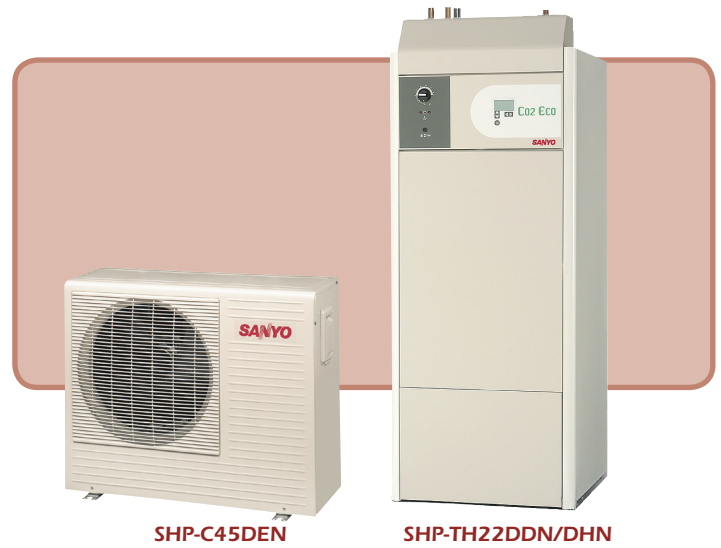


SANYO CO2 ECO hot water heater



- Abundantly supply space heating and tap water
- Environmentally friendly with CO2 natural refrigerant
- Low ambient operation down to -20°C
- DC rotary 2 stage compressor
- High reliability, high efficiency
- Freeze protection circuit
- The unique construction of water-to-refrigerant heat exchanger ensure improved efficiency



Environmentally friendly

A natural refrigerant (CO2) heat pump hot water supplier that considers the global environment

For its refrigerant, SANYO "CO2 ECO" uses heat energy derived from compressed CO2, friendly to the ecosystem and our living environment. CO2 is an atoxic natural refrigerant with Ozone-Destruction Potential "0" and Global Warming Potential.

Economical

The high-efficiency heat pump method enable its superior energy-conservation capability.

The coefficient of performance (COP) is 3.75 for SANYO "CO2 ECO" compared to 1 for electric heaters (standard condition).

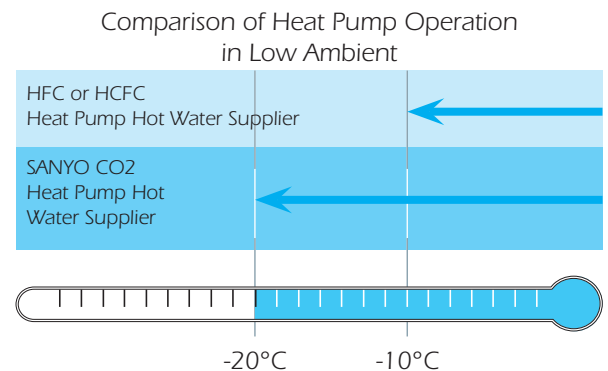
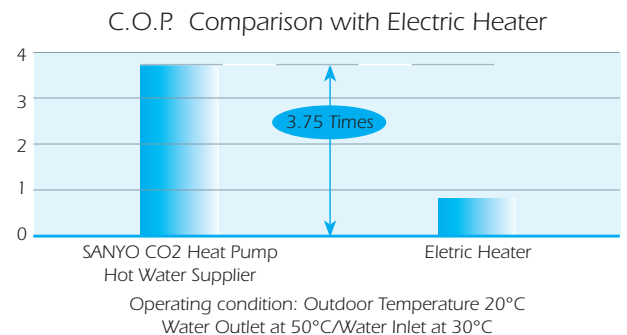
Low ambient operation

With SANYO "CO2 ECO", the heat pump operates continuously in the harsh condition of -20°C, maintaining its performance at no less than 4.0 kW. The consistent operation of the heat pump extremely low temperatures is made possible by the refrigerant circuit technology developed and refined by SANYO.

The heat pump operation of many models using "HCFC or HFC" as the refrigerant can only withstand the ambient temperature up to approximately -10°C. Electric heaters are required for temperatures below this level, resulting in performance that is not high in efficiency.

Characteristics of Natural Refrigerant CO2			
		ODP	GWP*
CO2	Natural refrigerant	0	1
R410A	HFC	0	1900
R407C	HFC	0	1600
R22	HCFC	0.055	1700

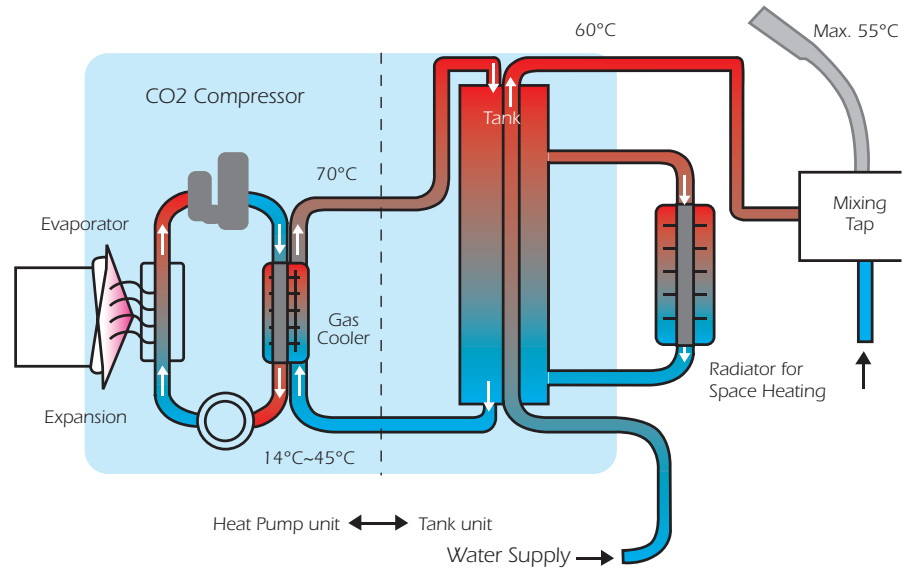
*Global Warming Potential



SANYO CO2 ECO hot water heater



SANYO CO2 ECO is a system that effectively utilises heat in the atmosphere



System flow of the Heat Pump Hot Water Supplier

Heat pump Unit			SHP-C45DEN	SHP-TH22DDN	SHP-TH22DHN
Tank unit					
Performance					
*1 Heating capacity / input	kW		4.5 / 1.20		
C.O.P. (Outdoor temp. 20°C)	W/W		3.75		
*2 Heating capacity / input	kW		4.5 / 1.45		
C.O.P. (Outdoor temp. 7°C)	W/W		3.10		
*3 Heating capacity / input	kW		4.5 / 2.48		
C.O.P. (Outdoor temp. -15°C)	W/W		1.81		
Electrical Rating					
Power supply	Heat pump unit	V	220-230-240		
	Tank unit	V		400 / 3+N	230 / 3+N
Maximum current	A			20	30
Tank unit					
Tank capacity		l	223		
Maximum working pressure		kg/cm ²	2.5		
Auxiliary electric heater capacity		kW		9.0	7.05
Dimensions	Net HxWxD	mm	1547 x 597 x 619		
	Shipment Hx-WxD	mm	1736 x 700 x 737		
Weight	Net/Shipping	kg	170.0 / 180.0		
Heat pump unit					
Refrigerant (amount)	(kg)		CO2 (0.86)		
Pressure sound level	dB-A		45.0		
Compressor			DC Rotary two stage compression		
Dimensions	Net HxWxD	mm	690 x 840 x 290		
	Shipment Hx-WxD	mm	765 x 943 x 433		
Weight	Net/Shipping	kg	65.0 / 72.0		

Rating conditions

*1, *2, *3; Outlet Water Temp. 50 deg. C / Inlet Water Temp. 30 deg. C

Specifications subject to change without notice