

Steam Power[®]

SOLAR WATER HEATER • SOLAR ROOF TOP • HEAT PUMP

Warmth, Redefined



Air Source Heat Pump Water Heater Solar Water Heater



Monoblock
Heat Pumps



Ceramic
Tanks

Air Source Heat Pump Water Heater (ASHPWH)

Running hot water, in recent times has become a necessity more than a luxury. An Air Source Heat Pump Water Heater (Heat Pump) from Steam Power is the go-to solution for readily available hot water. Our Heat Pump work even when the outside temperature is way less than zero degrees Celsius. They are energy efficient and save on fuel cost as the heat is absorbed from the atmosphere. Like every other product from Steam Power, the smallest detail has been looked at to make sure that only the best product reaches our valuable customer.

Steam Power heat pump water heaters are usually said to be "fit and forget" units. If you have bought a Steam Power heat pump water heater, rest assured, you have bought arguably the best product in its category with best in class features in safety, power saving and environment protection.



Lower
Operating Cost



Environmental
Friendly Refrigerant



Less
Maintenance



Silent
Operation

Features

- A new technology CK-1 Ceramic coated inner tank ensures greater corrosion resistance against hard water.
- Environmental friendly refrigerant: our heat pumps only use environment friendly R410A / R417A / R134A refrigerant.
- Steam Power ASHPWHs provide constant temperature output ranging from 30–80 Degree Celsius.
- Steam Power ASHPWHs come integrated with high pressure protection systems that ensures safety.
- Steam Power ASHPWHs operates on vast range of temperature variation ranging from -10 to 45 Degree Celsius.
- Steam Power ASHPWHs comes equipped with a water resistant body. They are coated with an anti-corrosive coating that ensures long lasting maintenance free operation.
- Our systems are easy to install and backed by hassle free service.
- CK-1 Coated storage tank to perfectly suit all kinds of water.
- 60% energy saving as compared to electric water heaters.



Warranty



Suitable for
All Kinds of Water



Suits for Wide Range
of Climatic Variations



CK-1 Ceramic Coated
Inner Tank

Economic Benefits of Heat Pump

Operating cost per 100 liters of hot water

₹ 10

₹ 23

₹ 32

₹ 37

| | Heat Pump | Gas Boilers (PNG) | Gas Boilers (LPG) | Electric Geyser |
|-------------------------------|-----------|-------------------|-------------------|-----------------|
| Efficiency | 350% | 90% | 90% | 95% |
| Heat Required in Kcals | 60000 | 60000 | 60000 | 60000 |
| Calorific Value | - | 8400 | 11200 | - |
| Power Required Kilowatt | 69.77 | | | 69.77 |
| Power Consumption In Kwh | 19.93 | | | 73.44 |
| heat Delivered In per Kg | - | 7560 | 10080 | - |
| Total Fuel Required Kg / Ltrs | - | 8.82 | 6.6 | - |
| Cost / Unit (₹) | 10 | 51 | 95 | 10 |
| Total Cost / Day (₹) | 199 | 450 | 628 | 734 |
| Total Cost / Month (₹) | 5,980 | 13,492 | 18,849 | 22,032 |
| Total Cost / Year (₹) | 71,761 | 161,905 | 226,190 | 264,382 |

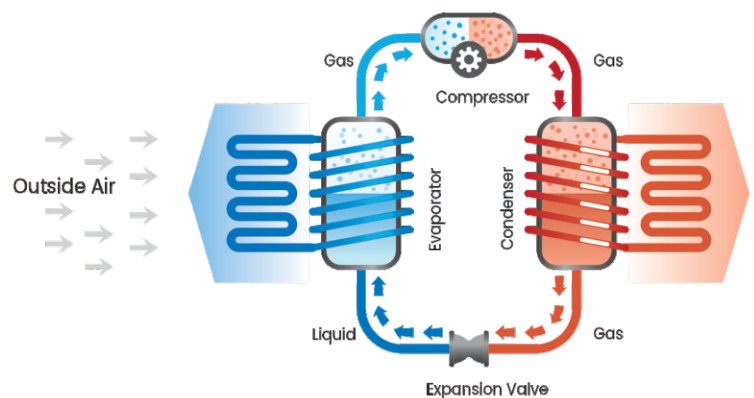


Above Calculations are based on following Data
Quantity of Hot water Estimated (Liters.) 2000; Cold Water inlet Temperature (20°C); Hot water Temperature (50°C)

Heat Pump Working Principle

A compressor pumps the refrigerant between two heat exchanger coils.

- 1-2** In evaporator coil, the refrigerant is evaporated at low pressure and absorbs heat from its surroundings.
- 2-3** The refrigerant is then compressed en route to the other coil.
- 3-4** Here it condenses at high pressure and it releases the heat it absorbed, earlier in the cycle.
- 4-1** The high pressure low temperature refrigerant will be converted into low pressure low temperature refrigerant when it passes through the expansion valve and the cycle will recommence.



✘ Reduced water heating costs upto 75% ✘ Reliable hot water round the year

✘ Reduced carbon emissions ✘ Negligible maintenance costs

✘ Quick payback & return on investment ✘ Longest product life ✘ Silent operation ✘ Space saving

Monoblock Heat Pumps

(Water Circulation)



Ceramic
Coated
Tank

Applications

- ⊗ Hotels ⊗ Motels ⊗ Boarding Houses
- ⊗ Back-up for Solar Water Heaters

Description

Specifically designed for Indian conditions, these heat pumps come with inbuilt water circulation pump so we only need to connect the pipes and plug the machine. This range of heat pumps comes with Panasonic rotary compressor for high life.



Inbuilt circulation
pump



Silent
operation

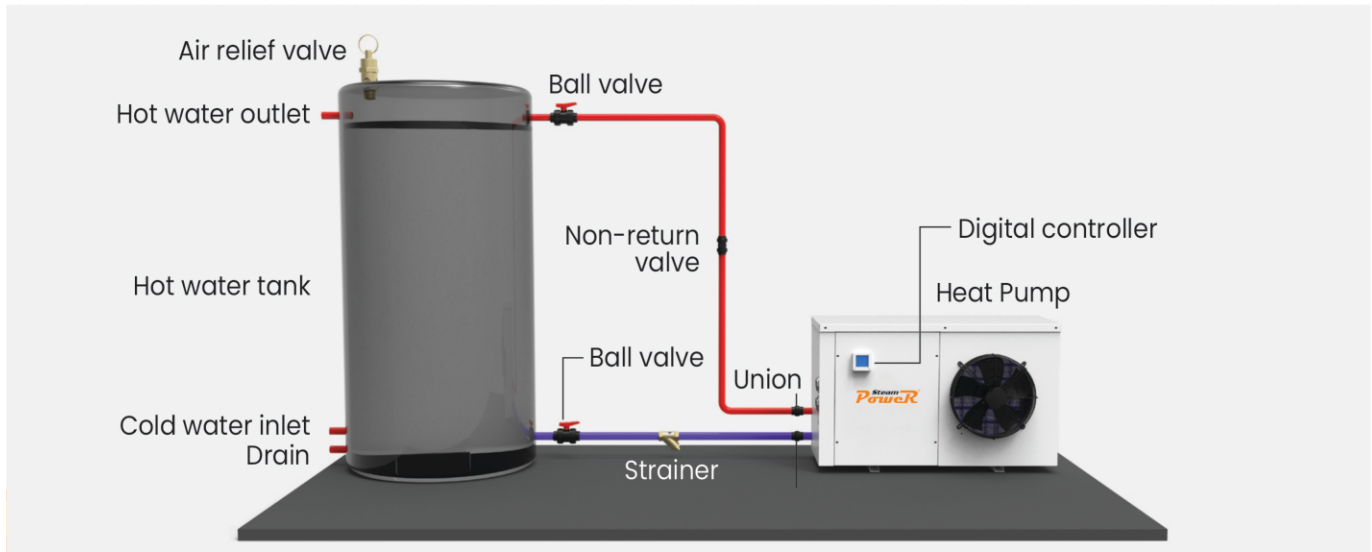


Less
maintenance

Features

- ⊗ Panasonic/equivalent (highly efficient rotary compressor)
- ⊗ Automatic defrosting
- ⊗ Low noise & vibration
- ⊗ Inbuilt circulation pump
- ⊗ Closed loop system possible
- ⊗ Long working life
- ⊗ Safe, reliable and stable running
- ⊗ Easy to install
- ⊗ Intelligent control

Schematic Diagram



| Heat Pump | | | | | |
|---------------------------|-------|----------------------------|---------------------|------------------|------------------|
| | | SE-AH-4M | SE-AH-5M | SE-AH-7.5M | SE-AH-10M |
| Heating Capacity | KW | 3.5 | 5 | 7.4 | 9.3 |
| COP | | 4.12 | 4.12 | 4 | 4 |
| Rated Heated Water Output | L/H | 110 | 150 | 220 | 300 |
| Rated Outlet Water Temp. | °C | 55 | | | |
| Max Outlet Water Temp. | °C | 60 | | | |
| Rated Power Input | KW | 0.85 | 1.21 | 1.85 | 2.33 |
| Rated Current | A | 4.07 | 5.81 | 8.85 | 11.20 |
| Power Supply | | 220-240V/50Hz/1Ph | | | |
| Compressor Type | | Rotary / GMCC | | | |
| Throttling Device | | Electronic Expansion Valve | | | |
| Fan Quantity | Piece | 1 | | | |
| Fan Input | W | 25 | 25 | 40 | 50 |
| Fan Speed | RPM | 830 | 830 | 850 | 850 |
| Ambient Temperature | °C | -7~ 43 | | | |
| Refrigerant | | R410A/R417A | | | |
| Circulation Pump | | Wilo/Equivalent | | | |
| Noise At 1m Distance | dB(A) | ≤54 | ≤54 | ≤55 | ≤57 |
| Water Pipe Size | inch | Rc3/4 | | | |
| Product Dimension (LxWxH) | mm | 930 x 350 x 550 | 935 x 400 x 550 | 1005 x 350 x 620 | 1110 x 400 x 750 |
| Net Weight | kg | 48 | 55 | 66 | 85 |
| Tank | | | | | |
| Rated Volume | L | 300L/500L | 300L/400L/500L/750L | 400L/500L/750L | 750L/1000L |
| Inner Tank | | Mild Steel / GI | | | |
| Thickness | mm | 5 / 2.5 | | | |
| Outer Tank | | Galvanized Steel | | | |
| Color | | White | | | |
| Insulation | mm | Polyurethane 50~60 | | | |
| Inlet/Outlet Size | | 1" | | | |
| Rated Working Pressure | Bar | 7 / 0.5 | | | |
| Electric Heater | KW | 3 | 5 | 5 | 5 |
| Thermostat | | Included | | | |

Testing Condition: Ambient Temp. (DB/WB) = 30°C/25°C, Input/Output Water Temp. = 25°C/55°C

* T&C apply



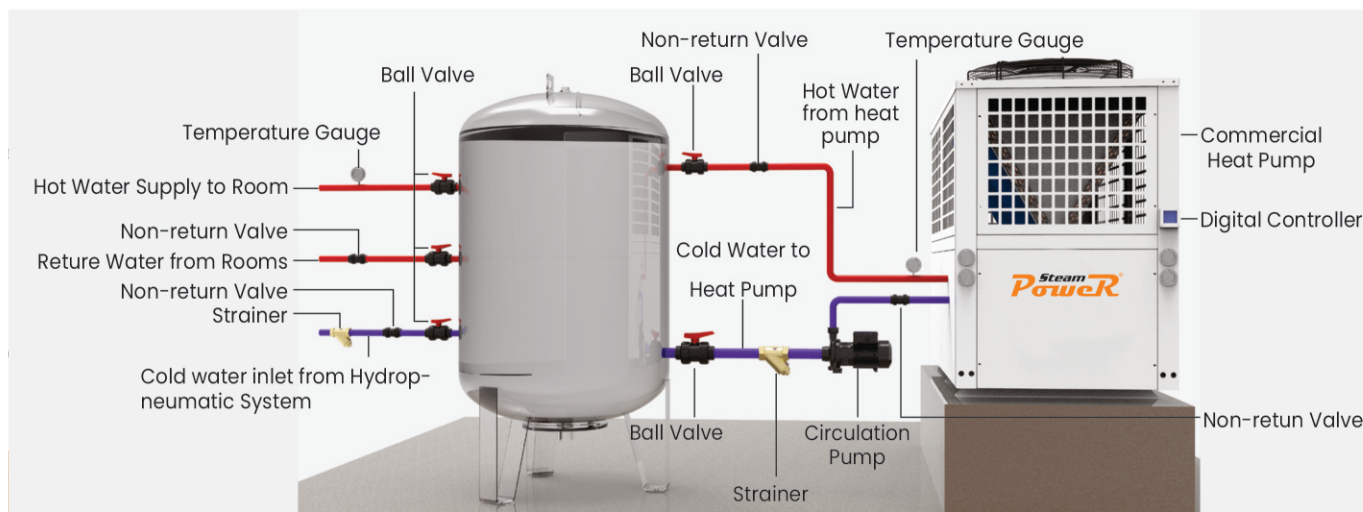
Applications

✘ Hotels ✘ Resorts ✘ Hospitals
✘ Boarding Schools ✘ Apartment ✘ Complexes

| | | SE-AH-14U | SE-AH-19U | SE-AH-25U | SE-AH-37U | SE-AH-45U | SE-AH-50U |
|----------------------------|--------------------|--|---------------------|---------------------|----------------------|---------------------|-----------------------|
| Heating Capacity | KW | 14 | 19 | 25 | 37 | 45 | 50 |
| COP | | 4.2 | 4.2 | 4.15 | 4.2 | 4.16 | 4.2 |
| Rated Hot Water Output | L/H | 400 | 550 | 750 | 1100 | 1300 | 1500 |
| Rated Water Temp. | °C | 55 | | | | | |
| Max Water Temp. | °C | 60 | | | | | |
| Input Power | KW | 3.8 | 4.4 | 6 | 8.8 | 11.1 | 12.1 |
| Current | A | 6.4 | 8.4 | 11.4 | 16.7 | 20.1 | 23.1 |
| Power Supply | | 380~415V/50Hz/3Ph | | | | | |
| Compressor | | Scroll (Copeland/Panasonic) | | | | | |
| Number of Compressor | | 1 | 1 | 1 | 2 | 1 | 2 |
| Heat Exchanger (Condenser) | | Tube-in-Shell Heat Exchanger / Brazed Plate Heat Exchanger | | | | | |
| Evaporator | | Blue Finned Evaporator Coil | | | | | |
| Throttling Device | | Thermostatic Expansion Valve/Electronic Expansion Valve | | | | | |
| Water Flow | m ³ /hr | 2.5 | 3.2 | 4.3 | 6.5 | 7.5 | 8.7 |
| Fan Quantity | Piece | 1 | 1 | 1 | 2 | 1 | 2 |
| Refrigerant | | R410A/R407C | | | | | |
| Noise At 1 Meter | dB(A) | ≤65 | ≤65 | ≤65 | ≤65 | ≤66 | ≤67 |
| Pipe Size | inch | R1 | R1 | R1 | R1-1/2 | R1-1/2 | R1-1/2 |
| Product Dimension (LxWxH) | mm | 800 x 800 x 1110 | 800 x 800 x 1110 | 800 x 800 x 1025 | 1450 x 890 x 1110 | 975 x 975 x 1300 | 1600 x 1600 x 1150 |
| Weight | kg | 140 | 180 | 200 | 310 | 325 | 365 |

Testing Condition: Ambient Temp. (DB/WB) = 30°C/25°C, Inlet Water Temp. = 25°C, Outlet Water Temp. = 55°C
(E.T. = 10°C / C.T. = 60°C)

Schematic Diagram



Description

This series is splendid for centralized hot water system and is capable of generating hot water upto 55°C It is the ideal hot-water solution for Hotels, Resorts, Boarding Schools and Apartment Complexes.



Silent operation



Less maintenance



TEMPERATURE

Features

- American Copeland/Panasonic scroll compressor ☒
- Optional automatic defrosting ☒
- Super intelligence ☒
- Low noise and vibration ☒
- Stable running, sage and reliable ☒
- Anti-corrosive coating ☒
- High pressure/Low pressure protection feature ☒

| | | SE-AH-70V | SE-AH-90V | SE-AH-100V | SE-AH-140V | SE-AH-180V |
|----------------------------|--------------------|--|--------------------|--------------------|--------------------|--------------------|
| Heating Capacity | KW | 70 | 90 | 100 | 140 | 180 |
| COP | | 4.1 | 4.15 | 4.2 | 4.1 | 4.15 |
| Rated Heated Water Output | L/H | 2000 | 2600 | 3000 | 4050 | 5200 |
| Rated Water Temp. | °C | 55 | | | | |
| Max Water Temp. | °C | 60 | | | | |
| Input Power | KW | 17.1 | 21.7 | 23.8 | 34.1 | 43.4 |
| Current | A | 32.4 | 41.2 | 45.6 | 64.9 | 82.4 |
| Power Supply | | 380~415V/50Hz/3Ph | | | | |
| Compressor | | Scroll (Copeland/Panasonic) | | | | |
| Number of Compressor | | 2 | 2 | 2 | 4 | 4 |
| Heat Exchanger (Condenser) | | Tube-in-Shell Heat Exchanger / Brazed Plate Heat Exchanger | | | | |
| Evaporator | | Blue Finned Evaporator Coil | | | | |
| Throttling Device | | Thermostatic Expansion Valve/Electronic Expansion Valve | | | | |
| Water Flow | m ³ /hr | 12 | 15.5 | 17.3 | 24 | 30.9 |
| Fan Quantity | Piece | 2 | 2 | 2 | 4 | 4 |
| Refrigerant | | R410A/R407C | | | | |
| Noise At 1 Meter | dB(A) | ≤70 | ≤72 | ≤72 | ≤75 | ≤78 |
| Pipe Size | inch | R1-1/2 | R2 | R2 | R2-1/2 | R2-1/2 |
| Product Dimension (LxWxH) | mm | 1850 x 950 x 1635 | 2250 x 1090 x 1785 | 2250 x 1090 x 1785 | 2200 x 2100 x 1800 | 2200 x 2100 x 1800 |
| Weight | kg | 610 | 740 | 820 | 1150 | 1300 |

Testing Condition: Ambient Temp. (DB/WB) = 30°C/25°C, Inlet Water Temp. = 25°C, Outlet Water Temp. = 55°C
(E.T. = 10°C / C.T. = 60°C)

10 Yrs Warranty*

CERAMIC NANO COATING
A REVOLUTIONARY ADVANCE COATING TECHNOLOGY



Applications

⊗ Home ⊗ Bungalow ⊗ Hospital ⊗ Villas ⊗ Flats ⊗ Resort ⊗ Hotels ⊗ Motels ⊗ Boarding Houses



Best in Class Quality Product



Best Suitable for Hard Water



Strong Body Structure



Anti Corrosive Inner Tank & Rust Free Technology



Best in Class Warranty



Best Customer Support

Super

**CS-II
COATING**



**7 Yrs
Warranty***

Deluxe

**CK-1
COATING**



**5 Yrs
Warranty***



CML - 7900204703



CML - 7900205407



OEM

**CERAMIC
COATING**



**With
Warranty***

Only Tank

**CERAMIC
COATING**



Engineered for Excellence

ETC TYPE SOLAR WATER HEATER AT A GLANCE

| Capacity In Litre | 100 | 150 | 200 | 250 | 300 | 400 | 500 |
|----------------------|-------|-------|-------|-------|-------|--------|--------|
| Nos. of Tubes | 10 | 15 | 20 | 25 | 30 | 30* | 38* |
| Area Required in Ft. | 4 X 7 | 5 X 7 | 6 X 7 | 7 X 7 | 9 x 7 | 10 X 8 | 12 X 8 |

*58 x 2100 ETC



**FIT
AND
FORGET**

STEAM POWER ENERTECH PVT. LTD.

Rajkot, Gujarat. (India)

✉ care.spepl@gmail.com

🌐 www.steampowerenertech.com

☎ 1800 890 8018

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Power**[®]

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