SAMSUNG

SUBMITTAL AC048BXUPCH/AA (CXH48UPB)
Samsung Hylex™ Inverter Driven Heat Pump Condensing Unit

Job Name _____ Location _____

Purchaser _____ Engineer _____

Submitted to _____ Reference ☐ Approval ☐ Construction ☐

Unit Designation _____ Schedule # _____

Specifications

Model	Model Number		AC048BXUPCH/AA
	US Code		CXH48UPB
Capacity	Nominal Capacity	Cooling (Btu/h)	48,000
		Heating (Btu/h)	44,000
	Capacity Range [1]	Cooling (Btu/h)	17,500 - 55,000
		Heating (Btu/h)	13,800 - 62,000
Performance [1]	AHRI 210-240 2017 [2]	SEER	Up to 17.3
		EER	Up to 9.3
		HSPF	Up to 10
	AHRI 210-240 2023 [3]	SEER2	Up to 17
		EER2	Up to 8.6
		HSPF2	Up to 8.5
Power	Voltage	ø / V / Hz	1 / 208-230 / 60
	Working Voltage Range		187 - 253 VAC
	Max. Breaker	Amps	40
	Min. Circuit Ampacity	Amps	32.7
Dimensions	W X H X D	In.	37 X 47 5/8 X 13
	Weight	lbs.	196
Sound Pressure	Cooling	dB(A)	55
	Heating	dB(A)	57
Operating Temperatures	Cooling		23 ~ 125°F (-5 ~ 52°C)
			-4 ~ 122°F (-20 ~ 50°C) W/Baffle
	Heating		-13 - 75°F (-25 - 24°C)
Pipe Connections	Liquid Diameter		3/8"
	Suction Diameter	Minimum	3/4"
		Standard	7/8"
		Maximum	1 1/8"
	Maximum Length (ft.)		164
	Maximum Vertical Separation (ft.)		98
Refrigerant	Type		R410A
	Factory Charge	lbs.	9.26
	Charged for		24.6 ft.
Compressor	Type		Inverter Driven, Twin BLDC Rotary
	RLA	Amps	23.5
Fan	Motor		BLDC With Axial Type Fan X 2
	FLA		1.25A X 2
	Watts		125W X 2
	Airflow	CFM (max.)	3,531
Safety	Certifications		UL 60335-2-40
	Devices		PCB fuses, indoor unit terminal block thermal fuse, current transformer, over-voltage protection, crankcase heating, temperature limit protection logic, compressor overload sensing

[1] Based on connection to air handling unit model number BVRMC3948 and AV480CT. Connection to different air handling units or A-coils will result in different capacity and efficiency ratings. Refer to AHRIdirectory.org for a complete list of AHRI listed system combinations.

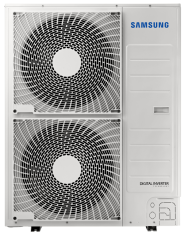
[2] Performance data certified by AHRI to AHRI 210-240 (2017) with Addendum 1.

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

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.

Select models are ENERGY STAR labeled. Proper sizing and installation of equipment is critical to achieve optimal performance. Split system air conditioners and heat pumps (excluding ductless systems) must be matched with appropriate coil components to meet ENERGY STAR criteria. Ask your contractor for details or visit www.energystar.gov.



Heat Pump Outdoor Unit General Information
- Inverter driven heat pump condensing unit compatible with air handling units and A-coils with a thermostatic expansion valve (conditions apply, refer to supporting technical documents for details).
- 100% Rated heating capacity at 5°F (-15°C) outside temperature (refer to capacity tables in outdoor unit technical data book for full capacity details).
- Soft-start compressor minimizing current inrush
- Base pan heater equipped as standard
- The condensing unit heat exchanger salt spray test method: ISO-9227 - The heat exchanger showed no unusual rust or corrosion development to 3,000 hours.
- The system (outdoor unit with MXD-U000XN AHU Control Unit) shall provide three (3) fan speed control of the indoor unit increasing performance and dehumidification.

Construction
- The unit shall be galvanized steel with a baked-on powder coated finish for durability
- Refrigerant pipe connections and service ports are located inside the heat pump cabinet. Refrigerant pipes can enter the cabinet on the front, side, back, or bottom.

Controls
- Requires MXD-U000XN AHU Control Unit (purchased separately) installed near the indoor unit for operation
- Control wiring shall be 2 X 18 AWG (minimum)
- Compatible with standard 24VAC thermostats
- Requires B reversing valve signal (24VAC energized for heating)

Optional Settings
- The system (outdoor unit with AHU Control Unit) shall provide cold air prevention (optional) to delay indoor fan operation until the indoor coil is above a fixed temperature while in heat mode.
- Target low pressure calibration to increase or decrease indoor coil and discharge air temperature in cooling mode
- Target high pressure calibration to increase or decrease indoor section coil and discharge air temperature in heating mode
- Snow accumulation prevention option setting to prevent snow drifting against an idle outdoor unit.
- The outdoor unit shall feature optional night quiet modes to reduce outdoor unit sound (3 levels) with automatic activation or manual activation (with MIM-B14 accessory).
- System can be set up as heating/cooling, cooling only, or heating only via outdoor unit option setting.
- Maximum Current Control configurable from 50% - 100% in 5% increments via outdoor unit

Refrigerant System
- The compressor shall be hermetically sealed, inverter-controlled BLDC rotary type.
- The outdoor unit heat exchanger shall be mechanically bonded aluminum fin to copper tube.
- Uses traditional unitary line sets (liquid pipe does not require insulation)
- Flexible pipe diameter compatibility (three suction pipe diameter options)
- Refrigerant flow shall be controlled by an electronic expansion valve in the outdoor unit for heating operation. Refrigerant flow for cooling shall be controlled via Thermostatic Expansion Valve (TXV) at the indoor coil (bleed or non-bleed).

Warranty
10 Years compressor, 10 years parts. Registration required. Conditions apply.

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Samsung Hylex™ Inverter Driven Heat Pump Condensing Unit
AHU Control Unit (MXD-U000XN) Information and System Accessories

AHU Control Unit (MXD-U000XN) General Information

- Required for Samsung heat pump models AC0**BXUPCH/AA and AC036BXUDCH/AA to operate with non-Samsung air handling units (AHU) and furnaces with A-coils.
- Allows system operation with two (2) low voltage conductors between the outdoor unit and indoor section.
- MXD-U000XN installs in between the heat pump outdoor unit, thermostat, and AHU/furnace to have full indoor fan control.
- MXD-U000XN shall have four (4) magnets to secure it to metal surfaces during installation.

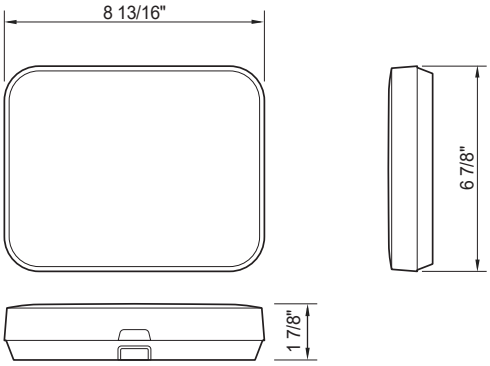
Optional Settings

- MXD-U000XN provides three (3) fan speed control capability of most air handling units and furnaces (requires first and second stage cooling input at the AHU or furnace or use of URK-3A relay kit for PSC motor applications).
- MXD-U000XN will stop fan operation during defrost cycles to reduce the need of electric heat kits and to prevent cold drafts in the occupied space.
- Configuration option settings for various applications and equipment.
- Cold air prevention option to warm the indoor evaporator coil before activating the indoor fan while in heating mode.
- Fan off delay and fan delay time for defrost and cold wind prevention option settings
- The manufacturer website shall provide a web-based tool to provide simple configuration instructions.

Power

- Input voltage: 24VAC
- Maximum power consumption: 3.0W

Dimensions

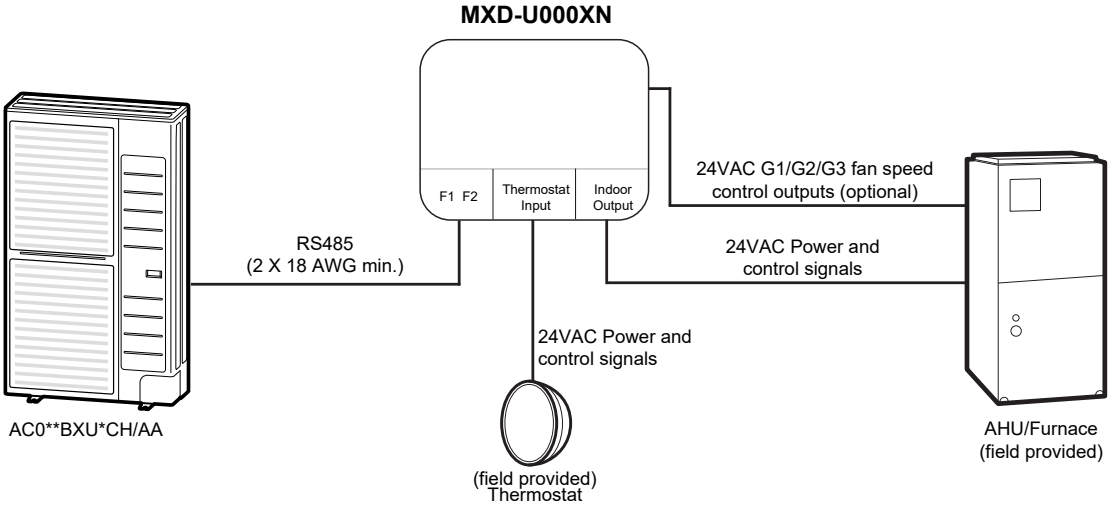


System Accessories

ACU (AHU Control Kit)	☑	MXD-U000XN
3 Speed indoor fan relay kit (for use with PSC motors)	☐	URK-3A
Wind Baffle - Front	☐	WBF-1M2
Wind Baffle - Back	☐	WBB-2M-B
Hail Guard - Kit (includes back and side guards)	☐	HGK-4
Wall Bracket (for outdoor unit)	☐	CKN-250
External contact control for manual night quiet mode activation	☐	MIM-B14

System Configuration

MXD-U000XN installs in between the heat pump outdoor unit, thermostat, and AHU/furnace to have full indoor fan control.

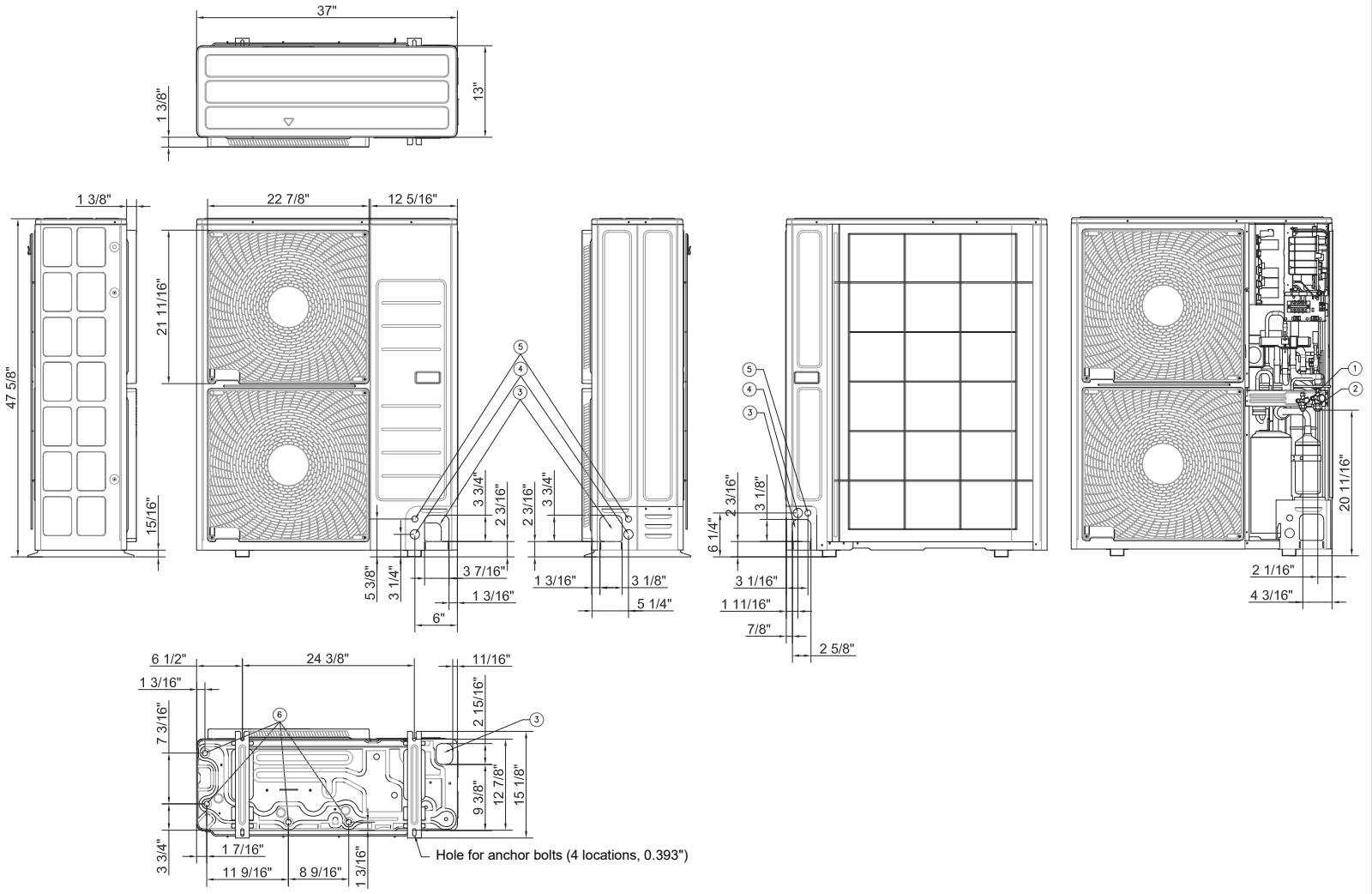


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Dimensional Drawings



No.	Name		Description
1	Liquid pipe connection		ø 3/8"
2	Gas pipe connection	Min.	ø 3/4"
		Standard	ø 7/8"
		Max.	ø 1 1/8"
3	Piping knockout hole		Front, side, rear, and bottom
4	Power supply knowkout hole		Front, side, and rear (ø 1 3/8")
5	Comm. Wiring knockout hole		Front, side, and rear (ø 7/8")
6	Drain hole		Connect using provided drain fitting