



AIR MOVING EQUIPMENT

Introduction

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Low-noise Type Cabinet Fans (In-line Fans)

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Plastic Type Cabinet Fans

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Low Noise Type Cabinet Fans are ducted ventilating fans with both intake and outlet opening fixing at interior and exterior of the house respectively. They can be used as single port or multi port to exhaust air from several areas with one unit. Since only a small ventilation opening is required, the appearance of the interior is not spoiled.

All models are manufactured from galvanized steel enhancing high durability. The unique suction fan design and acoustic noise absorbing material realize low noise operation. The high performance induction motor offers low consumption, long life and high reliability.

The slim, compact and light-weight structure allows easy installation at narrow ceiling space. Those units can be installed upside down, that location of inspection opening can be selected to ensure easy access for maintenance. Particular U-grooved mounting brackets prevent loosen of mounting bolts that reinforce installation safety.

Two speed selection enhances the scope of application and increases the flexibility for planning of ventilation system (except FV-28NX3H). Moreover, single or three phase model are available for different requirement.

Remark: The ventilation fans are considered suitable for use in ventilation system. In case the fan is to be installed in a protected area, the designer shall ensure that the equipment is in compliance with the relevant requirements and safety standards stipulated in Section 5.2.3 Part XI of FSD Circular 4/96.

Compact Size

- Slim and compact design allows easy installation at narrow ceiling space

High Air Volume Airflow

- Powerful airflow velocity creates a better performance

Twin Flow Fan

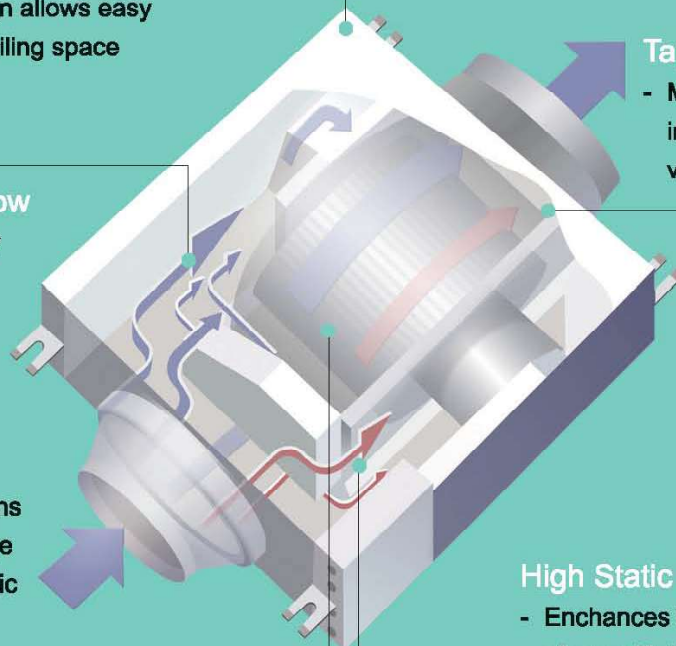
- It divides into two portions which can generate large air volume and high static pressure
- Achieves a better airflow inside the fan casing

Tapered Scroll

- Minimizes the turbulence induced by uneven wind velocity inside the casing

High Static Pressure Airflow

- Enhances the flexibility for planning of a ventilation system



Low-Noise Type Cabinet Fans



Single Phase



Three Phase

- Long life condenser motor with thermal cut-off
- Twin flow fan (sirocco fan)
- Fan casing with tapered scroll
- Embedded terminal box
- Noise absorption material
- Compact size

Single Phase			Three Phase
FV-12NS3H	FV-15NS3H	FV-18NS3H	FV-28NX3H
FV-18NF3H	FV-20NS3H	FV-23NL3H	
FV-25NS3H	FV-25NF3H		

Specifications

Model	RatingVoltage	Air Volume		Power Consumption [W]	Fan Speed [R.P.M]	Noise [dB(A)]	Weight [Kg]	Impeller Diameter [mm]	Number of Poles
		[CMH]	[l/s]						
FV-12NS3H	Hi	180	50	18	1,265	21	5.5	128	4
	Lo	145	40	17	1,020	17			
FV-15NS3H	Hi	340	94	33	1,270	25	6.5	128	
	Lo	275	76	29.5	1,100	22			
FV-18NS3H	Hi	500	139	60	1,250	29	8.5	158	
	Lo	405	112	55	1,100	27			
FV-18NF3H	Hi	770	214	91	1,190	31	10	158	
	Lo	620	172	80	1,000	29			
FV-20NS3H	Hi	920	255	120	1,195	32	14	178	
	Lo	720	200	113	1,000	29			
FV-23NL3H	Hi	1,200	333	230	1,245	40	18	220	
	Lo	900	250	170	985	34			
FV-25NS3H	Hi	1,700	472	345	1,125	41	24	220	
	Lo	1,380	383	265	950	38			
FV-25NF3H	Hi	1,900	528	390	1,225	43	24	220	
	Lo	1,600	444	325	1,070	40			
FV-28NX3H	380V / 50Hz	2,600	722	600	1,295	44	28	280	-

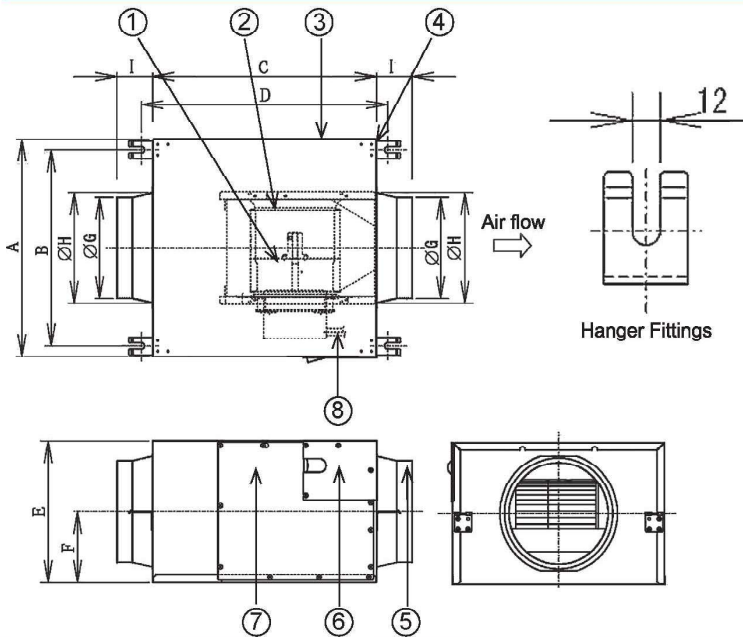
Notes :

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 value 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 side of the fan body when ducts are connected on both inlet and outlet side. It is 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 $\pm 10\%$ tolerance.

Cautions :

- Don't use it for ventilation at a site generating heat, oily smoke, steam and/or moisture. (Environment condition: $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$, relative humidity below 85%)
- Install a door 600x600mm or more for maintenance purpose.
- Install a leak breaker or a motor breaker on the source site. A control panel such as a contact switch relay is required for three phase power source.
- In cold air supply to indoor during winter and at any other occasion susceptible to dew drop, heat insulation is required.
- It is recommended to use a commercially available filter at the suction side to avoid dust and/or oil waste attachment on a blade.
- Install it on a horizontal direction.
- Do not perform parallel operation of more than one unit on a switch, for it may result in motor failure.

Dimensions

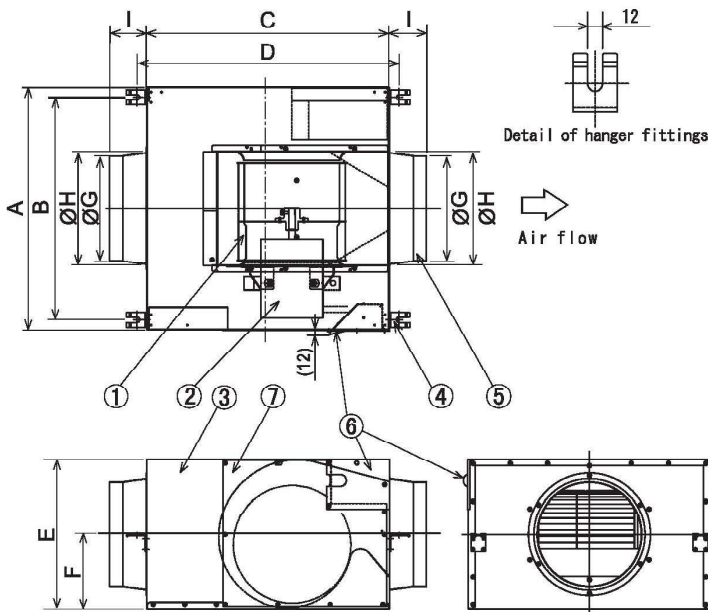


Parts List

No.	Part name	Qty	Material
1	Impeller	1	Metal
2	Motor	1	-
3	Fan casing	1	Metal
4	Hanger fitting	4	Metal
5	Adaptor	2	Metal
6	Terminal cover	1	Metal
7	Inspection panel	1	Metal
8	Metal conduit	1	Metal

unit : mm

Model	A	B	C	D	E	F	G	H	I	Duct size
FV-12NS3H	290	250	291	335	184	92	97	112	51	Ø100
FV-15NS3H	290	250	302	346	206	103	145	163	60	Ø150
FV-18NS3H	316	276	338	382	232	116	145	163	60	Ø150
FV-18NF3H	376	336	397	441	254	127	195	211	70	Ø200
FV-20NS3H	416	376	441	485	272	136	195	211	70	Ø200
FV-23NL3H	468	424	469	513	298	149	195	211	70	Ø200
FV-25NS3H	494	450	505	549	334	167	240	255	85	Ø250
FV-25NF3H	494	450	505	549	334	167	240	255	85	Ø250



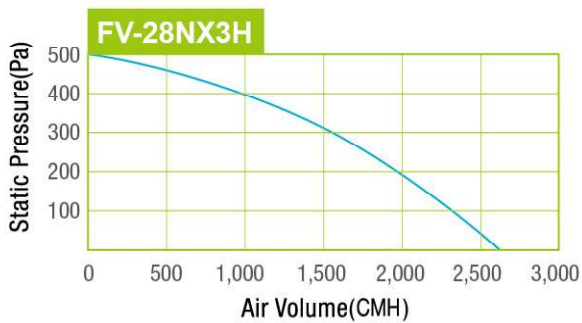
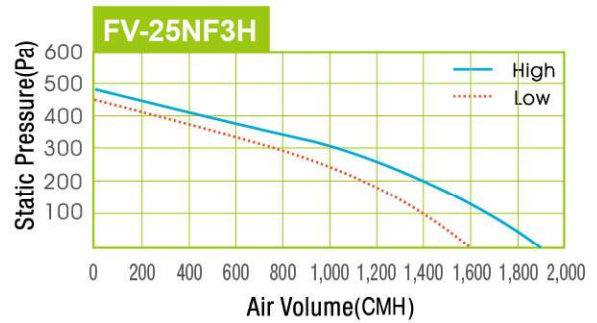
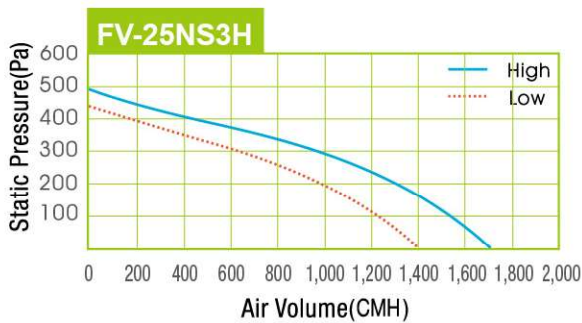
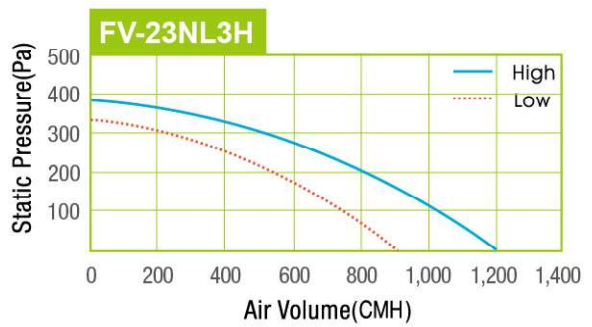
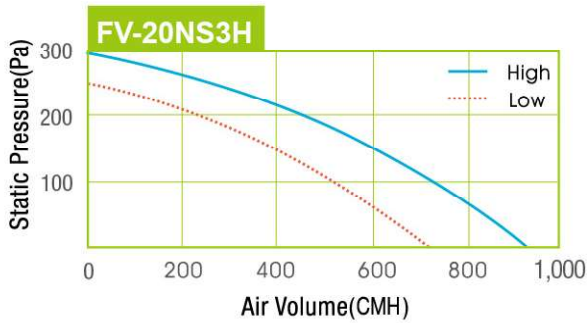
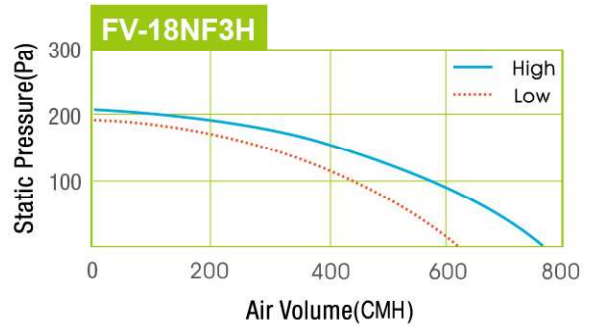
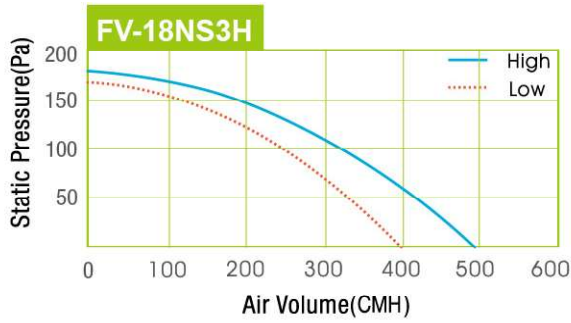
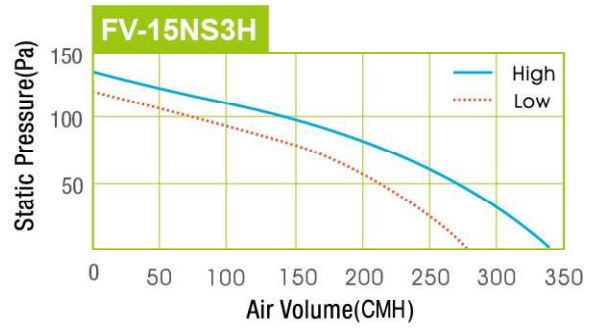
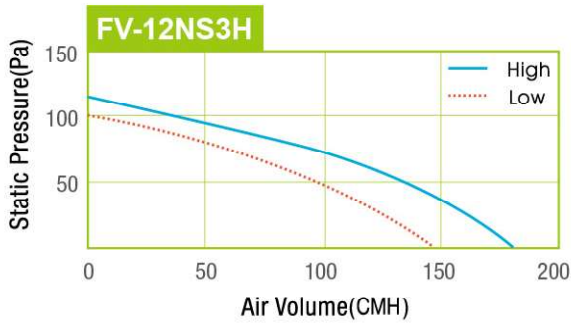
Parts List

No.	Part name	Qty	Material
1	Impeller	1	Metal
2	Motor	1	-
3	Frame	1	Metal
4	Adapter	2	Metal
5	Terminal cover	1	Metal
6	Inspecting panel	1	Metal
7	Metal conduit	1	Metal

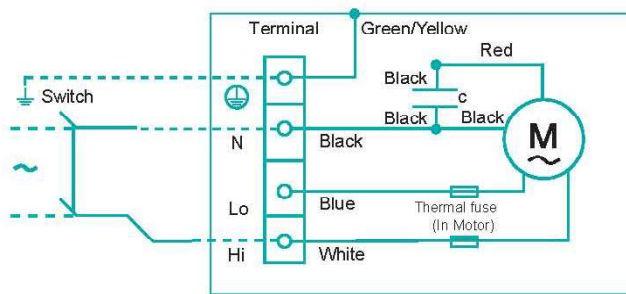
unit : mm

Model	A	B	C	D	E	F	G	H	I	Duct size
FV-28NX3H	554	510	557	601	342	171	240	255	85	Ø250

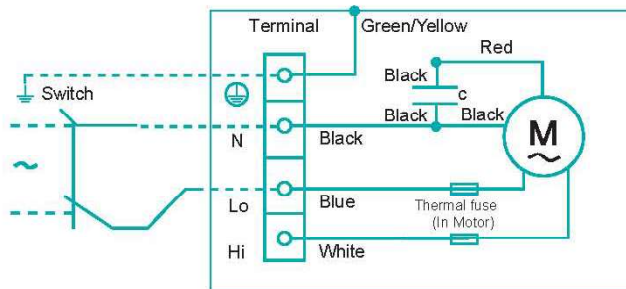
Performance Data



Wiring Diagram

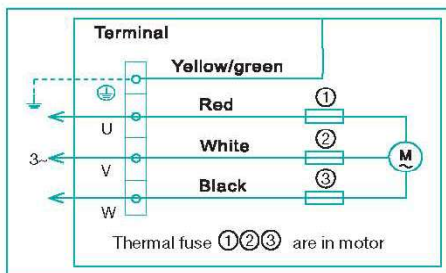


Hi Notch



Lo Notch

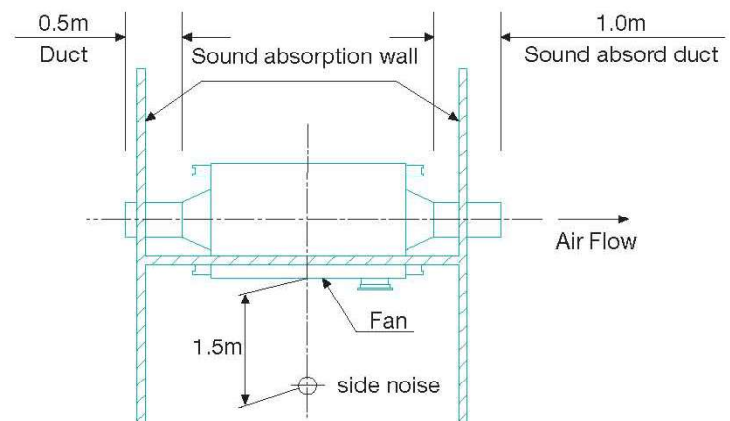
- FV-12NS3H
- FV-15NS3H
- FV-18NS3H
- FV-18NF3H
- FV-20NS3H
- FV-23NL3H
- FV-25NS3H
- FV-25NF3H



- FV-28NX3H

Test Standard

Noise characteristic is measured according to our internal standard as shown.



*The values of noise level are measured at the 1.5m apart from the side of the fan body when ducts are connected on both inlet and outlet side. It is on the assumption that the noise of fan body propagates to room inside.

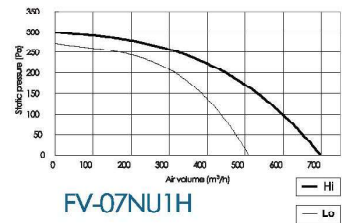
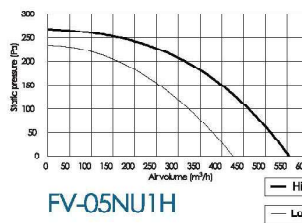
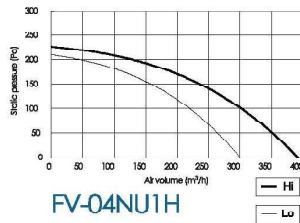
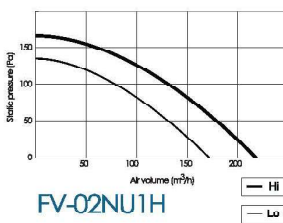


- Slim design
- Compact size, 33% less than steel type cabinet fan
- Long life motor with thermo cut-off
- Special design blade achieving high static pressure

Single Phase

FV-02NU1H	FV-05NU1H
FV-04NU1H	FV-07NU1H

Performance Data



Specifications

Model	Rating Voltage	Air Volume		Power Consumption [W]	Fan Speed [R.P.M]	Noise level [dB(A)]	Weight [Kg]	Impeller Diameter [mm]	No. of Poles	
		[CMH]	[l/s]							
FV-02NU1H	220V / 50Hz	Hi	218	61	27	890	24	3.8	200	4
		Lo	170	47	24	710	21			
FV-04NU1H	220V / 50Hz	Hi	392	109	62	1,065	31	4.4	200	
		Lo	300	83	48	850	25			
FV-05NU1H	220V / 50Hz	Hi	554	154	83	980	34	6.4	230	
		Lo	425	118	70	760	28			
FV-07NU1H	220V / 50Hz	Hi	694	193	118	1,240	37	8.3	230	
		Lo	510	142	108	900	31			

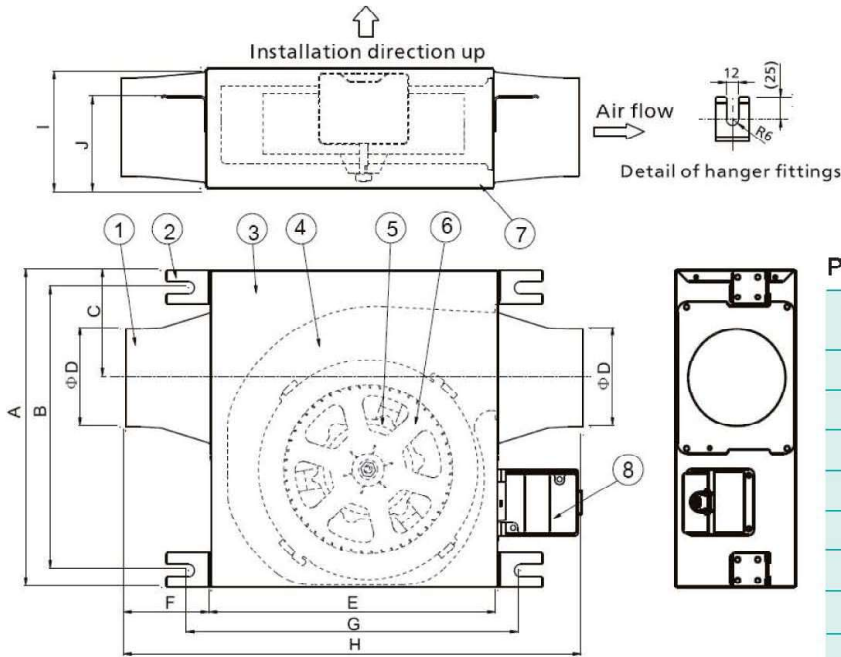
Notes :

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 value 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 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.

Cautions :

- Don't use it for ventilation at a site generating heat, oily smoke, steam and/ or moisture. (Environment condition: -10°C ~ +40°C, relative humidity below 85%)
- Install a door 600x600mm or more for maintenance purpose.
- Install a leak breaker or a motor breaker on the source site.
- In cold air supply to indoor during winter and at any other occasion susceptible to dew drop, heat insulation is required.
- It is recommended to use a commercially available filter at the suction side to avoid dust and/or oil waste attachment on a blade.
- Install it on a horizontal direction.
- Do not perform parallel operation of more than one unit on a switch, for it may result in motor failure.

Dimensions



Parts List

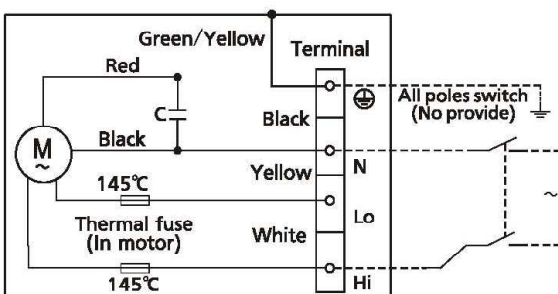
No.	Part name	Qty	Material
1	Adapter	2	Metal
2	Hanger fittings	4	Metal
3	Inspection panel	1	Metal
4	Casing assy.	1	Plastic
5	Motor	1	-
6	Blade	1	Plastic
7	Fan casing	1	Metal
8	Wiring box cover	1	Plastic

unit : mm

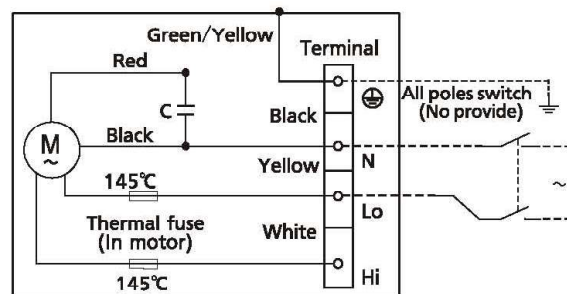
Model	A	B	C	D	E	F	G	H	I	J	Duct size
FV-02NU1H	315	281	107	98	285	85	330	455	120	92	Ø100
FV-04NU1H	315	281	118	148	285	100	330	485	170	107	Ø150
FV-05NU1H	362	327	119	148	338	100	383	538	170	107	Ø150
FV-07NU1H	362	327	119	148	338	100	383	538	170	107	Ø150

Wiring Diagram

High Notch



Low Notch





- Act as ventilation system
- Long Life induction motor with thermo cut-off
- Single Speed
- Outlet direction is adjustable to vertical or horizontal position
- Able to be used over an ambient temperature range from -10°C to +40°C

Single Phase

FV-10CG2H	FV-14CG2H
FV-16CG2H	FV-17CG2H
FV-19CG2H	FV-21CG2H

Specification Table

Model	Speed	Rating Voltage	Air Volume		Power Consumption [W]	Fan Speed [R.P.M]	Noise level [dB(A)]	Weight [Kg]	Impeller Diameter [mm]	No. of Poles
			[CMH]	[l/s]						
FV-10CG2H	Hi	220V / 50Hz	150	42	15	1,315	30	1.9	120	4
	Lo		110	31	12	1,070	26			
FV-14CG2H	Hi		330	92	33	1,190	36	2.9	120	
	Lo		235	65	28	900	28			
FV-16CG2H	Hi		500	139	47	1,060	39	5.7	150	
	Lo		390	108	41	900	34			
FV-17CG2H	Hi		770	214	85	770	39	10.3	180	
	Lo		620	172	72	635	35			
FV-19CG2H	Hi		950	264	120	935	42	10.4	180	
	Lo		830	230	105	850	39			
FV-21CG2H	Hi		1400	389	224	1,330	55	14.8	200	
	Lo		1100	305	185	1,130	50			

Notes :

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2. The values of noise level is A weighted average sound pressure level, the mean value 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 side of the fan body when ducts are connected on both inlet and outlet side. It is 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.

Cautions :

- Don't use it for ventilation at a site generating heat, oily smoke, steam and/ or moisture. (Environment condition: -10°C ~ +40°C, relative humidity below 85%)
- Install a door 600x600mm or more for maintenance purpose.
- Install a leak breaker or a motor breaker on the source site.
- In cold air supply to indoor during winter and at any other occasion susceptible to dew drop, heat insulation is required.
- It is recommended to use a commercially available filter at the suction side to avoid dust and/or oil waste attachment on a blade.
- Install it on a horizontal direction.
- Do not perform parallel operation of more than one unit on a switch, for it may result in motor failure.

Dimensions

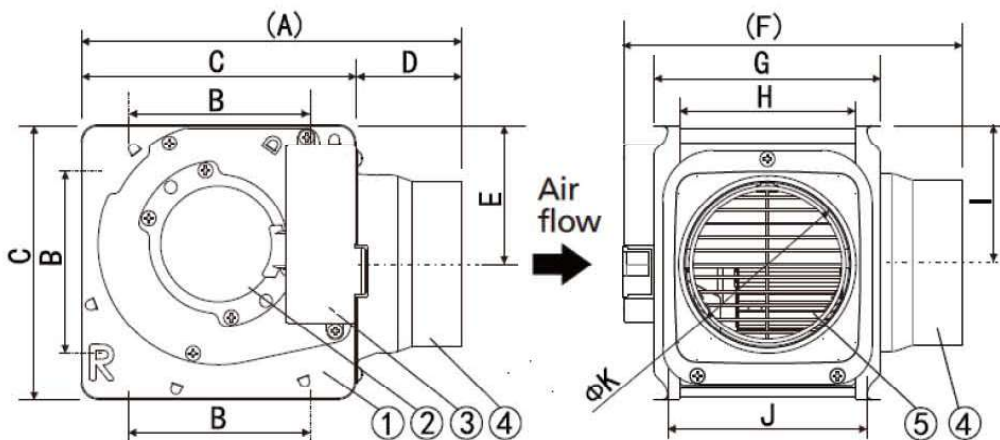
FV-10/12/14/16/17/19CG2H

No.	Part name	Q'ty	Material
1	Fan casing	1	Metal
2	Motor	1	—
3	Condenser box cover	1	Metal
4	Adapter	2	Metal
5	Blade	1	Metal

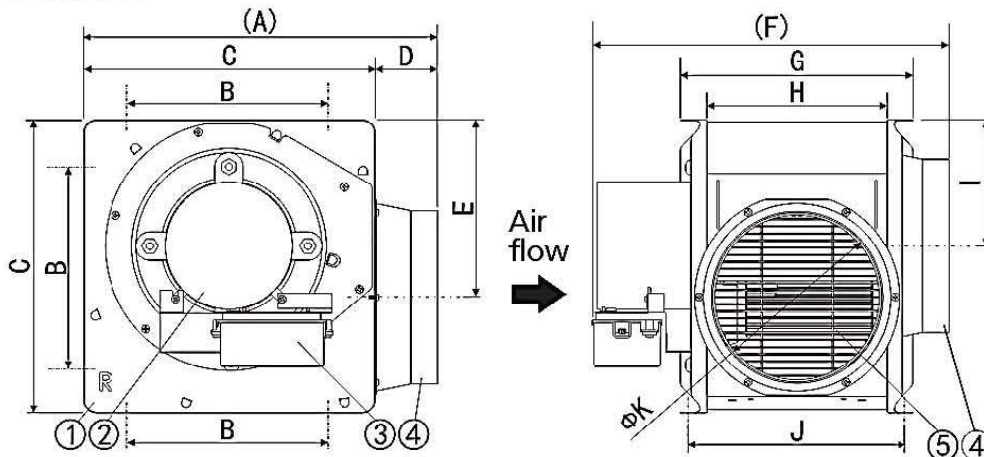
FV-21CG2H

No.	Part name	Q'ty	Material
1	Fan casing	1	Metal
2	Motor	1	—
3	Condenser box cover	1	Plastic
4	Adapter	2	Metal
5	Blade	1	Metal

FV-10/14/16/17/19CG2H



FV-21CG2H

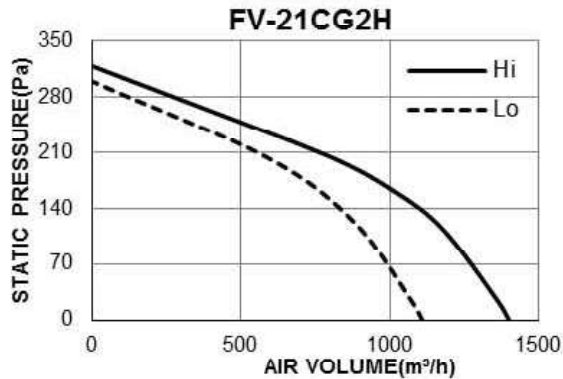
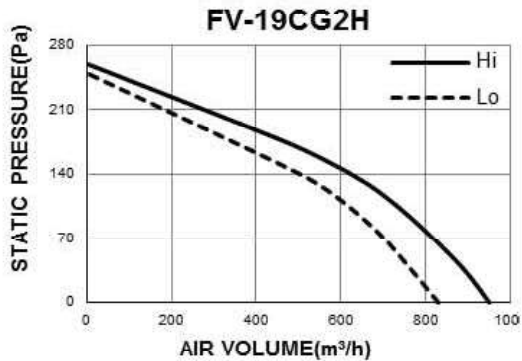
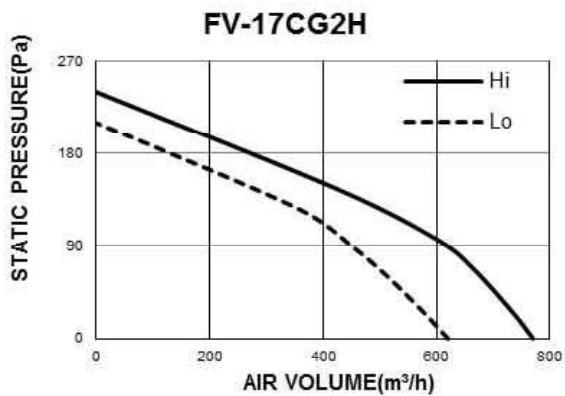
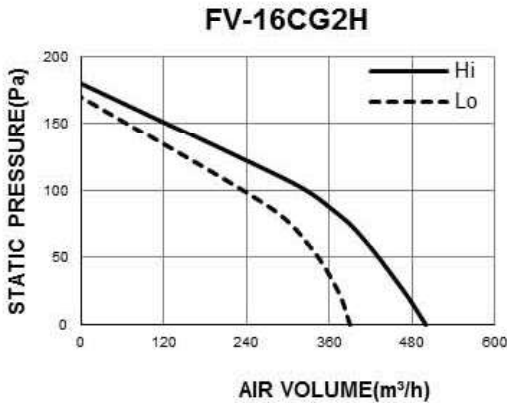
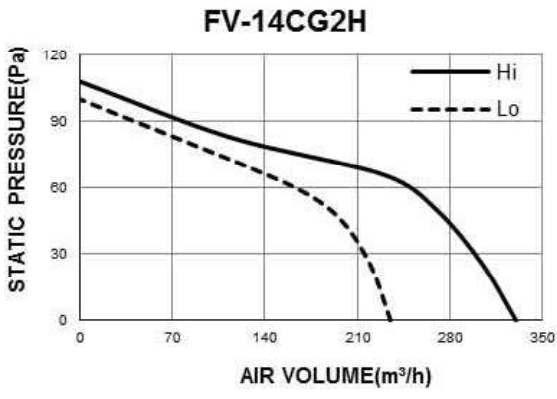
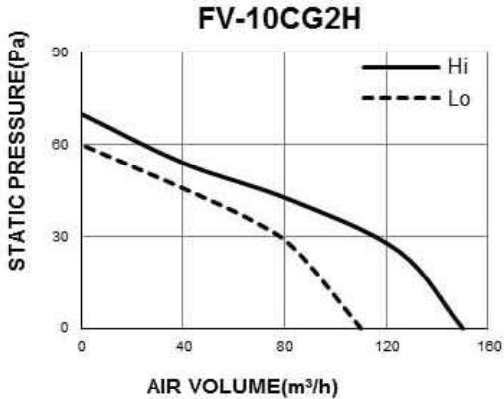


* Remark: All the view are 3rd angle.

unit : mm

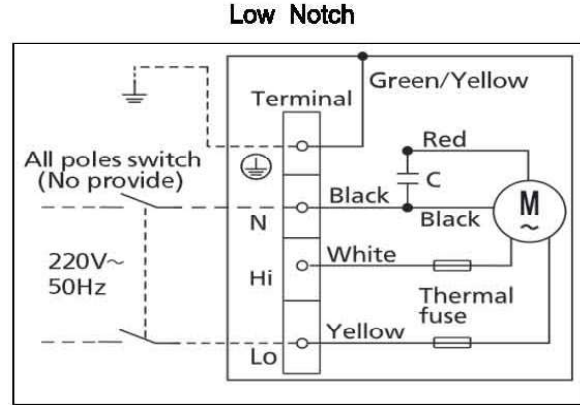
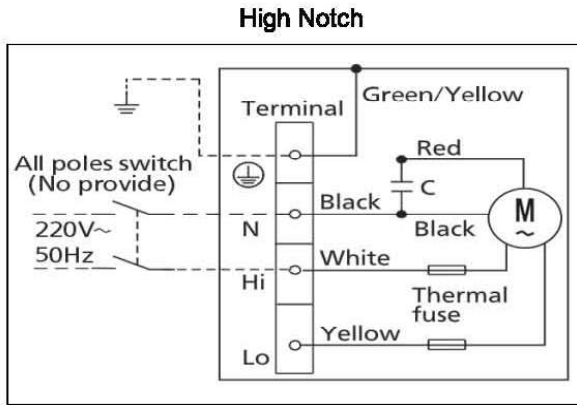
Model	A	B	C	D	E	F	G	H	I	J	K	Duct dimension
FV-10CG2H	226	109	163	63	83	207	138	104	79	126	98	Ø100
FV-14CG2H	269	145	209	60	112	236	170	136	101	158	146	Ø150
FV-16CG2H	330	196	270	60	170	264	189	155	117	177	146	Ø150
FV-17CG2H	400	222	330	71	200	332	263	203	142	239	195	Ø200
FV-19CG2H	400	222	330	71	200	332	263	203	142	239	195	Ø200
FV-21CG2H	400	222	330	71	200	403	263	203	142	239	195	Ø200

Performance Data

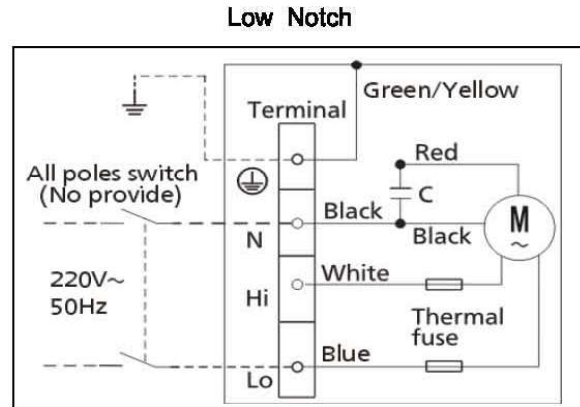
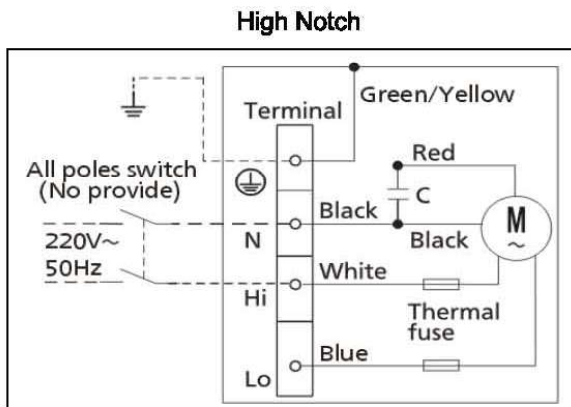


Wiring Diagram

FV-10/14/16/17/19CG2H

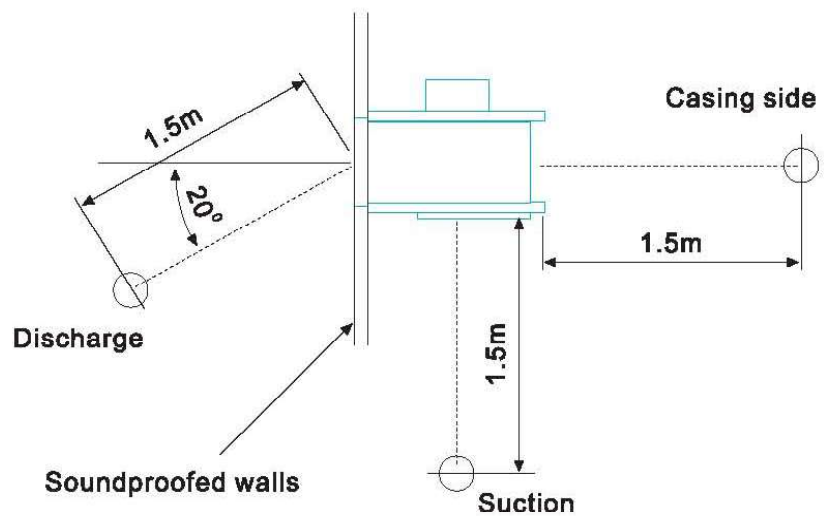


FV-21CG2H



Test Standard

Noise characteristic is measured according to our internal standard as shown.



For Ceiling Mount Ventilating Fans & Air Moving Equipment



With Net

FV-VGX100P FV-VGX150P

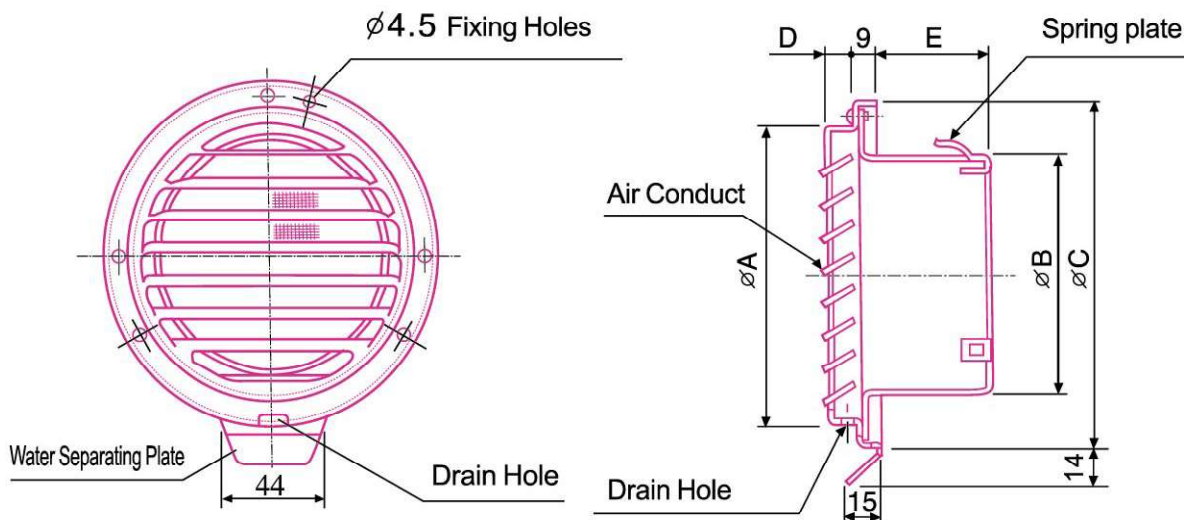


Without Net

FV-VCX100P FV-VCX150P

- Round type vent cap
- 2.5x2.5mm net equipped to keep out ingress of small particles (FV-VGX100P, FV-VGX150P Only)
- High strength stainless steel adopted
- Coated with metallic silver paint prevent oxidation of material
- 3 pieces of spring clip allow easy connection of duct or pipe
- Applicable to diameter 100/150mm duct or pipe
- It is recommended to use with net type for intake purpose

Dimensions



Model	A	B	C	D	E	Diameter of Applicable Pipe [mm]	Net Hole [mm]
FV-VGX100P	120	97	145	13	47	100	2.5 x 2.5
FV-VGX150P	169	147	195	18	52	150	2.5 x 2.5
FV-VCX100P	120	97	145	13	47	100	-
FV-VCX150P	169	147	195	18	52	150	-

Ventilating Fan - Ceiling Mount Type

Park Hotel, Tsim Sha Tsui
Royal View Hotel, Ting Kau
Vision City, Tsuen Wan
Rambler Oasis Hotel, Tsing Yi
Metro Park Hotel, Kowloon
Lake Silver, Wu Kai Sha
Palazzo, Sha Tin
The Dynasty, Tsuen Wan
Festival City, Tai Wai

Pun Tak Building, Causeway Bay
No.12 Broadwood Road
Emerald Green, Yuen Long
Star River, Macau
Gold Coast Hotel, Tuen Mun
VTC, Tuen Mun
The Mediterranean, Sai Kung
Panda Hotel, Tsuen Wan

Ventilating Fan - High Pressure Industrial Type

Stanley Ho Sports Centre, HKU
OTIS
Tunnel CLP Power Station, Tseung Kwan O
The Great Hill, Sha Tin
Lohas Park, Tseung Kwan O

International Christine School HK, Sha Tin
Fujitec Lifts
The Hermitage
Panda Hotel, Tsuen Wan
Shek Mun Estate Phase 2

Air Moving Equipment - Low-noice Type Cabinet Fan

Park Island, Ma Wan
MGM Grand Hotel, Macau
Peak One, Sha Tin
The Vineyard, Yuen Long
W-Hotel, Kowloon Station
The Harbour View Place, Kowloon Station
Le Point, Tin Keng Leng
Coastal Skyline, Tung Chung
One Central Macau Residences, Macau
Langham Hotel, Tsim Sha Tsui
Greenview Villa, Tsing Yi
The Apex, Kwai Chung
Yoho Town, Yuen Long

Florient Rise
Valais
No. 5-11, South Bay Road, Repulse Bay
6 Shiu Fai Terrace
Century Gateway, Tuen Mun
Double Cove, Ma On Shan
Billionnaire Avant, Kowloon City
Riva, Yuen Long
Nova City, Macau
Savannah, Tseung Kwan O
Monterey, Tseung Kwan O
One Prestige, Tseung Kwan O
Phase 16 Discovery Bay

Air Moving Equipment - Mini Sirocco Fans

Royal Park Hotel, Sha Tin
Schindler Lifts
Green Code, Fanling

PCCW Tower
Royal Garden Hotel

Air Curtain

2008 Olympic Equestrian Venue, Sha Tin
Margaret Hospital
Asia Air Freight Terminal Expansion
HAECO
The Hong Kong Community College, Poly U
Mong Kok East Station
Link Management
Mannings
North District Government Offices
Post Office, Wah Ming Estate, Fanling
Buddhist Wong Wan Tin College, Shatin
Palace Mall, Tsimshatsui
Hyland Theatre, Tuen Mun

Ruttonjee Hospital
Ambulatory Medical Service Block, Tung Wah
Eastern Hospital
The Hong Kong Polytechnic University
Marco Polo Hong Kong Hotel
Sha Tin Town Hall
Miramar Shopping Centre, Tsimshatsui
Regal Riverside Hotel
St. Paul Hospital
Courtyard by Marriott Hong Kong Sha Tin Hotel
Grand Hyatt Hotel, Wai Chai
The Chinese University of Hong Kong
Popcorn, Tseung Kwan O