

# Submittal Data: PVA-A24AA7 & PUZ-HA24NHA1

24,000 BTU/H Multi Position AHU Cold Climate Heat Pump System

Job Name:	Location:		
Purchaser:	Submitted By:		
Submitted To:	Reference:	Approval:	Construction:
Engineer:	Date:	Application:	



Optional Controller

Images provided for reference purposes only

Outdoor Standard Features:	Description:
Blue Fin Coating	Prolong condenser operating life
Inverter Motor	Energy efficient operation with variable speed DC motor
Built in base pan heater	Automated control to prevent premature failure of condenser coil
Auto mode	Automatically switches between heating & cooling modes
Fast Auto restart	Automatically restarts after power failure return
Auxiliary heat lock out	Prevents premature activation of aux. heat
Automated compressor cutout	Prevents inefficient operation & protects compressor
Cold climate heat pump	
Indoor Standard Features:	Description:
Multi position	Increases application in tight spaces
Less than 2% air leakage	At 1.0 in. WG, ASHRAE standard 193
Built in humidification & ventilation controls	Controls humidifier and ventilator
Direct auxiliary heat control	Heat pump system controls aux. heat
Condensate overflow fail safe	CN4F, condensate overflow safety switch connector
Description: (Optional Accessories)	Model No.
Front Windscreen	PFR-24-30
Rear Snow Guard	PRE-24-30
Side Snow Guard	PSD-24-30
Electric Heater Kit - 8kW	EH08-MPA-MB
Electric Heater Kit - 10kW	EH10-MPA-MB
Terminal Block Kit	SPTB1
Distribution Pipe used for Twinning	MSDD-50TR-E (refer to manual)

**Note:**

- Mitsubishi Electric Sales Canada Inc. (MESCA) supports the use of only MESCA supplied and approved components and accessories for proper functioning of the unit(s). Use of non - MESCA supported components and accessories will affect warranty coverage. MESCA recommends (A) consideration of all applicable design and application parameters and requirements specific to any project.
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## Performance:

Cooling at 95°F <sup>1</sup>	Rated Capacity	Btu/h	24,000
	Capacity Range	Btu/h	10,000 - 24,000
	Rated Power Input	W	2,100
	Power Input Range	W	680 - 2,100
	Moisture Removal	pints/h	3.7
	Sensible Heat Factor		0.83
Heating at 47°F <sup>2</sup>	Rated Capacity	Btu/h	26,000
	Capacity Range	Btu/h	10,000 - 28,000
	Rated Power Input	W	1,980
	Power Input Range	W	550 - 2,200
Heating at 17°F <sup>3</sup>	Maximum Capacity	Btu/h	26,000
	Rated Capacity	Btu/h	17,500
	Capacity Range	Btu/h	NA - 26,000
	Maximum Power Input	W	3,550
	Rated Power Input	W	2,216
	Power Input Range	W	NA - 3,550
Heating at 5°F <sup>4</sup>	Maximum Capacity	Btu/h	26,000
	Maximum Power Input	W	4,049
Heating at -13°F <sup>5</sup>	Maximum Capacity	Btu/h	20,800
	Maximum Power Input	W	4,136

## Efficiency:

SEER		19.0
EER <sup>1</sup>		11.4
HSPF (IV)		10.4
COP at 47°F <sup>2</sup>	Rated Capacity	3.85
COP at 17°F <sup>3</sup>	Maximum Capacity	2.15
COP at 5°F <sup>4</sup> / -13°F	Maximum Capacity	2.00 / 1.47

## Electrical:

Power Supply		208/230V, 1Ph, 60Hz
Voltage: Indoor - Outdoor, S1-S2	V AC	AC 208/230V
Voltage: Indoor - Outdoor, S2-S3	V DC	DC 24V
Short-circuit Current Rating (SCCR)	kA	5
Recommended Fuse/Breaker Size (Outdoor)	A	25
Recommended Wire Size (Indoor - Outdoor)	AWG	14

## Outdoor Operating Temperature Range:

Cooling Operation Air Temp (Maximum / Minimum)*	°F (°C)	* 0 to 115 (-18 to 46)
Cooling Operation Thermal Lock-out / Re-start Temperatures	°F (°C)	-1 / 3 (-18 / -16)
Heating Operation Air Temp (Maximum / Minimum)	°F (°C)	-13 to 75 (-25 to 24)
Heating Operation Thermal Lock-out / Re-start Temperatures	°F (°C)	-22 / -13 (-30 / -25)

AHRI Rated Conditions (Rated data is determined at a fixed compressor speed) (\* Windscreens required for cooling operations below 23°F (-5°C))

<sup>1</sup>Cooling (Indoor // Outdoor) 80°F (26.6°C) DB, 67°F (19.4°C) WB // 95°F (35°C) DB, 75°F (23.9°C) WB

<sup>2</sup>Heating at 47°F (8.3°C) (Indoor // Outdoor) 70°F (21.1°C) DB, 60°F (15.6°C) WB // 47°F (8.3°C) DB, 43°F (6.1°C) WB

<sup>3</sup>Heating at 17°F (-8.3°C) (Indoor // Outdoor) 70°F (21.1°C) DB, 60°F (15.6°C) WB // 17°F (-8.3°C) DB, 15°F (-9.4°C) WB

Rated conditions:

<sup>4</sup>Heating at 5°F (-15°C) (Indoor // Outdoor) 70°F (21.1°C) DB, 60°F (15.6°C) WB // 5°F (-15°C) DB, 4°F (-15.6°C) WB

<sup>5</sup>Heating at -13°F (-25°C) (Indoor // Outdoor) 70°F (21.1°C) DB, 60°F (15.6°C) WB // -13°F (-25°C) DB, -15°F (-26.1°C) WB

Notes:

## Indoor Unit Specifications:

MCA	A	4.13
MOCP (only used with SPTB1 powering Indoor separately)	A	15
Blower Motor Full Load Amperage	A	3.30
Blower Motor Output	W	244
External Static Pressure	in WG	0.30 - 0.50 - 0.80
Airflow Rate at Cooling, Dry	CFM	613 - 744 - 875
Airflow Rate at Cooling, Wet	CFM	NA
Airflow Rate at Heating, Dry	CFM	613 - 744 - 875
Sound Pressure Level (Cooling)	dB(A)	32 - 36 - 40
Sound Pressure Level (Heating)	dB(A)	32 - 36 - 40
Drain Pipe Size	In. (mm)	3/4 (19)
External Finish Color	Galvanized steel cabinet - Powder coated Slate Gray	
Unit Dimensions	W: In. (mm)	21 (534)
	D: In. (mm)	21-5/8 (548)
	H: In. (mm)	54-1/4 (1,378)
Unit Weight	Lbs. (kg)	141 (64)

## Outdoor Unit Specifications:

MCA	A	17
MOCP	A	27
Fan Motor Output	W	74
Airflow Rate (Cooling/Heating)	CFM	1,940 / 1,940
Sound Pressure Level, Cooling <sub>1</sub>	dB(A)	52
Sound Pressure Level, Heating <sub>2</sub>	dB(A)	53
Refrigerant Control	LEV	
Compressor Oil Type / Charge	oz.	FVC68D / 34 oz
External Finish Color	Ivory Munsell No.3Y 7.8/1.1	
Unit Weight	Lbs. (kg)	190 (86)
Unit Dimensions	W: In. (mm)	37-13/32 (950)
	D: In. (mm)	12-63/64 + 63/64 (330 + 25)
	H: In. (mm)	37-1/8 (943)
Gas Pipe Size O.D. (Flared)	In. (mm)	5/8 (15.88)
Liquid Pipe Size O.D. (Flared)	In. (mm)	3/8 (9.52)
Maximum Piping Length	Ft. (m)	165 (50)
Maximum Height Difference	Ft. (m)	100 (30)

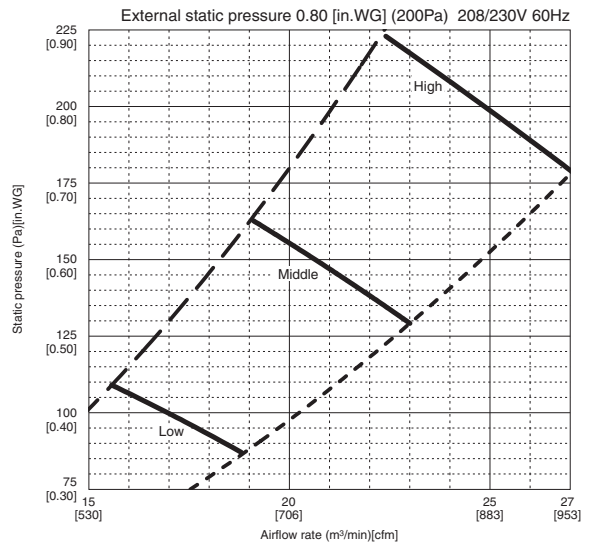
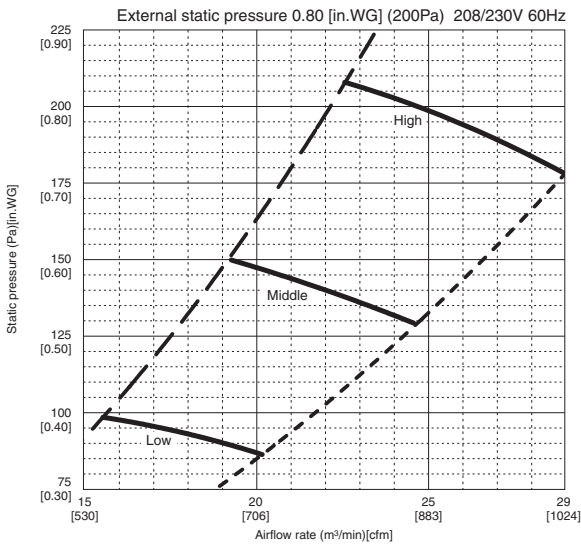
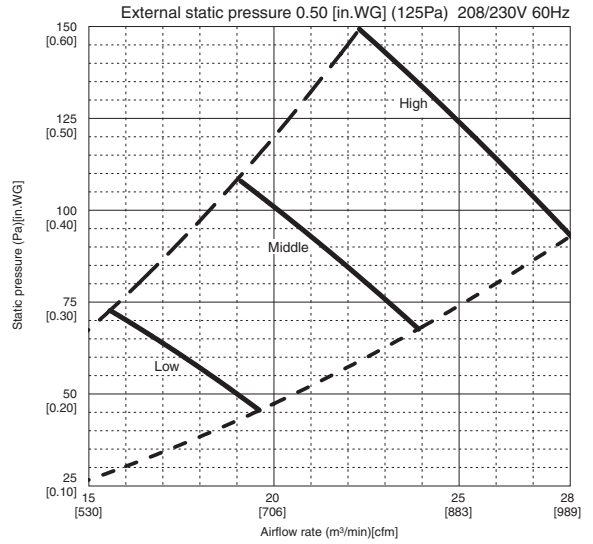
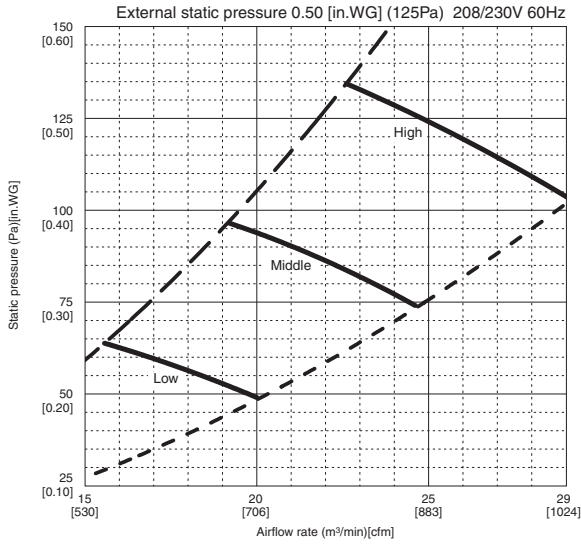
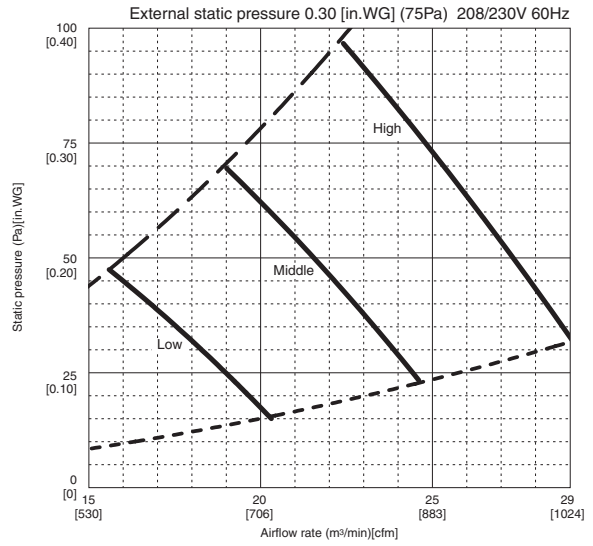
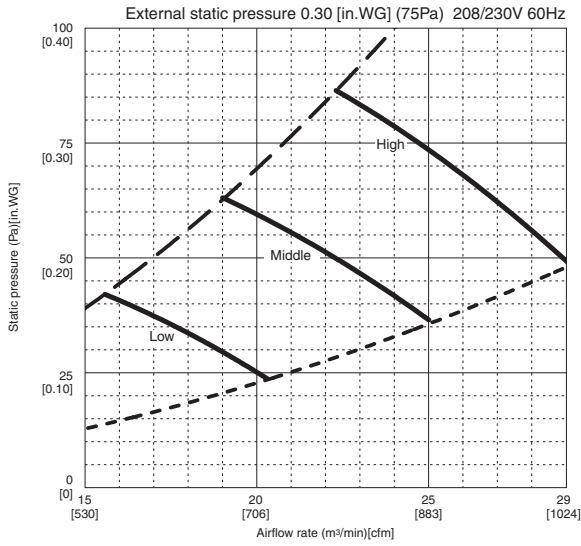
## Description: (Optional Controls)

## Model No.

Building automated system DDC Interface	MELCO-RETAIL-MINI
Building automated system BacNet Interface	MELCO-BEMS-MINI
Simple thermostat Interface	PAC-US444CN-1
Operation/error display adapter	PAC-SA88HA-EP
Remote ON/OFF control	PAC-SE55RA-E
Remote compress ON/OFF control	PAC-SC36NA-E
Wireless remote receiver	PAR-FA32MA-E
Wired wall mounted remote control	PAR-40MAA
Wireless wall mounted remote control	MHK1
Touch screen wired wall mounted control	PAR-CT01MAU-SB
Basic wired wall mounted control	PAC-YT53CRAU-J
External heat control adapter	PAC-YU25HT-G
Heater control relay	PAM-4
Deluxe thermostat interface	RMF-CA100-V1
MNet adapter (BacNet/LonWorks BAS sub interface)	PAC-SJ95MA-E

## Fan Performance and Corrected Airflow:

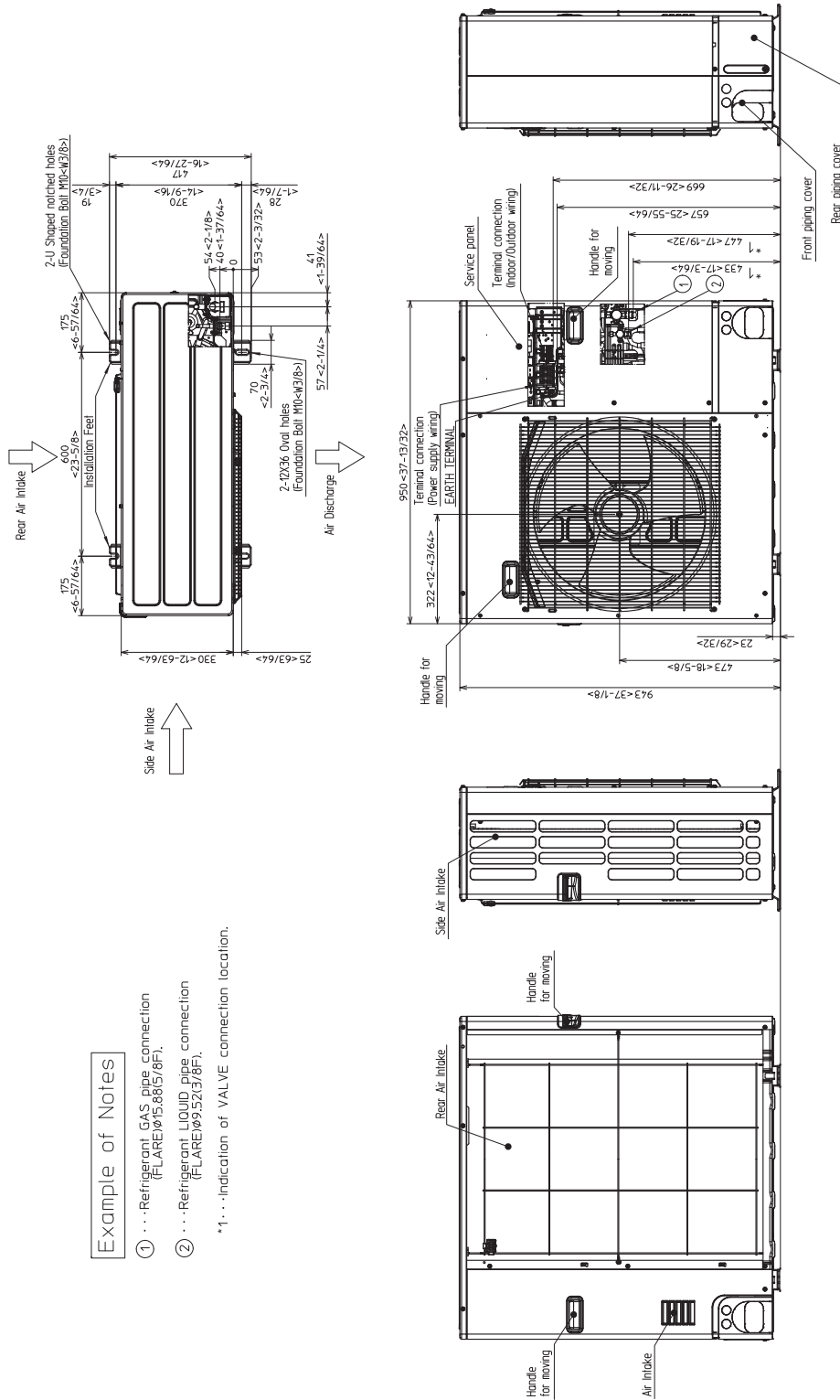
• Vertical, Horizontal Right, Horizontal Left • Downflow





## Outdoor Unit Outline and Dimensions:

Unit: mm<in>



**Example of Notes**

- ① ... Refrigerant GAS pipe connection (FLARE)φ15.88(5/8F).
- ② ... Refrigerant LIQUID pipe connection (FLARE)φ9.52(3/8F).

\*1... Indication of VALVE connection location.

