

MSZ-EX12NLS & SUZ-AA12NL
12,000 BTU/H WALL-MOUNTED INDOOR UNIT
12,000 BTU/H HEAT PUMP OUTDOOR UNIT



Job Name:

System Reference:

Date:



Indoor Unit.....MSZ-EX12NLS

Outdoor Unit.....SUZ-AA12NL



INDOOR UNIT FEATURES

- Dual Barrier Coating: The patented Dual Barrier Coating reduces the collection of contaminants like dust, fibers, smoke, and oil on the inner surface of the heat pump, resulting in optimal airflow and easier maintenance.
- Econo Cool: Econo Cool temporarily and automatically adjusts the airflow based on heat exchanger temperature. The set temperature is increased slightly, which saves energy, while maintaining comfort.
- Modern, sleek design
- Multiple control options including: Back-lit screen hand-held Remote Controller (provided with unit), comfort app, third-party interfaces and both wired and wireless controllers

OUTDOOR UNIT FEATURES

- Blue Fin Coating: An anti-corrosion treatment applied to the aluminum fins of the heat exchanger of the outdoor unit to protect against corrosion caused by salt, sulfur, and other airborne contaminants, especially in coastal and industrial areas.
- High-performance grooved piping : High-performance grooved piping for increased heat exchange efficiency
- Hot-Start Technology: Hot-Start Technology ensures the fan only activates once the heat exchanger is warm, preventing cold air blasts during start-up.
- INVERTER-driven compressor: An inverter-driven compressor generates the precise capacity needed to maintain a temperature set point.
- Joint Lap DC Motor: Innovative Joint Lap DC Motor leads to high efficiency and reliability
- Outdoor unit directed power: The outdoor unit powers the indoor unit, and should a power outage occur, the system is automatically restarted when power returns
- Pulse Amplitude Modulation technology: Pulse Amplitude Modulation technology enhances energy efficiency by adjusting the power supply to optimize compressor performance, ensuring precise capacity control and reduced energy consumption.
- Quiet operation: Quiet operation units are as quiet as a typical conversation, and most indoor units are whisper quiet.
- Single-zone: One outdoor unit connects to one indoor unit to control the comfort in a single space.

SPECIFICATIONS: MSZ-EX12NLS & SUZ-AA12NL

Cooling at 95F ¹	Maximum Capacity	Btu/h	9,000
	Rated Capacity	Btu/h	9,000
	Minimum Capacity	Btu/h	2,300
	Maximum Power Input	W	700
	Rated Power Input	W	700
	Moisture Removal	Pints/h	0.2
	Sensible Heat Factor	-	0.97
	Power Factor [208V / 230V]	%	91 / 91
Heating at 47F ²	Maximum Capacity	Btu/h	13,000
	Rated Capacity	Btu/h	12,000
	Minimum Capacity	Btu/h	5,300
	Maximum Power Input	W	910
	Rated Power Input	W	800
	Power Factor [208V / 230V]	%	94 / 94
Heating at 17F ³	Maximum Capacity	Btu/h	7,700
	Rated Capacity	Btu/h	7,700
	Maximum Power Input	W	660
	Rated Power Input	W	660
Heating at 5F ⁴	Maximum Capacity	Btu/h	6,200
	Maximum Power Input	W	605
Heating at -4F ⁵	Maximum Capacity	Btu/h	5,200
Efficiency	SEER2		21.7
	EER2 ¹		12.8
	HSPF2 [IV]		12.9
	COP at 47°F ²		4.3
	COP at 17°F at Maximum Capacity ³		3.4
	COP at 5°F at Maximum Capacity ⁴		3
	COP at -4°F at Maximum Capacity ⁵		2.62
	ENERGY STAR® Certified		Yes
Electrical	Voltage, Phase, Frequency	V AC / V AC, , Hz	208 / 230, 1, 60
	Guaranteed Voltage Range	V AC	198 - 253
	Voltage: Indoor - Outdoor, S1-S2	V AC	208/230
	Voltage: Indoor - Outdoor, S2-S3	V DC	12-24
	Short-circuit Current Rating [SCCR]	kA	5
	Recommended Fuse/Breaker Size (Outdoor)	A	15
	Recommended Wire Size [Indoor - Outdoor]	AWG	14
	Fan Motor Output	W	30
Indoor Unit	Airflow Rate at Cooling, Dry	CFM	143, 164, 228, 305, 391
	Airflow Rate at Cooling, Wet	CFM	128, 147, 205, 274, 352
	Airflow Rate at Heating, Dry	CFM	143, 164, 205, 244, 448
	Sound Pressure Level [Cooling]	dB (A)	21, 23, 29, 36, 42
	Sound Pressure Level [Heating]	dB (A)	21, 24, 29, 37, 45
	Drain Pipe Size O.D.	inch [mm]	5/8 [16]
	Dual Barrier Coating on Heat Exchanger		Yes
	External Finish Color		3.7PB 2.0/0.1
	Unit Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	34-13/16 x 7-11/16 x 11-3/4 [885 x 195 x 299]
	Package Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	35-5/8 x 14-3/16 x 10-11/16 [980 x 360 x 270]
	Unit Weight	lbs [kg]	26 [11.50]
	Package Weight	lbs [kg]	29 [13]
	Fan Motor Type		DC Motor
IDU Operating Temp. Range	Cooling Intake Air Temp [Maximum / Minimum]	°FDB, °FWB / °FDB, °FWB	90, 73 / 67, 57
	Heating Intake Air Temp [Maximum / Minimum]	°FDB	80 / 70

NOTES

¹Cooling at 95°F (Indoor: 80°F DB, 67°F WB // Outdoor: 95°F DB, 75°F WB)

²Heating at 47°F (Indoor: 70°F DB, 60°F WB // Outdoor: 47°F DB, 43°F WB)

³Heating at 17°F (Indoor: 70°F DB, 60°F WB // Outdoor: 17°F DB, 15°F WB)

⁴Heating at 5°F (Indoor: 70°F DB, 60°F WB // Outdoor: 5°F DB, 4°F WB)

⁵Heating at -4°F (Indoor: 70°F DB, 60°F WB // Outdoor: -4°F DB, -5°F WB)

^{*} Indoor/Outdoor Unit Operating Temperature Range (Cooling Air Temp [Maximum / Minimum]):

• Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.

^{**} Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):

• System cuts out in heating mode and automatically restarts at these temperatures.

SPECIFICATIONS: MSZ-EX12NLS & SUZ-AA12NL

Outdoor Unit	MCA	A	13
	MOCP	A	22
	Fan Motor Output	W	55
	Airflow Rate Cooling	CFM	1,229
	Airflow Rate Heating	CFM	1,172
	Defrost Method		Reverse Cycle
	Coating on Heat Exchanger (Bluefin, Sea Coast)		Yes, Yes
	Sound Pressure Level, Cooling ¹	dB (A)	48
	Sound Pressure Level, Heating ²	dB (A)	50
	Compressor Type		Twin Rotary
	Compressor Model		SRB092FQFMC
	Compressor Oil [Type // Charge]	Type // oz	RM68EH // 11.83
	External Finish Color		Munsell No.3Y 7.8/1.1
	Base Pan Heater		Optional
	Unit Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	31-1/2 x 11-1/4 x 21-5/8 [800 x 285 x 550]
	Package Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	37-1/16 x 15 x 24-13/16 [940 x 380 x 630]
	Unit Weight	lbs [kg]	81 [37]
	Package Weight	lbs [kg]	88.18 [40]
ODU Operating Temp. Range	Cooling Intake Maximum Air Temp [Maximum / Minimum*]	°FDB	115 / 14
	Cooling Thermal Lock-out / Re-start Temperatures**	°FDB	-1 / 3
	Heating Air Temp [Maximum / Minimum]	°FDB, °FWB / °FDB, °FWB	75, 65 / -4, -5
	Heating Thermal Lock-out / Re-start Temperatures**	°FDB	-14 / -4
Refrigerant	Type		R454B
	Pre-Charged Refrigerant Amount	lbs	2
	Maximum Pre-Charged Piping Length	ft [m]	65 [7.60]
	Additional Refrigerant Charge Per Additional Piping Length	oz/ft	0
Piping	Gas Pipe Size O.D. [Flared]	inch [mm]	3/8 [9.52]
	Liquid Pipe Size O.D. [Flared]	inch [mm]	1/4 [6.35]
	Maximum Piping Length	ft [m]	65 [20]
	Maximum Height Difference	ft [m]	40 [12]
	Maximum Number of Bends		10

NOTES

¹Cooling at 95°F (Indoor: 80°F DB, 67°F WB // Outdoor: 95°F DB, 75°F WB)

²Heating at 47°F (Indoor: 70°F DB, 60°F WB // Outdoor: 47°F DB, 43°F WB)

³Heating at 17°F (Indoor: 70°F DB, 60°F WB // Outdoor: 17°F DB, 15°F WB)

⁴Heating at 5°F (Indoor: 70°F DB, 60°F WB // Outdoor: 5°F DB, 4°F WB)

⁵Heating at -4°F (Indoor: 70°F DB, 60°F WB // Outdoor: -4°F DB, -5°F WB)

* Indoor/Outdoor Unit Operating Temperature Range (Cooling Air Temp [Maximum / Minimum]):

• Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.

** Outdoor Unit Operating Temperature Range (Cooling Thermal Lock-out / Re-start Temperatures; Heating Thermal Lock-out / Re-start Temperatures):

• System cuts out in heating mode and automatically restarts at these temperatures.

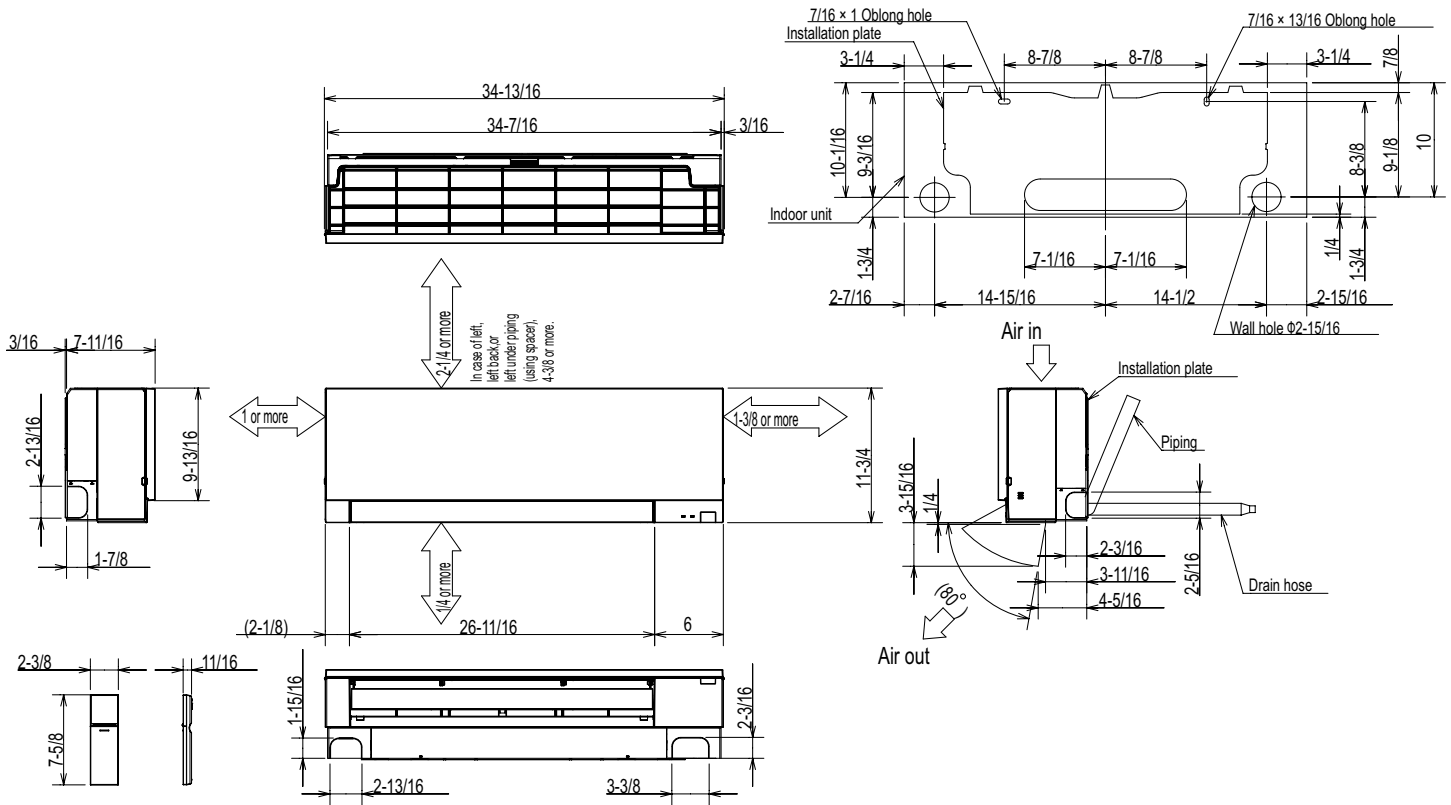
INDOOR UNIT ACCESSORIES: MSZ-EX12NLS

Condensate	Blue Diamond (Slim Fascia Kit) Condensate Pump w/ Reservoir & Sensor	X86-011
	Blue Diamond Advanced Mini Condensate Pump w Reservoir Sensor 208230V recommended	X87-721
	Blue Diamond MaxiBlue Advanced Mini Condensate Pump w Reservoir Sensor 110V up to 48000 BTUH recommended	X87-711
	Blue Diamond MegaBlue Advanced Condensate Pump w Reservoir Sensor	X87-835
	Blue Diamond MicroBlue Mini Condensate Pump 110208230V up to 18000 BTUH	X86-003
	Blue Diamond Sensor Extension Cable 15 Ft	C13-103
	Drain Pan Level SensorControl	SS610E
	Refco Condensate Pump 100-240 VAC	GOBI-II
	Refco Condensate Pump 100-240 VAC up to 120000 BTUH	COMBI
	Sauermann Condensate Pump	SI30-230
Control Interface	Airzone Wired Blueface Controller Black	AZZBSBLUEZEROCN
	Airzone Wired Blueface Controller White	AZZBSBLUEZEROCB
	Airzone Wireless Lite Controller Black	AZZBSLITERN
	Airzone Wireless Lite Controller White	AZZBSLITERB
	Airzone Wireless Think Controller Black	AZZBSTHINKRN
	Airzone Wireless Think Controller White	AZZBSTHINKRB
	IT Extender for kumo station	PAC-WHS01IE-E
	kumo station for the Comfort app	PAC-WHS01HC-E
	M-Net I/O Control Interface for M-Series ²	MAC-334IF-E
	Procon BACnet and Modbus Interface	PAC-UKPRC001-CN-1
	Thermostat Interface for 3rd Party Thermostats	PAC-US445CN-1
Wireless Remote Controller	Wireless Interface Adapter for the Comfort app	PAC-USWHS002-WF-2
	Lockdown Bracket for Wireless Handheld Remote Controllers	RCMKP1CB
Lineset	RedLINK Wireless Remote Controller	MHK2
	15 x 1/4 x 15 3/8 Lineset Twin-Tube Insulation	MLS143812T-15
	30 x 1/4 x 30 3/8 Lineset Twin-Tube Insulation	MLS143812T-30
	50 x 1/4 x 50 3/8 Lineset Twin-Tube Insulation	MLS143812T-50
Power Supplies and Auxiliary Components	65 x 1/4 x 65 3/8 Lineset Twin-Tube Insulation	MLS143812T-65
	Backup Heat Relay Kit Adapter for CN24 or CN152 Connector	CN24RELAY-KIT-CM3
Remote Sensor	Remote Temperature Sensor for MFZ MLZ and MSZ models	M21EAA307
	Wireless temperature and humidity sensor for the Comfort app	PAC-USWHS003-TH-1
Wired Remote Controller	Deluxe Wired MA Remote Controller ¹	PAR-42MAAUB
	Simple Direct Wired Remote Controller	PAC-SDW01RC-1
	Simple MA Remote Controller ¹	PAC-YT53CRAU-J
	Touch MA Wired Remote Controller ¹	PAR-CT01MAU-SB
Filter	Electro Static Anti-allergy Enzyme Filter	MAC-2320FT-E
	Microparticle Filter	MAC-EMF515FT-E
Disconnect Switch	30A600VUL fits 2 X 4 utility box - Black	TAZ-MS303
	30A600VUL fits 2 X 4 utility box - White	TAZ-MS303W
Drain Hose	Flexible Mini-Split Drain Hose	DRX-16
NOTES ² Allows IDU Connection to MA Controller: Deluxe MA Remote Controller Simple MA Controller Touch MA Controller ¹ Requires MAC-334IF-E Adapter ¹ Requires MAC-334IF-E Adapter ¹ Requires MAC-334IF-E Adapter		

OUTDOOR UNIT ACCESSORIES: SUZ-AA12NL

Mini-Split Wire	14 Gauge 4 wire Armored MiniSplit Cable250 ft roll	SW144-250
	14 Gauge 4 wire Armored MiniSplit Cable50 ft roll	SW144-50
	14 Gauge 4 wire MiniSplit Cable250 ft roll	S144-250
	14 Gauge 4 wire MiniSplit Cable50 ft roll	S144-50
Centralized Drain Pan	Centralized Drain Pan	PAC-SG63DP-E
Muffler	Muffler for Connection to SLZ	MAC-001MF-E
Drain Socket	Drain Socket	MAC-871DS
Snow/Rain Diverter	SnowRain Diverter	SRD-1
Stand	18 Single Fan Stand	QSMS1801M
	24 Single Fan Stand	QSMS2401M
	Condenser Wall Bracket	QSWB2000M-1
	Condenser Wall Bracket - Stainless Steel Finish	QSWBSS
	Outdoor Unit 3-14 inch Mounting Base Pair - Plastic	DSD-400P
	Outdoor Unit Stand 12 High	QSMS1201M
Port Adaptor	Adaptor 12 x 38	PAC-SK88RJ-E
Hail Guards	Hail Guard	HG-B4
Mounting Pad	Condensing Unit Mounting Pad 16 x 36 x 3	ULTRILITE1
Air Outlet Guide	Air Outlet Guide	MAC-881SG-E
Control/Service Tool	M- & P-Series Maintenance Tool Cable Set	M21EC0397
	Maintenance Tool Interface	PAC-USCMS-MN-1
Optional Defrost Heater	Base Heater	MAC-640BH-U1
NOTES		

INDOOR UNIT DIMENSIONS: MSZ-EX12NLS



MSZ-EX09/12NL

Piping	Insulation	φ1-7/16 O.D
	Liquid line	φ1/4 - 19-11/16 (Flared connection φ1/4)
	Gas line	φ3/8 - 16-15/16 (Flared connection φ3/8)
Drain hose		Insulation φ1-1/8 Connected part φ5/8 O.D active length 15-3/8

Note: Extension pipe size refer to the specifications table.

MSZ-EX15/18NL

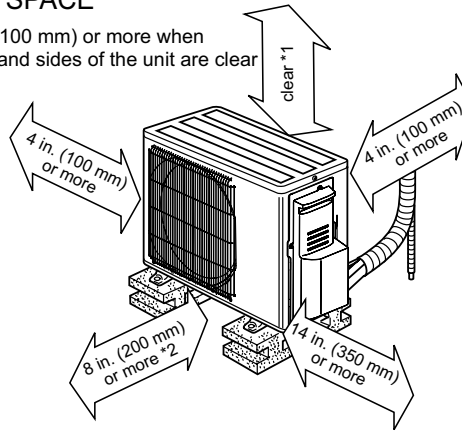
Piping	Insulation	φ1-7/16 O.D
	Liquid line	φ1/4 - 19-11/16 (Flared connection φ1/4)
	Gas line	φ3/8 - 16-15/16 (Flared connection φ1/2)
Drain hose		Insulation φ1-1/8 Connected part φ5/8 O.D active length 15-3/8

Note: Extension pipe size refer to the specifications table.

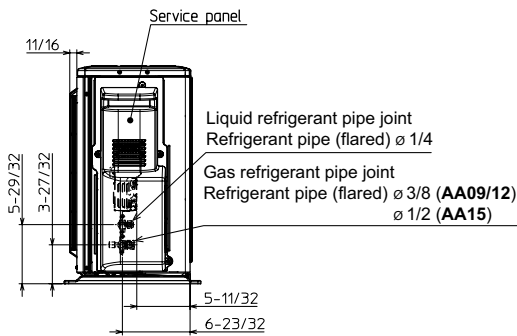
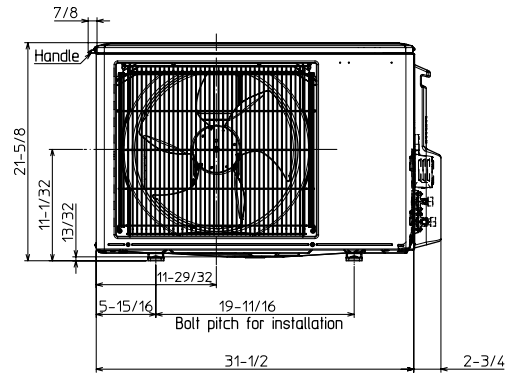
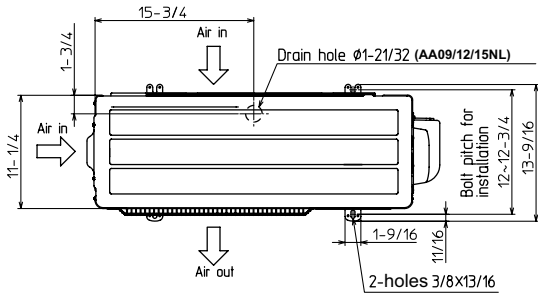
OUTDOOR UNIT DIMENSIONS: SUZ-AA12NL

REQUIRED SPACE

*1 4 in. (100 mm) or more when front and sides of the unit are clear



*2 When any 2 sides of left, right and rear of the unit are clear



Drain hole ϕ 1-5/16 (KA09/12/15NAH)