

Job Name:

System Reference:

Date:

208V CAHV Air To Water Heat Pump



UNIT OPTION

- ☐ Standard Model.....CAHV-R136TAU
☐ Seacoast (BS) Model.....CAHV-R136TAU (-BS)

ACCESSORIES

- ☐ Snow Guard Side (2 In Kit).....SGC-1
☐ Snow Guard Rear (2 In Kit).....SGC-2
☐ Snow Hood (1 In Kit, Requires 2).....SHC-1
☐ Remote Sens. (Requires 2 for Group Cntrl.).....TW-TH16-E
☐ Remote Controller.....PAR-W31MAA
☐ Grooved Coupling (2 in Kit).....HJ-40A
☐ Base Stand - 12" High.....QSSB74M-12
☐ Base Stand - 18" High.....QSSB74M-18
☐ Base Stand - 24" High.....QSSB74M-24

Specification Unit Type		System CAHV-R136TAU (-BS)	
Power source		3-phase 3-wire 208-230 V 60 Hz	
Capacity (EN14511) *1		kW	40.0
		BTU/h	136,480
	Power input	kW	14.03
	Current input (208 V)	A	43.3
	Current input (230 V)	A	39.2
	COP (kW/kW)		2.85
Maximum current input		A	72.2
Minimum Circuit Ampacity (MCA)		A	72.0
Maximum Overcurrent Protection (MOP)		A	110.0
Water pressure drop *1		kPa (psi)	10.2 (1.47)
Temperature range *3	Outlet water temperature	°C	24-74
	Outdoor temperature (D.B.)	°C	-25-43
Circulating water volume range *6		m ³ /h	4.0-15.0 (1056.8-3963.0)
Sound pressure level (measured 1 m below the unit in an anechoic room) *1 *5		dB (A)	65
		dB (A)	72
Water pipe diameter and type	Inlet	mm (in)	40A (1-1/2 B), housing type joint
	Outlet	mm (in)	40A (1-1/2 B), housing type joint
External finish		Acrylic painted steel sheet	
External dimensions H × W × D		mm (in)	1650 × 1750 × 740 (64-31/32 × 68-29/32 × 29-5/32)
Net weight		kg (lbs)	362 (798)
Design pressure	R454C	MPa (psi)	3.85 (558)
	Water	MPa (psi)	1.0 (145)
Drawing number	Wiring	KW94R804	
	External appearance	KW94L288	
Heat exchanger	Water-side	Copper brazed stainless steel sheet	
	Air-side	Plate fins and copper tubes	

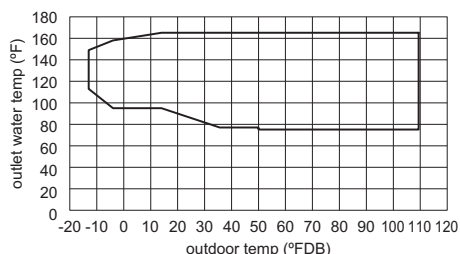
Specification			System
Unit Type			CAHV-R136TAU (-BS)
Compressor	Type		Inverter scroll hermetic compressor
	Manufacturer		MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Motor output	kW	12.1
	Lubricant		FVC32EA
Fan	Air flow rate	m ³ /min	150 × 2
		L/s	2500 × 2
		cfm	5297 × 2
	External static pressure		10 Pa (1 mm H ₂ O)
	Type and quantity		Propeller fan × 2
	Control and driving mechanism		Inverter control, direct driven by motor
	Motor output	W	920 × 2
HIC (Heat inter-changer) circuit			Copper pipe
Protection devices	High pressure		High-pressure sensor and switch set at 3.85 MPa (558 psi)
	Inverter circuit		Overheat and overcurrent protection
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)
Refrigerant	Type and factory charge	kg (lbs)	R454C, 9.0 (19.8)
	GWP *4		148
	Flow and temperature control		LEV and HIC circuit
SCCR		kA	5

*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)

Tolerance of capacity and COP is based on AHRI 551/591.

*2 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.

*3



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. -10°CDB/Outlet water temp. 35~74°C
(Outdoor temp. 14°FDB/Outlet water temp. 95~165°F)
Outdoor temp. 43°CDB/Outlet water temp. 24~74°C
(Outdoor temp. 109°FDB/Outlet water temp. 75.2~165°F)

* Stops operation at the outdoor temperature of -28°C (-18°F) or below

* Stops operation at the inlet water temperature of 72°C (161.6°F) or above

*4 IPCC 4th assessment report

*5 The sound pressure level is a value measured in an anechoic room in accordance with the conventional method in JRA4060.

*6 The fluctuation of the flow rate must be 10% per minute or less.

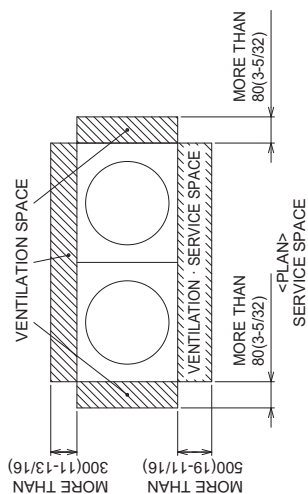
- Due to continuing improvements, specifications may be subject to change without notice.
- Do not use steel pipes as water pipes.
- Keep the water circulated at all times. Blow the water out of the pipes if the unit will not be used for an extended period of time.
- Do not use ground water or well water.
- Do not install the unit in an environment where the wet bulb temperature exceeds 32°C (90°F).
- The water circuit must be a closed circuit.

Unit converter

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

CAHV-R136TAU (-BS)

Unit: mm (in.)



Note: Install 60 Mesh (Field Provided) Strainer At Inlet to EACH CAHV Unit

NOTE 1. PLEASE INSTALL THE DRAIN PAN BECAUSE DEFROSTING WATER OR DEW CONDENSATION WATER DROPS FROM HOLES ON THE UNIT BASE.

2. THE DETACHABLE LEG CAN BE REMOVED AT SITE.

NO.	USAGE	SPECIFICATIONS
①	POWER CABLE INLET	ø62(2-15/32) KNOCKOUT HOLE
②	SIGNAL CABLE INLET (LOW CURRENT CABLE)	ø35(1-13/32) KNOCKOUT HOLE
③	SIGNAL CABLE INLET (HIGH CURRENT CABLE)	ø35(1-13/32) KNOCKOUT HOLE

