

# INDOOR UNITS

## Dedicated Outside Air System (DOAS)

Introduce and condition fresh air into a VRF system with the Dedicated Outside Air System indoor unit to create a more comfortable and healthy indoor environment.



Capacity: 96,000 Btu/hr



Tonnage			8.0	
Dedicated Outside Air System (DOAS) Unit Model #			HDOA096B21S	
Power Supply			AC 1 Phase, 208/230V, 60Hz	
Outlet Air Temperature Control <sup>1</sup>	Nominal Cooling Capacity	Btu/h	96,000	
		(kW)	(28.2)	
	Nominal Heating Capacity	Btu/h	60,000	
		(kW)	(17.6)	
Indoor Temperature Control <sup>2</sup>	Nominal Cooling Capacity	Btu/h	96,000	
		(kW)	(28.2)	
	Nominal Heating Capacity	Btu/h	83,600	
		(kW)	(24.5)	
Sound Pressure Level <sup>3</sup> (Overall A Scale) (208/230V)		dB	50/51	
Outer Dimensions	Height	in. (mm)	19-1/8	(486)
	Width	in. (mm)	50	(1270)
	Depth	in. (mm)	44-1/8	(1120)
Net Weight		lbs. (kg)	247	(112)
Refrigerant			R410A	
Indoor Fan	Airflow Rate <sup>4</sup>	cfm	1236	
		(m <sup>3</sup> /min)	(35.0)	
External Pressure <sup>4</sup> (208/230V)		in. W.G. (Pa)	1.06/1.24 (265/310)	
Motor Nominal Output		W	402 (201 x 2pcs)	
Connections				
Refrigerant Piping			Braze	
	Liquid Line	in. (mm)	3/8	(9.52)
	Gas Line	in. (mm)	7/8	(22.20)
Condensate Drain	OU	in. (mm)	1-1/4	(32)

### NOTES:

#### 1. Outlet Air Temperature Control

A control system to bring the outlet temperature closer to the set point temperature of the wired controller, using an outlet air thermistor of the unit. Nominal capacity (outlet air temperature control) is based on combination with VRF system and following conditions:

#### COOLING OPERATION CONDITIONS

Outdoor Temperature: 91°F DB (33.0°C DB)  
82°F WB (28.0°C WB)  
Discharge Set Temperature: 61°F DB (16.0°C DB)

Piping Length: 24.6ft (7.5m)

#### HEATING OPERATION CONDITIONS

Outdoor Temperature: 32°F DB (0°C DB)  
27°F WB (-2.9°C WB)  
Discharge Set Temperature: 72°F DB (22.0°C DB)

Piping Lift: 0ft (0m)

#### 2. Indoor Temperature Control

A control system to bring the room atmosphere temperature closer to the set point temperature of the wired controller, using a temperature sensor (remote sensor or thermistor in wired controller) mounted to any place in the room. Nominal capacity (indoor temperature control) is based on combination with VRF system and following conditions:

#### COOLING OPERATION CONDITIONS

Outdoor Temperature: 91°F DB (33.0°C DB)  
82°F WB (28.0°C WB)  
Indoor Temperature: 81°F DB (27.0°C DB)  
Piping Length: 24.6ft (7.5m)

#### HEATING OPERATION CONDITIONS

Outdoor Temperature: 32°F DB (0°C DB)  
27°F WB (-2.9°C WB)  
Indoor Temperature: 68°F DB (20.0°C DB)  
Piping Lift: 0ft (0m)

## Key Features

- 8 ton unit
- Pre-installed condensate pump
- Nominal airflow of 1,236CFM
- High external static pressure up to 1.24 in. WG (at 230V) enables design flexibility
- Sensor enables remote reading of air supply temperature
- Seamlessly integrates with the VRF heat pump system controls and piping
- Multiple control modes for optimizing comfort and energy efficiency include:
  - » Outlet Air Temperature Control
  - » Indoor Temperature Control
  - » Remote Sensor
  - » Sensor in Optional Programmable Wired Zone Controller

### Dedicated Outdoor Air System

Compatible Accessories	HDOA096B21S
Infrared (IR) Receiver Kit	CWDIRK01
3-Pin Connector Cable	PCC-1A
Relay and 3-Pin Connector Kit	PSC-5RA
Seismic Suspension Bracket	SSB-IDH01
Remote Sensor (Control)	THM-R2A

3. The sound pressure level is based on the following conditions. 4.9 ft. (1.5m) beneath the units.

The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

4. Data values when a filter is not used.