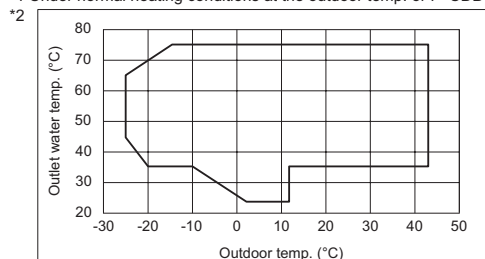


1. Specifications

Model		CAHV-Z450YA-HPB (-BS)	
Power source		3-phase 4-wire 380-400-415V 50/60 Hz	
Capacity(EN14511) *1		kW	40.0
	Power input	kW	12.62
	Current input	A	21.3-20.2-19.5
	COP		3.17
	SCOP Low/Medium		4.12/3.25
	Water flow rate	m ³ /h	6.88
Maximum current input		A	45.6
Water pressure drop		kPa	10.2
Temperature range *2	Outlet water temperature	°C	24-75
	Outdoor temperature	°C	-25-43
Circulating water volume range *3		m ³ /h	4.0-7.0
Sound pressure level (measured in an anechoic room) at 1m *1*4		dB (A)	65
Sound pressure level (measured in an anechoic room) at 1m *4 *5		dB (A)	72
Water pipe diameter and type	Inlet		40A, Rc 1-1/2B
	Outlet		40A, Rc 1-1/2B
External finish		Acrylic painted steel sheet <Munsell 5Y 8/1 or similar>	
External dimensions H × W × D		mm	1710 × 1750 × 740
Net weight		kg	363
Design pressure	R290	MPa	3.85
	Water	MPa	1.0
Drawing number	Wiring		KW94R794
	External appearance		KW94R768
Heat exchanger	Water-side		Stainless steel plate and copper brazing
	Air-side		Plate fins and copper tubes
Compressor	Type		Inverter scroll hermetic compressor
	Manufacturer		MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Motor output	kW	10.8
	Lubricant		PZ46M
Fan	Air flow rate	m ³ /min	150 × 2
		L/s	2500 × 2
		cfm	5297 × 2
	External static pressure	Pa	10
	External static pressure *6	Pa	40
	Type and quantity		Propeller fan × 2
	Control and driving mechanism		Inverter control, direct driven by motor
	Motor output	kW	0.92 × 2
HIC (Heat inter-changer) circuit		Copper pipe	
Protection devices	High pressure		High-pressure sensor and switch set at 3.85 MPa
	Inverter circuit		Overheat and overcurrent protection
	Compressor		Overheat protection
	Fan motor		Thermal switch
	Refrigerant sensor		Refrigerant leakage protection
Defrosting method		Auto-defrost mode (Reversed refrigerant cycle)	
Refrigerant	Type and factory charge *7		R290, 4.8 kg
	GWP *8		3
	Flow and temperature control		LEV and HIC circuit

*1 Under normal heating conditions at the outdoor temp. of 7 °CDB / 6 °CWB, the outlet water temp. of 45 °C, and the inlet water temp. of 40 °C.



· Keep inlet water temp. of 19 °C or higher during the unit operation

Unit converter

BTU/h = kW × 3,412
cfm = m³/min × 35.31
lbs = kg/0.4536
Kcal = kW × 860

*3 The unit can operate at the water volume range of 1.5 - 4.0 m³/h if the water volume exceeds 4.0 m³/h during defrost cycle.

The defrost signal is output from the terminal block of the unit.

*4 SPL is the value measured in an anechoic room at 1 m away from the unit and 1.5 m above the floor.

*5 Under conditions with maximum compressor frequency and fan rotated speed.

*6 External static pressure mode.

*7 The unit is not charged with R290 refrigerant when shipping from the factory.

*8 IPCC 4th assessment report.

- Due to continuing improvements, specifications may be subject to change without notice.
- Do not use steel pipes as water pipes.
- Keep the water circulated at all times. Blow the water out of the pipes if the unit will not be used for an extended period of time.
- Do not use ground water or well water.
- The water circuit must be a closed circuit.