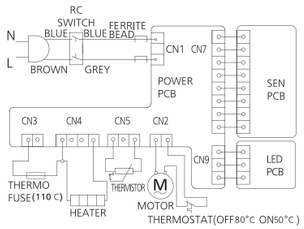
Model	Voltage [V]	Frequency [Hz]	Comsumption [W]		Air Velocity [m/s]	Noise [dB(A)]	Weight [kg]
			Heater ON	Heater OFF			
FJ-T09A3	220	50/60	1,020	650	90-110	62	4
	230	50/60	1,070	700	90-110	62	
FJ-T09B3	220	50/60	1,020	650	90-110	62	3.5
	230	50/60	1,070	700	90-110	62	

Wiring Diagram

FJ-T09A3



FJ-T09B3





AIR CURTAIN

Effective

Durable

Easy Maintenance

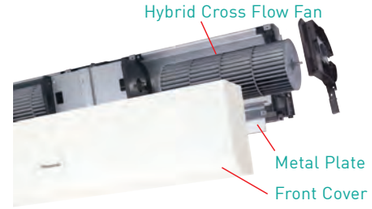


Scan for more information

FEATURES OF CROSS FLOW TYPE AIR CURTAIN

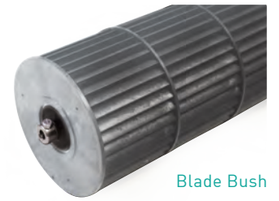
Efficient Barrier Effect

- The Cross Flow Fan enables wide and uniform airflow distribution while keeping up the required air volume at a low noise level.
- Unique Auxiliary Air Inlet allows more air intake at lower front that enhances airflow output.



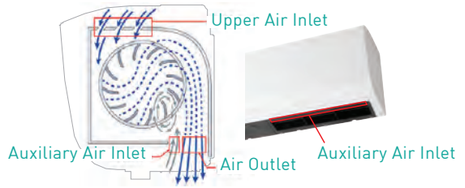
Highly Durable

- Resin with glass fiber material is used in the Hybrid Cross Flow Fan.
- Incorporated with the metal blade bush, the durability is prolonged significantly.



Easy Maintenance

- The Cross Flow Fan can generate air current between the fan and front cover. It forms the movement of dust that reduces dust accumulation on the fan blade.
- Simple structure allows convenient cleaning of the fan – just detach the front cover and metal plate to clean product interior.

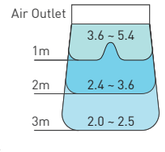
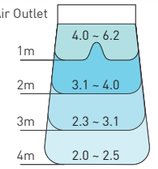


Contemporary Design

- Its modern and sleek outlook with the air inlet on top well fits to the contemporary interior, delivering a clean and neat image.

Convenient Control

- For remote controlled series, Stand-by and Hi/Lo speed can be simply switched by handheld remote control.
- For sensor series, it operates when the door is sensed open. It then automatically stops after 10 seconds once the door is sensed closed.

Length of unit	900mm	1200mm	1500mm	900mm	1200mm	1500mm
Model FY-	3009U1 3009G1 3009D1	3012U1 3012G1 3012D1	3015U1 3015G1 3015D1	4009U1 4009G1 4009D1	4012U1 4012G1 4012D1	4015U1 4015G1 4015D1
Air velocity chart (m/s) Average ~Maximum value at HI speed 220V 50Hz	 Unit : m/s					
Efficient distance	3.0m (10 feet)			4.0m (14 feet)		



Shopping Mall



Rail Station



Commercial Building



Food Court

CROSS FLOW TYPE – REMOTE CONTROL SERIES

Usage: Shopping Mall | Retail Store

Wide and Uniform Airflow
Resin with Glass Fibre Fan Blade
2-speed Selection



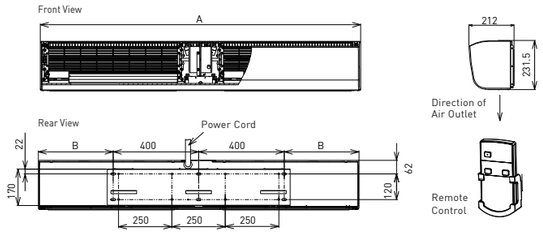


Remote Control

FY-3009G1 / FY-3012G1 / FY-3015G1
FY-4009G1 / FY-4012G1 / FY-4015G1

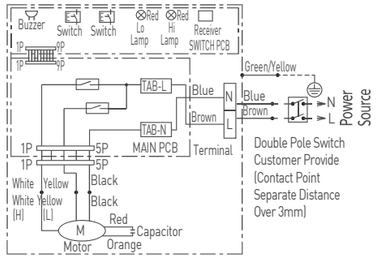
- Cross flow fan adopted for side and uniform airflow
- Thick air stream to provide high airflow momentum
- Fan blade made of resin with glass fibre and metal bush
- Permanently-lubricated ball bearing equipped
- Air deflection plate for airflow direction adjustment
- Soft touch switch panel with 2-speed selection
- Motor insulation Class B (4015GA: Class F)

Dimension
Unit : mm



Model	FY-3009G1	FY-4009G1	FY-3012G1	FY-4012G1	FY-3015G1	FY-4015G1
A	900		1200		1500	
B	50		200		350	

Wiring Diagram



Specification

Model	Voltage			Air Volume		Consumption	Current	Outlet Velocity	Noise	Weight
	(V)	(Hz)		(CMH)	(CFM)	(W)	(A)	(m/s)	(dB(A))	(kg)
FY-3009G1	220	50	Hi	1,100	647	76	0.35	10.5	48.5	12.5
			Lo	920	541	70	0.32	8.5	45.0	
		60	Hi	1,100	647	92	0.42	10.5	49.5	
			Lo	900	530	78	0.36	8.5	45.0	
	240	50	Hi	1,150	677	86	0.37	10.5	50.5	
			Lo	960	565	80	0.35	9.0	47.5	
FY-4009G1	220	50	Hi	1,340	789	110	0.50	12.0	54.5	13.5
			Lo	1,190	700	94	0.43	10.0	51.0	
		60	Hi	1,340	789	141	0.64	12.0	55.5	
			Lo	1,100	647	111	0.51	10.0	51.0	
	240	50	Hi	1,360	800	122	0.51	12.5	56.5	
			Lo	1,200	706	100	0.43	10.5	53.5	
FY-3012G1	220	50	Hi	1,400	824	94	0.43	9.5	48.5	15.0
			Lo	1,270	747	85	0.40	8.0	44.5	
		60	Hi	1,400	824	109	0.51	9.5	48.5	
			Lo	1,250	736	94	0.46	8.0	44.5	
	240	50	Hi	1,500	883	107	0.46	10.0	50.5	
			Lo	1,320	777	95	0.43	8.5	47.0	
FY-4012G1	220	50	Hi	1,700	1,001	126	0.59	12.0	52.5	16.0
			Lo	1,530	901	105	0.49	10.0	48.5	
		60	Hi	1,700	1,001	153	0.70	12.0	52.5	
			Lo	1,450	853	118	0.55	10.0	48.5	
	240	50	Hi	1,800	1,059	139	0.60	12.5	54.5	
			Lo	1,580	930	110	0.49	10.5	51.0	
FY-3015G1	220	50	Hi	2,000	1,177	131	0.59	10.5	51.5	18.5
			Lo	1,800	1,059	110	0.50	9.5	48.0	
		60	Hi	2,000	1,177	150	0.68	10.5	51.5	
			Lo	1,750	1,030	118	0.54	9.5	48.0	
	240	50	Hi	2,100	1,236	145	0.60	11.0	53.5	
			Lo	1,850	1,089	115	0.50	10.0	50.5	
FY-4015G1	220	50	Hi	2,450	1,442	177	0.81	13.0	56.0	18.5
			Lo	2,000	1,177	147	0.68	10.0	52.0	
		60	Hi	2,300	1,354	220	1.01	13.0	56.0	
			Lo	1,780	1,048	160	0.74	9.5	52.0	
	240	50	Hi	2,500	1,471	200	0.86	13.5	58.0	
			Lo	2,050	1,207	160	0.68	10.5	54.5	

Note: Test condition is as below,
The parameters shown above are measured at ambient temperature of 20°C.
The values of noise level are measured at 1.5 m apart from the product at angle of 45° below the air outlet at which is the maximum value.
The velocity is measured in test laboratory. It may vary depends on different environment in actual usage.

CROSS FLOW TYPE – SENSOR SERIES

Usage: Shopping Mall | Retail Store

Wide and Uniform Airflow
Resin with Glass Fibre Fan Blade
2-speed Selection





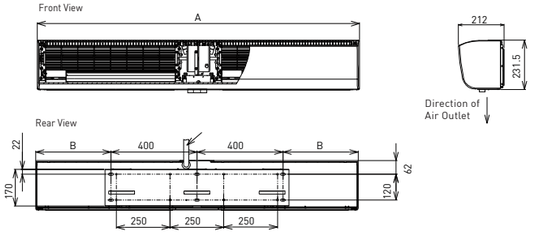


Door Contact Sensor

FY-3009D1 / FY-3012D1 / FY-3015D1
FY-4009D1 / FY-4012D1 / FY-4015D1

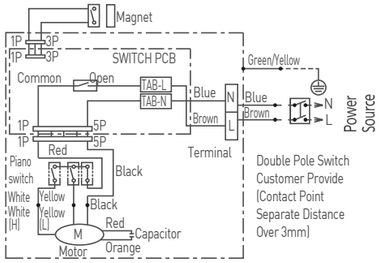
- Cross flow fan adopted for side and uniform airflow
- Thick air stream to provide high airflow momentum
- Fan blade made of resin with glass fibre and metal bush
- Permanently-lubricated ball bearing equipped
- Air deflection plate for airflow direction adjustment
- Soft touch switch panel with 2-speed selection
- Motor insulation Class B (4015DA: Class F)

Dimension
Unit : mm



Model	FY-3009D1	FY-4009D1	FY-3012D1	FY-4012D1	FY-3015D1	FY-4015D1
A	900		1200		1500	
B	50		200		350	

Wiring Diagram



Specification

Model	Voltage			Air Volume		Consumption	Current	Outlet Velocity	Noise	Weight
	(V)	(Hz)		(CMH)	(CFM)	(W)	(A)	(m/s)	(dB(A))	(kg)
FY-3009D1	220	50	Hi	1,100	647	76	0.35	10.5	48.5	12.5
			Lo	920	541	70	0.32	8.5	45.0	
		60	Hi	1,100	647	92	0.42	10.5	49.5	
			Lo	900	530	78	0.36	8.5	45.0	
	240	50	Hi	1,150	677	86	0.37	10.5	50.5	
			Lo	960	565	80	0.35	9.0	47.5	
FY-4009D1	220	50	Hi	1,340	789	110	0.50	12.0	54.5	13.5
			Lo	1,190	700	94	0.43	10.0	51.0	
		60	Hi	1,340	789	141	0.64	12.0	55.5	
			Lo	1,100	647	111	0.51	10.0	51.0	
	240	50	Hi	1,360	800	122	0.51	12.5	56.5	
			Lo	1,200	706	100	0.43	10.5	53.5	
FY-3012D1	220	50	Hi	1,400	824	94	0.43	9.5	48.5	15.0
			Lo	1,270	747	85	0.40	8.0	44.5	
		60	Hi	1,400	824	109	0.51	9.5	48.5	
			Lo	1,250	736	94	0.46	8.0	44.5	
	240	50	Hi	1,500	883	107	0.46	10.0	50.5	
			Lo	1,320	777	95	0.43	8.5	47.0	
FY-4012D1	220	50	Hi	1,700	1,001	126	0.59	12.0	52.5	16.0
			Lo	1,530	901	105	0.49	10.0	48.5	
		60	Hi	1,700	1,001	153	0.70	12.0	52.5	
			Lo	1,450	853	118	0.55	10.0	48.5	
	240	50	Hi	1,800	1,059	139	0.60	12.5	54.5	
			Lo	1,580	930	110	0.49	10.5	51.0	
FY-3015D1	220	50	Hi	2,000	1,177	131	0.59	10.5	51.5	18.5
			Lo	1,800	1,059	110	0.50	9.5	48.0	
		60	Hi	2,000	1,177	150	0.68	10.5	51.5	
			Lo	1,750	1,030	118	0.54	9.5	48.0	
	240	50	Hi	2,100	1,236	145	0.60	11.0	53.5	
			Lo	1,850	1,089	115	0.50	10.0	50.5	
FY-4015D1	220	50	Hi	2,450	1,442	177	0.81	13.0	56.0	18.5
			Lo	2,000	1,177	147	0.68	10.0	52.0	
		60	Hi	2,300	1,354	220	1.01	13.0	56.0	
			Lo	1,780	1,048	160	0.74	9.5	52.0	
	240	50	Hi	2,500	1,471	200	0.86	13.5	58.0	
			Lo	2,050	1,207	160	0.68	10.5	54.5	

Note: Test condition is as below,
The parameters shown above are measured at ambient temperature of 20°C.
The values of noise level are measured at 1.5 m apart from the product at angle of 45° below the air outlet at which is the maximum value.
The velocity is measured in test laboratory. It may vary depends on different environment in actual usage.

CROSS FLOW TYPE – STANDARD SERIES

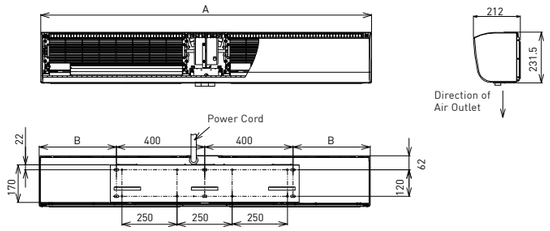
Usage: Shopping Mall | Retail Store

Wide and Uniform Airflow
Resin with Glass Fibre Fan Blade
2-speed Selection



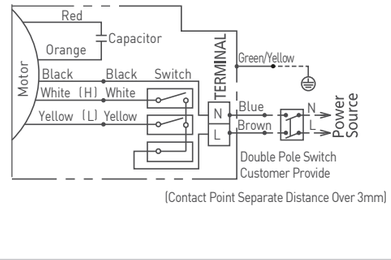
Dimension

Unit : mm



Model	FY-3009U1	FY-4009U1	FY-3012U1	FY-4012U1	FY-3015U1	FY-4015U1
A	900		1200		1500	
B	50		200		350	

Wiring Diagram



FY-3009U1 / FV-3012U1/ FY-3015U1
FY-4009U1 / FV-4012U1 / FY-4015U1

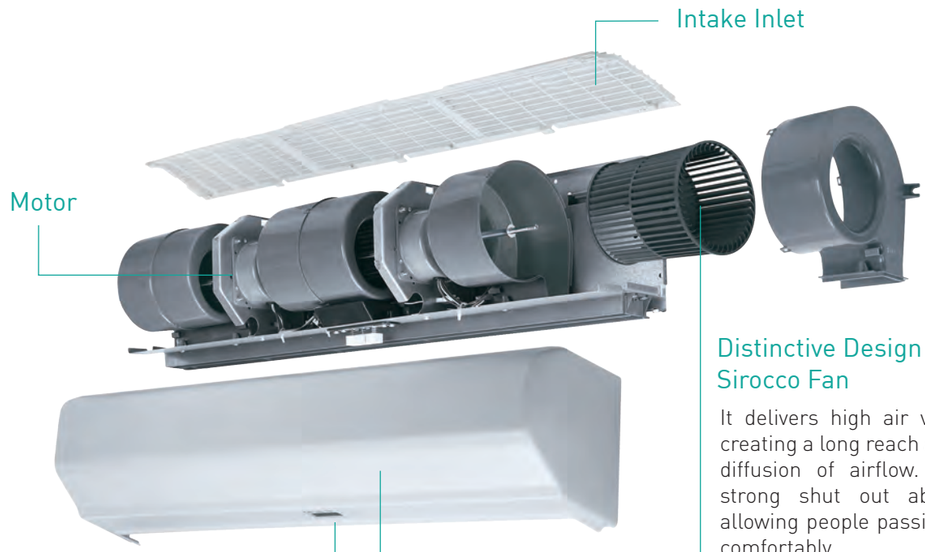
- Cross flow fan adopted for side and uniform airflow
- Thick air stream to provide high airflow momentum
- Fan blade made of resin with glass fibre and metal bush
- Permanently-lubricated ball bearing equipped
- Air deflection plate for airflow direction adjustment
- Soft touch switch panel with 2-speed selection
- Motor insulation Class B (4015UA: Class F)

Specification

Model	Voltage			Air Volume		Consumption	Current	Outlet Velocity	Noise	Weight
	(V)	(Hz)		(CMH)	(CFM)	(W)	(A)	(m/s)	(dB(A))	(kg)
FY-3009U1	220	50	Hi	1,100	647	76	0.35	10.5	48.5	12.5
			Lo	920	541	70	0.32	8.5	45.0	
		60	Hi	1,100	647	92	0.42	10.5	49.5	
			Lo	900	530	78	0.36	8.5	45.0	
	240	50	Hi	1,150	677	86	0.37	10.5	50.5	
			Lo	960	565	80	0.35	9.0	47.5	
FY-4009U1	220	50	Hi	1,340	789	110	0.50	12.0	54.5	13.5
			Lo	1,190	700	94	0.43	10.0	51.0	
		60	Hi	1,340	789	141	0.64	12.0	55.5	
			Lo	1,100	647	111	0.51	10.0	51.0	
	240	50	Hi	1,360	800	122	0.51	12.5	56.5	
			Lo	1,200	706	100	0.43	10.5	53.5	
FY-3012U1	220	50	Hi	1,400	824	94	0.43	9.5	48.5	15.0
			Lo	1,270	747	85	0.40	8.0	44.5	
		60	Hi	1,400	824	109	0.51	9.5	48.5	
			Lo	1,250	736	94	0.46	8.0	44.5	
	240	50	Hi	1,500	883	107	0.46	10.0	50.5	
			Lo	1,320	777	95	0.43	8.5	47.0	
FY-4012U1	220	50	Hi	1,700	1,001	126	0.59	12.0	52.5	16.0
			Lo	1,530	901	105	0.49	10.0	48.5	
		60	Hi	1,700	1,001	153	0.70	12.0	52.5	
			Lo	1,450	853	118	0.55	10.0	48.5	
	240	50	Hi	1,800	1,059	139	0.60	12.5	54.5	
			Lo	1,580	930	110	0.49	10.5	51.0	
FY-3015U1	220	50	Hi	2,000	1,177	131	0.59	10.5	51.5	18.5
			Lo	1,800	1,059	110	0.50	9.5	48.0	
		60	Hi	2,000	1,177	150	0.68	10.5	51.5	
			Lo	1,750	1,030	118	0.54	9.5	48.0	
	240	50	Hi	2,100	1,236	145	0.60	11.0	53.5	
			Lo	1,850	1,089	115	0.50	10.0	50.5	
FY-4015U1	220	50	Hi	2,450	1,442	177	0.81	13.0	56.0	18.5
			Lo	2,000	1,177	147	0.68	10.0	52.0	
		60	Hi	2,300	1,354	220	1.01	13.0	56.0	
			Lo	1,780	1,048	160	0.74	9.5	52.0	
	240	50	Hi	2,500	1,471	200	0.86	13.5	58.0	
			Lo	2,050	1,207	160	0.68	10.5	54.5	

Note: Test condition is as below,
The parameters shown above are measured at ambient temperature of 20°C.
The values of noise level are measured at 1.5 m apart from the product at angle of 45° below the air outlet at which is the maximum value.
The velocity is measured in test laboratory. It may vary depends on different environment in actual usage.

FEATURE OF SIROCCO TYPE AIR CURTAIN



Distinctive Design of Sirocco Fan

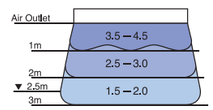
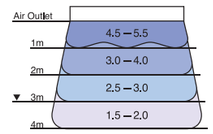
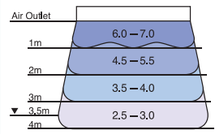
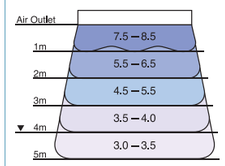
It delivers high air velocity, yet creating a long reach and narrow diffusion of airflow. It offers strong shut out ability while allowing people passing through comfortably.

Two-speed Function



ABS Resin Casing

ABS is a material highly resistant to rust and with high bending flexibility, that enables a sleek, simple design fitting to modern interiors.

Length of unit	900mm (3 feet) FY-08ESN	1200mm (4 feet) FY-08ELN	900mm (3 feet) FY-10ESN	1200mm (4 feet) FY-10ELN	900mm (3 feet) FY-12ESN	1200mm (4 feet) FY-12ELN	900mm (3 feet) FY-14ESN	1200mm (4 feet) FY-14ELN
Air velocity chart (m/s) Maximum value at HI speed 50Hz								
Efficient distance	2.5m (8 feet)		3.0m (10 feet)		3.5m (12 feet)		4.0m (14 feet)	



Shopping Mall



Rail Station



Commercial Building



Food Court

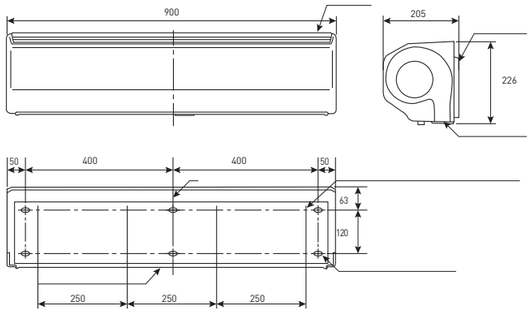
SIROCCO TYPE – 900 SERIES

Usage: Shopping Mall | Retail Store

Push Button Switch
ABS Resin Casing
2-speed Selection



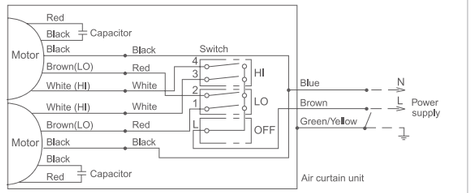
Dimension
Unit : mm



FY-08ESN / FY-10ESN
FY-12ESN / FY-14ESN

- Sirocco fan adopted for long reach and narrow diffusion airflow
- ABS resin casing to provide better weather resistance
- Permanently-lubricated ball bearing equipped
- Air deflection plate for airflow direction adjustment
- Push button switch
- 2-speed selection
- Motor insulation Class E

Wiring Diagram



Specification

Model	Voltage			Air Volume		Consumption	Current	Outlet Velocity	Noise	Weight
	[V]	[Hz]		[CMH]	[CFM]	[W]	[A]	[m/s]	[dB(A)]	[kg]
FY-08ESN	220	50	Hi	650	383	46	0.23	11.5	42	12.0
			Lo	580	341	42	0.21	10.3	39	
		60	Hi	690	406	57	0.28	12.1	43	
			Lo	560	330	49	0.25	9.9	38	
	240	50	Hi	680	400	51	0.24	11.9	43	
			Lo	620	365	47	0.23	10.9	41	
FY-10ESN	220	50	Hi	750	441	72	0.40	13.0	46	12.0
			Lo	630	371	62	0.29	11.1	42	
		60	Hi	860	506	88	0.42	14.9	50	
			Lo	600	353	72	0.33	10.9	40	
	240	50	Hi	750	441	84	0.46	13.2	46	
			Lo	630	371	66	0.30	11.7	43	
FY-12ESN	220	50	Hi	1,050	618	176	0.82	16.9	55	13.0
			Lo	960	565	155	0.69	15.8	50	
		60	Hi	990	583	202	0.94	16.1	54	
			Lo	940	553	170	0.75	15.3	49	
	240	50	Hi	1,120	659	200	0.86	17.9	57	
			Lo	1,040	612	169	0.75	16.8	54	
FY-14ESN	220	50	Hi	1,340	789	257	1.14	21.9	62	13.0
			Lo	1,168	687	218	0.99	19.1	59	
		60	Hi	1,303	767	312	1.43	21.3	61	
			Lo	1,083	637	255	1.16	17.7	57	
	240	50	Hi	1,395	821	281	1.18	22.8	63	
			Lo	1,272	749	238	1.00	20.8	60	

Note: Test condition is as below,
The parameters shown above are measured at ambient temperature of 20°C.
The values of noise level are measured at 1.5 m apart from the product at angle of 45° below the air outlet at which is the maximum value.
The velocity is measured in test laboratory. It may vary depends on different environment in actual usage.

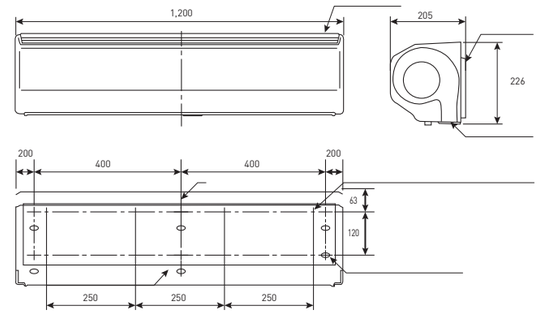
SIROCCO TYPE – 1200 SERIES

Usage: Shopping Mall | Retail Store

Push Button Switch
ABS Resin Casing
2-speed Selection



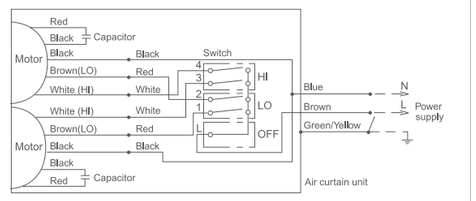
Dimension
Unit : mm



FY-08ELN / FY-10ELN
FY-12ELN / FY-14ELN

- Sirocco fan adopted for long reach and narrow diffusion airflow
- ABS resin casing to provide better weather resistance
- Permanently-lubricated ball bearing equipped
- Air deflection plate for airflow direction adjustment
- Push button switch
- 2-speed selection
- Motor insulation Class E

Wiring Diagram



Specification

Model	Voltage			Air Volume		Consumption	Current	Outlet Velocity	Noise	Weight
	[V]	[Hz]		[CMH]	[CFM]	[W]	[A]	[m/s]	[dB(A)]	[kg]
FY-08ELN	220	50	Hi	880	518	57	0.28	11.6	43	14.0
			Lo	800	471	53	0.27	10.6	41	
		60	Hi	940	553	74	0.36	12.4	45	
			Lo	790	465	62	0.32	10.5	40	
	240	50	Hi	920	541	65	0.29	12.1	44	
			Lo	850	500	59	0.28	11.2	42	
FY-10ELN	220	50	Hi	1,000	589	96	0.54	13.1	46	14.0
			Lo	830	489	74	0.35	11.0	42	
		60	Hi	1,150	677	116	0.56	15.1	50	
			Lo	790	465	85	0.41	10.5	41	
	240	50	Hi	1,010	594	116	0.66	13.2	47	
			Lo	880	518	86	0.38	11.6	43	
FY-12ELN	220	50	Hi	1,420	836	224	1.04	17.0	56	15.0
			Lo	1,320	777	200	0.90	15.8	51	
		60	Hi	1,340	789	258	1.21	16.2	55	
			Lo	1,290	759	220	1.04	15.4	50	
	240	50	Hi	1,510	889	252	1.10	17.9	58	
			Lo	1,410	830	218	0.98	16.7	56	
FY-14ELN	220	50	Hi	1,867	1,099	333	1.52	22.5	63	15.0
			Lo	1,668	982	290	1.32	20.1	61	
		60	Hi	1,826	1,075	423	1.93	22.0	63	
			Lo	1,552	913	339	1.55	18.7	59	
	240	50	Hi	1,942	1,143	364	1.53	23.4	64	
			Lo	1,818	1,070	320	1.33	21.9	62	

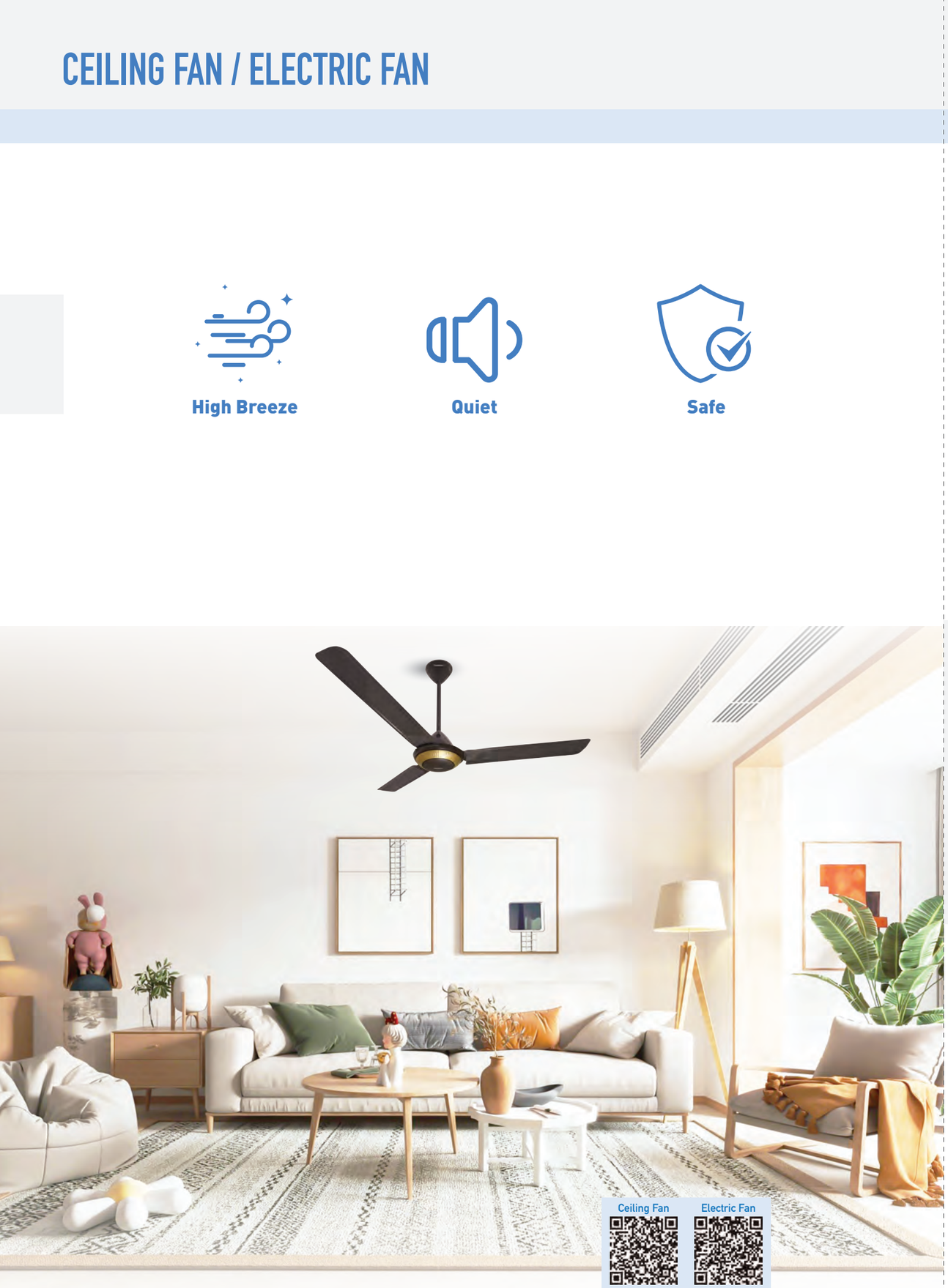
Note: Test condition is as below,
The parameters shown above are measured at ambient temperature of 20°C.
The values of noise level are measured at 1.5 m apart from the product at angle of 45° below the air outlet at which is the maximum value.
The velocity is measured in test laboratory. It may vary depends on different environment in actual usage.

CEILING FAN / ELECTRIC FAN

High Breeze

Quiet

Safe



Ceiling Fan

Electric Fan

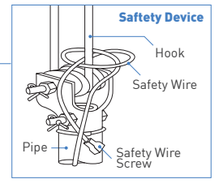
Scan for more information

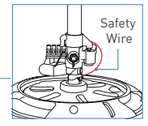
SAFETY FEATURE OF CEILING FAN

In pursuit of high quality of life, ceiling fans are expected with multiple functions and more value-added features. Safety and reliability have become the major concerns when selecting a ceiling fan.

Safety Wire







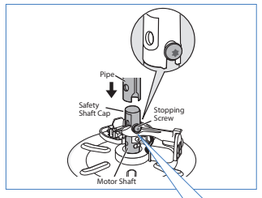
Problem

Fan motor may fall from the pipe rod accidently due to factors such as wearing of shaft, bolt etc.

Our solution

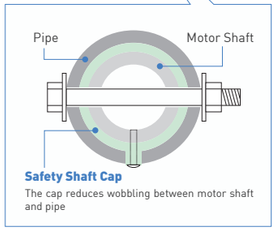
Safety wire helps to secure fan motor with ceiling hook. This prevents falling of motor in case it detaches from the pipe rod.

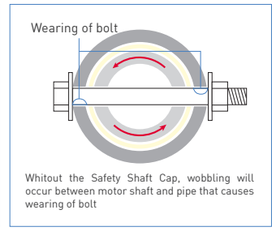
Safety Shaft Cap



Problem

Improper movement causes friction between bolt, motor shaft and pipe that increases wear and tear and cause fracture.





Our solution

Safety Shaft Cap can reduce movement between bolt, motor shaft and pipe. This minimizes wearing of motor shaft and bolt, thus prevent falling of fan.

For Regulator Control Series For F-56UPG

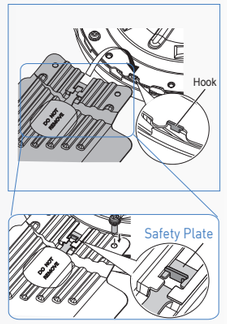
Safety Blade Plate / Hanger

Problem

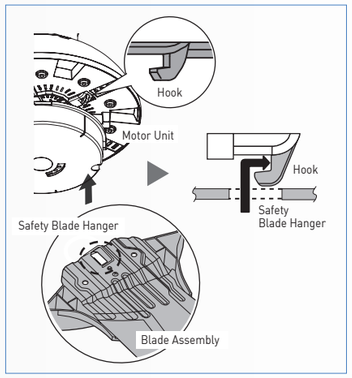
Blade may break and fall off from fan motor in case fatigue failure of material occurs.

Our solution

An exclusively designed fall prevention plate / hanger is equipped to hold blade to the motor in case of breakage. This mechanism secures against falling of blade.

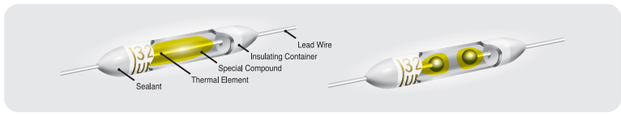


The plate hooks the blade as it detaches from the screws



Safety Fuse

Equipped with a highly reliable safety fuse that immediately breaks the circuit when the ambient temperature exceeds its rated fusion temperature.





Living Room



Bedroom



Classroom



Food Court

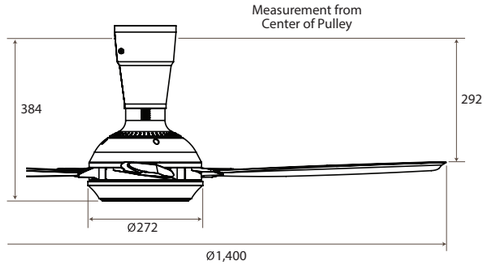
REMOTE CONTROL SERIES

Usage: Living Room | Bedroom | Restaurant | Lobby

Remote Control
Fall Prevention Measures
Metal Blades

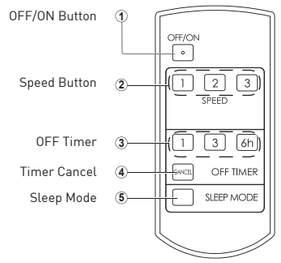


Dimension
Unit : mm

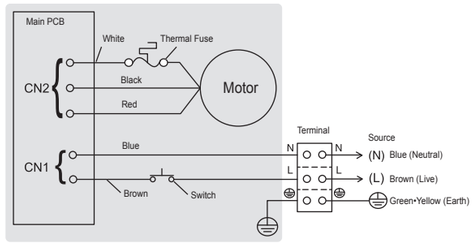


F-56UPG

- 3-speed selection
- Off Timer with LED indicator (1, 3, 6 hours)
- Sleep mode
- Thermal fuse to prevent overheating
- Current fuse to secure against power surge
- Safety wire provided
- Safety shaft cap to prevent fan falling
- Permanently lubricated ball bearing equipped
- Motor insulation Class E
- Colour: Dark gray body with golden ring



Wiring Diagram



Specification

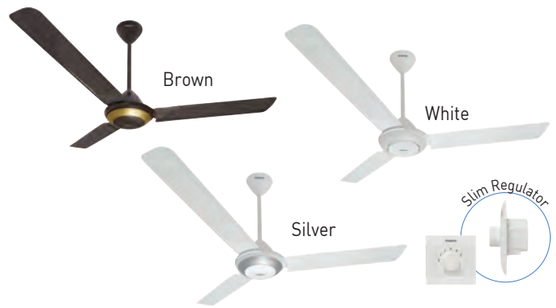
Model	Voltage		*	Consumption	RPM	Air Velocity		Air Volume		Weight
	[V]	[Hz]		[W]		[m/min]	[ft/min]	[m³/min]	[ft³/min]	[kg]
F-56UPG	220	50	Hi	62	175	137	449	181	6,392	6.7
			Lo	20	87	-	-	-	-	
		60	Hi	74	182	146	479	194	6,851	
			Lo	21	89	-	-	-	-	
	230	50	Hi	66	182	146	479	194	6,851	
			Lo	19	89	-	-	-	-	
	240	50	Hi	73	188	153	502	204	7,204	
			Lo	20	94	-	-	-	-	

*Hi - Notch 3 / Lo - Notch 1

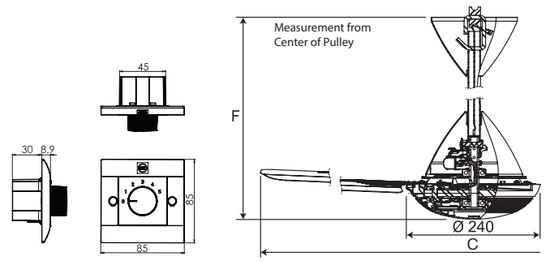
REGULATOR CONTROL SERIES

Usage: Living Room | Bedroom | Restaurant | Lobby

Slim Regulator
Fall Prevention Measures
Metal Blades



Dimension
Unit : mm



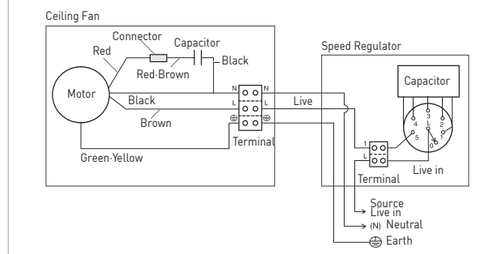
Model	C
F-48TZ5	Ø1,200
F-56TZ5	Ø1,400
F-60TZ5	Ø1,500

Pipe Type	Pipe Length	F
9 inch	229	437
12 inch	305	513
16 inch	406	614
18 inch	457	665
22 inch	559	764

F-48TZ5 / F-56TZ5 / F-60TZ5

- 5-speed selection
- Thermal fuse to prevent overheating
- Safety wire provided
- Safety shaft cap to prevent fan falling
- Permanently lubricated ball bearing equipped
- Motor insulation Class E
- Colour option: White body with white ring
  Brown body with golden ring
  (limited market only)
  White body with silver ring

Wiring Diagram



Specification

Model	Voltage		*	Consumption	RPM	Air Velocity		Air Volume		Weight
	[V]	[Hz]		[W]		[m/min]	[ft/min]	[m³/min]	[ft³/min]	[kg]
F-48TZ5	220	50	Hi	45	285	160	525	155	5,474	5.3
			Lo	15	137	-	-	-	-	
		60	Hi	55	311	175	574	170	6,003	
			Lo	15	129	-	-	-	-	
	230	50	Hi	49	296	165	541	170	6,003	
			Lo	16	146	-	-	-	-	
	240	50	Hi	51	303	170	558	165	5,827	
			Lo	18	154	-	-	-	-	
F-56TZ5	220	50	Hi	70	268	165	541	220	7,769	5.6
			Lo	14	103	-	-	-	-	
		60	Hi	76	268	170	558	225	7,946	
			Lo	17	106	-	-	-	-	
	230	50	Hi	75	275	170	558	225	7,946	
			Lo	15	109	-	-	-	-	
	240	50	Hi	76	273	165	541	220	7,769	
			Lo	17	115	-	-	-	-	
F-60TZ5	220	50	Hi	66	225	150	492	215	7,593	6.1
			Lo	15	94	-	-	-	-	
		60	Hi	78	234	155	509	225	7,946	
			Lo	16	92	-	-	-	-	
	230	50	Hi	71	233	160	525	225	7,946	
			Lo	16	97	-	-	-	-	
	240	50	Hi	75	240	155	509	230	8,122	
			Lo	17	103	-	-	-	-	

*Hi - Notch 5 / Lo - Notch 1

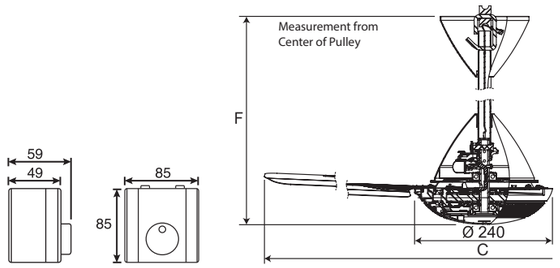
REGULATOR CONTROL SERIES

Usage: Living Room | Bedroom | Restaurant | Lobby

Compact Regulator
Fall Prevention Measures
Metal Blades



Dimension
Unit : mm



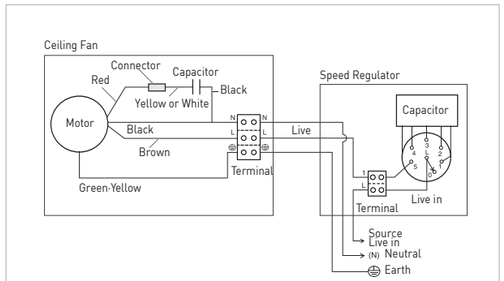
Model	C
F-48TZ2	Ø1,200
F-56TZ2	Ø1,400

Pipe Type	Pipe Length	F
9 inch	229	437
12 inch	305	513
16 inch	406	614
18 inch	457	665
22 inch	559	764

F-48TZ2 / F-56TZ2

- 5-speed selection
- Thermal fuse to prevent overheating
- Safety wire provided
- Safety shaft cap to prevent fan falling
- Permanently lubricated ball bearing equipped
- Glossy diamond-pattern fan ring
- Motor insulation Class E
- Colour option: White body with white ring
  White body with silver ring

Wiring Diagram



Specification

Model	Voltage		*	Consumption	RPM	Air Velocity		Air Volume		Weight
	[V]	[Hz]		[W]		[m/min]	[ft/min]	[m³/min]	[ft³/min]	[kg]
F-48TZ2	220	50	Hi	45	285	160	525	155	5,474	5.3
			Lo	15	137	-	-	-	-	
		60	Hi	55	311	175	574	170	6,003	
			Lo	15	129	-	-	-	-	
	230	50	Hi	49	296	165	541	170	6,003	
			Lo	16	146	-	-	-	-	
	240	50	Hi	51	303	170	558	165	5,827	
			Lo	18	154	-	-	-	-	
F-56TZ2	220	50	Hi	70	268	165	541	220	7,769	5.6
			Lo	14	103	-	-	-	-	
		60	Hi	76	268	170	558	225	7,946	
			Lo	17	106	-	-	-	-	
	230	50	Hi	75	275	170	558	225	7,946	
			Lo	15	109	-	-	-	-	
	240	50	Hi	76	273	165	541	220	7,769	
			Lo	17	115	-	-	-	-	

*Hi - Notch 5 / Lo - Notch 1

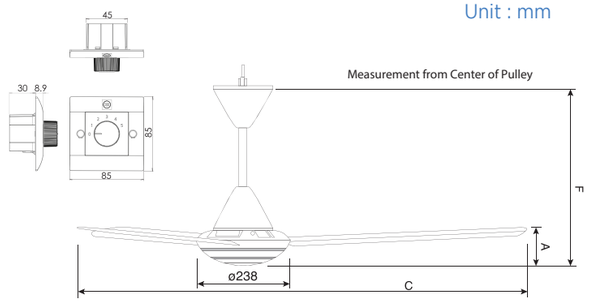
REGULATOR CONTROL SERIES

Usage: Living Room | Bedroom | Restaurant | Lobby

Slim Regulator
Fall Prevention Measures
Metal Blades



Dimension
Unit : mm



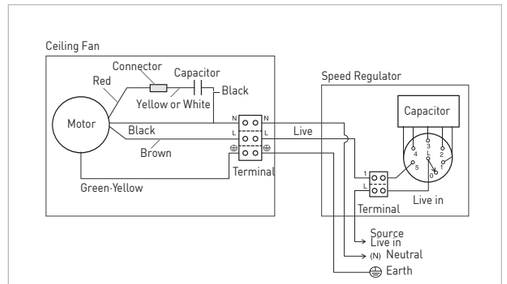
Model	A	C
F-48XZ5	78.2	Ø1,200
F-56XZ5	82.2	Ø1,400

Pipe Type	Pipe Length	F
9 inch	229	375.7
12 inch	305	451.7
16 inch	406	552.7
18 inch	457	603.7
22 inch	559	705.7

F-48XZ5 / F-56XZ5

- 5-speed selection
- Thermal fuse to prevent overheating
- Safety wire provided
- Safety shaft cap to prevent fan falling
- Permanently lubricated ball bearing equipped
- Glossy diamond-pattern fan ring
- Motor insulation Class E
- Colour: White body with glossy gold ring

Wiring Diagram



Specification

Model	Voltage		*	Consumption	RPM	Air Velocity		Air Volum		Weight
	[V]	[Hz]		[W]		[m/min]	[ft/min]	[m³/min]	[ft³/min]	[kg]
F-48XZ5	220	50	Hi	45	285	160	525	155	5,474	5.3
			Lo	15	137	-	-	-	-	
		60	Hi	55	311	175	574	170	6,003	
			Lo	15	129	-	-	-	-	
	230	50	Hi	49	296	165	541	170	6,003	
			Lo	16	146	-	-	-	-	
	240	50	Hi	51	303	170	558	165	5,827	
			Lo	18	154	-	-	-	-	
F-56XZ5	220	50	Hi	70	268	165	541	220	7,769	5.6
			Lo	14	103	-	-	-	-	
		60	Hi	76	268	170	558	225	7,946	
			Lo	17	106	-	-	-	-	
	230	50	Hi	75	275	170	558	225	7,946	
			Lo	15	109	-	-	-	-	
	240	50	Hi	76	273	165	541	220	7,769	
			Lo	17	115	-	-	-	-	

*Hi - Notch 5 / Lo - Notch 1

REGULATOR CONTROL SERIES

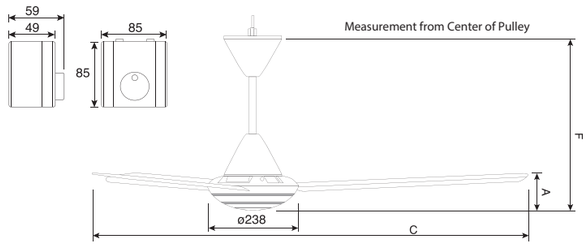
Usage: Living Room | Bedroom | Restaurant | Lobby

Compact Regulator
Fall Prevention Measures
Metal Blades



Dimension

Unit : mm



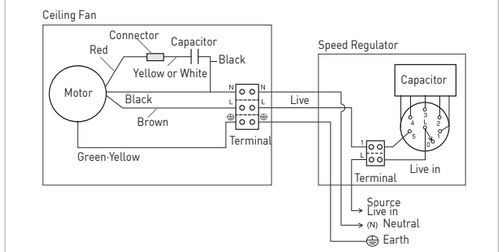
Model No.	A	C
F-48XZ2	78.2	Ø1,200
F-56XZ2	82.2	Ø1,400

Pipe Type	Pipe Length	F
9 inch	229	375.7
12 inch	305	451.7
16 inch	406	552.7
18 inch	457	603.7
22 inch	559	705.7

F-48XZ2 / F-56XZ2

- 5-speed selection
- Thermal fuse to prevent overheating
- Safety wire provided
- Safety shaft cap to prevent fan falling
- Permanently lubricated ball bearing equipped
- Glossy diamond-pattern fan ring
- Motor insulation Class E
- Colour: White body with glossy gold ring

Wiring Diagram



Specification

Model	Voltage		*	Consumption	RPM	Air Velocity		Air Volume		Weight
	[V]	[Hz]		[W]		[m/min]	[ft/min]	[m³/min]	[ft³/min]	[kg]
F-48XZ2	220	50	Hi	45	285	160	525	155	5,474	5.3
			Lo	15	137	-	-	-	-	
		60	Hi	55	311	175	574	170	6,003	
			Lo	15	129	-	-	-	-	
	230	50	Hi	49	296	165	541	170	6,003	
			Lo	16	146	-	-	-	-	
	240	50	Hi	51	303	170	558	165	5,827	
			Lo	18	154	-	-	-	-	
F-56XZ2	220	50	Hi	70	268	165	541	220	7,769	5.6
			Lo	14	103	-	-	-	-	
		60	Hi	76	268	170	558	225	7,946	
			Lo	17	106	-	-	-	-	
	230	50	Hi	75	275	170	558	225	7,946	
			Lo	15	109	-	-	-	-	
	240	50	Hi	76	273	165	541	220	7,769	
			Lo	17	115	-	-	-	-	

*Hi - Notch 5 / Lo - Notch 1

ACCESSORIES – PIPE (DOWN ROD)

4 Pipe Lengths
2 Colour Options
For Various Applications



F-PZ35PAMW / F-PZ36PAMT
F-PZ48PAMW / F-PZ48PAMT
F-PZ60PAWM / F-PZ60PAMT
F-PZ79PAMW / F-PZ79PAMT

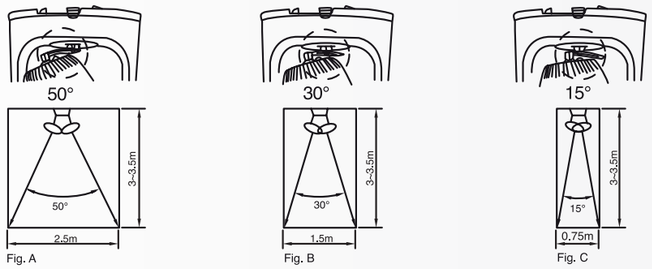
Model	Pipe Type	Pipe Length [mm]	Color
F-PZ36PAMW	36 inch	914	White
F-PZ48PAMW	48 inch	1,219	White
F-PZ60PAMW	60 inch	1,524	White
F-PZ79PAMW	79 inch	2,007	White
F-PZ36PAMT	36 inch	914	Brown
F-PZ48PAMT	48 inch	1,219	Brown
F-PZ60PAMT	60 inch	1,524	Brown
F-PZ79PAMT	79 inch	2,007	Brown

FEATURE OF ELECTRIC FAN

Cycle Fan

Adjustable Circulating Angle

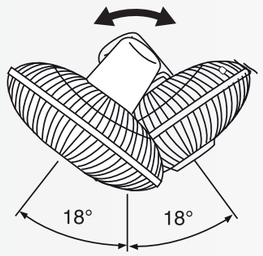
The circulating angle can be adjusted to 15°, 30° or 50° by setting the position of rod.



Wall Fan

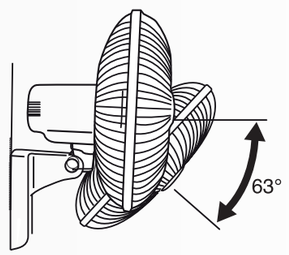
Double Oscillation

To change the direction of the air flow, simply push the fan guard to the desired position.



"One-touch" Adjustment of Tilt

The airflow can be adjusted upward or downward by simply moving the guard up or down as shown in the figure.





Living Room



Bedroom



School



Food Court

CYCLE FAN

Usage: Living Room | Bedroom | Restaurant | School

360° Oscillation
Regulator
Metal Blades



Gold



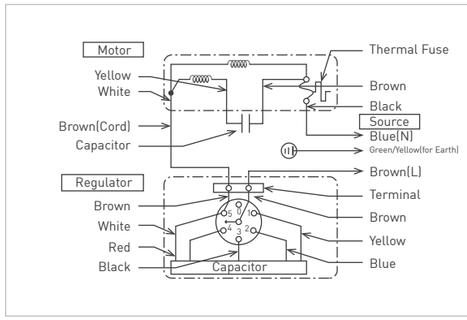
Blue



F-409Q

- 5-speed selection
- Oscillation over 360°
- Speed and ON/OFF controlled by regulator
- Easy adjustment for circulating angle (15 °, 30 °, 50 °)
- Thermal fuse to prevent overheating
- Safety wire provided
- Permanently lubricated ball bearing equipped
- Painted metal blades
- Colour option: Blue
  Gold

Wiring Diagram



Specification

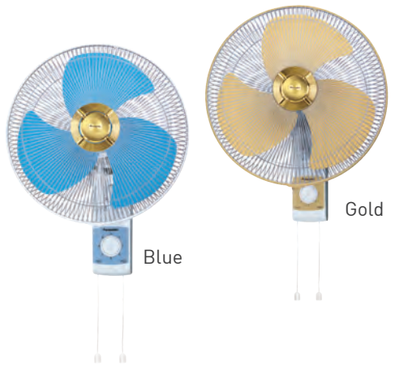
Model	Voltage		*	Consumption	RPM	Air Velocity		Air Volume		Weight
	[V]	[Hz]		[W]		[m/min]	[ft/min]	[m³/min]	[ft³/min]	[kg]
F-409Q	220	50	Hi	46.8 - 57.2	1,080 - 1,320	256	840	79	2,790	4.3
			Lo	22.5 - 27.5	690 - 850	-	-	-	-	
		60	Hi	57.7 - 70.5	1,160 - 1,410	277	909	86	3,037	
			Lo	26.6 - 32.5	710 - 860	-	-	-	-	

*Hi - Notch 5 / Lo - Notch 1

WALL FAN – CORD-OPERATED SERIES

Usage: Living Room | Bedroom | Restaurant | School

Pull Switch
Easy Angle Adjustment
3-speed Selection



F-309U / F-409U

- 3-speed selection
- Speed and ON/OFF controlled by pull switch
- Speed and Oscillation change by pull cord
- Easy adjustment for tilt angle and oscillation angle
- Thermal fuse to prevent overheating
- Safety shaft cap to prevent fan falling
- Permanently lubricated ball bearing equipped
- Colour option: Blue (F-309U and F-409U)
  Gold (F-409U only)

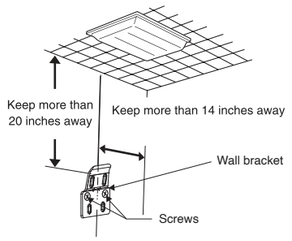
Specification

Model	Voltage		*	Consumption	RPM	Air Velocity		Air Volume		Weight
	[V]	[Hz]		[W]		[m/min]	[ft/min]	[m^3/min]	[ft^3/min]	[kg]
F-309U	220	50	Hi	34.0 - 41.6	1,124 - 1,374	215	705	45	1,589	3.4
			Lo	26.3 - 32.1	779 - 952	-	-	-	-	
		60	Hi	39.5 - 48.3	1,244 - 1,520	237	778	50	1,766	
			Lo	27.3 - 33.3	714 - 872	-	-	-	-	
F-409U	220	50	Hi	42.5 - 51.9	1,097 - 1,341	226	741	63	2,225	4.4
			Lo	33.5 - 40.9	744 - 910	-	-	-	-	
		60	Hi	52.8 - 64.6	1,166 - 1,425	241	791	67	2,366	
			Lo	34.7 - 42.5	676 - 826	-	-	-	-	

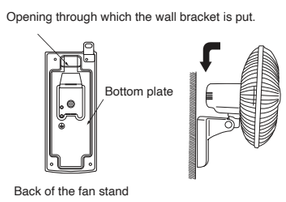
*Hi - Notch 3 / Lo - Notch 1

Installation

1.Install the wall bracket to the wall



2.Install the fan stand



WALL FAN – REMOTE CONTROL SERIES

Usage: Living Room | Bedroom | Restaurant | School

Remote Control
Easy Angle Adjustment
3-speed Selection



F-409M

- 3-speed selection
- Remote control for speed, oscillation and off timer
- Soft touch switch panel with LED indicator
- Off timer (1, 3, 6 hours)
- Easy adjustment for tilt angle and oscillation angle
- Thermal fuse to prevent overheating
- Safety shaft cap to prevent fan falling
- Permanently lubricated ball bearing equipped
- Transparent plastic blade
- Colour option: Blue or Gray

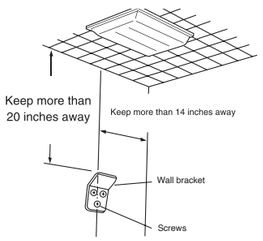
Specification

Model	Voltage		*	Consumption	RPM	Air Velocity		Air Volume		Weight
	[V]	[Hz]		[W]		[m/min]	[ft/min]	[m^3/min]	[ft^3/min]	[kg]
F-409M	220	50	Hi	46.8 - 57.2	1,055 - 1,289	228	748	63	2,225	4.4
			Lo	37.9 - 46.3	688 - 840	-	-	-	-	
		60	Hi	56.1 - 68.5	1,094 - 1,337	237	778	65	2,295	
			Lo	37.9 - 46.3	625 - 763	-	-	-	-	

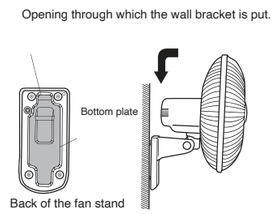
*Hi - Notch 3 / Lo - Notch 1

Installation

1.Install the wall bracket to the wall



2.Install the fan stand



VENTILATION PRODUCT SPECIFICATION SUMMARY

Ceiling Mount Type Ventilation Fan (AMCA Certified)

	Model	Voltage [V]	Frequency [Hz]	Speed	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)										RPM	Watts* For AMCA	Watts** For IEC
					Inches of H_2O	0	0.1	0.125	0.25	0.375	0.5	0.625	0.75	0.875			
Super Quiet Series	FV-17CU9	220	60	-	CFM	44	32	29	-	-	-	-	-	-	664	10	10
					Sones	0.3	0.5	0.6	-	-	-	-	-	-			
		240	50	-	CFM	51	43	40	-	-	-	-	-	-	728	10	9.5
					Sones	0.3	0.4	0.5	-	-	-	-	-	-			
	FV-24CD8	220	60	-	CFM	94	79	77	58	-	-	-	-	-	750	17.6	16.5
					Sones	0.6	0.7	0.7	1.5	-	-	-	-	-			
		240	50	-	CFM	104	90	85	63	-	-	-	-	-	800	18.8	17.5
					Sones	0.8	0.9	1.0	1.6	-	-	-	-	-			
	FV-24CU9	220	60	-	CFM	83	73	68	46	-	-	-	-	-	585	13	13.5
					Sones	0.4	0.5	0.6	1.3	-	-	-	-	-			
		240	50	-	CFM	89	77	75	51	-	-	-	-	-	614	13	12
					Sones	0.5	0.7	0.7	1.4	-	-	-	-	-			
	FV-24CH9	220	60	-	CFM	109	99	96	75	48	-	-	-	-	791	22	20.5
					Sones	1.0	0.9	1.0	1.3	2.2	-	-	-	-			
		240	50	-	CFM	117	109	96	73	33	-	-	-	-	861	21	19.5
					Sones	1.2	1.2	1.2	1.3	1.8	-	-	-	-			
	FV-27CH9	220	60	Hi	CFM	180	160	154	117	76	34	-	-	-	578	36	33
					Sones	1.0	1.1	1.3	1.7	2.5	2.5	-	-	-			
		240	50	Hi	CFM	198	179	172	128	78	28	-	-	-	618	38	34
					Sones	1.4	1.5	1.6	1.8	2.6	2.6	-	-	-			
	FV-32CD9	220	60	Hi	CFM	229	201	195	159	123	86	49	-	-	609	53	48
					Sones	1.2	1.3	1.4	1.7	2.2	2.7	3.3	-	-			
		240	50	Hi	CFM	257	236	230	192	147	99	53	-	-	668	57	50
					Sones	1.6	1.7	1.8	1.9	2.5	3.0	3.6	-	-			

Performance certified is for installation type B: Free inlet, Ducted outlet. Performance ratings include the effects of an inlet grille and backdraft shutter. Speed (RPM) shown is nominal. Performance is based on actual speed of test. 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 B: 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 H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Ceiling Mount Type Ventilation Fan (AMCA Certified)

	Model	Voltage [V]	Frequency [Hz]	Speed	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)										RPM	Watts* For AMCA	Watts** For IEC
					Inches of H_2O	0	0.1	0.125	0.25	0.375	0.5	0.625	0.75	0.875			
DC Motor Series	FV-24JR2	220	60	Hi	CFM	88	88	88	88	63	34	5	-	-	853	10	8
					Sones	0.7	1.0	1.0	1.3	1.7	1.8	3.1	-	-			
		240	50	Hi	CFM	88	88	88	88	63	34	5	-	-			
					Sones	0.7	1.0	1.0	1.3	1.7	1.8	3.1	-	-			
	FV-24JA2	220	60	Hi	CFM	88	88	88	88	63	34	5	-	-	839	10	8
					Sones	0.6	0.9	1.0	1.4	1.6	1.9	3.2	-	-			
		240	50	Hi	CFM	88	88	88	88	63	34	5	-	-			
					Sones	0.6	0.9	1.0	1.4	1.6	1.9	3.2	-	-			
Metal Series	FV-24CMU1	220	60	-	CFM	55	40	37	20	-	-	-	-	-	495	13	12
					Sones	0.3	0.7	0.8	1.6	-	-	-	-	-			
		240	50	-	CFM	55	44	41	24	-	-	-	-	-	562	14	13
					Sones	0.3	0.8	1.0	1.4	-	-	-	-	-			
	FV-24CMH1	220	60	-	CFM	94	85	83	72	54	-	-	-	-	681	25	23
					Sones	1.0	1.4	1.5	1.9	2.3	-	-	-	-			
		240	50	-	CFM	108	98	95	77	44	-	-	-	-	753	27	25
					Sones	1.4	1.8	1.9	2.1	2.2	-	-	-	-			
	FV-27CMH1	220	60	-	CFM	208	184	178	144	108	79	-	-	-	615	46	43
					Sones	1.6	1.7	1.7	2.3	3.2	3.5	-	-	-			
		240	50	-	CFM	219	194	188	150	110	70	-	-	-	669	46	43
					Sones	1.9	1.9	2.0	2.4	3.4	3.1	-	-	-			
Standard Series	FV-38CD8	220	60	Hi	CFM	356	334	329	305	273	236	199	162	125	670	109	98
					Sones	3.4	3.5	3.6	3.7	3.9	4.2	5.1	5.7	6.2			
	FV-38CD8 05	240	50	Hi	CFM	387	367	362	336	305	259	212	165	117	730	119	104
					Sones	4.0	4.1	4.2	4.3	4.4	4.7	5.3	5.7	6.2			

Performance certified is for installation type B: Free inlet, Ducted outlet. Performance ratings include the effects of an inlet grille and backdraft shutter. Speed (RPM) shown is nominal. Performance is based on actual speed of test. 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 B: Free inlet hemispherical sone levels.
* the Watts rating is for AMCA test method and it is at the static pressure of 0 inch of H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Rating Seal does not apply to IEC test method watts.

Ceiling Mount Type Ventilation Fan (Non-AMCA Certified)

Model	Voltage [V]	Frequency [Hz]		Air Volume [CMH]	Air Volume [CFM]	Consumption [W]	RPM	Noise [dB(A)]	Weight [kg]	Installation Space [mm]	Duct Size [mm]
FV-32CH9	220	50	Hi	530	312	55	710	41	5.6	320 x 320	Ø150
			Lo	400	235	45	570	34			
		60	Hi	525	309	61	695	40.5			
			Lo	390	230	47	540	33			
	230	50	Hi	555	327	59	740	42			
			Lo	430	253	49	590	35.5			
	240	50	Hi	580	341	64	770	43			
			Lo	450	265	53	615	37			

Note: RPM data is for reference only, values may vary subject to different conditions.
Test Condition:
Air volume, electric characteristic and noise are specified at the static pressure of 0 Pa.
The values of noise level is A weighted average sound pressure level, the mean values are measured by our company, within +3 to -7 dB tolerance.
The values of noise level are measured at 1 m apart from the side of fan body when ducts are connected on outlet side.
The values of air volume are the mid-points of results measured by our company, within ±10% tolerance.

VENTILATION PRODUCT SPECIFICATION SUMMARY

Cabinet Fan (In-line Fan)

Low Noise Type Cabinet Fan Model Comparison (AMCA Certified)

Model	Voltage [V]	Frequency [Hz]	Speed	Inches of H_2O	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)										RPM	Watts* For AMCA	Watts** For IEC
					0	0.1	0.125	0.25	0.375	0.5	0.75	1	1.25	1.5			
FV-12NS3	220	60	Hi	CFM	114	105	102	87	65	-	-	-	-	-	1,460	26	23
				Sones	1.5	1.4	1.4	1.3	1.4	-	-	-	-	-			
	240	50	Hi	CFM	102	90	86	67	39	-	-	-	-	-	1,342	27	22
				Sones	2.0	1.7	1.6	1.4	1.5	-	-	-	-	-			
FV-15NS3	220	60	Hi	CFM	200	183	177	149	118	83	-	-	-	-	1,520	45	42
				Sones	2.7	2.5	2.4	2.3	2.2	2.0	-	-	-	-			
	240	50	Hi	CFM	193	177	172	139	94	20	-	-	-	-	1,373	47	37
				Sones	3.7	3.4	3.2	2.6	2.5	2.8	-	-	-	-			
FV-18NS3	220	60	Hi	CFM	274	261	258	241	222	196	137	-	-	-	1,470	80	73
				Sones	3.3	3.1	3.0	2.9	2.7	2.6	2.7	-	-	-			
	240	50	Hi	CFM	281	263	259	232	200	163	34	-	-	-	1,342	84	68
				Sones	4.8	4.4	4.4	3.8	3.4	3.0	2.9	-	-	-			
FV-18NF3	220	60	Hi	CFM	417	399	395	373	347	318	237	-	-	-	1,420	128	119
				Sones	4.0	3.9	3.9	3.9	3.6	3.5	3.4	-	-	-			
	240	50	Hi	CFM	429	406	400	381	344	290	78	-	-	-	1,327	135	104
				Sones	5.6	5.4	5.4	5.1	4.6	4.3	4.2	-	-	-			
FV-20NS3	220	60	Hi	CFM	469	459	456	444	433	413	354	275	-	-	1,380	170	159
				Sones	4.0	4.0	3.9	3.8	3.9	4.0	4.1	4.2	-	-			
	240	50	Hi	CFM	517	500	495	464	424	382	265	110	-	-	1,328	175	135
				Sones	6.0	5.8	5.8	5.4	5.1	4.8	4.5	4.5	-	-			
FV-23NL3	220	60	Hi	CFM	655	642	640	625	611	597	555	505	440	-	1,400	350	310
				Sones	6.0	6.0	5.9	5.9	5.7	5.7	5.8	5.8	5.8	-			
	240	50	Hi	CFM	688	670	664	642	614	579	493	388	199	-	1,342	347	260
				Sones	8.8	8.6	8.4	8.1	8.0	7.6	7.2	6.7	6.6	-			
FV-25NS3	220	60	Hi	CFM	940	924	919	899	877	857	790	710	610	502	1,380	460	425
				Sones	7.1	7.1	7.1	7.0	6.8	6.8	6.7	6.7	6.7	6.9			
	240	50	Hi	CFM	963	938	935	906	868	822	719	567	395	-	1,305	481	370
				Sones	10.1	9.8	9.7	9.3	9.2	8.8	8.0	6.5	8.2	-			
FV-25NF3	220	60	Hi	CFM	1,016	1,000	995	975	954	933	875	803	710	590	1,420	680	520
				Sones	8.2	8.2	8.2	8.2	7.9	7.9	7.8	7.6	7.5	7.5			
	240	50	Hi	CFM	1,057	1,048	1,040	1,010	972	922	811	660	473	-	1,330	537	430
				Sones	12.1	11.9	11.5	11.1	10.6	9.8	8.7	8.7	10.3	-			

Performance certified is for installation type D: Ducted inlet, Ducted outlet.
Performance ratings do not include the effects of appurtenances (accessories), Speed (RPM) shown is nominal.
Performance is based on actual speed of test. The sound ratings shown are loudness values in fan sones at 5ft (1.5m) in a hemispherical free field calculated per AMCA International Standard 301.
Values shown are for installation Type D: ducted inlet hemispherical sone levels. Ratings do not include the effect of duct end correction.
* the Watts rating is only for AMCA test method and it is at the static pressure of 0 inch of H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Low Noise Type Cabinet Fan (Three Phase Series) Model Comparison (Non-AMCA Certified)

Model	Phase	Voltage [V]	Frequency [Hz]	Comsumption [W]	RPM	Air Volume		Noise [dB(A)]	Weight [Kg]	Duct Size [mm]	Impeller Diameter [mm]
						[CMH]	[CFM]				
FV-25SW3	3	380	50	940	1,375	4,000	2,354	43	60	250 x 500	250
			60	1,450	1,530	4,500	2,648	45			
FV-25SM3	3	380	50	1,180	1,345	5,200	3,060	45	60	250 x 700	250
			60	1,750	1,470	5,500	3,237	46			
FV-28NX3	3	380	50	600	1,295	2,600	1,530	44	28	ø250	280
			60	840	1,380	2,650	1,560	45			

Note: The value in Specification table are representative characteristic value at 380V, 50/60Hz
RPM data is for reference only. Values may vary subject to different conditions.
The above Low Noise Type Cabinet Fan (Three Phase Series) Model are not licensed to bear the AMCA Certified Ratings Seal.

Industrial Type Ventilation Fan

Industrial Ventilation Fan Model Comparison (AMCA Certified)

Model	Voltage [V]	Frequency [Hz]	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)									RPM	Watts* For AMCA	Watts** For IEC
			Inches of H_2O	0	0.05	0.075	0.1	0.125	0.25	0.375	0.5	0.75			
FV-25GS5	220	60	CFM	788	742	715	686	647	-	-	-	-	1,570	61	57
			Sones	4.9	4.7	4.5	4.5	4.6	-	-	-	-			
	240	50	CFM	701	657	633	600	565	187	-	-	-	1,400	48	44
			Sones	3.8	3.6	3.6	3.5	3.6	8.6	-	-	-			
FV-30GS5	220	60	CFM	1,308	1,247	1,217	1,184	1,153	772	-	-	-	1,460	129	119
			Sones	9.0	9.0	9.1	9.0	9.1	9.4	-	-	-			
	240	50	CFM	1,177	1,119	1.090	1,058	1,026	561	243	-	-	1,315	106	98
			Sones	5.5	5.5	5.6	5.6	5.8	11.1	12.0	-	-			
FV-35GS5	220	60	CFM	1,850	1,788	1,752	1,712	1,669	1,456	600	-	-	1,640	178	161
			Sones	11.9	11.6	12.0	12.4	13.6	14.6	13.4	-	-			
	240	50	CFM	1,615	1,548	1,506	1458	1,411	1,147	390	-	-	1,435	130	122
			Sones	8.6	8.2	8.2	8.0	8.0	12.6	13.4	-	-			
FV-40GS5	220	60	CFM	2,677	2,581	2,535	2,488	2,440	2,170	2,050	-	-	1,550	294	270
			Sones	20.0	20.0	19.7	19.4	19.3	18.9	19.9	-	-			
	240	50	CFM	2,135	2,067	2,035	2,000	1,965	1,800	1,480	-	-	1,440	164	151
			Sones	9.0	8.5	8.7	8.7	8.7	13.0	14.2	-	-			

Model	Voltage [V]	Frequency [Hz]	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)				RPM	Watts* For AMCA	Watts** For IEC
			Inches of H_2O	0	0.2	0.3	0.4			
FV-45GS4	220	60	CFM	3,278	3,131	3,001	2,795	1,563	346	325
			Sones	10	10.4	10.6	10.8			
	240	50	CFM	2,854	2,648	2,454	2,030	1,430	277	241
			Sones	7.8	7.7	7.8	9.4			
FV-50GS4	220	60	CFM	3,884	3,443	3,090	2,501	1,080	347	326
			Sones	10.9	11.3	11.5	11.8			
	240	50	CFM	3,354	2,854	2,266	912	968	293	271
			Sones	11.7	13.8	14.5	15.4			
FV-60GS4	220	60	CFM	5,038	4,349	3,943	3,560	1,088	384	361
			Sones	10.1	9.8	9.5	10.1			
	240	50	CFM	4,402	3,855	3,366	2,972	980	289	263
			Sones	10.3	8.6	8.5	11.5			

Performance certified is for installation type A: Free inlet, Free outlet with partition.
Performance ratings do not include the effects of appurtenances (accessories), Speed (RPM) shown is nominal.
Performance is based on actual speed of test. The sound ratings shown are loudness values in fan sones at 5ft (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. Ratings do not include the effect of duct end correction.
* the Watts rating is only for AMCA test method and it is at the static pressure of 0 inch of H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Industrial Ventilation Fan Model Comparison (Non-AMCA Certified)

Model	Phase	Voltage [V]	Frequency [Hz]	Comsumption [W]	RPM	Air Volume		Noise [dB(A)]	Weight [Kg]
						[CMH]	[CFM]		
FV-45GT4	3	380	50	220	1,450	5,520	3,249	52	18.5
			60	330	1,690	6,420	3,779	58	
FV-50GT4	3	380	50	320	1,400	6,960	4,097	54	28.5
			60	475	1,590	8,010	4,715	58	
FV-60GT4	3	380	50	310	940	9,420	5,544	49	34
			60	450	1,070	10,920	6,427	53	
FV-40KUT	-	220	50	61	1,175	2,060	1,212	49	6.4
			60	76	1,260	2,190	1,289	51	
FV-40KAU1	-	220	50	47	1,230~1,370	1,880	1,105	51	6.4
		230		52	1,250~1,390	1,920	1,130	51	
		240		59	1,270~1,410	1,960	1,151	51	
		230	60	67	1,400~1,540	2,130	1,254	52.5	

Note: The value in Specification table are representative characteristic value at 220V, 50/60Hz
RPM data is for reference only. Values may vary subject to different conditions.
The above Industrial Ventilating Fan Model are not licensed to bear the AMCA Certified Ratings Seal.

VENTILATION PRODUCT SPECIFICATION SUMMARY

Wall Mount Type Ventilation Fan (AMCA Certified)

	Model	Voltage [V]	Frequency [Hz]	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)					RPM	Watts* For AMCA	Watts** For IEC
				Inches of H_2O	0	0.02	0.04	0.06			
Automatic Shutter Series	FV-20AU1	220	60	CFM	370	328	274	227	1,430	23.5	22.0
				Sones	2.1	2.1	2.2	2.5			
		240	50	CFM	339	295	257	200	1,303	23.0	21.5
				Sones	2.0	2.1	2.0	4.5			
	FV-25AU1	220	60	CFM	542	504	460	361	1,387	33.2	31.0
				Sones	2.4	2.3	1.9	2.5			
		240	50	CFM	542	493	443	394	1,252	31.0	29.0
				Sones	3.6	3.2	3.0	3.1			
	FV-30AU1	220	60	CFM	655	567	456	242	938	35.3	33.0
				Sones	2.0	1.6	1.9	2.4			
		240	50	CFM	696	580	491	340	964	34.8	32.5
				Sones	2.0	1.8	1.6	2.2			
Automatic Shutter Louver Series	FV-20AL1	220	60	CFM	334	296	256	197	1,398	23.5	22.0
				Sones	2.8	2.7	3.1	3.9			
		240	50	CFM	301	274	234	175	1,278	23.0	21.5
				Sones	2.5	2.5	2.7	2.8			
	FV-25AL1	220	60	CFM	471	411	350	250	1,224	33.2	31.0
				Sones	3.4	3.2	2.9	3.0			
		240	50	CFM	482	438	389	328	1,217	32.1	30.0
				Sones	4.2	4.1	3.8	3.8			
	FV-30AL1	220	60	CFM	510	446	372	219	867	35.3	33.0
				Sones	2.5	2.0	3.0	2.1			
		240	50	CFM	571	494	411	263	896	35.3	32.5
				Sones	3.1	2.6	2.5	3.3			

Performance certified is for installation type A: Free inlet, Free outlet with partition. Performance ratings include the effects of a backdraft shutter for Model AU1. Performance ratings include the effects of inlet grille and backdraft shutter for Model AL1. The speed (RPM) and Watts rating shown are at the static pressure of 0 inch of H_2O. 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 only for AMCA test method and it is at the static pressure of 0 inch of H_2O.
**the Watts rating only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

Wall Mount Type Ventilation Fan (Non-AMCA Certified)

Model	Voltage [V]	Frequency [Hz]	Air Volume [CMH]	Consumption [W]	Noise [dB(A)]	RPM	Wall Installation		Ceiling Installation	Net Weight [kg]
							Hole Size [mm]	Wall Thickness [mm]	Hole size [mm]	
FV-10EGK2	220	50	76	4.3	33.0	2,660	Ø130~140	100~150	Ø130~140	1.0
	240	50	77	5.0	33.0	2,690				
FV-15EGK2	220	50	162	5.7	36.0	2,265	Ø175~185	100~150	Ø175~185	1.3
	240	50	165	6.5	37.0	2,390				
FV-10EGS2	220	50	76	4.3	35.0	2,665	Ø120~125	>205	Ø130~140	0.8
	240	50	77	5.0	35.0	2,685				
FV-15EGS2	220	50	155	5.7	36.0	2,130	Ø165~170	>240	Ø175~185	1.0
	240	50	165	6.5	37.0	2,240				

Notes:
1.The value of power consumption, air volume and noise are specified at the static pressure of 0 Pa.
2.The value of air volume is the mean value which is measured by our company.
3.The value of noise level is measured at 1m apart from the left, the right and the directly below of product, then get the average of three values.
4.The value of noise level is A weight average sound pressure level, the mean value is measured by our company.

VENTILATION PRODUCT SPECIFICATION SUMMARY

Window Mount Type Ventilation Fan (AMCA Certified)

Model	Voltage [V]	Frequency [Hz]	CFM / SONE AT STATIC Pressure (ps-inches of H_2O)					RPM	Watts* For AMCA	Watts** For IEC
			Inches of H_2O	0	0.05	0.1	0.15			
FV-15WH3T	220	60	CFM	127	94	63	31	2,440	14.6	13
			Sones	3.0	3.6	3.5	3.9			
	240	50	CFM	127	95	68	50	2,537	16	15
			Sones	2.3	2.7	3.5	2.8			
FV-20WH3T	220	60	CFM	250	188	127	78	1,517	24.4	22
			Sones	3	3.9	4.5	4.2			
	240	50	CFM	230	147	103	53	1,333	23.4	22
			Sones	2.8	3.8	3.4	4			
			Inches of H_2O	0	0.02	0.04	0.06			
FV-15WA1	220	60	CFM	124	109	91	79	2,021	19.6	18
			Sones	3.6	4.5	4.1	4			
	240	50	CFM	124	109	93	78	2062	18.2	16
			Sones	2.5	4.5	4.1	3.8			
FV-20WA1	220	60	CFM	206	147	124	94	1,385	18.4	17
			Sones	3.7	3.8	3.5	3.3			
	240	50	CFM	165	153	141	131	1,375	18.6	17.5
			Sones	3.4	3.3	3.4	3.4			
			Inches of H_2O	0	0.01	0.02	0.03			
FV-15WU4	220	60	CFM	105	94	79	66	1,425	9.7	8.9
			Sones	0.9	0.9	2.2	2.4			
	240	50	CFM	124	115	104	94	1,722	10.3	9.5
			Sones	1.4	1.6	1.8	3.7			
			Inches of H_2O	0	0.02	0.03	0.04			
FV-20WU4	220	60	CFM	188	129	112	88	980	19.2	17.9
			Sones	0.8	1.2	1.8	1.4			
	240	50	CFM	221	168	141	118	1,096	18.5	17.2
			Sones	1.8	1.6	2.2	2.0			

Performance certified is for installation type A: Free inlet, Free outlet with partition. Performance ratings include the effects of a shutter. The Speed (RPM) and Watts rating shown are at the static pressure of 0 inch of H_2O. 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 H_2O.
** the Watts rating is only for IEC test method and the AMCA Certified Ratings Seal does not apply to IEC test method watts.

In-line Centrifugal Fan (AMCA Certified)

Model	Voltage [V]	Frequency [Hz]	CFM/SONE AT STATIC Pressure (ps-inches of H2O)												RPM	Watts*	Watts**
			inches of H_2O	0.000	0.121	0.201	0.402	0.603	0.804	1.005	1.206	1.507	1.808	2.009	2.411		FOR AMCA	FOR IEC
FV-10MM1	240	50	CFM	161	152	146	125	108	87	66	-	-	-	-	-	2,606	63	57
			Sones	8.8	8.5	8.4	8.0	7.5	7.2	6.9								
FV-12MM1			CFM	197	178	169	144	121	100	74	49	-	-	-	-	2,580	63	58
			Sones	9.9	9.5	9.3	8.8	8.4	8.0	7.6	7.1							
FV-15MM1			CFM	413	390	375	332	288	246	203	163	106	-	-	-	2,495	104	97
			Sones	11.1	10.9	10.8	10.5	10.2	10.2	10.2	10.9	10.6						
FV-16MM1			CFM	487	462	440	390	337	294	250	212	146	-	-	-	2,311	136	128
			Sones	10.6	10.3	10.3	10.1	10.2	10.3	11.1	10.5	9.1						
FV-20MM1			CFM	553	523	506	460	421	379	332	284	229	163	121	-	2,535	181	174
			Sones	11.2	10.9	10.8	10.2	9.9	9.6	9.7	10.2	12.2	12.5	12.9				
FV-25MM1			CFM	555	532	515	474	436	394	352	307	250	186	140	-	2,643	178	165
			Sones	11.7	11.2	11.1	10.5	10.1	9.7	9.3	9.1	10.0	12.3	13.3				
FV-31MM1			CFM	953	908	883	805	709	601	504	438	366	307	263	159	2,519	246	238
			Sones	17.7	17.1	16.5	15.6	14.4	12.5	12.0	12.1	13.6	17.4	20.0	21.1			

1. Performance certified is for installation type D: Ducted inlet, Ducted outlet.
2. Performance ratings do not include the effects of appurtenances (accessories). Speed (RPM) shown is nominal.
3. Performance is based on actual speed of test. 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.
4. Values shown are for installation type D: ducted inlet hemispherical sone levels. Ratings do not include the effect of duct end correction.
5. * the Watts rating is for AMCA test method and it is at the static pressure of 0 inch of H_2O.
6. ** the Watts rating is only for IEC test method and the AMCA Certified Rating Seal does not apply to IEC test method watts.

Mini Sirocco Fan (Non-AMCA Certified)

Model	Voltage [V]	Frequency [Hz]	Speed Level	Air Volume [CMH]	RPM	Consumption [W]	Noise Level [dB]		Weight [kg]
							Inlet	Side	
FV-10CG2	220	50	Hi	154	1,295	15	41.0	28.0	1.9
			Lo	115	1,020	12	35.5	24.0	
FV-12CG2			Hi	250	865	22	44.0	29.0	2.5
			Lo	175	615	16	32.0	19.0	
FV-14CG2			Hi	332	1,165	35	50.0	34.0	2.8
			Lo	226	815	28	40.0	26.0	
FV-16CG2			Hi	509	955	50	49.0	35.0	5.6
			Lo	405	765	43	43.5	30.0	
FV-17CG2			Hi	791	725	86	50.0	36.0	10.1
			Lo	640	590	70	44.0	31.0	
FV-19CG2			Hi	947	875	121	55.0	41.0	10.2
			Lo	857	780	105	51.5	37.0	
FV-21CG2			Hi	1,420	1,315	238	67.0	54.0	14.6
			Lo	1,143	1,080	182	60.0	47.0	

Notes:
1. The values of rated input, air volume and noise are specified at the static pressure of 0 Pa.
2. The values of noise level is A weighted average sound pressure level, the mean values are measured by our company, within +3 and -7 tolerance.
3. The values of noise level are measured at the 1.5m apart from the inspection panel of the fan body when ducts are connected on both inlet and outlet side. It is based on the assumption that the noise of fan body propagates to room inside.
4. The values of air volume are the mid-points of results measured by our company, with ±10% tolerance.
5. RPM data is for reference only. Values may vary subject to different condition.
6. The above parameters are subject to change without a prior notice.

REFERENCE PROJECT



Luxury Villa
Location : Bausher, Oman
Inline Ducted/Cabinet/Ceiling Mounted Fans

OMAN

Luxury Villa
Location : Muscat hills
Inline ducted fans/Ceiling Mounted Fans

OMAN

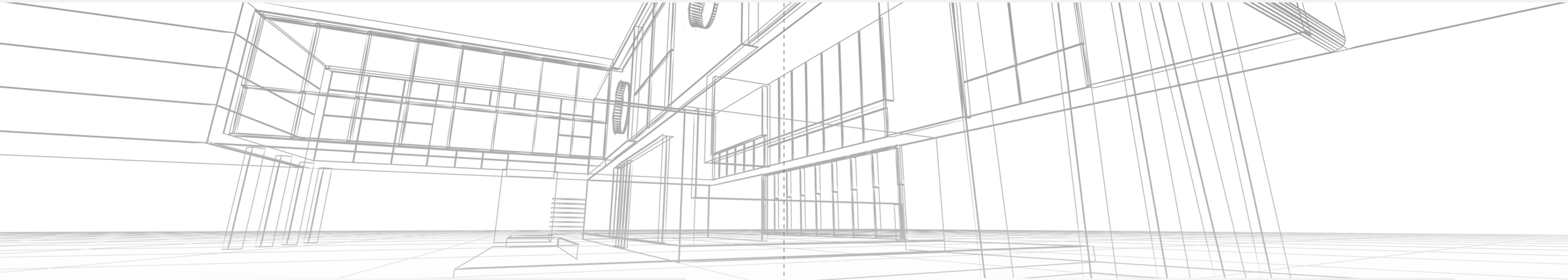
Luxury Villa
Location : Bausher, Oman
Inline Ducted/Cabinet/Ceiling Mounted Fans

OMAN

Luxury Villa
Location : Bausher, Oman
Inline Ducted/Cabinet/Ceiling Mounted Fans

OMAN

REFERENCE PROJECT



International School
Location: Sohar
Inline Ducted/Ceiling Mounted & Glass Mounted Fans

OMAN

Accommodation Complex
Location: Sohar Industrial Area
Inline Ducted & Wall Mounted Fans

UAE

Commercial Residential Building
Location: Al Khuwair, Muscat, Oman

OMAN

Commercial Residential Building
Location: Ruwi High Street, Muscat
Inline Ducted/Ceiling Mounted Fans

OMAN

Commercial Residential Building
Location: Madinat Al Irfan, Muscat
Inline Ducted /Ceiling Mounted Fans

UAE

Commercial Residential Building
Location: Azaiba, Muscat
Inline Ducted /Ceiling mounted Fans

OMAN

Residential Villa
Location: Hawana Lagoon Salalah Oman
Ceiling Mounted Fans

OMAN

Commercial Residential Building
Location: Satwa Dubai, UAE
Air Curtains

UAE

Commercial Residential Building
Location: Al Qusais Dubai, UAE
Air Curtains

UAE

Pavilion in Expo 2020
Location: Dubai Expo, Dubai, UAE
Air Curtains

UAE

Shopping Mall
Location: Dubai, UAE
Air Curtains

UAE

Private Hospital
Location: Dubai, UAE
Air Curtains

UAE

INSTALLATION METHOD



P.122 Ceiling Mount Type Ventilation Fan
P.124 Wall Mount Type Ventialtion Fan
P.126 Window Mount Type Ventilation Fan
P.128 Industrial Type Ventilation Fan
P.129 Cabinet Fan
P.131 In-line Centrifugal Fan
P.132 Mini Sirocco Fan
P.133 Range Hood
P.134 Hand Dryer
P.135 Air Curtain
P.136 Ceiling Fan
P.138 Cycle Fan
P.139 Wall Fan

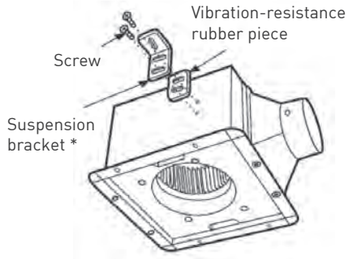
VENTILATION FAN INSTALLATION

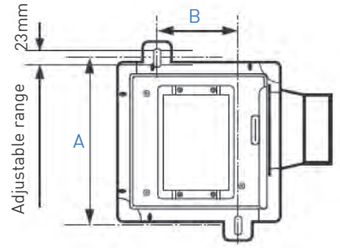
Ceiling Mount Type Ventilation Fan

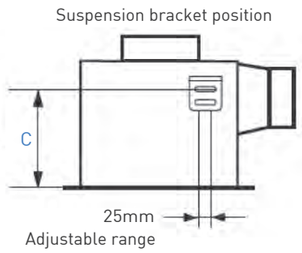
Applicable Model - FV-24JR2 / FV-24JA2 / FV-17CU9 / FV-24CD8 / FV-24CU9 / FV-24CH9 / FV-27CH9 / FV-32CD9 / FV-32CH9

1a Installation with ancher bolts

1. Secure the 1 set of suspension bracket FV-KB021C (optional accessory) with screws.



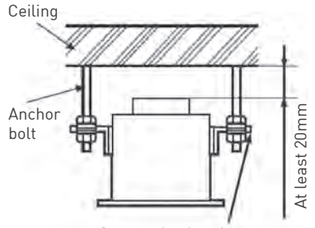




The screw length should not exceed 8mm.

* 2 sets of accessories are required for FV-32CD9 and FV-32CH9

2. Mount the fan body enclosure on the anchor bolts (M8-M10, not supplied).

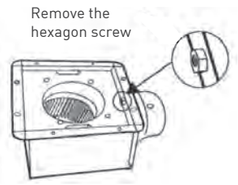


Unit : mm

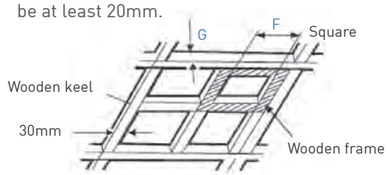
Model	A	B	C
FV-17CU9	206	89	103
FV-24CD8 / FV-24CU9 / FV-24CH9	266	131	112
FV-24JR2 / FV-24JA2	286	130	97
FV-27CH9	296	160	158.5
FV-32CD9 / FV-32CH9	346	200	158.5

1b Installation with wooden joist

1. First remove the hexagon screw attaching the adaptor assembly to the fan body.



2. Build a wooden frame horizontally from the keel. Note that the distance between the top of the fan body and the ceiling should be at least 20mm.

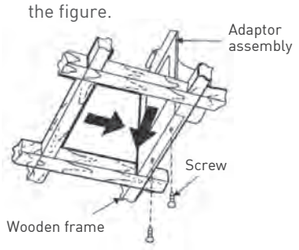


Unit : mm

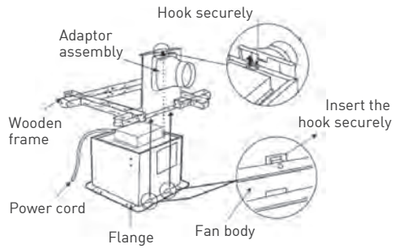
Model	F	G
FV-17CU9	177	25-30
FV-24CD8 / FV-24CU9 / FV-24CH9	240	25-30
FV-24JR2 / FV-24JA2	240	30-40
FV-27CH9	270	25-30
FV-32CD9 / FV-32CH9	320	25-30

* Ceiling joist must be subject to static load more than 5 times of the product weight.

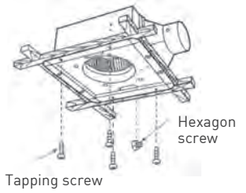
3. Attach the adaptor assembly to the wooden frame as shown in the figure.



4. Insert the fan body in the wooden frame, and connect it to the adaptor assembly.



5. Firmly secure the fan body with four tapping screws and a hexagon screw.

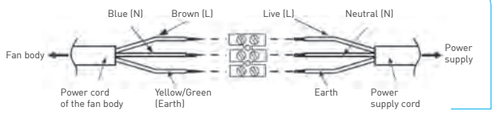


2 Power cord connection

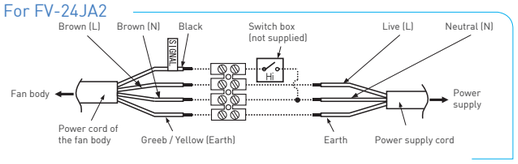
Connect the power cord to the power supply line according to the wiring diagram and the local electrical wiring rules of fixed wiring.

Make sure all connections are fastened firmly after wiring is finished.

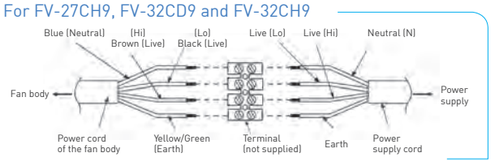
For FV-17CU9 / FV-24CD8 / FV-24CU9 / FV-24CH9



For FV-24JA2

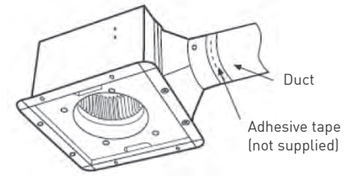


For FV-27CH9, FV-32CD9 and FV-32CH9

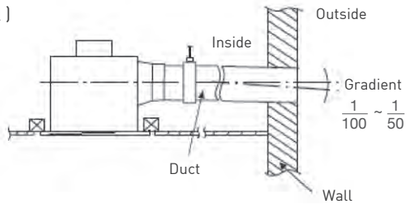


3 Duct connection and ceiling plate installation

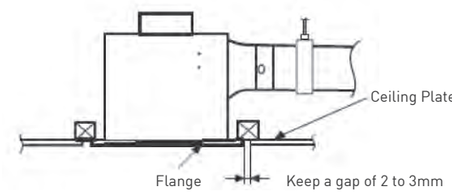
1. Insert the duct into the adaptor assembly, and tighten it with adhesive tape (not supplied). (Suspend the duct from the ceiling to prevent any external force onto the fan body.)



Slope the duct downward and guide it through the wall to the outside. Be sure to prevent rainwater from falling in the duct from its outlet. (The minimum size of the hole opening on the wall is: Ø116mm for 17/24 models, Ø168mm for 27/32 model)



2. Install the ceiling plate. Note that the gap between the flange and the ceiling plate should be 2 to 3mm.

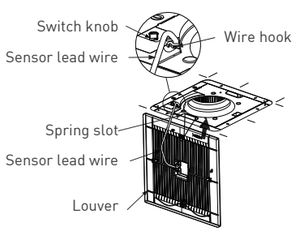


3. Install the pipe hood or vent cap (optional accessories) on the outer wall.

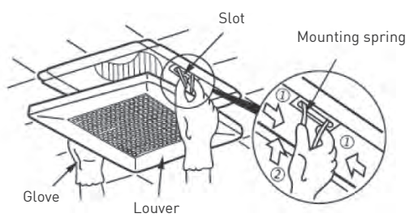
	Pipe Hood	Vent Cap
FV-17CU9 / FV-24CD8 / FV-24CU9 / FV-24CH9 / FV-24JR2 / FV-24JA2	FV-MCX100P	FV-VCX100P
FV-27CH9 / FV-32CD9 / FV-32CH9	FV-MCX150P	FV-VCX150P

4 Louver installation

1. For FV-24JR2 only
   Check the sensor lead wire is fixed in the wire hook. Keep the wire away from the air intake and fan blade.

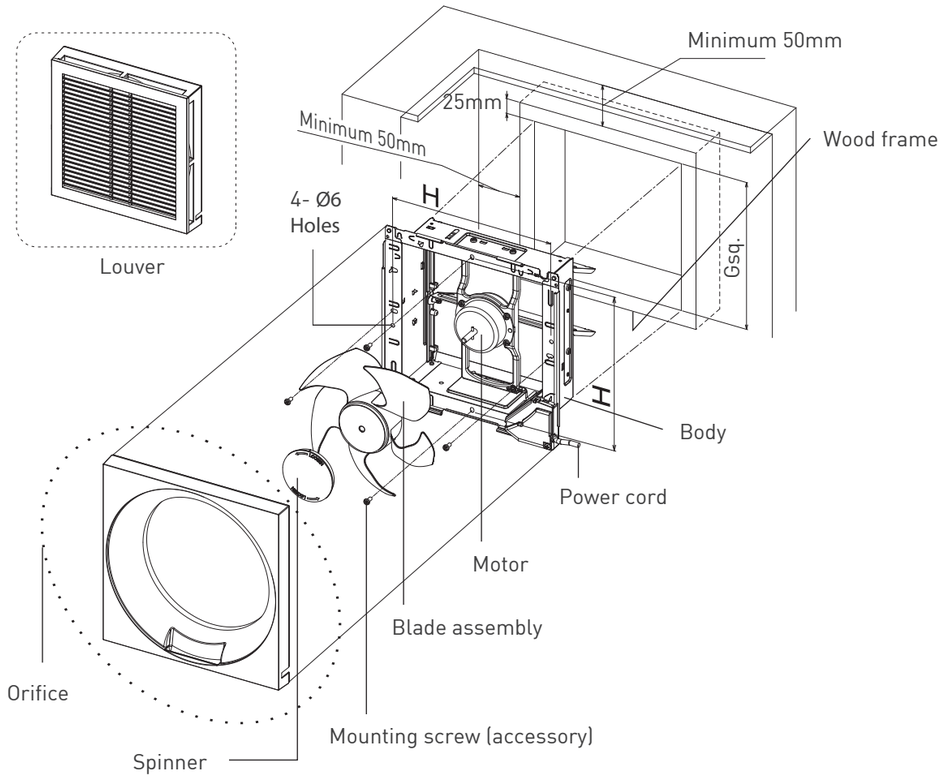


2. Insert the mounting spring into the slots and mount the louver to the fan body. (Please wear gloves during installation.)



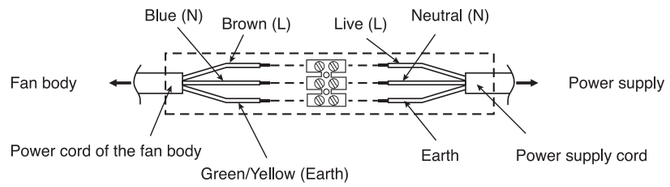
Wall Mount Type Ventilation Fan

Applicable Model - FV-25AUF1 /AU model / AL model



Connect the power cord to the power supply line according to the wiring diagram and the local electrical wiring rules of fixed wiring.

- Make sure all connections are fastend firmly after wiring is finished.
- It is required to use terminal (not included) that complies IEC 60998.
- The all connections should be accommodated in a suitable compartment.



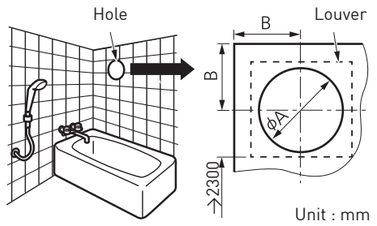
VENTILATION FAN INSTALLATION

Wall Mount Type Ventilation Fan

Applicable Model - FV-10EGK2 / FV-15EGK2

1 Make appropriate hole in the wall for ducting.

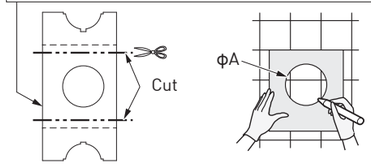
Position of hole. Bathroom side



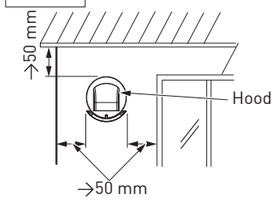
Unit : mm

Model	ϕA	B	Wall thickness
FV-10EGK2	130~140	→125	100~150
FV-15EGK2	175~185	→150	

Paper pattern (Corrugated paper for packing)

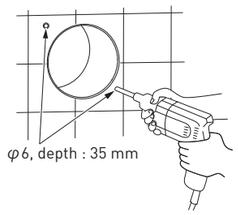


Outside



Note : It is noted that the wall does not collapse when making hole.
Do not install on the bumpy oe rotten wall.

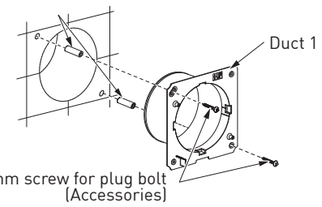
2 Drill holes for plug bolt.



3 Insert the duct 1 to the wall using two screws and plug bolt.

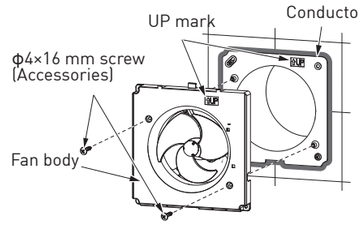
Plug bolt (Accessories)

Note : Use accessory plug bolt and screw.

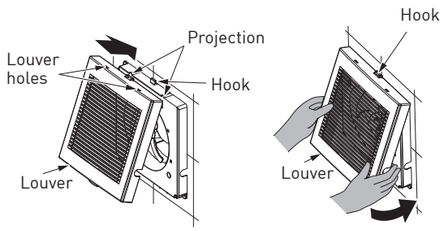


4 Insert the fan body to the duct 1.

Note : Make sure that use screw to fix the fan body. It may cause drop the fan body.

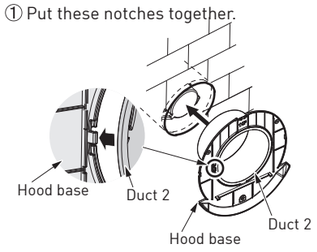


5 Install the louver



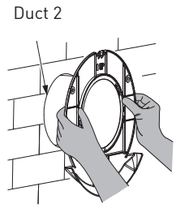
6 Hood installation (From outside wall)

① Put these notches together.

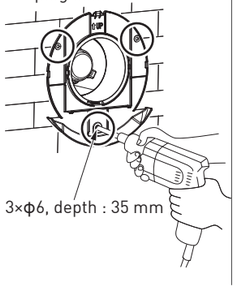


Note : Fit the duct 2 into the hood base when it come off.

② Insert the duct 2 from outside wall.



7 Drill three holes for plug bolts.



8 Hang and fix hood.

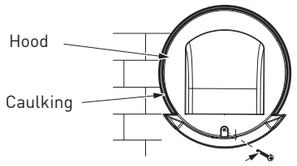
① Hang the hood into the hook. ② Fit the hood into the hood base.



③ Push side of the hood to fit surely.

9 Insert the hood to the wall seal with caulking around the hood.

Note : Make sure that use accessory screw to fix the hood. It may cause drop the hood.



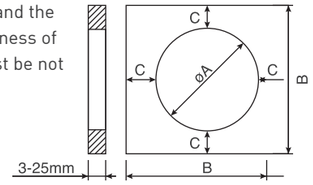
ϕ4×20 mm screw for plug bolt (Accessories)

VENTILATION FAN INSTALLATION

Window Mount Type Ventilation Fan

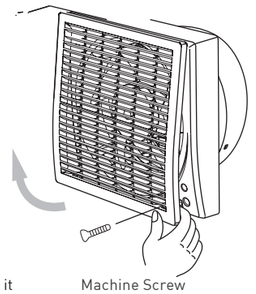
Applicable Model - FV-15WH3T / FV-20WH3T

1 Make an installation hole on the window glass according to the dimensions shown in the table. (Applicable to single-glass or double-glass, and the single block thickness of double-glass must be not less than 3mm.)



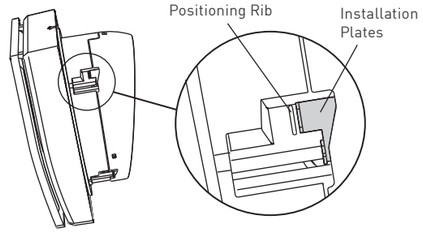
Model	A	B	C
FV-15WH3T	186~188mm	390mm Min	100mm Min
FV-20WH3T	247~250mm	450mm Min	

2 Remove the screw of louver and retain it, then pull the louver out of the lower-right corner.



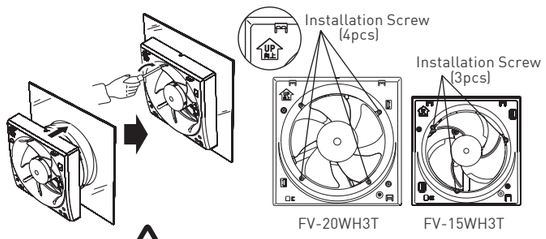
Louver can be pulled out only from the lower-right corner or it may be damaged.

3 Before installation, please ensure every installation plate is at the position as shown below.



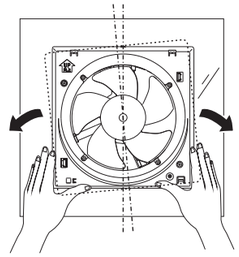
As shown in the diagram, the installation plates must be positioned in the slot between the frame and the hood. Its front edge should not exceed the positioning rib, or installation may fail.

4 Keep the "UP" mark on the orifice on the top position. Insert the ventilating fan body into the installation hole completely. Be sure to keep the back of the body closed to the glass evenly, then twist each installation screw clockwise until the installation plates slightly compress the glass.



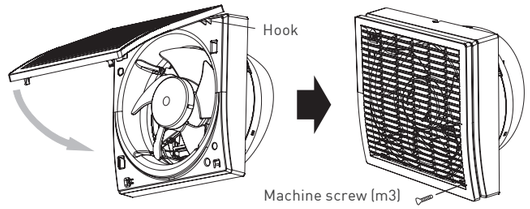
Please do not use the electric screwdriver which may damage the glass.

5 Rotate the body to adjust its horizontal and vertical direction. Then tighten each installation screw completely.



To ensure the installation strength. Please make sure the tighten torque must be in the range of 90cN•m to 180cN•m. If the tighten torque is not large enough, it may result in rain water ingression through the gap; if the tighten torque is too large, it may damage the glass.

6 Hang the louver on the hook of orifice, rotate downward and insert it into the orifice. Fix the louver with the screw which was removed at installation step 2

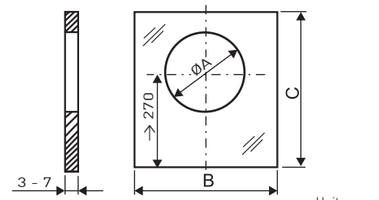


Must use the above specified screw to fix.
Otherwise it may damage the product or lead to installation failure.

Window Mount Type Ventilation Fan

Applicable Model -FV-15WU4 / FV-20WU4 / FV-15WA1 / FV-20WA1

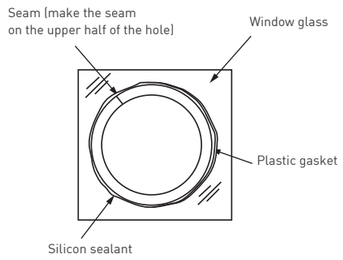
1 Make an installation hole on the window glass.



Unit : mm

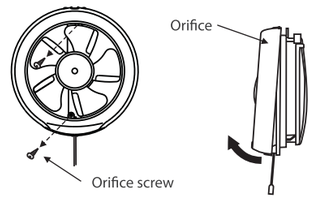
Model	A	B	C
FV-15WU4	186-188	⩾ 250	⩾ 400
FV-20WU4	247-250	⩾ 300	⩾ 420
FV-15WA1	186-188	⩾ 250	⩾ 250
FV-20WA1	247-250	⩾ 300	⩾ 300

2 Set the plastic gasket on the hole that the seam is at upper half (either left or right side).
Seal the gap between the glass and gasket with silicon sealant to ensure airtightness.

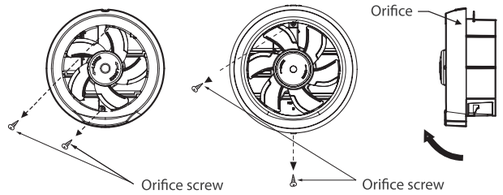


3 Loose the orifice screws (2 pcs) and remove the orifice.

FV - 15WU4 / FV - 20WU4

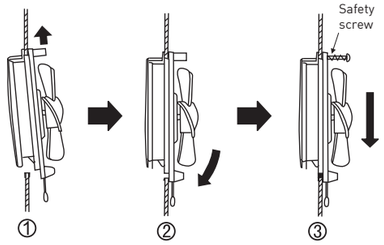


FV - 15WA1 FV - 20WA1

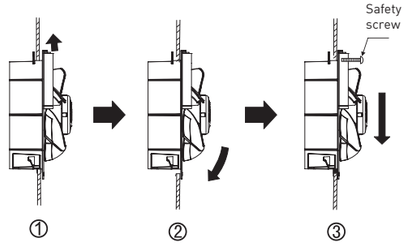


4 While installing the fan, align the fan to top of the hole of window glass and push the buttom of the fan into the hole. Then push the fan downward and tighten the safety screw afterward.

FV - 15WU4 / FV - 20WU4

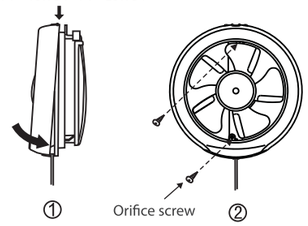


FV - 15WA1/ FV - 20WA1

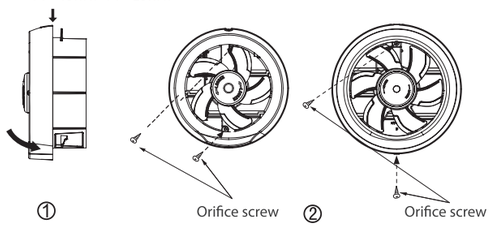


5 Set the orifice and fix with the orifice screws (2 pcs)

FV - 15WU4 / FV - 20WU4



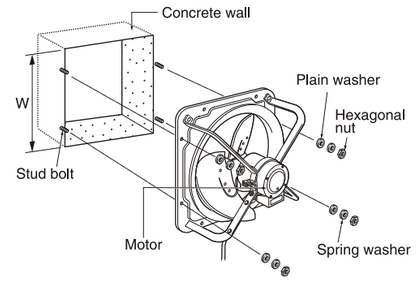
FV - 15WA1/ FV - 20WA1



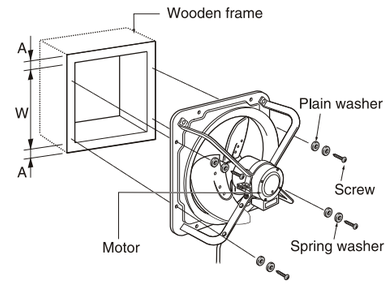
Industrial Type Ventilation Fan

Aplicable Model - High Pressure Series

Installation on concrete wall

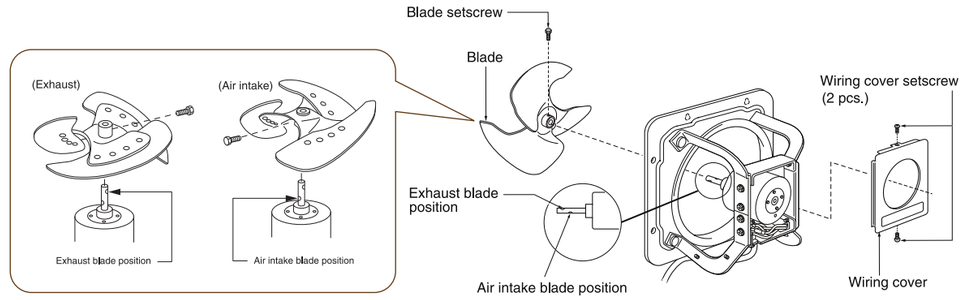


Installation on wooden frame

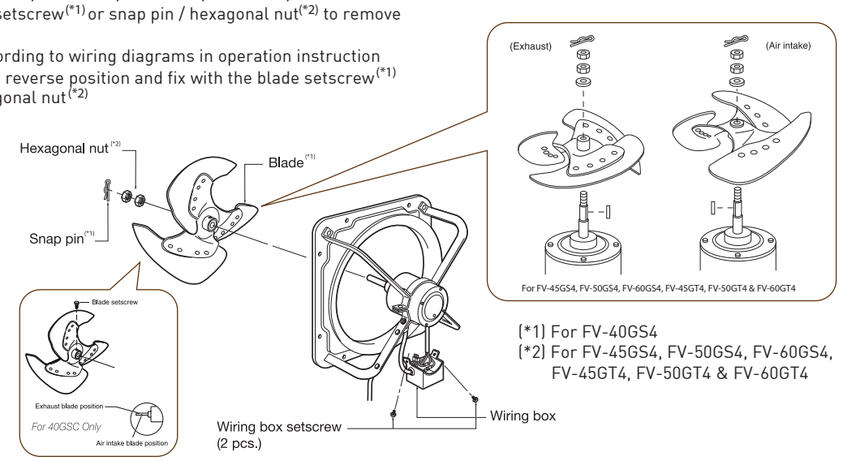


Setting of Reverse Airflow

For FV-25GS4, FV-30GS4 and FV-35GS4
1) Loosen the blade setscrew to remove the blade
2) Set the wiring according to wiring diagrams in operation instruction
3) Mount the blade in reverse position and fix with the blade set screw



For FV-40GS4, FV-45GS4, FV-50GS4, FV-60GS4, FV-45GT4, FV-50GT4 & FV-60GT4
1) Loosen the blade setscrew(*1) or snap pin / hexagonal nut(*2) to remove the blade
2) Set the wiring according to wiring diagrams in operation instruction
3) Mount the blade in reverse position and fix with the blade setscrew(*1) or snap pin / hexagonal nut(*2)



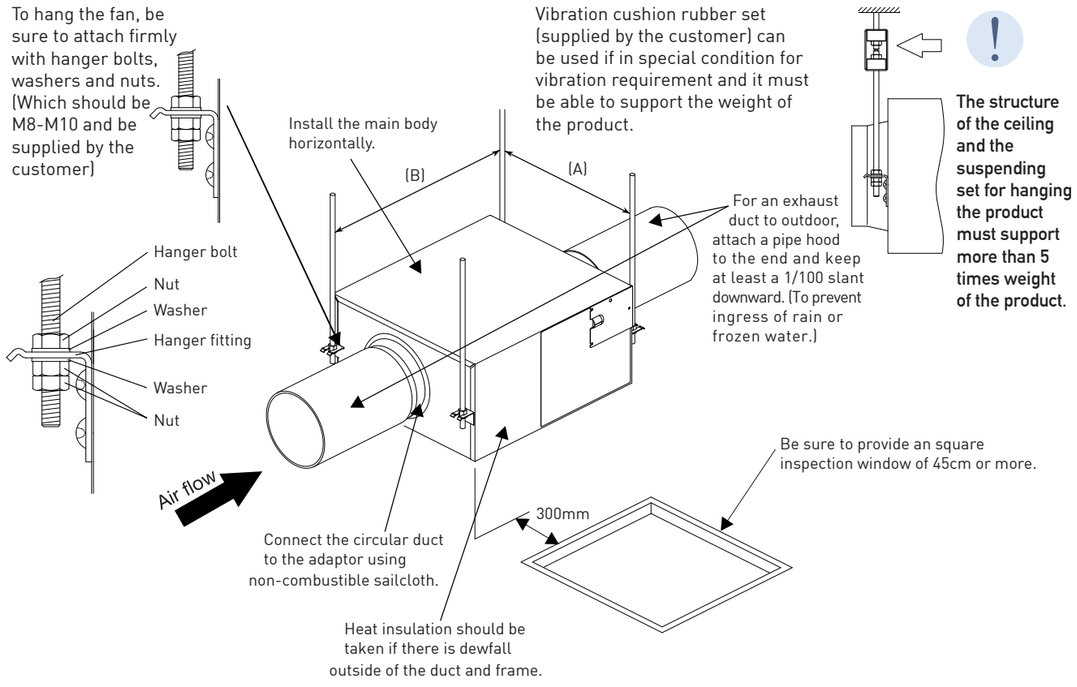
(*1) For FV-40GS4
(*2) For FV-45GS4, FV-50GS4, FV-60GS4, FV-45GT4, FV-50GT4 & FV-60GT4

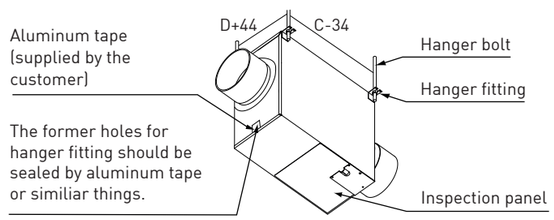
* Air volume of reverse airflow (intake) would vary subject to different models

CABINET FAN INSTALLATION

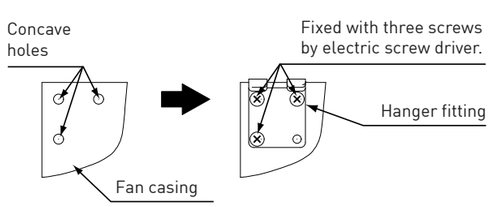
Low Noise Type Cabinet Fan (In-line Fan)

Applicable Model - FV-12NS3 / FV-15NS3 / FV-18NS3 / FV-18NF3 / FV-20NS3 / FV-23NL3 / FV-25NS3 / FV-25NF3





Hanger fitting positions for installing with the inspection panel facing down.



Hanger fitting screw positions.

Model No.	A	B	C	D
FV-12NS3	250	335	291	184
FV-15NS3	250	346	302	206
FV-18NS3	276	382	338	232
FV-18NF3	336	441	397	254
FV-20NS3	376	485	441	272
FV-23NL3	424	513	469	298
FV-25NS3	450	549	505	334
FV-25NF3	450	549	505	334

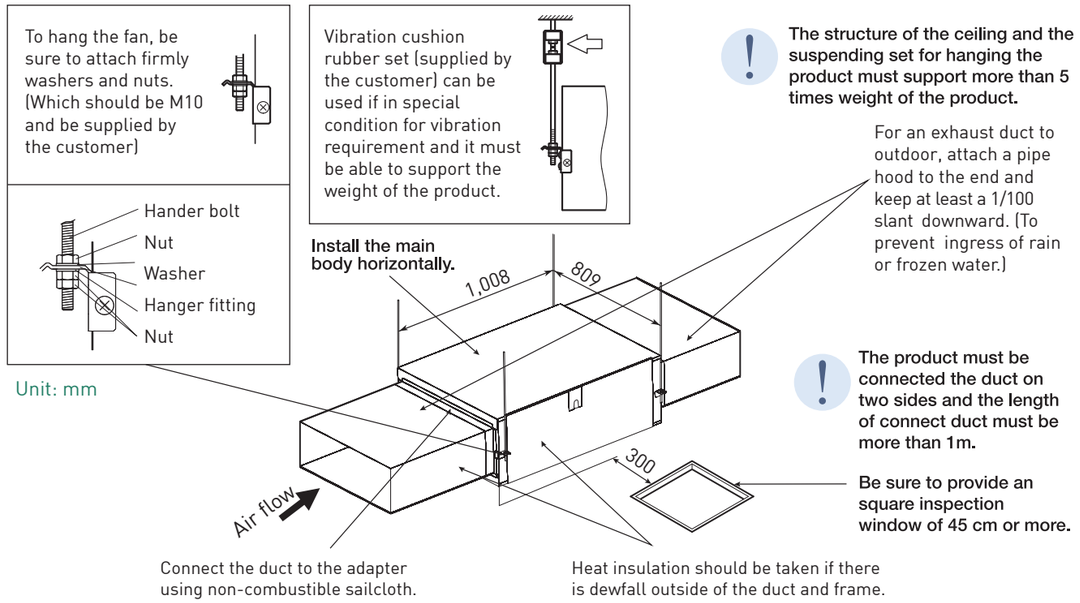
unit: mm

Notes:
To install the fan with the inspection panel facing down, remove the attached four hanger fittings and re-attach them in the holes on the top and bottom surfaces (Use the screws you just removed). The former holes for installing the hanger fitting need to be sealed.

CABINET FAN INSTALLATION

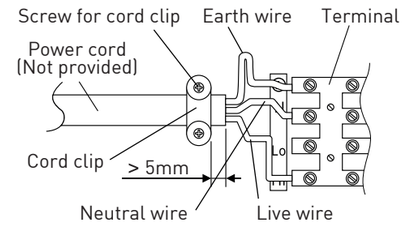
Low Noise Type Cabinet Fan (In-line Fan)

Applicable Model - FV-25SW3 / FV-25SM3

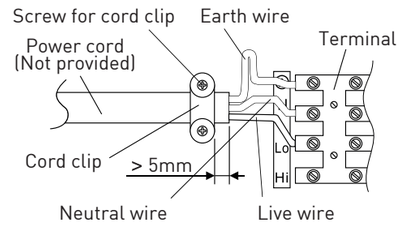


Wiring Connection

For FV-12NS3 / FV-15NS3 / FV-18NS3 / FV-18NF3 / FV-20NS3 / FV-23NL3 / FV-25NS3 / FV-25NF3

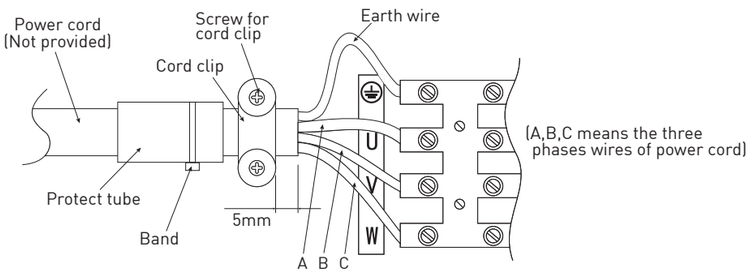


High Notch



Low Notch

For FV-25SW3 / FV-25SM3



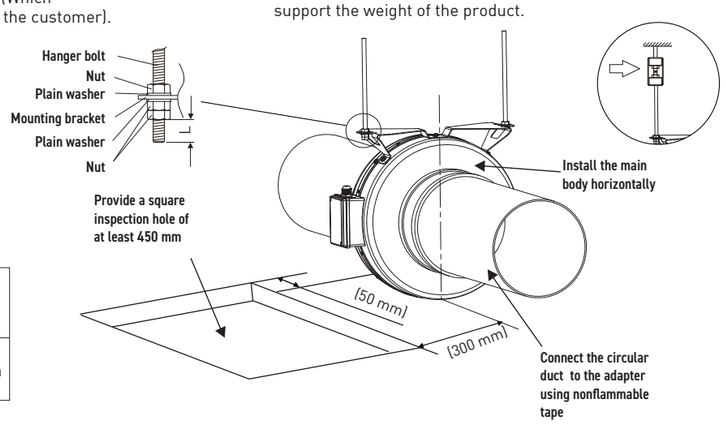
IN-LINE CENTRIFUGAL FAN INSTALLATION

1. Installation method

• Follow the illustration below to install. Do not install facing directions other than what is shown in the illustration.

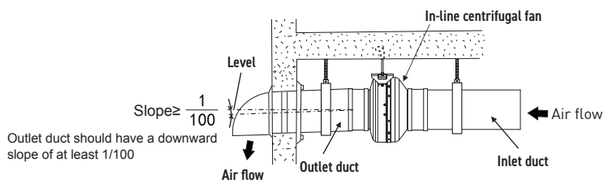
To hang the fan, be sure to attach firmly with hanger bolts, plain washers and nuts. (Which should be M8~M12 and be supplied by the customer).

Vibration cushion rubber set (supplied by the customer) can be used if in special condition for vibration requirement and it must can support the weight of the product.



Hanger bolt, nuts, plain washers (No provide)	Dimension L
M8~M12	Bolt should reach 2-3 threads through the nut

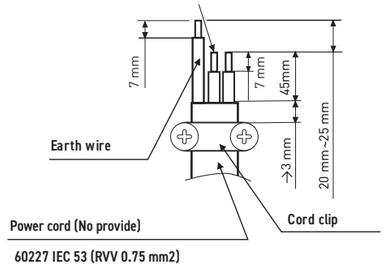
Installation at the top of ceiling



2. Wiring method

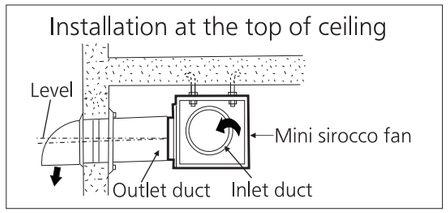
- Open the condenser box cover.
- Strip the wires according to the right illustration. The earth wire of the power cord must be 20~25 mm longer than other wire. Then bind the separated copper wires into a bundle and insert bundle into the terminal deeply.
  Make sure the screw column of terminal securely presses on the copper wire and that the copper wire near insulation layer is not exposed. (To avoid danger, it should be installed
  by professionals and be sure to connect the earth wire.)
- Connect wires according to the following diagrams. Finally, mount the power cord with cord clip and install the condenser box cover.
- When two or more products are connected to one single switch in parallel, damage may occur to the motors. Therefore parallel connection are prohibited.

Wiring each wire to sheaves

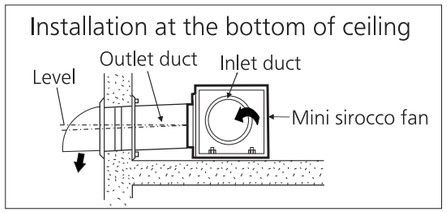


MINI SIROCCO FAN INSTALLATION

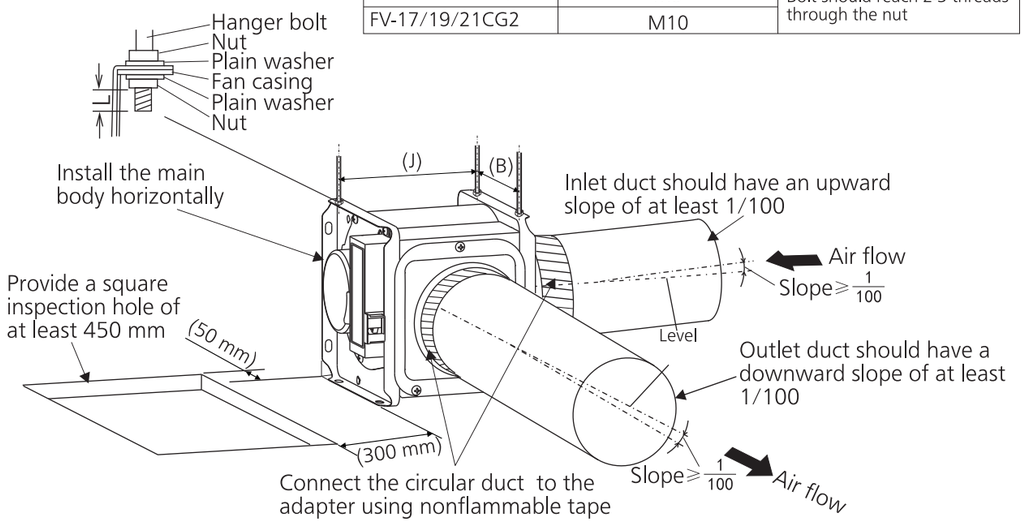
Installation at the top of ceiling



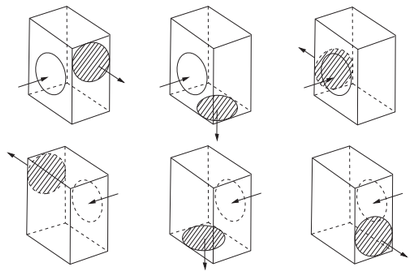
Installation at the bottom of ceiling



Model No.	Bolt, nuts, plain washers (No provide)	Dimension L
FV-10/12/14/16CG2	M5	Bolt should reach 2-3 threads through the nut
FV-17/19/21CG2	M10	



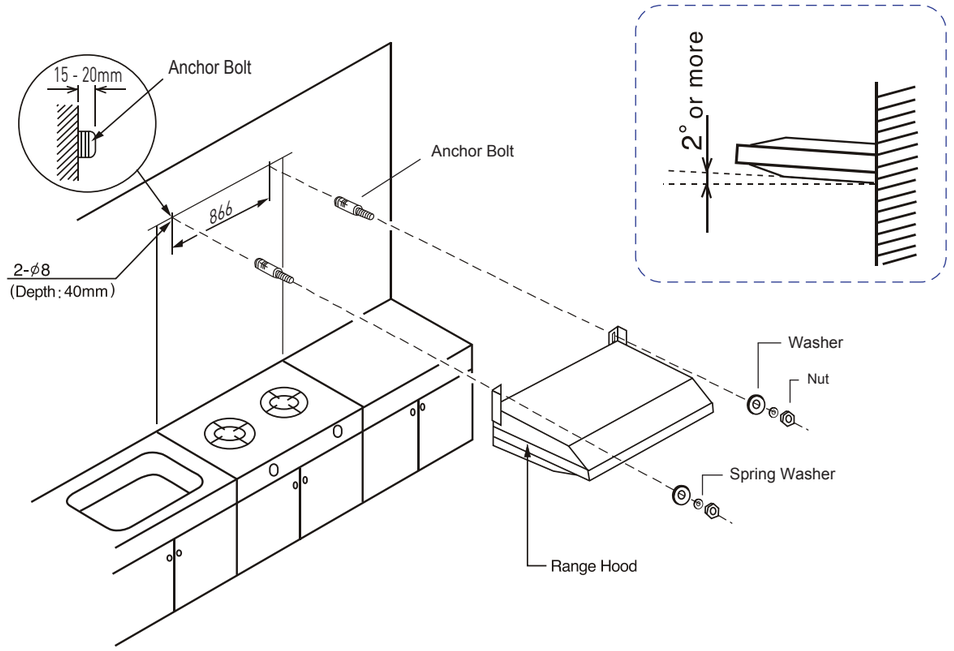
Available for various need if installating pattern

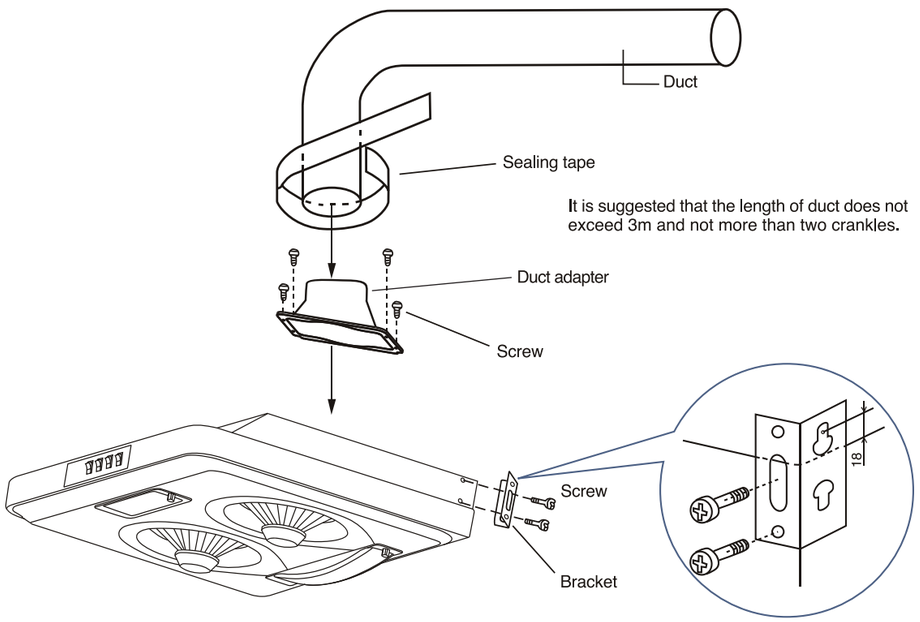


Model	Bolt / Nuts/ Plain Washers (not provided)	Dimension L
FV-10CG2 / FV-12CG2 FV-14CG2 / FV-16CG2	M5	Bolt should reach 2-3 threads through the nut
FV-17CG2 / FV-19CG2 FV-21CG2	M10	

RANGE HOOD INSTALLATION

Applicable Model - FV-90HQU1



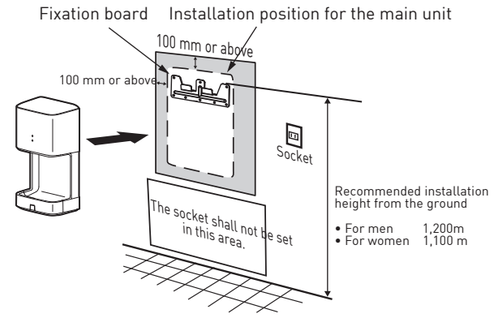


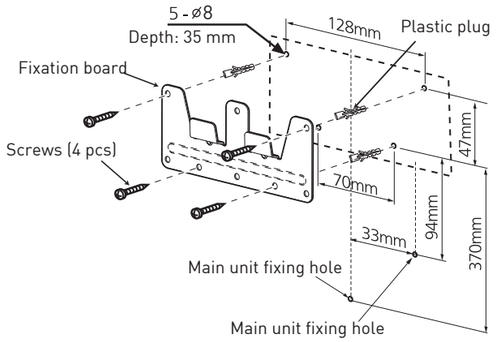
It is suggested that the length of duct does not exceed 3m and not more than two crankles.

HAND DRYER INSTALLATION

Applicable Model - FJ-T09A3 and FJ-T09B3

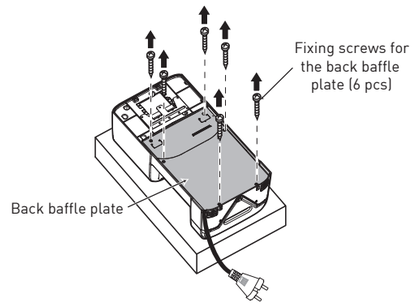
1 Install fixation board on the wall



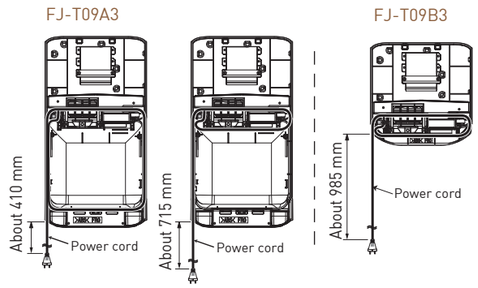


2 Adjust length and lead out direction of power cord

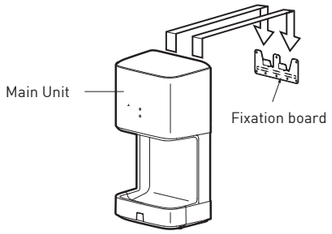
I. Remove the fixing screws on the back baffle plate of the main unit

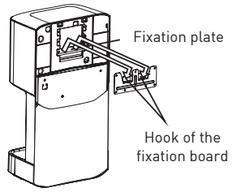


II . Adjust the length of power cord by winding according to below figure, and select the lead-out direction



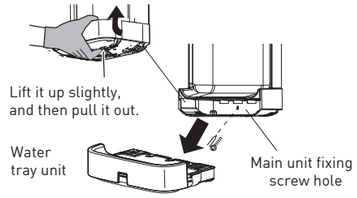
3 Set the main unit into the fixation board



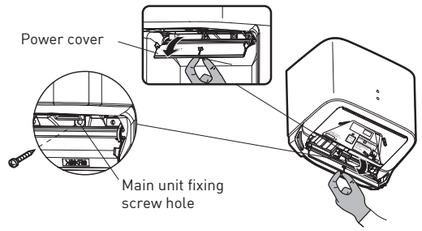


4 Fix the main unit with fixing screw

For FJ-T09A3



For FJ-T09B3

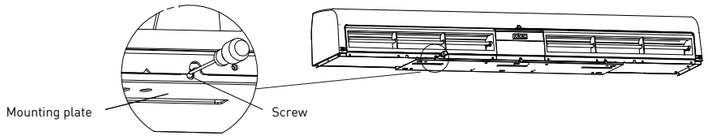


AIR CURTAIN INSTALLATION

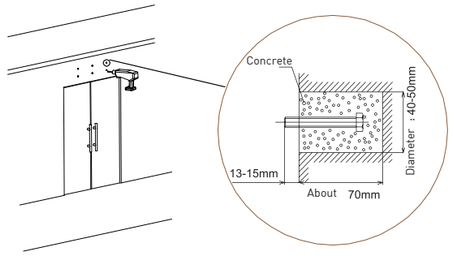
Applicable Model - Cross Flow Type

1 Install mounting plate on the wall

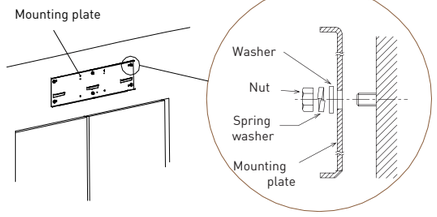
I. Remove the mounting plate from rear of the product



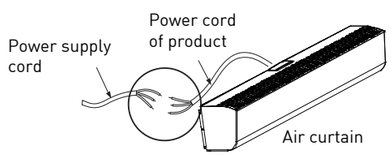
II. Set the bolts on the wall

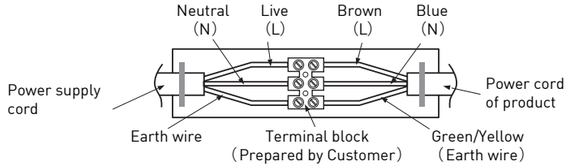


III . Fix the mounting plate with washers and nuts



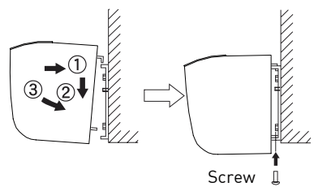
2 Wiring

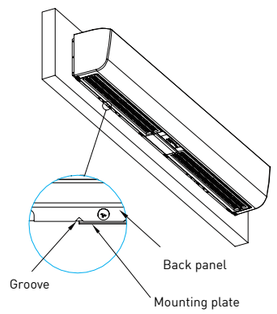




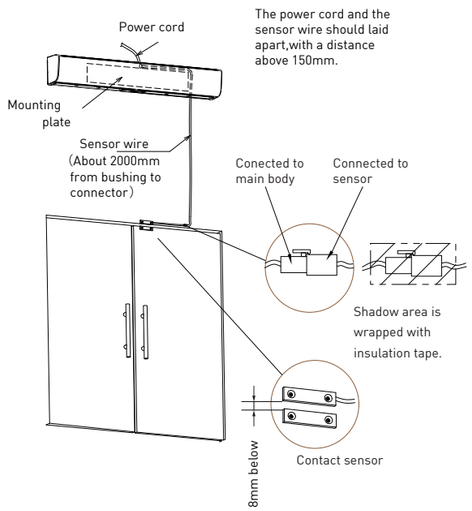
3 Install air curtain

I. Hook the air curtain on the mounting plate and tighten the screws (x3)





II. Fix the contact sensor (for Sensor Series only)

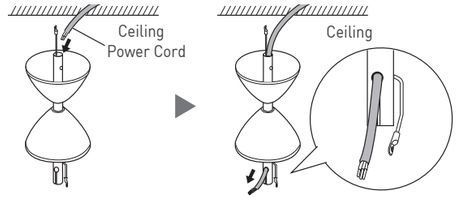


CEILING FAN INSTALLATION

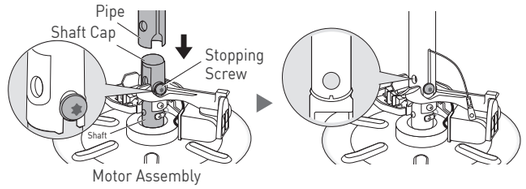
Applicable Model - Regulator Control Series

1 Assemble Pipe to Motor Assembly

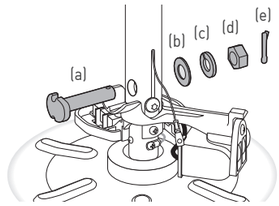
1. Pull power cord (from power supply) and insert into the Pipe hole.



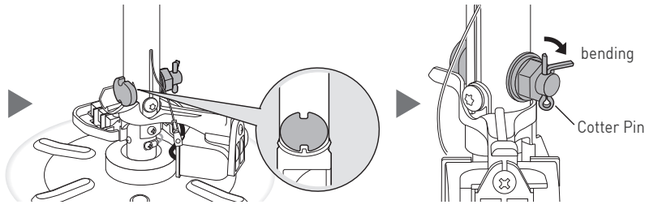
2. Ensure the Shaft Cap is set on the Motor Shaft and tighten with the Stopping Screw. Fit the Pipe to the Shaft Cap that the Pipe hole and the Motor Shaft hole are aligned.



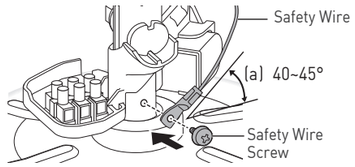
3. Fix the Pipe and Motor Assembly with a) Ellipse Bolt, b) P-R Washer, c) Spring Washer, d) Hexa Nut and e) Cotter Pin.



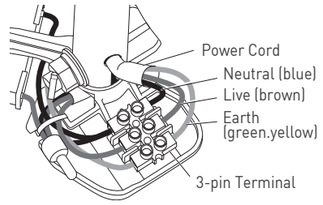
4. Bend the Cotter Pin.



5. Fix Safety Wire to the Motor Shaft with Safety Wire Screw.

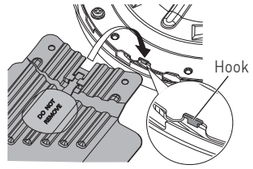


6. Connect the power cord to the 3-pin Terminal.

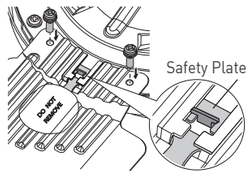


2 Install Blade Assembly

1. Remove Blade Screws from Motor Assembly. Set the Blade towards the Cover Hook and ensure the Blade Safety Plate is in proper position.

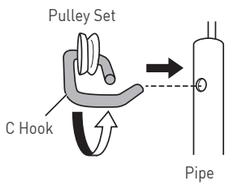


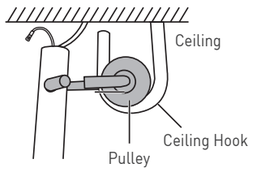
2. Tighten the Blade Screws firmly. (2 screws per blade)



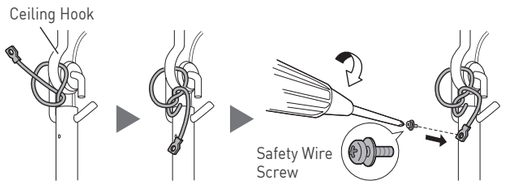
3 Install to the ceiling

1. Cross the C Hook of the Pulley Set to the Pipe and place the Pulley on Ceiling Hook.





2. Loop the Safety Wire to the ceiling hook and fix to the Pipe with the Safety Wire Screw.

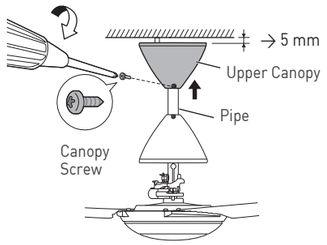


CEILING FAN INSTALLATION

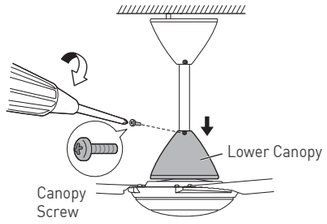
Applicable Model - Regulator Control Series

4 Fix the Canopy

1. Adjust Upper Canopy position and fix to the Pipe with screw.

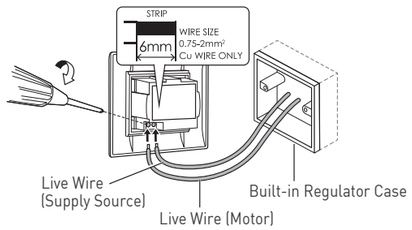


2. Pull down the Lower Canopy until it stop and fix to the Pipe with screw.

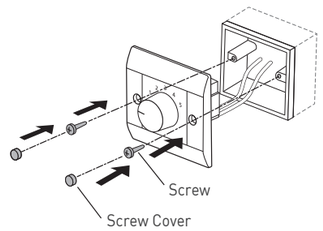


5a Install Speed Regulator (Slim Panel Regulator)

1. Insert the Live Wires (from supply source and Motor) into the 2 pin terminal of the regulator and tighten the terminal screw.

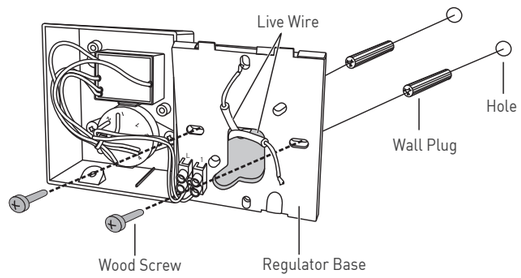


2. Set the Regulator to the wall regulator casing and fix with screws.

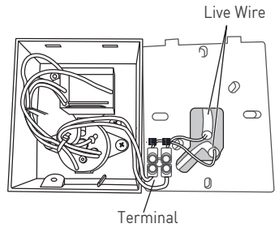


5b Install Speed Regulator (Box Regulator)

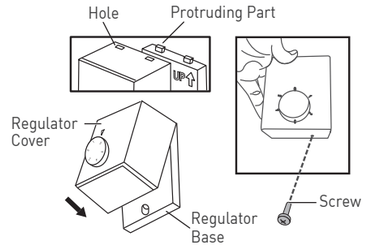
1. Insert the Live Wires through the hole of Regulator Base and fix the base with the screws.



2. Insert the Live Wire (from supply source and Motor) into the 2 pin terminal of the regulator and tighten the terminal screw.



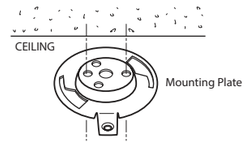
3. Set the Regulator cover by inserting the protruding parts of the Regulator Base into the holes of Regulator Cover and fix with the screw.



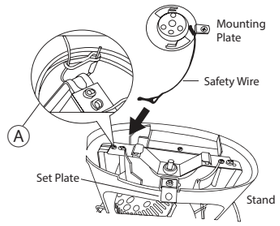
CYCLE FAN INSTALLATION

1 Install fan stand on the ceiling

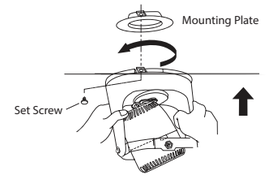
I. Install mounting plate on the ceiling with the bolts (x2)



II. Loop the safety wire around left arm of the stand and clip as Ⓐ

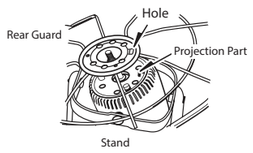


III. Set the stand to the mounting plate. Align the screw hole and tighten the set screw

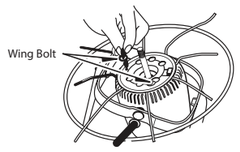


2 Assemble the fan

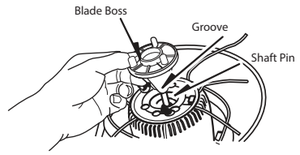
I. Set rear guard on the stand by aligning the projection part to the hole



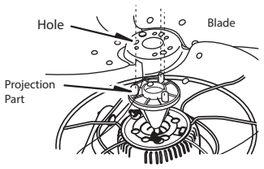
II. Fit rear guard on the stand with wing bolt (2 pcs)



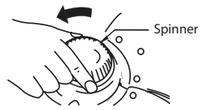
III. Insert blade boss to the shaft. Ensure the groove is correctly fit to the shaft pin



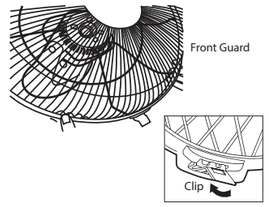
IV. Set the blade to the blade boss and align the projection part to the hole of blade



V. Tightn the spinner to fix the blade

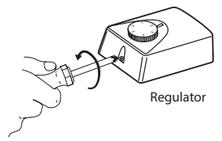


VI. Set front guard to the rear guard and clip.

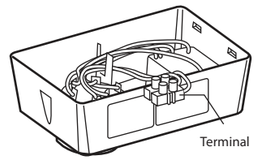


3 Install Regulator and Wiring

I. Open the regulator cover and mount the regulator base on the wall

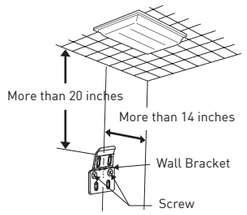


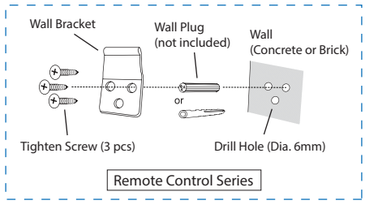
II. Set the wiring according to the wiring diagram and re-assemble the regulator cover

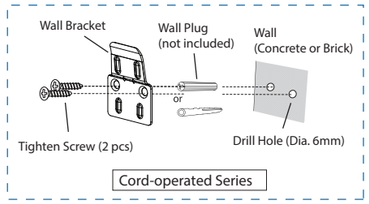


WALL FAN INSTALLATION

1 Install wall bracket on the wall

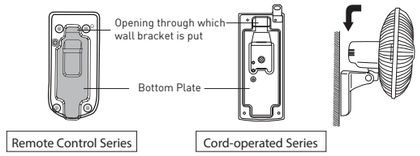






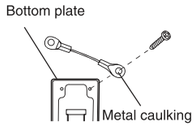
2 Install fan stand

Firmly install fan stand vertically onto the wall bracket, and ensure the stand is fully hooked

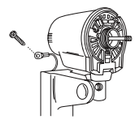


3 a. Install safety wire (For Remote Control Series)

i. Fix safety wire on the bottom plate of the stand

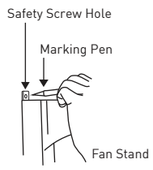


ii. Drill hole and insert wall plug. Fix the safety wire on the wall

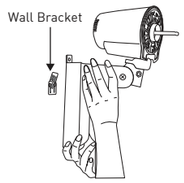


3 b. Install safety screw (For Cord-operated Series)

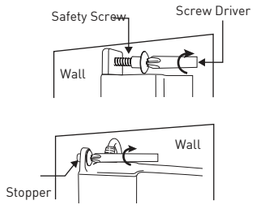
I. Mark the position of safety screw from the stand



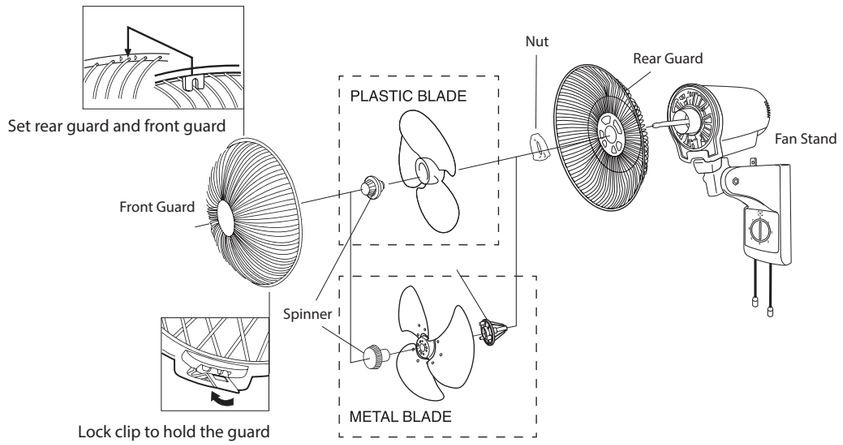
II. Take out the stand from wall bracket. Drill hole and insert wall plug.



III. Tighten safety screw to fix the stand.



4 Assemble the fan



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