ASAMI®

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MODULAR INVERTER HEAT PUMP

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

Capacity: 35 kW / 65 kW

Cooling: -15 °C ~ +52 °C

Capacity: 32 kW / 60 kW

Environmentally Responsible Refrigerant

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

R32

Modular combination design

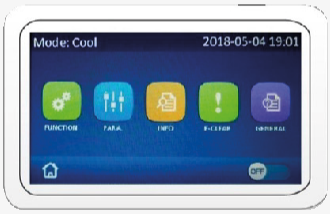
The modular combination design allows a maximum of 16 modular units as a cascade working with the same or different cooling capacities, so the total cooling capacity range is between 32kW and 1040kW.

Continuos Heating

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

Controller XE73-25/G

This advanced touch screen controller gives easy operation, selection of many languages, possibility to control up to 16 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 SHELL AND TUBE HEAT EXCHANGER

The Modular Inverter Heat Pump utilize high efficiency shell and tube heat exchangers. Internal baffles ensure the water mixes thoroughly in the heat exchanger to achieve a higher rate of heat transfer. The Shell and Tube heat exchangers provide advantages over other types of heat exchangers. The tube spacing virtually eliminates clogging due to foreign matter accumulating from poor water quality or scaling.

DC INVERTER ROTARY COMPRESSOR

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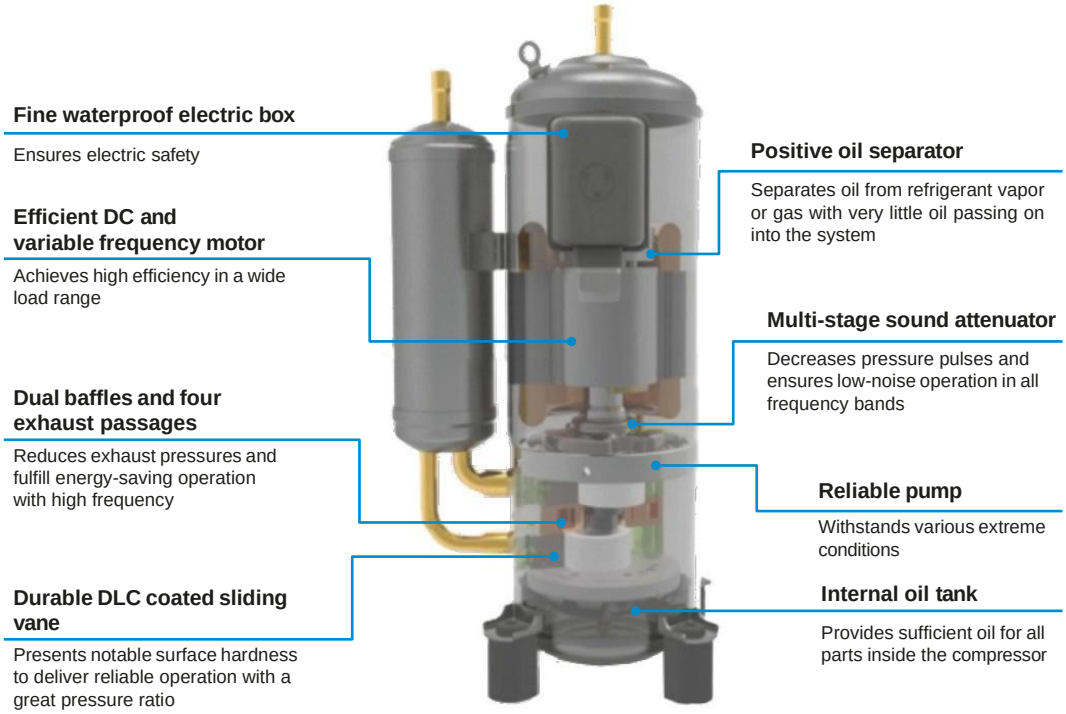
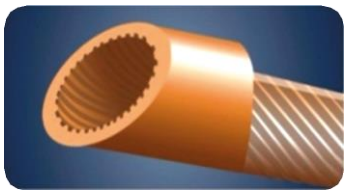


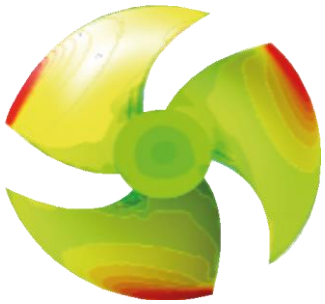
FINNED COPPER TUBE CONDENSER WITH GOLDEN FIN COATING

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

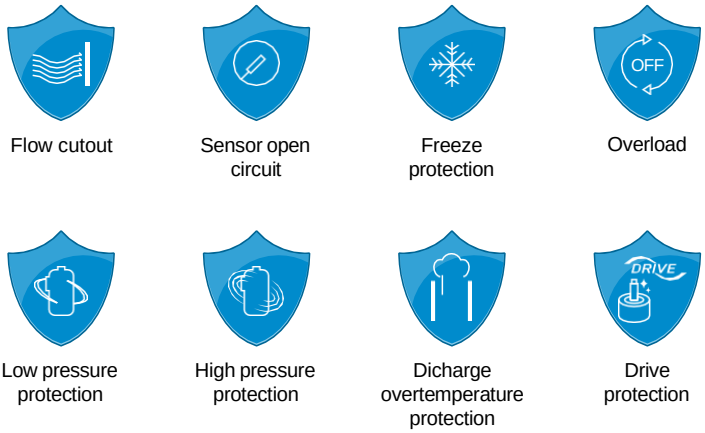
With a dedicated design software for fan blades and CFD analysis, variable-circulation-based blades are adopted featuring low torsion and massive air flow to deliver a high level of strength and performance and presenting swept and curved profiles to offer an ultra-low noise experience. The addition 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:

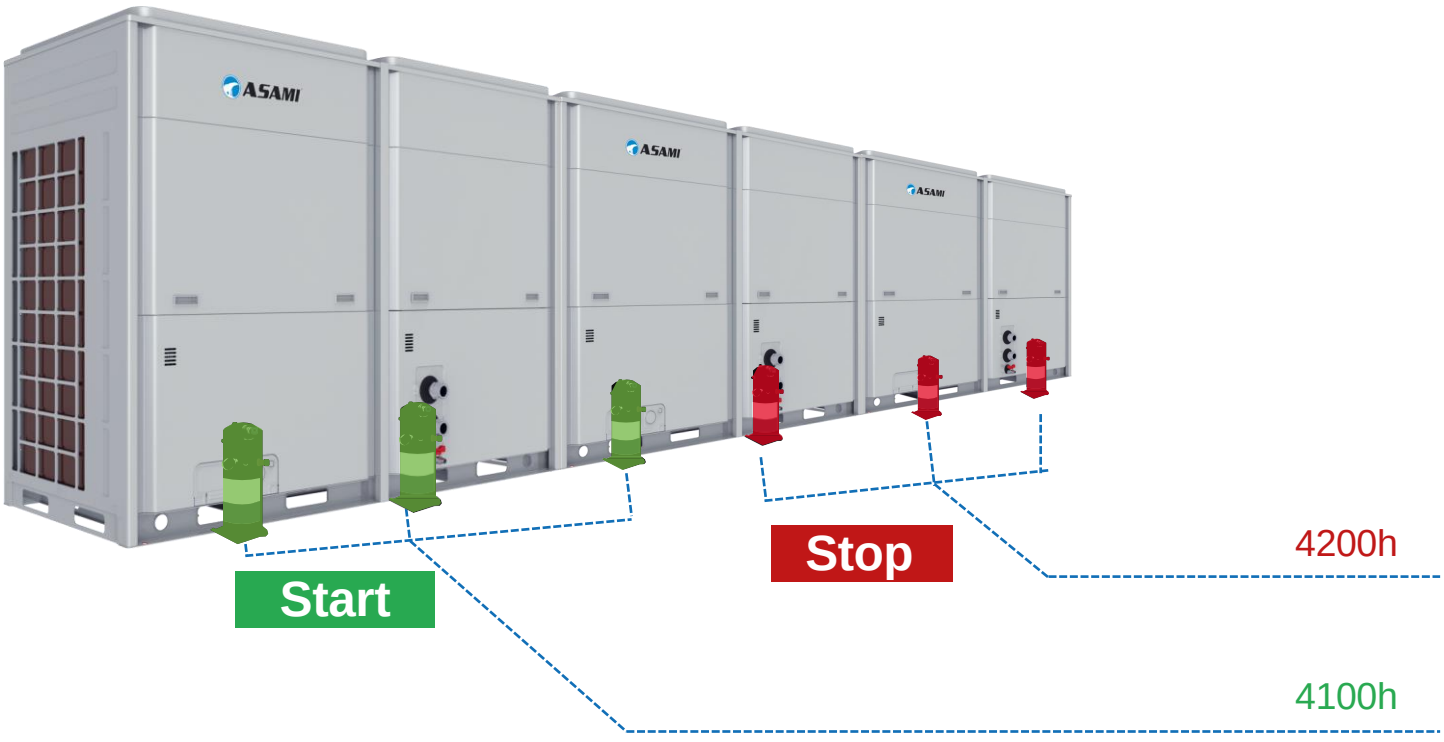


Flow cutout | Sensor open circuit | Freeze protection | Overload

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

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-32R32	AHP-60R32
Capacity	Cooling	kW	32	60
	Heating	kW	35	65
Capacity adjustment		%	31.25% ~ 100%	15.63% ~ 100%
EER/COP		-	2.74/3.30	2.88/3.27
SEER/SCOP		-	4.4/3.9	4.6/3.9
Power input	Cooling	kW	11.7	20.8
	Heating	kW	10.6	19.9
Compressor	Type	-	Inverter rotary	Inverter rotary
	Starting mode	-	Inverter starting	Inverter starting
	Quantity	-	1	2
Water side heat exchanger	Type		Shell-and-tube dry expansion	
	Water flow volume	l/s	1.53	2.87
	Pressure drop	kPa	80	55
	Connection pipe*	-	DN32	DN50
Air side heat exchanger	Type	-	Aluminum fin-copper tube	Aluminum fin-copper tube
	Fan type and quantity	-	Axial-flow/2	Axial-flow/2
	Total fan airflow	m^3/h	$2 \times 0.63 \times 10^4$	$2 \times 1.2 \times 10^4$
	Total fan motor power	kW	0.75 × 2	0.75 × 2
Sound pressure level		dB(A)	62	68
Dimension (W*D*H)	Outline	mm	1340 × 845 × 1605	2200 × 965 × 1675
	Package	mm	1420 × 920 × 1775	2267 × 1030 × 1867
Net/Gross/Operating weight		kg	405/422/445	686/722/755

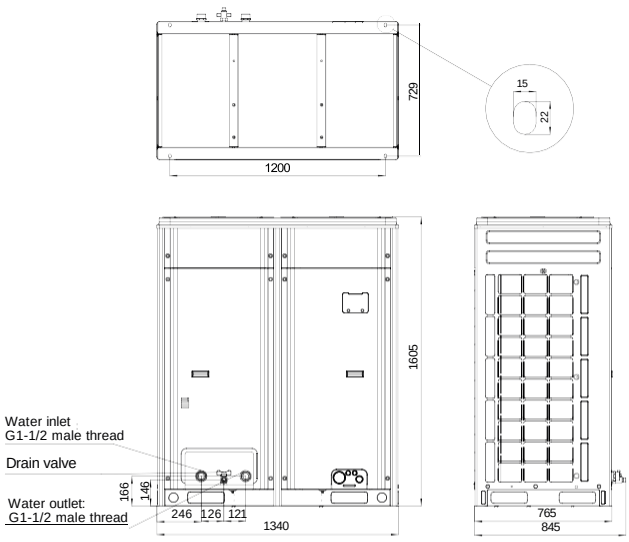
Remark:
1) Working conditions of cooling: Leaving chilled water temperature 7°C, water flow volume: 0.172 m3h per kW cooling capacity, outdoor ambient temperature 35°C (DB).
2) Working conditions of heating: Leaving water temperature 45°C, water flow volume: 0. 172 m3h per kW cooling capacity, outdoor 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.

OPERATION RANGE

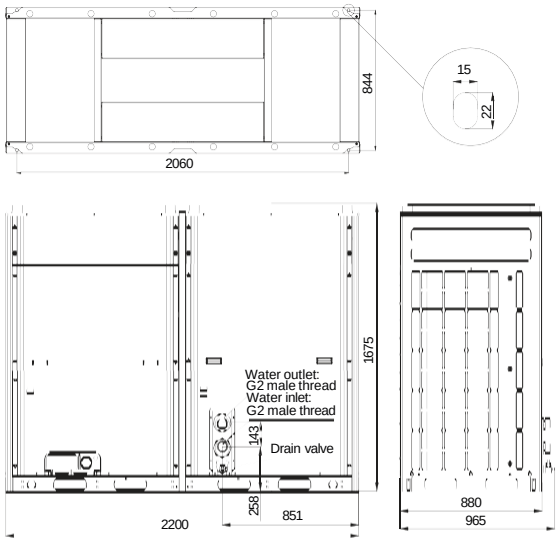
ITEM	Water side (water temperature)		Air side (Ambient temperature)
	Operating range		Operating range
	Leaving water temperature (℃)	Entering and Leaving water temperature difference (℃)	DB (℃)
Cooling	5 ~ 20	2.5 ~ 6	-15~ 52
Heating	35 ~ 50	2.5 ~ 6	-20~ 40

DIMENSIONS

AHP-32R32



AHP-60R32



Contacts

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