

# AquaFREE



## Features and Benefits

Hitachi's AquaFREE system is a Heat Pump heating system which uses the simple principles of thermodynamics to move heat from one place to another. Hitachi's AquaFREE outdoor unit absorbs heat from the air outside and transfers it to the internal unit, which in turn transfers the absorbed heat to the water circuit.

By utilising the Thermodynamic principles of Heat Pump technology it is possible to upgrade the energy available in the surrounding air and provide up to three times more energy than the power consumed.

This range has three models from 8kW to 14kW which offer the following benefits:

- **High COP and EER**  
COP of 4.1 and EER of 3.5
- **Low Running Costs**  
Large savings over traditional heating methods
- **DC Inverter Technology**  
Hitachi pioneered 'DC' Inverter driven Air Conditioners and use this technology to drive its compressors and fans. The result is a saving of up to 30% on using Fixed Speed technology
- **Environmentally Friendly**  
30 ~ 50% reduction in CO<sub>2</sub> emissions
- **Standard Controller**  
The Hitachi programmable Wireless Controller is designed to control your heating system efficiently, providing comfortable temperatures when you are at home and energy savings when you are away
- **Control Features**
- **Outside Temperature Compensated (OTC) control**
- **Electric Heater Control**
- **Summer Switch-Off**
- **Outdoor Temperature Limit**
- **System Frost Protection**



RWM FSN1E



RAS-4/5H(V)RNME



Wireless Remote Controller



RAS-H(V)RNM(E)

System Features	RWM 3FSN1E	RWM 4FSN1E	RWM 5FSN1E
Underfloor Heating	✓	✓	✓
Radiator Heating	✓	✓	✓
DC Inverter Control	✓	✓	✓
Frost Protection	✓	✓	✓
Outside Temperature Compensation	✓	✓	✓
Electric Heater (Options)	✓	✓	✓
Remote Controller Type	Wireless		
Remote Controller Timer	7 Day Weekly Timer		

## Water Module

Water Module		RWM 3FSN1E	RWM 4FSN1E	RWM 5FSN1E
Nominal Capacity (Kw) (min~max)	7°C ext./ 35°C Water	8.0 (4.0 ~ 10.9)	11.2 (5.7 ~ 13.9)	14.0 (7.0 ~ 16.7)
Capacity (Kw) (min~max)	7°C ext./ 45°C Water	7.2 (3.9 ~ 10.8)	9.8 (5.6 ~ 13.7)	13.7 (6.6 ~ 15.7)
	-7°C ext./ 45°C Water	5.6	9.0	12.4
Cooling Capacity (kw)	35°C ext./ 7°C Water	6.0 (2.9 ~ 6.9)	7.2 (4.9 ~ 11.2)	9.2 (4.9 ~ 10.3)
COP/EER	Heating	4.1	3.5	3.5
	Cooling	3.5	3.2	3.5
Sound Pressure level dB(A)		27.0	28.0	28.0
Dimensions (mm) & Weight (kg)	Height		906	
	Width		526	
	Depth		372	
	Weight	38	39	40
Pump Input Power	Watts	93.0	93.0	132.0
Optional Auxiliary Heating (kw)	(min/med/max)	1.5/3.0/4.5	2.0/4.0/6.0	2.0/4.0/6.0

\*COP based on following conditions 7°C Air / 35°C Water (excludes water pump)

## Outdoor Units

Outdoor Units	Outdoor 1Ø	RAS 3HVRNME	RAS 4HVRNME	RAS 5HVRNME
	Outdoor 3Ø	-	RAS 4HRNME	RAS 5HRNME
Outdoor Sound Pressure Level (Set Back) d(B)A	Cooling	42 (38)	44 (40)	46 (42)
	Heating	44	46	48
Dimensions (mm) & Weight (kg)	Height	800	1380	
	Width	950	950	
	Depth	370	370	
	Weight 1Ø/3Ø	67	114	115
Operating Range (°C)	Cooling	(15 ~ 43)db		
	Heating	(-20 ~ 15)wb		
Refrigerant Piping (mm (in))	Liquid	9.52(3/8)	9.52(3/8)	9.52(3/8)
	Gas	15.88(5/8)	15.88(5/8)	15.88(5/8)
Piping (m)	Length	30	30	30
	Lift	30	30	30
	Chargeless	30	30	30
Power Supply	1 Phase	1Ph 220-240V 50Hz		
	3 Phase	-	3Ph 380-415V 50Hz	
Starting Current (A)		TBC	TBC	TBC
Total Current (1Ø/3Ø) (A)	Cooling	8.2	10.3 / 3.7	15.0 / 5.3
	Heating	8.0	10.8 / 3.8	14.5 / 5.1
Recommended Fuse Size (A)		25	32 / 16	32 / 16



Domestic  
Heating

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