

# ODIN INTERNATIONAL

## HYBRID HEAT PUMP WATER HEATERS

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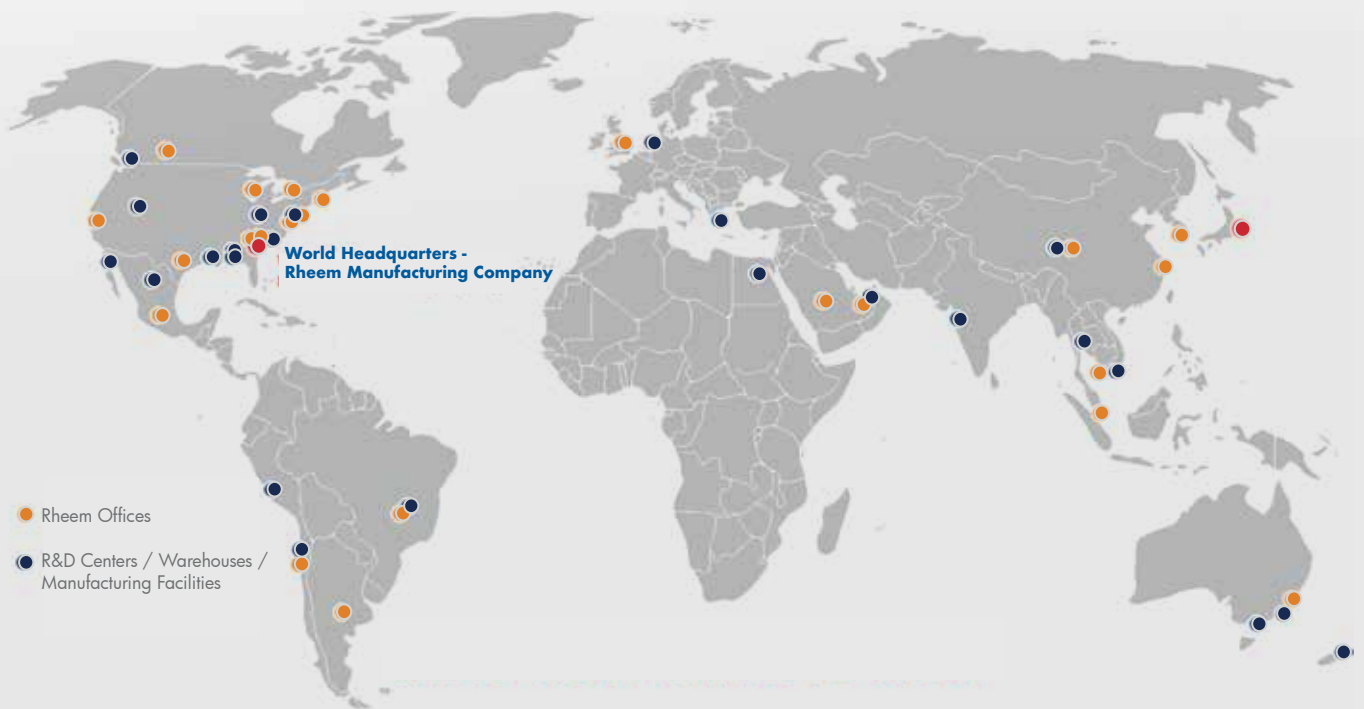


360° + 1 THE NEW

# DEGREE OF WARMTH

Richmond Water Heaters are manufactured by Rheem®, the company which invented water heaters. Richmond was named in honour of Rheem's first company headquarters in Richmond California.

The Richmond brand was established in 1983 to offer exceptional performance water heaters. We put the best materials and workmanship into our Richmond brand to produce water heaters that are exceptional values.



**11**  
R&D  
CENTERS

**13**  
RHEEM BUSINESS  
CENTER

**25**  
MANUFACTURING  
FACILITIES

# WHY RICHMOND?

## EXPERTISE

The Richmond® brand promise and central message remain: The Water Heater Experts.™ For decades, Richmond Water Heaters have showcased this expertise by delivering proven performance, quality and durability.

## VALUE

Richmond® Water Heaters are manufactured with exceptional workmanship and top-quality materials—resulting in excellent performance, durability and efficiency.

## EXCEPTIONAL PRODUCTS

The Richmond® brand will continue to provide a comprehensive line of exceptional water heating products with features engineered to exceed expectations of consumers and the industry.

## SERVICE & SUPPORT

The Richmond® brand is a call away with expert service and support to help provide the best water heating solutions.

## OUR EXPERTISE & ADVANTAGES



### RELIABILITY

An American company with nearly 100 years of history in business, Richmond has been a pioneer in developing some of the most innovative advancements in water heating. With a long list of award-winning solutions, Richmond continues to deliver advanced comfort, savings, and experiences to our customers.



### WATER HEATING EXPERTS

With a wide range of products, we have something to fit almost every water heating need across MEA region. The proof is in having over 1,000,000 water heaters installed across MEA region. With Richmond commercial products installed in over 1,000 locations, we are also proud to be the preferred choice for commercial applications in the MEA region.



### SUSTAINABILITY

Richmond is making a difference with our ambitious 2025 goals. We continue to lead with our bold approach to improvements for our products and processes to dramatically cut our impact on the environment, while empowering both our customers and employees to work and live sustainably. It's all a part of our bold vision for the future.



### DEGREE OF INNOVATION

Reduce manufacturing greenhouse gas footprint by 50%.



### DEGREE OF EFFICIENCY

Reduce greenhouse gas emissions by 50% and achieve zero waste to landfill.



### DEGREE OF LEADERSHIP

Train plumbers and contractors on sustainable products of sustainable installation and recycling best practices.



# ODIN INTERNATIONAL

## HEAT PUMP WATER HEATERS

Experience enhanced comfort with maximum saving with Richmond's Heat Pump Water Heaters. Designed using the highest quality of materials, together with thoughtful innovation and technology, Richmond's Heat Pump Water Heaters are built intelligently to provide efficient and renewable energy solutions to meet your hot water needs.



EXCLUSIVE

# RHEEMGLAS®

TANKS

For enhanced durability, Rheem water heaters come with RHEEMGLAS® coating, a protective coating on the walls of the storage tank to enhance the lifespan of the water heater. Thanks to this proprietary solution, Rheem storage water heaters enjoy a great reputation for providing great quality and value across the world for many years.



**PLUS ONE®**  
**Multi-Layer Enamel Coating Protection**

Coating layer made using low-carbon, anti-scale and explosion-resistant special enamel steel sheet, which can be easily attached to our exclusive RHEEMGLAS® enamel coating. This multi-layer coating is achieved by adopting American spraying technology and production standards.



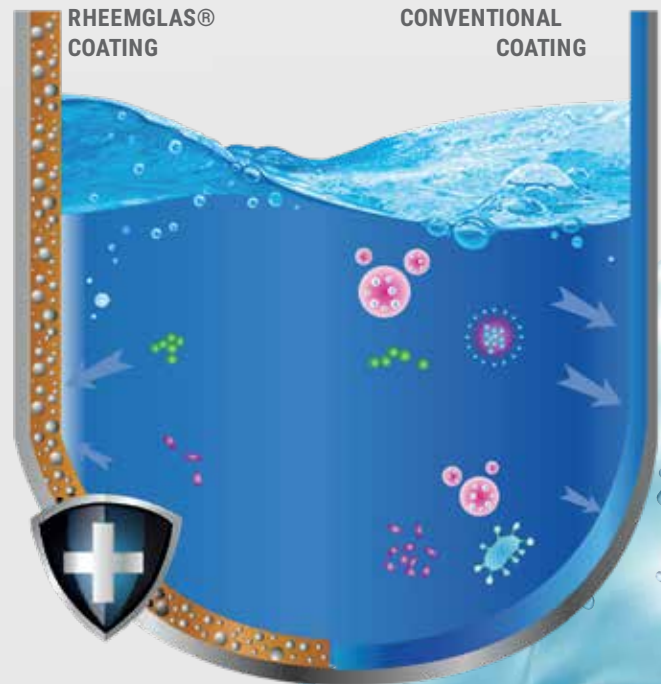
**PLUS ONE®**  
**Special Enamel Steel Sheet**

The yield strength of a typical enamel steel sheet is as high as 412MPa. RHEEMGLAS® enamel coating has the same expansion coefficient as an enamel steel sheet. This means that with RHEEMGLAS® enamel coating, inner tank will not corrode or crack easily due to thermal expansion or contraction.



**PLUS ONE®**  
**Anti-Bacterial Protection**

Thanks to its anti-scaling properties, RHEEMGLAS® enamel coating effectively prohibits the growth of harmful and aggressive bacteria, making the water in the storage tank cleaner, and prolonging the lifespan of the storage water heater.



RHEEMGLAS®  
ANTI-BACTERIAL TANK

HYBRID HEAT PUMP SERIES

# ODIN INTERNATIONAL 400L

INTEGRATED AIR SOURCE WATER HEATER



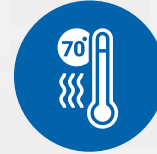
**CAPACITY**

Wider capacity of 400L ensures sufficient hot-water supply by heat pump only, continuously produces 1000L hot water at constant temperature.



**WIDE AMBIENT OPERATING RANGE (-7~43°C)**

Odin 400l is equipped with zero-cold-water technology with a COP\* upto 4.2, ensuring that water is warm as soon as the facet is turned on with a built-in circulation system.



**HIGH TEMPERATURE HEAT PUMP SYSTEM**

Heating up to 70°C by heat pump only. 5.2kW heating capacity, ensuring sufficient hot-water supply.



**RHEEM SMART CONNECT MOBILE APP**

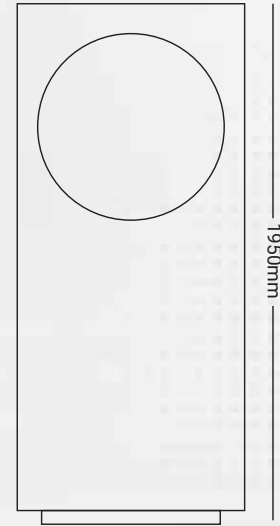
Smart control experience with mobile app.



## RICHMOND HYBRID HEAT PUMP WATER HEATERS

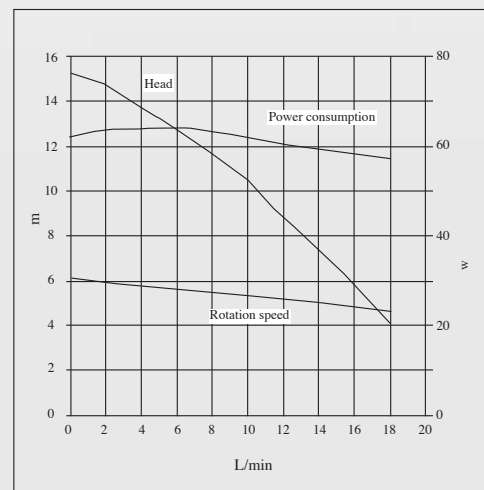
HEAT PUMP MODEL		RMHP-400-5207-M
RATED TANK CAPACITY (LITERS)		400
POWER SUPPLY		220-240V~50Hz
RATED HEAT PUMP HEATING CAPACITY (KW)*		5.25
HEAT PUMP RATED INPUT*	POWER (KW)	1.25
HEATING ELEMENT RATED INPUT	POWER (KW)	3.6
MAXIMUM INPUT	POWER (KW)	5.5
COP*		4.2
WATER TEMPERATURE SETTING (°C)		35 - 70°C
AMBIENT TEMPERATURE RANGE (°C)		-7 ~ 43°C
IP RATING		IPX4
NOISE LEVEL (DB [A])		53
REFRIGERANT TYPE		R134a
TANK SIDE	HEAT EXCHANGER TYPE	Microchannel Outside the Tank
	INLET/OUTLET / TPR VALVE/	RP ¾" (DN20)
	RATED PRESSURE (MPA)	0.85
	MAXIMUM WATER INLET PRESSURE (MPA)	0.68
AIR SIDE	HEAT EXCHANGER TYPE	Internal Thread Tube with Hydrophilic Aluminium Foil
	AIR INLET/OUTLET	Side /Back
INBUILT CIRCULATION PUMP	INLET AND OUTLET SIZE	½ "
	WATER TEMPERATURE RANGE	0-80 DEG C
	RATED FLOW RATE & HEAD	Flow rate 10L/ min.or more at pump head 7m,
OVERALL DIMENSION	DIAMETER (MM)	740
	HEIGHT (MM)	1950
NET WEIGHT (KG)		180

\*Rating Condition: Dry bulb temperature: 20°C, Wet bulb temperature: 15°C, Water heated from 15°C to 55°C.



—740mm—

### PUMP CURVE



### NOTES

To ensure the efficiency and normal operation of the unit, pay attention to the following items:

- Do not install the water heater in operating environment below -7°C, so as not to affect the normal operation or damage the machine.
- The space around the water heater should facilitate the removal of the unit for maintenance or replacement if necessary.

RECOVERY TIME				
		Ecomode	Quick mode	Electric mode
Capacity	Electric	HH:MM	HH:MM	HH:MM
400 L	3.6 kw	3:33	2:07	5:06

The heat pump testing conditions: power supply 220V~50Hz, ambient temperature 20 deg C /15 deg C (dry bulb/wet bulb), and water temperature from 15 deg C to 55 deg C

HYBRID HEAT PUMP SERIES

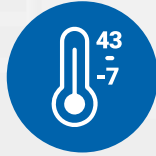
# ODIN INTERNATIONAL

## INTEGRATED AIR SOURCE WATER HEATER



**CLASS 1 ENERGY RATING, COP ≥ 4.2**

Generates about 2.68kWh of energy to heat water with only 0.667kWh of electrical power. This helps to provide 4.2 times of savings as compared to conventional electrical water heaters



**WIDE AMBIENT OPERATING RANGE (-7°C TO 45°C)**

Excellent adaptability, capable of operating in a wide range of ambient settings, from -7°C to 45°C, to provide hot water regardless of temperature of external environment



**MICROCHANNEL HIGH EFFICIENCY HEAT EXCHANGER**

High pressure rating, large heat exchanger area and high heat transfer rate to improve the heat exchange efficiency of the heat pump system



**FAST HEATING**

2800W heating capacity, ideal for residential and light commercial applications



**LOW NOISE OPERATION**

40dB, special sound-proof insulation to ensure quiet and silent operation, especially during night hours



**RHEEM SMART CONNECT MOBILE APP**

Smart wi-fi remote control and temperature monitoring

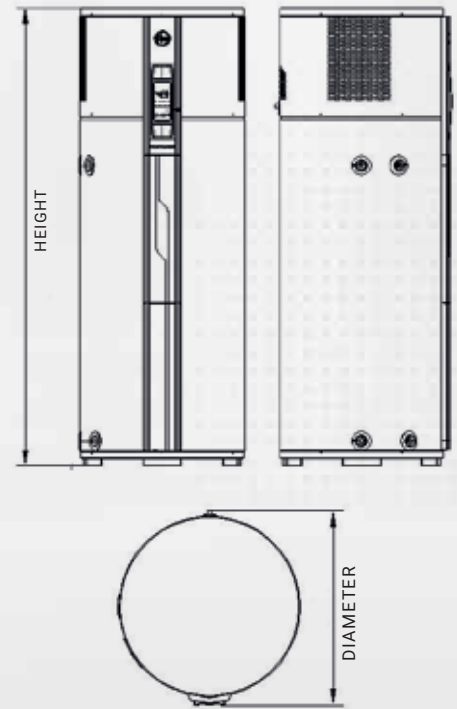


**HIGH TEMPERATURE HEAT PUMP SYSTEM**

Heats up to 70°C with only heat pump system without cutting in of heating element



HEAT PUMP MODEL		RMHP 180	RMHP 280
POWER SUPPLY		220-240V~50Hz	
RATED HEAT PUMP HEATING CAPACITY (KW)*		2.8	
HEAT PUMP RATED INPUT*	POWER (KW)	0.666	
	CURRENT (AMPS)	3.0	
HEATING ELEMENT RATED INPUT	POWER (KW)	1.5 KW / 2.5 KW (2 OPTIONS)	
	CURRENT (AMPS)	8 A (1.5 KW) / 12 A (2.5 KW)	
MAXIMUM INPUT	POWER (KW)	2.2 KW (1.5 KW) / 3.2 KW (2.5 KW)	
	CURRENT (AMPS)	12 A (1.5 KW) / 16 A (2.5 KW)	
COP*		4.2	
WATER TEMPERATURE SETTING (°C)		35 - 70°C	
AMBIENT TEMPERATURE RANGE (°C)		-7 ~ 55°C	
IP RATING		IP24	
NOISE LEVEL (DB [A])		≤40	
REFRIGERANT TYPE		R134a	
TANK SIDE	HEAT EXCHANGER TYPE	Microchannel Outside the Tank	
	TANK CAPACITY (L)	180	280
	INLET/OUTLET/TPR VALVE/DRAIN VALVE CONNECTION	RP ¾" (DN20)	
	RATED PRESSURE (MPA)	0.85	
	MAXIMUM WATER INLET PRESSURE (MPA)	0.68	
AIR SIDE	HEAT EXCHANGER TYPE	Internal Thread Tube with Hydrophilic Aluminium Foil	
	AIR INLET/OUTLET	Side Intake/Exhaust	
OVERALL DIMENSION	DIAMETER (MM)	Ø525	Ø648
	HEIGHT (MM)	1810	1815
NET WEIGHT (KG)		96	120



**NOTES**

To ensure the efficient and normal operation of the device, pay attention to the following precautions:

- Do not install the water heater in operating environment below -7°C, so as not to affect the normal operation or damage the machine.
- The space around the water heater should facilitate the removal of the entire water heater for repair or replacement if necessary.
- Exposure to the rain or water spraying direct to the water heater should be minimized.






RECOVERY TIME				
		Ecomode	Quick mode	Electric mode
Capacity	Electric	HH:MM	HH:MM	HH:MM
180 L	1.5 kw	2:59	1:58	5:31
	2.5 kw		1:36	3:18
280 L	1.5 kw	4:39	3:03	8:36
	2.5 kw		2:29	5:07

The heat pump testing conditions: power supply 220V~50Hz, ambient temperature 20 deg C /15 deg C (dry bulb/wet bulb), and water temperature from 15 deg C to 55 deg C

\*Rating Condition: Dry bulb temperature: 20°C, Wet bulb temperature: 15°C, Water heated from 15°C to 55°C. Electrical values shown are for 220V



Founded in 1925, Richmond® is the only North American manufacturer delivering innovative, energy-efficient air conditioning and water heating solutions to homes and businesses in more than 70 countries worldwide. From its Atlanta Ga. Headquarters, three U.S Manufacturing facilities, state-of-the-art distribution center and Advanced Technology Integration (ATI) Lab, Richmond® designs, builds and supplies some of the most reliable, environmentally responsible and technologically advanced products in the industry. Under the “One Richmond® Quality” promise, every Richmond® built everywhere in the world is held to the same high standard of excellence. In the Middle East, Richmond® has been present and its products have been in service for over 30 years. In fact, the company has already installed more than one million ton of airconditioning products in the Middle East region.

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[RichmondWaterHeaters.com](http://RichmondWaterHeaters.com)

  
**Richmond®**  
 The Water Heater Experts™