

# ODIN INTERNATIONAL

HYBRID HEAT PUMP WATER HEATERS



360°+1 THE NEW

# DEGREE

OF WARMTH

Founded in 1925, in Emeryville, California, United States, by brothers Richard and Donald Rheem, Rheem Manufacturing Company is a global and leading manufacturer for water heating and air conditioning products and solutions. Today, Rheem is headquartered in Atlanta, Georgia, United States, and together with its family of brands, Rheem pioneers and leads the industries we serve in America and all over the world.

While the company has produced a number of products in its nearly 100 years of operation, Rheem has evolved into the only manufacturer in the world that produces heating, cooling, water heating, pool & spa heating as well as commercial refrigeration products for both residential and commercial purposes. From industry-leading technologies to next-generation energy efficiencies, Rheem has been a trailblazer in developing some of the most innovative advancements in heating, cooling and water heating industries. With a long list of award-winning solutions, Rheem continues to deliver advanced comfort, savings and



experiences to our customers—just as we've done for nearly 100 years.

Our approach as a company is to keep the dialogue ongoing, listen, and then act. As a result, Rheem is able to constantly deliver innovations in the heating, cooling and water heating industries to provide our valued customers with new degrees of comfort.



## WHY RHEEM?

#### **EXPERTISE**

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

#### **VALUE**

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

## **EXCEPTIONAL PRODUCTS**

The Rheem® 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 Rheem® 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, Rheem has been a pioneer in developing some of the most innovative advancements in water heating. With a long list of award-winning solutions, Rheem 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 Rheem 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

Rheem 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 LEADETZSHIP

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



## **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, antiscale 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.



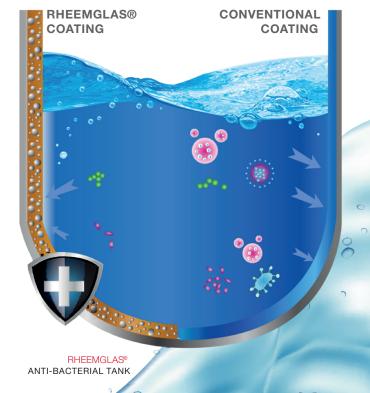
## PLUS ONE® Special Enamel Steel Sheet

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.





## HYBRID HEAT PUMP SERIES

## **ODIN INTERATIONAL 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.



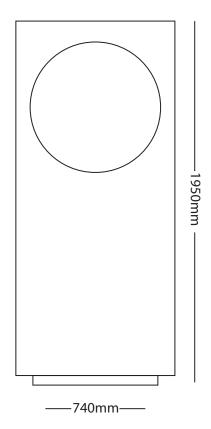
## HIGH TEMPERATURE HEAT PUMP SYSTEM

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

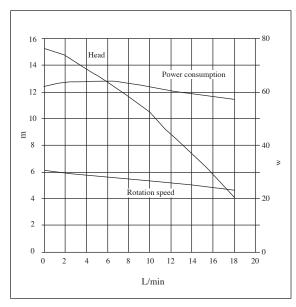


HEAT PUMP MODEL		RHHP-400-5207-M	
RATED TANK CAPACITY (LITERS)		400	
POWER SUPPLY		220-240V~50Hz	
RATED HEAT PUMP HEATING CAPACITY (KW)*		5.25	
HEAT PUMP RATED INPUT*	POWER (KW)	1.25	
HEATING ELEMENT RATED INPUT	POWER (KW)	3.6	
MAXIMUM INPUT	POWER (KW)	5.5	
COP*		4.2	
WATER TEMPERATURE SETTING (°C)		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	1/2 "	
	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	ā)	180	

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



## **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 mainte nance or replacement if necessary.

## HYBRID HEAT PUMP SERIES

# **ODIN INTERATIONAL**

## 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 Excellent adaptability, capable of 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)

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 control experience with Rheem Smart Connect App.

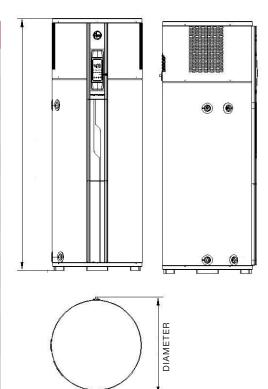


## **HIGH TEMPERATURE HEAT PUMP SYSTEM**

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



HEAT PUMP MODEL		RHHP-180-2805-M RHHP-280-2805-M		
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)	2.5/3.0@220V/240V		
	CURRENT (AMPS)	11.4/12.5@220V/240V		
MAXIMUM INPUT	POWER (KW)	4.0@240V		
	CURRENT (AMPS)	16.7@240V		
COP*		4.2		
WATER TEMPERATURE SETTING (°C)		35 - 70°C		
AMBIENT TEMPERATURE RANGE (°C)		-7 ~ 45°C		
IP RATING	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.

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













