

# CO2 Heat Pump with R744 Refrigerant

This CO2 heat pump uses R744 refrigerant to compress into a high-temperature and high-pressure supercritical fluid. The fluid exchanges heat with cold water, releasing heat for water temperature increase.



## ADDITIONAL IMAGES



## Overview

### High-Efficiency CO2 Heat Pump Solution

This advanced CO2 heat pump utilizes R744 refrigerant to deliver superior thermal performance for commercial and industrial applications. By leveraging a DC inverter or piston compressor cycle, the system efficiently compresses low-pressure gas into a high-temperature supercritical fluid to provide reliable hot water. Designed for sustainability, this unit offers direct heating capabilities with high COP ratings, ensuring energy-efficient operation in demanding environments.

## Performance Metrics

### Key Performance Indicators

**4.8 w/w**

Max COP

**90**

Max Outlet Temp

**14 MPa**

Max Working Pressure

## Technical Specifications

### Model Specifications

Model	Heating Capacity (kW)	Input Power (kW)	Compressor Type
CO2--4.5I	4.5	0.94	DC Inverter / Twin Rotor
CO2--9I	9	1.9	DC Inverter / Twin Rotor
CO2--35II	35	7.4	ON/OFF Piston
CO2--70II	70	14.9	ON/OFF Piston

**Power Supply** 220V/50Hz (Small models) / 380V/50Hz (Large models)

**Heating Method** Direct heating / One time heating

**Refrigerant** R744, CO2