

Hot Water Heat Pumps

Next-Gen Water Heating Solutions
For a Smarter Tomorrow.



JAY GROUP

Engineering Water. Empowering Tomorrow.

Founded in 1991 by the First-Generation Entrepreneur Mr. Hasmukh Patel, Jay Group has evolved into a diversified, multi-brand conglomerate that leads the way in sustainable water management solutions across India and beyond. What began as a singular pursuit to redefine water infrastructure has today grown into an integrated enterprise offering comprehensive solutions in pumping, water treatment, wastewater recycling, and renewable heating systems.

For over three decades, Jay Group has played a transformative role in shaping how water is sourced, moved, purified, and utilized—delivering advanced, efficient, and eco-conscious systems that serve both urban and industrial ecosystems.

With a portfolio of specialized companies including Jay Pumps, Jay Water, and the newly launched Hashe, the group delivers end-to-end, technologically advanced solutions across sectors:



Jay Pumps

One of India's largest and most trusted distributors of Grundfos Pumps (Denmark), catering to industrial, commercial, and infrastructural water movement needs.



Jay Water

A leading name in water and wastewater treatment, with advanced filtration systems and the distinction of being Asia's largest membrane distributor.



Hashe

The latest innovation from Jay Group, offering smart, sustainable hot water solutions for residential and commercial applications, blending global efficiency with local relevance.

The group also represents an elite portfolio of globally recognized brands such as Toray (Japan), Kuraray (Japan), and Ropur (Switzerland) – bringing international innovation to Indian infrastructure through strong technical partnerships and unparalleled distribution expertise.

Our Vision

To be a global leader in sustainable water and energy solutions, enabling smart infrastructure and enhancing the quality of life through innovation, responsibility, and excellence.

Our Mission

To provide comprehensive, future-ready solutions across the water management spectrum – from sourcing to reuse.

To integrate global technologies with localized expertise to deliver high-efficiency systems.

To build long-term value for customers, partners, and communities through ethical, eco-conscious, and scalable innovations.

To empower people and processes through technology, service, and knowledge.

What Sets Jay Group Apart

30+ years of domain expertise in water movement, treatment, and energy solutions

A turnkey approach covering everything from design to commissioning

A strong partner ecosystem with global water and energy pioneers

Unmatched reach as one of Asia's largest membrane distributors

A team of seasoned engineers, technocrats, and solution architects

A proven legacy of successfully executed high-value projects across public and private sectors



hashe

Sustainable Hot Water Solutions

At Hashe, we believe that comfort should never come at the cost of the planet. Backed by Jay Group's legacy of excellence, Hashe delivers intelligent hot water solutions engineered for today's world – where sustainability, efficiency, and international quality go hand in hand.

From luxurious homes to large-scale commercial facilities, our range of residential, commercial, and all-in-one heat pumps combine cutting-edge design, low energy consumption, and long-term reliability – offering world-class performance with a lighter environmental footprint.

Hashe isn't just about hot water.

It's about future-ready living. Globally inspired. Locally perfected.

Efficiency &
Sustainability



hashe
Sustainable Hot Water Solutions

What is a Heat Pump Technology / System ?

Hot water heat pump technology represents a cutting-edge solution for energy-efficient water heating. By harnessing thermal energy from the ambient air, these systems use advanced refrigeration cycles to generate hot water, consuming significantly less electricity compared to traditional electric or gas water heaters.

At the core of this technology is an energy-efficient process that uses a small amount of electricity to extract heat from the surrounding air. This heat is then transferred to a water tank using a refrigerant system, efficiently raising the water temperature to as high as 75°C. Modern heat pump systems are engineered to perform reliably across a wide range of environmental conditions, including extreme temperatures as low as -35°C, making them suitable for diverse climates.

Hot water heat pumps offer several advantages:



Superior Energy Efficiency

With Coefficient of Performance (COP) ratings often exceeding 4.0, these systems can deliver up to five times more heat energy than the electricity they consume.



Sustainable Heating

Many systems utilize eco-friendly refrigerants like R290 and R134a, which have low Global Warming Potential (GWP) and zero Ozone Depletion Potential (ODP), supporting global environmental goals.



Smart Technology Integration:

Equipped with intelligent control systems, Wi-Fi connectivity and smart defrost capabilities, users can easily manage operations remotely and optimize energy usage.



Versatile Applications:

Suitable for residential, commercial and industrial use, hot water heat pumps are ideal for homes, apartments, hotels, hospitals, schools and factories.

As a future-ready heating solution, hot water heat pumps not only reduce utility costs but also contribute to the reduction of carbon emissions. Their low-maintenance design, long operational life and compatibility with solar and smart grid systems make them an essential component in modern energy-saving infrastructure.



How Hashe Heat Pump Technology Works ?

Hashe hot water heat pump systems are engineered to capture free thermal energy from the surrounding air and convert it into usable heat for water heating. This process is enabled by a high-efficiency refrigeration cycle and advanced control systems. Here's a simplified breakdown of how the Hashe system works:

Air Intake and Heat Absorption

The system begins by drawing in ambient air through an evaporator coil. This coil contains a low-boiling-point refrigerant that easily absorbs heat from the air even in cold climates.

Compression and Temperature Increase

The heat-laden refrigerant is then compressed by a high-performance compressor. As the refrigerant is compressed, its temperature and pressure rise dramatically.

Heat Transfer to Water

The heated refrigerant flows through a condenser coil, where the thermal energy is transferred to water inside a storage tank. This heats the water to the desired temperature, often up to 60 - 75°C, depending on system settings.

Cycle Repeats

After releasing its heat, the refrigerant cools and returns to its original low-pressure state, ready to absorb more heat and repeat the process.

This innovative technology enables the system to produce multiple units of heat energy for every single unit of electricity consumed, resulting in outstanding energy efficiency.





Why Choose Hashe Hot Water Heat Pumps ?

As energy costs continue to rise and global sustainability becomes more urgent, choosing an efficient and environmentally responsible water heating solution is more important than ever. **Hashe Hot Water Heat Pumps** stands out as a modern alternative to conventional gas or electric heaters for several key reasons:

Efficiency at Its Core

Hashe systems can achieve energy efficiencies of 300–500%, meaning they can produce up to five times more heat than the energy they consume.

Sustainability Driven

By using eco-friendly refrigerants and requiring less electrical energy, Hashe heat pumps significantly lower carbon emissions and environmental impact.

Versatile Functionality

Many Hashe units also offer cooling capabilities, making them suitable for both heating and cooling needs throughout the year.

Smart Integration

With IoT connectivity, smart controls, and compatibility with solar PV and smart grid systems, Hashe heat pumps provide convenience, real-time monitoring, and energy optimization.

Adaptability to Climate

Hashe models are engineered to operate reliably in a wide temperature range, from -35°C up to 50°C , ensuring consistent performance in diverse environmental conditions.

Benefits of Hashe Hot Water Heat Pump Systems

Up to 75–80% Energy Savings

Hashe systems dramatically lower electricity bills compared to traditional electric water heaters.

Eco-Friendly Operation

Hashe uses natural or low-GWP refrigerants like R290 or R134a, contributing to global emission reduction targets.

Safe and Reliable

Hashe systems are equipped with multiple layers of protection including antifreeze, overheat, voltage and compressor safeguards.

Quiet Operation

Hashe noise-reduction technologies ensure minimal disturbance, making them ideal for both residential and commercial settings.

Low Maintenance

Hashe heat pumps are designed for long-term operation with minimal servicing, thanks to advanced internal components and intelligent defrost systems.

All-in-One Design Options

Hashe offers integrated systems with built-in water tanks, providing space-saving and aesthetic advantages.

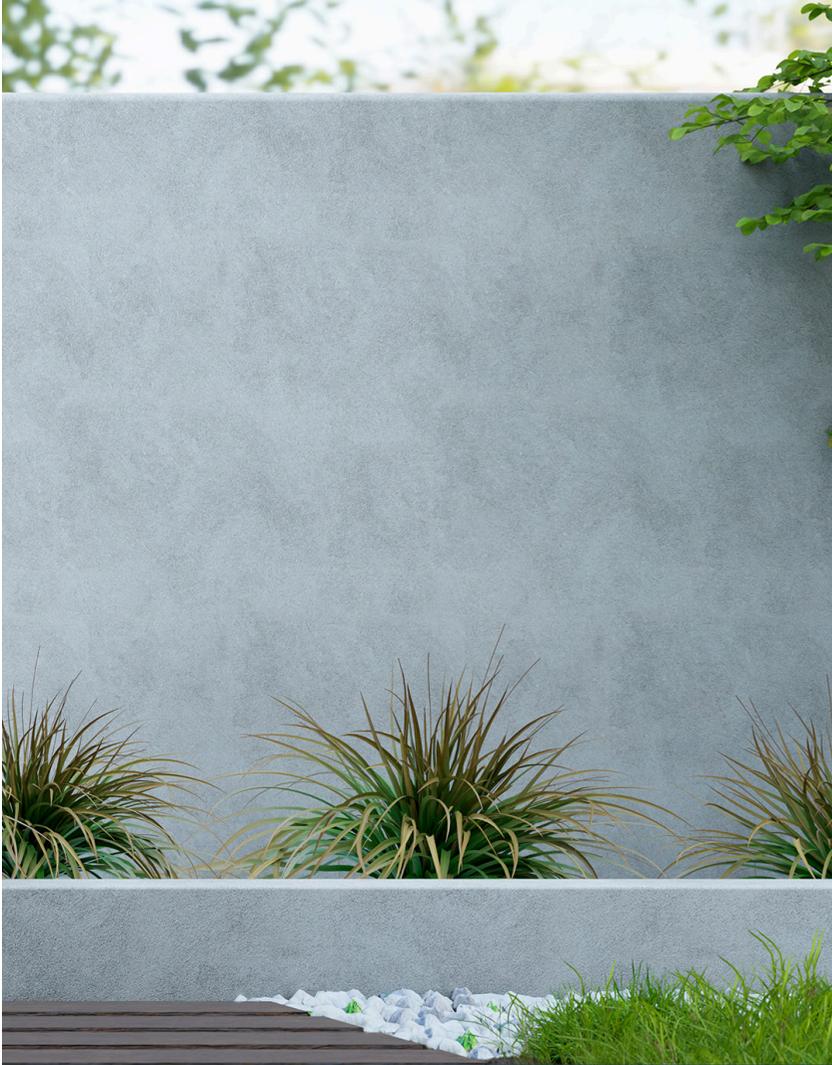




All-In-One Residential Hot Water Heat Pump

R290 All-in-one heat pump water heater seamlessly integrates with solar PV and smart home controls.





Smart Touch Screen

The sleek, colorful smart touch screen offers quick response and multiple modes, making one-touch setup and control effortless for users.

Multiple
Operating
Modes

Multiple
Extended
Functions

Timing
Control



Our products meet Australian market access standards. WaterMark and StandardMark certifications ensure quality compliance and reliability, helping build trust and expand your heat pump business.

Outstanding Performance

All-in-one units combine the functionalities of a water heater and a heat pump, eliminating the need for separate equipment and saving valuable space in your home.

R290 DC Inverter Heat Pump System

1. Multi-level noise reduction technology
2. Multiple insulation design
3. Anti-freezing design for water tank
4. Comprehensive protection features
5. Dual water tank temperature sensing probe design

Zero Cold Water Smart Control Technology (Optional)

Automatic Mode

Temperature Control Mode
Interval Circulation Mode

Scheduled Mode

Scheduled Temperature Control Mode
Scheduled Interval Circulation Mode

Water Flow Sensing Mode

Smart Sensing Mode

Product Advantages

All In One Hot Water Heat Pump

It perfectly integrates the heat pump and water storage tank into one outdoor unit, fast producing hot water and save 80% energy costs for users.

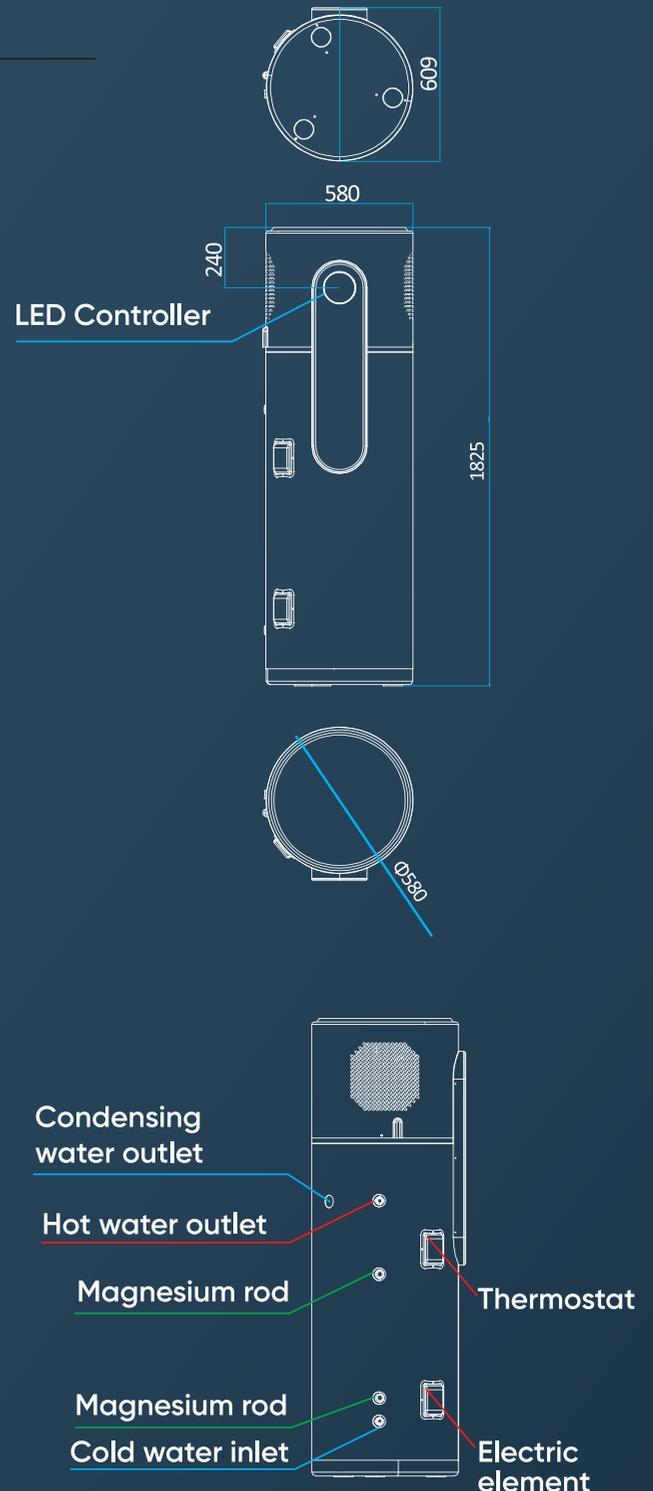
 200L 300L TANK VOLUME	 4/5/6 PEOPLE	 SG-READY	 PV-READY	
 R290 REFRIGERANT	4.92 4.92 MAX COP	75°C 75°C MAX TEMP	80% 80% ENERGY SAVINGS	
 DC INVERTER	 INTELLIGENT TEMP CONTROL	 ZERO COLD WATER	 INTELLIGENT DEFROST	 REAL-TIME MONITORING & MANAG(OPTIONAL)



R290 All-in-One Water Heater

Full DC Inverter

Model	HAR290AIO200	
Water tank volume (L)	200	
Power Supply	220-240V/1Ph/50Hz/60Hz	
Heating capacity (kW)	Power mode	3.6
Rated Power (W)		0.8
Rated Current (A)		3.7
COP		4.50
Heating capacity (kW)	Standard mode	2.8
Rated Power (W)		0.57
Rated Current (A)		2.7
COP		4.92
Heating capacity (kW)	Silent mode	2.0
Rated Power (W)		0.44
Rated Current (A)		2.1
COP		4.58
Electric Heater Rated Power (W)	2000	
Max Input Power(W)	3200	
Max Input Current(A)	14.6	
Max water pressure(MPa)	0.8	
Max exchanger working pressure(MPa)	3.2	
Refrigerant	R290	
Working temperature range (°C)	-7~43	
Noise(dB)	56	
Tank material	Enamel	
Water pipes connector size	DN20	
IP Grade (Level of protection)	IPX4	
Net Dimension(mm)	Φ580×1825 (200 L)	



Testing condition: Water Temperature from 15°C to 55°C, Dry bulb temperature 20°C, Wet bulb temperature 15°C.

Note:

The technical and physical parameters of products may change in the process of continuous optimization. Actual products may differ.

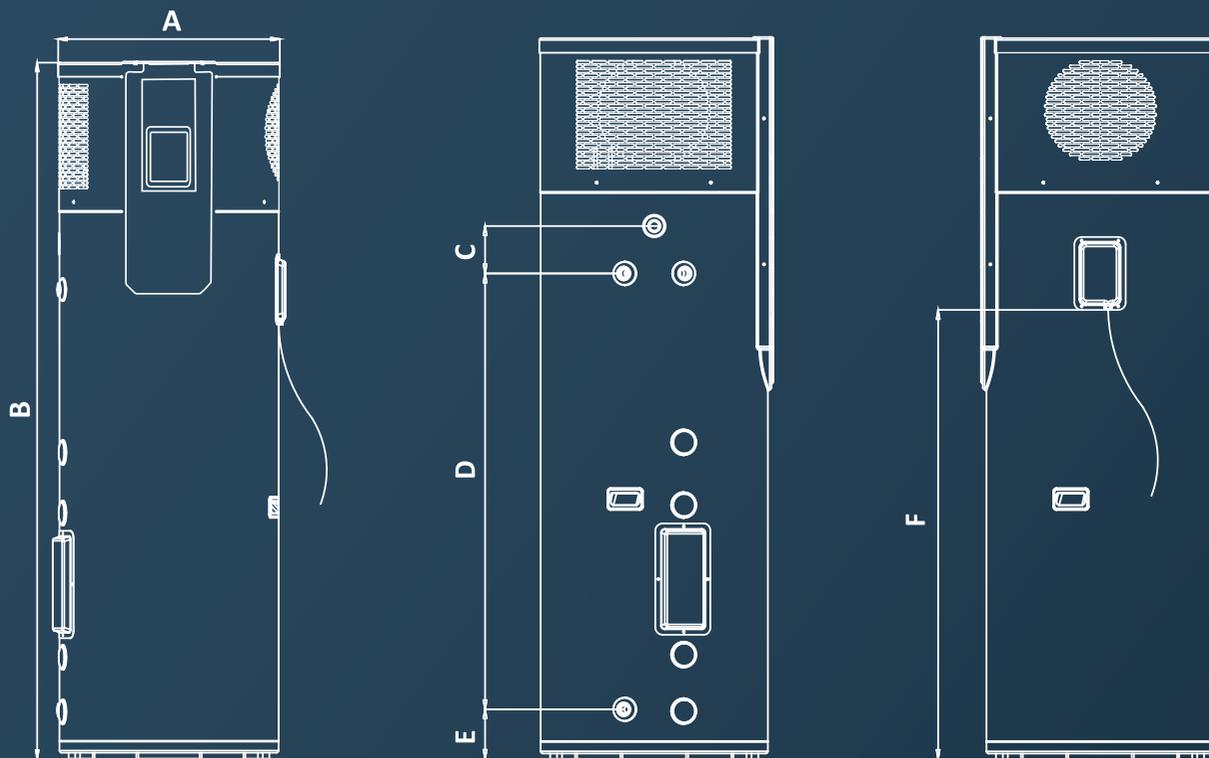


R290 All-in-One Water Heater

Model	HAR290AIO315
Heating Capacity at Air 20°C/15°C, Water Temperature from 15°C to 55°C	
Heating Capacity(kW)	2.9
Power Input(kW)	0.67
COP	4.33
Power Supply	220V~240V/50Hz
Heat Pump Max Power Input (W)	1050
Heat Pump Max Current (A)	5
Electric Heater (W)-Maximum	1500
Electric Heater Current(A)-Maximum	8
Refrigerant	R290/400g
Net Dimension(mm)	Φ626×1979
Package Dimension(mm)	700×700×2119 (with pallet)
Net Weight(Kg)	127
Gross Weight(Kg)	147
Noise(dB)	42
Water tank volume (L)	315
Working temperature range(°C)	-7~43
Max Cold Water Supply Pressure	550Kpa
Recommended PLV pressure rating	550Kpa

PRODUCTS EXTERNAL DIMENSION

Size(m) Model	NA37 - 315A
A	626
B	1979
C	130
D	1196
E	136
F	1231



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Eco-Friendly Refrigerant



Hashe introduced advanced air-to-water heat pump technology using eco-friendly R290 refrigerant to support the global mission of reducing carbon emissions and achieving carbon neutrality. R290, a highly pure form of propane, is recognized for its minimal environmental impact with a nominal global warming potential (GWP3) and zero ozone-depleting properties.

GWP3 which is 477 times lower comparing with R134a

Micro channel heat exchanger can improve the COP effectively

Micro-channel exchangers to cut energy use by 10% and lower refrigerant needs, providing clean, efficient heating with a GWP as low as 3.

0212





Residential & Commercial Hot Water Heat Pump

This is an air-to-water heat pump, one of the most advanced and energy-efficient heating devices in the world. It utilizes a small amount of electricity to drive the compressor, absorbing up to four times the free heat energy from the air and releasing it into the water for heat exchange, providing efficient sanitary hot or cold water for the residence.

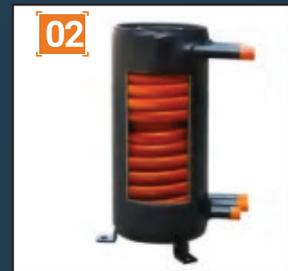


Colourful touch display

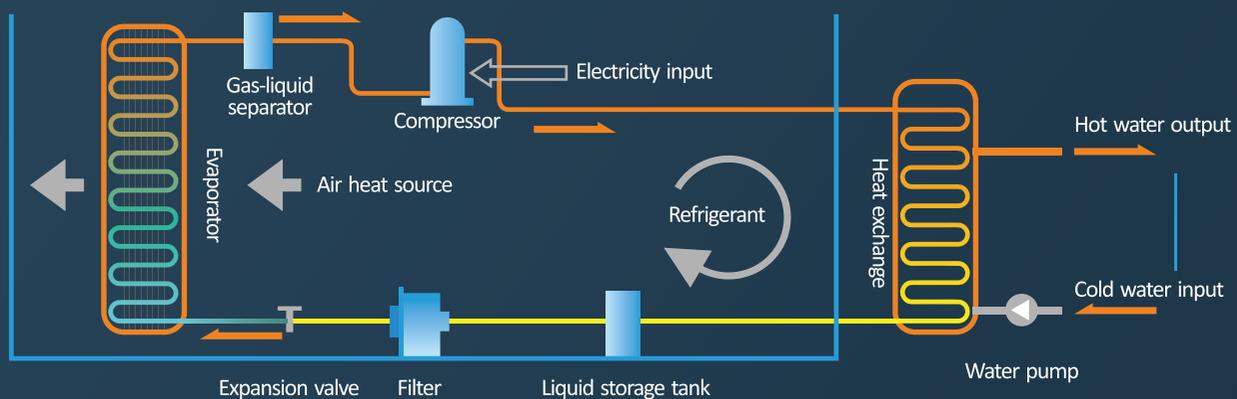
High-definition display, responsive touch functionality, user-friendly interface and large, clear lettering make for simpler operation.



01 High precision electronic expansion valve (EEV)



02 High efficiency tube in shell heat exchanger



Residential Hot Water Heat Pump

1 part of electrical power+4 parts of heat energy from the air=5 parts of heat energy In theory, Hashe's air-to-water heat pumps have a heating efficiency of up to 500%

Product Advantages

Residential Hot Water Heat Pump



R410A refrigerant,
environmental friendly



Higher water
temperature
output up to 60°C



75% Energy
Savings



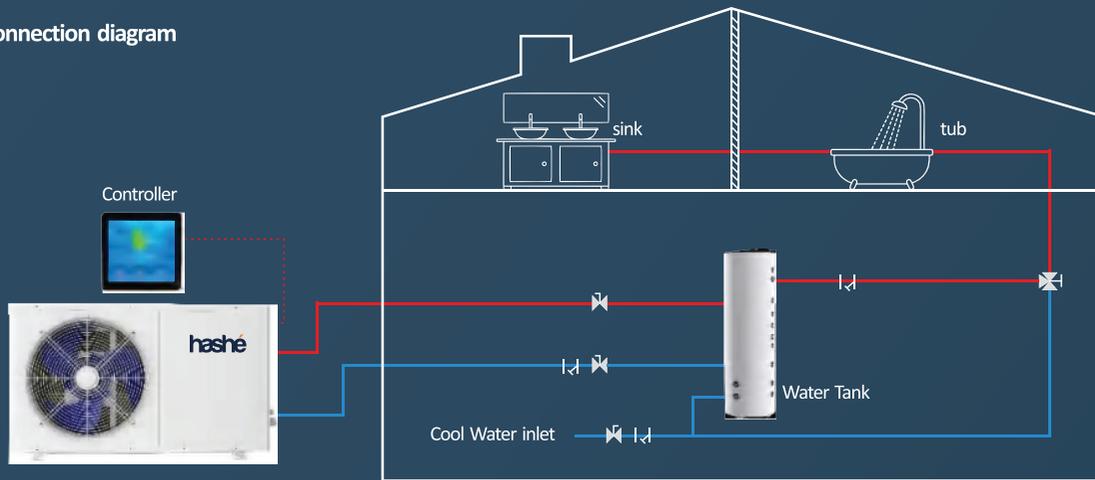
24 Hours Hot water
Service



Defrost
automatically



Connection diagram



Model	HAR410A3.6MHP	HAR410A5MHP	HAR410A7MHP	HAR410A9.6MHP
Heating capacity (kW)	3.6	5.0	7.0	9.6
Input power (kW)	0.96	1.30	1.79	2.42
COP	3.65	3.86	3.92	3.96
Rated current (A)	4.39	5.93	8.17	11.09
Max input power (kW)	1.30	1.75	2.41	3.40
Max current (A)	5.95	8.01	11.03	15.56
Rated outlet water temperature (°C)	55	55	55	55
Highest outlet water temperature(°C)	60	60	60	60
Power supply	220V/1ph/50Hz			
Anti-electric shock rate	I	I	I	I
IP Grade (Level of protection)	IPX4	IPX4	IPX4	IPX4
Refrigerant	R410A			
Operation Ambient temp (°C)	-7~43°C			
Production capacity (L/H)	75	107	150	206
Diameter of pipe (mm)	DN20	DN20	DN20	DN25
water circulation (m ³ /H)	0.60	0.86	1.20	1.65
Water pressure drop (kPa)	20	25	30	35
Noise (dB(A))	≤50	≤50	≤52	≤54
Net weight/Gross weight(kg)	48/56	52/60	60/70	75/86
Body size(W*D*H)	956×350×550	956×350×550	1006×350×600	1100×420×650
Condenser type	High efficiency tube in shell heat exchanger			
Operating water temperature (°C)	9~60°C			
Compressor brand	Panasonic/GMCC			
Four-way valve brand	Sanhua			
Expansion valve brand	Sanhua			
Water pump built in	Included			
Test condition: Inlet water temperature 15°C, Outlet water temperature 55°C, Dry bulb temperature 20°C, Wet bulb temperature 15°C.				

Note:

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R410A
Eco-refrigerant


Intelligent defrost

60^{°C}
Max. hot water

Save **75%** energy
than electric heater

Commercial Hot Water Heat Pump

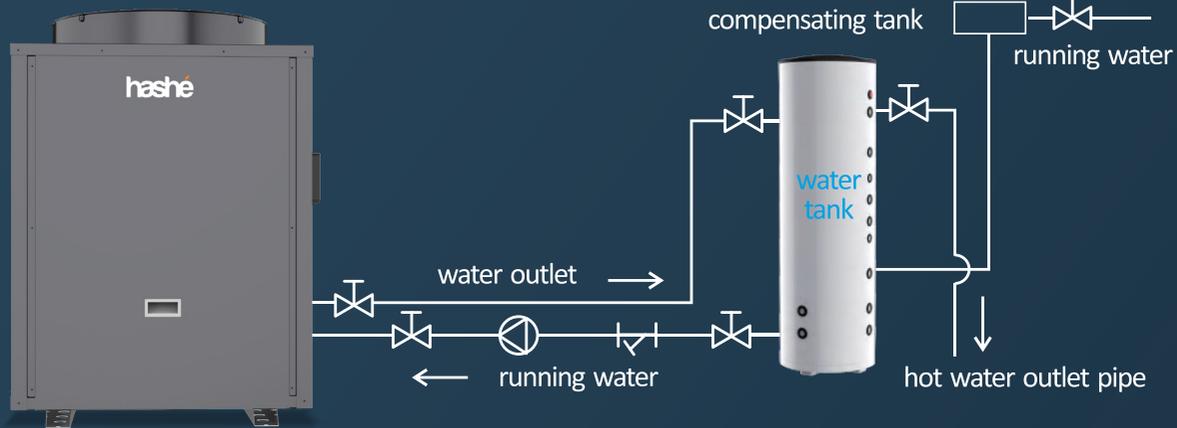
Hashe provides one-stop central hot water solutions for commercial Offices, hotels, Factories, Hospitals and schools and a series of products can be used together to meet the central hot water needs of different buildings.

Utilizes advanced heat pump technology to transfer energy efficiently, achieving up to a 75% reduction in energy consumption compared to traditional electric heaters.

Joly
GROUP



Engineered
for Efficiency,
Built for Life



**Easy to
Install**

This heat pump system features a compact, space-saving structure, minimizing shipping and on-site installation space limitations while reducing complexity and costs.

Product Advantages

Commercial Hot Water Heat Pump



R410A refrigerant,
environmental friendly



Higher water
temperature
output up to 60°C



75% Energy
Savings



24 Hours Hot water
Service



Defrost
automatically

Through different installation, the system can be used for cooling, heating and providing sanitary hot water.

Economical

The product is environmentally friendly, energy-saving and has lower operating costs. so achieve the effect of energy saving and power saving and at the same time, it can realize the sub-household calculation volume to achieve convenient management.

Economical

It can be easily controlled independently in the room or in the whole building.

Comfort

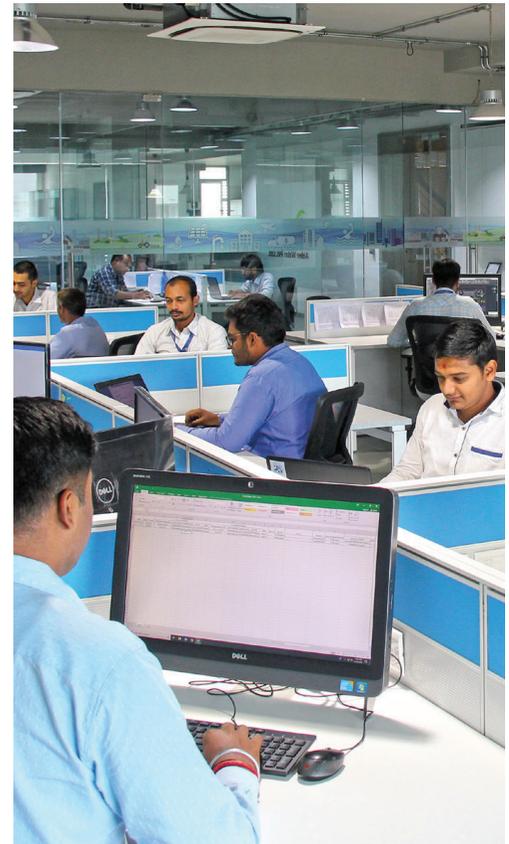
The central hot water experience with constant temperature and pressure makes people feel happy physically and mentally, making work and life more comfortable.



Model	HAR 410A10.3 AWCHP	HAR 410A18 AWCHP	HAR 410A23.3 AWCHP	HAR 410A37 AWCHP	HAR 410A47 AWCHP	HAR 410A77.8 AWCHP	HAR 410A88 AWCHP	HAR 410A102 AWCHP	HAR 410A165 AWCHP	HAR 410A172 AWCHP
Compressor brand	Gree	Copeland	Gree	Copeland						
Four-way valve brand	Sanhua									
Expansion valve brand	Sanhua									
Heating capacity (kW)	10.3	18	23.3	37	47	77.8	88	102	165	172
Input power (kW)	2.7	4.5	5.5	8.9	11	20.3	20.9	23.4	35.5	40.5
COP	3.81	4.0	4.24	4.16	4.27	3.83	4.21	4.36	4.65	4.24
Rated current (A)	12.7	8.0	9.8	15.9	22.6	35.5	37.4	41.4	67	72.4
Max input power (kW)	4.2	6.8	8.5	14	18.3	28	33.5	36.5	55	59
Max current (A)	19	12.3	15.2	25	32.7	50	60	65.2	98.3	105.5
Rated outlet water temperature (°C)	55	55	55	55	55	55	55	55	55	55
Highest outlet water temperature (°C)	60	60	60	60	60	60	60	60	60	60
Power supply	220V/50Hz	380V/3N~/50Hz								
Anti-electric shock rate	I	I	I	I	I	I	I	I	I	I
IP Grade (Level of protection)	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4
Refrigerant	R410A									
Operation Ambient temp (°C)	-7~43°C									
Production capacity (L/H)	221	387	501	795	1010	1673	1892	2193	3547	3698
Diameter of pipe (mm)	DN20	DN25	DN25	DN40	DN40	DN50	DN65	DN65	DN65	DN65
water circulation (m³/H)	1.8	3.1	4.0	6.4	8.1	13.4	15.1	17.5	28.4	29.6
Water pressure drop (kPa)	55	70	70	75	90	80	80	70	70	70
Noise (dB(A))	55	58	59	62	63	67	72	73	78	78
Net weight(kg)	91	122	133	195	256	385	470	485	1300	1300
Body size(W*D*H)	810×695×865	750×805×1165		1500×750×1165	1530×790×1100	1705×1005×1200	2005×1050×1400		2400×1300×2350	
Condenser type	High efficiency tank heat exchanger					Casing heat exchanger				
Operating water temperature (°C)	9~60°C									
Test condition: Inlet water temperature 15°C, Outlet water temperature 55°C, Dry bulb temperature 20°C, Wet bulb temperature 15°C.										

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From the
House of Jay Group

hashé
Sustainable Hot Water Solutions

Jay Water Management Private Limited

'Jay House' House No 4, Magnet Corporate Park, B/H Intas House, Nr. Sola Flyover,
Thaltej, Ahmedabad - 380059. Gujarat. India.

Service Center

Block No.198/3, Dantali Industrial Estate Near Lapkaman Gam, Gota-Vadsar Road,
Deepkiran Food Centre Lane, Dantali Taluka- Kalol, Ahmedabad, Gujarat 382721

+91-79-48441051/52 | info@jaywater.com | www.jaywater.com

Branch Office: New Delhi, Mumbai, Rajkot, Surat, Vadodara