

HIMPEL

Start Period

- Aug. 1989** Established Jindo Precision Chemicals Co., Ltd. (in Anyang, GyeongGi-Do)
- May. 1997 Selected as a promising small entity (in GyeongGi-Do)
- Mar. 1999 Acquired KS (Korea Industrial Standards) mark

Introduction Period

- Dec. 2000 Moved to Hwasung, GyeongGi-Do and changed the company name to Jindo Living Tech Co., Ltd.
- Aug. 2003 Obtained a patent for Cyclone (Korean Patent No. 0394871)
- Dec. 2003** Acquired ISO 9001
- Dec. 2004 Registered as a venture business
- Jan. 2005 Approval Lab. affiliated with the company (No. 20051108)
- Jan. 2006 Certificated as an INNO BIZ company (R6061-0049) by the Small and Medium Business Administration of Korea

Growth Period

- Nov. 2009 Selected as GOOD DESIGN (by Korea Institute of Design Promotion)
- Apr. 2010 Acquired European Electrical Appliances Safety Certification CE
- Aug. 2010** Changed the company name to HIMPEL Co., Ltd.
- Oct. 2011 Selected as a Top 500 HT Product of Small and Medium Business
- Feb. 2012 Acquired MAIN BIZ (120601-000099), the certification of small and medium business with management innovation
- May. 2012 Won the Prime Minister's commendation as a small business contributor (in manufacturing division)
- Jan. 2014 Selected as Small Hidden Champion (Ministry of Employment and Labor)
- Sep. 2014 Selected as Promising Small and Medium Company (GyeongGi-Do)
- Dec. 2014 Won the President of Korea Consulting as Company Renovation (the Korea Chamber of Commerce & Industry)
- Jul. 2015 Selected as Excellent Job Company (GyeongGi-Do)
- Nov. 2015 Acquired Indonesian National Standard certification, SNI
- Mar. 2017 Acquired Saudi Arabian Standards Organization Certification, SASO
- Oct. 2017 Supplied Energy Recovery Ventilator to the demonstration complex of Zero Energy House for the First time in Korea
- Jun. 2018 Acquired China Compulsory Certification, CCC

HIMPEL, which has been a leader of the total ventilation solution company since the 1980s is providing a gadget of a bathroom and living room for an air quality in the Korean Market. HIMPEL which started out as a firm specialized in indoor air quality apparatus, introduced a contemporary concept of bathroom & living room ventilation in Korea when such notion was unknown to many, fortifying the pioneering role in the local market.

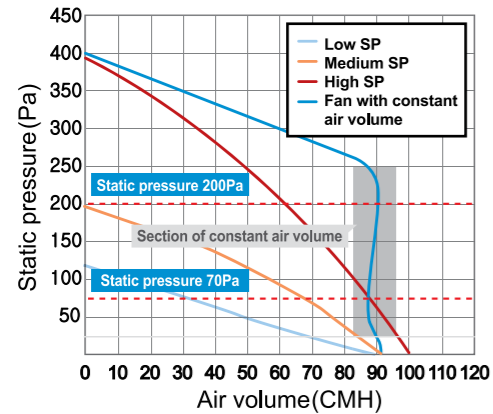
We have been trying to be a company that contributes to a welling being life in respect of an air quality as we are actively publicizing and studying the reformation.

Our product strategies and corporate objectives have enabled efficient performance of the highest order. We take this opportunity to reiterate our commitment to bringing out quality products with long term value. That's our mission and what truly differentiates us from our competition.

Sincerely yours,
President **Jeong-Hwan Kim**

Ventilation Fan with Constant Air Volume for Bathroom
 (Certified by Korean Association of Air Conditioning Refrigerating and Sanitary Engineers)

Conformity European Marking **CE**



Constant air volume exhaust fan

The air volume is maintained to be more than 60CMH within the static pressure of 20-250Pa, and the variation of the max an minimum air volume is kept within ±10% (always maintaining constant air volume). (KARSE B 0044)

High static pressure exhaust fan

The air volume is more than 60CMH at the static pressure of 200Pa.

Medium static pressure exhaust fan

The air volume is more than 60CMH at the static pressure of 70Pa.

Low static pressure exhaust fan

The air volume is more than 60CMH at the static pressure of 0Pa.

	Constant air volume for Bathroom	MODEL	Page	
High Static Pressure	ZEROC	HV3-80X(MD-N)	6	
		HV3-80X	6	
		HV3-80X(MD-N)	7	
		HV3-80NV	8	
		FZA-C110S	10	
		HV3-80SF	16	
		HV3-100, 120, 150	9	
	FZA-L110S	FZD-L90SH2(BLDC)	14	
	FZA-L110S		12	
	HV3-81JG		13	
	FZA-C80	HV-81WF	FZA-C80	11
	HV-81WF		26	
	LIVO	L2-150	L2-100	17
			L2-120	17
		L2-150	17	
L2-250		L2-250	18	
		L2-300	18	
FLA-C90			19	
Medium Static Pressure	FLREX	C2-100	23	
	TURBO 747	FZA-70S	FZA-70S1	22
Low Static Pressure	CYCLONE	JV-201	24	
High Air Volume	ZAION	HV-220	HV-180	20
			HV-220	20
			HV-250	20
Thermo Ventilator	HUEZENTTE	FHD-P150S1	FHD-P150S1	32
			FHA-P180S	33
			FHA-S130R	34
			FHA-S180DB	35
Energy Recovery Ventilation	HUEVEN	HRD-50C	HRD-50C	38
			HRD-70C	38
			HRD-100C	40

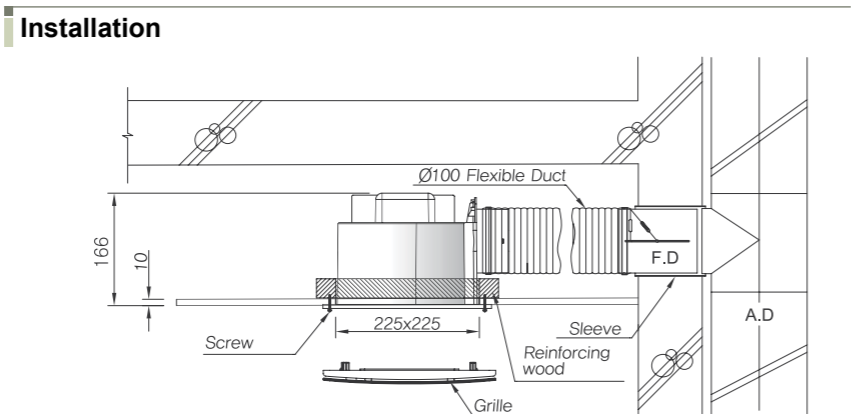
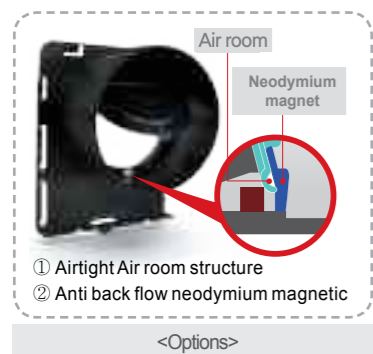
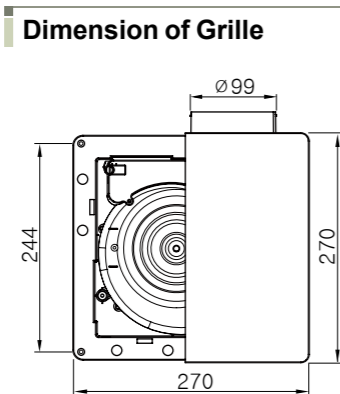
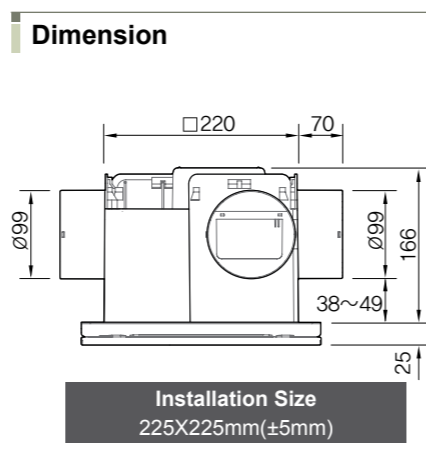
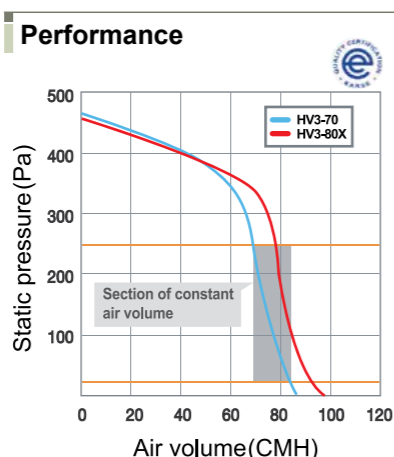
Constnat air Volume	Air Volume (CMH)	Connection Diameter(Ø)	Air Volume Adjusting Damper	Multi-branches	Switch	Remarks
•	75	100				CE PSE SNI
•	91	100				CE PSE SNI
•	91	100				Motorized damper
•	100	100	•	•	•	Motorized damper
•	110	100	•	•	•	Magnetic damper
•	91	100	•	•		Magnetic damper
	100, 120, 145	100	•	•	•	Magnetic damper
	75	100				LED light, Intelligence Sensor
•	110	100		•		CE LED light SNI
•	85	100		•		LED light
	84.5	100	•	•		Magnetic damper SNI
	75	100				
	100	100		•	•	
	120	100		•	•	
	150	100		•	•	
	250	100/125		•	•	3-steps adjustment
	300	100/125		•	•	3-steps adjustment
•	90	100		•	•	
	90	100				CE Magnetic damper, No power lamp SNI
	70	100				CE
	80	100				SNI
	180	100				CE
	220	100				
	250	125, 100				SNI
	150	100				
	180	100				
	130	100				
	180	100				Freeze protection
	55	75			•	Non-Duct Ceiling Type SNI
	75	75			•	Non-Duct Ceiling Type
	110	65/100			•	Duct Type

Constant air volume exhaust fan (high static pressure)



HV3-70X/HV3-80X

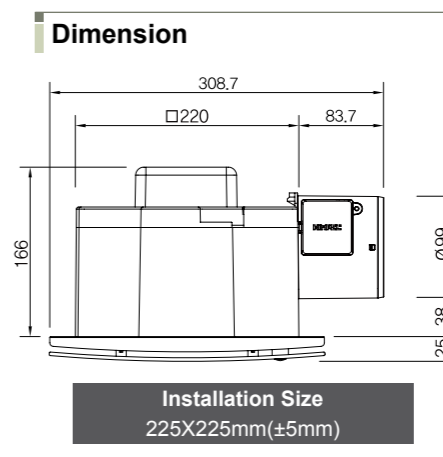
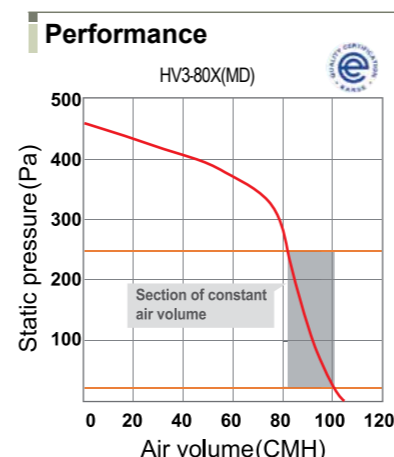
- ▶ Low noise
- ▶ Various operational options
- ▶ Highly air tight damper preventing back flow
- ▶ Multibranch
- ▶ Multi air volume adjusting damper
- ▶ Certification of constant air volume



MODEL	HV3-70 (constant air volume)	HV3-80X (constant air volume)
Static Pressure	25~250Pa	25~250Pa
Constant Air Volume	75CMH(44CFM)	91CMH (54CFM)
Air Volume	68.2~83.3CMH (40~49CFM)	82.6~100.4CMH (49~59CFM)
Power Consumption	31 W	36W
Noise (at 1m)	32dB	37dB
Dimension	270(W) X 270(D) X 166(H)mm	
Weight	2.2kg	
Operational Options	-	D (Delay type), T (Timer type), V (Ventilation unit interlocking type)
Options	M Grille, F Grille, Power Lamp (L), Multi-branch, Multi air volume damper	

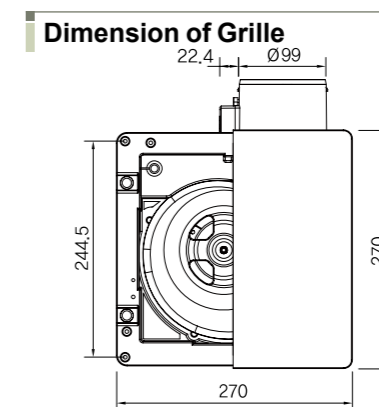
※ The specification and the performance may be changed for improvement without notice.
 ※ This figure is the result of tests under 220V at 60Hz which is the Korean electricity standard and different results may result in other country in accordance with its standards.

Motorized damper integrated type

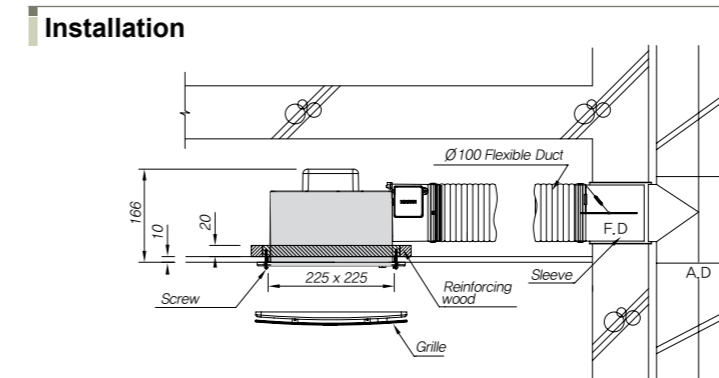


HV3-80X(MD-N)

- ▶ Low noise
- ▶ Diverse motion options



<MD-N>



MODEL	HV3-80X(MD-N)	
Static Pressure	25~250Pa	
Constant Air Volume	91CMH (54CFM)	
Air Volume	81~99CMH (48~58CFM)	
Power Consumption	36W	
Noise (at 1m)	37dB	
Dimension	270(W) X 270(D) X 166(H)mm	
Weight	2.6kg	
Options	M Grille, F Grille, Power Lamp (L), Multi-Branch, Multi air volume damper	
Motorized damper (MD-N)	Power consumption	3W
	Size	Ø100 X 112L
	Material	ABS

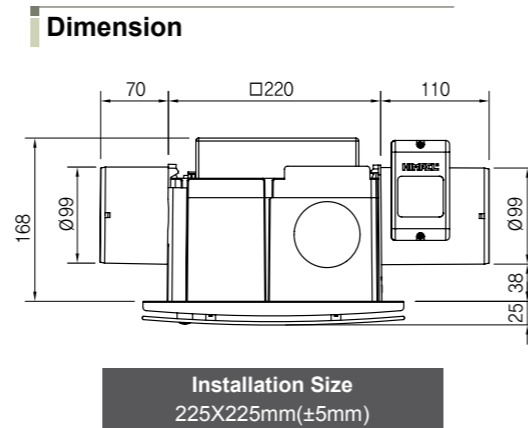
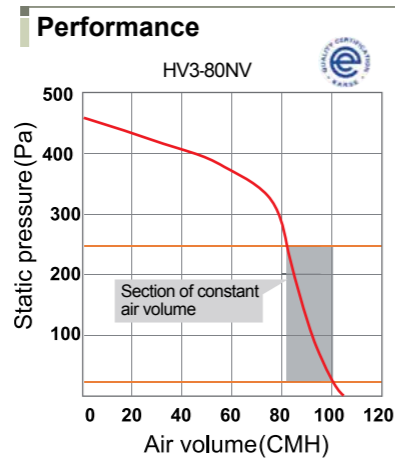
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Constant air volume exhaust fan(high static pressure, hybrid)



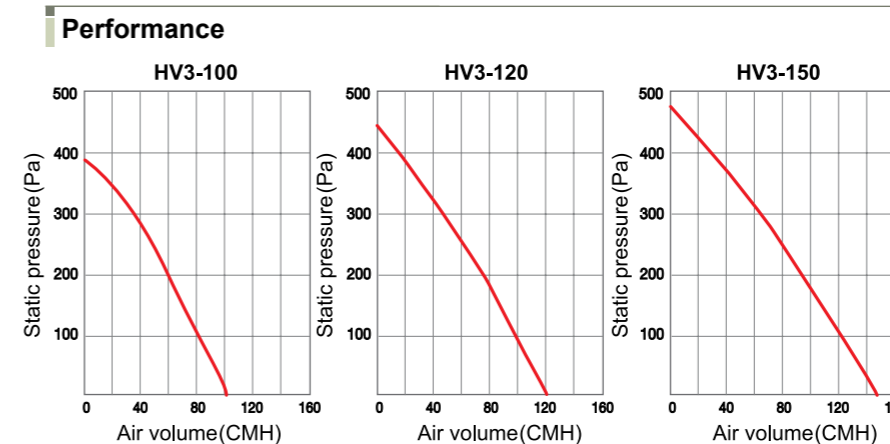
HV3-80NV

- ▶ Low noise
- ▶ Various operational options
- ▶ Certification of constant air volume



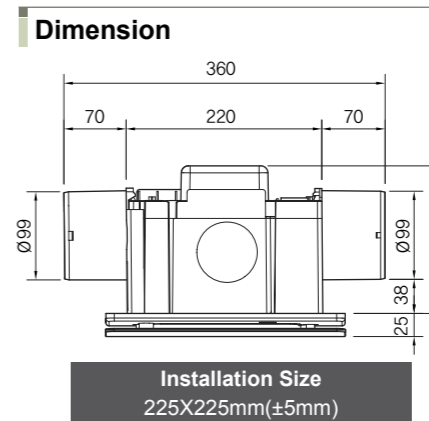
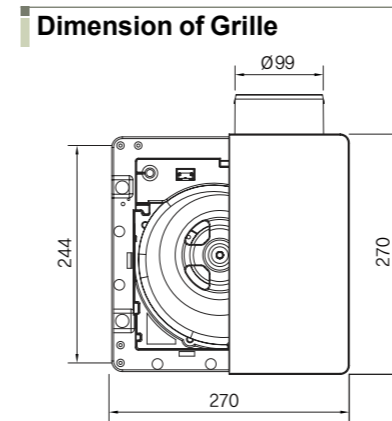
Installation Size
225X225mm(±5mm)

High static pressure exhaust fan(high efficiency)



HV3-100, HV3-120 HV3-150

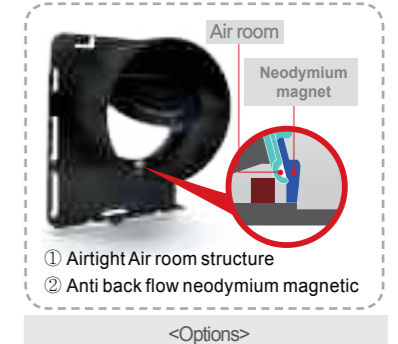
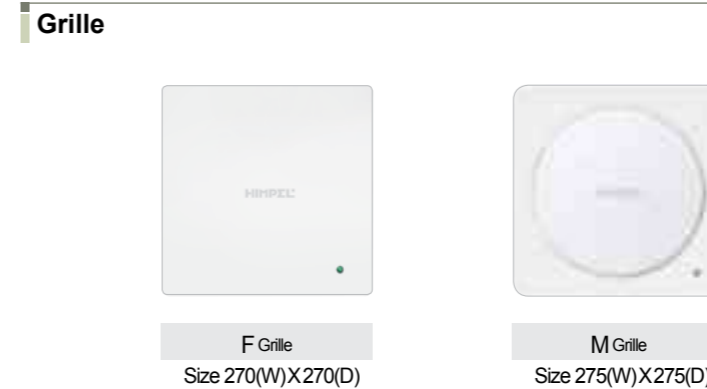
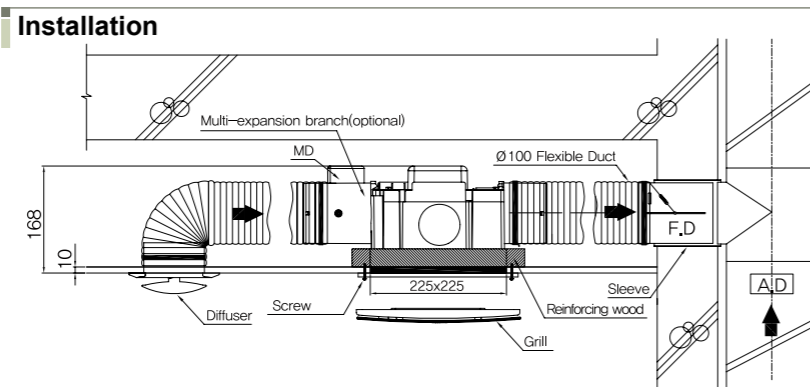
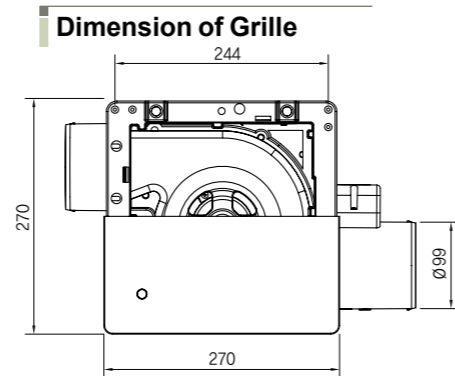
- ▶ Low noise
- ▶ Various options
- ▶ Highly air tight damper preventing back flow
- ▶ Multi-branch
- ▶ Multi air volume adjusting damper



Installation Size
225X225mm(±5mm)



Certification for constant air volume at bathroom



- ① Airtight Air room structure
- ② Anti back flow neodymium magnetic

<Options>

MODEL		HV3-80NV			
Static Pressure		25~250Pa			
Air volume		82.1~100.4CMH (48~59CFM)			
Constant Air Volume		55.7CMH(33CFM)	78.1CMH(46CFM)	91.3CMH(54CFM)	
Power Consumption		Low 28.6W	Medium 36.1W	High 42.4W	
Noise (at 1m)		29dB	33.2dB	36.3dB	
Dimension		270(W) X 270(D) X 168(H)mm			
Weight		2.8kg			
Options		M Grill, F Grill, Power Lamp (L)			
Motorized damper	Power Consumption	3W			
	Size	Ø100 X 112L			
	Material	ABS			

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MODEL	HV3-100			HV3-120			HV3-150		
Static Pressure	0Pa	100Pa	200Pa	0Pa	100Pa	200Pa	0Pa	100Pa	200Pa
Air Volume	100CMH (58.9CFM)	80CMH (47.1CFM)	60CMH (35.3CFM)	120CMH (70.6CFM)	90CMH (53CFM)	70CMH (41.2CFM)	145CMH (85.3CFM)	120CMH (70.6CFM)	90CMH (53CFM)
Power Consumption	27W			31W			39W		
Noise (at 1m)	36.5dB			39.6dB			44dB		
Dimension	270(W) X 270(D) X 166(H)mm								
Weight	2.4kg								
Options	-			V (Ventilation unit interlocking type), U (High/Low 2-stage type), HT (Humidity, Timer type)			-		
M Grille, F Grille, Power Lamp (L), Control Switch									

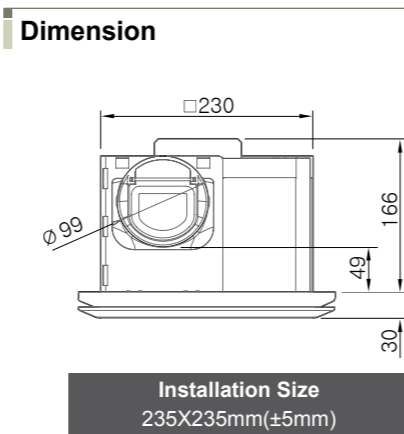
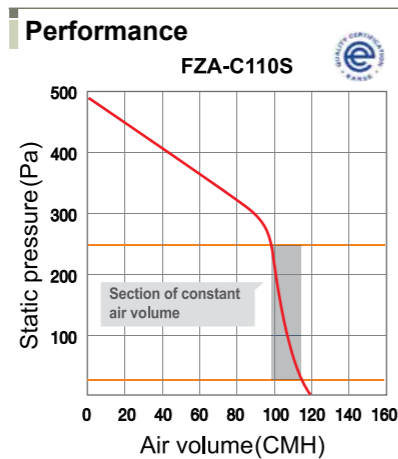
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Constant air volume exhaust fan(high static pressure)



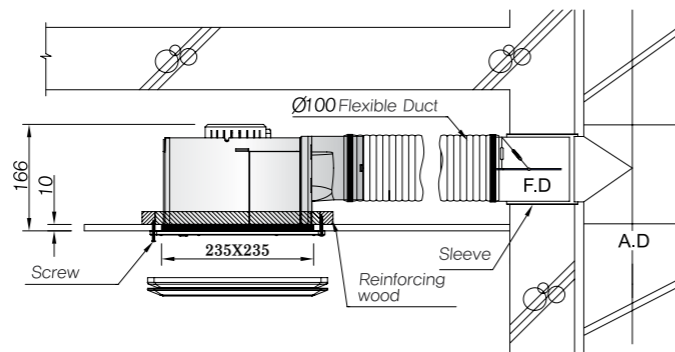
FZA-C110S

- ▶ Constant air volume and high static pressure
- ▶ Highly air tight damper preventing back flow
- ▶ Multi-branch
- ▶ Improved constant air volume
- ▶ Certification of constant air volume



Installation Size
235X235mm(±5mm)

Installation



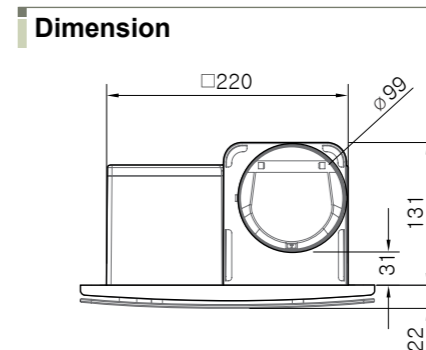
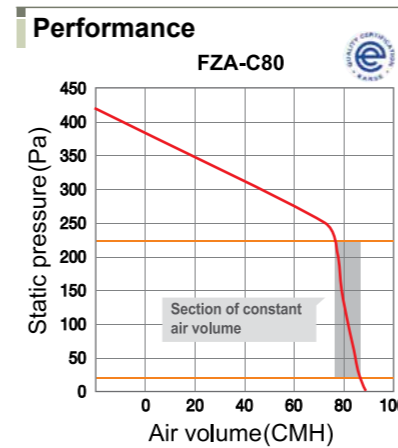
Certification for constant air volume at bathroom

Constant air volume exhaust fan(slim type)



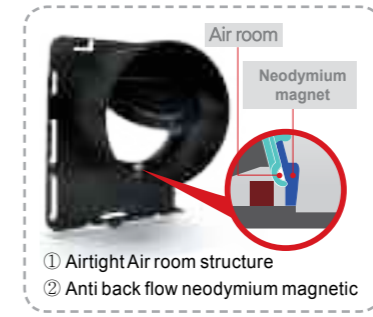
FZA-C80

- ▶ Slim type
- ▶ Constant air volume and high static pressure
- ▶ Highly air tight damper preventing back flow (Silicone pad and magnetic applied)
- ▶ air exhaust for two rooms available



Installation Size
225X225mm(±5mm)

Grille

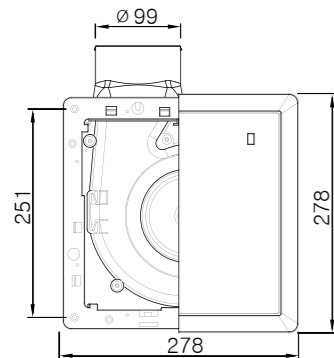


<Options>



Certification for constant air volume at bathroom

Dimension of Grille

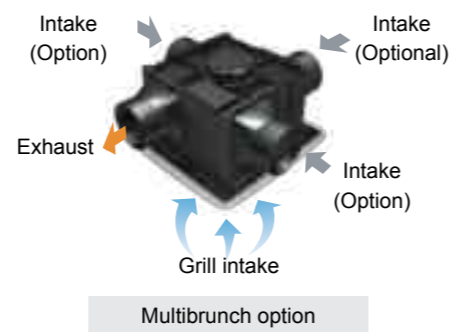


Multi branch

Air volume ratio for branching (%)

Type	4 Branches
Grille	70 %
Branch	30 %

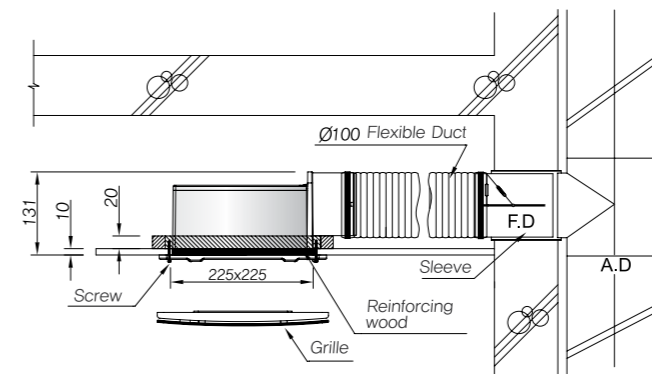
※ The ratio is for a flexible duct within 2m and may vary according to the installation condition.



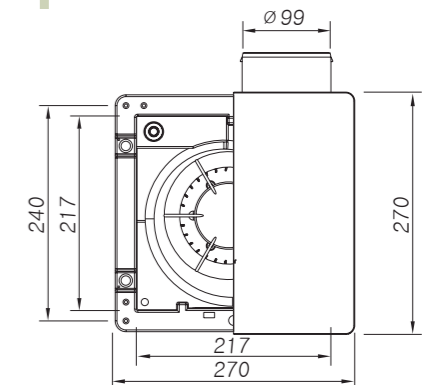
MODEL	FZA-C110S (constant air volume)
Static Pressure	25~250Pa
Constant Air Volume	110CMH(65CFM)
Air Volume	103.3~119.2CMH(61~70CFM)
Power Consumption	45W
Noise (at 1m)	38.4dB
Dimension	278(W) X 278(D) X 166(H)mm
Weight	2.8kg
Options	-

※ The specification and the performance may be changed for improvement without notice.
 ※ This figure is the result of tests under 220V at 60Hz which is the Korean electricity standard and different results may result in other country in accordance with its standards.

Installation



Dimension of Grille



MODEL	FZA-C80 (constant air volume)
Static Pressure	25~250Pa
Constant Air Volume	84.5CMH(50CFM)
Air Volume	78.8~90.2CMH (46~53CFM)
Power Consumption	34W
Noise (at 1m)	36dB
Dimension	220(W) X 220(D) X 131(H)mm
Weight	2.1kg
Options	F Grille, M Grille

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Constant air volume exhaust fan(LED light)

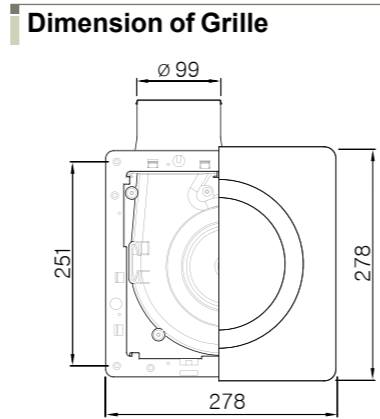
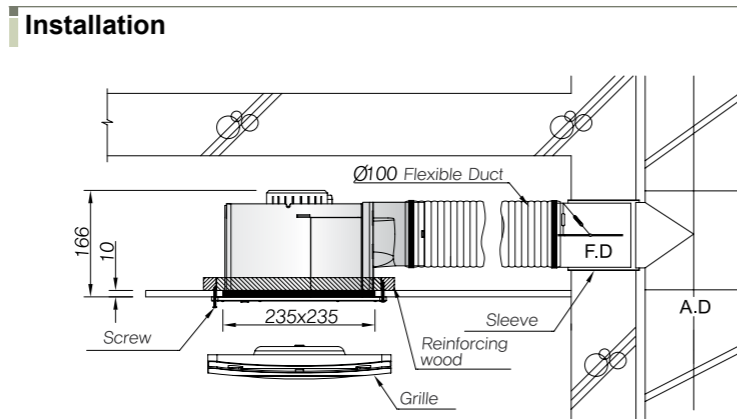
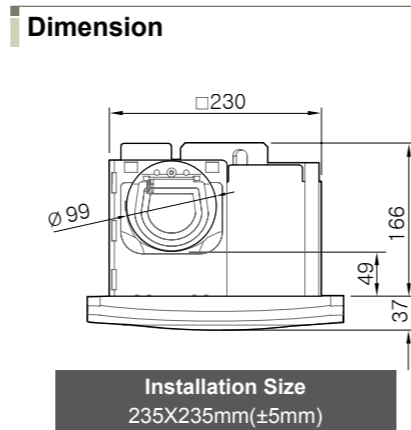
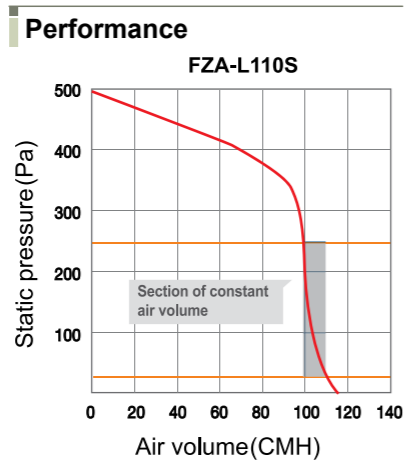


FZA-L110S

- ▶ Constant air volume and high static pressure
- ▶ Highly air tight damper preventing back flow
- ▶ Multi-branch
- ▶ LEDs with low power consumption



Example ▶ Model. FZA-L110S



MODEL	FZA-L110S(LED)
Static Pressure	25~250Pa
Constant Air Volume	110CMH (65CFM)
Air Volume	103.3~119.2CMH(61~70CFM)
Power Consumption	Ventilation fan: 40W / LED light: 9W
Noise (at 1m)	39dB
Intensity of Illumination	130~150Lux
Dimension	278(W) X 278(D) X 166(H)mm
Weight	3.0kg
Options	-

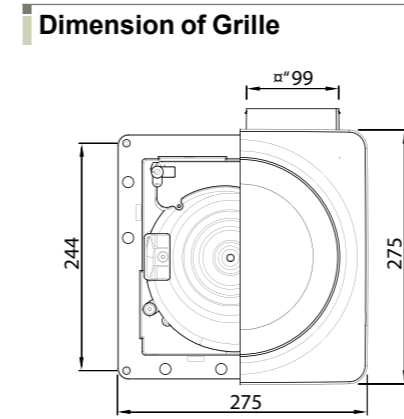
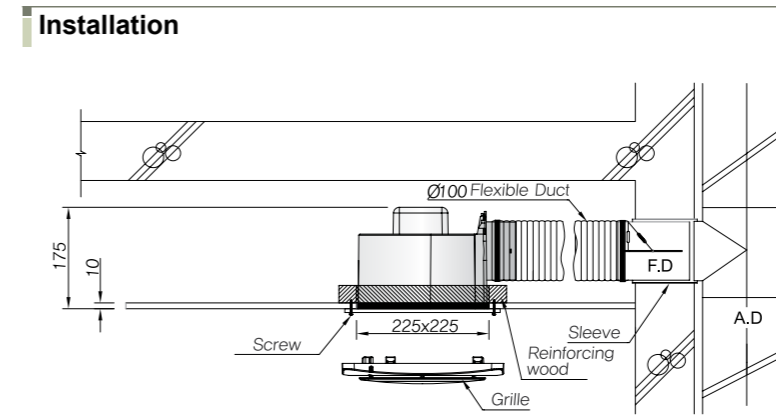
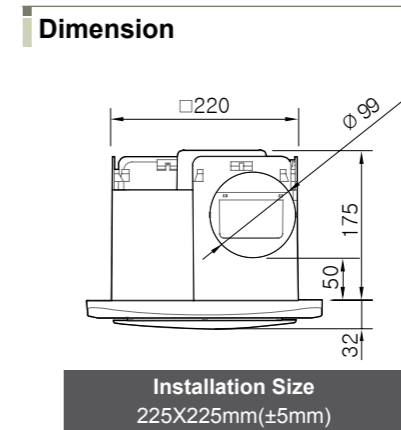
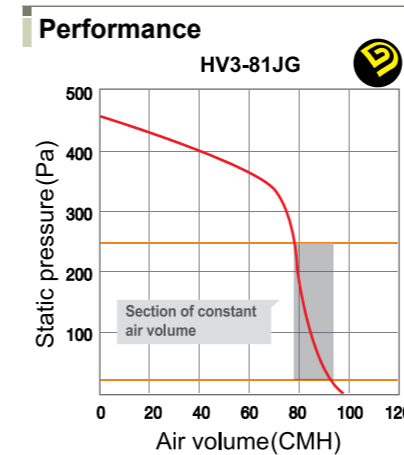
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Constant air volume exhaust fan(LED light)



HV3-81JG

- ▶ Constant air volume and high static pressure
- ▶ Highly air tight damper preventing back flow
- ▶ Multi-branch
- ▶ LEDs with low power consumption
- ▶ Certification for good design



MODEL	HV3-81JG(LED)
Static Pressure	25~250Pa
Constant Air Volume	85CMH (50CFM)
Air Volume	78~92CMH (46~54CFM)
Power Consumption	Ventilation fan: 35W / LED light : 11W
Noise (at 1m)	39dB
Intensity of Illumination	130~150Lux
Dimension	275(W) X 275(D) X 175(H)mm
Weight	2.6kg
Options	Power Lamp (L)

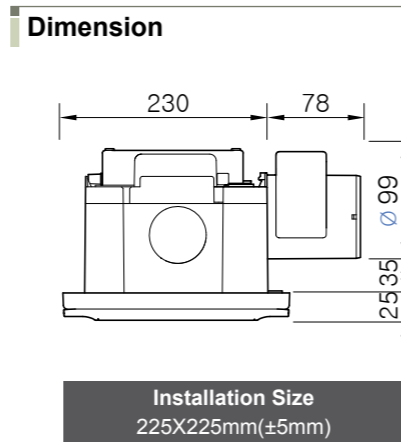
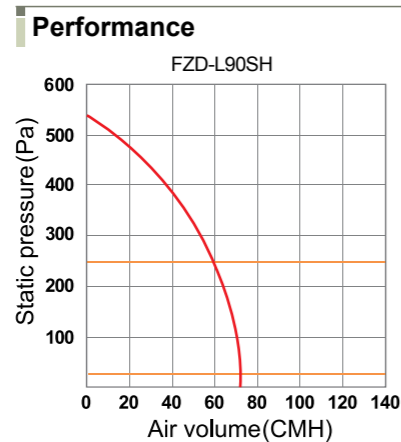
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Ventilation fan with high static pressure (smart LED lighting)

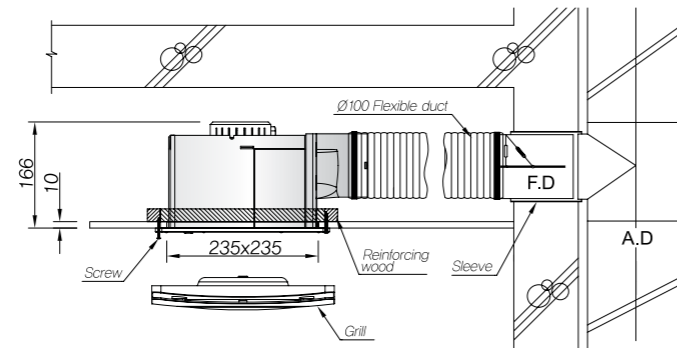


FZD-L90SH

- ▶ Constant air volume and high static pressure
- ▶ Deluxe ventilation fan with light
- ▶ Highly air tight motor damper preventing back flow
- ▶ Multi-expansion branch.
- ▶ LED with low power consumption
- ▶ Sensor

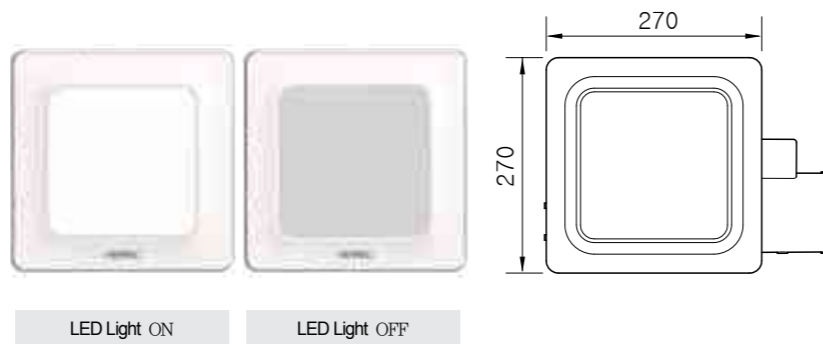


Installation



Grille

Dimension of Grille



Model	FZD-L90SH
Static Pressure	25~250Pa
Constant Air Volume	90CMH (53CFM)
Power Consumption	Fan: 7W / LED: 15W
Noise (at 1m)	39dB
Intensity of Illumination	130~150Lux
Dimension	270(W) X 270(D) X 200(H)mm
Weight	3.0kg
Options	Multibranch

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[Healthy Breathing] Intelligent sensor interlocking lighting fan

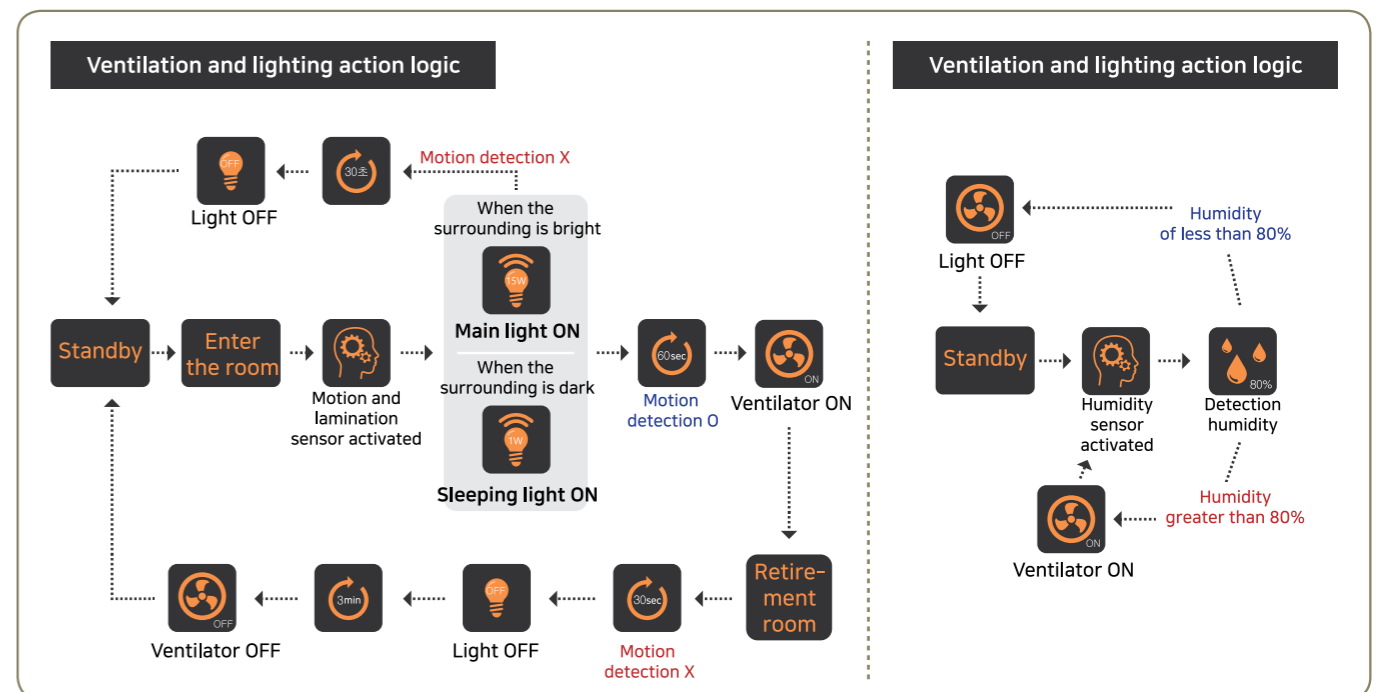
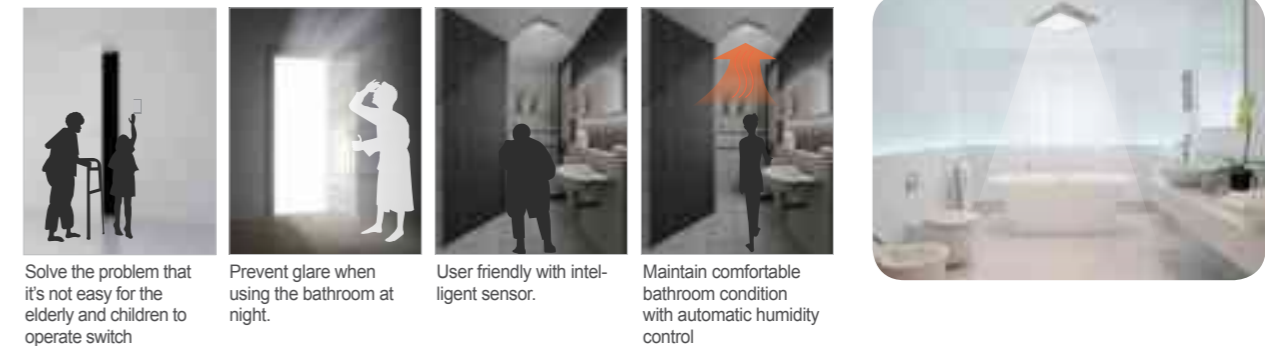
Smart ventilator for a healthy lifestyle.

- Sensor**
Easy to use (operation, humidity, illumination)
- BLDC MOTOR**
Energy saving effect
7W consumption
- Prevent odor and backward wind (Motor damper)**
Prevent interlayer odor and noise



Smart automatic operation satisfying convenience and sensitivity

Automatic operation helps children and elderly people to use bathroom easily without switch operation problem. You also don't need to worry about electric charge even you turn on fan for 24 hours due to low power consumption.



Fixed pressure and static air volume ventilation fan (MD separate room ventilation type)



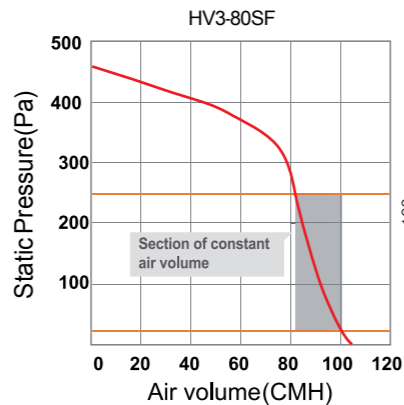
HV3-80SF

- ▶ Low noise
- ▶ Diverse motion option
- ▶ Highly airtight reflux prevention damper
- ▶ Multi-expansion branch
- ▶ Motorized automatic air volume control

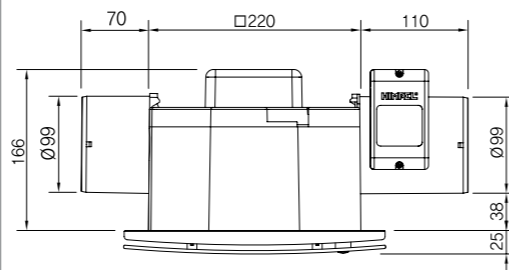


<MD>

Performance



Dimension

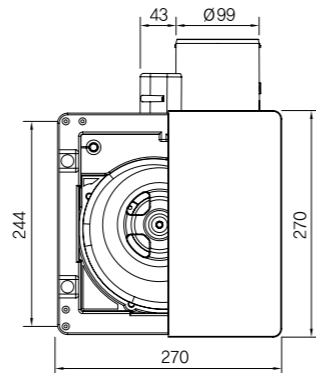


Grille



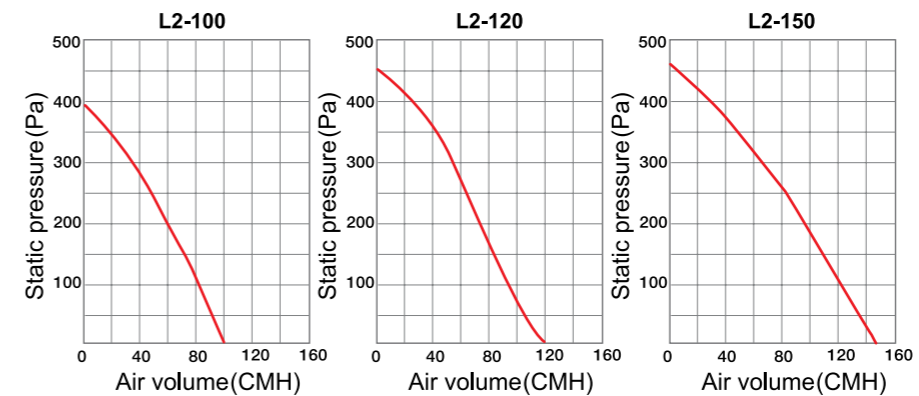
F Grille
Size 270(W)X270(D)

Dimension of Grille



High static pressure exhaust fan(inline)

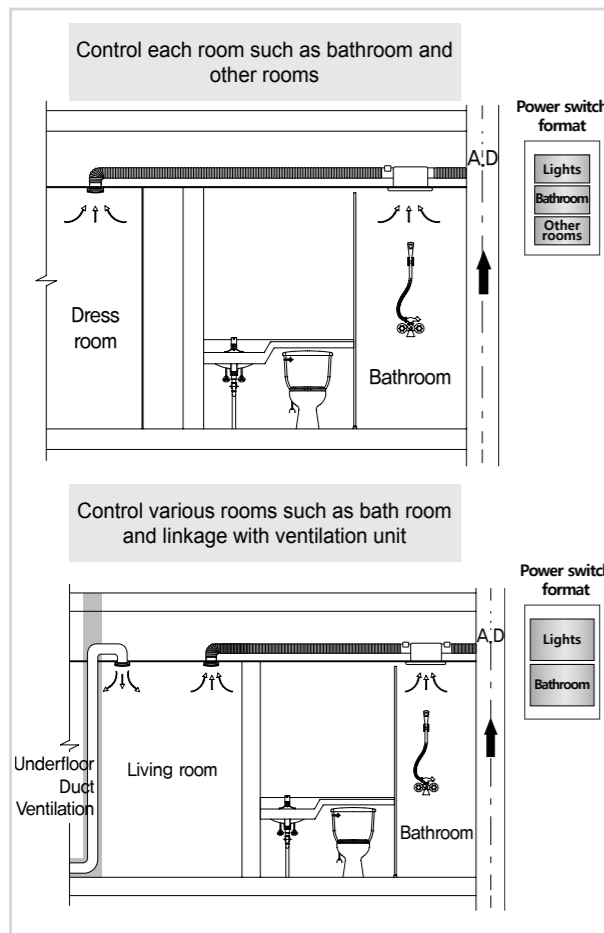
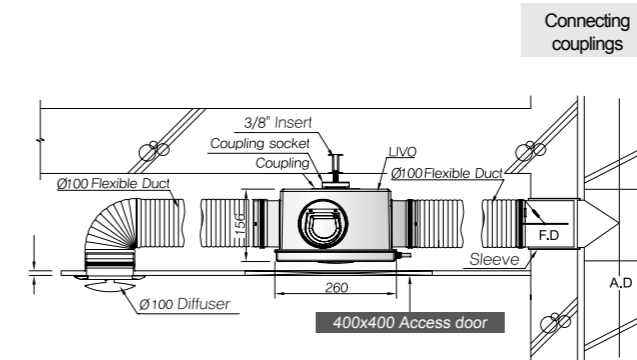
Performance



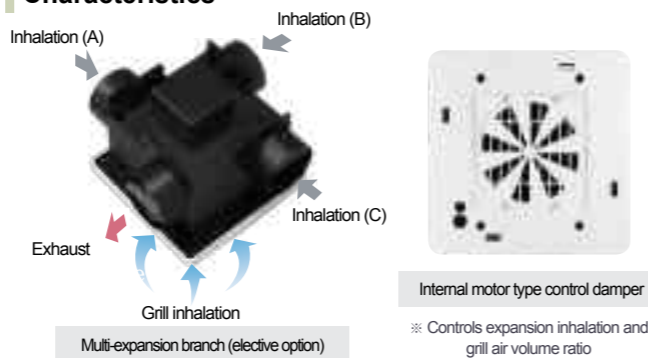
L2-100, L2-120, L2-150

- ▶ High static pressure and low noise level
- ▶ Various options
- ▶ Air volume control switch (3 steps)
- ▶ Highly airtight damper preventing back flow
- ▶ Multi-branch

Installation

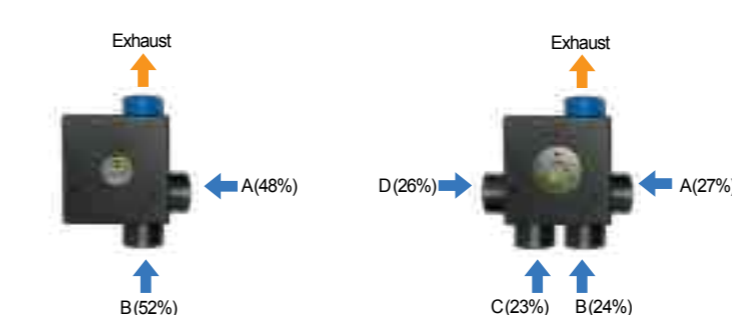


Characteristics



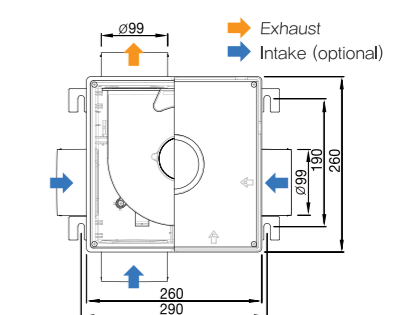
Model	HV3-80SF	
Fixed pressure	25~250Pa	
Static air volume	More than 91CMH (54CFM)	
Air volume	82.6~100.4CMH (49~59CFM)	
Power consumption	Less than 36W	
Noise	Less than 37dB	
Dimension	270(W) X 270(D) X 166(H)mm	
Weight	2.6kg	
Elective option	Ventilation unit linked type, F Grille, indicator light (L)	
Motorized damper (MD)	Power consumption	3W
	Size	Ø100 X 112L
	Material	ABS

※ The specification and the performance may be changed for improvement without notice.
 ※ This figure is the result of tests under 220V at 60Hz which is the Korean electricity standard and different results may result in other country in accordance with its standards.



Air volume ratio according to branching
 ※The ratios are for a flexible duct within 2.0 m and may vary depending on the installation condition

Dimension



MODEL	L2-100			L2-120			L2-150		
	0Pa	100Pa	200Pa	0Pa	100Pa	200Pa	0Pa	100Pa	200Pa
Static Pressure	0Pa	100Pa	200Pa	0Pa	100Pa	200Pa	0Pa	100Pa	200Pa
Air Volume	100CMH (59CFM)	80CMH (47CFM)	60CMH (35CFM)	120CMH (71CFM)	90CMH (53CFM)	70CMH (41CFM)	150CMH (88CFM)	120CMH (71CFM)	90CMH (53CFM)
Power Consumption	27W			31W			39W		
Noise (at 1m)	35dB			40dB			44dB		
Dimension	260(W) X 260(D) X 160(H)mm								
Weight	2.2kg								
Operational Option	HT (Humidity, Timer type), D (Delay type), U (High/Low 2-step type)								
Option	Multi-expansion branch, air volume								

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 ※ This figure is the result of tests under 220V at 60Hz which is the Korean electricity standard and different results may result in other country in accordance with its standards.

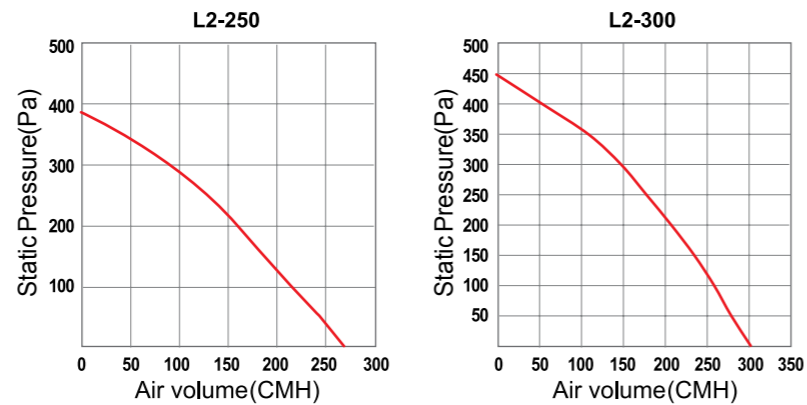
High static pressure exhaust fan(inline, high efficiency)



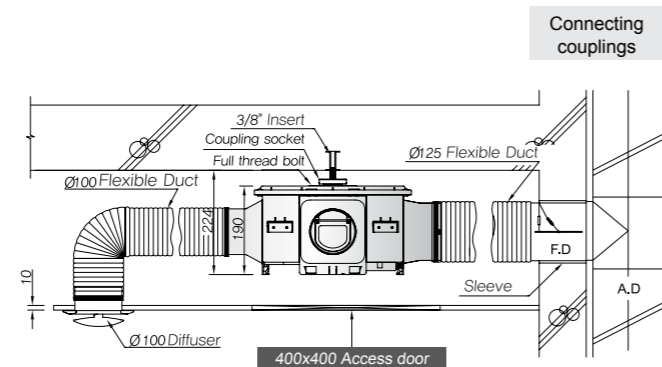
L2-250, L2-300

- ▶ High static pressure and high air volume
- ▶ Low noise level
- ▶ Air volume control switch (3 steps)
- ▶ Highly air tight damper preventing back flow
- ▶ Multi-branch

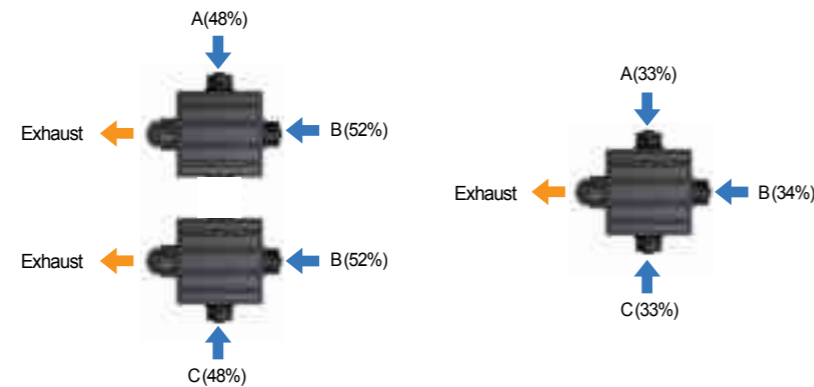
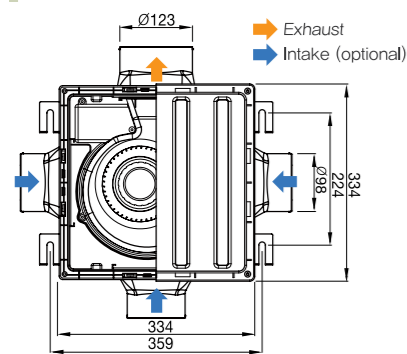
Performance



Installation



Dimension



Air volume ratio according to branch

※ The ratios are for a flexible duct within 2.0 m and may vary depending on the installation condition

MODEL	L2-250			L2-300		
	0Pa	100Pa	200Pa	0Pa	100Pa	200Pa
Static Pressure	0Pa	100Pa	200Pa	0Pa	100Pa	200Pa
Air Volume	260CMH(153CFM)	205CMH(121CFM)	155CMH(91CFM)	300CMH(177CFM)	250CMH(147CFM)	200CMH(118CFM)
Power Consumption	68W			84W		
Noise (at 1m)	39dB			45dB		
Dimension	334(W) X 334(D) X 190(H) mm					
Weight	3.2kg					
Connection	Exhaust(Ø125, Ø100), Intake(Ø100)					
Option	Air volume control switch(3 steps), Multibranch					

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 ※ This figure is the result of tests under 220V at 60Hz which is the Korean electricity standard and different results may result in other country in accordance with its standards.

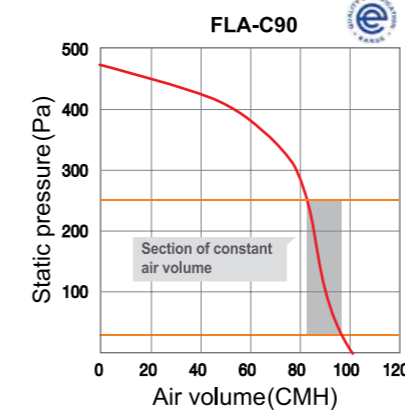
High static pressure exhaust fan(inline, high efficiency)



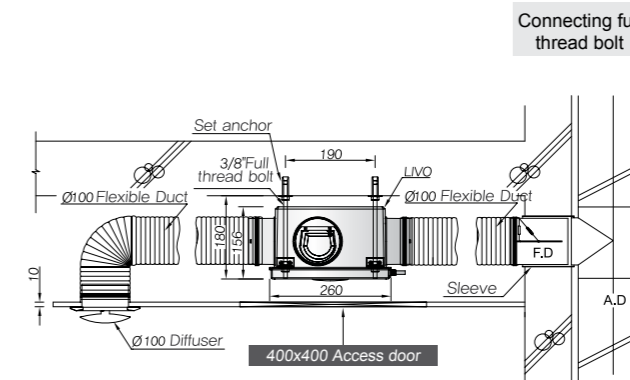
FLA-C90

- ▶ Constant air volume and high static pressure
- ▶ Low noise level
- ▶ Highly air tight damper preventing back flow
- ▶ Multi-branch
- ▶ Certification of high efficiency energy equipment
- ▶ Certification of constant air volume

Performance

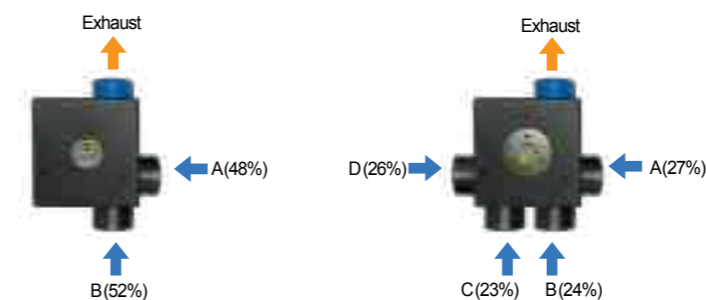
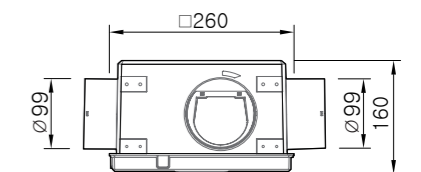


Installation



Certification of constant air volume at bathroom

Dimension



Air volume ratio according to branching

※ The ratios are for a flexible duct within 2.0 m and may vary depending on the installation condition

MODEL	FLA-C90 (constant volume)
Static Pressure	25~250Pa
Constant Air Volume	90CMH(53CFM)
Air Volume	83~97CMH (53~57CFM)
Power Consumption	34W
Noise (at 1m)	33.8dB
Dimension	260(W) x 260(D) x 160(H)mm
Weight	2.2kg
Option	Multibranch, air volume control unit

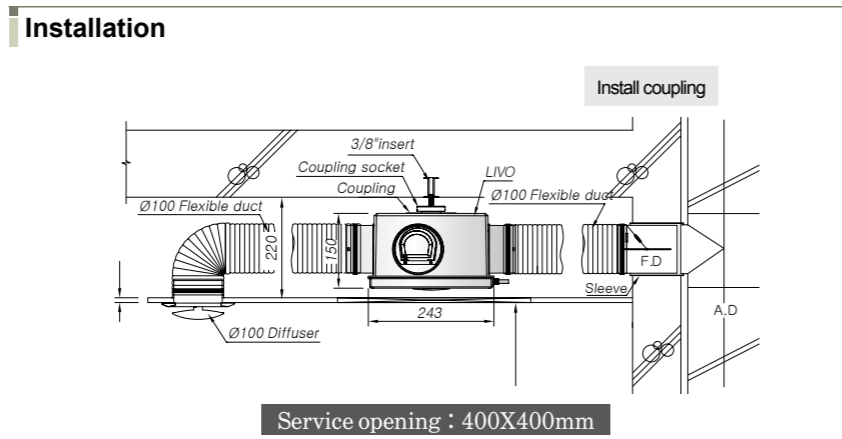
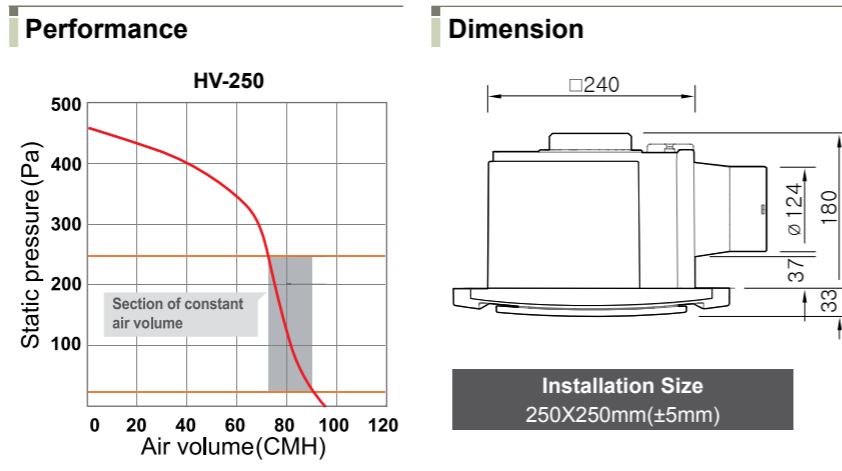
※ The specification and the performance may be changed for improvement without notice.
 ※ This figure is the result of tests under 220V at 60Hz which is the Korean electricity standard and different results may result in other country in accordance with its standards.

Constant air volume exhaust fan(inline, slim type)

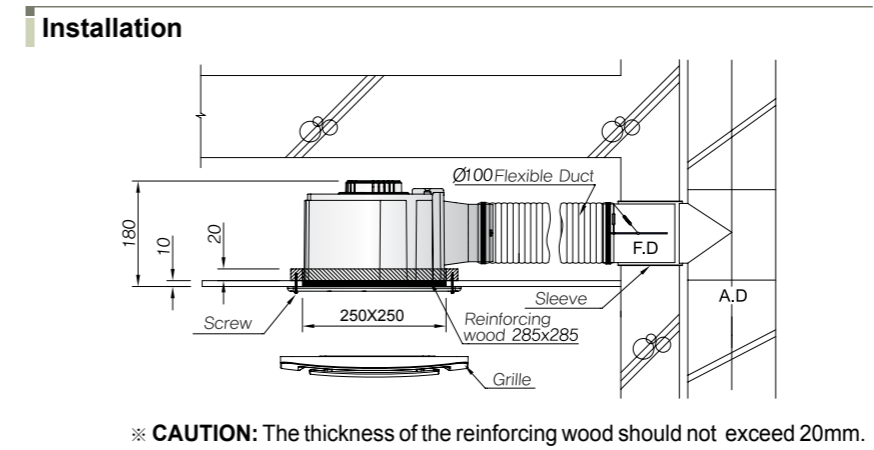
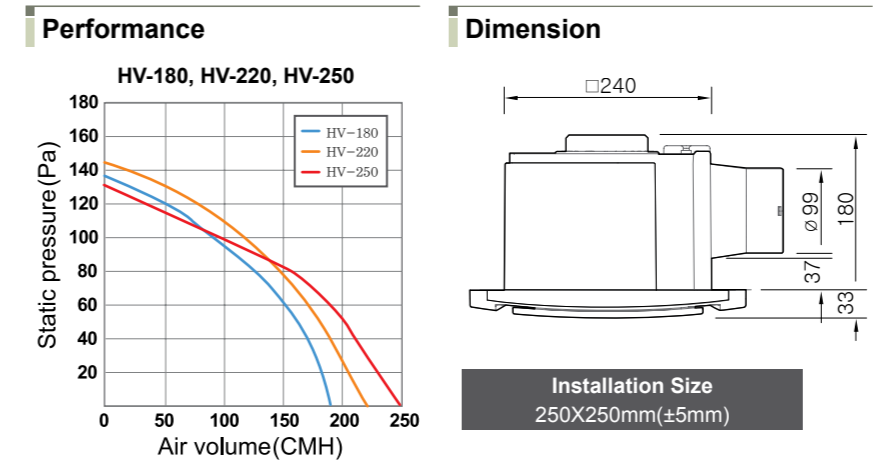


L2-80SM

- ▶ Low noise
- ▶ Diverse motion option
- ▶ Switch for strong/weak wind control
- ▶ Highly airtight reflux prevention damper
- ▶ Multi-branch



Medium static pressure exhaust fan(high air volume)

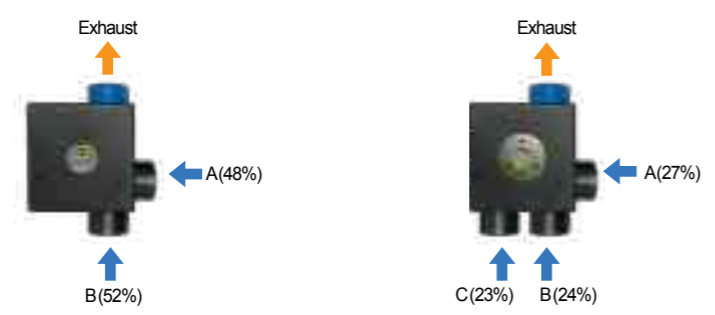


HV-180, HV-220, HV-250

- ▶ High air volume
- ▶ Low noise level
- ▶ Highly air tight damper preventing back flow
- ▶ Multi-branch



Air volume ratio according to branch



※ It is based on within 2.0m of flexible duct and differs according to installation state

MODEL	L2-80SM
Fixed pressure	25~250Pa
Air volume	250CMH (147CFM)
Power consumption	38W
Noise	36dB
Dimension	254(W) X 254(D) X 137(H)mm
Weight	2.2kg
Option	Multibranch

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 ※ This figure is the result of tests under 220V at 60Hz which is the Korean electricity standard and different results may result in other country in accordance with its standards.

Expansion Branch

Air volume ratio for branching

Branch type	2 Branches
Grille	70 %
Expansion branch	30 %

※ The ratio is for a flexible duct within 2m and may vary according to the installation condition.

Intake (Optional)

Intake (Optional)

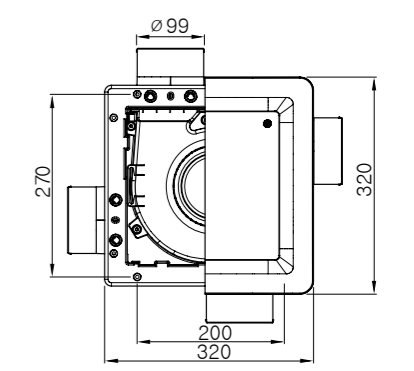
Exhaust

Intake (Optional)

Grille intake

Multibranch Option

Dimension of Grille



MODEL	HV-180	CE	HV-220	HV-250	SNI
Air Volume	180CMH(106CFM)		220CMH(129CFM)	250CMH(147CFM)	
Power Consumption	30W		31W	39W	
Noise (at 1m)	36dB		40dB	46dB	
Dimension	320(W) X 320(D) X 180(H)mm / Grille 320				
Weight	2.7kg				
Option	Multibranch, Power Lamp (L)				

※ The specification and the performance may be changed for improvement without notice.
 ※ This figure is the result of tests under 220V at 60Hz which is the Korean electricity standard and different results may result in other country in accordance with its standards.

Medium static pressure(high efficiency)

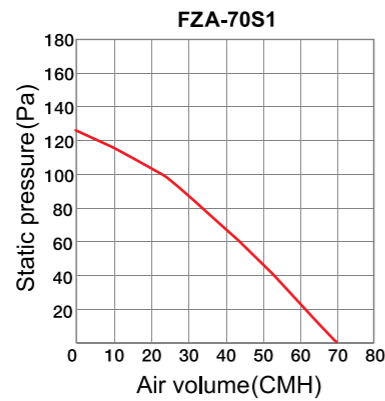


FZA-70S1

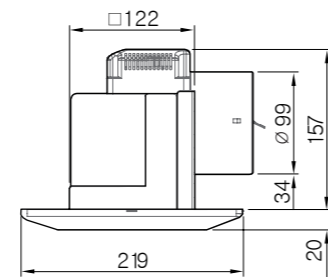
- ▶ Jet turbo impeller
- ▶ Super powerful magnetic damper preventing back flow
- ▶ Wide range of installation size (□125~□165)



Performance

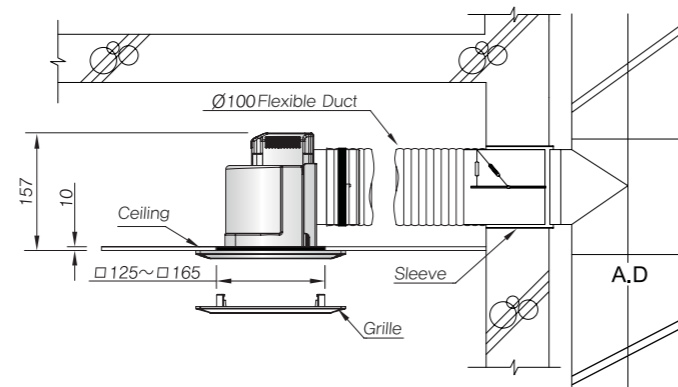


Dimension



Installation Size
□ 125mm~□ 165mm

Installation

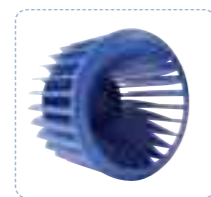


Grille



FZA-70S1
Size 219(W)X219(D)

Features



Jet turbo impeller

High performance and low noise level realized with optimum design of air flow



Anti-back flow magnetic damper

Foul odor prevented by employing neodymium magnet damper

MODEL	FZA-70S1
Air Volume	70CMH(41CFM)
Power Consumption	16.5W
Noise (at 1m)	36.5dB
Dimension	219(W) X 219(D) X 157(H)mm
Weight	1.2kg

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Medium static pressure(high efficiency)

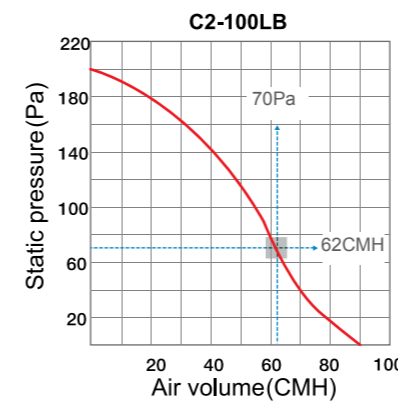


C2-100

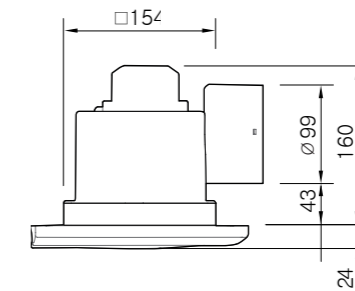
- ▶ Low noise level
- ▶ Highly air tight damper preventing back flow
- ▶ Applied the ball bearing motor



Performance

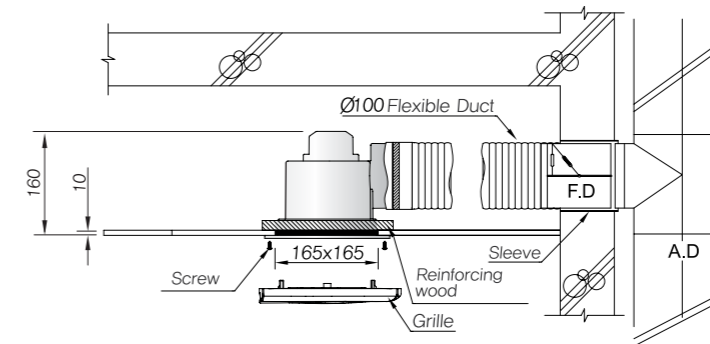


Dimension

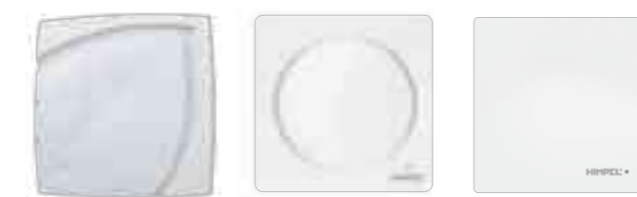


Installation Size
165X165mm(±5mm)

Installation

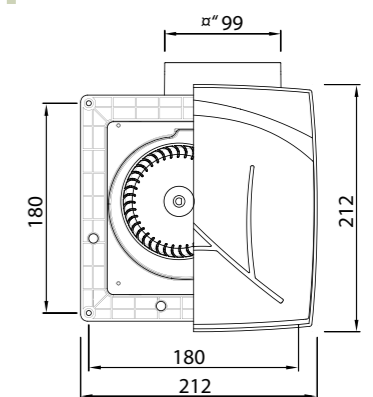


Grille



L Grille	M Grille	F Grille
Size 212(W)X212(D)	Size 205(W)X205(D)	Size 205(W)X205(D)

Dimension of Grille



MODEL	C2-100
Air Volume	90CMH (53CFM)
Power Consumption	22W
Noise (at 1m)	38dB
Dimension	205(W) X 205(D) X 160(H)mm
Weight	1.4kg

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Low static pressure exhaust fan

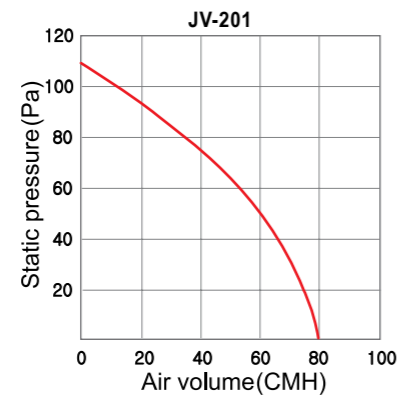


JV-201

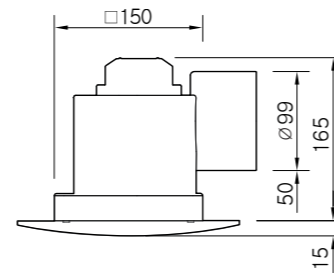
- ▶ Centrifugal multi-blade fan
- ▶ Low noise level
- ▶ Highly air tight damper preventing back flow



Performance

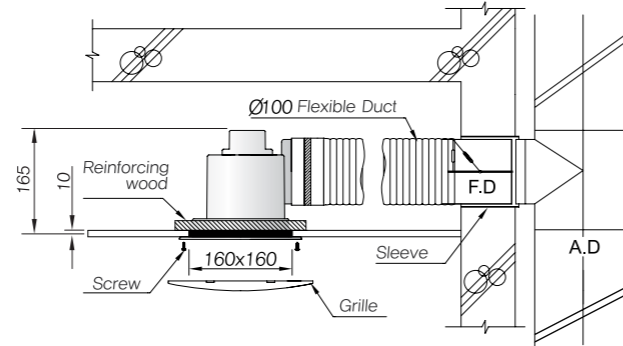


Dimension

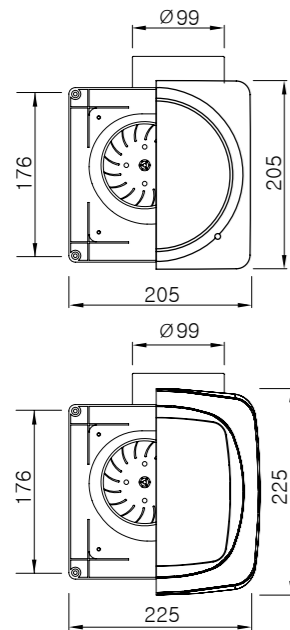


Installation Size
160X160mm(±5mm)

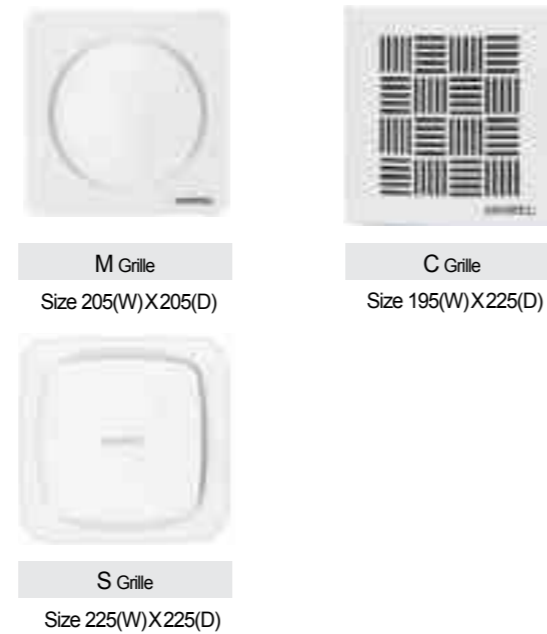
Installation



Dimension of Grille



Grille

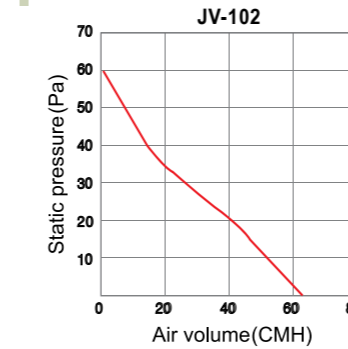


MODEL	Air Volume	Power Consumption	Noise (at 1m)	Weight
JV-201	80CMH(47CFM)	12W	38dB	0.9kg

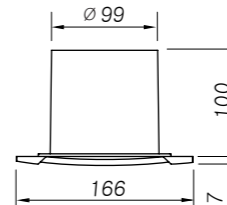
※ The specification and the performance may be changed for improvement without notice.
 ※ This figure is the result of tests under 220V at 60Hz which is the Korean electricity standard and different results may result in other country in accordance with its standards.

Low static pressure exhaust fan

Performance



Dimension



Installation Size
100X100mm(±5mm)

Grille



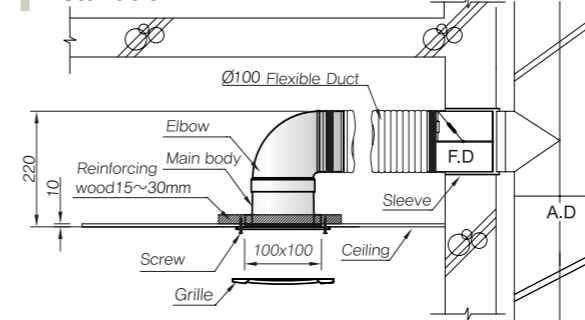
JV-102
Size 170(W)X170(D)



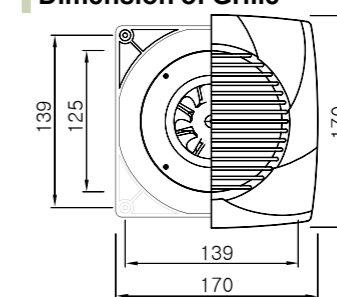
JV-102

- ▶ Axial-flow turbo fan

Installation



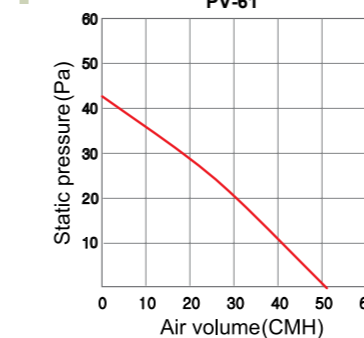
Dimension of Grille



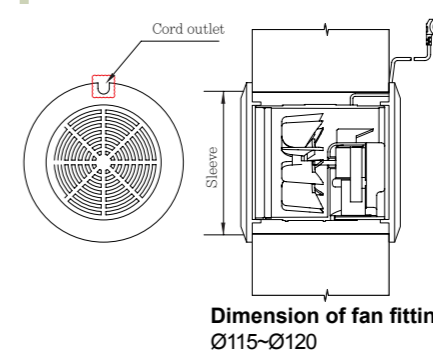
MODEL	Air Volume	Power Consumption	Weight	Noise(at 1m)
JV-102	60CMH(35CFM)	10W	720g	38dB

Low static pressure (pipe fan)

Performance PV-61

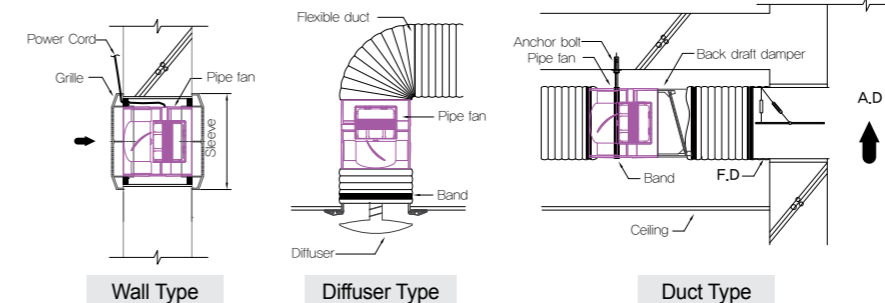


Installation



PV-61

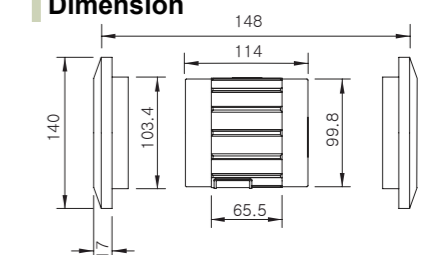
- ▶ Multipurpose pipe fan
- ▶ Enhanced durability by application of ball bearings
- ▶ Installation on various places including ceiling and wall made possible by its compact size and light weight



MODEL	Air Volume	Power Consumption	Weight	Noise(at 1m)
PV-61	50CMH(29CFM)	10W	640g	33dB

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Dimension

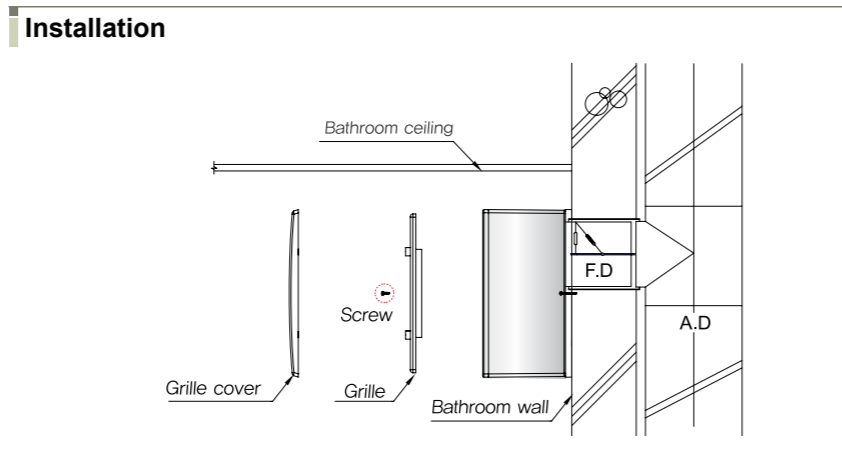
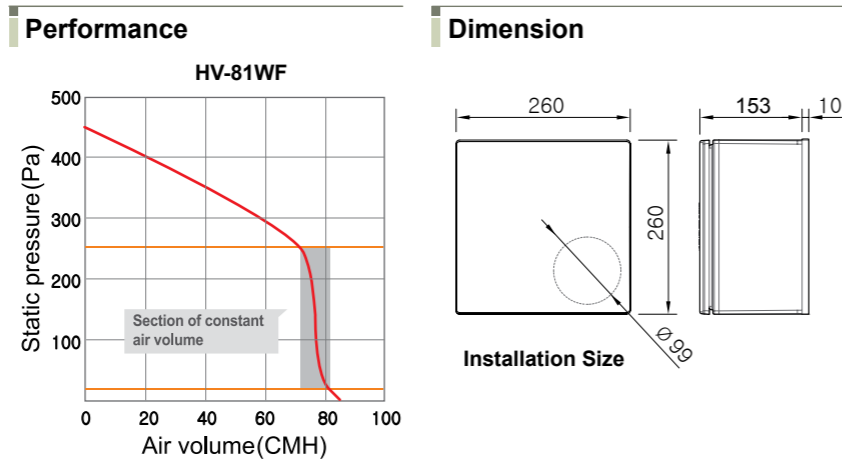


High static pressure(constant air volume, wall-mounted type)

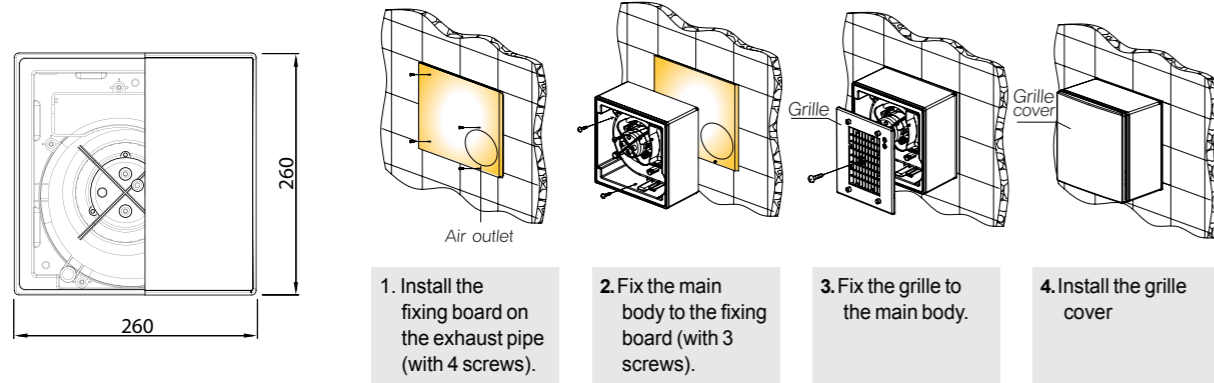


HV-81WF

- ▶ Constant air volume and high static pressure
- ▶ Wall mounted type
- ▶ Highly air tight damper preventing back flow
- ▶ Easy installation (Rotational 360 degrees, can be installed in 4 directions)
- ▶ Certification of constant air volume at bathroom



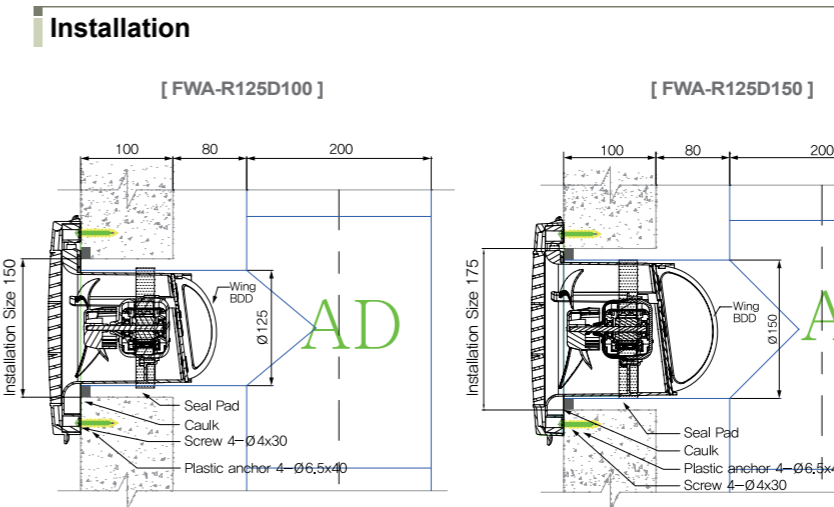
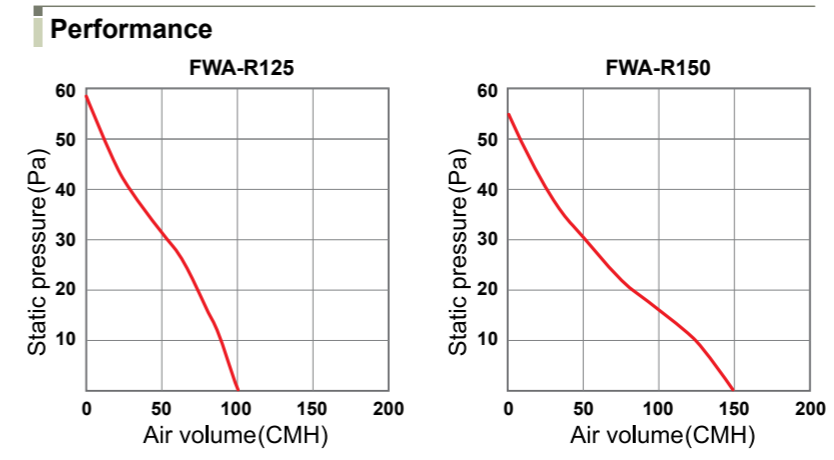
Dimension of Grille



MODEL	HV-81WF (constant air volume, wall mounted type)
Static Pressure	25~250Pa
Constant Air Volume	75CMH (44CFM)
Air Volume	67.5~82.5CMH(40~49CFM)
Power Consumption	31W
Noise (at 1m)	38.7dB
Weight	3.3kg
Options	-

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Wall mounted exhaust fan

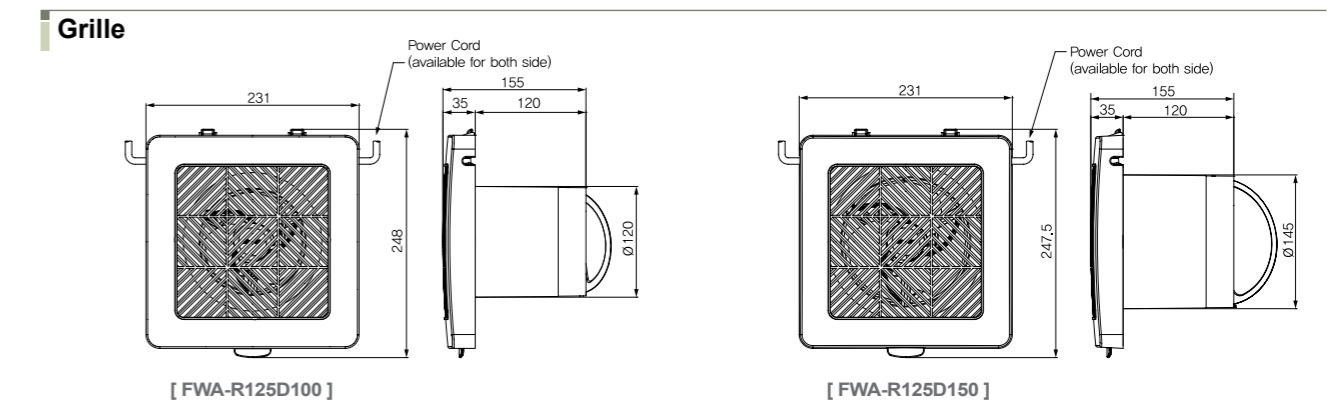


FWA-R125D100



FWA-R125D150

- ▶ Highly air tight damper preventing back flow
- ▶ Low power consumption low noise
- ▶ Easy installation
- ▶ Simple and luxurious design
- ▶ Duct type



MODEL	FWA-R125D100	FWA-R125D150
Static Pressure	43Pa	46Pa
Air Volume	100CMH(59CFM)	150CMH(88CFM)
Power Consumption	22W	25W
Noise (at 1m)	45dB	45dB
Size	231(W) x 155(D) x 248(H)mm	231(W) x 155(D) x 248(H)mm
Weight	1.1kg	1.1kg

※ The specification and the performance may be changed for improvement without notice.
 ※ This figure is the result of tests under 230V at 50Hz and different results may result in other country in accordance with its standards.

Wall mounted exhaust fan

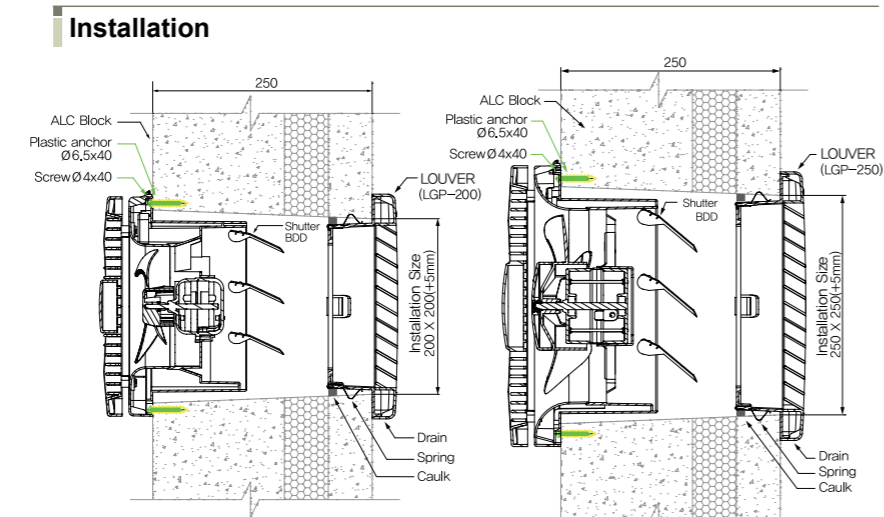
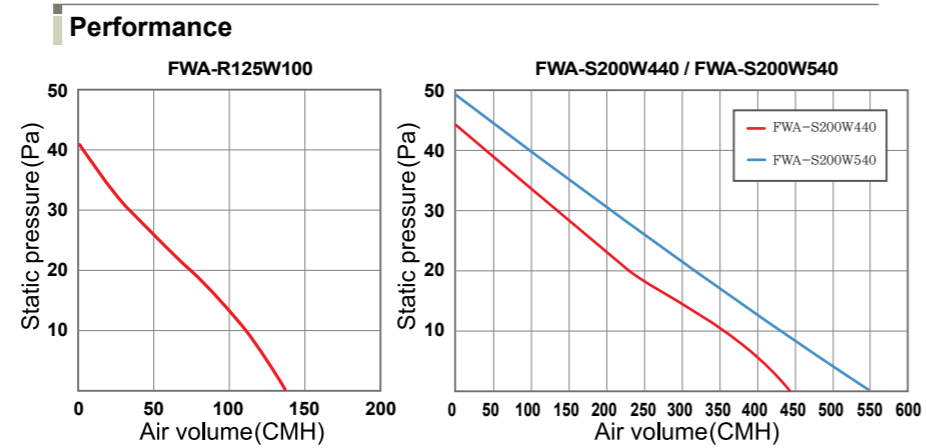


FWA-R125W100

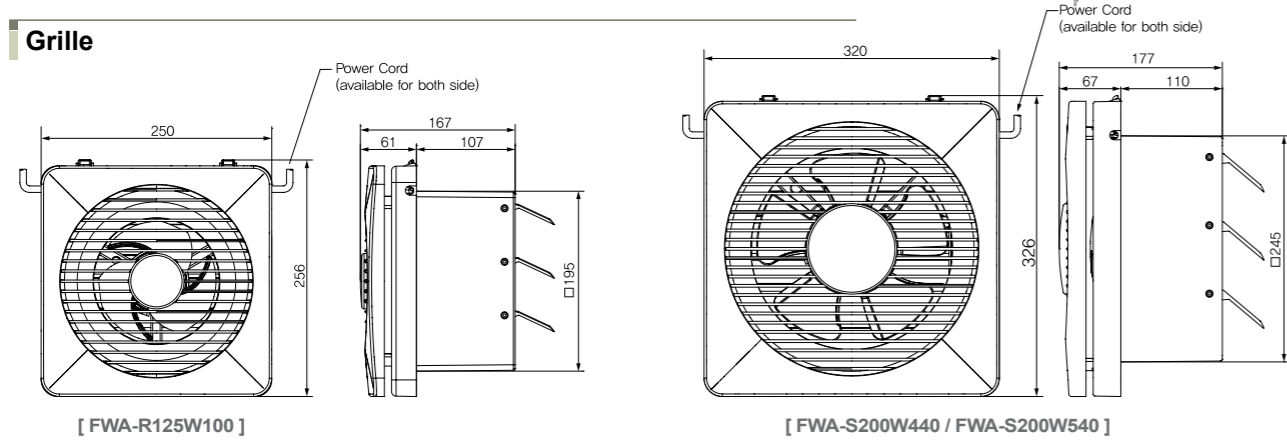


FWA-S200W440
FWA-S200W540

- ▶ Preventing inflow of dust and sand with gravity shutter
- ▶ Low power consumption low noise
- ▶ Easy installation
- ▶ Simple and luxurious design



Grille



MODEL	FWA-R125W100	FWA-R200W440	FWA-R200W540
Static Pressure	41Pa	44Pa	49Pa
Air Volume	140CMH(82CFM)	440CMH(259CFM)	540CMH(318CFM)
Power Consumption	25W	32W	33W
Noise (at 1m)	45dB	45dB	45dB
Dimension	250(W) x 168(D) x 256(H)mm	320(W) x 177(D) x 326(H)mm	
Weight	1.5kg	2.7kg	

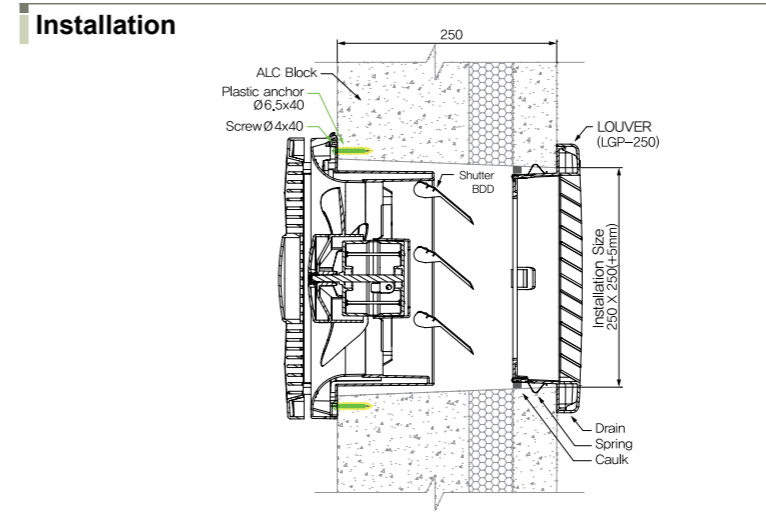
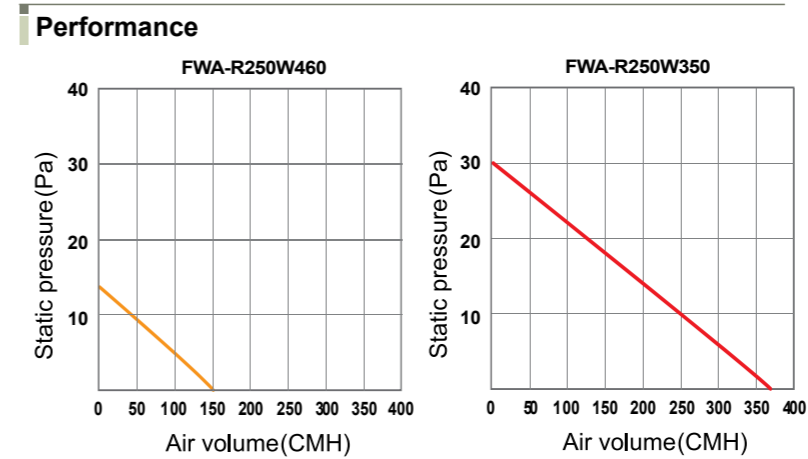
※ The specification and the performance may be changed for improvement without notice.
 ※ This figure is the result of tests under 220V at 60Hz which is the Korean electricity standard and different results may result in other country in accordance with its standards.

Wall mounted exhaust fan

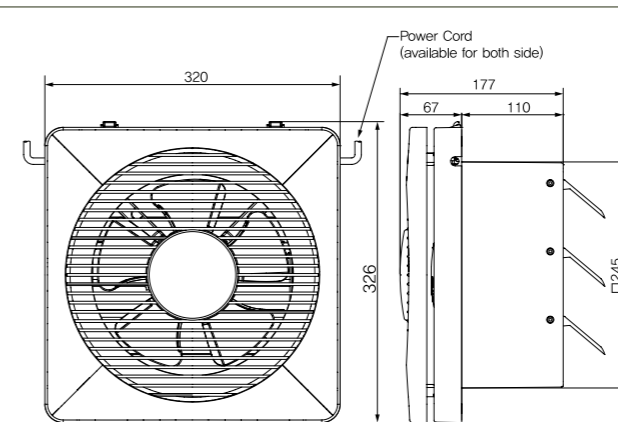


FWA-S250W350
FWA-S250W460

- ▶ Preventing inflow of dust and sand with gravity shutter
- ▶ Low power consumption low noise
- ▶ Easy installation
- ▶ Simple and luxurious design



Grille



MODEL	FWA-S250W350	FWA-S250W460
Static Pressure	30Pa	50Pa
Air Volume	360CMH(212CFM)	460CMH(271CFM)
Power Consumption	19W	24W
Noise (at 1m)	Under 40dB	Under 50dB
Dimension	320(W) x 177(D) x 326(H)mm	
Weight	2.7kg	

※ The specification and the performance may be changed for improvement without notice.
 ※ This figure is the result of tests under 230V at 50Hz and different results may result in other country in accordance with its standards.

Smart thermo ventilator for all seasons



Why should the bathroom be warm ?

Temperature Difference After a Bath | Blood Pressure Change at Bathing Time



Blood pressure rapidly rises after getting into the bathtub and drastically drops at the moment of getting out of the bathtub, causing damage to blood vessels. The elderly or babies particularly susceptible to temperature change need more precautions.



Recommendation

Students and office workers in a hectic morning

You can multitask while drying your hair and body with an automatic turn-off timer.

Homemakers are struggling with germs and odor

Strong ventilation and plasma anion completely removes molds, various germs and the backflow of odor!

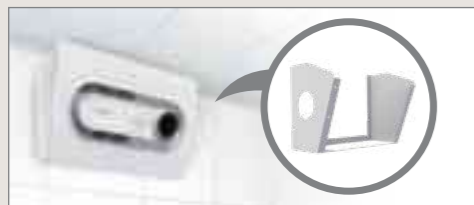
The elderly and children for whom safety And convenience is the No.1 priority

Pleasant and safe bath with a warm bathroom environment in winter for the elderly and children who are sensitive to temperature change!

Features

- Pleasant ventilation
- Warm air
- Dehumidification & Dry laundry
- Hair & Body dry
- 2018 GOOD DESIGN

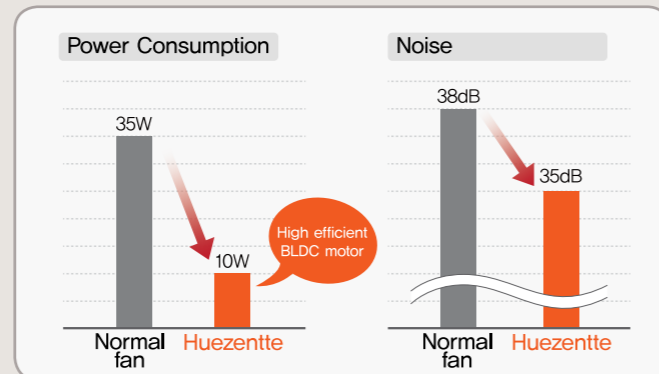
Can be installed on wall with dedicated bracket (angle)!



- You can avoid cracking of the tile only if you use tip used exclusively for tiles.
- You must have extra space of 30cm to take out the filter on the right side prior to installation of the product.

※ Bracket for exclusive use for wall hanging (optional item)

Power consumption and Noise DOWN!



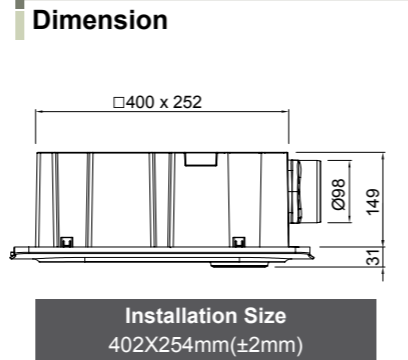
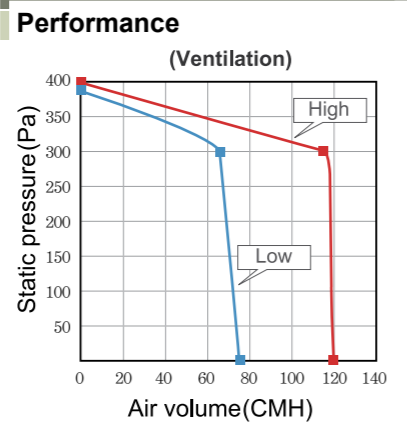
* Compare at Huezentte 'Low Ventilation' mode

Thermo ventilator (premium type)



FHD-P150S1

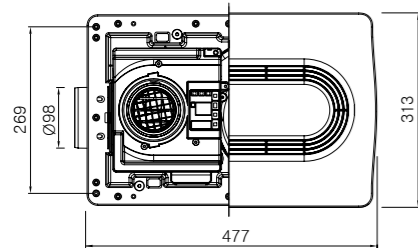
- ▶ 5-steps safety devices (Waterproof, Current fuse, Bimetal, Thermosensor, Thermal fuse)
- ▶ Highly airtight reflux prevention damper
- ▶ Can control high/low air volume
- ▶ pre-filter
- ▶ Wireless remote controller
- ▶ Applied PTC heater



Wireless Remote Controller function

Button	Functions
	Turns the power ON and OFF
	Sets the ventilator. Click once: High / Click 2 times: Low
	Sets warm air. Click once: High / Click 2 times: Low
	Sets hair and body dry function. Click once: High / Click 2 times: Low
	Sets drying function. Click once: High
	Click once: cool wind / Click 2 times: change to warm wind
	Timer function. Click ^ button once: 30 minutes / Click 2 times: 1 hour / Click 3 times: 2 hours (Max: 2 hours)
	Indicates the need to replace filter. Click v and ^ buttons simultaneously.

Dimension of Grille



Items	Warm air	Exhaust	Dehumidify	Hair/body dry
FHD-P150S1	o	o	o	o
Wind volume (CMH)	H	90(53CFM)	120(71CFM)	150(88CFM)
	L	70(41CFM)	80(47CFM)	100(59CFM)
Power consumption (W)	H	1,300	13	650(warm) / 1,500(warm)/50(cool)
	L	1,200	10	20(cool) / 1,300(warm)/20(cool)
Noise (dB)	H	45	43	58
	L	38	35	45
Fixed pressure (Pa)	H	-	360	-
	L	-	320	-
Dimension	477(W) X 313(D) X 180(H)mm			
Connecting duct	Exhaust: Ø100mm			
Weight	4.9kg			

Controlled operation with fixed pressure and constant air volume

Air volume will not drop even if the resistance loss increases, thereby maintaining pleasant environment in the bathroom throughout 4 seasons by consistently discharging indoor air all the time.

Applied high-efficiency BLDC motor

Enhance satisfaction of customer through energy savings by applying highly efficient BLDC motor (Reduce power consumption, realize fixed pressure and low noise)

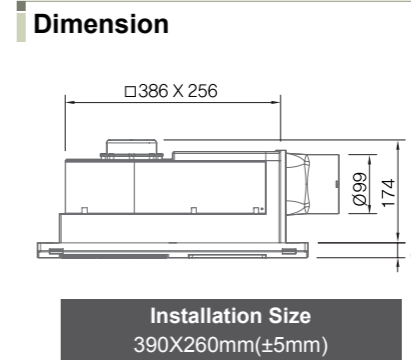
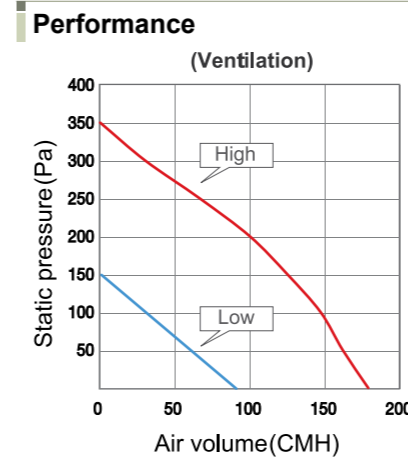
※ The specification and the performance may be changed for improvement without notice.
 ※ This figure is the result of tests under 220V at 60Hz which is the Korean electricity standard and different results may result in other country in accordance with its standards.

Thermo ventilator



FHA-P180S

- ▶ Triple safety system (bimetal, temperature sensor and fuse)
- ▶ Anti-backflow damper of odor (patented)
- ▶ Air volume control in two steps
- ▶ Pre-filter
- ▶ Remote controller
- ▶ PTC heater
- ▶ Super Plasma Ion



Features

Pleasant ventilation

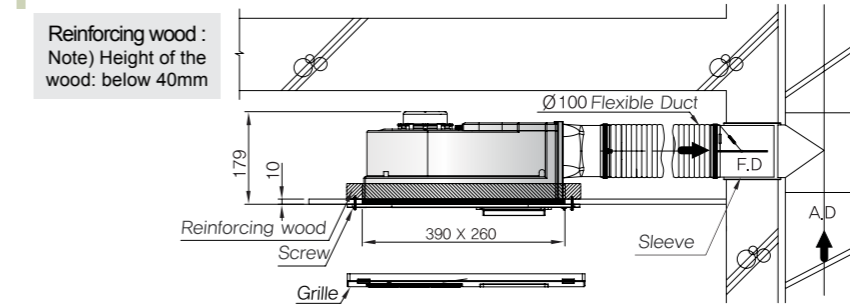
Warm air

Dehumidification & Dry laundry

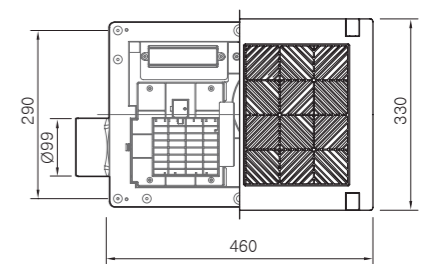
Hair & Body dry

Circulation

Installation



Dimension of Grille



Item	Heating	Dry	Circulation	Exhaust	Hair dry	
Air Volume (CMH)	H	Circulation 150 (88CFM)	Ventilation 80(47CFM) / Circulation 110(65CFM)	Ventilation 80(47CFM) / Circulation 110(65CFM)	180(106CFM)	Circulation 200(118CFM)
	L	Circulation 110	-	-	89	-
Power Consumption (W)	H	1,700	1,600	65	64	1,800
	L	1,000	-	-	45	84(Circulation)
Noise (dB) (at 1m)	H	52	54	54	49	58
	L	45	-	-	37	-
Static Pressure (Pa)	H	-	130	130	350	-
	L	-	-	-	150	-
Dimension	460(W) X 330(D) X 182(H)mm					
Connection Duct	Exhaust: Ø100mm					
Weight	5Kg					

※ The specification and the performance may be changed for improvement without notice.
 ※ This figure is the result of tests under 220V at 60Hz which is the Korean electricity standard and different results may result in other country in accordance with its standards.

Removal of microorganism function

It eliminates or neutralize harmful substances and provides health air. It decomposes moisture in the air to generates a large amount of active hydrogen ions and oxygen ions that remove viruses and substances that cause allergic reaction.

Thermo ventilator (dedicated switch type)



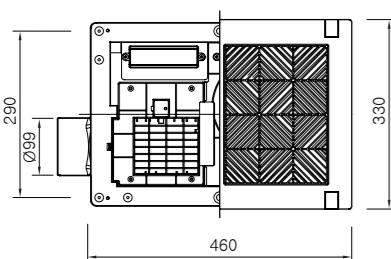
FHA-S130R

- ▶ Triple safety devices (bimetal, temperature sensor, temperature fuse)
- ▶ Highly airtight reflux prevention damper
- ▶ Pre-filter
- ▶ PTC heater

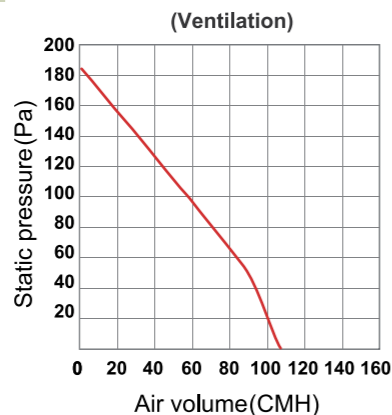


※ Separately sold item

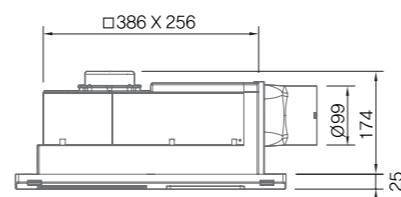
Dimension of Grille



Performance

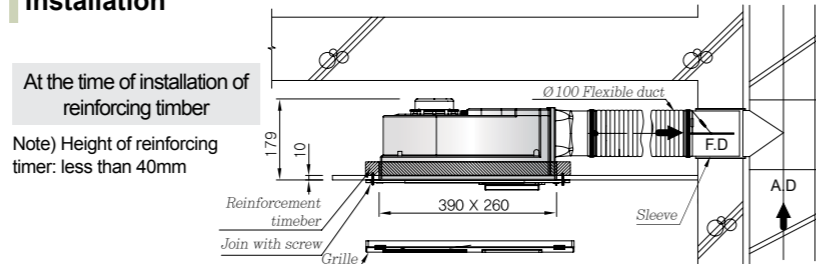


Dimension

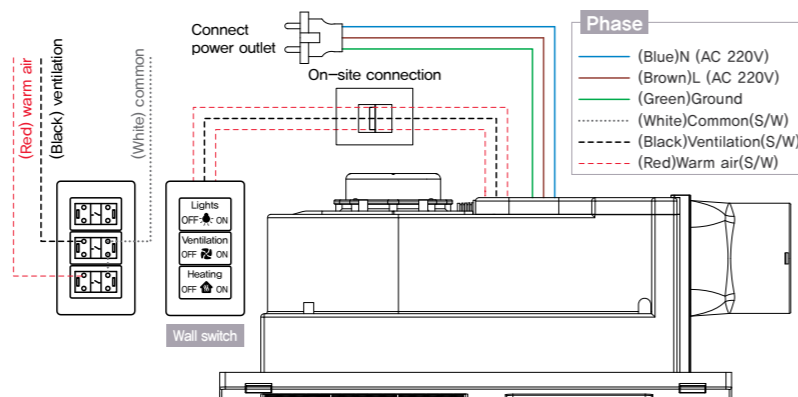


Installation Size
390X260mm(±5mm)

Installation



Wiring diagram



- ※ Make sure to abide by the plug specifications
- ※ Prohibition of connecting 220V power supply to ventilation S/W (product will breakdown when 220V power is connected)

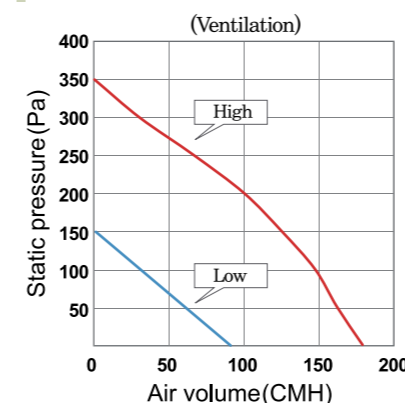
[Specifications of AC220V power cable]
VCTF 3C X 1mm², 10A

Items	Warm air	Exhaust	Dehumidify/Dry
Air volume (CMH)	130(77CFM)	110(65CFM)	50(29CFM)
Power consumption (W)	1,300	28	1,300
Noise (dB)	48	43	48
Fixed pressure (Pa)	120	180	60
Dimension	460(W) x 330(D) x 182(H)mm		
Connecting duct	Exhaust: Ø100mm		
Weight	Approximately 5kg		

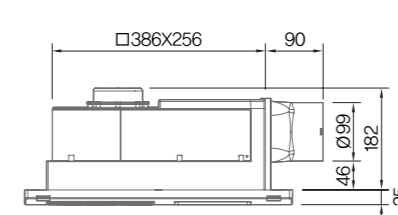
※ The specification and the performance may be changed for improvement without notice.
※ This figure is the result of tests under 220V at 60Hz which is the Korean electricity standard and different results may result in other country in accordance with its standards.

Thermo ventilator(freeze protection)

Performance



Dimension



Installation Size
390X260mm(±5mm)

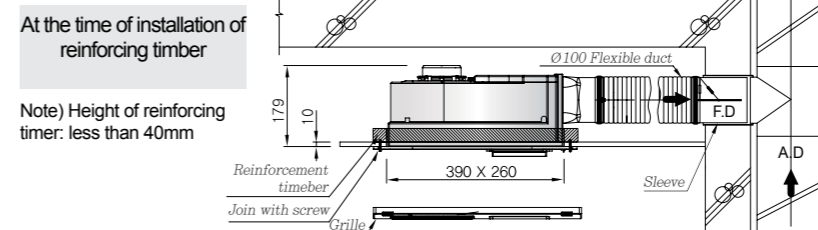


FHA-S180DB

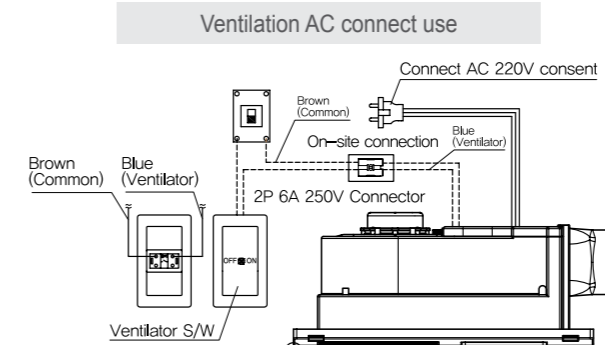
- ▶ Freeze protection mode (Temperature sensor & auto operation)
- ▶ Triple safety system (Bimetal, Temperature sensor, Fuse)
- ▶ Highly air tight damper preventing back flow
- ▶ High/Low air volume control
- ▶ Pre-filter
- ▶ Remote controller
- ▶ PTC heater



Installation



Wiring diagram



※ Site wire specifications: AWG 18(1.0SQ or more than)

Item	Heating			Exhaust			Freeze protection			
	Model	S180DB	S150DB	S100DB	S180DB	S150DB	S100DB	S180DB	S150DB	S100DB
Power Consumption (W)	H	1,500	1,500	1,000	68	32	32	1,800	1,500	1,000
	L				48	27	27			
Model	S250DB	S200DB	S250DB	S200DB	S250DB	S200DB	S250DB	S200DB		
Power Consumption (W)	H	2,500	2,000		32	32		2,500	2,000	
	L				27	27				
Air volume(CMH)	-			220			-			
Dimension	460(W) x 330(D) x 174(H)mm									
Connection Duct	Exhaust: Ø100mm									
Weight	5kg									

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※ This figure is the result of tests under 220V at 60Hz which is the Korean electricity standard and different results may result in other country in accordance with its standards.

■ Ventilation System

This is a system that discharges polluted indoor air out of the room and intakes fresh outdoor air into the room to maintain healthy quality of indoor air.



WWW.HIMPEL.CO.KR

	Energy recovery ventilation(ERV) HRD-50C, HRD-70C	38
	Energy recovery ventilation HRD-100C	40
	EPP Energy recovery ventilation HRD-EP150I(DS), HRD-EP200I(DS), HRD-EP250I(DS)	42
	EPP Energy recovery ventilation(bypass) HRD-EP150IB(DS), HRD-EP200IB(DS), HRD-EP250IB(DS)	43
	EPP Energy recovery ventilation(slim type) HRD-EP100IBSN, HRD-EP150IBSN	44
	Floor-mounted energy recovery ventilation HRD-EG350S	45
	Energy recovery ventilation HRE-S150, HRE-S200(D), HRE-S250(D), HRE-300, HRE-350(D)	46
	Energy recovery Ventilation(mid, big-size) HRE-500(D), HRE-800(D), HRE-1000(D)	47
	Ventilation system for shoe cabinet FZA-C110S, L2-150, L2-250	48
	Ventilation system for elevator hall L2-250, L2-300, HV3-80X(MD)	49

Energy recovery ventilation(non-duct type)



HRD-50C
HRD-70C



Control unit Remote control unit

+ Special advantages

- Cross-flow high-efficiency heat exchanger
- Energy-saving by heat energy recovery mechanism
- High efficiency BLDC motor / Low noise fan

+ Basic functions

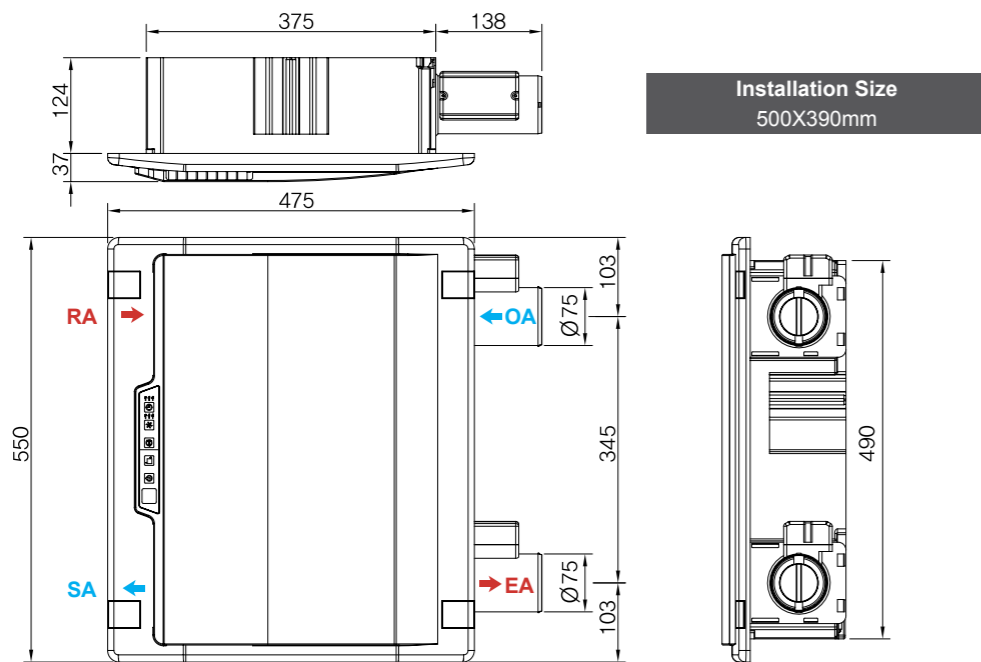
- Air volume is controlled by 3 stages of High/Medium/Low
- Auto ventilation ■ Timer
- Filter checking alarm

+ Filter cartridge

- Air pollutant removal, dust, smoke, yellow-dust prevention
- HEPA filter, Deodorization filter (Options)

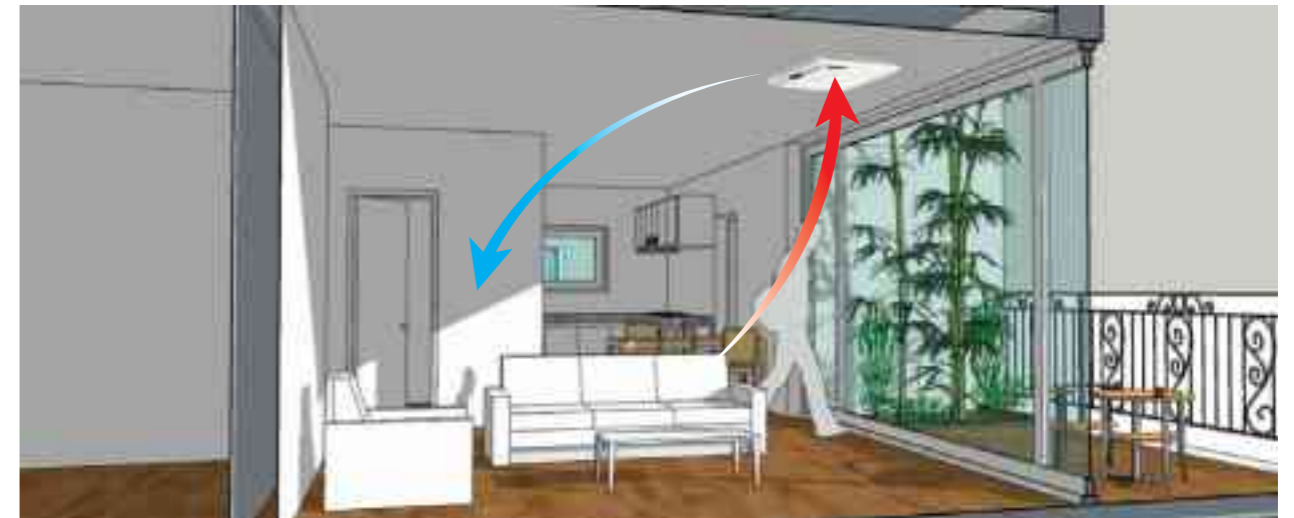


Dimension



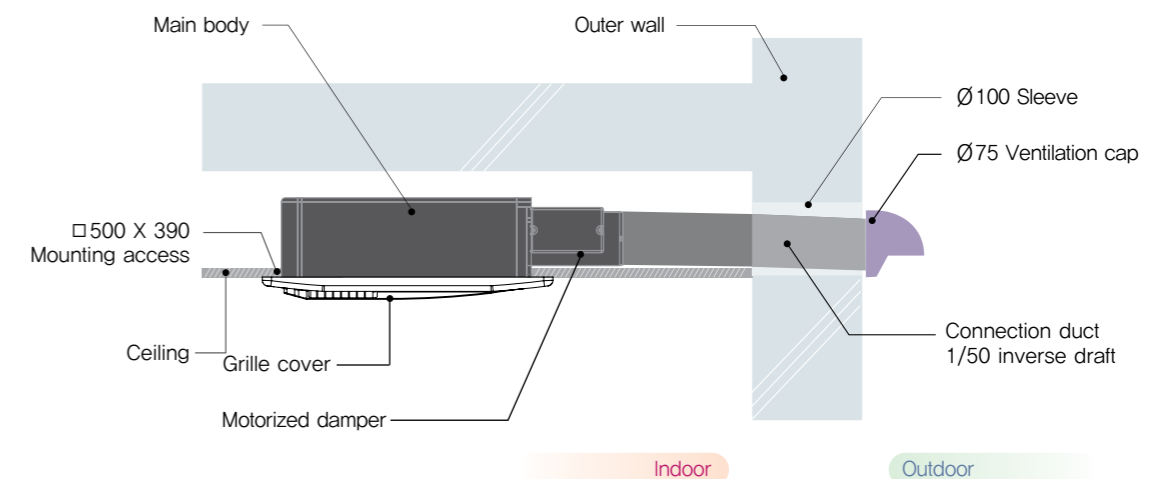
MODEL	HRD-50C			HRD-70C		
	High	Medium	Low	High	Medium	Low
Mode	High	Medium	Low	High	Medium	Low
Air Volume	55CMH (32.4CFM)	50CMH (29.4CFM)	30CMH (17.7CFM)	75CMH (44.1CFM)	70CMH (41.2CFM)	50CMH (29.4CFM)
Power Consumption	20W	16W	12W	28W	24W	16W
Noise (at 1.5m)	40dB	38dB	32dB	44dB	43dB	38dB
Heat efficiency (Enthalpy)	Heating 73%, Cooling 60%			Heating 77%, Cooling 60%		
Product dimension	Body 550(W)X475(D)X124(H)mm, Grille cover 550(W)X475(D)X37(H)mm					
Connection Duct	Inlet Ø75, Outlet Ø75					

※ The specification and the performance may be changed for improvement without notice.
 ※ This figure is the result of tests under 220V at 60Hz which is the Korean electricity standard and different results may result in other country in accordance with its standards.



- High efficiency Heat Recovery Ventilation Unit of ceiling-insert cassette type for the first time in Korea
- Upward 30% of the construction cost reduction compared with the current inserted duct type
- As the control by each room is possible so the required room only can be operated, unnecessary operation cost can be reduced
- When the indoor air supply (SA) temperature drops in the severe cold season, it sense the air supply temperature so control the air supply exhaust air volume (operation mode in the severe cold season)
- It apply a motor damper (MD) on the outside air (OA)/exhaust (EA) side so prevent the condensing and the outside air flow
- As the product height is slim with 120mm, easy to install

Installation



Energy recovery ventilation



HRD-100C



Control unit Remote control unit

- Special advantages**
 - Cross-flow high-efficiency heat exchanger
 - Energy-saving by heat energy recovery mechanism
 - High efficiency BLDC motor / Low noise fan
 - Multi-branch
- Basic functions**
 - Air volume is controlled by 3 stages of High/Medium/Low
 - Auto ventilation ■ Timer
 - Filter checking alarm
 - Bypass(Options)
- Filter cartridge**
 - Air pollutant removal, dust, smoke, yellow-dust prevention
 - HEPA filter, Deodorization filter (Options)

Grille



F Grille

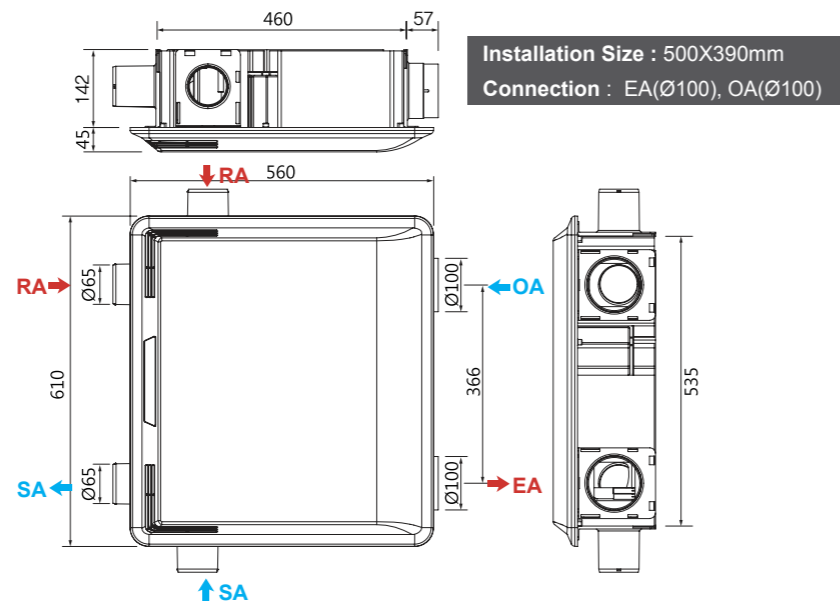
Size : 620(W) X 560(D) X 45(H)



DS Grille

Size : 620(W) X 560(D) X 39(H)

Dimension

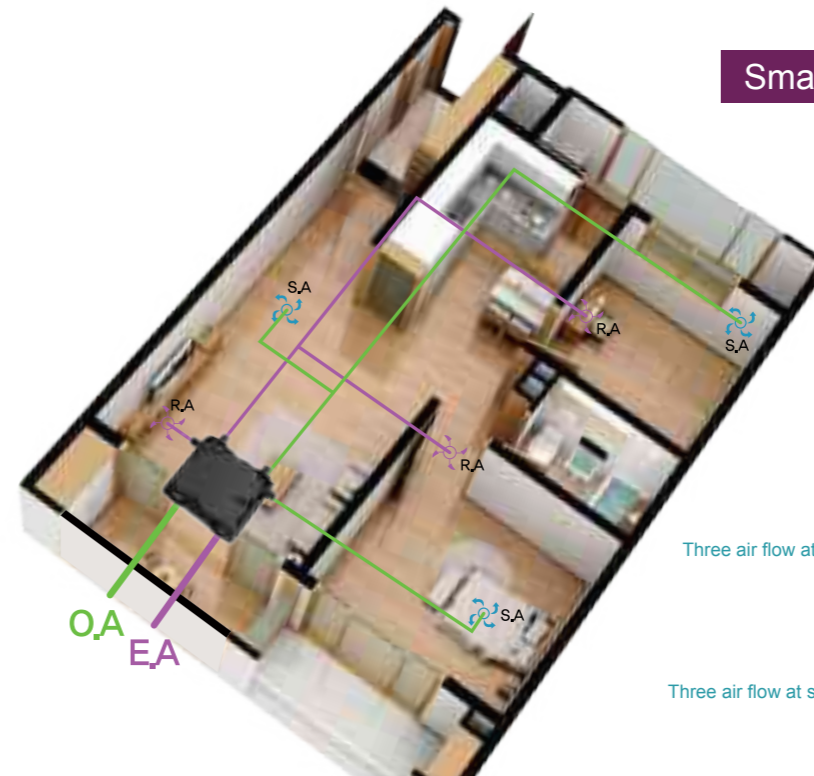


Specifications

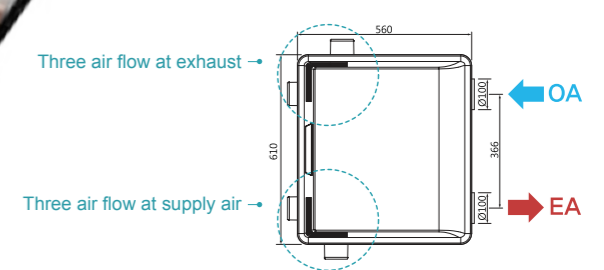
Model	HRD-100C (BLDC)		
Ventilating mode	High	Medium	Low
Air volume	110CMH(65CFM)	100CMH(59CFM)	70CMH(41CFM)
Power Consumption	33W	27W	20W
Noise (at 1m)	Under 40dB		
Filter	Pre + HEPA filter		
Heat efficiency(Enthalpy)	Heating 75%, Cool(at 1.5m) 70%		
Dimension	610(W) X 560(D) X 142(H)mm		
Connecting duct	InletØ65, OutletØ100		
Weight	9Kg		
Options	Wired room controller, RS485 network, Home network, Bypass(Options)		

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 ※ This figure is the result of tests under 220V at 60Hz which is the Korean electricity standard and different results may result in other country in accordance with its standards.

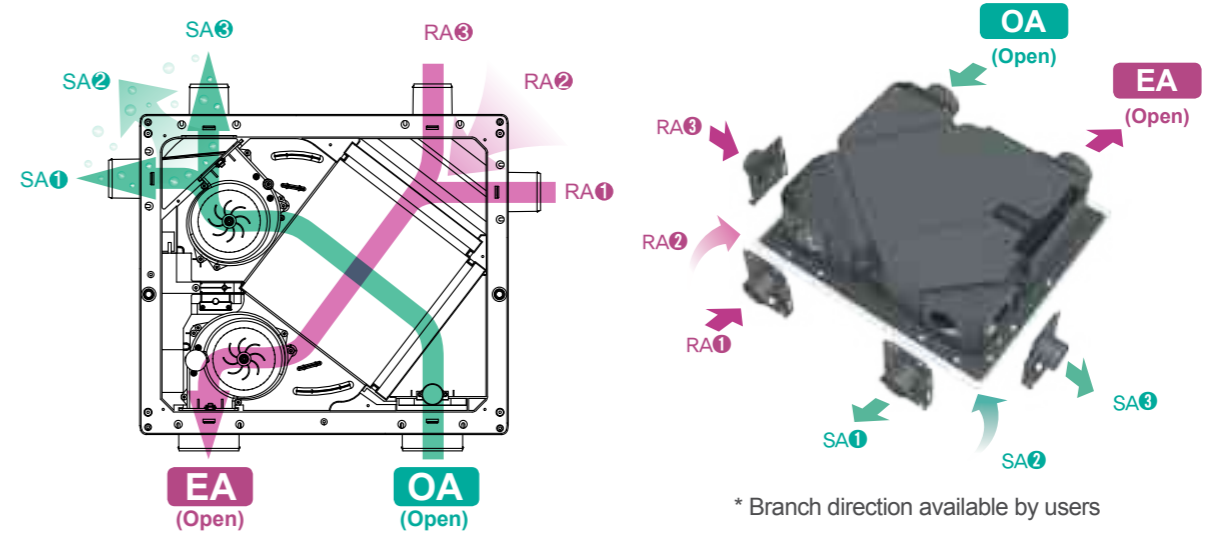
Ventilation system “HUEVEN” is necessary for removing micro dust and dealing with improving indoor air quality.



Smart air cleaning unit, Hueven
huevenC



Normal heat exchange, 3-side supply air, 3-side exhaust air



* Branch direction available by users

Relative size comparison of micro dust


※ µm (micrometer): $\frac{1}{10^6}$ m

Influence of micro dust on human body

Eye conjunctivitis, keratitis
 Nose allergic, rhinitis
 bronchial tube bronchitis, pulmonary emphysema, asthma
 Micro dust penetrates into alveolus and damage lung

EPP Energy recovery ventilator

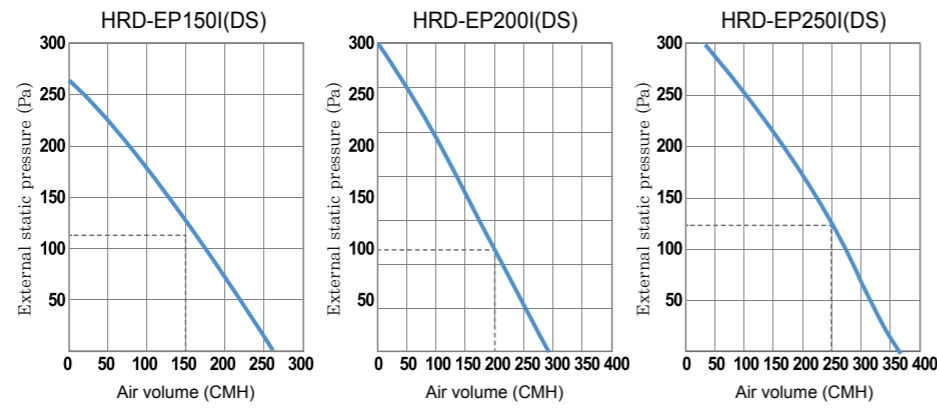


HRD-EP150I(DS)
HRD-EP200I(DS)
HRD-EP250I(DS)  Korea standard



Remote control unit

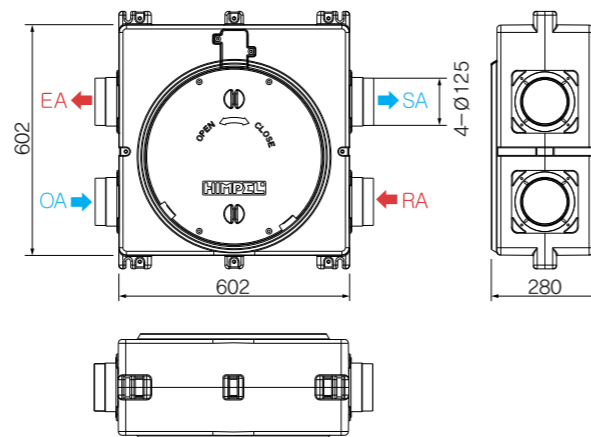
Performance



EPP = Expanded Poly Propylene

- A product foamed with a particle shape without creating chemical change inside after physically foaming the Poly Propylene not using any chemical foaming agent
- Features on raw material
 - Foaming constitution of the globular particle state
 - Pure PP ingredient
 - Separate coloring is possible
 - EPP waste energy recovery ventilating device product foaming rate: Below 8 times(density 0.1125g.cm³)
- Features on molded goods
 - 100% recycling is possible → Environment-friendly
 - Flameproof treatment of the UL flameproof standard level, self-extinguishing function
 - High mechanical strength
 - High insulating performance and minimization against frostiness problem
 - Light weight-oriented → Installation cost reduction
 - Sound absorption maximization → Noise minimization (40dB minimization)

Equipment's external drawing

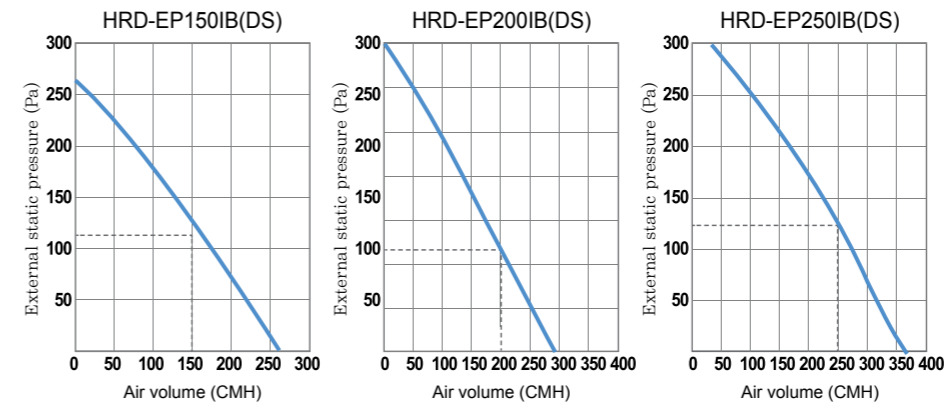



MODEL	HRD-EP150I(DS)			HRD-EP200I(DS)			HRD-EP250I(DS)			
	High	Medium	Low	High	Medium	Low	High	Medium	Low	
Mode	High	Medium	Low	High	Medium	Low	High	Medium	Low	
Air volume	170CMH (100CFM)	150CMH (88CFM)	130CMH (77CFM)	220CMH (129CFM)	200CMH (118CFM)	180CMH (106CFM)	270CMH (159CFM)	250CMH (147CFM)	230CMH (135CFM)	
Power Consumption	62W	49W	37W	90W	77W	66W	115W	105W	94W	
Noise	Below 50dB									
Energy recovery efficiency	Heating	77%			72%			71%		
	Cool(at 1.5m)	66%			62%			60%		
Filter	Pre + Medium filter (Option : HEPA filter)									
Weight	9kg									
Product dimension	602(W) X 602(D) X 280(H)mm									
Connecting duct	Ø125			Ø125			Ø125, Ø150			

※ The specification and the performance may be changed for improvement without notice.
※ This figure is the result of tests under 220V at 60Hz which is the Korean electricity standard and different results may result in other country in accordance with its standards.

EPP Energy recovery ventilator(bypass)

Performance

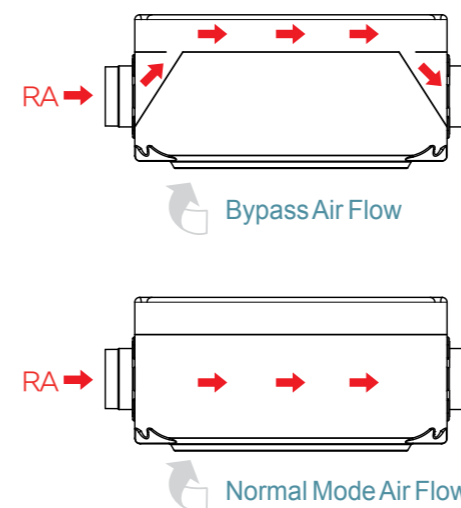


HRD-EP150IB(DS)
HRD-EP200IB(DS)
HRD-EP250IB(DS)  Korea standard

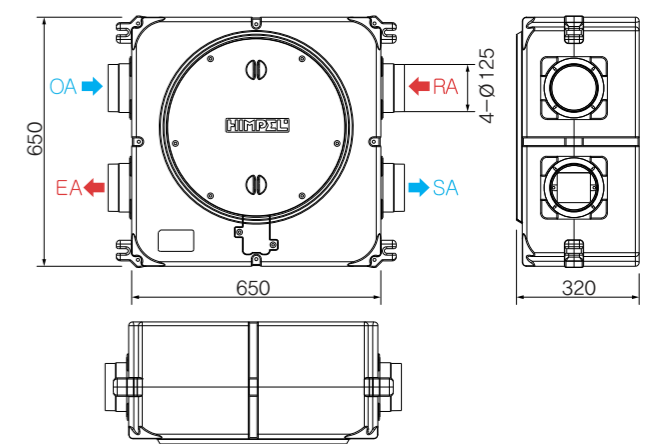


Remote control unit

Bypass Structure



Equipment's external drawing




MODEL	HRD-EP150IB(DS)			HRD-EP200IB(DS)			HRD-EP250IB(DS)			
	High	Medium	Low	High	Medium	Low	High	Medium	Low	
Mode	High	Medium	Low	High	Medium	Low	High	Medium	Low	
Air volume	170CMH (100CFM)	150CMH (88CFM)	130CMH (77CFM)	220CMH (129CFM)	200CMH (118CFM)	180CMH (106CFM)	270CMH (159CFM)	250CMH (147CFM)	230CMH (135CFM)	
Power Consumption	58W	48W	39W	87W	71W	61W	116W	104W	90W	
Noise	50dB									
Energy recovery efficiency	Heating	80%			75%			71%		
	Cool(at 1.5m)	68%			63%			61%		
Filter	Pre + HEPA filter						Pre + Medium filter			
Weight	10kg									
Product dimension	650(W) X 650(D) X 320(H)mm									
Connecting duct	Ø125									

※ The specification and the performance may be changed for improvement without notice.
※ This figure is the result of tests under 220V at 60Hz which is the Korean electricity standard and different results may result in other country in accordance with its standards.

EPP Energy recovery ventilator(slim type)

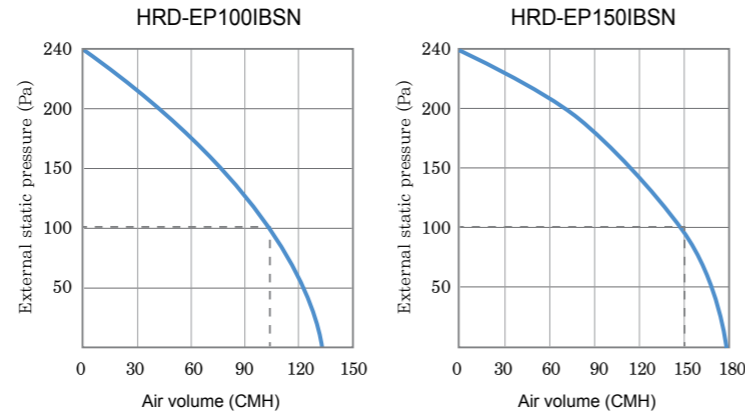


HRD-EP100IBSN
HRD-EP150IBSN  Korea standard

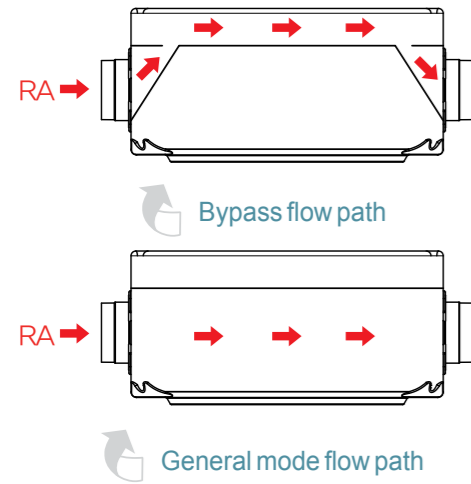


Remote control unit

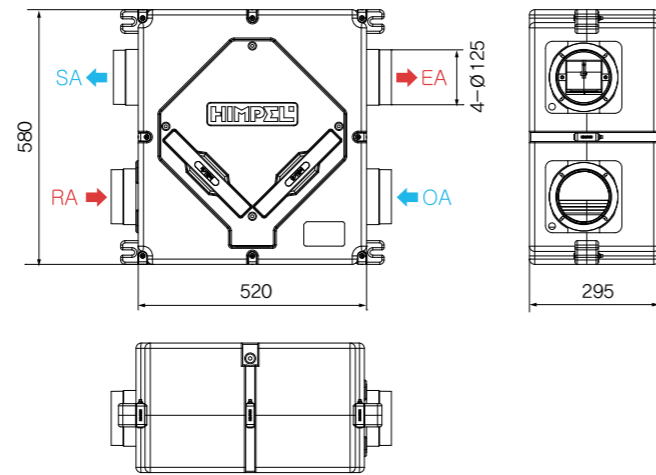
Performance



Bypass structure



External diagram of equipment



Model	HRD-EP100IBSN			HRD-EP150IBSN		
	High	Middle	Low	High	Middle	Low
Mode	High	Middle	Low	High	Middle	Low
Air volume	110CMH(65CFM)	100CMH(59CFM)	80CMH(47CFM)	160CMH(94CFM)	150CMH(88CFM)	130CMH(77CFM)
Power consumption	46W	43W	36W	67W	60W	51W
Noise	Below 50dB					
Energy recovery efficiency	Heating	75%			70%	
	Cooling	67%			60%	
Filter	Pre-filter + HEPA filter					
Weight	8kg					
Dimension	580(W) x 520(D) x 295(H)mm					
Connecting duct	Ø125 common					

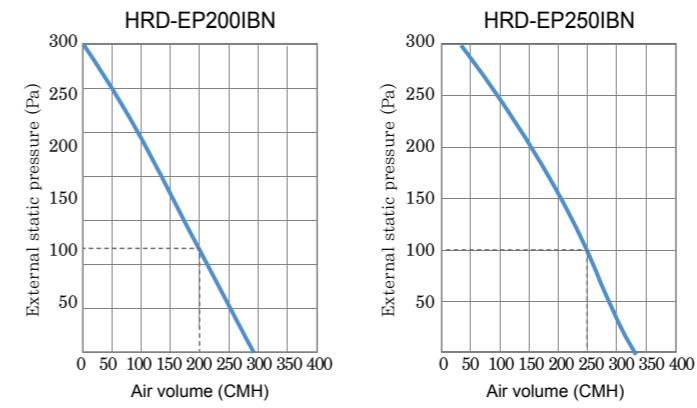
※ The specification and the performance may be changed for improvement without notice.
※ This figure is the result of tests under 220V at 60Hz which is the Korean electricity standard and different results may result in other country in accordance with its standards.


EPP Energy recovery ventilator(bypass)

Special advantages

- Saving energy by energy recovery mechanism
- Air purifying mode (option)
- Hepa filter
- Cases fitted for filter

Performance

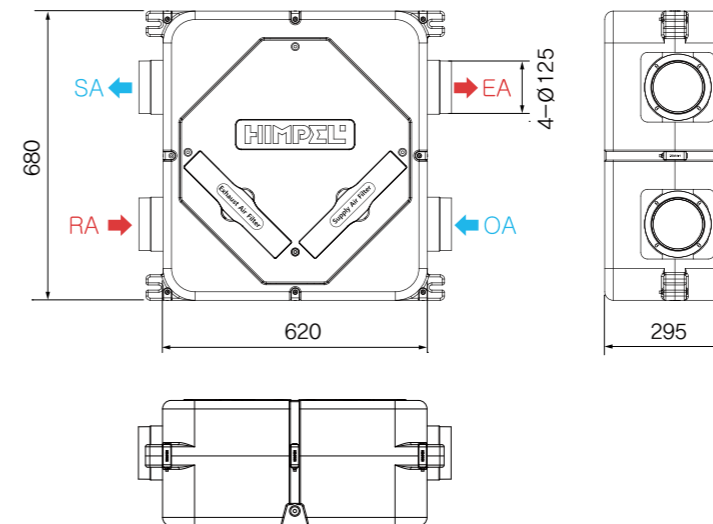


HRD-EP200IBN
HRD-EP250IBN  Korea standard



Remote control unit

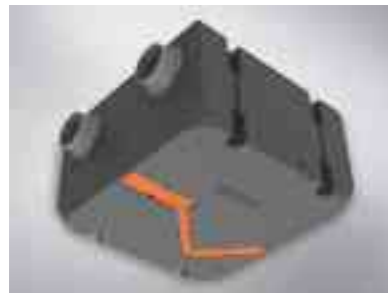
Equipment's external drawing



Model	HRD-EP200IBN			HRD-EP250IBN		
	High	Middle	Low	High	Middle	Low
Mode	High	Middle	Low	High	Middle	Low
Air volume	220CMH(129CFM)	200CMH(118CFM)	180CMH(106CFM)	270CMH(159CFM)	250CMH(147CFM)	230CMH(135CFM)
Power consumption	90W	82W	73W	107W	97W	93W
Noise	Below 50dB					
Energy recovery efficiency	Heating	72%			70%	
	Cooling	59%			54%	
Filter	Pre-filter + HEPA filter					
Weight	9kg					
Dimension	620(W) X 680(D) X 295(H)					
Connecting duct	Ø125					
Option	Air purifying					

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※ This figure is the result of tests under 220V at 60Hz which is the Korean electricity standard and different results may result in other country in accordance with its standards.

EPP Energy recovery ventilator



HRD-EP150IBC
HRD-EP200IBC

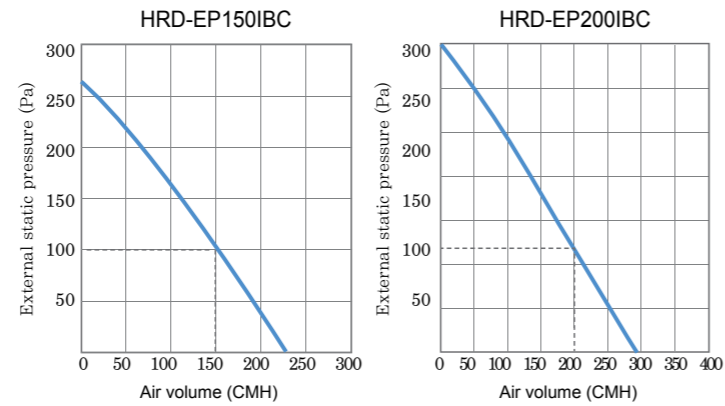


Korea standard

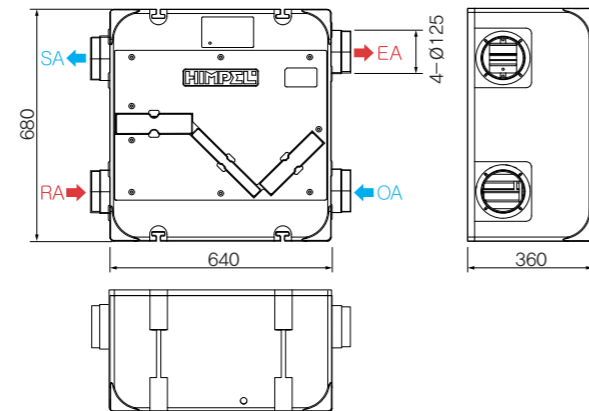


Remote control unit

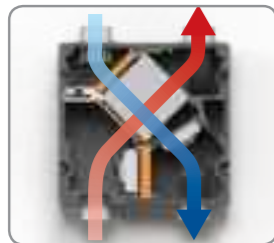
Performance



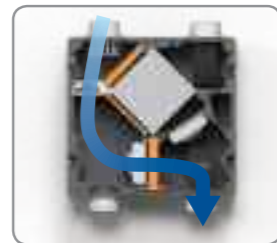
External diagram of equipment



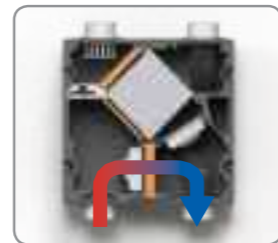
Mode



Enthalpy heat exchange mode



Bypass mode



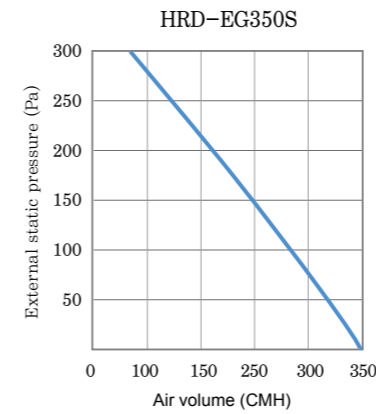
Air purifying mode

Model	HRD-EP150IBC			HRD-EP200IBC		
Mode	High	Middle	Low	High	Middle	Low
Air volume	170CMH(100CFM)	150CMH(88CFM)	130CMH(77CFM)	220CMH(129CFM)	200CMH(118CFM)	180CMH(106CFM)
Power consumption	65W	55W	44W	93W	74W	68W
Noise	Below 50dB					
Energy recovery efficiency	Heating	72%			70%	
	Cooling	63%			60%	
Filter	Pre-filter + HEPA filter + Carbon deodorant filter					
Weight	8kg					
Dimension	640(W) X 680(D) X 360(H)					
Connecting duct	Ø125					
Option	Air purifying					

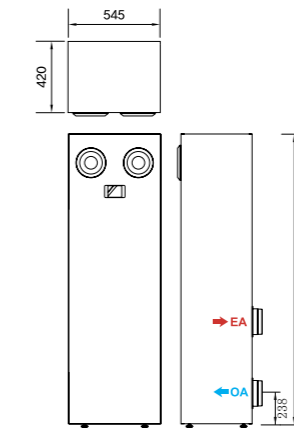
※ The specification and the performance may be changed for improvement without notice.
 ※ This figure is the result of tests under 220V at 60Hz which is the Korean electricity standard and different results may result in other country in accordance with its standards.

Floor-mounted energy recovery ventilator

Performance



External diagram of the equipment (size)



HRD-EG350S

The first Floor-mounted ERV in Korea

- Economical installation cost**
 - Unlike conventional ventilation systems, it is an economical that reduces installation costs by 85%.
- Deliver fresh air to a long distance using jet nozzles**
 - It is suitable for school, apartment house, office where many people work for a long time by jet nozzle which can freely set wind direction with 360 degree rotation and can make air circulation in wide space fast.
- Excellence in carbon dioxide and pollutant removal performance**
 - Exhaust air is located at the bottom of the product, so it has excellent ability to remove pollutants such as carbon dioxide and dust that sinks on the floor. Also, the outside air is discharged from the air supply unit located at the upper part, and circulation of the whole room is possible, so that it is possible to ventilate quickly.

Model	HRD-EG350S		
Classification	High	Middle	Low
Air volume	350CMH(206CFM)	300CMH(177CFM)	250CMH(147CFM)
Power consumption	171W	130W	108W
Noise	Less than 50dB (under high mode)		
Filter	Pre + Medium + HEPA filter		
Energy recovery efficiency	Cooling 71%, heating 59%		
Dimension	545(W) x 420(D) x 1780(H)mm		
Connecting duct	Ø150		
Weight	70Kg		
Option	IoT linkage and deodorization filter		

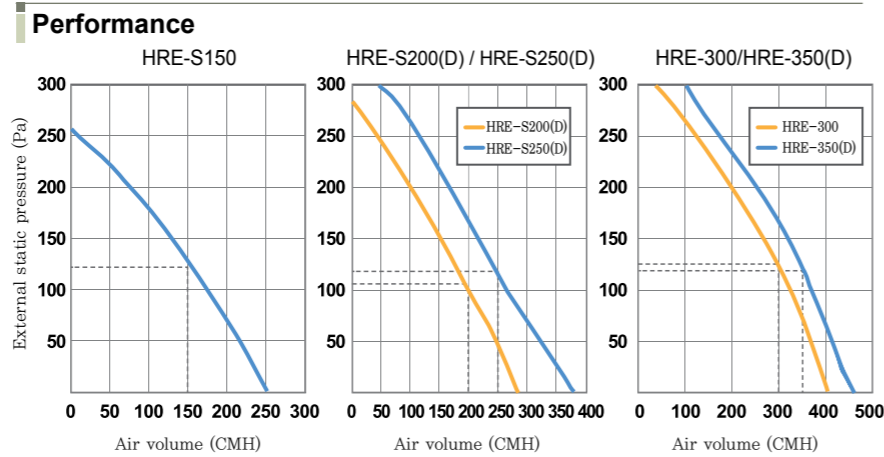
※ The specification and the performance may be changed for improvement without notice.
 ※ This figure is the result of tests under 220V at 60Hz which is the Korean electricity standard and different results may result in other country in accordance with its standards.

Energy recovery ventilator



- HRE - S150**
- HRE - S200(D)**
- HRE - S250(D)**
- HRE - 300**
- HRE - 350(D)**

- ▶ Air volume is controlled by 3 stages of High/Medium/Low
- ▶ Timer setting
- ▶ Sleeping mode
- ▶ Low power BLDC motor use
- ▶ Auto mode setting



Unlike the existing system that only ventilates, it prevents the internal heat being lost to outside and retrieves, preserves and recycles about 70% of the indoor heating and cooling energy to reduce energy consumption. Accordingly, it is an environment-friendly system that enables more refreshing air to be supplied.



Humidity control

Always maintains pleasant indoor humidity through enthalpy exchanger.

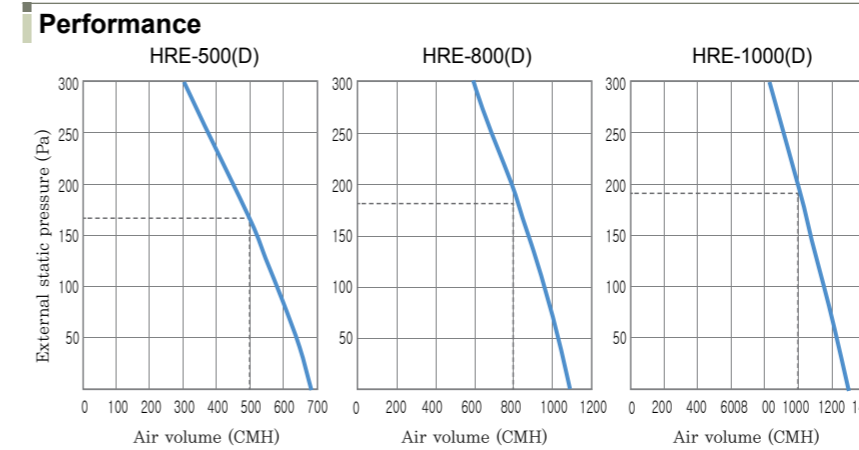
Block entry of external dusts

It can be used much more clean by blocking the entry of external dust by filter.

Model	HRE-S150			HRE-S200(D)			HRE-S250(D)			HRE-300			HRE-350(D)					
	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L			
Air volume (CMH/CFM)	170 /100	150 /88	130 /77	220 /129	200 /118	180 /106	270 /159	250 /152	230 /135	320 /188	300 /177	280 /165	370 /218	350 /206	330 /194			
Power Consumption	65	59	50	83	77	68	99	92	86	120	110	102	124	133	124			
Fixed pressure outside the device	100Pa			101Pa			101Pa			128Pa			101Pa					
Heat efficiency (Enthalpy)	Heating			72%			73%			74%			70.5%			72%		
	Cooling			54%			60%			63%			52%			60%		
Noise (at 1m)	Under 50dB																	
Filter	Free + Medium filter																	
Weight	23kg			23kg			25kg			32kg			32kg					
Product dimension	450(W) x 550(D) x 230(H)mm			580(W) x 500(D) x 250(H)mm			600(W) x 580(D) x 270(H)mm			700(W) x 650(D) x 300(H)mm			700(W) x 650(D) x 300(H)mm					
Connecting duct	Ø125			Ø125			Ø125, Ø150			Ø150			Ø150					

※ The specification and the performance may be changed for improvement without notice.
 ※ This figure is the result of tests under 220V at 60Hz which is the Korean electricity standard and different results may result in other country in accordance with its standards.

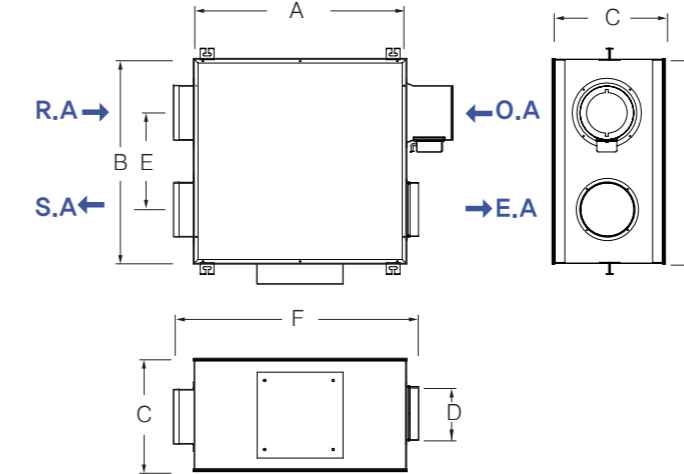
Energy recovery ventilator(mid-size, big-size)



- HRE - 500(D)**
- HRE - 800(D)**
- HRE - 1000(D)**

- ▶ Air volume is controlled by 3 stages of High/Medium/Low
- ▶ Timer setting
- ▶ Sleeping mode
- ▶ Low power BLDC motor use
- ▶ Auto mode setting

Outside view (SIZE)



Dimensions

(Dimension unit mm)

	A	B	C	D	E	F
HRE-500(D)	810	850	400	200	351	890
HRE-800(D)	1100	1200	400	250	720	1300
HRE-1000(D)	1100	1200	400	250	720	1300

Size can be adjusted on site.

Model	HRE-500(D)			HRE-800(D)			HRE-1000(D)					
	High	Medium	Low	High	Medium	Low	High	Medium	Low			
Air volume	550CMH (324CFM)	500CMH (294CFM)	350CMH (206CFM)	850CMH (500CFM)	800CMH (471CFM)	560CMH (330CFM)	1100CMH (647CFM)	1000CMH (589CFM)	700CMH (412CFM)			
Power Consumption	195W	182W	127W	352W	308W	215W	464W	419W	284W			
Fixed pressure outside the device	171Pa			158Pa			121Pa					
Heat efficiency (Enthalpy)	Heating			75.4%			78.5%			70%		
	Cool(at 1.5m)			51.0%			56.8%			49%		
Noise (at 1m)	Under 50dB											
Filter	Felt Filter											
Weight	38kg			65kg			65kg					
Product dimension	810(W) X 850(D) X 400(H)mm			1100(W) X 1200(D) X 400(H)mm			1100(W) X 1200(D) X 400(H)mm					
Connecting duct	Ø200			Ø250			Ø250					

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Ventilation system for shoe cabinet



ZEROC FZA-C110S



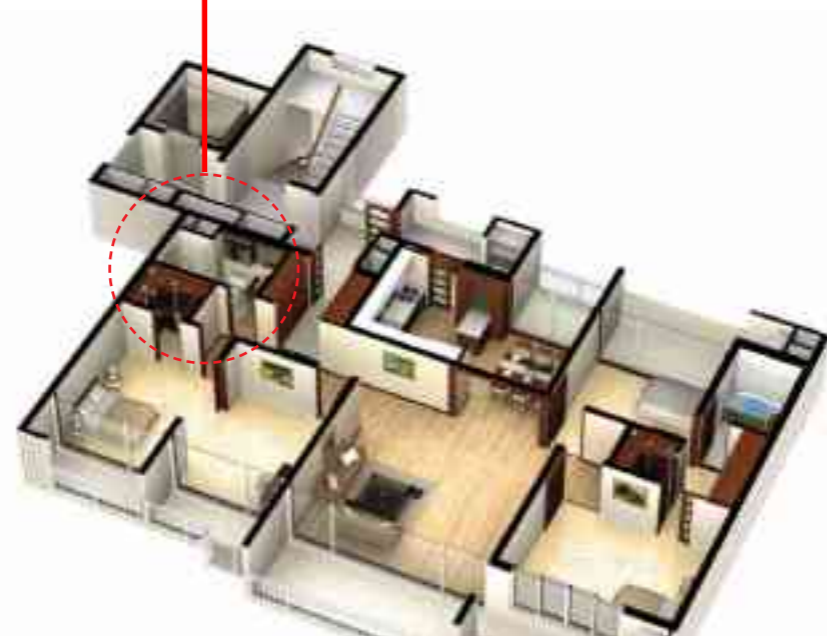
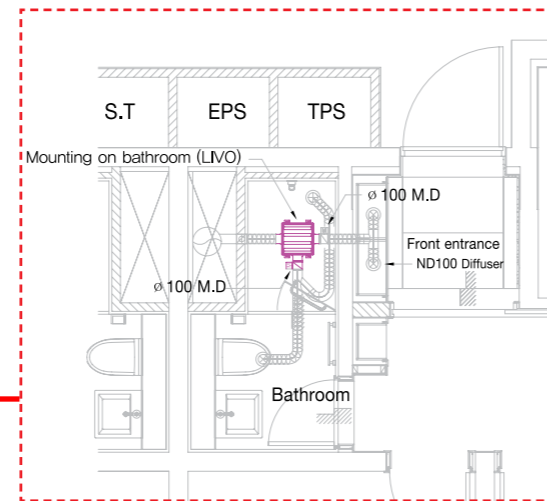
LIVO L2-150



LIVO L2-250



When connected with the bathroom ventilation fan, this system is effective in removing odor and fungus inside the shoe cabinet



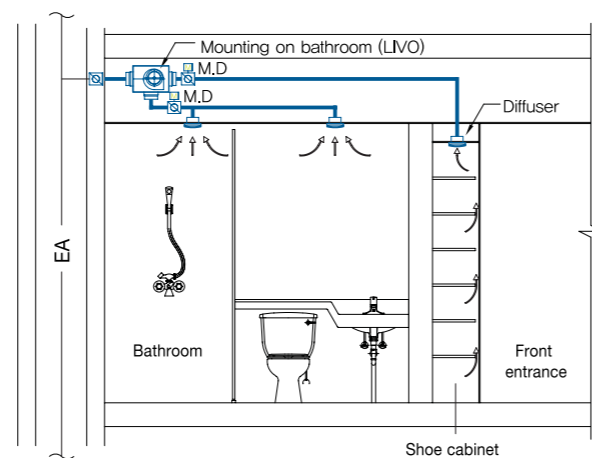
Description of the system

Using the control switch for bathroom fan, you can control the ventilation of bathroom and shoe cabinet at the same time

Description of operations

Switch position		Operation mode		
Bathroom fan S/W	Shoe cabinet	FAN	Bathroom M.D	Shoe cabinet M.D
ON	OFF	Level1	OPEN	CLOSE
ON	ON	Level2	OPEN	OPEN
OFF	ON	Level1	CLOSE	OPEN
OFF	OFF	STOP	CLOSE	CLOSE

Applicable model ZEROC series and LIVO series



Ventilation system for elevator hall



This system removes the dew condensation and the odor of fungus and creates a pleasant environment



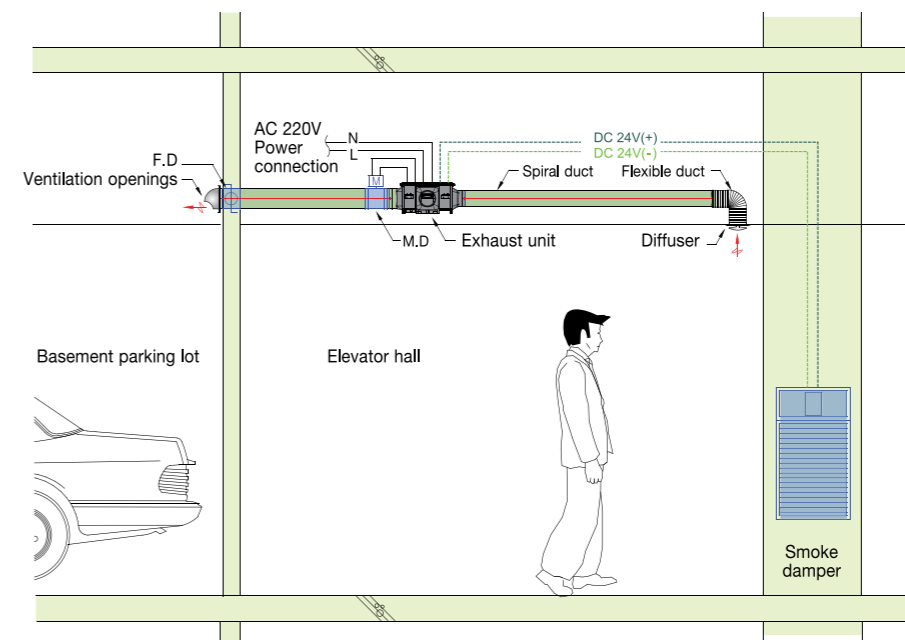
L2-250, L2-300



HV3-80X(MD)



Description of Operation





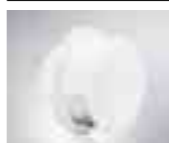




When fire breaks out, the system cooperates with the smoke damper to stop the operation of the fan.

■ Subsidiary Materials for Ventilation


All the materials that are installed to assist the effective ventilation, prevent the spread of toxic substances due to fire and infiltration of polluted air, rain or dirt into the indoor, or connected to secure path of air flow




	Diffuser DGW-100D, DGW-65D, DGH-100R, DGH-65R, DGH-75R, DGS-100P, DGS-65P, DGS-100R DGS-100S, DGS-100F, DGS-100M, DGP-110S	54 55
	Diffuser filter DPP-100E	55
	Flexible SK-A2, SK-A2V, SK-A4, SK-사각 SK-A2PA, SK-A2K, SK-A2VP	56
	Motorized damper MDD-100, MDA-100, JMD-100H, JMD-125H	57
	Vent cap - Ventilator : Wind fence type, General type, Reducer type, ouver type - Vent Cap : Mesh type	58
	Louver LGP-250, LGP-200	59
	A noise reduction device between the floors of apartment house bathroom SR-100, SR-S100	60

Diffuser

Internal Damper Type Diffuser



DGW-100D

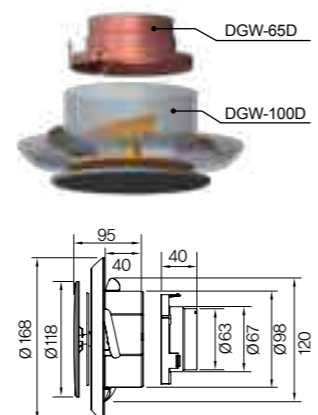


Internal air volume control damper


- 7 steps air volume control
- Easy press in installation
- Inner connection reducer(63~67mm)

■ Specification

- Connection duct : Ø100 / Ø63~67
- Material : ABS
- Mounting opening dimension : Ø120




DGW-65D
DGW-100D



DGH-100R

■ Specification


- Connection duct : Ø100
- Material : ABS
- Mounting opening dimension : Ø120



DGS-100P Slim Type

■ Specification

- Connection duct : Ø100
- Material : ABS
- Mounting opening dimension : Ø120

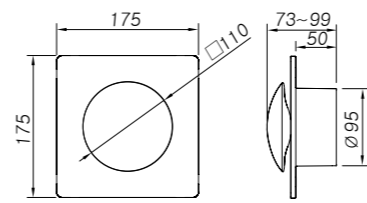


DGS-100R

■ Specification

- Connection duct : Ø100
- Material : ABS
- Mounting opening dimension : Ø120

■ Dimension/Specification

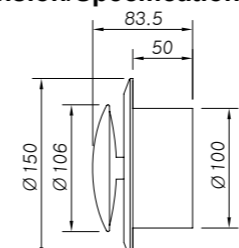


■ Specification

- Connection duct : Ø100
- Material : ABS
- Mounting opening dimension : Ø120



■ Dimension/Specification

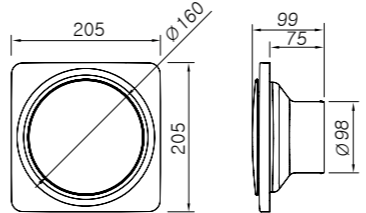


■ Specification

- Connection duct : Ø100
- Material : ABS
- Mounting opening dimension : Ø120



■ Dimension/Specification



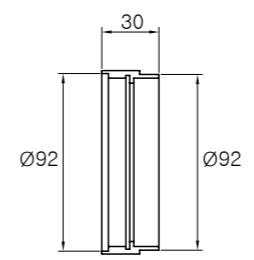
■ Specification

- Connection duct : Ø100
- Material : ABS
- Mounting opening dimension : 160X160(±5mm)



Diffuser filter

■ Dimension/Specification



Available Model
DGS-100S

■ Specification

- Connection duct : Ø100
- Material : ABS



Flexible



SK-A2 (Al Foil 2P)

- Material: Aluminum Foil/Polyester Film Laminated x 2ply/Copper Galvanized Steel Wire
- Adhesive: Self hardening Type
- Service Temperature/Pressure: -30℃-120℃/ 30m/sec
- Size of Production: 50mm-Specified size
- Purpose: For apartment bathroom, air intake and exhaust/air conditioning facility for exhaust of kitchen range hood/air intake and exhaust in the hygiene facility



SK-A2V (Al Foil 2P Sound Absorption/ used for the Korea Land & Housing Corporation)

- Material: Aluminum Foil for Mounting ole/Polyester Film Laminated x 2ply/Copper Galvanized Steel Wire/Damp-proof Outer Shell - Aluminum Foil, Vaper Barrier
- Adhesive: Self hardening Type
- Service Temperature/Pressure: -30℃-120℃/ 30m/sec
- Size of Production: 100mm-Specified size

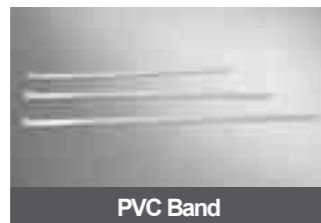


SK-A4 (Al Foil 4P)

- Material: Aluminum Foil/Polyester Film Laminated x 4ply/Copper Galvanized Steel Wire
- Adhesive: Self hardening Type/ Gluing both faces
- Service Temperature/Pressure: -30℃-140℃/ 30m/sec
- Size of Production: 50mm-Specified size
- Purpose: For air intake and exhaust in the smoke-proof air conditioning facility/ exhaust of kitchen range hood



SUS Band



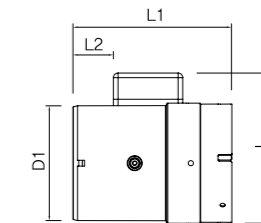
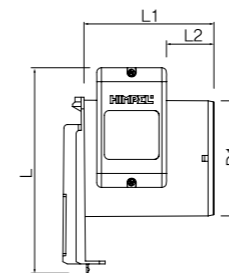
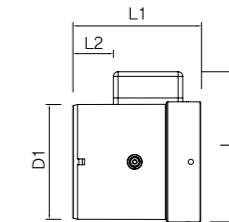
PVC Band

Motorized Damper

Plastic M.D(Bathroom) Specification

- Material : ABS □ Motor type : AC Motor
- TORQUE : Over150N.cm □ Deceleration=1 : 300(3RPM)

Model	D1 (Ø)	L (mm)	L1 (mm)	L2 (mm)	Power Consumption (W)	Weight (g)
MDA-100	99	130	137.5	35	3	260



- Material : ABS □ Motor type : DC Geared Motor □ TORQUE : Over 150N.cm □ Deceleration=1 : 850(4RPM)

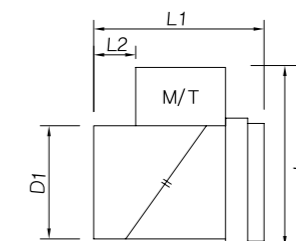
Model	Options	D1(Ø)	L(mm)	L1(mm)	L2(mm)	Power Consumption(W)	Weight(g)
MDD-100	D	99	177	112	41	3	490
	DP	99	130	137.5	35	3	390
	DP-P	99	130	137.5	35	3	390

※ When using flange, MDD-100 can be compatible with Ø98.5~Ø100 outlet

M.D(Gas range hood) Specification

- Material : EGI 1.0T
- Motor type : DC Geared Motor
- TORQUE : Over150N.cm □ Deceleration=1 : 850(4RPM)

Model	D1 (Ø)	L (mm)	L1 (mm)	L2 (mm)	Power Consumption (W)	Weight (g)
JMD-100H	99	145	138	30	4	745
JMD-125H	123	167	158	36	4	900



※ Use for Gas range hood

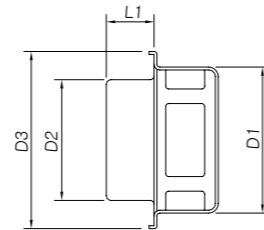
Vent cap



Ventilator (Wind fence type) Specification

□ Material : Al (Powder Coating)

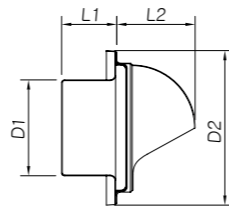
Model	Dimension	D1(Ø)	D2(Ø)	D3(Ø)	L1(mm)
VCW-75	Ø75	100	73	120	40
VCW-100	Ø100	122	98	146	45
VCW-125	Ø125	150	123	182	50
VCW-150	Ø150	182	148	210	50
VCW-200	Ø200	250	198	300	80
VCW-250	Ø250	250	248	300	80



Ventilator (General type) Specification

□ Material : Al (Powder Coating) / SUS

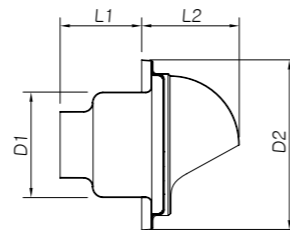
Model	Dimension	D1(Ø)	D2(Ø)	L1(mm)	L2(mm)
VCS-75	Ø75	73	120	40	80
VCS-100	Ø100	98	144	45	80
VCS-125	Ø125	123	180	50	100
VCS-150	Ø150	148	180	50	100
VCS-200	Ø200	198	300	80	185
VCS-250	Ø250	248	300	80	185
VCS-300	Ø300	295	400	100	200
VCS-350	Ø350	345	400	100	200



Ventilator (Reducer type) Specification

□ Material : Al (Powder Coating)

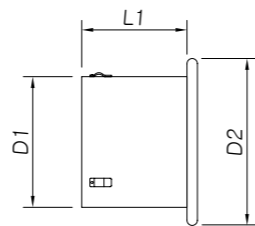
Model	Dimension	D1, D2, L1, L2(mm)
VCS-100R	Ø100~ Ø300	Customized



Vent Cap (Mesh type) Specification

□ Material : Al (Powder Coating)

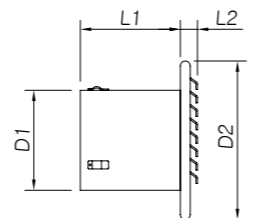
Model	Dimension	D1(Ø)	D2(Ø)	L1(mm)
VCM-50	Ø50	50	70	40
VCM-75	Ø75	73	90	40
VCM-100	Ø100	98	120	40



Ventilator (Louver type) Specification

□ Material : Al (Powder Coating)

Model	Dimension	D1(Ø)	D2(Ø)	L1(mm)	L2(mm)
VCL-75	Ø75	73	144	40	12
VCL-100	Ø100	98	144	45	12
VCL-125	Ø125	123	182	50	12
VCL-150	Ø150	147	182	50	12
VCL-200	Ø200	197	300	80	12

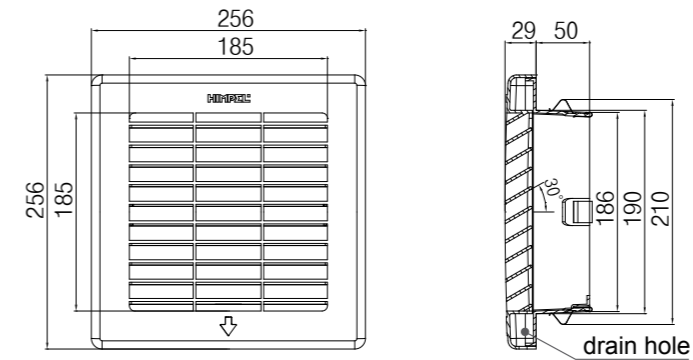


※ D1(Ø) : Outer diameter of the connection

Louver

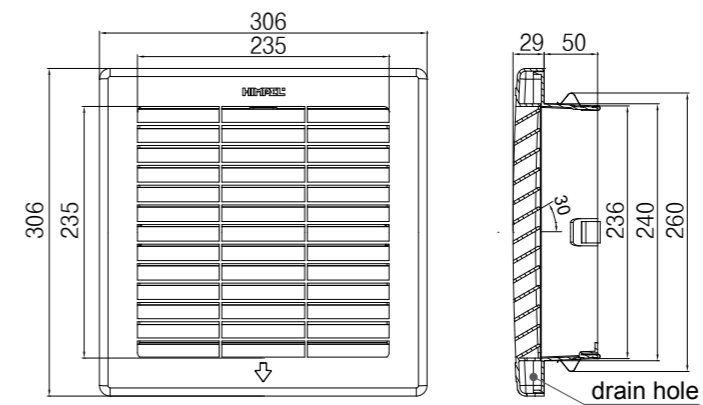


Dimension (LGP-200)



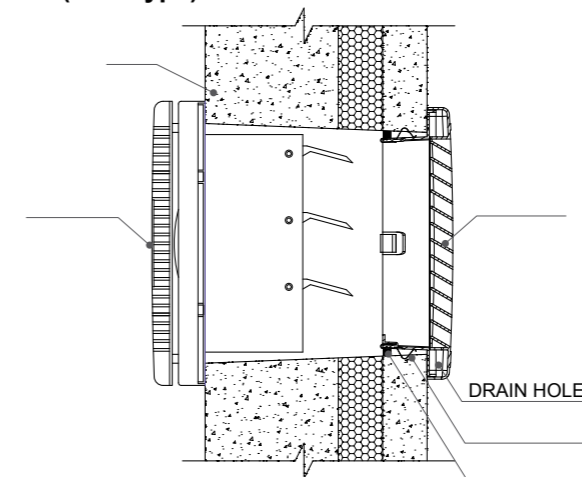
Installation Size : □200mm

Dimension (LGP-250)



Installation Size : □250mm

Installation (Wall Type)



Model	LGP-250	LGP-200
Size	306mm x 306mm	256mm x 256mm
Material	LOUVER Plate Spring	Polypropylene + UV stabilizer Stainless steel plate

LGP-250 LGP-200

- ▶ Easy installation & maintenance
- ▶ High stability
- ▶ Simple & Modern Design

A noise reduction device between the floors of apartment house bathroom




SR-100



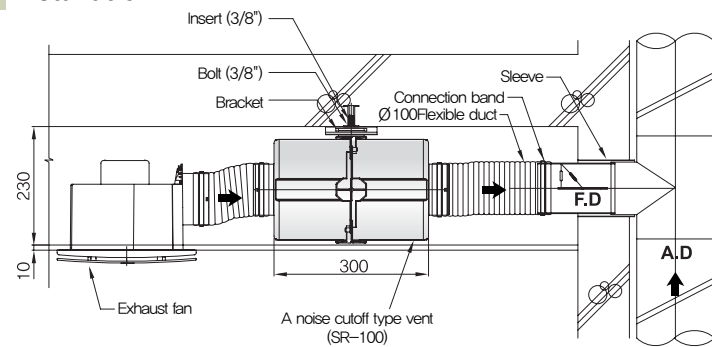
SR-S100

A noise cutoff type vent

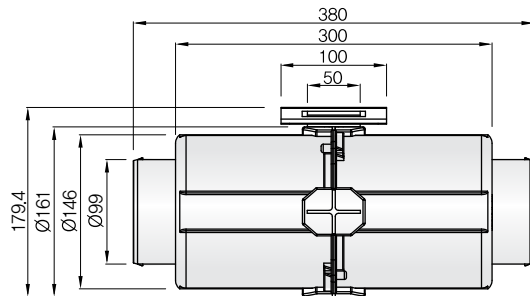
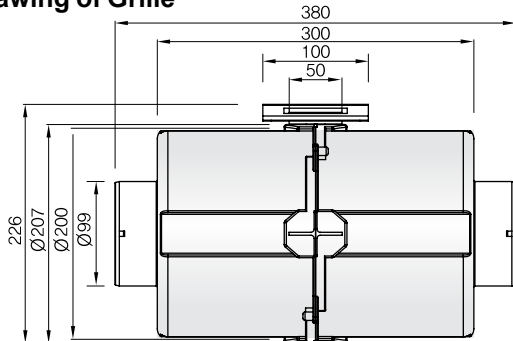
What is a noise cut off type vent?

- The noise cutoff type vent is the vent that makes the ventilation possible and simultaneously gets the noise reduced in the constantly opened state.
- By applying a reduction device against noise between the floors of apartment house bathroom, additional marks of 2 points are secured under the housing performance certification and management standard (bathroom noise).
- The experimental result conducted by Korea Testing Certification show the noise was reduced 6dB. 

Installation



Drawing of Grille



Housing performance certification and management standard - Bathroom noise

Rating indicator

Grade	Grade standard
★★★★	Over 9 points
★★★	Over 7 points, below 8 points
★★	Over 5 points, below 6 points
★	below 4 points

Additional marks table

Noise reduction engineering method	Points
Water supply pressure by household is kept below 2.5kg/cm ²	3
Water saving type toilet lavatory is adopted	2
Execution of insulation such as shock-absorbing material etc on the piping piercing part	1
A low noise type drainpipe is used	2
The corresponding floor plumbing method of the sewage drainpipe is adopted	4
Prevention scheme against noise transmission between the up & down floors through an Air Duct for exhaust is established	2

Prevention scheme against noise transmission between the up & down floors through an Air Duct for exhaust means a case that installed an independent air supply exhaust pipe, a case that arranged the vent between the neighboring up & down floors not to pass through each other directly and a case that installed a noise cutoff type vent etc. The noise cutoff type vent here means a vent that the noise cutoff performance difference is over 5dB(A) compared with other general vent.