



SANDEN

Delivering Excellence



Heat Pump Water Heater

SANCO₂ 
Hot water, *naturally.*



GEN₃



The Sanden SANCO₂ Heat Pump Water Heater is a highly energy efficient alternative to traditional electric or gas water heaters. It absorbs heat from the outside air to heat water – saving energy, saving money and reducing greenhouse gas emissions.



Superior Features



ENERGY EFFICIENT

- 4x more efficient than traditional electric water heaters
- Allows use of off-peak power

HIGH PERFORMANCE

- Greater first hour rating than all heat pump water heaters
- Faster recovery after hot water draw

SUPERIOR QUALITY

- Corrosion-resistant stainless steel tank
- 3-year labor, 10-year parts heat pump warranty;
15-year tank warranty

EXTENDED OPERATING RANGE

- Hot water production down to -20°F & below
- Up to 175°F delivered hot water temperature
- No need for a back up electric element in the storage tank

LOW-PROFILE DESIGN

- Whisper-quiet noise level (37dB)
- Slimline heat pump design for a reduced footprint

TANK SIZE OPTIONS

- Two sizes to best fit your hot water needs

43 Gallon Tank
65-Gallon
first hour delivery



2 to 4 People

83 Gallon Tank
109-Gallon
first hour delivery



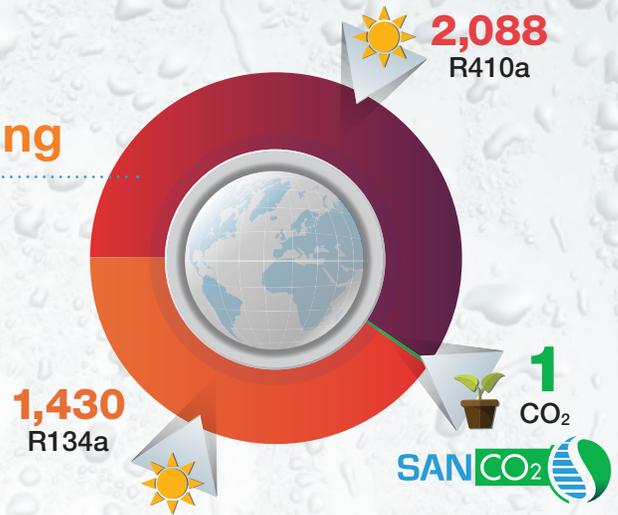
5+ People



Minimal Impact on Global Warming

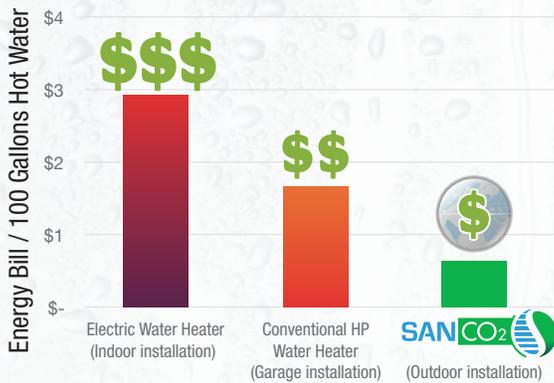
UNIQUE OZONE-FRIENDLY CO₂ REFRIGERANT

Heat pump water heaters commonly use synthetic refrigerants, such as R410A or R134A. Although these refrigerants do not deplete the ozone layer, they can have a significant impact on global warming. The CO₂ refrigerant uniquely used in the SANCO₂ system has an extremely low Global Warming Potential*, and CO₂, a natural refrigerant, does not deplete the ozone layer.



Global Warming Potential*
by refrigerant type per 100 years

*Global Warming Potential (GWP) is a measure of how much a given mass of greenhouse gas is estimated to contribute to global warming. It is a relative scale which compares the gas in question to that of the same mass of carbon dioxide (whose GWP is equal to 1).



Energy Bill Comparison
with traditional water heaters

Ultra High Efficiency Reduces Energy Bills

USES OVER 70% LESS ELECTRICITY

The SANCO₂ system uses an inverter-type compressor, DC fan motor and pump. Our design minimizes energy consumption, maximizes water-heating capacity, and allows for faster recovery, resulting in significantly lower operating costs than electric-resistance storage water heaters or conventional heat pump water heaters.

- Field testing data in cold climate (Northwest)
- Reference: Washington State University presentation by Ken Eklund available at www.sandenwaterheater.com
- Electricity price: 12.73 cents per kwh (EIA Residential October 2015)

Easy Installation

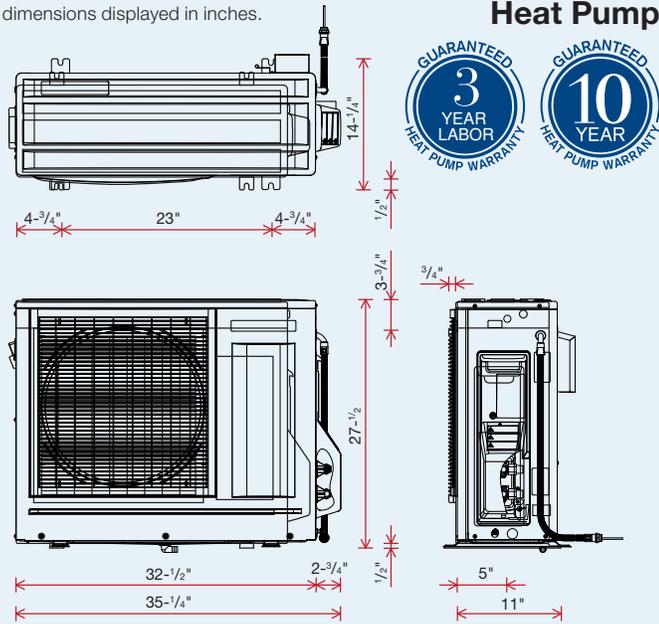
FLEXIBLE 2-PIECE SYSTEM

The tank is installed indoors and the heat pump outdoors (up to 50 feet away) with only water piping connections required between the two. This flexible SANCO₂ design offers several advantages including maintaining comfortable indoor air temperatures (unlike conventional heat pump water heaters that 'scavenge' heat from the indoor air), along with reducing in-home noise.



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All dimensions displayed in inches.



Heat Pump

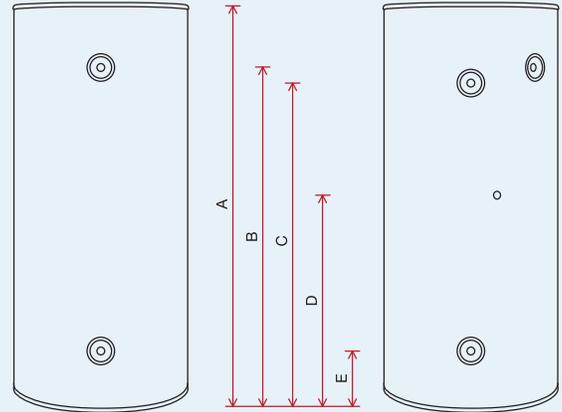
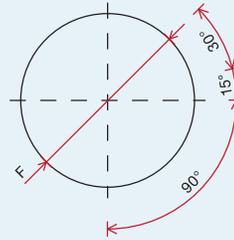


Outdoor Unit (Heat Pump) Model No. GS3-45HPA-US

Performance	43-gal. sys.	83-gal. sys.	119-gal. sys.
Uniform Energy Factor	2.85	3.34	3.23
First Hour Rating	65 gallons	109 gallons	130 gallons

Specifications	
Water Temperature Setting	130°F to 175°F
Ambient Air Operating Temperature	-20°F to +110°F
Heat Pump Capacity	15,400 Btu/h
Heat Pump Capacity	4.5 kW
Heat Pump COP	5.2
Refrigerant Type	R744 (CO ₂)
Compressor Type	Inverter
Power Voltage	208/230v -1Ph - 60Hz
Breaker Size	15 Amps
MCA	13 Amps
Outdoor Operating Noise Level	37 dB
Weight	106 lbs
Pipe Size (Tank to Heat Pump)	1/2" (Hot & Cold)
Max Length Inc Vertical	50 ft
Max Vertical Separation	16 ft
Max Water Pressure	95 Psig

Stainless Steel Storage Tank*



Tank Model No:	SAN-43SSAQA	GAUS-315EQTD	SAN-83SSAQA	SAN-119GLBK*
A Height	38-1/8"	58-5/8"	68-7/8"	63-3/5"
B Hot Water Outlet & PR Valve	29-1/2"	49-5/8"	60-1/4"	56"
C Heat Pump Return	29-1/2"	49-5/8"	60-1/4"	56"
D Sensor Port	9-3/4"	37"	40 3/8"	38 4/5"
E Cold Water Inlet / Cold Water to HP	8-3/4"	7-7/8"	8-3/4"	4"
F Diameter	24-1/2"	26-3/4"	24-1/2"	28"
Weight (lbs)	88 lbs	154 lbs	115 lbs	345 lbs
Tank Capacity (gallons)	43 gallons	83 gallons	83 gallons	119 gallons
Warranty	15 years	15 years	15 years	10 years*

Connection Sizes	
Cold Water Inlet	3/4" NPT
Hot Water Outlet	3/4" NPT
Cold Water to Heat Pump	3/4" NPT
Hot Water Return from Heat Pump	3/4" NPT
Pressure Relief Valve Setting (Psig)	125 Psig

*SAN-119GLBK tank is a glass-lined steel tank with a 10 year warranty.
Note: Materials and specifications are subject to change without notice.



REV 050219

For more information, please call **1-844-SANDCO2** or email **info@sandenwaterheater.com**.



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Sanden Dealer