

B. MUTLI-USE

MLZ-KP09NA

MLZ-KP12NA

MLZ-KP18NA

1 | REFERENCE SERVICE MANUAL

For information on service, please refer to the service manual as follows.

1-1. INDOOR UNIT

Model name	Service Ref.	Service Manual No.
MLZ-KP09NA	MLZ-KP09NA - <input type="checkbox"/> U1	OBH802 OBB802
MLZ-KP12NA	MLZ-KP12NA - <input type="checkbox"/> U1	
MLZ-KP18NA	MLZ-KP18NA - <input type="checkbox"/> U1	

2 | SPECIFICATIONS

2-1. INDOOR UNIT

MLZ-KP09NA MLZ-KP12NA MLZ-KP18NA

Indoor model			MLZ-KP09NA	MLZ-KP12NA	MLZ-KP18NA
Power supply	V, phase, Hz		208/230, 1, 60		
Max. fuse size (time delay)/ Disconnect switch	A		15		
Airflow High - Med. - Low - SLow	COOL Dry (Wet)	CFM	311 - 283 - 254 - 212	332 - 297 - 258 - 212	403 - 346 - 293 - 212
	HEAT Dry	CFM	325 - 290 - 247 - 212	350 - 311 - 272 - 212	417 - 364 - 311 - 212
Sound level High - Med. - Low - SLow	Cooling	dB (A)	38 - 34 - 31 - 27	40 - 36 - 32 - 27	47 - 41 - 36 - 29
	Heating	dB (A)	37 - 34 - 29 - 26	40 - 36 - 32 - 26	48 - 42 - 37 - 26
Cond. drain connection O.D.	in.		Ø1 (26 mm)		
Dimensions	W	in.	43-3/8		
	D		14-3/16		
	H		7-5/16		
Weight	lb.		34		
External finish			White		
Control voltage (by built-in transformer)			12 - 24 V DC		

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

Specifications and rated conditions of main electric parts

Item	Model	MLZ-KP09NA MLZ-KP12NA MLZ-KP18NA		
		Fuse	(F11)	T3.15AL250V
Horizontal vane motor	(MV1)	12 V DC		
Vertical vane motor	(MV2)	12 V DC		
Varistor	(NR11)	470 V		
DRAIN PUMP	(DP)	230 V 6.4 W		
FLOAT SENSOR	(FS)	5 V DC		

OPERATING RANGE

(1) POWER SUPPLY

	Rated voltage	Guaranteed voltage (V)
Indoor unit	208/230 V 1 phase 60 Hz	<p>Min. 187 208 230 Max. 253</p>

(2) OPERATION

*The operating range of the outdoor unit depends on the connected outdoor unit.

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	-13	-14

OUTLET AIR SPEED AND COVERAGE

1. Multi connection

Model	Mode	Function	Airflow (CFM)	Air speed (ft./s.)	Coverage (ft.)
MLZ-KP09NA	HEAT	Dry	311	13.0	20.7
	COOL	Dry	325	13.6	21.7
		Wet	—	—	—
MLZ-KP12NA	HEAT	Dry	332	13.9	22.1
	COOL	Dry	350	14.6	23.3
		Wet	—	—	—
MLZ-KP18NA	HEAT	Dry	403	16.9	26.7
	COOL	Dry	417	17.5	27.6
		Wet	—	—	—

- 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 | OUTLINES AND DIMENSIONS

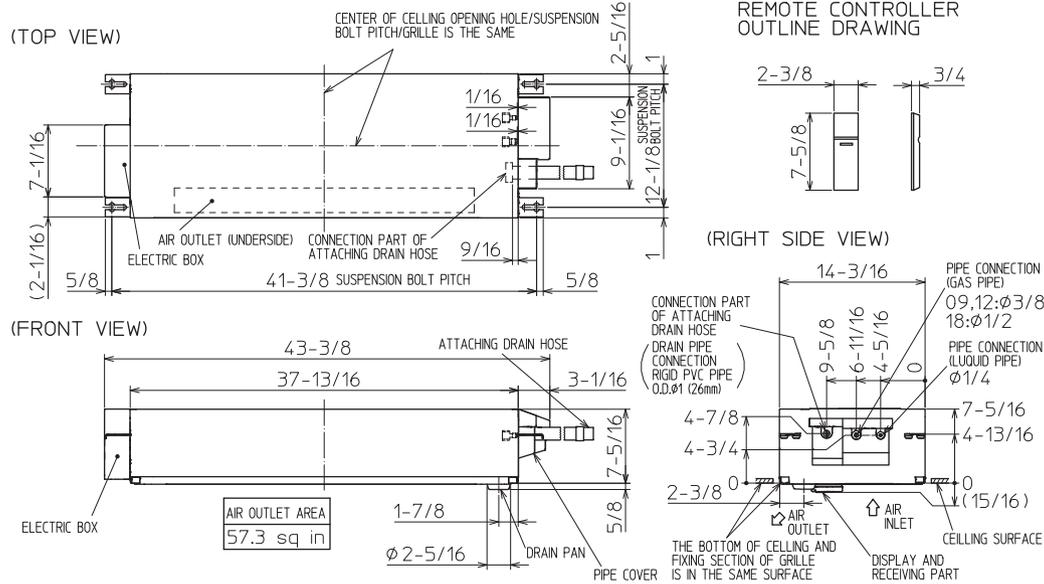
3-1. INDOOR UNIT

Unit: inch

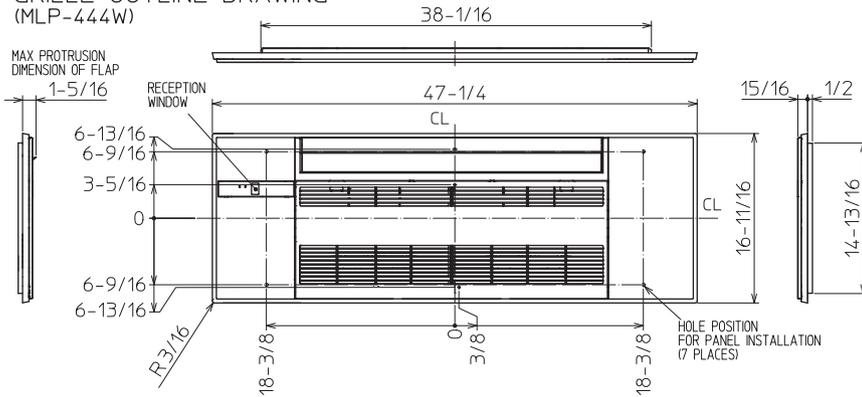
MLZ-KP09NA MLZ-KP12NA MLZ-KP18NA

INDOOR UNIT

INDOOR UNIT OUTLINE DRAWING



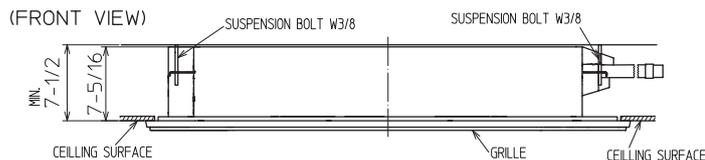
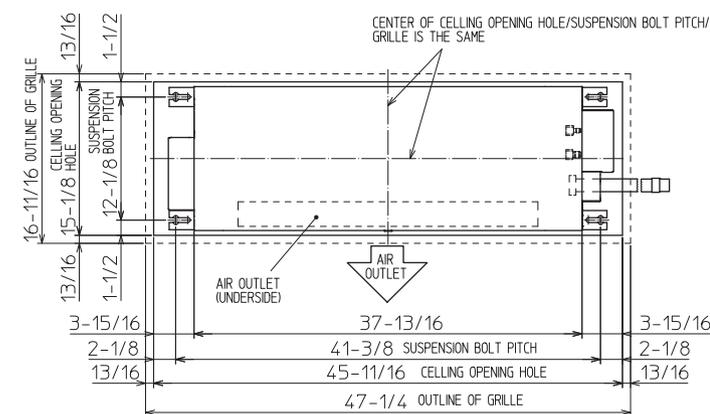
GRILLE OUTLINE DRAWING (MLP-444W)



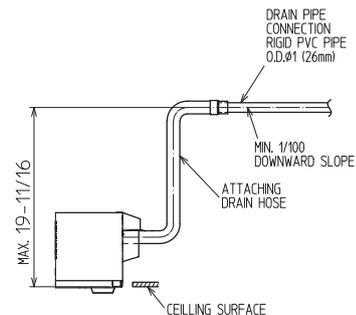
		KP09/12NA	KP18NA
EXTENSION PIPE	LIQUID PIPE O.D.	φ1/4	
	GAS PIPE O.D.	φ3/8	φ1/2
CONNECTION OF PIPE	LIQUID PIPE	FLARED CONNECTION φ1/4	
	GAS PIPE	FLARED CONNECTION φ3/8	FLARED CONNECTION φ1/2
DRAIN HOSE	HEAT INSULATOR O.D.	φ1-1/4	φ1
	CONNECTION I.D.	φ1	φ1
	EFFECTIVE LENGTH	18-7/8	18-7/8
DRAIN PIPE CONNECTION	RIGID PVC PIPE O.D. φ1 (26mm)		

NOTE1: CUT THE DRAIN HOSE (ACCESSORY) FOR USE, IF NECESSARY.

INDOOR UNIT DETAIL VIEW (TOP VIEW)



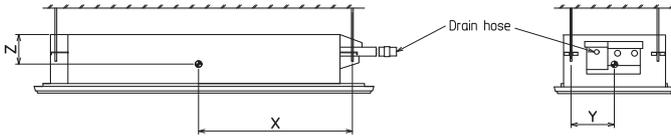
THE METHOD FOR STANDING DRAIN FROM INDOOR UNIT
* CUT THE DRAIN HOSE (ACCESSORY) FOR USE, IF NECESSARY.



4 | POSITION OF THE CENTER OF GRAVITY

4-1. INDOOR UNIT

Unit: inch (mm)



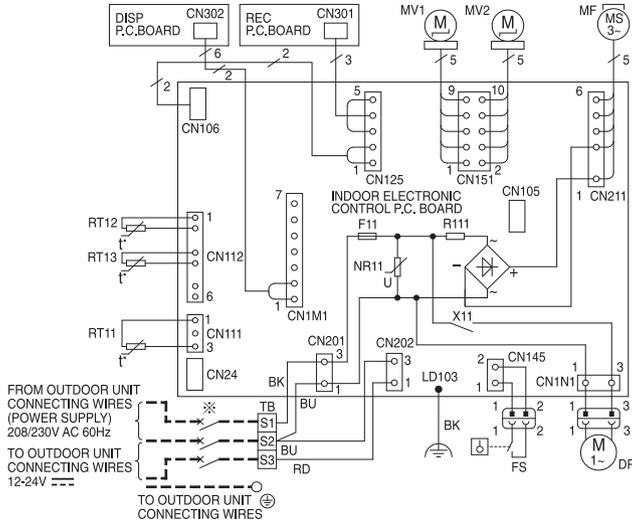
Model name	X	Y	Z
MLZ-KP09NA	21-7/16	6	4-1/8
MLZ-KP12NA	(545)	(152)	(105)
MLZ-KP18NA			

5 | WIRING DIAGRAM

5-1. INDOOR UNIT

MLZ-KP09NA

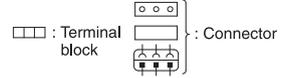
MLZ-KP12NA



SYMBOL	NAME	SYMBOL	NAME
MF	FAN MOTOR	RT11	ROOM TEMP. THERMISTOR
MV1	HORIZONTAL VANE MOTOR	RT12	COIL TEMP. THERMISTOR(MAIN)
MV2	VERTICAL VANE MOTOR	RT13	COIL TEMP. THERMISTOR(SUB)
DP	DRAIN PUMP	NR11	VARISTOR
FS	FLOAT SENSOR	R111	RESISTOR
F11	FUSE (T3.15AL250V)		
X11	RELAY		
TB	TERMINAL BLOCK		

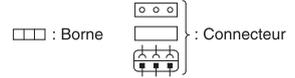
NOTES :

- 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.



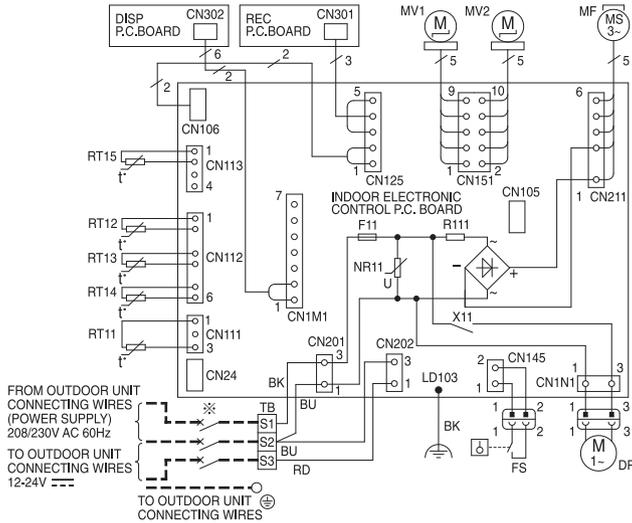
REMARQUES :

- Pour le câblage électronique côté extérieur, se reporter au schéma d'entretien du câblage électronique de l'appareil extérieur.
- Utiliser des fils d'alimentation en cuivre.
- Les symboles ont les significations suivantes



- ※ A disconnect should be required by local code.
- ※ Se procurer un sectionneur conforme aux réglementations locales.

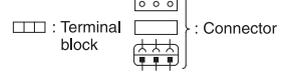
MLZ-KP18NA



SYMBOL	NAME	SYMBOL	NAME
MF	FAN MOTOR	RT11	ROOM TEMP. THERMISTOR
MV1	HORIZONTAL VANE MOTOR	RT12	COIL TEMP. THERMISTOR(MAIN1)
MV2	VERTICAL VANE MOTOR	RT13	COIL TEMP. THERMISTOR(SUB)
DP	DRAIN PUMP	RT14	COIL TEMP. THERMISTOR(MAIN2)
FS	FLOAT SENSOR	RT15	COIL TEMP. THERMISTOR(MAIN3)
F11	FUSE (T3.15AL250V)	NR11	VARISTOR
X11	RELAY	R111	RESISTOR
TB	TERMINAL BLOCK		

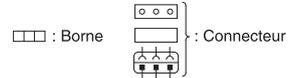
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REMARQUES :

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- Utiliser des fils d'alimentation en cuivre.
- Les symboles ont les significations suivantes



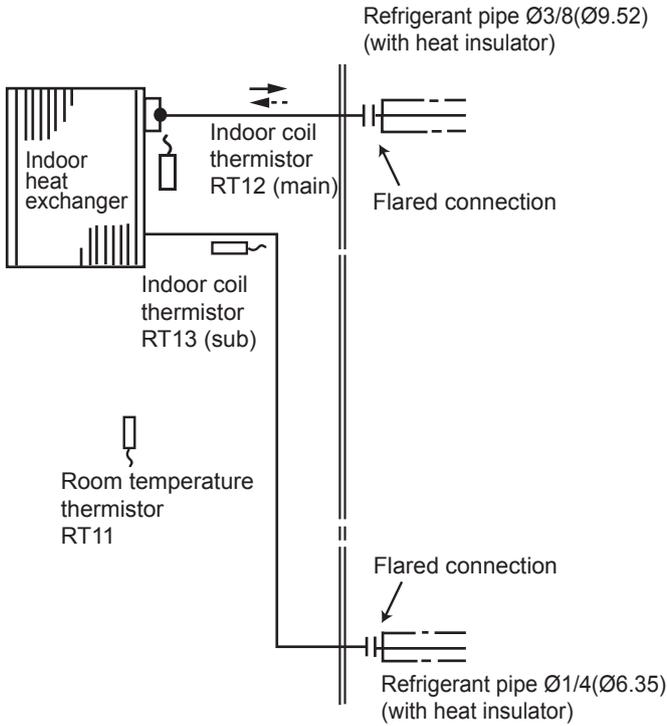
- ※ A disconnect should be required by local code.
- ※ Se procurer un sectionneur conforme aux réglementations locales.

6 | REFRIGERANT SYSTEM DIAGRAM

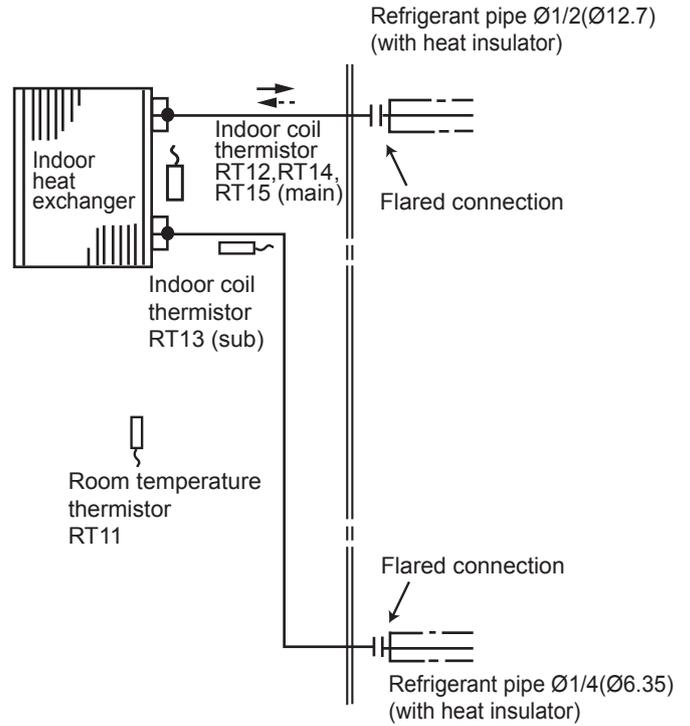
6-1. INDOOR UNIT

Unit: inch(mm)

MLZ-KP09NA
MLZ-KP12NA



MLZ-KP18NA



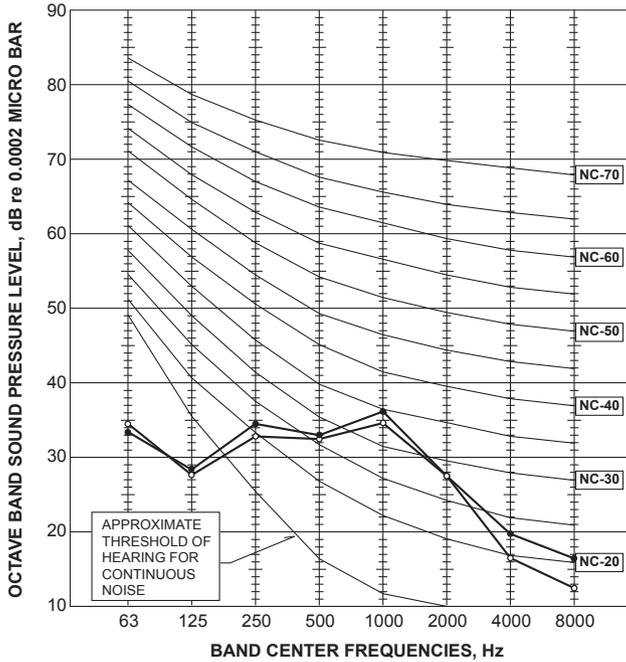
→ Refrigerant flow in cooling
--> Refrigerant flow in heating

7 | NOISE CRITERION CURVES

7-1. INDOOR UNIT

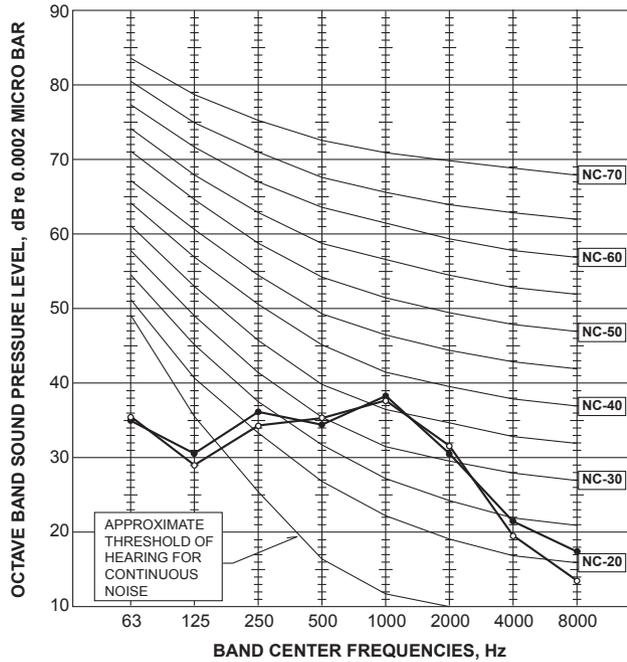
MLZ-KP09NA

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
High	COOLING	38	●—●
	HEATING	37	○—○



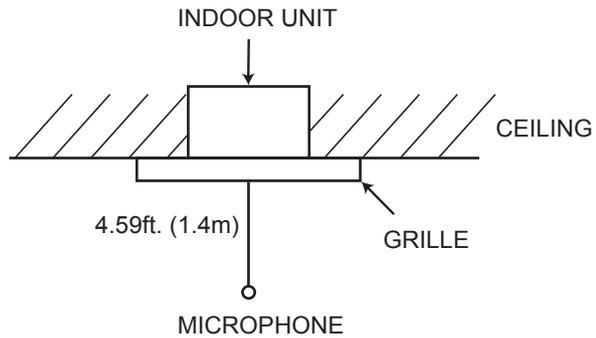
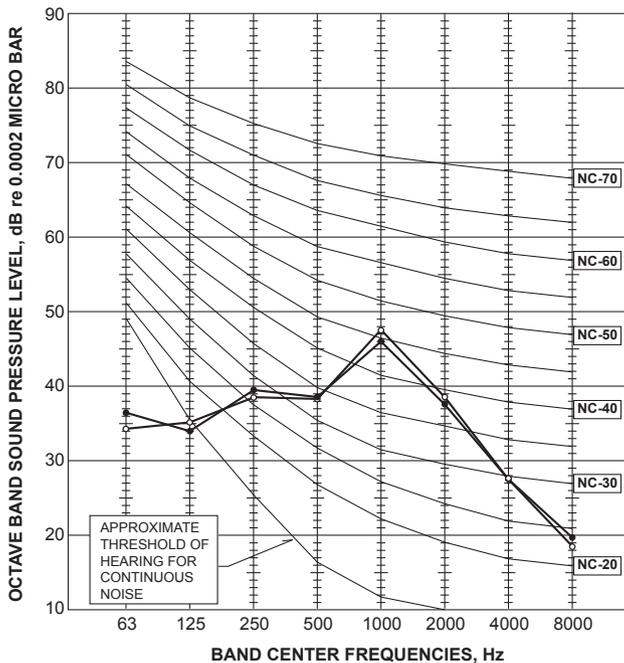
MLZ-KP12NA

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
High	COOLING	40	●—●
	HEATING	40	○—○



MLZ-KP18NA

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
High	COOLING	47	●—●
	HEATING	48	○—○

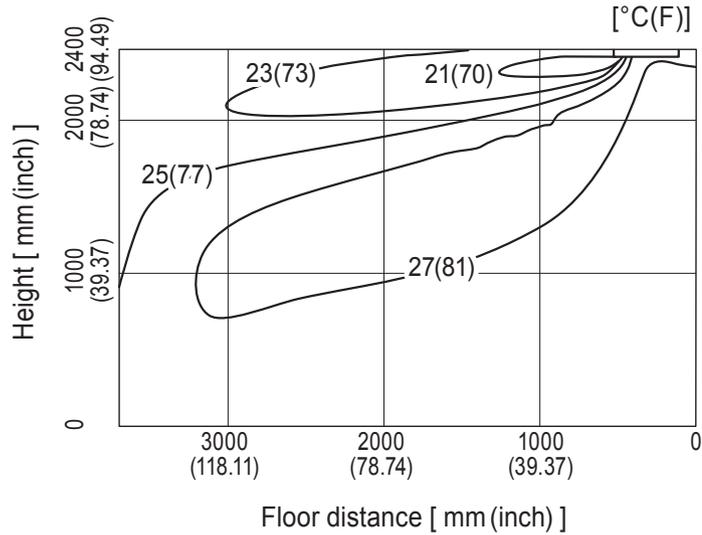


8 | TEMPERATURE AND AIR FLOW DISTRIBUTIONS

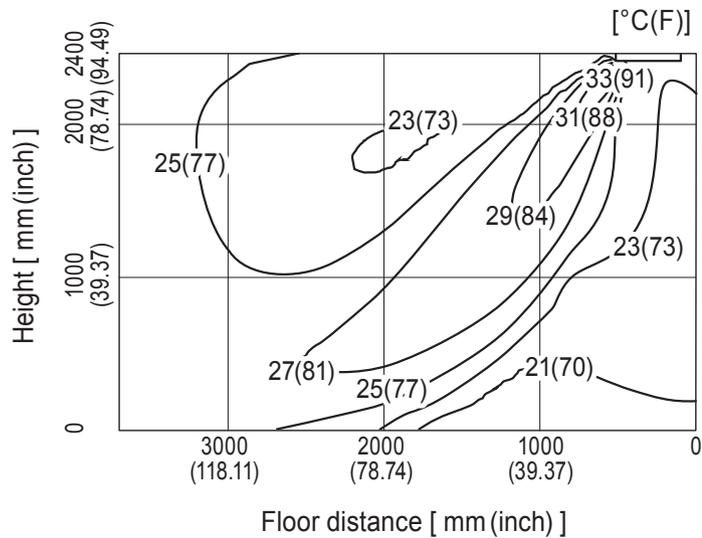
MLZ-KP09NA

Temperature distribution

<Cooling mode> Air volume: high
Air direction: auto (upward air flow)



<Heating mode> Air volume: high
Air direction: auto (downward air flow)

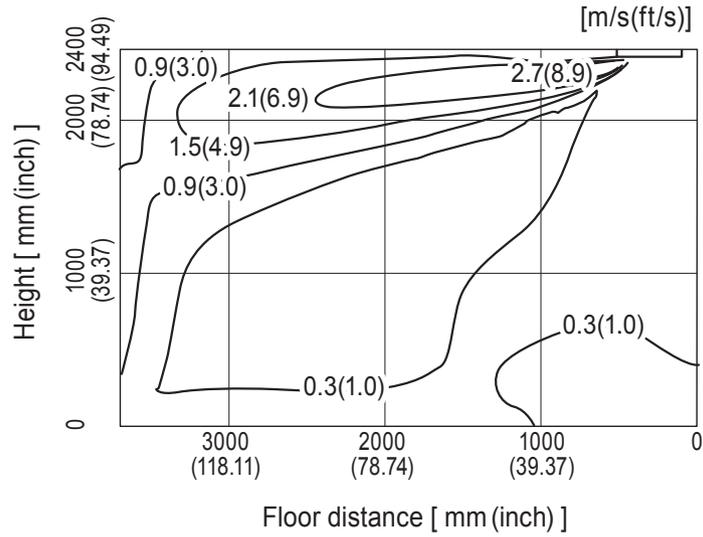


Note : These figures show typical airflow distributions in the conditions above. In the actual installation, they may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load, obstacles, etc.

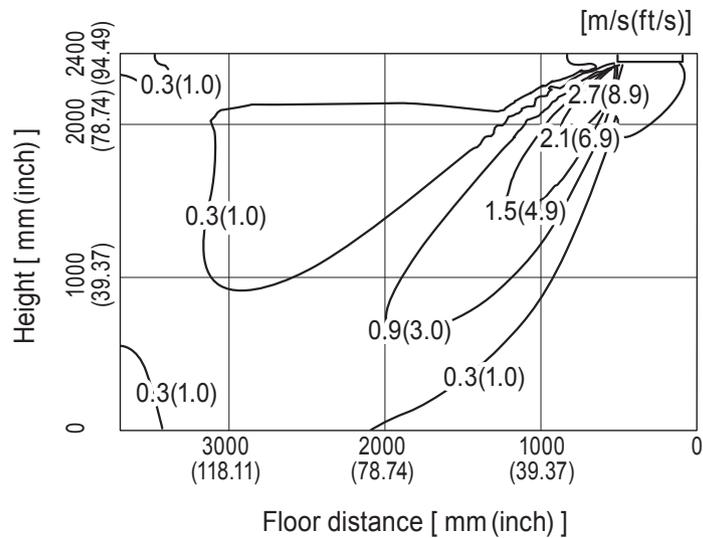
MLZ-KP09NA

Airflow distribution

<Cooling mode> Air volume: high
Air direction: auto (upward air flow)



<Heating mode> Air volume: high
Air direction: auto (downward air flow)



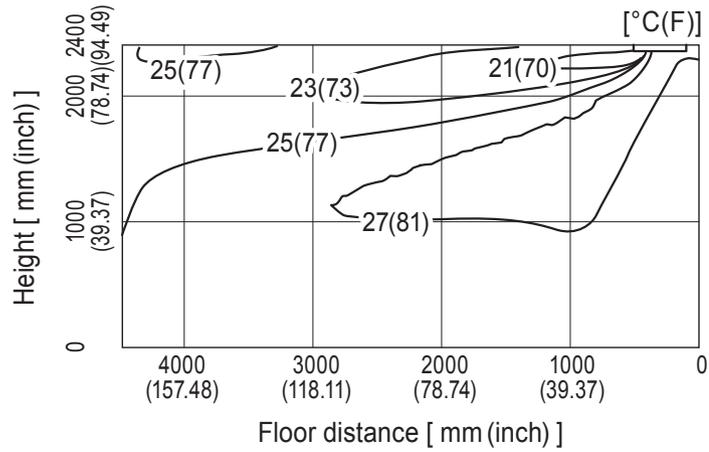
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MLZ-KP12NA

Temperature distribution

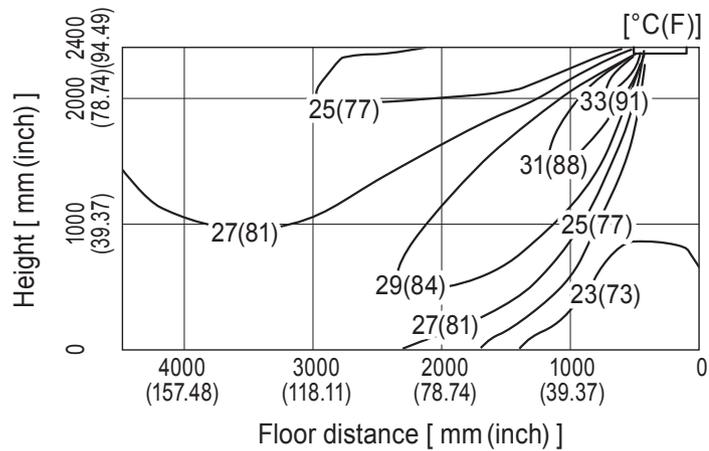
<Cooling mode>

Air volume: high
Air direction: auto (upward air flow)



<Heating mode>

Air volume: high
Air direction: auto (downward air flow)

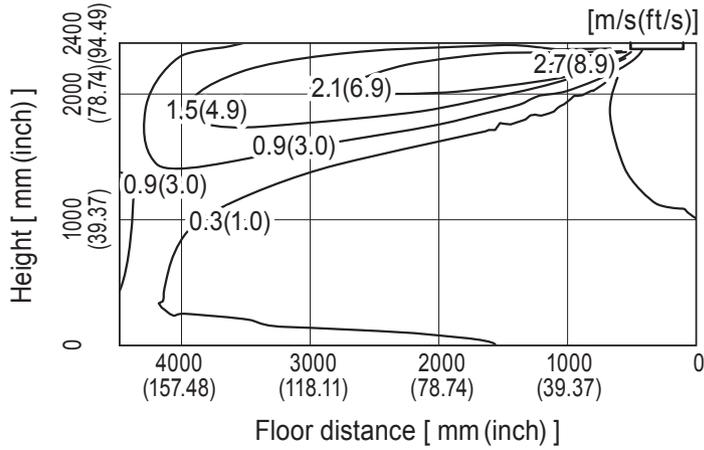


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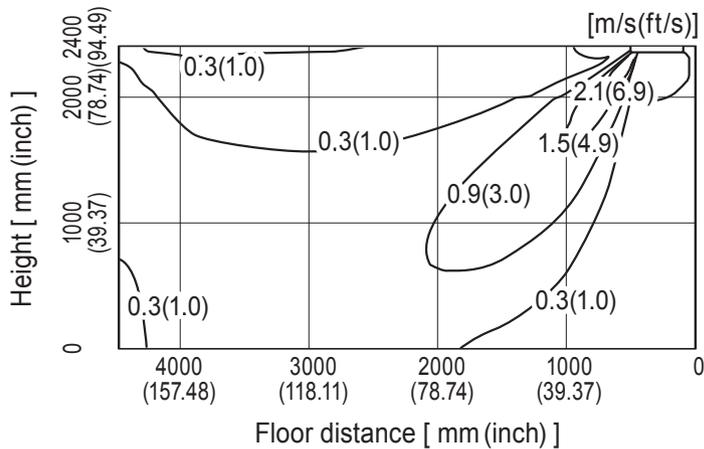
MLZ-KP12NA

Airflow distribution

<Cooling mode> Air volume: high
Air direction: auto (upward air flow)



<Heating mode> Air volume: high
Air direction: auto (downward air flow)

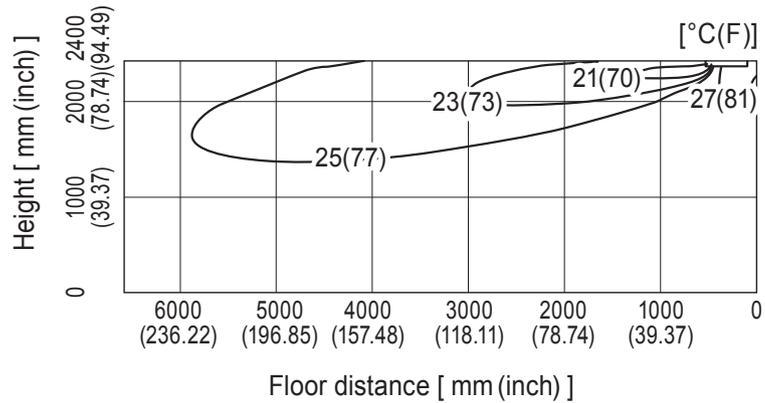


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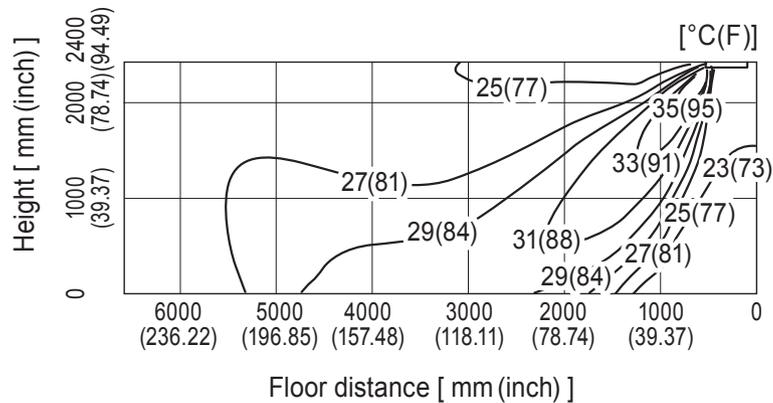
MLZ-KP18NA

Temperature distribution

<Cooling mode> Air volume: high
 Air direction: auto (upward air flow)



<Heating mode> Air volume: high
 Air direction: auto (downward air flow)

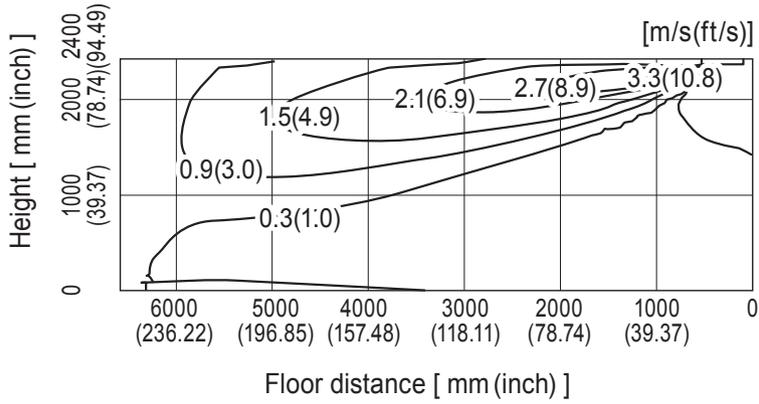


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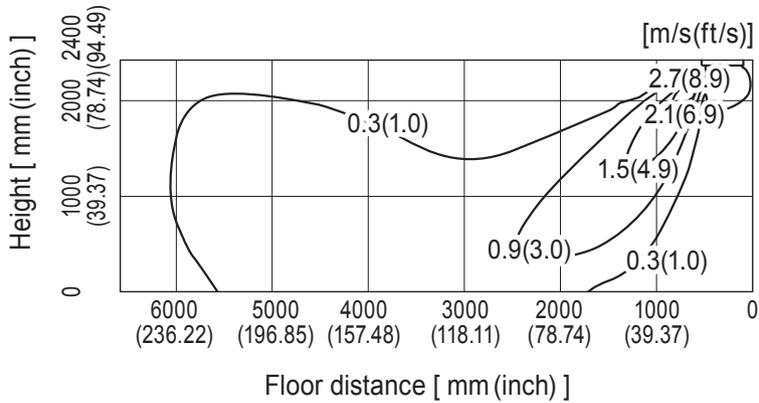
MLZ-KP18NA

Airflow distribution

<Cooling mode> Air volume: high
 Air direction: auto (upward air flow)



<Heating mode> Air volume: high
 Air direction: auto (downward air flow)



Note : These figures show typical airflow distributions in the conditions above. In the actual installation, they may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load, obstacles, etc.