

Specifications

Model		CAHV-R450YA-HPB (-BS)	
Power source		3-phase 4-wire 380-400-415V 50/60Hz	
Capacity(EN14511) *1		kW	40.0
		kcal/h	34,400
		Btu/h	136,480
	Power input	kW	14.03
	Current input	A	23.7-22.5-21.7
Capacity(EN14511) *2	COP (kW/kW)		2.85
	SCOP Low/Medium		3.57/3.24
		kW	35.0
		kcal/h	30,100
		Btu/h	119,420
Capacity(EN14511) *2	Power input	kW	20.13
	Current input	A	34.0-32.3-31.1
	COP (kW/kW)		1.74
	Maximum current input	A	44.0-41.8-40.3
	Water pressure drop *1		10.2kPa (1.47 psi)
Temperature range *5	Outlet water temperature		24-70°C 75.2-158°F
	Outdoor temperature	D.B.	-25-43°C -13-109.4°F
Circulating water volume range *6			1.5m³/h-15.0m³/h
Sound pressure level (measured 1 m below the unit in an anechoic room) *1 *4		dB (A)	64
Sound pressure level (measured 1 m below the unit in an anechoic room) *3 *4		dB (A)	72
Water pipe diameter and type	Inlet	mm (in)	38.1(Rc 1 1/2"),housing type joint
	Outlet	mm (in)	38.1(Rc 1 1/2"),housing type joint
External finish			Acrylic painted steel sheet <Munsell 5Y 8/1 or similar>
External dimensions H × W × D		mm	1710 x 1750 x 740
Net weight		kg (lb)	359 (791)
Design pressure	R454C	MPa	3.85
	Water	MPa	1.0
Drawing number	Wiring		KW94C870
	External appearance		KW94C397
Heat exchanger	Water-side		Copper brazed stainless steel sheet
	Air-side		Plate fins and copper tubes
Compressor	Type		Inverter scroll hermetic compressor
	Manufacturer		MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Motor output	kW	12.1
	Lubricant		FVC32EA
Fan	Air flow rate m³/min	m³/min	150 × 2
		L/s	2500 × 2
		cfm	5297 × 2
	External static pressure		10 Pa (1 mm H2O)
	Type and quantity		Propeller fan x 2
	Control and driving mechanism		Inverter control, direct driven by motor
	Motor output kW	kW	0.92 x 2
HIC (Heat inter-changer) circuit			Copper pipe
Protection devices	High pressure		High-pressure sensor and switch set at 3.85 MPa (643 psi)
	Inverter circuit		Overheat and overcurrent protection
	Compressor		Overheat protection
	Fan motor		Thermal switch
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)
Refrigerant	Type and factory charge	kg	R454C, 9.0 kg
	Flow and temperature control		LEV and HIC circuit

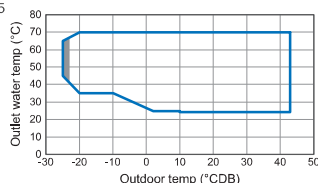
*1 Under normal heating conditions at the outdoor temperature of 7°CDB/6°CWB (44.6°FDB/42.8°FWB), the outlet water temperature of 45°C (113°F), and the inlet water temperature of 40°C (104°F)

*2 Under normal heating conditions at the outdoor temperature of 7°CDB/6°CWB (44.6°FDB/42.8°FWB) and the outlet water temperature of 70°C (158°F)

*3 Under normal heating conditions at the outdoor temperature of 7°CDB/6°CWB (44.6°FDB/42.8°FWB) when the unit is set to the "Capacity Priority" mode through the dry NC-contact

*4 The sound pressure level is a value measured in an anechoic room in accordance with the conventional method in JRA 4060.

*5



Outdoor temp. -25°CDB/Outlet water temp. 45 to 65°C
(Outdoor temp. -13°FDB/Outlet water temp. 113 to 149°F)
Outdoor temp. -20°CDB/Outlet water temp. 35 to 70°C
(Outdoor temp. -4°FDB/Outlet water temp. 95 to 158°F)
Outdoor temp. 43°CDB/Outlet water temp. 24 to 70°C
(Outdoor temp. 109.4°FDB/Outlet water temp. 75.2 to 158°F)

*Do not start up the unit at or below the outdoor temperature of -23°C

*6 4.0-15.0m³/h under the following conditions.

a. When the outdoor temperature is below 0°C.

b. When the outlet water temperature is 30°C or below AND the outdoor temperature is 6°C or below.

Fluorinated Greenhouse Gases Information

Model Name	Refrigerant		Factory charged	
	type	GWP	Weight [kg]	CO ₂ equivalent [t]*
CAHV-R450YA-HPB(-BS)	R454C	148	9.0	1332

* Above values are based on Regulation (EU) No.517/2014.