



**MITSUBISHI
ELECTRIC**

SPLIT TYPE AIR CONDITIONERS

Changes for the Better

Mitsubishi
MEQlectric
Quality



**Impressive Heating Performance
from a Compact, Powerful Core**

MSZ-FB VAH Series

Unlike conventional air-conditioning systems, the FB VAH Series does not lose heating capacity when it is cold outside. Original technologies ensure excellent heating performance under extremely low outdoor temperatures and an impressive “guaranteed operating range”.

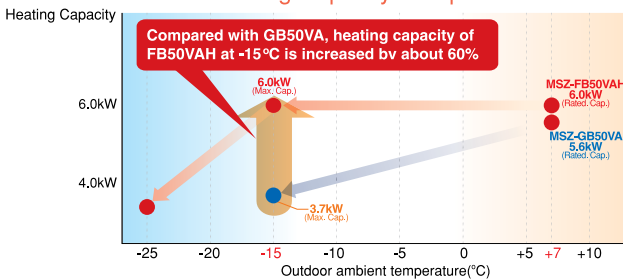


Powerful Core for powerful heating

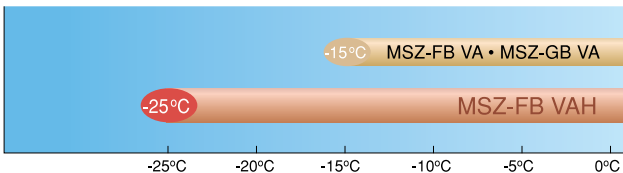
Unparalleled Heating Performance

Outdoor units of the MSZ-FB VAH Series are equipped with a high-output compressor that provides enhanced heating performance under low outdoor temperatures. Compared to MSZ-GB VA, the heating capacity of the MSZ-FB50VAH is improved approximately 60% when the outdoor temperature is -15° C, and the heating operation range has been lowered to -25° C.

Heating Capacity Comparison



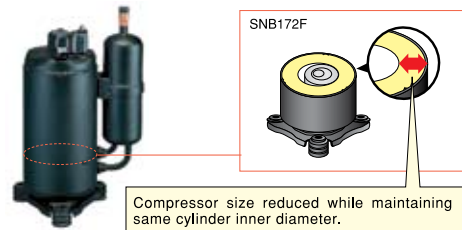
Operation Range



Compact, Powerful Compressor

A special manufacturing technology, the “Heat Caulking Fixing Method,” has been introduced to reduce compressor size while maintaining a high compressor output. This technology enables the attachment of a powerful compressor in compact MUZ outdoor units. As a result, excellent heating performance is achieved when operating in cold outdoor environments.

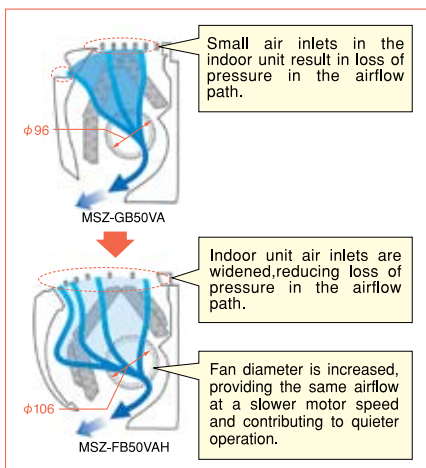
Compressor fixed by “Heat Caulking Fixing method”



Compressor size reduced while maintaining same cylinder inner diameter.

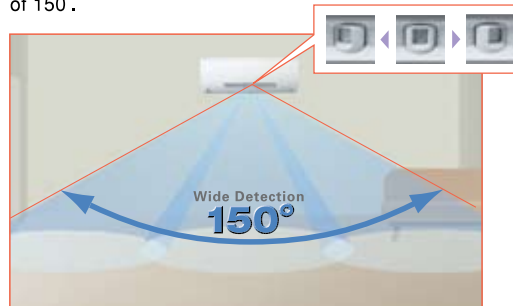
Amazingly Quiet Operation – Redesigned for performance

A larger fan diameter, wider air inlet in the upper section of the unit and a revised airflow path in size 50 models reduce noise at low fan speed by 3dB for both cooling and heating modes.



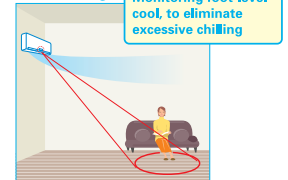
i-see Sensor

The “i-see Sensor” automatically moves from side to side, searching floor temperature over a wide area of 150°.



Conventional air conditioners control indoor temperature by using only the temperature of the intake air at the top of the room. As a result, the floor level temperature, which exerts such a keen impact on the temperature that people feel, tends to be overlooked. i-see Sensor detects the floor temperatures to ensure comfort in the living areas.

When Cooling



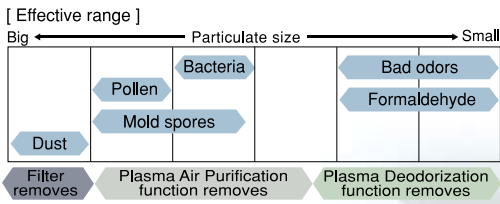
Cold air tends to sink to foot-level, which is often the cause of over-chilling. The i-see Sensor detects this foot-level temperature and adjusts the air outlet temperature to prevent over-chilling.

When Heating



Warm air tends to rise up from the foot-level, which often prevents that zone from warming up. The i-see Sensor detects this foot-level temperature and adjusts the air outlet flow to prevent deficient warming.

Besides a pre-filter, the unit is also mounted with two plasma air purifying functions. These functions are engineered to capture air-borne particulates from micron to nano-size in scale.



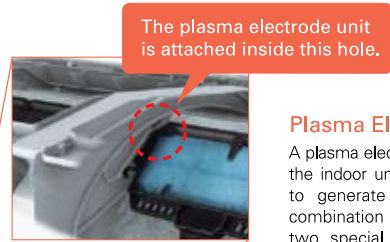
Plasma Deodorization



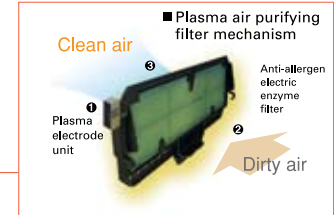
- ① Plasma electrode unit produces ozone.
- ② Particulates of odor-releasing substances are absorbed.
- ③ Particles of odor-releasing substances are decomposed by ozone.

Plasma Electrode Unit

A plasma electrode unit is mounted inside the indoor unit. Electro-discharge is used to generate ozone and plasma. The combination of ozone and plasma and two special filters creates a dynamic plasma air-cleaning function.



Plasma Air Purification



- ① Plasma electrode unit produces plasma.
- ② The plasma gives the particulates a negative charge.
- ③ Small particles charged to negative are collected at the positive side of the electrode filter and neutralized by enzymes.

MFZ-FB VAH Series

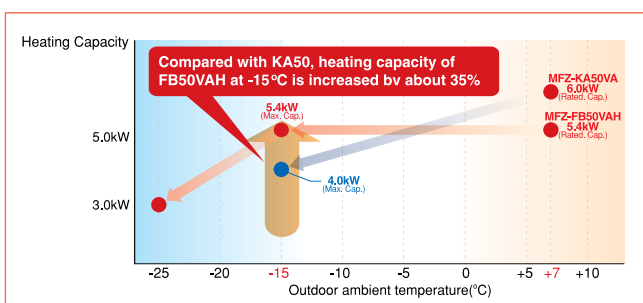
Optimum Air Distribution

Comfy room temperatures are realized by the optimum, powerful and efficient air distribution through the upper and lower air outlets. The upper vane angle is remote controllable, with 5 airflow direction levels (+Swing and Auto modes) and 4 wind power levels (+Auto mode). By setting the vane angle almost vertical, annoying direct wind can be avoided for better comfort.

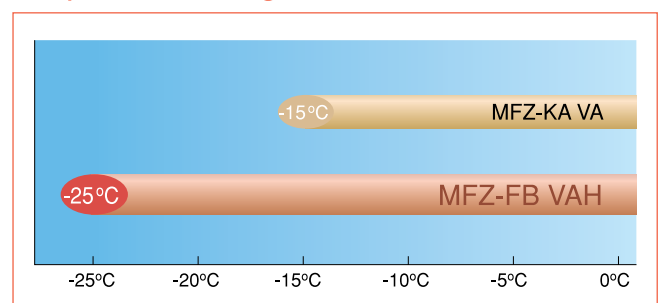


The air from both upper and lower air outlets is optimally controlled and distributed evenly to every corner of the room. In heating mode, the warm air is smartly controlled to stay at the floor level: Your feet do not feel chilled anymore!

Heating Capacity Comparison



Operation Range



Specifications HEAT PUMP

Type				Inverter Heat Pump		
Model Name				MSZ-FB35VAH	MSZ-FB50VAH	MFZ-FB50VAH
Indoor Unit				MSZ-FB35VA	MSZ-FB50VA	MFZ-FB50VA
Outdoor Unit				MUZ-FB35VAH	MUZ-FB50VAH	MUFZ-FB50VAH
Power Supply [V, Phase, Hz, Source]				230, Single, 50, Outdoor power supply		
Cooling	Capacity	Rated	kW	3.5	5.0	4.8
		Min - Max	kW	0.8 - 4.1	0.8 - 5.8	0.9 - 5.4
	Total Input	Rated	kW	0.89	1.60	1.55
		EER		3.93	3.13	3.10
	SPL	Star Rating		6	5	4.5
		IN [Lo-Mid-High-SH]*1	dB(A)	20 - 29 - 36 - 43	29 - 39 - 45 - 52	32 - 37 - 43 - 48
Air Volume	OUT	dB(A)	47	54	54	
	IN [Lo-SH]*1	L/S	77 - 187	105 - 247	118 - 221	
Heating	Capacity	Rated	kW	4.0	6.0	5.4
		Min - Max	kW	1.3 - 6.5	0.9 - 8.2	0.9 - 7.9
	Total Input	-15°C	kW	4.0	6.0	5.4
		Rated	kW	0.90	1.64	1.58
	COP			4.44	3.66	3.42
		Star Rating		6	5.5	5.0
SPL	IN [Lo-Mid-High-SH]*1	dB(A)	21 - 29 - 36 - 44	27 - 37 - 43 - 50	32 - 37 - 43 - 49	
	OUT	dB(A)	50	56	56	
Air Volume	IN [Lo-SH]*1	L/S	78 - 208	92 - 247	123 - 227	
	Starting Current	A	4.1	7.3	7.0	
Max. Running Current		A	10.5	16.0	16.0	
Indoor Unit	Input	Rated [Cooling/Heating]	W	28 / 33	60 / 60	40 / 40
	Dimensions	Height	mm	295	295	600
		Width	mm	798	798	700
		Depth	mm	257	257	200
Weight	kg	12	12	14		
Outdoor Unit	Dimensions	Height	mm	550	850	850
		Width	mm	800	840	840
		Depth	mm	285	330	330
	Weight	kg	36	55	55	
Ext. Piping	Diameter	Gas/Liquid (φ)	mm	9.52 / 6.35	12.7 / 6.35	12.7 / 6.35
	Max. Length / Max. Height	m	20 / 12	30 / 15	30 / 15	
Guaranteed Operating Range [Outdoor]	Cooling	°C	-10 ~ +46	-10 ~ +46	-10 ~ +46	
	Heating	°C	-25 ~ +24	-25 ~ +24	-25 ~ +24	

*1: SHi : Super High

Indoor Unit

MSZ-FB35VA MSZ-FB50VA
Dimensions [HxWxD] 295x798x257mm



White



Outdoor Unit

MUZ-FB35VAH
Dimensions [HxWxD]
550x800x285mm



MUFZ-FB50VAH
Dimensions [HxWxD]
850x840x330mm



MFZ-FB50VA
Dimensions [HxWxD] 600x700x200mm



Optional Parts List

Part number	Part name
MAC-307FT	Plasma Deodorizing Filter
MAC-417FT	Anti-Allergen Enzyme Filter
MAC-093SS-E	Quick Clean Kit
MAC-397IF-E	MA&Contact Terminal Interface
MAC-399IF-E	M-NET Interface
MAC-821SC-E*	Centralized ON/OFF Remote Controller
PAR-21MAA*	Wired Remote Controller
MAC-889SG	Air Outlet Guide

*MAC-397 IF-E is required.



Certificate Number
49385

Certificate Number
EC97J1132

Mitsubishi Electric Shizuoka Works acquired ISO9001 certification under Series 9000 of the International Standard Organization (ISO) based on a review of quality warranties for the production of air conditioning equipment. The plant also acquired environmental management system standard ISO 14001 certification.

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