

MSY-D COOLING ONLY WALL-MOUNT AIR SYSTEMS

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1. INDOOR UNITS

- MSY-D30NA-8
- MSY-D36NA-8

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

2. OUTDOOR UNITS

- MUY-D30NA-1
- MUY-D36NA-1

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3-1. SPECIFICATIONS

- Wall-mounted indoor unit
- Standard Hybrid Catechin Prefilter and anti-allergy enzyme filter for high air-purification abilities
- Updated sleek, compact indoor unit design
- Auto fan speed control: Quiet, Low, Medium, High, and Super High
- Hand-held Wireless Remote Controller
- Advanced microprocessor control
- Auto restart following a power outage
- Anti-allergy Enzyme Filter
- Limited warranty: five years on parts and defects and seven years on the compressor

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3-1. SPECIFICATIONS

MSY-D30NA-8 MSY-D36NA-8

Model name			MSY-D30NA-8	MSY-D36NA-8
Power supply		V, phase, Hz	208/230 , 1 , 60	
Max. fuse size (time delay)/ Disconnect switch		A	15	
Min. circuit ampacity		A	1.0	
Blower Motor (ECM)		F.L.A	0.76	
Airflow Low - Med. - High - Powerful	COOL Dry (Wet)	CFM	389 - 639 - 848 - 887 (350 - 576 -763 - 798)	
	HEAT Dry		445 - 639 - 848 - 887	—
Moisture removal		pt./h	9.9	11.9
Sensible Heat Factor			0.64	0.62
Sound level Low - Med. - High - Powerful	Cooling	dB(A)	32 - 42 - 49 -51	
	Heating		34 - 42 - 49 - 50	—
Cond. drain connection O.D.		in.	5/8	
Dimensions	W	in.	46-1/16	
	D		11-5/8	
	H		14-3/8	
Weight		lb.	40	
External finish			Munsell 1.0Y 9.2/0.2	
Remote controller			Wireless type	
Control voltage (by built-in transformer)			12-24 VDC	

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

3-1. SPECIFICATIONS

MUY-D30NA-1 MUY-D36NA-1

Item		Model name		MSY-D30NA-8	MSY-D36NA-8
Capacity Rated (Minimum ~ Maximum)	Cooling ※1	Btu/h		30,700 (9,800 ~ 30,700)	33,200/34,600 (9,800 ~ 33,200) / (9,800 ~ 34,600)
Power consumption Rated (Minimum ~ Maximum) (TOTAL)	Cooling ※1	W		3,380 (620 ~ 3,380)	4,210/4,240 (620 ~ 4,210) / (620 ~ 4,240)
EER ※1 [SEER] ※3	Cooling			9.1 [16.0]	7.9/8.2 [15.1]
Outdoor unit model				MUY-D30NA-1	MUY-D36NA-1
Power supply			V , phase , Hz	208/230 , 1 , 60	
Max. fuse size (time delay)		A		25	
Min. circuit ampacity		A		21	
Fan Motor (ECM)		F.L.A		0.93	
Compressor	Model			TNB220FMCHT	
	R.L.A			16	
	L.R.A			20	
	Refrigeration oil	cc		870 (NEO22)	
Refrigerant control				Linear expansion valve	
Sound level ※1	Cooling	dB(A)		55	56
	Heating			—	—
Defrost method				—	—
Dimensions	W	in.		33-1/16	
	D			13	
	H			33-7/16	
Weight		lb.		126	126
External finish				Munsell 3Y 7.8/1.1	
Remote controller				Wireless type	
Control voltage (by built-in transformer)				12 - 24 VDC	
Refrigerant piping				Not supplied	
Refrigerant pipe size (Min. wall thickness)	Liquid	in.		3/8 (0.0315)	
	Gas			5/8 (0.0394)	
Connection method	Indoor			Flared	
	Outdoor				
Between the indoor & outdoor units	Height difference		ft.	50	
	Piping length			100	
Refrigerant charge (R410A)				4 lb.	4 lb.

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

※1: Rating conditions (Cooling) — Indoor: 80°FDB, 67°FWB, Outdoor: 95°FDB, (75°FWB) Rated frequency
(Heating) — Indoor: 70°FDB, 60°FWB, Outdoor: 47°FDB, 43°FWB Rated frequency

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3-1. SPECIFICATIONS

EFFICIENCY RATINGS

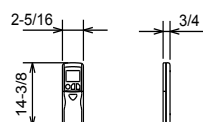
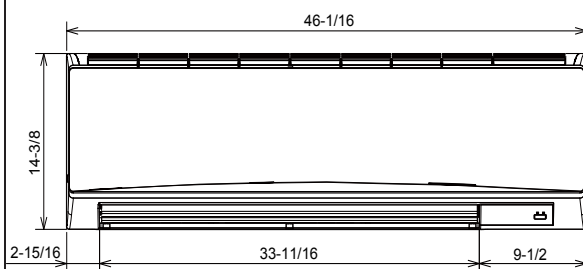
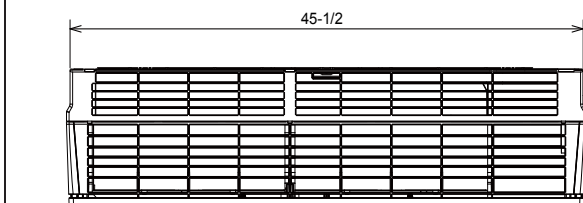
Outdoor Unit	Indoor Unit	SEER	EER
WALL-MOUNT COOLING ONLY			
MUY-D30NA	MSY-D30NA	16	9.1
MUY-D36NA	MSY-D36NA	15.1	8.2
Note:	Efficiency values based on AHRI 210/240 test method.		

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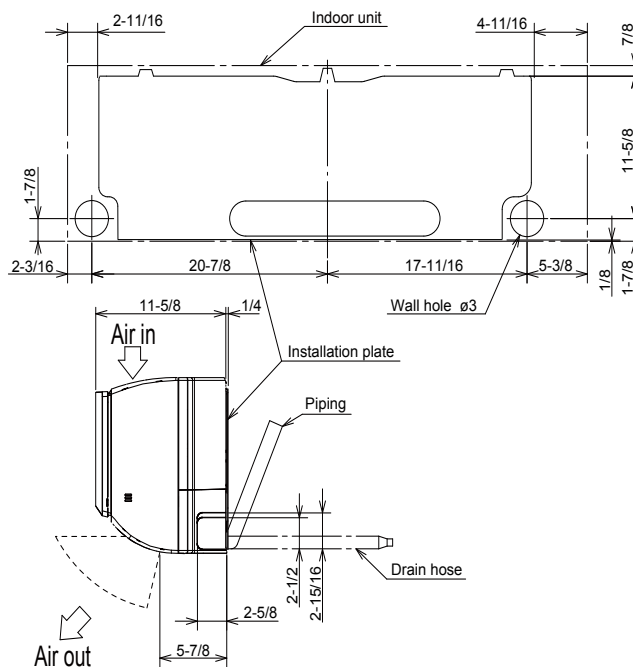
3-2. EXTERNAL DIMENSIONS

MSY-D30NA-8 MSY-D36NA-8

Unit: inch

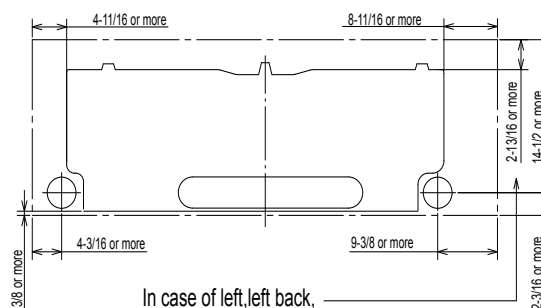


Wireless remote controller



	Piping	Insulation
Liquid line	ø3/8 19-11/16 (Flared connection ø3/8)	ø1-1/4 O.D. ø9/16 I.D
Gas line	ø5/8 16-7/8 (Joint connection ø5/8)	ø1-15/16 O.D. ø1-1/4 I.D
Joint	ø5/8 (Flared connection ø5/8)	ø1-15/16 O.D. ø1-1/4 I.D
Drain hose	Insulation ø1-1/8 Connected part ø9/16 O.D	

Required Space (Indoor Unit)



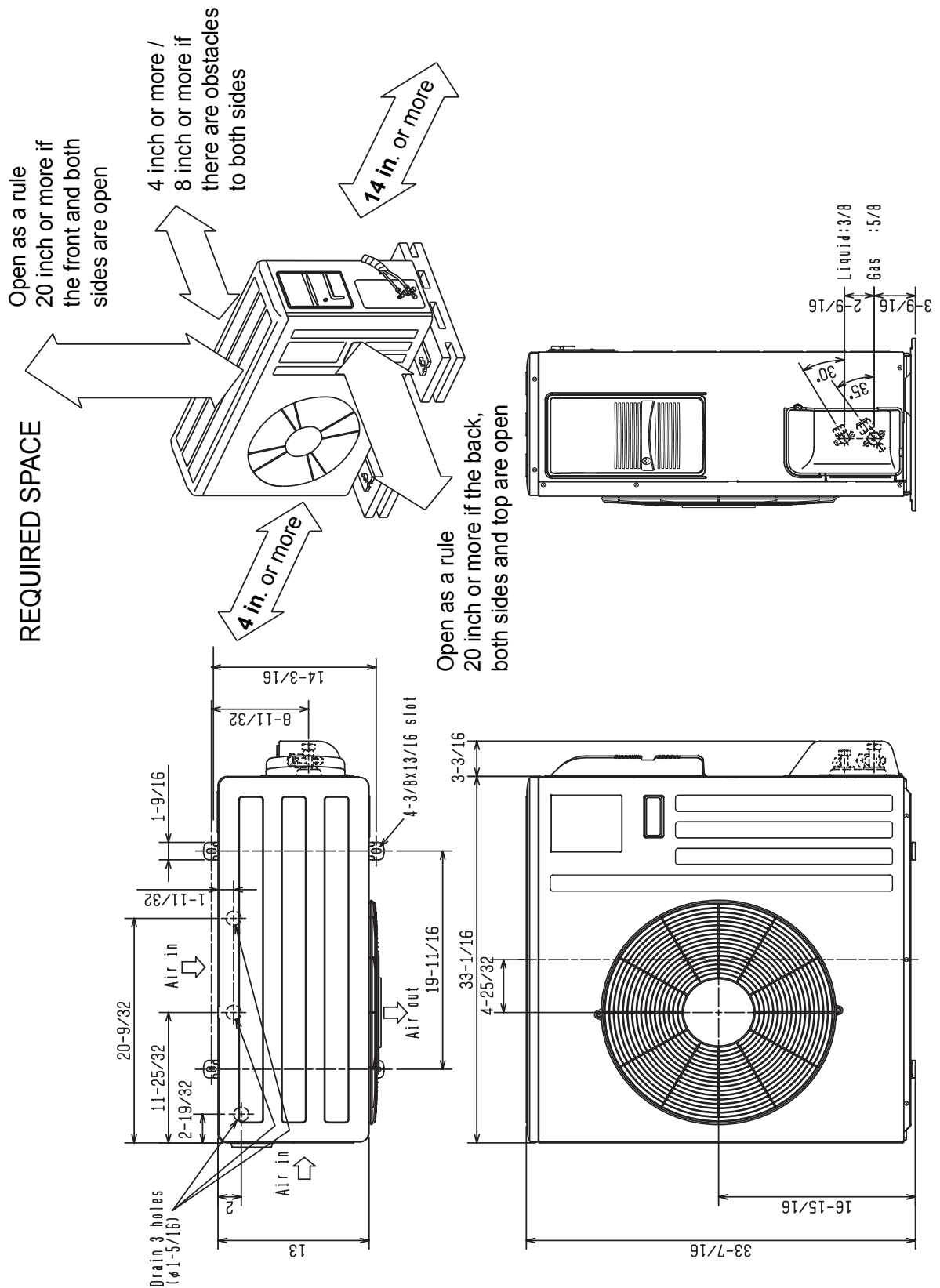
In case of left, left back, _____
or left under piping (using spacer) 5-1/8 or more

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3-2. EXTERNAL DIMENSIONS

MUY-D30NA-1 MUY-D36NA-1

Unit: inch

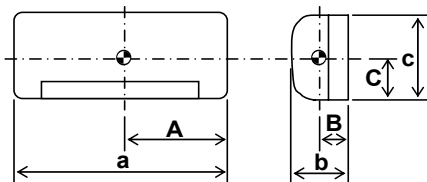


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3-3. CENTER OF GRAVITY

MSY-D30NA-8 MSY-D36NA-8

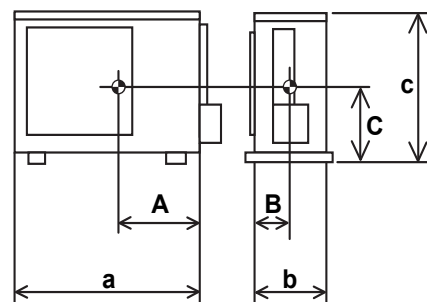
Unit: inch(mm)



Model name	A	B	C	a	b	c
MSY-D30NA-8 MSY-D36NA-8	18-1/8 (460)	7-1/2 (190)	7-1/2 (190)	46-1/16 (1170)	11-5/8 (295)	14-3/8 (365)

MUY-D30NA-1 MUY-D36NA-1

Unit: inch(mm)



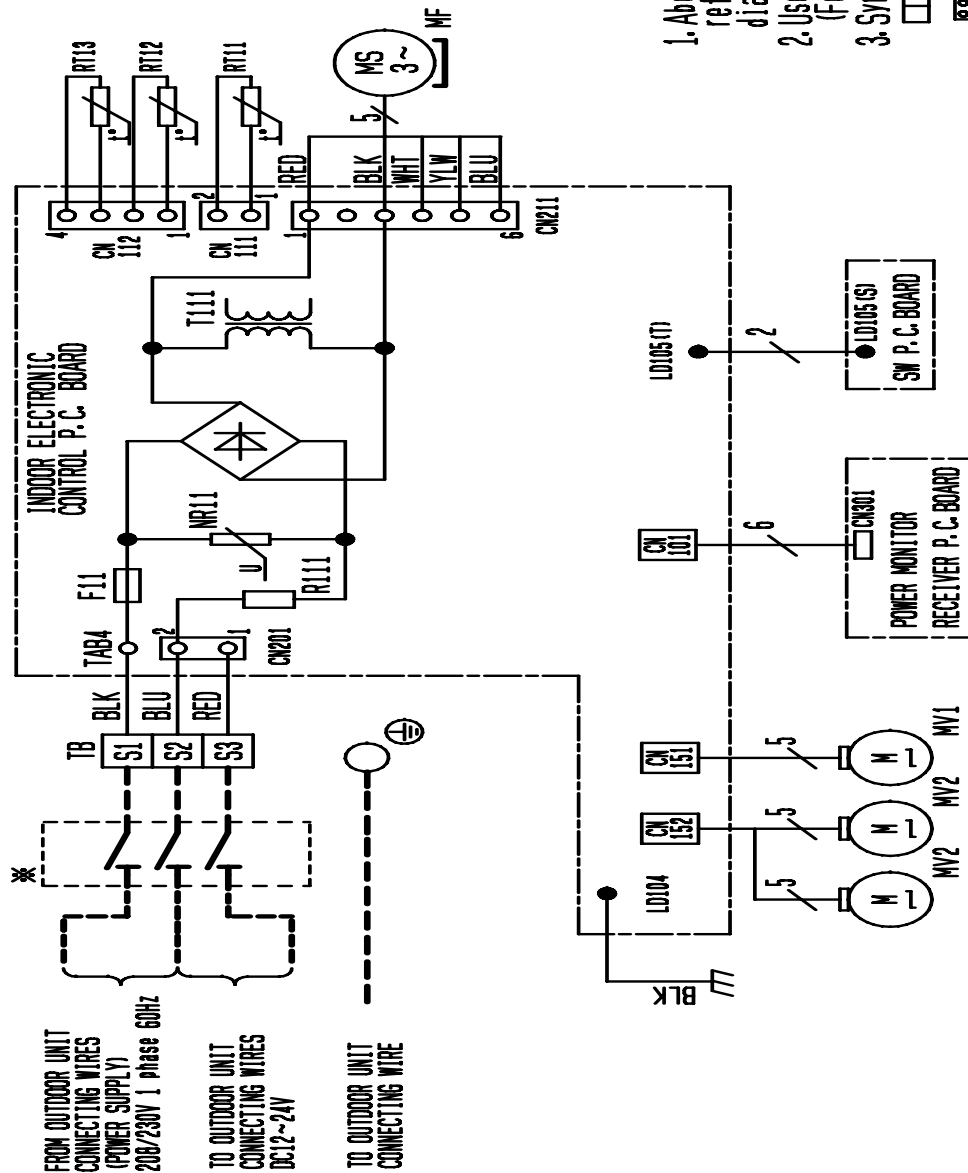
Model name	A	B	C	a	b	c
MUY-D30NA-1 MUY-D36NA-1	11-13/16 (300)	5-7/8 (150)	13-3/8 (340)	33-1/16 (840)	13 (330)	33-7/16 (850)

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3-4. ELECTRICAL WIRING DIAGRAMS

MSY-D30NA-8 MUY-D36NA-8

SYMBOL	NAME	SYMBOL	NAME
F11	FUSE (73.15A/250V)	R111	RESISTOR
MF	FAN MOTOR	RT11	ROOM TEMP. THERMISTOR
MV1	VANE MOTOR (HORIZONTAL)	RT12	COIL TEMP. THERMISTOR (MAIN)
MV2	VANE MOTOR (VERTICAL)	RT13	COIL TEMP. THERMISTOR (SUB)
NR11	VARISTOR	T111	TRANSFORMER
		TB	TERMINAL BLOCK

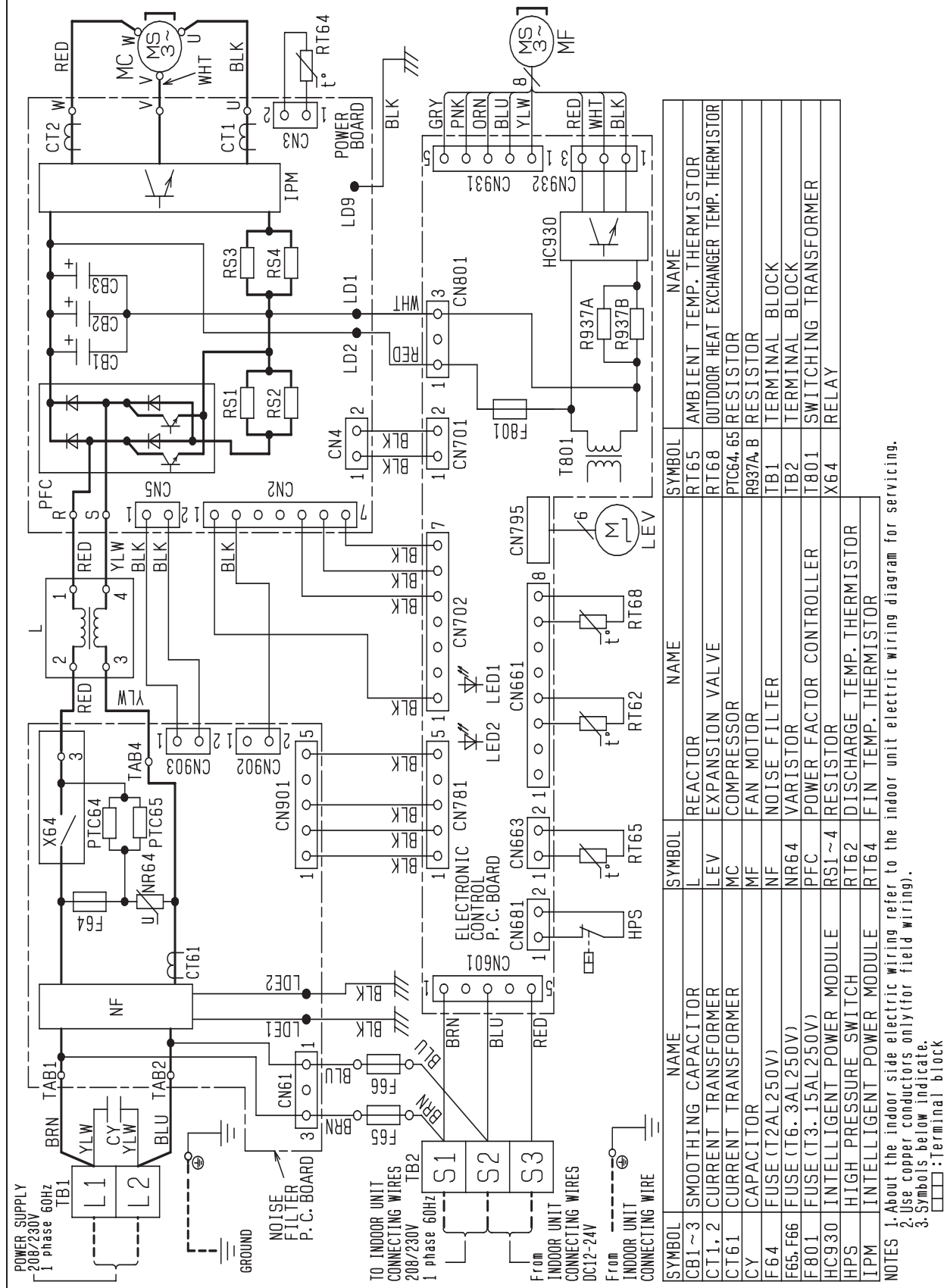


1. About the outdoor side electric wiring refer to the outdoor unit electric wiring diagram for servicing.
2. Use copper conductors only.
(For field wiring)
3. Symbols below indicate.
□ : Terminal block
⊞ : Connector

※ A disconnect should be required by local code.

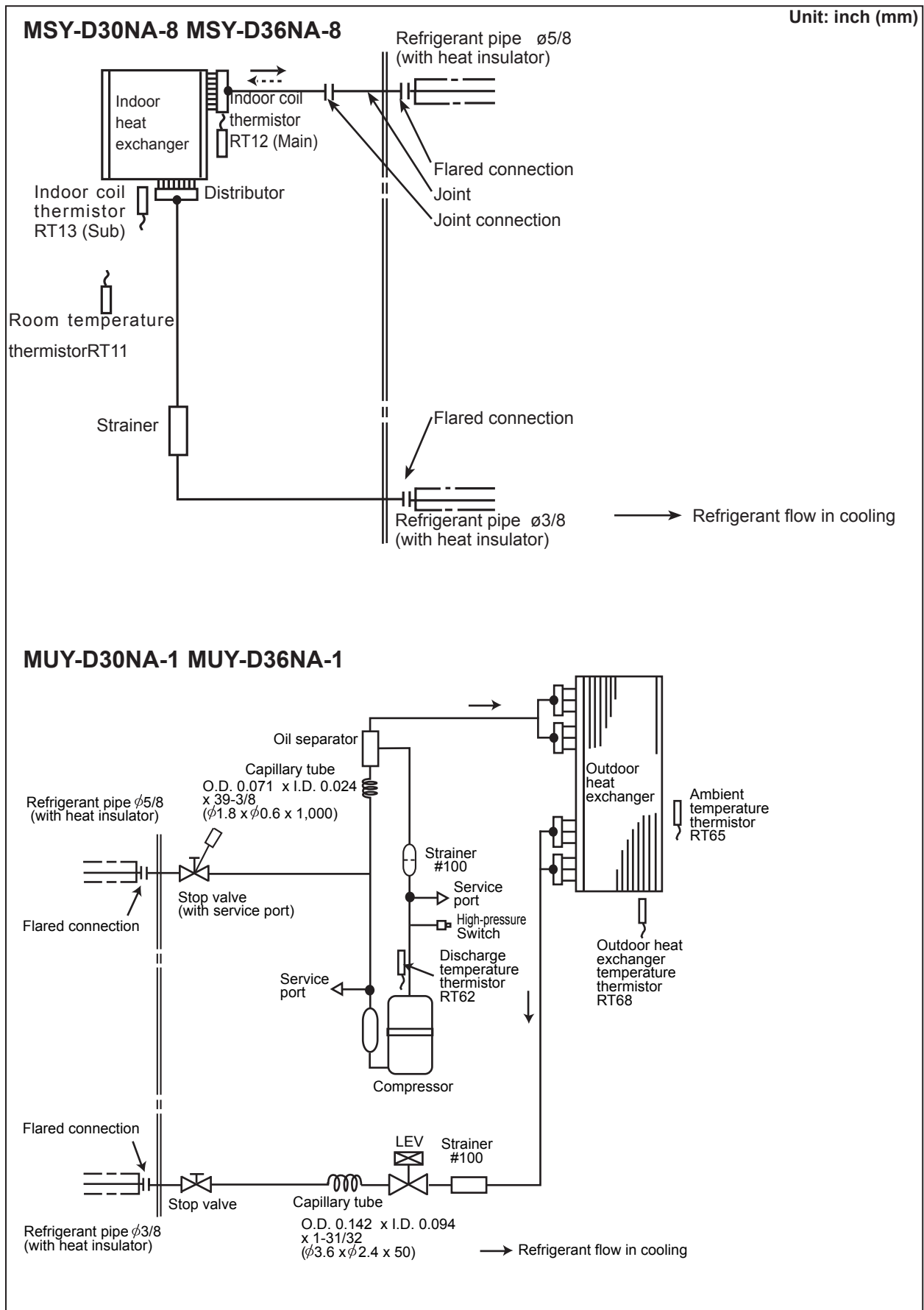
3-4. ELECTRICAL WIRING DIAGRAMS

MUY-D30NA-1 MUY-D36NA-1



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3-5. REFRIGERANT SYSTEM DIAGRAMS



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3-6. CAPACITY CORRECTION CURVE BY TEMPERATURE

**DUE TO CONTINUES RESEARCH AND PRODUCT IMPROVEMENT
DATA ARE STILL UNDER REVIEW**

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3-7. CAPACITY CORRECTION TABLE BY TEMPERATURE

(1) M-SERIES COOLING CORRECTION

	70	77	81	86	95	104	115
60	1.11	1.06	1.01	0.97	0.91	0.83	0.76
63	1.16	1.10	1.06	1.02	0.96	0.88	0.81
64	1.18	1.13	1.08	1.04	0.98	0.90	0.83
68	1.23	1.18	1.14	1.10	1.03	0.96	0.89
72	1.28	1.23	1.20	1.15	1.09	1.02	0.95
75	1.34	1.29	1.26	1.22	1.15	1.08	1.02
79	1.38	1.34	1.32	1.28	1.21	1.14	1.07

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3-8. CAPACITY CORRECTION CURVE BY REFRIGERANT PIPING LENGTH

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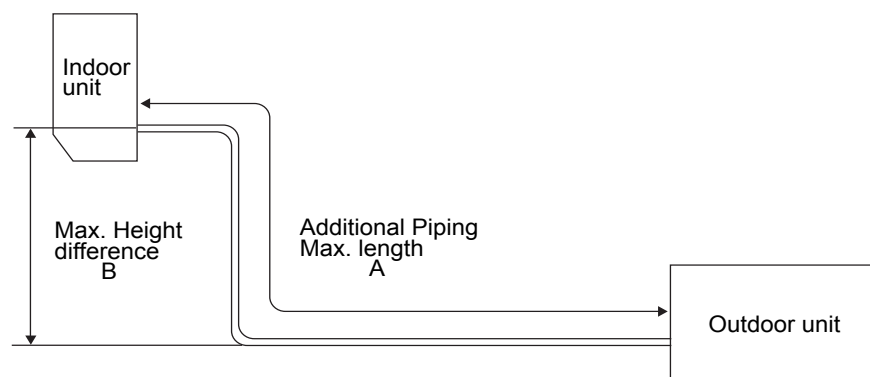
3-9. CAPACITY CORRECTION TABLE BY REFRIGERANT PIPING LENGTH

(1) Cooling capacity correction

Refrigerant piping length (one way: ft.)				
	25 (std.)	40	65	100
MUY-D30NA-1 MUY-D36NA-1	1.0	0.95	0.878	0.713

(2) Maximum refrigerant piping length & maximum height difference

Model	Refrigerant piping: ft		Piping size: in.			
	Additional piping Max. length A	Additional piping Max. height B	Gas		Liquid	
			Outside diameter	Minimum Wall thickness	Outside diameter	Minimum Wall thickness
MUY-D30NA-1 MUY-D36NA-1	100	50	5/8	3/8	ϕ1/4	0.0315



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3-10. CHARGE CALCULATIONS

(1) ADDITIONAL REFRIGERANT CHARGE (R410A: oz.)

NOTE: Refrigerant piping exceeding 25 ft. requires additional refrigerant charge according to the calculation.

Model	Outdoor unit precharged	Refrigerant piping length (one way): ft.								
		25ft	30ft	40ft	50ft	60ft	70ft	80ft	90ft	100ft
MUY-D30NA-1 MUY-D36NA-1	4 lb.	0	1.08	3.24	5.40	7.56	9.72	11.88	14.04	16.20

NOTE: Calculation: X oz. = 1.08/5 oz./ft × (Refrigerant piping length (ft) - 25)

3-11. AIR FLOW DATA

OUTLET AIR SPEED AND COVERAGE

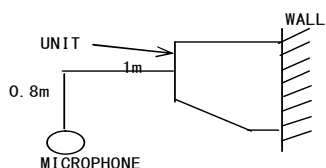
Model name	Mode	Function	Airflow (CFM)	Air speed (ft./s.)	Coverage (ft.)
MSY-D30NA MSY-D36NA	COOL	Dry	321	16.3	23.5
		Wet	286	14.5	21.0

- The air coverage is the figure up to the position where the air speed is 1 ft./s., when air is blown out horizontally from the unit properly at the High speed position.
The coverage should be used only as a general guideline since it varies according to the size of the room and furniture arranged inside the room.

3-12. SOUND PRESSURE LEVELS

MSY-D30NA-8 MSY-D36NA-8

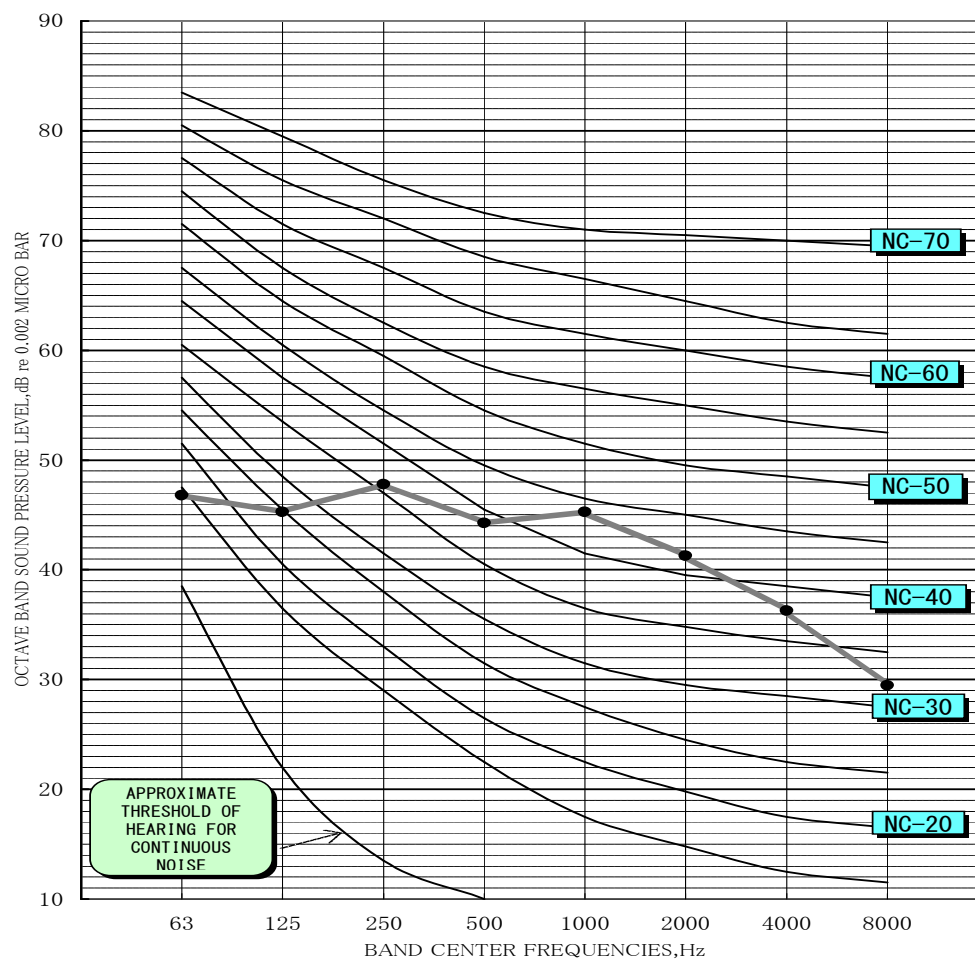
*MSY:Only cooling



NOTCH	SPL (dB (A))	LINE
COOL (Hi)	49	● — ●
HEAT (Hi)		

Test conditions are based on JIS Z8731

Ambient temperature 27°C



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3-12. SOUND PRESSURE LEVELS

MUY-D30NA-1 MUY-D36NA-1

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3-13. STANDARD OPERATION RANGE

(1) INDOOR UNIT

MSY-D30NA-8 MSY-D36NA-8

OPERATING RANGE

		Indoor intake air temperature	Outdoor intake air temperature
Cooling	Maximum	95° FDB, 71° FWB	115° FDB
	Minimum	67° FDB, 57° FWB	67° FDB

(2) OUTDOOR UNIT

MUY-D30NA-1 MUY-D36NA-1

OPERATING RANGE

(A) POWER SUPPLY

	Rated voltage	Guaranteed Voltage (V)
Outdoor unit	208/230 V 1 phase 60 Hz	Min.187 208 230 Max.253 ----- ----- ----- -----

(B) 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%		—	

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3-14. ACCESSORIES

(1) INDOOR UNIT

Part Number	Descriptions	Applicable model
C13-103	Blue Diamond Sensor Extension Cable - 15 Ft.	All Models
CWMB1	Drain Pan Level Sensor/Control for indoor unit shut off to prevent Drain Pan Overflow	
DPLS1	Portable Central Controller (PCC) - controls up to 16 RedLINK Zones - requires an MHK1 on each indoor unit	
DSD-400P	Wireless wall-mounted remote controller (MRCH1) with a signal receiver (MIFH1) and cable (MRC1) all in one kit	
MAC-1415FT-E	Anti-Allergy Enzyme Filter (qty of 2)	
MAC-333IF-E	System Control Interface - MA, Contact terminal, and M-NET Control Adapter, Supplemental heat and humidifier adaptor	
MCCH1	Outdoor Air Sensor - reads both outside temperature and humidity displayed on MRCH1 and MCCH1 if installed	
MHK1	Multi-functional hard wired controller (used specifically for twinning, lead/lag, and 7 day programmable applications) Requires MAC-333IF-E Adaptor	
MOS1	Lockdown Bracket for wireless, hand-held, remote controllers	
PAC-YT53CRAU	3-Pole Disconnect Switch 30 Amps 600 volts rated for interrupting power supply at/near indoor unit - fits 2 X 4 utility box	
PAR-21MAAU	4 piece (1 pair) condensing unit wall mounting brackets - painted steel	
RCMKP1CB	Outdoor Unit 3-1/4 inch Mounting Base (Pair) - Plastic	
SI30-115	Mini-Condensation pump - 115 volt application	
SI30-230	Mini-Condensation pump - 230 volt application	
TAZ-MS303	Advanced Blue Diamond Mini-Condensation pump w/ Reservoir & Sensor - 208/230 volt application	
X87-721	Simple MA Remote Controller (requires MAC-333IF-E interface for MSY/Z and MFZ indoor units)	

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3-14. ACCESSORIES

(1) INDOOR UNIT cont.

Part Number	Descriptions		Applicable model
MPLS385812T-10	Diamondback Linesets	3/8 x 5/8 x 10' / 1/2" Twin-Tube Insulation	All Models
MPLS385812T-15		3/8 x 5/8 x 15' / 1/2" Twin-Tube Insulation	
MPLS385812T-30		3/8 x 5/8 x 30' / 1/2" Twin-Tube Insulation	
MPLS385812T-50		3/8 x 5/8 x 50' / 1/2" Twin-Tube Insulation	
MPLS385812T-65		3/8 x 5/8 x 65' / 1/2" Twin-Tube Insulation	
MPLS385812T-100		3/8 x 5/8 x 100' / 1/2" Twin-Tube Insulation	

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3-14. ACCESSORIES

(2) OUTDOOR UNIT

Part Number	Descriptions	Applicable model
CWMB1	4 piece (1 pair) condensing unit wall mounting brackets - painted steel	All Models
DSD-400P	Outdoor Unit 3-1/4 inch Mounting Base (Pair) - Plastic	
MAC-811DS	Outdoor drain pan socket - Provides pipe connection to route condensate out of drain pan	
ULTRILITE1	Condensing Unit Mounting Pad 16" x 36" x 3"	

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