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

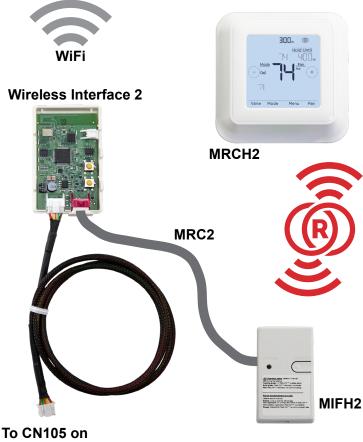
Accessories

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-3C24NA3 2-TON MULTI-ZONE INVERTER HEAT-PUMP SYSTEM



| . | n | h | Ν | a | m | ρ | • |
|---|---|---|---|---|---|---|---|

System Reference: Date:



FEATURES

- Variable speed INVERTER-driven compressor
- · Optional base pan heater
- Q uiet outdoor unit operation as low as 51 dB(A)
- · High pressure protection
- Compressor thermal protection
- · Compressor overcurrent detection
- Fan motor overheating/voltage protection
- ENERGY STAR® certified (non-ducted)

SPECIFICATIONS: MXZ-3C24NA3

| | Maximum Capacity | BTU/H | 22,000 // 22,000 // 22,000 |
|--|--|--------------------------------|--|
| | Rated Capacity | BTU/H | 22,000 // 22,000 // 23,600 |
| | Minimum Capacity | BTU/H | 11,600 // 11,300 // 11,000 |
| Cooling ¹ (Non-Ducted // Mix // Ducted) | Maximum Power Input | W | 1,620 // 1,620 // 1,620 |
| | Rated Power Input | W | 1,620 // 1,860 // 2,100 |
| | Power Factor (208V, 230V) | % | 99.0, 99.0 // 99.0, 99.0 // 99.0, 99.0 |
| | Maximum Capacity | BTU/H | 30,600 // 30,600 // 30,600 |
| | Rated Capacity | BTU/H | 25,000 // 24,800 // 24,600 |
| Heating at 47°F2 (Non-Ducted // Mix // | Minimum Capacity | BTU/H | · · · · · · · · · · · · · · · · · · · |
| Ducted) | Maximum Power Input | W W | 18,100 // 17,700 // 17,300 |
| | Rated Power Input | W | 3,000 // 3,000 // 3,000 |
| | Power Factor (208V, 230V) | % | 1,750 // 1,825 // 1,900 |
| | , , | BTU/H | 98.9, 98.9 // 98.7, 98.7 // 98.5, 98.5 |
| Heating at 17°F3 (New Dueted // Mix // | Maximum Capacity Rated Capacity | BTU/H | 19,600 // 19,600 // 19,600 14,600 // 14,600 // 14,600 |
| Heating at 17°F³ (Non-Ducted // Mix // Ducted) | | W W | |
| 240.04) | Maximum Power Input | | 2,580 // 2,510 // 2,440 |
| Harting at 5054 (Nam Doorted // Miss // | Rated Power Input | W | 1,420 // 1,490 // 1,560 |
| Heating at 5°F4 (Non-Ducted // Mix // Ducted) | Maximum Capacity | BTU/H | 18,200 // 18,200 // 18,200 |
| Ducted) | Maximum Power Input | W | 2,310 // 2,200 // 2,090 |
| | SEER | | 20.0 // 18.0 // 16.0 |
| | EER¹ | | 13.58 // 12.41 // 11.24 |
| Efficiency (Non Dust- d // Min // Dust- | HSPF (IV) | | 10.0 // 9.5 // 9.2 |
| Efficiency (Non-Ducted // Mix // Ducted) | COP at 47°F² | | 4.19 // 3.99 // 3.8 |
| | COP at 17°F at Maximum Capacity³ | | 2.23 // 2.29 // 2.36 |
| | COP at 5°F at Maximum Capacity⁴ | | 2.31 // 2.42 // 2.55 |
| | ENERGY STAR® Certified | | Yes // No // No |
| | Electrical Power Requirements | Voltage, Phase, Frequency | 208/230, 1, 60 |
| | Guaranteed Voltage Range | V AC | 187-253 |
| | Voltage: Indoor - Outdoor, S1-S2 | V AC | 208/230 |
| | Voltage: Indoor - Outdoor, S2-S3 | V DC | 24 |
| Electrical | Short-circuit Current Rating (SCCR) | kA | 5 |
| | Recommended Fuse/Breaker Size | A | 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 | | LEV |
| | Defrost Method | | Reverse Cycle |
| | Heat Exchanger Type | Plate fin coil | |
| | Sound Pressure Level, Cooling ¹ | dB(A) | 51 |
| | Sound Pressure Level, Heating ² | dB(A) | 55 |
| | Compressor Type | DC INVERTER-driven Twin Rotary | |
| | Compressor Model | SNB220FQGMC | |
| | Compressor Rated Load Amps | A | 12 |
| | Compressor Locked Rotor Amps | A | 13.7 |
| Outdoor unit | Compressor Oil Type // Charge | OZ. | FV50S // 23.7 |
| | Base Pan Heater | -2. | Optional 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 [02] |
| | 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 |
| <u> </u> | Heating Thermal Lock-out / Re-start Temperatures | °FDB | 1.4 / 5 |
| | Charge | Lbs, oz | 6.0, 13.0 |
| | | | |
| Refrigerant | Chargeless Dining Length | | |
| Refrigerant | Chargeless Piping Length Additional Refrigerant Charge Per Additional Piping Length | Ft. [m] oz./Ft. [g/m] | 98.0 [30.0] 0.216 [20] |

Conditions

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)

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.

^{&#}x27;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

SPECIFICATIONS: MXZ-3C24NA3

| Indoor unit connection | Maximum Number of Connected IDU | 3 | |
|------------------------|--|---------|--|
| | Minimum Number of Connected IDU | 2 | |
| | Minimum connected capacity | BTU/H | 12,000 |
| | Maximum connected capacity | BTU/H | 27,000 |
| | 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] |
| Piping | 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.

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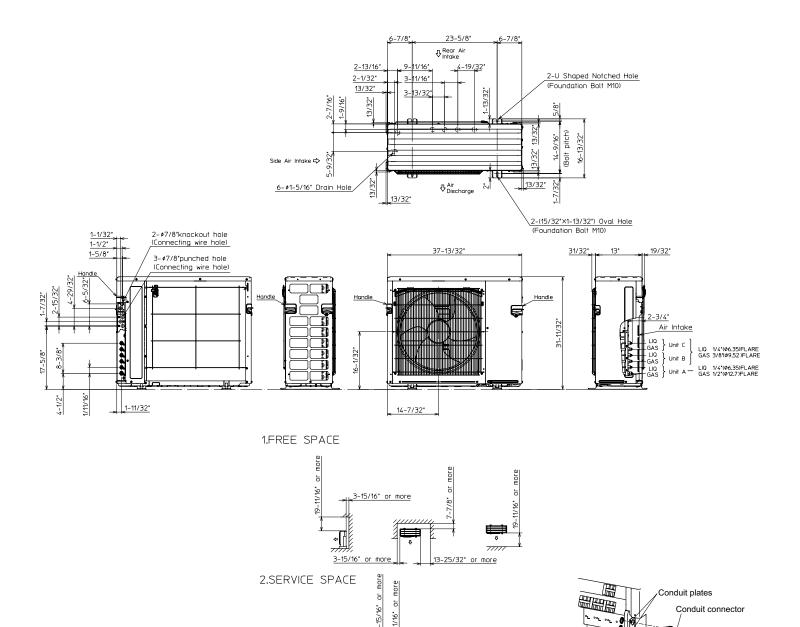
Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions. A 5°F DB - 115°F DB when optional wind baffles are installed

OUTDOOR UNIT ACCESSORIES: MXZ-3C24NA3

| 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 |
| Control Wire | M-Net Control Wire, 1,000' Roll (16-AWG, Standard, Twisted Pair, Shielded, Jacketed- Plenum rated) | CW162S-1000 |
| | M-Net Control Wire, 250' Roll (16-AWG, Standard, Twisted Pair, Shielded, Jacketed- Plenum rated) | CW162S-250 |
| Drain Socket | Drain Socket | PAC-SG60DS-E |
| Hail Guards | Hail Guard | HG-A9 |
| M-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 |
| Mari Calla Willia | 14 Gauge, 4 wire MiniSplit Cable—50 ft. roll | SW144-50 |
| Mini-Split 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 |
| Marratina Dad | Condensing Unit Mounting Pad: 16" x 36" x 3" | ULTRILITE1 |
| Mounting Pad | Outdoor Unit 3-1/4 inch Mounting Base (Pair) - Plastic | DSD-400P |
| Optional Defrost Heater | Optional Defrost Heater | PAC-645BH-E |
| | Adaptor: 1/2" x 3/8" | MAC-A455JP-E |
| | Adaptor: 1/2" x 5/8" | MAC-A456JP-E |
| Port Adapter | 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-3C24NA3

Unit: inch (mm)



19-11/16*

SERVICE SPACE 13-25/32" or more

3-15/16* or more

13-25/32* or more

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





Conduit connector

Specifications are subject to change without notice.

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 ^{1, 3} | | Btu/h | 9,000 |
|---|-------------------------------------|-------------|-------------------------|
| Heating Capacity ^{2, 3} | | 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 Le | evel (Cooling) ¹ | dB(A) | 31-28-25 |
| Sound Pressure Level (Heating) ² | | 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 Ty | /ре | | Plate fin coil |
| External Finish Col | lor | | Munsell 1.0Y 9.2/0.2 |
| | | W: In. (mm) | 22-7/16 (570) |
| Unit Dimensions | | D: In. (mm) | 22-7/16 (570) |
| | | H: In. (mm) | 9-21/32 (245) |
| | | W: In. (mm) | 24-13/32 (620) |
| Package Unit Dime | imensions D: In. (r | | 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) |
| Pefrigerant | Туре | | R410A |
| Refrigerant Charge | | Lbs, oz | 2, 5 |
| Pining | Gas Pipe Size O.D. (Flared) | In.(mm) | 3/8 (9.52) |
| Piping | Liquid Pipe Size O.D. (Flared) | In.(mm) | 1/4 (6.35) |

Notes:

| Nominal Conditions | ¹ Cooling (Indoor // Outdoor) | °F | 80 DB, 67 WB // 95 DB, 75 WB | |
|--|--|----|------------------------------|--|
| | ² Heating at 47°F (Indoor // Outdoor) | °F | 70 DB, 60 WB // 47 DB, 43 WB | |
| 3Conscitutories based on the number of indeer units exercting and the model of the Multi-zero Outdoor Unit-Zer reference to connected conscitu | | | | |

³Capacity 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.

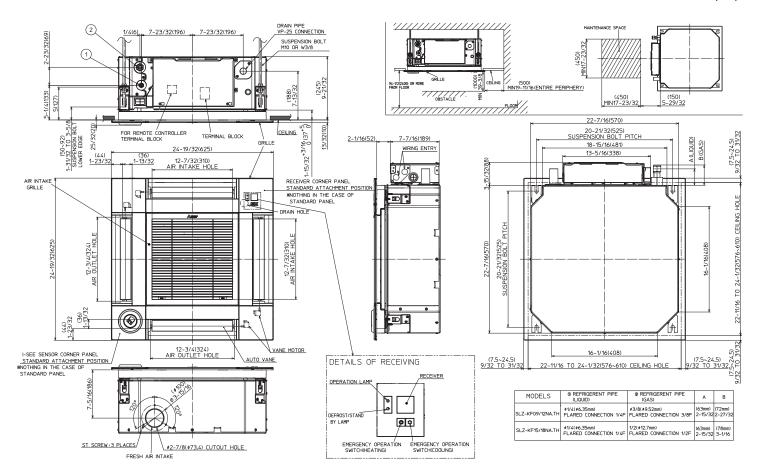
ACCESSORIES: SLZ-KF09NA

| 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 [®] | □ 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 ¹ | □ 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 |

¹ 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