## MODEL: MHK2 kumo touch™



Job Name:

System Reference: Date:





#### MRCH2 REMOTE CONTROLLER SPECIFICATIONS

- · Touch panel, Backlit, easy-to-read display
- Used RedLINK™ 3.0 wireless technology
  - Not compatible with MHK1, MOS1, and MCCH1 RedLINK 2.0 wireless technology environment.
- · User functions allow user to set:
  - On/Off
  - Operation modes cool, heat, drying, fan
  - Set temperature (separate dual set points for heat and cool)
  - Fan speed setting
  - Airflow direction
- Set temperature range limits (dependent on the system connected):
  - Cooling from 50° to 99° F
  - Heating from 40° to 90° F
  - Auto from 50° to 90° F with dual temperature setting
- · MHK2 Scheduling options:
  - No Schedule
  - MO-SU = Every day the same
  - MO-FR, SA, SU = 5-1-1 schedule
  - MO-FR, SA-SU = 5-2 schedule
  - Each Day = Every day individual
  - Allow kumo cloud to be schedule holder
- · Hold function
- Temporary or Permanent schedule override
- · Lockout: - On
  - Off
  - Mode
  - Fan Speed
  - Set point
  - Vane Direction
- Day/Time display with a 12 or 24-hour clock
- · Supports both Fahrenheit and Celsius
- RedLINK™ Wireless Connection Status
- Filter sign display
- Diagnostics: Displays and records error codes
- · Adjustable auto mode deadband

- · Space temperature offset adjustment
- · Space humidity offset adjustment
- · Hide (on screen only)
  - Indoor temperature
  - Indoor humidity
- · Temperature Sensing Source
  - MHK2
  - Indoor Unit
  - RedLINK Wireless Indoor Air Sensor (IAS)
  - Average of MHK2 and RedLINK Wireless Indoor Air Sensor (IAS)
- · Indoor Humidity Source
  - MHK2
  - RedLINK Wireless Indoor Air Sensor (IAS)
  - Average of MHK2 and RedLINK Wireless Indoor Air Sensor (IAS)
- · Improved indoor unit function code list
  - Indoor unit type
  - Expanded to 28 indoor unit codes
- · Reset to factory default
- Uses two "AA" alkaline batteries (included)
- Dimensions: 4-5/64" x 4-5/64" x 1-1/16" (104 x 104 x 27 mm)
- Operating Ambient Temperature: 32° to 120° F (0° to 48.9° C)
- Operating Relative Humidity: 5% to 90%

#### MIFH2 WIRELESS RECEIVER SPECIFICATIONS:

- · Included in MHK2 Kit
- Mounts next to or near indoor units to allow MRCH2 Remote Controller operation
- · Connects to indoor unit control board with MRC2 Cable
- Dimensions: 3-3/32" H x 1-3/4" W x 39/64" D (74.8 x 44.4 x 15.4 mm)
- Operating Ambient Temperature: -40° to 165° F (-40° to 73.9° C)
- Operating Relative Humidity: 5% to 95%

#### **MRC2 CABLE**

- · Included in MHK2 Kit in the MIFH2 box
- · Connects MIFH2 Wireless Receiver to the CN105 connector on indoor unit control board
- Length: 39-23/64" (1 m)

# MODEL: MHK2 kumo touch™



### kumo cloud & MHK2

- kumo cloud and MHK2 can work together on the same indoor unit with the following devices:
  - Wireless Interface 2
    - PAC-USWHS002-WF-2
    - Wireless Interface 2 has an additional CN105 connector on it
  - MHK2 kit
- · Compatibility with indoor units:
  - All CITY MULTI®
  - All P-Series
  - All M-series

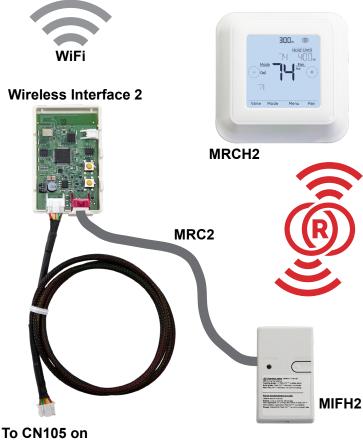
#### **Accessories**

Wireless Interface 2 (PAC-USWHS002-WF-2)

CN105 IT Extender (PAC-WHS01E-E)

RedLINK 3.0 Wireless Indoor Air Sensor

- Not sold by Mitsubishi Electric Trane HVAC LLC
- Honeywell (C7189R2002-2/U)



To CN105 on Indoor Unit control board

Specifications are subject to change without notice.

1340 Satellite Boulevard. Suwanee, GA 30024

Toll Free: 800-433-4822 www.mehvac.com

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M\_Submittal\_MHK2 kumo touch 03-2020

# MXZ-3C30NA3 2.5-TON MULTI-ZONE INVERTER HEAT-PUMP SYSTEM



	Job	Name:
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System Reference: Date:



#### **FEATURES**

- Variable speed INVERTER-driven compressor
- · Optional base pan heater
- Quiet outdoor unit operation as low as 52 dB(A)
- · High pressure protection
- Compressor thermal protection
- · Compressor overcurrent detection
- Fan motor overheating/voltage protection

## **SPECIFICATIONS: MXZ-3C30NA3**

	Maximum Capacity	BTU/H	28,400 // 28,400 // 28,400
	Rated Capacity	BTU/H	28,400 // 27,900 // 27,400
	Minimum Capacity	BTU/H	11,600 // 11,300 // 11,000
Cooling <sup>1</sup> (Non-Ducted // Mix // Ducted)	Maximum Power Input	W	2,680 // 2,680 // 2,680
	Rated Power Input	W	2,680 // 2,760 // 2,840
	Power Factor (208V, 230V)	%	99.0, 99.0 // 99.0, 99.0 // 99.0, 99.0
	Maximum Capacity	BTU/H	36,000 // 36,000 // 36,000
	Rated Capacity	BTU/H	28,600 // 28,100 // 27,600
Heating at 47°F2 (New Dueted // Mix //	· · ·	BTU/H	
Heating at 47°F <sup>2</sup> (Non-Ducted // Mix // Ducted)	Minimum Capacity	W W	18,100 // 18,300 // 18,500
240.04)	Maximum Power Input	W	3,300 // 3,300 // 3,300
	Rated Power Input	%	2,150 // 2,185 // 2,220
	Power Factor (208V, 230V)		98.5, 98.5 // 98.4, 98.4 // 98.2, 98.2
Harting at 479F2 (Nam Doorted // Min //	Maximum Capacity	BTU/H	21,000 // 21,000 // 21,000
Heating at 17°F³ (Non-Ducted // Mix // Ducted)	Rated Capacity	BTU/H W	17,800 // 17,800 // 17,800
Buoled)	Maximum Power Input		2,740 // 2,780 // 2,820
	Rated Power Input	W	1,760 // 1,830 // 1,900
Heating at 5°F <sup>4</sup> (Non-Ducted // Mix // Ducted)	Maximum Capacity	BTU/H	18,200 // 18,200 // 18,200
Ducted)	Maximum Power Input	W	2,310 // 2,355 // 2,400
	SEER		19.0 // 17.6 // 16.2
	EER¹		10.6 // 10.12 // 9.65
Efficiency (Non Dust-of // Miss // Dust 19	HSPF (IV)		10.6 // 10.1 // 9.6
Efficiency (Non-Ducted // Mix // Ducted)	COP at 47°F2		3.9 // 3.77 // 3.65
	COP at 17°F at Maximum Capacity³		2.25 // 2.22 // 2.18
	COP at 5°F at Maximum Capacity <sup>4</sup>		2.31 // 2.26 // 2.22
	ENERGY STAR® Certified		No // No // No
	Electrical Power Requirements	Voltage, Phase, Frequency	208/230, 1, 60
	Guaranteed Voltage Range	VAC	187-253
	Voltage: Indoor - Outdoor, S1-S2	VAC	208/230
	Voltage: Indoor - Outdoor, S2-S3	V DC	24
Electrical	Short-circuit Current Rating (SCCR)	kA	5
	Recommended Fuse/Breaker Size	Α	25
	Recommended Wire Size	AWG	14
	Minimum Circuit Ampacity	Α	22.1
	Maximum Overcurrent Protection	Α	25
	Fan Motor Full Load Amperage	Α	2.43
	Airflow Rate (Cooling / Heating)	CFM	2,287 / 2,382
	Refrigerant Control	3 22 37	
	Defrost Method	Reverse Cycle	
	Heat Exchanger Type		Plate fin coil
	Sound Pressure Level, Cooling <sup>1</sup>	dB(A)	52
	Sound Pressure Level, Heating <sup>2</sup>	dB(A)	56
	Compressor Type		DC INVERTER-driven Twin Rotary
	Compressor Model		SNB220FQGMC
	Compressor Rated Load Amps	Α	12
Outdoor unit	Compressor Locked Rotor Amps	Α	13.7
	Compressor Oil Type // Charge	OZ.	FV50S // 23.7
	Base Pan Heater		Optional
		W: In. [mm]	37-13/32 [950]
	Unit Dimensions	D: In. [mm]	13 [330]
		H: In. [mm]	31-11/32 [796]
		W: In. [mm]	40-15/16 [1,040]
	Package Dimensions	D: In. [mm]	17-11/16 [450]
		H: In. [mm]	40-11/16 [1,033]
	Unit Weight	Lbs.[kg]	137 [62]
	Package Weight	Lbs.[kg]	157 [71]
	Cooling Intake Air Temp (Maximum / Minimum*A)	°FDB	115 / 14
Outdoor unit operating temperature	Cooling Thermal Lock-out / Re-start Temperatures	°FDB	10.4 / 14
range	Heating Intake Air Temp (Maximum / Minimum)	°FWB	65 / 5
	Heating Thermal Lock-out / Re-start Temperatures	°FDB	1.4 / 5
	Charge	Lbs, oz	6.0, 13.0
Refrigerant	Chargeless Piping Length	Ft. [m]	98.0 [30.0]
		. se friid	20.0 [00.0]
Kenigerant	Additional Refrigerant Charge Per Additional Piping Length	oz./Ft. [g/m]	0.216 [20]

NOTES: AHRI Rated Conditions (Rated data is determined at a fixed compressor speed)

¹Cooling (Indoor // Outdoor) °F ²Heating at 47°F (Indoor // Outdoor) °F ³Heating at 17°F (Indoor // Outdoor) °F

80 DB, 67 WB // 95 DB, 75 WB 70 DB, 60 WB // 47 DB, 43 WB 70 DB, 60 WB // 17 DB, 15 WB

70 DB, 60 WB // 5 DB, 4 WB

Conditions <sup>4</sup>Heating at 5°F (Indoor // Outdoor)

'Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions. 'A 5°F DB - 115°F DB when optional wind baffles are installed

For actual capacity performance based on indoor unit type and number of indoor units connected, please refer to MXZ Operational Performance.

Although the maximum connectable capacity is 130%, the outdoor unit cannot provide more than 100% of the rated capacity. Please utilize this over capacity capability for load shedding or applications where it is known that all connected units will NOT be operating at the same time.

## **SPECIFICATIONS: MXZ-3C30NA3**

Indoor unit connection	Maximum Number of Connected IDU	Maximum Number of Connected IDU		
	Minimum Number of Connected IDU	Minimum Number of Connected IDU		
	Minimum connected capacity	BTU/H	12,000	
	Maximum connected capacity	BTU/H	36,000	
Piping	Liquid Pipe Size O.D. (Flared)	In.[mm]	A,B,C: 1/4 [A,B,C: 6.35]	
	Gas Pipe Size O.D. (Flared)	In.[mm]	A: 1/2; B,C: 3/8 [A: 12.72; B,C: 9.52]	
	Total Piping Length	Ft. [m]	230 [70]	
	Maximum Height Difference, ODU above IDU	Ft. [m]	49 [15]	
	Maximum Height Difference, ODU below IDU	Ft. [m]	49 [15]	
	Farthest Piping Length from ODU to IDU	Ft. [m]	82 [25]	
	Maximum Number of Bends for IDU		70	

NOTES: AHRI Rated Conditions (Rated data is determined at a fixed compressor speed)

¹Cooling (Indoor // Outdoor) °F ²Heating at 47°F (Indoor // Outdoor) °F ³Heating at 17°F (Indoor // Outdoor) °F

80 DB, 67 WB // 95 DB, 75 WB 70 DB, 60 WB // 47 DB, 43 WB 70 DB, 60 WB // 17 DB, 15 WB

4Heating at 5°F (Indoor // Outdoor)

°F 70 DB, 60 WB // 5 DB, 4 WB

For actual capacity performance based on indoor unit type and number of indoor units connected, please refer to MXZ Operational Performance.

Although the maximum connectable capacity is 130%, the outdoor unit cannot provide more than 100% of the rated capacity. Please utilize this over capacity capability for load shedding or applications where it is known that all connected units will NOT be operating at the same time.

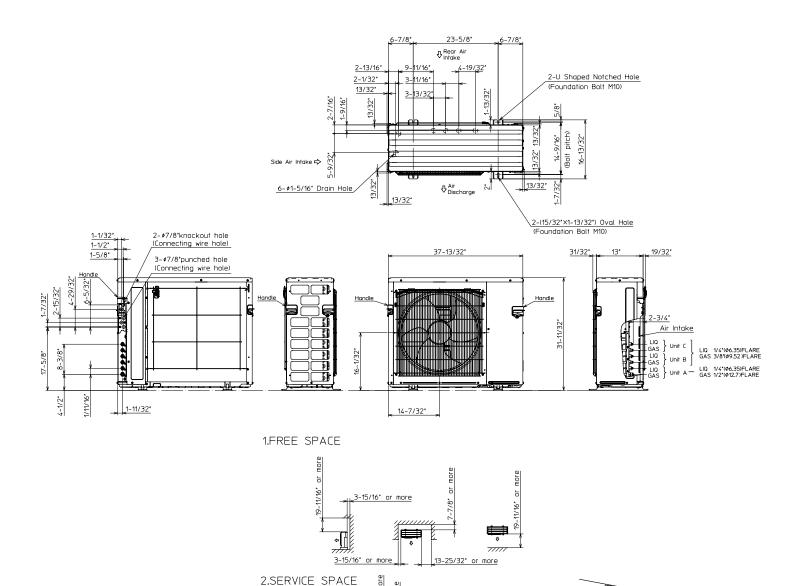
Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions. A 5°F DB - 115°F DB when optional wind baffles are installed

# **OUTDOOR UNIT ACCESSORIES: MXZ-3C30NA3**

Air Outlet Guide	Air Outlet Guide (1 Piece)	PAC-SH96SG-E
Ball Valve	Refrigeration Ball Valve - 1/2"	BV12FFSI2
	Refrigeration Ball Valve - 1/4"	BV14FFSI2
	Refrigeration Ball Valve - 3/8"	BV38FFSI2
	Refrigeration Ball Valve - 5/8"	BV58FFSI2
	M-Net Control Wire, 1,000' Roll (16-AWG, Standard, Twisted Pair, Shielded, Jacketed-Plenum rated)	CW162S-1000
Control Wire	M-Net Control Wire, 250' Roll (16-AWG, Standard, Twisted Pair, Shielded, Jacketed-Plenum rated)	CW162S-250
Orain Socket	Drain Socket	PAC-SG60DS-E
lail Guards	Hail Guard	HG-A9
1-NET Converter	M-NET Converter	PAC-IF01MNT-E
	14 Gauge, 4 wire MiniSplit Cable—250 ft. roll	S144-250
	14 Gauge, 4 wire MiniSplit Cable—250 ft. roll	SW144-250
	14 Gauge, 4 wire MiniSplit Cable—50 ft. roll	S144-50
/lini-Split Wire	14 Gauge, 4 wire MiniSplit Cable—50 ft. roll	SW144-50
nini-Spiit wire	16 Gauge, 4 wire MiniSplit Cable—250 ft. roll	S164-250
	16 Gauge, 4 wire MiniSplit Cable—250 ft. roll	SW164-250
	16 Gauge, 4 wire MiniSplit Cable—50 ft. roll	S164-50
	16 Gauge, 4 wire MiniSplit Cable—50 ft. roll	SW164-50
Mounting Pad	Condensing Unit Mounting Pad: 16" x 36" x 3"	ULTRILITE1
	Outdoor Unit 3-1/4 inch Mounting Base (Pair) - Plastic	DSD-400P
Port Adapter	Adaptor: 1/2" x 3/8"	MAC-A455JP-E
	Adaptor: 1/2" x 5/8"	MAC-A456JP-E
	Adaptor: 3/8" x 1/2"	MAC-A454JP-E
	Adaptor: 3/8" x 5/8"	PAC-SG76RJ-E
	18" Single Fan Stand	QSMS1801M
	24" Single Fan Stand	QSMS2401M
Stand	Condenser Wall Bracket	QSWB2000M-1
	Condenser Wall Bracket - Stainless Steel Finish	QSWBSS
	Outdoor Unit Stand — 12" High	QSMS1201M

## **OUTDOOR UNIT DIMENSIONS: MXZ-3C30NA3**

Unit: inch (mm)



more

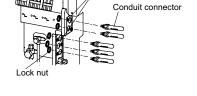
19-11/16\*

SERVICE SPACE 13-25/32" or more

-15/16" or ь

3-15/16\* or more

13-25/32\* or more



Conduit plates

1340 Satellite Boulevard Suwanee, GA 30024 Toll Free: 800-433-4822 www.mehvac.com





# M-SERIES

## **SUBMITTAL DATA: SLZ-KF09NA**

9,000 BTU/H CEILING-CASSETTE INDOOR UNIT FOR MULTI-ZONE HEAT PUMP SYSTEMS



Job Name:	
System Reference:	Date:



#### **GENERAL FEATURES**

- · Ceiling-recessed cassette (24"x24") ductless heat pump
- Install SLZ in a drywalled ceiling (with an access panel for servicing) or in a 2'x2' drop ceiling
- Wide airflow pattern for excellent air distribution
- · Fresh air intake provided in the main body
- Built-in drain condensate lift mechanism (lifts to 33")
- Multiple control options available:
  - kumo cloud® smart device app for remote access
  - Third-party interface options
  - Wired or wireless controllers
- · Long-life air filter included
- Individual vane control

# **SPECIFICATIONS: SLZ-KF09NA**

Cooling Capacity <sup>1,</sup>	3	Btu/h	9,000
Heating Capacity <sup>2, 3</sup>		Btu/h	11,000
Voltage, Phase, Frequency			208/230V, 1 phase, 60Hz
Electrical	Guaranteed Voltage Range	V AC	187-253
	Voltage: Indoor - Outdoor, S1-S2	V AC	208/230
	Voltage: Indoor - Outdoor, S2-S3	V DC	24
	Voltage: Indoor - Remote controller	V DC	12
MCA		A	0.25
Fan Motor Full Loa	d Amperage	A	0.20
Fan Motor Output		W	50
Airflow Rate at Coo	oling, Dry	CFM	300-265-230
Airflow Rate at Coo	oling, Wet	CFM	270-239-207
Airflow Rate at Hea	ating, Dry	CFM	335-265-230
Sound Pressure Level (Cooling) <sup>1</sup>		dB(A)	31-28-25
Sound Pressure Level (Heating) <sup>2</sup>		dB(A)	31-28-25
External Static Pressure		in.WG	N/A
Drain Pipe Size		In. (mm)	1 1/4 (32)
Condensate Lift Mechanism, Maximum Distance		In. (mm)	33 (850)
Heat Exchanger Type			Plate fin coil
External Finish Color			Munsell 1.0Y 9.2/0.2
Unit Dimensions		W: In. (mm)	22-7/16 (570)
		ensions D: In. (mm)	
		H: In. (mm)	9-21/32 (245)
Package Unit Dimensions		W: In. (mm)	24-13/32 (620)
		D: In. (mm)	27-15/16 (710)
		H: In. (mm)	9-7/16 (240)
Unit Weight		Lbs. (kg)	31 (13.9)
Package Unit Weight		Lbs. (kg)	37 (17)
Refrigerant	Туре		R410A
	Charge	Lbs, oz	2, 5
Piping	Gas Pipe Size O.D. (Flared)	In.(mm)	3/8 (9.52)
i ipilig	Liquid Pipe Size O.D. (Flared)	In.(mm)	1/4 (6.35)

### Notes:

Nominal Conditions	<sup>1</sup> Cooling (Indoor // Outdoor)	°F	80 DB, 67 WB // 95 DB, 75 WB
Nominal Conditions	<sup>2</sup> Heating at 47°F (Indoor // Outdoor)	°F	70 DB, 60 WB // 47 DB, 43 WB
3Consoits varies based on the number of index units encreting and the model of the Multi-zero Outdoor Unit. For reference to connected consoits			

<sup>3</sup>Capacity varies based on the number of indoor units operating and the model of the Multi-zone Outdoor Unit. For reference to connected capacity charts, please refer Multi-zone Outdoor Unit Operational Performance.

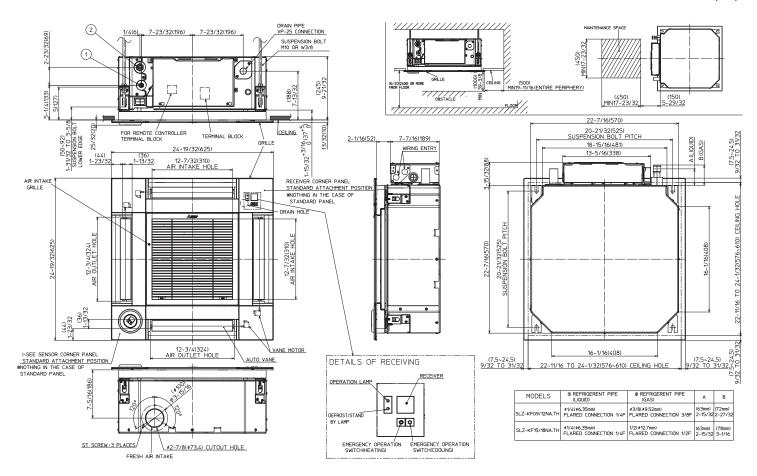
# **ACCESSORIES: SLZ-KF09NA**

Wireless Signal Receiver	□ PAR-FA32MA-W
Wireless Signal Receiver	□ PAR-FA32MA-E
Wireless Remote Receiver Panel	□ PAR-SF9FA-E
Wireless Remote Controller	□ PAR-SL100A-E
Backlit, Wall-mounted, Wireless Controller	□ MHK1
Portable Central Controller	□ MCCH1
Wired MA Controller	□ PAR-33MAA
Simple MA Controller	□ PAC-YT53CRAU
Touch MA Controller	□ PAR-CT01MAU-SB
Wired Remote Sensor	□ PAC-SE41TS-E
Wireless Temperature and Humidity Sensor	□ PAC-USWHS003-TH-1
Outside Air Sensor for MHK1	□ MOS1
Flush Mount Remote Temperature Sensor	□ PAC-USSEN001-FM-1
System Control Interface	□ MAC-333IF-E
Wireless Interface	□ PAC-USWHS002-WF-1
Thermostat Interface	□ PAC-US444CN-1
kumo station <sup>®</sup>	□ 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
Wire for Remote on/off with CN32 connector	□ PAC-715AD
Connector and wire for Operation status/error using CN51	□ PAC-725AD
Connector cable for remote display	□ PAC-SA88HA-EP
Connector for CN32 (remote on/off)	□ PAC-SE55RA-E
Remote Operation Adapter <sup>1</sup>	□ PAC-SF40RM-E
Grille (required)	□ SLP-18FAU
3D i-see Sensor™ Corner Panel	□ PAC-SF1ME-E
Grille with 3D i-see Sensor™	□ SLP-18FAEU
Blue Diamond Sensor Extension Cable — 15 Ft.	□ C13-103
Blue Diamond Alarm Extension Cable — 6.5 Ft.	□ C13-192
Blue Diamond MultiTank — collection tank for use with multiple pumps	□ C21-014
Blue Diamond Rubber Foot Pads	□ F10-010
Mini Condensate Pump — 230 volt application	□ SI30-230
MegaBlue Advanced Blue Diamond Condensate Pump w/ Reservoir & Sensor	□ X87-835 - 110 to 250V
Advanced Blue Diamond Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended]	□ X87-721 - 208/230V
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 Unable to use with wireless remote controller	I

<sup>&</sup>lt;sup>1</sup> Unable to use with wireless remote controller

## **DIMENSIONS: SLZ-KF09NA**

Unit: inch (mm)





1340 Satellite Boulevard, Suwanee, GA 30024 Toll Free: 800-433-4822 www.mehvac.com





FORM# SLZ-KF09NA FOR MULTI-ZONE HEAT PUMP SYSTEMS - 201901