



# CAHP-5HP & 10HP

## AIR-TO-WATER Heat Pump



## CAHP 5HP & 10 HP

### COMMERCIAL HEAT PUMP WATER HEATER FROM A. O. SMITH

Our impressive line of environmentally friendly offerings has now been expanded to include one of the most energy-efficient and innovative commercial products on the market.

The electric commercial heat pump water heater works great in applications where the need is for hot water. Applications requiring significant hot water usage will maximize energy savings for the shortest payback periods. Best of all, heat pump heaters are three times more efficient than standard electric water heaters and up to four times more efficient than conventional gas water heaters.

#### COMMON APPLICATIONS

<b>Commercial</b>	: Restaurant/Kitchens
<b>Institutional</b>	: Hospitals, Hotels, Schools, Hostels, Resorts
<b>Residential</b>	: Villas, Apparments, Guest houses
<b>Industrial</b>	: Factories, Laundries

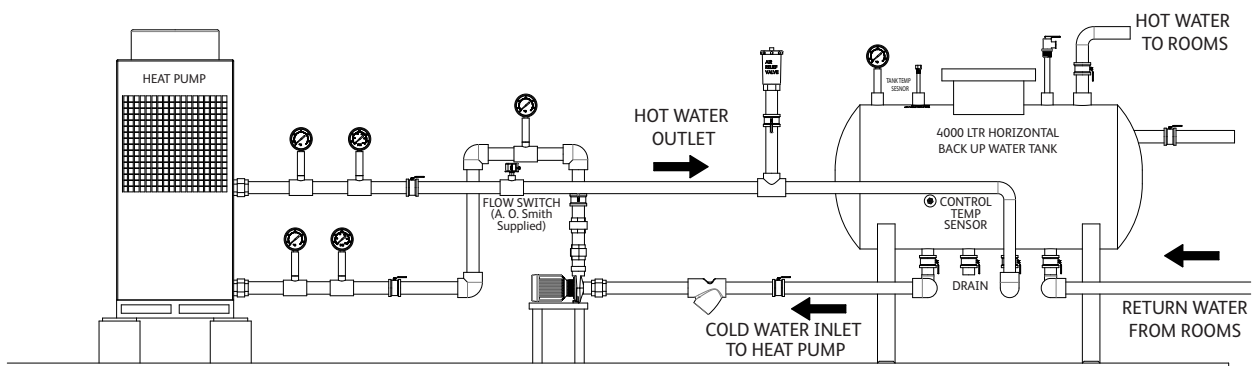
#### WHY ARE HEAT PUMP WATER HEATERS AN ENVIRONMENTALLY FRIENDLY CHOICE?

- High efficiency with coefficient of performance (COP) up to 4
- No fossil fuels are used or burned at the source
- Ozone layer-friendly refrigerant R410a
- Uses less electricity than standard electric water heaters
- Contributes to space cooling at the same time
- Taps into heat sources typically discarded by other units for peak efficiency

#### HOW DO HEAT PUMP WATER HEATERS WORK?

Heat pump water heaters capture heat and humidity from the surrounding atmosphere through the cooling coil and utilize it for heating potable water. Simply put, they move heat from where it is not needed to where it is wanted. This innovative advanced technology provides low cost hot water and free cooling (by product).

#### SCHEMATIC DRAWING



## CAHP 5HP & 10 HP

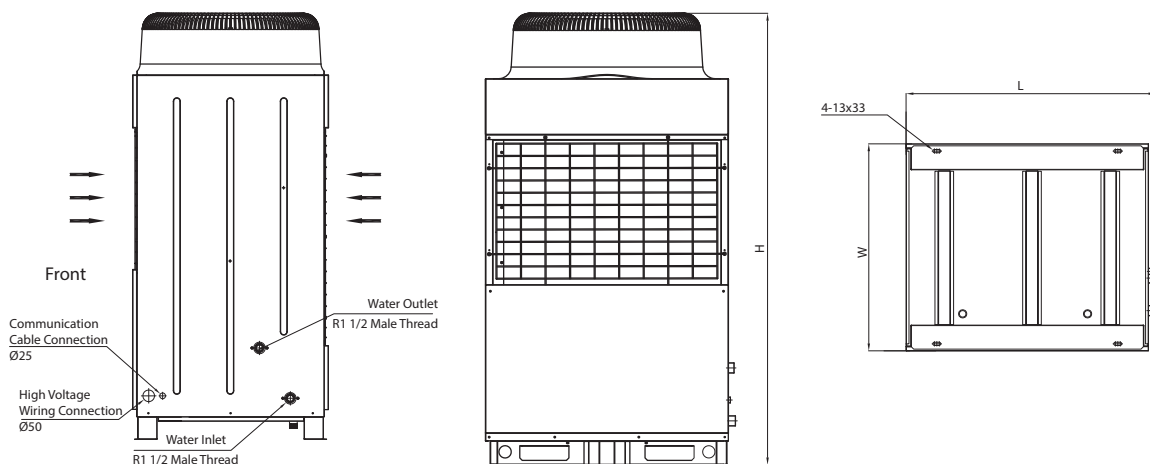
### Technical Specifications

ITEM	CAHP-MC-38 (10HP)	CAHP-MC-19 (5HP)
POWER SUPPLY	380V 3N ~ 50Hz	380V 3N ~ 50Hz
VOLTAGE RANGE	380V +/- 10%	380V +/- 10%
RATED HEATING CAPACITY(1)	38 kW	19.8 kW
RATED WATER FLOW(1)	6.5 CMH	3.4 CMH
RATED POWER INPUT (1)	10.3 kW	6.02 kW
RATED OPERATION CURRENT(1)	18.6 A	11.0A
MAX. POWER INPUT	13.2 kW	6.8 kW
MAX. OPERATION CURRENT	23.3 A	11.7 A
OPERATION NOISE (2)	65 dB(A)	60 dB(A)
REFRIGERANT / QUANTITY	R410a / 6.2kg	R410a / 2.8kg
REFRIGERANT SIDE HIGH SIDE	4.2 Mpa	4.4 Mpa
DESIGN PRESSURE LOW SIDE	3.1 Mpa	3.1 Mpa
WATER SIDE DESIGN PRESSURE	1.0 Mpa	1.0 Mpa
WATER SIDE PRESSURE DROP (3)	45 kPa	73 kPa
WATER CONNECTION SIZE	DN40 (R1 1/2")	DN32 (R1 1/4")
WATERPROOF CLASS	IPX4	IPX4
NET WEIGHT	287 kg	170 kg
DIMENSIONS (L x W x H)	1020 x 846 x 1840 mm	719 x 761 x 1160 mm

**Note:**

- (1) Rated condition: Ambient temperature 20/15 °C (dry/wet bulb), water temperature 47/52 °C (inlet/outlet).
- (2) Sound at one meter distance.
- (3) Measured at the rated water flow

### Physical Dimensions



Storage tank: Minimum 2000 & 4000 litre for 5HP & 10HP respectively  
 Circulation pump flow rate: 3500 LPH & 6500 LPH for 5HP & 10HP respectively  
 Recommended water hardness: Less than 300 ppm