



Turn to the experts

Domestic Hot Water Air-to-Water Heat Pump System

The total hydronic heat pump solution
for heating, cooling, and domestic hot water (DHW)



Innovating Home Comfort

A brand new energy-efficient and sustainable,
residential air-to-water heat pump system.

Carrier's DHW-A2W heat pump system – the easiest way to add heat pump hot water.



The Carrier domestic hot water air-to-water heat pump system offers a complete solution for residential applications. The optional domestic indirect hot water tanks come in three sizes: 53, 66 or 79 gallons.

Highly efficient and easy to install

The Carrier DHW-A2W heat pump system features an outdoor unit, an indoor unit and a steel buffer tank (20 gal). The kit can be delivered on a single pallet for easy inventory, delivery, and on-site convenience - providing the advantage of a fast and simple installation. The kit is available in three different sizes: 1.5, 3.0 and 4.3 tons for cooling / 20.5, 34.0 and 58.0 thousands of BTUs per hour (MBH) for heating (nominal capacities) which allows for flexible application types.

The easiest way to add domestic hot water

There is no reason to purchase a separate heat pump water heater with the available optional indirect domestic hot water storage tanks. These tanks save space and installation costs over other types of domestic hot water heating and come in three sizes. They are designed to pair with this system, and the buffer tank can be physically mounted on top of the domestic tank to save space. A contractor only needs to decide if they prefer 53, 66, or 79 gallons of domestic hot water storage.

Simple set up and easy control

The indoor unit has an integrated controller that can be run with continuous pumping and outdoor reset utilizing the included sensors (outdoor, indoor, and tank sensors) with no thermostat needed in what Carrier calls a European Style system; or set it up in a more traditional style with a third-party thermostat or with a third-party zone controller directly wired to the dry contacts on the unit.

Flexible application types

The Carrier DHW-A2W heat pump system proves adaptable and works in a variety of application types. Whether installing forced-air heating and cooling, retrofitting a legacy radiant heating system, driveway heating system, or a combination, these versatile systems effortlessly accommodate various heating and cooling strategies.

MODEL 33NM3

- 1 Outdoor unit
- 2 Indoor unit
- 3 Buffer tank
- 4 Domestic hot water heater tank (optional)



Product Features

- Available in three different heat pump sizes: 1.5, 3.0 and 4.3 tons for cooling / 20.5, 34.0 and 58.0 MBH for heating (nominal capacities)
- All-in-one kit for easy inventory and installation
- Utilizes R-32 low GWP refrigerant
- Auxiliary electric heat is integrated into the indoor unit, additionally Model 33NM3 can be paired with a furnace or a boiler utilizing the “dual-fuel switch”
- Installation ready. Comes with a fitting accessory kit. Ready to install without additional hydronic specialties

Outdoor Unit*

- 1 Dynamically balanced fan blade
- 2 Heavy gauge steel casing with baked enamel finish
- 3 Pre-charged with R-32 refrigerant
- 4 Brazed plate heat exchanger for Enhanced Vapor Injection (EVI) system
- 5 Refrigerant to water brazed plate heat exchanger
- 6 Robust inverter-driven variable-speed rotary compressor
- 7 Large evaporator coil with corrosion resistant coating
- 8 Integrated control with modbus communication protocol for communication with indoor unit

*Not intended for sale in a location that may exceed 109° F ambient temperature.

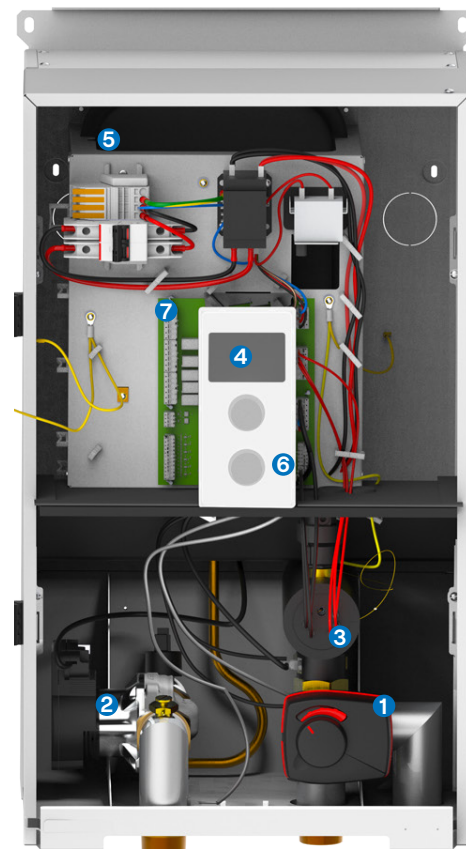


Benefits at a Glance

- Lower utility bills - With efficiencies up to 4.9 COP and 16.8 EER
- AIM Act ready - Utilizing R-32 refrigerant with a global warming potential (GWP) of 675 kg / CO₂ equivalent
- Low cost of ownership - With minimal maintenance and low operating costs
- Flexible applications - Use for radiant, forced air, chilled panel and domestic hot water applications

Indoor Unit

- 1 Diverting valve
- 2 Pump
- 3 Submersible Electric Heater
- 4 Controller
- 5 Expansion tank
- 6 Dual-fuel switch
- 7 Pump outputs



Quality Guaranteed

Warranty information is available at www.carrier.com

Technical Information Model 33NM3

Indoor Unit	Specifications	33NM0AW020028	33NM0AW034043	33NM0AW051078
Electrical Data:	Voltage	230 VAC	230 VAC	230 VAC
Power Supply	Phase/Hertz	1/60	1/60	1/60
	Amperage (FLA)	31	31	43
	Maximum Fuse (Amps)	40	40	50
Electric Heater Output	kW (BTU)	6 (20500)	6 (20500)	9 (30700)
Dimensional Data	Height in. (mm)	28-½ (723)	28-½ (723)	28-½ (723)
	Width in. (mm)	16-¼ (416)	16-¼ (416)	16-¼ (416)
	Depth in. (mm)	12-¾ (323)	12-¾ (323)	12-¾ (323)
	Weight lbs (kg)	64 (29)	64 (29)	64 (29)
Maximum Supply Temperature	°F (°C)	165 (75) DHW	165 (75) DHW	165 (75) DHW
Outdoor Unit	Specifications	33NM3AW020028	33NM3AW034043	33NM3AW051078
Heating Capacity	MBH (kW)	20.5 (6.0)	34.0 (10)	58.0 (17)
Cooling Capacity/Range*	Low Tons (kW)	1.4 (5.0)	2.8 (9.8)	4.2 (14.7)
	High Tons (kW)	1.5 (5.2)	3.0 (10.5)	4.3 (15.1)
Energy Efficiency Ratio (EER)		16.81	16.75	14.46
Coefficient of Performance (COP)		4.927	4.909	4.238
Electrical Data:	Voltage	208/230 VAC	208/230 VAC	208/230 VAC
Power Supply	Phase/Hertz	1/60	1/60	1/60
Maximum Fuse	Amps	25	45	70
Refrigerant		R-32	R-32	R-32
Hydronic connection		1 NPT (Male Threads)	1 NPT (Male Threads)	1 NPT (Male Threads)
Water Flow Rate	GPM (m³/h)	3.7-8.8 (0.85-2.0)	6.2-15.0 (1.4-3.4)	11.4-25.5 (2.6-5.8)
Maximum temperature of heating medium	°F (°C)	149 (65)	149 (65)	149 (65)
Dimensional Data	Height in. (mm)	31-¼ (795)	36-½ (928)	52-¾ (1329)
	Width in. (mm)	46 (1165)	50-¾ (1285)	49-¼ (1250)
	Depth in. (mm)	15-¾ (400)	18-⅝ (460)	19-½ (495)
	Weight lbs (kg)	198 (90)	291 (132)	353 (160)
Buffer Tank	Specifications	MSCA20S233NM3 - Dimensional Data		
Volume	USG (Litre)	20 (75)		
Diameter	in. (mm)	Width 26-¾ (675); Length 26-½ (668)		
Height	in. (mm)	21 (533)		
Water Temp Range	°F (°C)	45-230 (7 to 110)		
Weight	lbs. (kg)	110 (50)		
Domestic Hot Water Tank	Specifications	CVWC 53	CVWC 66	CVWC 79
Storage tank draw volume at 113° F (45° C) without reheating with a tank temperature of:	113°F (45°C) USG (L)	37 (140)	46 (175)	55 (210)
	122°F (50°C) USG (L)	53 (203)	67 (254)	80 (305)
	131°F (55°C) USG (L)	70 (266)	88 (333)	106 (400)
	140°F (60°C) USG (L)	87 (330)	109 (412)	131 (495)
Dimensional Data	Length in. (mm)	26-¼ (668)	26-¼ (668)	26-¼ (668)
	Width in. (mm)	28-¼ (714)	28-¼ (714)	28-¼ (714)
	Height in. (mm)	48-½ (1229)	56-½ (1430)	67 (1697)
	Weight lbs (kg)	214 (97)	245 (111)	278 (126)

* Certified to AHRI Standards 550/590 and 551/591 Air Cooled Water Chilling Packages, additional technical information can be found in the AHRI product listing Primary Catalog V41 (20250305).



Turn to the experts



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