ASAMI®

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MODULAR INVERTER HEAT PUMP

With integrated circulation pump

Operation range: Heating: -20 °C ~ +40 °C

Capacity: 35 / 65 / 105 / 131 kW

Cooling: -15 °C ~ +52 °C

Capacity: 33 / 60 / 100 / 130kW

Environmentally Responsible Refrigerant

The Modular Inverter Heat Pump use R32 refrigerant, which has a Global Warming Potencial Coefficient 675.

R32

Modular combination design

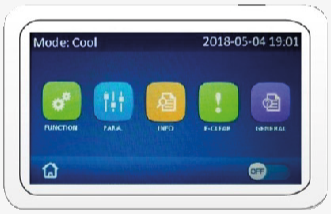
The modular combination design allows a maximum of 3 modular units as a cascade working with the same or different cooling capacities, so the total cooling capacity range is between 33kW and 390kW.

Continuos Heating

In a cascade operation, modules go into defrost cycle at different time interval, ensuring Continuos Heating function.

Controller CF492

This advanced touch screen controller gives easy operation, selection of many languages, possibility to control up to 3 modules in cascade, circulation pump work, and standard Modbus RS485 communication interface.

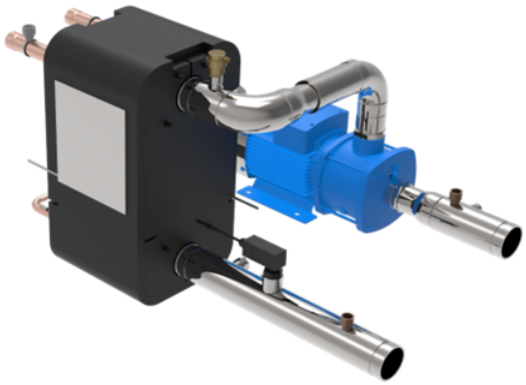


DC inverter Rotary compressor

Adopted with inverter rotary compressor, each with adjustable capacity range is from 10% to 100%. With DC inverter technology, the compressor operation frequency is in dynamic control to satisfy load changes, thus ensure highly efficient system for customers with an optimal performance.

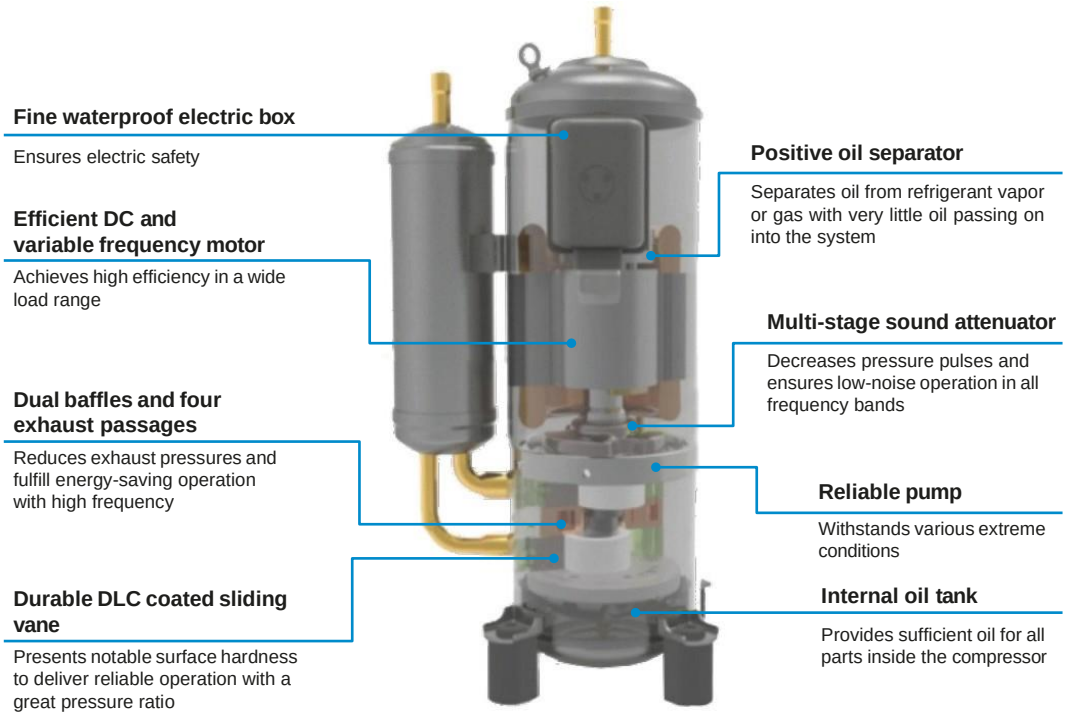
HIGH EFFICIENCY PLATE TYPE HEAT EXCHANGER

The Modular Inverter Heat Pump features a highly efficient plate-type heat exchanger with a multichannel distribution system, significantly increasing the heat exchange area for optimal performance. Advanced antifreeze protections include water temperature detection, water flow detection, pressure detection, and electric heating. These safeguards ensure reliable operation and effectively prevent freezing issues, making the plate-type heat exchanger a dependable solution for stable and efficient heat transfer.



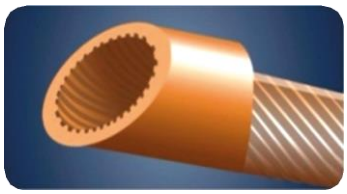
DC INVERTER ROTARY COMPRESSOR

Adopted with inverter rotary compressor, each with adjustable capacity range is from 10% to 100%. With DC inverter technology, the compressor operation frequency is in dynamic control to satisfy load changes, thus ensure highly efficient system for customers with an optimal performance.



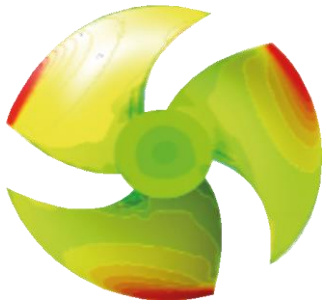
FINNED COPPER TUBE CONDENSER WITH GOLDEN FIN COATING

The new Modular Inverter Heat Pump features Golden Fin coating on the air-cooled condenser. This offers greater resistance to corrosive elements. Golden Fin coils perform 3x better under salt spray testing than Blue Fin coils. Golden Fin is a hydrophilic coating which repels water. As a result, it improves efficiency by accelerating the defrost process (when the unit is used for water heating).



LOW NOISE FANS

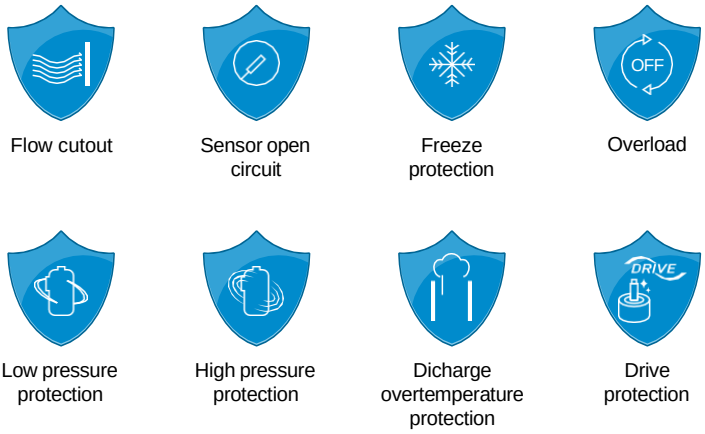
With a dedicated design software for fan blades and CFD analysis, variable-circulation-based blades are adopted featuring low torsion and massive air flow to deliver a high level of strength and performance and presenting swept and curved profiles to offer an ultra-low noise experience. The addition of a quiet mode also reduces nighttime noise for an ultra-quite environment up to 10 dB(A).



CFD analysis image ofsurface pressure

ADVANCED PROTECTION FUNCTIONS

It is equipped with a microprocessor control system which is capable of providing well-rounded protection and self-diagnosis to ensure safe and efficient operation. The protection is presented as follows:



Flow cutout | Sensor open circuit | Freeze protection | Overload

Low pressure protection | High pressure protection | Dicharge overtemperature protection | Drive protection

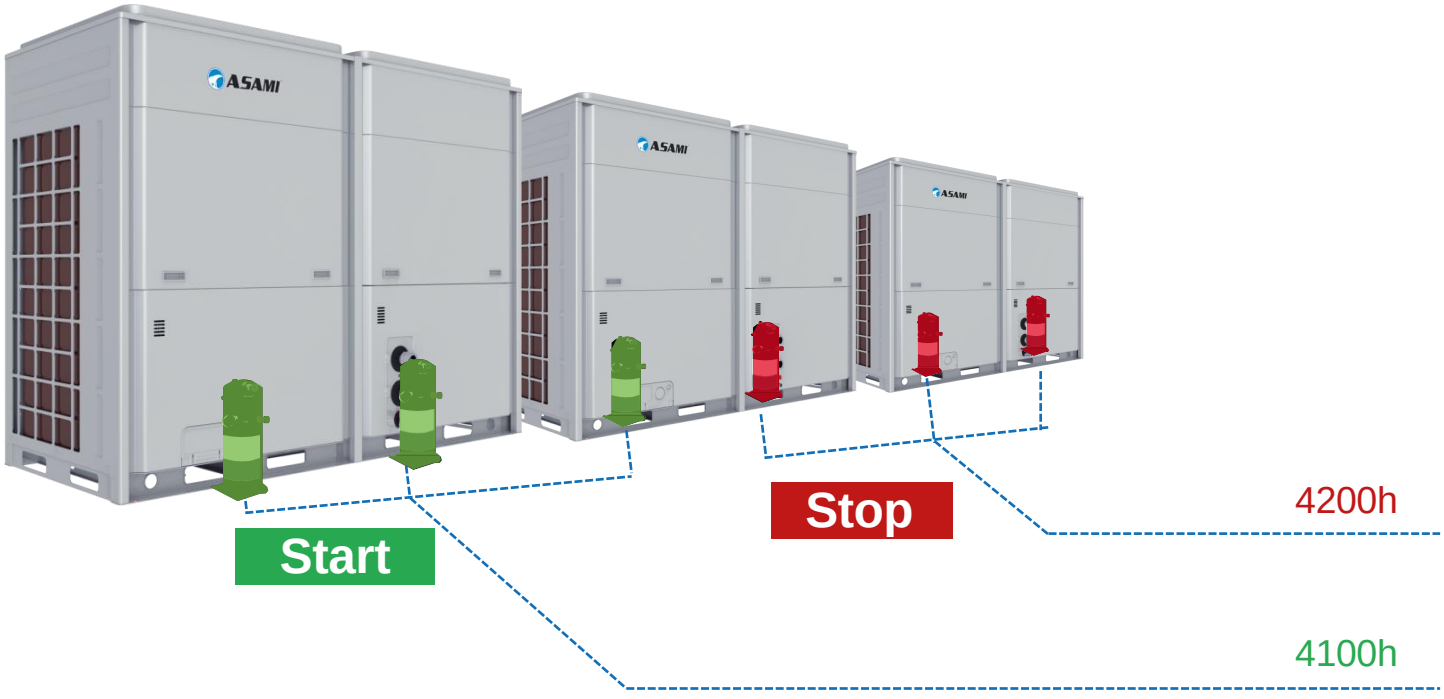
INTEGRATED HYDRAULIC MODULE

The units have an integrated hydraulic module, which speeds up installation work and simplifies system commissioning. The integrated hydraulic module consists of the following components:

- Circulation pump
- Expansion tank
- Drain valve
- Bleed valve
- Safety valve
- Drain strainer

COMPRESSOR OPERATION BALANCE

The display panel monitors the operation of all compressors and keep their loads in balanced modulation to prevent unnecessary working and extend service life and improve the reliability.



PRODUCT DATA

MODEL			AHP-33R32P1	AHP-60R32P1	AHP-100R32P1	AHP-130R32P1
Capacity	Cooling	kW	33	60	100	130
	Heating	kW	35	65	105	131
Capacity adjustment		%	31 - 100	15.6 - 100	29 - 100	25 - 100
EER		kW/kW	2.89	2.84	3.12	2.95
COP		kW/kW	4.00	3.86	3.94	3.85
SEER		kW/kW	4.65	4.74	4.90	5.04
SCOP		kW/kW	4.00	4.01	4.12	4.17
Water flow volume		m^3/h	5.68	10.32	17.20	22.36
Power supply		V/Hz	380-415/3F/50			
Max. running current		A	25	56	94	103
Quantity of compressors		pcs	1	2	2	2
Rated power input		kW	11.4	21.1	30.2	44
Refrigerant volume		kg	5.5	11	20	20
Water side heat exchanger		type	Aluminum fin-copper tube			
Water pump available head pressure		bar	1.55	2.0	1.6	1.6
Connection thread		-	G1 1/4 external thread	G2 external thread	DN65	DN65
Sound pressure level		dB(A)	66	71	70	72
Sound power level		dB(A)	82	86	90	92
Operating range	Cooling	°C	-15 ~ 52			
	Heating	°C	-20 ~ 40			
Water outlet range	Cooling	°C	5 ~ 20			
	Heating	°C	35 ~ 50			
Temperature difference	Cooling	°C	2.5 ~ 6			
	Heating	°C	2.5 ~ 6			
Size (WxDxH)	Unit	mm	1340×845×1605	2200×965×1675	2235x1283x2355	
	Package	mm	1420×920×1775	2267×1030×1867	2285x1320x2355	
Weight Netto/Brutto		kg	405/422	686/722	1016/1030	1016/1030

Remark:

1) Working conditions of cooling: Leaving chilled water temperature 7°C, water flow volume: 0.172 m3h per kW cooling capacity, outdoor ambient temperature 35°C (DB).
2) Working conditions of heating: Leaving water temperature 35°C, water flow volume: 0. 172 m3h per kW cooling capacity, outdoor ambient temperature 7°C (DB) / 16°C (B).
3) For specific parameters, please refer to the product nameplate.
4) For connection pipe*, if the size ≥ DN65, the connector is of flange type, if the size < DN65, the connector is of external thread type.
5) Sound pressure level was measured at 1 meter distance.

Contacts
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