

Heating and Cooling

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

Job Name:	Location:				
Purchaser:	Submitted By:				
Submitted To:	Reference: Appr	oval:	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				
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				
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 Restart Function	Auto-recovery after power failure				
Auto Restart Function	(must be activated on controller mode #1 set to 2)				
Description: (Optional Accessories)	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; http://www.mitsubishitechinfo.ca/

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

- 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 Rang	Capacity Range			17,800 - 36,000			
Cooling at 95°F*1	Rated Power I	nput		W	3,600			
Cooling at 95 F	Power Input R	Power Input Range			1,150 - 3,280			
	Moisture Rem	Moisture Removal			7.5			
	Sensible Heat	Factor		W 3,600 W 1,150 - 3,2 pints/h 7.5 Btu/h 38,000 Btu/h 19,400 - 43 W 3,590 W 1,600 - 3,5 Btu/h 29,000 Btu/h 29,000 Btu/h 14,800 - 29 W 3,180 W 3,180 W 1,500 - 3,1 Btu/h 26,300 W 2,800 Btu/h 21,900 W 2,800 Btu/h 21,900 W 2,800 Btu/h 21,900 W 2,800 Btu/h 3,180 W 1,500 - 3,1 Btu/h 26,300 W 2,800 Btu/h 21,900 W 2,800 Btu/h 21,900 W 2,500 16.5 / 17 10.0 / 11 9.50 / 8.50 / 3.10 2.67 2.8 / 2.5	0.77			
	Rated Capacity	У		pints/h 7.5 8tu/h 8tu/h 9.79 W 1,600 - 3 8tu/h 29,00 8tu/h 29,00 8tu/h 14,800 - 2 W 3,18 W 3,18 W 3,18 W 1,500 - 3 8tu/h 26,30 W 2,80 8tu/h 21,90 208/230V, 1 V AC V DC AC 208/24 kA 5 A 300	38,000			
Heating at 47°F ^{*1}	Capacity Rang			Btu/h	19,400 - 43,000			
neating at 47 F	Rated Power I	nput		Btu/h W 3,600 W 1,150 - 3,280 pints/h 7.5 0.77 Btu/h 38,000 Btu/h 19,400 - 43,000 W 3,590 W 1,600 - 3,590 Btu/h 29,000 Btu/h 29,000 Btu/h 29,000 Btu/h 14,800 - 29,000 W 3,180 W 3,180 W 3,180 W 1,500 - 3,180 Btu/h 26,300 W 2,800 Btu/h 21,900 Btu/h 21,900 W 2,500 16.5 / 17.5 10.0 / 11.0 9.50 / 8.50 / 7.9 3.10 2.67 2.8 / 2.57 208/230V, 1Ph, 60 AC 208/230V V DC AC 208/230V V DC 10-24VDC kA 5 A 30 AWG 14				
	Power Input R	ange			1,600 - 3,590			
	Maximum Cap	acity		pints/h 7.5 0.77 Btu/h 38,000 Btu/h 19,400 - 43,00 W 3,590 W 1,600 - 3,590 Btu/h 29,000 Btu/h 14,800 - 29,00 W 3,180 W 3,180 W 3,180 W 1,500 - 3,180 Btu/h 26,300 W 2,800 Btu/h 21,900 W 2,800 Btu/h 21,900 W 2,800 Btu/h 21,900 W 2,800 Company of the property of the	29,000			
	Rated Capacity	У		Btu/h	29,000			
*2	Capacity Rang	e		Btu/h	14,800 - 29,000			
Heating at 17°F ^{*2}	Maximum Pov	ver Input		0.77 Btu/h 38,000 Btu/h 19,400 - 43 W 3,590 W 1,600 - 3,5 Btu/h 29,000 Btu/h 29,000 Btu/h 14,800 - 29 W 3,180 W 3,180 W 1,500 - 3,5 Btu/h 26,300 W 2,800 Btu/h 21,900 W 2,800 Btu/h 21,900 W 2,800 Btu/h 21,900 W 2,800 Btu/h 21,900 W 2,500 T16.5 / 17 10.0 / 11 9.50 / 8.50 / 3.10 2.67 2.8 / 2.5 V AC AC 208/23 V DC 10-24VD	3,180			
	Rated Power I	Rated Power Input			3,180			
	Power Input R	ange		W 1,150 - 3,2 pints/h 7.5 0.77 Btu/h 38,000 Btu/h 19,400 - 43, W 3,590 W 1,600 - 3,5 Btu/h 29,000 Btu/h 29,000 Btu/h 14,800 - 29, W 3,180 W 3,180 W 1,500 - 3,1 Btu/h 26,300 W 2,800 Btu/h 21,900 Btu/h 21,900 W 2,800 Btu/h 21,900 W 2,800 Btu/h 21,900 W 2,800 Btu/h 21,900 W 2,500 16.5 / 17. 10.0 / 11. 9.50 / 8.50 / 3.10 2.67 2.8 / 2.57 208/230V, 1Ph V AC AC 208/230 V DC 10-24VD0 kA 5 A 30 AWG 14	1,500 - 3,180			
Heating at 5°F ^{*3}	Maximum Cap	Maximum Capacity			26,300			
Heating at 3 F	Maximum Pov	ver Input		W	2,800			
Heating at -5°F	Maximum Cap	Maximum Capacity			21,900			
rieating at -5 F	Maximum Pov	ver Input		W	2,500			
Efficiency:								
SEER / SEER2					16.5 / 17.5			
EER / EER2	10.0 / 11.							
HSPF / HSPF2 (IV) / (V)	HSPF2 (IV) / (V)							
COP at 47°F ^{*1}	Rated Capacity							
COP at 17°F ^{*2}	Maximum Cap	acity			2.67			
COP at 5°F ^{*3} / -4°F	Maximum Cap	acity	ity 2.8 / 2.57					
Electrical:								
Power Supply					208/230V, 1Ph, 60Hz			
Voltage: Indoor - Outdoor, S1-S2 V AC					AC 208/230V			
					10-24VDC			
Short-circuit Current Rating (SCCR) kA					5			
					30			
					14			
Outdoor Temperature Operation Ra	Outdoor Temperature Operation Range:							
Cooling		°F (°C)		*4 0 to 115 (-18 to 46)				
Heating		°F (°C)	D.B -4 to 7	B -4 to 70 (-20 to 21.1), W.B4 to 59 (-20 to 15)				
Cooling Operation Thermal Lock-out / R	e-start Temperatu				-1.3 / 3.2 (-18.5 / -16.0)			
Heating Operation Thermal Lock-out / R	e-start Temperatu	res		°F (°C)	-8.5 / -4.9 (-22.5 / -20.5)			

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)

^{*2.} 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)

^{*3.} 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)

^{*4.} Cooling at 0 °F, wind baffle accessory required. Without wind baffle accessory, the minimum temperature will be 23°F (-5°C).

^{A)} CFM @ 350 per tons.

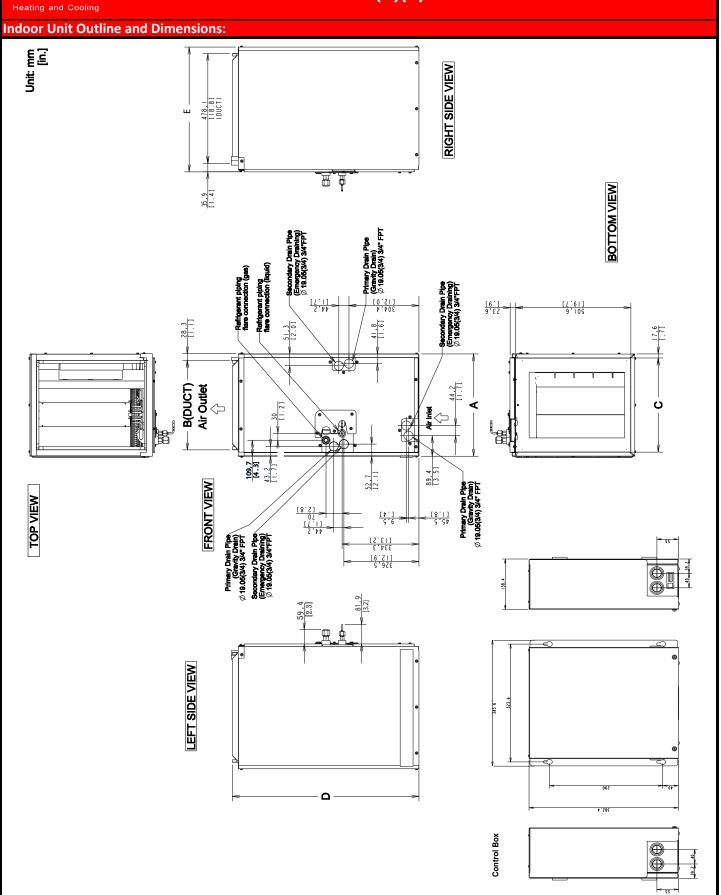


ndoor Unit S	pecifications:							
Models	Airflow rate*	W: In.	D: In.	H: In.	W: mm	D: mm	H: mm	kg (lbs
5	1050	47.5	24.2	T 24.0	1 445	5.42	705	24 /67
PAA-A36BA1-M	1050	17.5	21.3	31.0	445	543	785	31 (67
PAA-A36CA1-M	1050	21.0	21.3	31.0	534	543	785	37 (82
:	* Target airflow rate	for Y or Y1 signal		T	Not inc	luding connection	pipes.	
in. WG			0.3 (According to AHRI - 210/240, where this is the maximum allowable internal static pressure for "Coil Only" systems)					
Internal sta	tic pressure –	[Pa]	75 (Accord	ding to AHRI - 2	210/240, where	e this is the maximum allowable "Coil Only" systems)		le internal
MCA	•				A	0.2		
Drain Pipe Size				ln.	(mm)		3/4 (19.05)	
External Finish	Color					0	alvanized Stee	el .
Outdoor Unit	Specifications							
MCA					A	25		
МОСР				A			31	
an Motor Out				l	(W	0.074 + 0.074		
	Cooling/Heating)			CFM 3,880 / 3,			3,880 / 3,880	
	Level, Cooling1			d	3(A)	52		
	Level, Heating2			d	3(A)	53		
Refrigerant Cor						Electronic Expansion Val		
	Type / Charge				oz.	` ,		
External Finish	Color			_		Ivory	Munsell 3Y 7.8	8/1.1
Jnit Weight					9 ()		97 (214)	
					W: In. (mm) 41-5/16 (1,05			
Jnit Dimensior	ns			+ 63/64 (330 +				
	2 (2)				. (mm)	52-11/16 (1,338)		3)
	as Pipe Size O.D. (Flared)				(mm)	5/8 (15.88)		
iquid Pipe Size	<u> </u>				(mm)	3/8 (9.52)		
Maximum Heig				-	. (m)	100 (30)		
Maximum Piping Length			Ft	. (m)	100 (30)			
	Optional Cont					Model No.		
	unted remote co					PAR-41MAAU		
	nounted remote					MHK2		
North America	n T-Stat Interface)				RMF-CA100		

Indoor Unit Dimensions:

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





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