SAMSUNG

SUBMITTAL AC042MNHDCH/AA
Samsung Duct S, Single Zone Duct, Split System

Job Name _____ Location _____

Purchaser _____ Engineer _____

Submitted to _____ Reference ☐ Approval ☐ Construction ☐

Unit Designation _____ Schedule # _____

Specifications

Model	Indoor Unit Model Number (US Code)		AC042MNHDCH/AA (CNH42HDM)
	Outdoor Unit Model Number (US Code)		AC042JXADCH/AA (CXH42ADJ)
Performance [1]	Nominal Capacity	Cooling / Heating (Btu/h)	42,000 / 47,000
	Capacity Range	Cooling (Btu/h)	16,300 - 45,000
		Heating (Btu/h)	13,400 - 50,000
	SEER / EER		19.0 / 9.75
	COP (nominal heating)		3.36
	HSPF		10.2
	AHRI Certification Number		10146791
Power	Voltage	ø / V / Hz	1 / 208-230 / 60
	Working Voltage Range (VAC)		176 - 254 (max. 3% deviation from each)
	Operating Current (min. / std. / max.)	Cooling (A)	5.6 / 18.6 / 20.0
		Heating (A)	4.3 / 17.9 / 24.0
	Max. Breaker	Amps	40
	Min. Circuit Ampacity (A)		26.5
Dimensions	W X H X D (in.)	Indoor Unit	51 3/16 X 11 13/16 x 27 9/16
		Outdoor Unit	37 X 48 X 13
	Weight (lbs.)	Indoor Unit	99.6
		Outdoor Unit	194
	Duct Connections (W X H)	Supply (in.)	49 15/16 X 10 5/8
		Return (ID, in.)	49 15/16 X 10 5/8
Heat Exchanger	Type	Indoor Unit	Aluminum Fin / Copper Tube
		Outdoor Unit	Aluminum, flat fin, micro channel
Sound Pressure Level	Indoor Unit dB(A)	L / M / H	34 / 37 / 40
	Outdoor Unit dB(A)	Cooling / Heating (high)	51 / 53
Operating Temperatures °F(°C)	Outdoor	Cooling	23 ~ 115°F(-5 ~ 46°C)
			0 ~ 115°F(-18 ~ 46°C) w/ baffle
		Heating	-4 ~ 76°F(-20 ~ 24°C)
	Indoor	Cooling	61 ~ 90°F(16 ~ 32°C)
		Heating	T ≤ 80(27°C)
Pipe Connections	Indoor & Outdoor	High side (flare)	3/8"
		Low side (flare)	5/8"
	Maximum (ft.)		246
	Maximum Vertical Separation (ft.)		98
	Condensate Connection (with included adapter)		1 1/16" ID for 3/4" PVC
Refrigerant	Type		R410A
	Control Method		Electronic Expansion Valve
	Factory Charge	oz.	98.77
	Charged for		25 ft
	Additional Refrigerant		0.355 oz/ft over 25 ft
Compressor	Type		Inverter Driven, Twin BLDC, Rotary
	RLA	Amps	17.0
Evaporator Fan	Type		BLDC (1) With Sirocco Fan (3)
	Air Volume	CFM (L/M/H)	1,024 / 1,130 / 1,236 (at standard ESP)
		Total CFM Range [2]	1,024 - 1,620
	Output (W) / FLA (A)		244 W / 2.0 A
	Static Pressure	Standard ("WC)	0.16
		Min. / Max. ("WC)	0.12 - 0.8
Condenser Fan	Motor		BLDC With Axial Type Fan (2)
	FLA / Watts / CFM (max.)		0.48 A X 2 / 125 W X 2 / 3,040 CFM
Safety	Certifications		ETL (UL 1995)
	Devices: PCB fuses, indoor unit terminal block thermal fuse, current transformer, over-voltage protection, crankcase heating, temperature limit protection logic, compressor overload sensing		

[1] Certified in accordance with the AHRI Unitary Small Air-Source Heat Pumps (USHP) Certification Program which is based on the latest edition of AHRI Standard 210/240.

[2] Refer to installation manual for full fan curve details

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





- Horizontal discharge airflow
- The outdoor unit shall supply power to indoor unit via 14 AWG X 3 power wire
- Auto-restart after power loss
- The outdoor unit shall have a snow accumulation prevention option setting to prevent snow drifting against an idle outdoor unit.
- The indoor and outdoor units shall have a removable EEPROM that stores system programming information, unit name, and other data
- The indoor unit shall have a built-in condensate pump as standard with a 29" lift (from bottom of unit) and float switch that disables indoor unit during overflow detection.
- The indoor unit shall have automatic air volume scanning for simple setup and optimized comfort settings for the occupant.
- The indoor unit shall have smart-tuning function that can provide optimized comfort by allowing the occupant to offset the fan CFM curve with a wired remote controller (MWR-SH11UN, MWR-WG00UN) to increase or decrease airflow.
- The indoor unit shall allow service access from four sides (top, bottom, left, right).
- Pipe connections at the outdoor unit shall be made inside the unit chassis. Refrigerant pipes can exit through the front, side, rear, or bottom sides of the outdoor unit.
- The outdoor unit shall have a night time quiet mode option to reduce operating sound during the night (automatic or manual activation with dry contact signal).

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

The indoor unit shall be insulated, galvanized steel.

Heat Exchanger
The indoor unit heat exchanger shall be mechanically bonded fin to copper tube

The outdoor unit heat exchanger shall be aluminum, flat fin, micro channel

Controls
Control signal shall be a DDC type signal

Interconnect control wire between outdoor and indoor unit shall be 16AWG X 2 shielded

Wired or wireless controllers must be purchased separately

Controls shall integrate with a BMS system

The system shall integrate with the Samsung NASA Controls Solution

No additional interface modules/adapters are required when connecting to Samsung NASA DVM S central control options.

Refrigerant System
The refrigerant shall be R410A

The compressor shall be hermetically sealed, inverter controlled, twin BLDC Rotary

Refrigerant flow shall be controlled by an electronic expansion valve at outdoor unit

Soft-start to reduce current demand during compressor start

Warranty
10 years compressor, 10 years parts, 1 year limited labor (conditions apply)

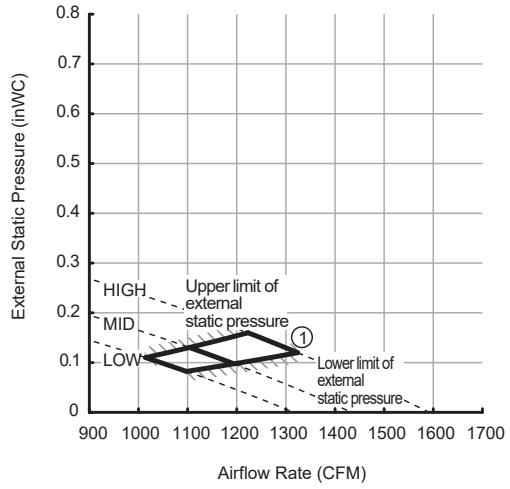
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Optional Accessories

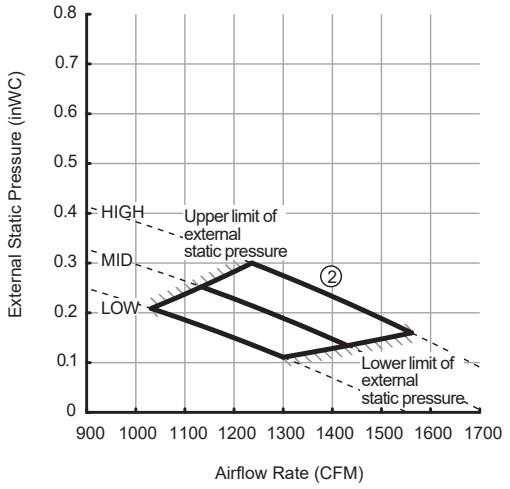
Wired Controller	Simplified Touch Controller	☐ MWR-SH11UN
	Advanced Wired Controller	☐ MWR-WG00UN
Wi-Fi Adapter		☐ MIM-H04UN
Wireless Signal Control	Wireless Signal Receiver	☐ MRK-A10N
	Wireless Controller	☐ AR-EH03U
External Temperature Sensor		☐ MRW-TA
Filter Box		☐ FB-DS3
External Contact Control		☐ MIM-B14
Wall Bracket (for outdoor unit)		☐ CKN-250
Wind Baffles	Front	☐ WBF-1M2
	Back	☐ WBB-2M-B
Line Sets - insulated and flared, interconnect cables included		☐ 25' - ILS-2510
		☐ 50' - ILS-5010
Thermostat Adaptor (for connection to a standard 24VAC thermostat)		☐ MIM-A60UN

Fan performance characteristics based on installation option setting (6 fan options)

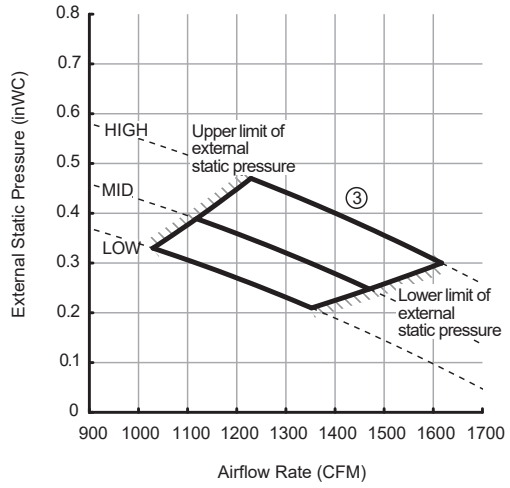
①	External Static Pressure (inWC)	Option Code
	0.12≤P≤0.16	01B0EC-1E547B-277D8C-377045



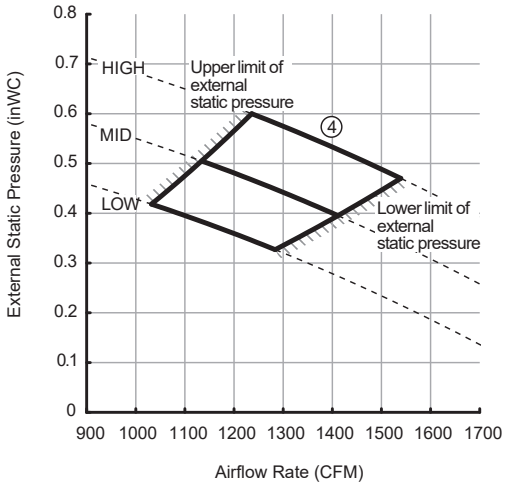
②	External Static Pressure (inWC)	Option Code
	0.16＜P≤ 0.30	01B0EC-1E55E2-277D8C-377045



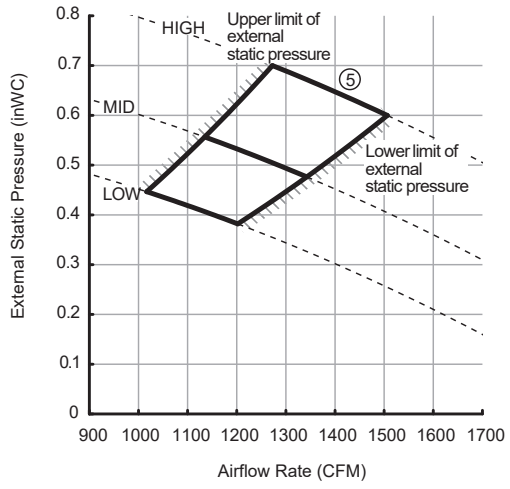
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	0.30＜P≤ 0.47	01B0EC-1E55E2-277D8C-377045



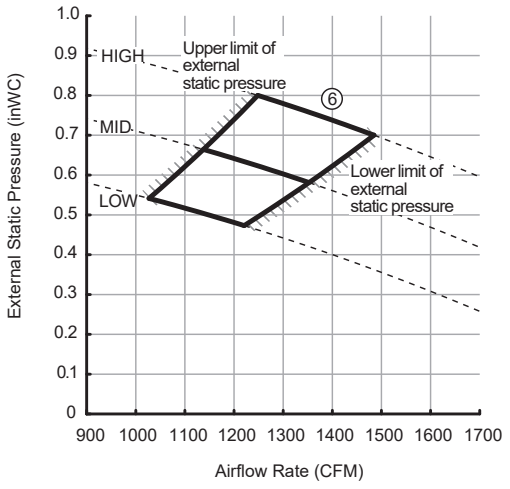
④	External Static Pressure (inWC)	Option Code
	0.47＜P≤ 0.60	01B0EC-1E5937-277D8C-377045

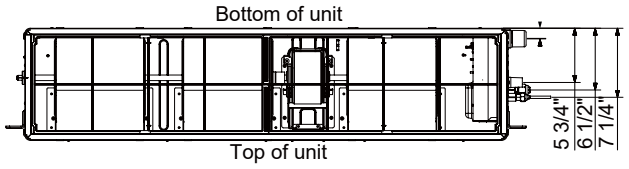


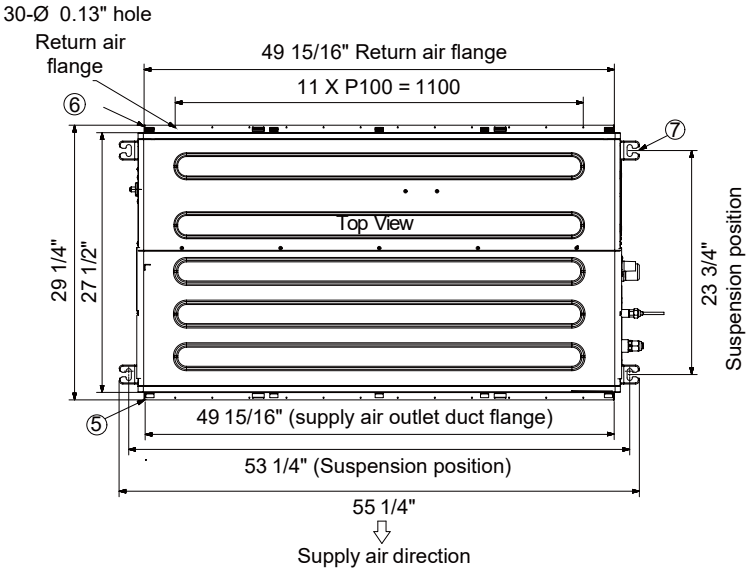
⑤	External Static Pressure (inWC)	Option Code
	0.60＜P≤ 0.70	01B0EC-1E596A277D8C-377045

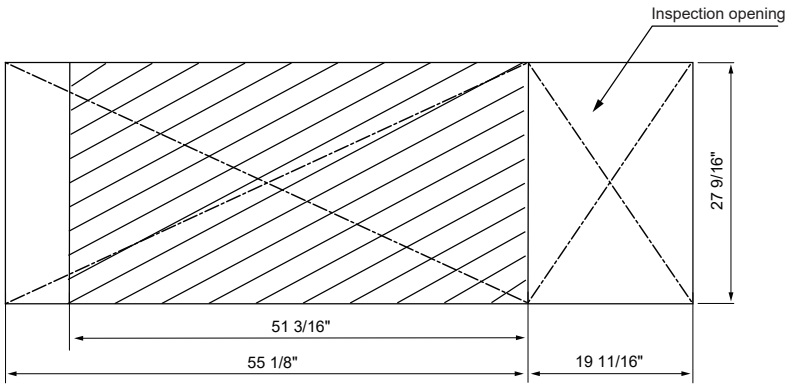


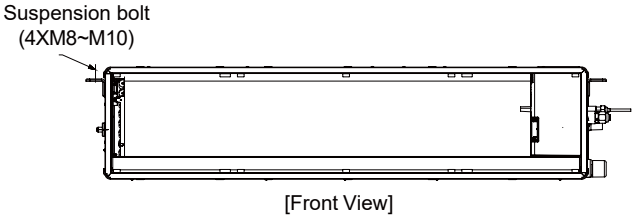
⑥	External Static Pressure (inWC)	Option Code
	0.70＜P≤ 0.80	01B0EC-1E598C-277D8C-377045

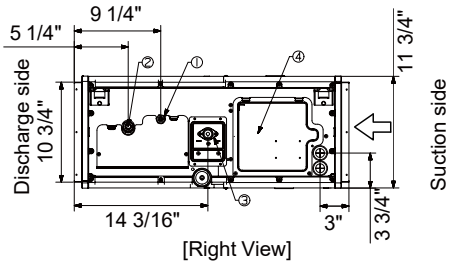






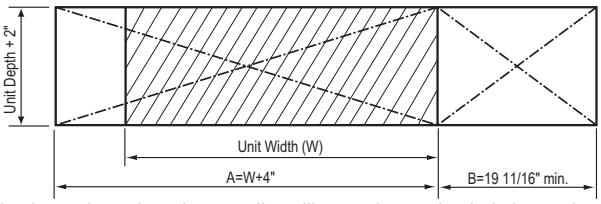






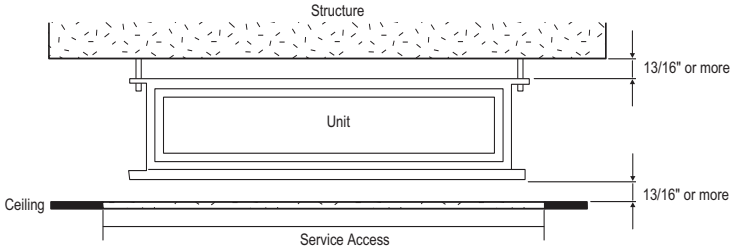
NO	Name	Description
1	Liquid pipe connection	Ø3/8"
2	Gas pipe connection	Ø5/8"
3	Drain pipe connection	1 1/16" ID for 3/4" PVC
4	Power supply connection	-
5	Air discharge flange	-
6	Air filter	-
7	Suspension point	5/16" ~ 3/8"

Inspection Opening Requirements

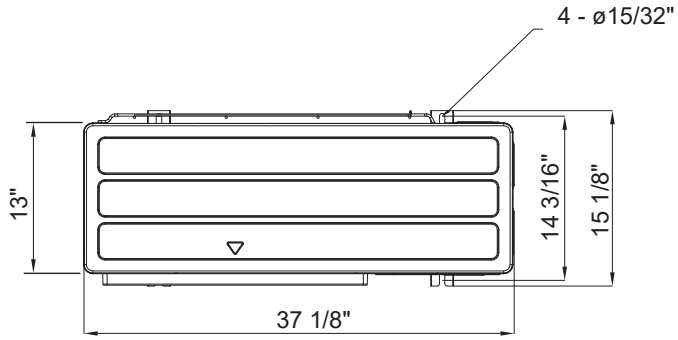


In applications where there is not a tile ceiling, an inspection hole is required. If height between ceiling and structure is 1.64' or more, inspection opening "B" is recommended. If height between ceiling and structure is less than 1.64', inspection opening "A" and "B" is recommended.(verify state and local codes).

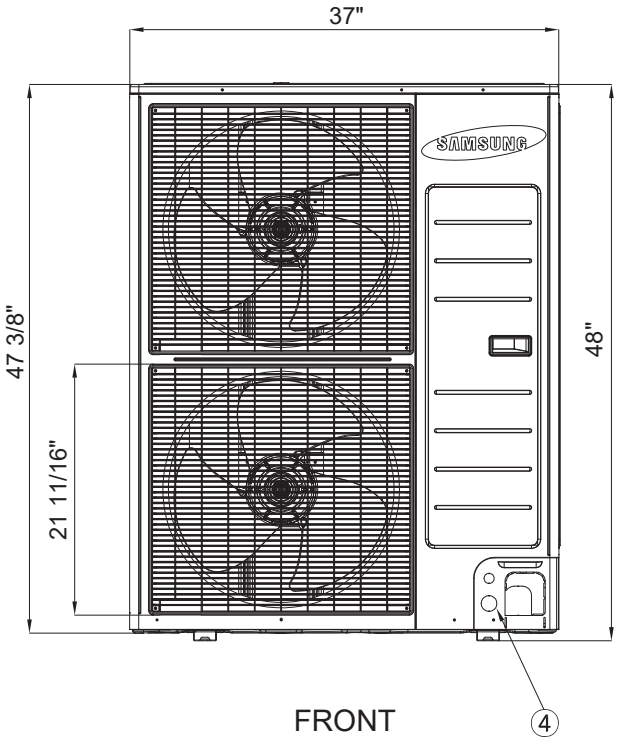
Unit Clearance From Structure



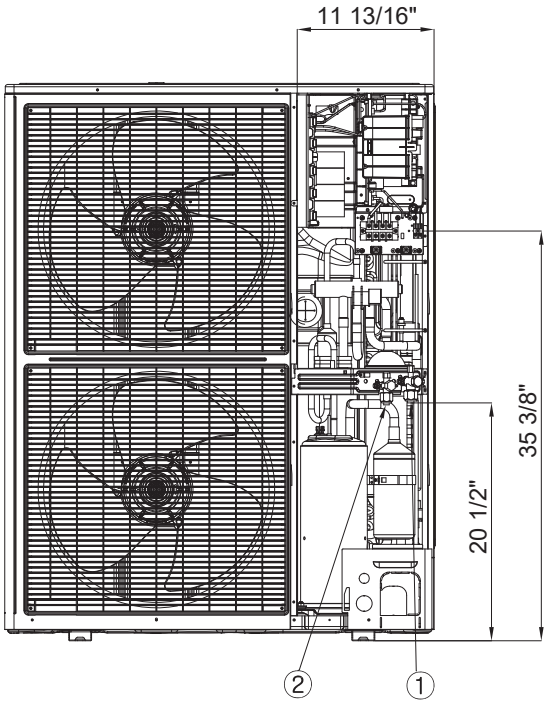
Samsung Duct S, Single Zone Duct, Split System
AC042JXADCH/AA Dimensional Drawing



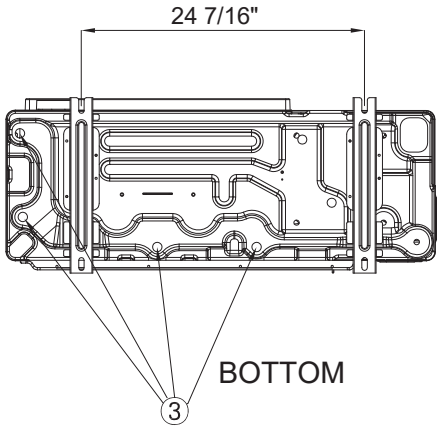
TOP



FRONT



FRONT WITHOUT SERVICE COVER



BOTTOM

No.	Description
1	Suction service valve
2	Liquid service valve
3	Drain opening
4	Power and communication conduit openings