

Samsung FJM, 5 Port Condensing Unit

Job Name _____
 Purchaser _____
 Submitted to _____
 Unit Designation _____

Location _____
 Engineer _____
 Reference _____ Approval _____ Construction _____
 Schedule # _____

Model	US Code	JXH48J5B
	Model Number	AJ048BXJ5CH/AA

Performance	Capacity (min. / standard / max.)	Cooling (Btu/h)	6,500 / 47,000 / 48,500
		Heating (Btu/h)	7,000 / 48,500 / 53,600
	SEER (Ducted / Mixed / Non-ducted) ¹		16.0 / 17.85 / 19.7
	EER (Ducted / Mixed / Non-ducted) ¹		8.6 / 9.55 / 10.5
	HSPF (Ducted / Mixed / Non-ducted) ¹		9.2 / 9.75 / 10.3
	SEER2 (Ducted / Mixed / Non-ducted) ²		16.5 / 18.75 / 21.0
	EER2 (Ducted / Mixed / Non-ducted) ²		8.6 / 9.55 / 10.5
	HSPF2 (Ducted / Mixed / Non-ducted) ²		8.3 / 8.65 / 9.0

Power	Voltage	(øV/Hz)	1 / 208-230 / 60
	Nominal Current ³	Cooling (A)	21.4
		Heating (A)	18.1
	Max. Breaker	Amps	40
	Minimum Circuit Ampacity (A)		37.0

Dimensions	W X H X D	Inches	37 X 47 5/8 X 13
	Weight	lbs.	192.9

Noise Level	Cooling (Max.)	dB (A)	52
	Heating (Max.)	dB (A)	55

Operating Temperatures	Cooling	14 ~ 114.8°F (-10 ~ 46.0°C)
	Heating	5 ~ 75°F (-15 ~ 24.0°C)

Pipe Connections	High Side	1/4" X 5
	Low Side (suction)	3/8" X 2 + 1/2" X 3
	Maximum Individual Line Set Length	82 ft
	Maximum Line Set Length (total)	230 ft
	Maximum Vertical Separation	Outdoor to Indoor: 49 ft Highest to Lowest Indoor: 25 ft
	Included Pipe Adapter	3 - 1/2" X 3/8", 2 - 1/2" X 5/8"

Condenser Fan	Motor	BLDC With Propeller Fan (2)
	Output	Watts / FLA: 125 x 2 / 1.28 X 2 CFM: 3,885

Compressor	Type	Twin BLDC Rotary Inverter
	RLA	Amps: 25.6

Heat Exchanger	Type	Aluminum Fin - Copper Tube
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Refrigerant	Type	R410A
	Control Method	Electronic Expansion Valve
	Factory Charge	134.44 oz
	Charged for	164 ft
	Additional Refrigerant	0.11 oz/ft over 164 ft

Accessories	Wall Bracket	CKN-250
	Wind Baffle	Front: WBF-1M2
		Back: WBB-2M-B

Certifications	Safety	ETL (UL 60335-2-40)
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Warranty	10 Years compressor, 10 year parts, 1 year limited labor (registration required)
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¹Performance data certified by AHRI to AHRI 210-240 (2017) with Addendum 1.

²Performance data certified by AHRI to AHRI 210-240 (2023). Effective January 1st, 2023.

³Rated current based on highest combination ratio of non-ducted indoor units.

This publication reflects both the 1987 Appendix M metric (SEER) and the 2023 Appendix M1 metric (SEER2). Efficiency requirements are published at 10 C.F.R. 430.32(c). Please refer to www.AHRInet.org for more information about updated energy metrics.

Samsung HVAC maintains a policy of ongoing development, specifications are subject to change without notice. Refer to www.AHRIdirectory.org for current reference numbers.



General Information

- Auto or manual addressing of indoor units
- The outdoor unit shall supply power individually to the indoor units via 14/3 AWG power wire
- Auto-restart after power loss
- Available maximum current setting option to reduce operating current
- System energy consumption can be viewed using Samsung SmartThings mobile app (not revenue grade, for reference only)
- Soft-start to reduce current demand during compressor start
- Optional snow accumulation prevention setting to prevent snow drifting against idle outdoor units

Construction

- The outdoor unit shall be galvanized steel with a baked on powder coated finish for durability

Heat Exchanger

- The heat exchanger shall be mechanically bonded fin to copper tube

Controls

- Control signal shall be a DDC type signal
- Interconnecting control wire between outdoor and indoor units shall be 16/2 AWG
- The system shall integrate with Samsung Controls Solution without the use of an interface module

Refrigerant System

- The refrigerant shall be R410A
- The compressor shall be hermetically sealed, inverter controlled, Twin Rotary BLDC
- Refrigerant flow shall be controlled by 5 separate electronic expansion valves at outdoor unit

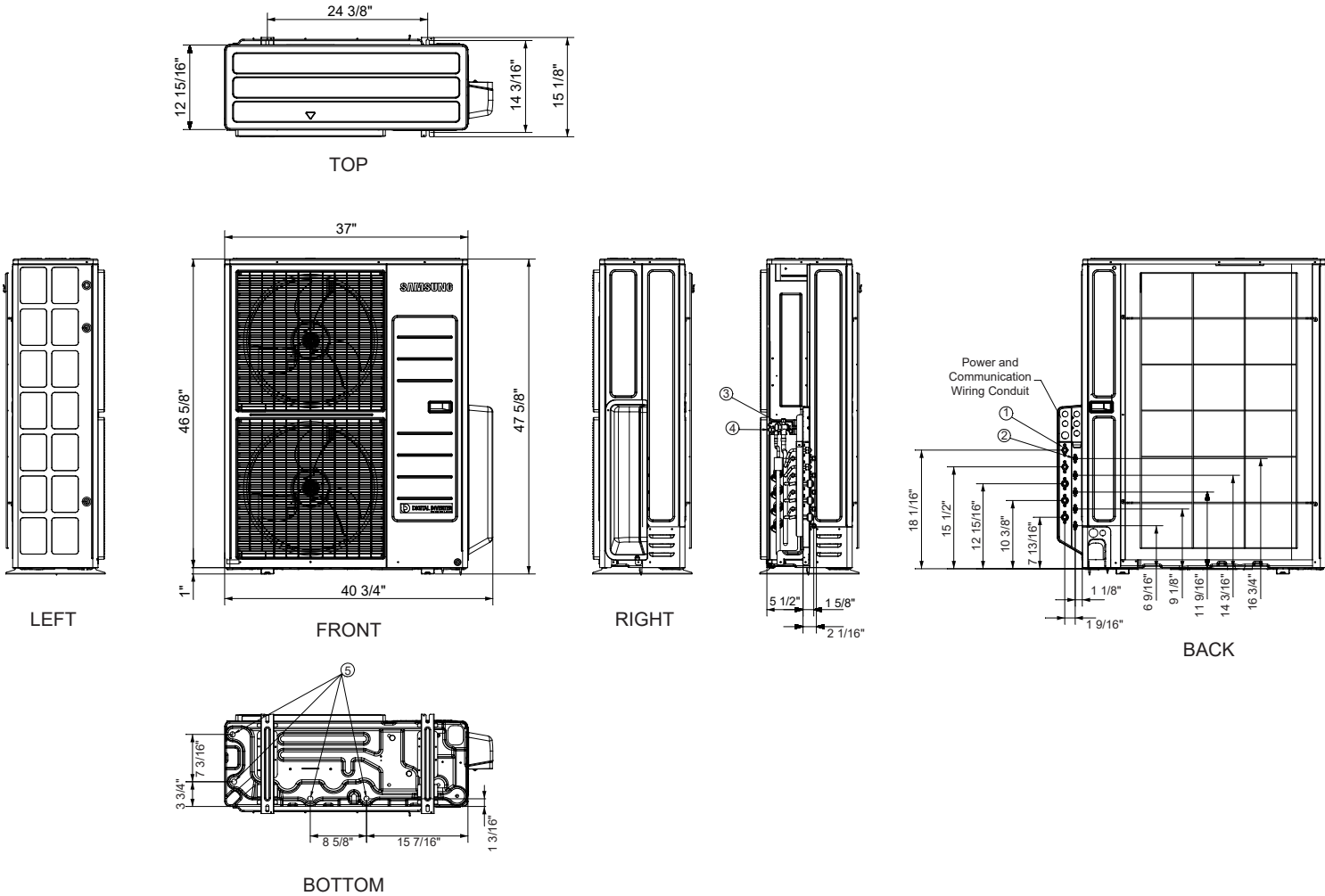
Compatibility

AR**TSFABWKNCV (RNS**ABT): 7,000 – 24,000 Btu/h models
 AR**BSFCMWKNCV (RNS**CMB): 7,000 – 24,000 Btu/h models
 AR**TSFYBWKNCV (RNS**YBT): 7,000 – 24,000 Btu/h models
 AC0**BNNDCH/AA (CNH**NDB): 9,000 – 18,000 Btu/h models
 AC0**BN1DCH/AA (CNH**1DB): 9,000 – 12,000 Btu/h models
 AC0**BNJDCH/AA (CNH**JDB): 9,000 – 18,000 Btu/h models
 AC0**BNLDCH/AA (CNH**LDB): 9,000 – 18,000 Btu/h models
 AC0**BNZDCH/AA (CNH**ZDB): 12,000 - 24,000 Btu/h models
 AJ0**BNHDCH/AA (JNH**HDB): 9,000 - 18,000 Btu/h models

Refer to the engineering Technical Data Book for allowed indoor unit combinations

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Dimensional drawing



No.	Name	Description
1	Refrigerant suction pipes	ø3/8" x 2, ø1/2" x 3
2	Refrigerant liquid pipes	ø1/4" x 5
3	Service Valve (suction)	5/8"
4	Service Valve (liquid)	3/8"
5	Drain holes	Connection with provided drain fitting

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Indoor unit connection options

Indoor Unit Connection Options

Unit Qty.	Indoor Nominal Capacity (K Btu/h)					Duct S / MPAH Compatibility*		Connected Capacity (K Btu/h)
	A	B	C	D	E	Duct S	MPAH	
2	7	7						14
	7	9				•		16
	7	12				•	•	19
	7	15				•		22
	7	18				•	•	25
	7	24				•	•	31
	9	9				•		18
	9	12				•	•	21
	9	15				•		24
	9	18				•	•	27
	9	24				•	•	33
	12	12				•	•	24
	12	15				•	•	27
	12	18				•	•	30
	12	24				•	•	36
	15	15				•		30
	15	18				•	•	33
	15	24				•	•	39
	18	18				•	•	36
	18	24				•	•	42
	24	24					•	48
3	7	7	7					21
	7	7	9			•		23
	7	7	12			•	•	26
	7	7	15			•		29
	7	7	18			•	•	32
	7	7	24			•	•	38
	7	9	9			•		25
	7	9	12			•	•	28
	7	9	15			•		31
	7	9	18			•	•	34
	7	9	24			•	•	40
	7	12	12			•	•	31
	7	12	15			•	•	34
	7	12	18			•	•	37
	7	12	24			•	•	43
	7	15	15			•		37
	7	15	18			•	•	40
	7	15	24			•	•	46
	7	18	18			•	•	43
	7	18	24					49
	7	24	24					55
	9	9	9			•		27
	9	9	12			•	•	30
	9	9	15			•		33
	9	9	18			•	•	36
	9	9	24			•	•	42
	9	12	12			•	•	33
	9	12	15			•	•	36
	9	12	18			•	•	39
	9	12	24			•	•	45
	9	15	15			•		39
	9	15	18			•	•	42
	9	15	24			•	•	48
	9	18	18			•	•	45
	9	18	24					51
	9	24	24					57
	12	12	12			•	•	36
	12	12	15			•	•	39
	12	12	18			•	•	42
	12	12	24			•	•	48
	12	15	15			•	•	42
	12	15	18			•	•	45
	12	15	24					51
	12	18	18			•	•	48
	12	18	24					54
	15	15	15			•		45
	15	15	18			•	•	48
	15	15	24					54
	15	18	18					51
	15	18	24					57
	18	18	18					54

* Combattable combination that includes 1 X MPAH (AC0**BNZDCH/AA) OR 1 X Duct S (AJ0**BNHDCH/AA) unit.

Notes

- Only 1 X MPAH (AC0**BNZDCH/AA) OR 1 X Duct S (AJ0**BNHDCH/AA) unit can be connected to a single FJM outdoor unit.
- Applies to outdoor units manufactured after 4/30/2022.
- Refer to supporting technical data book (TDB) for indoor unit compatibility available at www.SamsungHVAC.com.

Unit Qty.	Indoor Nominal Capacity (K Btu/h)					Duct S / MPAH Compatibility*		Connected Capacity (K Btu/h)
	A	B	C	D	E	Duct S	MPAH	
4	7	7	7	7				28
	7	7	7	9		•		30
	7	7	7	12		•	•	33
	7	7	7	15		•		36
	7	7	7	18		•	•	39
	7	7	7	24			•	45
	7	7	9	9		•		32
	7	7	9	12		•	•	35
	7	7	9	15		•		38
	7	7	9	18		•	•	41
	7	7	9	24		•	•	47
	7	7	12	12		•	•	38
	7	7	12	15		•	•	41
	7	7	12	18		•	•	44
	7	7	12	24				50
	7	7	15	15		•		44
	7	7	15	18		•	•	47
	7	7	15	24				53
	7	7	18	18				50
	7	7	18	24				56
	7	9	9	9		•		34
	7	9	9	12		•	•	37
	7	9	9	15		•		40
	7	9	9	18		•	•	43
	7	9	9	24				49
	7	9	12	12		•	•	40
	7	9	12	15		•	•	43
	7	9	12	18		•	•	46
	7	9	12	24				52
	7	9	15	15		•		46
	7	9	15	18				49
	7	9	15	24				55
	7	9	18	18				52
	7	12	12	12		•	•	43
	7	12	12	15		•	•	46
	7	12	12	18				49
	7	12	12	24				55
	7	12	15	15				49
	7	12	15	18				52
	7	12	18	18				55
	7	15	15	15				52
	7	15	15	18				55
	9	9	9	9		•		36
	9	9	9	12		•	•	39
	9	9	9	15		•		42
	9	9	9	18		•	•	45
	9	9	9	24				51
	9	9	12	12		•	•	42
	9	9	12	15		•	•	45
	9	9	12	18		•	•	48
	9	9	12	24				54
	9	9	15	15		•		48
	9	9	15	18				51
	9	9	15	24				57
	9	9	18	18				54
	9	12	12	12		•	•	45
	9	12	12	15		•	•	48
	9	12	12	18				51
	9	12	12	24				57
	9	12	15	15				51
	9	12	15	18				54
	9	12	18	18				57
	9	15	15	15				54
	9	15	15	18				57
	12	12	12	12		•	•	48
	12	12	12	15				51
	12	12	12	18				54
	12	12	15	15				54
	12	12	15	18				57
	12	15	15	15				57

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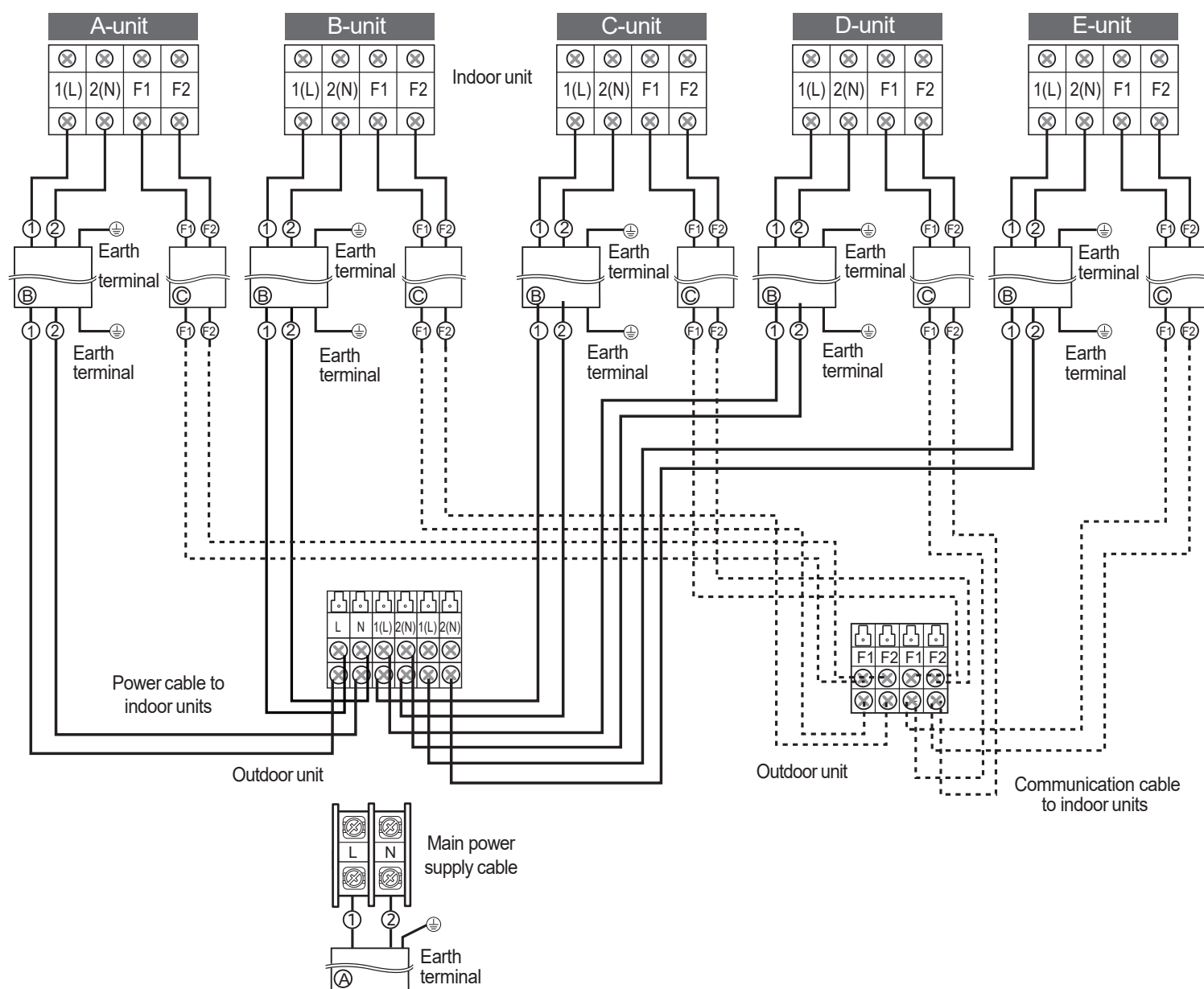
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	A	B	C	D	E	Duct S	MPAH	
5	7	7	7	7	7			35
	7	7	7	7	9			37
	7	7	7	7	12			40
	7	7	7	7	15			43
	7	7	7	7	18			46
	7	7	7	7	24			52
	7	7	7	9	9			39
	7	7	7	9	12			42
	7	7	7	9	15			45
	7	7	7	9	18			48
	7	7	7	9	24			54
	7	7	7	12	12			45
	7	7	7	12	15			48
	7	7	7	12	18			51
	7	7	7	12	24			57
	7	7	7	15	15			51
	7	7	7	15	18			54
	7	7	7	18	18			57
	7	7	9	9	9			41
	7	7	9	9	12			44
	7	7	9	9	15			47
	7	7	9	9	18			50
	7	7	9	9	24			56
	7	7	9	12	12			47
	7	7	9	12	15			50
	7	7	9	12	18			53
	7	7	9	15	15			53
	7	7	9	15	18			56
	7	7	12	12	12			50
	7	7	12	12	15			53
	7	7	12	12	18			56
	7	7	12	15	15			56
	7	9	9	9	9			43
	7	9	9	9	12			46
	7	9	9	9	15			49
	7	9	9	9	18			52
	7	9	9	12	12			49
	7	9	9	12	15			52
	7	9	9	12	18			55
	7	9	9	15	15			55
	7	9	12	12	12			52
	7	9	12	12	15			55
	7	12	12	12	12			55
	9	9	9	9	9			45
	9	9	9	9	12			48
	9	9	9	9	15			51
	9	9	9	9	18			54
	9	9	9	12	12			51
	9	9	9	12	15			54
	9	9	9	12	18			57
	9	9	9	15	15			57
	9	9	12	12	12			54
	9	9	12	12	15			57
	9	12	12	12	12			57

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Basic Wire Connection Diagram



This simple wiring diagram is for reference only. Please refer to installation manuals for full details and requirements.