

Heating and Cooling

36,000 BTU/H Multi Position A-Coil Cold Climate Heat Pump System

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

PAA-A36BA1-M

PAA-A36CA1-M







**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			
Automated compressor cutout	Prevents inefficient operation & protects compressor			
Cold climate heat pump				
Indoor Standard Features:	Description:			
Economic Balance Point	Allows the customer to choose the outdoor ambient temperature			
	to switch from heat pump to furnace			
	Allows the customer to determine the length of time			
Capacity Balance Point	(24 to 29 minutes) the heat pump will attempt to heat the space			
	before switching to furnace (as an auxiliary heat source)			
Emergency Mode	The system will operate in furnace mode when in error			
Auto Dostout Function	Auto-recovery after power failure			
Auto Restart Function	(must be activated on controller mode #1 set to 2)			
<b>Description: (Optional Accessories)</b>	Model No.			
Front Windscreen	CM-S-FR-NKMU (x2 required)			
Front Windscreen Blocker	CM-S-BLK-NKMU (x2 per box)			
Rear Snow Guard	SG-1-RE			
Side Snow Guard	SG-1-SD			

#### "Note:

- (1) To be installed by a trained and licensed refrigeration mechanic;
- (2) Suitable for installation with an ANSI certified gas furnace (Z21.47/CSA2.3);
- (3) Not suitable for installation with OIL or DRUM type furnaces;
- (4) Supply air temperature must not exceed 200°F (93.3 °C);
- (5) Furnace output capacity shall not be greater than 300% of the rated PAA cooling capacity;
- (6) Configure furnace fan such at the airflow is greater than or equal to 350 CFM per ton and less than or equal to 400 CFM per ton of nominal PAA unit cooling capacity. In down flow orientation, the furnace fan should be configured to maintain an airflow face velocity below 350 ft/min to prevent water blow-off;

(7) For detailed requirements, review PAA Installation Manual at:

#### http://www.mitsubishitechinfo.ca/

#### Note:

- 1. 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.
- 2. Should any person change this document in any manner whatsoever without MESCA's written permission, the document shall be of no force and effect and any change shall be deemed to be a representation and warranty made by that person and not MESCA. That person, and not MESCA, shall assume full responsibility for the consequences of such changes. MESCA assumes no responsibility for any consequences in such cases.



Performance:							
	Rated Capacity	Rated Capacity			36,000		
	Capacity Range			Btu/h	16,600 - 36,000		
Cooling at 95°F <sup>*1</sup>	Rated Power Input			W	3,270		
Cooling at 95 F		Power Input Range			1,090 - 3,270		
	Moisture Removal			pints/h	7.5		
	Sensible Heat	Factor			0.77		
	Rated Capacity			Btu/h	38,000		
Heating at 47°F <sup>*1</sup>	Capacity Range			Btu/h W	20,500 - 42,000		
ricating at 47 i		Rated Power Input			3,530		
	Power Input R			W	1,340 - 3,530		
	Maximum Cap			Btu/h	38,000		
	Rated Capacity			Btu/h	28,200		
Heating at 17°F <sup>*2</sup>	Capacity Range			Btu/h	14,200 - 38,000		
Heating at 17 F	Maximum Pov	ver Input		W	5,640		
	Rated Power I	nput		W	3,710		
	Power Input R			W	1,300 - 5,640		
Heating at 5°F <sup>*3</sup>	Maximum Capacity			Btu/h	38,000		
Heating at 5 F	Maximum Pov	ver Input		W	5,400		
Heating at -5°F	Maximum Capacity			Btu/h	34,100		
Heating at -5°F	Maximum Power Input			W	5,490		
Heating at -13°F	Maximum Cap	acity		Btu/h	30,400		
	Maximum Pov	ver Input		W	5,510		
Efficiency:							
SEER / SEER2					15.5 / 15.3		
EER / EER2					11.0 / 10.5		
HSPF / HSPF2 (IV) / (V)					9.80 / 8.80 / 8.20		
COP at 47°F <sup>*1</sup>	Rated Capacity				3.15		
COP at 17°F <sup>*2</sup>	Maximum Cap				1.97		
COP at 5°F <sup>*3</sup> / -13°F	Maximum Cap	acity			2.06 / 1.62		
Electrical:							
Power Supply					208/230V, 1Ph, 60Hz		
Voltage: Indoor - Outdoor, S1-S2 Voltage: Indoor - Outdoor, S2-S3					AC 208/230V		
Voltage: Indoor - Outdoor, S2-S3					10-24VDC		
Short-circuit Current Rating (SCCR)	kA A	5					
Recommended Fuse/Breaker Size (Outdoor)					35		
	Recommended Wire Size (Indoor - Outdoor) AWG 14						
Outdoor Temperature Operation Ran	nge:						
Cooling °F (°C) *4 0 to 115 (-18 to							
Heating		°F (°C)	D.B -13 to	75 (-25 to 24), '	W.B13 to 59 (-25 to 15)		
Cooling Operation Thermal Lock-out / Re-start Temperatures °F (°C)					-1 / 3 (-18 / -16)		
Heating Operation Thermal Lock-out / Re	-start Temperatu	res		°F (°C)	-22 / -13 (-30 / -25)		

AHRI Rated Conditions (Rated data is determined at a fixed compressor speed)

NOTES: \*1. Rating conditions (cooling)-Indoor: D.B. 80°F (26.7°C), W.B. 67°F (19.4°C) Outdoor: D.B. 95°F(35°C), W.B. 75°F (23.9°C)

(heating)-Indoor: D.B. 70°F (21.1°C), W.B. 60°F (15.6°C) Outdoor: D.B. 47°F (8.3°C), W.B. 43°F (6.1°C)

<sup>\*2.</sup> Conditions (heating)-Indoor: D.B. 70°F (21.1°C), W.B. 60°F (15.6°C) Outdoor: D.B. 17°F (-8.3°C), W.B. 15°F (-9.4°C)

<sup>\*3.</sup> Conditions (heating)-Indoor: D.B. 70°F (21.1°C), W.B. 60°F (15.6°C) Outdoor: D.B. 5°F (-15°C), W.B. 5°F (-15°C)

<sup>\*4.</sup> Cooling at 0 °F, wind baffle accessory required. Without wind baffle accessory, the minimum temperature will be 23°F (-5°C).

<sup>&</sup>lt;sup>A)</sup> CFM @ 350 per tons.

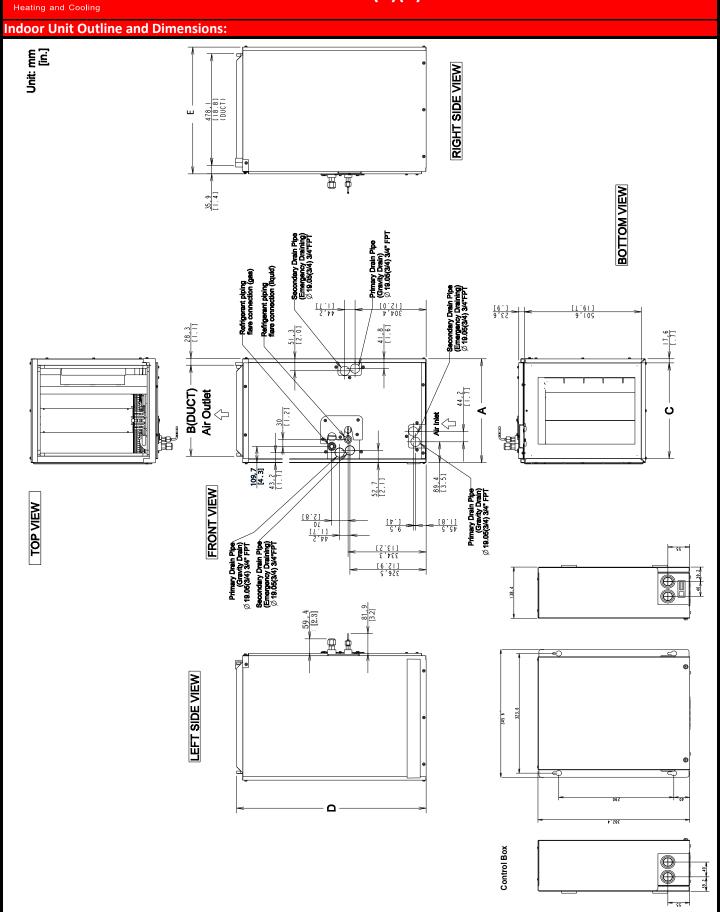


Heating and Cool			Jala. FAF	ועוטפאיי	CJAI-IVI G	K I UZ-IIA		
Indoor Unit Sp	ecifications:							
Models	Airflow rate*	W: In.	D: In.	H: In.	W: mm	D: mm	H: mm	kg (lbs
PAA-A36BA1-M	1050	17.5	21.3	31.0	445	543	785	31 (67
PAA-A36CA1-M	1050	21.0	21.3	31.0	534	543	785	37 (82)
*	Target airflow rate	e for Y or Y1 signal			Not inc	cluding connection	pipes.	
in. WG 0.3 (Acco			rding to AHRI - 210/240, where this is the maximum allowable internal static pressure for "Coil Only" systems)					
		[Pa]	75 (According to AHRI - 210/240, where this is the maximum allowable interstatic pressure for "Coil Only" systems)				le internal	
MCA							0.2	
Drain Pipe Size				In. (	mm)		3/4 (19.05)	
External Finish (	Color					Galvanized Steel		
<b>Outdoor Unit</b>	<b>Specifications</b>	s:						
MCA				A	26			
MOCP				A	42			
Fan Motor Output			k	W	0.074 + 0.074			
Airflow Rate (Cooling/Heating)			CI	-M	3,880 / 3,880			
Sound Pressure Level, Cooling1			dB	6(A)	52			
Sound Pressure Level, Heating2			dB	6(A)	53			
Refrigerant Con	trol					Electr	onic Expansion	Valve
Compressor Oil Type / Charge			oz. FV50S / 47 oz					
External Finish (	Color			•			/Junsell No.3Y	7.8/1.1
Unit Weight				• • • • • • • • • • • • • • • • • • • •		261 (118)		
Unit Dimensions					1-11/32 (1,050)			
			(mm)	,				
			(mm)	52-43/64 (1,338)		3)		
Gas Pipe Size O.					mm)	5/8 (15.88)		
Liquid Pipe Size					mm)	3/8 (9.52)		
Maximum Height Difference				(m)	100 (30)			
Maximum Pipin				Ft.	(m)		100 (30)	
Description: (						Model No.		
Wired wall mou						PAR-41MAAU		
Wireless wall mounted remote control						MHK2		
North American T-Stat Interface					RMF-CA100			
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### **Indoor Unit Dimensions:**

Model	Α	В	С	D	E
	mm	mm	mm	mm	mm
	(inches)	(inches)	(inches)	(inches)	(inches)
PAA-A36BA1	445.0	390	409.6	785.2	543
	(17-1/2)	(15-5/16)	(16-1/8)	(31)	(21-3/8)
PAA-A36CA1	534.6	479.4	499	785.2	543
	(21)	(18-7/8)	(19-5/8)	(31)	(21-3/8)







### **Outdoor Unit Outline and Dimensions:**

