

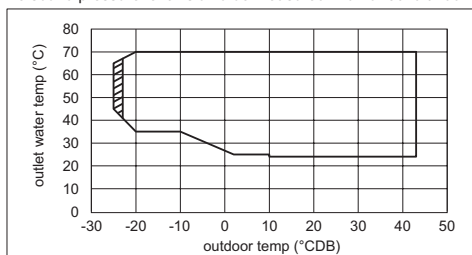
1. Product Specifications

1-1. Specifications

Model			CAHV-R450YA-HPB (-BS)	
Power source			3-phase 4-wire 380-400-415V 50/60 Hz	
Capacity(EN14511) *1			kW	40.0
			BTU/h	136,480
		Power input	kW	14.03
		Current input	A	23.7-22.5-21.7
		COP (kW/kW)		2.85
		SCOP Low/Medium		3.57/3.24
Capacity(EN14511) *2			kW	35.0
			BTU/h	119,420
		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			10.2 kPa (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			1.5 m³/h-15.0 m³/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 (1 1/2"), housing type joint	
	Outlet	mm (in)	38.1 (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 × 1750 × 740	
Net weight		kg (lbs)	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	150 × 2	
		L/s	2500 × 2	
		cfm	5297 × 2	
	External static pressure		10 Pa (1 mm H₂O)	
	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 (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 JRA4060.
 *5

Unit converter
 BTU/h= kW × 3.412
 cfm= m³/min × 35.31
 lbs= kg/0.4536



Outdoor temp. -25°CDB/Outlet water temp. 45~65°C
 (Outdoor temp. -13°FDB/Outlet water temp. 113~149°F)
 Outdoor temp. -20°CDB/Outlet water temp. 35~70°C
 (Outdoor temp. -4°FDB/Outlet water temp. 95~158°F)
 Outdoor temp. 43°CDB/Outlet water temp. 24~70°C
 (Outdoor temp. -109°FDB/Outlet water temp. 75.2~158°F)

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

- *6 4.0 - 15.0 m³/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.
 When entering defrosting operation, ensure that the flow rate is within 6°C of the inlet/outlet temperature difference. (If flow rate of 66 L/min or more is provided, the inlet/outlet temperature difference during defrosting will be within the allowable range over the entire operation range.)