



Specification

HP			8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP	24HP
Model			RAS-8FSDENYSQ	RAS-10FSDENYSQ	RAS-12FSDENYSQ	RAS-14FSDENYSQ	RAS-16FSDENYSQ	RAS-18FSDENYSQ	RAS-20FSDENYSQ	RAS-22FSDENYSQ	RAS-24FSDENYSQ
Power Supply			AC 3N~, 380~415V, 50Hz						AC 3N~, 380~415V, 50Hz		
Cooling	Capacity	kW	22.4	28.0	33.5	40.0	45.0	50.4	56.0	61.5	68.0
	Power Input	kW	4.55	6.4	7.8	9.6	11.5	12.5	14.6	17.0	17.1
	EER	kW/kW	4.92	4.38	4.29	4.17	3.91	4.03	3.84	3.62	3.98
Heating	Capacity	kW	25.0	31.5	37.5	45.0	50.0	56.5	63.0	69.0	75.0
	Power Input	kW	4.7	6.1	7.8	9.6	10.9	12.7	14.7	16.5	17.4
	COP	kW/kW	5.32	5.16	4.81	4.69	4.59	4.45	4.29	4.18	4.31
Sound Pressure Level	Normal Mode	dB(A)	55.0	57.0	59.0	59.0	60.0	61.0	62.0	62.0	62.0
	Night Quiet Mode	dB(A)	39.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
Cabinet Color		-	Hitachi Gray						Hitachi Gray		
Dimensions	External Packaging	mm (H×W×D)	1800×940×825						1800×1390×825		
		mm (H×W×D)	1960×1000×885						1960×1450×885		
Weight	Net Weight	kg	230.0	230.0	230.0	246.0	246.0	268.0	304.0	304.0	370.0
	Gross Weight	kg	243.0	243.0	243.0	257.0	257.0	278.0	314.0	314.0	382.0
Compressor	Type	-	Hermetic DC Inverter Compressor (Scroll)						Hermetic DC Inverter Compressor (Scroll)		
Ventilation	Fan Quantity	-	1	1	1	1	1	1	2	2	2
	Air Flow Rate	m ³ /min	183.0	183.0	225.0	242.0	275.0	258.0	308.0	317.0	317.0
Refrigerant	Type	-	R410A						R410A		
	Pre-charged Quantity	kg	6.6	6.6	7.6	7.6	7.6	9.4	9.7	9.7	13.1
Ref. Piping	Refrigerant Control Mode	-	Micro-Computer Control Expansion Valve						Micro-Computer Control Expansion Valve		
	Gas	mm	Φ19.05	Φ22.2	Φ25.4	Φ25.4	Φ28.6	Φ28.6	Φ28.6	Φ28.6	Φ28.6
	Liquid	mm	Φ9.53	Φ9.53	Φ12.7	Φ12.7	Φ12.7	Φ15.88	Φ15.88	Φ15.88	Φ15.88
Piping Design	Height Difference Between ODU and IDU	m (ODU Higher)	110						110		
	Height Difference Between IDUs	m (IDU Higher)	110						110		
	Max.Piping Length	m	40						40		
		m	220						220		
Operation Range	Cooling	DB	-15 ~-55						-15 ~-55		
	Heating	WB	-30 ~-30						-30 ~-30		

HP Model			26HP	28HP	30HP	32HP	34HP	36HP	38HP	40HP	42HP	44HP	46HP
			RAS-26FSDENYSQ	RAS-28FSDENYSQ	RAS-30FSDENYSQ	RAS-32FSDENYSQ	RAS-34FSDENYSQ	RAS-36FSDENYSQ	RAS-38FSDENYSQ	RAS-40FSDENYSQ	RAS-42FSDENYSQ	RAS-44FSDENYSQ	RAS-46FSDENYSQ
Power Supply			AC 3N~, 380~415V, 50Hz				AC 3N~, 380~415V, 50Hz				AC 3N~, 380~415V, 50Hz		
Cooling	Capacity	kW	73.5	78.5	85.0	90.0	95.4	101.0	106.5	112.0	117.5	123.0	129.5
	Power Input	kW	19.1	19.7	22.3	24.1	25.4	27.3	29.9	31.4	34.2	35.8	37.4
	EER	kW/kW	3.85	3.98	3.81	3.73	3.76	3.70	3.56	3.57	3.44	3.44	3.46
Heating	Capacity	kW	82.5	87.5	95.0	100.0	106.5	113.0	119.5	125.5	132.0	138.0	144.0
	Power Input	kW	19.4	20.3	22.6	23.4	25.4	27.1	28.9	31.4	32.9	35.5	36.9
	COP	kW/kW	4.25	4.31	4.20	4.27	4.19	4.17	4.13	4.00	4.01	3.89	3.90
Sound Pressure Level	Normal Mode	dB(A)	62.0	62.0	63.0	64.0	66.0	66.0	67.0	67.0	67.0	67.0	67.0
	Night Quiet Mode	dB(A)	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
Cabinet Color		-	Hitachi Gray				Hitachi Gray				Hitachi Gray		
Dimensions	External	mm (H × W × D)	1800×1600×825				1800×1800×825				1800×2294×825		
	Packaging	mm (H × W × D)	1960×1660×885				1960×1940×885				1960×2355×885		
Weight	Net Weight	kg	406.0	406.0	406.0	482.0	482.0	482.0	493.0	493.0	499.0	548.0	548.0
	Gross Weight	kg	412.0	412.0	412.0	506.0	506.0	506.0	516.0	516.0	516.0	564.0	564.0
Compressor	Type	-	Hermetic DC Inverter Compressor (Scroll)				Hermetic DC Inverter Compressor (Scroll)				Hermetic DC Inverter Compressor (Scroll)		
Ventilation	Fan Quantity	-	2	2	2	2	2	2	2	2	2	3	3
	Air Flow Rate	m³/min	392.0	400.0	400.0	408.0	408.0	467.0	467.0	467.0	467.0	613.0	633.0
Refrigerant	Type	-	R410A				R410A				R410A		
	Pre-charged Quantity	kg	11.5		11.5	16.1	16.1	16.1	16.1	16.1	16.1	19.7	19.7
	Refrigerant Control Mode	-	Micro-Computer Control Expansion Valve				Micro-Computer Control Expansion Valve				Micro-Computer Control Expansion Valve		
Ref. Piping	Gas	mm	Φ31.75	Φ31.75	Φ31.75	Φ31.75	Φ31.75	Φ38.1	Φ38.1	Φ38.1	Φ38.1	Φ38.1	Φ38.1
	Liquid	mm	Φ19.05	Φ19.05	Φ19.05	Φ19.05	Φ19.05	Φ19.05	Φ19.05	Φ19.05	Φ19.05	Φ19.05	Φ19.05
Piping Design	Height Difference Between ODU and IDU	m (ODU Higher)	110				110				110		
		m (IDU Higher)	110				110				110		
	Height Difference Between IDUs	m	40				40				40		
	Max.Piping Length	m	220				220				220		
Operation Range	Cooling	DB	-15 ~55				-15 ~55				-15 ~55		
	Heating	WB	-30 ~30				-30 ~30				-30 ~30		

*Product specifications are subject to change without notice.



Cooling & Heating

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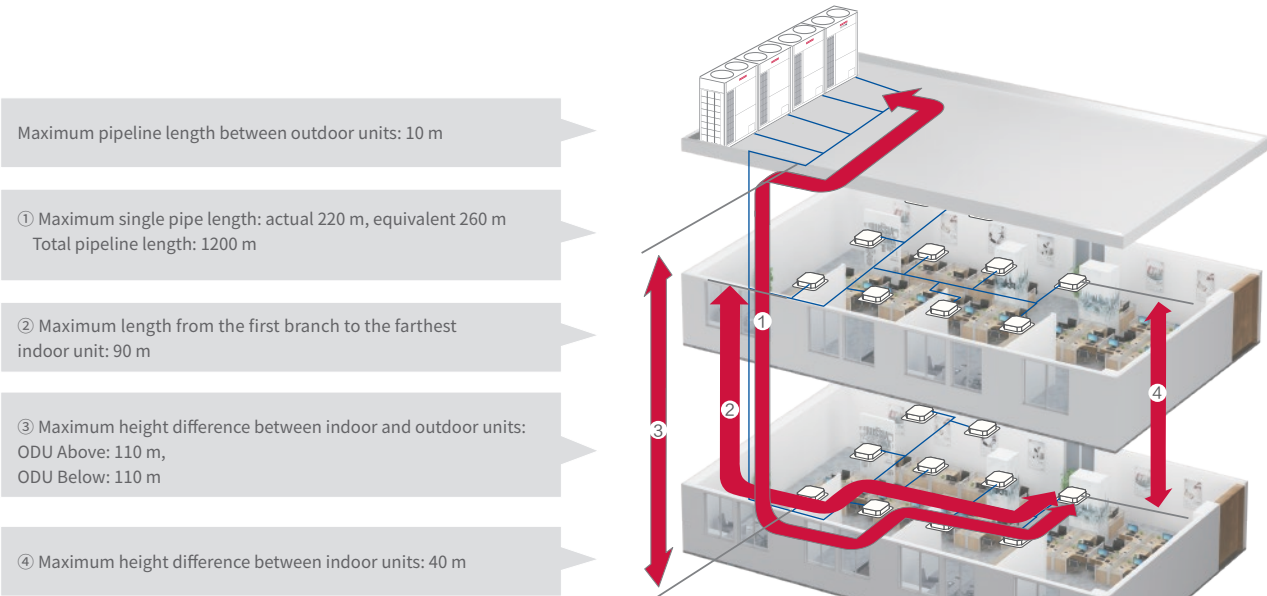
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High-Efficiency Scroll Compressor Ensuring Energy Savings and Powerful Performance

Flexible Piping Design

The maximum height difference between the indoor and outdoor units can reach 110 m with an extended pipeline length design, providing greater .



Power Voltage Imbalance Control Technology

Hitachi's new-generation inverter features proprietary leading technology for power voltage imbalance control and bus voltage fluctuation suppression, ensuring stable and efficient operation of the CPLS inverter even under complex grid conditions.

Unique Asymmetrical Scroll Design

Thanks to an asymmetrical scroll structure, Hitachi's compressor is able to minimize refrigerant gas leakage both at the inlet and within the compression chamber, improving compressor efficiency and reliability. Compared to conventional symmetrical scroll compressors, the new design allows more refrigerant to enter the same volume. It also prevents low-temperature gas entering the compression chamber from heating up, enabling greater intake of low-temperature gas and reducing ineffective superheat loss.

Asymmetrical Scroll Tooth Profile

The suction completion time between the outer and inner chambers differs by 180°, with distinct pressures in each chamber. The pressure distribution in the compression chamber is asymmetric.

Symmetrical Scroll Tooth Profile

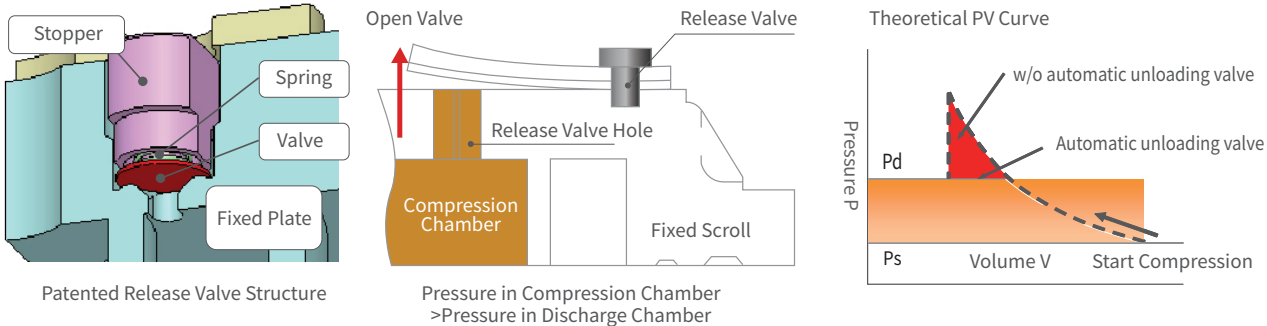
The suction completion time for the outer and inner chambers is the same, with equal pressures in both chambers. The pressure distribution in the compression chamber is symmetric.



Flexible Scroll Technology - allows small amounts of liquid and impurities to pass through, preventing mechanical damage to the scroll.

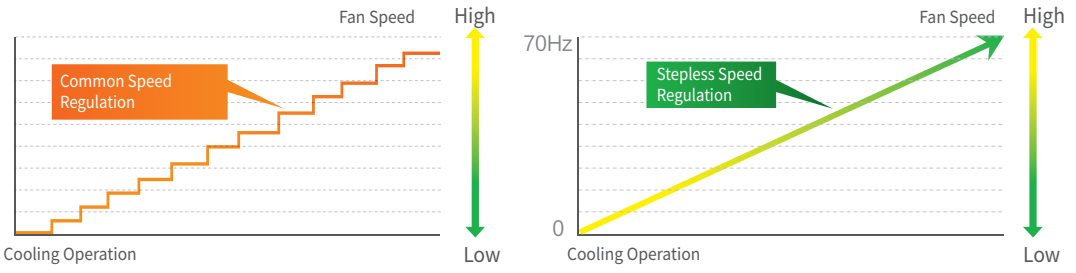
Innovative Anti-Overcompression Mechanism

Integrated with anti-overcompression technology, the compressor can effectively prevent excessive power consumption caused by high discharge pressure, ensuring more energy-efficient compressor operation and improved cooling stability and reliability. The compressor utilizes release valve technology to prevent overcompression under partial load conditions, significantly enhancing operating efficiency at medium to low frequencies.



Stepless Variable Frequency Technology for Outdoor Unit Fans

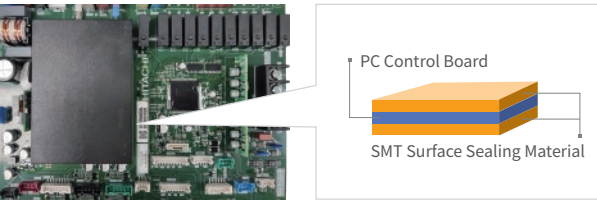
The outdoor unit fan is configured with a DC variable-frequency motor, improving motor efficiency by 40% and significantly reducing input power. The speed of the outdoor unit fan is regulated according to ambient temperature variations, enabling stepless variable frequency control with higher precision.



Ensure stable discharge and suction pressures of the compressor.
Ensure stable dynamic distribution of refrigerant flow (capacity) in the indoor unit with minimal fluctuations.
Enhance the rapid response of the control system while ensuring the stability, durability and reliability of the unit.

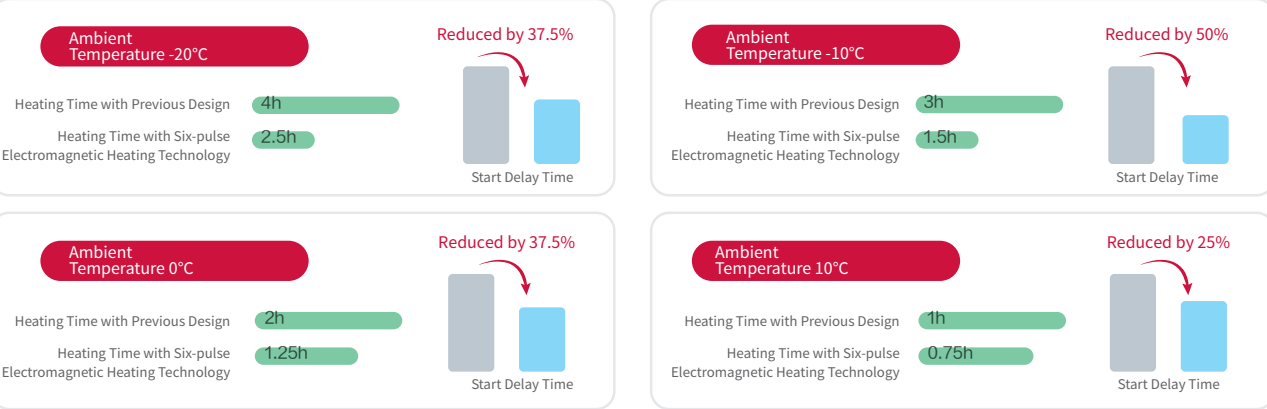
Surface Mounted Technology (SMT): Moisture Resistance and Interference Protection

By using SMT double-layer sealing technology, the sealing material is sprayed over the entire surface of the PC control board, effectively enhancing its resistance to electromagnetic interference and protecting it from harsh weather conditions such as high temperatures, humidity, dust and smog. This significantly improves the corrosion resistance and operational reliability of the control board.

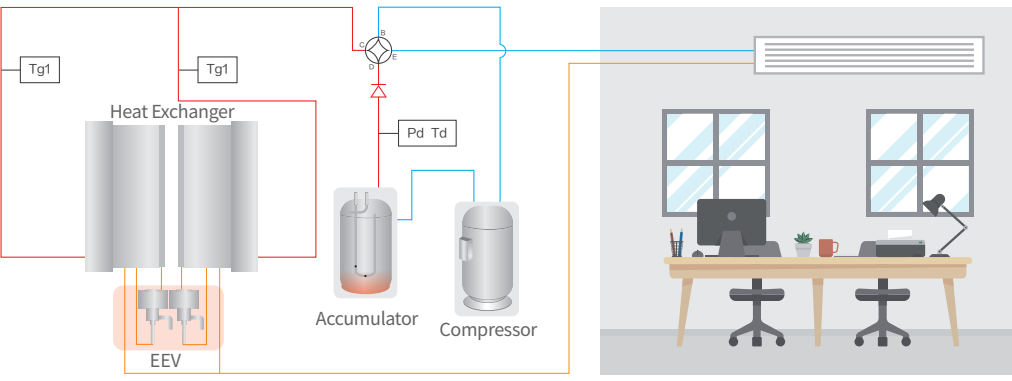


Six-Pulse Electromagnetic Heating Technology

By utilizing six-pulse electromagnetic heating technology, the lubricant can be heated up directly by the compressor rotor, eliminating the need for external heating bands, thereby enhancing heating efficiency. Based on an innovative algorithm, the rotor can be heated simultaneously or sequentially, with adjustable power and higher control precision for comfort and energy savings. It offers more flexibility by providing fast, high-power heating for short periods of time, or maintaining low-power heating for energy-efficient insulation, depending on actual needs.



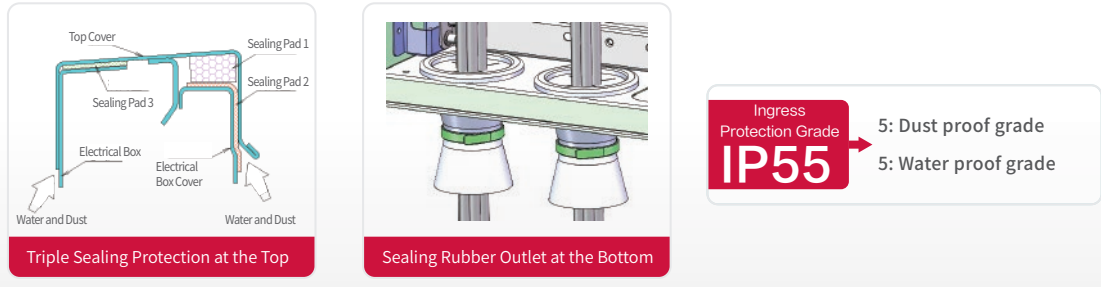
Independent Control of Heat Exchanger



- Support independent control of the electronic expansion valves for the left and right heat exchangers;
- Tackle space constraints and the consequent deterioration of airflow;
- Improve actual heating performance by 5% to 15%;
- Enhances the reliability of unit operation.

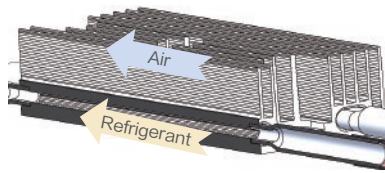
IP55 Electrical Box

The IP55-rated enclosure structure effectively prevents rain, snow, dust and insects from entering the electrical box, extending the life cycle of components. The sealed anaerobic chamber is designed to prevent internal fires and their spread, ensuring safe and reliable operation in humid, rainy, dusty, and sandy conditions.



PCB Micro-channel Refrigerant Cooling Technology

The micro-channel refrigerant cooling technology reduces thermal resistance by 20% compared to conventional copper-aluminium refrigerant pipes. It ensures more efficient heat dissipation and precise temperature control for the inverter PCB.



Bionic Owl Wing Fan with Powerful Ventilation and Low Noise

The Φ750mm large diameter fan features a new streamlined blade design that incorporates a bionic owl wing anti-turbulence profile and cross-section to improve static pressure efficiency and reduce the noise level, achieving powerful airflow and quiet operation.

