

M-SERIES SINGLE ZONE SYSTEMS

MFZ FLOOR-MOUNT HEAT PUMP SYSTEMS

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Due to continuing improvement, above specification may be subject to change without notice.

1. INDOOR UNITS

- MFZ-KA09NA*
- MFZ-KA12NA*
- MFZ-KA18NA*

*NOTE: The indoor units can be used exclusively with the MXZ multi-zone heat pump systems.

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2. OUTDOOR UNITS

- MXZ-2B20NA-1*
- MXZ-3B24NA-1*
- MXZ-3B30NA-1*
- MXZ-4B36NA-1*
- MXZ-5B42NA*
- MXZ-8B48NA**

***NOTE:**

*MXZ-2B20-1/MXZ-3B24-1/MXZ-3B30-1/MXZ-4B36-1/MXZ-5B42NA multi-zone heat pump systems can use any M-Series heat pump indoor unit along with the P-Series indoor units PLA-A24BA4, PCA-A24AA4, and PEAD-A24AA4.

**MXZ-8B48NA multi-zone heat pump systems can use any M-Series heat pump indoor unit along with the P-Series indoor units PLA-A12/18/24BA4, and PEAD-A24AA4.

3. SYSTEM

- Floor-mounted unit
- Standard Hybrid Catechin Prefilter and anti-allergy enzyme filter for high air-purification abilities
- Quiet operation
- Auto fan speed control: Low, Medium, High, and Super High
- Remote-controlled wide airflow enables ideal horizontal air distribution
- Indoor unit powered from outdoor unit using A-control
- Self-check function -- onboard diagnostics
- Advanced microprocessor control
- Auto restart following a power outage
- Hand-held Wireless Remote Controller
- Anti-allergy Enzyme Filter
- Limited warranty: five years parts and seven years compressor

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3-1. SPECIFICATIONS

MFZ-KA09NA MFZ-KA12NA MFZ-KA18NA

Indoor model			MFZ-KA09NA	MFZ-KA12NA	MFZ-KA18NA
Power supply	V, phase, Hz		208/230, 1, 60		
Max. fuse size (time delay)/ Disconnect switch	A		15		
Airflow Super High - High - Med. - Low - Quiet	COOL Dry (Wet)	CFM	314-251-205-169 (303-241-197-163)	321-261-215-177 (309-252-207-170)	394-325-279-251 (379-313-269-241)
	HEAT Dry	CFM	332-219-198-177	335-219-201-184	434-297-275-261
Sound level Super High - High - Med. - Low - Quiet	Cooling	dB(A)	40-35-30-25	41-36-31-26	46-42-38-35
	Heating	dB(A)		41-36-31-28	47-42-38-35
Cond. drain connection O.D.		in.	5/8		
Dimensions	W	in.	27-9/16		
	D		7-7/8		
	H		23-5/8		
Weight		lb.	32		
External finish			White		
Control voltage (by built-in transformer)			12 - 24 VDC		
Refrigerant			R410A		
Sound level Super High - High - Med. - Low - Quiet	Gas Side O.D.	in.	3/8		1/2
	Liquid Side O.D.	in.	1/4		
Connection Method		Indoor/Outdoor	Flared/Flared		

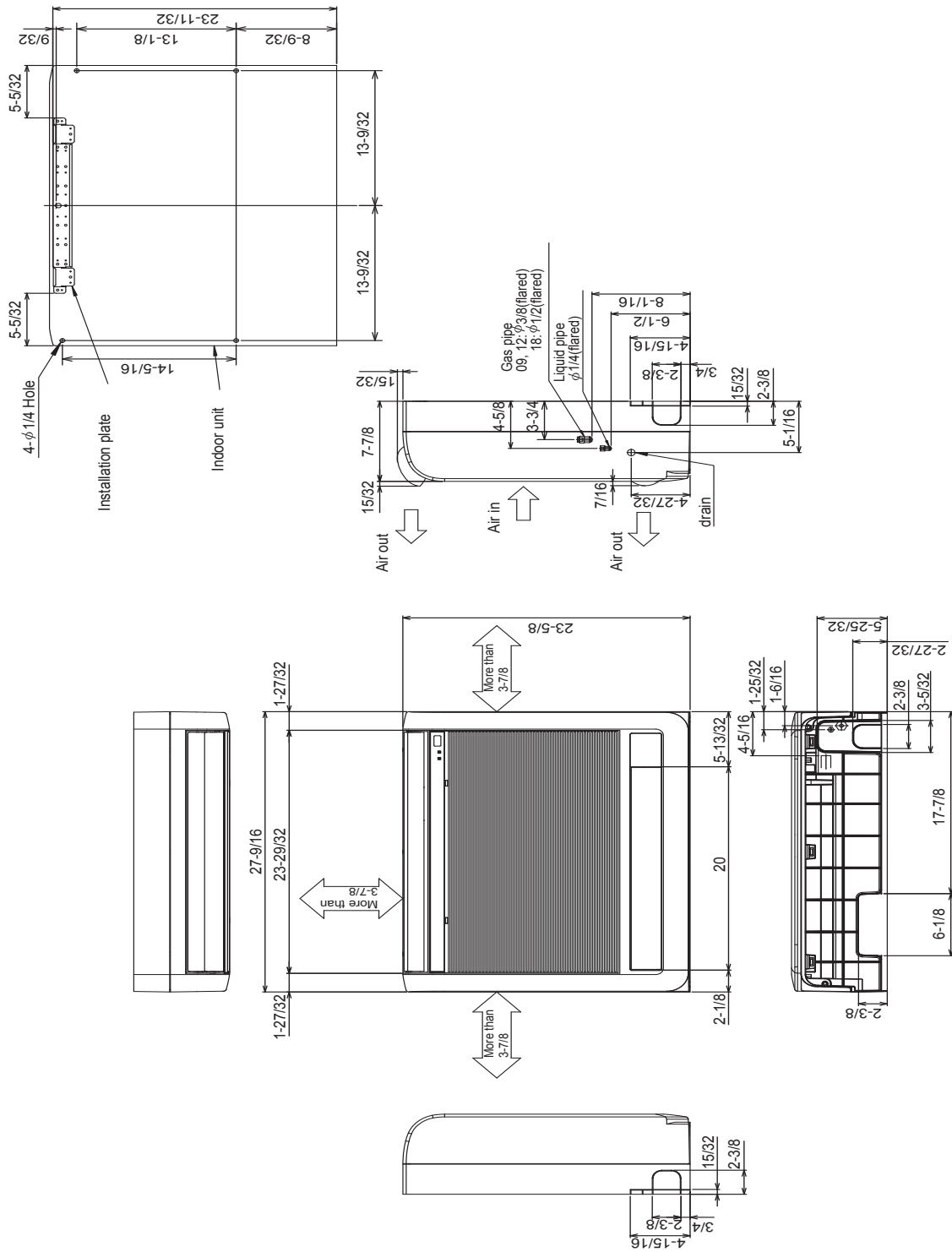
NOTE: Test conditions are based on AHRI 210/240.

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3-2. EXTERNAL DIMENSIONS

MFZ-KA09NA MFZ-KA12NA MFZ-KA18NA

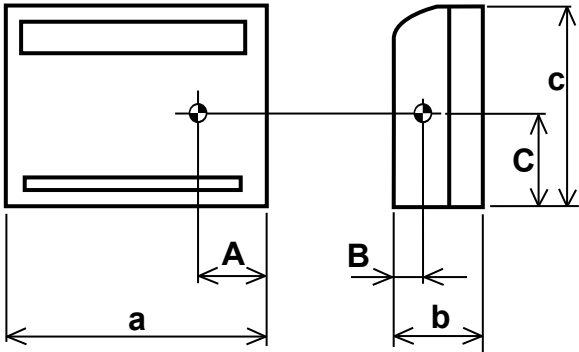
Unit: inch



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3-3. CENTER OF GRAVITY

MFZ-KA09NA MFZ-KA12NA MFZ-KA18NA



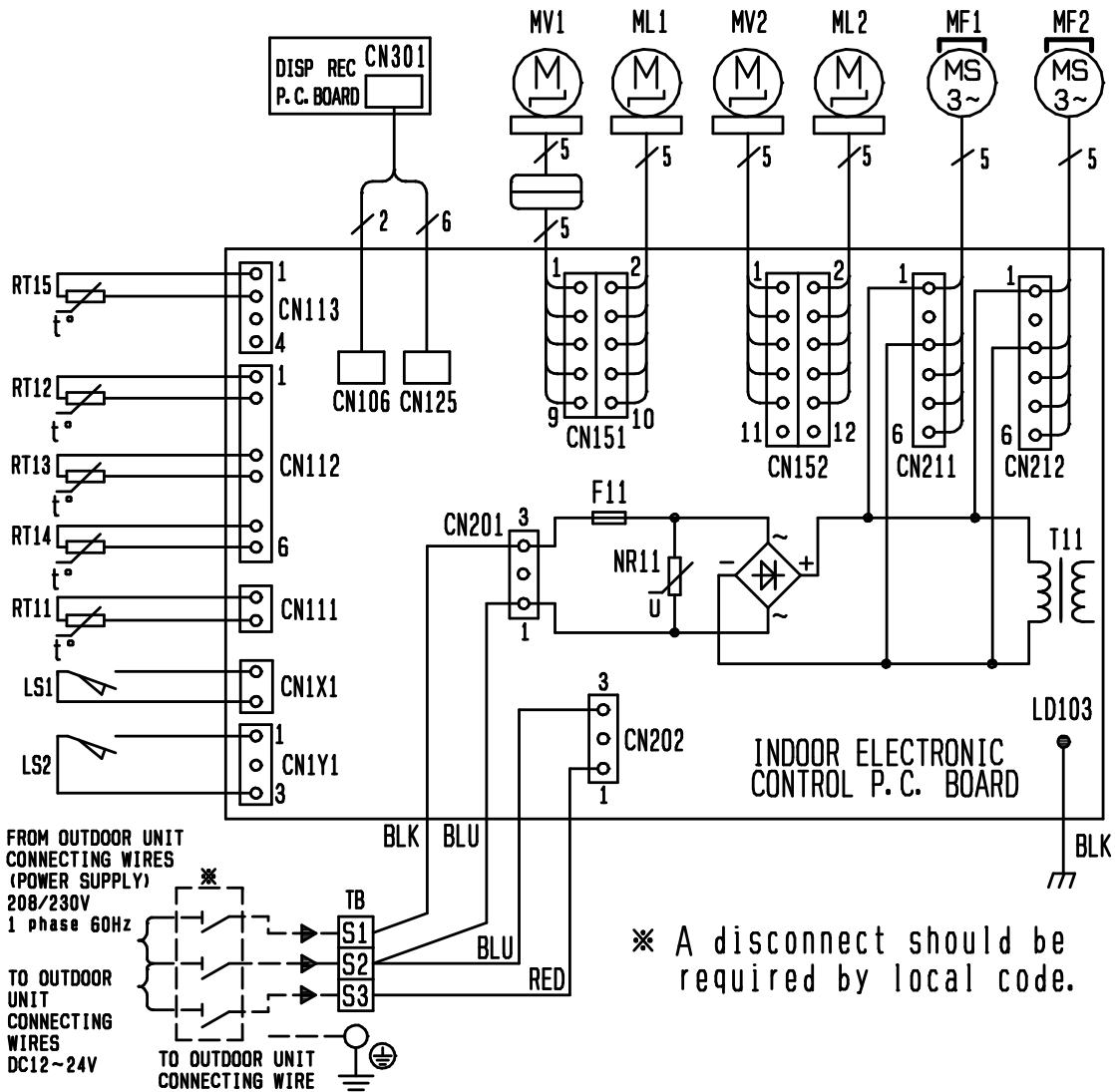
Unit: inch (mm)

Model name	A	B	C	a	b	c
MFZ-KA09NA	12-1/16	3-3/8	13	27-9/16	7-7/8	23-5/8
MFZ-KA12NA	(305)	(85)	(330)	(700)	(200)	(600)
MFZ-KA18NA						

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3-4. ELECTRICAL WIRING DIAGRAMS

MFZ-KA09NA MFZ-KA12NA MFZ-KA18NA



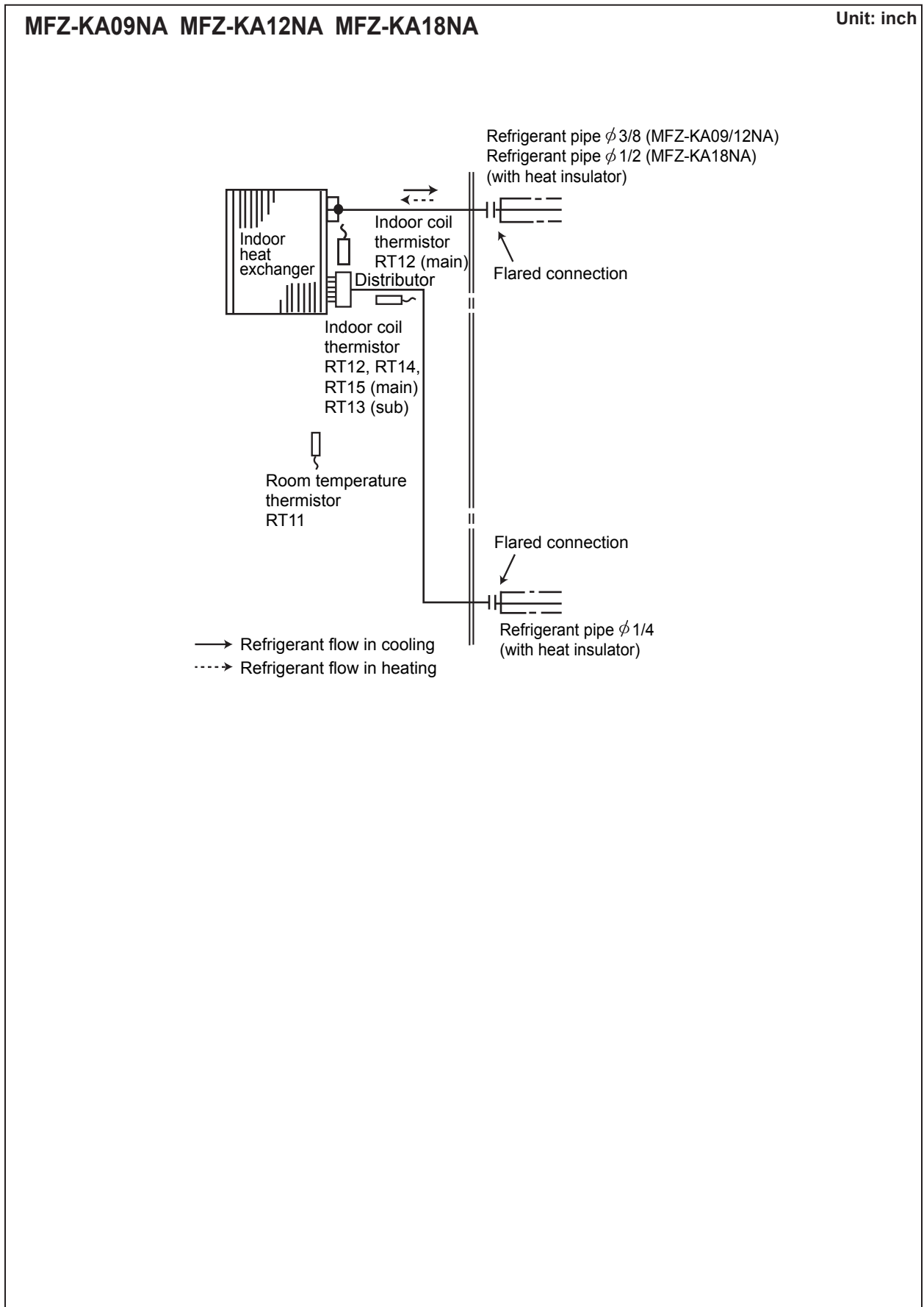
SYMBOL	NAME	SYMBOL	NAME
MF1	UPPER FAN MOTOR	RT11	ROOM TEMP. THERMISTOR
MF2	LOWER FAN MOTOR	RT12	COIL TEMP. THERMISTOR (MAIN1)
MV1	HORIZONTAL VANE MOTOR	RT13	COIL TEMP. THERMISTOR (SUB)
MV2	DAMPER MOTOR	RT14	COIL TEMP. THERMISTOR (MAIN2)
ML1	DAMPER LOCK MOTOR (RIGHT)	RT15	COIL TEMP. THERMISTOR (MAIN3)
ML2	DAMPER LOCK MOTOR (LEFT)	DB111	DIODE STACK
LS1	DAMPER LIMIT SWITCH (OPEN)	NR11	VARISTOR
LS2	DAMPER LIMIT SWITCH (CLOSE)	T11	TRANSFORMER
F11	FUSE (T3. 15A/250V)		

NOTES:

- About the outdoor side electric wiring refer to the outdoor unit electric wiring diagram for servicing.
- Use copper conductors only. (For field wiring)
- Symbols below indicate.
 - : Terminal block
 - : Connector

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3-5. REFRIGERANT SYSTEM DIAGRAMS



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3-6. AIR FLOW DATA

MFZ-KA09NA MFZ-KA12NA MFZ-KA18NA

**DUE TO CONTINUING RESEARCH AND PRODUCT IMPROVEMENT,
SPECIFICATIONS AND DATA ARE STILL UNDER REVIEW**

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3-7. SOUND PRESSURE LEVELS

MFZ-KA09NA MFZ-KA12NA MFZ-KA18NA

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3-8. STANDARD OPERATION RANGE

OPERATING RANGE

(1) POWER SUPPLY

	Rated voltage	Guaranteed voltage (V)
Indoor unit	208/230 V 1 phase 60 Hz	Min. 198 208 230 Max. 253

(2) OPERATION

Mode	Condition	Intake air temperature (°F)			
		Indoor		Outdoor	
		DB	WB	DB	WB
Cooling	Standard temperature	80	67	95	—
	Maximum temperature	90	73	115	—
	Minimum temperature	67	57	14	—
	Maximum humidity	78%		—	
Heating	Standard temperature	70	60	47	43
	Maximum temperature	80	67	75	65
	Minimum temperature	70	60	6	5

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3-9. ACCESSORIES

(1) Indoor Unit

Part Number	Descriptions	Applicable model
C13-103	Blue Diamond Sensor Extension Cable - 15 Ft.	All Models
DPLS1	Drain Pan Level Sensor/Control for indoor unit shut off to prevent Drain Pan Overflow	
MAC-333IF-E	System Control Interface - MA, Contact terminal, and M-NET Control Adapter, Supplemental heat and humidifier adaptor	
MAC-415FT-E	Anti-Allergy Enzyme Filter	KA09,12,18
MCCH1	Portable Central Controller (PCC) - controls up to 16 RedLINK Zones - requires an MHK1 on each indoor unit	All Models
MHK1	Wireless wall-mounted remote controller (MRCH1) with a signal receiver (MIFH1) and cable (MRC1) all in one kit	
MOS1	Outdoor Air Sensor - reads both outside temperature and humidity displayed on MRCH1 and MCCH1 if installed	
PAC-YT53CRAU	Simple MA Remote Controller (requires MAC-333IF-E interface for MSY/Z and MFZ indoor units)	
PAR-31MAA	Wall mounted, hard wired, multi-functional controller: used specifically for grouping (up to 16 units), twinning, lead/lag, and 7 day programmable applications (requires MAC-333IF-E interface for MSY/Z and MFZ indoor units)	
RCMKP1CB	Lockdown Bracket for wireless, hand-held, remote controllers	
SI30-115	Mini-Condensation pump - 115 volt application	
SI30-230	Mini-Condensation pump - 230 volt application	
TAZ-MS303	3-Pole Disconnect Switch 30 Amps 600 volts rated for interrupting power supply at/near indoor unit - fits 2 X 4 utility box	
X87-721	Advanced Blue Diamond Mini-Condensation pump w/ Reservoir & Sensor - 208/230 volt application	

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3-9. ACCESSORIES

(1) Indoor Unit cont.

Part Number	Descriptions	Applicable model
MLS143812T-15		KA09,12
MLS143812T-30		
MLS143812T-50		
MLS143812T-65		
MPLS385812T-10	Diamondback Linesets	KA18
MPLS385812T-15		
MPLS385812T-30		
MPLS385812T-50		
MPLS385812T-65		
MPLS385812T-100		

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3-9. ACCESSORIES

(2) Outdoor Unit

Part Number	Descriptions	Applicable model
BV12FFSI2	Refrigeration Ball Valve-Flare/Schrader/Insulated - 1/2" size	All MXZ Outdoor Models and branch boxes
BV14FFSI2	Refrigeration Ball Valve-Flare/Schrader/Insulated - 1/4" size	
BV38FFSI2	Refrigeration Ball Valve-Flare/Schrader/Insulated - 3/8" size	
BV58FFSI2	Refrigeration Ball Valve-Flare/Schrader/Insulated - 5/8" size	
CWMB1	4 piece (1 pair) condensing unit wall mounting brackets - painted steel	All MXZ Outdoor Models
DSD-400P	Outdoor Unit 3-1/4 inch Mounting Base (Pair) - Plastic	
MAC-856SG	Outdoor air outlet guide for directing discharge air away from other outdoor unit	
MAC-A454JP-E	Port Adapter size: 3/8" X 1/2"	All MXZ Outdoor Models and branch boxes
MAC-A455JP-E	Port Adapter size: 1/2" X 3/8"	
MAC-A456JP-E	Port Adapter size: 1/2" X 5/8"	
MSDD-50AR-E	Flared Connections for connecting two branch boxes	8B48
MSDD-50BR-E	Brazed Connections for connecting two branch boxes	
PAC-493PI	Port Adapter size: 1/4" x 3/8"	3B30,4B36

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3-9. ACCESSORIES

(2) OUTDOOR UNIT cont.

Part Number	Descriptions	Applicable model
PAC-AKA31BC	Three Port Branch Box	8B48
PAC-AKA51BC	Five Port Branch Box	
PAC-SG59SG-E	Outdoor air outlet guide for directing discharge air away from other outdoor unit	8B48 (requires 2)
PAC-SG64DP-E	External drain pan used for stacking Outdoor Units. Prevents drain water from dripping on the lower units	8B48
PAC-SG76RJ-E	Port Adapter size: 3/8" x 5/8"	3B30,4B36,8B48
ULTRILITE1	Condensing Unit Mounting Pad 16" x 36" x 3"	2B20,3B30,4B36
ULTRILITE2	Condensing Unit Mounting Pad 24" x 42" x 3"	8B48

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