

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