

Revision : A

- MXZ-3A54/4A71VA-**E2** has been added.
- MXZ-2A40/2A52VA-**E1** has been added.

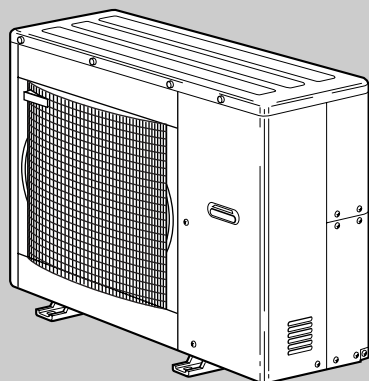
Please void OB377

OUTDOOR UNIT SERVICE MANUAL


**No. OB377
REVISED EDITION-A**
**Inverter-controlled multi system type
Models**

MXZ-2A40VA	- E1
MXZ-2A52VA	- E1
MXZ-3A54VA	- E1
MXZ-3A54VA	- E2
MXZ-4A71VA	- E1
MXZ-4A71VA	- E2
MXZ-4A80VA	- E1

Indoor unit service manual
MSZ-FA•VA Series (OB371)
MSZ-GA•VA Series
(OB378,OB388)
MSZ-CB•VA Series (OB441)


MXZ-4A80VA
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NOTE:

•This service manual describes technical data of outdoor units.



Revision : A

- MXZ-3A54/4A71VA-**E2** has been added.
Quick clean kit has been removed.(Refer to 2)
- MXZ-2A40/52VA-**E1** has been added.

1 TECHNICAL CHANGES

MXZ-A26WV -**E1** → MXZ-3A54VA -**E1**

1. Indication of capacity has been changed. (BTU→kW)
2. Capacity specification has been changed. (Cooling capacity 7.1kW→5.4kW)
3. Dimensions of unit has been changed. (W900×H900×D320→W840×H710×D330)
4. Combinations of connectable indoor units have been changed.
5. Capacity class of connectable indoor units have been changed.
6. Communication system has been changed.
7. Power supply way has been changed(change to supply to outdoor unit).
8. Compressor has been changed. (TNB220FMCH→SNB130FLDH1)
9. High-pressure switch has been removed.
10. Outdoor fan motor has been changed. (PM8H60-UA→RC0J60-AA)
11. Evaporation temperature thermistor has been removed.
12. Ambient temperature thermistor has been added.
13. New dip switch has been added to the controller board for "Locking the operation "mode and "Lowering the operating noise "mode.
14. A Quick Clean Kit has been added.

MXZ-A32WV -**E1** → MXZ-4A71VA -**E1**

1. Indication of capacity has been changed. (BTU→kW)
2. Capacity specification has been changed. (Cooling capacity 8.0kW→7.1kW)
3. Dimensions of unit has been changed. (W900×H900×D320→W840×H710×D330)
4. Combinations of connectable indoor units have been changed.
5. Capacity class of connectable indoor units have been changed.
6. Communication system has been changed.
7. Power supply way has been changed(change to supply to outdoor unit).
8. Compressor has been changed. (TNB220FMCH→SNB130FLDH1)
9. High-pressure switch has been removed.
10. Outdoor fan motor has been changed. (PM8H60-U→RC0J60-AA)
11. Evaporation temperature thermistor has been removed.
12. Ambient temperature thermistor has been added.
13. New dip switch has been added to the controller board for "Locking the operation "mode and "Lowering the operating noise "mode.
14. A Quick Clean Kit has been added.

MXZ-A32WV -**E1** → MXZ-4A80VA -**E1**

1. Indication of capacity has been changed. (BTU→kW)
2. Communication system has been changed.
3. Power supply way has been changed(change to supply to outdoor unit).
4. Evaporation temperature thermistor has been removed.
5. Ambient temperature thermistor has been added.
6. New dip switch has been added to the controller board for "Locking the operation "mode and "Lowering the operating noise "mode.
7. A Quick Clean Kit has been added.

MXZ-A14WV -[E2]→ MXZ-2A40VA -[E1]

1. Indication of capacity has been changed. (BTU→kW)
2. Dimensions of unit has been changed. (W840×H640×D330→W800×H550×D285)
3. Communication system has been changed.
4. Power supply way has been changed(change to supply to outdoor unit).
5. Compressor has been changed. (SNV092FJYH→SNB130FKCH)
6. Outdoor fan motor has been changed. (RA6V49→RC0J50-CF)
7. Evaporation temperature thermistor has been removed.
8. Pas pipe temperature thermistor has been removed.
9. Ambient temperature thermistor has been added.

MXZ-A18WV -[E2]→ MXZ-2A52VA -[E1]

1. Indication of capacity has been changed. (BTU→kW)
2. Cooling capacity specification has been changed. (5.4kW→5.2kW)
3. Heating capacity specification has been changed. (6.6kW→6.4kW)
4. Dimensions of unit has been changed. (W840×H640×D330→W800×H550×D285)
5. Communication system has been changed.
6. Power supply way has been changed(change to supply to outdoor unit).
7. Compressor has been changed. (SNV092FJYH→SNB130FKCH)
8. Outdoor fan motor has been changed. (RA6V49→RC0J50-CF)
9. Evaporation temperature thermistor has been removed.
10. Pas pipe temperature thermistor has been removed.
11. Ambient temperature thermistor has been added.

MXZ-3A54VA -[E1]→ MXZ-3A54VA -[E2]

MXZ-4A71VA -[E1]→ MXZ-4A71VA -[E2]

1. Quick clean kit has been removed.

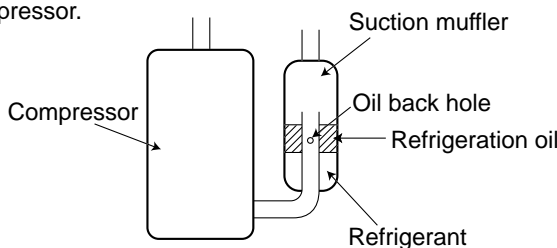
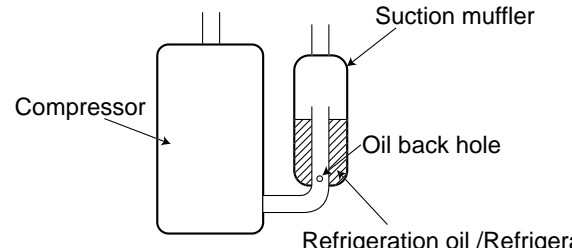
INFORMATION FOR THE AIR CONDITIONER WITH R410A REFRIGERANT

- This room air conditioner adopts HFC refrigerant (R410A) which never destroys the ozone layer.
 - Pay particular attention to the following points, though the basic installation procedure is same as that for R22 air conditioners.
- ① As R410A has working pressure approximate 1.6 times as high as that of R22, some special tools and piping parts/materials are required. Refer to the table below.
 - ② Take sufficient care not to allow water and other contaminations to enter the R410A refrigerant during storage and installation, since it is more susceptible to contaminations than R22.
 - ③ For refrigerant piping, use clean, pressure-proof parts/materials specifically designed for R410A. (Refer to 2. Refrigerant piping.)
 - ④ Composition change may occur in R410A since it is a mixed refrigerant. When charging, charge liquid refrigerant to prevent composition change.

		New refrigerant	Previous refrigerant
Refrigerant	Refrigerant	R410A	R22
	Composition (Ratio)	HFC-32: HFC-125 (50%:50%)	R22 (100%)
	Refrigerant handling	Pseudo-azeotropic refrigerant	Single refrigerant
	Chlorine	Not included	Included
	Safety group (ASHRAE)	A1/A1	A1
	Molecular weight	72.6	86.5
	Boiling point (°C)	-51.4	-40.8
	Steam pressure [25°C](Mpa)	1.557	0.94
	Saturated steam density [25°C](Kg/ m³)	64	44.4
	Combustibility	Non combustible	Non combustible
	ODP *1	0	0.055
	GWP *2	1730	1700
	Refrigerant charge method	From liquid phase in cylinder	Gas phase
	Additional charge on leakage	Possible	Possible
Refrigeration oil	Kind	Incompatible oil	Compatible oil
	Color	Non	Light yellow
	Smell	Non	Non

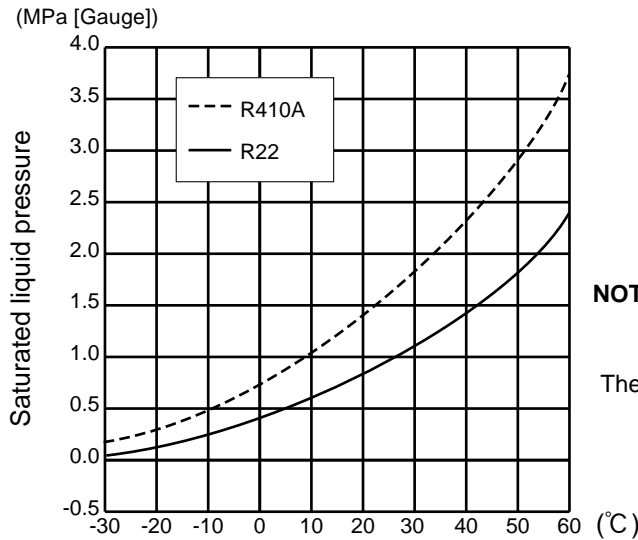
*1 :Ozone Destruction Parameter : based on CFC-11

*2 :Global Warmth Parameter : based on CO₂

	New Specification	Current Specification
Compressor	<p>The incompatible refrigeration oil easily separates from refrigerant and is in the upper layer inside the suction muffler. Raising position of the oil back hole enables to back the refrigeration oil of the upper layer to flow back to the compressor.</p> 	<p>Since refrigerant and refrigeration oil are compatible each, refrigeration oil goes back to the compressor through the lower position oil back hole.</p> 

NOTE : The unit of pressure has been changed to MPa on the international system of units(SI unit system).
The conversion factor is: **1(MPa [Gauge]) =10.2(kgf/cm² [Gauge])**

Conversion chart of refrigerant temperature and pressure



NOTE : The unit of pressure has been changed to MPa on the international system of units(SI unit system).

The conversion factor is: **1(MPa [Gauge]) =10.2(kgf/cm² [Gauge])**

1.Tools dedicated for the air conditioner with R410A refrigerant

The following tools are required for R410A refrigerant. Some R22 tools can be substituted for R410A tools. The diameter of the service port on the stop valve in outdoor unit has been changed to prevent any other refrigerant being charged into the unit. Cap size has been changed from 7/16 UNF with 20 threads to 1/2 UNF with 20 threads.

R410A tools	Can R22 tools be used?	Description
Gauge manifold	No	R410A has high pressures beyond the measurement range of existing gauges. Port diameters have been changed to prevent any other refrigerant from being charged into the unit.
Charge hose	No	Hose material and cap size have been changed to improve the pressure resistance.
Gas leak detector	No	Dedicated for HFC refrigerant.
Torque wrench	Yes	6.35 mm and 9.52 mm
	No	12.7 mm and 15.88 mm
Flare tool	Yes	Clamp bar hole has been enlarged to reinforce the spring strength in the tool.
Flare gauge	New	Provided for flaring work (to be used with R22 flare tool).
Vacuum pump adapter	New	Provided to prevent the back flow of oil. This adapter enables you to use vacuum pumps.
Electronic scale for refrigerant charging	New	It is difficult to measure R410A with a charging cylinder because the refrigerant bubbles due to high pressure and high-speed vaporization

No : Not Substitutable for R410A Yes : Substitutable for R410A

2.Refrigerant piping

① Specifications

Use the copper or copper-alloy seamless pipe for refrigerant that meet the following specifications.

Outside diameter	Wall thickness	Insulation material
mm		
6.35	0.8 mm	Heat resisting foam plastic Specific gravity 0.045 Thickness 8 mm
9.52	0.8 mm	
12.7	0.8 mm	
15.88	1.0 mm	

② Flaring work and flare nut

Flaring work for R410A pipe differs from that for R22 pipe.

For details of flaring work, refer to Installation manual "FLARING WORK".

Pipe diameter	Dimension of flare nut	
	R410A	R22
mm		
6.35	17	17
9.52	22	22
12.7	26	24
15.88	29	27

3.Refrigerant oil

Apply the special refrigeration oil (accessories: packed with indoor unit) to the flare and the union seat surfaces.

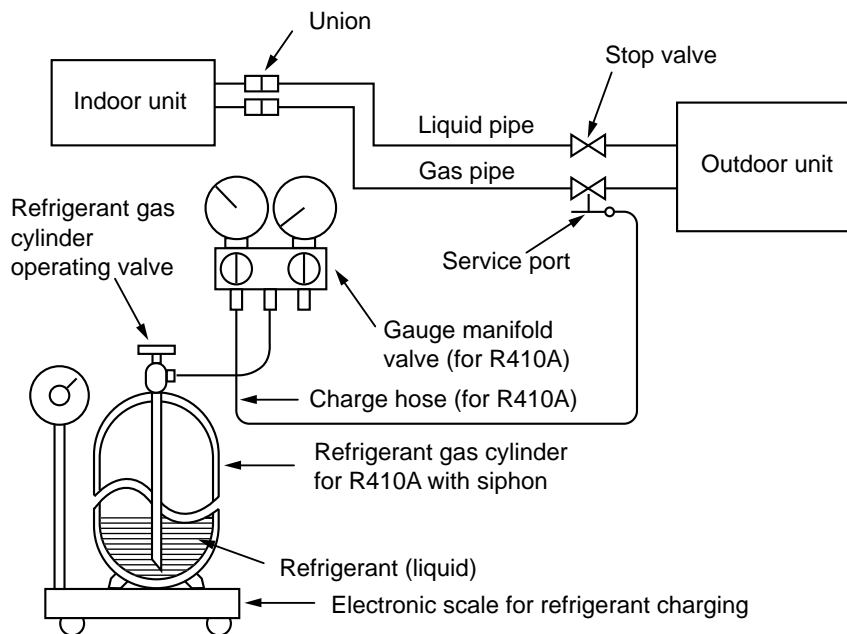
4.Air purge

- Do not discharge the refrigerant into the atmosphere.
Take care not to discharge refrigerant into the atmosphere during installation, reinstallation, or repairs to the refrigerant circuit.
- Use the vacuum pump for air purging for the purpose of environmental protection.

5.Additional charge

For additional charging, charge the refrigerant from liquid phase of the gas cylinder.

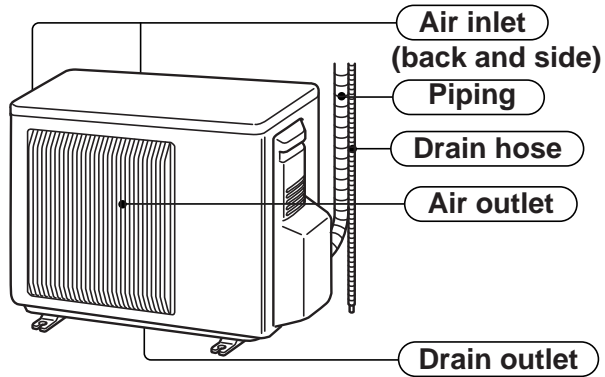
If the refrigerant is charged from the gas phase, composition change may occur in the refrigerant inside the cylinder and the outdoor unit. In this case, ability of the refrigeration cycle decreases or normal operation can be impossible. However, charging the liquid refrigerant all at once may cause the compressor to be locked. Thus, charge the refrigerant slowly.



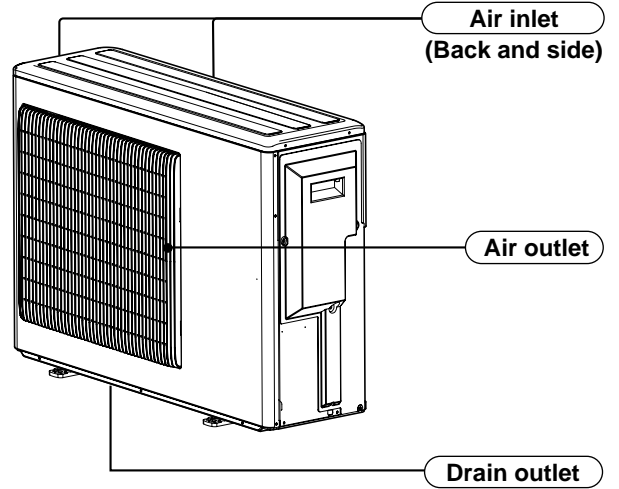
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PART NAMES AND FUNCTIONS

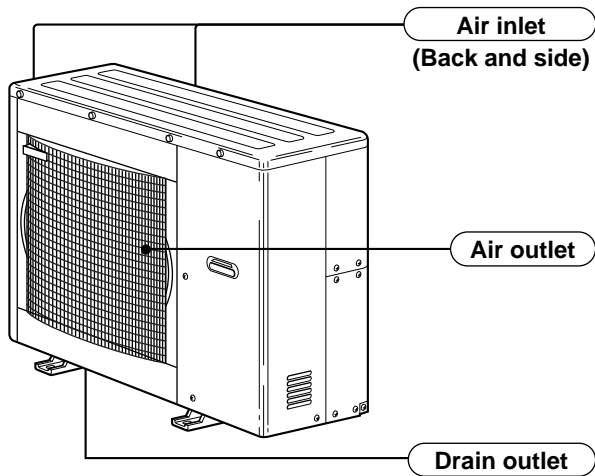
MXZ-2A40VA
MXZ-2A52VA



MXZ-3A54VA
MXZ-4A71VA



MXZ-4A80VA



ACCESSORIES

	MXZ-2A40VA MXZ-2A52VA	MXZ-3A54VA -E1 MXZ-4A71VA -E1	MXZ-3A54VA -E2 MXZ-4A71VA -E2 MXZ-4A80VA
① Drain socket	1	1	1
② Drain cap	-	2	2
③ Quick Clean kit	-	1	-

3 INDOOR/ OUTDOOR CORRESPONDENCE TABLE

MXZ-2A40VA	
Combination of the connectable indoor units	22+22
	22+25
	22+35
	25+25
	25+35

MXZ-2A52VA	
Combination of the connectable indoor units	22+22
	22+25
	22+35
	25+25
	25+35
	35+35

MXZ-3A54VA	
Combination of the connectable indoor units	22+22
	22+25
	22+35
	22+50
	25+25
	25+35
	25+50
	35+35
	35+50
	50+50
	22+22+22
	22+22+25
	22+22+35
	22+22+50
	22+25+25
	22+25+35
	22+25+50
	22+35+35
	25+25+25
	25+25+35
25+25+50	
25+35+35	

MXZ-4A71VA	
Combination of the connectable indoor units	22+22
	22+25
	22+35
	22+50
	22+60
	25+25
	25+35
	25+50
	25+60
	35+35
	35+50
	35+60
	50+50
	50+60
	60+60
	22+22+22
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22+25+35+35	
25+25+25+25	
25+25+25+35	
25+25+25+50	

*There is no combination other than this table.



	MXZ-4A80VA
Combination of the connectable indoor units	22+22
	22+25
	22+35
	22+50
	22+60
	22+71
	25+25
	25+35
	25+50
	25+60
	25+71
	35+35
	35+50
	35+60
	35+71
	50+50
	50+60
	50+71
	60+60
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	22+50+50
	22+50+60
	22+50+71
	25+25+25
	25+25+35
	25+25+50
	25+25+60
	25+25+71
	25+35+35
	25+35+50
25+35+60	
25+35+71	
25+50+50	

	MXZ-4A80VA
Combination of the connectable indoor units	25+50+60
	35+35+35
	35+35+50
	35+35+60
	35+35+71
	35+50+50
	35+50+60
	22+22+22+22
	22+22+22+25
	22+22+22+35
	22+22+22+50
	22+22+22+60
	22+22+22+71
	22+22+25+25
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	25+35+35+35
	35+35+35+35

*There is no combination other than this table.

MXZ-2A40VA

NOTE: Electrical data is for outdoor unit only.

Indoor units combination	Cooling capacity (kW)			Outdoor unit power consumption (kW)	Current (A)	Power factor (%)
	Unit A	Unit B	Total			
22	2.20		2.2 (0.9 - 3.0)	0.430 (0.120 - 0.620)	2.08	90
25	2.50		2.5 (0.9 - 3.3)	0.490 (0.120 - 0.690)	2.37	90
35	3.50		3.5 (0.9 - 4.0)	0.730 (0.120 - 0.900)	3.53	90
22+22	1.90	1.90	3.8 (1.1 - 4.3)	0.830 (0.250 - 1.110)	3.80	95
22+25	1.83	2.07	3.9 (1.1 - 4.3)	0.970 (0.250 - 1.110)	4.44	95
22+35	1.51	2.39	3.9 (1.1 - 4.4)	0.970 (0.250 - 1.130)	4.44	95
25+25	1.95	1.95	3.9 (1.1 - 4.4)	0.970 (0.250 - 1.130)	4.44	95
25+35	1.67	2.33	4.0 (1.1 - 4.5)	1.045 (0.250 - 1.170)	4.78	95

NOTE: Electrical data is for outdoor unit only.

Indoor units combination	Heating capacity (kW)			Outdoor unit power consumption (kW)	Current (A)	Power factor (%)
	Unit A	Unit B	Total			
22	3.30		3.3 (0.9 - 4.0)	0.670 (0.110 - 0.910)	3.24	90
25	3.60		3.6 (0.9 - 4.5)	0.730 (0.110 - 1.050)	3.53	90
35	4.00		4.0 (0.9 - 4.8)	0.870 (0.110 - 1.150)	4.20	90
22+22	2.20	2.20	4.4 (1.0 - 4.8)	0.910 (0.200 - 1.010)	4.16	95
22+25	2.06	2.34	4.4 (1.0 - 4.8)	0.910 (0.200 - 1.010)	4.16	95
22+35	1.70	2.70	4.4 (1.0 - 4.9)	0.910 (0.200 - 1.030)	4.16	95
25+25	2.20	2.20	4.4 (1.0 - 4.9)	0.910 (0.200 - 1.030)	4.16	95
25+35	1.85	2.65	4.5 (1.0 - 5.0)	0.945 (0.200 - 1.050)	4.32	95

MXZ-2A52VA**NOTE:** Electrical data is for outdoor unit only.

Indoor units combination	Cooling capacity (kW)			Outdoor unit power consumption (kW)	Current (A)	Power factor (%)
	Unit A	Unit B	Total			
22	2.20		2.2 (0.9 - 3.0)	0.430 (0.120 - 0.620)	2.08	90
25	2.50		2.5 (0.9 - 3.3)	0.490 (0.120 - 0.690)	2.37	90
35	3.50		3.5 (0.9 - 4.0)	0.730 (0.120 - 0.900)	3.53	90
22+22	2.20	2.20	4.4 (1.1 - 5.3)	1.130 (0.250-1.510)	5.12	96
22+25	2.20	2.50	4.7 (1.1 - 5.4)	1.250 (0.250 - 1.560)	5.66	96
22+35	1.93	3.07	5.0 (1.1 - 5.6)	1.400 (0.250 - 1.650)	6.28	97
25+25	2.50	2.50	5.0 (1.1 - 5.6)	1.400 (0.250 - 1.650)	6.28	97
25+35	2.13	2.97	5.1 (1.1 - 5.8)	1.450 (0.250 - 1.740)	6.50	97
35+35	2.60	2.60	5.2 (1.1 - 6.0)	1.505 (0.250 - 1.830)	6.75	97

NOTE: Electrical data is for outdoor unit only.

Indoor units combination	Heating capacity (kW)			Outdoor unit power consumption (kW)	Current (A)	Power factor (%)
	Unit A	Unit B	Total			
22	3.30		3.3 (0.9 - 4.0)	0.670 (0.110 - 0.910)	3.24	90
25	3.60		3.6 (0.9 - 4.5)	0.730 (0.110 - 1.050)	3.53	90
35	4.00		4.0 (0.9 - 4.8)	0.870 (0.110 - 1.150)	4.20	90
22+22	3.05	3.05	6.1 (1.0 - 6.7)	1.550 (0.200 - 1.730)	6.95	97
22+25	2.90	3.30	6.2 (1.0 - 6.8)	1.600 (0.200 - 1.750)	7.17	97
22+35	2.43	3.87	6.3 (1.0 - 7.0)	1.650 (0.200 - 1.790)	7.40	97
25+25	3.15	3.15	6.3 (1.0 - 7.0)	1.650 (0.200 - 1.790)	7.40	97
25+35	2.63	3.67	6.3 (1.0 - 7.1)	1.650 (0.200 - 1.820)	7.40	97
35+35	3.20	3.20	6.4 (1.0 - 7.2)	1.705 (0.200 - 1.840)	7.64	97

MXZ-3A54VA**NOTE:** Electrical data is for outdoor unit only.

Indoor units combination	Cooling capacity (kW)				Outdoor unit power consumption (kW)	Current (A)	Power factor (%)
	Unit A	Unit B	Unit C	Total			
22	2.2			2.2 (1.4 - 3.0)	0.590 (0.420 - 0.740)	2.59	99
25	2.5			2.5 (1.4 - 3.3)	0.660 (0.420 - 0.830)	2.90	99
35	3.5			3.5 (1.5 - 4.3)	0.950 (0.430 - 1.180)	4.17	99
50	5.0			5.0 (1.6 - 5.6)	1.500 (0.480 - 1.660)	6.59	99
22+22	2.2	2.2		4.4 (2.0 - 5.4)	1.180 (0.540 - 1.450)	5.18	99
22+25	2.2	2.5		4.7 (2.0 - 5.8)	1.300 (0.540 - 1.630)	5.71	99
22+35	2.08	3.32		5.4 (2.0 - 6.8)	1.600 (0.540 - 2.550)	7.03	99
22+50	1.65	3.75		5.4 (2.0 - 6.8)	1.580 (0.550 - 2.440)	6.94	99
25+25	2.5	2.5		5.0 (2.0 - 6.0)	1.420 (0.540 - 1.750)	6.24	99
25+35	2.25	3.15		5.4 (2.0 - 6.8)	1.600 (0.540 - 2.550)	7.03	99
25+50	1.8	3.6		5.4 (2.0 - 6.8)	1.580 (0.550 - 2.440)	6.94	99
35+35	2.7	2.7		5.4 (2.0 - 6.8)	1.600 (0.540 - 2.550)	7.03	99
35+50	2.22	3.18		5.4 (2.0 - 6.8)	1.530 (0.550 - 2.440)	6.72	99
50+50	2.7	2.7		5.4 (2.1 - 6.8)	1.550 (0.560 - 2.340)	6.81	99
22+22+22	1.8	1.8	1.8	5.4 (2.9 - 6.8)	1.295 (0.670 - 1.770)	5.69	99
22+22+25	1.72	1.72	1.96	5.4 (2.9 - 6.8)	1.295 (0.670 - 1.770)	5.69	99
22+22+35	1.5	1.5	2.4	5.4 (2.9 - 6.8)	1.295 (0.670 - 1.770)	5.69	99
22+22+50	1.26	1.26	2.88	5.4 (2.9 - 6.8)	1.265 (0.680 - 1.790)	5.56	99
22+25+25	1.64	1.88	1.88	5.4 (2.9 - 6.8)	1.295 (0.670 - 1.770)	5.69	99
22+25+35	1.45	1.65	2.3	5.4 (2.9 - 6.8)	1.295 (0.670 - 1.770)	5.69	99
22+25+50	1.23	1.39	2.78	5.4 (2.9 - 6.8)	1.265 (0.680 - 1.790)	5.56	99
22+35+35	1.3	2.05	2.05	5.4 (2.9 - 6.8)	1.295 (0.670 - 1.770)	5.69	99
25+25+25	1.8	1.8	1.8	5.4 (2.9 - 6.8)	1.295 (0.670 - 1.770)	5.69	99
25+25+35	1.59	1.59	2.22	5.4 (2.9 - 6.8)	1.295 (0.670 - 1.770)	5.69	99
25+25+50	1.35	1.35	2.7	5.4 (2.9 - 6.8)	1.265 (0.680 - 1.790)	5.56	99
25+35+35	1.42	1.99	1.99	5.4 (2.9 - 6.8)	1.295 (0.670 - 1.770)	5.69	99

NOTE: Electrical data is for outdoor unit only.

Indoor units combination	Heating capacity (kW)				Outdoor unit power consumption (kW)	Current (A)	Power factor (%)
	Unit A	Unit B	Unit C	Total			
22	3.3			3.3 (1.2 - 4.2)	0.820 (0.380 - 1.090)	3.60	99
25	3.6			3.6 (1.2 - 4.5)	0.910 (0.380 - 1.190)	4.00	99
35	4.0			4.0 (1.2 - 4.8)	1.040 (0.380 - 1.300)	4.57	99
50	6.8			6.8 (1.4 - 8.2)	1.770 (0.370 - 2.300)	7.77	99
22+22	3.3	3.3		6.6 (1.8 - 7.2)	1.500 (0.410 - 1.710)	6.59	99
22+25	3.18	3.62		6.8 (1.8 - 8.7)	1.580 (0.410 - 2.350)	6.94	99
22+35	2.62	4.18		6.8 (1.8 - 9.0)	1.580 (0.410 - 2.390)	6.94	99
22+50	2.08	4.72		6.8 (1.8 - 9.0)	1.440 (0.390 - 2.220)	6.32	99
25+25	3.4	3.4		6.8 (1.8 - 9.0)	1.580 (0.410 - 2.390)	6.94	99
25+35	2.83	3.97		6.8 (1.8 - 9.0)	1.580 (0.410 - 2.390)	6.94	99
25+50	2.27	4.53		6.8 (1.8 - 9.0)	1.440 (0.390 - 2.220)	6.32	99
35+35	3.4	3.4		6.8 (1.8 - 9.0)	1.580 (0.410 - 2.390)	6.94	99
35+50	2.8	4.0		6.8 (1.8 - 9.0)	1.440 (0.410 - 2.220)	6.32	99
50+50	3.4	3.4		6.8 (1.9 - 9.0)	1.390 (0.360 - 2.040)	6.10	99
22+22+22	2.27	2.27	2.27	6.8 (2.6 - 9.0)	1.455 (0.500 - 2.120)	6.39	99
22+22+25	2.17	2.17	2.46	6.8 (2.6 - 9.0)	1.455 (0.500 - 2.120)	6.39	99
22+22+35	1.89	1.89	3.02	6.8 (2.6 - 9.0)	1.455 (0.500 - 2.120)	6.39	99
22+22+50	1.59	1.59	3.62	6.8 (2.6 - 9.0)	1.310 (0.480 - 1.960)	5.75	99
22+25+25	2.08	2.36	2.36	6.8 (2.6 - 9.0)	1.455 (0.500 - 2.120)	6.39	99
22+25+35	1.83	2.07	2.9	6.8 (2.6 - 9.0)	1.455 (0.500 - 2.120)	6.39	99
22+25+50	1.54	1.75	3.51	6.8 (2.6 - 9.0)	1.310 (0.480 - 1.960)	5.75	99
22+35+35	1.62	2.59	2.59	6.8 (2.6 - 9.0)	1.455 (0.500 - 2.120)	6.39	99
25+25+25	2.27	2.27	2.27	6.8 (2.6 - 9.0)	1.455 (0.500 - 2.120)	6.39	99
25+25+35	2.0	2.0	2.8	6.8 (2.6 - 9.0)	1.455 (0.500 - 2.120)	6.39	99
25+25+50	1.7	1.7	3.4	6.8 (2.6 - 9.0)	1.310 (0.480 - 1.960)	5.75	99
25+35+35	1.78	2.51	2.51	6.8 (2.6 - 9.0)	1.455 (0.460 - 2.120)	6.39	99

MXZ-4A71VA

NOTE: Electrical data is for outdoor unit only.

Indoor units combination	Cooling capacity (kW)					Outdoor unit power consumption (kW)	Current (A)	Power factor (%)
	Unit A	Unit B	Unit C	Unit D	Total			
22	2.2				2.2 (1.4 - 3.0)	0.590 (0.420 - 0.740)	2.59	99
25	2.5				2.5 (1.4 - 3.3)	0.660 (0.420 - 0.830)	2.90	99
35	3.5				3.5 (1.5 - 4.3)	0.950 (0.430 - 1.180)	4.17	99
50	5.0				5.0 (1.6 - 5.6)	1.500 (0.480 - 1.660)	6.59	99
60	6.0				6.0 (1.6 - 6.0)	2.110 (0.480 - 2.290)	9.27	99
22+22	2.2	2.2			4.4 (2.0 - 5.4)	1.180 (0.540 - 1.450)	5.18	99
22+25	2.2	2.5			4.7 (2.0 - 5.8)	1.300 (0.540 - 1.630)	5.71	99
22+35	2.2	3.5			5.7 (2.0 - 6.6)	1.800 (0.540 - 2.100)	7.91	99
22+50	2.08	4.72			6.8 (2.0 - 7.1)	2.440 (0.550 - 2.570)	10.72	99
22+60	1.82	4.98			6.8 (2.0 - 7.1)	2.460 (0.550 - 2.600)	10.80	99
25+25	2.5	2.5			5.0 (2.0 - 6.0)	1.420 (0.540 - 1.750)	6.24	99
25+35	2.5	3.5			6.0 (2.0 - 7.1)	2.010 (0.540 - 2.540)	8.83	99
25+50	2.27	4.53			6.8 (2.0 - 7.1)	2.440 (0.550 - 2.590)	10.72	99
25+60	2.0	4.8			6.8 (2.0 - 7.1)	2.460 (0.550 - 2.600)	10.80	99
35+35	3.4	3.4			6.8 (2.0 - 7.1)	2.570 (0.540 - 2.550)	11.29	99
35+50	2.8	4.0			6.8 (2.0 - 7.1)	2.440 (0.550 - 2.600)	10.72	99
35+60	2.51	4.29			6.8 (2.0 - 7.1)	2.460 (0.550 - 2.610)	10.80	99
50+50	3.4	3.4			6.8 (2.1 - 7.1)	2.380 (0.560 - 2.610)	10.45	99
50+60	3.09	3.71			6.8 (2.1 - 7.1)	2.400 (0.570 - 2.620)	10.54	99
60+60	3.4	3.4			6.8 (2.1 - 7.1)	2.420 (0.580 - 2.630)	10.63	99
22+22+22	2.2	2.2	2.2		6.6 (2.9 - 8.1)	1.750 (0.670 - 2.390)	7.69	99
22+22+25	2.2	2.2	2.5		6.9 (2.9 - 8.3)	1.880 (0.670 - 2.510)	8.26	99
22+22+35	1.98	1.98	3.14		7.1 (2.9 - 8.5)	1.990 (0.670 - 2.690)	8.74	99
22+22+50	1.66	1.66	3.78		7.1 (2.9 - 8.5)	1.960 (0.680 - 2.720)	8.61	99
22+22+60	1.5	1.5	4.1		7.1 (2.9 - 8.5)	1.950 (0.680 - 2.740)	8.56	99
22+25+25	2.16	2.47	2.47		7.1 (2.9 - 8.5)	1.990 (0.670 - 2.690)	8.74	99
22+25+35	1.91	2.16	3.03		7.1 (2.9 - 8.5)	1.990 (0.670 - 2.690)	8.74	99
22+25+50	1.61	1.83	3.66		7.1 (2.9 - 8.5)	1.960 (0.680 - 2.720)	8.61	99
22+25+60	1.46	1.66	3.98		7.1 (2.9 - 8.5)	1.950 (0.680 - 2.740)	8.56	99
22+35+35	1.7	2.7	2.7		7.1 (2.9 - 8.5)	1.990 (0.670 - 2.690)	8.74	99
22+35+50	1.46	2.32	3.32		7.1 (2.9 - 8.5)	1.960 (0.680 - 2.720)	8.61	99
22+35+60	1.34	2.12	3.64		7.1 (2.9 - 8.5)	1.950 (0.680 - 2.740)	8.56	99
22+50+50	1.28	2.91	2.91		7.1 (2.9 - 8.5)	1.940 (0.690 - 2.770)	8.52	99
25+25+25	2.36	2.36	2.36		7.1 (2.9 - 8.5)	1.990 (0.670 - 2.690)	8.74	99

NOTE: Electrical data is for outdoor unit only.

Indoor units combination	Cooling capacity (kW)					Outdoor unit power consumption (kW)	Current (A)	Power factor (%)
	Unit A	Unit B	Unit C	Unit D	Total			
25+25+35	2.09	2.09	2.92		7.1 (2.9 - 8.5)	1.99 (0.670 - 2.690)	8.74	99
25+25+50	1.78	1.78	3.54		7.1 (2.9 - 8.5)	1.96 (0.680 - 2.720)	8.61	99
25+25+60	1.61	1.61	3.88		7.1 (2.9 - 8.5)	1.95 (0.680 - 2.740)	8.56	99
25+35+35	1.86	2.62	2.62		7.1 (2.9 - 8.5)	1.99 (0.670 - 2.690)	8.74	99
25+35+50	1.61	2.26	3.23		7.1 (2.9 - 8.5)	1.96 (0.680 - 2.720)	8.61	99
25+35+60	1.48	2.07	3.55		7.1 (2.9 - 8.5)	1.95 (0.680 - 2.740)	8.56	99
25+50+50	1.42	2.84	2.84		7.1 (2.9 - 8.5)	1.94 (0.690 - 2.770)	8.52	99
35+35+35	2.36	2.36	2.36		7.1 (2.9 - 8.5)	1.99 (0.670 - 2.690)	8.74	99
35+35+50	2.07	2.07	2.96		7.1 (2.9 - 8.5)	1.96 (0.680 - 2.720)	8.61	99
22+22+22+22	1.77	1.77	1.77	1.77	7.1 (3.7 - 8.8)	1.95 (0.800 - 2.750)	8.56	99
22+22+22+25	1.72	1.72	1.72	1.94	7.1 (3.7 - 8.8)	1.95 (0.800 - 2.750)	8.56	99
22+22+22+35	1.55	1.55	1.55	2.45	7.1 (3.7 - 8.8)	1.95 (0.800 - 2.750)	8.56	99
22+22+22+50	1.35	1.35	1.35	3.05	7.1 (3.7 - 8.8)	1.91 (0.810 - 2.780)	8.39	99
22+22+25+25	1.66	1.66	1.89	1.89	7.1 (3.7 - 8.8)	1.95 (0.800 - 2.750)	8.56	99
22+22+25+35	1.5	1.5	1.71	2.39	7.1 (3.7 - 8.8)	1.95 (0.800 - 2.750)	8.56	99
22+22+25+50	1.31	1.31	1.5	2.98	7.1 (3.7 - 8.8)	1.91 (0.810 - 2.780)	8.39	99
22+22+35+35	1.37	1.37	2.18	2.18	7.1 (3.7 - 8.8)	1.95 (0.800 - 2.750)	8.56	99
22+25+25+25	1.61	1.83	1.83	1.83	7.1 (3.7 - 8.8)	1.95 (0.800 - 2.750)	8.56	99
22+25+25+35	1.46	1.66	1.66	2.32	7.1 (3.7 - 8.8)	1.95 (0.800 - 2.750)	8.56	99
22+25+25+50	1.29	1.45	1.45	2.91	7.1 (3.7 - 8.8)	1.91 (0.810 - 2.780)	8.39	99
22+25+35+35	1.34	1.52	2.12	2.12	7.1 (3.7 - 8.8)	1.95 (0.800 - 2.750)	8.56	99
25+25+25+25	1.77	1.77	1.77	1.77	7.1 (3.7 - 8.8)	1.95 (0.800 - 2.750)	8.56	99
25+25+25+35	1.61	1.61	1.61	2.27	7.1 (3.7 - 8.8)	1.95 (0.800 - 2.750)	8.56	99
25+25+25+50	1.42	1.42	1.42	2.84	7.1 (3.7 - 8.8)	1.91 (0.810 - 2.780)	8.39	99
25+25+35+35	1.48	1.48	2.07	2.07	7.1 (3.7 - 8.8)	1.95 (0.800 - 2.750)	8.56	99

NOTE: Electrical data is for outdoor unit only.

Indoor units combination	Heating capacity (kW)					Outdoor unit power consumption (kW)	Current (A)	Power factor (%)
	Unit A	Unit B	Unit C	Unit D	Total			
22	3.3				3.3 (1.2 - 4.2)	0.820 (0.380 - 1.090)	3.60	99
25	3.6				3.6 (1.2 - 4.5)	0.910 (0.380 - 1.190)	4.00	99
35	4.0				4.0 (1.2 - 4.8)	1.040 (0.380 - 1.300)	4.57	99
50	7.2				7.2 (1.4 - 8.2)	1.880 (0.370 - 2.300)	8.26	99
60	7.9				7.9 (1.4 - 8.6)	2.150 (0.360 - 2.410)	9.44	99
22+22	3.3	3.3			6.6 (1.8 - 7.2)	1.500 (0.410 - 1.710)	6.59	99
22+25	3.23	3.67			6.9 (1.8 - 8.7)	1.610 (0.410 - 2.350)	7.07	99
22+35	2.82	4.48			7.3 (1.8 - 9.0)	1.770 (0.410 - 2.390)	7.77	99
22+50	2.63	5.97			8.6 (1.8 - 9.0)	2.110 (0.390 - 2.220)	9.27	99
22+60	2.31	6.29			8.6 (1.8 - 9.0)	2.090 (0.380 - 2.220)	9.18	99
25+25	3.6	3.6			7.2 (1.8 - 9.0)	1.710 (0.410 - 2.390)	7.51	99
25+35	3.17	4.43			7.6 (1.8 - 9.0)	1.890 (0.410 - 2.390)	8.30	99
25+50	2.87	5.73			8.6 (1.8 - 9.0)	2.110 (0.390 - 2.220)	9.27	99
25+60	2.53	6.07			8.6 (1.8 - 9.0)	2.090 (0.380 - 2.220)	9.18	99
35+35	4.3	4.3			8.6 (1.8 - 9.0)	2.030 (0.410 - 2.390)	8.92	99
35+50	3.54	5.06			8.6 (1.8 - 9.0)	2.110 (0.390 - 2.220)	9.27	99
35+60	3.17	5.43			8.6 (1.8 - 9.0)	2.090 (0.380 - 2.220)	9.18	99
50+50	4.3	4.3			8.6 (1.9 - 9.0)	1.820 (0.360 - 2.040)	7.99	99
50+60	3.91	4.69			8.6 (1.9 - 9.0)	1.820 (0.360 - 2.040)	7.99	99
60+60	4.3	4.3			8.6 (1.9 - 9.0)	1.820 (0.360 - 2.040)	7.99	99
22+22+22	2.87	2.87	2.87		8.6 (2.6 - 9.0)	2.020 (0.500 - 2.120)	8.87	99
22+22+25	2.74	2.74	3.12		8.6 (2.6 - 9.0)	2.020 (0.500 - 2.120)	8.87	99
22+22+35	2.39	2.39	3.82		8.6 (2.6 - 9.0)	2.020 (0.500 - 2.120)	8.87	99
22+22+50	2.01	2.01	4.58		8.6 (2.6 - 9.0)	1.860 (0.480 - 1.996)	8.17	99
22+22+60	1.82	1.82	4.96		8.6 (2.6 - 9.0)	1.850 (0.480 - 1.960)	8.12	99
22+25+25	2.62	2.99	2.99		8.6 (2.6 - 9.0)	2.020 (0.500 - 2.120)	8.87	99
22+25+35	2.31	2.62	3.67		8.6 (2.6 - 9.0)	2.020 (0.500 - 2.120)	8.87	99
22+25+50	1.95	2.22	4.43		8.6 (2.6 - 9.0)	1.860 (0.480 - 1.960)	8.17	99
22+25+60	1.77	2.01	4.82		8.6 (2.6 - 9.0)	1.850 (0.480 - 1.960)	8.12	99
22+35+35	2.06	3.27	3.27		8.6 (2.6 - 9.0)	2.020 (0.500 - 2.120)	8.87	99
22+35+50	1.77	2.81	4.02		8.6 (2.6 - 9.0)	1.860 (0.480 - 1.960)	8.17	99
22+35+60	1.62	2.57	4.41		8.6 (2.6 - 9.0)	1.850 (0.480 - 1.960)	8.12	99
22+50+50	1.56	3.52	3.52		8.6 (2.6 - 9.0)	1.670 (0.460 - 1.830)	7.33	99
25+25+25	2.86	2.86	2.86		8.6 (2.6 - 9.0)	2.020 (0.500 - 2.120)	8.87	99

NOTE: Electrical data is for outdoor unit only.

Indoor units combination	Heating capacity (kW)					Outdoor unit power consumption (kW)	Current (A)	Power factor (%)
	Unit A	Unit B	Unit C	Unit D	Total			
25+25+35	2.53	2.53	3.54		8.6 (2.6 - 9.0)	2.020 (0.500 - 2.120)	8.87	99
25+25+50	2.15	2.15	4.3		8.6 (2.6 - 9.0)	1.860 (0.480 - 1.996)	8.17	99
25+25+60	1.95	1.95	4.68		8.6 (2.6 - 9.0)	1.850 (0.480 - 1.960)	8.12	99
25+35+35	2.26	3.17	3.17		8.6 (2.6 - 9.0)	2.020 (0.500 - 2.120)	8.87	99
25+35+50	1.95	2.74	3.91		8.6 (2.6 - 9.0)	1.860 (0.480 - 1.960)	8.17	99
25+35+60	1.79	2.51	4.3		8.6 (2.6 - 9.0)	1.850 (0.480 - 1.960)	8.12	99
25+50+50	1.72	3.44	3.44		8.6 (2.6 - 9.0)	1.670 (0.460 - 1.830)	7.33	99
35+35+35	2.86	2.86	2.86		8.6 (2.6 - 9.0)	2.020 (0.500 - 2.120)	8.87	99
35+35+50	2.51	2.51	3.58		8.6 (2.6 - 9.0)	1.860 (0.500 - 1.960)	8.17	99
22+22+22+22	2.15	2.15	2.15	2.15	8.6 (3.4 - 9.0)	1.930 (0.600 - 1.960)	8.48	99
22+22+22+25	2.08	2.08	2.08	2.36	8.6 (3.4 - 9.0)	1.930 (0.600 - 1.960)	8.48	99
22+22+22+35	1.87	1.87	1.87	2.98	8.6 (3.4 - 9.0)	1.930 (0.600 - 1.960)	8.48	99
22+22+22+50	1.63	1.63	1.63	3.71	8.6 (3.4 - 9.0)	1.770 (0.600 - 1.930)	7.77	99
22+22+25+25	2.01	2.01	2.29	2.29	8.6 (3.4 - 9.0)	1.930 (0.600 - 1.960)	8.48	99
22+22+25+35	1.82	1.82	2.07	2.89	8.6 (3.4 - 9.0)	1.930 (0.600 - 1.960)	8.48	99
22+22+25+50	1.59	1.59	1.81	3.61	8.6 (3.4 - 9.0)	1.770 (0.600 - 1.930)	7.77	99
22+22+35+35	1.66	1.66	2.64	2.64	8.6 (3.4 - 9.0)	1.930 (0.600 - 1.960)	8.48	99
22+25+25+25	1.94	2.22	2.22	2.22	8.6 (3.4 - 9.0)	1.930 (0.600 - 1.960)	8.48	99
22+25+25+35	1.77	2.01	2.01	2.81	8.6 (3.4 - 9.0)	1.930 (0.600 - 1.960)	8.48	99
22+25+25+50	1.56	1.76	1.76	3.52	8.6 (3.4 - 9.0)	1.770 (0.600 - 1.930)	7.77	99
22+25+35+35	1.62	1.84	2.57	2.57	8.6 (3.4 - 9.0)	1.930 (0.600 - 1.960)	8.48	99
25+25+25+25	2.15	2.15	2.15	2.15	8.6 (3.4 - 9.0)	1.930 (0.600 - 1.960)	8.48	99
25+25+25+35	1.95	1.95	1.95	2.75	8.6 (3.4 - 9.0)	1.930 (0.600 - 1.960)	8.48	99
25+25+25+50	1.72	1.72	1.72	3.44	8.6 (3.4 - 9.0)	1.770 (0.600 - 1.930)	7.77	99
25+25+35+35	1.79	1.79	2.51	2.51	8.6 (3.4 - 9.0)	1.930 (0.600 - 1.960)	8.48	99

MXZ-4A80VA

NOTE: Electrical data is for outdoor unit only.

Indoor units combination	Cooling capacity (kW)					Outdoor unit power consumption (kW)	Current (A)	Power factor (%)
	Unit A	Unit B	Unit C	Unit D	Total			
22	2.2	-	-	-	2.2 (1.4-3.0)	0.680 (0.400-0.920)	2.99	99
25	2.5	-	-	-	2.5 (1.4-3.3)	0.760 (0.400-1.010)	3.34	99
35	3.5	-	-	-	3.5 (1.5-4.3)	1.030 (0.400-1.290)	4.52	99
50	5.0	-	-	-	5.0 (1.6-5.6)	1.440 (0.420-1.630)	6.32	99
60	6.0	-	-	-	6.0 (1.6-6.6)	1.930 (0.400-2.130)	8.48	99
71	7.1	-	-	-	7.1 (1.7-7.4)	2.580 (0.410-2.710)	11.33	99
22+22	2.2	2.2	-	-	4.4 (2.0-5.4)	1.130 (0.600-1.600)	4.96	99
22+25	2.2	2.5	-	-	4.7 (2.0-5.8)	1.270 (0.600-1.770)	5.58	99
22+35	2.2	3.5	-	-	5.7 (2.0-6.6)	1.710 (0.600-2.200)	7.51	99
22+50	2.2	5.0	-	-	7.2 (2.0-7.7)	2.450 (0.560-2.710)	10.76	99
22+60	1.75	6.0	-	-	7.75 (2.0-8.0)	2.750 (0.560-3.050)	12.08	99
22+71	1.66	6.19	-	-	7.85 (2.0-8.2)	2.810 (0.560-3.200)	12.34	99
25+25	2.5	2.5	-	-	5.0 (2.0-6.2)	1.360 (0.580-1.950)	5.97	99
25+35	2.5	3.5	-	-	6.0 (2.0-7.1)	2.010 (0.540-2.540)	8.83	99
25+50	2.5	5.0	-	-	7.5 (2.0-8.5)	2.580 (0.560-3.200)	11.33	99
25+60	2.11	5.64	-	-	7.75 (2.0-8.6)	2.750 (0.560-3.280)	12.08	99
25+71	2.01	5.84	-	-	7.85 (2.0-8.7)	2.810 (0.560-3.320)	12.34	99
35+35	3.5	3.5	-	-	7.0 (2.0-7.1)	2.400 (0.540-2.550)	10.54	99
35+50	3.1	4.65	-	-	7.75 (2.0-8.8)	2.760 (0.560-3.220)	12.12	99
35+60	2.61	5.24	-	-	7.85 (2.0-8.8)	2.730 (0.560-3.180)	11.99	99
35+71	2.51	5.44	-	-	7.95 (2.0-8.8)	2.780 (0.560-3.180)	12.21	99
50+50	3.95	3.95	-	-	7.9 (2.1-8.8)	2.780 (0.590-3.160)	12.21	99
50+60	3.42	4.57	-	-	8.0 (2.1-8.8)	2.800 (0.570-3.120)	12.30	99
50+71	3.27	4.72	-	-	8.0 (2.1-8.8)	2.800 (0.570-3.120)	12.30	99
60+60	4.0	4.0	-	-	8.0 (2.1-8.8)	2.690 (0.550-3.080)	11.81	99
60+71	3.84	4.16	-	-	8.0 (2.1-8.8)	2.690 (0.550-3.080)	11.81	99
22+22+22	2.2	2.2	2.2	-	6.6 (2.9-8.1)	1.860 (0.690-2.410)	8.17	99
22+22+25	2.2	2.2	2.5	-	6.9 (2.9-8.3)	1.970 (0.670-2.510)	8.65	99
22+22+35	2.14	2.14	3.42	-	7.7 (2.9-9.0)	2.310 (0.690-2.970)	10.14	99
22+22+50	1.72	1.72	4.41	-	7.85 (2.9-9.0)	2.320 (0.700-2.920)	10.19	99
22+22+60	1.46	1.46	5.03	-	7.95 (2.9-9.0)	2.370 (0.680-2.880)	10.41	99
22+22+71	1.4	1.4	5.2	-	8.0 (2.9-9.0)	2.390 (0.680-2.880)	10.50	99
22+25+25	2.2	2.5	2.5	-	7.2 (2.9-8.9)	2.100 (0.690-2.940)	9.22	99
22+25+35	2.08	2.36	3.31	-	7.75 (2.9-9.0)	2.350 (0.690-2.970)	10.32	99

NOTE: Electrical data is for outdoor unit only.

Indoor units combination	Cooling capacity (kW)					Outdoor unit power consumption (kW)	Current (A)	Power factor (%)
	Unit A	Unit B	Unit C	Unit D	Total			
22+25+50	1.79	2.04	4.07	—	7.9 (2.9-9.0)	2.370 (0.700-2.920)	10.41	99
22+25+60	1.64	1.87	4.49	—	8.0 (2.9-9.0)	2.390 (0.680-2.880)	10.50	99
22+25+71	1.49	1.69	4.82	—	8.0 (2.9-9.0)	2.390 (0.680-2.880)	10.50	99
22+35+35	1.87	2.99	2.99	—	7.85 (2.9-9.0)	2.350 (0.690-2.920)	10.32	99
22+35+50	1.63	2.58	3.69	—	7.9 (2.9-9.0)	2.320 (0.700-2.890)	10.19	99
22+35+60	1.5	2.4	4.1	—	8.0 (2.9-9.0)	2.350 (0.680-2.860)	10.32	99
22+35+71	1.38	2.18	4.44	—	8.0 (2.9-9.0)	2.350 (0.680-2.860)	10.32	99
22+50+50	1.44	3.28	3.28	—	8.0 (2.9-9.0)	2.330 (0.680-2.860)	10.23	99
22+50+60	1.33	3.03	3.64	—	8.0 (2.9-9.0)	2.300 (0.660-2.830)	10.10	99
22+50+71	1.23	2.8	3.97	—	8.0 (2.9-9.0)	2.300 (0.660-2.830)	10.10	99
25+25+25	2.5	2.5	2.5	—	7.5 (2.9-9.0)	2.250 (0.690-3.010)	9.88	99
25+25+35	2.28	2.28	3.19	—	7.75 (2.9-9.0)	2.350 (0.690-2.970)	10.32	99
25+25+50	1.98	1.98	3.94	—	7.9 (2.9-9.0)	2.370 (0.700-2.920)	10.41	99
25+25+60	1.82	1.82	4.36	—	8.0 (2.9-9.0)	2.390 (0.680-2.880)	10.50	99
25+25+71	1.65	1.65	4.7	—	8.0 (2.9-9.0)	2.390 (0.680-2.880)	10.50	99
25+35+35	2.07	2.89	2.89	—	7.85 (2.9-9.0)	2.350 (0.690-2.920)	10.32	99
25+35+50	1.82	2.54	3.64	—	8.0 (2.9-9.0)	2.380 (0.700-2.890)	10.45	99
25+35+60	1.67	2.33	4.0	—	8.0 (2.9-9.0)	2.350 (0.680-2.860)	10.32	99
25+35+71	1.53	2.14	4.33	—	8.0 (2.9-9.0)	2.350 (0.680-2.860)	10.32	99
25+50+50	1.6	3.2	3.2	—	8.0 (2.9-9.0)	2.330 (0.660-2.840)	10.23	99
25+50+60	1.48	2.96	3.56	—	8.0 (2.9-9.0)	2.300 (0.660-2.830)	10.10	99
35+35+35	2.65	2.65	2.65	—	7.95 (2.9-9.0)	2.280 (0.720-2.910)	10.01	99
35+35+50	2.33	2.33	3.34	—	8.0 (2.9-9.0)	2.280 (0.700-2.870)	10.01	99
35+35+60	2.15	2.15	3.7	—	8.0 (2.9-9.0)	2.260 (0.680-2.840)	9.93	99
35+35+71	1.99	1.99	4.02	—	8.0 (2.9-9.0)	2.260 (0.680-2.840)	9.93	99
35+50+50	2.08	2.96	2.96	—	8.0 (2.9-9.0)	2.240 (0.680-2.840)	9.84	99
35+50+60	1.93	2.76	3.31	—	8.0 (2.9-9.0)	2.220 (0.660-2.810)	9.75	99
22+22+22+22	1.95	1.95	1.95	1.95	7.8 (3.7-9.2)	2.180 (0.810-2.670)	9.57	99
22+22+22+25	1.9	1.9	1.9	2.15	7.85 (3.7-9.2)	2.190 (0.810-2.670)	9.62	99
22+22+22+35	1.73	1.73	1.73	2.76	7.95 (3.7-9.2)	2.210 (0.810-2.650)	9.71	99
22+22+22+50	1.52	1.52	1.52	3.44	8.0 (3.7-9.2)	2.150 (0.790-2.620)	9.44	99
22+22+22+60	1.4	1.4	1.4	3.81	8.0 (3.7-9.2)	2.130 (0.770-2.590)	9.35	99
22+22+22+71	1.28	1.28	1.28	4.16	8.0 (3.7-9.2)	2.130 (0.770-2.590)	9.35	99
22+22+25+25	1.87	1.87	2.13	2.13	7.85 (3.7-9.2)	2.190 (0.810-2.670)	9.62	99

NOTE: Electrical data is for outdoor unit only.

Indoor units combination	Cooling capacity (kW)					Outdoor unit power consumption (kW)	Current (A)	Power factor (%)
	Unit A	Unit B	Unit C	Unit D	Total			
22+22+25+35	1.68	1.68	1.91	1.91	7.95 (3.7-9.2)	2.210 (0.810-2.650)	9.71	99
22+22+25+50	1.48	1.48	1.68	3.36	8.0 (3.7-9.2)	2.150 (0.790-2.620)	9.44	99
22+22+25+60	1.36	1.36	1.55	3.73	8.0 (3.7-9.2)	2.130 (0.770-2.590)	9.35	99
22+22+25+71	1.26	1.26	1.43	4.05	8.0 (3.7-9.2)	2.130 (0.770-2.590)	9.35	99
22+22+35+35	1.54	1.54	2.46	2.46	8.0 (3.7-9.2)	2.210 (0.810-2.620)	9.71	99
22+22+35+50	1.36	1.36	2.18	3.1	8.0 (3.7-9.2)	2.120 (0.790-2.590)	9.31	99
22+22+35+60	1.12	1.12	1.92	3.84	8.0 (3.7-9.2)	2.100 (0.770-2.560)	9.22	99
22+22+50+50	1.22	1.22	2.78	2.78	8.0 (3.7-9.2)	2.070 (0.770-2.560)	9.09	99
22+25+25+25	1.78	2.04	2.04	2.04	7.9 (3.7-9.2)	2.140 (0.810-2.670)	9.40	99
22+25+25+35	1.63	1.86	1.86	2.6	7.95 (3.7-9.2)	2.210 (0.810-2.650)	9.71	99
22+25+25+50	1.44	1.64	1.64	3.28	8.0 (3.7-9.2)	2.150 (0.790-2.620)	9.44	99
22+25+25+60	1.33	1.52	1.52	3.64	8.0 (3.7-9.2)	2.130 (0.770-2.590)	9.35	99
22+25+35+35	1.51	1.71	2.39	2.39	8.0 (3.7-9.2)	2.210 (0.810-2.620)	9.71	99
22+25+35+50	1.33	1.52	2.12	3.03	8.0 (3.7-9.2)	2.120 (0.790-2.590)	9.31	99
22+25+35+60	1.24	1.41	1.97	3.38	8.0 (3.7-9.2)	2.100 (0.770-2.560)	9.22	99
22+35+35+35	1.4	2.2	2.2	2.2	8.0 (3.7-9.2)	2.200 (0.810-2.610)	9.66	99
22+35+35+50	1.24	1.97	1.97	2.82	8.0 (3.7-9.2)	2.080 (0.790-2.580)	9.13	99
25+25+25+25	1.98	1.98	1.98	1.98	7.92 (3.7-9.2)	2.150 (0.810-2.670)	9.44	99
25+25+25+35	1.82	1.82	1.82	2.54	8.0 (3.7-9.2)	2.220 (0.810-2.650)	9.75	99
25+25+25+50	1.6	1.6	1.6	3.2	8.0 (3.7-9.2)	2.150 (0.790-2.620)	9.44	99
25+25+25+60	1.48	1.48	1.48	3.56	8.0 (3.7-9.2)	2.130 (0.770-2.590)	9.35	99
25+25+35+35	1.67	1.67	2.33	2.33	8.0 (3.7-9.2)	2.210 (0.810-2.620)	9.71	99
25+25+35+50	1.48	1.48	2.08	2.96	8.0 (3.7-9.2)	2.120 (0.790-2.590)	9.31	99
25+35+35+35	1.55	2.15	2.15	2.15	8.0 (3.7-9.2)	2.200 (0.810-2.610)	9.66	99
35+35+35+35	2.0	2.0	2.0	2.0	8.0 (3.7-9.2)	2.190 (0.810-2.580)	9.62	99

NOTE: Electrical data is for outdoor unit only.

Indoor units combination	Heating capacity (kW)					Outdoor unit power consumption (kW)	Current (A)	Power factor (%)
	Unit A	Unit B	Unit C	Unit D	Total			
22	3.3	–	–	–	3.3 (1.2-4.2)	1.050 (0.340-1.380)	4.61	99
25	3.6	–	–	–	3.6 (1.2-4.5)	1.110 (0.340-1.510)	4.87	99
35	4.0	–	–	–	4.0 (1.2-4.8)	1.210 (0.330-1.570)	5.31	99
50	7.2	–	–	–	7.2 (1.4-8.2)	2.270 (0.330-2.710)	9.97	99
60	7.9	–	–	–	7.9 (1.4-8.6)	2.700 (0.330-3.060)	11.86	99
71	8.6	–	–	–	8.6 (1.6-9.2)	3.220 (0.360-3.520)	14.14	99
22+22	3.3	3.3	–	–	6.6 (1.8-7.2)	2.020 (0.480-2.760)	8.87	99
22+25	3.23	3.67	–	–	6.9 (1.8-8.7)	2.120 (0.480-3.000)	9.31	99
22+35	2.82	4.48	–	–	7.3 (1.8-9.2)	2.130 (0.480-3.110)	9.35	99
22+50	2.72	6.2	–	–	8.9 (1.8-9.9)	2.470 (0.460-3.140)	10.85	99
22+60	2.52	6.88	–	–	9.4 (1.8-9.9)	2.710 (0.460-3.140)	11.90	99
22+71	2.22	7.18	–	–	9.4 (1.8-9.9)	2.710 (0.460-3.140)	11.90	99
25+25	3.6	3.6	–	–	7.2 (1.8-9.1)	2.170 (0.480-3.140)	9.53	99
25+35	3.17	4.43	–	–	7.6 (1.8-9.5)	2.210 (0.480-3.230)	9.71	99
25+50	3.0	6.0	–	–	9.0 (1.8-10.1)	2.520 (0.460-3.260)	11.07	99
25+60	2.76	6.64	–	–	9.4 (1.8-10.1)	2.710 (0.460-3.260)	11.90	99
25+71	2.42	6.98	–	–	9.4 (1.8-10.1)	2.710 (0.460-3.260)	11.90	99
35+35	4.0	4.0	–	–	8.0 (1.8-9.8)	2.370 (0.480-3.230)	10.41	99
35+50	3.87	5.53	–	–	9.4 (1.8-10.5)	2.560 (0.460-3.420)	11.24	99
35+60	3.46	5.94	–	–	9.4 (1.8-10.5)	2.560 (0.460-3.420)	11.24	99
35+71	3.1	6.3	–	–	9.4 (1.8-10.5)	2.560 (0.460-3.420)	11.24	99
50+50	4.7	4.7	–	–	9.4 (1.9-11.2)	2.370 (0.440-3.320)	10.41	99
50+60	4.27	5.13	–	–	9.4 (1.9-11.2)	2.370 (0.440-3.320)	10.41	99
50+71	3.88	5.52	–	–	9.4 (1.9-11.2)	2.370 (0.440-3.320)	10.41	99
60+60	4.7	4.7	–	–	9.4 (1.9-11.2)	2.370 (0.440-3.320)	10.41	99
60+71	4.31	5.09	–	–	9.4 (1.9-11.2)	2.370 (0.440-3.320)	10.41	99
22+22+22	2.9	2.9	2.9	–	8.7 (2.6-10.6)	2.150 (0.530-3.060)	9.44	99
22+22+25	2.84	2.81	3.19	–	8.8 (2.6-11.1)	2.170 (0.530-3.330)	9.53	99
22+22+35	2.62	2.62	4.16	–	9.4 (2.6-11.6)	2.310 (0.530-3.400)	10.14	99
22+22+50	2.2	2.2	5.0	–	9.4 (2.6-11.6)	2.120 (0.510-3.330)	9.31	99
22+22+60	1.99	1.99	5.42	–	9.4 (2.6-11.6)	2.120 (0.510-3.330)	9.31	99
22+22+71	1.8	1.8	5.8	–	9.4 (2.6-11.6)	2.120 (0.510-3.330)	9.31	99
22+25+25	2.72	3.09	3.09	–	8.9 (2.6-11.6)	2.170 (0.530-3.420)	9.53	99
22+25+35	2.52	2.87	4.01	–	9.4 (2.6-11.6)	2.270 (0.530-3.410)	9.97	99

NOTE: Electrical data is for outdoor unit only.

Indoor units combination	Heating capacity (kW)					Outdoor unit power consumption (kW)	Current (A)	Power factor (%)
	Unit A	Unit B	Unit C	Unit D	Total			
22+25+50	2.13	2.42	4.85	–	9.4 (2.6-11.6)	2.100 (0.510-3.330)	9.22	99
22+25+60	1.93	2.2	5.27	–	9.4 (2.6-11.6)	2.100 (0.510-3.330)	9.22	99
22+25+71	1.75	1.99	5.66	–	9.4 (2.6-11.6)	2.100 (0.510-3.330)	9.22	99
22+35+35	2.25	3.58	3.58	–	9.4 (2.6-11.6)	2.210 (0.530-3.400)	9.71	99
22+35+50	1.93	3.07	4.39	–	9.4 (2.7-11.6)	2.050 (0.510-3.230)	9.00	99
22+35+60	1.77	2.81	4.82	–	9.4 (2.7-11.6)	2.050 (0.510-3.230)	9.00	99
22+35+71	1.62	2.57	5.21	–	9.4 (2.7-11.6)	2.050 (0.510-3.230)	9.00	99
22+50+50	1.7	3.85	3.85	–	9.4 (2.7-11.6)	1.960 (0.490-3.100)	8.61	99
22+50+60	1.57	3.56	4.27	–	9.4 (2.7-11.6)	1.960 (0.490-3.100)	8.61	99
22+50+71	1.45	3.29	4.67	–	9.4 (2.7-11.6)	1.960 (0.490-3.100)	8.61	99
25+25+25	3.0	3.0	3.0	–	9.0 (2.6-11.6)	2.170 (0.530-3.420)	9.53	99
25+25+35	2.76	2.76	3.87	–	9.4 (2.6-11.6)	2.250 (0.530-3.410)	9.88	99
25+25+50	2.35	2.35	4.7	–	9.4 (2.6-11.6)	2.090 (0.510-3.320)	9.18	99
25+25+60	2.14	2.14	5.13	–	9.4 (2.6-11.6)	2.090 (0.510-3.320)	9.18	99
25+25+71	1.94	1.94	5.52	–	9.4 (2.6-11.6)	2.090 (0.510-3.320)	9.18	99
25+35+35	2.48	3.46	3.46	–	9.4 (2.6-11.6)	2.190 (0.530-3.400)	9.62	99
25+35+50	2.14	2.99	4.27	–	9.4 (2.7-11.6)	2.030 (0.510-3.230)	8.92	99
25+35+60	1.96	2.74	4.7	–	9.4 (2.7-11.6)	2.030 (0.510-3.230)	8.92	99
25+35+71	1.79	2.51	5.09	–	9.4 (2.7-11.6)	2.030 (0.510-3.230)	8.92	99
25+50+50	1.88	3.76	3.76	–	9.4 (2.7-11.6)	1.940 (0.490-3.100)	8.52	99
25+50+60	1.74	3.48	4.18	–	9.4 (2.7-11.6)	1.940 (0.490-3.100)	8.52	99
35+35+35	3.13	3.13	3.13	–	9.4 (2.6-11.6)	2.170 (0.530-3.380)	9.53	99
35+35+50	2.74	2.74	3.92	–	9.4 (2.7-11.6)	2.010 (0.510-3.160)	8.83	99
35+35+60	2.53	2.53	4.34	–	9.4 (2.7-11.6)	2.010 (0.510-3.160)	8.83	99
35+35+71	2.33	2.33	4.74	–	9.4 (2.7-11.6)	2.010 (0.510-3.160)	8.83	99
35+50+50	2.44	3.48	3.48	–	9.4 (2.7-11.6)	1.920 (0.490-3.030)	8.43	99
35+50+60	2.27	3.24	3.89	–	9.4 (2.7-11.6)	1.920 (0.490-3.030)	8.43	99
22+22+22+22	2.35	2.35	2.35	2.35	9.4 (3.4-11.6)	2.020 (0.590-3.420)	8.87	99
22+22+22+25	2.27	2.27	2.27	2.59	9.4 (3.4-11.6)	1.990 (0.590-3.410)	8.74	99
22+22+22+35	2.05	2.05	2.05	3.25	9.4 (3.4-11.6)	1.960 (0.590-3.390)	8.61	99
22+22+22+50	1.78	1.78	1.78	4.06	9.4 (3.5-11.6)	1.910 (0.580-3.260)	8.39	99
22+22+22+60	1.64	1.64	1.64	4.48	9.4 (3.5-11.6)	1.910 (0.580-3.260)	8.39	99
22+22+22+71	1.51	1.51	1.51	4.87	9.4 (3.5-11.6)	1.910 (0.580-3.260)	8.39	99
22+22+25+25	2.2	2.2	2.5	2.5	9.4 (3.4-11.6)	1.980 (0.590-3.400)	8.70	99

NOTE: Electrical data is for outdoor unit only.

Indoor units combination	Heating capacity (kW)					Outdoor unit power consumption (kW)	Current (A)	Power factor (%)
	Unit A	Unit B	Unit C	Unit D	Total			
22+22+25+35	1.99	1.99	2.26	3.16	9.4 (3.4-11.6)	1.940 (0.590-3.390)	8.52	99
22+22+25+50	1.74	1.74	1.97	3.95	9.4 (3.5-11.6)	1.890 (0.580-3.270)	8.30	99
22+22+25+60	1.6	1.6	1.83	4.37	9.4 (3.5-11.6)	1.890 (0.580-3.270)	8.30	99
22+22+25+71	1.48	1.48	1.68	4.76	9.4 (3.5-11.6)	1.890 (0.580-3.270)	8.30	99
22+22+35+35	1.81	1.81	2.89	2.89	9.4 (3.4-11.6)	1.910 (0.590-3.340)	8.39	99
22+22+35+50	1.6	1.6	2.55	3.65	9.4 (3.5-11.6)	1.820 (0.580-3.220)	7.99	99
22+22+35+60	1.49	1.49	2.37	4.05	9.4 (3.5-11.6)	1.820 (0.580-3.220)	7.99	99
22+22+50+50	1.44	1.44	3.26	3.26	9.4 (3.4-11.6)	1.750 (0.550-3.130)	7.69	99
22+25+25+25	2.14	2.42	2.42	2.42	9.4 (3.4-11.6)	1.960 (0.590-3.390)	8.61	99
22+25+25+35	1.93	2.2	2.2	3.07	9.4 (3.4-11.6)	1.920 (0.590-3.370)	8.43	99
22+25+25+50	1.7	1.93	1.93	3.85	9.4 (3.5-11.6)	1.870 (0.580-3.230)	8.21	99
22+25+25+60	1.57	1.78	1.78	4.27	9.4 (3.5-11.6)	1.870 (0.580-3.230)	8.21	99
22+25+35+35	1.77	2.01	2.81	2.81	9.4 (3.4-11.6)	1.890 (0.590-3.320)	8.30	99
22+25+35+50	1.57	1.78	2.49	3.56	9.4 (3.5-11.6)	1.800 (0.580-3.200)	7.91	99
22+25+35+60	1.46	1.65	2.32	3.97	9.4 (3.5-11.6)	1.800 (0.580-3.200)	7.91	99
22+35+35+35	1.63	2.59	2.59	2.59	9.4 (3.4-11.6)	1.860 (0.590-3.280)	8.17	99
22+35+35+50	1.45	2.32	2.32	3.31	9.4 (3.5-11.6)	1.780 (0.580-3.210)	7.82	99
25+25+25+25	2.35	2.35	2.35	2.35	9.4 (3.4-11.6)	1.950 (0.590-3.390)	8.56	99
25+25+25+35	2.14	2.14	2.14	2.98	9.4 (3.4-11.6)	1.910 (0.590-3.350)	8.39	99
25+25+25+50	1.88	1.88	1.88	3.76	9.4 (3.5-11.6)	1.860 (0.580-3.210)	8.17	99
25+25+25+60	1.74	1.74	1.74	4.18	9.4 (3.5-11.6)	1.860 (0.580-3.210)	8.17	99
25+25+35+35	1.96	1.96	2.74	2.74	9.4 (3.4-11.6)	1.870 (0.590-3.300)	8.21	99
25+25+35+50	1.74	1.74	2.44	3.48	9.4 (3.5-11.6)	1.780 (0.580-3.190)	7.82	99
25+35+35+35	1.81	2.53	2.53	2.53	9.4 (3.4-11.6)	1.840 (0.590-3.260)	8.08	99
35+35+35+35	2.35	2.35	2.35	2.35	9.4 (3.4-11.6)	1.930 (0.590-3.230)	8.48	99

Outdoor model			MXZ-2A40VA		MXZ-2A52VA	
Outdoor unit power supply			Single phase 230V,50Hz		Single phase 230V,50Hz	
System	Indoor units number		2		2	
	Piping total length	m	Max. 30		Max. 30	
	Connecting pipe length	m	Max. 20		Max. 20	
	Height difference (Indoor ~ Outdoor)	m	Refer to 9		Refer to 9	
	Height difference (Indoor ~ Indoor)	m	Refer to 9		Refer to 9	
Function			Cooling	Heating	Cooling	Heating
Capacity	Capacity [Rated (Min.-Max.) Hz]*1	kW	4.0 (1.1 - 4.5)	4.5 (1.0 - 5.0)	5.2 (1.1 - 6.0)	6.4 (1.0 - 7.2)
	Dehumidification	ℓ /h	—	—	—	—
	Outdoor air flow	m ³ /h	1,860	1,860	1,860	1,860
*2 Electrical data	Power outlet	A	15		15	
	Running current *1	A	4.78	4.32	6.75	7.64
	Power input	W	1,045	945	1,505	1,705
	Power factor *1	%	95		97	
	Starting current *1	A	4.78		7.64	
	Compressor motor current	A	4.58	4.12	6.55	7.44
	Fan motor current	A	0.2		0.2	
Coefficient of performance(C.O.P) *2			3.83	4.76	3.46	3.75
Compressor	Model		SNB130FKCH		SNB130FKCH	
	Output	W	1,100		1,400	
	Winding resistance(at 20°C)	Ω	U-V 0.64 V-W 0.64 W-U 0.64		U-V 0.64 V-W 0.64 W-U 0.64	
Fan motor	Model		RC0J50-CF		RC0J50-CF	
	Winding resistance(at 20°C)	Ω	BLK-WHT 14.2 WHT-RED 14.2 RED-BLK 14.2		BLK-WHT 14.2 WHT-RED 14.2 RED-BLK 14.2	
Dimensions W×H×D		mm	800×550×285		800×550×285	
Weight		kg	40		40	
Special remarks	Sound level (High/Low) *3	dB	47/44	48/47	49/45	50/48
	Fan speed (High/Low) *3	rpm	850/530	850/490	850/530	850/490
	Fan speed regulator *3		2		2	
	Refrigerant filling capacity(R410A)	kg	1.3		1.3	
	Refrigeration oil (Model)	cc	450 (NEO22)		450 (NEO22)	

NOTE: •Test conditions are based on ISO 5151 (Refrigerant piping length (one way) :5m)

•Refer to 3 "INDOOR/OUTDOOR CORRESPONDENCE TABLE" for the combination.

*1 Measured under rated operating frequency.

*2 Electrical data is for only outdoor unit.

*3 These specifications are when all indoor units are operating.

TEST CONDITIONS COOLING INDOOR DB27.0°C WB19.0°C
 OUTDOOR DB35.0°C WB24.0°C
 HEATING INDOOR DB20.0°C
 OUTDOOR DB 7.0°C WB 6.0°C

Outdoor model		MXZ-3A54VA		MXZ-4A71VA			
Outdoor unit power supply		Single phase 230V,50Hz		Single phase 230V,50Hz			
System	Indoor units number	2 to 3		2 to 4			
	Piping total length	m	Max. 50		Max. 60		
	Connecting pipe length	m	Max. 25		Max. 25		
	Height difference (Indoor ~ Outdoor)	m	Refer to 9		Refer to 9		
	Height difference (Indoor ~ Indoor)	m	Refer to 9		Refer to 9		
Function		Cooling	Heating	Cooling	Heating		
Capacity	Capacity [Rated (Min.-Max.) Hz]*1	kW	5.4 (2.9-6.8)	6.8 (2.6-9.0)	7.1 (3.7-8.8)	8.6 (3.4-9.0)	
	Dehumidification	ℓ /h	—		—		
	Outdoor air flow	m ³ /h	2,525	2,470	2,525	2,790	
*2 Electrical data	Power outlet	A	25		25		
	Running current *1	A	5.69	6.39	8.48	8.56	
	Power input	W	1,295	1,455	1,930	1,950	
	Power factor *1	%	99.0		99.0		
	Starting current *1	A	6.39		8.56		
	Compressor motor current	A	5.49	6.19	8.28	8.36	
	Fan motor current	A	0.2		0.2		
Coefficient of performance(C.O.P) *2			4.17	4.67	3.68	4.41	
Compressor	Model		SNB130FLDH1 (ROTARY)		SNB130FLDH1 (ROTARY)		
	Output	W	1,400		2,000		
	Winding resistance(at 20°C)	Ω	U-V 0.45 V-W 0.45 W-U 0.45		U-V 0.45 V-W 0.45 W-U 0.45		
Fan motor	Model		RC0J60-AA		RC0J60-AA		
	Winding resistance(at 20°C)	Ω	BLK-WHT 15.2 WHT-RED 15.2 RED-BLK 15.2		BLK-WHT 15.2 WHT-RED 15.2 RED-BLK 15.2		
Dimensions W×H×D		mm	840×710×330		840×710×330		
Weight		kg	57		58		
Special remarks	Sound level (High/Low) *3	dB	46/44	48/47	48/45	50/48	
	Fan speed (High/Low) *3	rpm	650/510	640/510	650/510	700/510	
	Fan speed regulator *3			2		2	
	Refrigerant filling capacity(R410A)	kg	2.7		2.7		
	Refrigeration oil (Model)	cc	600 (NEO22)		600 (NEO22)		

NOTE: •Test conditions are based on ISO 5151 (Refrigerant piping length (one way) :5m)
•Refer to 3 "INDOOR/OUTDOOR CORRESPONDENCE TABLE" for the combination.
*1 Measured under rated operating frequency.
*2 Electrical data is for only outdoor unit.
*3 These specifications are when all indoor units are operating.

TEST CONDITIONS COOLING INDOOR DB27.0°C WB19.0°C
OUTDOOR DB35.0°C WB24.0°C
HEATING INDOOR DB20.0°C
OUTDOOR DB 7.0°C WB 6.0°C

Outdoor model			MXZ-4A80VA	
Outdoor unit power supply			Single phase 230V,50Hz	
System	Indoor units number		2 to 4	
	Piping total length	m	Max. 70	
	Connecting pipe length	m	Max. 25	
	Height difference (Indoor ~ Outdoor)	m	Refer to 9	
	Height difference (Indoor ~ Indoor)	m	Refer to 9	
Function			Cooling	Heating
Capacity	Capacity [Rated (Min.-Max.) Hz]*1	kW	8.0 (3.7-9.2)	9.4 (3.4-11.6)
	Dehumidification	ℓ /h	—	—
	Outdoor air flow	m ³ /h	2,530	2,630
*2 Electrical data	Power outlet	A	25	
	Running current *1	A	9.62	8.48
	Power input	W	2,190	1,930
	Power factor *1	%	99.0	
	Starting current *1	A	9.62	
	Compressor motor current	A	9.42	8.28
	Fan motor current	A	0.2	
Coefficient of performance(C.O.P) *2			3.65	4.87
Compressor	Model		TNB220FMCH (ROTARY)	
	Output	W	2,100	
	Winding resistance(at 20°C)	Ω	U-V 1.41 V-W 1.41 W-U 1.41	
Fan motor	Model		PM8H60-UA	
	Winding resistance(at 20°C)	Ω	BLK-WHT 15.2 WHT-RED 15.2 RED-BLK 15.2	
Dimensions W×H×D		mm	900×900×320 (+35)	
Weight		kg	70	
Special remarks	Sound level (High/Low) *3	dB	46/44	48/46
	Fan speed (High/Low) *3	rpm	550/490	560/490
	Fan speed regulator *3		2	
	Refrigerant filling capacity(R410A)	kg	3.5	
	Refrigerating oil (Model)	cc	870 (NEO22)	

NOTE: •Test conditions are based on ISO 5151 (Refrigerant piping length (one way) :5m)

•Refer to 3 "INDOOR/OUTDOOR CORRESPONDENCE TABLE" for the combination.

*1 Measured under rated operating frequency.

*2 Electrical data is for only outdoor unit.

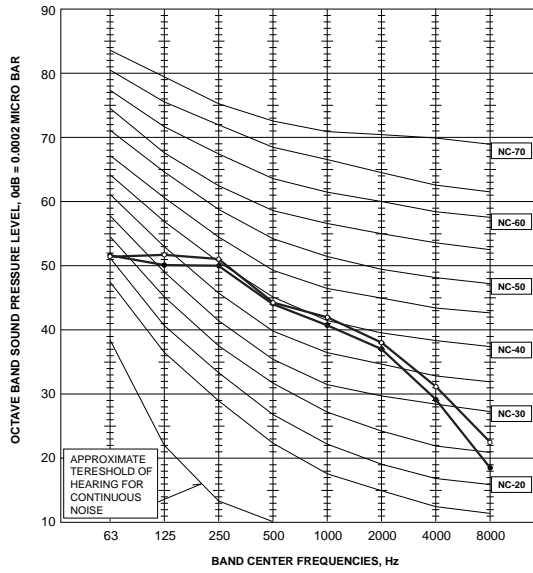
*3 These specifications are when all indoor units are operating.

TEST CONDITIONS COOLING INDOOR DB27.0°C WB19.0°C
 OUTDOOR DB35.0°C WB24.0°C
 HEATING INDOOR DB20.0°C
 OUTDOOR DB 7.0°C WB 6.0°C

NOISE CRITERIA CURVES

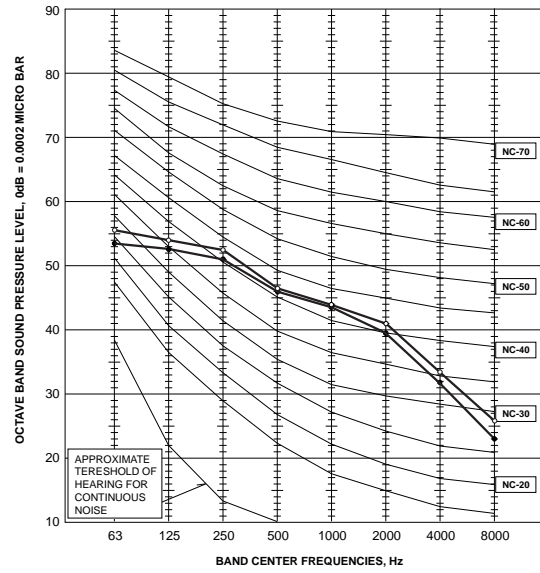
MXZ-2A40VA

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
High	Cooling	47	●—●
High	Heating	48	○—○



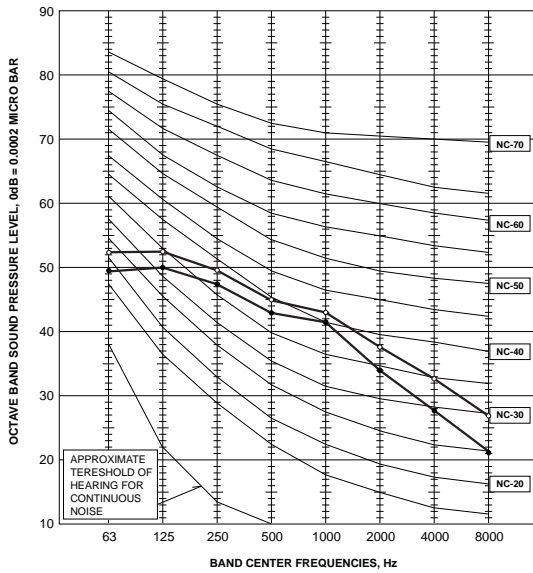
MXZ-2A52VA

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
High	Cooling	49	●—●
High	Heating	50	○—○



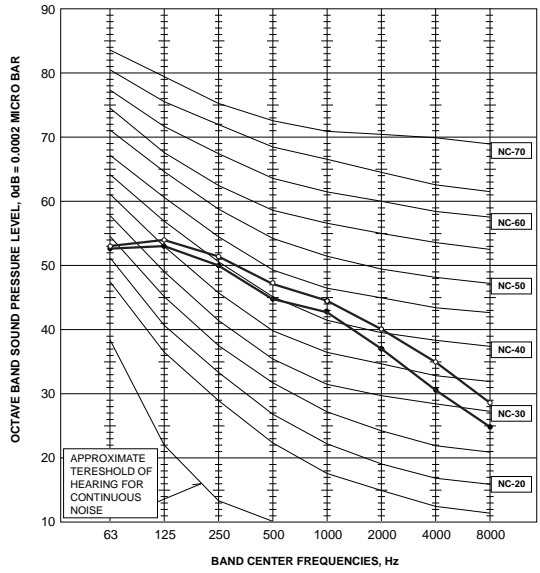
MXZ-3A54VA

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
High	Cooling	46	●—●
High	Heating	48	○—○



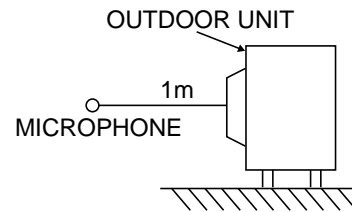
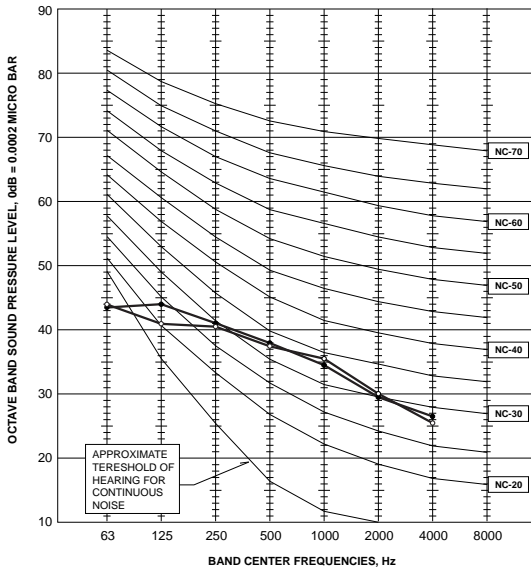
MXZ-4A71VA

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
High	Cooling	48	●—●
High	Heating	50	○—○



MXZ-4A80VA

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
High	Cooling	46	●—●
High	Heating	48	○—○



Test conditions.

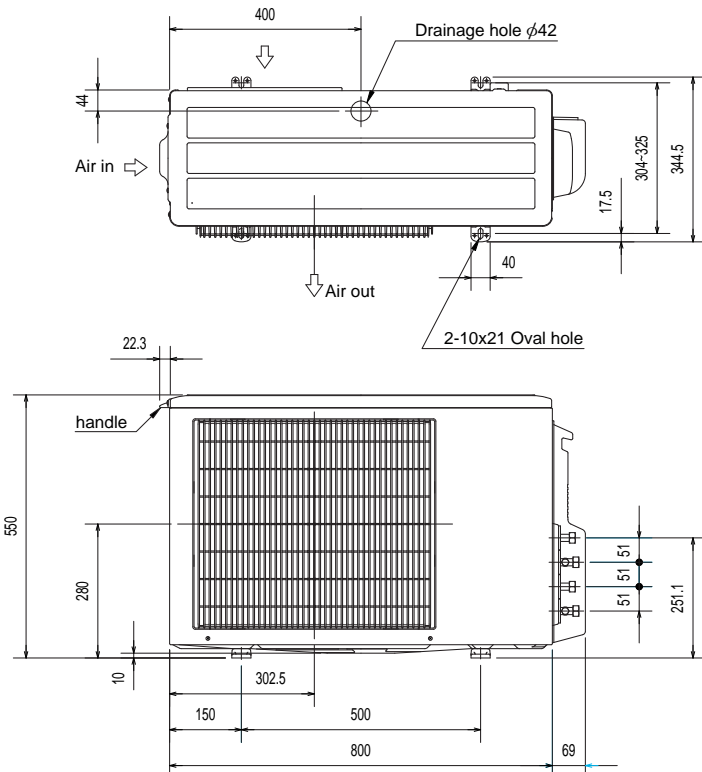
Cooling : Dry-bulb temperature 35°C Wet-bulb temperature 24°C
 Heating : Dry-bulb temperature 7°C Wet-bulb temperature 6°C

7

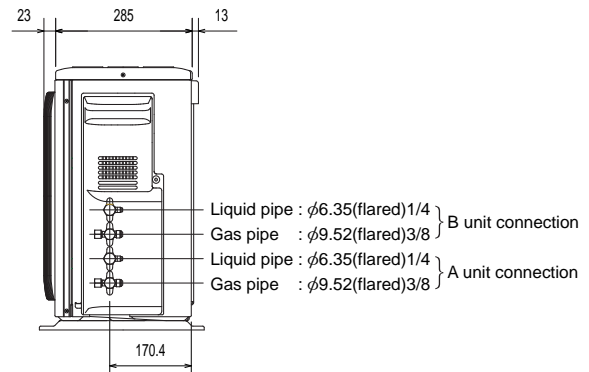
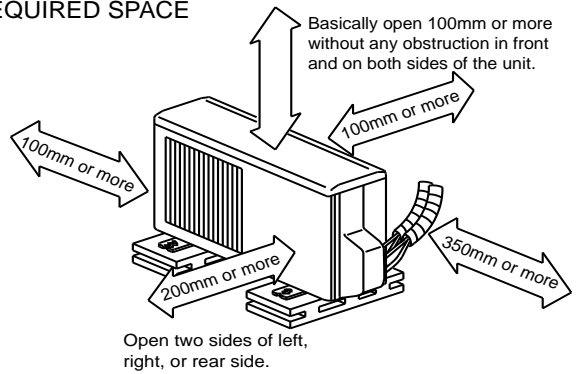
OUTLINES AND DIMENSIONS

MXZ-2A40VA MXZ-2A52VA

Unit: mm

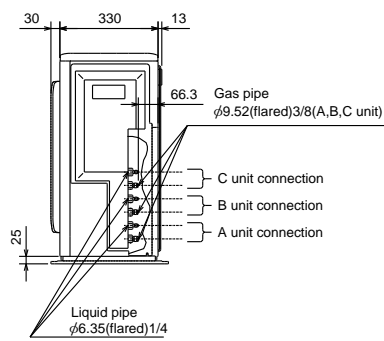
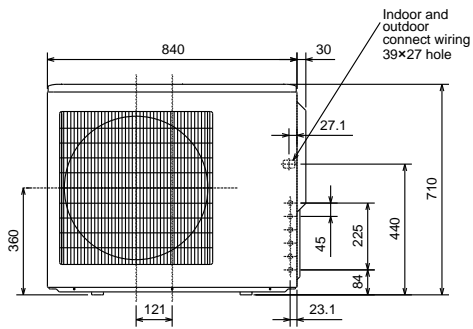
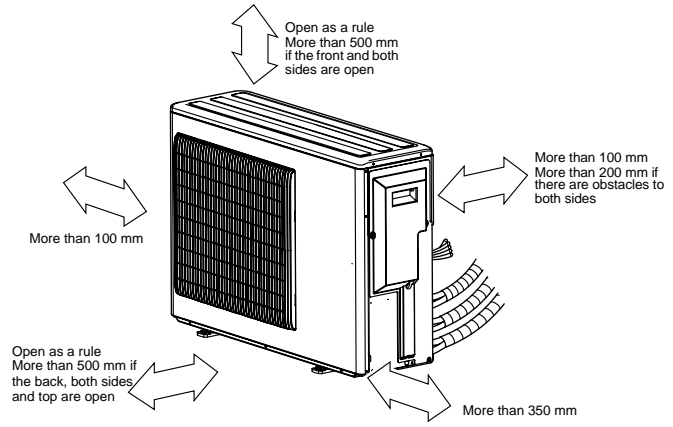
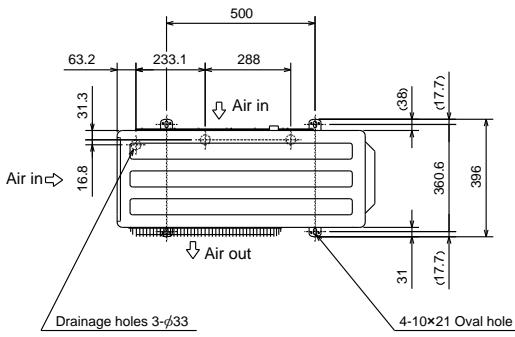


REQUIRED SPACE



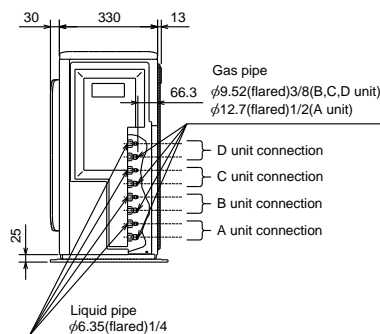
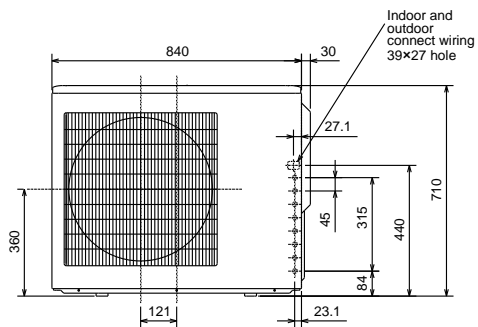
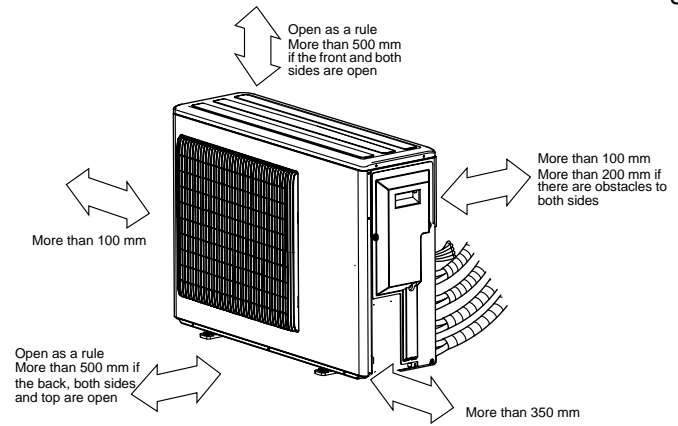
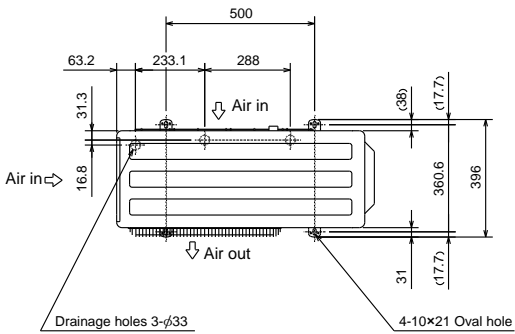
MXZ-3A54VA

Unit: mm



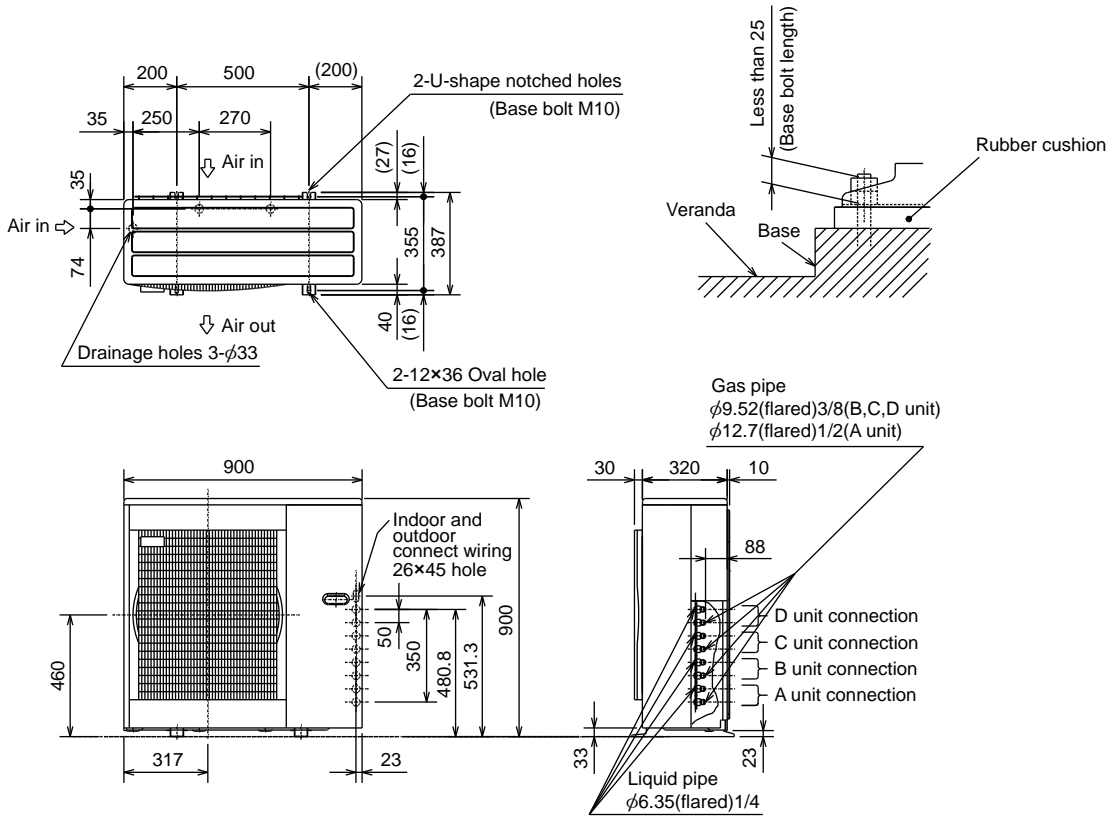
MXZ-4A71VA

Unit: mm



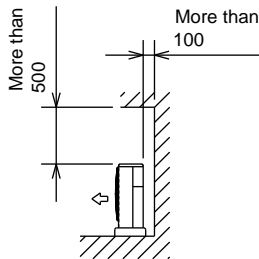
MXZ-4A80VA

Unit: mm

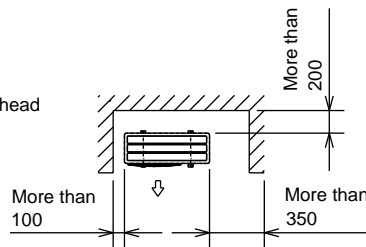


1. Installation space

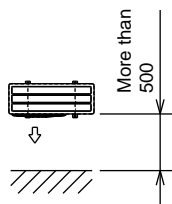
Note : Leave front and both sides clearance fully.



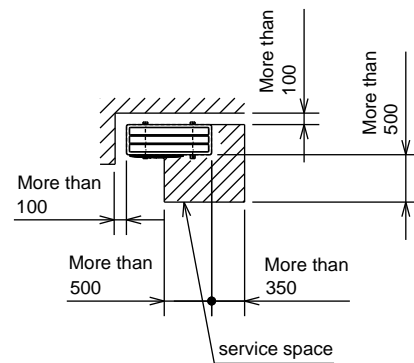
Note : Leave front and overhead clearance fully.



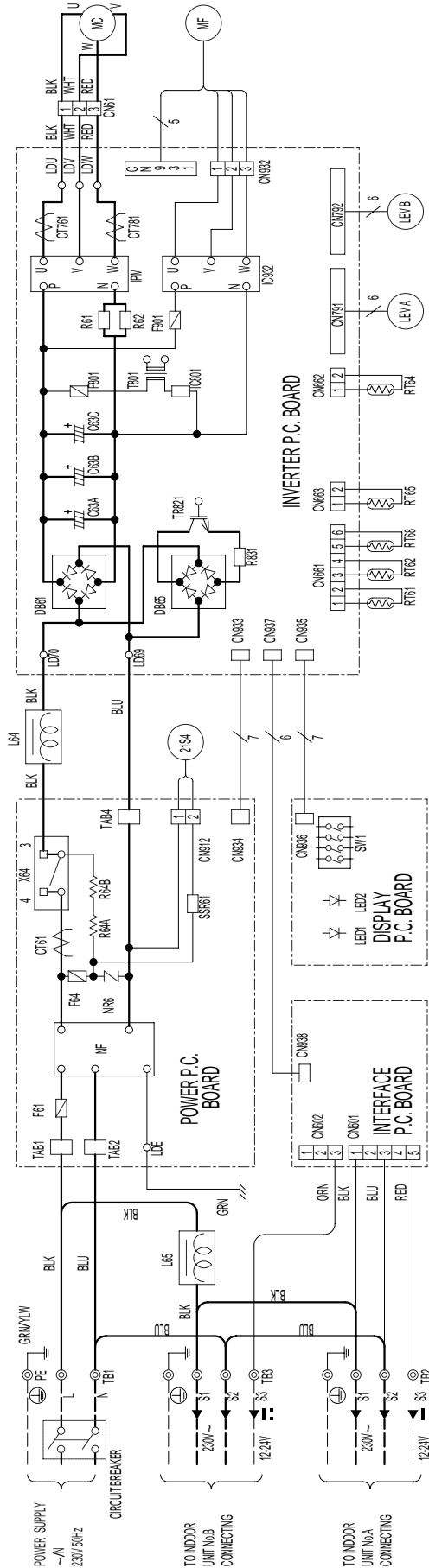
Note : Leave front, overhead and both sides clearance fully.



2. Service space



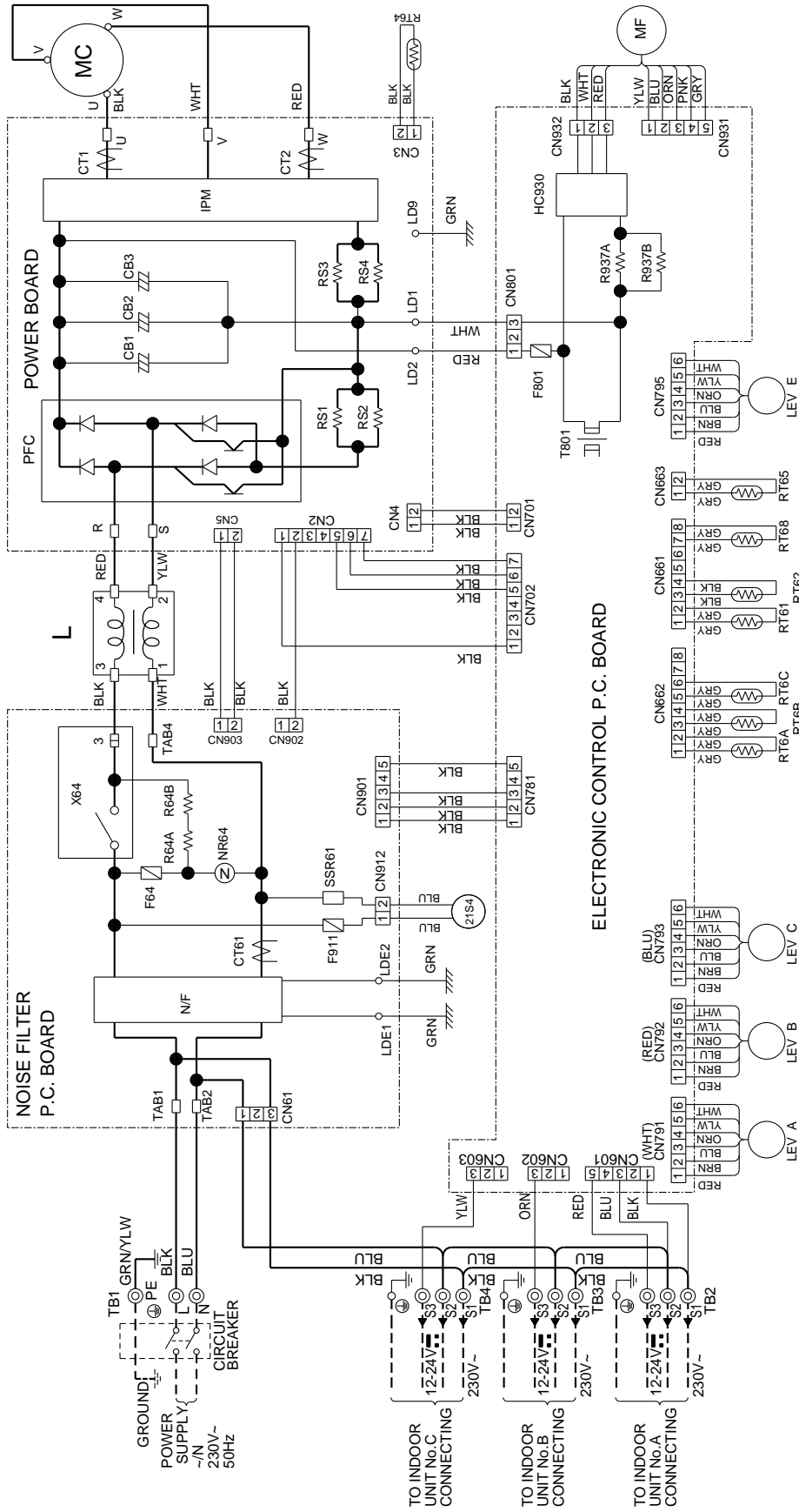
MXZ-2A40VA MXZ-2A52VA



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

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
C761, C7761, C7761	CURRENT TRANSFORMER	MC	COMPRESSOR	R61, R62, R63	CURRENT-DETECTING RESISTOR
C33A, C33B, C33C	SMOOTHING CAPACITOR	MF	OUTDOOR FAN MOTOR	R64A, R64B	RESISTOR
DB61, DB65	DIODE MODULE	NR64	VARIATOR	TB1, TB2, TB3	TERMINAL BLOCK
NF	NOISE FILTER	RT61	DEFROST THERMISTOR	TR821	SWITCHING POWER TRANSISTOR
F61	FUSE (T20AL250V)	RT62	DISCHARGE TEMPERATOR THERMISTOR	T801	SWITCHING TRANS RELAY
F64, F801, F801	FUSE (T3.15AL250V)	RT64	FIN TEMPERATOR THERMISTOR	X64	R.V. COIL
IC801	INTELLIGENT POWER DEVICE	RT65	AMBIENT TEMPERATOR THERMISTOR	21S4	EXPANSION VALVE
IPM, IC932	INTELLIGENT POWER MODULE	RT68	OUTDOOR HEAT EXCHANGER TEMPERATURE THERMISTOR	LEVA, LEVB	SOLENOID COIL RELAY
L64, L65	REACTOR			SSR61	

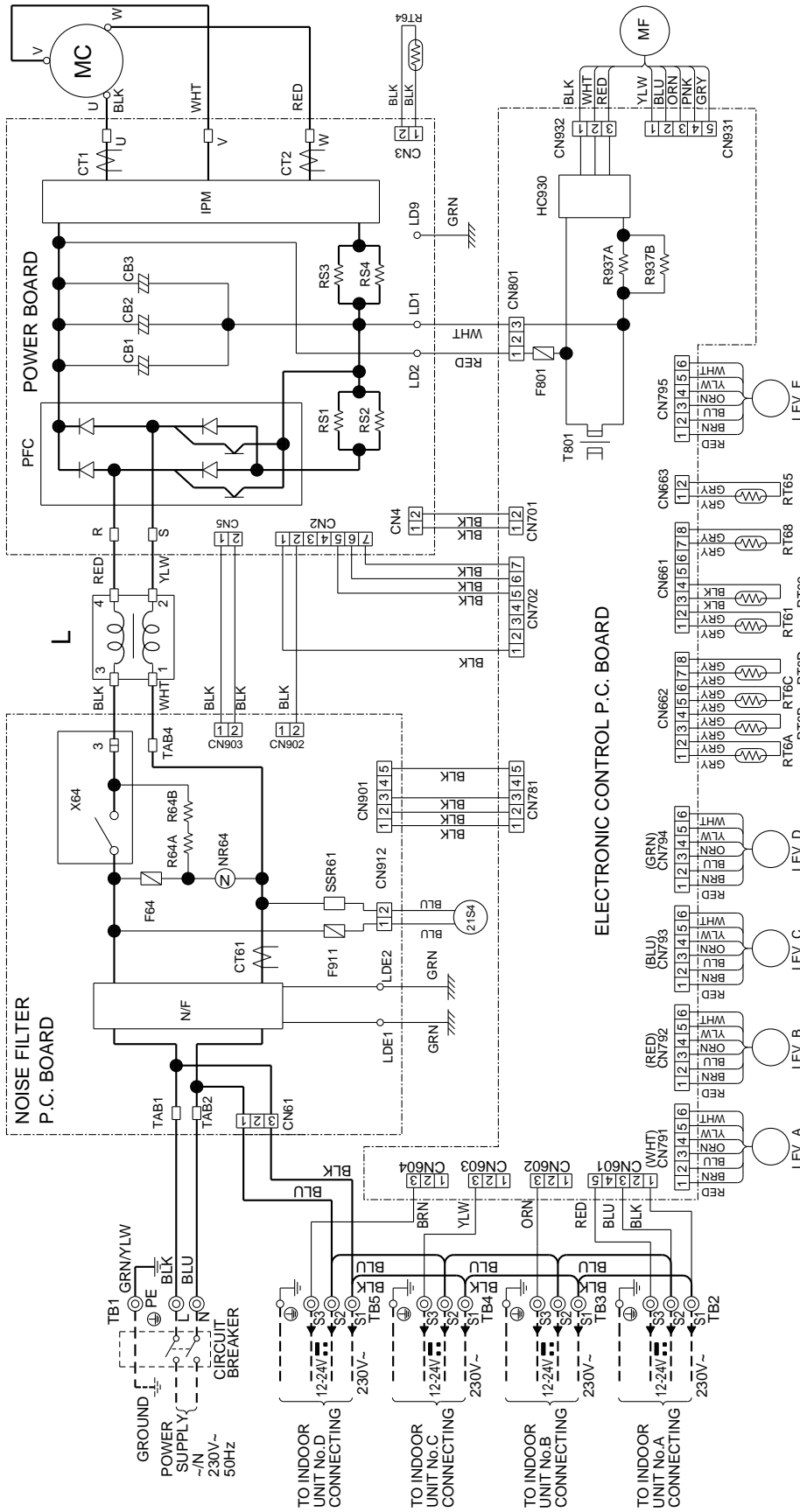
MXZ-3A54VA



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

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CB1-3	SMOOTHING CAPACITOR	MC	COMPRESSOR	RT64	FIN TEMPERATURE THERMISTOR
CT1, 2	CURRENT TRANSFORMER	MF	OUTDOOR FAN MOTOR	RT65	AMBIENT TEMPERATURE THERMISTOR
CT61	CURRENT TRANSFORMER	NR64	VARISTOR	RT68	OUTDOOR HEAT EXCHANGER TEMPERATURE THERMISTOR
F801	FUSE (T3.15A/250V)	N/F	NOISE FILTER	SSR61	SOLENOID COIL RELAY
F911	FUSE (T1A/250V)	PFC	POWER FACTOR CONTROLLER	T801	TRANSFORMER
F64	FUSE (T2A/250V)	R64A, B	RESISTOR	TBT1-4	TERMINAL BLOCK
HC930	INTELLIGENT POWER MODULE	R937A, B	RESISTOR	X64	RELAY
IPM	INTELLIGENT POWER MODULE	RS1-4	RESISTOR	21S4	R.V. COIL
L	REACTOR	RT6A-C	GAS PIPE TEMPERATURE THERMISTOR		
LEV/A-C	EXPANSION VALVE	RT61	DEFROST THERMISTOR		
LEV E	EXPANSION VALVE	RT62	DISCHARGE TEMPERATURE THERMISTOR		

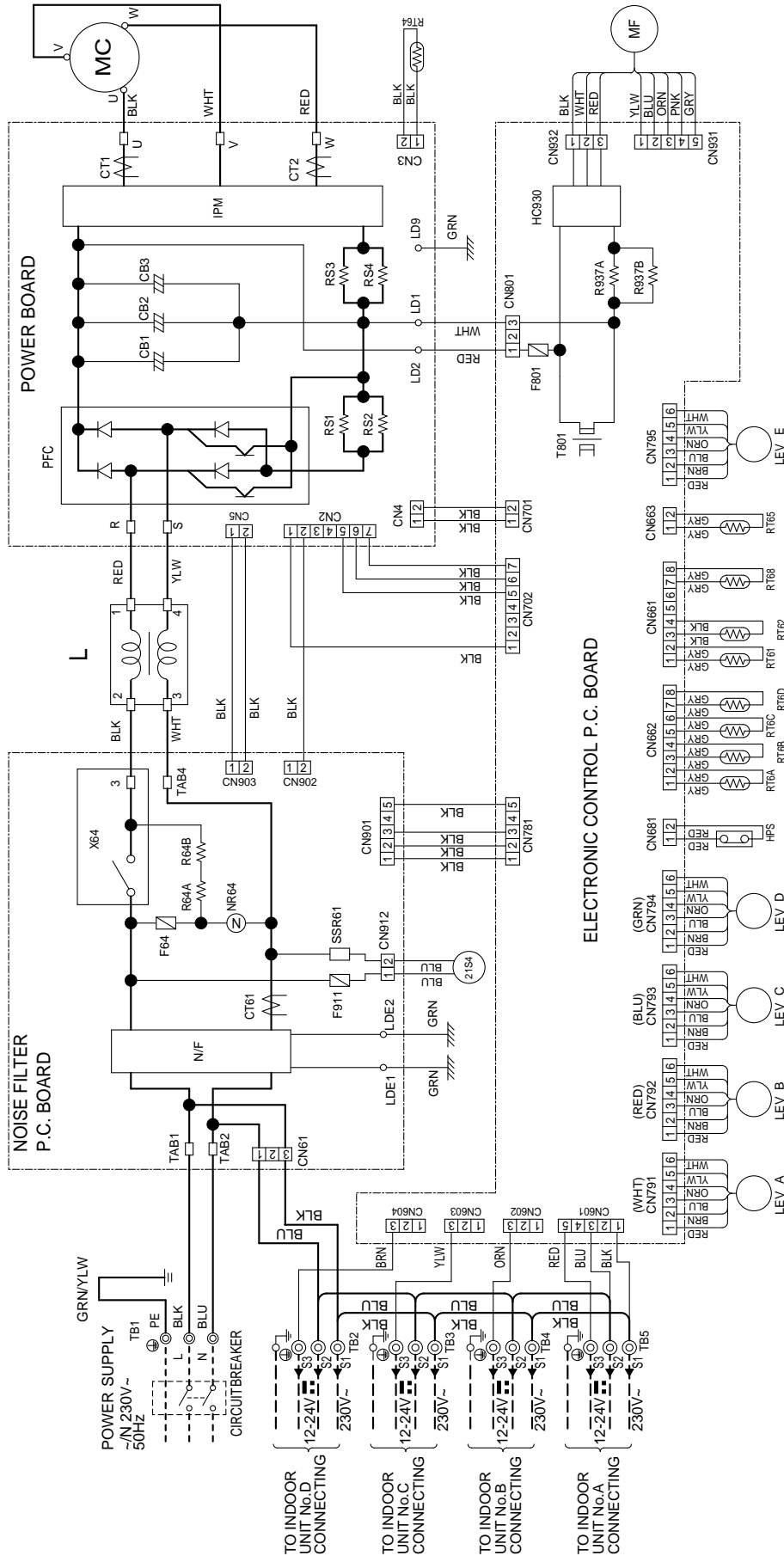
MXZ-4A71VA



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

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CB1-3	SMOOTHING CAPACITOR	MC	COMPRESSOR	RT64	FIN TEMPERATUR THERMISTOR
CT1, 2	CURRENT TRANSFORMER	MF	OUTDOOR FAN MOTOR	RT65	AMBIENT TEMPERATOR THERMISTOR
CT61	CURRENT TRANSFORMER	NR64	VARIATOR	RT68	OUTDOOR HEAT EXCHANGER TEMPERATURE THERMISTOR
F801	FUSE (T3.15AL250V)	N/F	NOISE FILTER	SSR61	SOLENOID COIL RELAY
F911	FUSE (T1AL250V)	PFC	POWER FACTOR CONTROLLER	T801	TRANSFORMER
F64	FUSE (T2AL250V)	R64A,B	RESISTOR	TB1-5	TERMINAL BLOCK
HC930	INTELLIGENT POWER MODULE	R937A, B	RESISTOR	X64	RELAY
IPM	INTELLIGENT POWER MODULE	RS1-4	RESISTOR	Z1S4	R.V. COIL
L	REACTOR	RT6A-D	GAS PIPE TEMPERATOR THERMISTOR		
LEV A-D	EXPANSION VALVE	RT61	DEFROST THERMISTOR		
LEV E	EXPANSION VALVE	RT62	DISCHARGE TEMPERATOR THERMISTOR		

MXZ-4A80VA

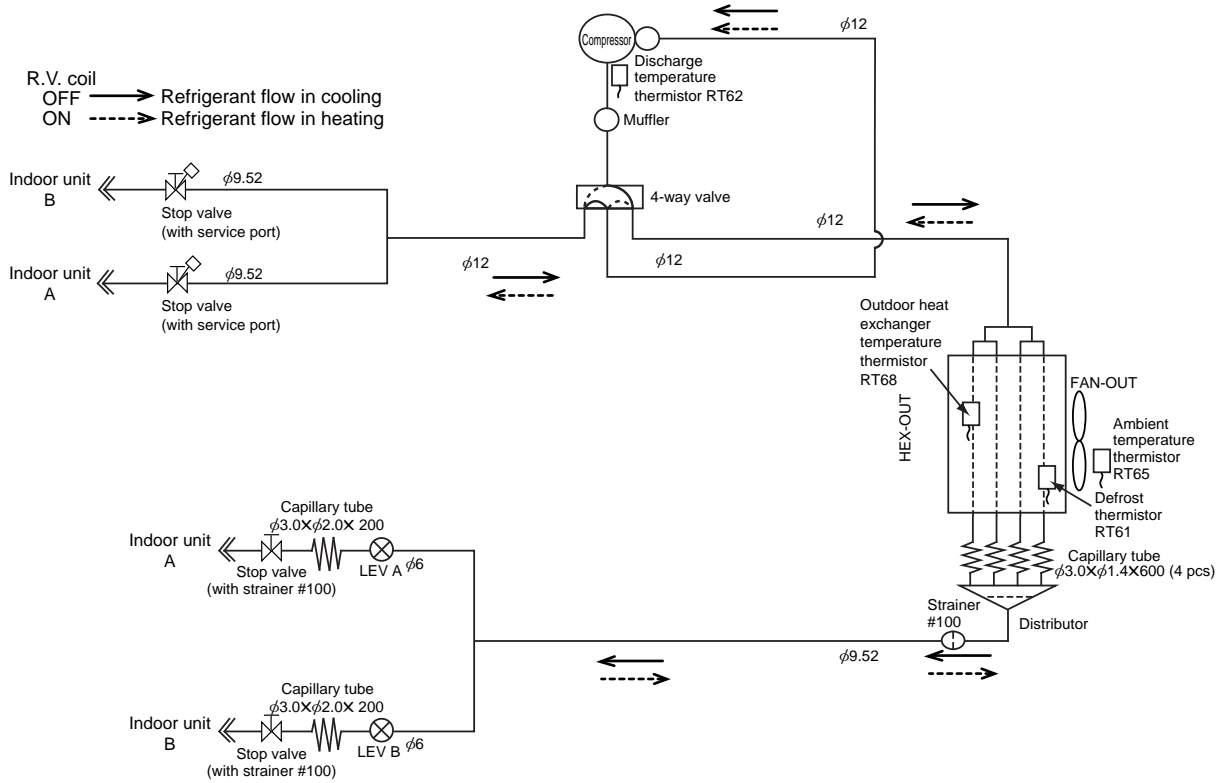


- NOTES:
1. About the indoor side electric wiring refer to the indoor unit electric wiring diagram for servicing.
 2. Use copper conductors only (for field wiring).
 3. Symbols below indicate.
 - ⊙: Terminal block
 - : Connector

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CB1-3	SMOOTHING CAPACITOR	LEV E	EXPANSION VALVE	RT62	DISCHARGE TEMPERATURE THERMISTOR
CT1, 2	CURRENT TRANSFORMER	MC	COMPRESSOR	RT64	FIN TEMPERATURE THERMISTOR
CT61	CURRENT TRANSFORMER	MF	OUTDOOR FAN MOTOR	RT65	AMBIENT TEMPERATURE THERMISTOR
F801	FUSE (T3.15A/250V)	NR64	VARISTOR	RT68	OUTDOOR HEAT EXCHANGER TEMPERATURE THERMISTOR
F911	FUSE (T1A/250V)	N/F	NOISE FILTER	SSR61	SOLENOID COIL RELAY
F64	FUSE (T2A/250V)	PFC	POWER FACTOR CONTROLLER	T801	TRANSFORMER
HC930	INTELLIGENT POWER MODULE	R64A, B	RESISTOR	TB1-5	TERMINAL BLOCK
HPS	HIGH PRESSURE SWITCH	R937A, B	RESISTOR	X64	RELAY
IPM	INTELLIGENT POWER MODULE	RS1-4	RESISTOR	21S4	R.V. COIL
L	REACTOR	RT6A-D	GAS PIPE TEMPERATURE THERMISTOR		
LEV A-D	EXPANSION VALVE	RT61	DEFROST THERMISTOR		

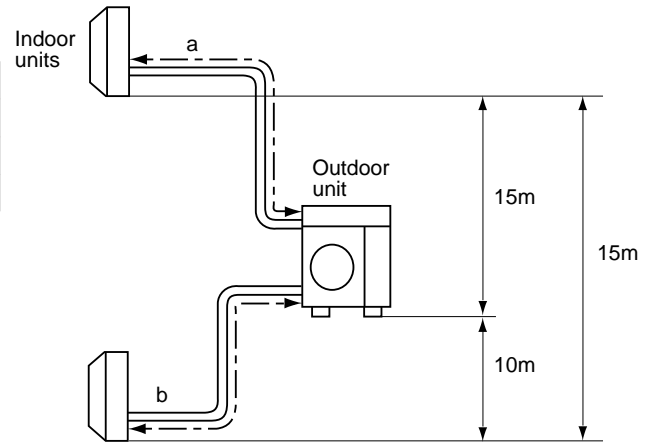
MXZ-2A40VA MXZ-2A52VA

Unit:mm



MAX REFRIGERANT PIPING LENGTH

Piping length each indoor unit (a, b)	20m
Total piping length (a+b)	30m
Bending point for each unit	20
Total bending point	30



*It does not matter which unit is higher.

Outdoor unit precharged	Refrigerant piping length (one way, 2 unit total)	
	20m	30m
1,300	0	200

Calculation : $Xg=20g/mx(\text{Refrigerant piping length(m)}-20)$

- Refrigerant pipe diameter is different according to indoor unit to be connected. When using extension pipes, refer to the tables below.
- When diameter of refrigerant pipe is different from that of outdoor unit union, use optional Different-diameter pipe.

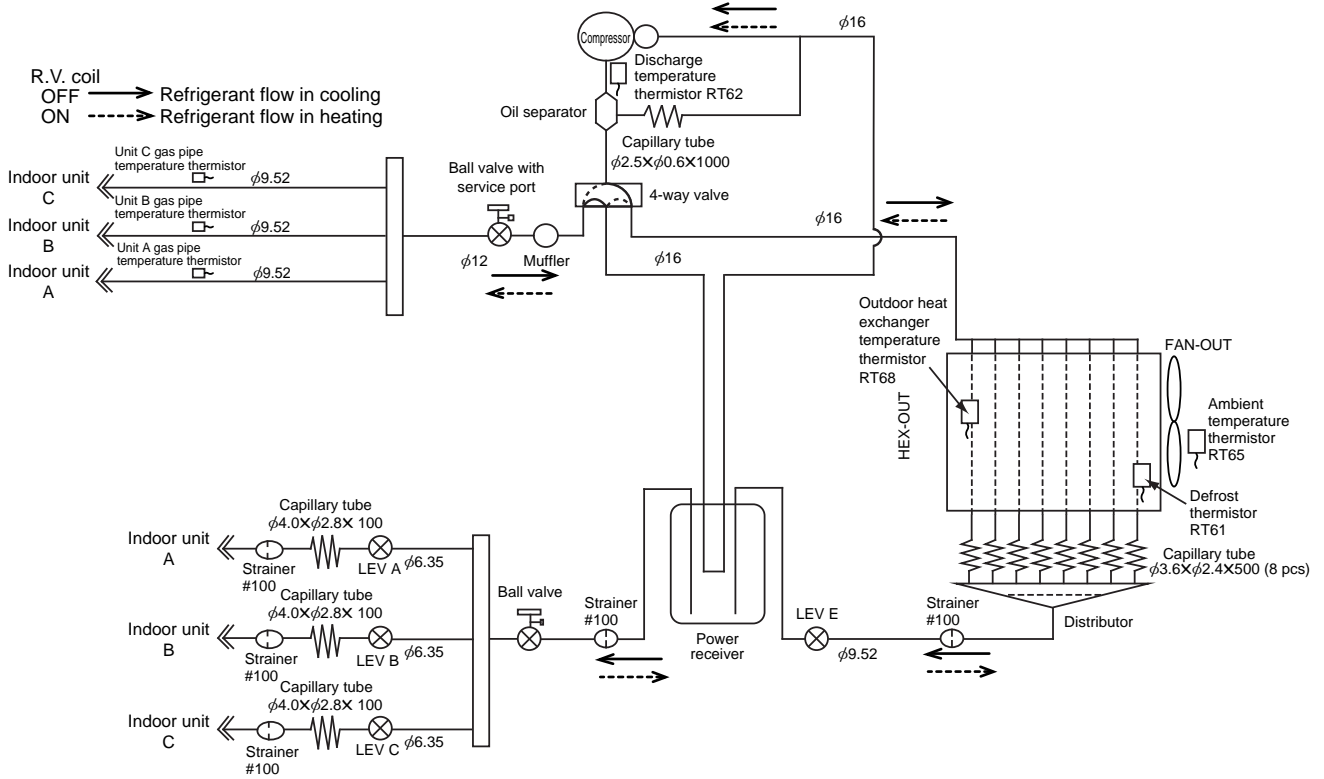
Unit : mm (inch)

class	Indoor unit Pipe diameter		Extension pipe diameter	
	Liquid	Gas	Liquid	Gas
22/25/35	6.35(1/4)	9.52(3/8)	6.35(1/4)	9.52(3/8)

Outdoor unit union diameter		
For		
Indoor unit A	Liquid	6.35(1/4)
	Gas	9.52(3/8)
Indoor unit B	Liquid	6.35(1/4)
	Gas	9.52(3/8)

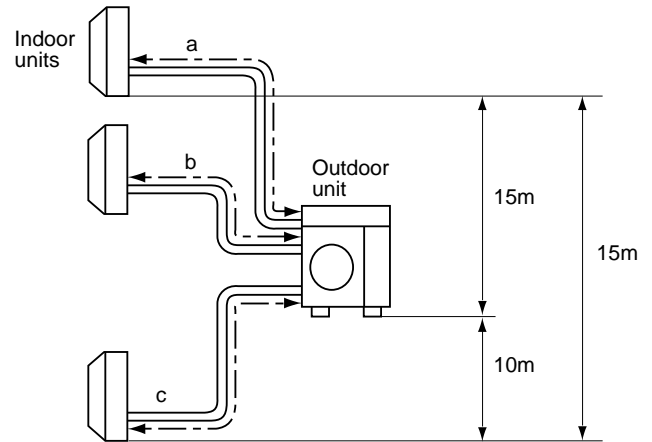
MXZ-3A54VA

Unit:mm



MAX REFRIGERANT PIPING LENGTH

Piping length each indoor unit (a, b, c)	25m
Total piping length (a+b+c)	50m
Bending point for each unit	25
Total bending point	50



*It does not matter which unit is higher.

Outdoor unit precharged	Refrigerant piping length (one way, 3 unit total)	
	40m	50m
2,700	0	200

Calculation : $Xg=20g/mx(\text{Refrigerant piping length}(m)-40)$

- Refrigerant pipe diameter is different according to indoor unit to be connected. When using extension pipes, refer to the tables below.
- When diameter of refrigerant pipe is different from that of outdoor unit union, use optional Different-diameter pipe. For further information on Different-diameter pipe, see 16-1.

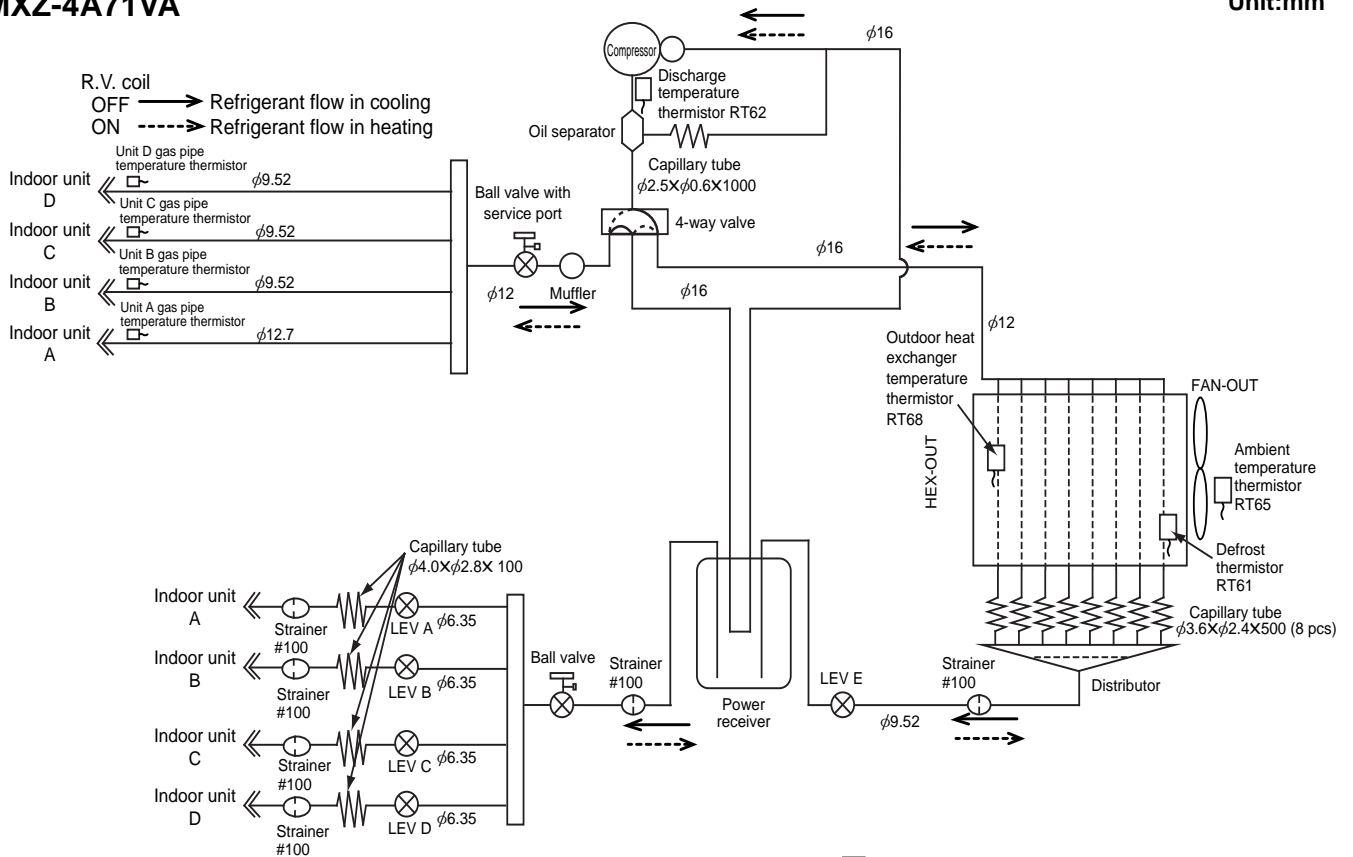
Unit : mm (inch)

class	Indoor unit Pipe diameter		Extension pipe diameter	
	Liquid	Gas	Liquid	Gas
22/25/35	6.35(1/4)	9.52(3/8)	6.35(1/4)	9.52(3/8)
	6.35(1/4)	12.7(1/2)	6.35(1/4)	12.7(1/2)

Outdoor unit union diameter		
For		
Indoor unit A	Liquid	6.35(1/4)
	Gas	9.52(3/8)
Indoor unit B	Liquid	6.35(1/4)
	Gas	9.52(3/8)
Indoor unit C	Liquid	6.35(1/4)
	Gas	9.52(3/8)

MXZ-4A71VA

Unit:mm



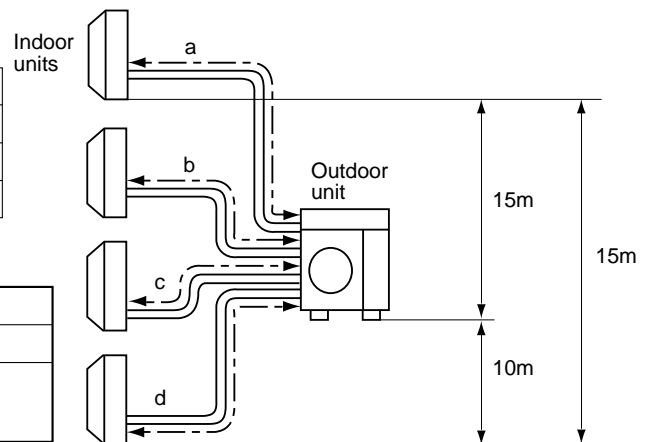
MAX REFRIGERANT PIPING LENGTH

Piping length each indoor unit (a, b, c, d)	25m
Total piping length (a+b+c+d)	60m
Bending point for each unit	25
Total bending point	60

*It does not matter which unit is higher.

Outdoor unit precharged	Refrigerant piping length (one way, 4 unit total)		
	40m	50m	60m
2,700	0	200	400

Calculation : $Xg=20g/mx(\text{Refrigerant piping length}(m)-40)$



● Refrigerant pipe diameter is different according to indoor unit to be connected. When using extension pipes, refer to the tables below.

● When diameter of refrigerant pipe is different from that of outdoor unit union, use optional Different-diameter pipe.

For further information on Different-diameter pipe, see 16-1.

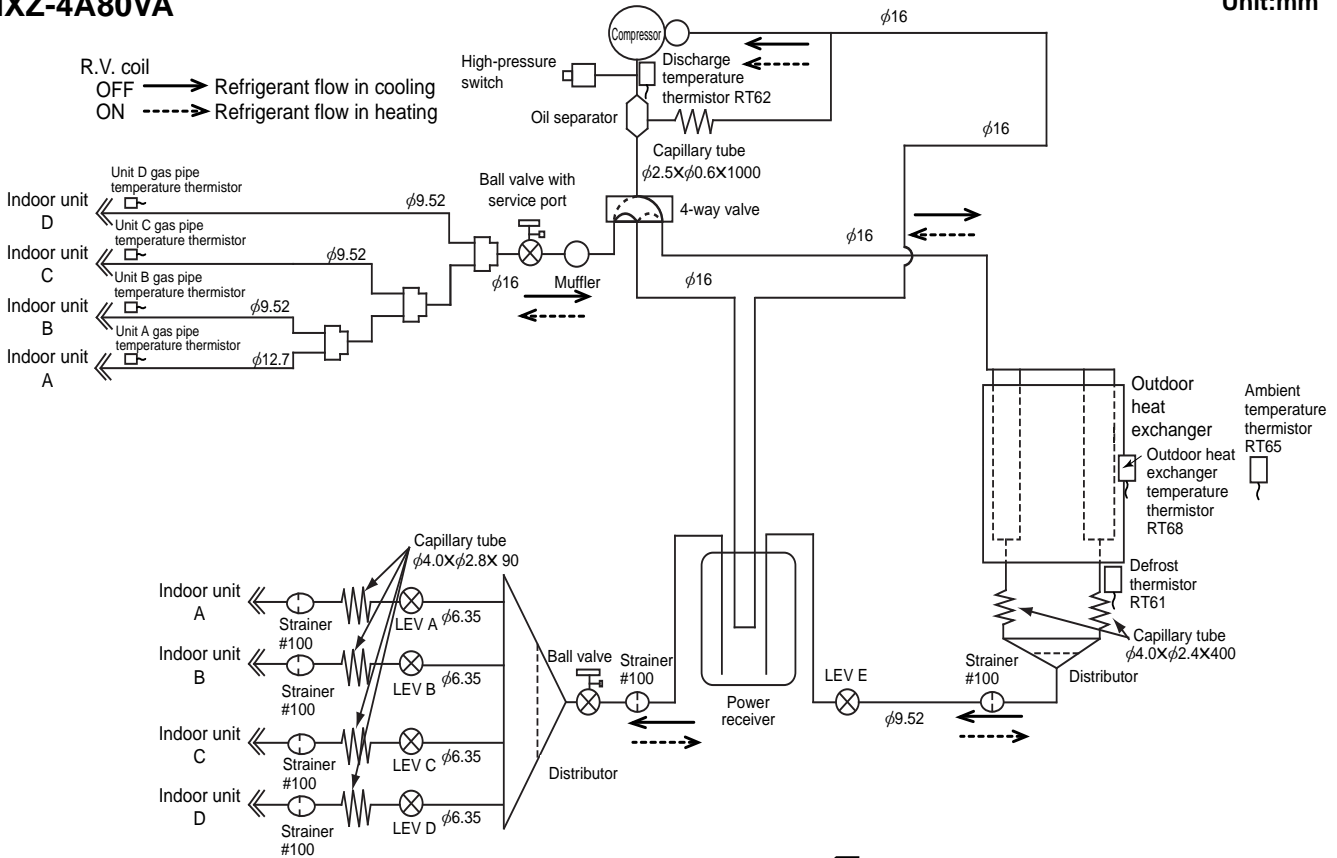
Unit : mm (inch)

Indoor unit			Extension pipe diameter	
class	Pipe diameter			
22/25/35	Liquid	6.35(1/4)	Liquid	6.35(1/4)
	Gas	9.52(3/8)	Gas	9.52(3/8)
50	Liquid	6.35(1/4)	Liquid	6.35(1/4)
	Gas	12.7(1/2)	Gas	12.7(1/2)
60	Liquid	6.35(1/4)	Liquid	6.35(1/4)
	Gas	15.88(5/8)	Gas	15.88(5/8)

Outdoor unit union diameter		
For		
Indoor unit A	Liquid	6.35(1/4)
	Gas	12.7(1/2)
Indoor unit B	Liquid	6.35(1/4)
	Gas	9.52(3/8)
Indoor unit C	Liquid	6.35(1/4)
	Gas	9.52(3/8)
Indoor unit D	Liquid	6.35(1/4)
	Gas	9.52(3/8)

MXZ-4A80VA

Unit:mm



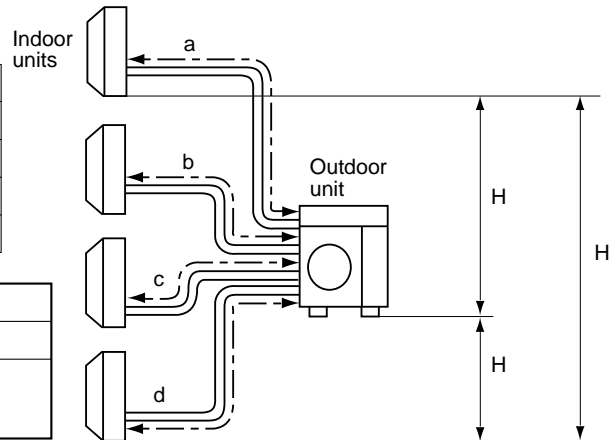
MAX REFRIGERANT PIPING LENGTH

Piping length each indoor unit (a, b, c, d)	25m
Total piping length (a+b+c+d)	70m
Height difference between units (H)	10m
Bending point for each unit	25
Total bending point	70

*It does not matter which unit is higher.

Outdoor unit precharged	Refrigerant piping length (one way, 4 unit total)			
	40m	50m	60m	70m
3,500	0	200	400	600

Calculation : $Xg=20g/mx(\text{Refrigerant piping length}(m)-40)$



● Refrigerant pipe diameter is different according to indoor unit to be connected. When using extension pipes, refer to the tables below.

● When diameter of refrigerant pipe is different from that of outdoor unit union, use optional Different-diameter pipe.

For further information on Different-diameter pipe, see 16-1.

Unit : mm (inch)

Indoor unit		Extension pipe diameter	
class	Pipe diameter		
22/25/35	Liquid	6.35(1/4)	Liquid 6.35(1/4)
	Gas	9.52(3/8)	Gas 9.52(3/8)
50	Liquid	6.35(1/4)	Liquid 6.35(1/4)
	Gas	12.7(1/2)	Gas 12.7(1/2)
60	Liquid	6.35(1/4)	Liquid 6.35(1/4)
	Gas	15.88(5/8)	Gas 15.88(5/8)
71	Liquid	9.52(3/8)	Liquid 9.52(3/8)
	Gas	15.88(5/8)	Gas 15.88(5/8)

Outdoor unit union diameter		
For		
Indoor unit A	Liquid	6.35(1/4)
	Gas	12.7(1/2)
Indoor unit B	Liquid	6.35(1/4)
	Gas	9.52(3/8)
Indoor unit C	Liquid	6.35(1/4)
	Gas	9.52(3/8)
Indoor unit D	Liquid	6.35(1/4)
	Gas	9.52(3/8)

MXZ-2A40VA MXZ-4A71VA
MXZ-2A52VA MXZ-4A80VA
MXZ-3A54VA

The standard data contained in these specifications apply only to the operation of the air conditioner under normal conditions, since operating conditions vary according to the areas where these units are installed. The following information has been provided to clarify the operating characteristics of the air conditioner under the conditions indicated by the performance curve.

(1) GUARANTEED VOLTAGE

198~264V

(2) AIR FLOW

Air flow should be set at MAX.

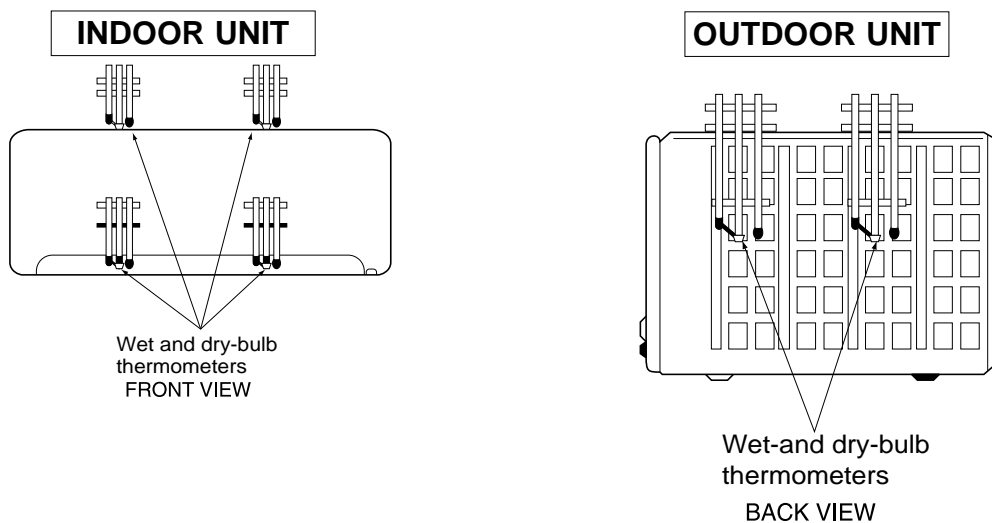
(3) MAIN READINGS

(1) Indoor intake air wet-bulb temperature :	°CWB	} Cooling
(2) Indoor outlet air wet-bulb temperature :	°CWB	
(3) Outdoor intake air dry-bulb temperature :	°CDB	
(4) Total input:	W	} Heating
(5) Indoor intake air dry-bulb temperature :	°CDB	
(6) Outdoor intake air wet-bulb temperature :	°CWB	
(7) Total input :	W	

Indoor air wet/dry-bulb temperature difference on the left side of the following chart shows the difference between the indoor intake air wet/dry-bulb temperature and the indoor outlet air wet/dry-bulb temperature for your reference at service.

How to measure the indoor air wet-bulb/dry-bulb temperature difference

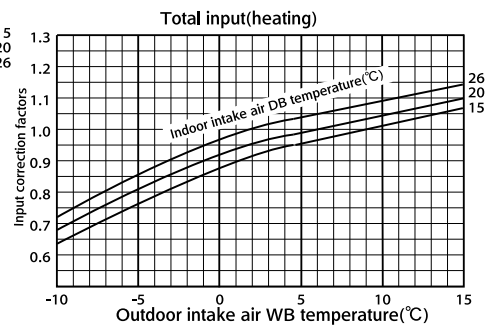
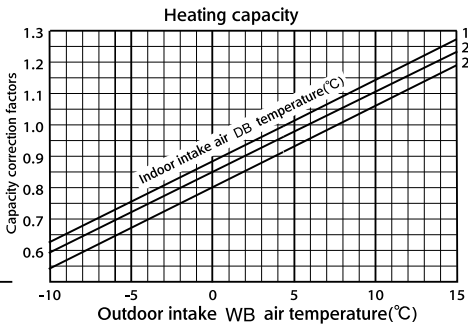
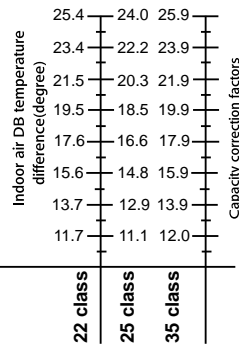
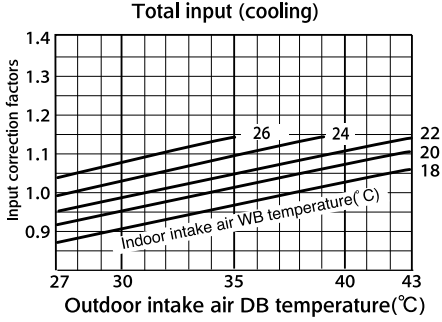
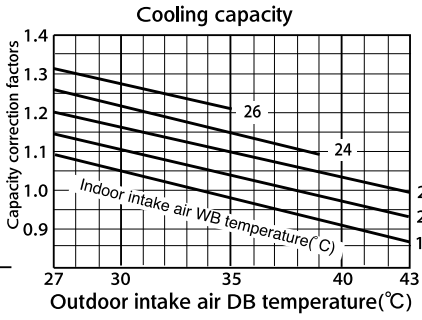
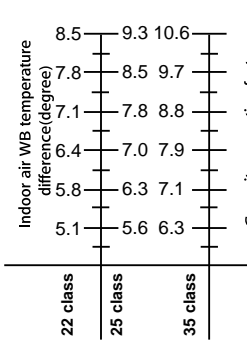
1. Attach at least 2 sets of wet-and dry-bulb thermometers to the indoor air intake as shown in the figure, and at least 2 sets of wet-and dry-bulb thermometers to the indoor air outlet. The thermometers must be attached to the position where air speed is high.
2. Attach at least 2 sets of wet-and dry-bulb thermometers to the outdoor air intake. Cover the thermometers to prevent direct rays of the sun.
3. Check that the air filter is cleaned.
4. Open windows and doors of room.
5. Press the EMERGENCY OPERATION switch once(twice) to start the EMERGENCY COOL (HEAT) MODE.
6. When system stabilizes after more than 15 minutes, measure temperature and take an average temperature.
7. 10 minutes later, measure temperature again and check that the temperature does not change.



10-1. Capacity and the input curves

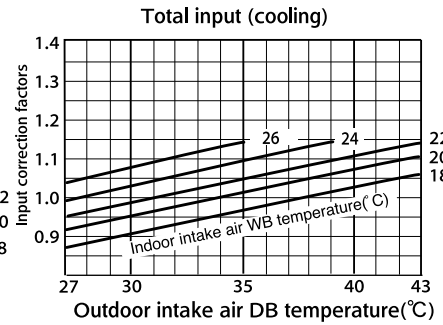
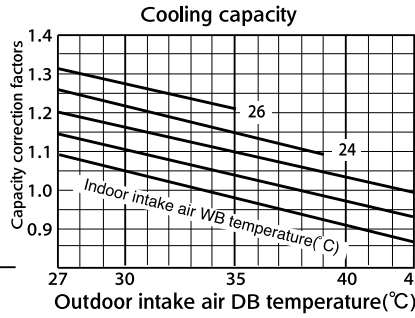
MXZ-2A40VA

MXZ-2A52VA

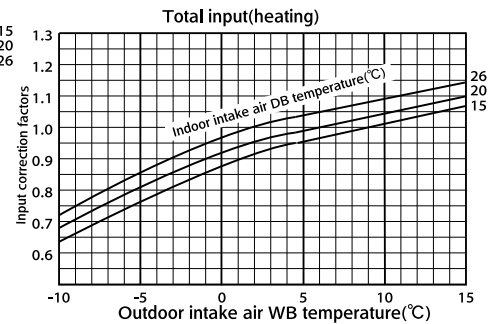
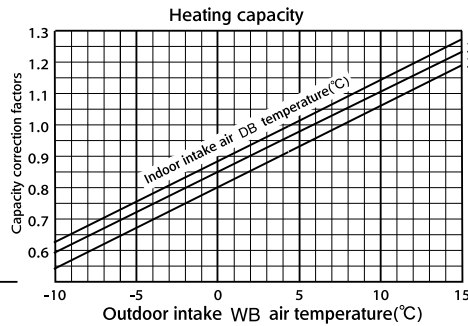


MXZ-3A54VA MXZ-4A71VA

8.5	9.3	10.6	13.1	13.7
7.8	8.5	9.7	11.9	12.4
7.1	7.8	8.8	10.8	11.3
6.4	7.0	7.9	9.7	10.1
5.8	6.3	7.1	8.7	9.0
5.1	5.6	6.3	7.7	8.0
22 class	25 class	35 class	50 class	60 class

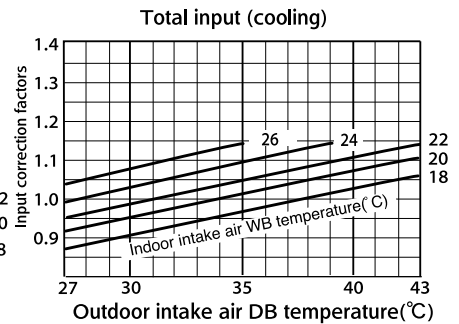
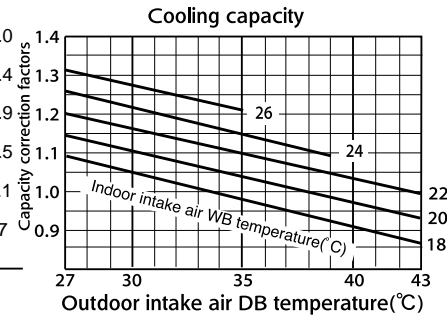


25.4	24.0	25.9	31.4	31.9
23.4	22.2	23.9	29.0	29.4
21.5	20.3	21.9	26.6	27.0
19.5	18.5	19.9	24.1	24.5
17.6	16.6	17.9	21.7	22.1
15.6	14.8	15.9	19.3	19.6
13.7	12.9	13.9	16.9	17.2
11.7	11.1	12.0	14.5	14.7
22 class	25 class	35 class	50 class	60 class

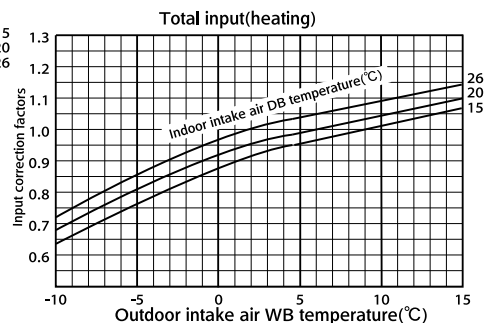
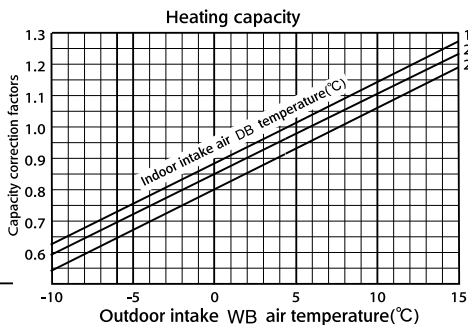


MXZ-4A80VA

8.5	9.3	10.6	13.1	13.7	17.0
7.8	8.5	9.7	11.9	12.4	15.4
7.1	7.8	8.8	10.8	11.3	13.9
6.4	7.0	7.9	9.7	10.1	12.5
5.8	6.3	7.1	8.7	9.0	11.1
5.1	5.6	6.3	7.7	8.0	9.7
22 class	25 class	35 class	50 class	60 class	71 class

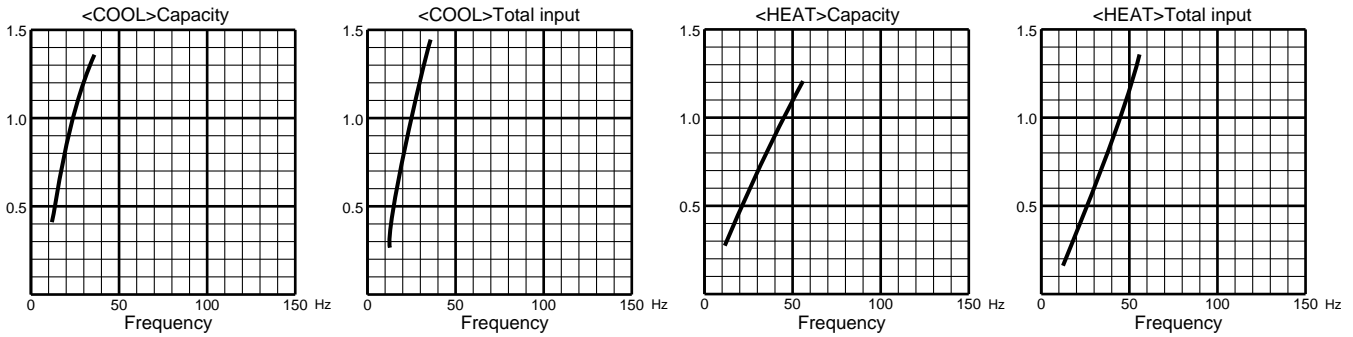


25.4	24.0	25.9	31.4	31.9	35.1
23.4	22.2	23.9	29.0	29.4	32.4
21.5	20.3	21.9	26.6	27.0	29.7
19.5	18.5	19.9	24.1	24.5	27.0
17.6	16.6	17.9	21.7	22.1	24.3
15.6	14.8	15.9	19.3	19.6	21.6
13.7	12.9	13.9	16.9	17.2	18.9
11.7	11.1	12.0	14.5	14.7	16.2
22 class	25 class	35 class	50 class	60 class	71 class

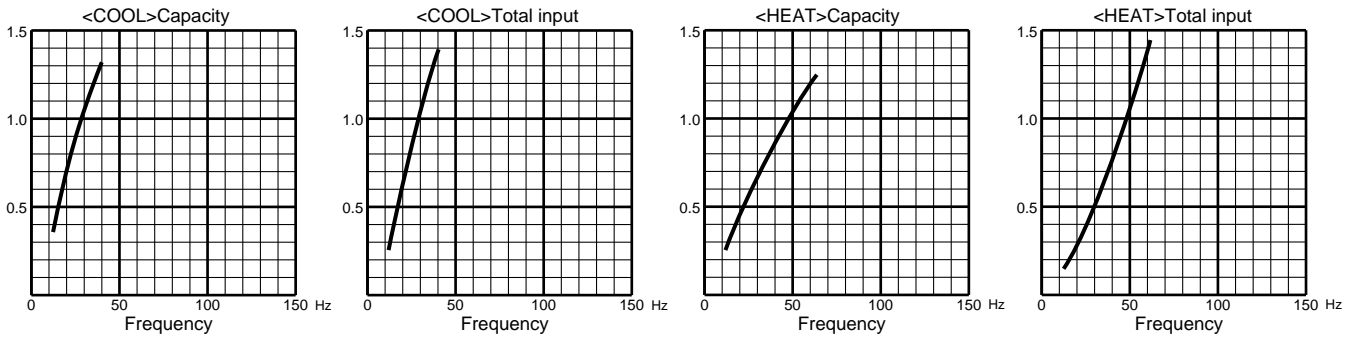


10-2. Capacity and input correction by inverter output frequency (OUTDOOR UNIT:MXZ-2A40VA/2A52VA)

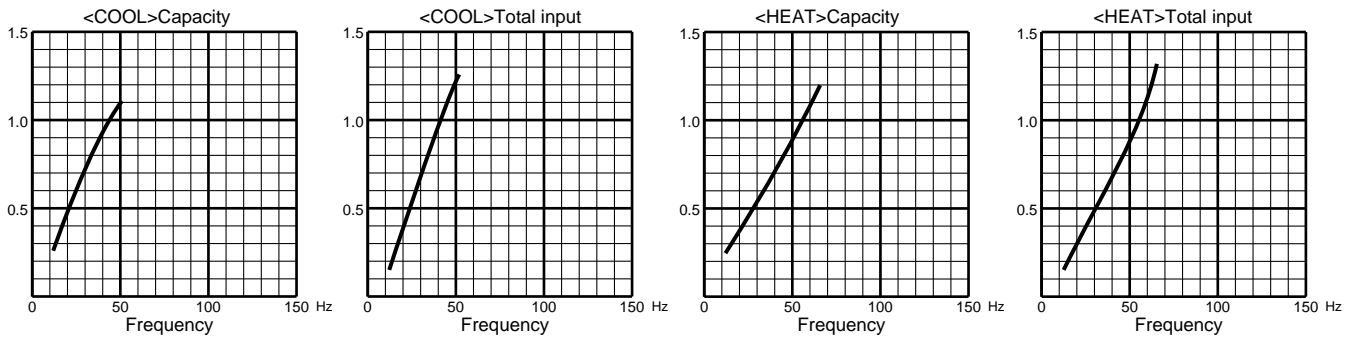
1. 22-class unit in single operation



2. 25-class unit in single operation

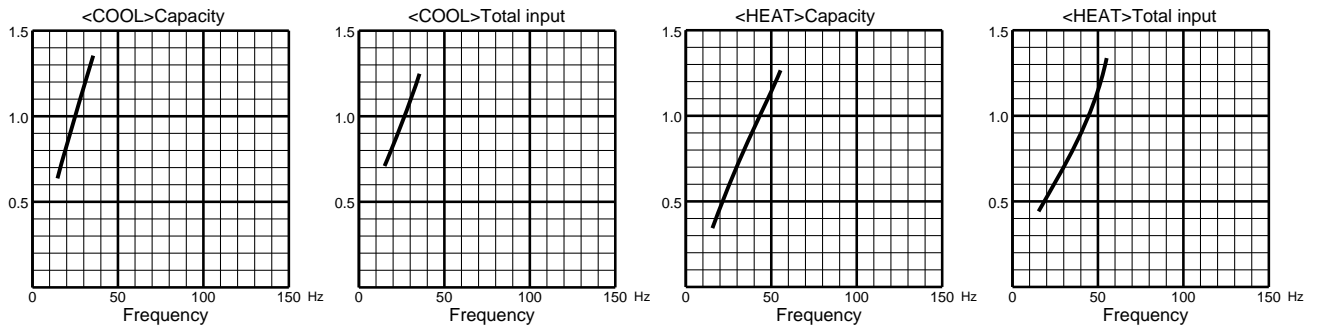


3. 35-class unit in single operation

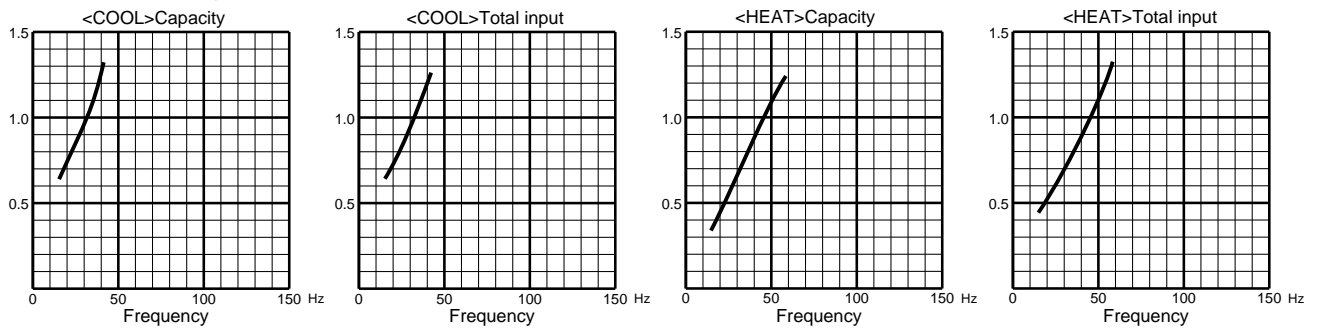


(OUTDOOR UNIT:MXZ-3A54VA)

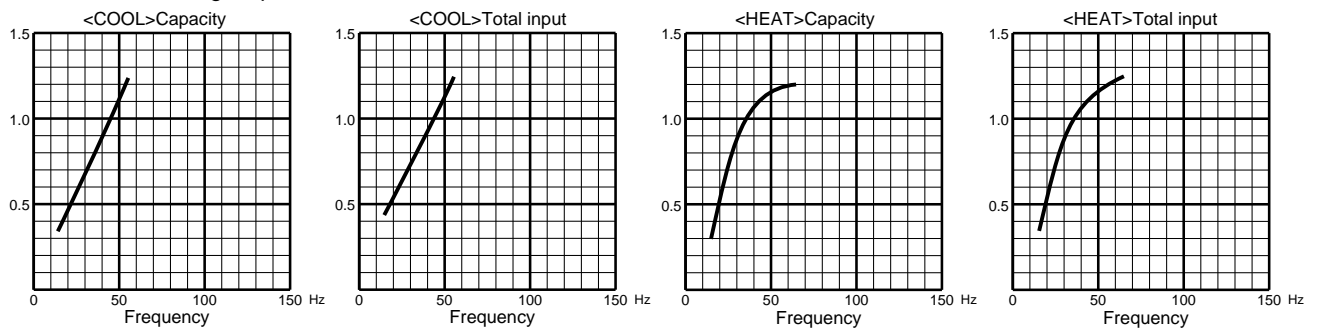
1. 22-class unit in single operation



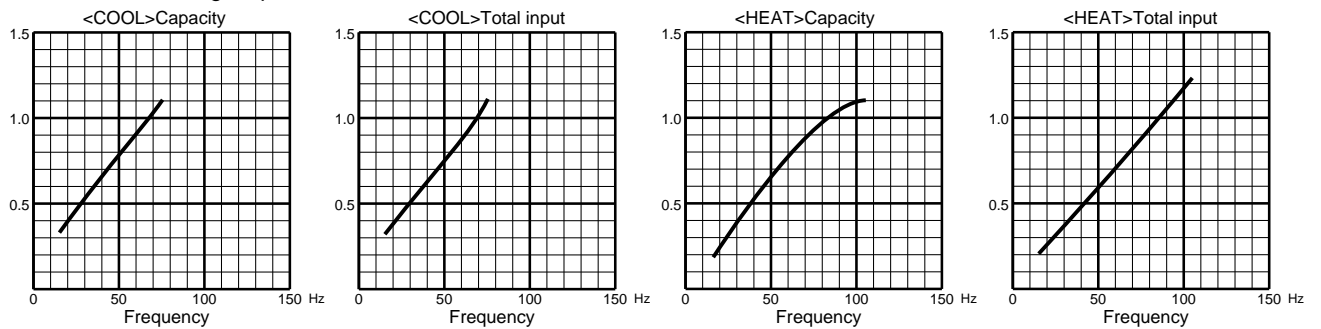
2. 25-class unit in single operation



3. 35-class unit in single operation

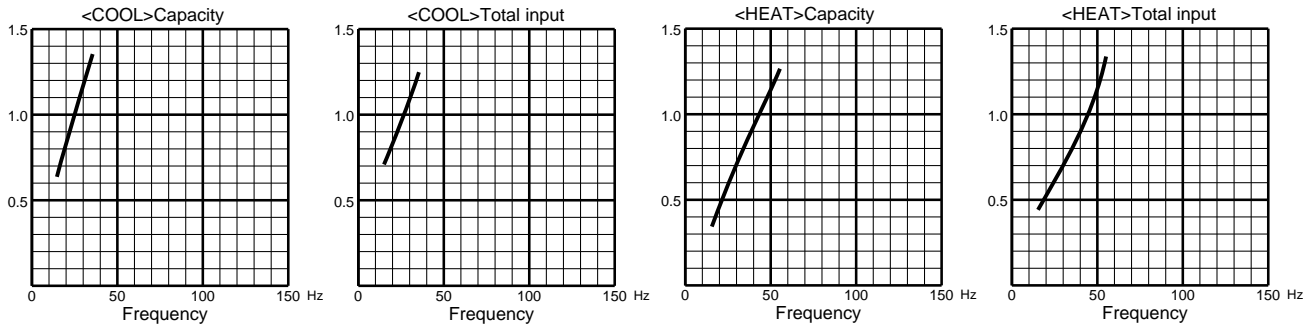


4. 50-class unit in single operation

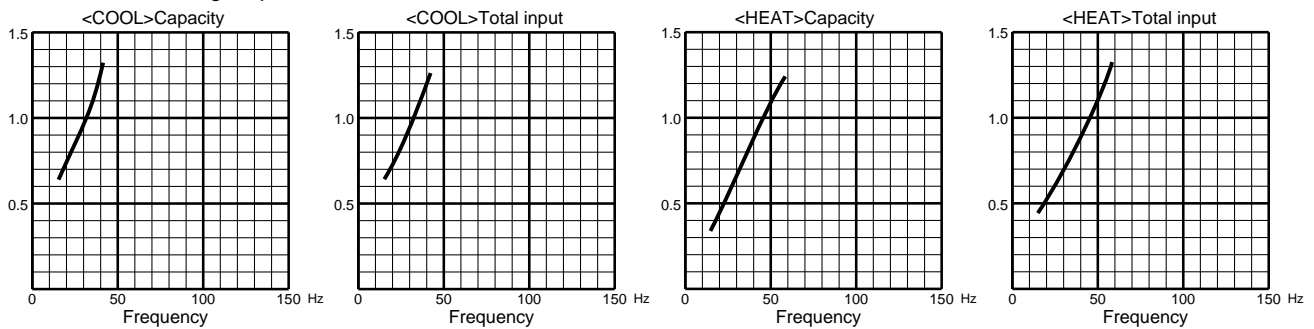


(OUTDOOR UNIT:MXZ-4A71VA)

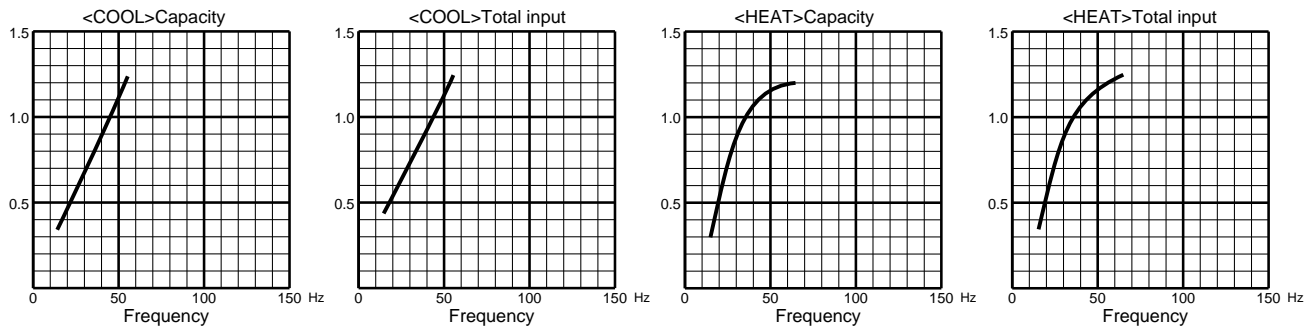
1. 22-class unit in single operation



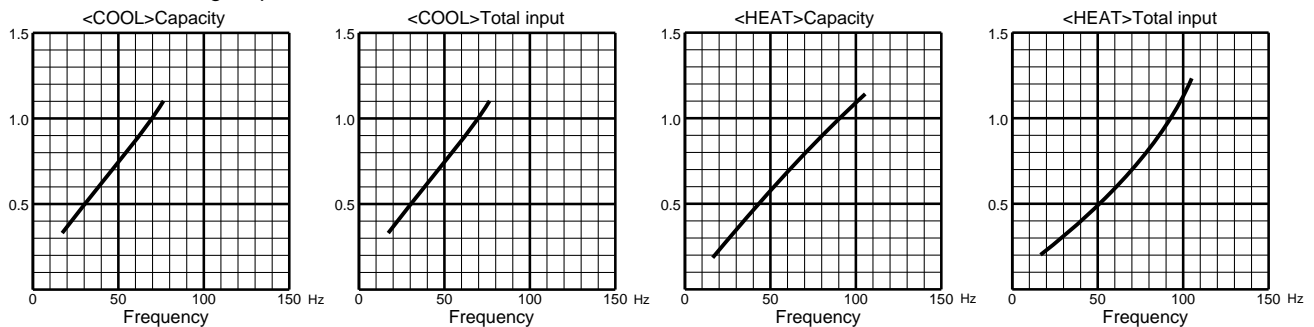
2. 25-class unit in single operation



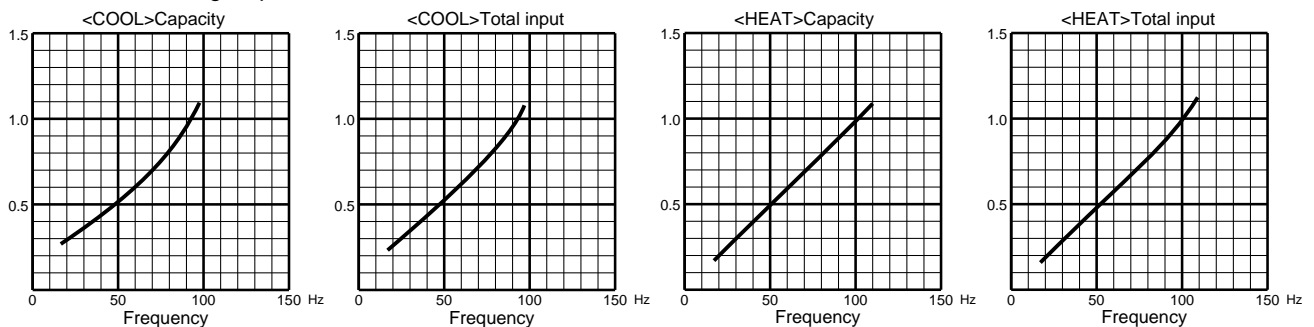
3. 35-class unit in single operation



4. 50-class unit in single operation

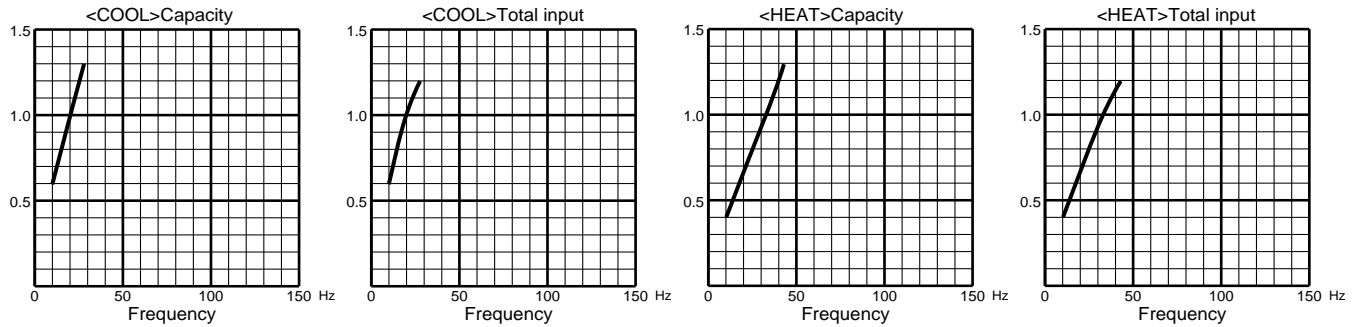


5. 60-class unit in single operation

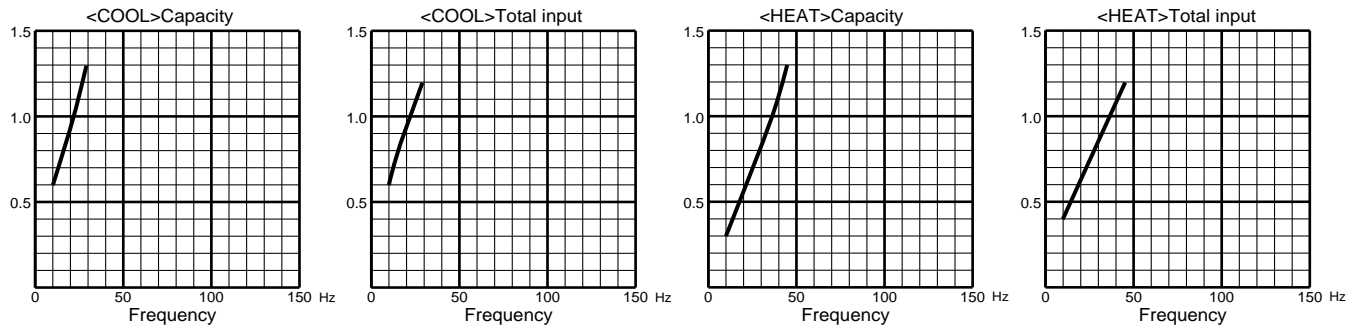


(OUTDOOR UNIT:MXZ-4A80VA)

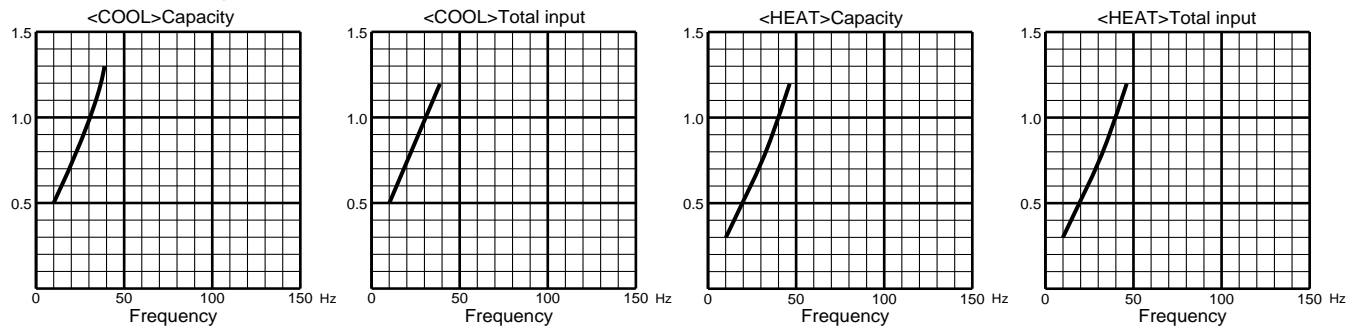
1. 22-class unit in single operation



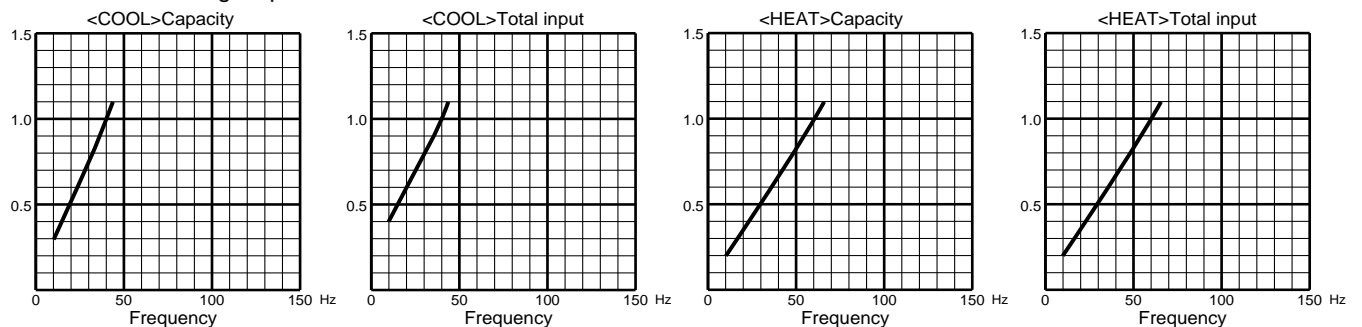
2. 25-class unit in single operation



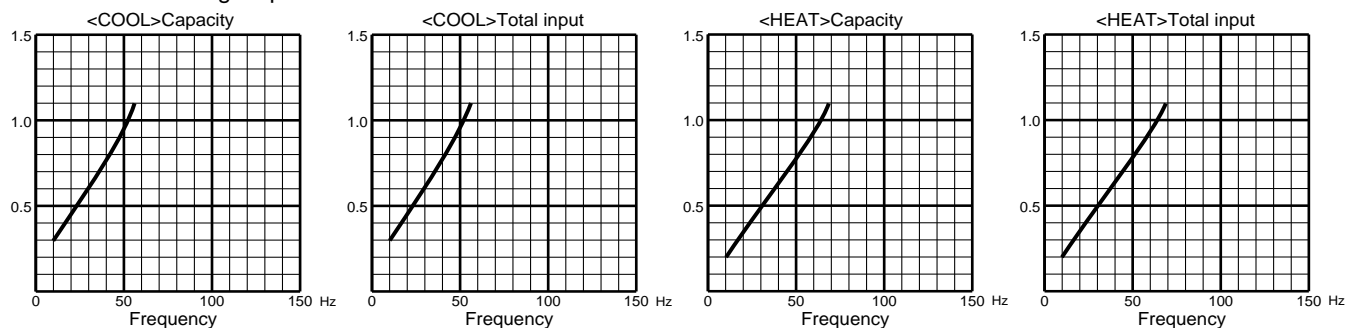
3. 35-class unit in single operation



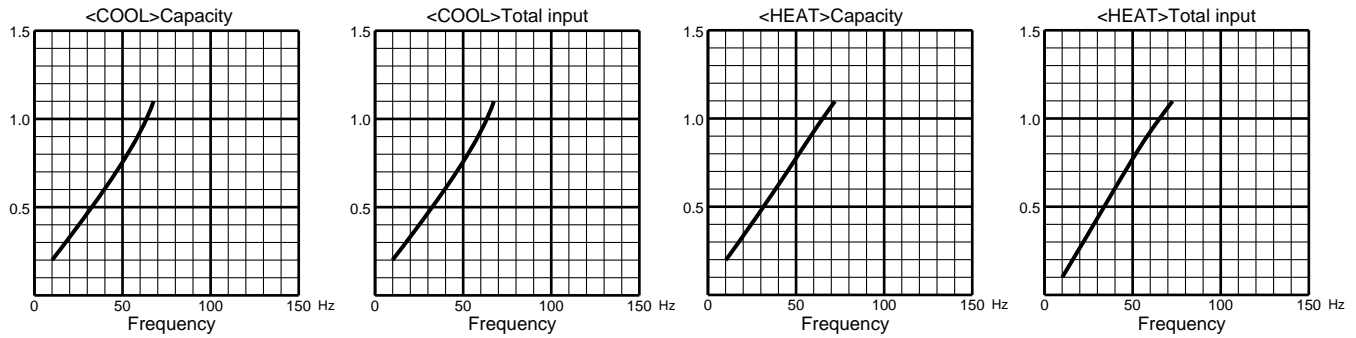
4. 50-class unit in single operation



5. 60-class unit in single operation



6. 71-class unit in single operation



10-3. Test run operation (How to operate fixed-frequency operation)

1. Press EMERGENCY OPERATION switch to COOL or HEAT mode (COOL : Press once, HEAT : Press twice).
2. Test run operation starts and continues to operate for 30 minutes.
3. Compressor operates at rated frequency.
4. Indoor fan operates at High speed.
5. After 30 minutes, test run operation finishes and EMERGENCY OPERATION starts (Operation frequency of compressor varies).
6. To cancel test run operation (EMERGENCY OPERATION), press EMERGENCY OPERATION switch or any button on remote controller.

10-4. Outdoor low pressure and outdoor unit current (single operation)

NOTE:The unit of pressure has been changed to MPa on the international system of units(SI unit system).

The conversion factor is : $1(\text{MPa}[\text{Gauge}]) = 10.2(\text{kgf}/\text{cm}^2[\text{Gauge}])$

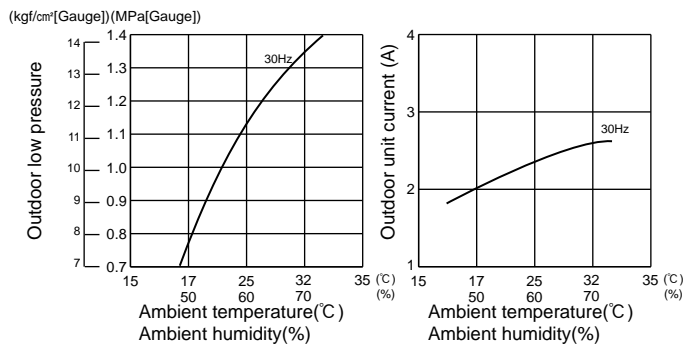
(1) COOL operation

- ① Both indoor and outdoor unit are under the same temperature/humidity condition.
- ② Operation : TEST RUN OPERATION (refer to 10-3.)

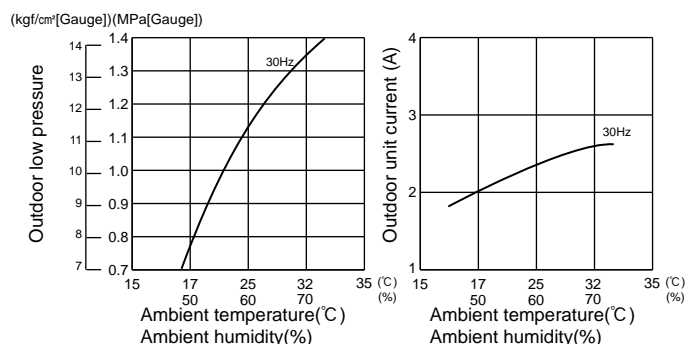
Dry-bulb temperature(°C)	Relative humidity(%)
20	50
25	60
30	70

MXZ-2A40VA MXZ-2A52VA

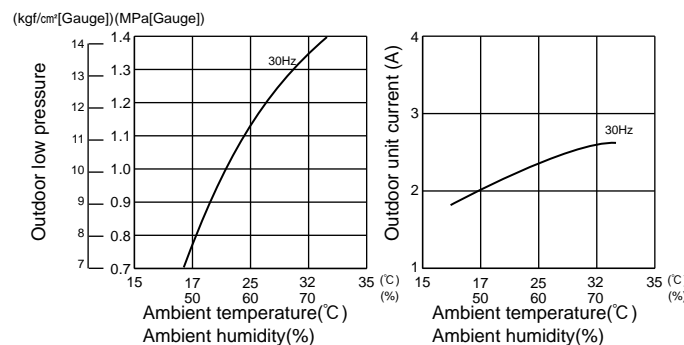
22-class unit



25-class unit

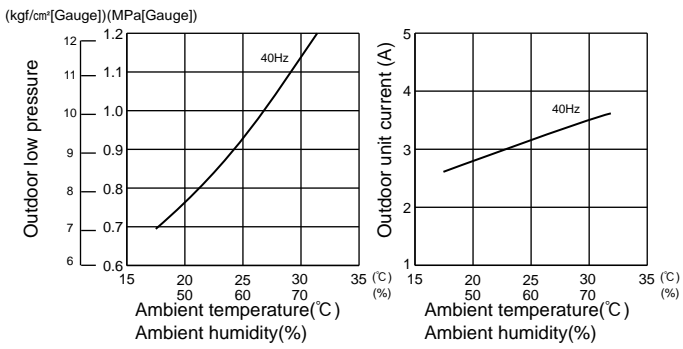


35-class unit

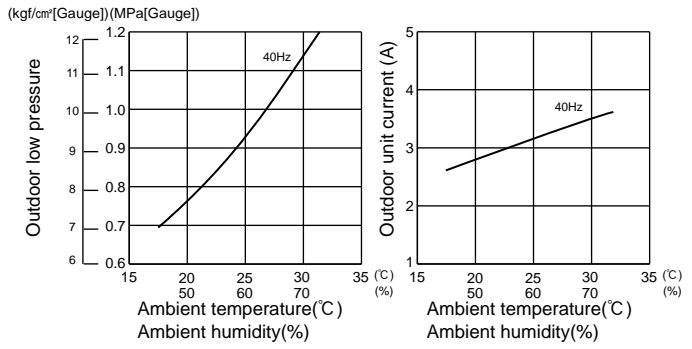


MXZ-3A54VA MXZ-4A71VA

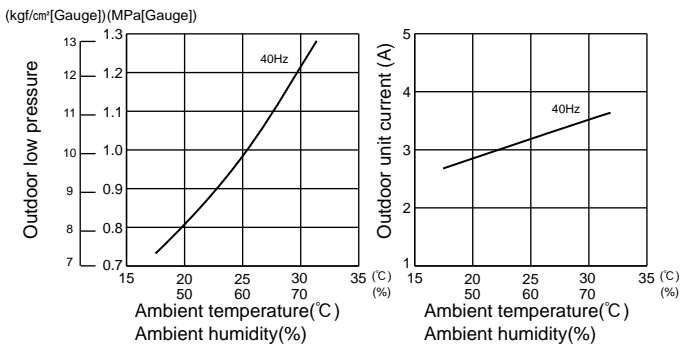
22-class unit



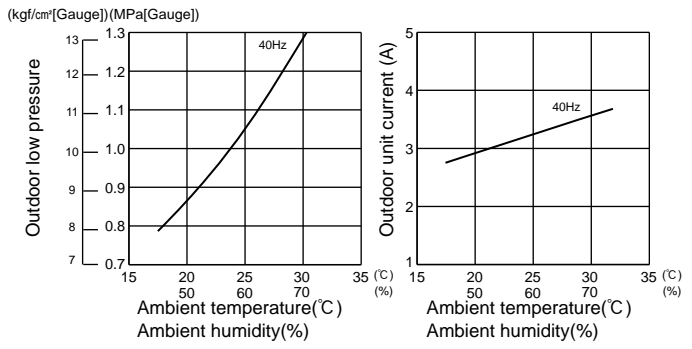
25-class unit



35-class unit

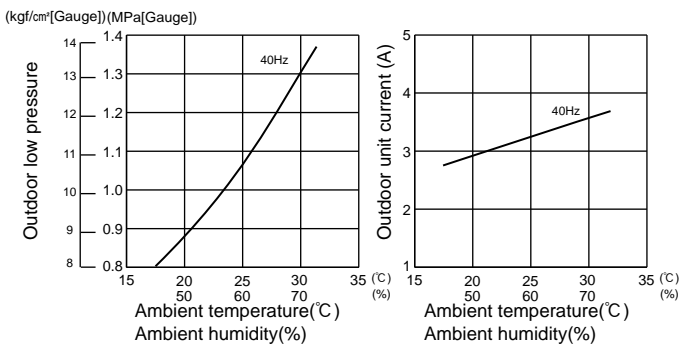


50-class unit



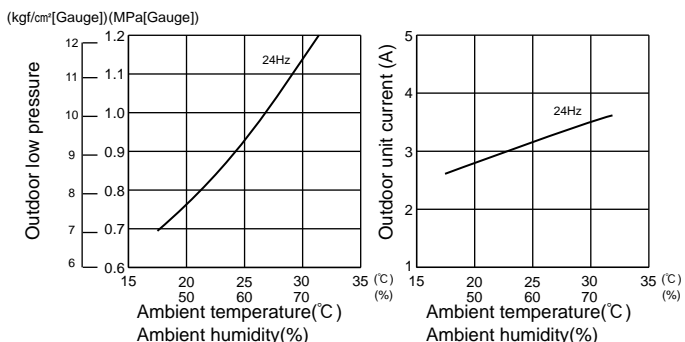
MXZ-4A71VA

60-class unit

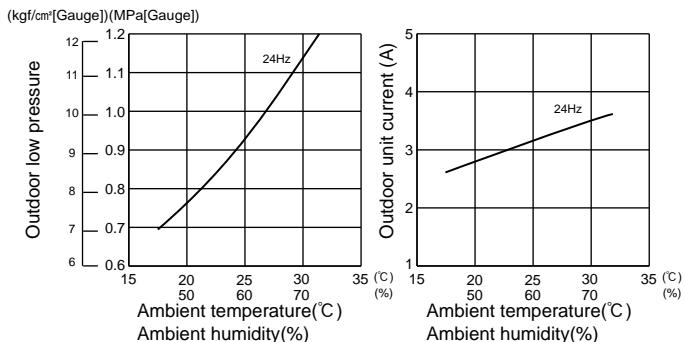


MXZ-4A80VA

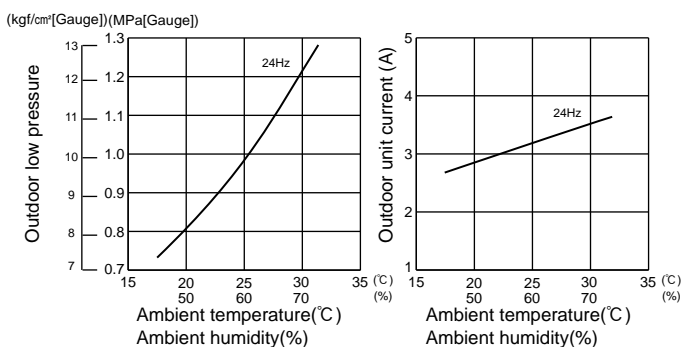
22-class unit



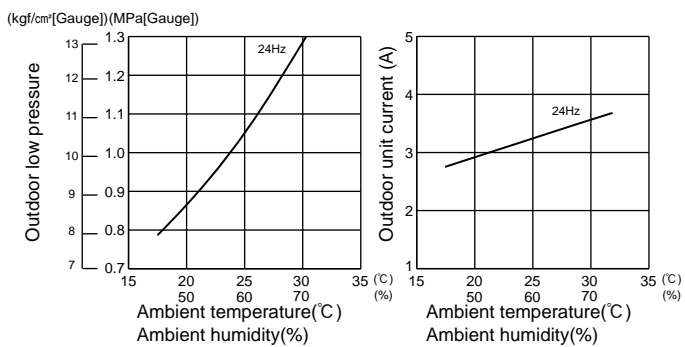
25-class unit



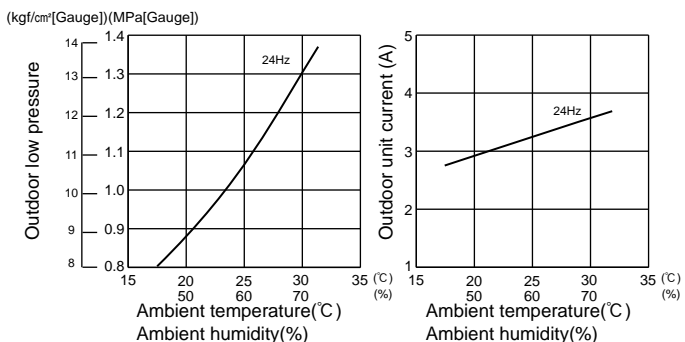
35-class unit



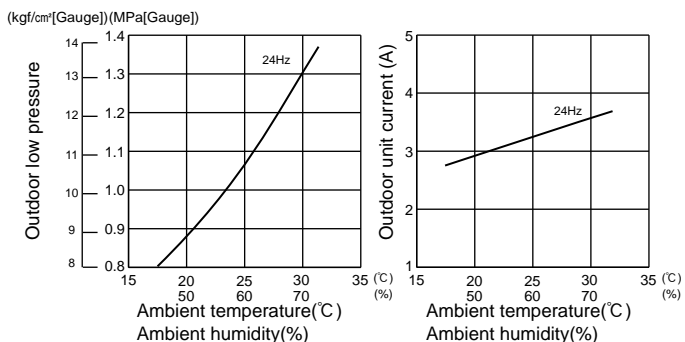
50-class unit



60-class unit



71-class unit



HEAT operation

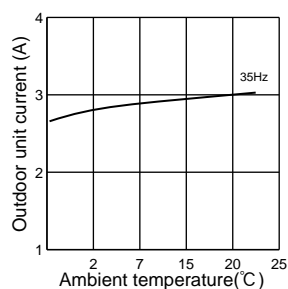
① Condition :

	Indoor	Outdoor			
Dry bulb temperature (°C)	20.0	2	7	15	20.0
Wet bulb temperature (°C)	14.5	1	6	12	14.5

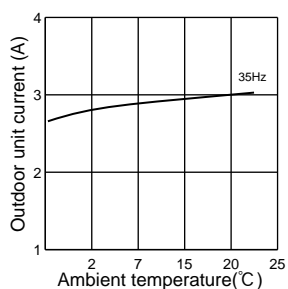
② Operation : TEST RUN OPERATION (refer to 10-3.)

MXZ-2A40VA MXZ-2A52VA

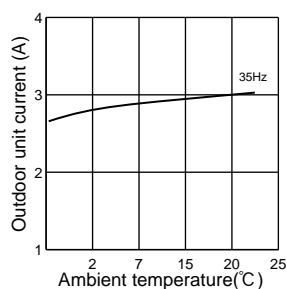
22-class unit



25-class unit

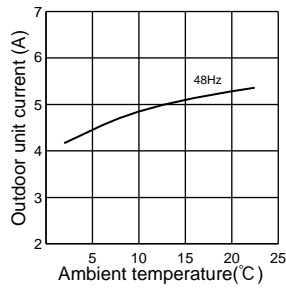


35-class unit

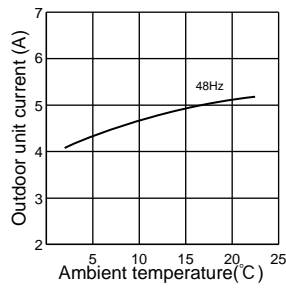


MXZ-3A54VA MXZ-4A71VA

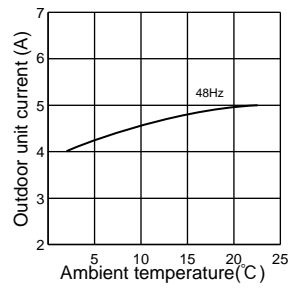
22-class unit



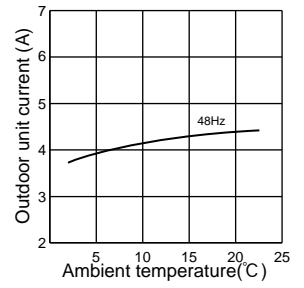
25-class unit



35-class unit

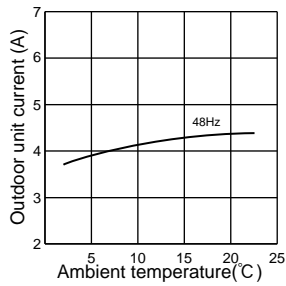


50-class unit



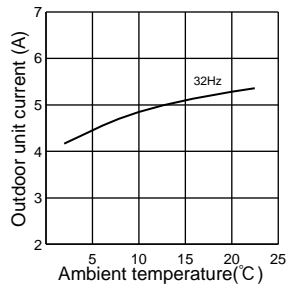
MXZ-4A71VA

60-class unit

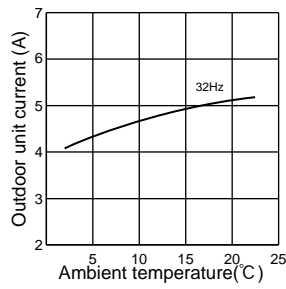


MXZ-4A80VA

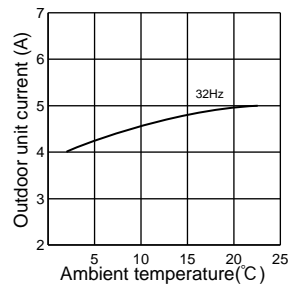
22-class unit



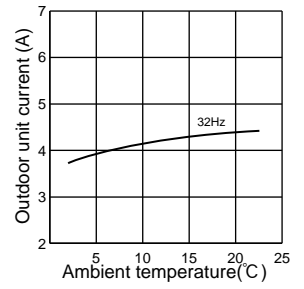
25-class unit



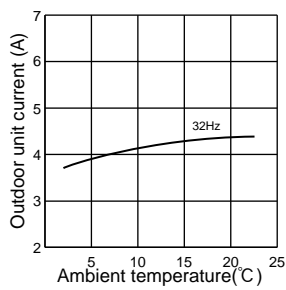
35-class unit



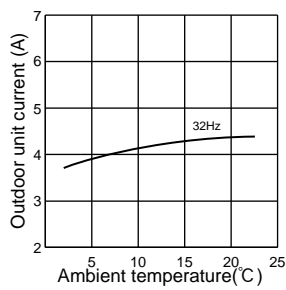
50-class unit



60-class unit



71-class unit



MXZ-2A40VA MXZ-2A52VA MXZ-3A54VA MXZ-4A71VA MXZ-4A80VA

Relation between main sensor and actuator

Sensor	Purpose	Actuator			
		Compressor	LEV	Outdoor fan motor	Reversing valve
Discharge temperature thermistor	Protection	○	○		
Indoor pipe temperature thermistor	Defrosting Protection	○	○	○	
Defrost thermistor	Defrosting	○	○	○	○
Gas pipe temperature thermistor (MXZ-3A54/4A71/4A80VA)	Control		○		
Fin temperature thermistor	Protection	○		○	
Ambient temperature thermistor	Control	○	○	○	
Outdoor heat exchanger temperature	Protection	○	○	○	
Capacity code	Control	○	○		

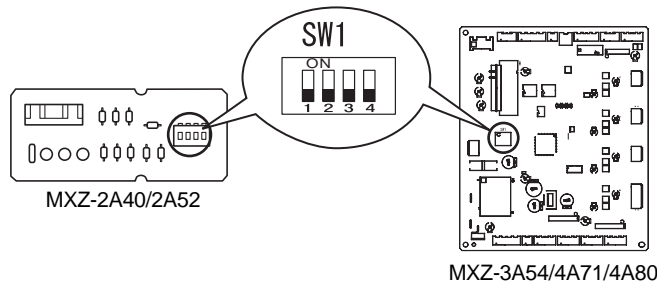
MXZ-2A40VA MXZ-2A52VA MXZ-3A54VA MXZ-4A71VA MXZ-4A80VA

12-1. Locking the operation mode of the conditioner (COOL, DRY, HEAT)

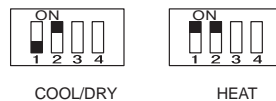
Description of the function:

With this function, you can lock the operation mode of the outdoor unit. Once the operation mode is locked to either COOL/DRY mode or HEAT mode, the air conditioner operates in that mode only.

Initial setting is required to activate this function. Please explain about this function to your customers and ask them whether they want to use it.

**[How to lock the operation mode]**

- ① Be sure to turn off the main power for the air conditioner before making the setting.
- ② Set the 2nd Dip Switch of SW1 on the display P.C. board or the outdoor electronic control P.C. board to ON to enable this function.
- ③ To lock the operation mode in COOL/DRY mode, set the 1st Dip Switch of SW1 on the display P.C. board or the outdoor electronic control P.C. board to OFF. To lock the operation in HEAT mode, set the same switch to ON.
- ④ Turn on the main power for the air conditioner.



12-2. Lowering the operating noise of the outdoor unit

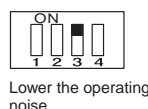
Description of the function:

With this function, you can lower the operating noise of the outdoor unit when the operation load is small, for example, during nighttime in COOL mode. However, please note that the cooling and heating capacity can also be lowered if this function is activated.

Initial setting is required to activate this function. Please explain about this function to your customers and ask them whether they want to use it.

[How to lower the operating noise]

- ① Be sure to turn off the main power for the air conditioner before making the setting.
- ② Set the 3rd Dip Switch of SW1 on the display P.C. board or the outdoor electronic control P.C. board to ON to enable this function.
- ③ Turn on the main power for the air conditioner.



12-3. AUTO LINE CORRECTING function (MXZ-2A)

This outdoor model has an auto line correcting function which automatically detects incorrect wiring or piping as shown in the following pictures, and interchanges the wiring lines (A to B/B to A) with the software.

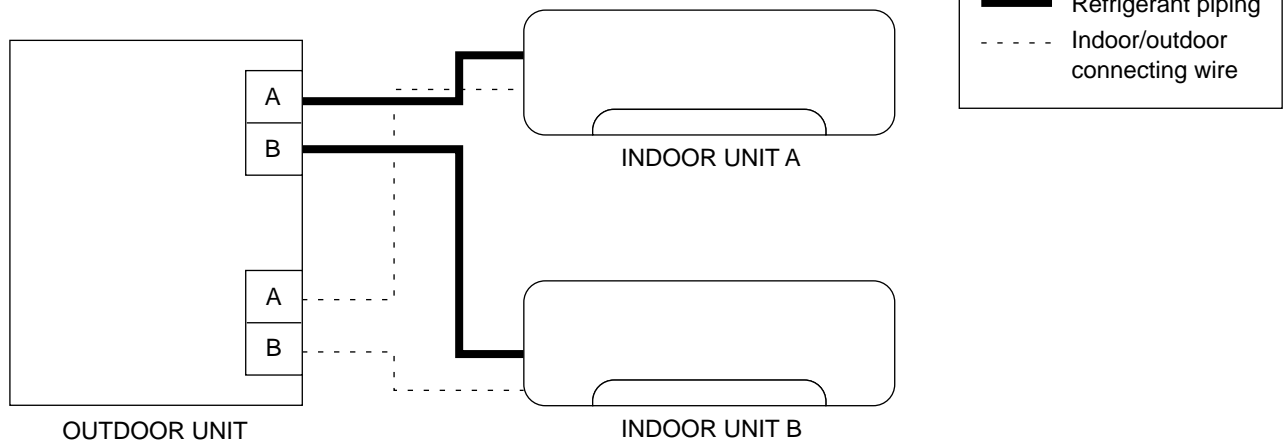
Only one indoor unit has to be performed cooling operation for 30 minutes to complete the detection.

However, this function may not work due to the condition of the unit, or the environment.

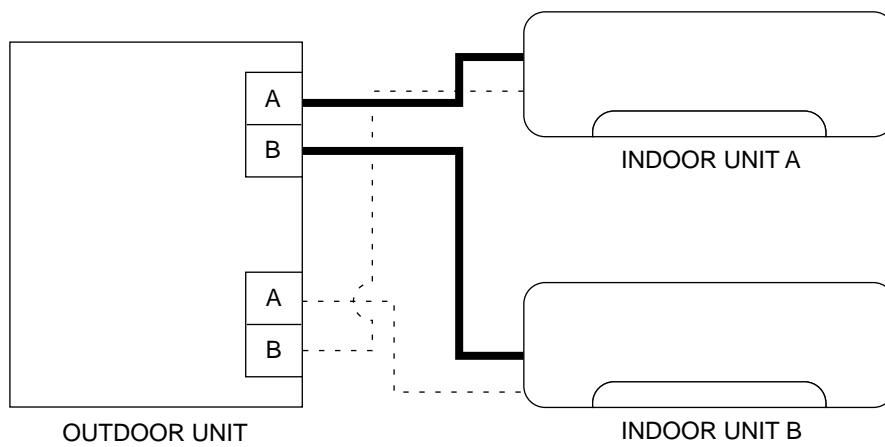
For example,

- gas leak, closed stop valve
- unit failure such as defective LEV
- indoor/outdoor temperature

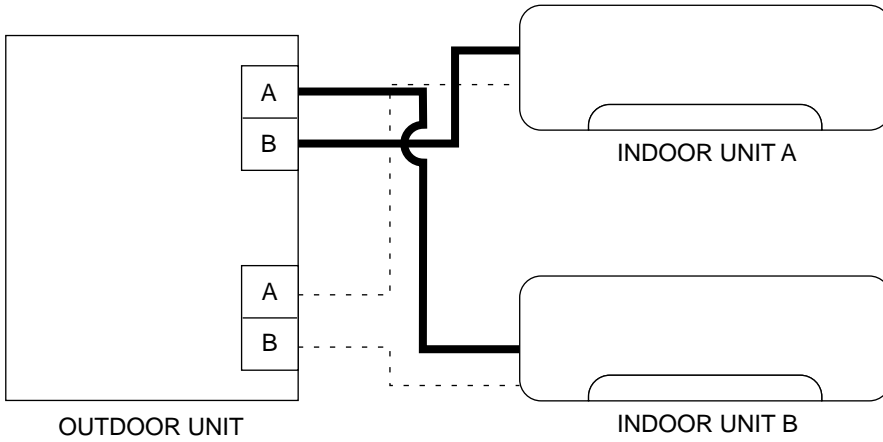
<Correct line>



<Incorrect wiring>



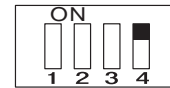
<Incorrect piping>



The auto line correcting can be confirmed in the following way:

- ① Turn OFF the power supply.
- ② Turn ON the 4th Dip Switch of SW1 on the display P.C. board.
- ③ Turn ON the power supply.
- ④ Confirm the interchange by the blinking of LED.

Number of blinks		Wiring line
LED1(Red)	LED2(Yellow)	
Once	Once	not interchanged
3 times	3 times	interchanged



AUTO LINE CORRECTING

- ⑤ Turn OFF the power supply after the confirmation, and turn OFF the 4th Dip Switch of SW1 on the display P.C. board.
- ⑥ Turn ON the power supply.

NOTE: This function does not work when the jumper wire JGO on the inverter P.C. board is cut.

MXZ-2A40VA MXZ-2A52VA MXZ-3A54VA MXZ-4A71VA MXZ-4A80VA

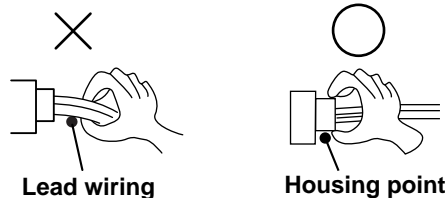
13-1. Cautions on troubleshooting

1. Before troubleshooting, check the following:

- 1) Check the power supply voltage.
- 2) Check the indoor/outdoor connecting wire for mis-wiring.

2. Take care the following during servicing.

- 1) Before servicing the air conditioner, be sure to turn off the unit first with the remote controller, and then after confirming the horizontal vane is closed, turn off the breaker and/or disconnect the power plug.
- 2) Be sure to turn OFF the power supply before removing the front panel, the cabinet, the top panel, and the electronic control P.C. board.
- 3) When removing the electrical parts, be careful to the residual voltage of smoothing capacitor.
- 4) When removing the electronic control P.C. board, hold the edge of the board with care NOT to apply stress on the components.
- 5) When connecting or disconnecting the connectors, hold the housing of the connector. DO NOT pull the lead wires.



3. Troubleshooting procedure

- 1) First, check if the OPERATION INDICATOR lamp on the indoor unit is flashing on and off to indicate an abnormality. To make sure, check how many times the abnormality indication is flashing on and off before starting service work.
- 2) If the electronic control P.C. board is supposed to be defective, check the copper foil pattern for disconnection and the components for bursting and discoloration.
- 3) When troubleshooting, refer to 13-2., and 13-3. and 13-4.

13-2. Failure mode recall function

This air conditioner can memorize the abnormal condition which has occurred once.

Even though LED indication listed on the troubleshooting check table (13-4.) disappears, the memorized failure details can be recalled.

This mode is very useful when the unit needs to be repaired for the abnormality which doesn't recur.

1. Type of failure mode recall function

There are 2 types in failure mode recall function as shown below.

① Indoor and outdoor unit failure mode recall function

With this function, failure mode of indoor unit and a part of failure mode of outdoor unit can be recalled.

② The details of outdoor unit failure mode recall function

With this function, more detailed failure mode of outdoor unit can be recalled.

Refer to the service manual of indoor unit for how to recall the failure mode and the details of indoor unit failure mode.

The outdoor unit failure mode is indicated by the operation indicator lamp on the indoor unit and the LED of outdoor unit. See "13-2.2. Failure mode table".

2. Outdoor unit failure mode table

MXZ-2A

The left lamp of OPERATION INDICATOR lamp(Indoor unit)	Abnormal point (Failure mode / protection)	LED indication (Outdoor P.C. board)		Condition	Correspondence	Indoor/outdoor unit failure mode recall function
		LED 1	LED 2			
OFF	None(Normal)	—	—	—	—	—
2-time flash	Outdoor power system	Lighting	Lighting	When over current protection stop is continuously performed three times within 1 minute after the compressor gets started, or when converter protection stop or bus-bar voltage protection stop is continuously performed three times within 3 minutes after start-up.	<ul style="list-style-type: none"> Check the connection of the compressor connecting wire. Refer to 13-4.⑥ "How to check inverter / compressor". Check the stop valve. 	○
3-time flash	Discharge temperature thermistor	Lighting	Once	When thermistor shorts or opens during compressor running.	<ul style="list-style-type: none"> Refer to 13-6.⑥ "Check of outdoor thermistors". 	○
	Defrost thermistor	Lighting	Once			
	Ambient temperature thermistor	Lighting	Twice			
	Fin temperature thermistor	Lighting	3 times			
	P.C. board temperature thermistor	Lighting	4 times			
Outdoor heat exchanger temperature thermistor	Lighting	9 times	<ul style="list-style-type: none"> Replace the outdoor electronic control P.C. board. Refer to 13-6.⑥ "Check of outdoor thermistors". 			
4-time flash	Over current	Once	Goes out	When 28A current flow into intelligent power module.	<ul style="list-style-type: none"> Reconnect compressor connector. Refer to 13-6.⑥ "How to check inverter/ compressor". Check the stop valve. 	—
	Compressor	Twice	Goes out	The possibility of intercepting the overcurrent by the compressor lock is high.	<ul style="list-style-type: none"> Check the connection of the compressor connecting wire. Refer to 13-6.⑥ "How to check inverter/ compressor". 	—
		9 times	Goes out	The compressor doesn't synchronize with the operating power.		
5-time flash	Discharge temperature	Lighting	Lighting	When discharge temperature exceeds 116°C during operation. Compressor can restart if discharge temperature thermistor reads 100°C or less 3 minutes later.	<ul style="list-style-type: none"> Check refrigerant circuit and refrigerant amount. Refer to 13-6.⑥ "Check of LEV". 	—
6-time flash	High pressure	Lighting	Lighting	When the outdoor heat exchanger temperature exceeds 70°C during cooling or the indoor gas pipe temperature exceeds 70°C during heating.	<ul style="list-style-type: none"> Check refrigerant circuit and refrigerant amount. Check the stop valve. 	—
7-time flash	Fin temperature	3 times	Goes out	When the fin temperature exceeds 87°C during operation.	<ul style="list-style-type: none"> Check around outdoor unit. Check outdoor unit air passage. Refer to 13-6.⑥ "Check of outdoor fan motor". 	—
	P.C. board temperature	4 times	Goes out	When the P.C. board temperature exceeds 70°C during operation.		
8-time flash	Outdoor fan motor	Lighting	Lighting	When failure occurs continuously three times within 30 seconds after the fan gets started.	<ul style="list-style-type: none"> Refer to 13-6.⑥ "Check of outdoor fan motor". 	—
9-time flash	Nonvolatile memory data	Lighting	5 times	When nonvolatile memory data cannot be read properly.	<ul style="list-style-type: none"> Replace the outdoor electronic control P.C. board. 	○
10-time flash	Discharge temperature	Lighting	Lighting	When the frequency of the compressor is kept 80Hz or more and the discharge temperature is kept under 39°C for more than 20 minutes.	<ul style="list-style-type: none"> Check refrigerant circuit and refrigerant amount. Refer to 13-6.⑥ "Check of LEV". 	—

NOTE : Blinking patterns of this mode differ from the ones of Troubleshooting check table (13-4.).

The left lamp of OPERATION INDICATOR lamp (Indoor unit)	Abnormal point (Failure mode / protection)	LED indication (Outdoor P.C. board)		Condition	Correspondence	Indoor/outdoor unit failure mode recall function
		LED 1	LED 2			
11-time flash	Current sensor	8 times	Goes out	When a short or open circuit is detected in the current sensor during compressor operating.	• Replace the power board.	_____
	Bus-bar voltage	6 times	Goes out	When the bus-bar voltage exceeds 430V or falls to 50V or below during compressor operating.	• Replace the power board.	_____
14-time flash	Power module	7 times	Goes out	There is a high possibility that the power module is out of order.	• Refer to 13-6.⑥ "How to check inverter/compressor".	_____
15-time flash	LEV for drain	Lighting	Lighting	When the indoor unit detects any abnormal in the LEV for drain.	• Refer to 13-6.⑦ "Check of LEV". • Check the drain pump of the indoor unit.	_____

NOTE : Blinking patterns of this mode differ from the ones of Troubleshooting check table (13-4.).

MXZ-3A/4A

The left lamp of OPERATION INDICATOR lamp(Indoor unit)	Abnormal point (Failure mode / protection)	LED indication (Outdoor P.C. board)		Condition	Correspondence	Indoor/outdoor unit failure mode recall function
		LED 1	LED 2			
OFF	None(Normal)	—	—	—	—	—
2-time flash	Outdoor power system	Lighting	Lighting	When over current protection stop is continuously performed three times within 1 minute after the compressor gets started, or when converter protection stop or bus-bar voltage protection stop is continuously performed three times within 3 minutes after start-up.	<ul style="list-style-type: none"> Check the connection of the compressor connecting wire. Refer to 13-4.⑤ "How to check inverter / compressor". Check the stop valve. 	○
3-time flash	Discharge temperature thermistor	Lighting	Once	When thermistor shorts or opens during compressor running.	<ul style="list-style-type: none"> Refer to 13-6.⑤ "Check of outdoor thermistors". 	○
	Defrost thermistor	Lighting	Once			
	Ambient temperature thermistor	Lighting	Twice			
	Fin temperature thermistor	Lighting	3 times			
	P.C. board temperature thermistor	Lighting	4 times			
	Outdoor heat exchanger temperature thermistor	Lighting	9 times	When a short or open circuit is detected in the thermistor during cooling. (A,B,C : MXZ-3A54/4A71/4A80) (D : MXZ-4A71/4A80)	<ul style="list-style-type: none"> Replace the outdoor electronic control P.C. board. Refer to 13-6.⑤ "Check of outdoor thermistors". 	
	Gas pipe temperature thermistor A	Lighting	10 times			
	Gas pipe temperature thermistor B	Lighting	11 times			
	Gas pipe temperature thermistor C	Lighting	12 times			
Gas pipe temperature thermistor D	Lighting	13 times				
4-time flash	Over current	Once	Goes out	When 28A current flow into intelligent power module.	<ul style="list-style-type: none"> Reconnect compressor connector. Refer to 13-6.⑤ "How to check inverter/ compressor". Check the stop valve. 	—
5-time flash	Discharge temperature	Lighting	Lighting	When discharge temperature exceeds 116°C during operation. Compressor can restart if discharge temperature thermistor reads 100°C or less 3 minutes later.	<ul style="list-style-type: none"> Check refrigerant circuit and refrigerant amount. Refer to 13-6.⑥ "Check of LEV". 	—
6-time flash	High pressure	Lighting	Lighting	When high-pressure is detected with the high-pressure switch (HPS) during operation.(MXZ-4A80)	<ul style="list-style-type: none"> Check refrigerant circuit and refrigerant amount. Check the stop valve. 	—
				When the outdoor heat exchanger temperature exceeds 70°C during cooling or the indoor gas pipe temperature exceeds 70°C during heating.		
7-time flash	Fin temperature	3 times	Goes out	When the fin temperature exceeds 87°C during operation.	<ul style="list-style-type: none"> Check around outdoor unit. Check outdoor unit air passage. Refer to 13-6.⑥ "Check of outdoor fan motor". 	—
	P.C. board temperature	4 times	Goes out	When the P.C. board temperature exceeds 70°C during operation.		
8-time flash	Outdoor fan motor	Lighting	Lighting	When failure occurs continuously three times within 30 seconds after the fan gets started.	<ul style="list-style-type: none"> Refer to 13-6.⑥ "Check of outdoor fan motor". 	—
9-time flash	Nonvolatile memory data	Lighting	5 times	When nonvolatile memory data cannot be read properly.	<ul style="list-style-type: none"> Replace the outdoor electronic control P.C. board. 	○
10-time flash	Discharge temperature	Lighting	Lighting	When the frequency of the compressor is kept 80Hz or more and the discharge temperature is kept under 39°C for more than 20 minutes.	<ul style="list-style-type: none"> Check refrigerant circuit and refrigerant amount. Refer to 13-6.⑥ "Check of LEV". 	—

NOTE : Blinking patterns of this mode differ from the ones of Troubleshooting check table (13-4.).

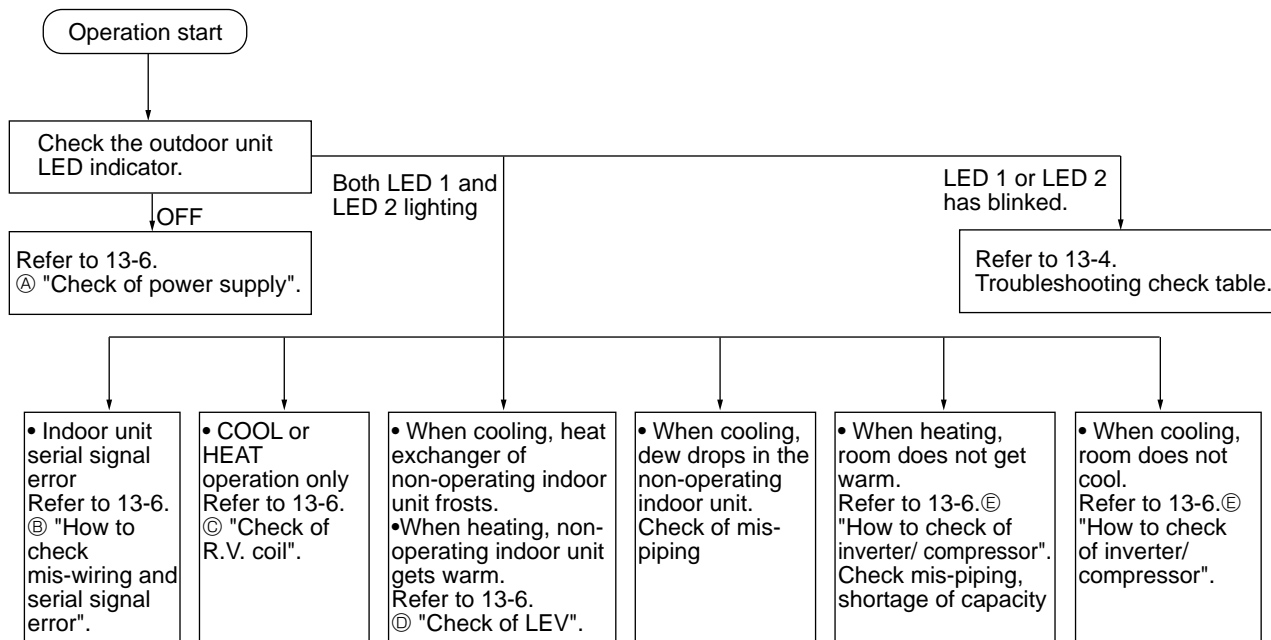


The left lamp of OPERATION INDICATOR lamp (Indoor unit)	Abnormal point (Failure mode / protection)	LED indication (Outdoor P.C. board)		Condition	Correspondence	Indoor/outdoor unit failure mode recall function
		LED 1	LED 2			
11-time flash	Communication error between P.C. boards (MXZ-3A54/4A71/4A80)	Lighting	6 times	Communication error occurs between the electronic control P.C. board and power board for more than 10 seconds.	<ul style="list-style-type: none"> • Check the connecting wire between outdoor electronic control P.C. board and power board. 	—
				When the communication between boards protection stop is continuously performed twice.		○
	Current sensor	Lighting	7 times	When a short or open circuit is detected in the current sensor during compressor operating.	<ul style="list-style-type: none"> • Replace the power board. 	—
				Current sensor protection stop is continuously performed twice.		○
	Zero cross detecting circuit	5 times	Goes out	When zero cross signal cannot be detected while the compressor is operating.	<ul style="list-style-type: none"> • Check the connecting wire among electronic control P.C. board, noise filter P.C. board and power board. 	—
				The protection stop of the zero cross detecting circuit is continuously performed 10 times.		○
	Converter	5 times	Goes out	When a failure is detected in the operation of the converter during operation.	<ul style="list-style-type: none"> • Replace the power board. 	—
Bus-bar voltage (1)	5 times	Goes out	When the bus-bar voltage exceeds 400V or falls to 200V or below during compressor operating.			
Bus-bar voltage (2) ※Even if this protection stop is performed continuously three times, it does not mean the abnormality in outdoor power system.	6 times	Goes out	When the bus-bar voltage exceeds 400V or falls to 50V or below during compressor operating.			
15-time flash	LEV for drain	Lighting	Lighting	When the indoor unit detects any abnormal in the LEV for drain.	<ul style="list-style-type: none"> • Refer to 13-6.Ⓐ "Check of LEV". • Check the drain pump of the indoor unit. 	—

NOTE : Blinking patterns of this mode differ from the ones of Troubleshooting check table (13-4.).

13-3. Instruction of troubleshooting

- Check the indoor unit with referring to the indoor unit service manual, and confirm that there is any problem in the indoor unit.
Then, check the outdoor unit with referring to this page.



13-4. Troubleshooting check table

MXZ-2A

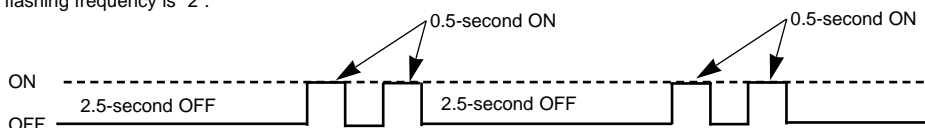
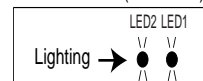
No.	Symptom	Indication		Abnormal point / Condition	Condition	Correspondence
		LED1(Red)	LED2(Yellow)			
1	Outdoor unit does not operate.	Lightning	Once	LEV for drain	When the indoor unit detects any abnormality in the LEV for drain.	<ul style="list-style-type: none"> Refer to 13-6.⑩ "Check of LEV". Check the drain pump of the indoor unit.
2		Lightning	Twice	Outdoor power system	When over current protection stop is continuously performed three times within 1 minute after the compressor gets started, or when converter protection stop or bus-bar voltage protection stop is continuously performed three times within 3 minutes after start-up.	<ul style="list-style-type: none"> Check the connection of the compressor connecting wire. Refer to 13-6.⑩ "How to check inverter/compressor". Check the stop valve.
3		Lightning	3 times	Discharge temperature thermistor	When a short circuit is detected in the thermistor during operation, or when an open circuit is detected in the thermistor after 10 minutes of compressor start-up.	<ul style="list-style-type: none"> Refer to 13-6.⑩ "Check of outdoor thermistors".
4		Lightning	4 times	Fin temperature thermistor P.C board temperature thermistor	When a short or open circuit is detected in the thermistor during operation.	<ul style="list-style-type: none"> Refer to 13-6.⑩ "Check of outdoor thermistors". Replace the outdoor electronic control P.C. board.
5		Lightning	5 times	Ambient temperature thermistor Outdoor heat exchanger temperature thermistor Defrost thermistor	When a short or open circuit is detected in the thermistor during operation. When a short circuit is detected in the thermistor during operation, or when an open circuit is detected in the thermistor after 5 minutes (in cooling) and 10 minutes (in heating) of compressor start-up. When a short circuit is detected in the thermistor during operation, or when an open circuit is detected in the thermistor after 5 minutes of compressor start-up.	<ul style="list-style-type: none"> Refer to 13-6.⑩ "Check of outdoor thermistors".
6		Lightning	7 times	Nonvolatile memory data	When the nonvolatile memory data cannot be read properly.	<ul style="list-style-type: none"> Replace the outdoor electronic control P.C. board.
7	Outdoor unit stops and restarts 3 minutes later is repeated.	Twice	Goes out	Over current	When 28A current flow into intelligent power module.	<ul style="list-style-type: none"> Reconnect compressor connector. Refer to 13-6.⑩ "How to check inverter/compressor". Check the stop valve.
8		3 times	Goes out	Discharge temperature protection	When discharge temperature exceeds 116°C during operation. Compressor can restart if discharge temperature thermistor reads 100°C or less 3 minutes later.	<ul style="list-style-type: none"> Check the amount of gas and refrigerant circuit. Refer to 13-6.⑩ "Check of LEV".
9		4 times	Goes out	Fin temperature protection P.C. board temperature protection	When the fin temperature exceeds 87°C during operation. When the P.C. board temperature exceeds 70°C during operation.	<ul style="list-style-type: none"> Check refrigerant circuit and refrigerant amount. Refer to 13-6.⑩ "Check of outdoor fan motor".
10		5 times	Goes out	High-pressure protection	When the outdoor heat exchanger temperature exceeds 70°C during cooling or when indoor gas pipe temperature exceeds 70°C during heating.	<ul style="list-style-type: none"> Check around of gas and the refrigerant circuit. Check of stop valve.
11		9 times	Goes out	Bus-bar voltage protection	When the bus-bar voltage exceeds 430V or falls to 50V or below during compressor operating.	<ul style="list-style-type: none"> Replace the power board.
12		13 times	Goes out	Outdoor fan motor	When failure occurs continuously three times within 30 seconds after the fan gets started.	<ul style="list-style-type: none"> Refer to 13-6.⑩ "Check of outdoor fan motor".
13		8 times	Goes out	Current sensor protection	When a short or open circuit is detected in the current sensor during compressor operating.	<ul style="list-style-type: none"> Replace the power board.
14		10 times	Goes out	Compressor	The compressor doesn't synchronize with the operating power.	<ul style="list-style-type: none"> Reconnect compressor connector. Refer to 13-6.⑩ "How to check inverter/compressor". Check the stop valve.
15	Outdoor unit operates.	Once	Lighting	Primary current protection	When the input current exceeds 15A.	These symptoms do not mean any abnormality of the product, but check the following points. <ul style="list-style-type: none"> Check if indoor filters are clogged. Check if refrigerant is short. Check if indoor/outdoor unit air circulation is short cycled.
16				Secondary current protection	When the current of the compressor exceeds 15A.	
17		Twice	Lighting	High-pressure protection	When the indoor gas pipe temperature exceeds 45°C during heating.	
				Defrosting in cooling	When the indoor gas pipe temperature falls 3°C or below during cooling.	
18	3 times	Lighting	Discharge temperature protection	When the frequency of the compressor is kept 80Hz or more and the discharge temperature is kept under 50°C (COOL mode) /40°C (HEAT mode) for more than 40 minutes.	<ul style="list-style-type: none"> Check refrigerant circuit and refrigerant amount. Refer to 13-6.⑩ "Check of LEV". Refer to 13-6.⑩ "Check of outdoor thermistors". 	
18	4 times	Lighting	Low discharge temperature protection	When the frequency of the compressor is kept 80Hz or more and the discharge temperature is kept under 39°C for more than 20 minutes.	<ul style="list-style-type: none"> Refer to 13-6.⑩ "Check of LEV". Check refrigerant circuit and refrigerant amount. 	

NOTE 1. The location of LED is illustrated at the right figure. Refer to 13-7.1.

2. LED is lighted during normal operation.

The flashing frequency shows the number of times the LED blinks after every 2.5-second OFF.
(Example) When the flashing frequency is "2".

Outdoor electronic control P.C. board(Parts side)





No.	Symptom	Indication		Abnormal point / Condition	Condition	Correspondence
		LED1(Red)	LED2(Yellow)			
19	Outdoor unit operates.	5 times	Lighting	Cooling high-pressure protection	When the outdoor heat exchanger temperature exceeds 58°C during operation.	This symptom does not mean any abnormality of the product, but check the following points. <ul style="list-style-type: none">• Check if indoor filters are clogged.• Check if refrigerant is short.• Check if indoor/outdoor unit air circulation is short cycled.
20	Outdoor unit operates normally.	9 times	Lighting	Inverter check mode	When the unit is operated with emergency operation switch.	—
21		Lighting	Lighting	Normal	—	—

MXZ-3A/4A

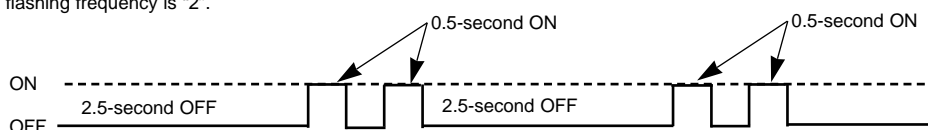
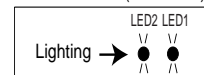
No.	Symptom	Indication		Abnormal point / Condition	Condition	Correspondence
		LED1(Red)	LED2(Yellow)			
1	Outdoor unit does not operate.	Lightning	Once	LEV for drain	When the indoor unit detects any abnormality in the LEV for drain.	<ul style="list-style-type: none"> Refer to 13-6.⑥ "Check of LEV". Check the drain pump of the indoor unit.
2		Lightning	Twice	Outdoor power system	When over current protection stop is continuously performed three times within 1 minute after the compressor gets started, or when converter protection stop or bus-bar voltage protection stop is continuously performed three times within 3 minutes after start-up.	<ul style="list-style-type: none"> Check the connection of the compressor connecting wire. Refer to 13-6.⑥ "How to check inverter/compressor". Check the stop valve.
3		Lightning	3 times	Discharge temperature thermistor	When a short circuit is detected in the thermistor during operation, or when an open circuit is detected in the thermistor after 10 minutes of compressor start-up.	<ul style="list-style-type: none"> Refer to 13-6.⑥ "Check of outdoor thermistors".
4		Lightning	4 times	Fin temperature thermistor P.C board temperature thermistor	When a short or open circuit is detected in the thermistor during operation.	<ul style="list-style-type: none"> Refer to 13-6.⑥ "Check of outdoor thermistors". Replace the outdoor electronic control P.C. board.
5		Lightning	5 times	Ambient temperature thermistor Outdoor heat exchanger temperature thermistor Defrost thermistor	When a short circuit is detected in the thermistor during operation, or when an open circuit is detected in the thermistor after 5 minutes (in cooling) and 10 minutes (in heating) of compressor start-up.	<ul style="list-style-type: none"> Refer to 13-6.⑥ "Check of outdoor thermistors".
6		Lightning	7 times	Nonvolatile memory data	When the nonvolatile memory data cannot be read properly.	<ul style="list-style-type: none"> Replace the outdoor electronic control P.C. board.
7		Lightning	8 times	Current sensor	Current sensor protection stop is continuously performed twice.	<ul style="list-style-type: none"> Replace the power board.
8		Lightning	10 times	Gas pipe temperature thermistor A Gas pipe temperature thermistor B Gas pipe temperature thermistor C Gas pipe temperature thermistor D	When a short or open circuit is detected in the thermistor during cooling. (A,B,C : MXZ-3A54/4A71/4A80) (D : MXZ-4A71/4A80)	<ul style="list-style-type: none"> Refer to 13-6.⑥ "Check of outdoor thermistors".
9		Lightning	11 times	Communication error between P.C. boards	When the communication protection stop between boards is continuously performed twice.	<ul style="list-style-type: none"> Check the connecting wire between outdoor electronic control P.C. board and power board.
10		Lightning	12 times	Zero cross detecting circuit	The protection stop of the zero cross detecting circuit is continuously performed 10 times.	<ul style="list-style-type: none"> Check the connecting wire among outdoor electronic control P.C. board, noise filter P.C. board and power board.
11	'Outdoor unit stops and restarts 3 minutes later' is repeated.	Twice	Goes out	IPM protection	When over-current is detected after 30 minutes of compressor start-up.	<ul style="list-style-type: none"> Reconnect compressor connector. Refer to 13-6.⑥ "How to check inverter/compressor". Check the stop valve. Check the power module (PAM module).
12				Lock protection	When over-current is detected within 30 minutes of compressor start-up	
13		3 times	Goes out	Discharge temperature protection	When discharge temperature exceeds 116°C during operation. Compressor can restart if discharge temperature thermistor reads 100°C or less 3 minutes later.	<ul style="list-style-type: none"> Check the amount of gas and refrigerant circuit. Refer to 13-6.⑥ "Check of LEV".
14		4 times	Goes out	Fin temperature protection P.C. board temperature protection	When the fin temperature exceeds 87°C during operation. When the P.C. board temperature exceeds 70°C during operation.	<ul style="list-style-type: none"> Check refrigerant circuit and refrigerant amount. Refer to 13-6.⑥ "Check of outdoor fan motor".
15		5 times	Goes out	High-pressure protection	When high-pressure is detected with the high-pressure switch (HPS) during operation.(MXZ-4A80) When the outdoor heat exchanger temperature exceeds 70°C during cooling or when indoor gas pipe temperature exceeds 70°C during heating.	<ul style="list-style-type: none"> Check around of gas and the refrigerant circuit. Check of stop valve.
16		8 times	Goes out	Converter protection	When a failure is detected in the operation of the converter during operation.	<ul style="list-style-type: none"> Replace the power board.
17		9 times	Goes out	Bus-bar voltage protection (1) Bus-bar voltage protection (2)	When the bus-bar voltage exceeds 400V or falls to 200V or below during compressor operating. When the bus-bar voltage exceeds 400V or falls to 50V or below during compressor operating.	<ul style="list-style-type: none"> Replace the power board.
18		13 times	Goes out	Outdoor fan motor	When failure occurs continuously three times within 30 seconds after the fan gets started.	<ul style="list-style-type: none"> Refer to 13-6.⑥ "Check of outdoor fan motor".
19		Lightning	8 times	Current sensor protection	When a short or open circuit is detected in the current sensor during compressor operating.	<ul style="list-style-type: none"> Replace the power board.
20		Lightning	11 times	Communication between P.C. boards protection	Communication error occurs between the outdoor electronic control P.C. board and power board for more than 10 seconds.(MXZ-3A54/4A71/4A80)	<ul style="list-style-type: none"> Check the connecting wire between outdoor electronic control P.C. board and power board.
	Lightning	12 times	Zero cross detecting circuit protection	When zero cross signal cannot be detected while the compressor is operating.	<ul style="list-style-type: none"> Check the connecting wire among outdoor electronic control P.C. board, noise filter P.C. board and power board. 	

NOTE 1. The location of LED is illustrated at the right figure. Refer to 13-7.1.

2. LED is lighted during normal operation.

The flashing frequency shows the number of times the LED blinks after every 2.5-second OFF.
(Example) When the flashing frequency is "2".

Outdoor electronic control P.C. board(Parts side)

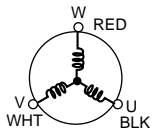
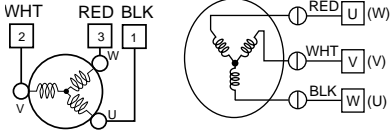
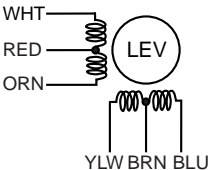




No.	Symptom	Indication		Abnormal point / Condition	Condition	Correspondence
		LED1(Red)	LED2(Yellow)			
21	Outdoor unit operates.	Once	Lighting	Primary current protection	When the input current exceeds 15A.	These symptoms do not mean any abnormality of the product, but check the following points. • Check if indoor filters are clogged. • Check if refrigerant is short. • Check if indoor/outdoor unit air circulation is short cycled.
				Secondary current protection	When the current of the compressor exceeds 15A.	
		Twice	Lighting	High-pressure protection	When the indoor gas pipe temperature exceeds 45°C during heating.	
				Defrosting in cooling	When the indoor gas pipe temperature falls 3°C or below during cooling.	
		3 times	Lighting	Discharge temperature protection	When the frequency of the compressor is kept 80Hz or more and the discharge temperature is kept under 50°C (COOL mode) /40°C (HEAT mode) for more than 40 minutes.	
4 times	Lighting	Low discharge temperature protection	When the frequency of the compressor is kept 80Hz or more and the discharge temperature is kept under 39°C for more than 20 minutes.	• Refer to 13-6.④ "Check of LEV". • Check refrigerant circuit and refrigerant amount.		
25	5 times	Lighting	Cooling high-pressure protection	When the outdoor heat exchanger temperature exceeds 58°C during operation.	This symptom does not mean any abnormality of the product, but check the following points. • Check if indoor filters are clogged. • Check if refrigerant is short. • Check if indoor/outdoor unit air circulation is short cycled.	
26	Outdoor unit operates normally.	9 times	Lighting	Inverter check mode	When the unit is operated with emergency operation switch.	—
27		Lighting	Lighting	Normal	—	—

13-5. Trouble criterion of main parts

MXZ-2A40VA MXZ-2A52VA MXZ-3A54VA MXZ-4A71VA MXZ-4A80VA

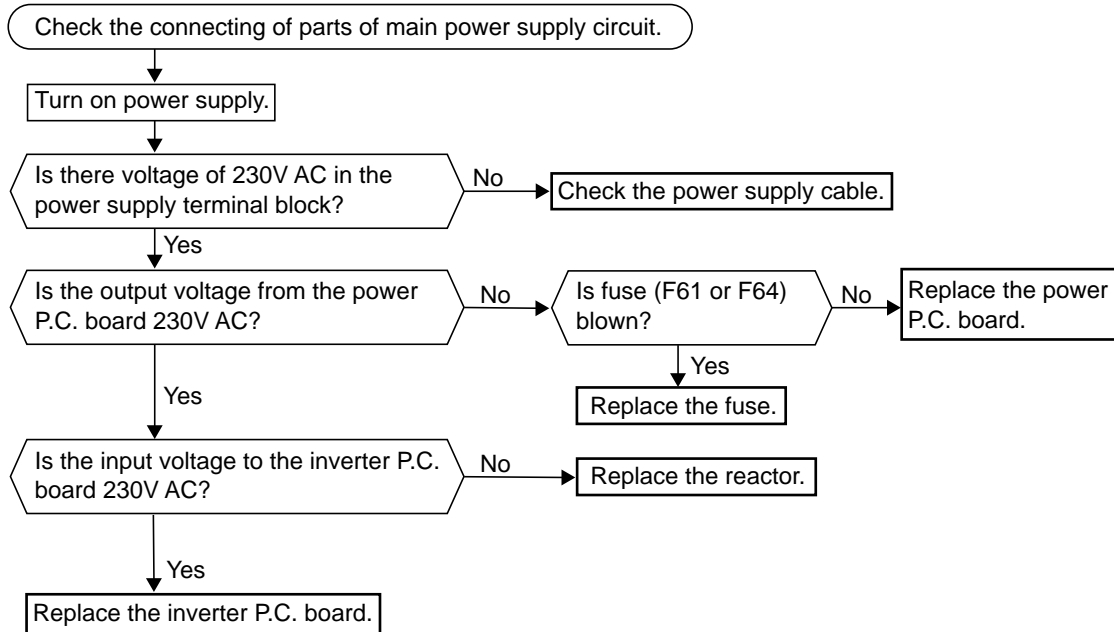
Part name	Check method and criterion									
Defrost thermistor (RT61) Ambient temperature thermistor (RT65) Outdoor heat exchanger temperature thermistor (RT68) Gas pipe temperature thermistor (RT6A~D)	Measure the resistance with a tester. Refer to 13-7. "Test point diagram and voltage", 1. "Inverter P.C. board" or 2. "Outdoor electronic control P.C. board", the chart of thermistor.									
Discharge temperature thermistor (RT62)	Measure the resistance with a tester. Before measurement, hold the thermistor with your hands to warm it up.									
Fin temperature thermistor (RT64)	Refer to 13-7. "Test point diagram and voltage", 1. "Inverter P.C. board" or 2. "Outdoor electronic control P.C. board", the chart of thermistor.									
Compressor 	Measure the resistance between terminals using a tester. (Winding temperature : -10°C ~ 40°C) <table border="1" data-bbox="518 943 1423 1037"> <thead> <tr> <th colspan="3">Normal (1Each phase)</th> </tr> <tr> <th>MXZ-2A40/52</th> <th>MXZ-3A54/4A71</th> <th>MXZ-4A80</th> </tr> </thead> <tbody> <tr> <td>0.56Ω ~ 0.69Ω</td> <td>0.39Ω ~ 0.49Ω</td> <td>1.29Ω ~ 1.49Ω</td> </tr> </tbody> </table>	Normal (1Each phase)			MXZ-2A40/52	MXZ-3A54/4A71	MXZ-4A80	0.56Ω ~ 0.69Ω	0.39Ω ~ 0.49Ω	1.29Ω ~ 1.49Ω
Normal (1Each phase)										
MXZ-2A40/52	MXZ-3A54/4A71	MXZ-4A80								
0.56Ω ~ 0.69Ω	0.39Ω ~ 0.49Ω	1.29Ω ~ 1.49Ω								
Outdoor fan motor 	Measure the resistance between lead wires using a tester. (Part temperature : -10°C ~ 40°C) <table border="1" data-bbox="523 1167 1056 1323"> <thead> <tr> <th colspan="2">Normal (1 Each phase)</th> </tr> <tr> <th>MXZ-2A</th> <th>MXZ-3A/4A</th> </tr> </thead> <tbody> <tr> <td>12Ω ~ 16Ω</td> <td>13.4Ω ~ 16.4Ω</td> </tr> </tbody> </table>	Normal (1 Each phase)		MXZ-2A	MXZ-3A/4A	12Ω ~ 16Ω	13.4Ω ~ 16.4Ω			
Normal (1 Each phase)										
MXZ-2A	MXZ-3A/4A									
12Ω ~ 16Ω	13.4Ω ~ 16.4Ω									
R.V. coil	Measure the resistance using a tester. (Part temperature : -10°C ~ 40°C) <table border="1" data-bbox="512 1424 852 1518"> <thead> <tr> <th>Normal</th> </tr> </thead> <tbody> <tr> <td>1.2kΩ ~ 1.56kΩ</td> </tr> </tbody> </table>	Normal	1.2kΩ ~ 1.56kΩ							
Normal										
1.2kΩ ~ 1.56kΩ										
Linear expansion valve 	Measure the resistance using a tester. (Part temperature : -10°C ~ 40°C) <table border="1" data-bbox="512 1599 1195 1758"> <thead> <tr> <th>Color of lead wire</th> <th>Normal</th> </tr> </thead> <tbody> <tr> <td>WHT - RED</td> <td rowspan="4">37.4Ω ~ 53.9Ω</td> </tr> <tr> <td>RED - ORN</td> </tr> <tr> <td>YLW - BRN</td> </tr> <tr> <td>BRN - BLU</td> </tr> </tbody> </table>	Color of lead wire	Normal	WHT - RED	37.4Ω ~ 53.9Ω	RED - ORN	YLW - BRN	BRN - BLU		
Color of lead wire	Normal									
WHT - RED	37.4Ω ~ 53.9Ω									
RED - ORN										
YLW - BRN										
BRN - BLU										
High pressure switch (HPS) MXZ-4A80	<table border="1" data-bbox="512 1816 1291 1912"> <thead> <tr> <th rowspan="2">HPS</th> <th>Pressure</th> <th>Normal</th> </tr> </thead> <tbody> <tr> <td>3.7 ± 0.15MPa</td> <td>Close</td> </tr> <tr> <td>4.8 ± 0.15MPa</td> <td>Open</td> </tr> </tbody> </table>	HPS	Pressure	Normal	3.7 ± 0.15MPa	Close	4.8 ± 0.15MPa	Open		
HPS	Pressure		Normal							
	3.7 ± 0.15MPa	Close								
4.8 ± 0.15MPa	Open									

13-6. Troubleshooting flow

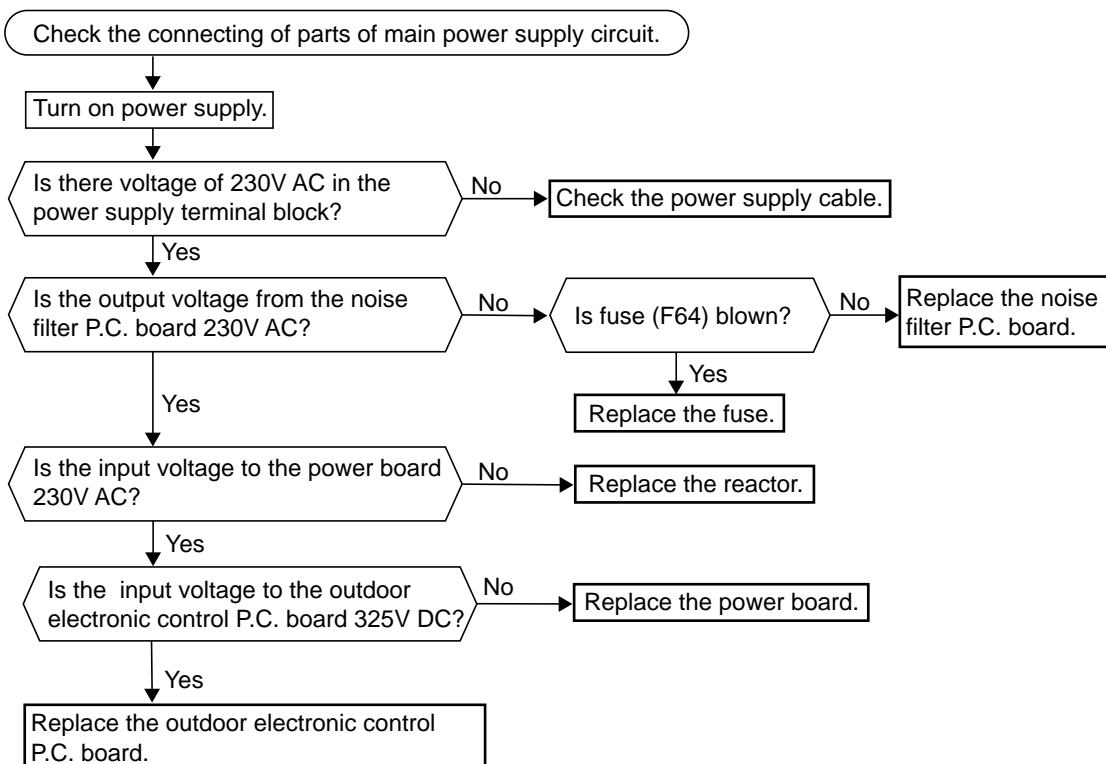
Outdoor unit does not operate. (LED display: display OFF)

Ⓐ Check of power supply

MXZ-2A40/2A54

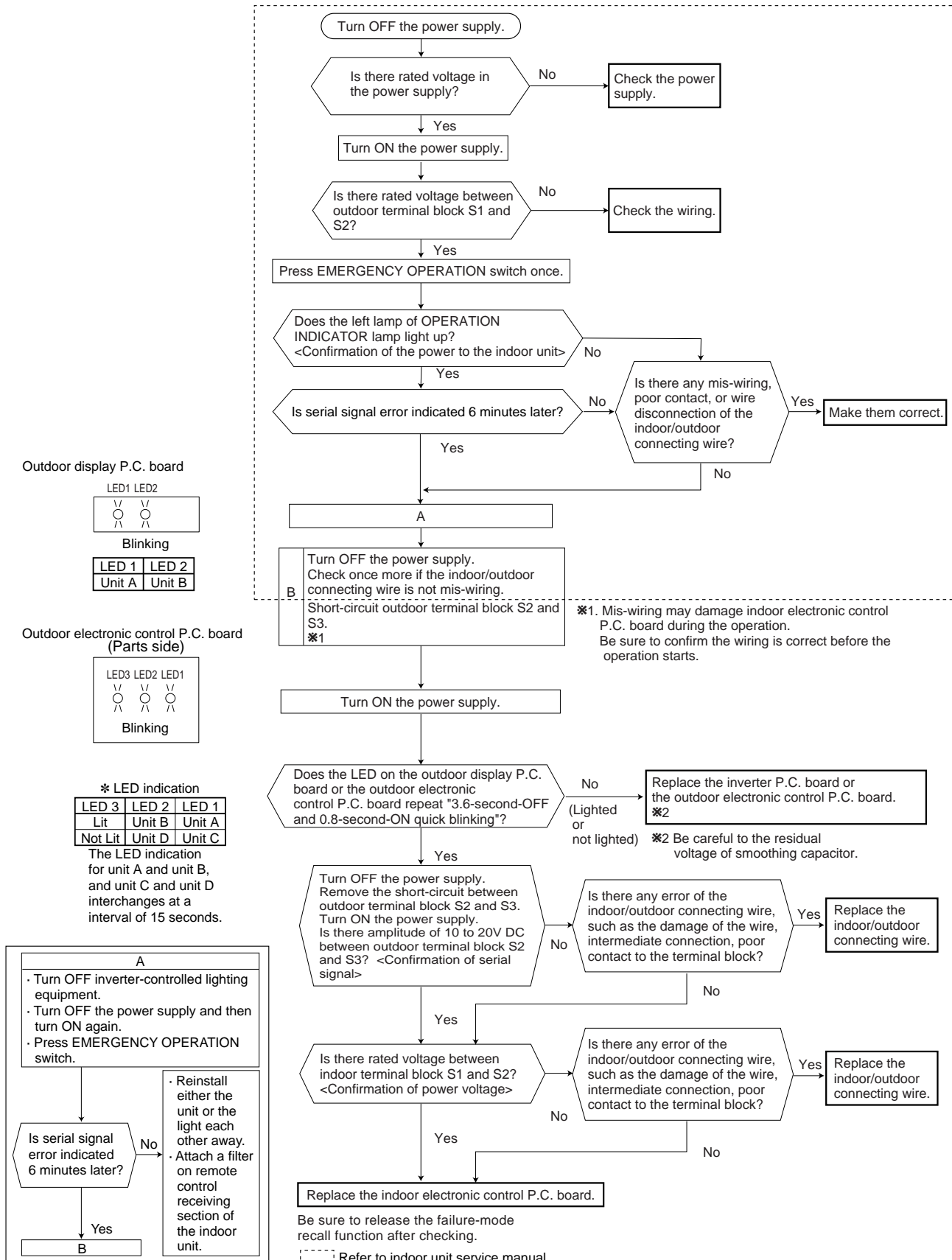


MXZ-3A54/4A71/4A80



- When unit cannot operate neither by the remote controller nor by EMERGENCY OPERATION switch. Indoor unit does not operate.
- When OPERATION INDICATOR lamp flashes ON and OFF in every 0.5-second. Outdoor unit does not operate. (LED display : Both LED1 and LED 2 lighting)

Ⓑ How to check mis-wiring and serial signal error (when outdoor unit does not work)



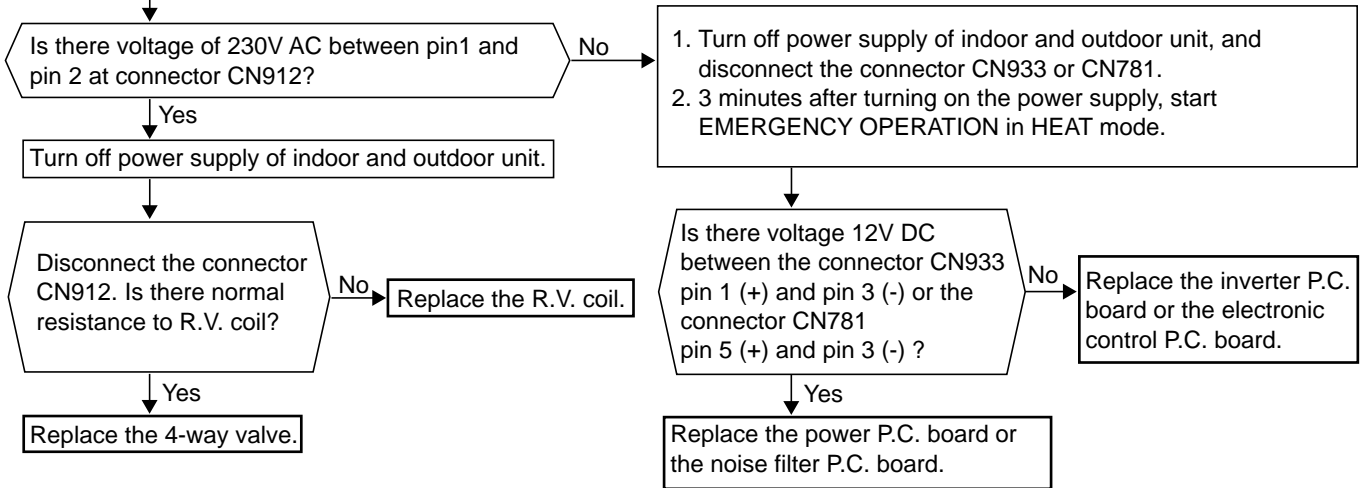
The cooling operation or heating operation does not operate. (LED display: Both LED1 and LED2 lighting)

© Check of R.V. coil

	MXZ-2A	MXZ-3A/4A
CN912	Power P.C. board	Noise filter P.C. board
CN781	—————	Outdoor electronic control P.C. board
CN933	Inverter P.C. board	—————

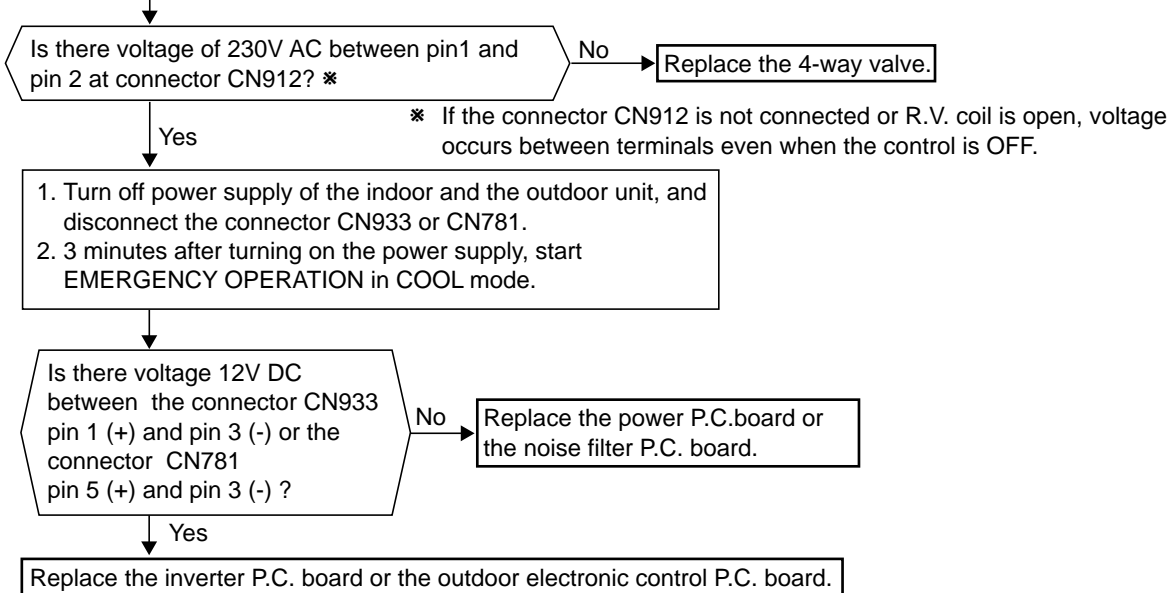
• When heating operation does not work.

1. Disconnect the lead wire leading to the compressor.
2. 3 minutes after turning on the power supply, start EMERGENCY OPERATION in HEAT mode.



• When cooling operation does not work.

1. Disconnect the lead wire leading to the compressor.
2. 3 minutes after turning on the power supply, start EMERGENCY OPERATION in COOL mode.

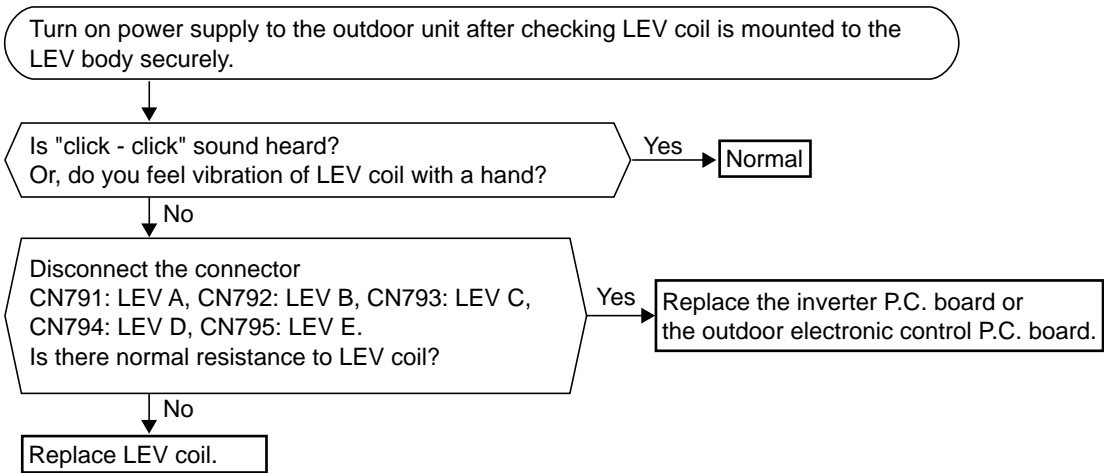


- When cooling, heat exchanger of non-operating indoor unit frosts.
- When heating, non-operating indoor unit get warm.

Ⓒ Check of LEV

LED display:

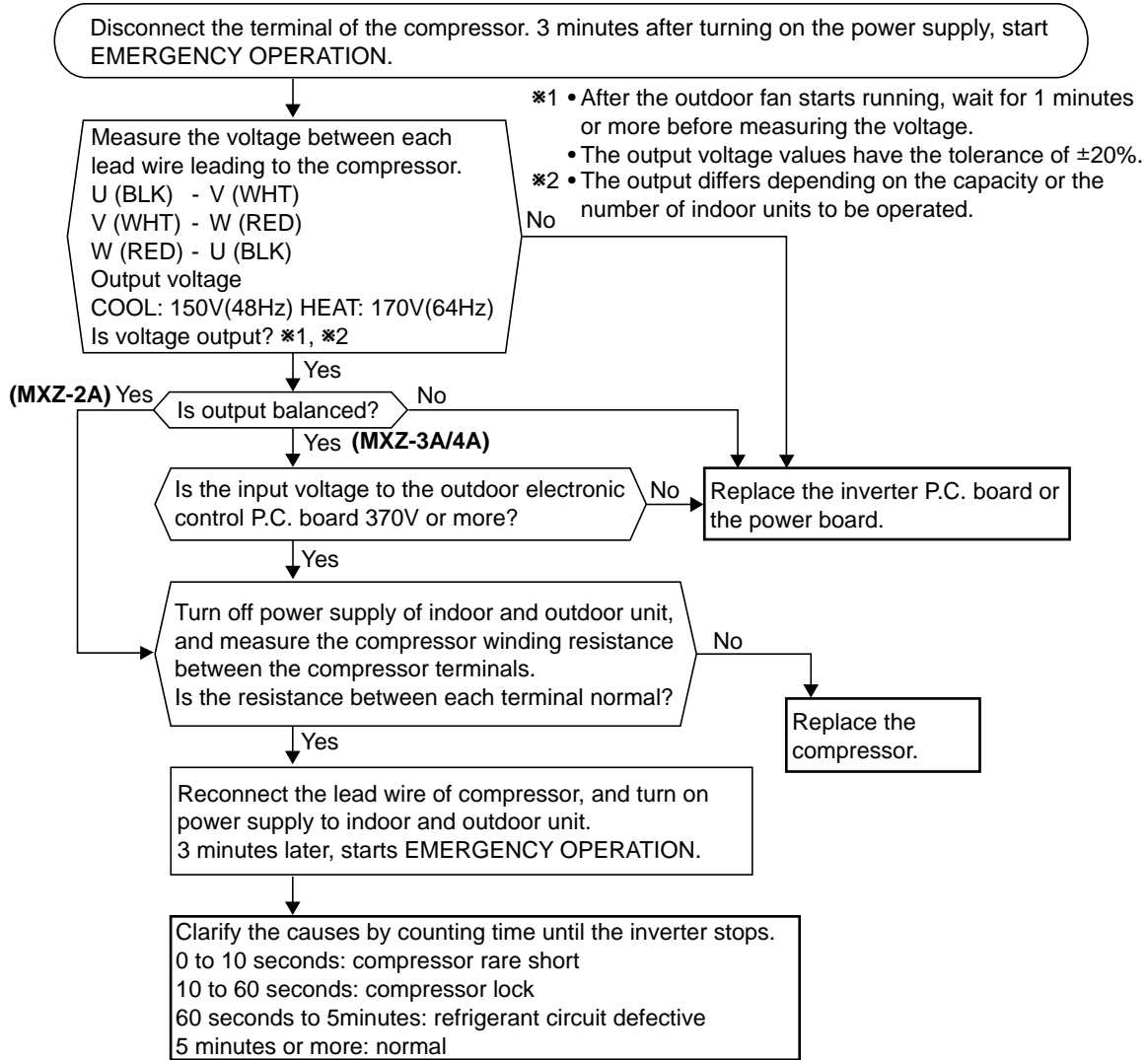
LED1	LED2
Lighting	Lighting
Lighting	Once



- When heating, room does not get warm.
- When cooling, room does not get cool.

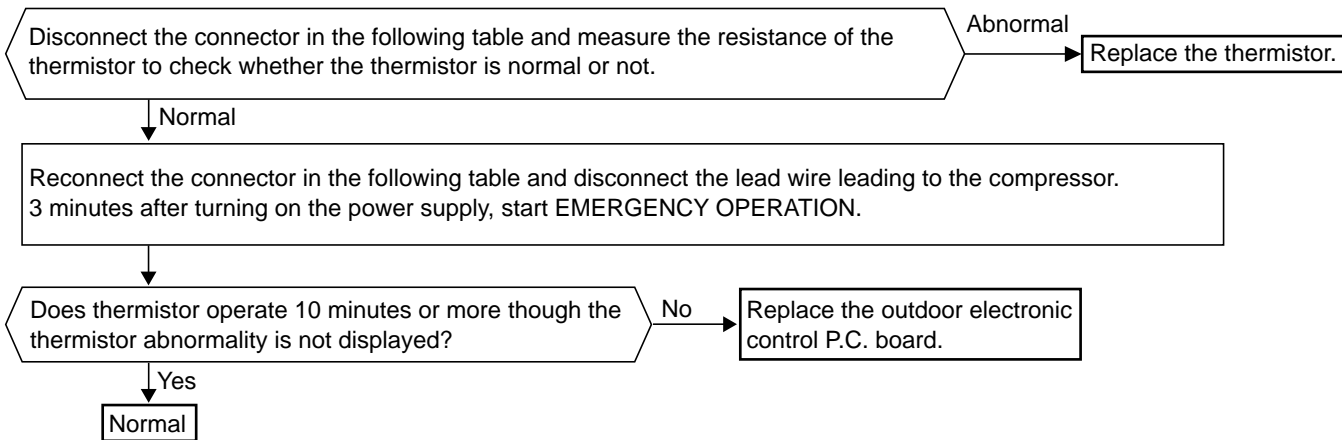
Ⓔ How to check inverter/ compressor

LED display:	LED1	LED2
	Lighting	Lighting
	Lighting	Twice
	Twice	Goes out



• When thermistor is abnormal. (When the LED display is a table below.)

Ⓕ Check of outdoor thermistors



MXZ-2A40/2A52

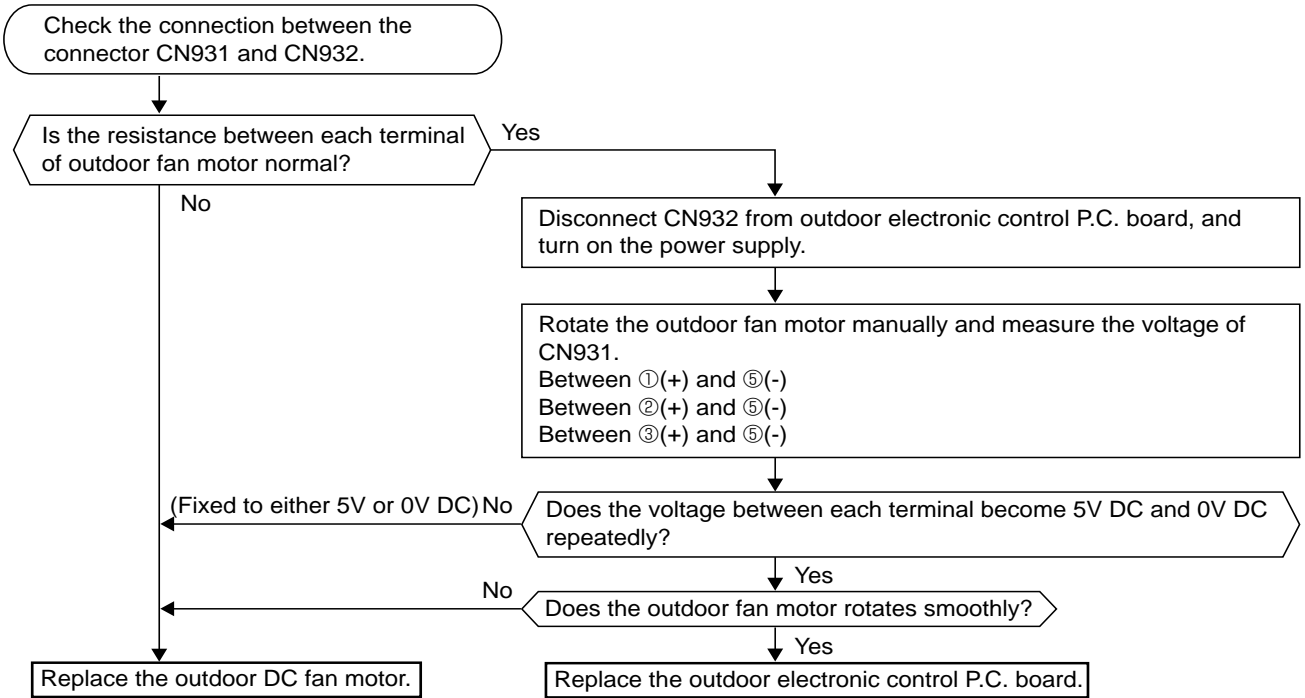
Thermistor	Symbol	Connector, Pin No.	Board
Defrost	RT61	Between CN661 pin1 and pin2	Inverter P.C. board
Discharge temperature	RT62	Between CN661 pin3 and pin4	
Outdoor heat exchanger temperature	RT68	Between CN661 pin5 and pin6	
Fin temperature	RT64	Between CN662 pin1 and pin2	
Ambient temperature	RT65	Between CN663 pin1 and pin2	

MXZ-3A54/4A71/4A80

Thermistor	Symbol	Connector, Pin No.	Board
Defrost	RT61	Between CN661 pin1 and pin2	Outdoor electronic control P.C. board
Discharge temperature	RT62	Between CN661 pin3 and pin4	
Outdoor heat exchanger temperature	RT68	Between CN661 pin7 and pin8	
Gas pipe temperature (Unit A)	RT6A	Between CN662 pin1 and pin2	
Gas pipe temperature (Unit B)	RT6B	Between CN662 pin3 and pin4	
Gas pipe temperature (Unit C)	RT6C	Between CN662 pin5 and pin6	
Gas pipe temperature (Unit D)	RT6D	Between CN662 pin7 and pin8	
Ambient temperature	RT65	Between CN663 pin1 and pin2	Outdoor power board
Fin temperature	RT64	Between CN3 pin1 and pin2	

• Fan motor does not operate or stops operating shortly after starting the operation.

③ Check of outdoor fan motor

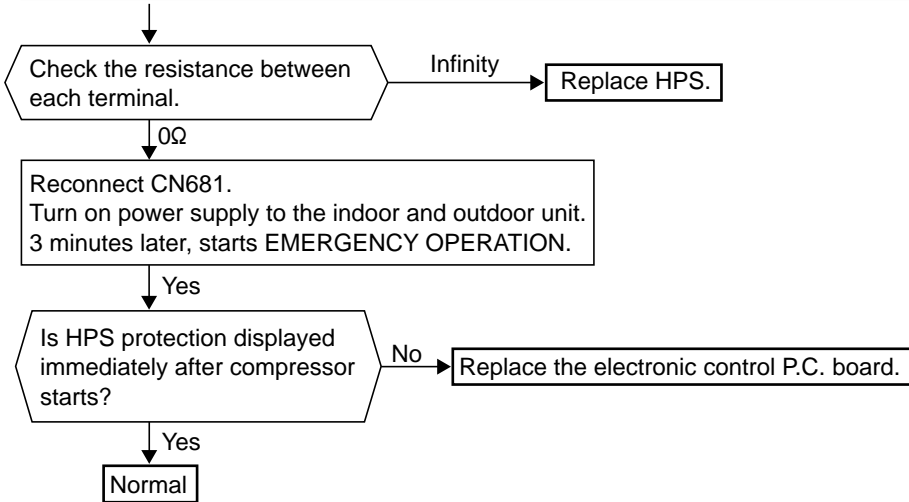


- When the operation frequency does not go up from lowest frequency.

⊕ Check of HPS

MXZ-4A80VA

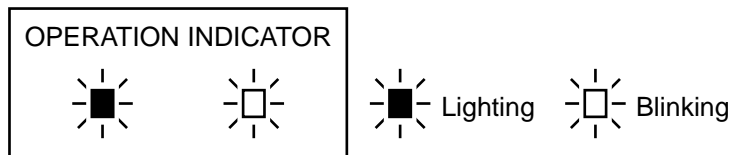
1. Disconnect the connector CN681 in the electronic control P.C. board.
2. Check the resistance of HPS after 1 minutes have passed since the outdoor unit power supply was turned off.



① The other cases

Indoor unit dose not operate. (different operating models in multisystem)

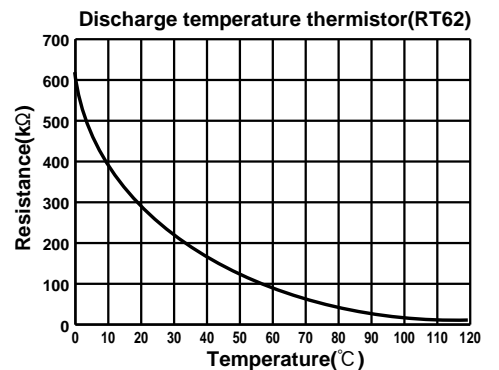
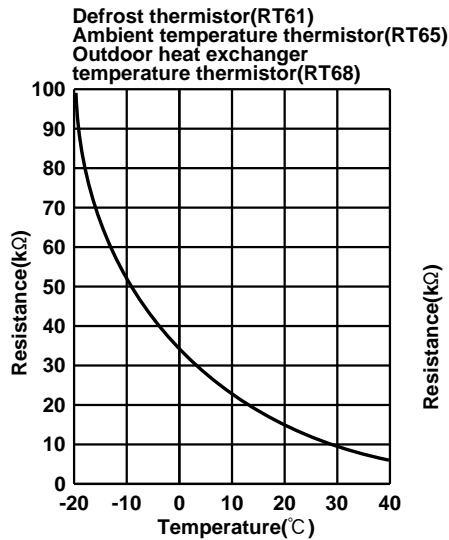
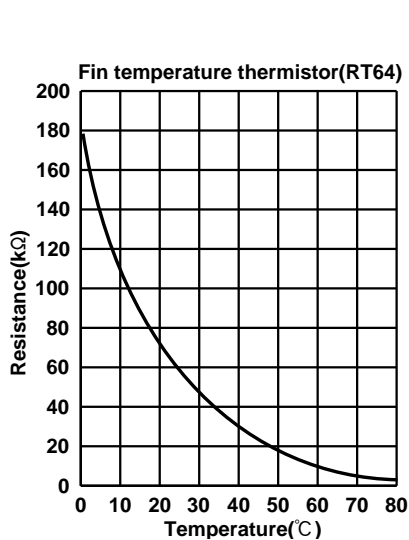
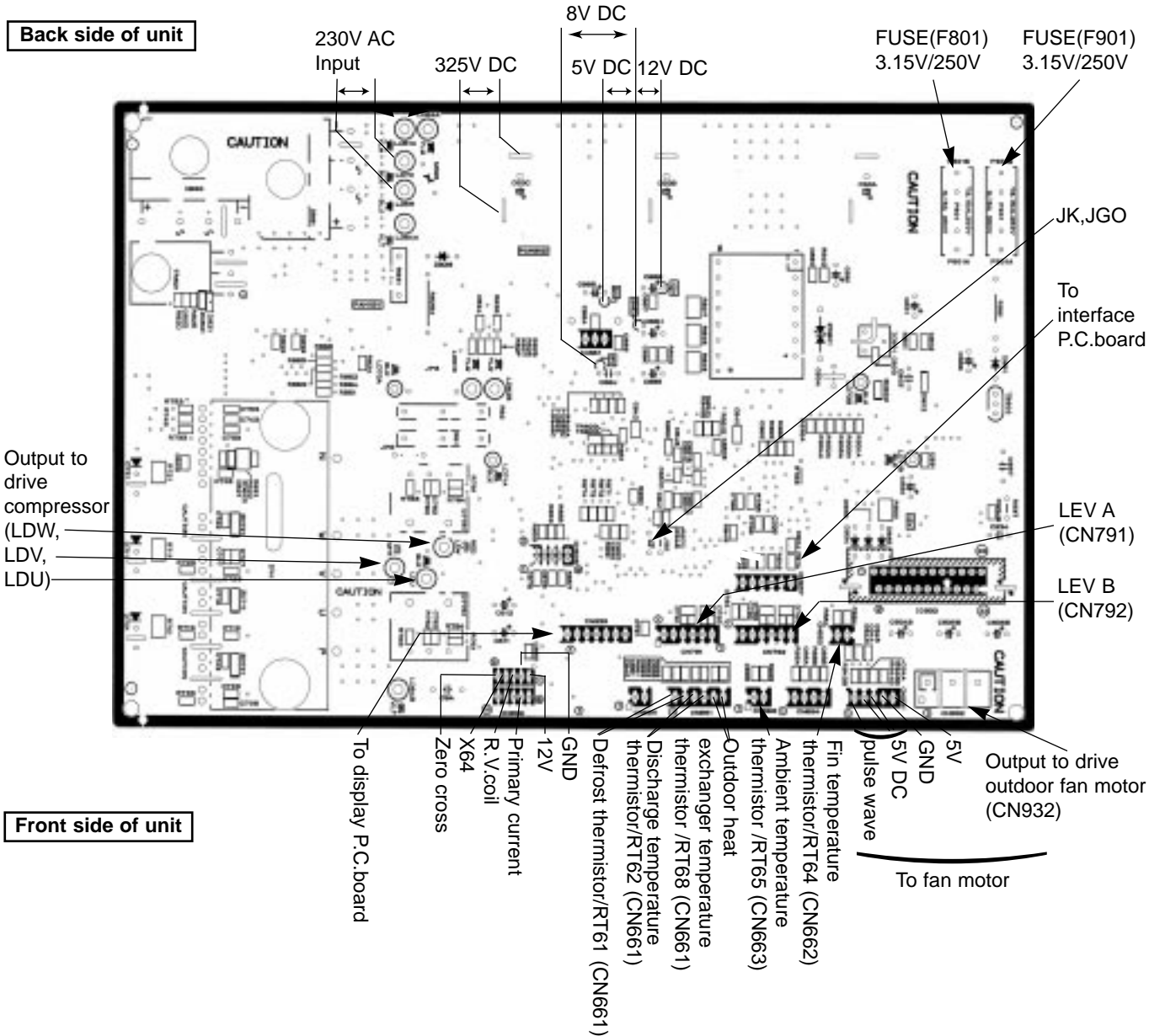
- When you try to run two indoor unit simultaneously, one for cooling and the other for heating, the unit which transmits signal to the outdoor units earlier decides the operation mode. The other unit indicates as shown in the figure below.
- When the above situation occurs, set all the indoor units to the same mode, turn OFF the indoor units, and then turn them back ON.
- Though the top of the indoor unit sometimes gets warm, this does not mean malfunction. The reason is that the refrigerant gas continuously flows into the indoor unit even while it is not operating.



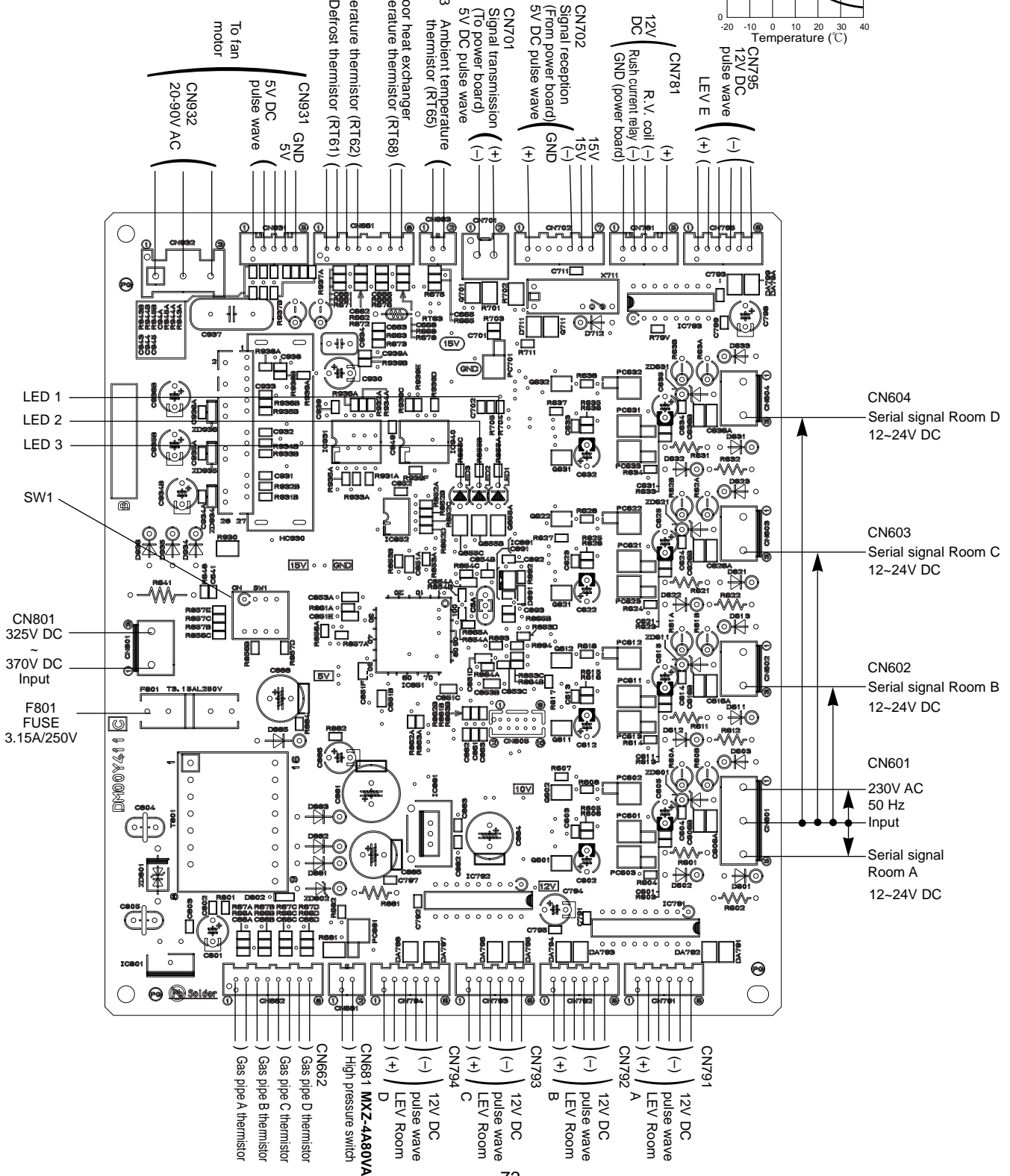
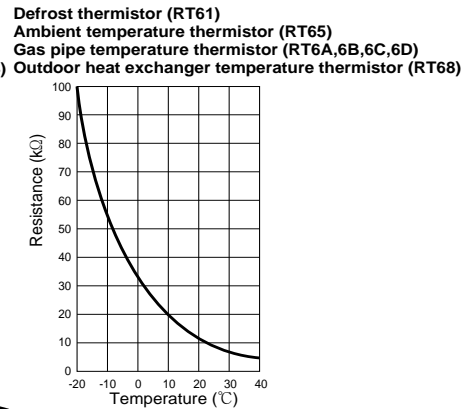
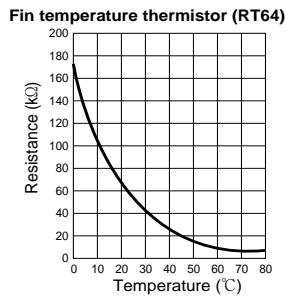
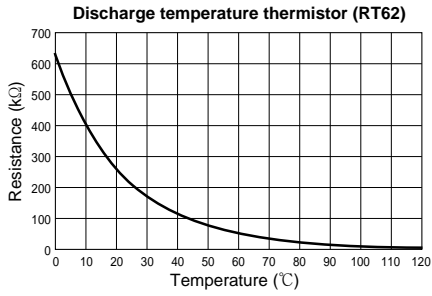
13-7. Test point diagram and voltage

1. Inverter P.C. board

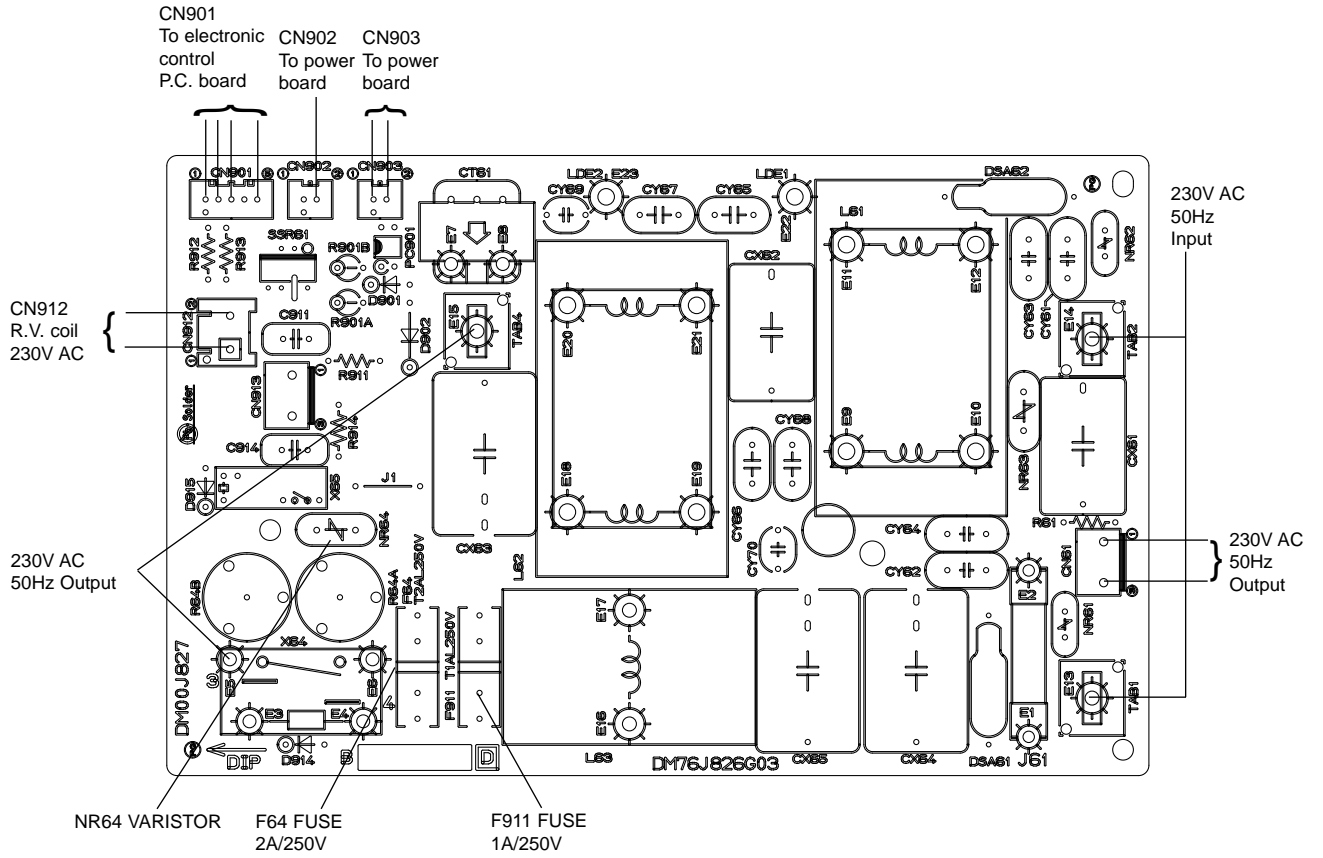
MXZ-2A40VA MXZ-2A52VA



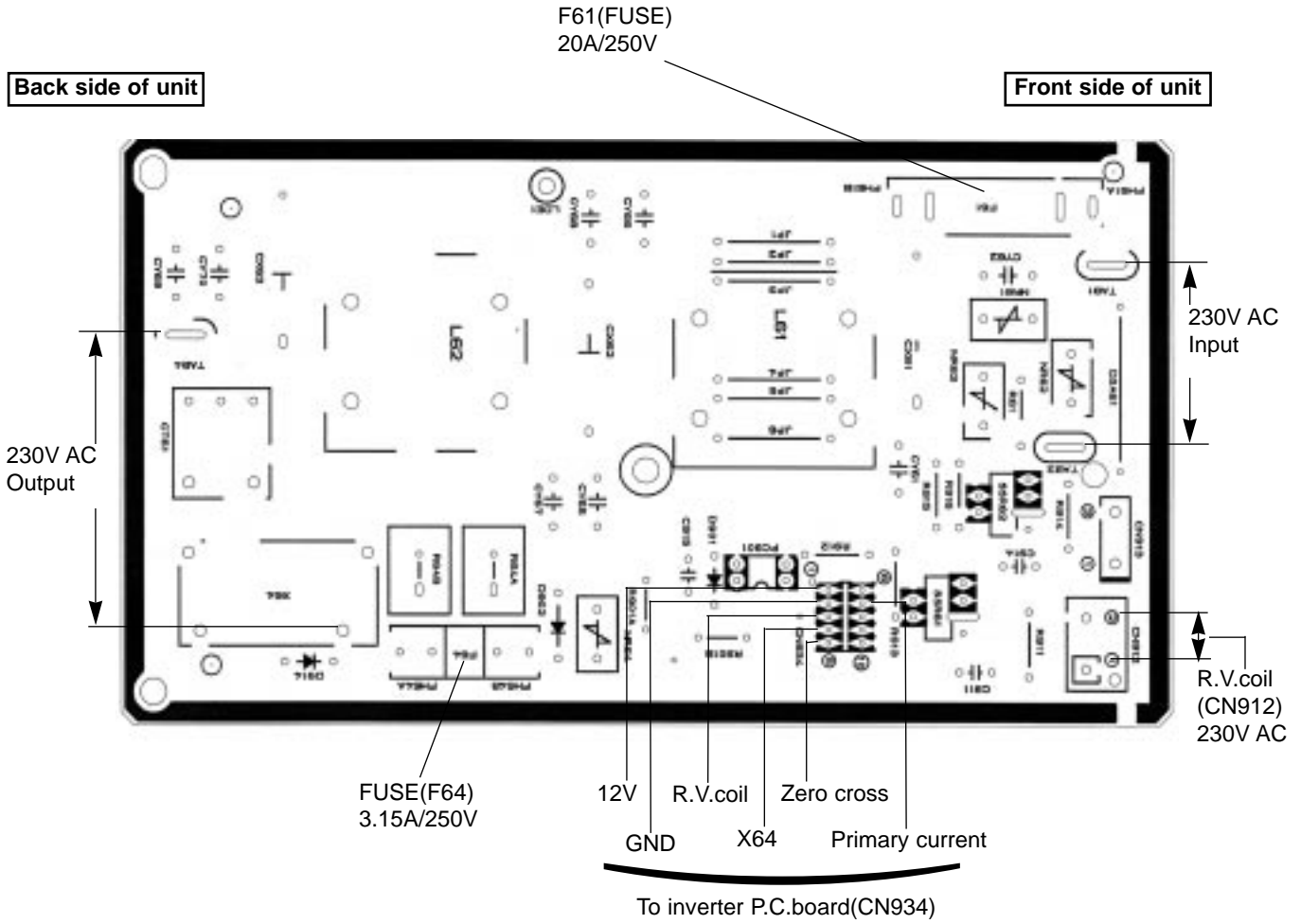
2. Outdoor electronic control P.C. board MXZ-3A54VA MXZ-4A71VA MXZ-4A80VA



3. Noise filter P.C. board
MXZ-3A54VA
MXZ-4A71VA
MXZ-4A80VA



4. Power P.C. board
 MXZ-2A40VA MXZ-2A52VA



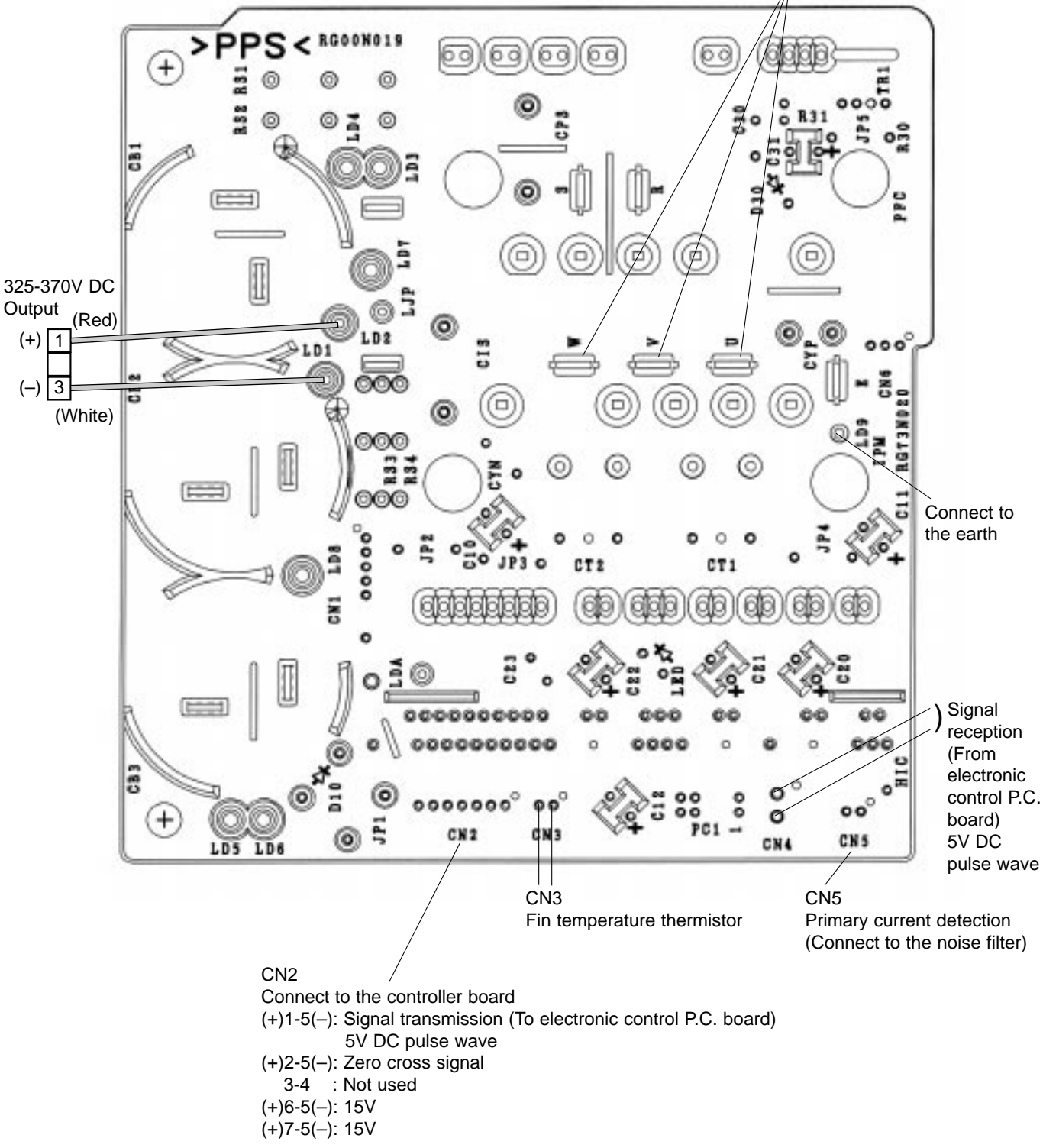
5. Outdoor Power board

MXZ-3A54VA

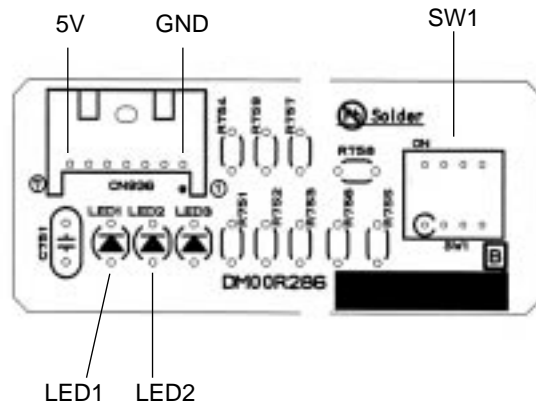
MXZ-4A71VA

MXZ-4A80VA

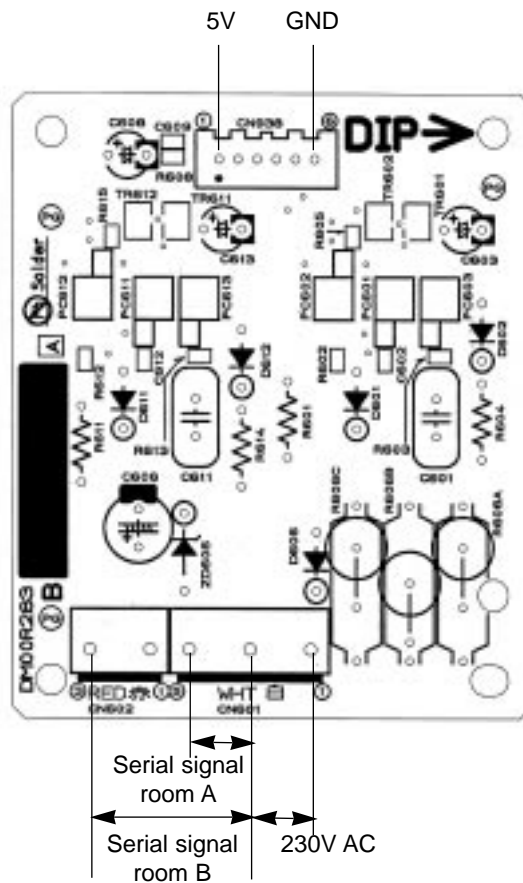
Connect to the compressor
Voltage among phases: 5V to 180V



6. Display P.C. board
 MXZ-2A40VA MXZ-2A52VA



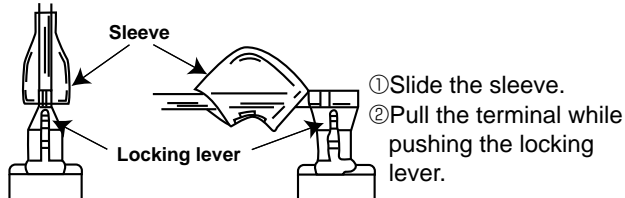
7. Interface P.C. board
 MXZ-2A40VA MXZ-2A52VA



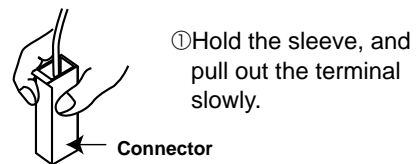
<"Terminal with locking mechanism" Detaching points>

The terminal which has the locking mechanism can be detached as shown below.
There are two types (Refer to (1) and (2)) of the terminal with locking mechanism.
The terminal without locking mechanism can be detached by pulling it out.
Check the shape of the terminal before detaching.

(1) Slide the sleeve and check if there is a locking lever or not.



(2) The terminal with this connector has the locking mechanism.



14-1. MXZ-2A40VA MXZ-2A52VA OUTDOOR UNIT

OPERATING PROCEDURE	PHOTOS
<p>1. Removing the cabinet.</p> <ol style="list-style-type: none"> (1) Remove the screw fixing the service panel. (See Photo 1.) (2) Pull down the service panel and remove it. (See Photo 1.) (3) Disconnect the power supply and indoor/outdoor connecting wire. (4) Remove the screws fixing the top panel. (See Photo 1.) (5) Remove the top panel. (See Photo 1.) (6) Remove the screws fixing the cabinet. (7) Remove the cabinet. (8) Remove the screws fixing the back panel. (9) Remove the back panel. 	<p>Photo 1</p>

OPERATING PROCEDURE

2. Removing the inverter assembly, inverter P.C. board and power P.C. board

- (1) Remove the top panel, cabinet and service panel. (Refer to 1.)
- (2) Disconnect the power supply and indoor/outdoor connecting wire and remove the back panel. (Refer to 1.)
- (3) Disconnect the ground wires(See Photo 2.), the lead wire to the reactor and the following connectors;
<Power P.C. board>
CN912 (4-way valve)
<Inverter P.C. board>
CN931,CN932 (Fan motor)
CN661 (Defrost thermistor, discharge temperature thermistor and outdoor heat exchanger temperature thermistor)
CN663 (Ambient temperature thermistor)
CN791,CN792 (LEV A,LEV B)
- (4) Remove the compressor connector (CN61).
- (5) Remove the screws fixing the relay panel. (See Photo 2.)
- (6) Remove the inverter assembly. (See Photo 2.)
- (7) Disconnect all connectors and lead wires on the inverter P.C. board. (See Photo 3.)
- (8) Remove the inverter P.C. board from the inverter assembly.
- (9) Remove the screw fixing the power P.C. board. (See Photo 3.)
- (10) Disconnect all connectors and lead wires on the power P.C. board.
- (11) Remove the power P.C. board from the inverter assembly.

3. Removing R.V. coil

- (1) Remove the top panel, cabinet and service panel. (Refer to 1.)
- (2) Disconnect the power supply and indoor/outdoor connecting wire and remove the back panel. (Refer to 1.)
- (3) Remove the inverter assembly. (Refer to 2.)
- (4) Remove the R.V. coil. (See Photo 4.)

4. Removing the discharge temperature thermistor, defrost thermistor and outdoor heat exchanger temperature thermistor

- (1) Remove the top panel, cabinet and service panel. (Refer to 1.)
- (2) Disconnect the power supply and indoor/outdoor connecting wire and remove the back panel. (Refer to 1.)
- (3) Remove the inverter assembly. (Refer to 2.)
- (4) Pull out the discharge temperature thermistor from its holder. (See Photo 4.)
- (5) Pull out the defrost thermistor from its holder. (See Photo 5.)
- (6) Pull out the outdoor heat exchanger temperature thermistor from its holder. (See Photo 5.)

PHOTOS

Photo 2

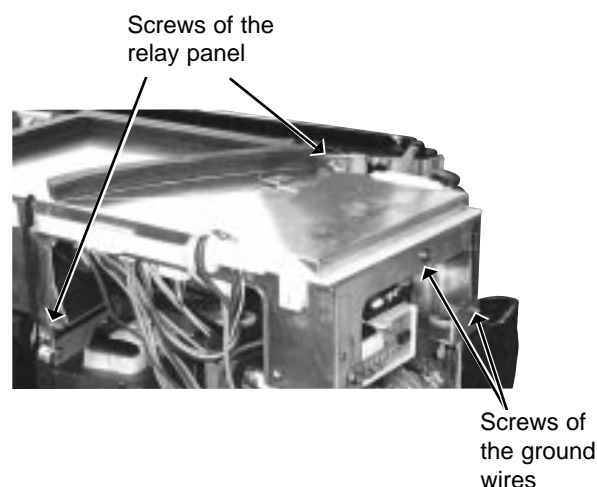


Photo 3

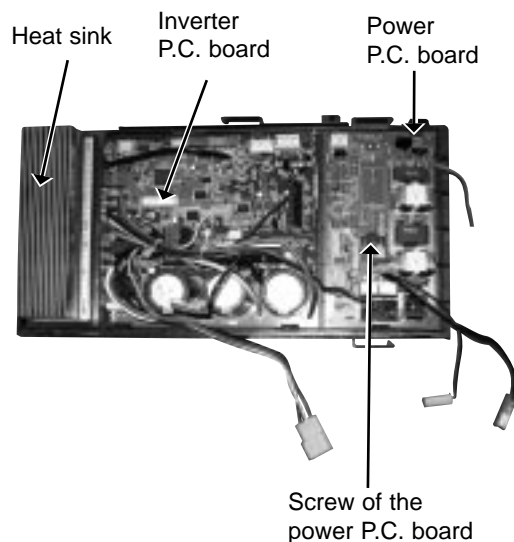
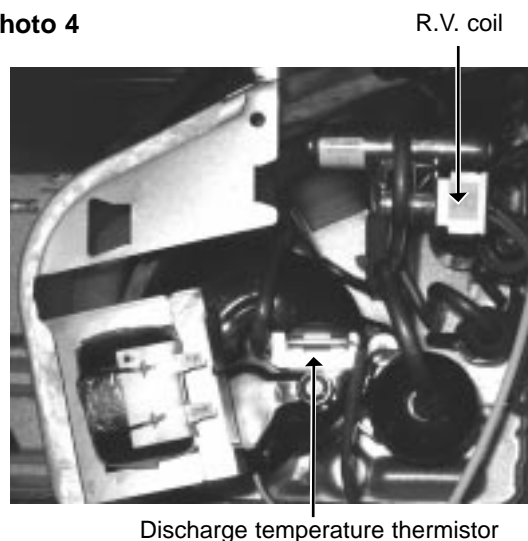


Photo 4



OPERATING PROCEDURE

5. Removing outdoor fan motor

- (1) Remove the top panel, cabinet and service panel. (Refer to 1.)
- (2) Disconnect the power supply and indoor/outdoor connecting wire.
- (3) Disconnect the connectors for outdoor fan motor.
- (4) Remove the propeller nut.
- (5) Remove the propeller.
- (6) Remove the screws fixing the fan motor. (See Photo 6.)
- (7) Remove the fan motor.

6. Removing the compressor and 4-way valve

- (1) Remove the top panel, cabinet and service panel. (Refer to 1.)
- (2) Disconnect the power supply and indoor/outdoor connecting wire and remove the back panel. (Refer to 1.)
- (3) Remove the inverter assembly. (Refer to 2.)
- (4) Recover gas from the refrigerant circuit.
NOTE: Recover gas from the pipes until the pressure gauge shows 0 kg/cm² (0 MPa).
- (5) Detach the welded part of the suction and the discharge pipe connected with compressor.
- (6) Remove the nuts of compressor legs.
- (7) Remove the compressor.
- (8) Detach the welded part of pipes connected with 4-way valve. (See Photo 7.)

PHOTOS

Photo 5

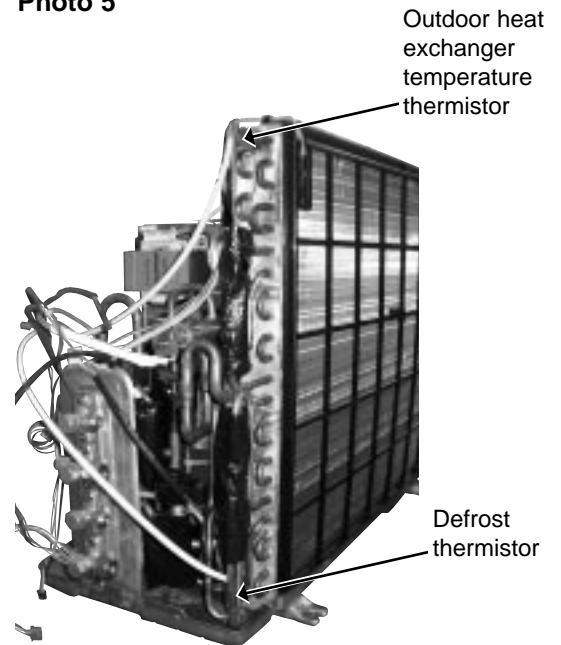


Photo 6

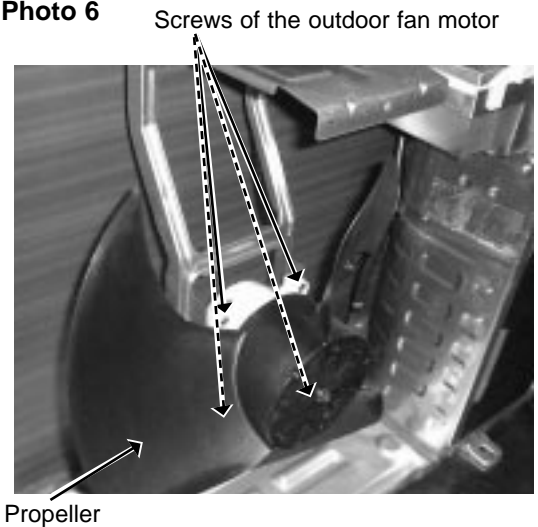
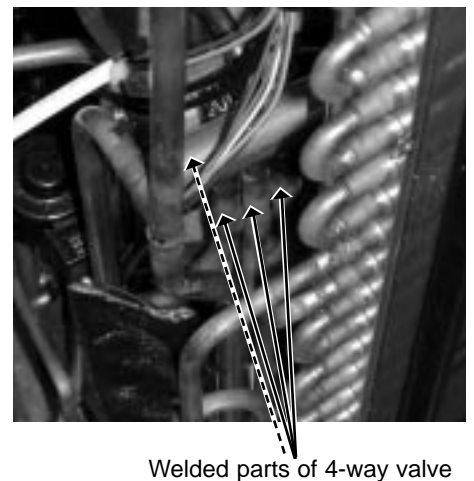
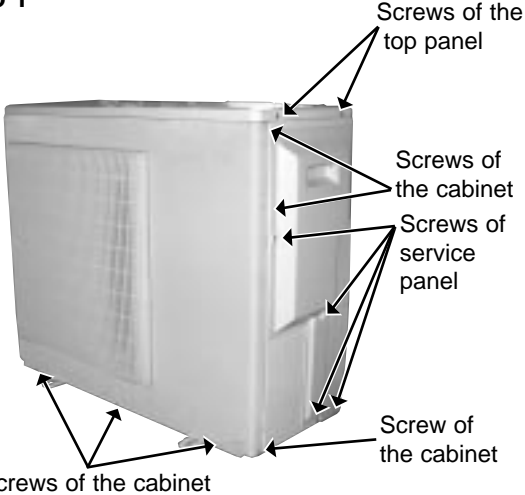
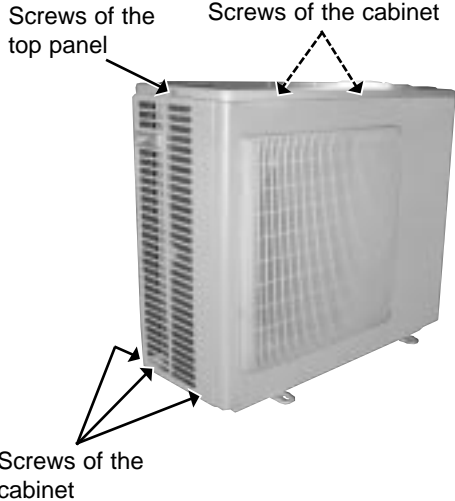


Photo 7

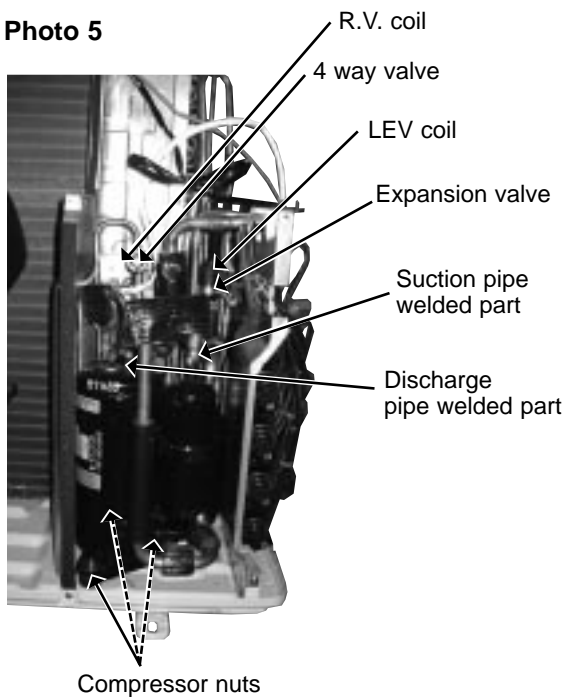


14-2. MXZ-3A54VA MXZ-4A71VA OUTDOOR UNIT

OPERATING PROCEDURE	PHOTOS
<p>1. Removing the compressor</p> <p>(1) Remove the screws of the top panel, and remove the top panel.</p> <p>(2) Remove the screws of the service panel, and remove the service panel. Recover refrigerant gas.</p> <p>(3) Remove the screws of the cabinet, and remove the cabinet.</p> <p>(4) Remove the screws of the back panel, and remove the back panel. (Photo 3)</p> <p>(5) Disconnect the compressor lead wire from terminal of the compressor. (U, V, W)</p> <p>(6) Disconnect the outdoor electronic control P.C. board connectors. CN661, CN662, CN791, CN792, CN793, CN663, CN794 (MXZ-4A71VA), CN795, CN931, CN932 Disconnect the noise filter P.C. board connector. CN912</p> <p>(7) Remove the screws of the electrical parts, and remove the electrical parts. (Photo 4)</p> <p>(8) Remove the propeller.</p> <p>(9) Remove the screws of the separator, and remove the separator. (Photo 6)</p> <p>(10) Remove the sound proof felt. (Photo 6)</p> <p>(11) Detach the welded parts of the compressor suction and discharge pipes. (Photo 5)</p> <p>(12) Remove the compressor nuts and remove the compressor.</p>	<p>Photo 1</p>  <p>Photo 2</p> 

OPERATING PROCEDURE

Photo 5



PHOTOS

Photo 3

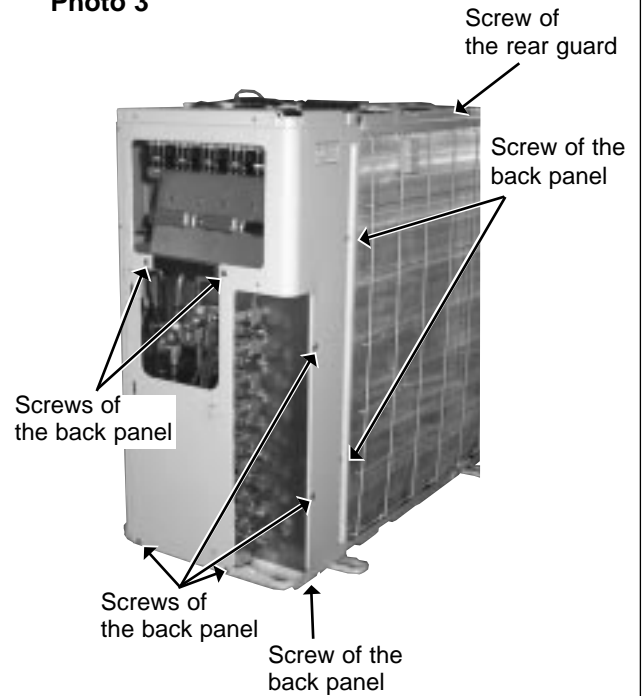
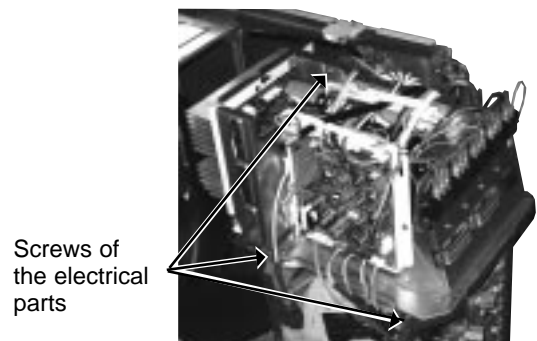


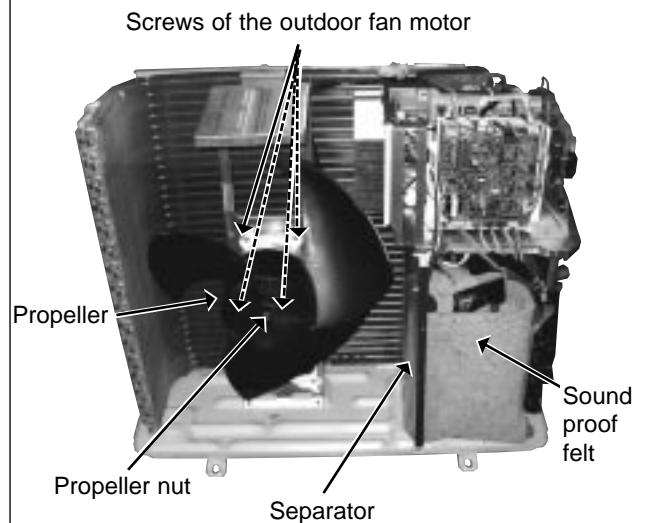
Photo 4



2. Removing the fan motor

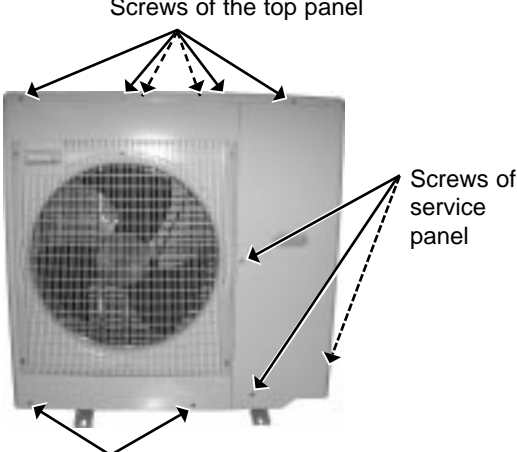
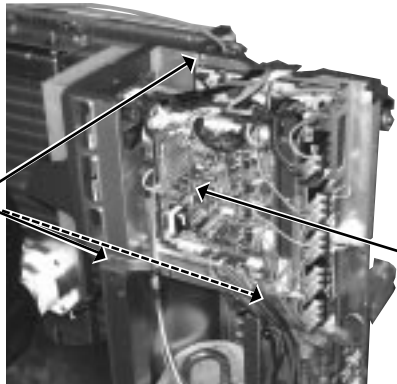
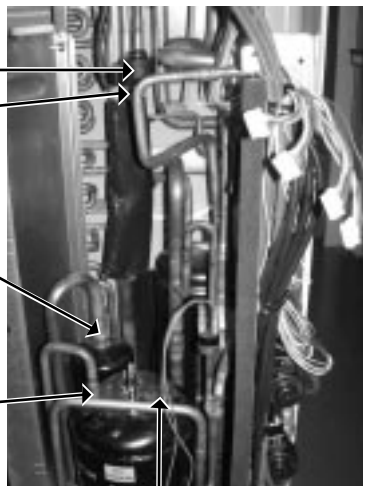
- (1) Remove the top panel, the service panel, and the cabinet. (Photo 1)
- (2) Disconnect the connector CN931 and CN932 on the outdoor electronic control P.C. board.
- (3) Remove the propeller.
- (4) Remove the fan motor.

Photo 6





14-3. MXZ-4A80VA OUTDOOR UNIT

OPERATING PROCEDURE	PHOTOS
<p>1. Removing the compressor</p> <p>(1) Remove the screws of the top panel, and remove the top panel.</p> <p>(2) Remove the screws of the service panel, and remove the service panel. Recover refrigerant gas.</p> <p>(3) Remove the screws of the front panel, and remove the front panel.</p> <p>(4) Disconnect the compressor lead wire from terminal of compressor. (U, V, W)</p> <p>(5) Disconnect the outdoor electronic control P.C. board connectors. CN661, CN662, CN663, CN681, CN791, CN792, CN793, CN794, CN795, CN931, CN932 Disconnect the noise filter P.C. board connector. CN912</p> <p>(6) Remove the screws of the electrical parts, and remove the electrical parts.</p> <p>(7) Remove the propeller.</p> <p>(8) Remove the screws of the separator, and remove the separator.</p> <p>(9) Remove the sound proof felt.</p> <p>(10) Detach the welded parts of the compressor suction and discharge pipes. (Photo 3)</p> <p>(11) Remove the compressor nuts and remove the compressor.</p>	<p>Photo 1</p>  <p>Screws of the top panel</p> <p>Screws of service panel</p> <p>Screws of the front panel</p> <p>Photo 2</p>  <p>Screws of the electrical parts</p> <p>Electronic control P.C. board</p> <p>Photo 3</p>  <p>LEV coil</p> <p>Expansion valve</p> <p>Suction pipe welded part</p> <p>Discharge pipe welded part</p> <p>Terminal</p>

OPERATING PROCEDURE

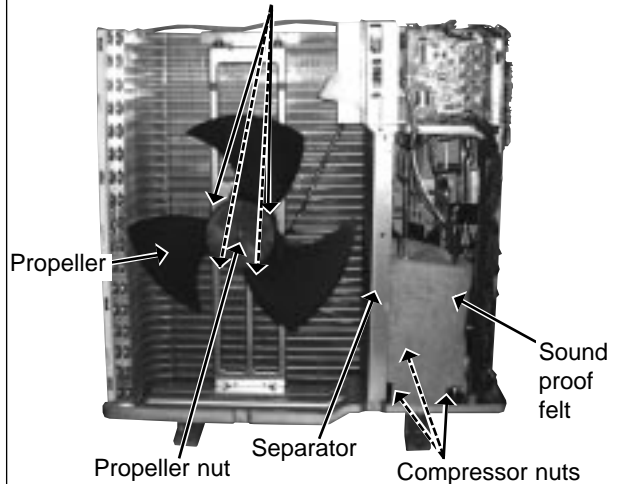
2. Removing the fan motor

- (1) Remove the top panel, the service panel, and the front panel. (Photo 1)
- (2) Disconnect the connector CN931 and CN932 on the outdoor electronic control P.C. board.
- (3) Remove the propeller.
- (4) Remove the fan motor.

PHOTOS

Photo 4

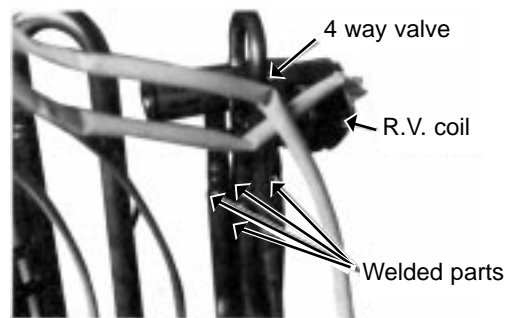
Screws of the outdoor fan motor



3. Removing the 4-way valve

- (1) Remove the top panel. (Photo 1)
- (2) Remove the service panel, rear panel, and pipe cover. Recover refrigerant gas.
- (3) Remove the electrical parts. (Photo 2)
- (4) Detach the welded parts of 4-way valve and pipe. (Photo 5)

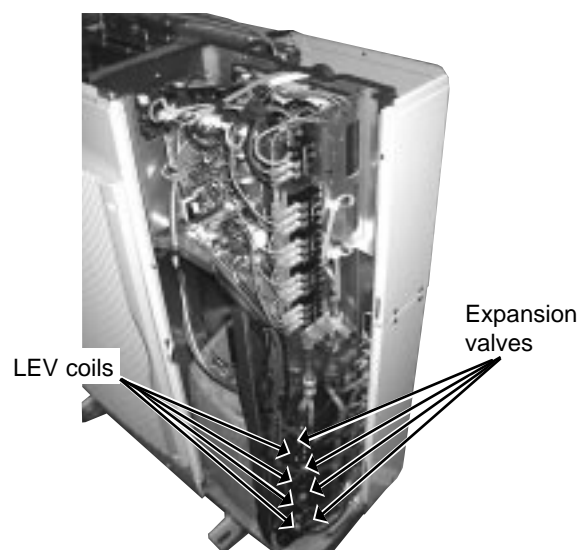
Photo 5



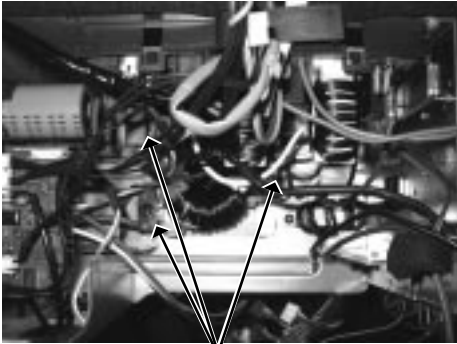
4. Removing the expansion valve

- (1) Remove the top panel. (Photo 1)
- (2) Remove the service panel. (Photo 1)
(Gas recovery is not required if the unit is pumped down.)
- (3) Remove the LEV coils.
- (4) Detach the welded parts of expansion valves and pipes.

Photo 6

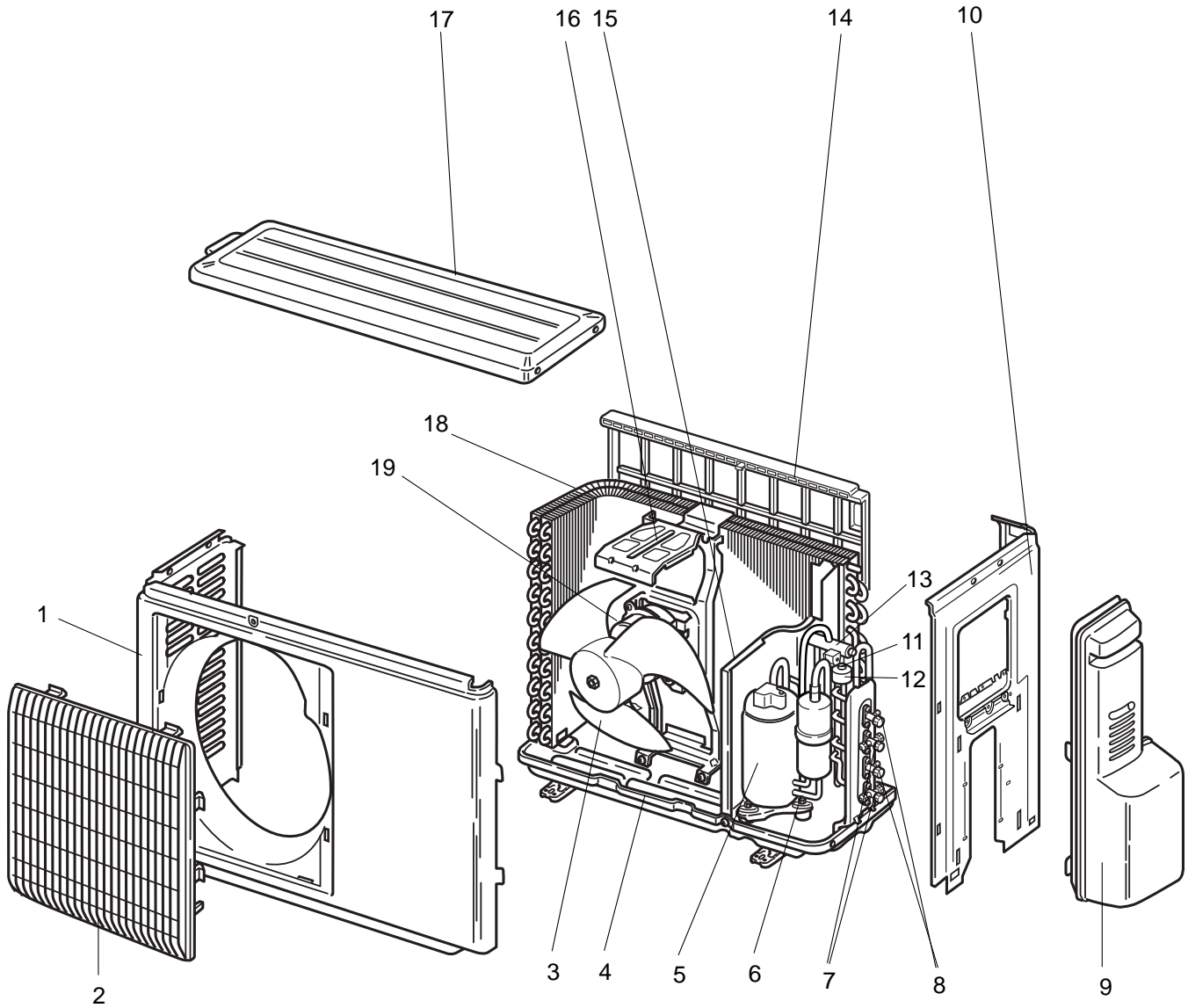




OPERATING PROCEDURE	PHOTOS
<p>5. Removing the reactor</p> <p>(1) Remove the top panel. (Photo 1)</p> <p>(2) Disconnect the reactor lead wire.</p> <p>(3) Remove the screws of the reactor, and remove the reactor. (Photo 7)</p>	<p>Photo 7</p>  <p>Screws of the reactor</p>

MXZ-2A40VA MXZ-2A52VA

15-1. OUTDOOR UNIT STRUCTURAL PARTS AND FUNCTIONAL PARTS



MXZ-2A40VA MXZ-2A52VA

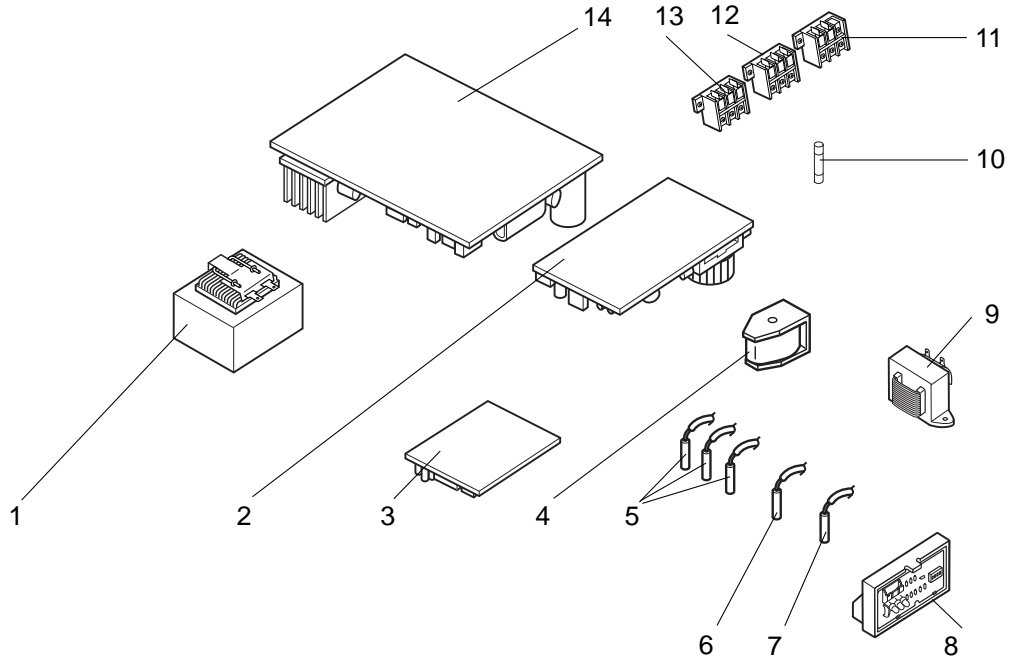
15-1. OUTDOOR UNIT STRUCTURAL PARTS AND FUNCTIONAL PARTS

Part number that is circled is not shown in the illustration.

No.	Part No.	Part Name	Symbol in Wiring Diagram	Q'ty/unit		Remarks
				MXZ-2A40VA- [E1]	MXZ-2A52VA- [E1]	
1	E02 927 232	CABINET		1	1	
2	E02 927 521	GRILLE		1	1	
3	E02 927 501	PROPELLER		1	1	
4	E02 A45 290	BASE		1	1	
5	E02 A47 900	COMPRESSOR	MC	1	1	SNB130FKCH
6	E02 065 506	COMPRESSOR RUBBER SET		3	3	3RUBBERS/SET
7	E02 927 661	STOP VALVE (GAS)		2	2	φ9.52
8	E02 927 662	STOP VALVE (LIQUID)		2	2	φ6.35
9	E02 A47 245	SERVICE PANEL		1	1	
10	E02 A47 233	BACK PANEL		1	1	
11	E02 735 640	EXPANSION VALVE		1	1	ROOM B
12	E02 A48 493	EXPANSION VALVE COIL	LEV B	1	1	
13	E02 A47 961	4-WAY VALVE		1	1	
14	E02 929 523	CONDENSER NET		1	1	
15	E02 929 293	SEPARATOR		1	1	
16	E02 929 515	MOTOR SUPPORT		1	1	
17	E02 927 297	TOP PANEL		1	1	
18	E02 A47 630	OUTDOOR HEAT EXCHANGER		1	1	
19	E02 A47 301	OUTDOOR FAN MOTOR	MF	1	1	RC0J50-□□
20	E02 339 936	CAPILLARY TUBE		4	4	φ3.0×φ1.4×600
	E02 838 936	CAPILLARY TUBE		2	2	φ3.0×φ2.0×200
21	E02 735 640	EXPANSION VALVE		1	1	ROOM A
22	E02 A47 493	EXPANSION VALVE COIL	LEV A	1	1	

MXZ-2A40VA MXZ-2A52VA

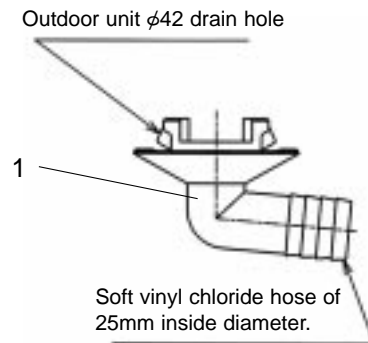
15-2. OUTDOOR UNIT ELECTRICAL PARTS



Part numbers that are circled are not shown in the illustration.

No.	Part No.	Part Name	Symbol in Wiring Diagram	Q'ty/unit		Remarks
				MXZ-2A40VA- [E1]	MXZ-2A52VA- [E1]	
1	E02 838 337	REACTOR	L64	1	1	
2	E02 A47 440	POWER P.C. BOARD		1	1	
3	E02 A47 454	INTERFACE P.C. BOARD		1	1	
4	E02 A47 490	R.V. COIL	21S4	1	1	
5	E02 A47 308	THERMISTOR SET	RT61,62,68	1	1	DEFROST, DISCHARGE OUTDOOR HEAT EXCHANGER
6	E02 A47 309	AMBIENT TEMPERATURE THERMISTOR	RT65	1	1	
7	E02 838 309	FIN TEMPERATURE THERMISTOR	RT64	1	1	
8	E02 A47 329	DISPLAY P.C. BOARD		1	1	
9	E02 A47 337	REACTOR	L65	1	1	
10	E02 735 382	FUSE	F61	1	1	250V/20A
11	E02 A47 374	TERMINAL BLOCK	TB1	1	1	3P
12	E02 935 374	TERMINAL BLOCK	TB3	1	1	3P
13	E02 935 374	TERMINAL BLOCK	TB2	1	1	3P
14	E02 A47 451	INVERTER P.C. BOARD		1		Including heat sink and RT64
	E02 A48 451	INVERTER P.C. BOARD			1	Including heat sink and RT64
15	E02 127 382	FUSE	F64,801,901	1	1	250V/3.15A
16	E02 661 385	VARISTOR	NR62,63,64	1	1	

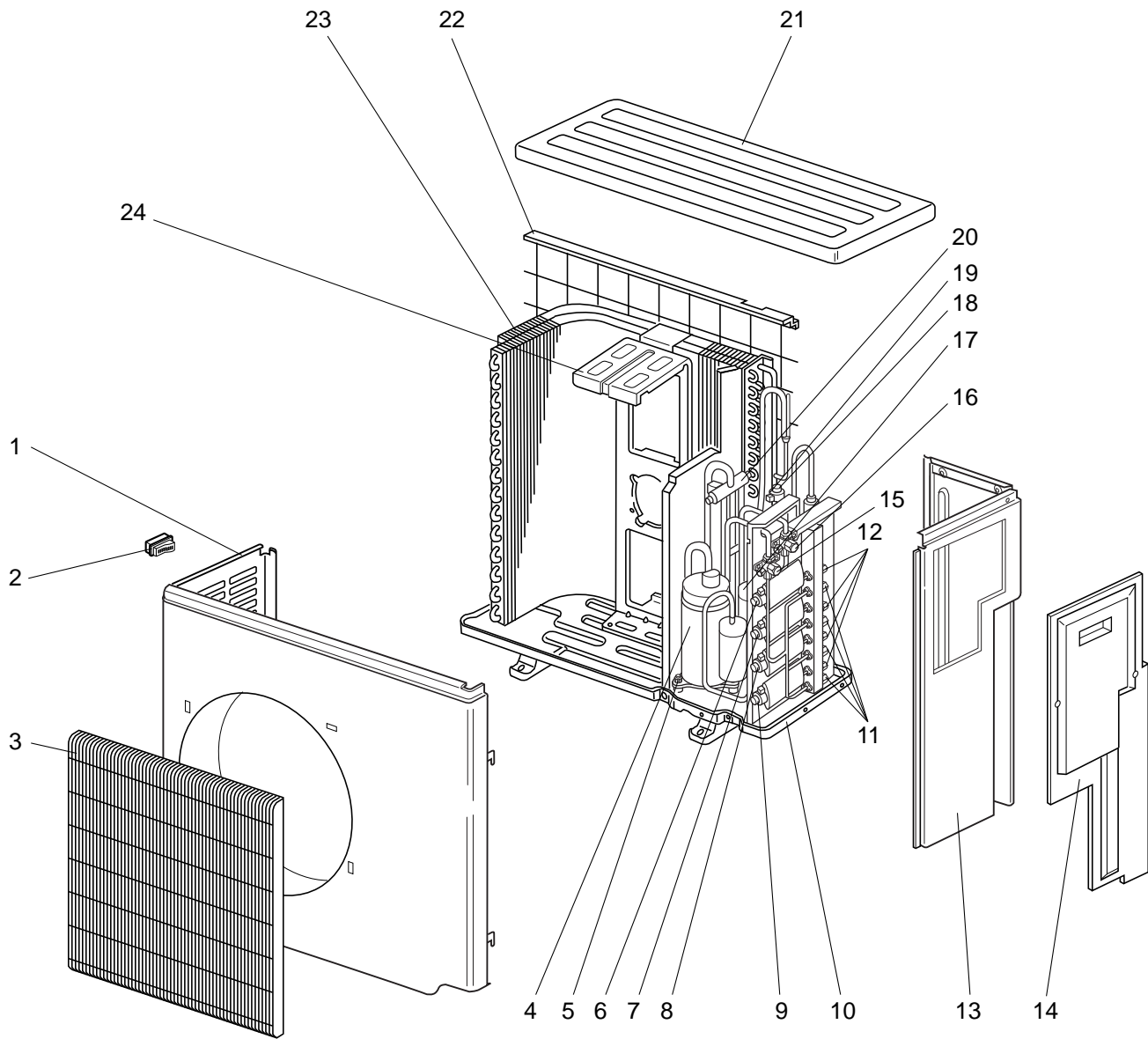
MXZ-2A40VA MXZ-2A52VA
15-3. DRAIN SOCKET



No.	Parts No.	Parts Name	Symbol in Wiring Diagram	Q'ty/unit		Remarks
				MXZ-2A40VA- <input type="checkbox"/> E1	MXZ-2A52VA- <input type="checkbox"/> E1	
1	E02 838 704	DRAIN SOCKET		1	1	

MXZ-3A54VA
MXZ-4A71VA

15-4. OUTDOOR UNIT STRUCTURAL PARTS AND FUNCTIONAL PARTS



MXZ-3A54VA

MXZ-4A71VA

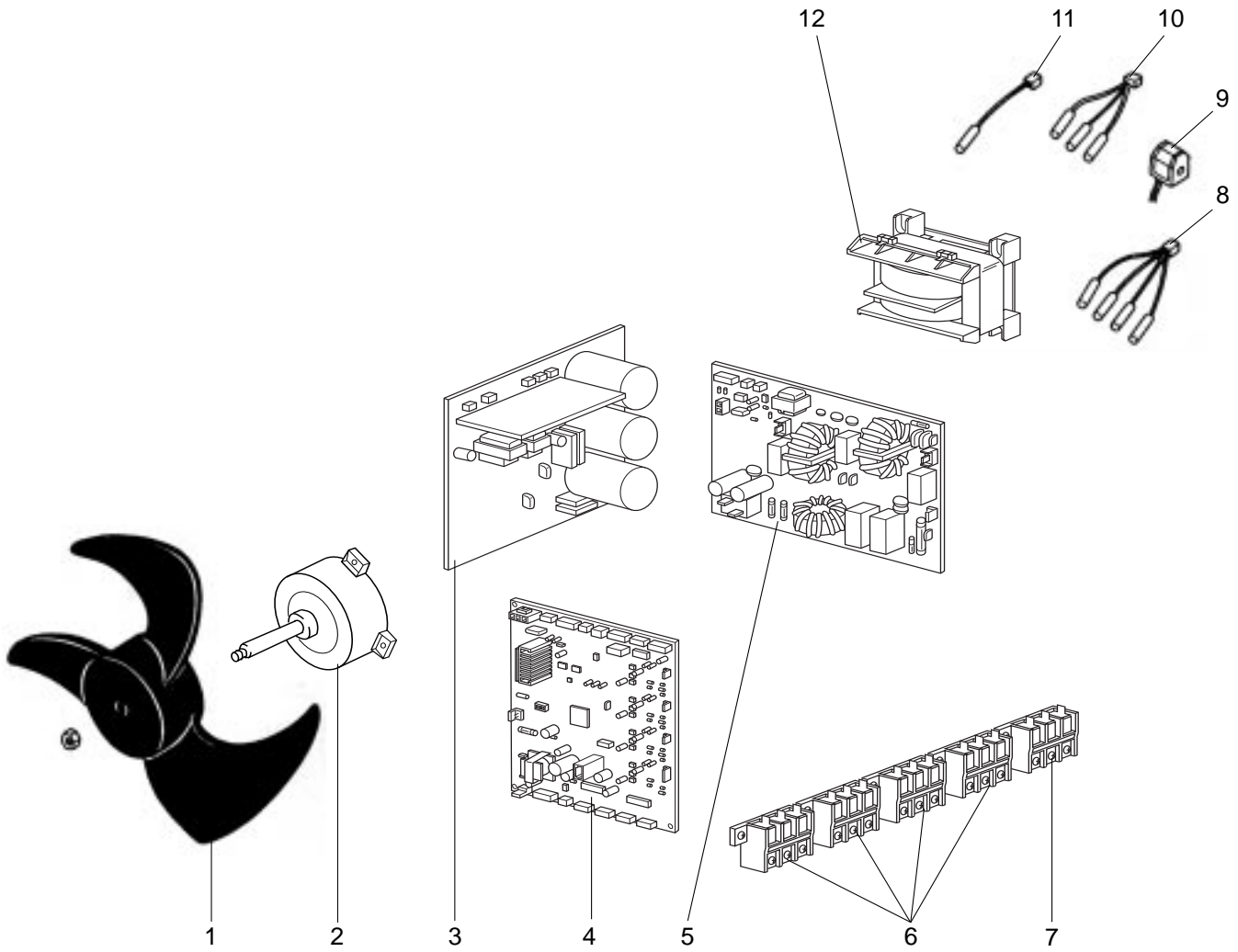
15-4. OUTDOOR UNIT STRUCTURAL PARTS AND FUNCTIONAL PARTS

Part numbers that are circled are not shown in the illustration.

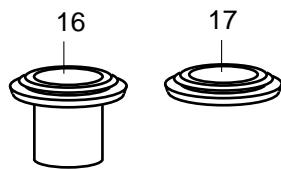
No.	Parts No.	Parts Name	Symbol in Wiring Diagram	Q'ty/unit				Remarks
				MXZ-3A54VA-		MXZ-4A71VA-		
				E1	E2	E1	E2	
1	E02 939 232	CABINET		1	1	1	1	
2	E02 817 009	HANDLE		1	1	1	1	
3	E02 939 521	GRILLE		1	1	1	1	
4	E02 939 900	COMPRESSOR	MC	1	1	1	1	SNB130FLDH1
5	E02 065 506	COMPRESSOR RUBBER SET		3	3	3	3	3RUBBERS SET
6	E02 851 640	EXPANSION VALVE				1	1	D room
	E02 939 494	LEV COIL	LEV D			1	1	D room
7	E02 851 640	EXPANSION VALVE		1	1	1	1	C room
	E02 938 494	LEV COIL	LEV C	1	1	1	1	C room
8	E02 851 640	EXPANSION VALVE		1	1	1	1	B room
	E02 939 493	LEV COIL	LEV B	1	1	1	1	B room
9	E02 851 640	EXPANSION VALVE		1	1	1	1	A room
	E02 938 493	LEV COIL	LEV A	1	1	1	1	A room
10	E02 939 290	BASE		1	1	1	1	
11	E02 939 666	UNION(GAS)		3	3	3	3	φ9.52
	E02 979 666	UNION(GAS)				1	1	φ12.7
12	E02 939 667	UNION(LIQUID)		3	3	4	4	φ6.35
13	E02 939 233	BACK PANEL		1	1	1	1	
14	E02 939 245	SERVICE PANEL		1	1	1	1	
15	E02 939 661	BALL VALVE (GAS) 5/8		1	1	1	1	φ15.88
16	E02 939 662	BALL VALVE (LIQUID) 3/8		1	1	1	1	φ9.52
17	E02 938 959	POWER RECEIVER		1	1	1	1	
18	E02 853 640	EXPANSION VALVE		1	1	1	1	E
19	E02 851 493	LEV COIL	LEV E	1	1	1	1	
20	E02 891 961	4-WAY VALVE		1	1	1	1	
21	E02 819 297	TOP PANEL		1	1	1	1	
22	E02 939 523	REAR GUARD		1	1	1	1	
23	E02 939 630	HEAT EXCHANGER		1	1	1	1	
24	E02 939 515	MOTOR SUPPORT		1	1	1	1	
25	E02 938 937	CAPILLARY TUBE		8	8	8	8	φ3.6×φ2.4×500
26	E02 939 936	CAPILLARY TUBE SET		3	3	4	4	φ4.0×φ2.8×100
27	E02 938 936	CAPILLARY TUBE		1	1	1	1	φ2.5×φ0.6×1000
28	E02 938 299	OIL SEPARATOR		1	1	1	1	

MXZ-3A54VA
MXZ-4A71VA

15-5. OUTDOOR UNIT FUNCTIONAL PARTS AND ELECTRICAL PARTS



15-6. ACCESSORY



MXZ-3A54VA

MXZ-4A71VA

15-5. OUTDOOR UNIT FUNCTIONAL PARTS AND ELECTRICAL PARTS

Part numbers that are circled are not shown in the illustration.

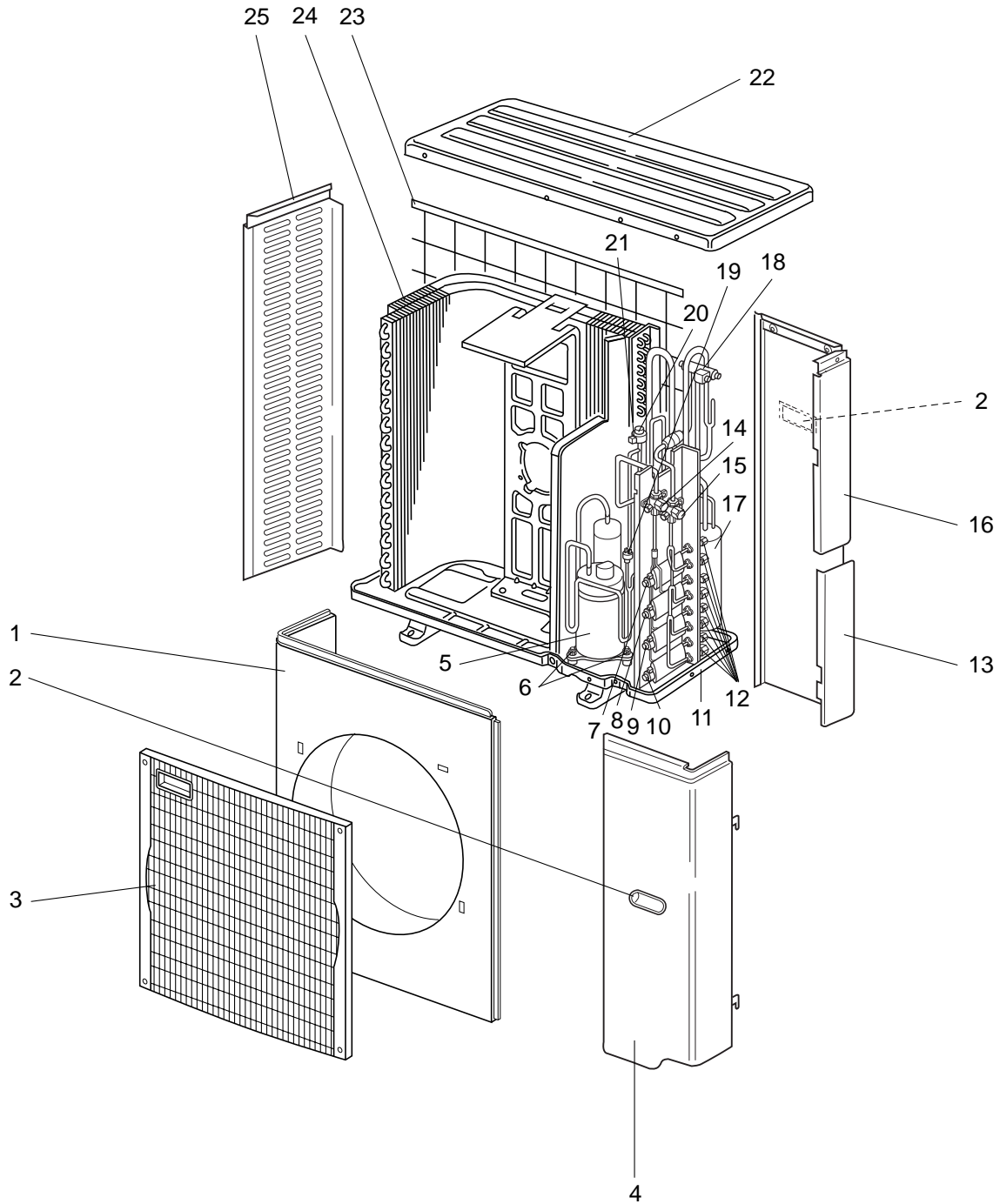
No.	Parts No.	Parts Name	Symbol in Wiring Diagram	Q'ty/unit				Remarks
				MXZ-3A54VA-		MXZ-4A71VA-		
				E1	E2	E1	E2	
1	E02 851 501	PROPELLER		1	1	1	1	
2	E02 938 301	OUTDOOR FAN MOTOR	MF	1	1	1	1	RC0J60- □□
3	E02 939 440	POWER BOARD		1	1	1	1	Including heat sink and RT64
4	E02 938 450	ELECTRONIC CONTROL P.C. BOARD		1	1			
	E02 939 450	ELECTRONIC CONTROL P.C. BOARD				1	1	
5	E02 938 444	NOISE FILTER P.C. BOARD		1	1	1	1	
6	E02 927 374	TERMINAL BLOCK	TB2~5	3	3	4	4	Indoor unit connecting
7	E02 823 375	TERMINAL BLOCK	TB1	1	1	1	1	Power supply
8	E02 938 307	GAS PIPE TEMPERATURE THERMISTOR SET	RT6A,B,C	1	1			
	E02 939 307	GAS PIPE TEMPERATURE THERMISTOR SET	RT6A,B,C,D			1	1	
9	E02 939 490	R.V. COIL	21S4	1	1	1	1	
10	E02 938 308	THERMISTOR SET	RT61,62,68	1	1	1	1	DEFROST DISCHARGE OUTDOOR HEAT EXCHANGER
11	E02 938 309	AMBIENT TEMPERATURE THERMISTOR	RT65	1	1	1	1	
12	E02 938 337	REACTOR	L	1	1	1	1	220 μ F 400V
⑬	E02 127 382	FUSE	F801	1	1	1	1	3.15A 250V
⑭	E02 737 382	FUSE	F911	1	1	1	1	1A 250V
⑮	E02 735 385	FUSE&VARISTOR SET	F64,NR64	1	1	1	1	2A 250V

15-6. ACCESSORY

No.	Parts No.	Parts Name	Symbol in Wiring Diagram	Q'ty/unit				Remarks
				MXZ-3A54VA-		MXZ-4A71VA-		
				E1	E2	E1	E2	
16	E02 817 704	DRAIN SOCKET		1	1	1	1	
17	E02 444 705	DRAIN CAP		2	2	2	2	

MXZ-4A80VA

15-7. OUTDOOR UNIT STRUCTURAL PARTS AND FUNCTIONAL PARTS



MXZ-4A80VA

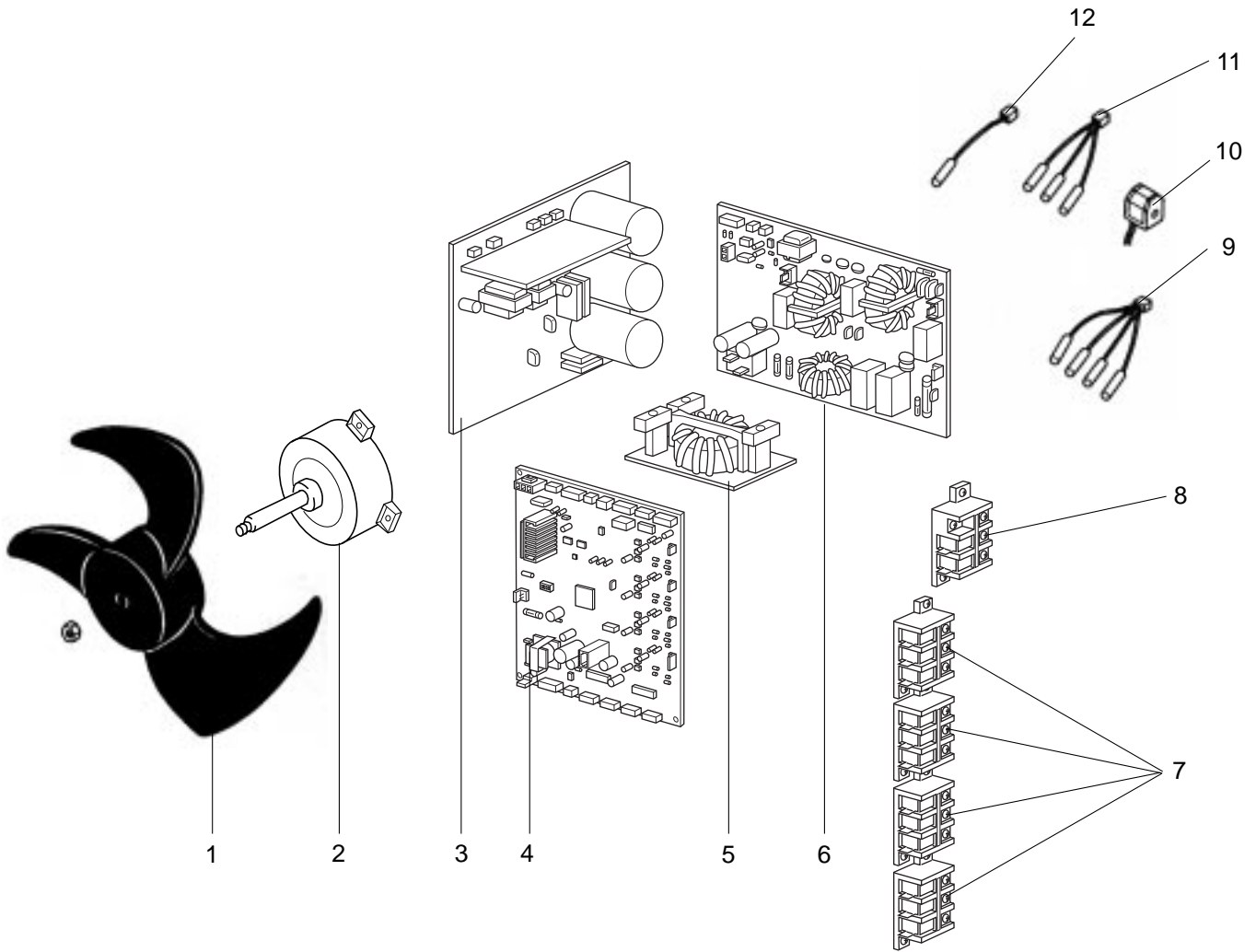
15-7. OUTDOOR UNIT STRUCTURAL PARTS AND FUNCTIONAL PARTS

Part numbers that are circled are not shown in the illustration.

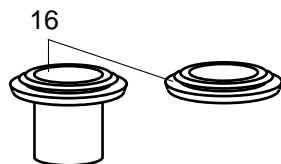
No.	Parts No.	Parts Name	Symbol in Wiring Diagram	Q'ty/unit		Remarks
					MXZ-4A80VA- E1	
1	M21 TK0 232	FRONT PANEL			1	
2	M21 TK0 027	HANDLE ASSEMBLY			2	
3	M21 TK5 010	GRILLE			1	
4	M21 TK0 245	SERVICE PANEL			1	
5	T92 500 801	COMPRESSOR	MC		1	TNB220FMCH
6	T2W TK0 505	COMPRESSOR RUBBER SET			3	3RUBBERS SET
7	R01 E39 401	EXPANSION VALVE			1	D room
	T2W TK0 654	LEV COIL	LEV D		1	D room
8	R01 E39 401	EXPANSION VALVE			1	C room
	T2W TK0 653	LEV COIL	LEV C		1	C room
9	R01 E39 401	EXPANSION VALVE			1	B room
	T2W TK0 652	LEV COIL	LEV B		1	B room
10	R01 E39 401	EXPANSION VALVE			1	A room
	T2W TK0 651	LEV COIL	LEV A		1	A room
11	M21 TK0 290	BASE ASSEMBLY			1	
12	M21 42E 644	UNION			1	$\phi 12.7, \phi 9.52, \phi 6.35$ SET
13	T2W TK0 247	PIPE COVER			1	
14	M21 TK5 667	BALL VALVE (LIQUID) 3/8			1	$\phi 9.52$
15	M21 TK0 667	BALL VALVE (GAS) 5/8			1	$\phi 15.88$
16	M21 TK0 248	REAR PANEL			1	
17	T2W TK0 959	POWER RECEIVER			1	
18	M21 G0H 642	4-WAY VALVE			1	
19	M21 NT1 646	HIGH PRESSURE SWITCH	HPS		1	4.8MPa(48.9kg/cm ²)
20	T2W WW8 401	EXPANSION VALVE			1	E
21	T2W TK0 651	LEV COIL	LEV E		1	
22	M21 TK0 297	TOP PANEL			1	
23	T2W E40 523	REAR GUARD			1	
24	M21 YH1 630	HEAT EXCHANGER			1	
25	M21 TK0 249	SIDE PANEL			1	
26	M21 SJ4 937	CAPILLARY TUBE			2	$\phi 4.0 \times \phi 2.4 \times 400$
27	M21 TK0 936	CAPILLARY TUBE SET			4	$\phi 4.0 \times \phi 2.8 \times 90$
28	T2W E59 936	CAPILLARY TUBE			1	$\phi 2.5 \times \phi 0.6 \times 1000$
29	T2W YH1 656	OIL SEPARATOR			1	

MXZ-4A80VA

15-8. OUTDOOR UNIT FUNCTIONAL PARTS AND ELECTRICAL PARTS



15-9. ACCESSORY



MXZ-4A80VA

15-8. OUTDOOR UNIT FUNCTIONAL PARTS AND ELECTRICAL PARTS

Part numbers that are circled are not shown in the illustration.

No.	Parts No.	Parts Name	Symbol in Wiring Diagram	Q'ty/unit		Remarks
					MXZ-4A80VA- E1	
1	M21 TK0 501	PROPELLER			1	
2	M21 TK0 301	OUTDOOR FAN MOTOR	MF		1	PM8H60-□□
3	T2W YH1 440	POWER BOARD			1	Including heat sink and RT64
4	T2W YH1 451	ELECTRONIC CONTROL P.C. BOARD			1	
5	M21 TK0 337	REACTOR	L		1	220 μ F 400V
6	T2W YH1 424	NOISE FILTER P.C. BOARD			1	
7	T2W YH1 376	TERMINAL BLOCK	TB2~5		4	Indoor unit connecting
8	T2W E64 376	TERMINAL BLOCK	TB1		1	Power supply
9	T2W E70 307	GAS PIPE TEMPERATURE THERMISTOR	RT6A,B,C,D		1	
10	T2W TK0 398	R.V. COIL	21S4		1	
11	M21 G0H 308	THERMISTOR SET	RT61,62,68		1	DEFROST. DISCHARGE, OUTDOOR HEAT EXCHANGER
12	M21 90V 309	AMBIENT TEMPERATURE THERMISTOR	RT65		1	
⑬	T2W YH1 381	FUSE	F801		1	3.15A 250V
⑭	T2W YH1 382	FUSE	F911		1	1A 250V
⑮	T2W E88 313	FUSE&VARISTOR SET	F64,NR64		1	2A 250V

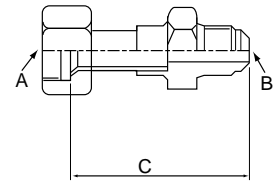
15-9. ACCESSORY

No.	Parts No.	Parts Name	Symbol in Wiring Diagram	Q'ty/unit		Remarks
					MXZ-4A80VA- E1	
16	T2W E59 704	DRAIN SOCKET ASSEMBLY			1	DRAIN SOCKET ×1 DRAIN CAP ×2

16-1. Different-diameter pipe

MXZ-3A54 MXZ-4A71 MXZ-4A80	Model name	Connected pipes diameter	Length A	Length B	Length C
For different-diameter pipes	MAC-A454JP	φ9.52 — φ12.7 (3/8) (1/2)	φ9.52 (3/8)	φ12.7 (1/2)	69
	MAC-A455JP	φ12.7 — φ9.52 (1/2) (3/8)	φ12.7 (1/2)	φ9.52 (3/8)	65
	MAC-A456JP	φ12.7 — φ15.88 (1/2) (5/8)	φ12.7 (1/2)	φ15.88 (5/8)	66.5
	PAC-493PI	φ6.35 — φ9.52 (1/4) (3/8)	φ6.35 (1/4)	φ9.52 (3/8)	60.5
	PAC-SG76RJ-E	φ9.52 — φ15.88 (3/8) (5/8)	φ9.52 (3/8)	φ15.88 (5/8)	101.5

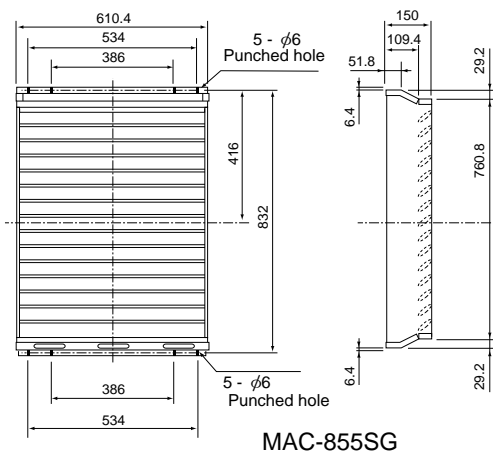
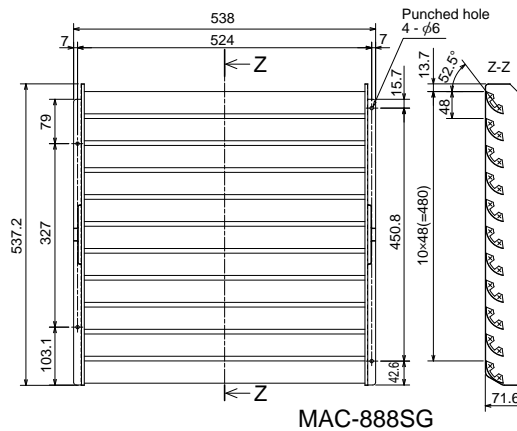
Unit : mm (inch)



16-2. Outlet guide

Changes air discharge direction.

Applied unit	Model name	Model code
MXZ-2A40 MXZ-2A52 MXZ-3A54 MXZ-4A71	MAC-888SG	506-888
MXZ-4A80	MAC-855SG	51H-855



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