# **M-SERIES**

### SUBMITTAL DATA: MLZ-KP12NA & SUZ-KA12NA2

12,000 BTU/H ONE-WAY CEILING-CASSETTE HEAT PUMP SYSTEMS



Job Name:	
System Reference:	Date:



#### **INDOOR UNIT FEATURES**

- · Fits between 16" joists spacing
- · Stylish, square design panel
- · Built-in condensate lift mechanism (19.6")
- Serviceable from the bottom (electrical and flare connections)
- · Adjustable fan speeds and vane directions
- · Washable antibacterial and deodorizing filter
- · Multiple control options available:
  - Hand-held Remote Controller (provided with unit)
  - kumo cloud $^{\tiny{\circledR}}$  smart device app for remote access
  - Third-party interface options
  - Wired or wireless controllers
- Pocket inside the access panel for kumo cloud<sup>®</sup> Wireless Interface

#### **OUTDOOR UNIT FEATURES**

- · Variable speed INVERTER-driven compressor
- · Innovative Joint Lap DC Motor leads to high efficiency and reliability
- · Pulse Amplitude Modulation technology
- · High-performance grooved piping for increased heat exchange efficiency

## SPECIFICATIONS: MLZ-KP12NA & SUZ-KA12NA2

Cooling at 95°F1	Maximum Capacity	Btu/h	12,000	
	Rated Capacity	Btu/h	12,000	
	Minimum Capacity	Btu/h	3,900	
	Maximum Power Input	W	960	
	Rated Power Input	W	960	
	Moisture Removal	Pints/h	2.8	
	Sensible Heat Factor	ensible Heat Factor		
	Power Factor (208/230V)	%	96	
	Maximum Capacity	Btu/h	13,100	
	Rated Capacity	Btu/h	13,100	
Cooling at 82°F	Minimum Capacity	Btu/h	4,300	
	Maximum Power Input	W	840	
	Rated Power Input	W	840	
	Maximum Capacity	Btu/h	17,000	
	Rated Capacity	Btu/h	15,400	
	Minimum Capacity	Btu/h	4,600	
Heating at 47°F <sup>2</sup>	Maximum Power Input	W	1,700	
	Rated Power Input	W	1,300	
	Power Factor	%	98	
	Maximum Capacity	Btu/h	9,900	
	Rated Capacity	Btu/h	9,900	
Heating at 17°F3	Maximum Power Input	W	1,020	
	Rated Power Input	W	1,020	
	Maximum Capacity	Btu/h	7,900	
Heating at 5°F4	Maximum Power Input	W	980	
Heating at -4°F <sup>5</sup>	Maximum Capacity	Btu/h	5,900	
	SEER		19.8	
	EER <sup>1</sup>		12.5	
	HSPF (IV)	12.1		
Efficiency	COP at 47°F <sup>2</sup>	COP at 47°F <sup>2</sup>		
Lincicricy	COP at 17°F in Maximum Capacity <sup>3</sup>	COP at 17°F in Maximum Capacity <sup>3</sup>		
	COP at 5°F in Maximum Capacity <sup>4</sup>	2.36		
	ENERGY STAR® Certified (ENERGY STAR products a an EPA-recognized Certification Body.)	Yes		
	Voltage, Phase, Frequency		208/230V, 1 phase, 60Hz	
	Guaranteed Voltage Range	V AC	187-253	
	Voltage: Indoor - Outdoor, S1-S2	V AC	208/230	
Electrical	Voltage: Indoor - Outdoor, S2-S3	V DC	24	
	Voltage: Indoor - Remote Controller	V DC	Wireless type	
	Recommended Fuse/Breaker Size	A	15	
	Recommended Wire Size (Indoor - Outdoor)	AWG	14	

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	MCA	А	1	
	Fan Motor Full Load Amperage	A	0.76	
	Fan Motor Output	W	30	
	Airflow Rate at Cooling, Dry	CFM	332-297-258-212	
	Airflow Rate at Cooling, Wet	CFM	282-252-219-180	
	Airflow Rate at Heating, Dry	CFM	350-311-272-212	
	Sound Pressure Level (Cooling)	dB(A)	40-36-32-27	
	Sound Pressure Level (Heating)	dB(A)	40-36-32-26	
	Drain Pipe Size	In. (mm)	1-1/4 (32)	
	Condensate Lift Mechanism, Maximum Distance	In. (mm)	19-11/16 (500)	
Indoor Unit	Heat Exchanger Type		Plate fin coil	
	External Finish Color		White	
		W: In. (mm)	43-3/8 (1,102)	
	Unit Dimensions	D: In. (mm)	14-3/16 (360)	
		H: In. (mm)	7-5/16 (185)	
		W: In. (mm)	46-5/16 (1,180)	
	Package Dimensions	D: In. (mm)	15-3/4 (400)	
		H: In. (mm)	11 (280)	
	Unit Weight	Lbs. (kg)	34 (15.5)	
	Package Weight	Lbs. (kg)	41 (18)	
Indoor Unit Operating	Cooling Intake Air Temp (Maximum / Minimum)*	°F	90F D.B / 73F W.B // 67F D.B / 57F W.B	
Temperature Range	Heating Intake Air Temp (Maximum / Minimum)	°F	80F D.B // 70F D.B	
	MCA	А	9	
	MOCP	A	16	
	Fan Motor Full Load Amperage	A	0.5	
	Fan Motor Output	W	55	
	Airflow Rate	CFM	1,229 / 1,172	
	Refrigerant Control	LEV		
	Defrost Method		Reverse cycle	
	Heat Exchanger Type	Plate fin coil		
	Blue Fin Coating on Heat Exchanger	Blue Fin Coating on Heat Exchanger		
Outdoor Unit	Sound Pressure Level, Cooling <sup>1</sup>	dB(A)	49	
	Sound Pressure Level, Heating <sup>2</sup>	dB(A)	51	
	Compressor Type	DC INVERTER-driven Twin Rotary		
	Compressor Model	SNB092FQAMT		
	Compressor Rated Load Amps	А	6.6	
	Compressor Locked Rotor Amps	А	8.2	
	ompressor Oil Type // Charge oz.		FV50S // 11.8	
	External Finish Color	Ivory Munsell 3Y 7.8/1.1		
	Base Pan Heater	Optional		
	Unit Dimensions	W: In. (mm)	31-1/2 (800)	

### SPECIFICATIONS: MLZ-KP12NA & SUZ-KA12NA2

		D: In. (mm)	11-1/4 (285)
		H: In. (mm)	21-5/8 (550)
		W: In. (mm)	38 (940)
	Package Dimensions	D: In. (mm)	14-15/16 (380)
		H: In. (mm)	24-13/16 (630)
	Unit Weight	Lbs. (kg)	81 (37)
	Package Weight	Lbs. (kg)	88 (40)
Outdoor Unit Operating Temperature Range	Cooling Air Temp (Maximum / Minimum)*	°F	115 / 14
	Cooling Thermal Lock-out / Re-start Temperatures**	°F	-1 / 3
	Heating Air Temp (Maximum / Minimum)	°F	75 / -4
	Heating Thermal Lock-out / Re-start Temperatures**	°F	-9 / -4
Defrigerent	Туре		R410A
Refrigerant	Charge	Lbs, oz	2, 9
Piping	Gas Pipe Size O.D. (Flared)	In.(mm)	3/8 (9.52)
	Liquid Pipe Size O.D. (Flared)	In.(mm)	1/4 (6.35)
	Maximum Piping Length	Ft. (m)	65
	Maximum Height Difference	Ft. (m)	40
	Maximum Number of Bends		10

#### Notes

AHRI Rated Conditions (Rated data is determined at a fixed compressor speed)	<sup>1</sup> Cooling (Indoor // Outdoor)	°F	80 DB, 67 WB // 95 DB, 75 WB
	<sup>2</sup> Heating at 47°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 47 DB, 43 WB
	<sup>3</sup> Heating at 17°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 17 DB, 15 WB
Conditions	<sup>4</sup> Heating at 5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -4 DB, -5 WB
Conditions	<sup>5</sup> Heating at -4°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -4 DB, -5 WB

<sup>\*</sup>Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.

\*\*System cuts out in heating mode to avoid thermistor error and automatically restarts at these temperatures.

### Notes

AHRI Rated Conditions	<sup>1</sup> Cooling (Indoor // Outdoor)	°F	80 DB, 67 WB // 95 DB, 75 WB
(Rated data is determined at a fixed	<sup>2</sup> Heating at 47°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 47 DB, 43 WB
compressor speed)	<sup>3</sup> Heating at 17°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 17 DB, 15 WB
Conditions	<sup>4</sup> Heating at 5°F (Indoor // Outdoor)	°F	70 DB, 60 WB // -4 DB, -5 WB

<sup>\*</sup>Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.

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## **ACCESSORIES: MLZ-KP12NA**

Grille (required)	□ MLP-444W
Anti-allergy Enzyme Filter	□ MAC-408FT-E
Backlit, Wall-mounted, Wireless Controller	□ MHK1
Portable Central Controller	□ MCCH1
Wired MA Controller <sup>1</sup>	□ PAR-33MAA
Simple MA Controller <sup>1</sup>	□ PAC-YT53CRAU
Touch MA Controller <sup>1</sup>	□ PAR-CT01MAU-SB
Wired Remote Sensor	□ M21-EAA-307
Wireless Temperature and Humidity Sensor	□ PAC-USWHS003-TH-1
Outside Air Sensor for MHK1	□ MOS1
System Control Interface <sup>2</sup>	□ MAC-333IF-E
External Fan / Heater Control Relay Adapter	□ CN24RELAY-KIT-CM3
Wireless Interface	□ PAC-USWHS002-WF-1
Thermostat Interface	□ PAC-US444CN-1
kumo station®	□ PAC-WHS01HC-E
USNAP Interface	□ PAC-WHS01UP-E
IT Extender	□ PAC-WHS01IE-E
BACnet® and MODBUS® Interface	□ PAC-UKPRC001-CN-1
External Fan / Heater Control Relay Adapter	□ CN24RELAY-KIT-CM3
Lockdown Bracket for Hand-held Remote Controllers	□ RCMKP1CB
MegaBlue Advanced Blue Diamond Condensate Pump w/ Reservoir & Sensor	□ X87-835 - 110 to 250V
MaxiBlue Advanced Blue Diamond Mini Condensate Pump w/ Reservoir & Sensor (110V) up to 48,000 Btu/h [recommended]	□ X87-711 - 110V
Advanced Blue Diamond Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended]	□ X87-721 - 208/230V
MicroBlue Blue Diamond Mini Condensate Pump (110/208/230V) up to 18,000 Btu/h	□ X85-003
Fascia Kit for MicroBlue Pump – mounts the MicroBlue and sensor directly beneath the indoor unit	□ T18-016
Drain Pan Level Sensor	□ DPLS2
(30A/600V/UL) [fits 2" X 4" utility box] - Black	□ TAZ-MS303
(30A/600V/UL) [fits 2" X 4" utility box] - White	□ TAZ-MS303W
1 Poquiros MAC 222IE E	1

<sup>&</sup>lt;sup>1</sup> Requires MAC-333IF-E

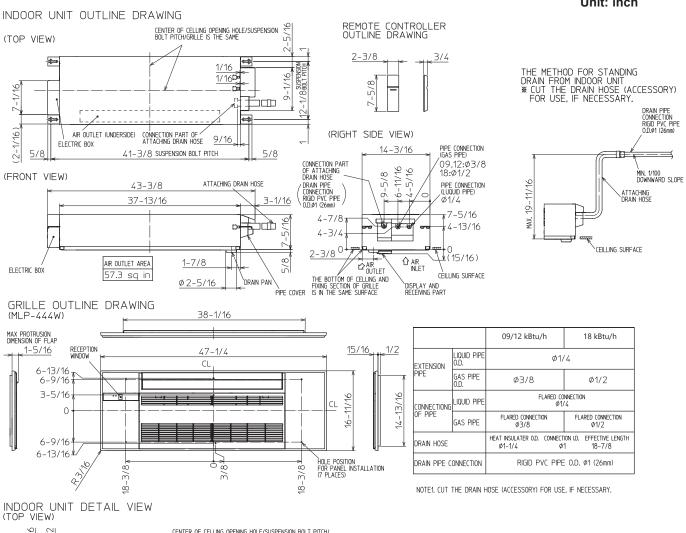
<sup>&</sup>lt;sup>2</sup> Allows indoor units to connect to an MA Controller

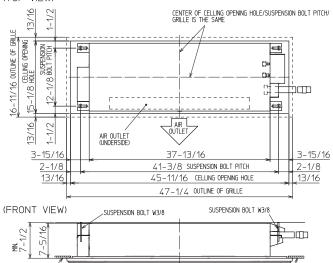
## **ACCESSORIES: SUZ-KA12NA2**

Air Outlet Guide	□ MAC-881SG
Optional Defrost Heater	□ MAC-640BH-U
Hail Guard	□ HG-B4
Outdoor Unit 3-1/4 inch Mounting Base (Pair) - Plastic	□ DSD-400P
Condensing Unit Mounting Pad 16" x 36" x 3"	□ ULTRILITE1
Outdoor Unit Stand — 12" High	□ QSMS1201M
Outdoor Unit Stand — 18" High	□ QSMS1801M
Outdoor Unit Stand — 24" High	□ QSMS2401M
Heavy Duty Wall Mounting Bracket— Coated Steel	□ QSWB2000M-1
Heavy Duty Wall Mounting Bracket — 316 Series Stainless Steel	□ QSWBSS
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
65' x 1/4" x 65' / 3/8" Lineset (Twin-Tube Insulation)	□ MLS143812T-65

### **DIMENSIONS: MLZ-KP12NA**

Unit: inch



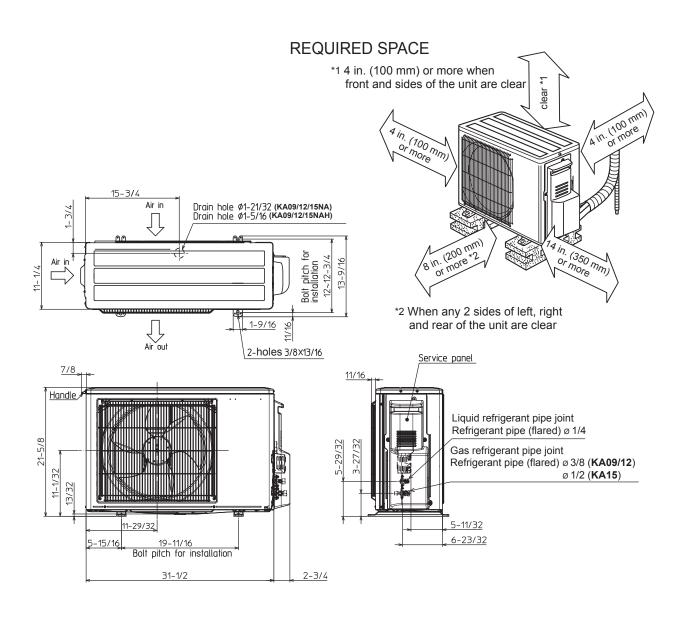


GRILLE

CEILLING SURFACE

CEILLING SURFACE

Unit: inch(mm)





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