CITY MULTI® Model: QAHV-N136YAU-HPB(-BS)

Job Name:

Schedule Reference: | Date:

UNIT OPTIONS

- ☐ Standard Model...QAHV-N136YAU-HPB
- ☐ Seacoast (BS) Model...QAHV-N136YAU-HPB-BS

OPTIONAL PARTS

- ☐ Remote controller (PAR-W31MAA-J)
- ☐ Representative water temperature sensor (model name TW-TH16E)
- ☐ Secondary circuit kit (Q-1SCK)

MAIN FEATURES & BENEFITS

- Operable down to ambient outdoor temperature of -13ºF/-25ºC.
- Environmentally friendly, utilizes CO_2 (R744) Refrigerant.
- Mitsubishi Electric's unique twisted & spiral gas cooler technology which maximizes heat transfer.
- The system can be monitored and operated remotely.
- Efficient operation, reduced emissions of CO_2 and NO_x.

Model			QAHV-N136YAU-HPB(-BS)
Power Source			3-phase 3-wire 460 V 60Hz
Capacity *1		Btu/h	136,480
		kW	40
	Power input	kW	9.73
	Current input	A	13.6
	COP	kW/kW	4.11
Capacity *2		Btu/h	136,480
		kW	40
	Power input	kW	10.44
	Current input	A	14.6
	COP	kW/kW	3.83
Allowable external pump head		ftAq (kPa)	22.75 (68)
Temperature range*3	Inlet water temperature	°F (°C)	41–145 (5–63)
	Outlet water temperature		120–176ºF (when the secondary side control is enabled: 120–158ºF) 49–80ºC (when the secondary side control is enabled: 49–70ºC)
	Outdoor temperature	D.B.	-13–109°F (-25–43°C)
Sound pressure level (measured 1m below the unit in an anechoic room) *1 *4		dB (A)	56
Water pipe diameter and type	Inlet	in. (mm)	Rc 3/4 (19.05), screw pipe *5
	Outlet	in. (mm)	Rc 3/4 (19.05), screw pipe *5
External finish			Acrylic painted steel plate <MUNSELL 5Y 8/1 or similar>
Exterrnal dimensions H x W x D		in. (mm)	70 × 48-1/16 × 29-15/16 (1,777 × 1,220 × 760)
Net weight		lbs (kg)	934 (424)
Design pressure	R744	psi (MPa)	2,030 (14)
	Water	psi (MPa)	72.5 (0.5)
Heat exchanger	Water-side		Copper tube coil
	Air-side		Plate fins and copper tubes
Compressor	Type		Inverter scroll hermetic compressor
	Manufacturer		MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Motor output	kW	11.0
	Case heater	kW	0.045
	Lubricant		PAG
MCA (A)*			39
MOP (A)*			40
Fan	Air flow rate	cfm	7,768
		m^3/min	220
	Type and quantity		Propeller fan × 1
	Control and driving mechanism		Inverter control, direct driven by motor
	Motor output	kW	0.92
HIC (Heat inter-changer) circuit			Copper pipe
Protection devices	High pressure		High-pressure sensor and switch set at 2,030 psi (14 MPa)
	Inverter circuit		Overheat and overcurrent protection
	Compressor		Overheat protection
	Fan motor		Thermal switch
Defrosting method			Auto-defrost mode (Hot gas)
Refrigerant	Type and factory charge	lbs (kg)	CO_2 (R744) 14.3 lbs (6.5 kg)
	Flow and temperature control		LEV

Notes:

*1.Under normal heating conditions at the outdoor temperature of 80.6ºFDB/71.2ºFWB (27.0ºCDB/21.8ºCWB), the outlet water temperature of 120ºF (49ºC), and the inlet water temperature of 70ºF (21ºC) This condition is based on 10 CFR.

*2.Under normal heating conditions at the outdoor temperature of 80.6ºFDB/71.2ºFWB (27.0ºCDB/21.8ºCWB), the outlet water temperature of 149ºF (65ºC), and the inlet water temperature of 70ºF (21ºC) This condition is based on 10 CFR except for outlet water temperature. (Outlet water temperature is based on typical operating temperatures.)

*3.The temperature difference between inlet water and outlet water must be kept above the following values.
Energy saving operation 1 mode ··· ΔT=50°F (28ºC)
Energy saving operation 2 mode ··· ΔT=50°F (28ºC)
Max capacity operation ··· ΔT=67°F (37ºC)
If the unit is operated with the inlet-outlet water temperature difference at or below the ΔT listed above, the flow rate will reach its maximum, which can adversely affect the normal operation of the unit and shorten product life.
Note that, regardless of the inlet-outlet water temperature difference (even during operation within the range with the minimum water inlet-outlet temperature difference), the higher the inlet temperature, the lower the COP.
Keep the inlet water temperature as low as possible to ensure efficient operation.

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

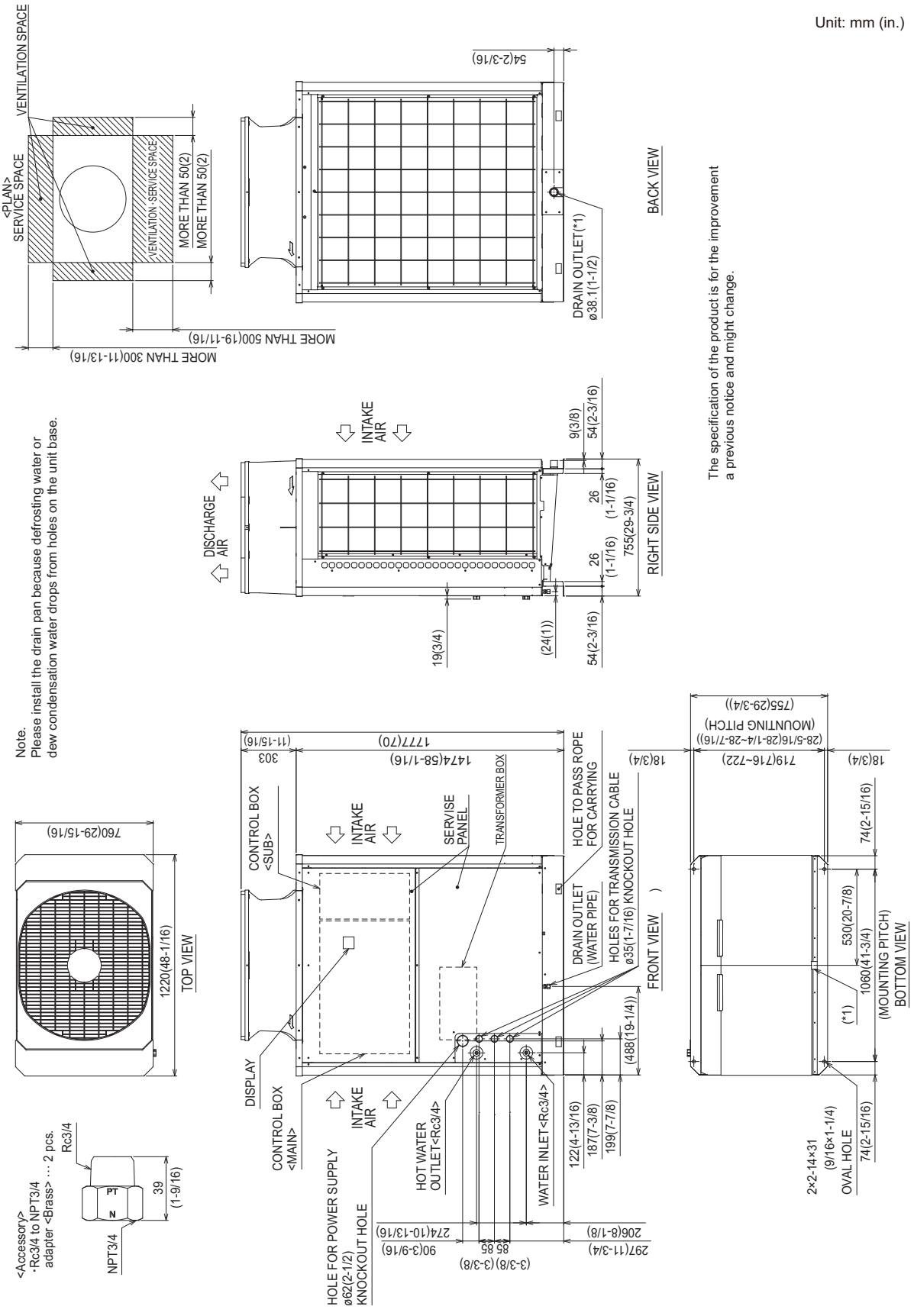
*5.PT-NPT reducers are included as accessories.

*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 90ºF (32°C).
*The water circuit must be a closed circuit.
*There is a possibility that the unit may abnormally stop when it operates outside its operating range. Provide backup (ex.boiler start with error display output signal (blue CN511 1-3)) for abnormal stop.
*In a system in which the ascent rate of inlet water temperature becomes 5 K/min (9ºF/min) or above instantly or 1 K/min (1.8ºF/min) or above continuously, this model of units cannot be used.

* All electrical work shall comply with National (CEC) and local codes and regulations.

Module: QAHV-N136YAU-HPB(-BS) - DIMENSIONS

Unit: mm (in.)



Note.
Please install the drain pan because defrosting water or dew condensation water drops from holes on the unit base.

The specification of the product is for the improvement a previous notice and might change.