

Submittal Data Sheet

(H,Y)MAHP(B,C,D)2*S (1.5 to 5 ton)**

Multi Position Air Handler for VRF systems

Job Name:		Location:	
Purchaser:		Order No:	
Engineer:			
Submitted To:	Approval:	Construction:	
Submitted By:	Date:		
Unit Designation:	Schedule No:	Model No:	



FEATURES

DX kit - The DX kit (Control box and EEV box) provides easy installation to convert the AP air handler to part of the VRF system. No brazing is required to install the DX kit.

RC² - Rigid Case Construction interior endoskeleton for structural support, smooth side, and locks in insulation.

Powder-painted - G30 galvanized steel case provides a coated edge that resists corrosion and rust creep.

MaxAlloy™ Coil - Long life aluminum coils built to deliver lasting performance, efficiency and reliability.

Quality Construction - Structural components are made of aluminum or G90 galvanized steel to prevent corrosion.

Improved Insulation Design - Single piece with no external screws to reduce thermal transmission paths and prevent sweating. Foil faced insulation for ease of cleaning.

Case Depth - These models have 20.5" casing which provides ease of access to attic and tight applications.

Thermoset Drain Pan - Positive slope for drainage to reduce potential for mold or contaminants.

Factory Sealed - Achieves 2% or less total airflow leakage rate at duct leakage test conditions in positive and negative pressure for system airflow verification.

Enhanced Filter Rack - All models have integrated internal filter racks provided for use with 1" thick standard size filters.

Electric Heat Kits - 6HK series of field installed electric heat kits are available for installation-friendly and easy service applications.

Blowers - All models use direct-drive, multi-speed PSC motors.

ACCESSORIES

- DX Kit (Required)
- Electric Heater (optional)

CLEARANCES (Air handler)

Front	24"
Rear	0"*
Sides	0"*

* 0 Clearance allowed with or without Electric Heater.

Multi position Air Handler Compatibility Chart

DX-Kit and Air Handler Combined Model	DX-Kit	Air Handler Model
(H,Y) MAHP18B21S	EXV-018E	AP18BX21
(H,Y) MAHP24B21S	EXV-024E	AP24BX21
(H,Y) MAHP30B21S	EXV-030E	AP30BX21
(H,Y) MAHP36B21S	EXV-036E	AP36BX21
(H,Y) MAHP36C21S	EXV-036E	AP36CX21
(H,Y) MAHP48C21S	EXV-048E	AP48CX21
(H,Y) MAHP48D21S	EXV-048E	AP48DX21
(H,Y) MAHP60C21S	EXV-060E	AP60CX21
(H,Y) MAHP60D21S	EXV-060E	AP60DX21
(H,Y) MAHP60D22S	EXV-060E	AP60DX22

Multi position Air Handler Model		(H,Y)MAHP18B21S	(H,Y)MAHP24B21S	(H,Y)MAHP30B21S	(H,Y)MAHP36B21S	(H,Y)MAHP36C21S	(H,Y)MAHP48C21S	(H,Y)MAHP48D21S	(H,Y)MAHP60C21S	(H,Y)MAHP60D21S (H,Y)MAHP60D22S
AP handler Model		AP18BX21	AP24BX21	AP30BX21	AP36BX21	AP36CX21	AP48CX21	AP48DX21	AP60CX21	AP60DX21 AP60DX22
Indoor Unit Power Supply	-	AC 1 Phase, 208/230V, 60Hz								
Nominal Cooling Capacity *1	Btu/h (kW)	18,000 (5.3)	24,000 (7.0)	30,000 (8.8)	36,000 (10.5)	36,000 (10.5)	48,000 (14.1)	48,000 (14.1)	60,000 (17.6)	60,000 (17.6)
Nominal Heating Capacity *1	Btu/h (kW)	20,000 (5.9)	27,000 (7.9)	34,000 (10.0)	40,000 (11.7)	40,000 (11.7)	54,000 (15.8)	54,000 (15.8)	64,000 (18.8)	64,000 (18.8)
Outer Dimensions										
Height	in. (mm)	41 (1041)	41 (1041)	47-1/2 (1207)	47-1/2 (1207)	51-1/2 (1308)	51-1/2 (1308)	55-1/2 (1410)	55-3/4 (1416)	55-1/2 (1410)
Width	in. (mm)	17-1/2 (445)	17-1/2 (445)	17-1/2 (445)	17-1/2 (445)	21 (533)	21 (533)	24-1/2 (622)	21 (533)	24-1/2 (622)
Depth	in. (mm)	21-7/16 (545)	21-7/16 (545)	21-7/16 (545)	21-7/16 (545)	21-7/16 (545)	21-7/16 (545)	21-7/16 (545)	21-7/16 (545)	21-7/16 (545)
Net Weight	lbs (kg)	85 (39)	87 (40)	113 (51)	113 (51)	114 (52)	150 (68)	153 (69)	146 (66)	170 (77)
Refrigerant	-	R410A								
Indoor Fan Air Flow Rate *2 (Hi-Lo)	cfm (m³/min)	576-382 / 687-500 (16-11) / (19-14)	713-457 / 778-605 (20-13) / (22-17)	843-677 / 917-769 (24-19) / (26-22)	1108-968/1178-1057 (31-27) / (33-30)	1110-877 / 1210-994 (31-25) / (34-28)	1062-971 / 1190-1059 (30-28) / (34-30)	1391-1139/1481-1258 (39-32) / (42-36)	1680-1562/1739-1659 (48-44) / (49-47)	1701-1590/1779-1694 (48-45) / (50-48)
External Pressure *2 (Hi-Lo)	in.W.G (Pa)	0.4 (99)	0.7 (174)	0.7 (174)	0.7 (174)	0.7 (174)	0.7 (174)	0.7 (174)	0.4 (99)	0.4 (99)
Refrigerant Piping										
Liquid Line	in. (mm)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)
Gas Line*3	in. (mm)	5/8 (15.88)	5/8 (15.88)	5/8 (15.88)	5/8 (15.88)	5/8 (15.88)	5/8 (15.88)	5/8 (15.88)	3/4 (19.05)	3/4 (19.05)
Condensate Drain										
OD	in. (mm)	1-1/16 (26.7)	1-1/16 (26.7)	1-1/16 (26.7)	1-1/16 (26.7)	1-1/16 (26.7)	1-1/16 (26.7)	1-1/16 (26.7)	1-1/16 (26.7)	1-1/16 (26.7)
ID	in. (mm)	13/16 (20.9)	13/16 (20.9)	13/16 (20.9)	13/16 (20.9)	13/16 (20.9)	13/16 (20.9)	13/16 (20.9)	13/16 (20.9)	13/16 (20.9)

Multi position Air Handler Model	(H,Y)MAHP18B21S	(H,Y)MAHP24B21S	(H,Y)MAHP30B21S	(H,Y)MAHP36B21S (H,Y)MAHP36C21S	(H,Y)MAHP48C21S (H,Y)MAHP48D21S	(H,Y)MAHP60C21S (H,Y)MAHP60D21S (H,Y)MAHP60D22S
Adaptable DX-Kit Model	EXV-018E	EXV-024E	EXV-030E	EXV-036E	EXV-048E	EXV-060E
Control Box Part						
Power Supply	-	AC 1 Phase, 208/230V, 60Hz				
Outer Dimensions						
Height	in. (mm)	3-3/16 (81.0)	3-3/16 (81.0)	3-3/16 (81.0)	3-3/16 (81.0)	3-3/16 (81.0)
Width	in. (mm)	12-5/8 (320)	12-5/8 (320)	12-5/8 (320)	12-5/8 (320)	12-5/8 (320)
Depth	in. (mm)	7-3/8 (187)	7-3/8 (187)	7-3/8 (187)	7-3/8 (187)	7-3/8 (187)
Net Weight	lbs. (kg)	6.57 (2.98)	6.57 (2.98)	6.57 (2.98)	6.57 (2.98)	6.57 (2.98)
Expansion Valve Box Part						
Power Supply	-	DC 12V				
Outer Dimensions						
Height	in. (mm)	4-5/16 (109)	4-5/16 (109)	4-5/16 (109)	4-5/16 (109)	4-5/16 (109)
Width	in. (mm)	17-1/16 (433)	17-1/16 (433)	17-1/16 (433)	17-1/16 (433)	17-1/16 (433)
Depth	in. (mm)	7-13/16 (199)	7-13/16 (199)	7-13/16 (199)	7-13/16 (199)	7-13/16 (199)
Net Weight	lbs. (kg)	8.84 (4.01)	8.84 (4.01)	8.84 (4.01)	8.84 (4.01)	11.05 (4.01)
Refrigerant	-	R410A				
Refrigerant Piping						
Liquid Line In	in. (mm)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)
Liquid Line Out	in. (mm)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)

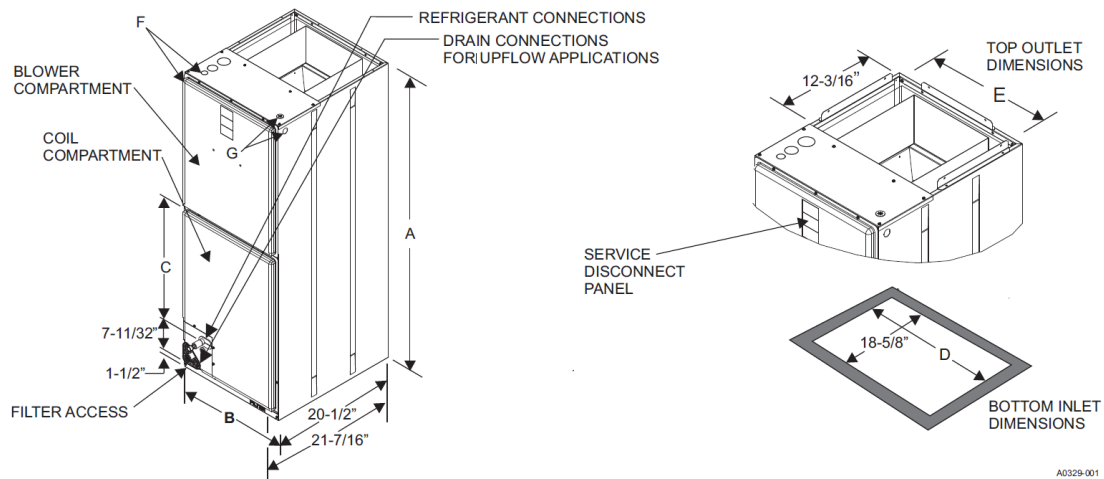
Notes:

- Nominal capacity is based on combination with VRF system and following conditions:
Cooling Operation Conditions
Indoor Air Inlet Temperature: 80 F DB (26.7°C DB)
67F WB (19.4°C WB)
Outdoor Air Inlet Temperature: 95 F DB (35.0°C DB)
Piping Length: 24.6ft (7.5m); Piping Lift: 0ft (0m)
Heating Operation Conditions
Indoor Air Inlet Temperature: 70 F DB (21.1°C DB)
Outdoor Air Inlet Temperature: 47 F DB (8.3°C DB)
43F WB (6.1°C WB)
- Hi and Lo setting on the wired controller. (Hi = VAH'S High tap and Lo = VAH's Medium tap)
- Gas line attached with reducer (accessory of DX-Ki).

Electrical Data

Model	Unit Main Power			Applicable Voltage		Power Supply		Indoor Fan Motor	Unit
	VOL	PH	HZ	Maximum	Minimum	MCA	MFA	OPT	FLA
(H,Y)MAHP18B21S	208/230	1	60	253	188	1.4	5	0.09	1.1
(H,Y)MAHP24B21S						1.8	5	0.18	1.4
(H,Y)MAHP30B21S						2.9	5	0.25	2.3
(H,Y)MAHP36B21S						3.3	5	0.37	2.6
(H,Y)MAHP36C21S						2.8	5	0.37	2.2
(H,Y)MAHP48C21S						3.6	5	0.37	2.9
(H,Y)MAHP48D21S						3.6	5	0.37	2.9
(H,Y)MAHP60C21S						5.1	5	0.74	4.1
(H,Y)MAHP60D21S						5.1	5	0.74	4.1
(H,Y)MAHP60D22S						5.1	5	0.74	4.1

DIMENSIONS & DUCT CONNECTION DIMENSIONS



Models	Dimensions ¹					Wiring Knockouts ²		Refrigerant Connections Line Size	
	A	B	C	D	E	F	G	Liquid	Vapor
	Height	Width				Power (Conduit)	Control (Conduit)		
AP18BX21	41	17-1/2	12-7/8	14-1/4	16-1/2	7/8 (1/2) 1-3/8 (1) 1-23/32 (1-1/4)	7/8 (1/2)	3/8	3/4
AP24BX21	41	17-1/2	12-7/8	14-1/4	16-1/2				
AP30BX21	47-1/2	17-1/2	19-1/2	14-1/4	16-1/2				
AP36BX21	47-1/2	17-1/2	19-1/2	14-1/4	16-1/2				
AP36CX21	51-1/2	21	22-5/8	17-3/4	20			7/8	7/8
AP48CX21	51-1/2	21	22-5/8	17-3/4	20				
AP48DX21	55-1/2	24-1/2	26-5/8	21-1/4	23-1/2				
AP60CX21	55-3/4	21	26-7/8	17-3/4	20				
AP60DX21	55-1/2	24-1/2	26-5/8	21-1/4	23-1/2				
AP60DX22	55-1/2	24-1/2	26-5/8	21-1/4	23-1/2				

1. All dimensions are in inches.

2. Knockout size (conduit size in parentheses).