

Revision K:

• MUZ-AP60VG2 - [E1], [ET1] and
MUZ-AP71VG3 - [E1], [ET1] have been
added.

OBH789 REVISED EDITION-J is void.

OUTDOOR UNIT

SERVICE MANUAL



No. OBH789
REVISED EDITION-K

Models

MUZ-AP25VG - [E1], [ET1], [E2], [ET2], [ER2], [E3], [ET3], [ER3]

MUZ-AP35VG - [E1], [ET1], [E2], [ET2], [ER2], [E3], [ET3], [ER3]

MUZ-AP42VG - [E1], [ET1], [E2], [ET2], [ER2]

MUZ-AP50VG - [E1], [ET1], [ER1], [E2]

MUZ-AP60VG - [E1], [ET1], [ER1], [E2], [ET2], [E3]

MUZ-AP60VG2 - [E1], [ET1]

MUZ-AP71VG - [E1], [ET1], [ER1], [E2]

MUZ-AP71VG2 - [E1], [ET1]

MUZ-AP71VG3 - [E1], [ET1]

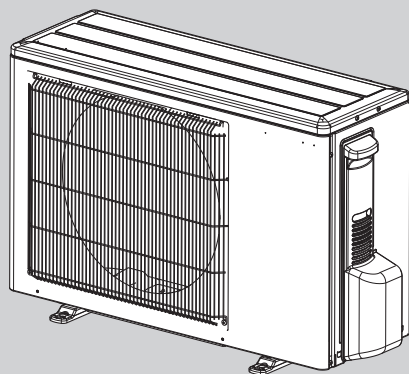
MUZ-AP25VGH - [E1], [E2], [E3]

MUZ-AP35VGH - [E1], [E2], [E3]

MUZ-AP42VGH - [E1], [E2]

MUZ-AP50VGH - [E1], [E2]

Indoor unit service manual
MSZ-AP•VG, VGK Series (OBH788)



MUZ-AP25VG MUZ-AP25VGH
MUZ-AP35VG MUZ-AP35VGH
MUZ-AP42VG MUZ-AP42VGH

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PARTS CATALOG (OBB789)

Use the specified refrigerant only

Never use any refrigerant other than that specified.

Doing so may cause a burst, an explosion, or fire when the unit is being used, serviced, or disposed of.

Correct refrigerant is specified in the manuals and on the spec labels provided with our products.

We will not be held responsible for mechanical failure, system malfunction, unit breakdown or accidents caused by failure to follow the instructions.

<Preparation before the repair service>

- Prepare the proper tools.
- Prepare the proper protectors.
- Provide adequate ventilation.
- After stopping the operation of the air conditioner, turn off the power-supply breaker and pull the power plug.
- Discharge the capacitor before the work involving the electric parts.

<Precautions during the repair service>

- Do not perform the work involving the electric parts with wet hands.
- Do not pour water into the electric parts.
- Do not touch the refrigerant.
- Do not touch the hot or cold areas in the refrigeration cycle.
- When the repair or the inspection of the circuit needs to be done without turning off the power, exercise great caution not to touch the live parts.

WARNING

- When the refrigerant circuit has a leak, do not execute pump down with the compressor.
- When pumping down the refrigerant, stop the compressor before disconnecting the refrigerant pipes. The compressor may burst if air etc. get into it.
- When opening or closing the valve below freezing temperatures, refrigerant may spurt out from the gap between the valve stem and the valve body, resulting in injuries.

Revision A:

- MUZ-AP25/35/42VG-[E2], [ET2], [ER2], MUZ-AP25/35/42VGH-[E2] and MUZ-AP60/71VG-[E1], [ET1] have been added.

Revision B:

- MUZ-AP50/60/71VG-[ER1] have been added.

Revision C:

- MUZ-AP25/35VG-[E3], [ET3] and MUZ-AP25/35VGH-[E3] have been added.

Revision D:

- MUZ-AP25/35VG-[ER3], MUZ-AP50/60/71VG-[E2] and MUZ-AP50VGH-[E2] have been added.

Revision E:

- A warning when opening or closing the valve has been added.

Revision F:

- 8. REFRIGERANT SYSTEM DIAGRAM have been corrected.

Revision G:

- Resistance of outdoor fan motor for MUZ-AP71VG-[E1], [ET1], [ER1], [E2] at 12-4. TROUBLE CRITERION OF MAIN PARTS and some descriptions have been modified.

Revision H:

- MUZ-AP60VG-[ET2], [E3] MUZ-AP71VG2-[E1], [ET1] have been added.

Revision J:

- 11-1. CHANGE IN DEFROST SETTING and 6. OUTLINES AND DIMENSIONS have been corrected.

Revision K:

- MUZ-AP60VG2-[E1], [ET1] MUZ-AP71VG3-[E1], [ET1] have been added.

MUZ-AP25VG - [E1], [ET1], [ER2]

MUZ-AP35VG - [E1], [ET1], [ER2]

MUZ-AP42VG - [E1], [ET1], [ER2]

MUZ-AP50VG - [E1], [ET1], [ER1]

MUZ-AP25VGH - [E1]

MUZ-AP35VGH - [E1]

MUZ-AP42VGH - [E1]

MUZ-AP50VGH - [E1]

MUZ-AP60VG - [E1], [ET1], [ER1]

MUZ-AP71VG - [E1], [ET1], [ER1]

1. New model

MUZ-AP25VG - [E1], [ET1] → **MUZ-AP25VG** - [E2], [ET2]

MUZ-AP35VG - [E1], [ET1] → **MUZ-AP35VG** - [E2], [ET2]

MUZ-AP42VG - [E1], [ET1] → **MUZ-AP42VG** - [E2], [ET2]

MUZ-AP50VG - [E1] → **MUZ-AP50VG** - [E2]

MUZ-AP60VG - [E1] → **MUZ-AP60VG** - [E2]

MUZ-AP71VG - [E1] → **MUZ-AP71VG** - [E2]

MUZ-AP25VGH - [E1] → **MUZ-AP25VGH** - [E2]

MUZ-AP35VGH - [E1] → **MUZ-AP35VGH** - [E2]

MUZ-AP42VGH - [E1] → **MUZ-AP42VGH** - [E2]

MUZ-AP50VGH - [E1] → **MUZ-AP50VGH** - [E2]

1. Inverter P.C. board has been changed.

2. Outdoor fan motor has been changed.

MUZ-AP25VG - [E2], [ET2], [ER2] → **MUZ-AP25VG** - [E3], [ET3], [ER3]

MUZ-AP35VG - [E2], [ET2], [ER2] → **MUZ-AP35VG** - [E3], [ET3], [ER3]

MUZ-AP25VGH - [E2] → **MUZ-AP25VGH** - [E3]

MUZ-AP35VGH - [E2] → **MUZ-AP35VGH** - [E3]

1. Compressor has been changed.

2. Inverter P.C. board has been changed.

MUZ-AP60VG - [ET1], [E2] → **MUZ-AP60VG** - [ET2], [E3]

1. Inverter P.C. board has been changed.

MUZ-AP71VG - [E2], [ET1] → **MUZ-AP71VG2** - [E1], [ET1]

1. Inverter P.C. board has been changed.

2. Outdoor fan motor has been changed.

MUZ-AP60VG - [E3], [ET2] → **MUZ-AP60VG2** - [E1], [ET1]

MUZ-AP71VG2 - [E1], [ET1] → **MUZ-AP71VG3** - [E1], [ET1]

1. Outlines and dimensions has been changed.

2. Inverter P.C. board has been changed.

2 SERVICING PRECAUTIONS FOR UNITS USING REFRIGERANT R32

Servicing precautions for units using refrigerant R32



WARNING

This unit uses a flammable refrigerant.

If refrigerant leaks and comes in contact with fire or heating part, it will create harmful gas and there is risk of fire.

- Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
- The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater.)
- Do not pierce or burn.
- Be aware that refrigerants may not contain an odor.
- Pipe-work shall be securely mounted and guarded from physical damage.
- The installation of pipe-work shall be kept to a minimum.
- Compliance with national gas regulations shall be observed.
- Mechanical connections shall be accessible for maintenance purposes.
- Keep any required ventilation openings clear of obstruction.
- Servicing shall be performed only as recommended by the manufacturer.
- Units should be installed stably so that the refrigerant piping does not vibrate or pulsate.
- Protection devices, piping and fittings shall be protected as far as possible against adverse environmental effects, for example the danger of water collecting and freezing in relief pipes or the accumulation of dirt and debris.
- Provision shall be made for expansion and contraction of long runs of piping.
- Field-made refrigerant joints indoors shall be tightness tested. The test method shall have a sensitivity of 5 grams per year of refrigerant or better under a pressure of at least 0,25 times the maximum allowable pressure. No leak shall be detected.
- Electrical components that can arc or spark, which are not considered ignition sources shall only be replaced with parts specified by the appliance manufacturer. Replacement with other parts may result in the ignition of refrigerant in the event of a leak.
- The appliance shall be stored so as to prevent mechanical damage from occurring.
- Maintenance, service and repair operations shall be performed by authorized technician with required qualification.

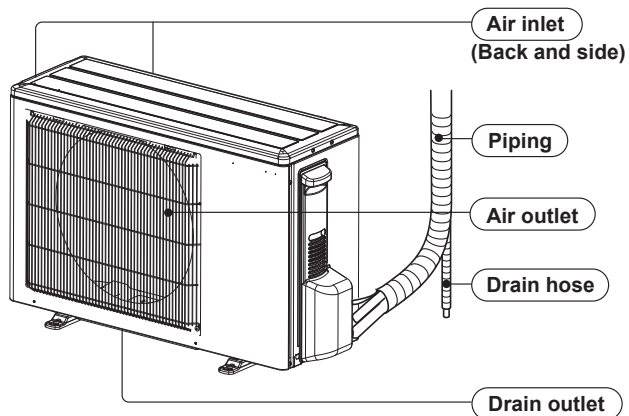
Basic work procedures are the same as those for conventional units using refrigerant R410A.

However, pay careful attention to the following points.

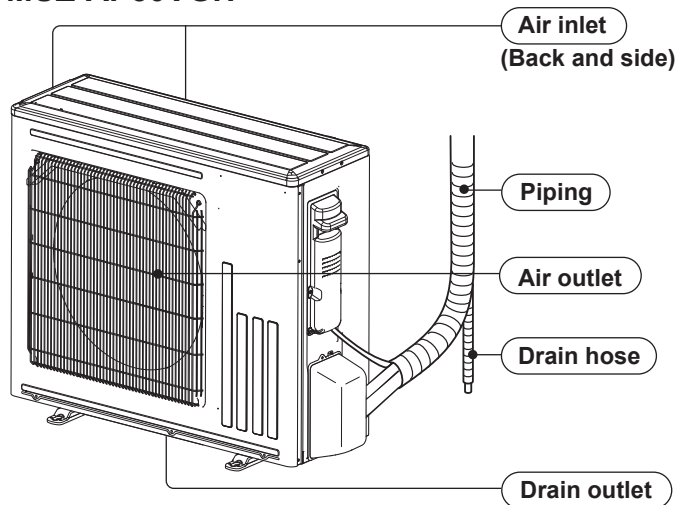
1. Information on servicing
 - (1) Checks to the Area
Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimized.
 - (2) Work Procedure
Work shall be undertaken under a controlled procedure so as to minimize the risk of a flammable gas or vapor being present while the work is being performed.
 - (3) General Work Area
All maintenance staff and others working in the local area shall be instructed on the nature of work being carried out. Work in confined spaces shall be avoided.
 - (4) Checking for Presence of Refrigerant
The area shall be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially toxic or flammable atmospheres. Ensure that the leak detection equipment being used is suitable for use with all applicable refrigerants, i.e. non-sparking, adequately sealed or intrinsically safe.
 - (5) Presence of Fire Extinguisher
If any hot work is to be conducted on the refrigerating equipment or any associated parts, appropriate fire extinguishing equipment shall be available to hand. Have a dry powder or CO₂ fire extinguisher adjacent to the charging area.
 - (6) No Ignition Sources
No person carrying out work in relation to a refrigerating system which involves exposing any pipe work shall use any sources of ignition in such a manner that it can lead to the risk of fire or explosion. All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing and disposal, during which refrigerant can possibly be released to the surrounding space. Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks. "No Smoking" signs shall be displayed.
 - (7) Ventilated Area
Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work. A degree of ventilation shall continue during the period that the work is carried out. The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.
 - (8) Checks to the Refrigerating Equipment
Where electrical components are being changed, they shall be fit for the purpose and to the correct specification. At all times the manufacturer's maintenance and service guidelines shall be followed. If in doubt, consult the manufacturer's technical department for assistance.
The following checks shall be applied to installations using flammable refrigerants:
 - The refrigerant charge is in accordance with the room size within which the refrigerant containing parts are installed.
 - The ventilation machinery and outlets are operating adequately and are not obstructed.
 - If an indirect refrigerating circuit is being used, the secondary circuit shall be checked for the presence of refrigerant.
 - Marking to the equipment continues to be visible and legible. Markings and signs that are illegible shall be corrected.
 - Refrigerating pipe or components are installed in a position where they are unlikely to be exposed to any substance which can corrode refrigerant containing components, unless the components are constructed of materials which are inherently resistant to being corroded or are suitably protected against being so corroded.
 - (9) Checks to Electrical Devices
Repair and maintenance to electrical components shall include initial safety checks and component inspection procedures. If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with. If the fault cannot be corrected immediately but it is necessary to continue operation, an adequate temporary solution shall be used. This shall be reported to the owner of the equipment so all parties are advised.
Initial safety checks shall include that:
 - capacitors are discharged: this shall be done in a safe manner to avoid possibility of sparking;
 - no live electrical components and wiring are exposed while charging, recovering or purging the system;
 - there is continuity of earth bonding.

2. Sealed Electrical Components
Sealed electrical components shall not be repaired.
3. Cabling
Check that cabling will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges or any other adverse environmental effects. The check shall also take into account the effects of aging or continual vibration from sources such as compressors or fans.
4. Detection of Flammable Refrigerants
Under no circumstances shall potential sources of ignition be used in the searching for or detection of refrigerant leaks. A halide torch (or any other detector using a naked flame) shall not be used.
Electronic leak detectors may be used to detect refrigerant leaks but, in the case of flammable refrigerants, the sensitivity can be inadequate, or can need re-calibration. (Detection equipment shall be calibrated in a refrigerant-free area.) Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used. Leak detection equipment shall be set at a percentage of the LFL of the refrigerant and shall be calibrated to the refrigerant employed, and the appropriate percentage of gas (25 % maximum) is confirmed.
Leak detection fluids are also suitable for use with most refrigerants but the use of detergents containing chlorine shall be avoided as the chlorine can react with the refrigerant and corrode the copper pipe-work.
If a leak is suspected, all naked flames shall be removed/extinguished.
If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system, or isolated (by means of shut off valves) in a part of the system remote from the leak.
5. Refrigerant Removal and Circuit Evacuation
When breaking into the refrigerant circuit to make repairs – or for any other purpose – conventional procedures shall be used. However, for flammable refrigerants it is important that best practice is followed since flammability is a consideration. The following procedure shall be adhered to:
- safely remove refrigerant following local and national regulations;
 - evacuate;
 - purge the circuit with inert gas (optional for A2L);
 - evacuate (optional for A2L);
 - continuously flush with inert gas when using flame to open circuit;
 - open the circuit.
- The refrigerant charge shall be recovered into the correct recovery cylinders.
The manufacturer shall specify the inert gases that can be used. Compressed air or oxygen shall not be used for purging refrigerant systems.
Purging of the refrigerant circuit shall be achieved by breaking the vacuum in the system with inert gas and continuing to fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum. This process shall be repeated until no refrigerant is within the system. The system shall be vented down to atmospheric pressure to enable work to take place.
Ensure that the outlet of the vacuum pump is not close to any potential ignition sources and that ventilation is available.
6. Charging Procedures
In addition to conventional charging procedures, the following requirements shall be followed:
- Ensure that contamination of different refrigerants does not occur when using charging equipment. Hoses or lines shall be as short as possible to minimise the amount of refrigerant contained in them.
 - Cylinders shall be kept in an appropriate position according to the instructions.
 - Ensure that the refrigerating system is earthed prior to charging the system with refrigerant.
 - Label the system when charging is complete (if not already labelled).
 - Extreme care shall be taken not to overfill the refrigeration system.
- Prior to recharging the system, it shall be pressure-tested with the appropriate purging gas. The system shall be leak-tested on completion of charging but prior to commissioning. A follow up leak test shall be carried out prior to leaving the site.
7. Decommissioning
Before carrying out this procedure, it is essential that the technician is completely familiar with the equipment and all its detail. It is recommended good practice that all refrigerants are recovered safely. Prior to the task being carried out, an oil and refrigerant sample shall be taken in case analysis is required prior to re-use of recovered refrigerant. It is essential that electrical power is available before the task is commenced.
- (1) Become familiar with the equipment and its operation.
 - (2) Isolate system electrically.
 - (3) Before attempting the procedure, ensure that:
 - mechanical handling equipment is available, if required, for handling refrigerant cylinders;
 - all personal protective equipment is available and being used correctly;
 - the recovery process is supervised at all times by a competent person;
 - recovery equipment and cylinders conform to the appropriate standards.
 - (4) Pump down refrigerant system, if possible.
 - (5) If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system.
 - (6) Make sure that the cylinder is situated on the scales before recovery takes place.
 - (7) Start the recovery machine and operate in accordance with instructions.
 - (8) Do not overfill cylinders (no more than 80 % volume liquid charge).
 - (9) Do not exceed the maximum working pressure of the cylinder, even temporarily.
 - (10) When the cylinders have been filled correctly and the process completed, make sure that the cylinders and the equipment are removed from site promptly and all isolation valves on the equipment are closed off.
 - (11) Recovered refrigerant shall not be charged into another refrigerating system unless it has been cleaned and checked.
8. Labeling
Equipment shall be labeled stating that it has been de-commissioned and emptied of refrigerant. The label shall be dated and signed. For appliances containing flammable refrigerants, ensure that there are labels on the equipment stating the equipment contains flammable refrigerant.
9. Recovery
When removing refrigerant from a system, either for servicing or decommissioning, it is required to follow good practice so that all refrigerants are removed safely.
When transferring refrigerant into cylinders, ensure that only appropriate refrigerant recovery cylinders are employed. Ensure that the correct number of cylinders for holding the total system charge is available. All cylinders to be used are designated for the recovered refrigerant and labeled for that refrigerant (i.e. special cylinders for the recovery of refrigerant). Cylinders shall be complete with pressure-relief valve and associated shut-off valves in good working order. Empty recovery cylinders are evacuated and, if possible, cooled before recovery occurs.
The recovery equipment shall be in good working order with a set of instructions concerning the equipment that is at hand and shall be suitable for the recovery of the flammable refrigerant. Consult manufacturer if in doubt. In addition, a set of calibrated weighing scales shall be available and in good working order. Hoses shall be complete with leak-free disconnect couplings and in good condition.
The recovered refrigerant shall be processed according to local legislation in the correct recovery cylinder, and the relevant waste transfer note arranged. Do not mix refrigerants in recovery units and especially not in cylinders.
If compressors or compressor oils are to be removed, ensure that they have been evacuated to an acceptable level to make certain that flammable refrigerant does not remain within the lubricant. The compressor body shall not be heated by an open flame or other ignition sources to accelerate this process. Draining of oil from a system shall be carried out safely.

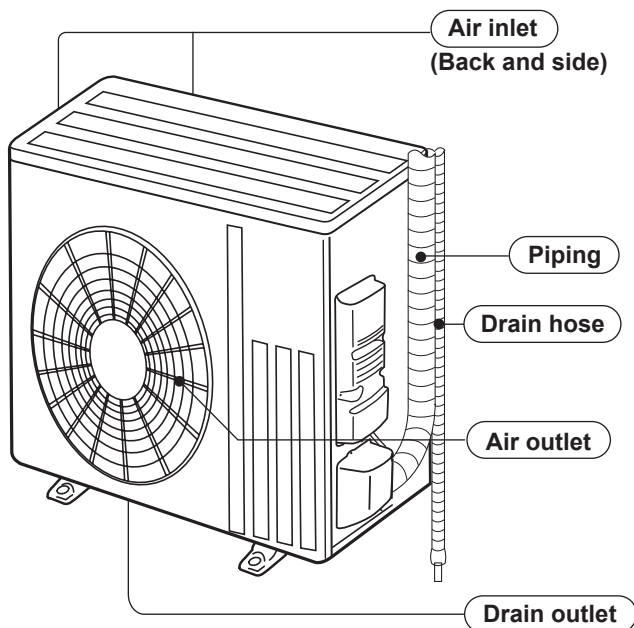
MUZ-AP25VG
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 MUZ-AP42VGH



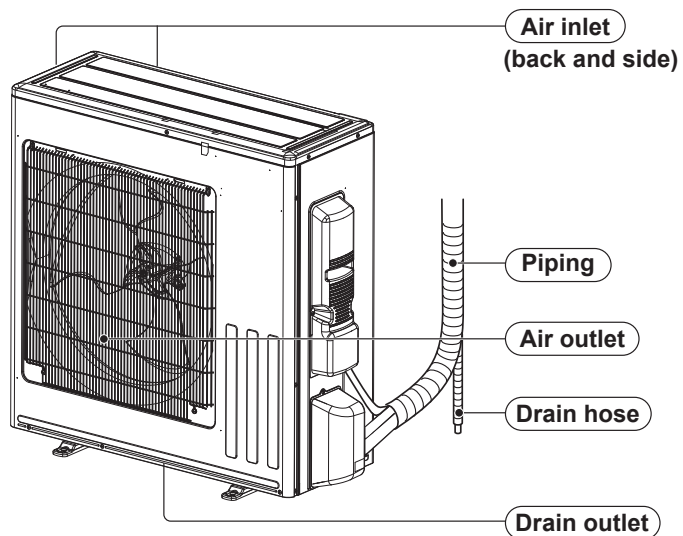
MUZ-AP50VG
 MUZ-AP60VG
 MUZ-AP60VG2
 MUZ-AP50VGH



MUZ-AP71VG



MUZ-AP71VG2
 MUZ-AP71VG3



ACCESSORIES

MODELS	MUZ-AP25VG MUZ-AP60VG	MUZ-AP35VG MUZ-AP60VG2	MUZ-AP42VG MUZ-AP71VG	MUZ-AP50VG MUZ-AP71VG2	MUZ-AP71VG3
Drain socket	1				

Outdoor model				MUZ-AP25VG MUZ-AP25VGH	MUZ-AP35VG MUZ-AP35VGH	MUZ-AP42VG MUZ-AP42VGH	MUZ-AP50VG MUZ-AP50VGH	
Power supply				Single phase, 230 V, 50 Hz				
Capacity Rated (Min.-Max.)		Cooling	kW	2.5 (0.9 - 3.4)	3.5 (1.1 - 3.8)	4.2 (0.9 - 4.5)	5.0 (1.4 - 5.4)	
		Heating		3.2 (1.0 - 4.1)	4.0 (1.3 - 4.6)	5.4 (1.3 - 6.0)	5.8 (1.4 - 7.3)	
Breaker Capacity			A	10			16	
Electrical data	Power input *1 (Set)		Cooling	W	600	990	1,300	1,550
			Heating		780	1,030	1,490	1,600
	Running current *1 (Set)		Cooling	A	2.9	4.5	5.8	6.9
			Heating		3.6	4.7	6.6	7.0
	Power factor *1 (Set)		Cooling	%	89	95	97	97
			Heating		94	95	98	99
Starting current *1 (Set)			A	3.6	4.7	6.6	7.0	
Coefficient of performance (COP) *1 (Set)		Cooling			4.17	3.54	3.23	3.23
		Heating			4.10	3.88	3.62	3.63
Compressor	Model			E1 ET1 E2 ET2 ER2 : KVB073FYXMC E3 ET3 ER3 : KVB073FYGMC		SVB130FBBMC	SVB130FBBMT	
	Output		W	470	470	900	900	
	Current *1	Cooling	A	2.50	4.10	5.42	6.39	
		Heating		3.14	4.20	6.05	6.41	
Refrigeration oil (Model)			L	0.27 (FW68S)		0.35 (FW68S)		
Fan motor	Model			E1 ET1 : RC0J50-NC E2 ET2 ER2 E3 ET3 ER3 : RC0J55-DC			RC0J50-RA	
	Current *1	Cooling	A	0.22	0.22	0.20	0.27	
		Heating		0.20	0.24	0.23	0.27	
Dimensions W × H × D			mm	800 × 550 × 285			800 × 714 × 285	
Weight			kg	E1 ET1 E2 ET2 ER2 :31		35	40	
				E3 ET3 ER3 : 27 E3 ET3 ER3 : 29				
Special remarks	Dehumidification		Cooling	L/h	0.3	0.6	1.4	1.9
	Airflow *1	Cooling	High	m³/h	2,178	2,178	2,058	2,430
			Low		1,038	1,038	906	1,320
		Heating	High		2,076	2,076	1,962	2,430
			Med.		1,788	1,788	1,686	2,238
			Low		1,452	1,452	1,260	1,704
	Sound level *1		Cooling	dB(A)	47	49	50	52
			Heating		48	50	51	52
	Fan speed	Cooling	High	rpm	940	940	940	840
			Low		470	470	460	490
		Heating	High		900	900	900	840
			Med.		780	780	780	780
			Low		640	640	600	610
	Fan speed regulator				3			
	Refrigerant filling capacity (R32)			kg	0.55	0.55	0.70	1.00

NOTE: Test conditions are based on ISO 5151.

Cooling: Indoor Dry-bulb temperature 27°C

Wet-bulb temperature 19°C

Outdoor Dry-bulb temperature 35°C

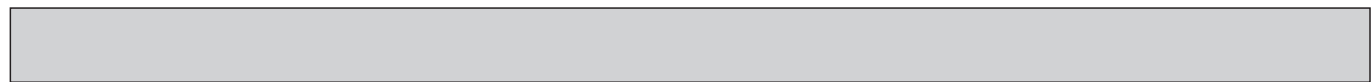
Heating: Indoor Dry-bulb temperature 20°C

Wet-bulb temperature 6°C

Outdoor Dry-bulb temperature 7°C

Refrigerant piping length (one way): 5 m

*1 Measured under rated operating frequency.



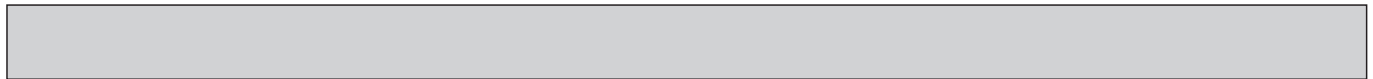
Outdoor model				MUZ-AP60VG		MUZ-AP60VG2		
Power supply				Single phase, 230 V, 50 Hz				
Capacity Rated (Min.-Max.)			Cooling	kW	6.1 (1.4 - 7.3)		6.1 (1.4 - 7.3)	
			Heating		6.8 (2.0 - 8.6)		6.8 (2.0 - 8.6)	
Breaker Capacity				A	16		16	
Electrical data	Power input *1 (Set)		Cooling	W	1,590		1,590	
			Heating		1,670		1,670	
	Running current *1 (Set)		Cooling	A	7.10		7.10	
			Heating		7.40		7.40	
	Power factor *1 (Set)		Cooling	%	97		97	
			Heating		98		98	
	Starting current *1 (Set)			A	7.4		7.4	
Coefficient of performance (COP) *1 (Set)			Cooling	3.84		3.84		
			Heating	4.07		4.07		
Compressor		Model		SVB130FBBMT		SVB130FBBMT		
		Output		W	900		900	
		Current *1	Cooling	A	6.23		6.23	
			Heating		6.47		6.47	
		Refrigeration oil (Model)		L	0.35 (FW68S)		0.35 (FW68S)	
Fan motor		Model		RC0J50-RA		RC0J50-RA		
		Current *1	Cooling	A	0.50		0.50	
			Heating		0.50		0.50	
Dimensions W × H × D				mm	800 × 714 × 285		800 × 714 × 285	
Weight				kg	40		40	
Special remarks	Dehumidification		Cooling	L/h	1.5		1.5	
	Airflow *1	Cooling	High	m³/h	3,126		3,252	
			Med.		2,748		2,748	
			Low		1,320		1,320	
		Heating	High		3,126		3,126	
			Med.		2,238		2,238	
			Low		1,704		1,704	
	Sound level *1		Cooling	dB(A)	56		56	
			Heating		57		57	
	Fan speed	Cooling	High	rpm	1,060		1,100	
			Med.		940		940	
			Low		490		490	
		Heating	High		1,060		1,060	
			Med.		780		780	
			Low		610		610	
	Fan speed regulator				3			
	Refrigerant filling capacity (R32)			kg	1.05		1.05	

NOTE: Test conditions are based on ISO 5151.

Cooling: Indoor Dry-bulb temperature 27°C Wet-bulb temperature 19°C
Outdoor Dry-bulb temperature 35°C

Heating: Indoor Dry-bulb temperature 20°C
Outdoor Dry-bulb temperature 7°C Wet-bulb temperature 6°C

*1 Measured under rated operating frequency.



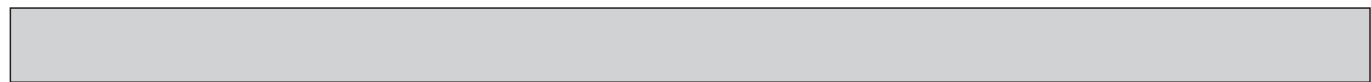
Outdoor model				MUZ-AP71VG		MUZ-AP71VG2		MUZ-AP71VG3		
Power supply				Single phase, 230 V, 50 Hz						
Capacity Rated (Min.-Max.)			Cooling	kW	7.1 (2.0 - 8.7)	7.1 (2.0 - 8.7)		7.1 (2.0 - 8.7)		
			Heating		8.0 (2.2 - 10.3)	8.0 (2.2 - 10.3)		8.0 (2.2 - 10.3)		
Breaker Capacity				A	20	20		20		
Electrical data	Power input *1 (Set)		Cooling	W	2,010	2,010		2,010		
			Heating		2,120	2,120		2,120		
	Running current *1 (Set)		Cooling	A	8.80	8.80		8.80		
			Heating		9.30	9.30		9.30		
	Power factor *1 (Set)		Cooling	%	99	99		99		
			Heating		99	99		99		
	Starting current *1 (Set)			A	9.3	9.3		9.3		
Coefficient of performance (COP) *1 (Set)			Cooling	3.53		3.53		3.53		
			Heating	3.82		3.82		3.82		
Compressor		Model		SVB172FCKMT		SVB172FCKMT		SVB172FCKMT		
		Output		W	1,200	1,200		1,200		
		Current *1	Cooling	A	7.49	7.49		7.49		
			Heating		8.02	8.02		8.02		
		Refrigeration oil (Model)		L	0.40 (FW68S)	0.40 (FW68S)		0.40 (FW68S)		
Fan motor		Model		RC0J77-AG		RC0J55-EB		RC0J55-EB		
		Current *1	Cooling	A	0.93	0.93		0.93		
			Heating		0.88	0.88		0.88		
Dimensions W × H × D				mm	840 × 880 × 330		840 × 880 × 330		840 × 880 × 330	
Weight				kg	55		53		53	
Special remarks	Dehumidification		Cooling	L/h	2.4	2.4		2.4		
	Airflow *1	Cooling	High	m³/h	3,246	3,822		3,822		
			Med.		2,958	3,822		3,822		
			Low		1,566	1,500		1,728		
		Heating	High		2,958	3,462		3,462		
			Med.		2,874	3,462		3,462		
			Low		2,334	2,784		1,824		
	Sound level *1		Cooling	dB(A)	56	56		56		
			Heating		55	55		55		
	Fan speed	Cooling	High	rpm	950	900		900		
			Med.		840	880		880		
			Low		450	370		420		
		Heating	High		840	800		800		
			Med.		810	800		800		
			Low		650	650		440		
	Fan speed regulator				3					
	Refrigerant filling capacity (R32)				kg	1.50		1.50		1.50

NOTE: Test conditions are based on ISO 5151.

Cooling: Indoor Dry-bulb temperature 27°C Wet-bulb temperature 19°C
Outdoor Dry-bulb temperature 35°C

Heating: Indoor Dry-bulb temperature 20°C
Outdoor Dry-bulb temperature 7°C Wet-bulb temperature 6°C

*1 Measured under rated operating frequency.



Specifications and rated conditions of main electric parts

Model		MUZ-AP25VG	MUZ-AP25VGH	MUZ-AP35VG	MUZ-AP35VGH	MUZ-AP42VG	MUZ-AP42VGH	MUZ-AP50VG	MUZ-AP50VGH
Smoothing capacitor	(C61)	—				600 μF/ 620 μF 420 V			
	(C62, C63)	600 μF/ 620 μF 420 V							
Diode module	(DB61)	15 A 600 V						25 A 600 V	
	(DB65)	25 A 600 V							
Fuse	(F61)	25A 250V							
	(F62)	15A 250V							
	(F701, F801, F901)	T3.15AL250V							
Defrost heater	(H)	—	230 V 60W	—	230 V 60W	—	230 V 60W	—	230 V 130W
Power module	(IC700)	15 A 600 V				20 A 600 V			
	(IC932)	5 A 600 V							
Expansion valve coil	(LEV)	12 V DC							
Reactor	(L61)	18 mH			23 mH				
Switch power transistor	(Q821)	30 A/37 A 600 V							
Circuit protection	(PTC64, PTC65)	33 Ω							
Terminal block	(TB1)	5 P							
Relay	(X63)	3 A 250 V							
	(X64)	20 A 250 V							
	(X66)	—	3 A 250 V	—	3 A 250 V	—	3 A 250 V	—	3 A 250 V
	(X69)	10 A 230 V							
R.V.coil	(21S4)	220 - 240 V AC							
Heater protector	(26H)	—	Open 45°C	—	Open 45°C	—	Open 45°C	—	Open 45°C

Item	Model	MUZ-AP60VG	Item	Model	MUZ-AP60VG2
Smoothing capacitor	(C61, C62, C63)	600 μF/ 620 μF 420 V	Smoothing capacitor	(C61, C62)	800uF 420V
Diode module	(DB61)	25 A 600 V	Diode module	(DB61)	25 A 600 V
	(DB65)	25 A 600 V		(DB65)	25 A 600 V
Fuse	(F61)	25A 250V	Fuse	(F61)	25A 250V
	(F62)	15A 250V		(F62)	15A 250V
	(F701, F801, F901)	T3.15AL250V		(F701, F801, F901)	T3.15AL250V
Power module	(IC700)	20 A 600 V	Power module	(IC700)	15A 600V
	(IC932)	5 A 600 V		(IC932)	5 A 600 V
Expansion valve coil	(LEV)	12 V DC	Expansion valve coil	(LEV)	12 V DC
Reactor	(L61)	23 mH	Reactor	(L61)	23 mH
Switch power transistor	(Q821)	30 A/ 37 A 600 V	Switch power transistor	(Q821)	30 A/ 37 A 600 V
Circuit protection	(PTC64, PTC65)	33 Ω	Circuit protection	(PTC64, PTC65)	33 Ω
Terminal block	(TB1)	5 P	Terminal block	(TB1)	5 P
Relay	(X63)	3 A 250 V	Relay	(X63)	3 A 250 V
	(X64)	20 A 250 V		(X64)	20 A 250 V
	(X69)	10 A 230 V		(X69)	10 A 230 V
R.V.coil	(21S4)	220 - 240 V AC	R.V.coil	(21S4)	220 - 240 V AC



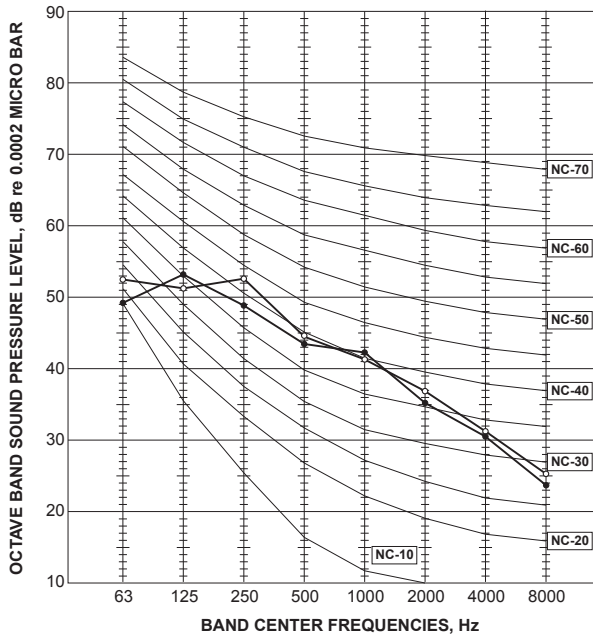
Model		MUZ-AP71VG
Item		
Smoothing capacitor	(CB1, CB2, CB3)	560 µF 450 V
Fuse	(F601, F880, F901)	T3.15AL250V
Switching power transistor	(Q3A, Q3B)	21 A 650 V
Power module	(IC932)	5 A 600 V
	(IC700)	20 A 600 V
Expansion valve coil	(LEV)	12 V DC
Reactor	(L)	282 µH
Diode	(D3A, D3B)	20 A 600 V
Diode module	(DB41A, DB41B)	25 A 600 V
Circuit protection	(PTC64, PTC65)	33 Ω
Terminal block	(TB1, TB2)	3 P
Relay	(X64)	20 A 250 V
	(X65)	20 A 250 V
	(X69)	10 A 250 V
	(X601)	3 A 250 V
	(X602)	3 A 250 V
R.V. coil	(21S4)	220-240 V AC

Model		MUZ-AP71VG2
Item		
Smoothing capacitor	(CB1, CB2, CB3)	560 µF 450 V
Fuse	(F61)	25 A 250V
	(F62)	15 A 250V
	(F601, F880, F901)	T3.15AL250V
Switching power transistor	(Q3A, Q3B)	30 A 650 V
Power module	(IC932)	5 A 600 V
	(IC700)	20 A 600 V
Expansion valve coil	(LEV)	12 V DC
Reactor	(L)	282 µH
Diode	(D3A, D3B)	20 A 600 V
Diode module	(DB41)	25 A 600 V
Circuit protection	(PTC64, PTC65)	33 Ω
Terminal block	(TB1)	5 P
Relay	(X64)	20 A 250 V
	(X65)	20 A 250 V
	(X69)	10 A 250 V
	(X602)	3 A 250 V
R.V. coil	(21S4)	220-240 V AC

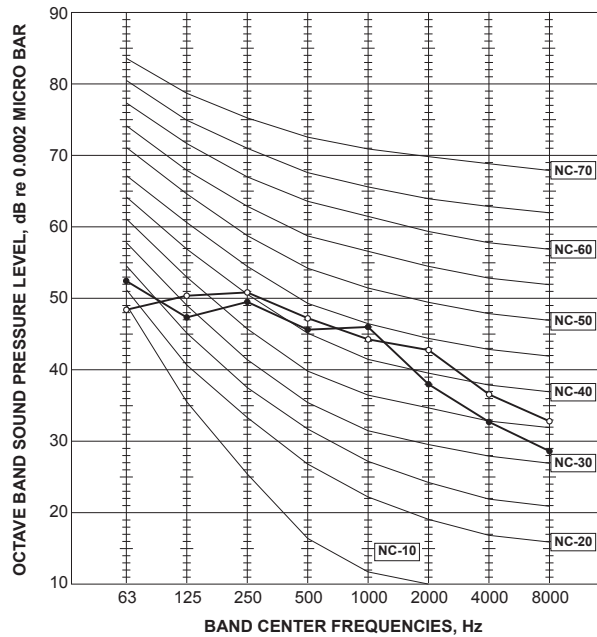
Model		MUZ-AP71VG3
Item		
Smoothing capacitor	(CB1, CB2, CB3)	560 µF 450 V
Fuse	(F61)	25 A 250V
	(F62)	15 A 250V
	(F601, F880, F901)	T3.15AL250V
Switching power transistor	(Q3A, Q3B)	30 A 650 V
Power module	(IC932)	5 A 600 V
	(IC700)	20 A 600 V
Expansion valve coil	(LEV)	12 V DC
Reactor	(L61)	282 µH
Diode	(D3A, D3B)	20 A 600 V
Diode module	(DB41)	25 A 600 V
Circuit protection	(PTC64, PTC65)	33 Ω
Terminal block	(TB1)	5 P
Relay	(X64)	20 A 250 V
	(X65)	20 A 250 V
	(X69)	10 A 250 V
	(X602)	3 A 250 V
R.V. coil	(21S4)	220-240 V AC

MUZ-AP25VG
MUZ-AP25VGH

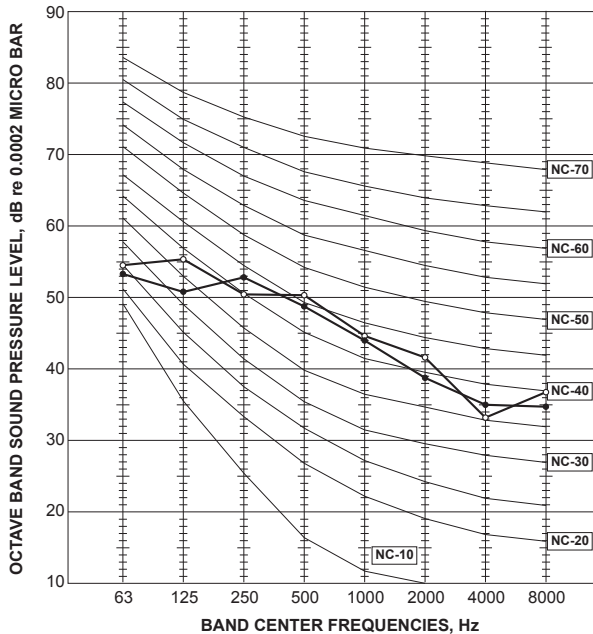
FUNCTION	SPL(dB(A))	LINE
COOLING	47	●—●
HEATING	48	○—○


MUZ-AP35VG
MUZ-AP35VGH

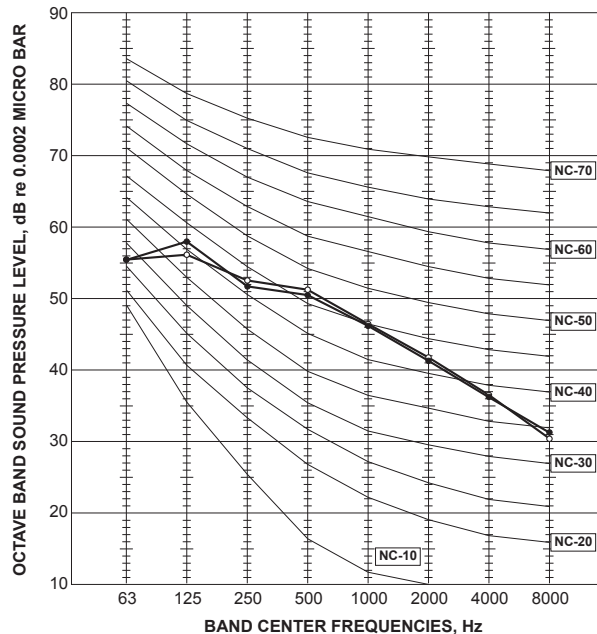
FUNCTION	SPL(dB(A))	LINE
COOLING	49	●—●
HEATING	50	○—○


MUZ-AP42VG
MUZ-AP42VGH

FUNCTION	SPL(dB(A))	LINE
COOLING	50	●—●
HEATING	51	○—○

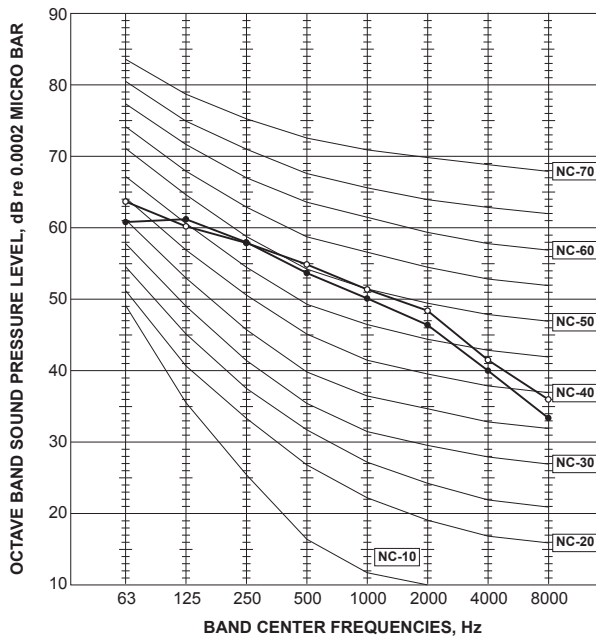

MUZ-AP50VG
MUZ-AP50VGH

FUNCTION	SPL(dB(A))	LINE
COOLING	52	●—●
HEATING	52	○—○



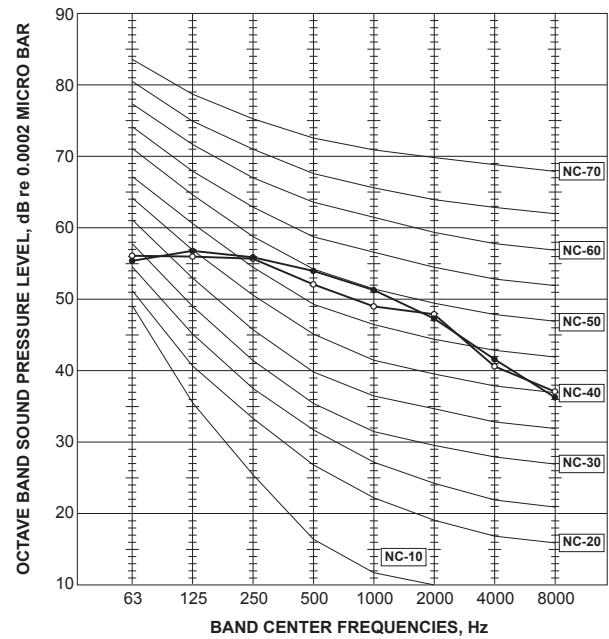
MUZ-AP60VG MUZ-AP60VG2

FUNCTION	SPL(dB(A))	LINE
COOLING	56	●—●
HEATING	57	○—○



MUZ-AP71VG MUZ-AP71VG2 MUZ-AP71VG3

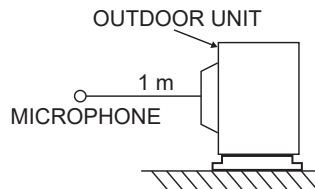
FUNCTION	SPL(dB(A))	LINE
COOLING	56	●—●
HEATING	55	○—○



Test conditions

Cooling: Dry-bulb temperature 35°C

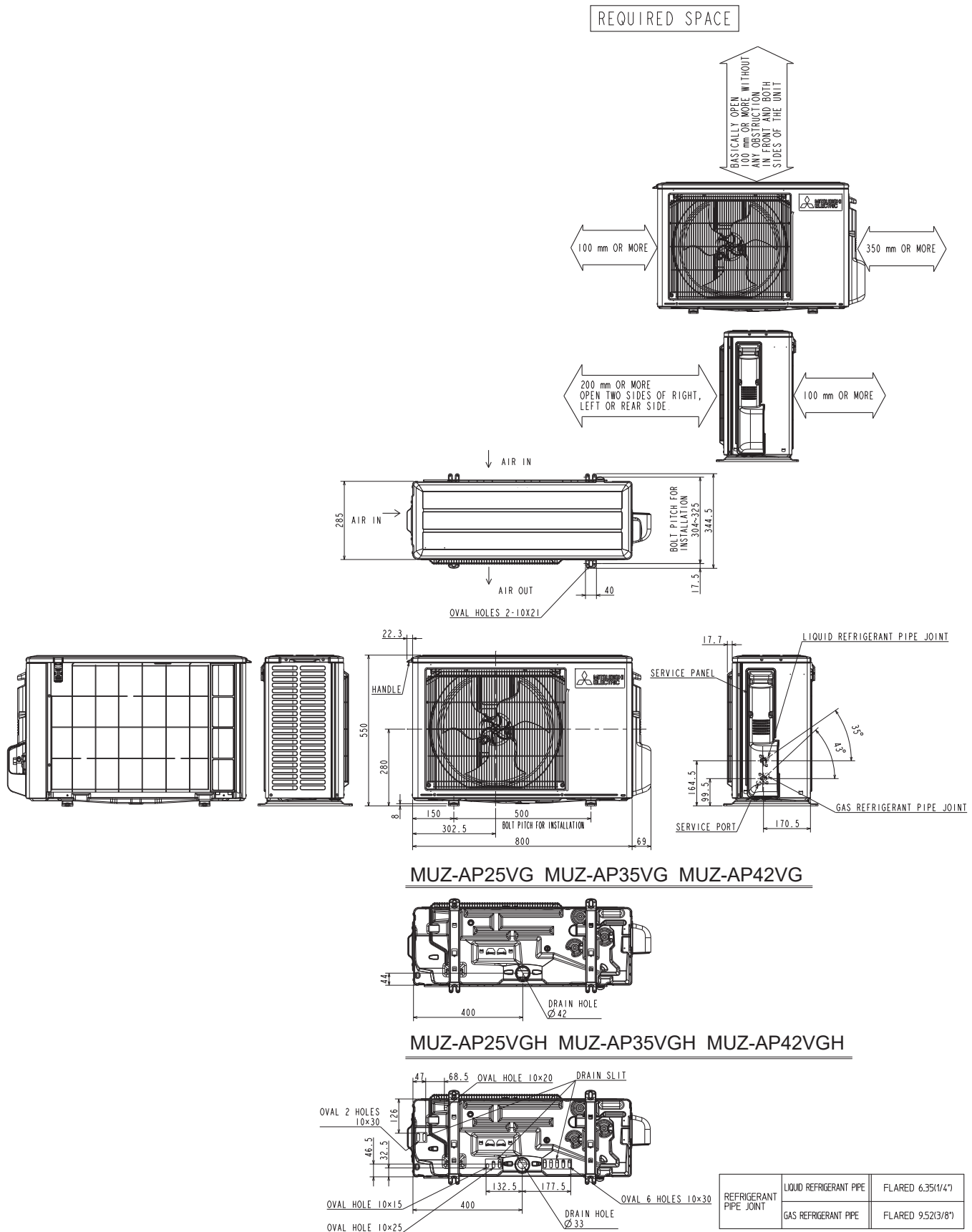
Heating: Dry-bulb temperature 7°C Wet-bulb temperature 6°C



OUTLINES AND DIMENSIONS

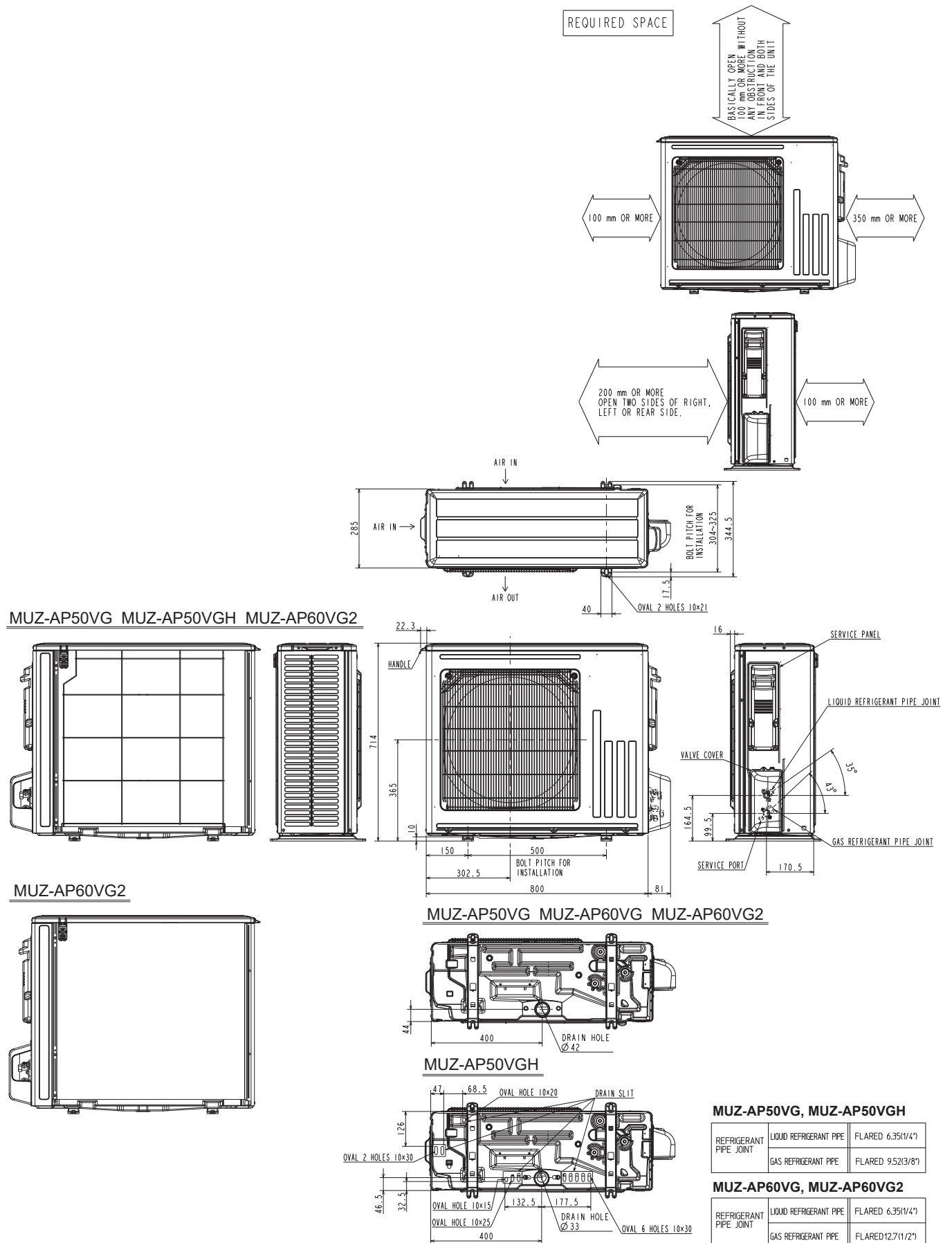
MUZ-AP25VG MUZ-AP35VG MUZ-AP42VG
MUZ-AP25VGH MUZ-AP35VGH MUZ-AP42VGH

Unit: mm



MUZ-AP50VG MUZ-AP60VG
MUZ-AP50VGH MUZ-AP60VG2

Unit: mm

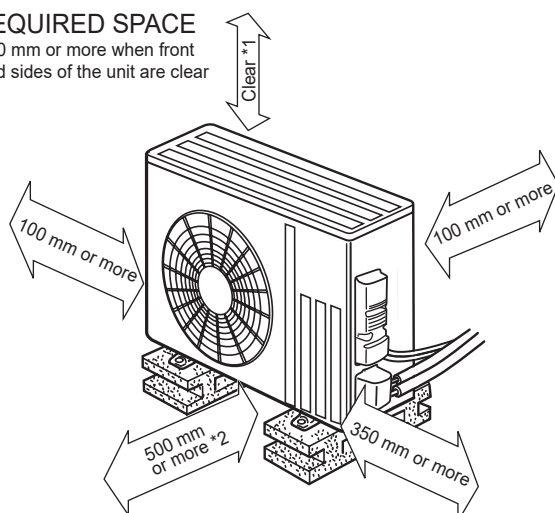
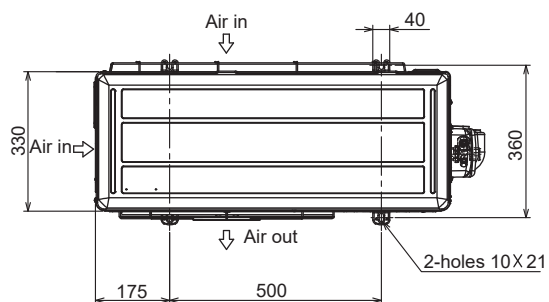


MUZ-AP71VG

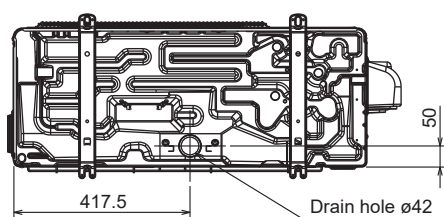
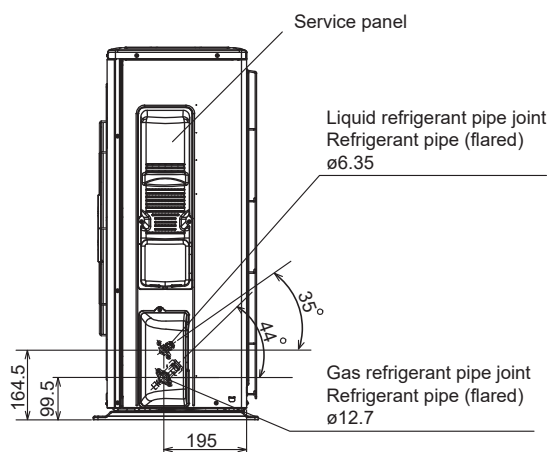
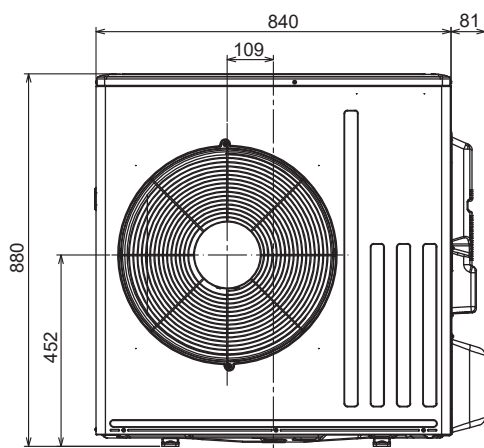
Unit: mm

REQUIRED SPACE

*1: 500 mm or more when front and sides of the unit are clear



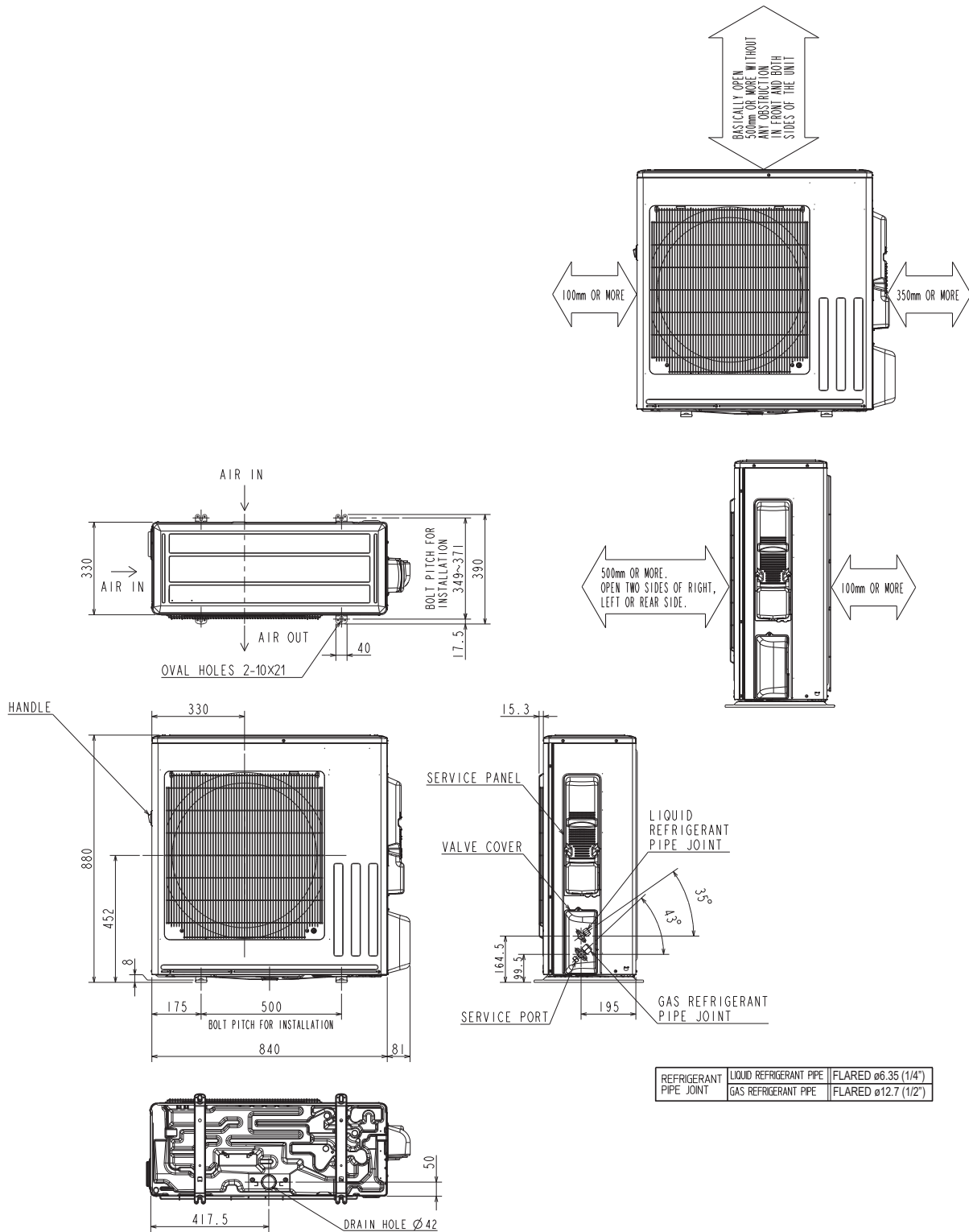
*2: When any 2 sides of left, right and rear of the unit are clear

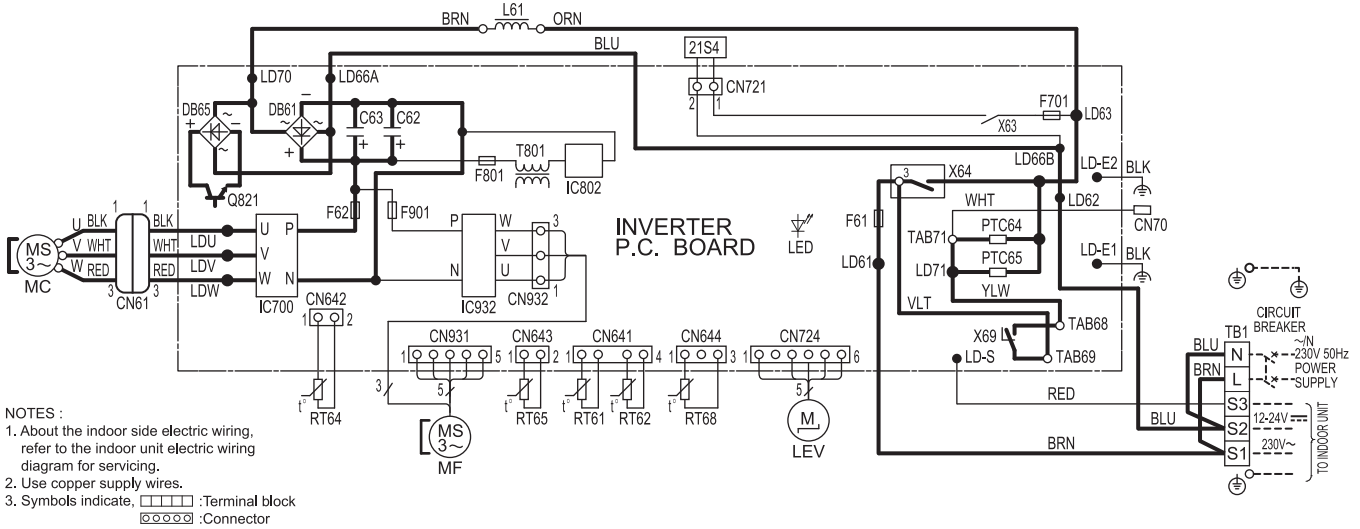


MUZ-AP71VG3

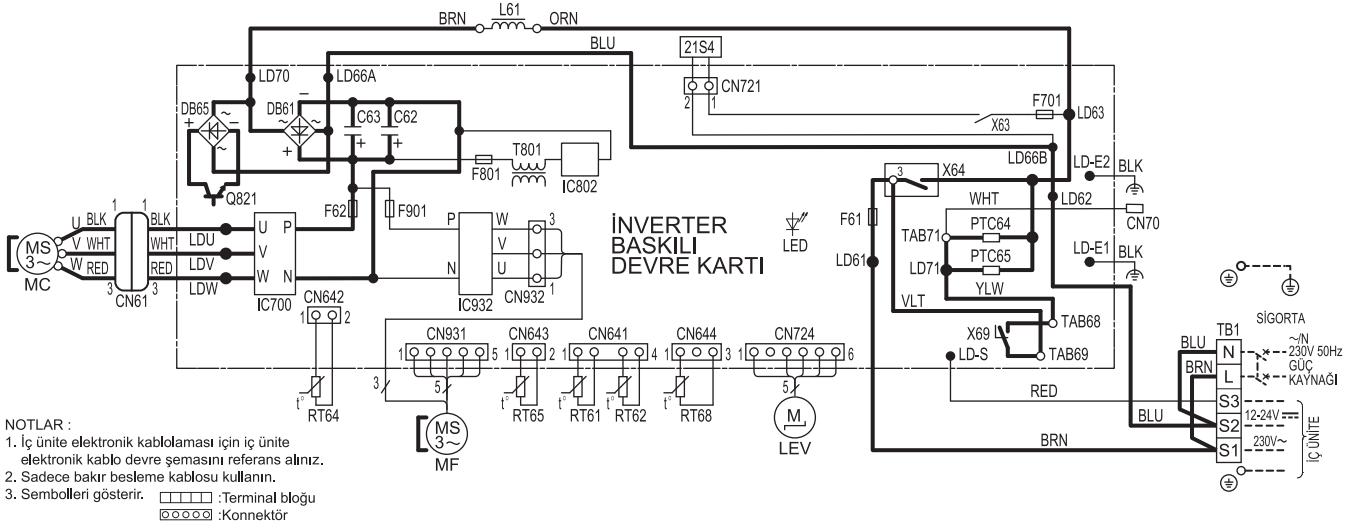
Unit: mm

REQUIRED SPACE



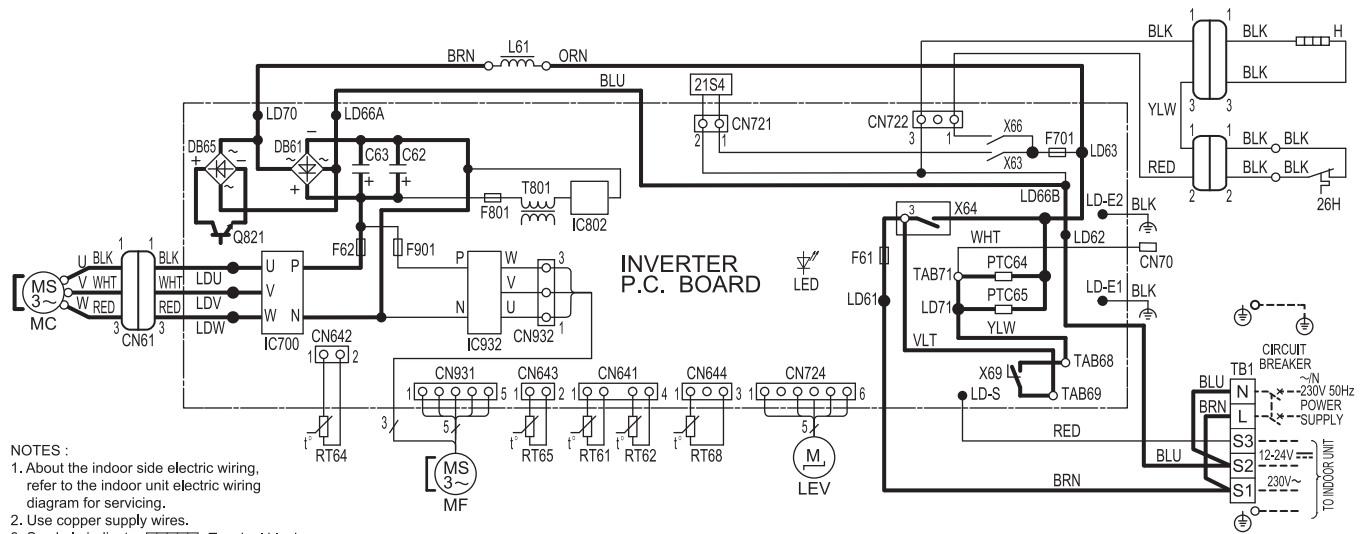
MUZ-AP25VG - [E1, E2, ER2, E3, ER3] MUZ-AP35VG - [E1, E2, ER2, E3, ER3]


SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CN61	CONNECTOR	LEV	EXPANSION VALVE COIL	RT65	AMBIENT TEMP. THERMISTOR
C62,C63	SMOOTHING CAPACITOR	L61	REACTOR	RT68	OUTDOOR HEAT EXCHANGER TEMP. THERMISTOR
DB61,DB65	DIODE MODULE	MC	COMPRESSOR	TB1	TERMINAL BLOCK
F61	FUSE (25A 250V)	MF	FAN MOTOR	T801	TRANSFORMER
F62	FUSE (15A 250V)	PTC64,PTC65	CIRCUIT PROTECTION	X63,X64,X69	RELAY
F701,F801,F901	FUSE (T3. 15AL250V)	Q821	SWITCHING POWER TRANSISTOR	21S4	REVERSING VALVE COIL
IC700,IC932	POWER MODULE	RT61	DEFROST THERMISTOR		
IC802	POWER DEVICE	RT62	DISCHARGE TEMP. THERMISTOR		
LED	LED	RT64	FIN TEMP. THERMISTOR		

MUZ-AP25VG - [ET1, ET2, ET3] MUZ-AP35VG - [ET1, ET2, ET3]


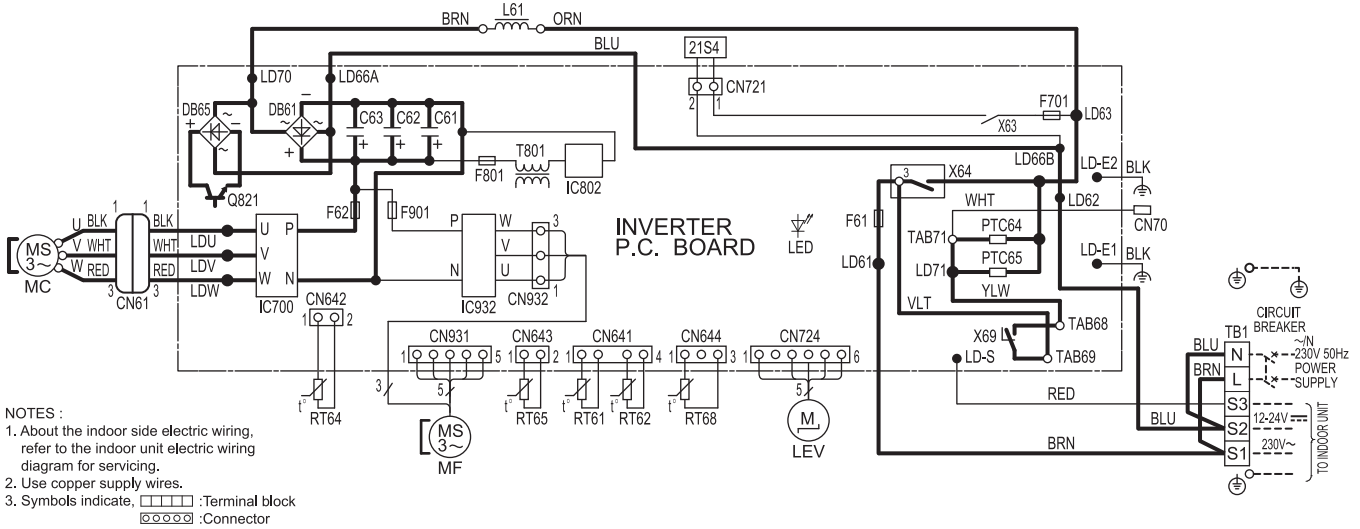
SEMBOL	PARÇA ADI	SEMBOL	PARÇA ADI	SEMBOL	PARÇA ADI
CN61	KONNEKTÖR	LEV	GENLEŞME VANASI SARGISI	RT65	ORTAM SICAKLIK TERMİSTÖRÜ
C62,C63	KAPASİTÖR	L61	REAKTÖR	RT68	DIŞ ÜNİTE EŞANJÖR SICAKLIK TERMİSTÖRÜ
DB61,DB65	DİYOT MODÜLÜ	MC	KOMPRESÖR	TB1	TERMINAL BLOĞU
F61	SİGORTA (25A 250V)	MF	FAN MOTORU	T801	TRANSFORMATÖR
F62	SİGORTA (15A 250V)	PTC64,PTC65	DEVRE KORUMASI	X63,X64,X69	RÖLE
F701,F801,F901	SİGORTA (T3. 15AL250V)	Q821	SİVİÇLİ GÜÇ TRANSİSTÖRÜ	21S4	4 YOLLU VANA SARGISI
IC700,IC932	GÜÇ MODÜLÜ	RT61	DEFROST TERMİSTÖRÜ		
IC802	GÜÇ CİHAZI	RT62	BASMA SICAKLIK TERMİSTÖRÜ		
LED	LED	RT64	FİN SICAKLIK TERMİSTÖRÜ		

MUZ-AP25VGH - [E1], [E2], [E3] MUZ-AP35VGH - [E1], [E2], [E3]



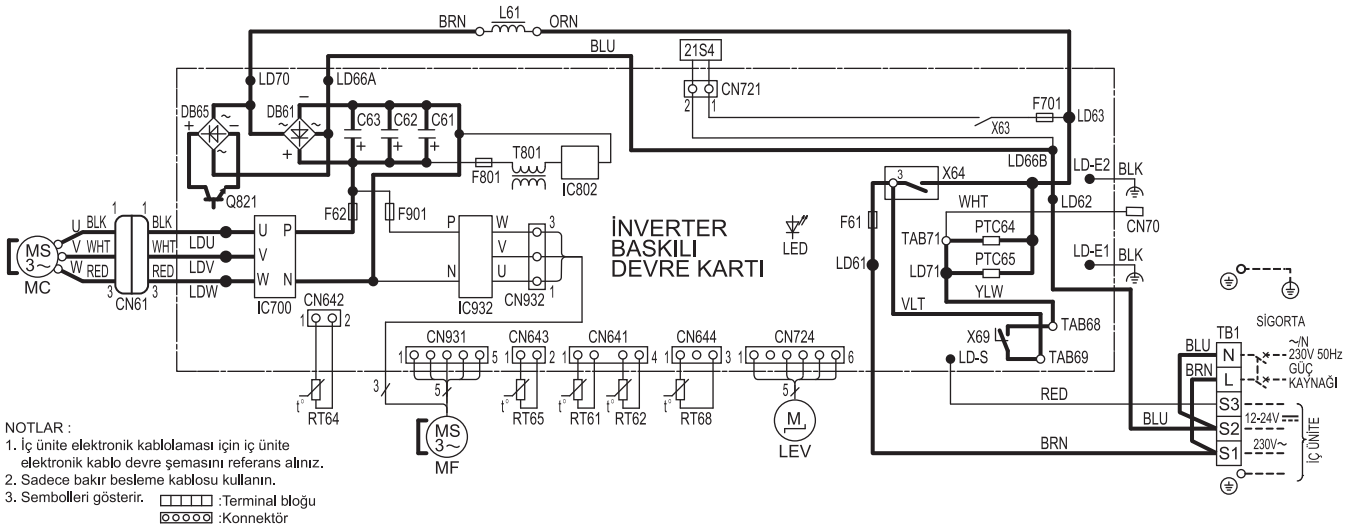
SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CN61	CONNECTOR	LED	LED	RT64	FIN TEMP. THERMISTOR
C62,C63	SMOOTHING CAPACITOR	LEV	EXPANSION VALVE COIL	RT65	AMBIENT TEMP. THERMISTOR
DB61,DB65	DIODE MODULE	L61	REACTOR	RT68	OUTDOOR HEAT EXCHANGER TEMP. THERMISTOR
F61	FUSE (25A 250V)	MC	COMPRESSOR	TB1	TERMINAL BLOCK
F62	FUSE (15A 250V)	MF	FAN MOTOR	T801	TRANSFORMER
F701,F801,F901	FUSE (T3. 15AL250V)	PTC64,PTC65	CIRCUIT PROTECTION	X63,X64,X66,X69	RELAY
H	DEFROST HEATER	Q821	SWITCHING POWER TRANSISTOR	21S4	REVERSING VALVE COIL
IC700,IC932	POWER MODULE	RT61	DEFROST THERMISTOR	26H	HEATER PROTECTOR
IC802	POWER DEVICE	RT62	DISCHARGE TEMP. THERMISTOR		

MUZ-AP42VG - [E1, E2, ER2]



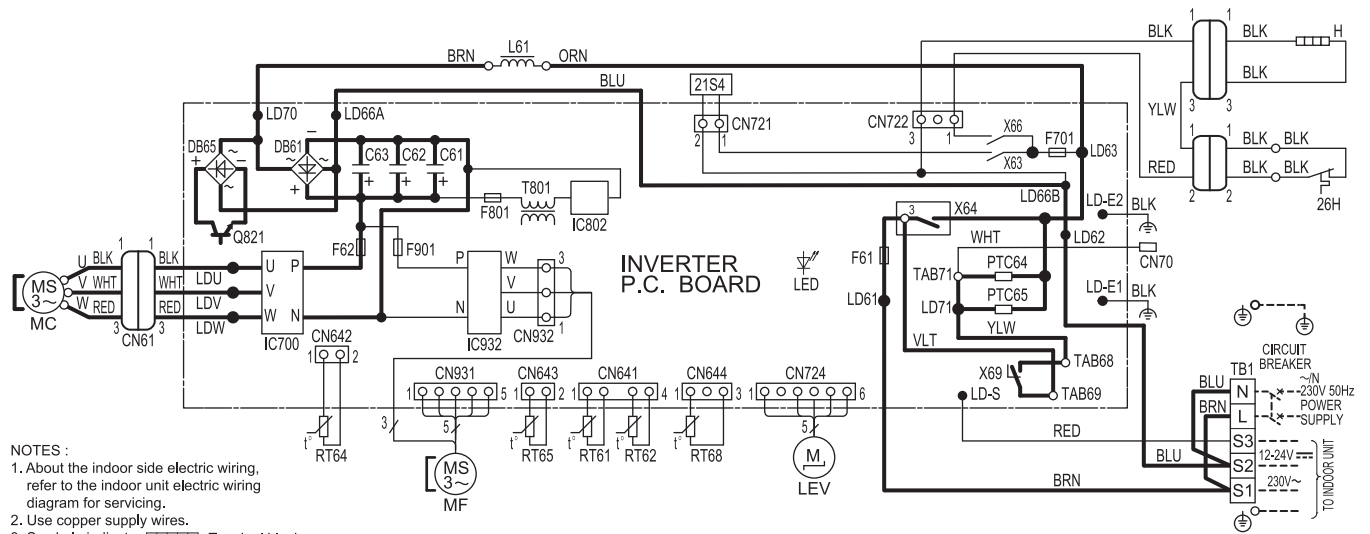
SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CN61	CONNECTOR	LEV	EXPANSION VALVE COIL	RT65	AMBIENT TEMP. THERMISTOR
C61,C62,C63	SMOOTHING CAPACITOR	L61	REACTOR	RT68	OUTDOOR HEAT EXCHANGER TEMP. THERMISTOR
DB61,DB65	DIODE MODULE	MC	COMPRESSOR	TB1	TERMINAL BLOCK
F61	FUSE (25A 250V)	MF	FAN MOTOR	T801	TRANSFORMER
F62	FUSE (15A 250V)	PTC64,PTC65	CIRCUIT PROTECTION	X63,X64,X69	RELAY
F701,F801,F901	FUSE (T3. 15AL250V)	Q821	SWITCHING POWER TRANSISTOR	21S4	REVERSING VALVE COIL
IC700,IC932	POWER MODULE	RT61	DEFROST THERMISTOR		
IC802	POWER DEVICE	RT62	DISCHARGE TEMP. THERMISTOR		
LED	LED	RT64	FIN TEMP. THERMISTOR		

MUZ-AP42VG - [ET1, ET2]



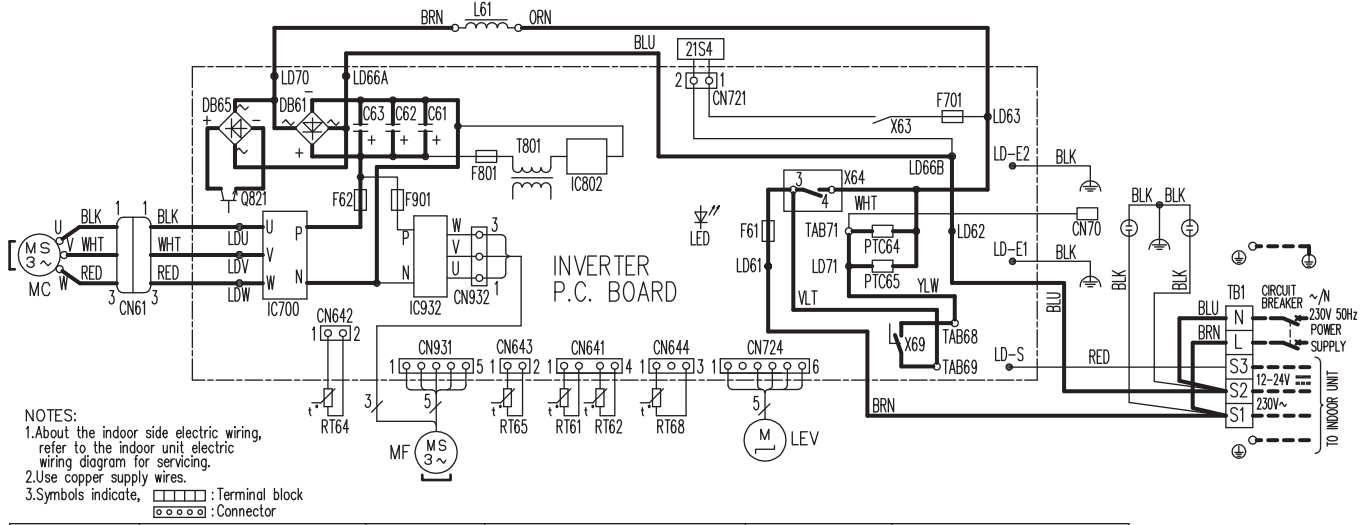
SEMBOL	PARÇA ADI	SEMBOL	PARÇA ADI	SEMBOL	PARÇA ADI
CN61	KONNEKTÖR	LEV	GENLEŞME VANASI SARGISI	RT65	ORTAM SICAKLIK TERMİSTÖRÜ
C61,C62,C63	KAPASİTÖR	L61	REAKTÖR	RT68	DIŞ ÜNİTE EŞANJÖR SICAKLIK TERMİSTÖRÜ
DB61,DB65	DİYOT MODÜLÜ	MC	KOMPRESÖR	TB1	TERMINAL BLOĞU
F61	SİGORTA (25A 250V)	MF	FAN MOTORU	T801	TRANSFORMATÖR
F62	SİGORTA (15A 250V)	PTC64,PTC65	DEVRE KORUMASI	X63,X64,X69	RÖLE
F701,F801,F901	SİGORTA (T3. 15AL250V)	Q821	SİVİÇLİ GÜÇ TRANSİSTÖRÜ	21S4	4 YOLLU VANA SARGISI
IC700,IC932	GÜÇ MODÜLÜ	RT61	DEFROST TERMİSTÖRÜ		
IC802	GÜÇ CİHAZI	RT62	BASMA SICAKLIK TERMİSTÖRÜ		
LED	LED	RT64	FİN SICAKLIK TERMİSTÖRÜ		

MUZ-AP42VGH - [E1], [E2]



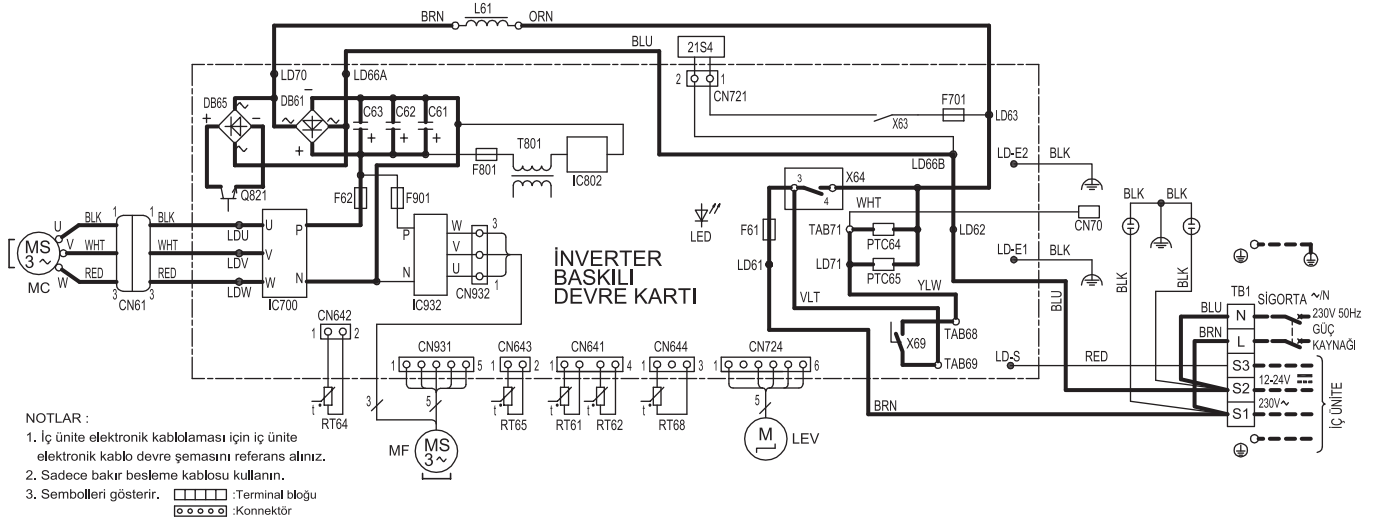
SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CN61	CONNECTOR	LED	LED	RT64	FIN TEMP. THERMISTOR
C61,C62,C63	SMOOTHING CAPACITOR	LEV	EXPANSION VALVE COIL	RT65	AMBIENT TEMP. THERMISTOR
DB61,DB65	DIODE MODULE	L61	REACTOR	RT68	OUTDOOR HEAT EXCHANGER TEMP. THERMISTOR
F61	FUSE (25A 250V)	MC	COMPRESSOR	TB1	TERMINAL BLOCK
F62	FUSE (15A 250V)	MF	FAN MOTOR	T801	TRANSFORMER
F701,F801,F901	FUSE (T3. 15AL250V)	PTC64,PTC65	CIRCUIT PROTECTION	X63,X64,X66,X69	RELAY
H	DEFROST HEATER	Q821	SWITCHING POWER TRANSISTOR	21S4	REVERSING VALVE COIL
IC700,IC932	POWER MODULE	RT61	DEFROST THERMISTOR	26H	HEATER PROTECTOR
IC802	POWER DEVICE	RT62	DISCHARGE TEMP. THERMISTOR		

MUZ-AP50VG - [E1, E1R1, E2]



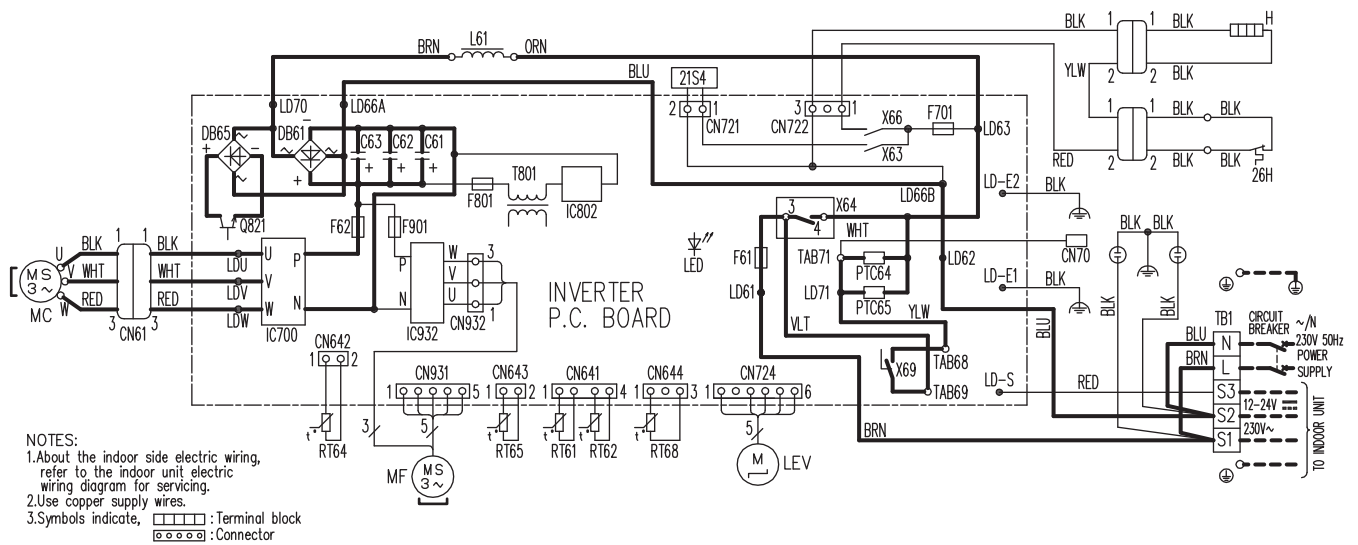
SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CN61	CONNECTOR	LEV	EXPANSION VALVE COIL	RT65	AMBIENT TEMP. THERMISTOR
C61,C62,C63	SMOOTHING CAPACITOR	L61	REACTOR	RT68	OUTDOOR HEAT EXCHANGER TEMP. THERMISTOR
DB61,DB65	DIODE MODULE	MC	COMPRESSOR	TB1	TERMINAL BLOCK
F61	FUSE (25A 250V)	MF	FAN MOTOR	T801	TRANSFORMER
F62	FUSE (15A 250V)	PTC64,PTC65	CIRCUIT PROTECTION	X63,X64,X69	RELAY
F701,F801,F901	FUSE (T3.15A1250V)	Q821	SWITCHING POWER TRANSISTOR	21S4	REVERSING VALVE COIL
IC700,IC932	POWER MODULE	RT61	DEFROST THERMISTOR		
IC802	POWER DEVICE	RT62	DISCHARGE TEMP. THERMISTOR		
LED	LED	RT64	FIN TEMP. THERMISTOR		

MUZ-AP50VG - [ET1]



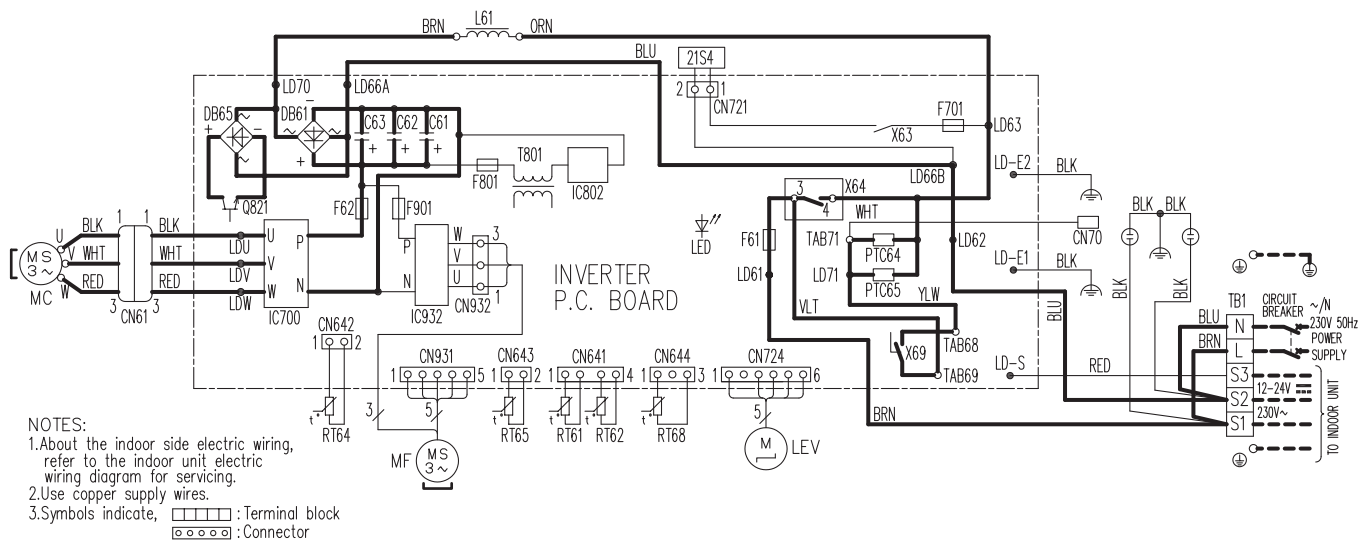
SEMBOL	PARÇA ADI	SEMBOL	PARÇA ADI	SEMBOL	PARÇA ADI
CN61	KONNEKTÖR	LEV	GENLEŞME VANASI SARGISI	RT65	ORTAM SICAKLIK TERMİSTÖRÜ
C61,C62,C63	KAPASİTÖR	L61	REAKTÖR	RT68	DIŞ ÜNİTE EŞANJÖR SICAKLIK TERMİSTÖRÜ
DB61,DB65	DIYOT MODÜLÜ	MC	KOMPRESÖR	TB1	TERMINAL BLOĞU
F61	SİGORTA (25A 250V)	MF	FAN MOTORU	T801	TRANSFORMATÖR
F62	SİGORTA (15A 250V)	PTC64,PTC65	DEVRE KORUMASI	X63,X64,X69	RÖLE
F701,F801,F901	SİGORTA (T3. 15A1250V)	Q821	SİVİÇLİ GÜÇ TRANSİSTÖRÜ	21S4	4 YOLLU VANA SARGISI
IC700,IC932	GÜÇ MODÜLÜ	RT61	DEFROST TERMİSTÖRÜ		
IC802	GÜÇ CİHAZI	RT62	BASMA SICAKLIK TERMİSTÖRÜ		
LED	LED	RT64	FİN SICAKLIK TERMİSTÖRÜ		

MUZ-AP50VGH - [E1], [E2]



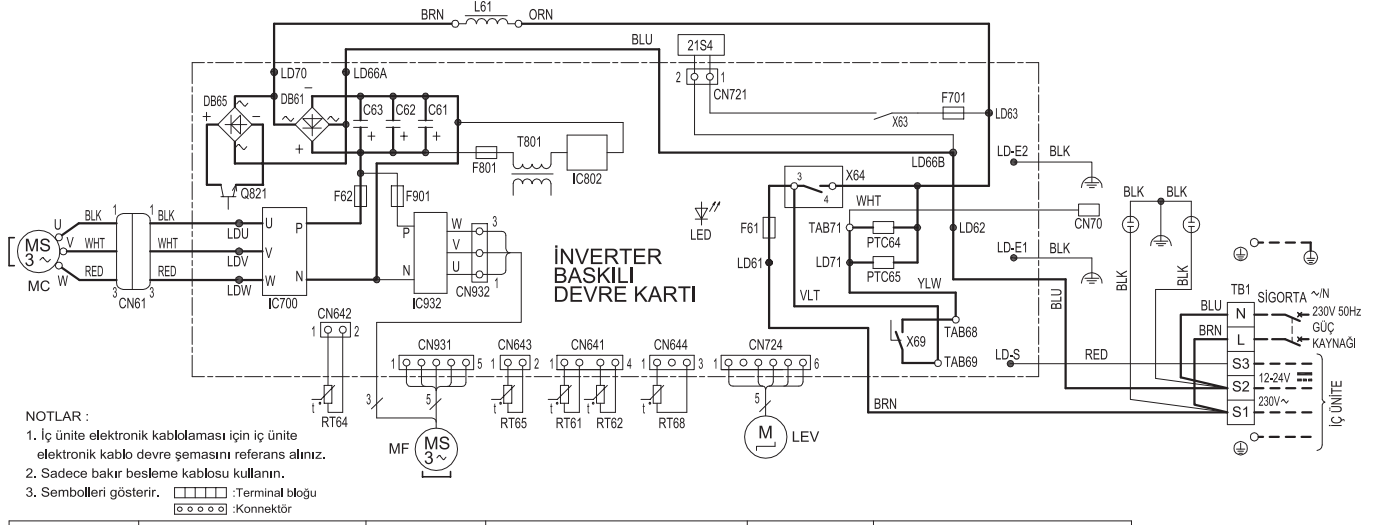
SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CN61	CONNECTOR	LED	LED	RT64	FIN TEMP. THERMISTOR
C61,C62,C63	SMOOTHING CAPACITOR	LEV	EXPANSION VALVE COIL	RT65	AMBIENT TEMP. THERMISTOR
DB61,DB65	DIODE MODULE	L61	REACTOR	RT68	OUTDOOR HEAT EXCHANGER TEMP. THERMISTOR
F61	FUSE (25A 250V)	MC	COMPRESSOR	TB1	TERMINAL BLOCK
F62	FUSE (15A 250V)	MF	FAN MOTOR	T801	TRANSFORMER
F701,F801,F901	FUSE (T3.15AL250V)	PTC64,PTC65	CIRCUIT PROTECTION	X63,X64,X66,X69	RELAY
H	DEFROST HEATER	Q821	SWITCHING POWER TRANSISTOR	21S4	REVERSING VALVE COIL
IC700,IC932	POWER MODULE	RT61	DEFROST THERMISTOR	26H	HEATER PROTECTOR
IC802	POWER DEVICE	RT62	DISCHARGE TEMP. THERMISTOR		

MUZ-AP60VG - [E1], [ER1], [E2]



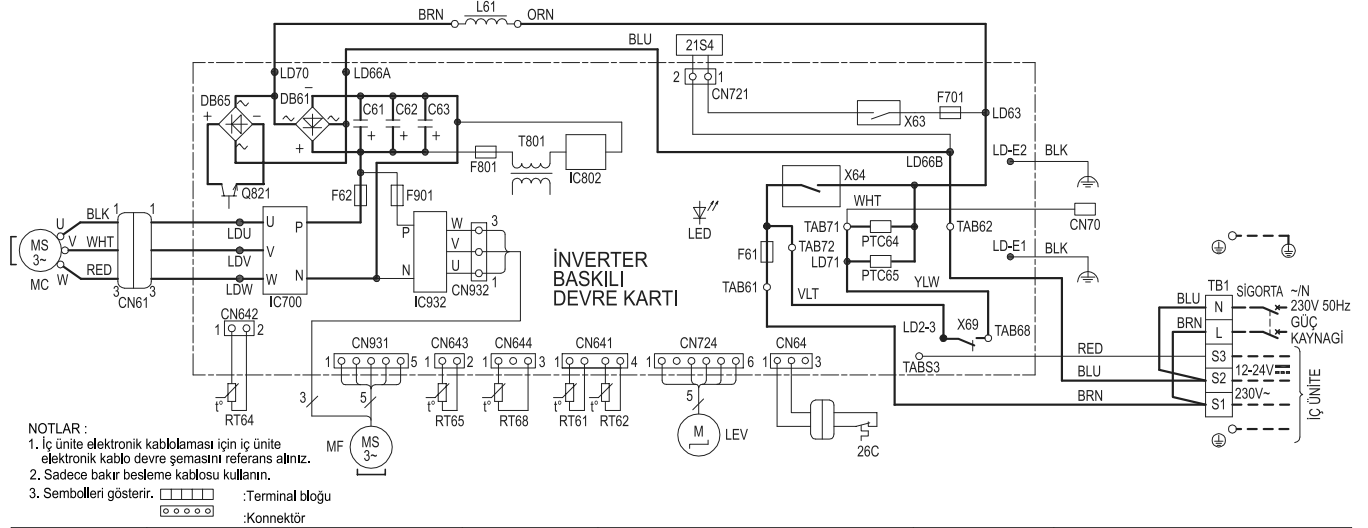
SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CN61	CONNECTOR	LEV	EXPANSION VALVE COIL	RT65	AMBIENT TEMP. THERMISTOR
C61,C62,C63	SMOOTHING CAPACITOR	L61	REACTOR	RT68	OUTDOOR HEAT EXCHANGER TEMP. THERMISTOR
DB61,DB65	DIODE MODULE	MC	COMPRESSOR	TB1	TERMINAL BLOCK
F61	FUSE (25A 250V)	MF	FAN MOTOR	T801	TRANSFORMER
F62	FUSE (15A 250V)	PTC64,PTC65	CIRCUIT PROTECTION	X63,X64,X69	RELAY
F701,F801,F901	FUSE (T3.15AL250V)	Q821	SWITCHING POWER TRANSISTOR	21S4	REVERSING VALVE COIL
IC700,IC932	POWER MODULE	RT61	DEFROST THERMISTOR		
IC802	POWER DEVICE	RT62	DISCHARGE TEMP. THERMISTOR		
LED	LED	RT64	FIN TEMP. THERMISTOR		

MUZ-AP60VG -[ET1]



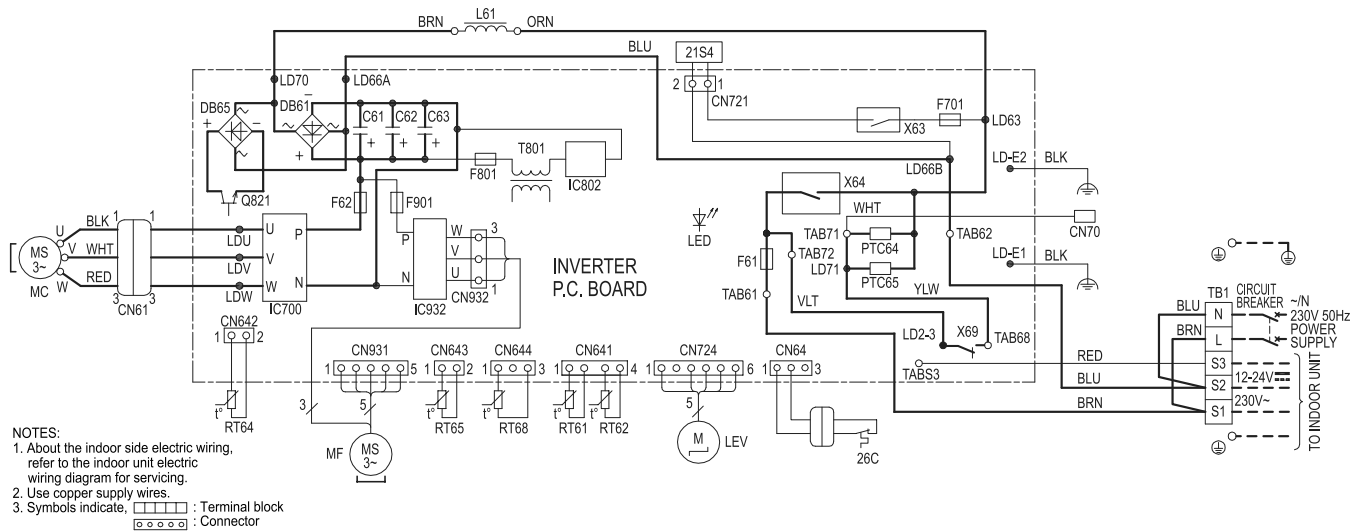
SEMBOL	PARÇA ADI	SEMBOL	PARÇA ADI	SEMBOL	PARÇA ADI
CN61	KONNEKTÖR	LEV	GENLEŞME VANASI SARGISI	RT65	ORTAM SICAKLIK TERMİSTÖRÜ
C61,C62,C63	KAPASİTÖR	L61	REAKTÖR	RT68	DIŞ ÜNİTE EŞANJÖR SICAKLIK TERMİSTÖRÜ
DB61,DB65	DİYOT MODÜLÜ	MC	KOMPRESÖR	TB1	TERMİNAL BLOĞU
F61	SİGORTA (25A 250V)	MF	FAN MOTORU	T801	TRANSFORMATÖR
F62	SİGORTA (15A 250V)	PTC64,PTC65	DEVRE KORUMASI	X63,X64,X69	RÖLE
F701,F801,F901	SİGORTA (T3. 15AL250V)	Q821	SIVIÇLI GÜÇ TRANSİSTÖRÜ	21S4	4 YOLLU VANA SARGISI
IC700,IC932	GÜÇ MODÜLÜ	RT61	DEFROST TERMİSTÖRÜ		
IC802	GÜÇ CİHAZI	RT62	BASMA SICAKLIK TERMİSTÖRÜ		
LED	LED	RT64	FİN SICAKLIK TERMİSTÖRÜ		

MUZ-AP60VG -[ET2]



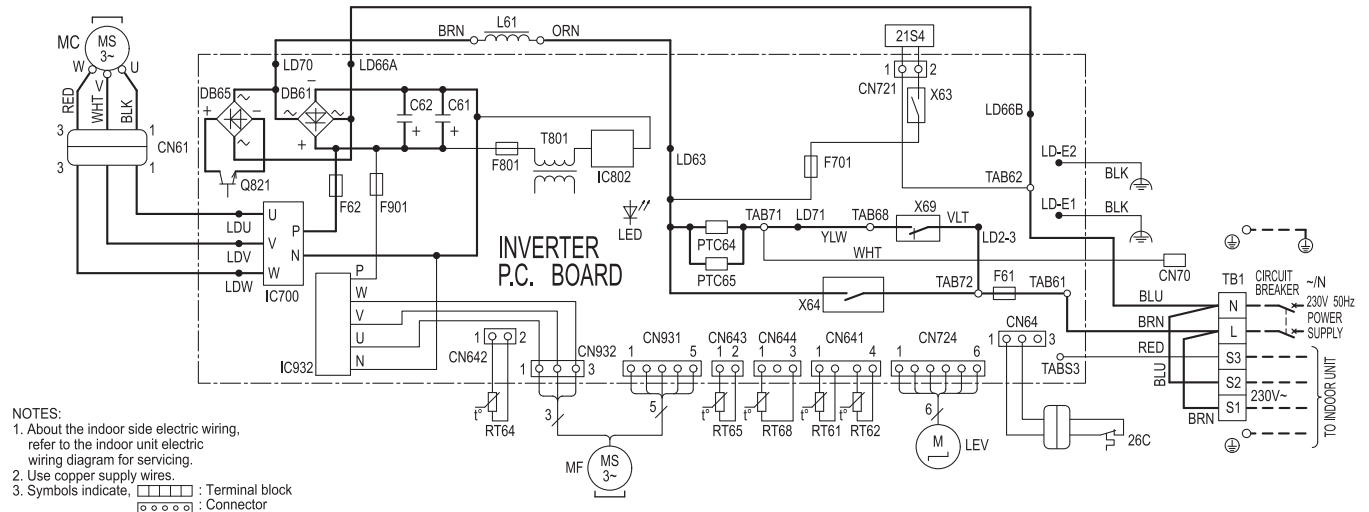
SEMBOL	PARÇA ADI	SEMBOL	PARÇA ADI	SEMBOL	PARÇA ADI
CN61	KONNEKTÖR	LEV	GENLEŞME VANASI SARGISI	RT65	ORTAM SICAKLIK TERMİSTÖRÜ
C61, C62, C63	KAPASİTÖR	L61	REAKTÖR	RT68	DIŞ ÜNİTE EŞANJÖR SICAKLIK TERMİSTÖRÜ
DB61, DB65	DİYOT MODÜLÜ	MC	KOMPRESÖR	TB1	TERMİNAL BLOĞU
F61	SİGORTA (25A 250V)	MF	FAN MOTORU	T801	TRANSFORMATÖR
F62	SİGORTA (15A 250V)	PTC64, PTC65	DEVRE KORUMASI	X63, X64, X69	RÖLE
F701, F801, F901	SİGORTA (T3. 15AL250V)	Q821	SIVIÇLI GÜÇ TRANSİSTÖRÜ	21S4	4 YOLLU VANA SARGISI
IC700, IC932	GÜÇ MODÜLÜ	RT61	DEFROST TERMİSTÖRÜ	26C	KOMPRESÖR KORUYUCU
IC802	GÜÇ CİHAZI	RT62	BASMA SICAKLIK TERMİSTÖRÜ		
LED	LED	RT64	FİN SICAKLIK TERMİSTÖRÜ		

MUZ-AP60VG - [E3]



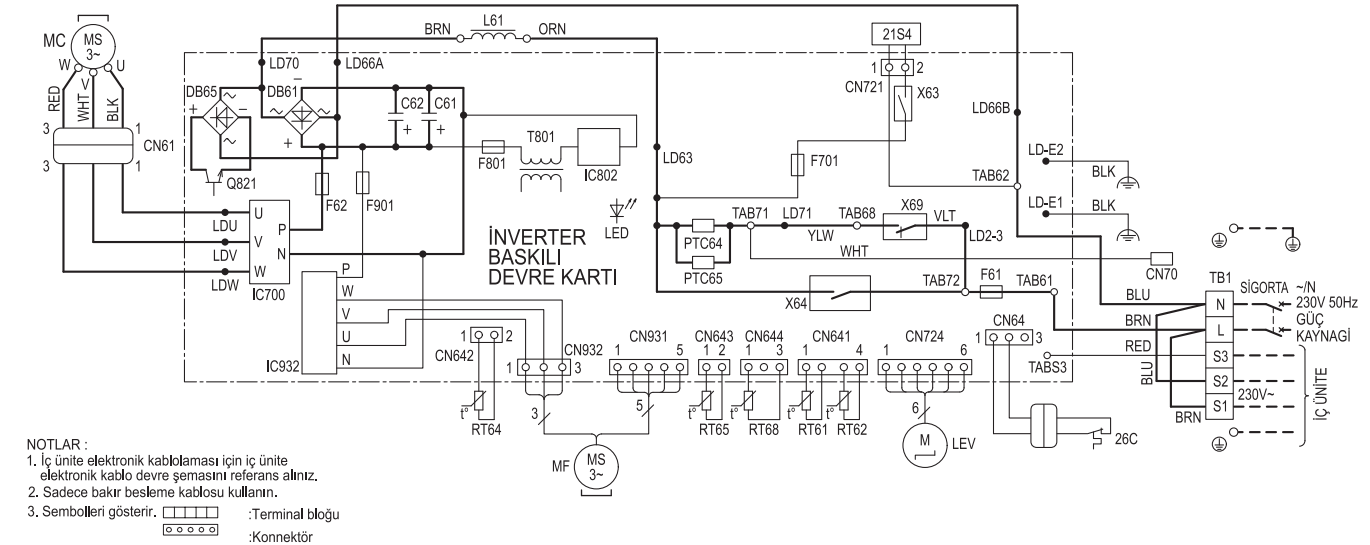
SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CN61	CONNECTOR	LEV	EXPANSION VALVE COIL	RT65	AMBIENT TEMP. THERMISTOR
C61, C62, C63	SMOOTHING CAPACITOR	L61	REACTOR	RT68	OUTDOOR HEAT EXCHANGER TEMP. THERMISTOR
DB61, DB65	DIODE MODULE	MC	COMPRESSOR	TB1	TERMINAL BLOCK
F61	FUSE (25A 250V)	MF	FAN MOTOR	T801	TRANSFORMER
F62	FUSE (15A 250V)	PTC64, PTC65	CIRCUIT PROTECTION	X63, X64, X69	RELAY
F701, F801, F901	FUSE (T3.15AL250V)	Q821	SWITCHING POWER TRANSISTOR	21S4	REVERSING VALVE COIL
IC700, IC932	POWER MODULE	RT61	DEFROST THERMISTOR	26C	COMPRESSOR PROTECTOR
IC802	POWER DEVICE	RT62	DISCHARGE. TEMP. THERMISTOR		
LED	LED	RT64	FIN TEMP. THERMISTOR		

MUZ-AP60VG2 - [E1]



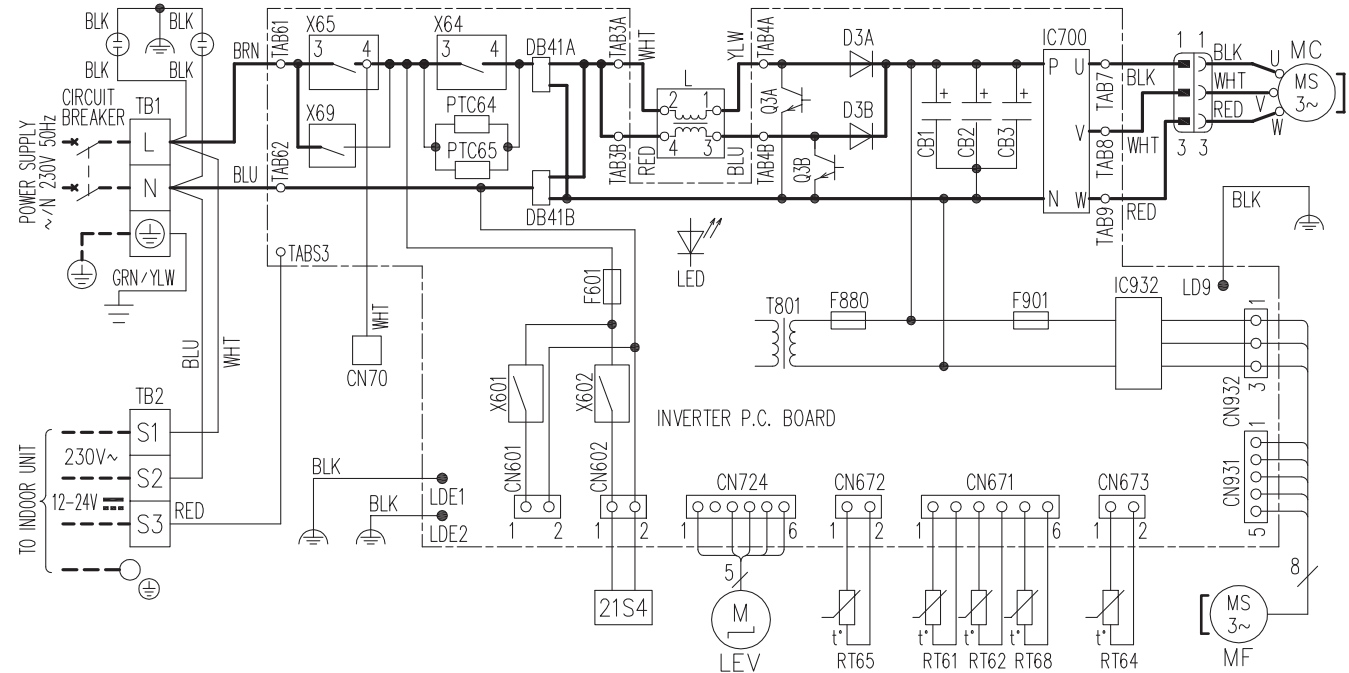
SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CN61	CONNECTOR	LEV	EXPANSION VALVE COIL	RT65	AMBIENT TEMP. THERMISTOR
C61, C62	SMOOTHING CAPACITOR	L61	REACTOR	RT68	OUTDOOR HEAT EXCHANGER TEMP. THERMISTOR
DB61, DB65	DIODE MODULE	MC	COMPRESSOR	TB1	TERMINAL BLOCK
F61	FUSE (25A 250V)	MF	FAN MOTOR	T801	TRANSFORMER
F62	FUSE (15A 250V)	PTC64, PTC65	CIRCUIT PROTECTION	X63, X64, X69	RELAY
F701, F801, F901	FUSE (T3.15AL250V)	Q821	SWITCHING POWER TRANSISTOR	21S4	REVERSING VALVE COIL
IC700, IC932	POWER MODULE	RT61	DEFROST THERMISTOR	26C	COMPRESSOR PROTECTOR
IC802	POWER DEVICE	RT62	DISCHARGE. TEMP. THERMISTOR		
LED	LED	RT64	FIN TEMP. THERMISTOR		

MUZ-AP60VG2 -[ET1]



SEMBOL	PARÇA ADI	SEMBOL	PARÇA ADI	SEMBOL	PARÇA ADI
CN61	KONEKTÖR	LEV	GENLEŞME VANASI SARGISI	RT65	ORTAM SICAKLIK TERMİSTÖRÜ
C61, C62	KAPASİTÖR	L61	REAKTÖR	RT68	DIŞ ÜNİTE EŞANJÖR SICAKLIK TERMİSTÖRÜ
DB61, DB65	DIYOT MODÜLÜ	MC	KOMPRESÖR	TB1	TERMINAL BLOĞU
F81	SIGORTA (25A 250V)	MF	FAN MOTORU	T801	TRANSFORMATÖR
F62	SIGORTA (15A 250V)	PTC64, PTC65	DEVRE KORUMASI	X63, X64, X69	ROLE
F701, F801, F901	SIGORTA (T3, 15A/250V)	Q821	SİVİÇLİ GÜÇ TRANSİSTÖRÜ	21S4	4 YOLLU VANA SARGISI
IC700, IC932	GÜÇ MODÜLÜ	RT61	DEFROST TERMİSTÖRÜ	26C	KOMPRESÖR KORUYUCU
IC802	GÜÇ CİHAZI	RT62	BASMA SICAKLIK TERMİSTÖRÜ		
LED	LED	RT64	FIN SICAKLIK TERMİSTÖRÜ		

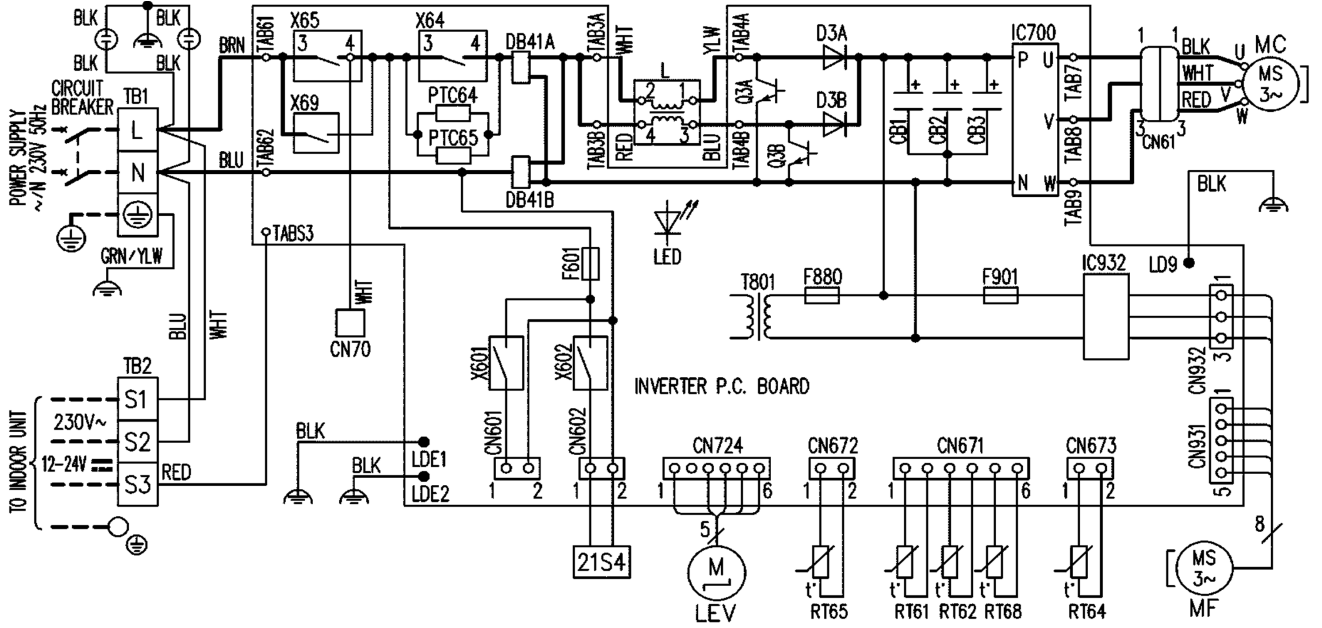
MUZ-AP71VG -[E1, ER1]



SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CB1, CB2, CB3	SMOOTHING CAPACITOR	L	REACTOR	RT61	DEFROST THERMISTOR	T801	TRANSFORMER
DB41A, DB41B	DIODE MODULE	LED	LED	RT62	DISCHARGE TEMP.THERMISTOR	X64, X65, X69	RELAY
D3A, D3B	DIODE	LEV	EXPANSION VALVE COIL	RT64	FIN TEMP.THERMISTOR	X601, X602	RELAY
F601	FUSE (T3.15A/250V)	MC	KOMPRESÖR	RT65	AMBIENT TEMP.THERMISTOR	21S4	REVERSING VALVE COIL
F880	FUSE (T3.15A/250V)	MF	FAN MOTOR	RT68	OUTDOOR HEAT EXCHANGER TEMP.THERMISTOR		
F901	FUSE (T3.15A/250V)	PTC64, PTC65	CIRCUIT PROTECTION	TB1, TB2	TERMINAL BLOCK		
IC700, IC932	POWER MODULE	Q3A, Q3B	SWITCHING POWER TRANSISTOR				

NOTES 1.About the indoor side electric wiring, refer to the indoor unit electric wiring diagram for servicing.
2.Use copper supply wires. 3.Symbols indicate, :Terminal block :Connector

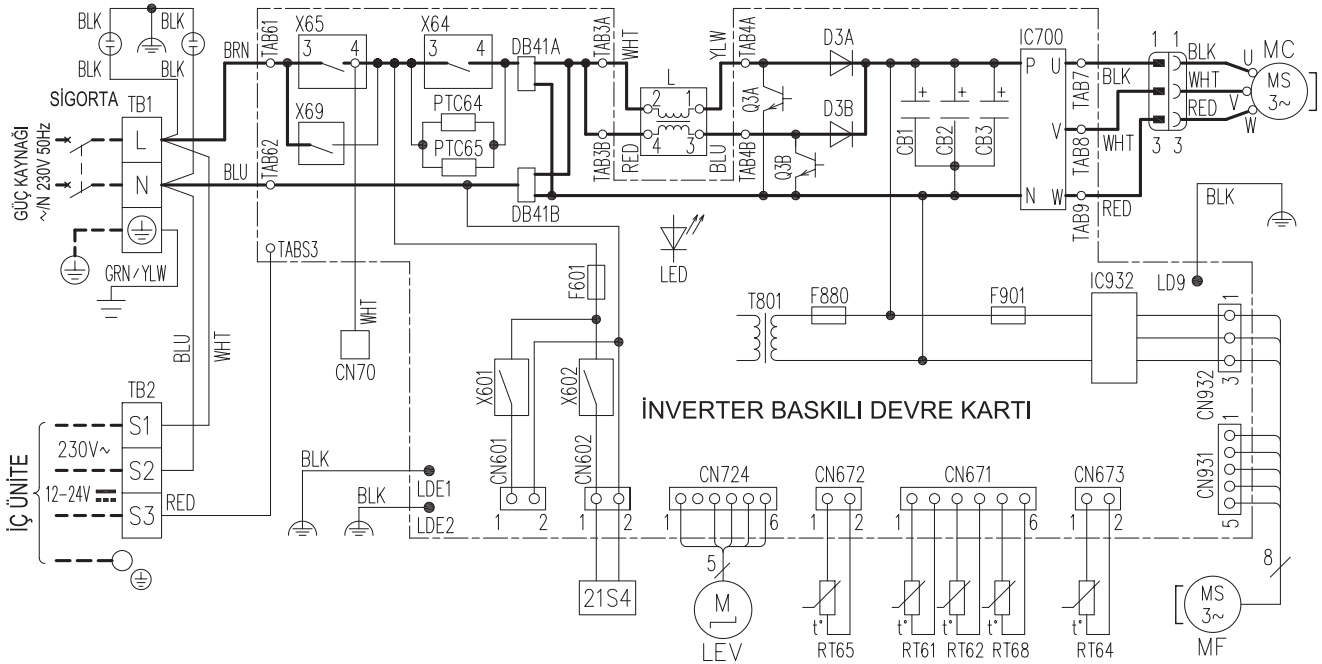
MUZ-AP71VG - [E2]



SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CN61	CONNECTOR	L	REACTOR	RT61	DEFROST THERMISTOR	T801	TRANSFORMER
CB1, CB2, CB3	SMOOTHING CAPACITOR	LED	LED	RT62	DISCHARGE TEMP.THERMISTOR	X64, X65, X69	RELAY
DB41A, DB41B	DIODE MODULE	LEV	EXPANSION VALVE COIL	RT64	FIN TEMP.THERMISTOR	X601, X602	RELAY
D3A, D3B	DIODE	MC	COMPRESSOR	RT65	AMBIENT TEMP.THERMISTOR	21S4	REVERSING VALVE COIL
F601	FUSE (T3.15AL250V)	MF	FAN MOTOR	RT68	OUTDOOR HEAT EXCHANGER TEMP.THERMISTOR	TB1, TB2	TERMINAL BLOCK
F880	FUSE (T3.15AL250V)	PTC64, PTC65	CIRCUIT PROTECTION				
F901	FUSE (T3.15AL250V)	IC700, IC932	POWER MODULE				
		Q3A, Q3B	SWITCHING POWER TRANSISTOR				

NOTES 1.About the indoor side electric wiring, refer to the indoor unit electric wiring diagram for servicing.
2.Use copper supply wires. 3.Symbols indicate, :Terminal block :Connector

MUZ-AP71VG - [ET1]



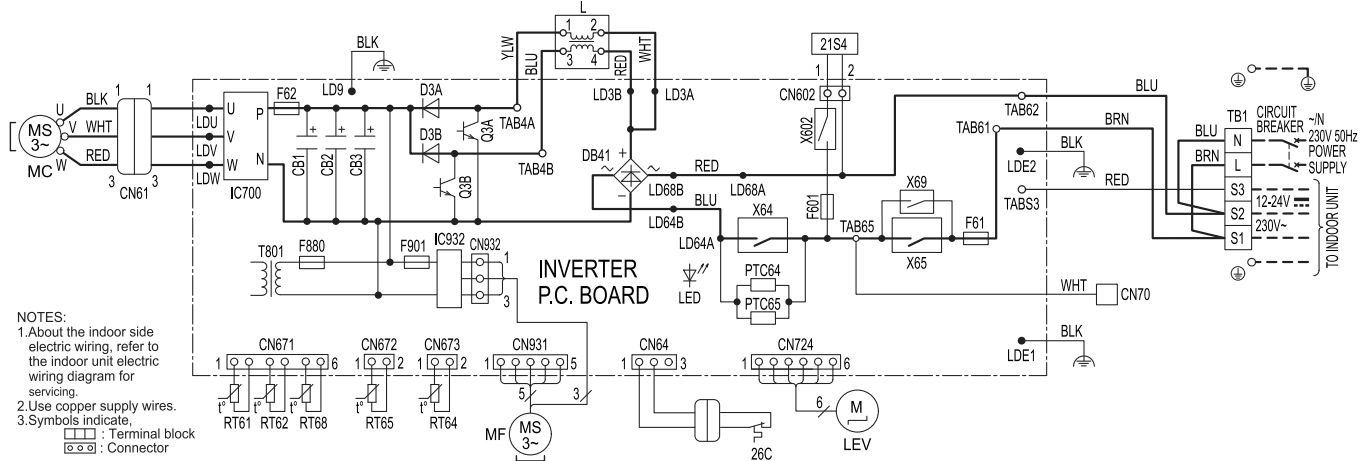
SEMBOL	PARÇA ADI	SEMBOL	PARÇA ADI	SEMBOL	PARÇA ADI	SEMBOL	PARÇA ADI
CB1,CB2,CB3	KAPASİTÖR	L	REAKTÖR	RT61	DEFROST TERMİSTÖRÜ	T801	TRANSFORMATÖR
DB41A,DB41B	DIYOT MODÜLÜ	LED	LED	RT62	BASMA SICAKLIK TERMİSTÖRÜ	X64,X65,X69	RÖLE
D3A,D3B	DIYOT	LEV	GENLEŞME VANASI SARGISI	RT64	FİN SICAKLIK TERMİSTÖRÜ	X601,X602	RÖLE
F601	SİGORTA (T3. 15AL250V)	MC	KOMPRESÖR	RT65	ORTAM SICAKLIK TERMİSTÖRÜ	21S4	4 YOLLU VANA SARGISI
F880	SİGORTA (T3. 15AL250V)	MF	FAN MOTORU	RT68	DIŞ ÜNİTE EŞANJÖR SICAKLIK TERMİSTÖRÜ		
F901	SİGORTA (T3. 15AL250V)	PTC64,PTC65	DEVRE KORUMASI				
IC700,IC932	GÜÇ MODÜLÜ	Q3A,Q3B	SIVIÇILI GÜÇ TRANSİSTÖRÜ	TB1,TB2	TERMINAL BLOĞU		

NOTLAR : 1. İç ünite elektronik kabloları için iç ünite elektronik kablo devre şemasını referans alınız.

2. Sadece bakır besleme kablosu kullanın. 3. Semboller gösterir. :Terminal bloğu

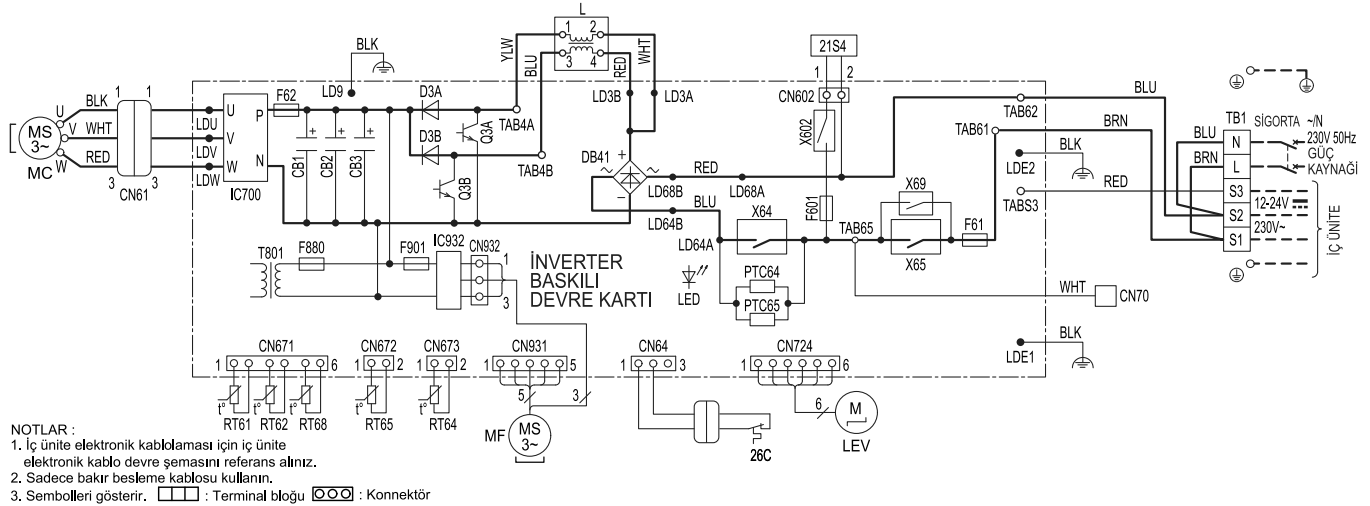
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MUZ-AP71VG2 - [E1]



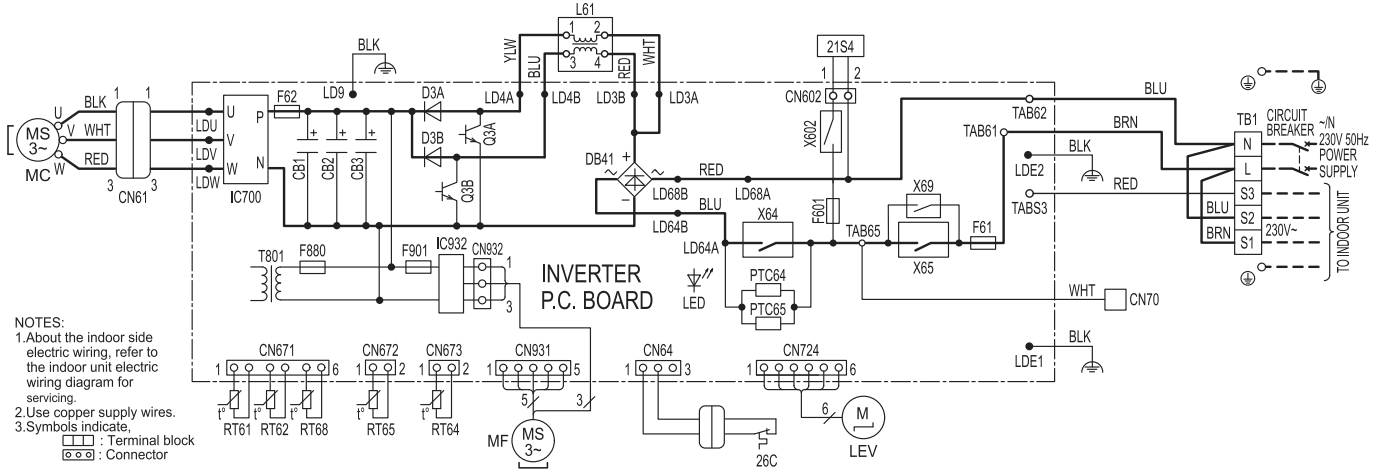
SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CB1, CB2, CB3	SMOOTHING CAPACITOR	LED	LED	TR68	OUTDOOR HEAT EXCHANGER TEMP. THERMISTOR
CN61	CONNECTOR	LEV	EXPANSION VALVE COIL	TB1	TERMINAL BLOCK
DB41	DIODE MODULE	MC	COMPRESSOR	T801	TRANSFORMER
D3A, D3B	DIODE	MF	FAN MOTOR	X602	RELAY
F601	FUSE (T3.15AL250V)	PTC64, PTC65	CIRCUIT PROTECTION	X64, X65, X69	RELAY
F61	FUSE (25A 250V)	Q3A, Q3B	SWITCHING POWER TRANSISTOR	21S4	REVERSING VALVE COIL
F62	FUSE (15A 250V)	RT61	DEFROST THERMISTOR	26C	COMPRESSOR PROTECTOR
F880, F901	FUSE (T3.15AL250V)	RT62	DISCHARGE TEMP. THERMISTOR		
IC700, IC932	POWER MODULE	RT64	REACTOR		
L	REACTOR	RT65	AMBIENT TEMP. THERMISTOR		

MUZ-AP71VG2 - [ET1]



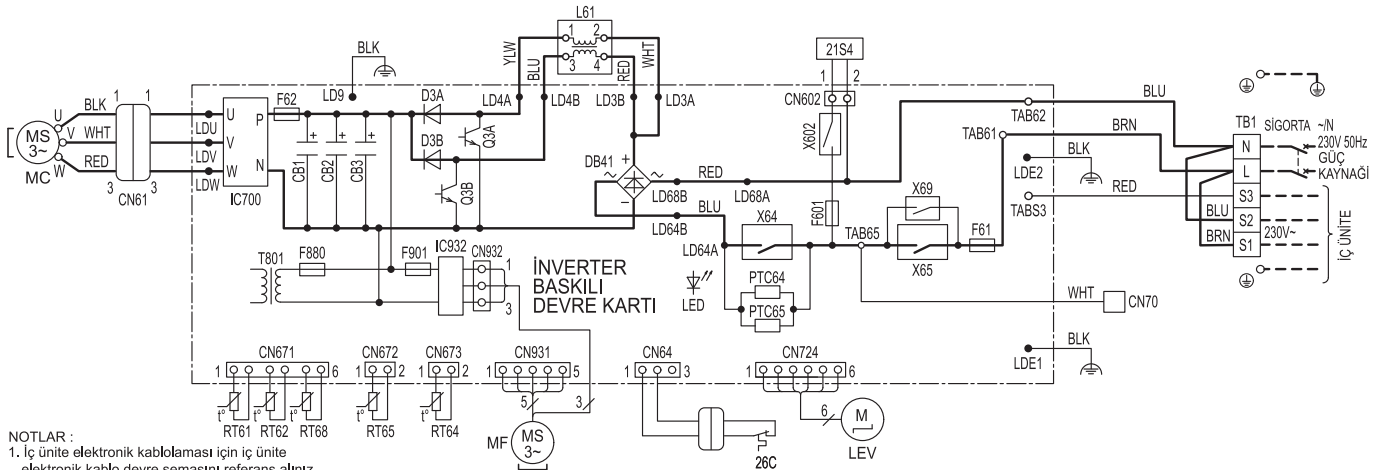
SEMBOL	PARÇA ADI	SEMBOL	PARÇA ADI	SEMBOL	PARÇA ADI
CB1, CB2, CB3	KAPASİTÖR	LED	LED	TR68	DIŞ ÜNİTE EŞANJÖR SICAKLIK TERMİSTÖRÜ
CN61	KONNEKTÖR	LEV	GENLEŞME VANASI SARGISI	TB1	TERMINAL BLOĞU
DB41	DİYOT MODÜLÜ	MC	KOMPRESÖR	T801	TRANSFORMATÖR
D3A, D3B	DİYOT	MF	FAN MOTORU	X602	RÖLE
F601	SİGORTA (T3. 15AL250V)	PTC64, PTC65	DEVRE KORUMASI	X64, X65, X69	RÖLE
F61	SİGORTA (25A 250V)	Q3A, Q3B	SİVİÇLİ GÜÇ TRANSİSTÖRÜ	21S4	4 YOLLU VANA SARGISI
F62	SİGORTA (15A 250V)	RT61	DEFROST TERMİSTÖRÜ	26C	KOMPRESÖR KORUYUCU
F880, F901	SİGORTA (T3. 15AL250V)	RT62	BASMA SICAKLIK TERMİSTÖRÜ		
IC700, IC932	GÜÇ MODÜLÜ	RT64	FİN SICAKLIK TERMİSTÖRÜ		
L	REAKTÖR	RT65	ORTAM SICAKLIK TERMİSTÖRÜ		

MUZ-AP71VG3 - [E1]



SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
CB1, CB2, CB3	SMOOTHING CAPACITOR	LED	LED	TR68	OUTDOOR HEAT EXCHANGER TEMP. THERMISTOR
CN61	CONNECTOR	LEV	EXPANSION VALVE COIL	TB1	TERMINAL BLOCK
DB41	DIODE MODULE	MC	COMPRESSOR	T801	TRANSFORMER
D3A, D3B	DIODE	MF	FAN MOTOR	X602	RELAY
F601	FUSE (T3.15A/250V)	PTC64, PTC65	CIRCUIT PROTECTION	X64, X65, X69	RELAY
F61	FUSE (25A 250V)	Q3A, Q3B	SWITCHING POWER TRANSISTOR	21S4	REVERSING VALVE COIL
F62	FUSE (15A 250V)	RT61	DEFROST THERMISTOR	26C	COMPRESSOR PROTECTOR
F880, F901	FUSE (T3.15A/250V)	RT62	DISCHARGE TEMP. THERMISTOR		
IC700, IC932	POWER MODULE	RT64	REACTOR		
L61	REACTOR	RT65	AMBIENT TEMP. THERMISTOR		

MUZ-AP71VG3 - [ET1]

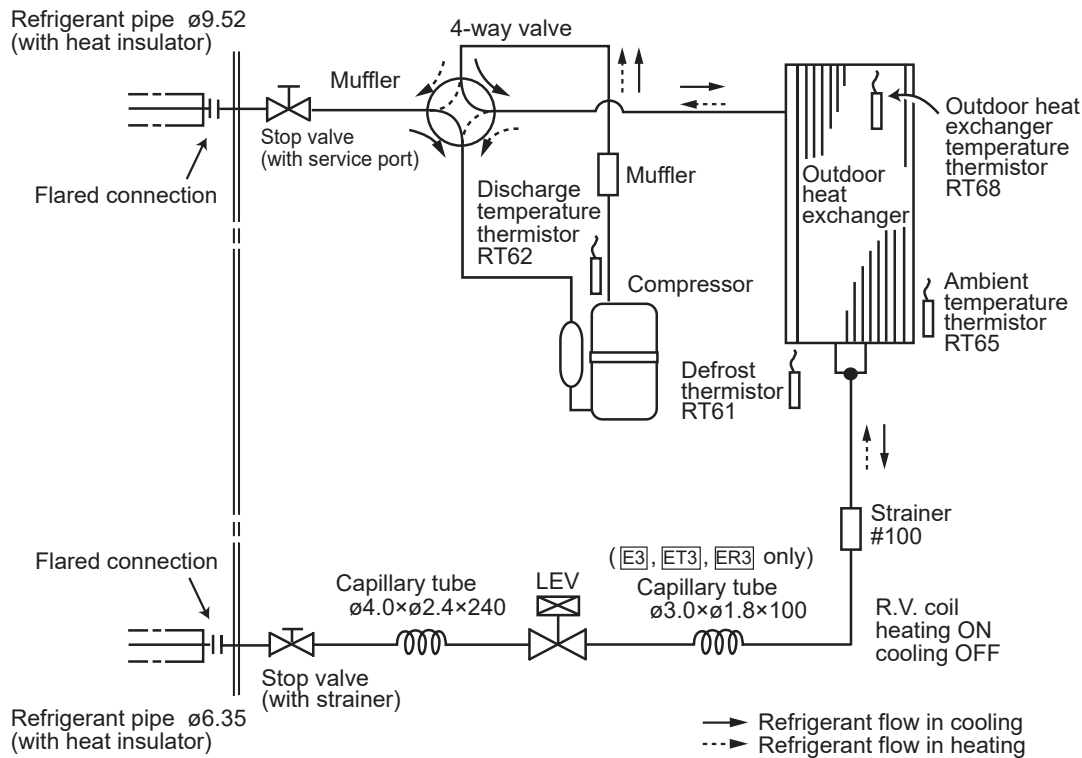


SEMBOL	PARÇA ADI	SEMBOL	PARÇA ADI	SEMBOL	PARÇA ADI
CB1, CB2, CB3	KAPASİTÖR	LED	LED	TR68	DIŞ ÜNİTE EŞANJÖR SICAKLIK TERMİSTÖRÜ
CN61	KONNEKTÖR	LEV	GENLEŞME VANASI SARGISI	TB1	TERMİNAL BLOĞU
DB41	DİYOT MODÜLÜ	MC	KOMPRESÖR	T801	TRANSFORMATÖR
D3A, D3B	DİYOT	MF	FAN MOTORU	X602	RÖLE
F601	SİĞORTA (T3. 15A/250V)	PTC64, PTC65	DEVRE KORUMASI	X64, X65, X69	RÖLE
F61	SİĞORTA (25A 250V)	Q3A, Q3B	SİVİÇLİ GÜÇ TRANSİSTÖRÜ	21S4	4 YOLLU VANA SARGISI
F62	SİĞORTA (15A 250V)	RT61	DEFROST TERMİSTÖRÜ	26C	KOMPRESÖR KORUYUCU
F880, F901	SİĞORTA (T3. 15A/250V)	RT62	BASMA SICAKLIK TERMİSTÖRÜ		
IC700, IC932	GÜÇ MODÜLÜ	RT64	FİN SICAKLIK TERMİSTÖRÜ		
L61	REAKTÖR	RT65	ORTAM SICAKLIK TERMİSTÖRÜ		

MUZ-AP25VG
MUZ-AP25VGH

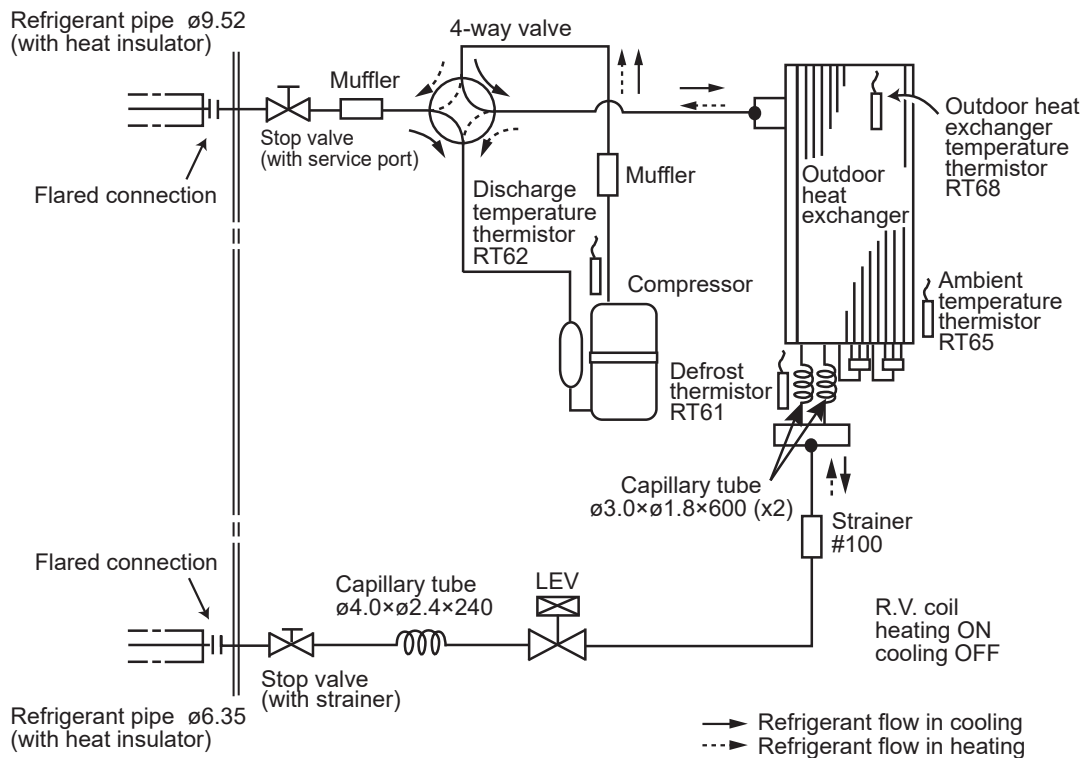
MUZ-AP35VG
MUZ-AP35VGH

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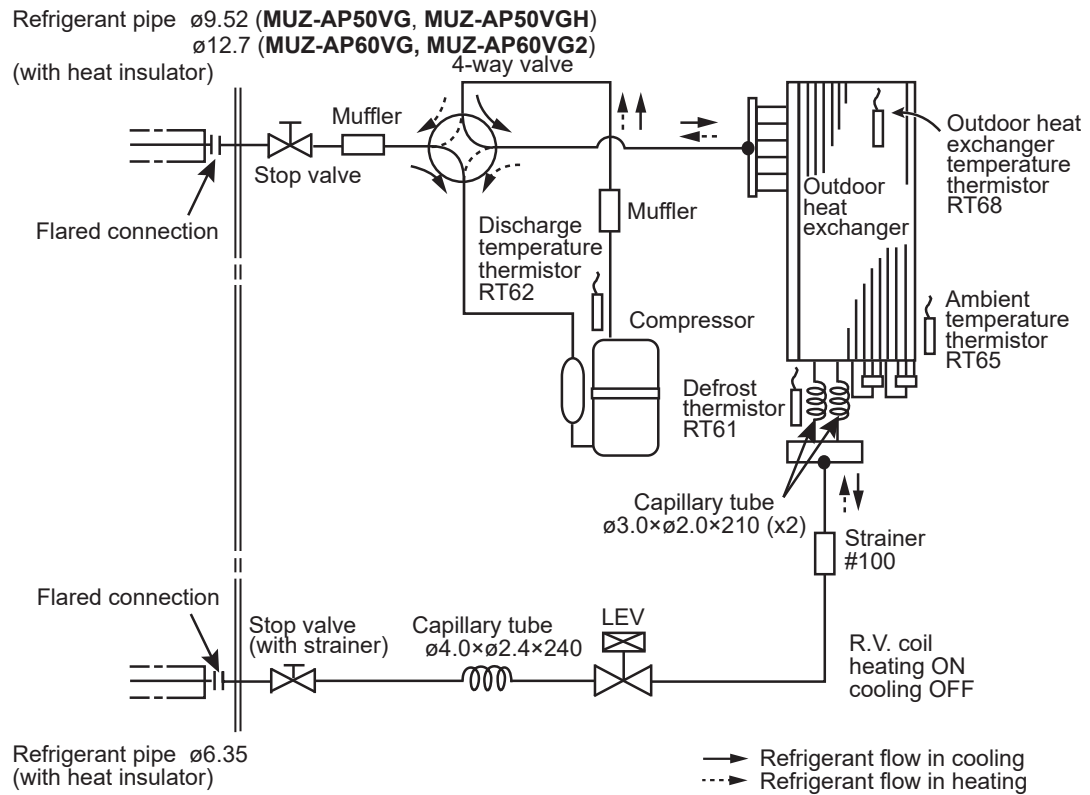
MUZ-AP42VG
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Unit: mm



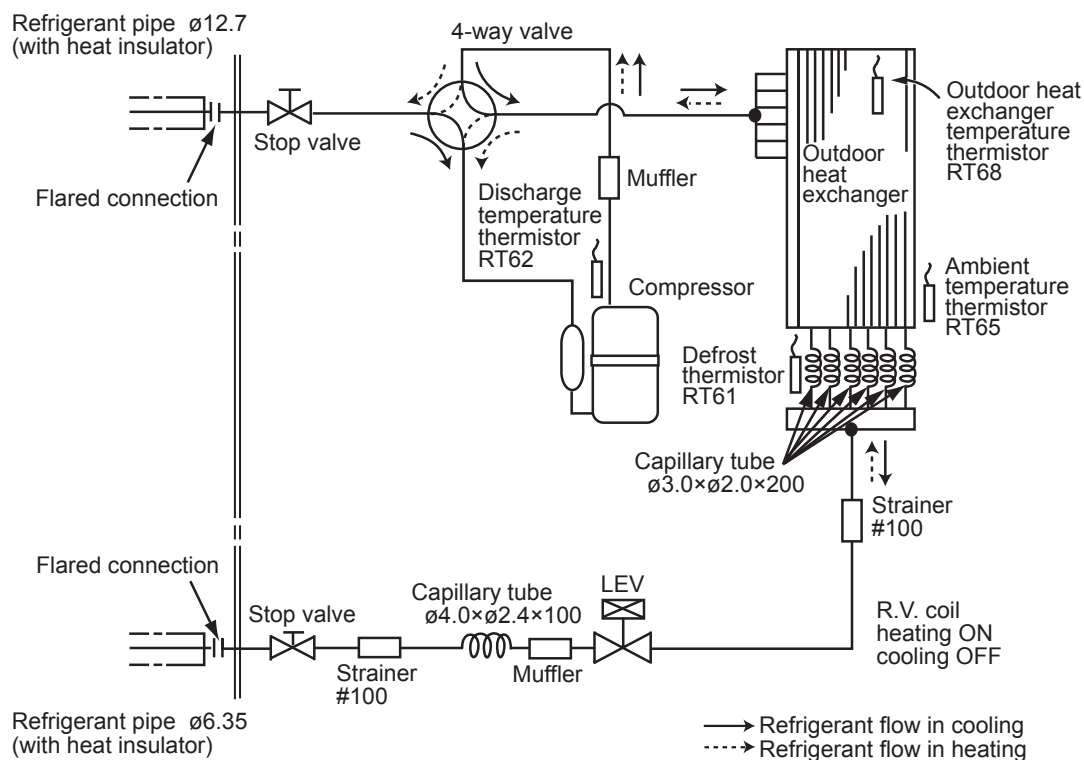
MUZ-AP50VG MUZ-AP60VG
MUZ-AP50VGH MUZ-AP60VG2

Unit: mm

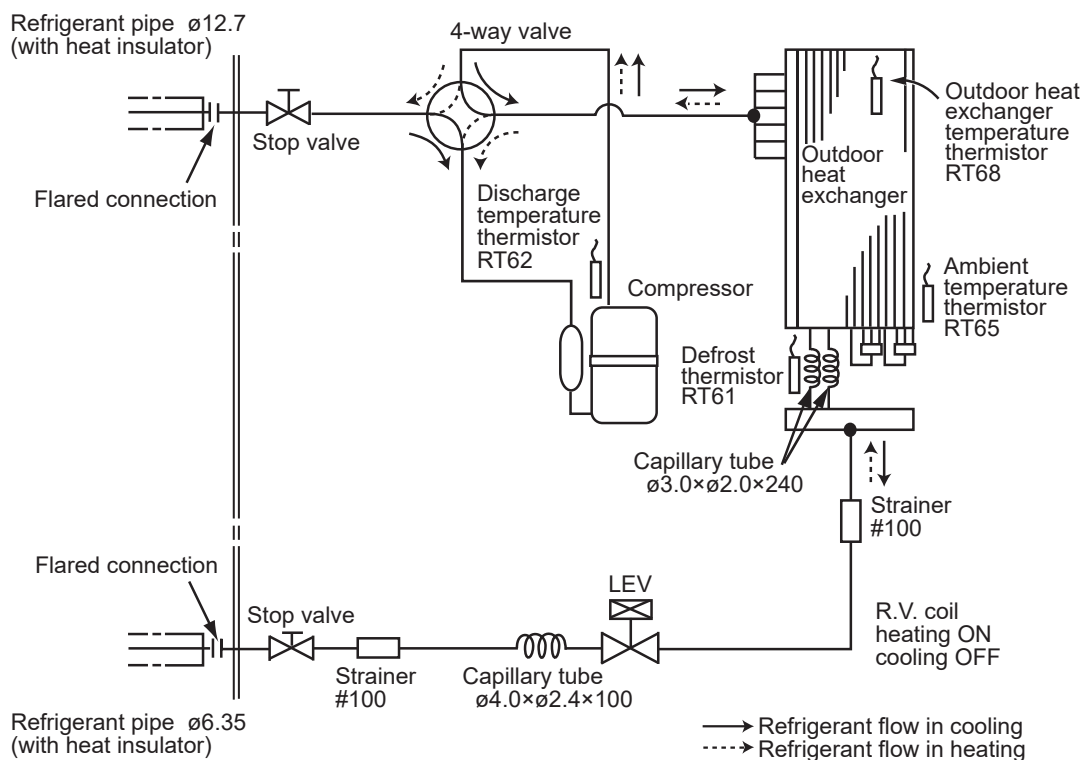


MUZ-AP71VG

Unit: mm

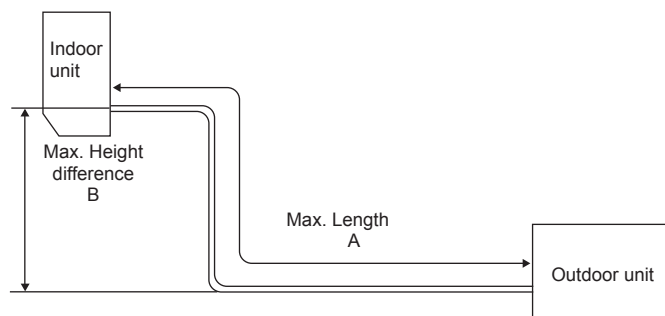


MUZ-AP71VG2 MUZ-AP71VG3



MAX. REFRIGERANT PIPING LENGTH and MAX. HEIGHT DIFFERENCE

Model	Refrigerant piping: m		Piping size O.D: mm	
	Max. Length A	Max. Height difference B	Gas	Liquid
MUZ-AP25/35/42/50VG MUZ-AP25/35/42/50VGH	20	12	9.52	6.35
MUZ-AP60VG MUZ-AP60VG2	30	15	12.7	6.35
MUZ-AP71VG MUZ-AP71VG2 MUZ-AP71VG3	30	15	12.7	6.35



ADDITIONAL REFRIGERANT CHARGE (R32: g)

Model	Outdoor unit precharged	Refrigerant piping length (one way)									
		7 m	8 m	9 m	10 m	11 m	12 m	13 m	14 m	15 m	20 m
MUZ-AP25/35VG MUZ-AP25/35VGH	550	0	20	40	60	80	100	120	140	160	260
MUZ-AP42VG MUZ-AP42VGH	700										
MUZ-AP50VG MUZ-AP50VGH	1,000										

Calculation: $X \text{ g} = 20 \text{ g/m} \times (\text{Refrigerant piping length (m)} - 7)$

Model	Outdoor unit precharged	Refrigerant piping length (one way)					
		15 m	16 m	17 m	20 m	25 m	30 m
MUZ-AP60VG MUZ-AP60VG2	1,050	0	20	40	100	200	300
MUZ-AP71VG MUZ-AP71VG2 MUZ-AP71VG3	1,500						

Calculation: $X \text{ g} = 20 \text{ g/m} \times (\text{Refrigerant piping length (m)} - 15)$

NOTE: Refrigerant piping exceeding 7 m requires additional refrigerant charge according to the calculation.

MUZ-AP25VG MUZ-AP35VG MUZ-AP42VG MUZ-AP50VG
MUZ-AP60VG MUZ-AP60VG2 MUZ-AP71VG MUZ-AP71VG2 MUZ-AP71VG3
MUZ-AP25VGH MUZ-AP35VGH MUZ-AP42VGH MUZ-AP50VGH

The standard 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 ~ 264 V, 50 Hz

(2) AIRFLOW

Airflow should be set at MAX.

(3) MAIN READINGS

(1) Indoor intake air wet-bulb temperature:	°C [WB]	} Cooling
(2) Indoor outlet air wet-bulb temperature:	°C [WB]	
(3) Outdoor intake air dry-bulb temperature:	°C [DB]	
(4) Total input:	W	} Heating
(5) Indoor intake air dry-bulb temperature:	°C [DB]	
(6) Outdoor intake air wet-bulb temperature:	°C [WB]	
(7) Total input:	W	

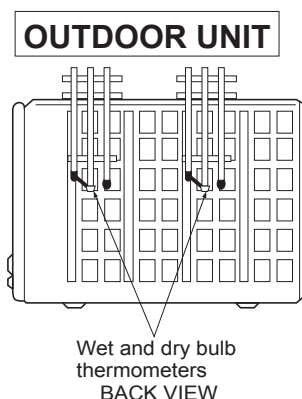
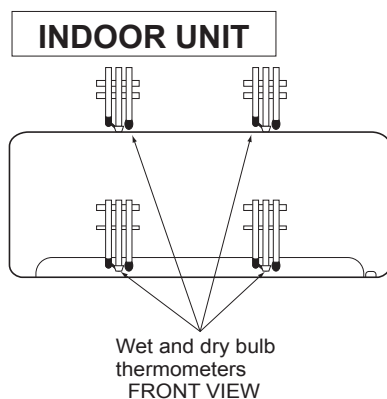
Indoor air wet and dry bulb temperature difference on the left side of the following chart shows the difference between the indoor intake air wet and dry bulb temperature and the indoor outlet air wet and dry bulb temperature for your reference at service.

(4) GUARANTEED OUTDOOR TEMPERATURE

- MUZ-AP25/35/42/50/60/71VG, MUZ-AP60/71VG2, MUZ-AP71VG3
 COOLING (DB/WB): -10/- ~ 46/-
 HEATING (DB/WB): -15/-16 ~ 24/18
- MUZ-AP25/35/42/50VGH
 COOLING (DB/WB): -10/- ~ 46/-
 HEATING (DB/WB): -20/-21 ~ 24/18

How to measure the indoor air wet and dry bulb temperature difference

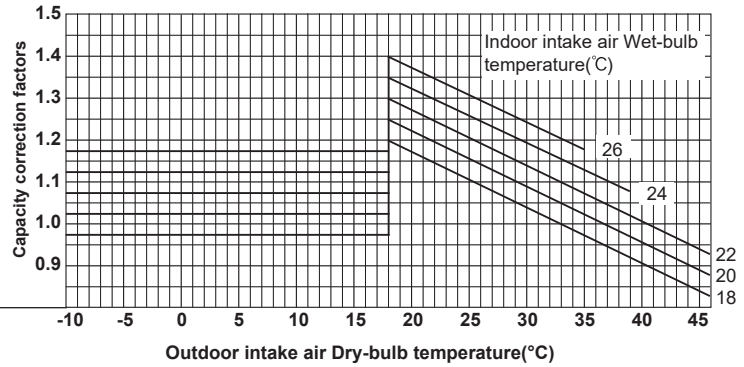
- Attach at least 2 sets of wet and dry bulb thermometers to the indoor air intake as shown in the figure, and at least 2 sets of wet and dry bulb thermometers to the indoor air outlet. The thermometers must be attached to the position where air speed is high.
- Attach at least 2 sets of wet and dry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



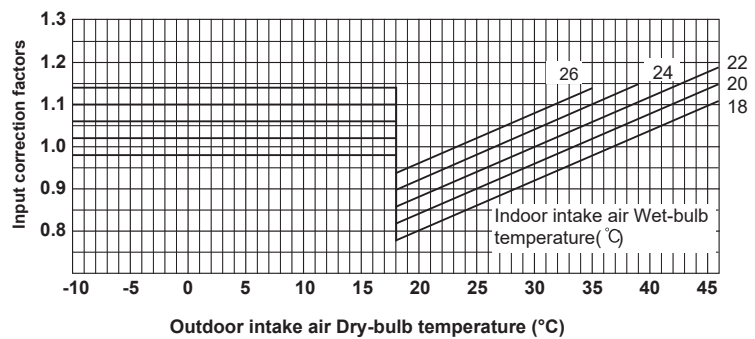
9-1. CAPACITY AND INPUT CURVES

Indoor air Wet-bulb temperature difference (°C)	5.9	8.6	10.7	11.7	9.1	11.2
	5.4	7.9	9.9	10.8	8.4	10.3
	5.0	7.3	9.0	9.9	7.7	9.4
	4.6	6.7	8.2	9.0	7.0	8.6
	4.2	6.0	7.4	8.1	6.4	7.7
	3.8	5.4	6.7	7.2	5.7	6.9
	3.4	4.8	5.9	6.4	5.1	6.1
	MUZ-AP25VG MUZ-AP25VGH	MUZ-AP35VG MUZ-AP35VGH	MUZ-AP42VG MUZ-AP42VGH	MUZ-AP50VG MUZ-AP50VGH	MUZ-AP60VG MUZ-AP60VG2	MUZ-AP71VG MUZ-AP71VG2 MUZ-AP71VG3

Cooling capacity (at Rated frequency)

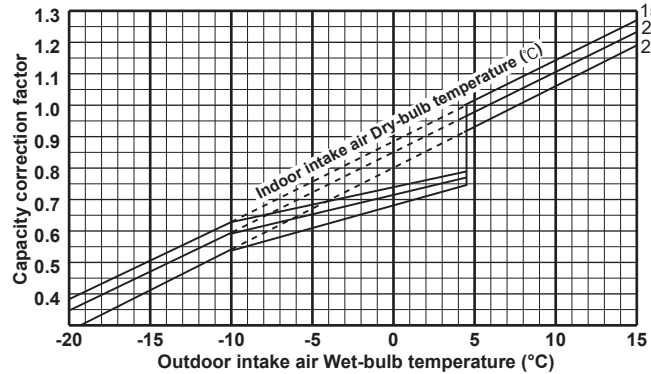


Total input (Cooling : at Rated frequency)

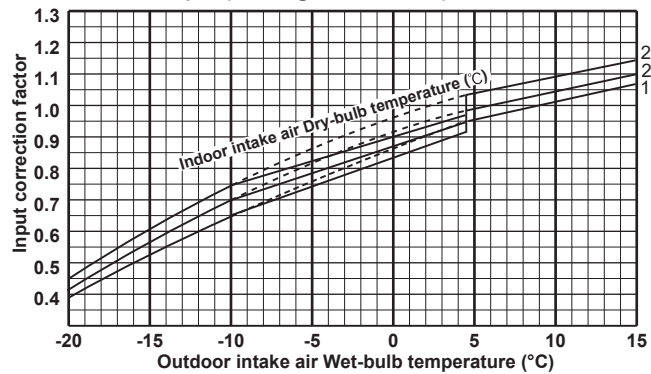


Indoor air Dry-bulb temperature difference (°C)	16.2	20.3	25.2	27.1	21.9	27.6
	15.0	18.7	23.3	25.0	20.2	25.5
	13.7	17.2	21.3	22.9	18.5	23.3
	12.5	15.6	19.4	20.8	16.8	21.2
	11.2	14.0	17.5	18.8	15.2	19.1
	10.0	12.5	15.5	16.7	13.5	17.0
	8.7	10.9	13.6	14.6	11.8	14.9
	7.5	9.4	11.6	12.5	10.1	12.7
	6.2	7.8	9.7	10.4	8.4	10.6
	5.0	6.2	7.8	8.3	6.7	8.5
	MUZ-AP25VG MUZ-AP25VGH	MUZ-AP35VG MUZ-AP35VGH	MUZ-AP42VG MUZ-AP42VGH	MUZ-AP50VG MUZ-AP50VGH	MUZ-AP60VG MUZ-AP60VG2	MUZ-AP71VG MUZ-AP71VG2 MUZ-AP71VG3

Heating capacity (at Rated frequency)



Total input (Heating : at Rated frequency)



Lower limit of guaranteed operating range in heating

MUZ-AP25/35/42/50/60/71VG: -15°C

MUZ-AP60/71VG2: -15°C

MUZ-AP71VG3: -15°C

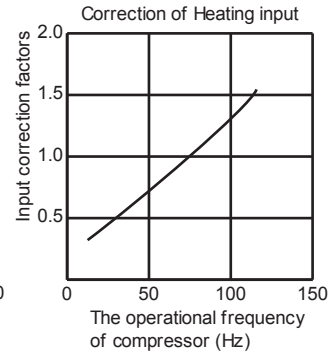
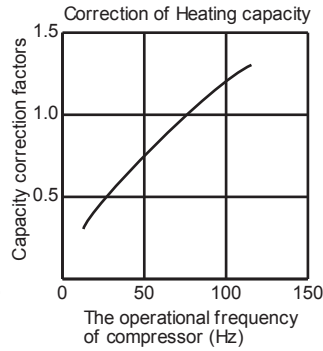
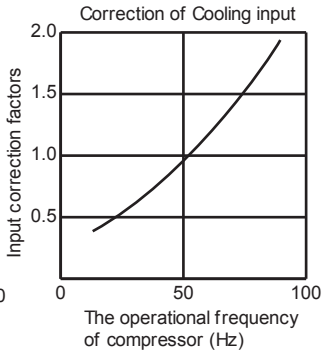
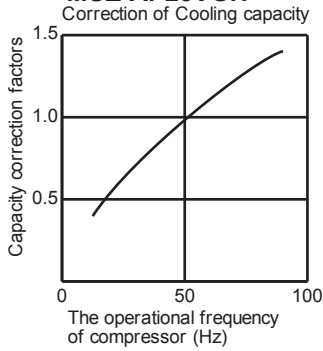
MUZ-AP25/35/42/50VGH: -20°C

NOTE: The above broken lines are for the heating operation without any frost and defrost operation.

9-2. CAPACITY AND INPUT CORRECTION BY OPERATIONAL FREQUENCY OF COMPRESSOR

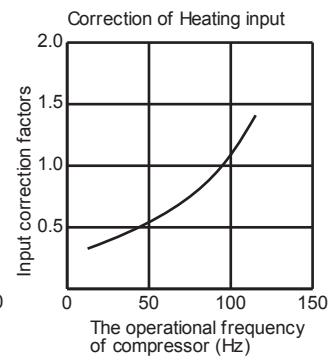
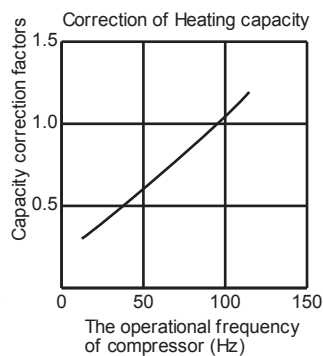
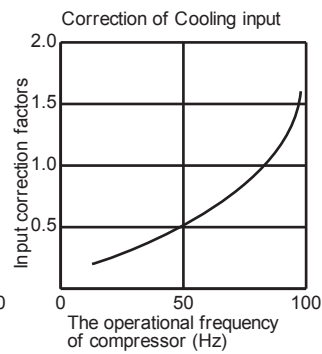
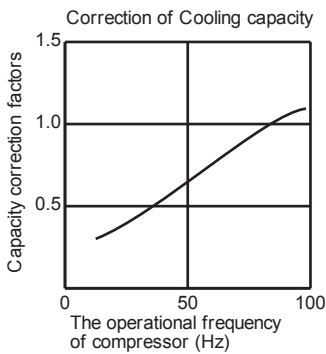
MUZ-AP25VG

MUZ-AP25VGH



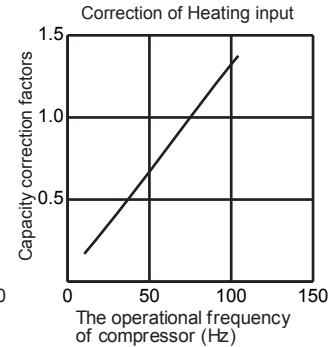
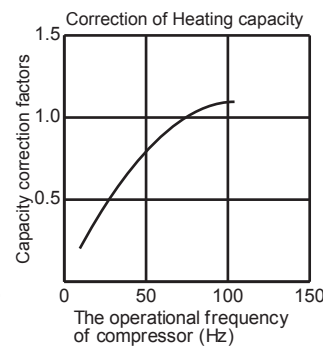
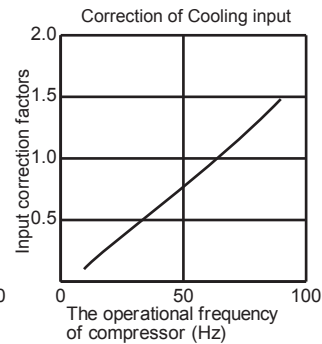
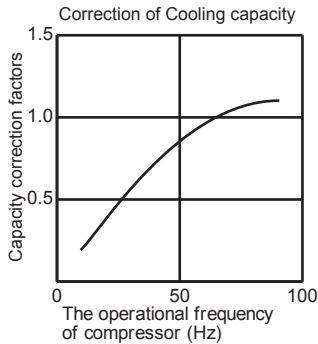
MUZ-AP35VG

MUZ-AP35VGH



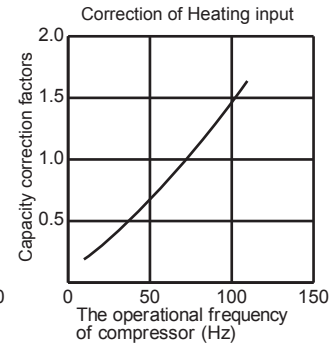
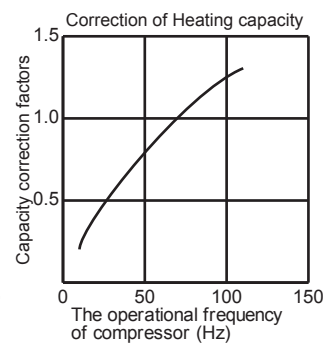
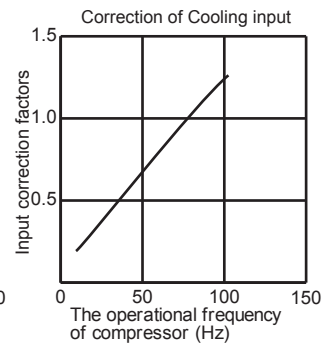
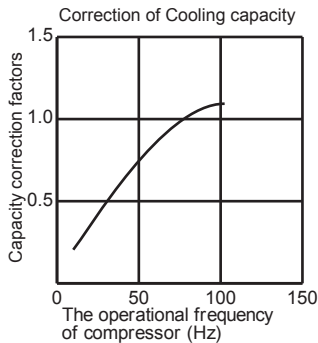
MUZ-AP42VG

MUZ-AP42VGH

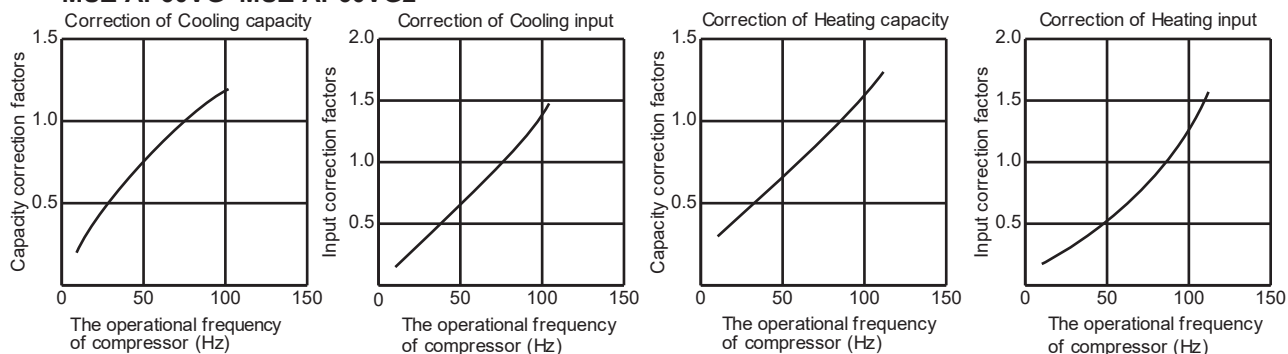


MUZ-AP50VG

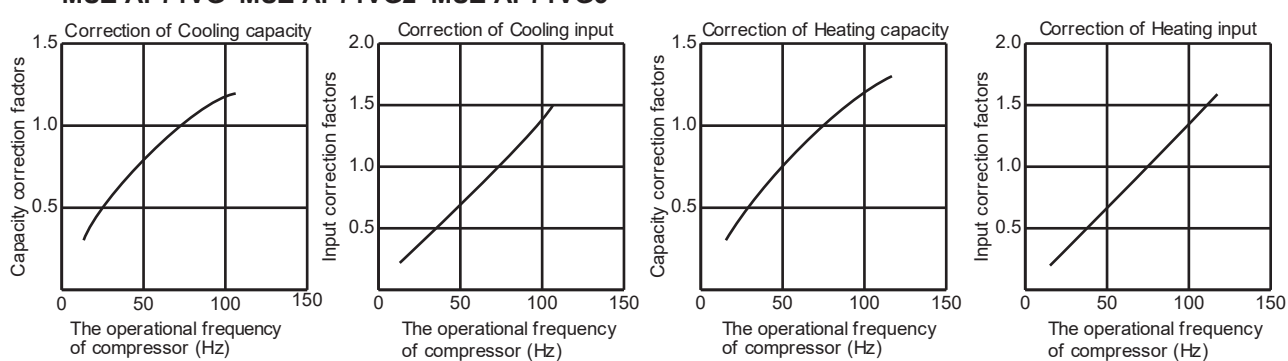
MUZ-AP50VGH



MUZ-AP60VG MUZ-AP60VG2



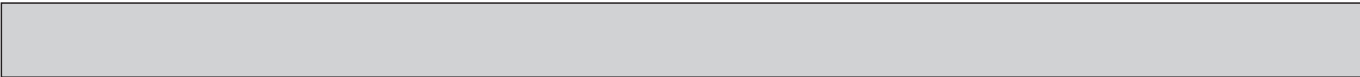
MUZ-AP71VG MUZ-AP71VG2 MUZ-AP71VG3



9-3. HOW TO OPERATE FIXED-FREQUENCY OPERATION

<Test run operation>

1. Press the emergency operation switch to start 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 in COOL mode or 58 Hz in HEAT mode.
4. Indoor fan operates at High speed.
5. After 30 minutes, test run operation finishes and EMERGENCY OPERATION starts (operational frequency of compressor varies).
6. To cancel test run operation (EMERGENCY OPERATION), press the emergency operation switch or any button on remote controller.



9-4. OUTDOOR LOW PRESSURE AND OUTDOOR UNIT CURRENT

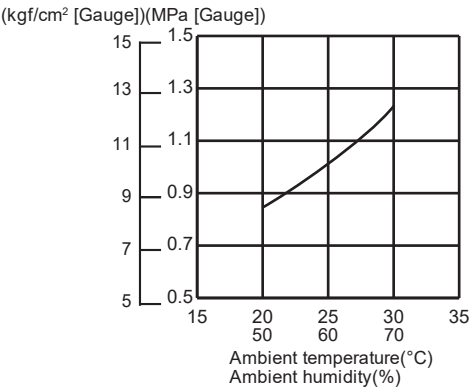
COOL operation

- ① Both indoor and outdoor unit are under the same temperature/ humidity condition.
- ② Operation: TEST RUN OPERATION (Refer to 9-3.)

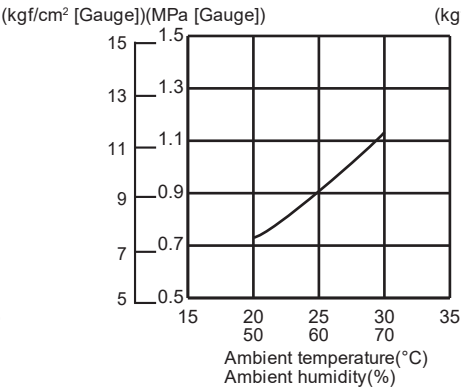
Dry-bulb temperature (°C)	Relative humidity (%)
20	50
25	60
30	70

Outdoor low pressure

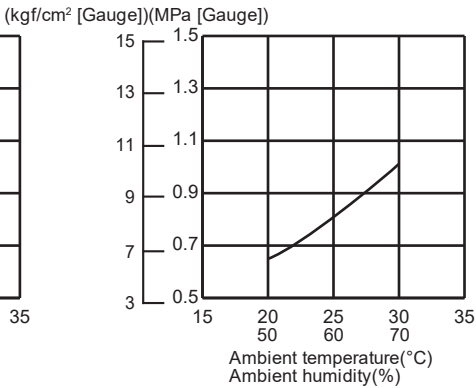
MUZ-AP25VG
MUZ-AP25VGH



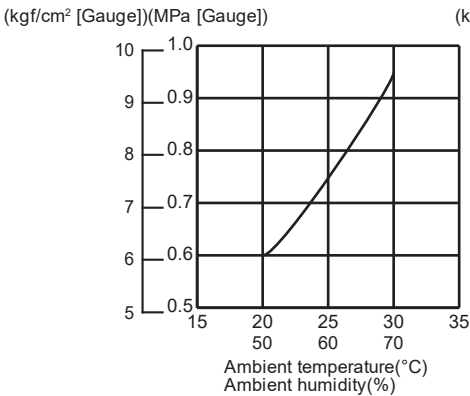
MUZ-AP35VG
MUZ-AP35VGH



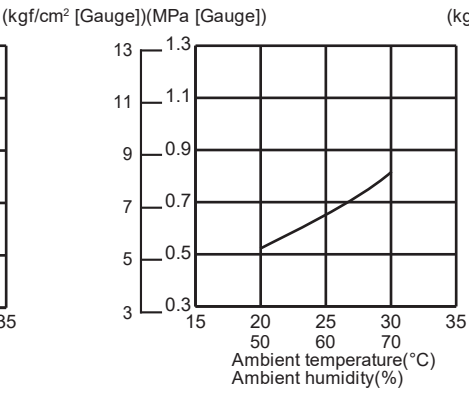
MUZ-AP42VG
MUZ-AP42VGH



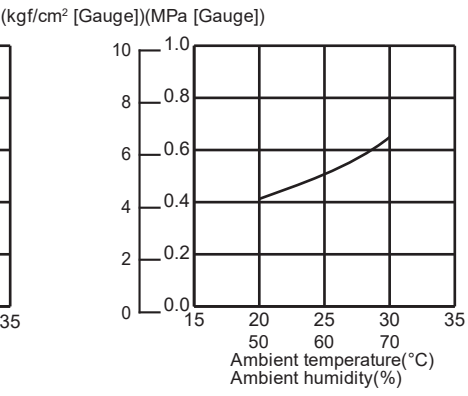
MUZ-AP50VG
MUZ-AP50VGH



MUZ-AP60VG
MUZ-AP60VG2



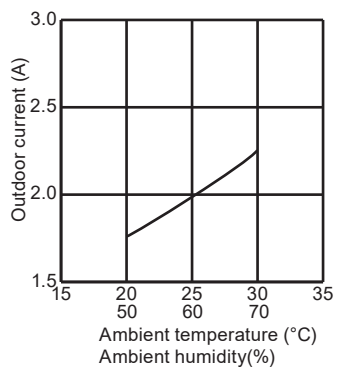
MUZ-AP71VG
MUZ-AP71VG2
MUZ-AP71VG3



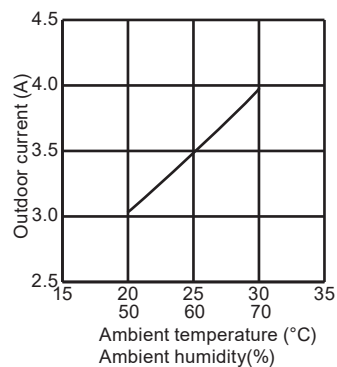
NOTE:
The unit of pressure has been changed to MPa on the international system of units (SI unit system)
The conversion factor is: **1 (MPa [Gauge]) = 10.2 (kgf/cm² [Gauge])**

Outdoor unit current

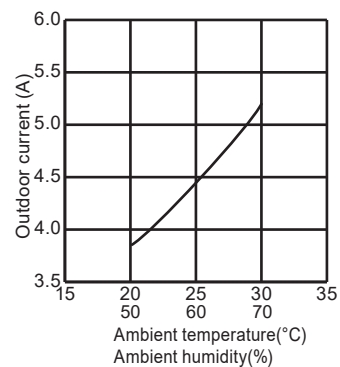
MUZ-AP25VG MUZ-AP25VGH



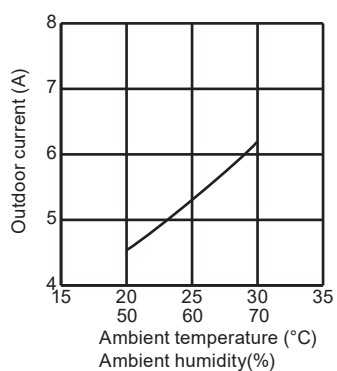
MUZ-AP35VG MUZ-AP35VGH



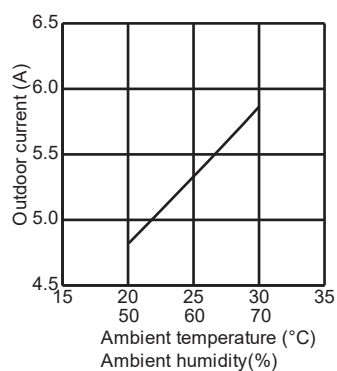
MUZ-AP42VG MUZ-AP42VGH



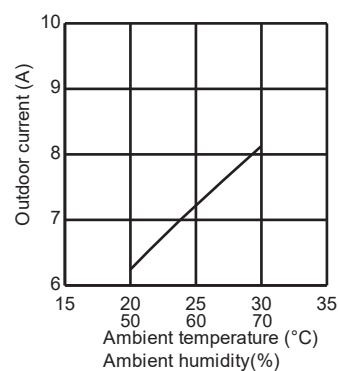
MUZ-AP50VG MUZ-AP50VGH



MUZ-AP60VG MUZ-AP60VG2



MUZ-AP71VG MUZ-AP71VG2 MUZ-AP71VG3



HEAT operation

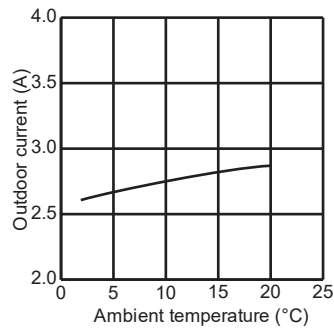
① Condition:

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

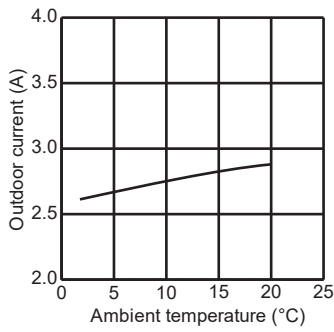
② Operation: Test run operation (Refer to 9-3.)

Outdoor unit current

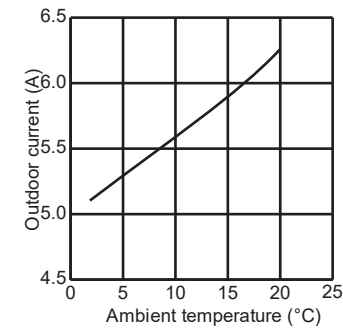
MUZ-AP25VG
MUZ-AP25VGH



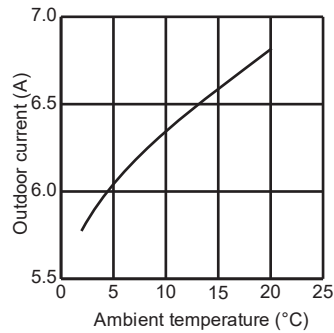
MUZ-AP35VG
MUZ-AP35VGH



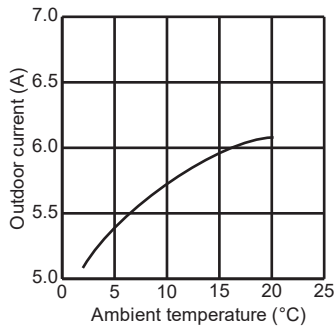
MUZ-AP42VG
MUZ-AP42VGH



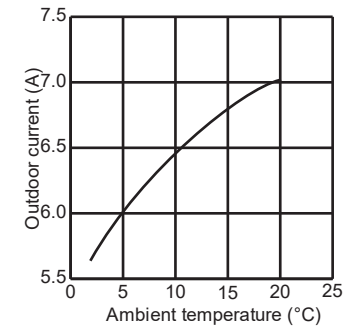
MUZ-AP50VG
MUZ-AP50VGH



MUZ-AP60VG
MUZ-AP60VG2



MUZ-AP71VG
MUZ-AP71VG2
MUZ-AP71VG3



PERFORMANCE DATA COOL operation at Rated frequency

MUZ-AP25VG MUZ-AP25VGH

CAPACITY: 2.5 kW

SHF: 0.92

INPUT: 600 W

INDOOR DB (°C)	INDOOR WB (°C)	OUTDOOR DB (°C)															
		21				25				27				30			
		Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	2.94	2.17	0.74	480	2.81	2.08	0.74	504	2.70	2.00	0.74	528	2.60	1.92	0.74	552
21	20	3.06	1.90	0.62	504	2.94	1.82	0.62	534	2.85	1.77	0.62	546	2.75	1.71	0.62	570
22	18	2.94	2.29	0.78	480	2.81	2.19	0.78	504	2.70	2.11	0.78	528	2.60	2.03	0.78	552
22	20	3.06	2.02	0.66	504	2.94	1.94	0.66	534	2.85	1.88	0.66	546	2.75	1.82	0.66	570
22	22	3.19	1.72	0.54	522	3.08	1.66	0.54	555	3.00	1.62	0.54	570	2.88	1.55	0.54	594
23	18	2.94	2.41	0.82	480	2.81	2.31	0.82	504	2.70	2.21	0.82	528	2.60	2.13	0.82	552
23	20	3.06	2.14	0.70	504	2.94	2.06	0.70	534	2.85	2.00	0.70	546	2.75	1.93	0.70	570
23	22	3.19	1.85	0.58	522	3.08	1.78	0.58	555	3.00	1.74	0.58	570	2.88	1.67	0.58	594
24	18	2.94	2.53	0.86	480	2.81	2.42	0.86	504	2.70	2.32	0.86	528	2.60	2.24	0.86	552
24	20	3.06	2.27	0.74	504	2.94	2.17	0.74	534	2.85	2.11	0.74	546	2.75	2.04	0.74	570
24	22	3.19	1.98	0.62	522	3.08	1.91	0.62	555	3.00	1.86	0.62	570	2.88	1.78	0.62	594
24	24	3.35	1.68	0.50	546	3.23	1.61	0.50	576	3.15	1.58	0.50	594	3.05	1.53	0.50	624
25	18	2.94	2.64	0.90	480	2.81	2.53	0.90	504	2.70	2.43	0.90	528	2.60	2.34	0.90	552
25	20	3.06	2.39	0.78	504	2.94	2.29	0.78	534	2.85	2.22	0.78	546	2.75	2.15	0.78	570
25	22	3.19	2.10	0.66	522	3.08	2.03	0.66	555	3.00	1.98	0.66	570	2.88	1.90	0.66	594
25	24	3.35	1.81	0.54	546	3.23	1.74	0.54	576	3.15	1.70	0.54	594	3.05	1.65	0.54	624
26	18	2.94	2.76	0.94	480	2.81	2.64	0.94	504	2.70	2.54	0.94	528	2.60	2.44	0.94	552
26	20	3.06	2.51	0.82	504	2.94	2.41	0.82	534	2.85	2.34	0.82	546	2.75	2.26	0.82	570
26	22	3.19	2.23	0.70	522	3.08	2.15	0.70	555	3.00	2.10	0.70	570	2.88	2.01	0.70	594
26	24	3.35	1.94	0.58	546	3.23	1.87	0.58	576	3.15	1.83	0.58	594	3.05	1.77	0.58	624
26	26	3.45	1.59	0.46	576	3.35	1.54	0.46	606	3.30	1.52	0.46	624	3.20	1.47	0.46	642
27	18	2.94	2.88	0.98	480	2.81	2.76	0.98	504	2.70	2.65	0.98	528	2.60	2.55	0.98	552
27	20	3.06	2.63	0.86	504	2.94	2.53	0.86	534	2.85	2.45	0.86	546	2.75	2.37	0.86	570
27	22	3.19	2.36	0.74	522	3.08	2.28	0.74	555	3.00	2.22	0.74	570	2.88	2.13	0.74	594
27	24	3.35	2.08	0.62	546	3.23	2.00	0.62	576	3.15	1.95	0.62	594	3.05	1.89	0.62	624
27	26	3.45	1.73	0.50	576	3.35	1.68	0.50	606	3.30	1.65	0.50	624	3.20	1.60	0.50	642
28	18	2.94	2.94	1.00	480	2.81	2.81	1.00	504	2.70	2.70	1.00	528	2.60	2.60	1.00	552
28	20	3.06	2.76	0.90	504	2.94	2.64	0.90	534	2.85	2.57	0.90	546	2.75	2.48	0.90	570
28	22	3.19	2.49	0.78	522	3.08	2.40	0.78	555	3.00	2.34	0.78	570	2.88	2.24	0.78	594
28	24	3.35	2.21	0.66	546	3.23	2.13	0.66	576	3.15	2.08	0.66	594	3.05	2.01	0.66	624
28	26	3.45	1.86	0.54	576	3.35	1.81	0.54	606	3.30	1.78	0.54	624	3.20	1.73	0.54	642
29	18	2.94	2.94	1.00	480	2.81	2.81	1.00	504	2.70	2.70	1.00	528	2.60	2.60	1.00	552
29	20	3.06	2.88	0.94	504	2.94	2.76	0.94	534	2.85	2.68	0.94	546	2.75	2.59	0.94	570
29	22	3.19	2.61	0.82	522	3.08	2.52	0.82	555	3.00	2.46	0.82	570	2.88	2.36	0.82	594
29	24	3.35	2.35	0.70	546	3.23	2.26	0.70	576	3.15	2.21	0.70	594	3.05	2.14	0.70	624
29	26	3.45	2.00	0.58	576	3.35	1.94	0.58	606	3.30	1.91	0.58	624	3.20	1.86	0.58	642
30	18	2.94	2.94	1.00	480	2.81	2.81	1.00	504	2.70	2.70	1.00	528	2.60	2.60	1.00	552
30	20	3.06	3.00	0.98	504	2.94	2.88	0.98	534	2.85	2.79	0.98	546	2.75	2.70	0.98	570
30	22	3.19	2.74	0.86	522	3.08	2.64	0.86	555	3.00	2.58	0.86	570	2.88	2.47	0.86	594
30	24	3.35	2.48	0.74	546	3.23	2.39	0.74	576	3.15	2.33	0.74	594	3.05	2.26	0.74	624
30	26	3.45	2.14	0.62	576	3.35	2.08	0.62	606	3.30	2.05	0.62	624	3.20	1.98	0.62	642
31	18	2.94	2.94	1.00	480	2.81	2.81	1.00	504	2.70	2.70	1.00	528	2.60	2.60	1.00	552
31	20	3.06	3.06	1.00	504	2.94	2.94	1.00	534	2.85	2.85	1.00	546	2.75	2.75	1.00	570
31	22	3.19	2.87	0.90	522	3.08	2.77	0.90	555	3.00	2.70	0.90	570	2.88	2.59	0.90	594
31	24	3.35	2.61	0.78	546	3.23	2.52	0.78	576	3.15	2.46	0.78	594	3.05	2.38	0.78	624
31	26	3.45	2.28	0.66	576	3.35	2.21	0.66	606	3.30	2.18	0.66	624	3.20	2.11	0.66	642
32	18	2.94	2.94	1.00	480	2.81	2.81	1.00	504	2.70	2.70	1.00	528	2.60	2.60	1.00	552
32	20	3.06	3.06	1.00	504	2.94	2.94	1.00	534	2.85	2.85	1.00	546	2.75	2.75	1.00	570
32	22	3.19	3.00	0.94	522	3.08	2.89	0.94	555	3.00	2.82	0.94	570	2.88	2.70	0.94	594
32	24	3.35	2.75	0.82	546	3.23	2.64	0.82	576	3.15	2.58	0.82	594	3.05	2.50	0.82	624
32	26	3.45	2.42	0.70	576	3.35	2.35	0.70	606	3.30	2.31	0.70	624	3.20	2.24	0.70	642

NOTE Q : Total capacity (kW)

SHF : Sensible heat factor

DB : Dry-bulb temperature

SHC : Sensible heat capacity (kW)

INPUT : Total power input (W)

WB : Wet-bulb temperature

PERFORMANCE DATA COOL operation at Rated frequency

MUZ-AP25VG MUZ-AP25VGH

CAPACITY: 2.5 kW

SHF: 0.92

INPUT: 600 W

INDOOR DB (°C)	INDOOR WB (°C)	OUTDOOR DB (°C)											
		35				40				46			
		Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	2.45	1.81	0.74	588	2.25	1.67	0.74	624	2.08	1.54	0.74	648
21	20	2.58	1.60	0.62	612	2.40	1.49	0.62	642	2.23	1.38	0.62	678
22	18	2.45	1.91	0.78	588	2.25	1.76	0.78	624	2.08	1.62	0.78	648
22	20	2.58	1.70	0.66	612	2.40	1.58	0.66	642	2.23	1.47	0.66	678
22	22	2.73	1.47	0.54	636	2.55	1.38	0.54	672	2.38	1.28	0.54	696
23	18	2.45	2.01	0.82	588	2.25	1.85	0.82	624	2.08	1.70	0.82	648
23	20	2.58	1.80	0.70	612	2.40	1.68	0.70	642	2.23	1.56	0.70	678
23	22	2.73	1.58	0.58	636	2.55	1.48	0.58	672	2.38	1.38	0.58	696
24	18	2.45	2.11	0.86	588	2.25	1.94	0.86	624	2.08	1.78	0.86	648
24	20	2.58	1.91	0.74	612	2.40	1.78	0.74	642	2.23	1.65	0.74	678
24	22	2.73	1.69	0.62	636	2.55	1.58	0.62	672	2.38	1.47	0.62	696
24	24	2.88	1.44	0.50	660	2.70	1.35	0.50	690	2.55	1.28	0.50	720
25	18	2.45	2.21	0.90	588	2.25	2.03	0.90	624	2.08	1.87	0.9	648
25	20	2.58	2.01	0.78	612	2.40	1.87	0.78	642	2.23	1.74	0.78	678
25	22	2.73	1.80	0.66	636	2.55	1.68	0.66	672	2.38	1.57	0.66	696
25	24	2.88	1.55	0.54	660	2.70	1.46	0.54	690	2.55	1.38	0.54	720
26	18	2.45	2.30	0.94	588	2.25	2.12	0.94	624	2.08	1.95	0.94	648
26	20	2.58	2.11	0.82	612	2.40	1.97	0.82	642	2.23	1.82	0.82	678
26	22	2.73	1.91	0.70	636	2.55	1.79	0.70	672	2.38	1.66	0.70	696
26	24	2.88	1.67	0.58	660	2.70	1.57	0.58	690	2.55	1.48	0.58	720
26	26	3.03	1.39	0.46	684	2.85	1.31	0.46	714	2.68	1.23	0.46	744
27	18	2.45	2.40	0.98	588	2.25	2.21	0.98	624	2.08	2.03	0.98	648
27	20	2.58	2.21	0.86	612	2.40	2.06	0.86	642	2.23	1.91	0.86	678
27	22	2.73	2.02	0.74	636	2.55	1.89	0.74	672	2.38	1.76	0.74	696
27	24	2.88	1.78	0.62	660	2.70	1.67	0.62	690	2.55	1.58	0.62	720
27	26	3.03	1.51	0.50	684	2.85	1.43	0.50	714	2.68	1.34	0.50	744
28	18	2.45	2.45	1.00	588	2.25	2.25	1.00	624	2.08	2.08	1.00	648
28	20	2.58	2.32	0.90	612	2.40	2.16	0.90	642	2.23	2.00	0.90	678
28	22	2.73	2.13	0.78	636	2.55	1.99	0.78	672	2.38	1.85	0.78	696
28	24	2.88	1.90	0.66	660	2.70	1.78	0.66	690	2.55	1.68	0.66	720
28	26	3.03	1.63	0.54	684	2.85	1.54	0.54	714	2.68	1.44	0.54	744
29	18	2.45	2.45	1.00	588	2.25	2.25	1.00	624	2.08	2.08	1.00	648
29	20	2.58	2.42	0.94	612	2.40	2.26	0.94	642	2.23	2.09	0.94	678
29	22	2.73	2.23	0.82	636	2.55	2.09	0.82	672	2.38	1.95	0.82	696
29	24	2.88	2.01	0.70	660	2.70	1.89	0.70	690	2.55	1.79	0.70	720
29	26	3.03	1.75	0.58	684	2.85	1.65	0.58	714	2.68	1.55	0.58	744
30	18	2.45	2.45	1.00	588	2.25	2.25	1.00	624	2.08	2.08	1.00	648
30	20	2.58	2.52	0.98	612	2.40	2.35	0.98	642	2.23	2.18	0.98	678
30	22	2.73	2.34	0.86	636	2.55	2.19	0.86	672	2.38	2.04	0.86	696
30	24	2.88	2.13	0.74	660	2.70	2.00	0.74	690	2.55	1.89	0.74	720
30	26	3.03	1.88	0.62	684	2.85	1.77	0.62	714	2.68	1.66	0.62	744
31	18	2.45	2.45	1.00	588	2.25	2.25	1.00	624	2.08	2.08	1.00	648
31	20	2.58	2.58	1.00	612	2.40	2.40	1.00	642	2.23	2.23	1.00	678
31	22	2.73	2.45	0.90	636	2.55	2.30	0.90	672	2.38	2.14	0.90	696
31	24	2.88	2.24	0.78	660	2.70	2.11	0.78	690	2.55	1.99	0.78	720
31	26	3.03	2.00	0.66	684	2.85	1.88	0.66	714	2.68	1.77	0.66	744
32	18	2.45	2.45	1.00	588	2.25	2.25	1.00	624	2.08	2.08	1.00	648
32	20	2.58	2.58	1.00	612	2.40	2.40	1.00	642	2.23	2.23	1.00	678
32	22	2.73	2.56	0.94	636	2.55	2.40	0.94	672	2.38	2.23	0.94	696
32	24	2.88	2.36	0.82	660	2.70	2.21	0.82	690	2.55	2.09	0.82	720
32	26	3.03	2.12	0.70	684	2.85	2.00	0.70	714	2.68	1.87	0.70	744

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

PERFORMANCE DATA COOL operation at Rated frequency

MUZ-AP35VG MUZ-AP35VGH

CAPACITY: 3.5 kW

SHF: 0.88

INPUT: 990 W

INDOOR DB (°C)	INDOOR WB (°C)	OUTDOOR DB (°C)															
		21				25				27				30			
		Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	4.11	2.88	0.70	792	3.94	2.76	0.70	832	3.78	2.65	0.70	871	3.64	2.55	0.70	911
21	20	4.29	2.49	0.58	832	4.11	2.39	0.58	881	3.99	2.31	0.58	901	3.85	2.23	0.58	941
22	18	4.11	3.04	0.74	792	3.94	2.91	0.74	832	3.78	2.80	0.74	871	3.64	2.69	0.74	911
22	20	4.29	2.66	0.62	832	4.11	2.55	0.62	881	3.99	2.47	0.62	901	3.85	2.39	0.62	941
22	22	4.46	2.23	0.50	861	4.31	2.15	0.50	916	4.20	2.10	0.50	941	4.03	2.01	0.50	980
23	18	4.11	3.21	0.78	792	3.94	3.07	0.78	832	3.78	2.95	0.78	871	3.64	2.84	0.78	911
23	20	4.29	2.83	0.66	832	4.11	2.71	0.66	881	3.99	2.63	0.66	901	3.85	2.54	0.66	941
23	22	4.46	2.41	0.54	861	4.31	2.32	0.54	916	4.20	2.27	0.54	941	4.03	2.17	0.54	980
24	18	4.11	3.37	0.82	792	3.94	3.23	0.82	832	3.78	3.10	0.82	871	3.64	2.98	0.82	911
24	20	4.29	3.00	0.70	832	4.11	2.88	0.70	881	3.99	2.79	0.70	901	3.85	2.70	0.70	941
24	22	4.46	2.59	0.58	861	4.31	2.50	0.58	916	4.20	2.44	0.58	941	4.03	2.33	0.58	980
24	24	4.69	2.16	0.46	901	4.52	2.08	0.46	950	4.41	2.03	0.46	980	4.27	1.96	0.46	1030
25	18	4.11	3.54	0.86	792	3.94	3.39	0.86	832	3.78	3.25	0.86	871	3.64	3.13	0.86	911
25	20	4.29	3.17	0.74	832	4.11	3.04	0.74	881	3.99	2.95	0.74	901	3.85	2.85	0.74	941
25	22	4.46	2.77	0.62	861	4.31	2.67	0.62	916	4.20	2.60	0.62	941	4.03	2.50	0.62	980
25	24	4.69	2.35	0.50	901	4.52	2.26	0.50	950	4.41	2.21	0.50	980	4.27	2.14	0.50	1030
26	18	4.11	3.70	0.90	792	3.94	3.54	0.90	832	3.78	3.40	0.90	871	3.64	3.28	0.90	911
26	20	4.29	3.34	0.78	832	4.11	3.21	0.78	881	3.99	3.11	0.78	901	3.85	3.00	0.78	941
26	22	4.46	2.95	0.66	861	4.31	2.84	0.66	916	4.20	2.77	0.66	941	4.03	2.66	0.66	980
26	24	4.69	2.53	0.54	901	4.52	2.44	0.54	950	4.41	2.38	0.54	980	4.27	2.31	0.54	1030
26	26	4.83	2.03	0.42	950	4.69	1.97	0.42	1000	4.62	1.94	0.42	1030	4.48	1.88	0.42	1059
27	18	4.11	3.87	0.94	792	3.94	3.70	0.94	832	3.78	3.55	0.94	871	3.64	3.42	0.94	911
27	20	4.29	3.52	0.82	832	4.11	3.37	0.82	881	3.99	3.27	0.82	901	3.85	3.16	0.82	941
27	22	4.46	3.12	0.70	861	4.31	3.01	0.70	916	4.20	2.94	0.70	941	4.03	2.82	0.70	980
27	24	4.69	2.72	0.58	901	4.52	2.62	0.58	950	4.41	2.56	0.58	980	4.27	2.48	0.58	1030
27	26	4.83	2.22	0.46	950	4.69	2.16	0.46	1000	4.62	2.13	0.46	1030	4.48	2.06	0.46	1059
28	18	4.11	4.03	0.98	792	3.94	3.86	0.98	832	3.78	3.70	0.98	871	3.64	3.57	0.98	911
28	20	4.29	3.69	0.86	832	4.11	3.54	0.86	881	3.99	3.43	0.86	901	3.85	3.31	0.86	941
28	22	4.46	3.30	0.74	861	4.31	3.19	0.74	916	4.20	3.11	0.74	941	4.03	2.98	0.74	980
28	24	4.69	2.91	0.62	901	4.52	2.80	0.62	950	4.41	2.73	0.62	980	4.27	2.65	0.62	1030
28	26	4.83	2.42	0.50	950	4.69	2.35	0.50	1000	4.62	2.31	0.50	1030	4.48	2.24	0.50	1059
29	18	4.11	4.11	1.00	792	3.94	3.94	1.00	832	3.78	3.78	1.00	871	3.64	3.64	1.00	911
29	20	4.29	3.86	0.90	832	4.11	3.70	0.90	881	3.99	3.59	0.90	901	3.85	3.47	0.90	941
29	22	4.46	3.48	0.78	861	4.31	3.36	0.78	916	4.20	3.28	0.78	941	4.03	3.14	0.78	980
29	24	4.69	3.10	0.66	901	4.52	2.98	0.66	950	4.41	2.91	0.66	980	4.27	2.82	0.66	1030
29	26	4.83	2.61	0.54	950	4.69	2.53	0.54	1000	4.62	2.49	0.54	1030	4.48	2.42	0.54	1059
30	18	4.11	4.11	1.00	792	3.94	3.94	1.00	832	3.78	3.78	1.00	871	3.64	3.64	1.00	911
30	20	4.29	4.03	0.94	832	4.11	3.87	0.94	881	3.99	3.75	0.94	901	3.85	3.62	0.94	941
30	22	4.46	3.66	0.82	861	4.31	3.53	0.82	916	4.20	3.44	0.82	941	4.03	3.30	0.82	980
30	24	4.69	3.28	0.70	901	4.52	3.16	0.70	950	4.41	3.09	0.70	980	4.27	2.99	0.70	1030
30	26	4.83	2.80	0.58	950	4.69	2.72	0.58	1000	4.62	2.68	0.58	1030	4.48	2.60	0.58	1059
31	18	4.11	4.11	1.00	792	3.94	3.94	1.00	832	3.78	3.78	1.00	871	3.64	3.64	1.00	911
31	20	4.29	4.20	0.98	832	4.11	4.03	0.98	881	3.99	3.91	0.98	901	3.85	3.77	0.98	941
31	22	4.46	3.84	0.86	861	4.31	3.70	0.86	916	4.20	3.61	0.86	941	4.03	3.46	0.86	980
31	24	4.69	3.47	0.74	901	4.52	3.34	0.74	950	4.41	3.26	0.74	980	4.27	3.16	0.74	1030
31	26	4.83	2.99	0.62	950	4.69	2.91	0.62	1000	4.62	2.86	0.62	1030	4.48	2.78	0.62	1059
32	18	4.11	4.11	1.00	792	3.94	3.94	1.00	832	3.78	3.78	1.00	871	3.64	3.64	1.00	911
32	20	4.29	4.29	1.00	832	4.11	4.11	1.00	881	3.99	3.99	1.00	901	3.85	3.85	1.00	941
32	22	4.46	4.02	0.90	861	4.31	3.87	0.90	916	4.20	3.78	0.90	941	4.03	3.62	0.90	980
32	24	4.69	3.66	0.78	901	4.52	3.52	0.78	950	4.41	3.44	0.78	980	4.27	3.33	0.78	1030
32	26	4.83	3.19	0.66	950	4.69	3.10	0.66	1000	4.62	3.05	0.66	1030	4.48	2.96	0.66	1059

NOTE Q : Total capacity (kW)

SHF : Sensible heat factor

DB : Dry-bulb temperature

SHC : Sensible heat capacity (kW)

INPUT : Total power input (W)

WB : Wet-bulb temperature

PERFORMANCE DATA COOL operation at Rated frequency

MUZ-AP35VG MUZ-AP35VGH

CAPACITY: 3.5 kW

SHF: 0.88

INPUT: 990 W

INDOOR DB (°C)	INDOOR WB (°C)	OUTDOOR DB (°C)											
		35				40				46			
		Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	3.43	2.40	0.70	970	3.15	2.21	0.70	1030	2.91	2.03	0.70	1069
21	20	3.61	2.09	0.58	1010	3.36	1.95	0.58	1059	3.12	1.81	0.58	1119
22	18	3.43	2.54	0.74	970	3.15	2.33	0.74	1030	2.91	2.15	0.74	1069
22	20	3.61	2.24	0.62	1010	3.36	2.08	0.62	1059	3.12	1.93	0.62	1119
22	22	3.82	1.91	0.50	1049	3.57	1.79	0.50	1109	3.33	1.66	0.50	1148
23	18	3.43	2.68	0.78	970	3.15	2.46	0.78	1030	2.91	2.27	0.78	1069
23	20	3.61	2.38	0.66	1010	3.36	2.22	0.66	1059	3.12	2.06	0.66	1119
23	22	3.82	2.06	0.54	1049	3.57	1.93	0.54	1109	3.33	1.80	0.54	1148
24	18	3.43	2.81	0.82	970	3.15	2.58	0.82	1030	2.91	2.38	0.82	1069
24	20	3.61	2.52	0.70	1010	3.36	2.35	0.70	1059	3.12	2.18	0.70	1119
24	22	3.82	2.21	0.58	1049	3.57	2.07	0.58	1109	3.33	1.93	0.58	1148
24	24	4.03	1.85	0.46	1089	3.78	1.74	0.46	1139	3.57	1.64	0.46	1188
25	18	3.43	2.95	0.86	970	3.15	2.71	0.86	1030	2.91	2.50	0.86	1069
25	20	3.61	2.67	0.74	1010	3.36	2.49	0.74	1059	3.12	2.31	0.74	1119
25	22	3.82	2.37	0.62	1049	3.57	2.21	0.62	1109	3.33	2.06	0.62	1148
25	24	4.03	2.01	0.50	1089	3.78	1.89	0.50	1139	3.57	1.79	0.50	1188
26	18	3.43	3.09	0.90	970	3.15	2.84	0.90	1030	2.91	2.61	0.90	1069
26	20	3.61	2.81	0.78	1010	3.36	2.62	0.78	1059	3.12	2.43	0.78	1119
26	22	3.82	2.52	0.66	1049	3.57	2.36	0.66	1109	3.33	2.19	0.66	1148
26	24	4.03	2.17	0.54	1089	3.78	2.04	0.54	1139	3.57	1.93	0.54	1188
26	26	4.24	1.78	0.42	1129	3.99	1.68	0.42	1178	3.75	1.57	0.42	1228
27	18	3.43	3.22	0.94	970	3.15	2.96	0.94	1030	2.91	2.73	0.94	1069
27	20	3.61	2.96	0.82	1010	3.36	2.76	0.82	1059	3.12	2.55	0.82	1119
27	22	3.82	2.67	0.70	1049	3.57	2.50	0.70	1109	3.33	2.33	0.70	1148
27	24	4.03	2.33	0.58	1089	3.78	2.19	0.58	1139	3.57	2.07	0.58	1188
27	26	4.24	1.95	0.46	1129	3.99	1.84	0.46	1178	3.75	1.72	0.46	1228
28	18	3.43	3.36	0.98	970	3.15	3.09	0.98	1030	2.91	2.85	0.98	1069
28	20	3.61	3.10	0.86	1010	3.36	2.89	0.86	1059	3.12	2.68	0.86	1119
28	22	3.82	2.82	0.74	1049	3.57	2.64	0.74	1109	3.33	2.46	0.74	1148
28	24	4.03	2.50	0.62	1089	3.78	2.34	0.62	1139	3.57	2.21	0.62	1188
28	26	4.24	2.12	0.50	1129	3.99	2.00	0.50	1178	3.75	1.87	0.50	1228
29	18	3.43	3.43	1.00	970	3.15	3.15	1.00	1030	2.91	2.91	1.00	1069
29	20	3.61	3.24	0.90	1010	3.36	3.02	0.90	1059	3.12	2.80	0.90	1119
29	22	3.82	2.98	0.78	1049	3.57	2.78	0.78	1109	3.33	2.59	0.78	1148
29	24	4.03	2.66	0.66	1089	3.78	2.49	0.66	1139	3.57	2.36	0.66	1188
29	26	4.24	2.29	0.54	1129	3.99	2.15	0.54	1178	3.75	2.02	0.54	1228
30	18	3.43	3.43	1.00	970	3.15	3.15	1.00	1030	2.91	2.91	1.00	1069
30	20	3.61	3.39	0.94	1010	3.36	3.16	0.94	1059	3.12	2.93	0.94	1119
30	22	3.82	3.13	0.82	1049	3.57	2.93	0.82	1109	3.33	2.73	0.82	1148
30	24	4.03	2.82	0.70	1089	3.78	2.65	0.70	1139	3.57	2.50	0.70	1188
30	26	4.24	2.46	0.58	1129	3.99	2.31	0.58	1178	3.75	2.17	0.58	1228
31	18	3.43	3.43	1.00	970	3.15	3.15	1.00	1030	2.91	2.91	1.00	1069
31	20	3.61	3.53	0.98	1010	3.36	3.29	0.98	1059	3.12	3.05	0.98	1119
31	22	3.82	3.28	0.86	1049	3.57	3.07	0.86	1109	3.33	2.86	0.86	1148
31	24	4.03	2.98	0.74	1089	3.78	2.80	0.74	1139	3.57	2.64	0.74	1188
31	26	4.24	2.63	0.62	1129	3.99	2.47	0.62	1178	3.75	2.32	0.62	1228
32	18	3.43	3.43	1.00	970	3.15	3.15	1.00	1030	2.91	2.91	1.00	1069
32	20	3.61	3.61	1.00	1010	3.36	3.36	1.00	1059	3.12	3.12	1.00	1119
32	22	3.82	3.43	0.90	1049	3.57	3.21	0.90	1109	3.33	2.99	0.90	1148
32	24	4.03	3.14	0.78	1089	3.78	2.95	0.78	1139	3.57	2.78	0.78	1188
32	26	4.24	2.80	0.66	1129	3.99	2.63	0.66	1178	3.75	2.47	0.66	1228

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

PERFORMANCE DATA COOL operation at Rated frequency

MUZ-AP42VG MUZ-AP42VGH

CAPACITY: 4.2 kW

SHF: 0.77

INPUT: 1300 W

INDOOR DB (°C)	INDOOR WB (°C)	OUTDOOR DB (°C)															
		21				25				27				30			
		Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	4.94	2.91	0.59	1040	4.73	2.79	0.59	1092	4.54	2.68	0.59	1144	4.37	2.58	0.59	1196
21	20	5.15	2.42	0.47	1092	4.94	2.32	0.47	1157	4.79	2.25	0.47	1183	4.62	2.17	0.47	1235
22	18	4.94	3.11	0.63	1040	4.73	2.98	0.63	1092	4.54	2.86	0.63	1144	4.37	2.75	0.63	1196
22	20	5.15	2.62	0.51	1092	4.94	2.52	0.51	1157	4.79	2.44	0.51	1183	4.62	2.36	0.51	1235
22	22	5.36	2.09	0.39	1131	5.17	2.01	0.39	1203	5.04	1.97	0.39	1235	4.83	1.88	0.39	1287
23	18	4.94	3.31	0.67	1040	4.73	3.17	0.67	1092	4.54	3.04	0.67	1144	4.37	2.93	0.67	1196
23	20	5.15	2.83	0.55	1092	4.94	2.71	0.55	1157	4.79	2.63	0.55	1183	4.62	2.54	0.55	1235
23	22	5.36	2.30	0.43	1131	5.17	2.22	0.43	1203	5.04	2.17	0.43	1235	4.83	2.08	0.43	1287
24	18	4.94	3.50	0.71	1040	4.73	3.35	0.71	1092	4.54	3.22	0.71	1144	4.37	3.10	0.71	1196
24	20	5.15	3.04	0.59	1092	4.94	2.91	0.59	1157	4.79	2.82	0.59	1183	4.62	2.73	0.59	1235
24	22	5.36	2.52	0.47	1131	5.17	2.43	0.47	1203	5.04	2.37	0.47	1235	4.83	2.27	0.47	1287
24	24	5.63	1.97	0.35	1183	5.42	1.90	0.35	1248	5.29	1.85	0.35	1287	5.12	1.79	0.35	1352
25	18	4.94	3.70	0.75	1040	4.73	3.54	0.75	1092	4.54	3.40	0.75	1144	4.37	3.28	0.75	1196
25	20	5.15	3.24	0.63	1092	4.94	3.11	0.63	1157	4.79	3.02	0.63	1183	4.62	2.91	0.63	1235
25	22	5.36	2.73	0.51	1131	5.17	2.63	0.51	1203	5.04	2.57	0.51	1235	4.83	2.46	0.51	1287
25	24	5.63	2.19	0.39	1183	5.42	2.11	0.39	1248	5.29	2.06	0.39	1287	5.12	2.00	0.39	1352
26	18	4.94	3.90	0.79	1040	4.73	3.73	0.79	1092	4.54	3.58	0.79	1144	4.37	3.45	0.79	1196
26	20	5.15	3.45	0.67	1092	4.94	3.31	0.67	1157	4.79	3.21	0.67	1183	4.62	3.10	0.67	1235
26	22	5.36	2.95	0.55	1131	5.17	2.84	0.55	1203	5.04	2.77	0.55	1235	4.83	2.66	0.55	1287
26	24	5.63	2.42	0.43	1183	5.42	2.33	0.43	1248	5.29	2.28	0.43	1287	5.12	2.20	0.43	1352
26	26	5.80	1.80	0.31	1248	5.63	1.74	0.31	1313	5.54	1.72	0.31	1352	5.38	1.67	0.31	1391
27	18	4.94	4.10	0.83	1040	4.73	3.92	0.83	1092	4.54	3.76	0.83	1144	4.37	3.63	0.83	1196
27	20	5.15	3.65	0.71	1092	4.94	3.50	0.71	1157	4.79	3.40	0.71	1183	4.62	3.28	0.71	1235
27	22	5.36	3.16	0.59	1131	5.17	3.05	0.59	1203	5.04	2.97	0.59	1235	4.83	2.85	0.59	1287
27	24	5.63	2.65	0.47	1183	5.42	2.55	0.47	1248	5.29	2.49	0.47	1287	5.12	2.41	0.47	1352
27	26	5.80	2.03	0.35	1248	5.63	1.97	0.35	1313	5.54	1.94	0.35	1352	5.38	1.88	0.35	1391
28	18	4.94	4.29	0.87	1040	4.73	4.11	0.87	1092	4.54	3.95	0.87	1144	4.37	3.80	0.87	1196
28	20	5.15	3.86	0.75	1092	4.94	3.70	0.75	1157	4.79	3.59	0.75	1183	4.62	3.47	0.75	1235
28	22	5.36	3.37	0.63	1131	5.17	3.25	0.63	1203	5.04	3.18	0.63	1235	4.83	3.04	0.63	1287
28	24	5.63	2.87	0.51	1183	5.42	2.76	0.51	1248	5.29	2.70	0.51	1287	5.12	2.61	0.51	1352
28	26	5.80	2.26	0.39	1248	5.63	2.19	0.39	1313	5.54	2.16	0.39	1352	5.38	2.10	0.39	1391
29	18	4.94	4.49	0.91	1040	4.73	4.30	0.91	1092	4.54	4.13	0.91	1144	4.37	3.97	0.91	1196
29	20	5.15	4.06	0.79	1092	4.94	3.90	0.79	1157	4.79	3.78	0.79	1183	4.62	3.65	0.79	1235
29	22	5.36	3.59	0.67	1131	5.17	3.46	0.67	1203	5.04	3.38	0.67	1235	4.83	3.24	0.67	1287
29	24	5.63	3.10	0.55	1183	5.42	2.98	0.55	1248	5.29	2.91	0.55	1287	5.12	2.82	0.55	1352
29	26	5.80	2.49	0.43	1248	5.63	2.42	0.43	1313	5.54	2.38	0.43	1352	5.38	2.31	0.43	1391
30	18	4.94	4.69	0.95	1040	4.73	4.49	0.95	1092	4.54	4.31	0.95	1144	4.37	4.15	0.95	1196
30	20	5.15	4.27	0.83	1092	4.94	4.10	0.83	1157	4.79	3.97	0.83	1183	4.62	3.83	0.83	1235
30	22	5.36	3.80	0.71	1131	5.17	3.67	0.71	1203	5.04	3.58	0.71	1235	4.83	3.43	0.71	1287
30	24	5.63	3.32	0.59	1183	5.42	3.20	0.59	1248	5.29	3.12	0.59	1287	5.12	3.02	0.59	1352
30	26	5.80	2.72	0.47	1248	5.63	2.65	0.47	1313	5.54	2.61	0.47	1352	5.38	2.53	0.47	1391
31	18	4.94	4.89	0.99	1040	4.73	4.68	0.99	1092	4.54	4.49	0.99	1144	4.37	4.32	0.99	1196
31	20	5.15	4.48	0.87	1092	4.94	4.29	0.87	1157	4.79	4.17	0.87	1183	4.62	4.02	0.87	1235
31	22	5.36	4.02	0.75	1131	5.17	3.87	0.75	1203	5.04	3.78	0.75	1235	4.83	3.62	0.75	1287
31	24	5.63	3.55	0.63	1183	5.42	3.41	0.63	1248	5.29	3.33	0.63	1287	5.12	3.23	0.63	1352
31	26	5.80	2.96	0.51	1248	5.63	2.87	0.51	1313	5.54	2.83	0.51	1352	5.38	2.74	0.51	1391
32	18	4.94	4.94	1.00	1040	4.73	4.73	1.00	1092	4.54	4.54	1.00	1144	4.37	4.37	1.00	1196
32	20	5.15	4.68	0.91	1092	4.94	4.49	0.91	1157	4.79	4.36	0.91	1183	4.62	4.20	0.91	1235
32	22	5.36	4.23	0.79	1131	5.17	4.08	0.79	1203	5.04	3.98	0.79	1235	4.83	3.82	0.79	1287
32	24	5.63	3.77	0.67	1183	5.42	3.63	0.67	1248	5.29	3.55	0.67	1287	5.12	3.43	0.67	1352
32	26	5.80	3.19	0.55	1248	5.63	3.10	0.55	1313	5.54	3.05	0.55	1352	5.38	2.96	0.55	1391

NOTE Q : Total capacity (kW)

SHF : Sensible heat factor

DB : Dry-bulb temperature

SHC : Sensible heat capacity (kW)

INPUT : Total power input (W)

WB : Wet-bulb temperature

PERFORMANCE DATA COOL operation at Rated frequency

MUZ-AP42VG MUZ-AP42VGH

CAPACITY: 4.2 kW

SHF: 0.77

INPUT: 1300 W

INDOOR DB (°C)	INDOOR WB (°C)	OUTDOOR DB (°C)											
		35				40				46			
		Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	4.12	2.43	0.59	1274	3.78	2.23	0.59	1352	3.49	2.06	0.59	1404
21	20	4.33	2.03	0.47	1326	4.03	1.90	0.47	1391	3.74	1.76	0.47	1469
22	18	4.12	2.59	0.63	1274	3.78	2.38	0.63	1352	3.49	2.20	0.63	1404
22	20	4.33	2.21	0.51	1326	4.03	2.06	0.51	1391	3.74	1.91	0.51	1469
22	22	4.58	1.79	0.39	1378	4.28	1.67	0.39	1456	3.99	1.56	0.39	1508
23	18	4.12	2.76	0.67	1274	3.78	2.53	0.67	1352	3.49	2.34	0.67	1404
23	20	4.33	2.38	0.55	1326	4.03	2.22	0.55	1391	3.74	2.06	0.55	1469
23	22	4.58	1.97	0.43	1378	4.28	1.84	0.43	1456	3.99	1.72	0.43	1508
24	18	4.12	2.92	0.71	1274	3.78	2.68	0.71	1352	3.49	2.48	0.71	1404
24	20	4.33	2.55	0.59	1326	4.03	2.38	0.59	1391	3.74	2.21	0.59	1469
24	22	4.58	2.15	0.47	1378	4.28	2.01	0.47	1456	3.99	1.88	0.47	1508
24	24	4.83	1.69	0.35	1430	4.54	1.59	0.35	1495	4.28	1.50	0.35	1560
25	18	4.12	3.09	0.75	1274	3.78	2.84	0.75	1352	3.49	2.61	0.75	1404
25	20	4.33	2.73	0.63	1326	4.03	2.54	0.63	1391	3.74	2.35	0.63	1469
25	22	4.58	2.33	0.51	1378	4.28	2.18	0.51	1456	3.99	2.03	0.51	1508
25	24	4.83	1.88	0.39	1430	4.54	1.77	0.39	1495	4.28	1.67	0.39	1560
26	18	4.12	3.25	0.79	1274	3.78	2.99	0.79	1352	3.49	2.75	0.79	1404
26	20	4.33	2.90	0.67	1326	4.03	2.70	0.67	1391	3.74	2.50	0.67	1469
26	22	4.58	2.52	0.55	1378	4.28	2.36	0.55	1456	3.99	2.19	0.55	1508
26	24	4.83	2.08	0.43	1430	4.54	1.95	0.43	1495	4.28	1.84	0.43	1560
26	26	5.08	1.58	0.31	1482	4.79	1.48	0.31	1547	4.49	1.39	0.31	1612
27	18	4.12	3.42	0.83	1274	3.78	3.14	0.83	1352	3.49	2.89	0.83	1404
27	20	4.33	3.07	0.71	1326	4.03	2.86	0.71	1391	3.74	2.65	0.71	1469
27	22	4.58	2.70	0.59	1378	4.28	2.53	0.59	1456	3.99	2.35	0.59	1508
27	24	4.83	2.27	0.47	1430	4.54	2.13	0.47	1495	4.28	2.01	0.47	1560
27	26	5.08	1.78	0.35	1482	4.79	1.68	0.35	1547	4.49	1.57	0.35	1612
28	18	4.12	3.58	0.87	1274	3.78	3.29	0.87	1352	3.49	3.03	0.87	1404
28	20	4.33	3.24	0.75	1326	4.03	3.02	0.75	1391	3.74	2.80	0.75	1469
28	22	4.58	2.88	0.63	1378	4.28	2.70	0.63	1456	3.99	2.51	0.63	1508
28	24	4.83	2.46	0.51	1430	4.54	2.31	0.51	1495	4.28	2.18	0.51	1560
28	26	5.08	1.98	0.39	1482	4.79	1.87	0.39	1547	4.49	1.75	0.39	1612
29	18	4.12	3.75	0.91	1274	3.78	3.44	0.91	1352	3.49	3.17	0.91	1404
29	20	4.33	3.42	0.79	1326	4.03	3.19	0.79	1391	3.74	2.95	0.79	1469
29	22	4.58	3.07	0.67	1378	4.28	2.87	0.67	1456	3.99	2.67	0.67	1508
29	24	4.83	2.66	0.55	1430	4.54	2.49	0.55	1495	4.28	2.36	0.55	1560
29	26	5.08	2.19	0.43	1482	4.79	2.06	0.43	1547	4.49	1.93	0.43	1612
30	18	4.12	3.91	0.95	1274	3.78	3.59	0.95	1352	3.49	3.31	0.95	1404
30	20	4.33	3.59	0.83	1326	4.03	3.35	0.83	1391	3.74	3.10	0.83	1469
30	22	4.58	3.25	0.71	1378	4.28	3.04	0.71	1456	3.99	2.83	0.71	1508
30	24	4.83	2.85	0.59	1430	4.54	2.68	0.59	1495	4.28	2.53	0.59	1560
30	26	5.08	2.39	0.47	1482	4.79	2.25	0.47	1547	4.49	2.11	0.47	1612
31	18	4.12	4.07	0.99	1274	3.78	3.74	0.99	1352	3.49	3.45	0.99	1404
31	20	4.33	3.76	0.87	1326	4.03	3.51	0.87	1391	3.74	3.25	0.87	1469
31	22	4.58	3.43	0.75	1378	4.28	3.21	0.75	1456	3.99	2.99	0.75	1508
31	24	4.83	3.04	0.63	1430	4.54	2.86	0.63	1495	4.28	2.70	0.63	1560
31	26	5.08	2.59	0.51	1482	4.79	2.44	0.51	1547	4.49	2.29	0.51	1612
32	18	4.12	4.12	1.00	1274	3.78	3.78	1.00	1352	3.49	3.49	1.00	1404
32	20	4.33	3.94	0.91	1326	4.03	3.67	0.91	1391	3.74	3.40	0.91	1469
32	22	4.58	3.62	0.79	1378	4.28	3.38	0.79	1456	3.99	3.15	0.79	1508
32	24	4.83	3.24	0.67	1430	4.54	3.04	0.67	1495	4.28	2.87	0.67	1560
32	26	5.08	2.80	0.55	1482	4.79	2.63	0.55	1547	4.49	2.47	0.55	1612

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

PERFORMANCE DATA COOL operation at Rated frequency

MUZ-AP50VG MUZ-AP50VGH

CAPACITY: 5.0 kW

SHF: 0.74

INPUT: 1550 W

INDOOR DB (°C)	INDOOR WB (°C)	OUTDOOR DB (°C)															
		21				25				27				30			
		Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	5.88	3.29	0.56	1240	5.63	3.15	0.56	1302	5.40	3.02	0.56	1364	5.20	2.91	0.56	1426
21	20	6.13	2.70	0.44	1302	5.88	2.59	0.44	1380	5.70	2.51	0.44	1411	5.50	2.42	0.44	1473
22	18	5.88	3.53	0.60	1240	5.63	3.38	0.60	1302	5.40	3.24	0.60	1364	5.20	3.12	0.60	1426
22	20	6.13	2.94	0.48	1302	5.88	2.82	0.48	1380	5.70	2.74	0.48	1411	5.50	2.64	0.48	1473
22	22	6.38	2.30	0.36	1349	6.15	2.21	0.36	1434	6.00	2.16	0.36	1473	5.75	2.07	0.36	1535
23	18	5.88	3.76	0.64	1240	5.63	3.60	0.64	1302	5.40	3.46	0.64	1364	5.20	3.33	0.64	1426
23	20	6.13	3.19	0.52	1302	5.88	3.06	0.52	1380	5.70	2.96	0.52	1411	5.50	2.86	0.52	1473
23	22	6.38	2.55	0.40	1349	6.15	2.46	0.40	1434	6.00	2.40	0.40	1473	5.75	2.30	0.40	1535
24	18	5.88	4.00	0.68	1240	5.63	3.83	0.68	1302	5.40	3.67	0.68	1364	5.20	3.54	0.68	1426
24	20	6.13	3.43	0.56	1302	5.88	3.29	0.56	1380	5.70	3.19	0.56	1411	5.50	3.08	0.56	1473
24	22	6.38	2.81	0.44	1349	6.15	2.71	0.44	1434	6.00	2.64	0.44	1473	5.75	2.53	0.44	1535
24	24	6.70	2.14	0.32	1411	6.45	2.06	0.32	1488	6.30	2.02	0.32	1535	6.10	1.95	0.32	1612
25	18	5.88	4.23	0.72	1240	5.63	4.05	0.72	1302	5.40	3.89	0.72	1364	5.20	3.74	0.72	1426
25	20	6.13	3.68	0.60	1302	5.88	3.53	0.60	1380	5.70	3.42	0.60	1411	5.50	3.30	0.60	1473
25	22	6.38	3.06	0.48	1349	6.15	2.95	0.48	1434	6.00	2.88	0.48	1473	5.75	2.76	0.48	1535
25	24	6.70	2.41	0.36	1411	6.45	2.32	0.36	1488	6.30	2.27	0.36	1535	6.10	2.20	0.36	1612
26	18	5.88	4.47	0.76	1240	5.63	4.28	0.76	1302	5.40	4.10	0.76	1364	5.20	3.95	0.76	1426
26	20	6.13	3.92	0.64	1302	5.88	3.76	0.64	1380	5.70	3.65	0.64	1411	5.50	3.52	0.64	1473
26	22	6.38	3.32	0.52	1349	6.15	3.20	0.52	1434	6.00	3.12	0.52	1473	5.75	2.99	0.52	1535
26	24	6.70	2.68	0.40	1411	6.45	2.58	0.40	1488	6.30	2.52	0.40	1535	6.10	2.44	0.40	1612
26	26	6.90	1.93	0.28	1488	6.70	1.88	0.28	1566	6.60	1.85	0.28	1612	6.40	1.79	0.28	1659
27	18	5.88	4.70	0.80	1240	5.63	4.50	0.80	1302	5.40	4.32	0.80	1364	5.20	4.16	0.80	1426
27	20	6.13	4.17	0.68	1302	5.88	4.00	0.68	1380	5.70	3.88	0.68	1411	5.50	3.74	0.68	1473
27	22	6.38	3.57	0.56	1349	6.15	3.44	0.56	1434	6.00	3.36	0.56	1473	5.75	3.22	0.56	1535
27	24	6.70	2.95	0.44	1411	6.45	2.84	0.44	1488	6.30	2.77	0.44	1535	6.10	2.68	0.44	1612
27	26	6.90	2.21	0.32	1488	6.70	2.14	0.32	1566	6.60	2.11	0.32	1612	6.40	2.05	0.32	1659
28	18	5.88	4.94	0.84	1240	5.63	4.73	0.84	1302	5.40	4.54	0.84	1364	5.20	4.37	0.84	1426
28	20	6.13	4.41	0.72	1302	5.88	4.23	0.72	1380	5.70	4.10	0.72	1411	5.50	3.96	0.72	1473
28	22	6.38	3.83	0.60	1349	6.15	3.69	0.60	1434	6.00	3.60	0.60	1473	5.75	3.45	0.60	1535
28	24	6.70	3.22	0.48	1411	6.45	3.10	0.48	1488	6.30	3.02	0.48	1535	6.10	2.93	0.48	1612
28	26	6.90	2.48	0.36	1488	6.70	2.41	0.36	1566	6.60	2.38	0.36	1612	6.40	2.30	0.36	1659
29	18	5.88	5.17	0.88	1240	5.63	4.95	0.88	1302	5.40	4.75	0.88	1364	5.20	4.58	0.88	1426
29	20	6.13	4.66	0.76	1302	5.88	4.47	0.76	1380	5.70	4.33	0.76	1411	5.50	4.18	0.76	1473
29	22	6.38	4.08	0.64	1349	6.15	3.94	0.64	1434	6.00	3.84	0.64	1473	5.75	3.68	0.64	1535
29	24	6.70	3.48	0.52	1411	6.45	3.35	0.52	1488	6.30	3.28	0.52	1535	6.10	3.17	0.52	1612
29	26	6.90	2.76	0.40	1488	6.70	2.68	0.40	1566	6.60	2.64	0.40	1612	6.40	2.56	0.40	1659
30	18	5.88	5.41	0.92	1240	5.63	5.18	0.92	1302	5.40	4.97	0.92	1364	5.20	4.78	0.92	1426
30	20	6.13	4.90	0.80	1302	5.88	4.70	0.80	1380	5.70	4.56	0.80	1411	5.50	4.40	0.80	1473
30	22	6.38	4.34	0.68	1349	6.15	4.18	0.68	1434	6.00	4.08	0.68	1473	5.75	3.91	0.68	1535
30	24	6.70	3.75	0.56	1411	6.45	3.61	0.56	1488	6.30	3.53	0.56	1535	6.10	3.42	0.56	1612
30	26	6.90	3.04	0.44	1488	6.70	2.95	0.44	1566	6.60	2.90	0.44	1612	6.40	2.82	0.44	1659
31	18	5.88	5.64	0.96	1240	5.63	5.40	0.96	1302	5.40	5.18	0.96	1364	5.20	4.99	0.96	1426
31	20	6.13	5.15	0.84	1302	5.88	4.94	0.84	1380	5.70	4.79	0.84	1411	5.50	4.62	0.84	1473
31	22	6.38	4.59	0.72	1349	6.15	4.43	0.72	1434	6.00	4.32	0.72	1473	5.75	4.14	0.72	1535
31	24	6.70	4.02	0.60	1411	6.45	3.87	0.60	1488	6.30	3.78	0.60	1535	6.10	3.66	0.60	1612
31	26	6.90	3.31	0.48	1488	6.70	3.22	0.48	1566	6.60	3.17	0.48	1612	6.40	3.07	0.48	1659
32	18	5.88	5.88	1.00	1240	5.63	5.63	1.00	1302	5.40	5.40	1.00	1364	5.20	5.20	1.00	1426
32	20	6.13	5.39	0.88	1302	5.88	5.17	0.88	1380	5.70	5.02	0.88	1411	5.50	4.84	0.88	1473
32	22	6.38	4.85	0.76	1349	6.15	4.67	0.76	1434	6.00	4.56	0.76	1473	5.75	4.37	0.76	1535
32	24	6.70	4.29	0.64	1411	6.45	4.13	0.64	1488	6.30	4.03	0.64	1535	6.10	3.90	0.64	1612
32	26	6.90	3.59	0.52	1488	6.70	3.48	0.52	1566	6.60	3.43	0.52	1612	6.40	3.33	0.52	1659

NOTE Q : Total capacity (kW)

SHF : Sensible heat factor

DB : Dry-bulb temperature

SHC : Sensible heat capacity (kW)

INPUT : Total power input (W)

WB : Wet-bulb temperature

PERFORMANCE DATA COOL operation at Rated frequency

MUZ-AP50VG MUZ-AP50VGH

CAPACITY: 5.0 kW

SHF: 0.74

INPUT: 1550 W

INDOOR DB (°C)	INDOOR WB (°C)	OUTDOOR DB (°C)											
		35				40				46			
		Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	4.90	2.74	0.56	1519	4.50	2.52	0.56	1612	4.15	2.32	0.56	1674
21	20	5.15	2.27	0.44	1581	4.80	2.11	0.44	1659	4.45	1.96	0.44	1752
22	18	4.90	2.94	0.60	1519	4.50	2.70	0.60	1612	4.15	2.49	0.60	1674
22	20	5.15	2.47	0.48	1581	4.80	2.30	0.48	1659	4.45	2.14	0.48	1752
22	22	5.45	1.96	0.36	1643	5.10	1.84	0.36	1736	4.75	1.71	0.36	1798
23	18	4.90	3.14	0.64	1519	4.50	2.88	0.64	1612	4.15	2.66	0.64	1674
23	20	5.15	2.68	0.52	1581	4.80	2.50	0.52	1659	4.45	2.31	0.52	1752
23	22	5.45	2.18	0.40	1643	5.10	2.04	0.40	1736	4.75	1.90	0.40	1798
24	18	4.90	3.33	0.68	1519	4.50	3.06	0.68	1612	4.15	2.82	0.68	1674
24	20	5.15	2.88	0.56	1581	4.80	2.69	0.56	1659	4.45	2.49	0.56	1752
24	22	5.45	2.40	0.44	1643	5.10	2.24	0.44	1736	4.75	2.09	0.44	1798
24	24	5.75	1.84	0.32	1705	5.40	1.73	0.32	1783	5.10	1.63	0.32	1860
25	18	4.90	3.53	0.72	1519	4.50	3.24	0.72	1612	4.15	2.99	0.72	1674
25	20	5.15	3.09	0.60	1581	4.80	2.88	0.60	1659	4.45	2.67	0.60	1752
25	22	5.45	2.62	0.48	1643	5.10	2.45	0.48	1736	4.75	2.28	0.48	1798
25	24	5.75	2.07	0.36	1705	5.40	1.94	0.36	1783	5.10	1.84	0.36	1860
26	18	4.90	3.72	0.76	1519	4.50	3.42	0.76	1612	4.15	3.15	0.76	1674
26	20	5.15	3.30	0.64	1581	4.80	3.07	0.64	1659	4.45	2.85	0.64	1752
26	22	5.45	2.83	0.52	1643	5.10	2.65	0.52	1736	4.75	2.47	0.52	1798
26	24	5.75	2.30	0.40	1705	5.40	2.16	0.40	1783	5.10	2.04	0.40	1860
26	26	6.05	1.69	0.28	1767	5.70	1.60	0.28	1845	5.35	1.50	0.28	1922
27	18	4.90	3.92	0.80	1519	4.50	3.60	0.80	1612	4.15	3.32	0.80	1674
27	20	5.15	3.50	0.68	1581	4.80	3.26	0.68	1659	4.45	3.03	0.68	1752
27	22	5.45	3.05	0.56	1643	5.10	2.86	0.56	1736	4.75	2.66	0.56	1798
27	24	5.75	2.53	0.44	1705	5.40	2.38	0.44	1783	5.10	2.24	0.44	1860
27	26	6.05	1.94	0.32	1767	5.70	1.82	0.32	1845	5.35	1.71	0.32	1922
28	18	4.90	4.12	0.84	1519	4.50	3.78	0.84	1612	4.15	3.49	0.84	1674
28	20	5.15	3.71	0.72	1581	4.80	3.46	0.72	1659	4.45	3.20	0.72	1752
28	22	5.45	3.27	0.60	1643	5.10	3.06	0.60	1736	4.75	2.85	0.60	1798
28	24	5.75	2.76	0.48	1705	5.40	2.59	0.48	1783	5.10	2.45	0.48	1860
28	26	6.05	2.18	0.36	1767	5.70	2.05	0.36	1845	5.35	1.93	0.36	1922
29	18	4.90	4.31	0.88	1519	4.50	3.96	0.88	1612	4.15	3.65	0.88	1674
29	20	5.15	3.91	0.76	1581	4.80	3.65	0.76	1659	4.45	3.38	0.76	1752
29	22	5.45	3.49	0.64	1643	5.10	3.26	0.64	1736	4.75	3.04	0.64	1798
29	24	5.75	2.99	0.52	1705	5.40	2.81	0.52	1783	5.10	2.65	0.52	1860
29	26	6.05	2.42	0.40	1767	5.70	2.28	0.40	1845	5.35	2.14	0.40	1922
30	18	4.90	4.51	0.92	1519	4.50	4.14	0.92	1612	4.15	3.82	0.92	1674
30	20	5.15	4.12	0.80	1581	4.80	3.84	0.80	1659	4.45	3.56	0.80	1752
30	22	5.45	3.71	0.68	1643	5.10	3.47	0.68	1736	4.75	3.23	0.68	1798
30	24	5.75	3.22	0.56	1705	5.40	3.02	0.56	1783	5.10	2.86	0.56	1860
30	26	6.05	2.66	0.44	1767	5.70	2.51	0.44	1845	5.35	2.35	0.44	1922
31	18	4.90	4.70	0.96	1519	4.50	4.32	0.96	1612	4.15	3.98	0.96	1674
31	20	5.15	4.33	0.84	1581	4.80	4.03	0.84	1659	4.45	3.74	0.84	1752
31	22	5.45	3.92	0.72	1643	5.10	3.67	0.72	1736	4.75	3.42	0.72	1798
31	24	5.75	3.45	0.60	1705	5.40	3.24	0.60	1783	5.10	3.06	0.60	1860
31	26	6.05	2.90	0.48	1767	5.70	2.74	0.48	1845	5.35	2.57	0.48	1922
32	18	4.90	4.90	1.00	1519	4.50	4.50	1.00	1612	4.15	4.15	1.00	1674
32	20	5.15	4.53	0.88	1581	4.80	4.22	0.88	1659	4.45	3.92	0.88	1752
32	22	5.45	4.14	0.76	1643	5.10	3.88	0.76	1736	4.75	3.61	0.76	1798
32	24	5.75	3.68	0.64	1705	5.40	3.46	0.64	1783	5.10	3.26	0.64	1860
32	26	6.05	3.15	0.52	1767	5.70	2.96	0.52	1845	5.35	2.78	0.52	1922

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

PERFORMANCE DATA COOL operation at Rated frequency

MUZ-AP60VG

MUZ-AP60VG2

CAPACITY: 6.1 kW

SHF: 0.83

INPUT: 1590 W

INDOOR DB (°C)	INDOOR WB (°C)	OUTDOOR DB (°C)															
		21				25				27				30			
		Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	7.17	4.66	0.65	1272	6.86	4.46	0.65	1336	6.59	4.28	0.65	1399	6.34	4.12	0.65	1463
21	20	7.47	3.96	0.53	1336	7.17	3.80	0.53	1415	6.95	3.69	0.53	1447	6.71	3.56	0.53	1511
22	18	7.17	4.95	0.69	1272	6.86	4.74	0.69	1336	6.59	4.55	0.69	1399	6.34	4.38	0.69	1463
22	20	7.47	4.26	0.57	1336	7.17	4.09	0.57	1415	6.95	3.96	0.57	1447	6.71	3.82	0.57	1511
22	22	7.78	3.50	0.45	1383	7.50	3.38	0.45	1471	7.32	3.29	0.45	1511	7.02	3.16	0.45	1574
23	18	7.17	5.23	0.73	1272	6.86	5.01	0.73	1336	6.59	4.81	0.73	1399	6.34	4.63	0.73	1463
23	20	7.47	4.56	0.61	1336	7.17	4.37	0.61	1415	6.95	4.24	0.61	1447	6.71	4.09	0.61	1511
23	22	7.78	3.81	0.49	1383	7.50	3.68	0.49	1471	7.32	3.59	0.49	1511	7.02	3.44	0.49	1574
24	18	7.17	5.52	0.77	1272	6.86	5.28	0.77	1336	6.59	5.07	0.77	1399	6.34	4.88	0.77	1463
24	20	7.47	4.86	0.65	1336	7.17	4.66	0.65	1415	6.95	4.52	0.65	1447	6.71	4.36	0.65	1511
24	22	7.78	4.12	0.53	1383	7.50	3.98	0.53	1471	7.32	3.88	0.53	1511	7.02	3.72	0.53	1574
24	24	8.17	3.35	0.41	1447	7.87	3.23	0.41	1526	7.69	3.15	0.41	1574	7.44	3.05	0.41	1654
25	18	7.17	5.81	0.81	1272	6.86	5.56	0.81	1336	6.59	5.34	0.81	1399	6.34	5.14	0.81	1463
25	20	7.47	5.16	0.69	1336	7.17	4.95	0.69	1415	6.95	4.80	0.69	1447	6.71	4.63	0.69	1511
25	22	7.78	4.43	0.57	1383	7.50	4.28	0.57	1471	7.32	4.17	0.57	1511	7.02	4.00	0.57	1574
25	24	8.17	3.68	0.45	1447	7.87	3.54	0.45	1526	7.69	3.46	0.45	1574	7.44	3.35	0.45	1654
26	18	7.17	6.09	0.85	1272	6.86	5.83	0.85	1336	6.59	5.60	0.85	1399	6.34	5.39	0.85	1463
26	20	7.47	5.45	0.73	1336	7.17	5.23	0.73	1415	6.95	5.08	0.73	1447	6.71	4.90	0.73	1511
26	22	7.78	4.74	0.61	1383	7.50	4.58	0.61	1471	7.32	4.47	0.61	1511	7.02	4.28	0.61	1574
26	24	8.17	4.01	0.49	1447	7.87	3.86	0.49	1526	7.69	3.77	0.49	1574	7.44	3.65	0.49	1654
26	26	8.42	3.11	0.37	1526	8.17	3.02	0.37	1606	8.05	2.98	0.37	1654	7.81	2.89	0.37	1701
27	18	7.17	6.38	0.89	1272	6.86	6.11	0.89	1336	6.59	5.86	0.89	1399	6.34	5.65	0.89	1463
27	20	7.47	5.75	0.77	1336	7.17	5.52	0.77	1415	6.95	5.35	0.77	1447	6.71	5.17	0.77	1511
27	22	7.78	5.06	0.65	1383	7.50	4.88	0.65	1471	7.32	4.76	0.65	1511	7.02	4.56	0.65	1574
27	24	8.17	4.33	0.53	1447	7.87	4.17	0.53	1526	7.69	4.07	0.53	1574	7.44	3.94	0.53	1654
27	26	8.42	3.45	0.41	1526	8.17	3.35	0.41	1606	8.05	3.30	0.41	1654	7.81	3.20	0.41	1701
28	18	7.17	6.67	0.93	1272	6.86	6.38	0.93	1336	6.59	6.13	0.93	1399	6.34	5.90	0.93	1463
28	20	7.47	6.05	0.81	1336	7.17	5.81	0.81	1415	6.95	5.63	0.81	1447	6.71	5.44	0.81	1511
28	22	7.78	5.37	0.69	1383	7.50	5.18	0.69	1471	7.32	5.05	0.69	1511	7.02	4.84	0.69	1574
28	24	8.17	4.66	0.57	1447	7.87	4.49	0.57	1526	7.69	4.38	0.57	1574	7.44	4.24	0.57	1654
28	26	8.42	3.79	0.45	1526	8.17	3.68	0.45	1606	8.05	3.62	0.45	1654	7.81	3.51	0.45	1701
29	18	7.17	6.95	0.97	1272	6.86	6.66	0.97	1336	6.59	6.39	0.97	1399	6.34	6.15	0.97	1463
29	20	7.47	6.35	0.85	1336	7.17	6.09	0.85	1415	6.95	5.91	0.85	1447	6.71	5.70	0.85	1511
29	22	7.78	5.68	0.73	1383	7.50	5.48	0.73	1471	7.32	5.34	0.73	1511	7.02	5.12	0.73	1574
29	24	8.17	4.99	0.61	1447	7.87	4.80	0.61	1526	7.69	4.69	0.61	1574	7.44	4.54	0.61	1654
29	26	8.42	4.12	0.49	1526	8.17	4.01	0.49	1606	8.05	3.95	0.49	1654	7.81	3.83	0.49	1701
30	18	7.17	7.17	1.00	1272	6.86	6.86	1.00	1336	6.59	6.59	1.00	1399	6.34	6.34	1.00	1463
30	20	7.47	6.65	0.89	1336	7.17	6.38	0.89	1415	6.95	6.19	0.89	1447	6.71	5.97	0.89	1511
30	22	7.78	5.99	0.77	1383	7.50	5.78	0.77	1471	7.32	5.64	0.77	1511	7.02	5.40	0.77	1574
30	24	8.17	5.31	0.65	1447	7.87	5.11	0.65	1526	7.69	5.00	0.65	1574	7.44	4.84	0.65	1654
30	26	8.42	4.46	0.53	1526	8.17	4.33	0.53	1606	8.05	4.27	0.53	1654	7.81	4.14	0.53	1701
31	18	7.17	7.17	1.00	1272	6.86	6.86	1.00	1336	6.59	6.59	1.00	1399	6.34	6.34	1.00	1463
31	20	7.47	6.95	0.93	1336	7.17	6.67	0.93	1415	6.95	6.47	0.93	1447	6.71	6.24	0.93	1511
31	22	7.78	6.30	0.81	1383	7.50	6.08	0.81	1471	7.32	5.93	0.81	1511	7.02	5.68	0.81	1574
31	24	8.17	5.64	0.69	1447	7.87	5.43	0.69	1526	7.69	5.30	0.69	1574	7.44	5.13	0.69	1654
31	26	8.42	4.80	0.57	1526	8.17	4.66	0.57	1606	8.05	4.59	0.57	1654	7.81	4.45	0.57	1701
32	18	7.17	7.17	1.00	1272	6.86	6.86	1.00	1336	6.59	6.59	1.00	1399	6.34	6.34	1.00	1463
32	20	7.47	7.25	0.97	1336	7.17	6.95	0.97	1415	6.95	6.75	0.97	1447	6.71	6.51	0.97	1511
32	22	7.78	6.61	0.85	1383	7.50	6.38	0.85	1471	7.32	6.22	0.85	1511	7.02	5.96	0.85	1574
32	24	8.17	5.97	0.73	1447	7.87	5.74	0.73	1526	7.69	5.61	0.73	1574	7.44	5.43	0.73	1654
32	26	8.42	5.13	0.61	1526	8.17	4.99	0.61	1606	8.05	4.91	0.61	1654	7.81	4.76	0.61	1701

NOTE Q : Total capacity (kW)

SHF : Sensible heat factor

DB : Dry-bulb temperature

SHC : Sensible heat capacity (kW)

INPUT : Total power input (W)

WB : Wet-bulb temperature

PERFORMANCE DATA COOL operation at Rated frequency

MUZ-AP60VG

MUZ-AP60VG2

CAPACITY: 6.1 kW

SHF: 0.83

INPUT: 1590 W

INDOOR DB (°C)	INDOOR WB (°C)	OUTDOOR DB (°C)											
		35				40				46			
		Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	5.98	3.89	0.65	1558	5.49	3.57	0.65	1654	5.06	3.29	0.65	1717
21	20	6.28	3.33	0.53	1622	5.86	3.10	0.53	1701	5.43	2.88	0.53	1797
22	18	5.98	4.12	0.69	1558	5.49	3.79	0.69	1654	5.06	3.49	0.69	1717
22	20	6.28	3.58	0.57	1622	5.86	3.34	0.57	1701	5.43	3.09	0.57	1797
22	22	6.65	2.99	0.45	1685	6.22	2.80	0.45	1781	5.80	2.61	0.45	1844
23	18	5.98	4.36	0.73	1558	5.49	4.01	0.73	1654	5.06	3.70	0.73	1717
23	20	6.28	3.83	0.61	1622	5.86	3.57	0.61	1701	5.43	3.31	0.61	1797
23	22	6.65	3.26	0.49	1685	6.22	3.05	0.49	1781	5.80	2.84	0.49	1844
24	18	5.98	4.60	0.77	1558	5.49	4.23	0.77	1654	5.06	3.90	0.77	1717
24	20	6.28	4.08	0.65	1622	5.86	3.81	0.65	1701	5.43	3.53	0.65	1797
24	22	6.65	3.52	0.53	1685	6.22	3.30	0.53	1781	5.80	3.07	0.53	1844
24	24	7.02	2.88	0.41	1749	6.59	2.70	0.41	1829	6.22	2.55	0.41	1908
25	18	5.98	4.84	0.81	1558	5.49	4.45	0.81	1654	5.06	4.10	0.81	1717
25	20	6.28	4.34	0.69	1622	5.86	4.04	0.69	1701	5.43	3.75	0.69	1797
25	22	6.65	3.79	0.57	1685	6.22	3.55	0.57	1781	5.80	3.30	0.57	1844
25	24	7.02	3.16	0.45	1749	6.59	2.96	0.45	1829	6.22	2.80	0.45	1908
26	18	5.98	5.08	0.85	1558	5.49	4.67	0.85	1654	5.06	4.30	0.85	1717
26	20	6.28	4.59	0.73	1622	5.86	4.27	0.73	1701	5.43	3.96	0.73	1797
26	22	6.65	4.06	0.61	1685	6.22	3.80	0.61	1781	5.80	3.53	0.61	1844
26	24	7.02	3.44	0.49	1749	6.59	3.23	0.49	1829	6.22	3.05	0.49	1908
26	26	7.38	2.73	0.37	1813	6.95	2.57	0.37	1892	6.53	2.41	0.37	1972
27	18	5.98	5.32	0.89	1558	5.49	4.89	0.89	1654	5.06	4.51	0.89	1717
27	20	6.28	4.84	0.77	1622	5.86	4.51	0.77	1701	5.43	4.18	0.77	1797
27	22	6.65	4.32	0.65	1685	6.22	4.04	0.65	1781	5.80	3.77	0.65	1844
27	24	7.02	3.72	0.53	1749	6.59	3.49	0.53	1829	6.22	3.30	0.53	1908
27	26	7.38	3.03	0.41	1813	6.95	2.85	0.41	1892	6.53	2.68	0.41	1972
28	18	5.98	5.56	0.93	1558	5.49	5.11	0.93	1654	5.06	4.71	0.93	1717
28	20	6.28	5.09	0.81	1622	5.86	4.74	0.81	1701	5.43	4.40	0.81	1797
28	22	6.65	4.59	0.69	1685	6.22	4.29	0.69	1781	5.80	4.00	0.69	1844
28	24	7.02	4.00	0.57	1749	6.59	3.76	0.57	1829	6.22	3.55	0.57	1908
28	26	7.38	3.32	0.45	1813	6.95	3.13	0.45	1892	6.53	2.94	0.45	1972
29	18	5.98	5.80	0.97	1558	5.49	5.33	0.97	1654	5.06	4.91	0.97	1717
29	20	6.28	5.34	0.85	1622	5.86	4.98	0.85	1701	5.43	4.61	0.85	1797
29	22	6.65	4.85	0.73	1685	6.22	4.54	0.73	1781	5.80	4.23	0.73	1844
29	24	7.02	4.28	0.61	1749	6.59	4.02	0.61	1829	6.22	3.80	0.61	1908
29	26	7.38	3.62	0.49	1813	6.95	3.41	0.49	1892	6.53	3.20	0.49	1972
30	18	5.98	5.98	1.00	1558	5.49	5.49	1.00	1654	5.06	5.06	1.00	1717
30	20	6.28	5.59	0.89	1622	5.86	5.21	0.89	1701	5.43	4.83	0.89	1797
30	22	6.65	5.12	0.77	1685	6.22	4.79	0.77	1781	5.80	4.46	0.77	1844
30	24	7.02	4.56	0.65	1749	6.59	4.28	0.65	1829	6.22	4.04	0.65	1908
30	26	7.38	3.91	0.53	1813	6.95	3.69	0.53	1892	6.53	3.46	0.53	1972
31	18	5.98	5.98	1.00	1558	5.49	5.49	1.00	1654	5.06	5.06	1.00	1717
31	20	6.28	5.84	0.93	1622	5.86	5.45	0.93	1701	5.43	5.05	0.93	1797
31	22	6.65	5.39	0.81	1685	6.22	5.04	0.81	1781	5.80	4.69	0.81	1844
31	24	7.02	4.84	0.69	1749	6.59	4.55	0.69	1829	6.22	4.29	0.69	1908
31	26	7.38	4.21	0.57	1813	6.95	3.96	0.57	1892	6.53	3.72	0.57	1972
32	18	5.98	5.98	1.00	1558	5.49	5.49	1.00	1654	5.06	5.06	1.00	1717
32	20	6.28	6.09	0.97	1622	5.86	5.68	0.97	1701	5.43	5.27	0.97	1797
32	22	6.65	5.65	0.85	1685	6.22	5.29	0.85	1781	5.80	4.93	0.85	1844
32	24	7.02	5.12	0.73	1749	6.59	4.81	0.73	1829	6.22	4.54	0.73	1908
32	26	7.38	4.50	0.61	1813	6.95	4.24	0.61	1892	6.53	3.98	0.61	1972

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

PERFORMANCE DATA COOL operation at Rated frequency
MUZ-AP71VG MUZ-AP71VG2 MUZ-AP71VG3
CAPACITY: 7.1 kW SHF: 0.77 INPUT: 2010 W

INDOOR DB (°C)	INDOOR WB (°C)	OUTDOOR DB (°C)															
		21				25				27				30			
		Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	8.34	4.92	0.59	1608	7.99	4.71	0.59	1688	7.67	4.52	0.59	1769	7.38	4.36	0.59	1849
21	20	8.70	4.09	0.47	1688	8.34	3.92	0.47	1789	8.09	3.80	0.47	1829	7.81	3.67	0.47	1910
22	18	8.34	5.26	0.63	1608	7.99	5.03	0.63	1688	7.67	4.83	0.63	1769	7.38	4.65	0.63	1849
22	20	8.70	4.44	0.51	1688	8.34	4.25	0.51	1789	8.09	4.13	0.51	1829	7.81	3.98	0.51	1910
22	22	9.05	3.53	0.39	1749	8.73	3.41	0.39	1859	8.52	3.32	0.39	1910	8.17	3.18	0.39	1990
23	18	8.34	5.59	0.67	1608	7.99	5.35	0.67	1688	7.67	5.14	0.67	1769	7.38	4.95	0.67	1849
23	20	8.70	4.78	0.55	1688	8.34	4.59	0.55	1789	8.09	4.45	0.55	1829	7.81	4.30	0.55	1910
23	22	9.05	3.89	0.43	1749	8.73	3.76	0.43	1859	8.52	3.66	0.43	1910	8.17	3.51	0.43	1990
24	18	8.34	5.92	0.71	1608	7.99	5.67	0.71	1688	7.67	5.44	0.71	1769	7.38	5.24	0.71	1849
24	20	8.70	5.13	0.59	1688	8.34	4.92	0.59	1789	8.09	4.78	0.59	1829	7.81	4.61	0.59	1910
24	22	9.05	4.25	0.47	1749	8.73	4.10	0.47	1859	8.52	4.00	0.47	1910	8.17	3.84	0.47	1990
24	24	9.51	3.33	0.35	1829	9.16	3.21	0.35	1930	8.95	3.13	0.35	1990	8.66	3.03	0.35	2090
25	18	8.34	6.26	0.75	1608	7.99	5.99	0.75	1688	7.67	5.75	0.75	1769	7.38	5.54	0.75	1849
25	20	8.70	5.48	0.63	1688	8.34	5.26	0.63	1789	8.09	5.10	0.63	1829	7.81	4.92	0.63	1910
25	22	9.05	4.62	0.51	1749	8.73	4.45	0.51	1859	8.52	4.35	0.51	1910	8.17	4.16	0.51	1990
25	24	9.51	3.71	0.39	1829	9.16	3.57	0.39	1930	8.95	3.49	0.39	1990	8.66	3.38	0.39	2090
26	18	8.34	6.59	0.79	1608	7.99	6.31	0.79	1688	7.67	6.06	0.79	1769	7.38	5.83	0.79	1849
26	20	8.70	5.83	0.67	1688	8.34	5.59	0.67	1789	8.09	5.42	0.67	1829	7.81	5.23	0.67	1910
26	22	9.05	4.98	0.55	1749	8.73	4.80	0.55	1859	8.52	4.69	0.55	1910	8.17	4.49	0.55	1990
26	24	9.51	4.09	0.43	1829	9.16	3.94	0.43	1930	8.95	3.85	0.43	1990	8.66	3.72	0.43	2090
26	26	9.80	3.04	0.31	1930	9.51	2.95	0.31	2030	9.37	2.91	0.31	2090	9.09	2.82	0.31	2151
27	18	8.34	6.92	0.83	1608	7.99	6.63	0.83	1688	7.67	6.36	0.83	1769	7.38	6.13	0.83	1849
27	20	8.70	6.18	0.71	1688	8.34	5.92	0.71	1789	8.09	5.75	0.71	1829	7.81	5.55	0.71	1910
27	22	9.05	5.34	0.59	1749	8.73	5.15	0.59	1859	8.52	5.03	0.59	1910	8.17	4.82	0.59	1990
27	24	9.51	4.47	0.47	1829	9.16	4.30	0.47	1930	8.95	4.20	0.47	1990	8.66	4.07	0.47	2090
27	26	9.80	3.43	0.35	1930	9.51	3.33	0.35	2030	9.37	3.28	0.35	2090	9.09	3.18	0.35	2151
28	18	8.34	7.26	0.87	1608	7.99	6.95	0.87	1688	7.67	6.67	0.87	1769	7.38	6.42	0.87	1849
28	20	8.70	6.52	0.75	1688	8.34	6.26	0.75	1789	8.09	6.07	0.75	1829	7.81	5.86	0.75	1910
28	22	9.05	5.70	0.63	1749	8.73	5.50	0.63	1859	8.52	5.37	0.63	1910	8.17	5.14	0.63	1990
28	24	9.51	4.85	0.51	1829	9.16	4.67	0.51	1930	8.95	4.56	0.51	1990	8.66	4.42	0.51	2090
28	26	9.80	3.82	0.39	1930	9.51	3.71	0.39	2030	9.37	3.66	0.39	2090	9.09	3.54	0.39	2151
29	18	8.34	7.59	0.91	1608	7.99	7.27	0.91	1688	7.67	6.98	0.91	1769	7.38	6.72	0.91	1849
29	20	8.70	6.87	0.79	1688	8.34	6.59	0.79	1789	8.09	6.39	0.79	1829	7.81	6.17	0.79	1910
29	22	9.05	6.07	0.67	1749	8.73	5.85	0.67	1859	8.52	5.71	0.67	1910	8.17	5.47	0.67	1990
29	24	9.51	5.23	0.55	1829	9.16	5.04	0.55	1930	8.95	4.92	0.55	1990	8.66	4.76	0.55	2090
29	26	9.80	4.21	0.43	1930	9.51	4.09	0.43	2030	9.37	4.03	0.43	2090	9.09	3.91	0.43	2151
30	18	8.34	7.93	0.95	1608	7.99	7.59	0.95	1688	7.67	7.28	0.95	1769	7.38	7.01	0.95	1849
30	20	8.70	7.22	0.83	1688	8.34	6.92	0.83	1789	8.09	6.72	0.83	1829	7.81	6.48	0.83	1910
30	22	9.05	6.43	0.71	1749	8.73	6.20	0.71	1859	8.52	6.05	0.71	1910	8.17	5.80	0.71	1990
30	24	9.51	5.61	0.59	1829	9.16	5.40	0.59	1930	8.95	5.28	0.59	1990	8.66	5.11	0.59	2090
30	26	9.80	4.61	0.47	1930	9.51	4.47	0.47	2030	9.37	4.40	0.47	2090	9.09	4.27	0.47	2151
31	18	8.34	8.26	0.99	1608	7.99	7.91	0.99	1688	7.67	7.59	0.99	1769	7.38	7.31	0.99	1849
31	20	8.70	7.57	0.87	1688	8.34	7.26	0.87	1789	8.09	7.04	0.87	1829	7.81	6.79	0.87	1910
31	22	9.05	6.79	0.75	1749	8.73	6.55	0.75	1859	8.52	6.39	0.75	1910	8.17	6.12	0.75	1990
31	24	9.51	5.99	0.63	1829	9.16	5.77	0.63	1930	8.95	5.64	0.63	1990	8.66	5.46	0.63	2090
31	26	9.80	5.00	0.51	1930	9.51	4.85	0.51	2030	9.37	4.78	0.51	2090	9.09	4.63	0.51	2151
32	18	8.34	8.34	1.00	1608	7.99	7.99	1.00	1688	7.67	7.67	1.00	1769	7.38	7.38	1.00	1849
32	20	8.70	7.91	0.91	1688	8.34	7.59	0.91	1789	8.09	7.37	0.91	1829	7.81	7.11	0.91	1910
32	22	9.05	7.15	0.79	1749	8.73	6.90	0.79	1859	8.52	6.73	0.79	1910	8.17	6.45	0.79	1990
32	24	9.51	6.37	0.67	1829	9.16	6.14	0.67	1930	8.95	5.99	0.67	1990	8.66	5.80	0.67	2090
32	26	9.80	5.39	0.55	1930	9.51	5.23	0.55	2030	9.37	5.15	0.55	2090	9.09	5.00	0.55	2151

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

PERFORMANCE DATA COOL operation at Rated frequency
MUZ-AP71VG MUZ-AP71VG2 MUZ-AP71VG3
CAPACITY: 7.1 kW SHF: 0.77 INPUT: 2010 W

INDOOR DB (°C)	INDOOR WB (°C)	OUTDOOR DB (°C)											
		35				40				46			
		Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT	Q	SHC	SHF	INPUT
21	18	6.96	4.11	0.59	1970	6.39	3.77	0.59	2090	5.89	3.48	0.59	2171
21	20	7.31	3.44	0.47	2050	6.82	3.20	0.47	2151	6.32	2.97	0.47	2271
22	18	6.96	4.38	0.63	1970	6.39	4.03	0.63	2090	5.89	3.71	0.63	2171
22	20	7.31	3.73	0.51	2050	6.82	3.48	0.51	2151	6.32	3.22	0.51	2271
22	22	7.74	3.02	0.39	2131	7.24	2.82	0.39	2251	6.75	2.63	0.39	2332
23	18	6.96	4.66	0.67	1970	6.39	4.28	0.67	2090	5.89	3.95	0.67	2171
23	20	7.31	4.02	0.55	2050	6.82	3.75	0.55	2151	6.32	3.48	0.55	2271
23	22	7.74	3.33	0.43	2131	7.24	3.11	0.43	2251	6.75	2.90	0.43	2332
24	18	6.96	4.94	0.71	1970	6.39	4.54	0.71	2090	5.89	4.18	0.71	2171
24	20	7.31	4.31	0.59	2050	6.82	4.02	0.59	2151	6.32	3.73	0.59	2271
24	22	7.74	3.64	0.47	2131	7.24	3.40	0.47	2251	6.75	3.17	0.47	2332
24	24	8.17	2.86	0.35	2211	7.67	2.68	0.35	2312	7.24	2.53	0.35	2412
25	18	6.96	5.22	0.75	1970	6.39	4.79	0.75	2090	5.89	4.42	0.75	2171
25	20	7.31	4.61	0.63	2050	6.82	4.29	0.63	2151	6.32	3.98	0.63	2271
25	22	7.74	3.95	0.51	2131	7.24	3.69	0.51	2251	6.75	3.44	0.51	2332
25	24	8.17	3.18	0.39	2211	7.67	2.99	0.39	2312	7.24	2.82	0.39	2412
26	18	6.96	5.50	0.79	1970	6.39	5.05	0.79	2090	5.89	4.66	0.79	2171
26	20	7.31	4.90	0.67	2050	6.82	4.57	0.67	2151	6.32	4.23	0.67	2271
26	22	7.74	4.26	0.55	2131	7.24	3.98	0.55	2251	6.75	3.71	0.55	2332
26	24	8.17	3.51	0.43	2211	7.67	3.30	0.43	2312	7.24	3.11	0.43	2412
26	26	8.59	2.66	0.31	2291	8.09	2.51	0.31	2392	7.60	2.36	0.31	2492
27	18	6.96	5.78	0.83	1970	6.39	5.30	0.83	2090	5.89	4.89	0.83	2171
27	20	7.31	5.19	0.71	2050	6.82	4.84	0.71	2151	6.32	4.49	0.71	2271
27	22	7.74	4.57	0.59	2131	7.24	4.27	0.59	2251	6.75	3.98	0.59	2332
27	24	8.17	3.84	0.47	2211	7.67	3.60	0.47	2312	7.24	3.40	0.47	2412
27	26	8.59	3.01	0.35	2291	8.09	2.83	0.35	2392	7.60	2.66	0.35	2492
28	18	6.96	6.05	0.87	1970	6.39	5.56	0.87	2090	5.89	5.13	0.87	2171
28	20	7.31	5.48	0.75	2050	6.82	5.11	0.75	2151	6.32	4.74	0.75	2271
28	22	7.74	4.88	0.63	2131	7.24	4.56	0.63	2251	6.75	4.25	0.63	2332
28	24	8.17	4.16	0.51	2211	7.67	3.91	0.51	2312	7.24	3.69	0.51	2412
28	26	8.59	3.35	0.39	2291	8.09	3.16	0.39	2392	7.60	2.96	0.39	2492
29	18	6.96	6.33	0.91	1970	6.39	5.81	0.91	2090	5.89	5.36	0.91	2171
29	20	7.31	5.78	0.79	2050	6.82	5.38	0.79	2151	6.32	4.99	0.79	2271
29	22	7.74	5.19	0.67	2131	7.24	4.85	0.67	2251	6.75	4.52	0.67	2332
29	24	8.17	4.49	0.55	2211	7.67	4.22	0.55	2312	7.24	3.98	0.55	2412
29	26	8.59	3.69	0.43	2291	8.09	3.48	0.43	2392	7.60	3.27	0.43	2492
30	18	6.96	6.61	0.95	1970	6.39	6.07	0.95	2090	5.89	5.60	0.95	2171
30	20	7.31	6.07	0.83	2050	6.82	5.66	0.83	2151	6.32	5.24	0.83	2271
30	22	7.74	5.49	0.71	2131	7.24	5.14	0.71	2251	6.75	4.79	0.71	2332
30	24	8.17	4.82	0.59	2211	7.67	4.52	0.59	2312	7.24	4.27	0.59	2412
30	26	8.59	4.04	0.47	2291	8.09	3.80	0.47	2392	7.60	3.57	0.47	2492
31	18	6.96	6.89	0.99	1970	6.39	6.33	0.99	2090	5.89	5.83	0.99	2171
31	20	7.31	6.36	0.87	2050	6.82	5.93	0.87	2151	6.32	5.50	0.87	2271
31	22	7.74	5.80	0.75	2131	7.24	5.43	0.75	2251	6.75	5.06	0.75	2332
31	24	8.17	5.14	0.63	2211	7.67	4.83	0.63	2312	7.24	4.56	0.63	2412
31	26	8.59	4.38	0.51	2291	8.09	4.13	0.51	2392	7.60	3.87	0.51	2492
32	18	6.96	6.96	1.00	1970	6.39	6.39	1.00	2090	5.89	5.89	1.00	2171
32	20	7.31	6.65	0.91	2050	6.82	6.20	0.91	2151	6.32	5.75	0.91	2271
32	22	7.74	6.11	0.79	2131	7.24	5.72	0.79	2251	6.75	5.33	0.79	2332
32	24	8.17	5.47	0.67	2211	7.67	5.14	0.67	2312	7.24	4.85	0.67	2412
32	26	8.59	4.73	0.55	2291	8.09	4.45	0.55	2392	7.60	4.18	0.55	2492

NOTE Q : Total capacity (kW) SHF : Sensible heat factor DB : Dry-bulb temperature
SHC : Sensible heat capacity (kW) INPUT : Total power input (W) WB : Wet-bulb temperature

PERFORMANCE DATA HEAT operation at Rated frequency

MUZ-AP25VG

CAPACITY: 3.2 kW

INPUT: 780 W

INDOOR DB (°C)	OUTDOOR WB (°C)															
	-15		-10		-5		0		5		10		15		20	
	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	1.60	406	2.02	507	2.43	608	2.85	686	3.26	741	3.68	788	4.06	811	4.48	827
21	1.50	429	1.92	546	2.30	647	2.72	718	3.10	772	3.52	811	3.90	835	4.30	866
26	1.31	468	1.73	585	2.14	686	2.53	757	2.94	811	3.36	850	3.74	874	4.16	897

MUZ-AP25VGH

CAPACITY: 3.2 kW

INPUT: 780 W

INDOOR DB (°C)	OUTDOOR WB (°C)															
	-20		-15		-10		-5		0		5		10		15	
	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	1.22	312	1.60	406	2.02	507	2.43	608	2.85	686	3.26	741	3.68	788	4.06	811
21	1.12	328	1.50	429	1.92	546	2.30	647	2.72	718	3.10	772	3.52	811	3.90	835
26	0.90	351	1.31	468	1.73	585	2.14	686	2.53	757	2.94	811	3.36	850	3.74	874

MUZ-AP35VG

CAPACITY: 4.0 kW

INPUT: 1030 W

INDOOR DB (°C)	OUTDOOR WB (°C)															
	-15		-10		-5		0		5		10		15		20	
	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	2.00	536	2.52	670	3.04	803	3.56	906	4.08	979	4.60	1040	5.08	1071	5.60	1092
21	1.88	567	2.40	721	2.88	855	3.40	948	3.88	1020	4.40	1071	4.88	1102	5.38	1143
26	1.64	618	2.16	773	2.68	906	3.16	999	3.68	1071	4.20	1123	4.68	1154	5.20	1185

MUZ-AP35VGH

CAPACITY: 4.0 kW

INPUT: 1030 W

INDOOR DB (°C)	OUTDOOR WB (°C)															
	-20		-15		-10		-5		0		5		10		15	
	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	1.52	412	2.00	536	2.52	670	3.04	803	3.56	906	4.08	979	4.60	1040	5.08	1071
21	1.40	433	1.88	567	2.40	721	2.88	855	3.40	948	3.88	1020	4.40	1071	4.88	1102
26	1.12	464	1.64	618	2.16	773	2.68	906	3.16	999	3.68	1071	4.20	1123	4.68	1154

MUZ-AP42VG

CAPACITY: 5.4 kW

INPUT: 1490 W

INDOOR DB (°C)	OUTDOOR WB (°C)															
	-15		-10		-5		0		5		10		15		20	
	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	2.70	775	3.40	969	4.10	1162	4.81	1311	5.51	1416	6.21	1505	6.86	1550	7.56	1579
21	2.54	820	3.24	1043	3.89	1237	4.59	1371	5.24	1475	5.94	1550	6.59	1594	7.26	1654
26	2.21	894	2.92	1118	3.62	1311	4.27	1445	4.97	1550	5.67	1624	6.32	1669	7.02	1714

MUZ-AP42VGH

CAPACITY: 5.4 kW

INPUT: 1490 W

INDOOR DB (°C)	OUTDOOR WB (°C)															
	-20		-15		-10		-5		0		5		10		15	
	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	2.05	596	2.70	775	3.40	969	4.10	1162	4.81	1311	5.51	1416	6.21	1505	6.86	1550
21	1.89	626	2.54	820	3.24	1043	3.89	1237	4.59	1371	5.24	1475	5.94	1550	6.59	1594
26	1.51	671	2.21	894	2.92	1118	3.62	1311	4.27	1445	4.97	1550	5.67	1624	6.32	1669

NOTE: Q: Total capacity (kW) INPUT : Total power input (W) DB: Dry-bulb temperature WB: Wet-bulb temperature

PERFORMANCE DATA HEAT operation at Rated frequency

MUZ-AP50VG

CAPACITY: 5.8 kW INPUT: 1600 W

INDOOR DB (°C)	OUTDOOR WB (°C)															
	-15		-10		-5		0		5		10		15		20	
	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	2.90	832	3.65	1040	4.41	1248	5.16	1408	5.92	1520	6.67	1616	7.37	1664	8.12	1696
21	2.73	880	3.48	1120	4.18	1328	4.93	1472	5.63	1584	6.38	1664	7.08	1712	7.80	1776
26	2.38	960	3.13	1200	3.89	1408	4.58	1552	5.34	1664	6.09	1744	6.79	1792	7.54	1840

MUZ-AP50VGH

CAPACITY: 5.8 kW INPUT: 1600 W

INDOOR DB (°C)	OUTDOOR WB (°C)																	
	-20		-15		-10		-5		0		5		10		15		20	
	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	2.20	640	2.90	832	3.65	1040	4.41	1248	5.16	1408	5.92	1520	6.67	1616	7.37	1664	8.12	1696
21	2.03	672	2.73	880	3.48	1120	4.18	1328	4.93	1472	5.63	1584	6.38	1664	7.08	1712	7.80	1776
26	1.62	720	2.38	960	3.13	1200	3.89	1408	4.58	1552	5.34	1664	6.09	1744	6.79	1792	7.54	1840

MUZ-AP60VG

CAPACITY: 6.8 kW

MUZ-AP60VG2

INPUT: 1670 W

INDOOR DB (°C)	OUTDOOR WB (°C)															
	-15		-10		-5		0		5		10		15		20	
	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	3.40	868	4.28	1086	5.17	1303	6.05	1470	6.94	1587	7.82	1687	8.64	1737	9.52	1770
21	3.20	919	4.08	1169	4.90	1386	5.78	1536	6.60	1653	7.48	1737	8.30	1787	9.15	1854
26	2.79	1002	3.67	1253	4.56	1470	5.37	1620	6.26	1737	7.14	1820	7.96	1870	8.84	1921

MUZ-AP71VG

CAPACITY: 8.1 kW

MUZ-AP71VG2

INPUT: 2120 W

MUZ-AP71VG3

INDOOR DB (°C)	OUTDOOR WB (°C)															
	-15		-10		-5		0		5		10		15		20	
	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT	Q	INPUT
15	4.05	1102	5.10	1378	6.16	1654	7.21	1866	8.26	2014	9.32	2141	10.29	2205	11.34	2247
21	3.81	1166	4.86	1484	5.83	1760	6.89	1950	7.86	2099	8.91	2205	9.88	2268	10.89	2353
26	3.32	1272	4.37	1590	5.43	1866	6.40	2056	7.45	2205	8.51	2311	9.48	2374	10.53	2438

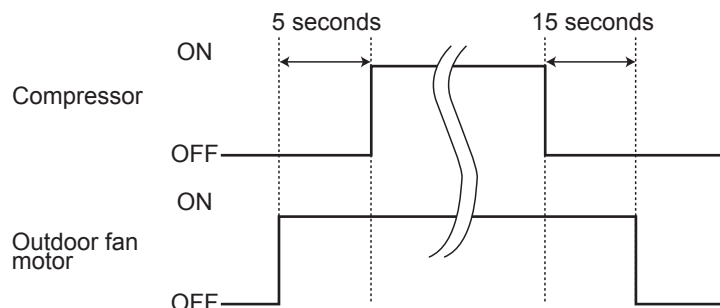
MUZ-AP25VG MUZ-AP35VG MUZ-AP42VG MUZ-AP50VG
 MUZ-AP60VG MUZ-AP60VG2 MUZ-AP71VG MUZ-AP71VG2 MUZ-AP71VG3
 MUZ-AP25VGH MUZ-AP35VGH MUZ-AP42VGH MUZ-AP50VGH

10-1. OUTDOOR FAN MOTOR CONTROL

The fan motor turns ON/OFF, interlocking with the compressor.

[ON] The fan motor turns ON 5 seconds before the compressor starts up.

[OFF] The fan motor turns OFF 15 seconds after the compressor has stopped running.



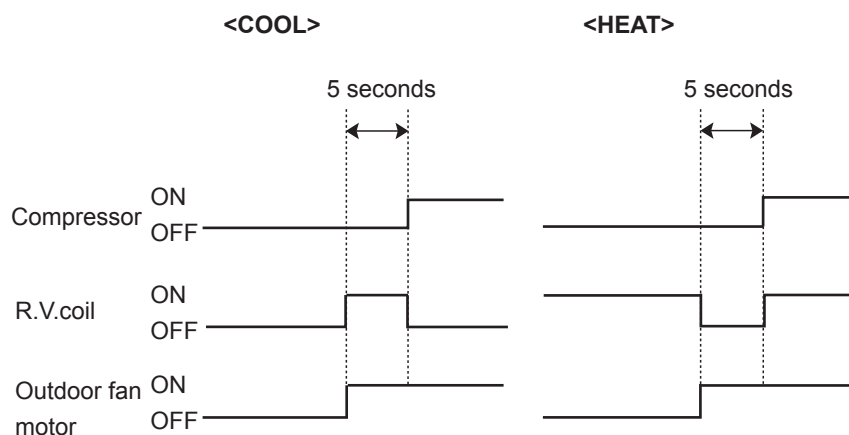
10-2. R.V. COIL CONTROL

Heating ON

Cooling OFF

Dry OFF

NOTE: The 4-way valve reverses for 5 seconds right before startup of the compressor.



10-3. RELATION BETWEEN MAIN SENSOR AND ACTUATOR

Sensor	Purpose	Actuator					
		Compressor	LEV	Outdoor fan motor	R.V. coil	Indoor fan motor	Defrost heater
Discharge temperature thermistor	Protection	○	○				
Indoor coil temperature thermistor	Cooling: Coil frost prevention	○					
	Heating: High pressure protection	○	○				
Defrost thermistor	Heating: Defrosting	○	○	○	○	○	
Fin temperature thermistor	Protection	○		○			
Ambient temperature thermistor	Cooling: Low ambient temperature operation	○	○	○			
	Heating: Defrosting (Heater)						○
Outdoor heat exchanger temperature thermistor	Cooling: Low ambient temperature operation	○	○	○			
	Cooling: High pressure protection	○	○	○			

MUZ-AP25VG MUZ-AP35VG MUZ-AP42VG MUZ-AP50VG
 MUZ-AP60VG MUZ-AP60VG2 MUZ-AP71VG MUZ-AP71VG2 MUZ-AP71VG3
 MUZ-AP25VGH MUZ-AP35VGH MUZ-AP42VGH MUZ-AP50VGH

11-1. CHANGE IN DEFROST SETTING

Changing defrost finish temperature

<JS> To change the defrost finish temperature, cut/solder the JS wire of the outdoor inverter P.C. board.

(Refer to 12-6-1.)

Jumper wire		Defrost finish temperature (°C)	
		MUZ-AP25/35/42/50/60VG MUZ-AP60VG2 MUZ-AP25/35/42/50VGH	MUZ-AP71VG MUZ-AP71VG2 MUZ-AP71VG3
JS	Soldered (Initial setting)	8	10
	None (Cut)	13	18

11-2. PRE-HEAT CONTROL SETTING

PRE-HEAT CONTROL

MUZ-AP25/35/42/50/60

When moisture gets into the refrigerant cycle, it may interfere the startup of the compressor at low outside temperature. The pre-heat control prevents this interference. The pre-heat control turns ON when the discharge temperature thermistor is 20°C or below. When the pre-heat control turns ON, the compressor is energized. (About 50 W)

MUZ-AP71

Prolonged low load operation, in which the thermostat is OFF for a long time, at low outside temperature (0°C or less) may cause the following troubles. To prevent those troubles, activate the pre-heat control.

- 1) If moisture gets into the refrigerant cycle and freezes, it may interfere the startup of the compressor.
- 2) If liquid refrigerant collects in the compressor, a failure in the compressor may occur.

The pre-heat control turns ON when the compressor temperature is 20°C or below. When the pre-heat control turns ON, the compressor is energized. (About 70 W)

Pre-heat control setting

<JK>

ON: To activate the pre-heat control, cut the JK wire of the inverter P.C. board.

OFF: To deactivate the pre-heat control, solder the JK wire of the inverter P.C. board.

(Refer to 12-6.1)

NOTE: When the inverter P.C. board is replaced, check the jumper wires, and cut/solder them if necessary.

MUZ-AP25VG MUZ-AP35VG MUZ-AP42VG MUZ-AP50VG
 MUZ-AP60VG MUZ-AP60VG2 MUZ-AP71VG MUZ-AP71VG2 MUZ-AP71VG3
 MUZ-AP25VGH MUZ-AP35VGH MUZ-AP42VGH MUZ-AP50VGH

12-1. CAUTIONS ON TROUBLESHOOTING

1. Before troubleshooting, check the following

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

2. Take care of the following during servicing

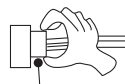
- 1) Before servicing the air conditioner, be sure to turn OFF the main unit first with the remote controller, and after confirming the horizontal vane is closed, turn OFF the breaker and/or disconnect the power plug.
- 2) Be sure to turn OFF the power supply before removing the front panel, the cabinet, the top panel, and the electronic control P.C. board.
- 3) When removing the electrical parts, be careful of 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 connector housing. DO NOT pull the lead wires.

<Incorrect>



Lead wiring

<Correct>



Connector housing

3. Troubleshooting procedure

- 1) Check if the OPERATION INDICATOR lamp on the indoor unit is blinking on and off to indicate an abnormality.
To make sure, check how many times the OPERATION INDICATOR lamp is blinking on and off before starting service work.
- 2) Before servicing, verify that all connectors and terminals are connected properly.
- 3) When the electronic control P.C. board seems to be defective, check for disconnection of the copper foil pattern and burnt or discolored components.
- 4) Refer to 12-2 and 12-3.

12-2. FAILURE MODE RECALL FUNCTION

Outline of the function

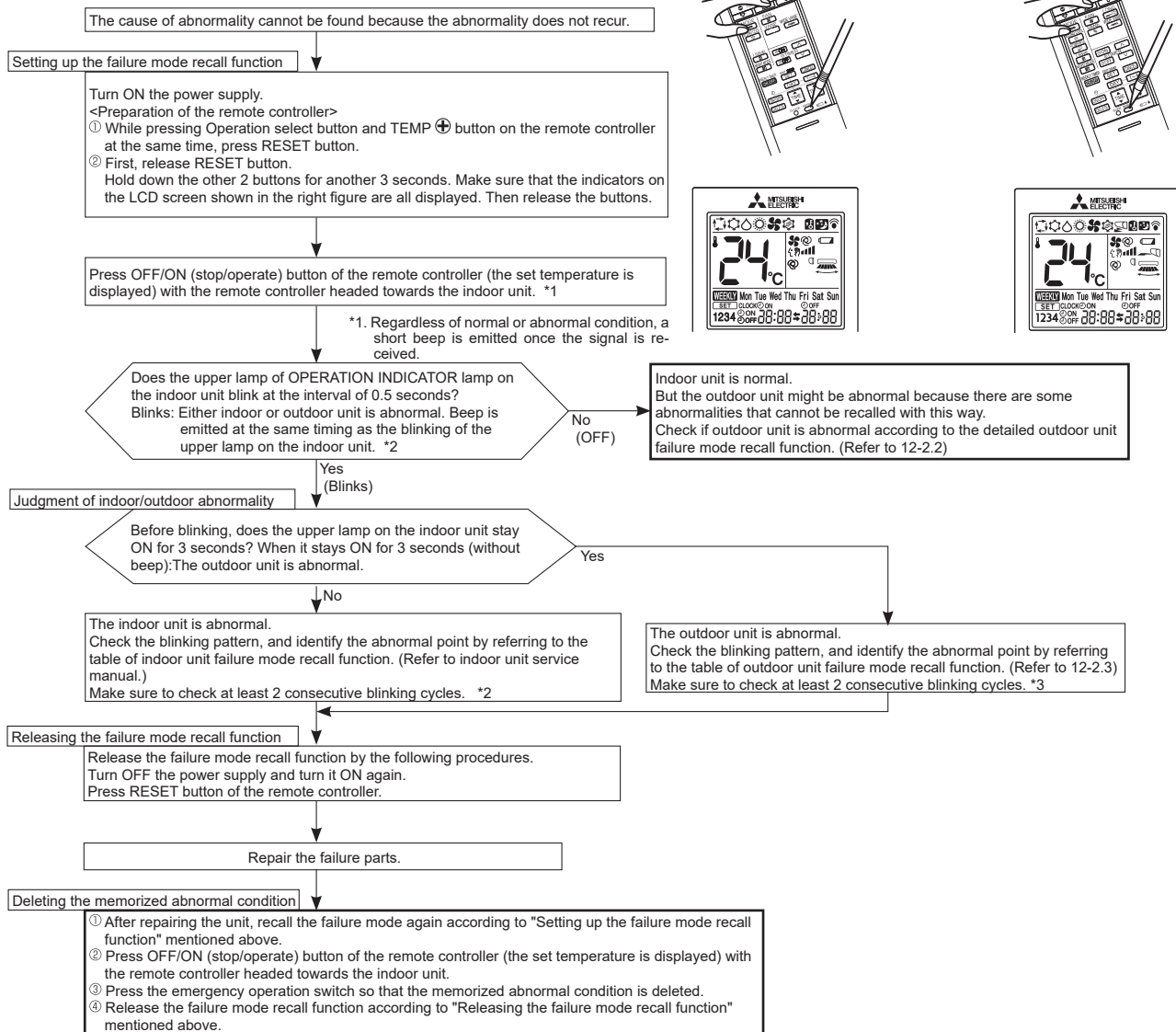
This air conditioner can memorize the abnormal condition which has occurred once.

Even though LED indication listed on the troubleshooting check table (12-3.) disappears, the memorized failure details can be recalled.

1. Flow chart of failure mode recall function for the indoor/outdoor unit

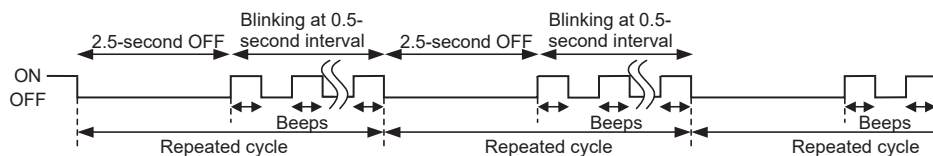
NOTE: The indoor unit does not operate by smartphone, refer to 10-3.2."Check of Wi-Fi Interface".

Operational procedure

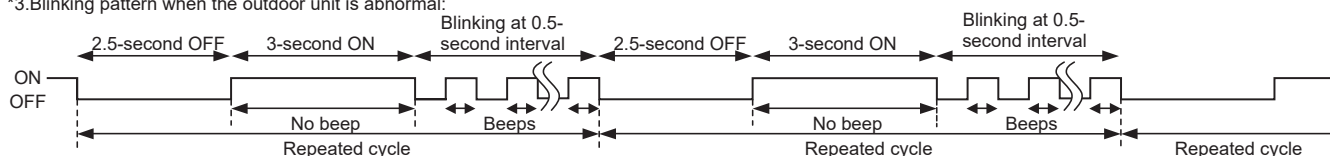


NOTE: 1. Make sure to release the failure mode recall function after it is set up, otherwise the unit cannot operate properly.
2. If the abnormal condition is not deleted from the memory, the last abnormal condition is kept memorized.

*2. Blinking pattern when the indoor unit is abnormal:

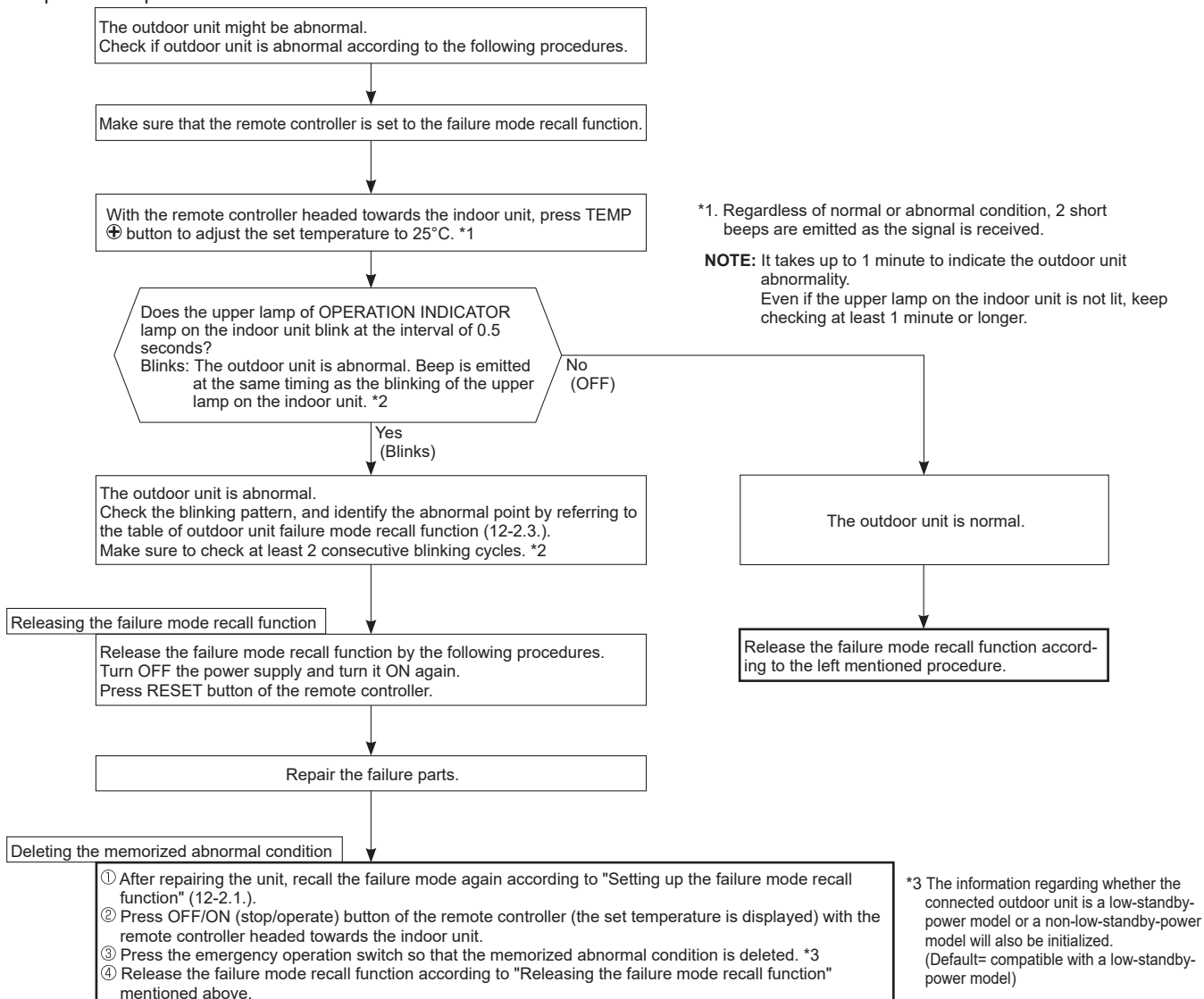


*3. Blinking pattern when the outdoor unit is abnormal:



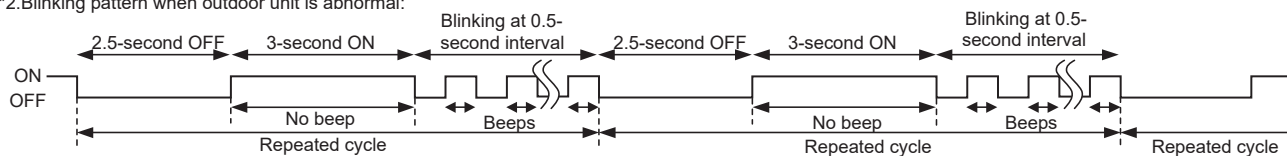
2. Flow chart of the detailed outdoor unit failure mode recall function

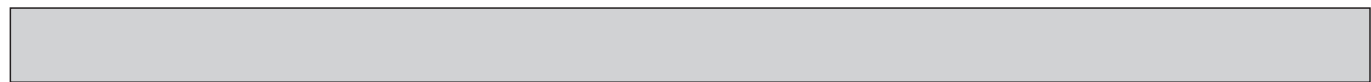
Operational procedure



NOTE: 1. Make sure to release the failure mode recall function after it is set up, otherwise the unit cannot operate properly.
2. If the abnormal condition is not deleted from the memory, the last abnormal condition is kept memorized.

*2. Blinking pattern when outdoor unit is abnormal:





3. Table of outdoor unit failure mode recall function

NOTE: Blinking patterns of this mode differ from the ones of TROUBLESHOOTING CHECK TABLE (12-3.).

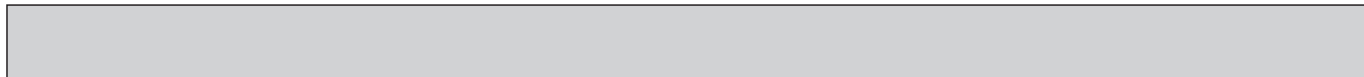
Upper lamp (Indoor unit)	Abnormal point (Failure mode/protection)	LED indication (Outdoor P.C. board)	Condition	Remedy	Indoor/outdoor unit failure mode recall function	Outdoor unit failure mode recall function
OFF	None (Normal)	—	—	—	—	—
1-time blink 2.5 seconds OFF	Indoor/outdoor communication, receiving error	—	Any signals from the inverter P.C. board cannot be received normally for 3 minutes.	•Refer to 12-5.⑧ "How to check miswiring and serial signal error".	○	○
	Indoor/outdoor communication, receiving error	—	Although the inverter P.C. board sends signal "0", signal "1" has been received 30 consecutive times.	•Refer to 12-5.⑧ "How to check miswiring and serial signal error".		
2-time blink 2.5 seconds OFF	Outdoor power system	—	Overcurrent protection cut-out operates 3 consecutive times within 1 minute after the compressor gets started.	•Reconnect connectors. •Refer to 12-5.④ "How to check inverter/ compressor". •Check stop valve.	○	○
3-time blink 2.5 seconds OFF	Discharge temperature thermistor	1-time blink every 2.5 seconds	Thermistor shorts or opens during compressor running.	•Refer to 12-5.③ "Check of outdoor thermistors". Defective outdoor thermistors can be identified by checking the blinking pattern of LED.	○	○
	Defrost thermistor					
	Fin temperature thermistor	3-time blink 2.5 seconds OFF				
	Ambient temperature thermistor	2-time blink 2.5 seconds OFF				
	Outdoor heat exchanger temperature thermistor	—				
	P.C. board temperature thermistor	4-time blink 2.5 seconds OFF		•Replace the inverter P.C. board.		
4-time blink 2.5 seconds OFF	Overcurrent	11-time blink 2.5 seconds OFF	Large current flows into power module (IC700).	•Reconnect compressor connector. •Refer to 12-5.④ "How to check inverter/ compressor". •Check stop valve.	—	○
	Compressor synchronous abnormality (Compressor startup failure protection)	12-time blink 2.5 seconds OFF	Waveform of compressor current is distorted.	•Reconnect compressor connector. •Refer to 12-5.④ "How to check inverter/ compressor".	—	○
5-time blink 2.5 seconds OFF	Discharge temperature	—	Temperature of discharge temperature thermistor exceeds 116°C, compressor stops. Compressor can restart if discharge temperature thermistor reads 100°C or less 3 minutes later.	•Check refrigerant circuit and refrigerant amount. •Refer to 12-5.③ "Check of LEV".	—	○
6-time blink 2.5 seconds OFF	High pressure	—	Temperature of indoor coil thermistor exceeds 70°C in HEAT mode. Temperature of defrost thermistor exceeds 70°C in COOL mode.	•Check refrigerant circuit and refrigerant amount. •Check stop valve.	—	○
7-time blink 2.5 seconds OFF	Fin temperature/P.C. board temperature	7-time blink 2.5 seconds OFF	Temperature of fin temperature thermistor on the inverter P.C. board exceeds 75 ~ 86°C (MUZ-AP25/35/42/50/60) / 75 ~ 80°C (MUZ-AP71), or temperature of P.C. board temperature thermistor on the inverter P.C. board exceeds 72 ~ 85°C (MUZ-AP25/35/42/50/60) / 70 ~ 75°C (MUZ-AP71).	•Check around outdoor unit. •Check outdoor unit air passage. •Refer to 12-5.① "Check of outdoor fan motor".	—	○
8-time blink 2.5 seconds OFF	Outdoor fan motor	—	Outdoor fan has stopped 3 times in a row within 30 seconds after outdoor fan startup.	•Refer to 12-5.① "Check of outdoor fan motor". Refer to 12-5. ① "Check of inverter P.C. board".	—	○
9-time blink 2.5 seconds OFF	Nonvolatile memory data	5-time blink 2.5 seconds OFF	Nonvolatile memory data cannot be read properly.	•Replace the inverter P.C. board.	○	○
	Power module (IC700)	6-time blink 2.5 seconds OFF	The interface short circuit occurs in the output of the power module (IC700). The compressor winding shorts circuit.	•Refer to 12-5.④ "How to check inverter/ compressor".	—	

NOTE: Blinking patterns of this mode differ from the ones of TROUBLESHOOTING CHECK TABLE (12-3.).

Upper lamp (Indoor unit)	Abnormal point (Failure mode/protection)	LED indication (Outdoor P.C. board)	Condition	Remedy	Indoor/outdoor unit failure mode recall function	Outdoor unit failure mode recall function
10-time blink 2.5 seconds OFF	Discharge temperature	—	Temperature of discharge temperature thermistor has been 50°C or less for 20 minutes.	•Refer to 12-5. ④ "Check of LEV". •Check refrigerant circuit and refrigerant amount.	—	○
11-time blink 2.5 seconds OFF	Bus-bar voltage (DC)	8-time blink 2.5 seconds OFF	Bus-bar voltage of inverter cannot be detected normally.	•Refer to 12-5. ⑤ "How to check inverter/compressor".	—	○
	Each phase current of compressor	9-time blink 2.5 seconds OFF	Each phase current of compressor cannot be detected normally.			
14-time blink 2.5 seconds OFF	Stop valve (Closed valve)	14-time blink 2.5 seconds OFF	Closed valve is detected by compressor current.	•Check stop valve.	○	○
	4-way valve/ Pipe temperature	16-time blink 2.5 seconds OFF	The 4-way valve does not work properly. The indoor coil thermistor detects an abnormal temperature.	•Check the 4-way valve. •Replace the inverter P.C. board.		
16-time blink 2.5 seconds OFF	Outdoor refrigerant system abnormality	1-time blink 2.5 seconds OFF	A closed valve and air trapped in the refrigerant circuit are detected based on the temperature sensed by the indoor and outdoor thermistors and the current of the compressor.	•Check for a gas leak in a connecting piping etc. •Check the stop valve. •Refer to 12-5. ⑥ "Check of the outdoor refrigerant circuit".	○	○

12-3. TROUBLESHOOTING CHECK TABLE

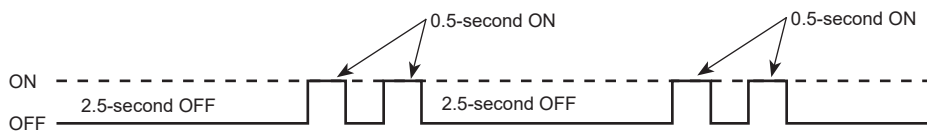
No.	Symptom	LED indication	Abnormal point/ Condition	Condition	Remedy
1	Outdoor unit does not operate.	1-time blink every 2.5 seconds	Outdoor power system	Overcurrent protection cut-out operates 3 consecutive times within 1 minute after the compressor gets started.	•Reconnect connector of compressor. •Refer to 12-5.④ "How to check inverter/compressor". •Check stop valve.
2			Outdoor thermistors	Discharge temperature thermistor, fin temperature thermistor, defrost thermistor, outdoor heat exchanger temperature thermistor or ambient temperature thermistor shorts or opens during compressor running.	•Refer to 12-5.⑥ "Check of outdoor thermistors".
				P.C. board temperature thermistor shorts or opens during compressor running.	•Replace inverter P.C. board.
3			Outdoor control system	Nonvolatile memory data cannot be read properly. (Upper lamp of OPERATION INDICATOR lamp on the indoor unit lights up or blinks 7-time.)	•Replace inverter P.C. board.
4		6-time blink 2.5 seconds OFF	Serial signal	The communication fails between the indoor and outdoor unit for 3 minutes.	•Refer to 12-5.⑩ "How to check miswiring and serial signal error."
5		11-time blink 2.5 seconds OFF	Stop valve/ Closed valve	Closed valve is detected by compressor current.	•Check stop valve.
6		14-time blink 2.5 seconds OFF	Outdoor unit (Other abnormality)	Outdoor unit is defective.	•Refer to 12-2.2. "Flow chart of the detailed outdoor unit failure mode recall function".
7		16-time blink 2.5 seconds OFF	4-way valve/ Pipe temperature	The 4-way valve does not work properly. The indoor coil thermistor detects an abnormal temperature.	•Refer to 12-5.⑧ "Check of R.V. coil". •Replace the inverter P.C. board.
8		17-time blink 2.5 seconds OFF	Outdoor refrigerant system abnormality	A closed valve and air trapped in the refrigerant circuit are detected based on the temperature sensed by the indoor and outdoor thermistors and the current of the compressor.	•Check for a gas leak in a connecting piping etc. •Check the stop valve. •Refer to 12-5.⑨ "Check of the outdoor refrigerant circuit".
9	'Outdoor unit stops and restarts 3 minutes later' is repeated.	2-time blink 2.5 seconds OFF	Overcurrent protection	Large current flows into power module (IC700).	•Reconnect connector of compressor. •Refer to 12-5.④ "How to check inverter/compressor". •Check stop valve.
10		3-time blink 2.5 seconds OFF	Discharge temperature overheat protection	Temperature of discharge temperature thermistor exceeds 116°C, compressor stops. Compressor can restart if discharge temperature thermistor reads 100°C or less 3 minutes later.	•Check refrigerant circuit and refrigerant amount. •Refer to 12-5.⑧ "Check of LEV".
11		4-time blink 2.5 seconds OFF	Fin temperature /P.C. board temperature thermistor overheat protection	Temperature of fin temperature thermistor on the heat sink exceeds 75 ~ 86°C (MUZ-AP25/35/42/50/60)/75 ~ 80°C (MUZ-AP71) or temperature of P.C. board temperature thermistor on the inverter P.C. board exceeds 72 ~ 85°C (MUZ-AP25/35/42/50/60)/70 ~ 75°C (MUZ-AP71).	•Check around outdoor unit. •Check outdoor unit air passage. •Refer to 12-5.① "Check of outdoor fan motor".
12		5-time blink 2.5 seconds OFF	High pressure protection	Indoor coil thermistor exceeds 70°C in HEAT mode. Defrost thermistor exceeds 70°C in COOL mode.	•Check refrigerant circuit and refrigerant amount. •Check stop valve.
13		8-time blink 2.5 seconds OFF	Compressor synchronous abnormality	The waveform of compressor current is distorted.	•Reconnect connector of compressor. •Refer to 12-5.④ "How to check inverter/compressor".
14		10-time blink 2.5 seconds OFF	Outdoor fan motor	Outdoor fan has stopped 3 times in a row within 30 seconds after outdoor fan startup.	•Refer to 12-5.① "Check of outdoor fan motor." •Refer to 12-5.① "Check of inverter P.C. board."
15		12-time blink 2.5 seconds OFF	Each phase current of compressor	Each phase current of compressor cannot be detected normally.	•Refer to 12-5.④ "How to check inverter/compressor".
16		13-time blink 2.5 seconds OFF	Bus-bar voltage (DC)	Bus-bar voltage of inverter cannot be detected normally.	•It occurs with following case. Instantaneous power voltage drop. (Short time power failure) (MUZ-AP71) •Refer to 12-5.⑨ "Check of power supply". (MUZ-AP71) •Refer to 12-5.④ "How to check inverter/compressor".



No.	Symptom	LED indication	Abnormal point/ Condition	Condition		Remedy
17	Outdoor unit operates.	1-time blink 2.5 seconds OFF	Deceleration of the operational frequency of the compressor by the current protection control	MUZ-AP25/35/42/50/60	When the input current exceeds approximately 10A, compressor frequency lowers.	The unit is normal, but check the following. •Check if indoor filters are clogged. •Check if refrigerant is short. •Check if indoor/outdoor unit air circulation is short cycled.
				MUZ-AP71	Current from power outlet is nearing breaker capacity.	
18		3-time blink 2.5 seconds OFF	Deceleration of the operational frequency of the compressor by the high pressure protection	Temperature of indoor coil thermistor exceeds 55°C in HEAT mode, compressor frequency lowers.		
19			Deceleration of the operational frequency of the compressor by the overcooling prevention of the indoor heat exchanger	Indoor coil thermistor reads 8°C or less in COOL mode, compressor frequency lowers.		
20		4-time blink 2.5 seconds OFF	Deceleration of the operational frequency of the compressor by the discharge temperature protection	Temperature of discharge temperature thermistor exceeds 111°C, compressor frequency lowers.		
21		MUZ-AP25/35/42 5-time blink 2.5 seconds OFF	Outside temperature thermistor protection	When the outside temperature thermistor shorts or opens, protective operation without that thermistor is performed.		•Refer to 12-5.Ⓢ “Check of outdoor thermistors”.
22	Outdoor unit operates.	7-time blink 2.5 seconds OFF	Low discharge temperature protection	Temperature of discharge temperature thermistor has been 50°C or less for 20 minutes.	•Refer to 12-5.ⓧ “Check of LEV”. •Check refrigerant circuit and refrigerant amount.	•Refer to 12-5.ⓧ “Check of LEV”. •Check refrigerant circuit and refrigerant amount.
23		8-time blink 2.5 seconds OFF	MUZ-AP25/35/42/50/60 PAM protection PAM: Pulse Amplitude Modulation	The overcurrent flows into PFC (Power factor correction: IC820) or the bus-bar voltage reaches 394 V or more, PAM stops and re-starts.	This is not malfunction. PAM protection will be activated in the following cases: 1 Instantaneous power voltage drop. (Short time power failure) 2 When the power supply voltage is high.	
	MUZ-AP71 Zero cross detecting circuit		Zero cross signal cannot be detected.	•It occurs with following cases. 1 Instantaneous power voltage drop. (Short time power failure) 2 Distortion of primary voltage •Refer to 12-5.㉔ “Check of power supply”.		•It occurs with following cases. 1 Instantaneous power voltage drop. (Short time power failure) 2 Distortion of primary voltage •Refer to 12-5.㉔ “Check of power supply”.
24		9-time blink 2.5 seconds OFF	Inverter check mode	The connector of compressor is disconnected, inverter check mode starts.	•Check if the connector of the compressor is correctly connected. Refer to 12-5.㉔ “How to check inverter/compressor”.	•Check if the connector of the compressor is correctly connected. Refer to 12-5.㉔ “How to check inverter/compressor”.

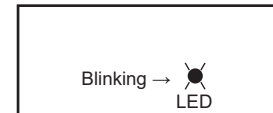
NOTE: 1. The location of LED is illustrated at the right figure. Refer to 12-6.1.
2. LED is lit during normal operation.

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

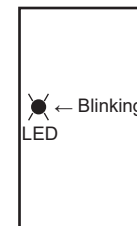


Inverter P.C. board

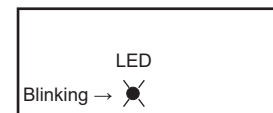
MUZ-AP25/35/42/50/60VG
MUZ-AP60VG2
MUZ-AP25/35/42/50VGH



MUZ-AP71VG

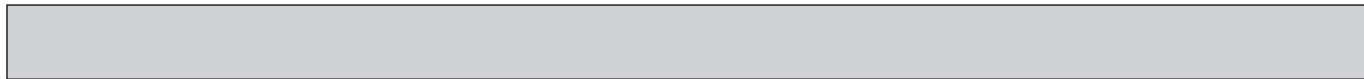


MUZ-AP71VG2
MUZ-AP71VG3



12-4. TROUBLESHOOTING CRITERION OF MAIN PARTS

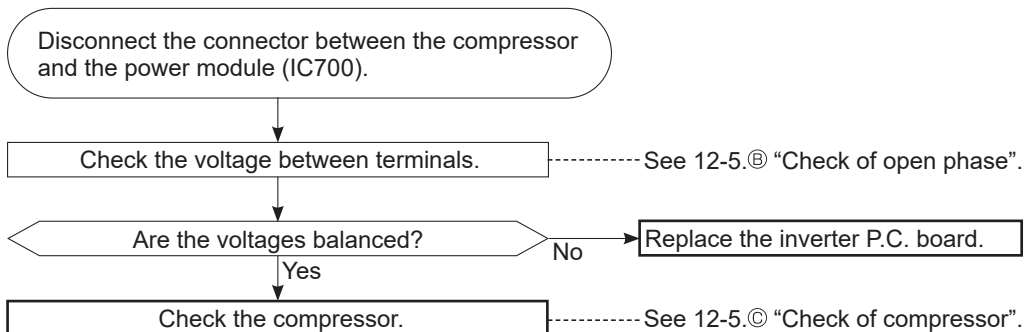
Part name	Check method and criterion	Figure																		
Defrost thermistor (RT61) Fin temperature thermistor (RT64) Ambient temperature thermistor (RT65) Outdoor heat exchanger temperature thermistor (RT68)	Measure the resistance with a multimeter. Refer to 12-6. "Test point diagram and voltage", 1. "Inverter P.C. board", for the chart of thermistor.																			
Discharge temperature thermistor (RT62)	Measure the resistance with a multimeter. Before measurement, hold the thermistor with your hands to warm it up. Refer to 12-6. "Test point diagram and voltage", 1. "Inverter P.C. board", for the chart of thermistor.																			
Compressor (MC)	Measure the resistance between terminals using a multimeter. (Temperature: -10 to 40°C) <table><tr><td></td><td colspan="3">Normal (Ω)</td></tr><tr><td></td><td>MUZ-AP25/35VG MUZ-AP25/35VGH</td><td>MUZ-AP42/50/60VG MUZ-AP60VG2 MUZ-AP42/50VGH</td><td>MUZ-AP71VG MUZ-AP71VG2 MUZ-AP71VG3</td></tr><tr><td>U-V</td><td>E1, ET1, E2, ET2, ER2:1.59 - 2.16</td><td rowspan="3">0.82 - 1.11</td><td rowspan="3">0.87 - 1.18</td></tr><tr><td>U-W</td><td>E3, ET3, ER3:2.79 - 3.44</td></tr><tr><td>V-W</td><td></td></tr></table>		Normal (Ω)				MUZ-AP25/35VG MUZ-AP25/35VGH	MUZ-AP42/50/60VG MUZ-AP60VG2 MUZ-AP42/50VGH	MUZ-AP71VG MUZ-AP71VG2 MUZ-AP71VG3	U-V	E1, ET1, E2, ET2, ER2:1.59 - 2.16	0.82 - 1.11	0.87 - 1.18	U-W	E3, ET3, ER3:2.79 - 3.44	V-W				
	Normal (Ω)																			
	MUZ-AP25/35VG MUZ-AP25/35VGH	MUZ-AP42/50/60VG MUZ-AP60VG2 MUZ-AP42/50VGH	MUZ-AP71VG MUZ-AP71VG2 MUZ-AP71VG3																	
U-V	E1, ET1, E2, ET2, ER2:1.59 - 2.16	0.82 - 1.11	0.87 - 1.18																	
U-W	E3, ET3, ER3:2.79 - 3.44																			
V-W																				
Outdoor fan motor (MF)	Measure the resistance between lead wires using a multimeter. (Temperature: -10 to 40°C) <table><tr><td>Color of lead wire</td><td colspan="4">Normal (Ω)</td></tr><tr><td></td><td>MUZ-AP25/35/42VG MUZ-AP25/35/42VGH</td><td>MUZ-AP50/60VG MUZ-AP60VG2 MUZ-AP50VGH</td><td>MUZ-AP71VG</td><td>MUZ-AP71VG2 MUZ-AP71VG3</td></tr><tr><td>RED-BLK</td><td rowspan="3">32 - 43</td><td rowspan="3">15 - 20</td><td rowspan="3">13 - 16</td><td rowspan="3">32 - 43</td></tr><tr><td>BLK-WHT</td></tr><tr><td>WHT-RED</td></tr></table>	Color of lead wire	Normal (Ω)					MUZ-AP25/35/42VG MUZ-AP25/35/42VGH	MUZ-AP50/60VG MUZ-AP60VG2 MUZ-AP50VGH	MUZ-AP71VG	MUZ-AP71VG2 MUZ-AP71VG3	RED-BLK	32 - 43	15 - 20	13 - 16	32 - 43	BLK-WHT	WHT-RED		
Color of lead wire	Normal (Ω)																			
	MUZ-AP25/35/42VG MUZ-AP25/35/42VGH	MUZ-AP50/60VG MUZ-AP60VG2 MUZ-AP50VGH	MUZ-AP71VG	MUZ-AP71VG2 MUZ-AP71VG3																
RED-BLK	32 - 43	15 - 20	13 - 16	32 - 43																
BLK-WHT																				
WHT-RED																				
R. V. coil (21S4)	Measure the resistance using a multimeter. (Temperature: -10 - 40°C) <table><tr><td colspan="2">Normal (kΩ)</td></tr><tr><td>MUZ-AP25/35/42/50/60VG MUZ-AP60VG2 MUZ-AP25/35/42/50VGH</td><td>MUZ-AP71VG MUZ-AP71VG2 MUZ-AP71VG3</td></tr><tr><td>1.41 - 2.00</td><td>1.17 - 1.66</td></tr></table>	Normal (kΩ)		MUZ-AP25/35/42/50/60VG MUZ-AP60VG2 MUZ-AP25/35/42/50VGH	MUZ-AP71VG MUZ-AP71VG2 MUZ-AP71VG3	1.41 - 2.00	1.17 - 1.66													
Normal (kΩ)																				
MUZ-AP25/35/42/50/60VG MUZ-AP60VG2 MUZ-AP25/35/42/50VGH	MUZ-AP71VG MUZ-AP71VG2 MUZ-AP71VG3																			
1.41 - 2.00	1.17 - 1.66																			
Expansion valve coil (LEV)	Measure the resistance using a multimeter. (Temperature: -10 to 40°C) <table><tr><td colspan="2">MUZ-AP25/35/42/50/60/71VG MUZ-AP60VG2 MUZ-AP25/35/42/50VGH</td></tr><tr><td>Color of lead wire</td><td>Normal (Ω)</td></tr><tr><td>RED - ORN</td><td rowspan="4">37 - 54</td></tr><tr><td>RED - WHT</td></tr><tr><td>RED - BLU</td></tr><tr><td>RED - YLW</td></tr><tr><td colspan="2">MUZ-AP71VG2 MUZ-AP71VG3</td></tr><tr><td>Color of lead wire</td><td>Normal (Ω)</td></tr><tr><td>BRN - ORN</td><td rowspan="4">37 - 54</td></tr><tr><td>BRN - WHT</td></tr><tr><td>RED - BLU</td></tr><tr><td>RED - YLW</td></tr></table>	MUZ-AP25/35/42/50/60/71VG MUZ-AP60VG2 MUZ-AP25/35/42/50VGH		Color of lead wire	Normal (Ω)	RED - ORN	37 - 54	RED - WHT	RED - BLU	RED - YLW	MUZ-AP71VG2 MUZ-AP71VG3		Color of lead wire	Normal (Ω)	BRN - ORN	37 - 54	BRN - WHT	RED - BLU	RED - YLW	
MUZ-AP25/35/42/50/60/71VG MUZ-AP60VG2 MUZ-AP25/35/42/50VGH																				
Color of lead wire	Normal (Ω)																			
RED - ORN	37 - 54																			
RED - WHT																				
RED - BLU																				
RED - YLW																				
MUZ-AP71VG2 MUZ-AP71VG3																				
Color of lead wire	Normal (Ω)																			
BRN - ORN	37 - 54																			
BRN - WHT																				
RED - BLU																				
RED - YLW																				



Part name	Check method and criterion		Figure
Defrost heater MUZ-AP•VGH	Normal (Ω)		
	MUZ-AP25/35/42VGH	MUZ-AP50VGH	
	802 - 980	370 - 428	

12-5. TROUBLESHOOTING FLOW

A How to check inverter/compressor



B Check of open phase

- With the connector between the compressor and the power module (IC700) disconnected, activate the inverter and check if the inverter is normal by measuring **the voltage balance** between the terminals.

Output voltage is 50 - 130 V. (The voltage may differ according to the multimeter.)

<< Operation method >>

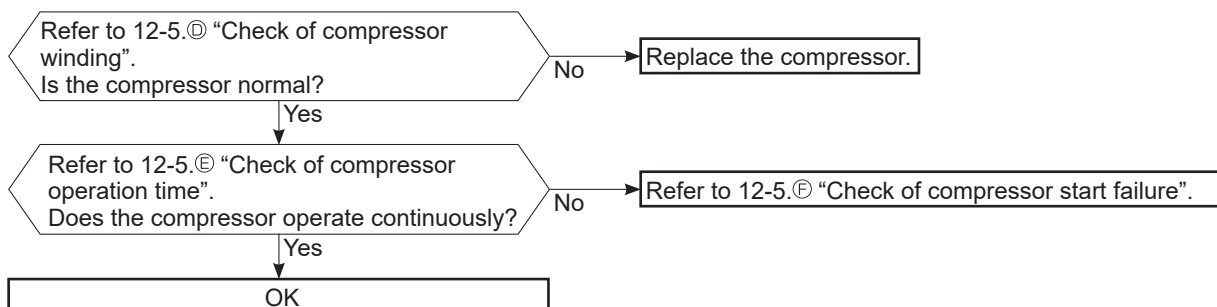
Start cooling or heating operation by pressing the emergency operation switch on the indoor unit. (TEST RUN OPERATION: Refer to 9-3.)

<< Measurement point >>

At 3 points *Measure AC voltage between the lead wires at 3 points.
BLK (U)-WHT (V)
BLK (U)-RED (W)
WHT(V)-RED (W)

NOTE: 1. Output voltage varies according to power supply voltage.
2. Measure the voltage by analog type multimeter.
3. During this check, LED of the inverter P.C. board blinks 9 times. (Refer to 12-6.1.)

C Check of compressor



D Check of compressor winding

- Disconnect the connector between the compressor and the power module (IC700), and measure the resistance between the compressor terminals.

<<Measurement point>>

At 3 points

BLK-WHT

BLK-RED

WHT-RED

*Measure the resistance between the lead wires at 3 points.

<<Judgement>>

Refer to 12-4.

0 [Ω] Abnormal [short]

Infinite [Ω] Abnormal [open]

NOTE: Be sure to zero the ohmmeter before measurement.

E Check of compressor operation time

- Connect the compressor and activate the inverter. Then measure the time until the inverter stops due to overcurrent.

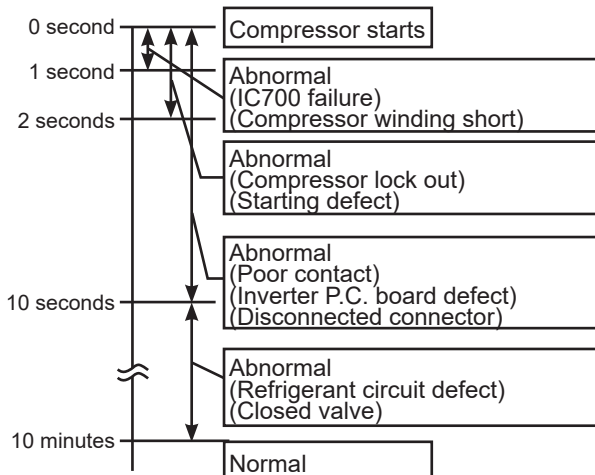
<<Operation method>>

Start heating or cooling operation by pressing the emergency operation switch on the indoor unit. (TEST RUN OPERATION: Refer to 9-3.)

<<Measurement>>

Measure the time from the start of compressor to the stop of compressor due to overcurrent.

<<Judgement>>



F Check of compressor start failure

Confirm that ①~④ is normal.

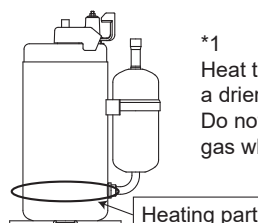
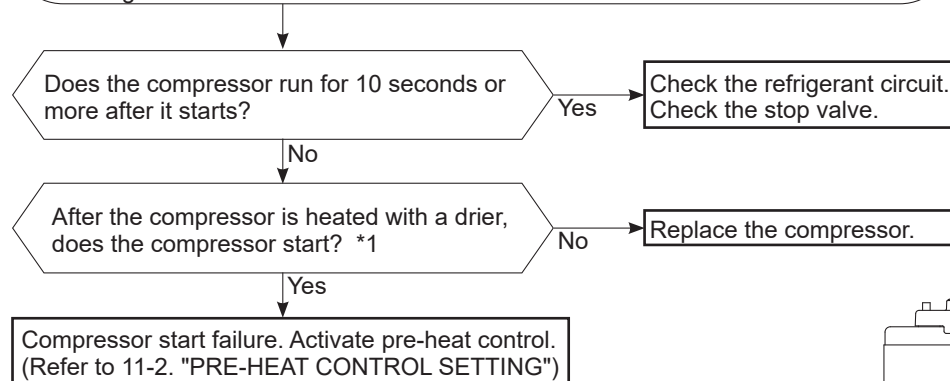
•Electrical circuit check

①. Contact of the compressor connector

②. Output voltage of inverter P.C. board and balance of them (See 12-5.⑥)

③. Direct current voltage between DB61(+) and (-) (MUZ-AP25/35/42/50/60VG, MUZ-AP60VG2, MUZ-AP25/35/42/50VGH)/IC700 (P) and (N) (MUZ-AP71VG, MUZ-AP71VG2, MUZ-AP71VG3) on the inverter P.C. board

④. Voltage between outdoor terminal block S1-S2



*1
Heat the compressor with a drier for about 20 minutes. Do not recover refrigerant gas while heating.

G Check of outdoor thermistors

Disconnect the connector of thermistor in the inverter P.C. board (see below table), and measure the resistance of thermistor.

Is the resistance of thermistor normal?
(Refer to 12-6.1.)

No

Replace the thermistor except RT64.
When RT64 is abnormal, replace the inverter P.C. board.

Yes

Reconnect the connector of thermistor.
Turn ON the power supply and press the emergency operation switch.

Does the unit operate for 10 minutes or more
without showing thermistor abnormality?

No

Replace the inverter P.C. board.

Yes

OK (Cause is poor contact.)

MUZ-AP25/35/42/50/60VG, MUZ-AP60VG2, MUZ-AP25/35/42/50VGH

Thermistor	Symbol	Connector, Pin No.	Board
Defrost	RT61	Between CN641 pin 1 and pin 2	Inverter P.C. board
Discharge temperature	RT62	Between CN641 pin 3 and pin 4	
Fin temperature	RT64	Between CN642 pin 1 and pin 2	
Ambient temperature	RT65	Between CN643 pin 1 and pin 2	
Outdoor heat exchanger temperature	RT68	Between CN644 pin 1 and pin 3	

MUZ-AP71VG, MUZ-AP71VG2, MUZ-AP71VG3

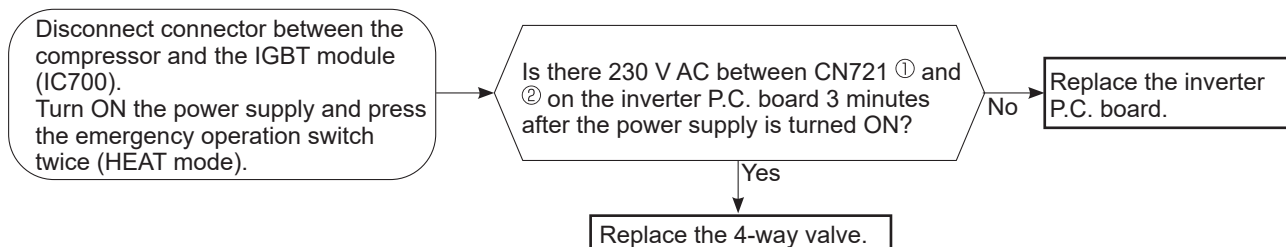
Thermistor	Symbol	Connector, Pin No.	Board
Defrost	RT61	Between CN671 pin 1 and pin 2	Inverter P.C. board
Discharge temperature	RT62	Between CN671 pin 3 and pin 4	
Fin temperature	RT64	Between CN673 pin 1 and pin 2	
Ambient temperature	RT65	Between CN672 pin 1 and pin 2	
Outdoor heat exchanger temperature	RT68	Between CN671 pin 5 and pin 6	

H Check of R.V. coil

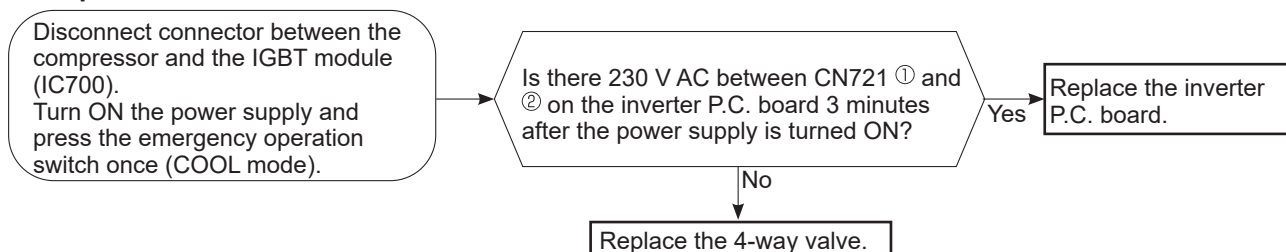
MUZ-AP25/35/42/50/60VG, MUZ-AP60VG2, MUZ-AP25/35/42/50VGH

- * First of all, measure the resistance of R.V. coil to check if the coil is defective. Refer to 12-4.
- * In case CN721 is disconnected or R.V. coil is open, voltage is generated between the terminal pins of the connector although no signal is being transmitted to R.V. coil.
Check if CN721 is connected.

Unit operates in COOL mode even if it is set to HEAT mode.



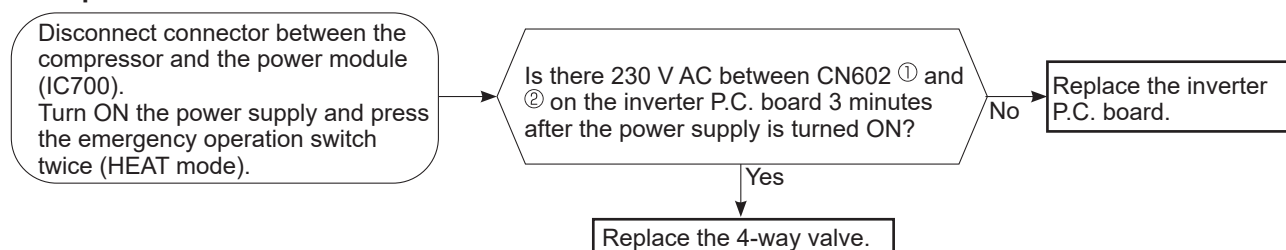
Unit operates in HEAT mode even if it is set to COOL mode.



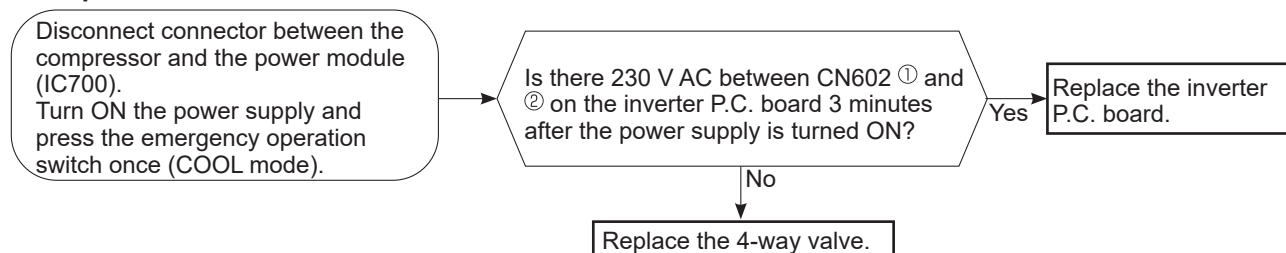
MUZ-AP71VG MUZ-AP71VG2 MUZ-AP71VG3

- * First of all, measure the resistance of R.V. coil to check if the coil is defective. Refer to 12-4.
- * In case CN602 is disconnected or R.V. coil is open, voltage is generated between the terminal pins of the connector although no signal is being transmitted to R.V. coil.
Check if CN602 is connected.

Unit operates in COOL mode even if it is set to HEAT mode.



Unit operates in HEAT mode even if it is set to COOL mode.



① Check of outdoor fan motor

Disconnect the connectors CN931 and CN932 from the inverter P.C. board.
Check the connection between the connector CN931 and CN932.

Is the resistance between each terminal of outdoor fan motor normal?
(Refer to 12-4.)

Yes

Disconnect CN932 from the inverter P.C. board, and turn on the power supply.

Rotate the outdoor fan motor manually and measure the voltage of CN931.
Between 1(+) and 5(-)
Between 2(+) and 5(-)
Between 3(+) and 5(-)

No

(Fixed to either 5 or 0 V DC)

No

Does the voltage between each terminal become 5 and 0 V DC repeatedly?

Yes

No

Does the outdoor fan motor rotate smoothly?

Yes

Replace the outdoor fan motor.

Replace the inverter P.C. board.

J Check of power supply

Disconnect the connector between the compressor and the power module (IC700). Turn ON power supply and press the emergency operation switch.

Does the upper lamp of OPERATION INDICATOR lamp on the indoor unit light up?

Yes

Is there bus-bar voltage 260 - 370 V DC between DB61 (+) and DB61 (-) (MUZ-AP25/35/42/50/60)/325 - 370 V DC between IC700 (P) and (N) (MUZ-AP71) on the inverter P.C. board? (Refer to 12-6.1.)

No

Check the electric parts in main circuit.

No

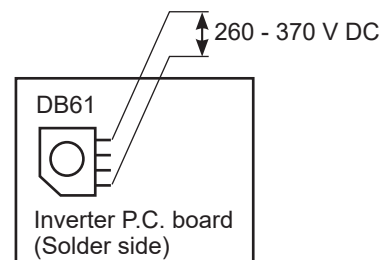
Is there voltage 230 V AC between the indoor terminal block S1 and S2?

Yes

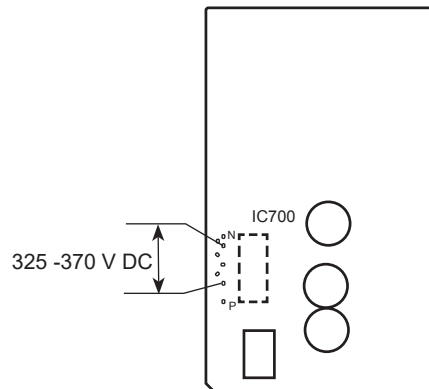
Rectify indoor/outdoor connecting wire.

Replace the indoor electronic control P.C. board.

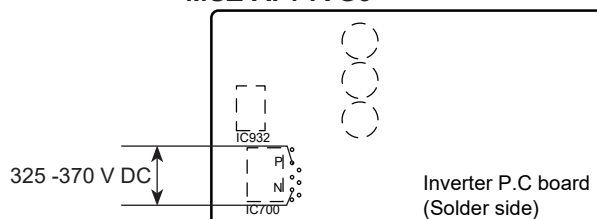
MUZ-AP25/35/42/50/60VG
MUZ-AP60VG2
MUZ-AP25/35/42/50VGH



MUZ-AP71VG



MUZ-AP71VG2
MUZ-AP71VG3



K Check of LEV (Expansion valve)

Turn ON the power supply.

<Preparation of the remote controller>

- ① While pressing both Operation select button and TEMP $\oplus$ button on the remote controller at the same time, press RESET button.
- ② First, release RESET button.
Hold down the other 2 buttons for another 3 seconds.
Make sure that the indicators on the LCD screen shown in the right figure are all displayed. Then release the buttons.

Press OFF/ON (stop/operate) button of the remote controller (the set temperature is displayed) with the remote controller headed towards the indoor unit. *1

Expansion valve operates in full-opening direction.

Do you hear the expansion valve "click, click....."?
Do you feel the expansion valve vibrate when touching it?

Yes

OK

No

Is LEV coil properly fixed to the expansion valve?

No

Properly fix the LEV coil to the expansion valve.

Yes

Does the resistance of LEV coil have the characteristics? (Refer to 12-4.)

Yes

Measure each voltage between connector pins of CN724 on the inverter P.C. board.
1. Pin ③ (-) — Pin ① (+)
2. Pin ④ (-) — Pin ① (+)
3. Pin ⑤ (-) — Pin ① (+)
4. Pin ⑥ (-) — Pin ① (+)
Is there about 3 - 5 V AC between each?
NOTE: Measure the voltage by an analog multimeter.

Yes

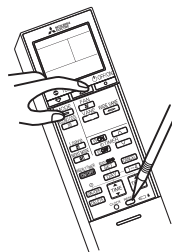
Replace the expansion valve.

No

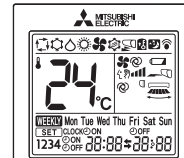
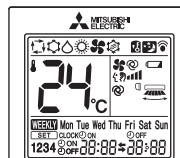
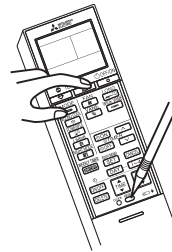
Replace the inverter P.C. board.

Replace the LEV coil.

MSZ-AP25/35/42/50



MSZ-AP60/71

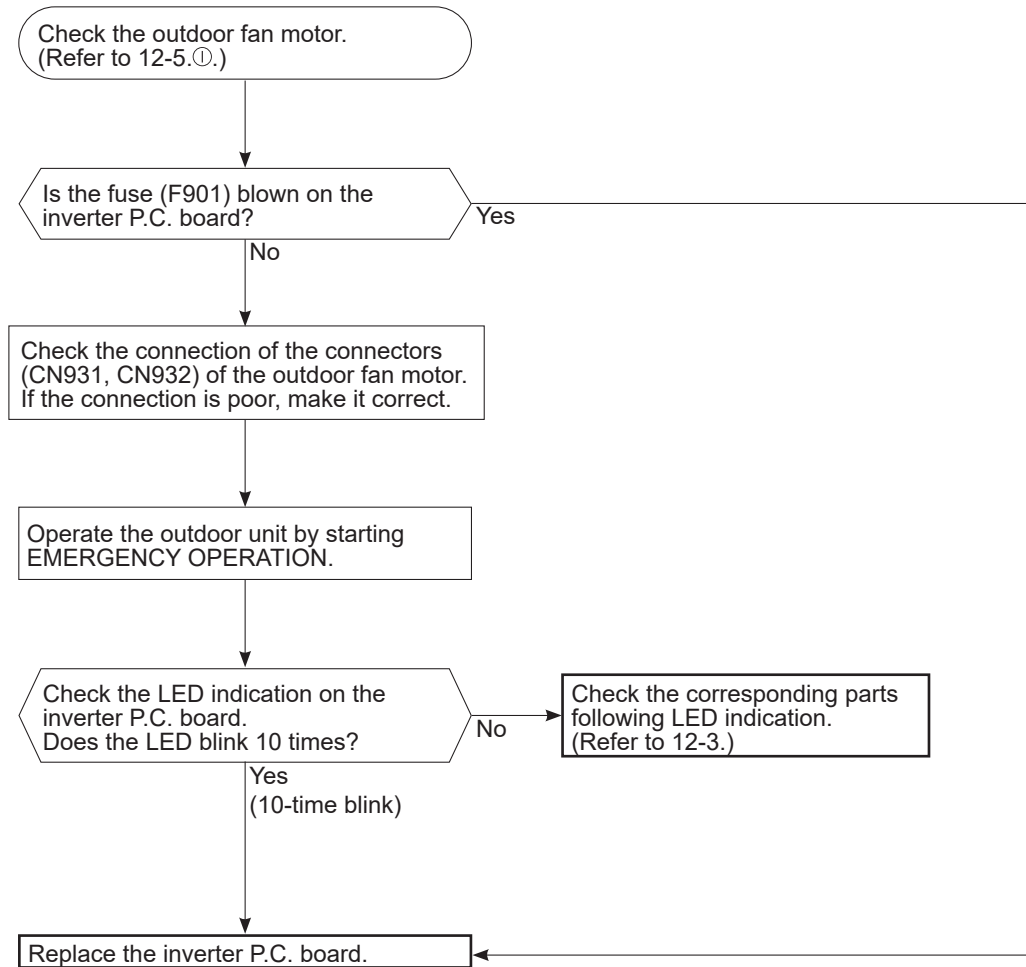


*1. Regardless of normal or abnormal condition, a short beep is emitted once the signal is received.

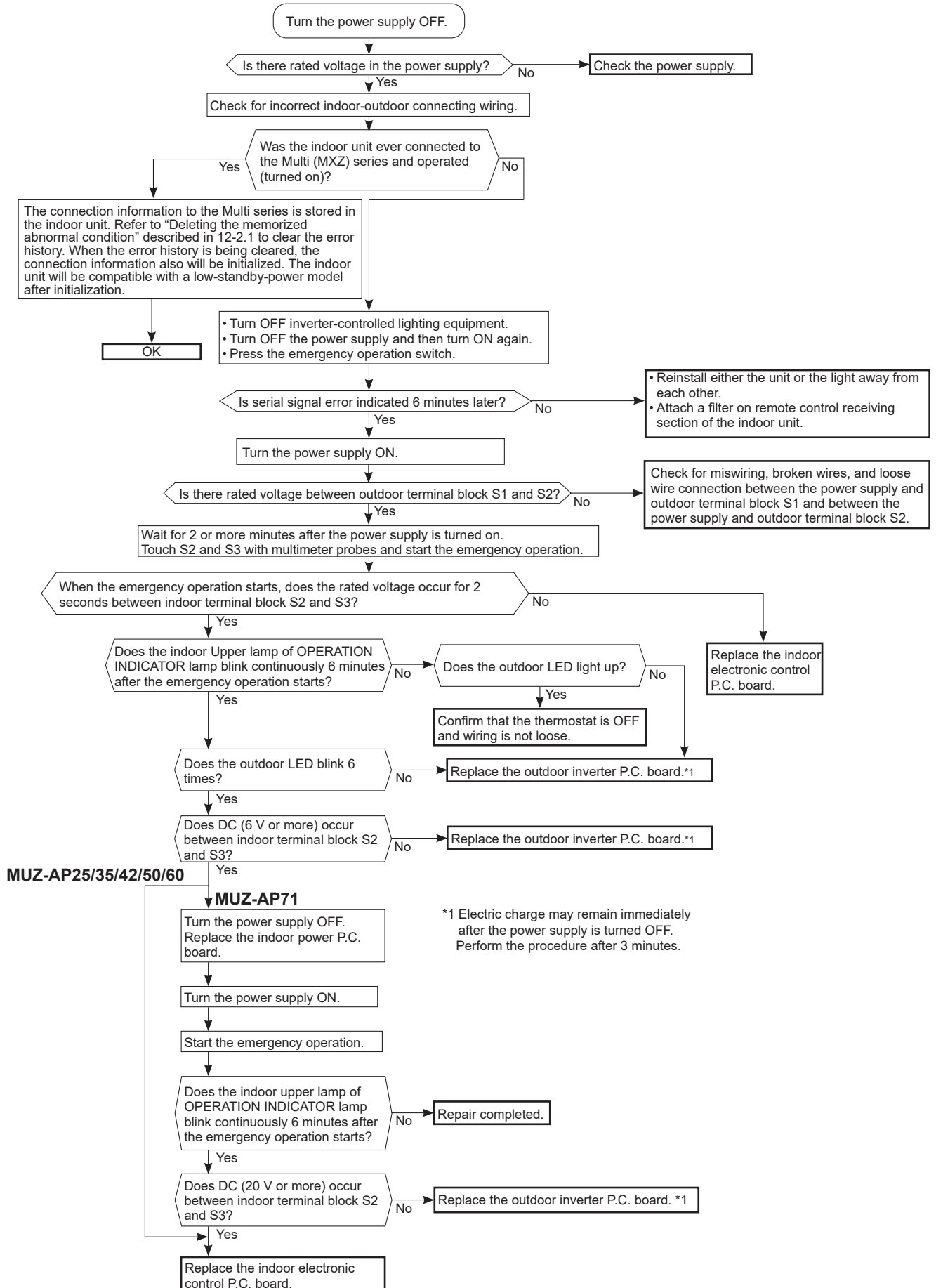
NOTE: After check of LEV, take the following steps.

1. Turn OFF the power supply and turn it ON again.
2. Press RESET button on the remote controller.

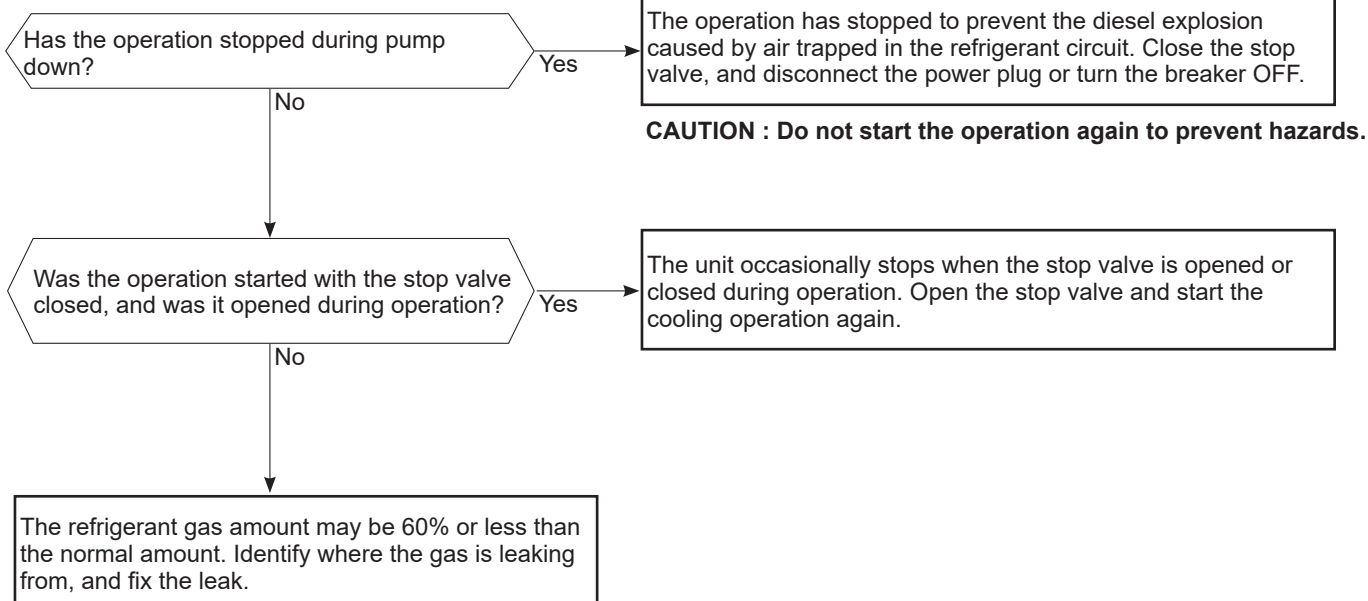
Ⓛ Check of inverter P.C. board



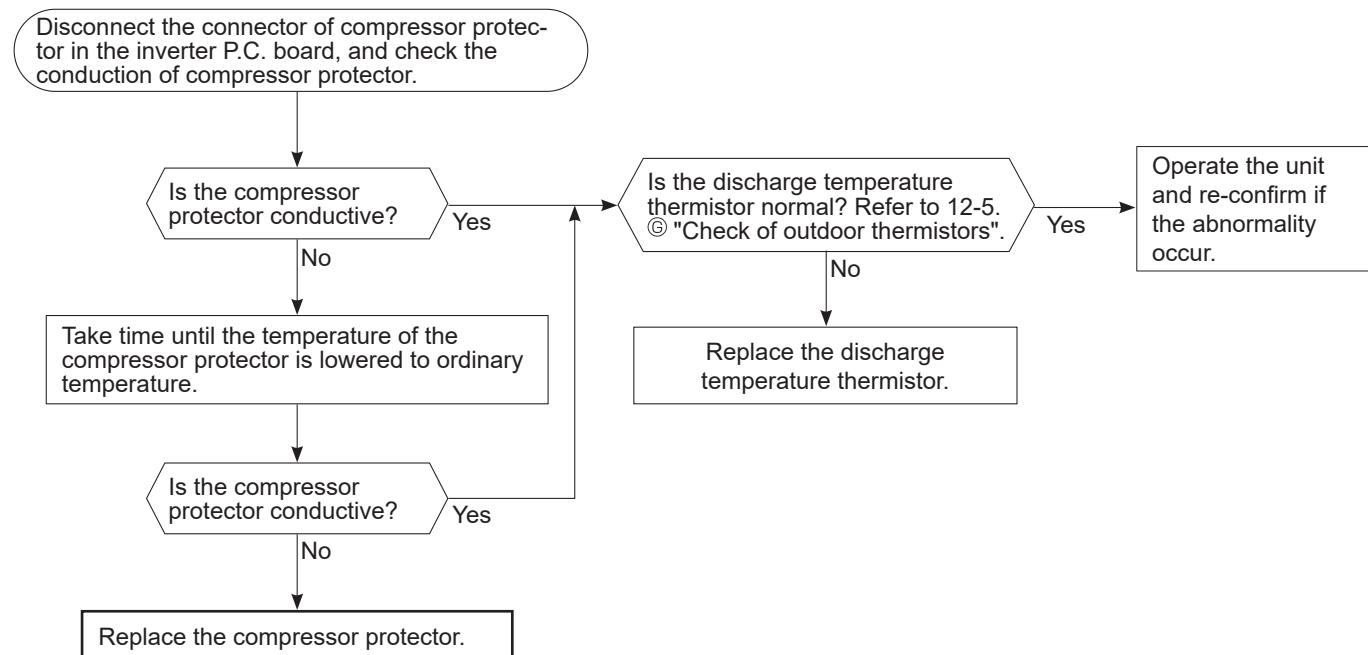
M How to check miswiring and serial signal error



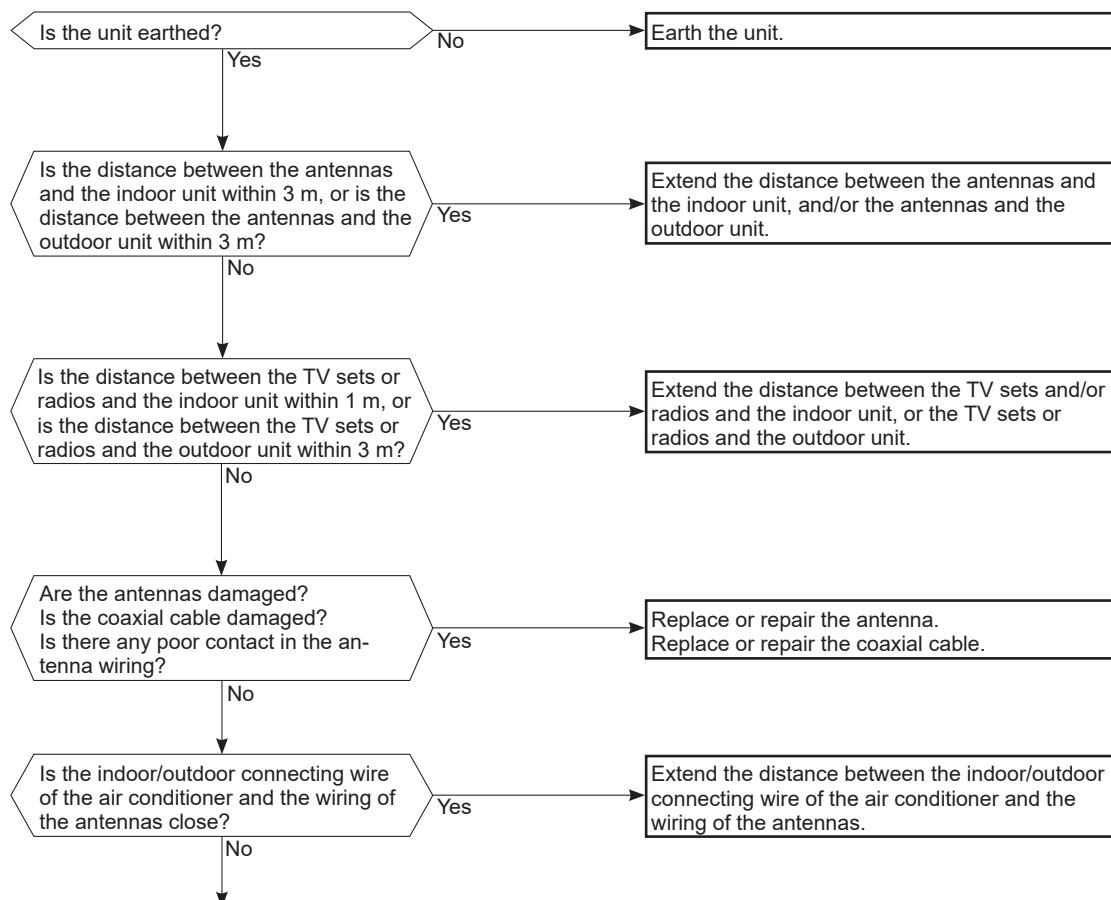
N Check of the outdoor refrigerant circuit



O Check of compressor protector



P Electromagnetic noise enters into TV sets or radios



12-6. TEST POINT DIAGRAM AND VOLTAGE

1. Inverter P.C. board

MUZ-AP25VG - [E1, ET1, E2, ET2, ER2, E3, ET3, ER3]

MUZ-AP42VG - [E1, ET1, E2, ET2, ER2]

MUZ-AP60VG - [E1, ET1, ER1, E2]

MUZ-AP35VGH - [E1, E2, E3]

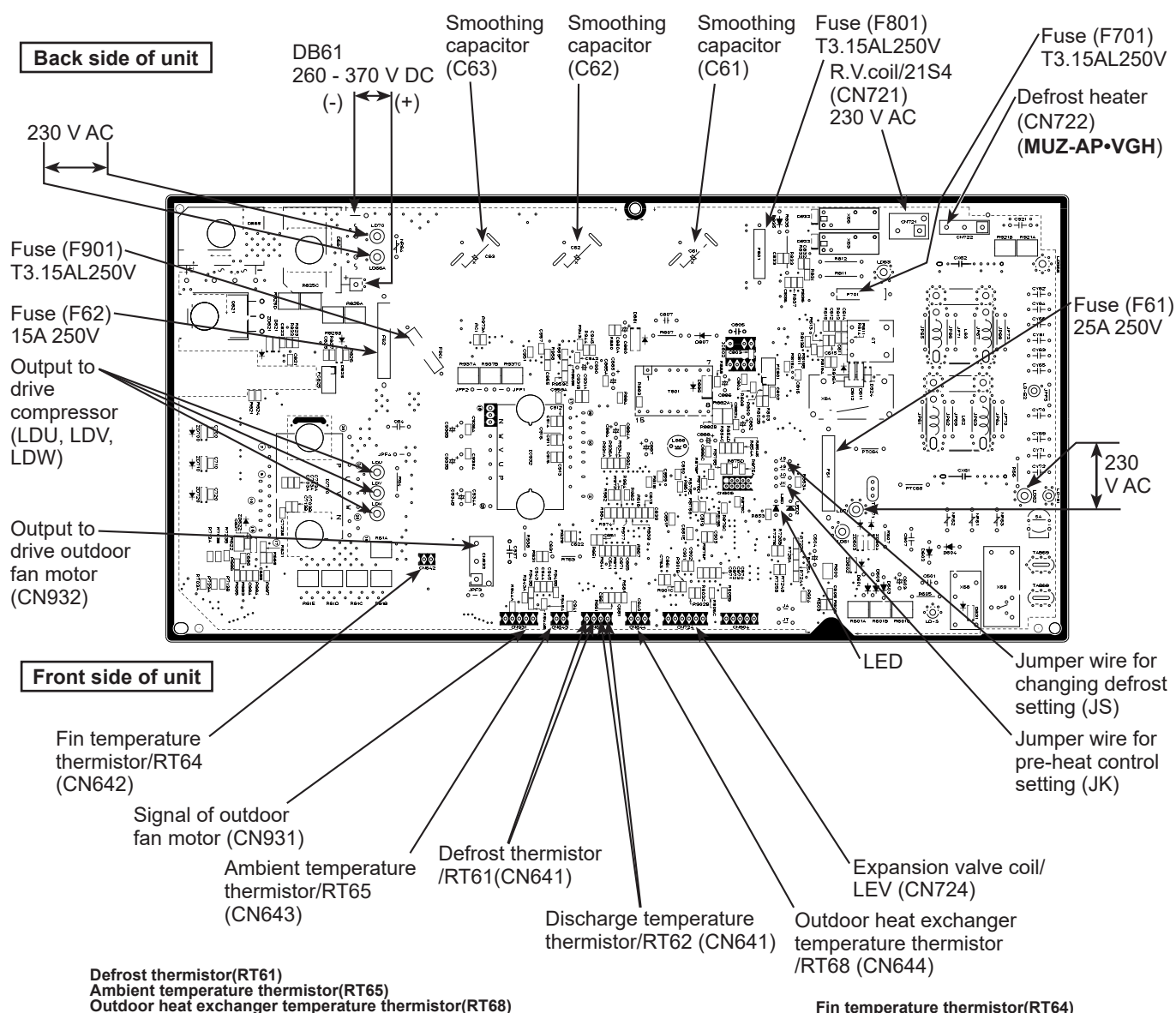
MUZ-AP50VGH - [E1, E2]

MUZ-AP35VG - [E1, ET1, E2, ET2, ER2, E3, ET3, ER3]

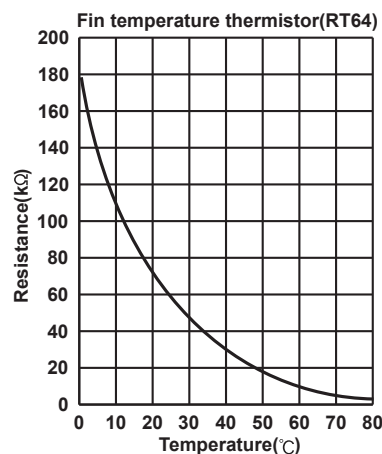
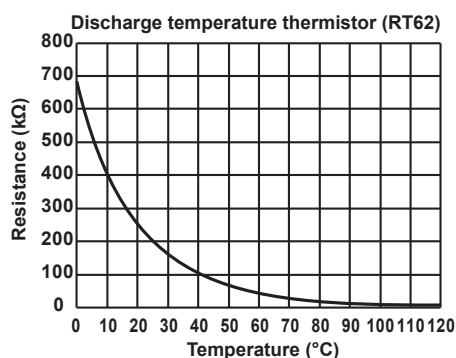
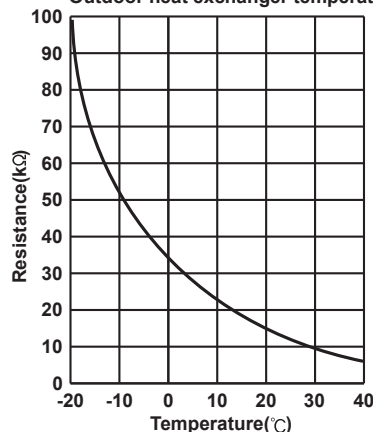
MUZ-AP50VG - [E1, ET1, ER1, E2]

MUZ-AP25VGH - [E1, E2, E3]

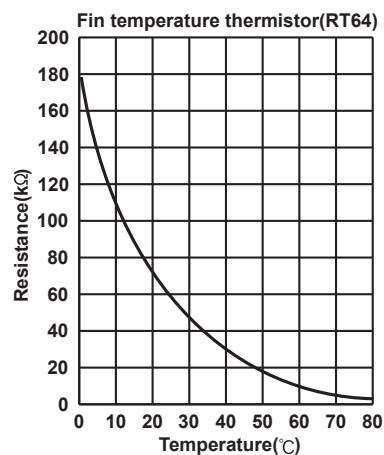
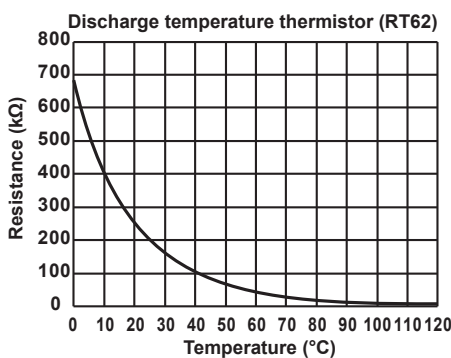
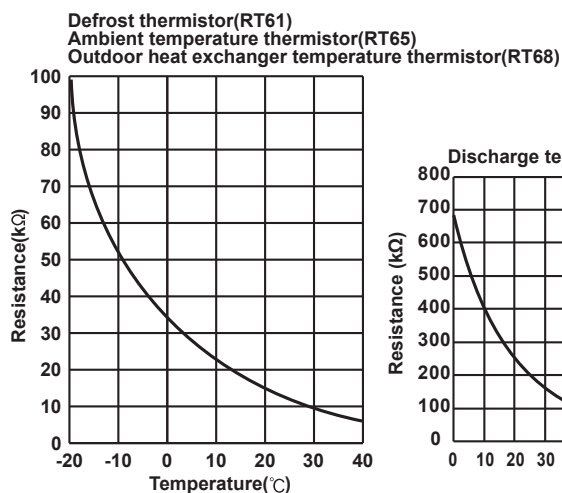
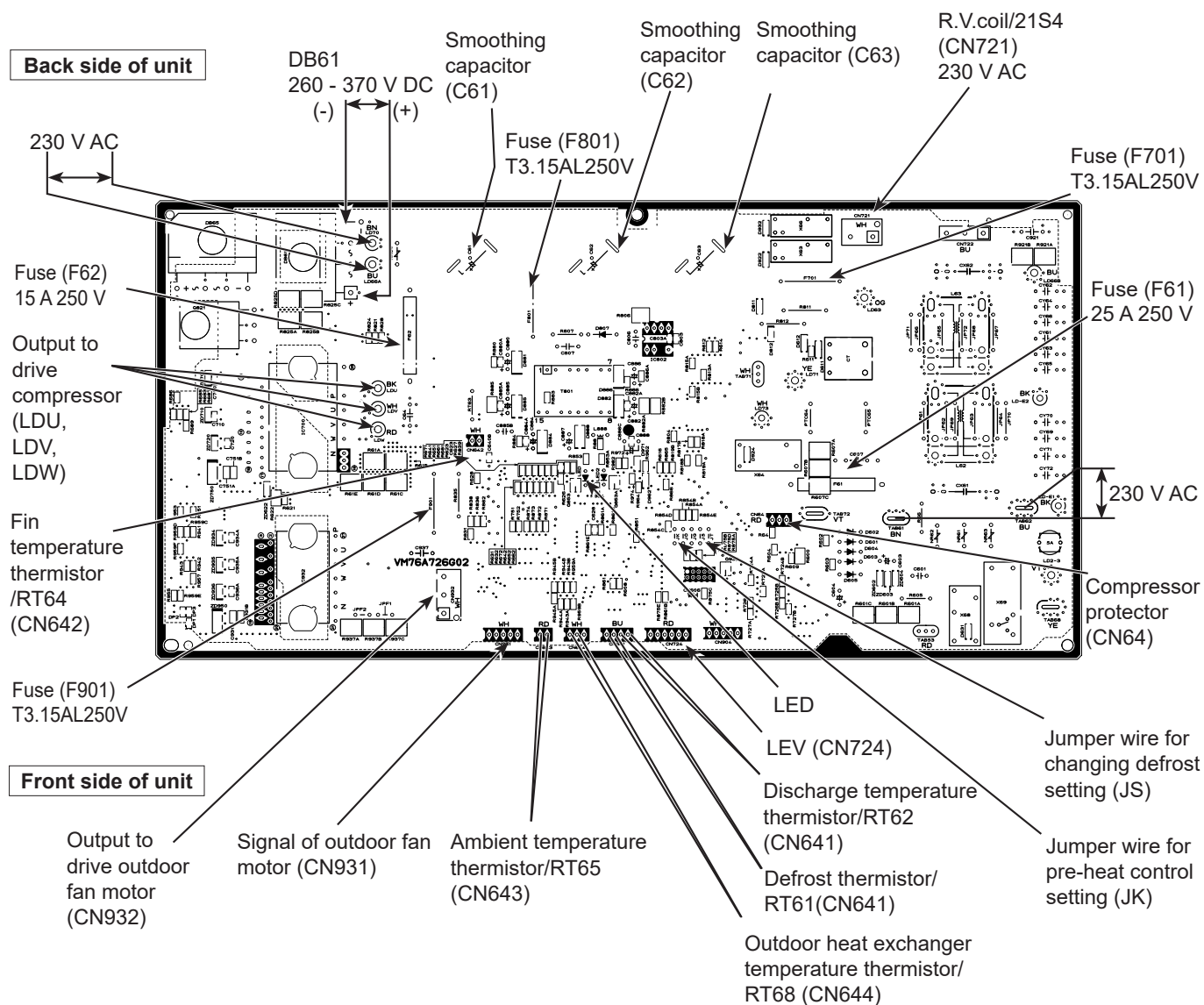
MUZ-AP42VGH - [E1, E2]



Defrost thermistor(RT61)
Ambient temperature thermistor(RT65)
Outdoor heat exchanger temperature thermistor(RT68)

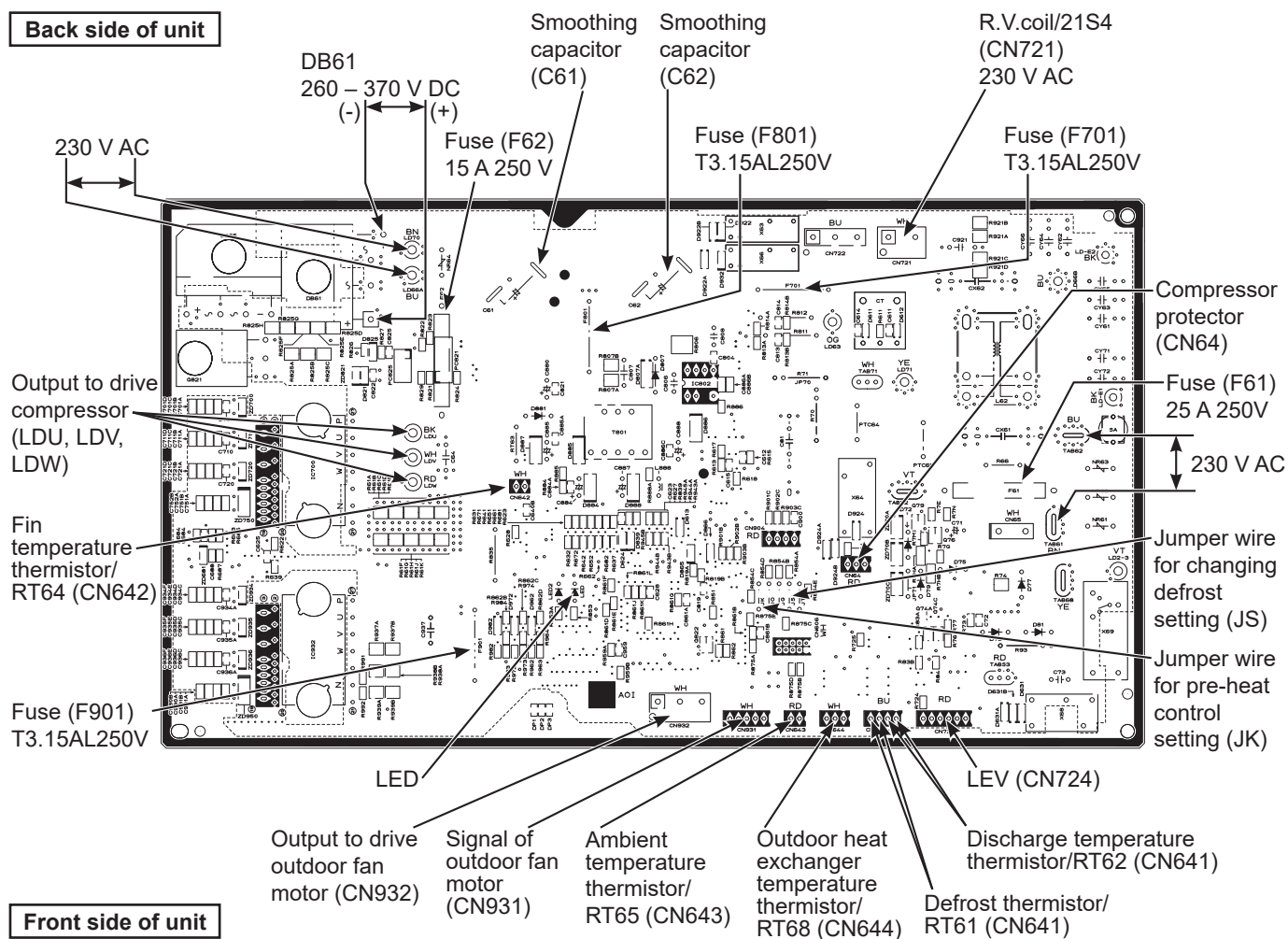


MUZ-AP60VG - E3, ET2



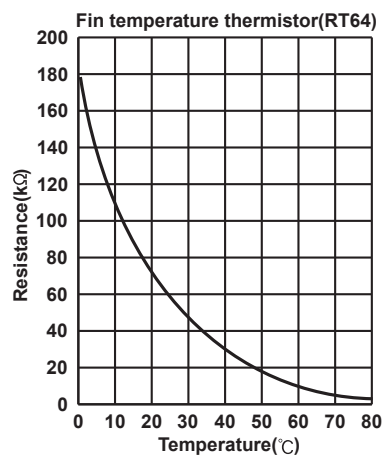
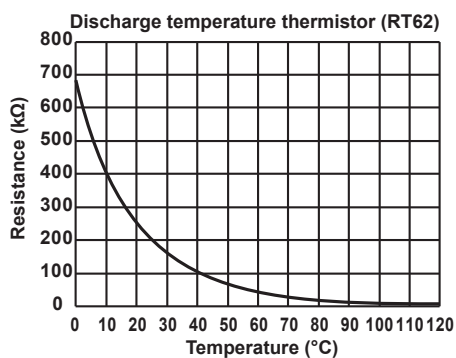
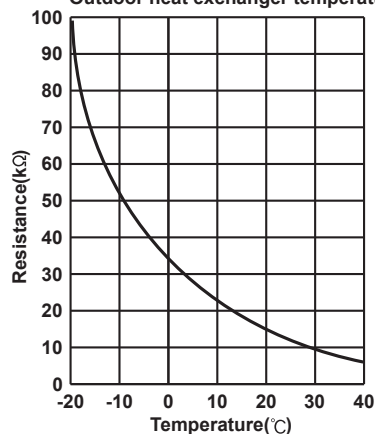
MUZ-AP60VG2 - [E1], [ET1]

Back side of unit

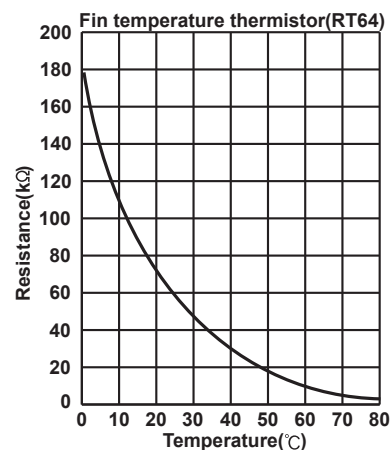
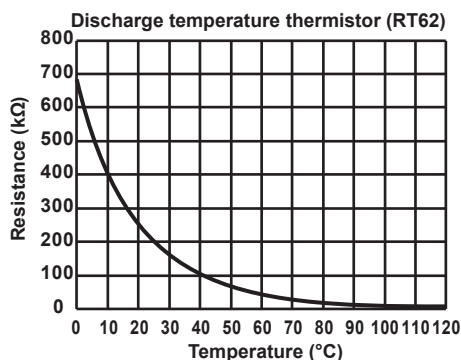
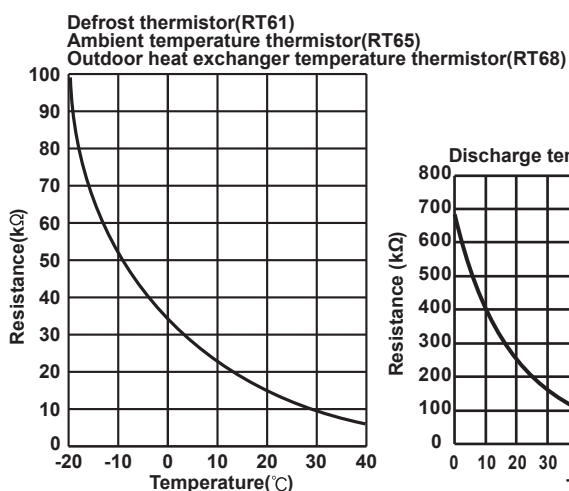
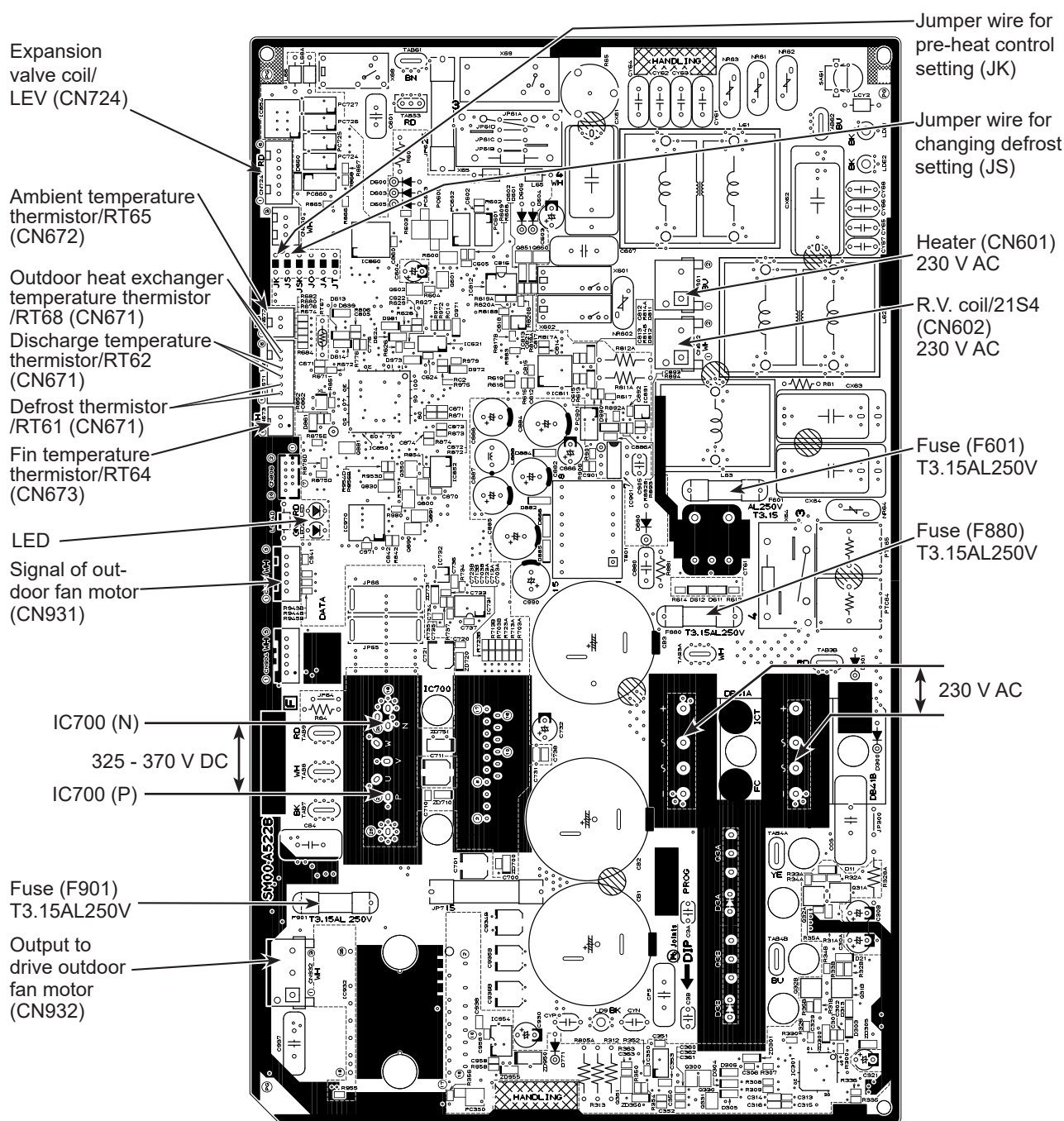


Front side of unit

Defrost thermistor(RT61)
Ambient temperature thermistor(RT65)
Outdoor heat exchanger temperature thermistor(RT68)

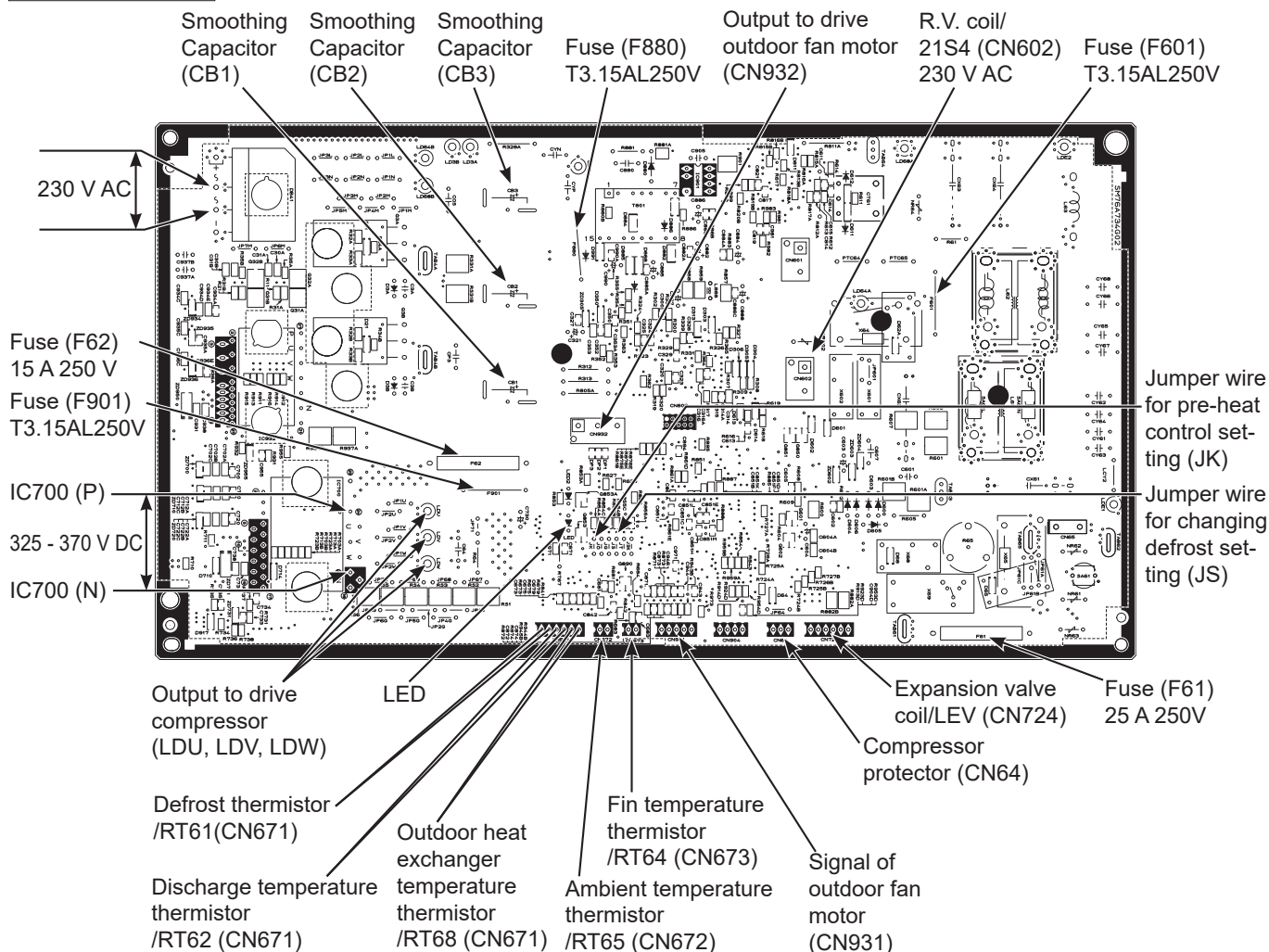


MUZ-AP71VG - [E1], [ET1], [ER1], [E2]



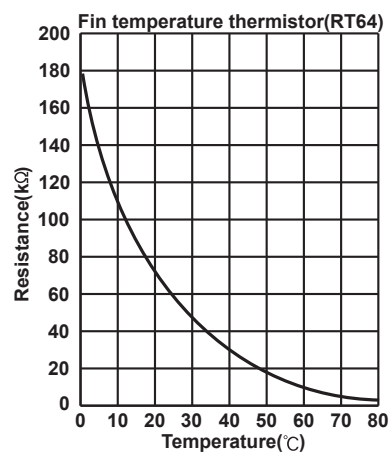
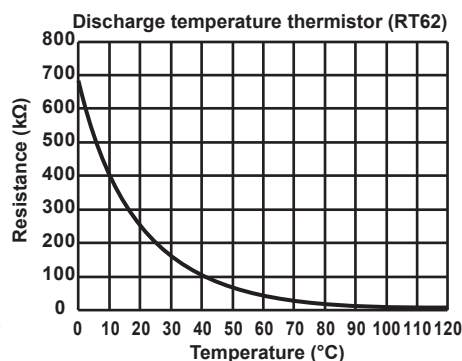
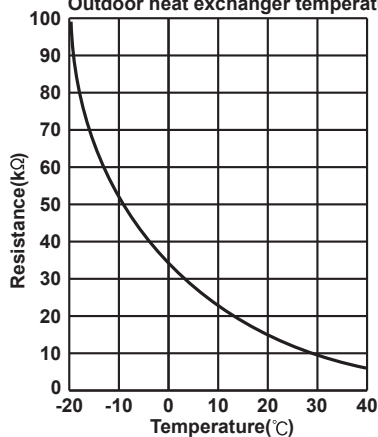
MUZ-AP71VG2 - [E1], [ET1]

Back side of unit

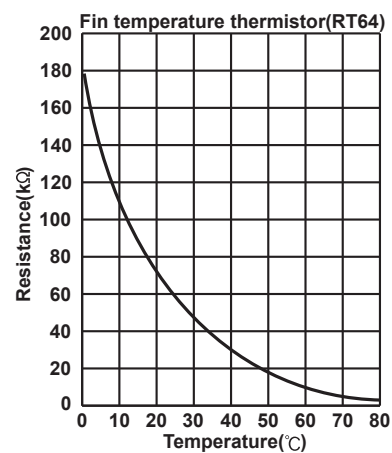
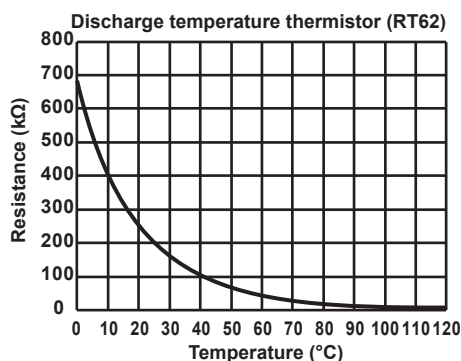
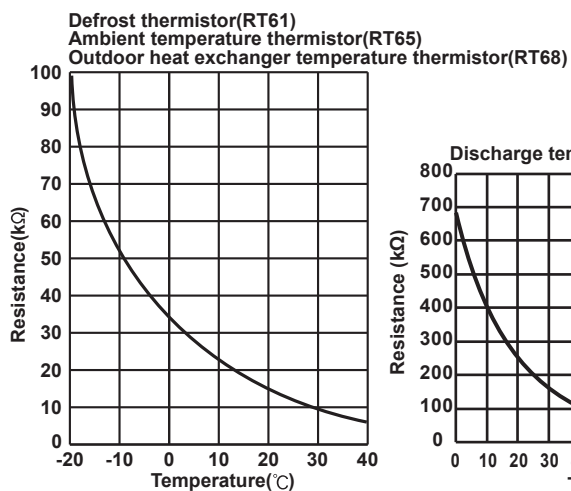
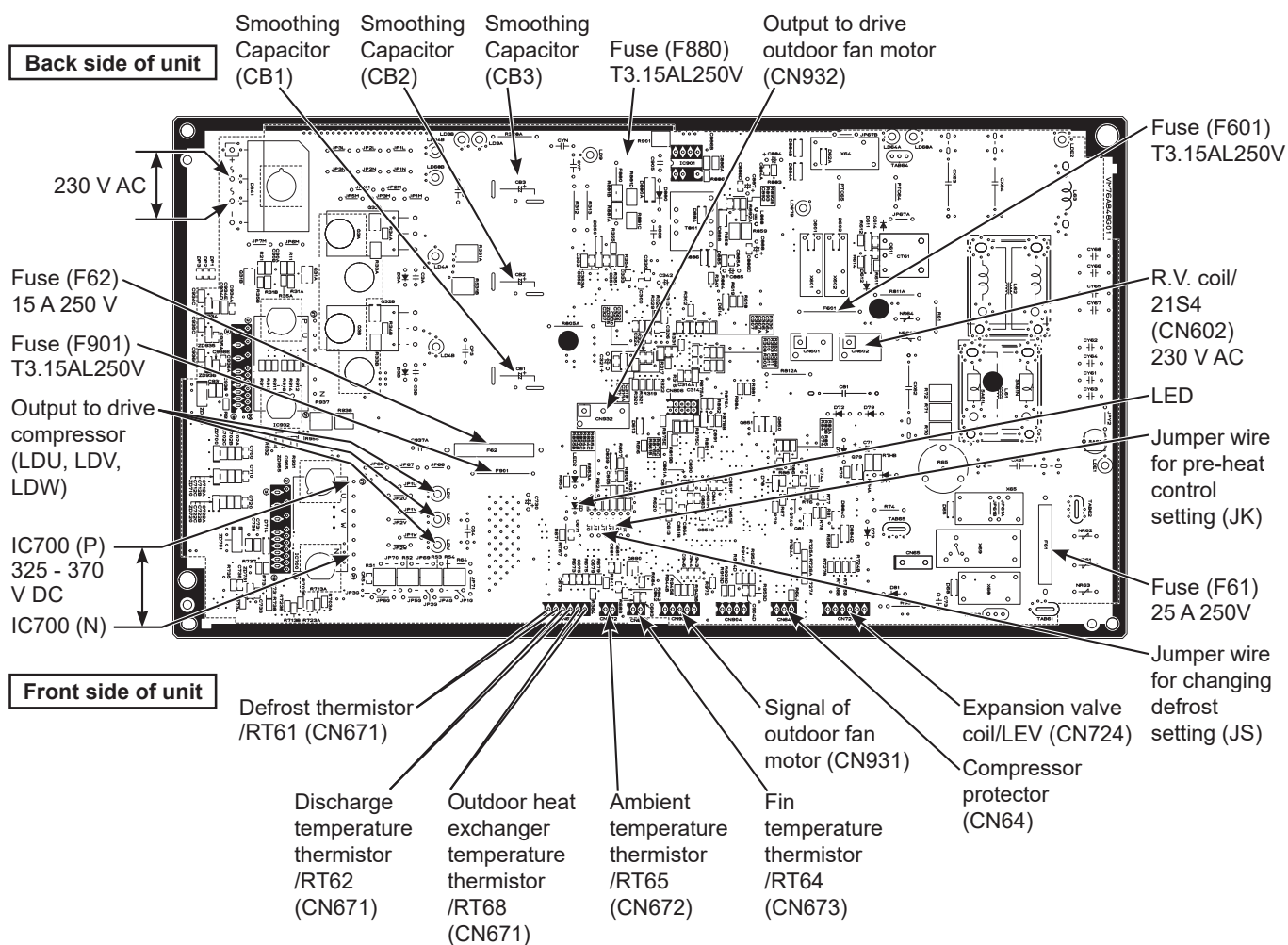


Front side of unit

Defrost thermistor(RT61)
Ambient temperature thermistor(RT65)
Outdoor heat exchanger temperature thermistor(RT68)



MUZ-AP71VG3 - [E1], [ET1]



<Detaching method of the terminal with locking mechanism>

The terminal which has the locking mechanism can be detached as shown below.

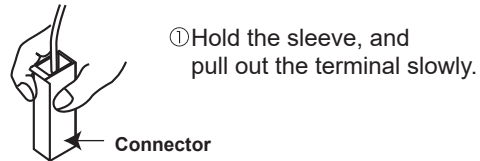
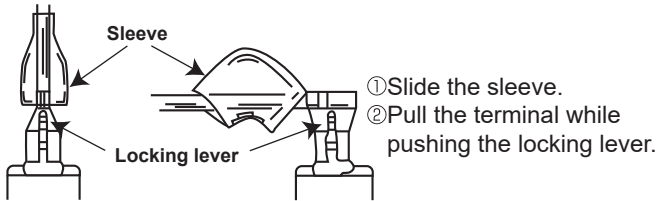
There are 2 types of the terminal with locking mechanism.

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 shown below has the locking mechanism.



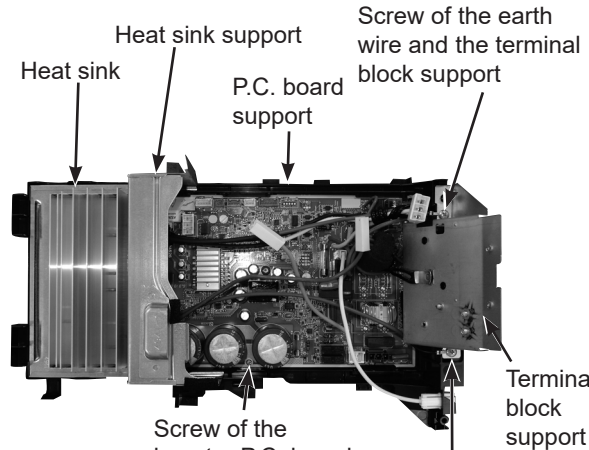
13-1. MUZ-AP25VG MUZ-AP35VG MUZ-AP42VG MUZ-AP25VGH MUZ-AP35VGH MUZ-AP42VGH

NOTE: Turn OFF the power supply before disassembly.

—→: Indicates the visible parts in the photos/figures.
- - -→: Indicates the invisible parts in the photos/figures.

OPERATING PROCEDURE	PHOTOS/FIGURES
1. Removing the cabinet (1) Remove the screw fixing the service panel. (2) Pull down the service panel and remove it. (3) Disconnect the power supply cord and indoor/outdoor connecting wire. (4) Remove the screws fixing the top panel. (5) Remove the top panel. (6) Remove the screws fixing the cabinet. (7) Remove the cabinet. (8) Remove the screws fixing the back panel. (9) Remove the back panel.	Photo 1 Screws of the top panel Back panel Screws of the back panel Screws of the cabinet Service panel Photo 2 Screw of the cabinet Screws of the terminal block support and the back panel Screws of the service panel Direction to remove Hooks Screws of the cabinet Screws of the cabinet



OPERATING PROCEDURE	PHOTOS/FIGURES
2. Removing the inverter assembly, inverter P.C. board (1) Remove the cabinet and panels. (Refer to section 1.) (2) Disconnect the lead wire to the reactor and the following connectors: <Inverter P.C. board> CN721 (R.V. coil) CN722 (Defrost heater)(MUZ-AP•VGH) CN931, CN932 (Fan motor) CN641 (Defrost thermistor and discharge temperature thermistor) CN643 (Ambient temperature thermistor) CN644 (Outdoor heat exchanger temperature thermistor) CN724 (LEV) (3) Remove the compressor connector (CN61). (4) Remove the screws fixing the heat sink support and the separator. (5) Remove the fixing screws of the terminal block support and the back panel. (6) Remove the inverter assembly. (7) Remove the screw of the earth wire and screw of the terminal block support. (8) Remove the heat sink support from the P.C. board support. (9) Remove the screw of the inverter P.C. board and remove the inverter P.C. board from the P.C. board support.	Photo 3 Screws of the heat sink support and the separator Screws of the terminal block support and the back panel  Photo 4 (Inverter assembly) Heat sink support Screw of the earth wire and the terminal block support Heat sink P.C. board support  Screw of the inverter P.C. board Terminal block support Screw of the earth wire and the terminal block support
3. Removing R.V. coil (1) Remove the cabinet and panels. (Refer to section 1.) (2) Disconnect the following connectors: <Inverter P.C. board> CN721 (R.V. coil) (3) Remove the R.V. coil.	
4. Removing the discharge temperature thermistor, defrost thermistor, outdoor heat exchanger temperature thermistor and ambient temperature thermistor (1) Remove the cabinet and panels. (Refer to section 1.) (2) Disconnect the lead wire to the reactor and the following connectors: <Inverter P.C. board> CN641 (Defrost thermistor and discharge temperature thermistor) CN643 (Ambient temperature thermistor) CN644 (Outdoor heat exchanger temperature thermistor) (3) Pull out the discharge temperature thermistor from its holder. (4) Pull out the defrost thermistor from its holder. (Photo 6) (5) Pull out the outdoor heat exchanger temperature thermistor from its holder. (Photo 6) (6) Pull out the ambient temperature thermistor from its holder.	Photo 5 Screw of the R.V. coil  Discharge temperature thermistor

OPERATING PROCEDURE

5. Removing outdoor fan motor

- (1) Remove the cabinet and panels. (Refer to section 1.)
- (2) Disconnect the following connectors:
<Inverter P.C. board>
CN931, CN932 (Fan motor)
- (3) Remove the propeller fan nut.
- (4) Remove the propeller fan.
- (5) Remove the screws fixing the fan motor.
- (6) Remove the fan motor.

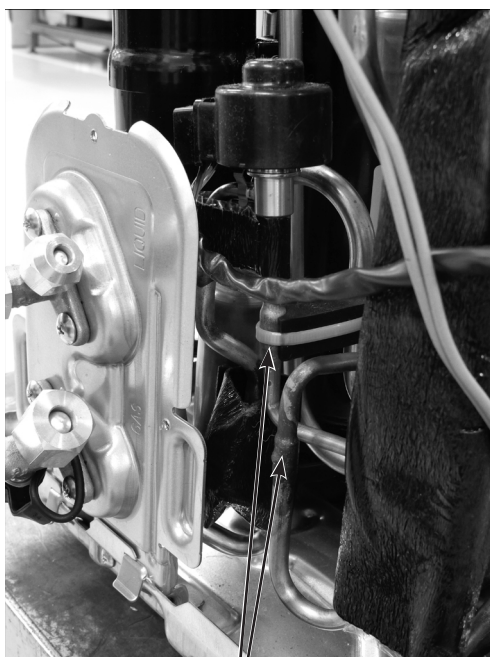
6. Removing the compressor and 4-way valve

- (1) Remove the cabinet and panels. (Refer to section 1.)
- (2) Remove the inverter assembly. (Refer to section 2.)
- (3) Recover gas from the refrigerant circuit.
NOTE: Recover gas from the pipes until the pressure gauge shows 0 kg/cm² (0 MPa).
- (4) Detach the brazed part of the suction and the discharge pipe connected with compressor.
- (5) Remove the nuts of compressor legs.
- (6) Remove the compressor.
- (7) Detach the brazed part of pipes connected with 4-way valve.

7. Removing the expansion valve assembly

- (1) Detaching the brazed part of pipes connected with the expansion valve.

Photo 9

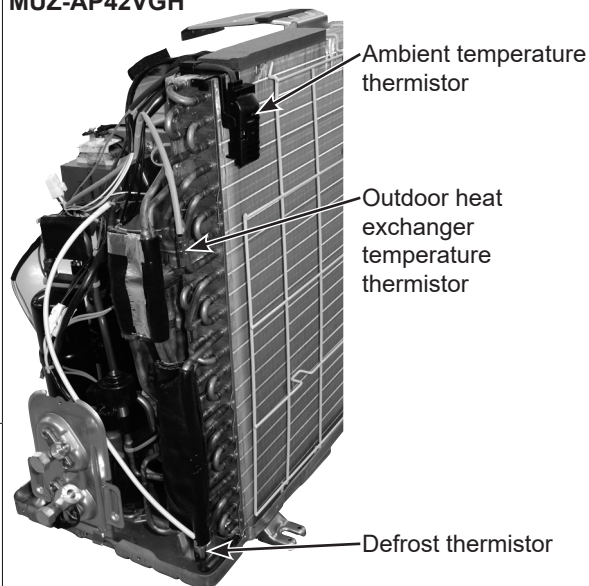


Brazed parts of LEV valve

PHOTOS/FIGURES

Photo 6

MUZ-AP42VGH



NOTE: MUZ-AP25/35VG/H are different in the installation position of thermistors.

Photo 7

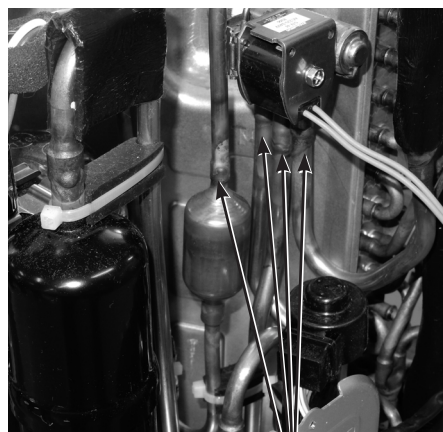
Screws of the outdoor fan motor



Photo 8

Propeller fan nut

Propeller fan

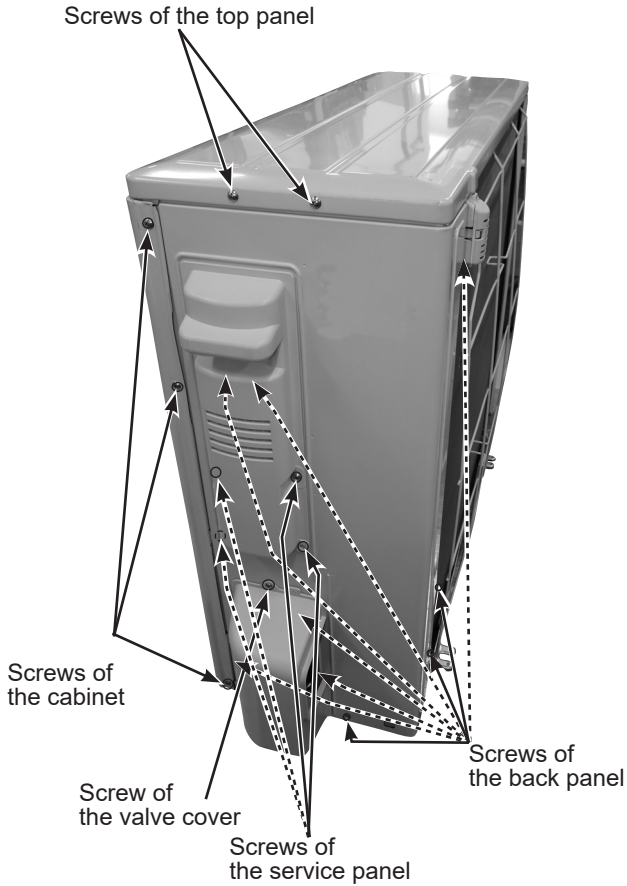
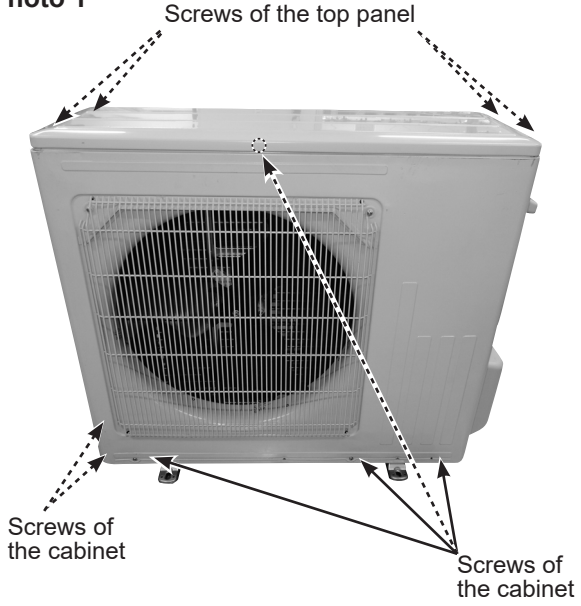


Brazed parts of 4-way valve

13-2. MUZ-AP50VG MUZ-AP60VG - [E1], [ET1], [ER1], [E2], [ET2]

MUZ-AP50VGH

NOTE: Turn OFF the power supply before disassembly.

OPERATING PROCEDURE	PHOTOS/FIGURES
1. Removing the cabinet (1) Remove the screws of the service panel. (2) Remove the screws of the top panel. (3) Remove the screw of the valve cover. (4) Remove the service panel. (5) Remove the top panel. (6) Remove the valve cover. (7) Disconnect the power supply cord and indoor/outdoor connecting wire. (8) Remove the screws of the cabinet. (9) Remove the cabinet. (10) Remove the screws of the back panel. (11) Remove the back panel. Photo 2  Screws of the top panel Screws of the cabinet Screw of the valve cover Screws of the service panel Screws of the back panel	Photo 1  Screws of the top panel Screws of the cabinet Screws of the cabinet

OPERATING PROCEDURE

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

- (1) Remove the cabinet and panels. (Refer to section 1.)
- (2) Disconnect the lead wire to the reactor and the following connectors:
 - <Inverter P.C. board>
 - CN721 (R.V. coil)
 - CN722 (Defrost heater)(**MUZ-AP50VGH**)
 - CN931, CN932 (Fan motor)
 - CN641 (Defrost thermistor and discharge temperature thermistor)
 - CN643 (Ambient temperature thermistor)
 - CN644 (Outdoor heat exchanger temperature thermistor)
 - CN724 (LEV)
- (3) Remove the compressor connector (CN61).
- (4) Remove the screws fixing the heat sink support and the separator.
- (5) Remove the fixing screw of the P.B. support and the separator.
- (6) Remove the fixing screws of the terminal block support and the back panel.
- (7) Remove the inverter assembly.
- (8) Remove the heat sink support from the P.C. board support.
- (9) Remove the screw of the inverter P.C. board and remove the inverter P.C. board from the P.C. board support.

* Connection procedure when attaching the inverter P.C. board (Photo 4)

1. Connect the lead wires of the heat exchanger temperature thermistor, the defrost thermistor and discharge temperature thermistor to the connector on the inverter P.C. board. Pull the lead wires toward you and put them on the right hook on the P.C. board support.
2. Connect the lead wires of the expansion valve to the connector on the inverter P.C. board. Pull the lead wires toward you and put them on the right hook on the P.C. board support.
3. Connect the lead wires of the ambient temperature thermistor to the connector on the inverter P.C. board. Pull the lead wires toward you and put them on the left hook on the P.C. board support so that the fan motor lead wires are bundled up as shown in Photo 4.

PHOTOS/FIGURES

Photo 3

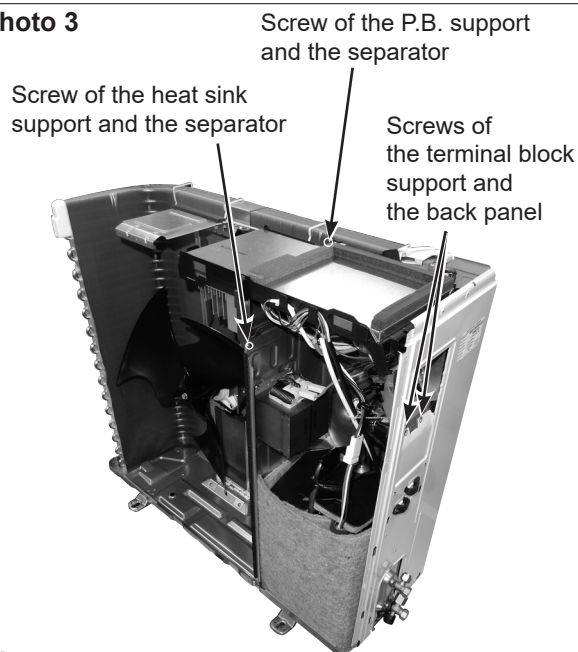


Photo 4

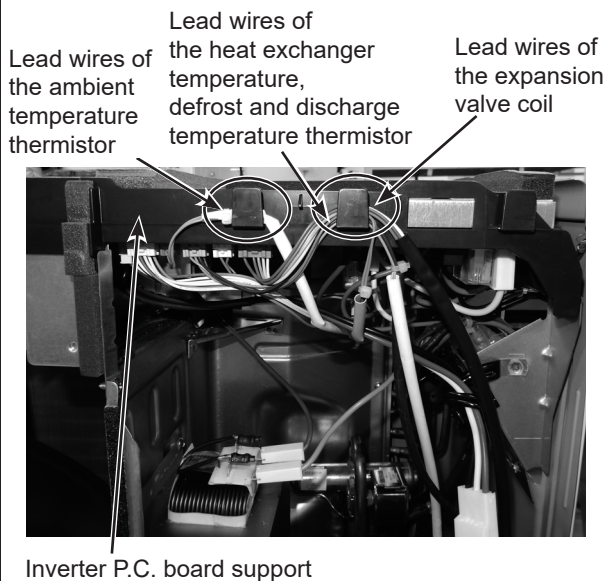
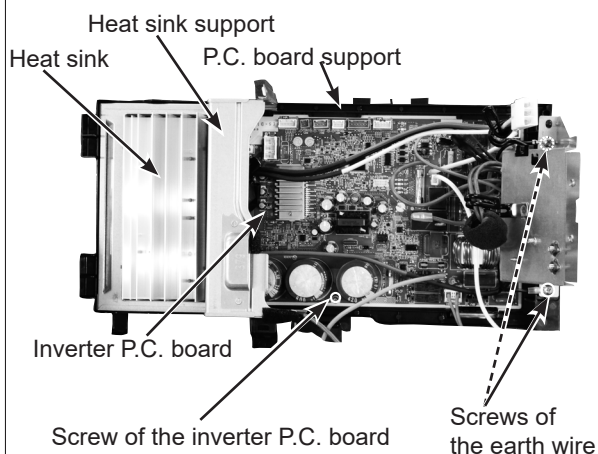
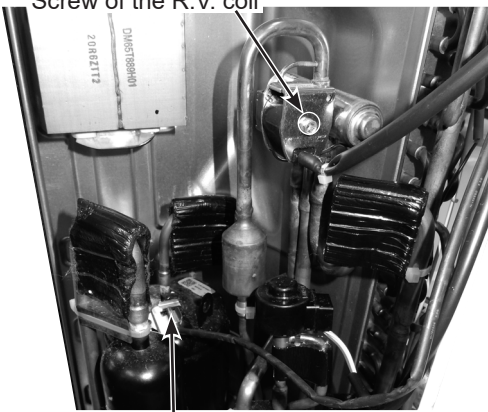
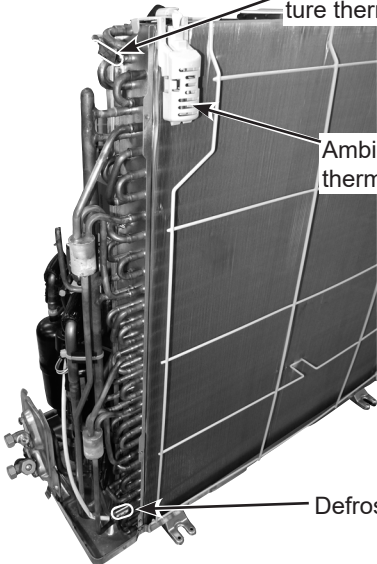
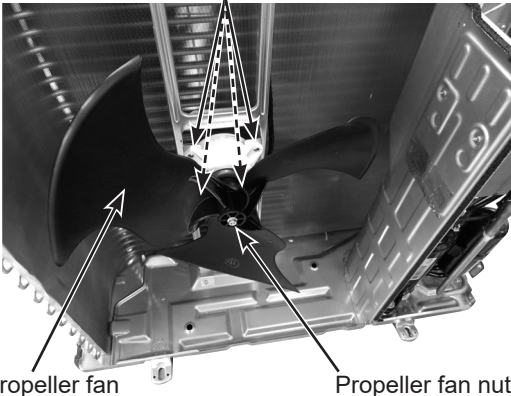


Photo 5 (Inverter assembly)





OPERATING PROCEDURE	PHOTOS/FIGURES
3. Removing R. V. coil (1) Remove the cabinet and panels. (Refer to section 1.) (2) Disconnect the following connectors: <Inverter P.C. board> CN721 (R.V. coil) (3) Remove the R.V. coil.	Photo 6  Screw of the R.V. coil Discharge temperature thermistor
4. Removing the discharge temperature thermistor, defrost thermistor, outdoor heat exchanger temperature thermistor and ambient temperature thermistor (1) Remove the cabinet and panels. (Refer to section 1.) (2) Disconnect the lead wire to the reactor and the following connectors: <Inverter P.C. board> CN641 (Defrost thermistor and discharge temperature thermistor) CN643 (Ambient temperature thermistor) CN644 (Outdoor heat exchanger temperature thermistor) (3) Pull out the discharge temperature thermistor from its holder. (4) Pull out the defrost thermistor from its holder. (5) Pull out the outdoor heat exchanger temperature thermistor from its holder. (6) Pull out the ambient temperature thermistor from its holder.	Photo 7  Outdoor heat exchanger temperature thermistor Ambient temperature thermistor Defrost thermistor
5. Removing outdoor fan motor (1) Remove the cabinet and panels. (Refer to section 1.) (2) Disconnect the following connectors: <Inverter P.C. board> CN931, CN932 (Fan motor) (3) Remove the propeller fan nut. (4) Remove the propeller fan. (5) Remove the screws fixing the fan motor. (6) Remove the fan motor.	Photo 8  Screws of the outdoor fan motor Propeller fan Propeller fan nut

OPERATING PROCEDURE

6. Removing the compressor and 4-way valve

- (1) Remove the cabinet and panels. (Refer to section 1.)
- (2) Remove the inverter assembly. (Refer to section 2.)
- (3) Recover gas from the refrigerant circuit.

NOTE: Recover gas from the pipes until the pressure gauge shows 0 kg/cm² (0 MPa).

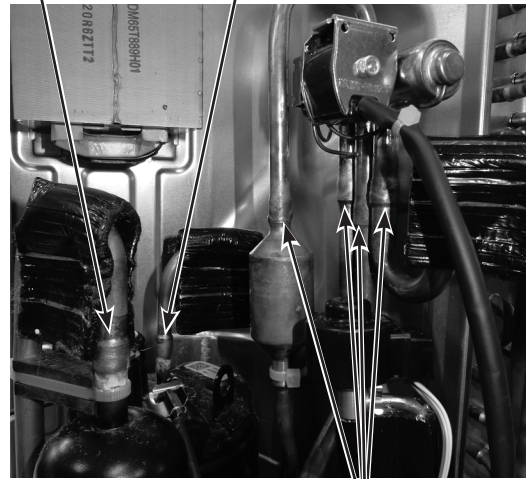
- (4) Detach the brazed part of the suction and the discharge pipe connected with compressor.
- (5) Remove the compressor nuts.
- (6) Remove the compressor.
- (7) Detach the brazed part of pipes connected with 4-way valve.

PHOTOS/FIGURES

Photo 9

Suction pipe
brazed part

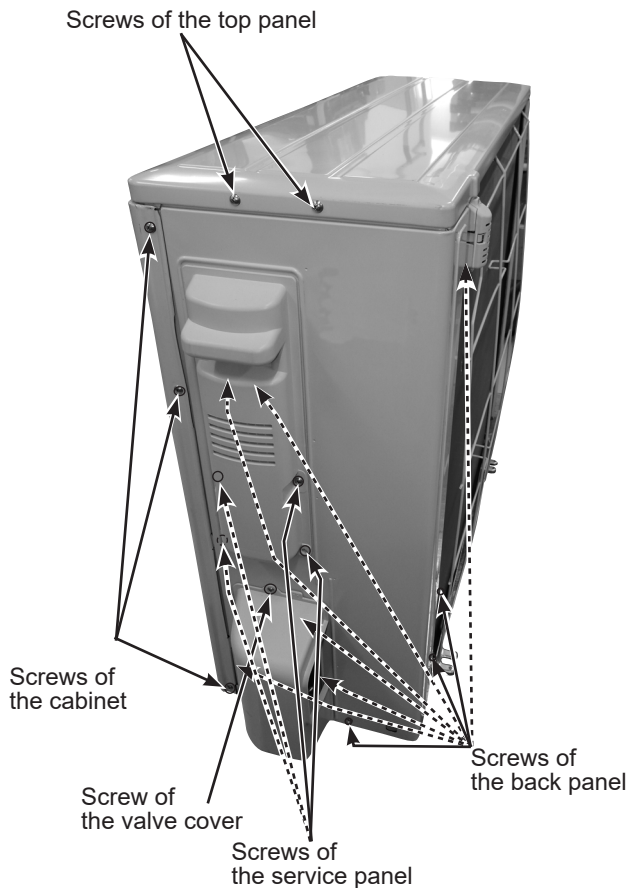
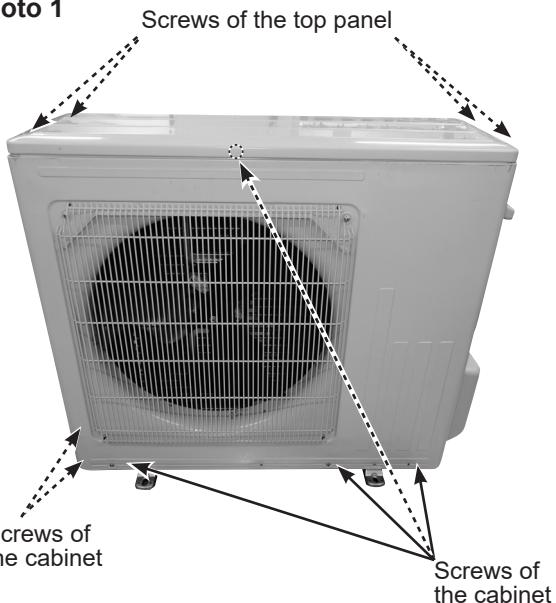
Discharge pipe
brazed part



Brazed parts of 4-way valve

13-3. MUZ-AP60VG - [E3], [ET2]

NOTE: Turn OFF the power supply before disassembly.

OPERATING PROCEDURE	PHOTOS/FIGURES
1. Removing the cabinet (1) Remove the screws of the service panel. (2) Remove the screws of the top panel. (3) Remove the screw of the valve cover. (4) Remove the service panel. (5) Remove the top panel. (6) Remove the valve cover. (7) Disconnect the power supply cord and indoor/outdoor connecting wire. (8) Remove the screws of the cabinet. (9) Remove the cabinet. (10) Remove the screws of the back panel. (11) Remove the back panel. Photo 2  Screws of the top panel Screws of the cabinet Screw of the valve cover Screws of the service panel Screws of the back panel	Photo 1  Screws of the top panel Screws of the cabinet Screws of the cabinet

OPERATING PROCEDURE

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

- (1) Remove the cabinet and panels. (Refer to section 1.)
- (2) Disconnect the lead wire to the reactor and the following connectors:
 - <Inverter P.C. board>
 - CN721 (R.V. coil)
 - CN931, CN932 (Fan motor)
 - CN641 (Defrost thermistor and discharge temperature thermistor)
 - CN643 (Ambient temperature thermistor)
 - CN644 (Outdoor heat exchanger temperature thermistor)
 - CN724 (LEV)
 - CN64 (Compressor protector)
- (3) Remove the compressor connector (CN61).
- (4) Remove the screws fixing the heat sink support and the separator.
- (5) Remove the fixing screw of the P.B. support and the separator.
- (6) Remove the fixing screws of the terminal block support and the back panel.
- (7) Remove the inverter assembly.
- (8) Remove the heat sink support from the P.C. board support.
- (9) Remove the screw of the inverter P.C. board and remove the inverter P.C. board from the P.C. board support.

PHOTOS/FIGURES

Photo 3

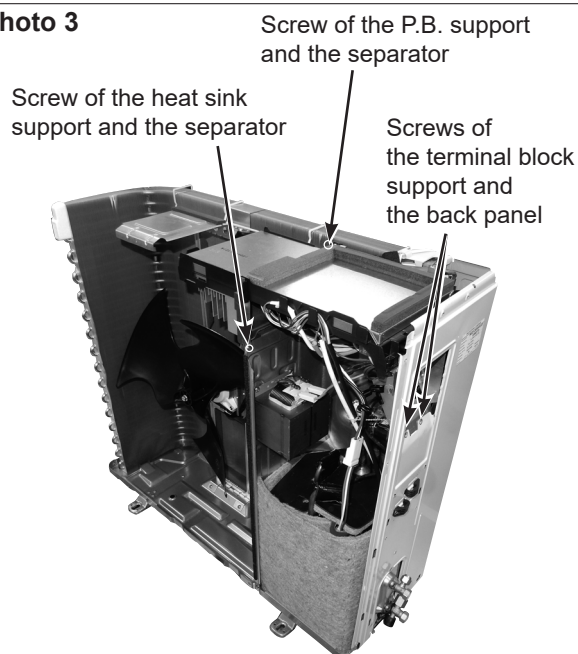
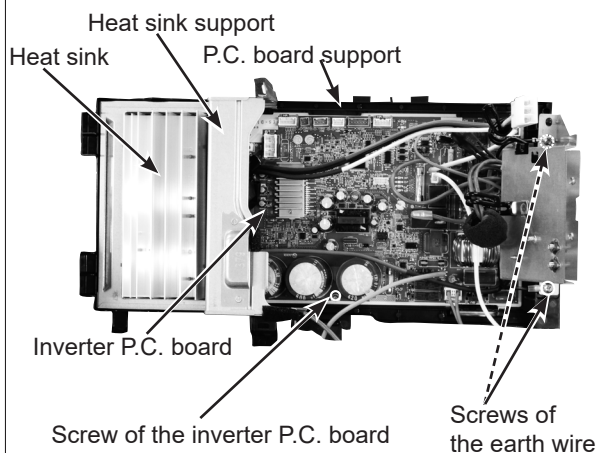


Photo 4 (Inverter assembly)



OPERATING PROCEDURE

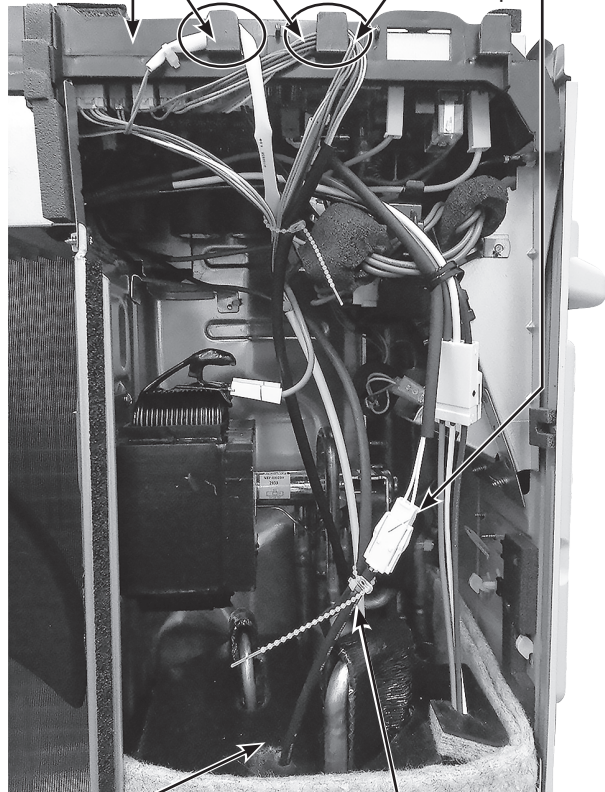
* Connection procedure when attaching the inverter P.C. board (Photo 5)

1. Connect the lead wires of the heat exchanger temperature thermistor, the defrost thermistor and discharge temperature thermistor to the connector on the inverter P.C. board. Pull the lead wires toward you and put them on the right hook on the P.C. board support.
2. Connect the lead wires of the expansion valve coil to the connector on the inverter P.C. board. Pull the lead wires toward you and put them on the right hook on the P.C. board support.
3. Connect the lead wires of the ambient temperature thermistor to the connector on the inverter P.C. board. Pull the lead wires toward you and put them on the left hook on the P.C. board support.

PHOTOS/FIGURES

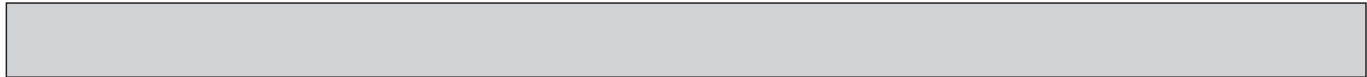
Photo 5

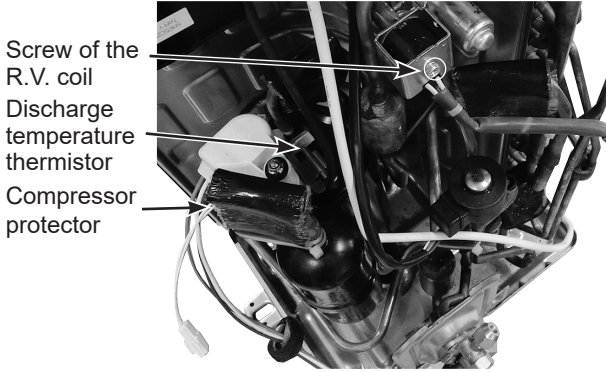
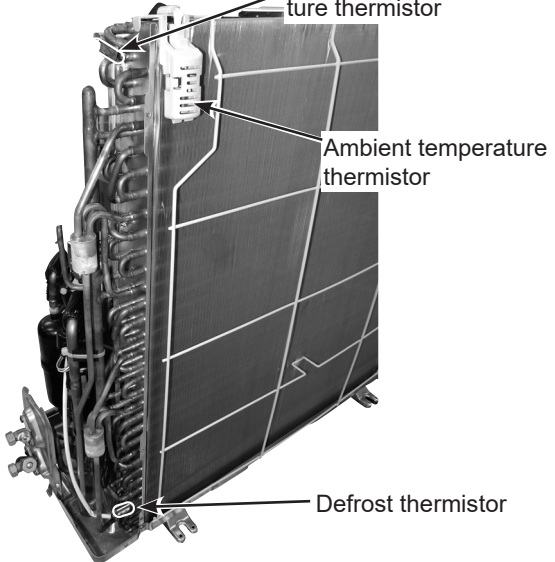
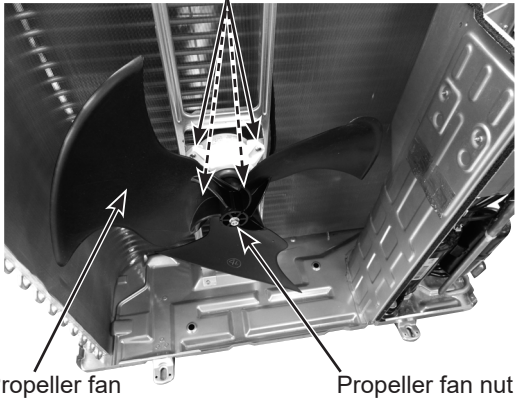
Lead wires of the ambient temperature thermistor
Inverter P.C. board support
Lead wires of the heat exchanger temperature, defrost and discharge temperature thermistor
Lead wires of the expansion valve coil
Connector of the compressor protector

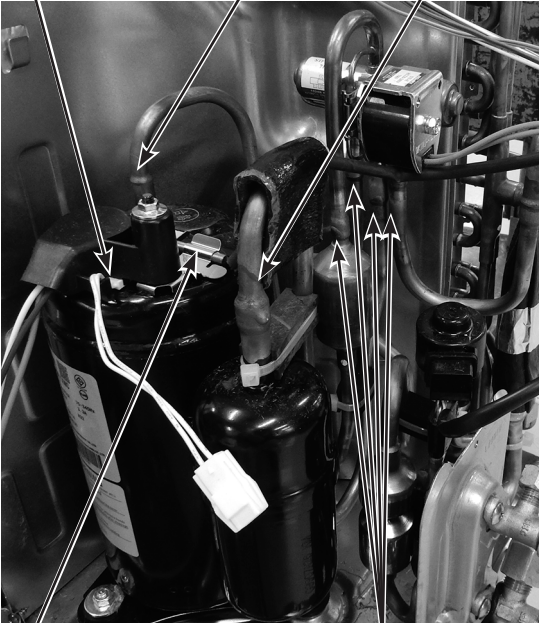


Pass the lead wire of compressor protector through the top felt hole.

Fix the lead wires of the compressor protector and the discharge temperature thermistor.

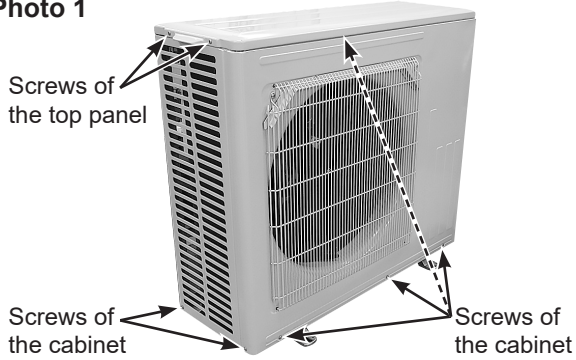
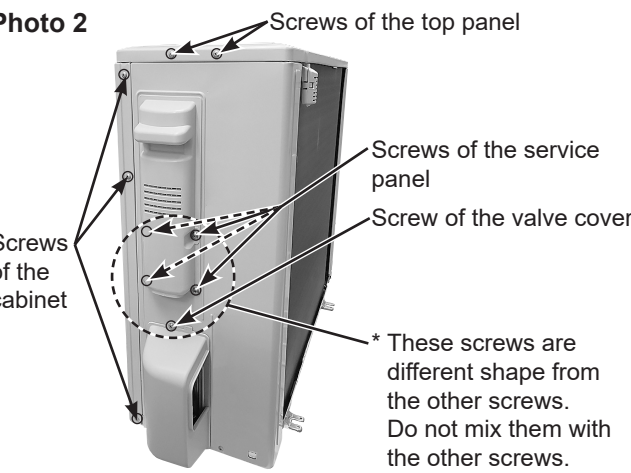
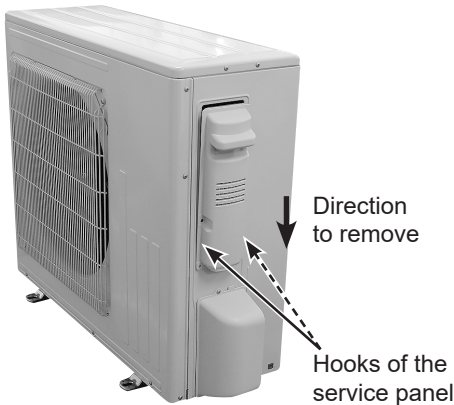
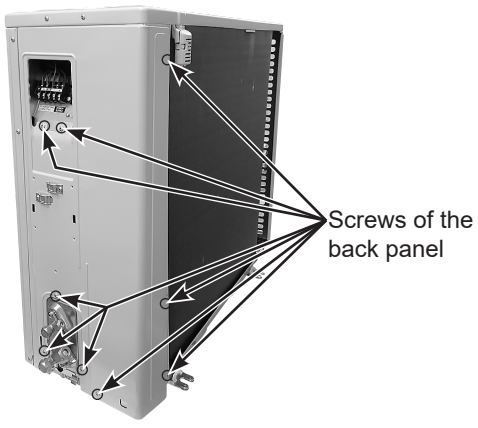


OPERATING PROCEDURE	PHOTOS/FIGURES
3. Removing R. V. coil (1) Remove the cabinet and panels. (Refer to section 1.) (2) Disconnect the following connectors: <Inverter P.C. board> CN721 (R.V. coil) (3) Remove the R.V. coil.	Photo 6  Screw of the R.V. coil Discharge temperature thermistor Compressor protector
4. Removing the discharge temperature thermistor, defrost thermistor, outdoor heat exchanger temperature thermistor and ambient temperature thermistor (1) Remove the cabinet and panels. (Refer to section 1.) (2) Disconnect the lead wire to the reactor and the following connectors: <Inverter P.C. board> CN641 (Defrost thermistor and discharge temperature thermistor) CN643 (Ambient temperature thermistor) CN644 (Outdoor heat exchanger temperature thermistor) (3) Pull out the discharge temperature thermistor from its holder. (4) Pull out the defrost thermistor from its holder. (5) Pull out the outdoor heat exchanger temperature thermistor from its holder. (6) Pull out the ambient temperature thermistor from its holder.	Photo 7  Outdoor heat exchanger temperature thermistor Ambient temperature thermistor Defrost thermistor
5. Removing outdoor fan motor (1) Remove the cabinet and panels. (Refer to section 1.) (2) Disconnect the following connectors: <Inverter P.C. board> CN931, CN932 (Fan motor) (3) Remove the propeller fan nut. (4) Remove the propeller fan. (5) Remove the screws fixing the fan motor. (6) Remove the fan motor.	Photo 8  Screws of the outdoor fan motor Propeller fan Propeller fan nut

OPERATING PROCEDURE	PHOTOS/FIGURES
6. Removing the compressor and 4-way valve (1) Remove the cabinet and panels. (Refer to section 1.) (2) Remove the inverter assembly. (Refer to section 2.) (3) Recover gas from the refrigerant circuit. NOTE: Recover gas from the pipes until the pressure gauge shows 0 kg/cm² (0 MPa). (4) Detach the brazed part of the suction and the discharge pipe connected with compressor. (5) Remove the compressor nuts. (6) Remove the compressor. (7) Detach the brazed part of pipes connected with 4-way valve.	Photo 9 Compressor protector Discharge pipe brazed part Suction pipe brazed part  Discharge temperature thermistor Brazed parts of 4-way valve

13-4. MUZ-AP60VG2

NOTE: Turn OFF the power supply before disassembly.

OPERATING PROCEDURE	PHOTOS/FIGURES
1. Removing the cabinet (1) Remove the screws of the service panel. (2) Remove the screws of the top panel. (3) Remove the screw of the valve cover. (4) Remove the service panel. (5) Remove the top panel. (6) Remove the valve cover. (7) Disconnect the power supply cord and indoor/outdoor connecting wire. (8) Remove the screws of the cabinet. (9) Remove the cabinet. (10) Remove the screws of the back panel. (11) Remove the back panel.	Photo 1  Screws of the top panel Screws of the cabinet Screws of the cabinet Photo 2  Screws of the top panel Screws of the service panel Screw of the valve cover Screws of the cabinet * These screws are different shape from the other screws. Do not mix them with the other screws. Photo 3  Direction to remove Hooks of the service panel Photo 4  Screws of the back panel

OPERATING PROCEDURE

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

- (1) Remove the cabinet and panels (refer to section 1).
- (2) Disconnect the lead wire to the reactor and the following connectors:
 <Inverter P.C. board>
 CN721 (R.V. coil)
 CN931, CN932 (Fan motor)
 CN641 (Defrost thermistor and discharge temperature thermistor)
 CN643 (Ambient temperature thermistor)
 CN644 (Outdoor heat exchanger temperature thermistor)
 CN724 (Expansion valve coil)
 CN64 (Compressor protector)
- (3) Remove the compressor connector (CN61).
- (4) Remove the screws fixing the heat sink support and the separator.
- (5) Remove the inverter assembly.
- (6) Remove the screws of the earth wires. (Photo 7)
- (7) Remove the PB cover.
- (8) Remove the screw of the inverter P.C. board and remove the inverter P.C. board from the P.C. board support. (Photo 8)

PHOTOS/FIGURES

Photo 5

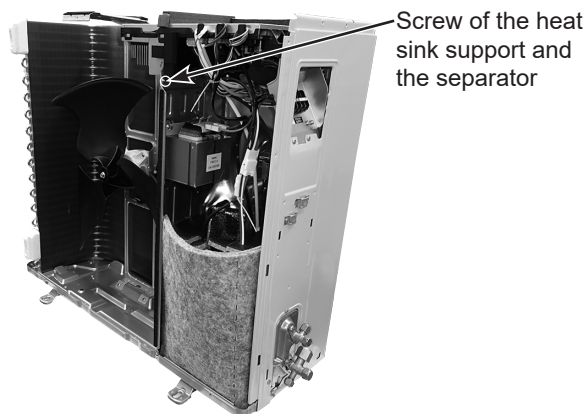
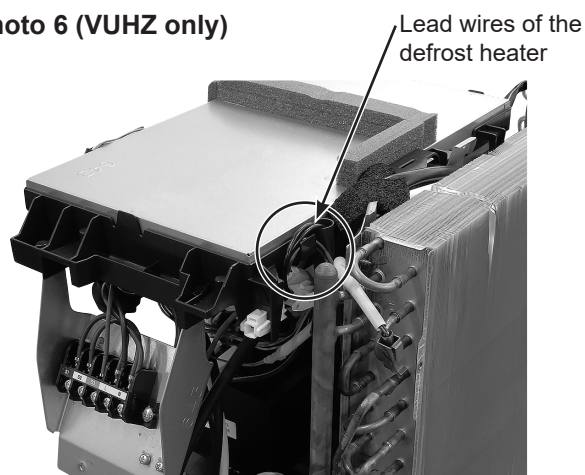


Photo 6 (VUHZ only)



OPERATING PROCEDURE

* Connection procedure when attaching the inverter P.C. board (Photo 9)

1. Connect the lead wires of the heat exchanger temperature thermistor, the defrost thermistor and discharge temperature thermistor to the connector on the inverter P.C. board. Pull the lead wires toward you and put them on the center hook on the P.C. board support.
2. Connect the lead wires of the expansion valve coil to the connector on the inverter P.C. board. Pull the lead wires toward you and put them on the right hook on the P.C. board support.
3. Connect the lead wires of the ambient temperature thermistor to the connector on the inverter P.C. board. Pull the lead wires toward you and put them on the left hook on the P.C. board support so that the fan motor lead wires are bundled up as shown in Photo 9.
4. Hook the lead wires of the defrost heater and the heater protector. (Photo 6)

Photo 7 (Inverter assembly)

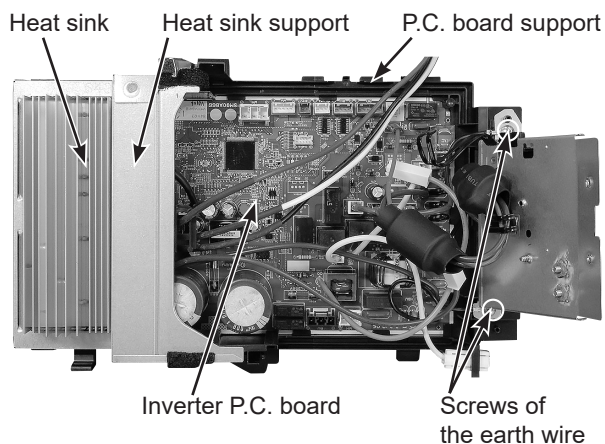
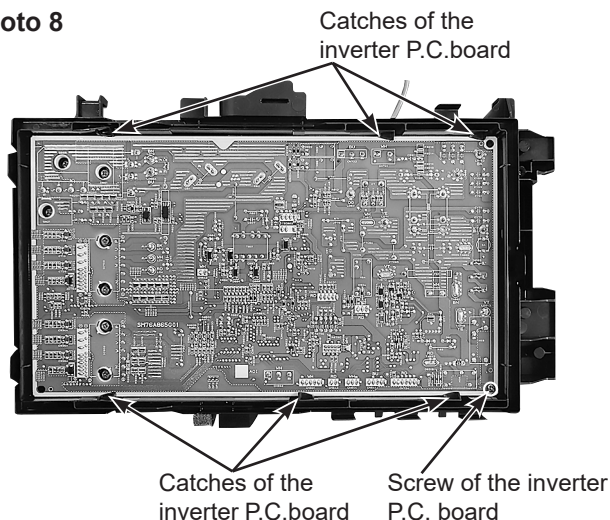


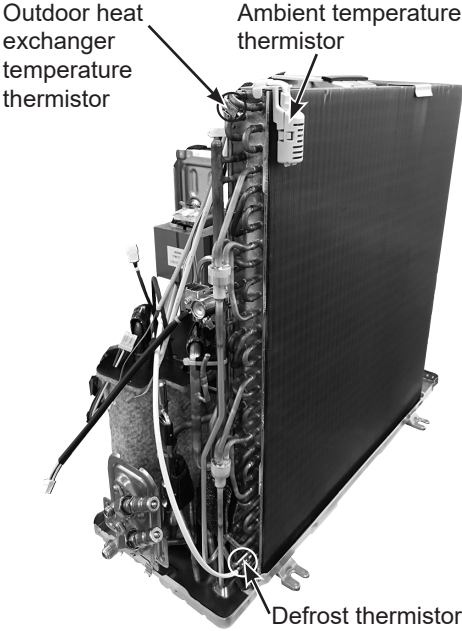
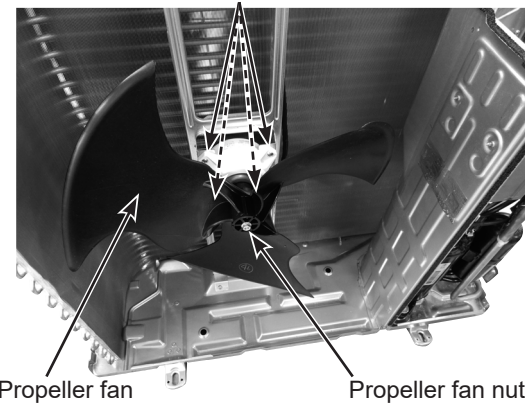
Photo 8



PHOTOS/FIGURES

Photo 9



OPERATING PROCEDURE	PHOTOS/FIGURES
3. Removing the discharge temperature thermistor, defrost thermistor, outdoor heat exchanger temperature thermistor and ambient temperature thermistor (1) Remove the cabinet and panels (refer to section 1). (2) Disconnect the lead wire to the reactor and the following connectors: <Inverter P.C. board> CN641 (Defrost thermistor and discharge temperature thermistor) CN643 (Ambient temperature thermistor) CN644 (Outdoor heat exchanger temperature thermistor) (3) Pull out the discharge temperature thermistor from its holder. (Photo 12) (4) Pull out the defrost thermistor from its holder. (5) Pull out the outdoor heat exchanger temperature thermistor from its holder. (6) Pull out the ambient temperature thermistor from its holder.	Photo 10 
4. Removing outdoor fan motor (1) Remove the cabinet and panels (refer to section 1). (2) Disconnect the following connectors: <Inverter P.C. board> CN931, CN932 (Fan motor) (3) Remove the propeller fan nut. (4) Remove the propeller fan. (5) Remove the screws fixing the fan motor. (6) Remove the fan motor.	Photo 11 Screws of the outdoor fan motor 

OPERATING PROCEDURE

5. Removing R. V. coil

- (1) Remove the cabinet and panels (refer to section 1).
- (2) Disconnect the following connectors:
<Inverter P.C. board>
CN721 (R.V. coil)
- (3) Remove the R.V. coil.

6. Removing the compressor and 4-way valve

- (1) Remove the cabinet and panels (refer to section 1).
- (2) Remove the inverter assembly (refer to section 2).
- (3) Remove the screws fixing the reactor.
- (4) Remove the reactor.
- (5) Remove the soundproof felt.
- (6) Recover gas from the refrigerant circuit.
NOTE: Recover gas from the pipes until the pressure gauge shows 0 kg/cm². (0 MPa).
- (7) Detach the brazed part of the suction and the discharge pipe connected with compressor.
- (8) Remove the compressor nuts.
- (9) Remove the compressor.
- (10) Detach the brazed part of pipes connected with 4-way valve.

PHOTOS/FIGURES

Photo 12

Screw of the R.V. coil

Discharge temperature thermistor

Compressor protector

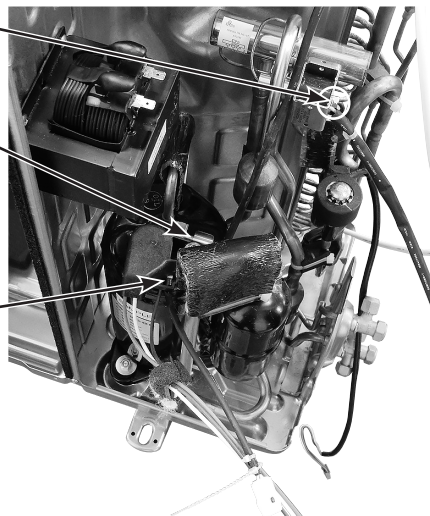
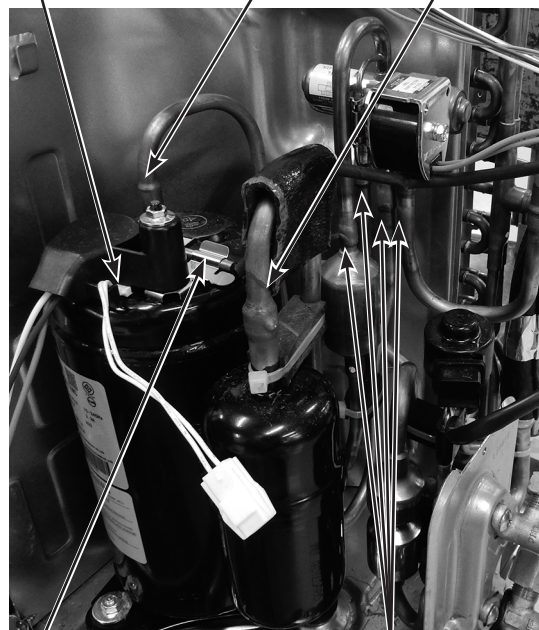


Photo 13

Compressor protector

Discharge pipe brazed part

Suction pipe brazed part

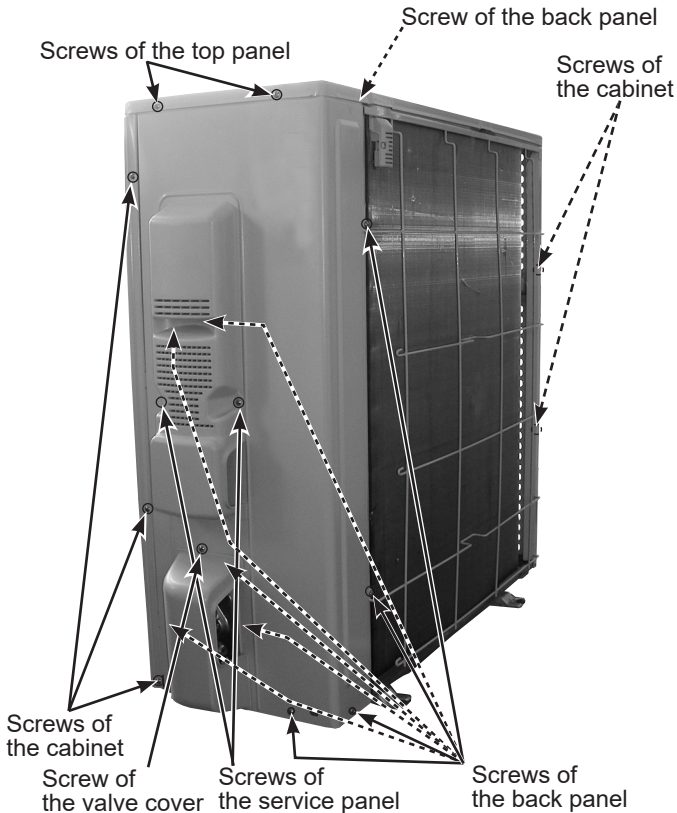
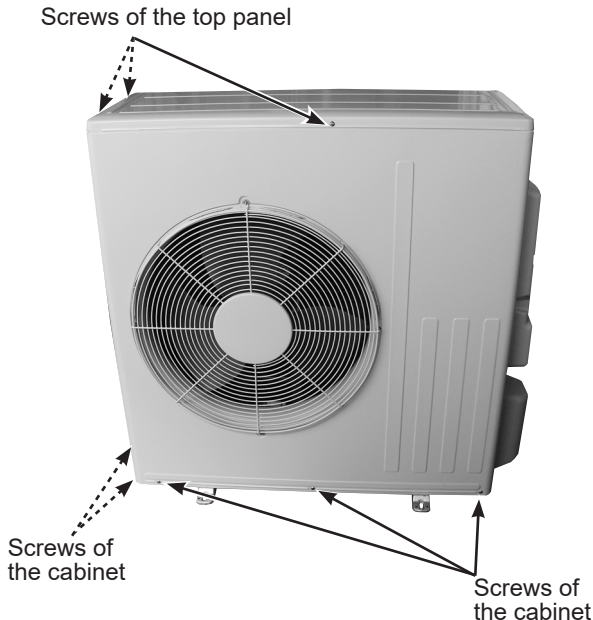


Discharge temperature thermistor

Brazed parts of 4-way valve

13-5. MUZ-AP71VG

NOTE: Turn OFF the power supply before disassembly.

OPERATING PROCEDURE	PHOTOS/FIGURES
1. Removing the cabinet (1) Remove the screws of the service panel. (2) Remove the screws of the top panel. (3) Remove the screw of the valve cover. (4) Remove the service panel. (5) Remove the top panel. (6) Remove the valve cover. (7) Disconnect the power supply cord and indoor/outdoor connecting wire. (8) Remove the screws of the cabinet. (9) Remove the cabinet. (10) Remove the screws of the back panel. (11) Remove the back panel. Photo 2  The diagram shows the rear of the outdoor unit. Solid arrows point to screws on the top panel, the valve cover, the service panel, and the cabinet. Dashed arrows point to screws on the back panel.	Photo 1  The diagram shows the front of the outdoor unit. Solid arrows point to screws on the top panel and the cabinet. Dashed arrows point to screws on the cabinet.

OPERATING PROCEDURE

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

- (1) Remove the cabinet and the service panel. (Refer to section 1.)
- (2) Disconnect the lead wire to the reactor and the following connectors:
 <Inverter P.C. board>
 CN602 (R.V. coil)
 CN931, CN932 (Fan motor)
 CN671 (Defrost thermistor, discharge temperature thermistor and outdoor heat exchanger temperature thermistor)
 CN672 (Ambient temperature thermistor)
 CN724 (LEV)
- (3) Remove the compressor connector.
- (4) Remove the earth wires and the lead wires of the inverter P.C. board.
- (5) Remove the screws of the P.B. support.
- (6) Remove the P.B. support from the relay panel.
- (7) Remove the screws of the inverter P.C. board.
- (8) Remove the inverter P.C. board from P.B. support.

* Notes about attaching the inverter P.C. board

1. When attaching the inverter P.C. board, clip the lead wires of the reactor to the wire saddles on the bottom of relay panel.
2. After attaching the inverter P.C. board, make sure that the lead wires are connected and placed as shown in Photo 3.

PHOTOS/FIGURES

Photo 3

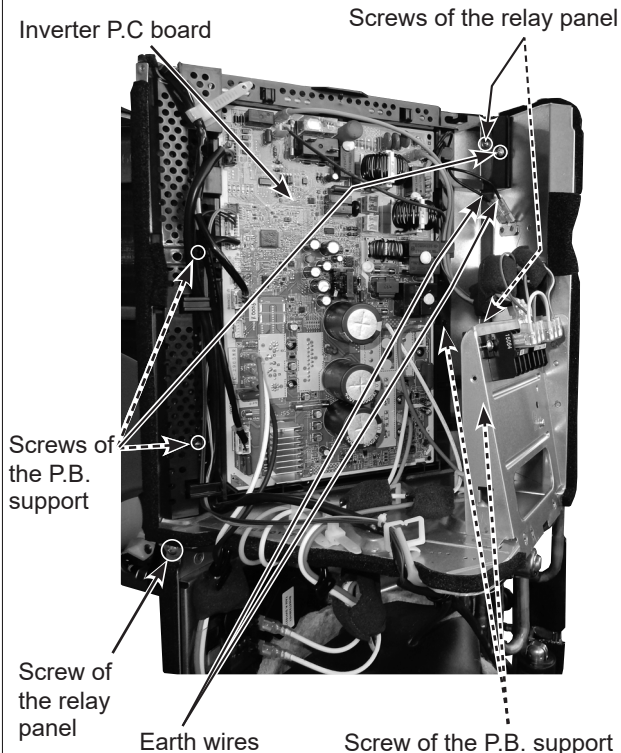
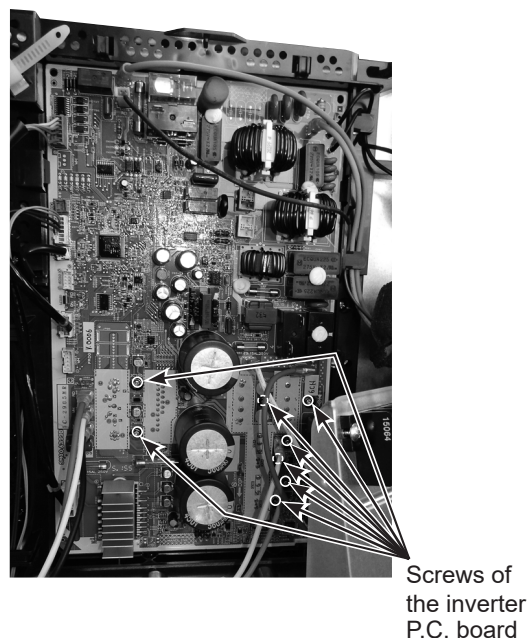
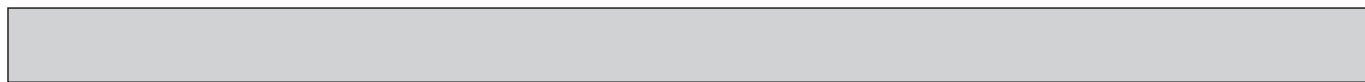
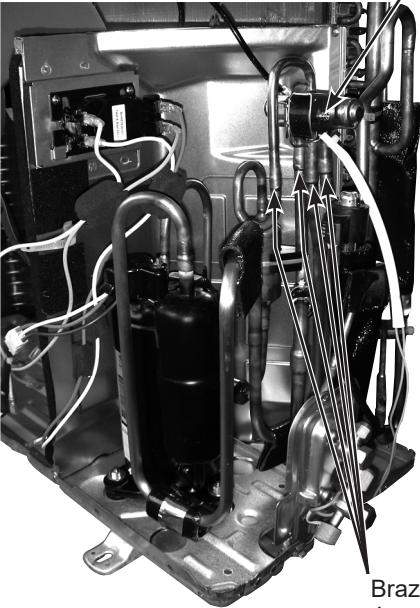
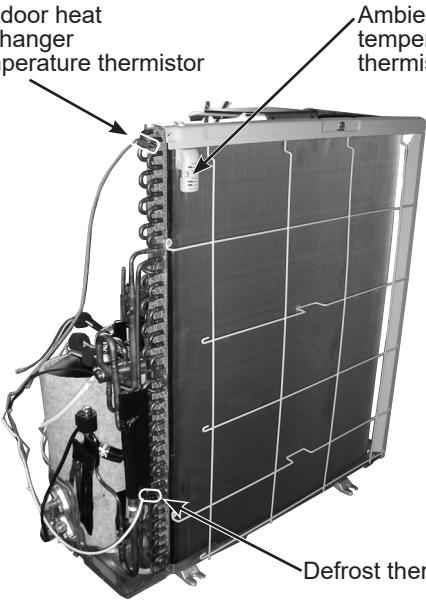


Photo 4





OPERATING PROCEDURE	PHOTOS/FIGURES
3. Removing R.V. coil (1) Remove the cabinet and panels. (Refer to section 1.) (2) Disconnect the following connector: <Inverter P.C. board> CN602 (R.V. coil) (3) Remove the R.V. coil.	Photo 5  Screw of the R.V. coil Brazed parts of 4-way valve
4. Removing the discharge temperature thermistor, defrost thermistor, outdoor heat exchanger temperature thermistor and ambient temperature thermistor (1) Remove the cabinet and panels. (Refer to section 1.) (2) Disconnect the lead wire to the reactor and the following connectors: <Inverter P.C. board> CN671 (Defrost thermistor, discharge temperature thermistor and outdoor heart exchanger temperature thermistor) CN672 (Ambient temperature thermistor) (3) Pull out the discharge temperature thermistor from its holder. (Photo 9) (4) Pull out the defrost thermistor from its holder. (5) Pull out the outdoor heat exchanger temperature thermistor from its holder. (6) Pull out the ambient temperature thermistor from its holder.	Photo 6  Outdoor heat exchanger temperature thermistor Ambient temperature thermistor Defrost thermistor

OPERATING PROCEDURE

5. Removing outdoor fan motor

- (1) Remove the top panel, cabinet and service panel. (Refer to section 1.)
- (2) Disconnect the following connectors:
<Inverter P.C. board>
CN931, CN932 (Fan motor)
- (3) Remove the propeller fan nut.
- (4) Remove the propeller fan.
- (5) Remove the screws fixing the fan motor.
- (6) Remove the fan motor.

6. Removing the compressor and 4-way valve

- (1) Remove the top panel, cabinet and service panel. (Refer to section 1.)
- (2) Remove the back panel. (Refer to section 1.)
- (3) Remove the screws fixing the relay panel.
- (4) Remove the relay panel.
- (5) Remove the inverter assembly. (Refer to section 2.)
- (6) Recover gas from the refrigerant circuit.
NOTE: Recover gas from the pipes until the pressure gauge shows 0 kg/cm² (0 MPa).
- (7) Detach the brazed part of the suction and the discharge pipe connected with compressor.
- (8) Remove the compressor nuts.
- (9) Remove the compressor.
- (10) Detach the brazed parts of 4-way valve and pipe. (Photo 6)

PHOTOS/FIGURES

Photo 7

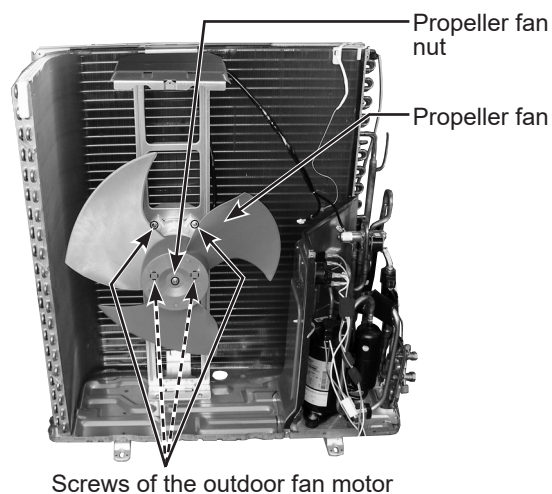
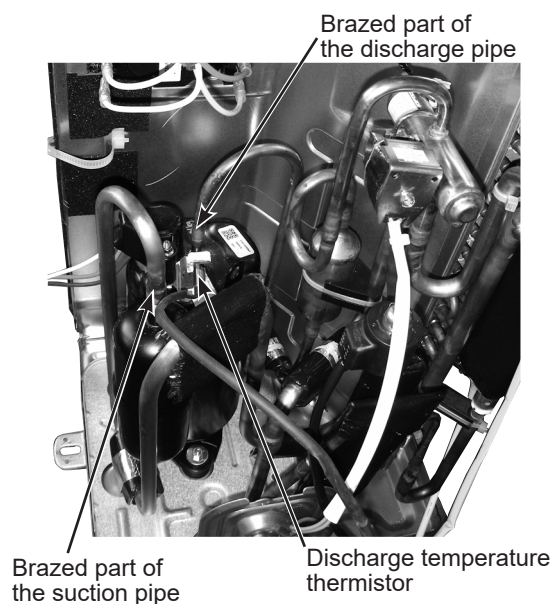
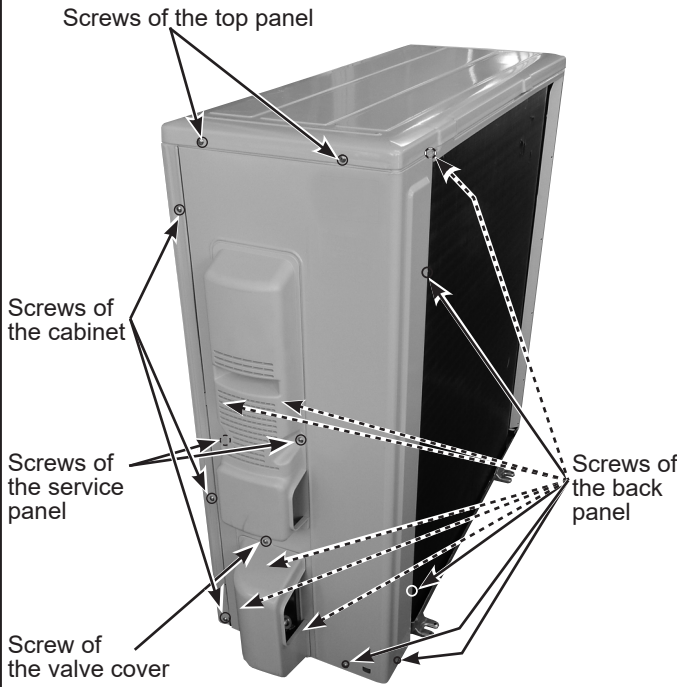
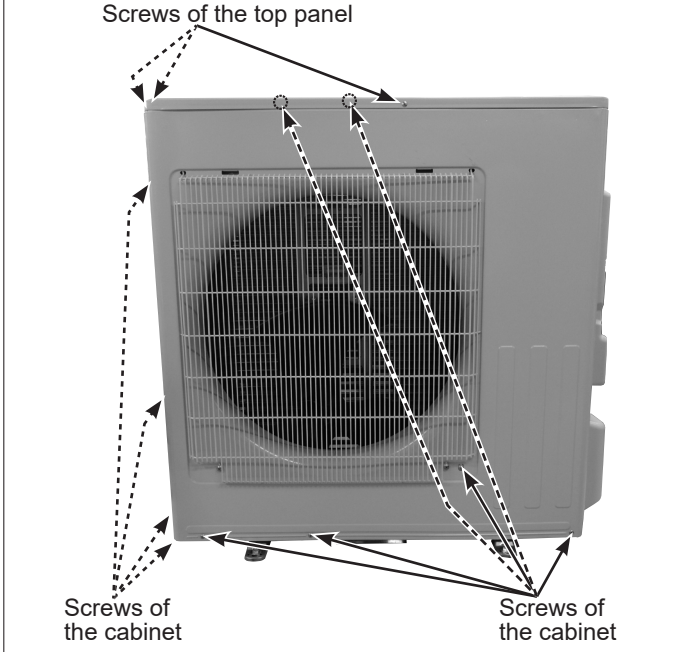


Photo 8



13-6. MUZ-AP71VG2

NOTE: Turn OFF the power supply before disassembly.

OPERATING PROCEDURE	PHOTOS/FIGURES
1. Removing the cabinet (1) Remove the screws of the service panel. (2) Remove the screws of the top panel. (3) Remove the screw of the valve cover. (4) Remove the service panel. (5) Remove the top panel. (6) Remove the valve cover. (7) Disconnect the power supply and indoor/outdoor connecting wire and the demand control signal transmission cable. (8) Remove the screws of the cabinet. (9) Remove the cabinet. (10) Remove the screws of the back panel. (11) Remove the screws of the terminal block support and the back panel. (12) Remove the back panel. Photo 2 	Photo 1 

OPERATING PROCEDURE

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

- (1) Remove the cabinet and panels. (Refer to section 1.)
- (2) Disconnect the lead wire to the reactor and the following connectors:
 - <Inverter P.C. board>
 - CN602 (R.V. coil)
 - CN931, CN932 (Fan motor)
 - CN671 (Defrost thermistor, discharge temperature thermistor and outdoor heat exchanger temperature thermistor)
 - CN672 (Ambient temperature thermistor)
 - CN724 (LEV)
 - CN64 (Compressor protector)
- (3) Remove the compressor connector (CN61).
- (4) Remove the screws fixing the heat sink support and the separator.
- (5) Remove the screws fixing the P.C. board support and the motor support.
- (6) Remove the fixing screws of the terminal block support and the back panel.
- (7) Remove the inverter assembly.
- (8) Remove the screws of the earth wire.
- (9) Remove the screw of the heat sink support, and the heat sink support from the P.C. board support.
- (10) Remove the screws of the terminal block support, and the screws of the earth wires and the terminal block support. (Photo 5)
- (11) Remove the terminal block support.

PHOTOS/FIGURES

Photo 3

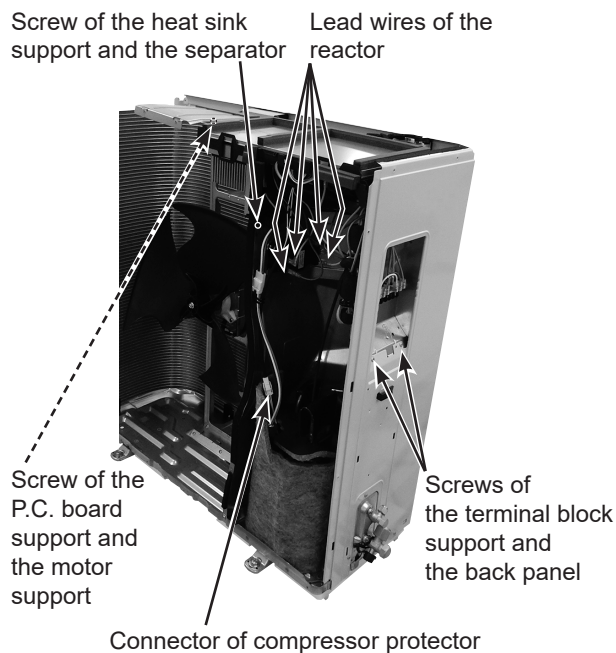
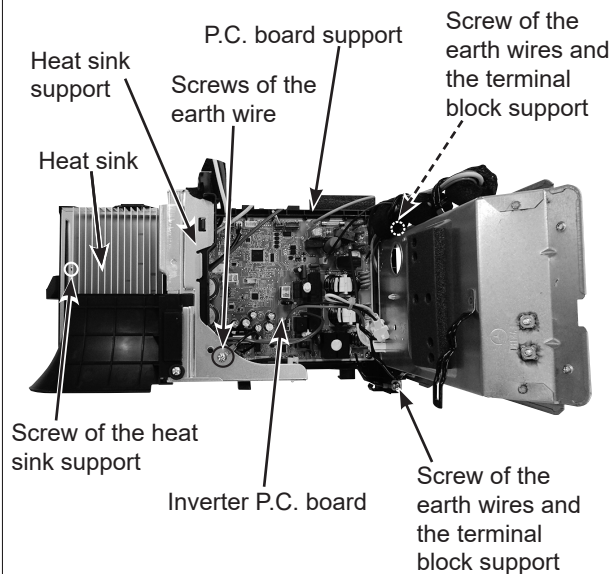


Photo 4 (Inverter assembly)

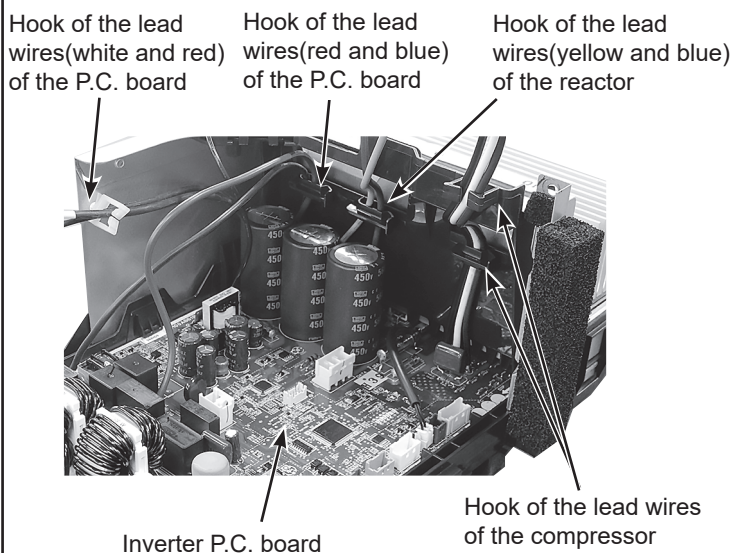


OPERATING PROCEDURE

* Connection procedure when attaching the inverter P.C. board (Photo 6, 7)

1. Attach the heat sink support to the P.C. board support.
2. Hook the lead wires of the compressor, the reactor and the P.C. board to each hooks on the heat sink support as shown Photo 7.
3. Connect the lead wires of the expansion valve coil to the connector on the inverter P.C. board. Pull the lead wires of the expansion valve coil toward you and put them on the left and right hook on the P.C. board support as shown in Photo 6.

Photo 7



PHOTOS/FIGURES

Photo 5

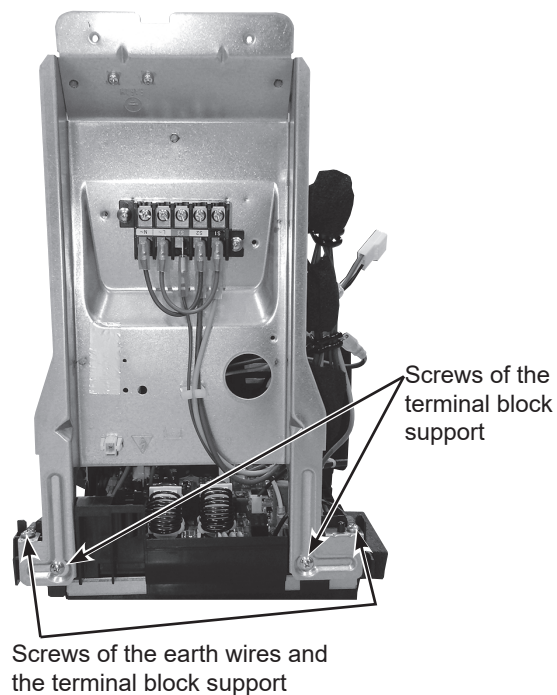
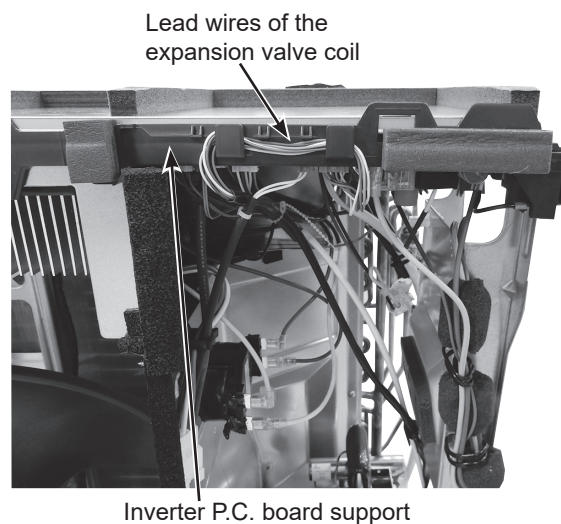


Photo 6



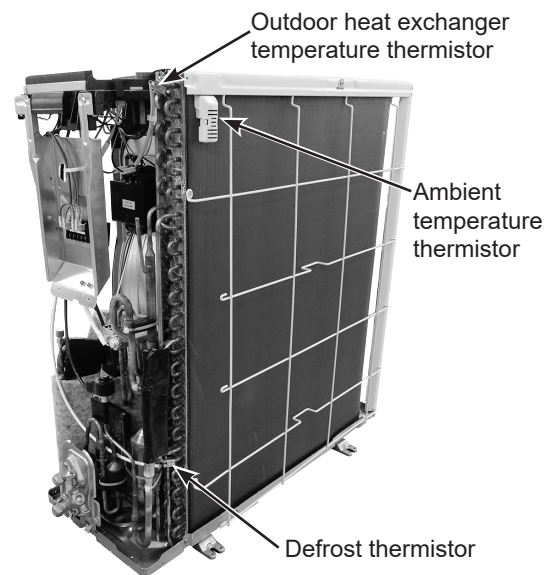
OPERATING PROCEDURE

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

- (1) Remove the cabinet and panels. (Refer to section 1.)
- (2) Disconnect the lead wire to the reactor and the following connectors:
<Inverter P.C. board>
CN671 (Defrost thermistor, discharge temperature thermistor and outdoor heart exchanger temperature thermistor)
CN672 (Ambient temperature thermistor)
- (3) Pull out the discharge temperature thermistor from its holder. (Photo 10)
- (4) Pull out the defrost thermistor from its holder.
- (5) Pull out the outdoor heat exchanger temperature thermistor from its holder. (Photo 8)
- (6) Pull out the ambient temperature thermistor from its holder.

PHOTOS/FIGURES

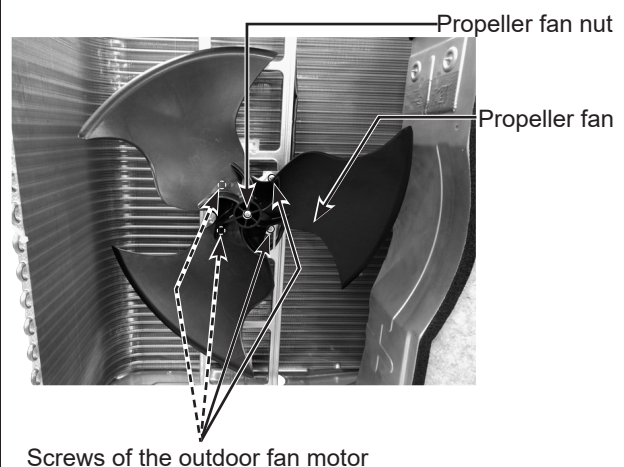
Photo 8

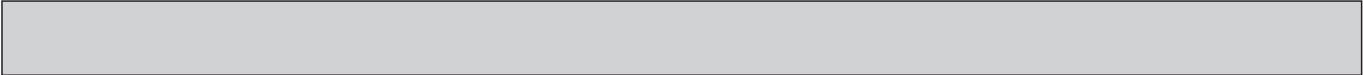


4. Removing outdoor fan motor

- (1) Remove the top panel, cabinet and service panel. (Refer to section 1.)
- (2) Disconnect the following connectors:
<Inverter P.C. board>
CN931, CN932 (Fan motor)
- (3) Remove the propeller fan nut.
- (4) Remove the propeller fan.
- (5) Remove the screws fixing the fan motor.
- (6) Remove the fan motor.

Photo 9

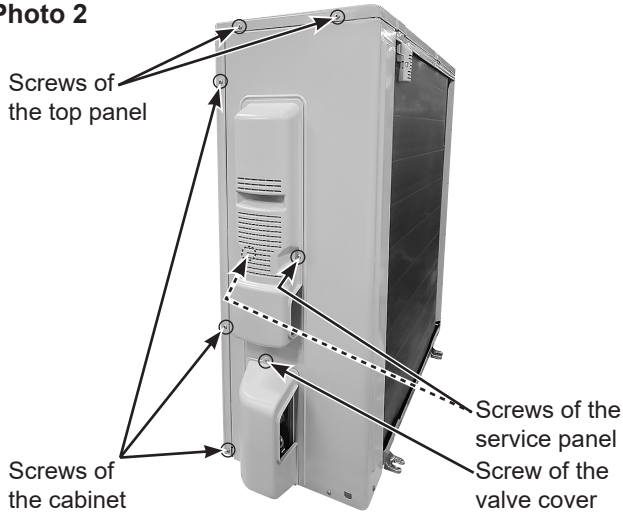
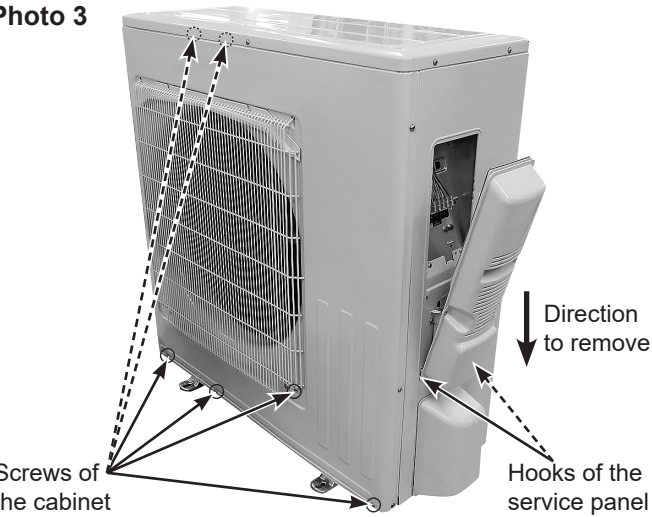
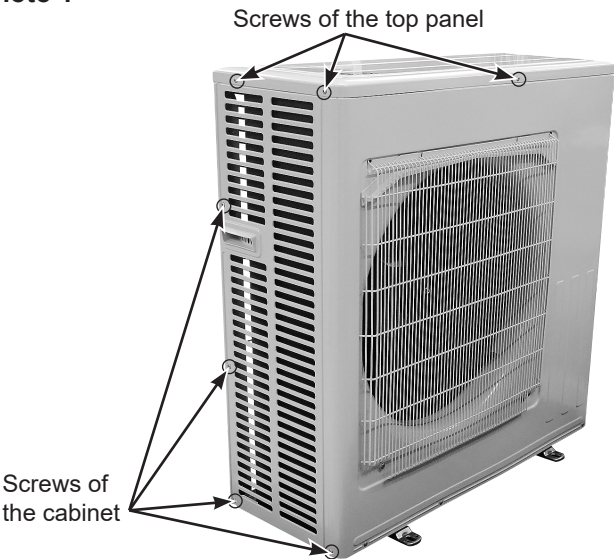
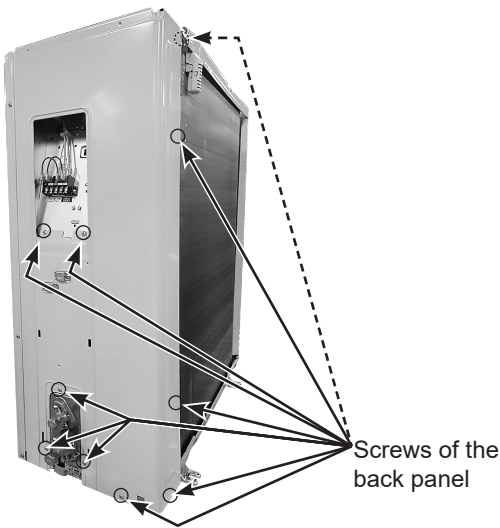




OPERATING PROCEDURE	PHOTOS/FIGURES
5. Removing the compressor and 4-way valve (1) Remove the top panel, cabinet and service panel. (Refer to section 1.) (2) Remove the back panel. (Refer to section 1.) (3) Remove the inverter assembly. (Refer to section 2.) (4) Recover gas from the refrigerant circuit. NOTE: Recover gas from the pipes until the pressure gauge shows 0 kg/cm² (0 MPa). (5) Detach the brazed part of the suction and the discharge pipe connected with compressor. (6) Remove the compressor nuts. (7) Remove the compressor. (8) Detach the brazed parts of 4-way valve and pipe. (Photo 11)	Photo 10 Brazed part of the discharge pipe Brazed part of the suction pipe  Compressor protector Discharge temperature thermistor
Photo 11  Brazed parts of 4-way valve	

13-7. MUZ-AP71VG3

NOTE: Turn OFF the power supply before disassembly.

OPERATING PROCEDURE	PHOTOS/FIGURES
1. Removing the cabinet (1) Remove the screws of the service panel. (2) Remove the screws of the top panel. (3) Remove the screw of the valve cover. (4) Remove the service panel. (5) Remove the top panel. (6) Remove the valve cover. (7) Disconnect the power supply and indoor/outdoor connecting wire. (8) Remove the screws of the cabinet. (9) Remove the cabinet. (10) Remove the screws of the back panel. (11) Remove the back panel.	Photo 2  Screws of the top panel Screws of the service panel Screw of the valve cover Screws of the cabinet Photo 3  Screws of the cabinet Hooks of the service panel Direction to remove
Photo 1  Screws of the top panel Screws of the cabinet	Photo 4  Screws of the back panel

OPERATING PROCEDURE

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

- (1) Remove the top panel, cabinet and service panel.
(Refer to section 1.)
- (2) Disconnect the lead wire to the reactor and the following connectors:
<Inverter P.C. board>
CN602 (R.V. coil)
CN931, CN932 (Fan motor)
CN671 (Defrost thermistor, discharge temperature thermistor and outdoor heat exchanger temperature thermistor)
CN672 (Ambient temperature thermistor)
CN724 (Expansion valve coil)
CN64 (Compressor protector)
- (3) Remove the compressor connector (CN61).
- (4) Remove the screws fixing the heat sink support and the separator.
- (5) Remove the screws fixing the P.C. board support and the motor support.
- (6) Remove the inverter assembly.
- (7) Remove the screws of the earth wires and the terminal block support.
- (8) Remove the screw of the heat sink support, and the heat sink support from the P.C. board support.

PHOTOS/FIGURES

Photo 5

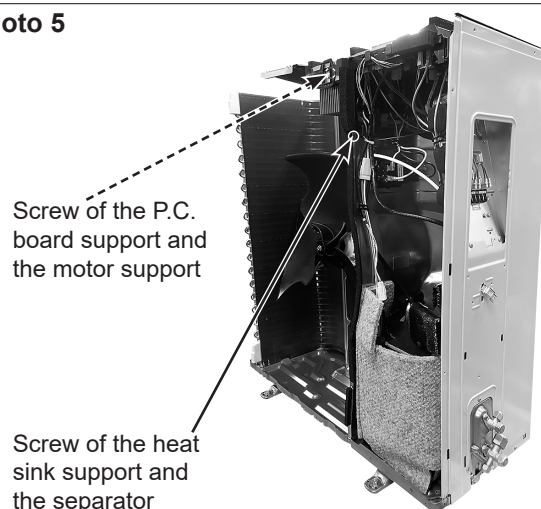
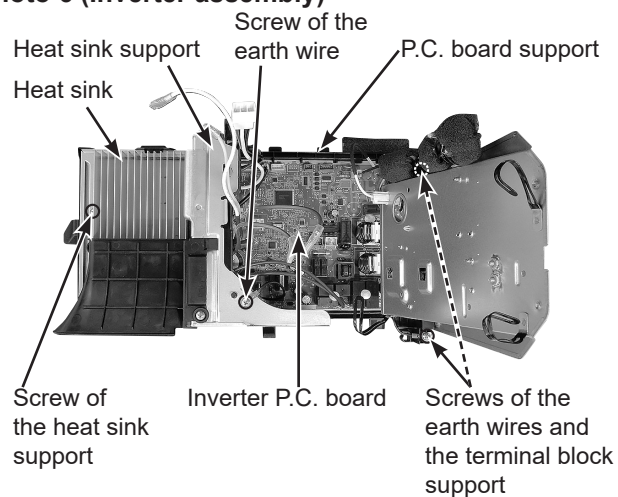


Photo 6 (Inverter assembly)



OPERATING PROCEDURE

* Connection procedure when attaching the inverter P.C. board (Photo 6, 7, 8, 9)

1. Attach the heat sink support to the P.C. board support.
2. Hook the lead wires of the compressor, the reactor and the P.C. board to each hooks on the heat sink support as shown in Photo 8.
3. Connect the lead wires of the expansion valve coil to the connector on the inverter P.C. board. Pull the lead wires of the expansion valve coil toward you and put them on the left hook on the P.C. board support as shown in Photo 9.
4. Hook the lead wires of the compressor, discharge temperature thermistor, defrost thermistor and expansion valve coil to each hook and tighten the wires with the fastener as shown in Photo 9.

PHOTOS/FIGURES

Photo 8

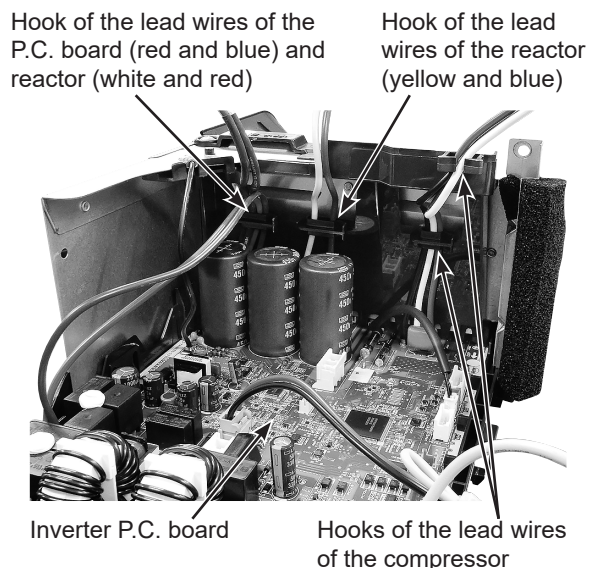


Photo 7

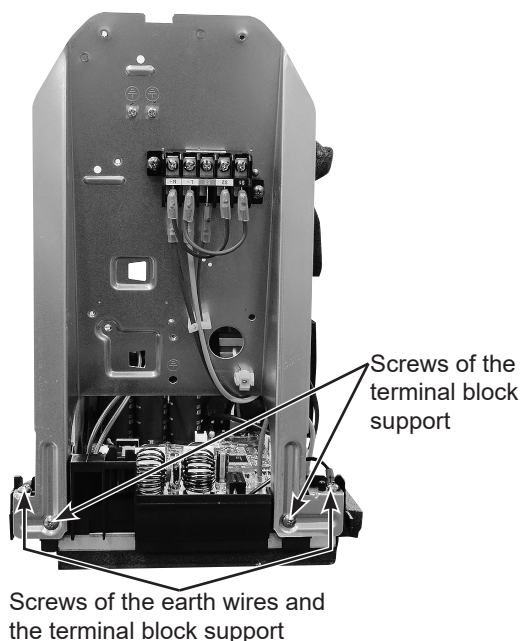
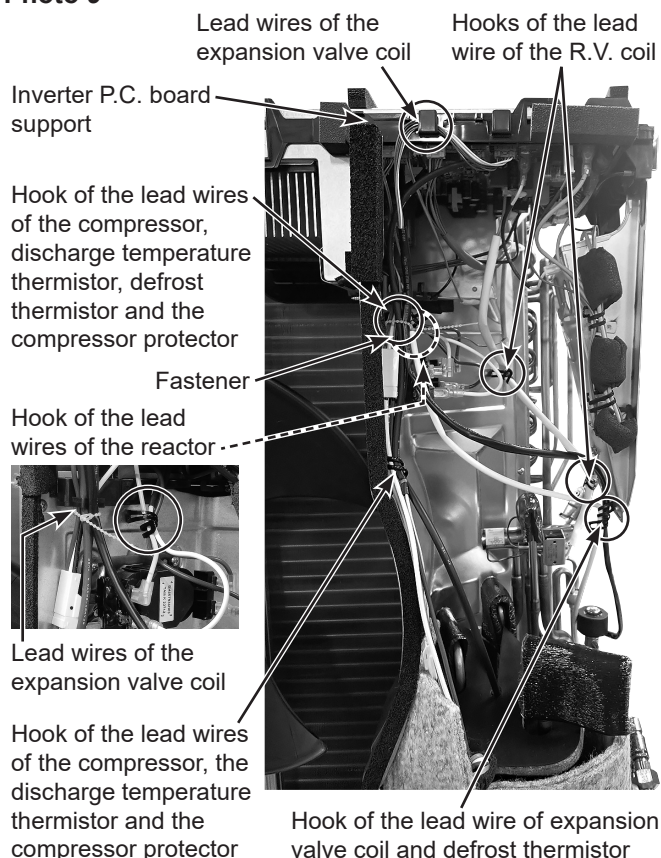
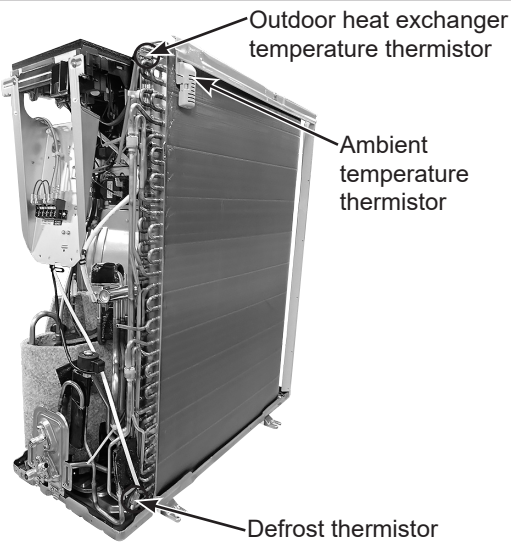
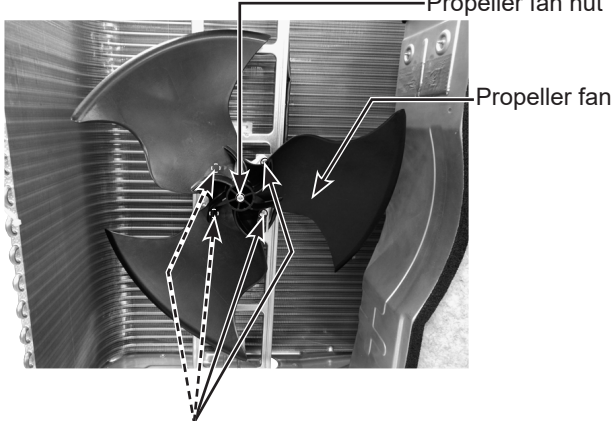
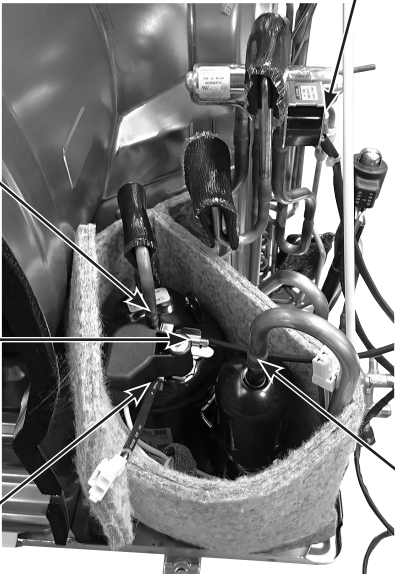


Photo 9



OPERATING PROCEDURE	PHOTOS/FIGURES
3. Removing the discharge temperature thermistor, defrost thermistor, outdoor heat exchanger temperature thermistor and ambient temperature thermistor (1) Remove the cabinet and panels. (Refer to section 1.) (2) Disconnect the lead wire to the reactor and the following connectors: <Inverter P.C. board> CN671 (Defrost thermistor, discharge temperature thermistor and outdoor heat exchanger temperature thermistor) CN672 (Ambient temperature thermistor) (3) Pull out the discharge temperature thermistor from its holder. (Photo 12) (4) Pull out the defrost thermistor from its holder. (5) Pull out the outdoor heat exchanger temperature thermistor from its holder. (Photo 10) (6) Pull out the ambient temperature thermistor from its holder.	Photo 10 
4. Removing outdoor fan motor (1) Remove the top panel, cabinet and service panel. (Refer to section 1.) (2) Disconnect the following connectors: <Inverter P.C. board> CN931, CN932 (Fan motor) (3) Remove the propeller fan nut. (4) Remove the propeller fan. (5) Remove the screws fixing the fan motor. (6) Remove the fan motor.	Photo 11 

OPERATING PROCEDURE	PHOTOS/FIGURES
5. Removing R. V. coil (1) Remove the cabinet and panels. (Refer to section 1.) (2) Disconnect the following connectors: <Inverter P.C. board> CN602 (R.V. coil) (3) Remove the R.V. coil.	Photo 12 Screw of the R.V. coil  Brazed part of the discharge pipe Discharge temperature thermistor Compressor protector Brazed part of the suction pipe
6. Removing the compressor and 4-way valve (1) Remove the cabinet and panels. (Refer to section 1.) (2) Remove the inverter assembly. (Refer to section 2.) (3) Remove the screws fixing the reactor. (4) Remove the reactor. (5) Remove the soundproof felt. (6) Recover gas from the refrigerant circuit. NOTE: Recover gas from the pipes until the pressure gauge shows 0 kg/cm² (0 MPa). (7) Detach the brazed part of the suction and the discharge pipe connected with compressor. (Photo 12) (8) Remove the compressor nuts. (9) Remove the compressor. (10) Detach the brazed parts of 4-way valve and pipe. (Photo 14)	Photo 13  Brazed parts of 4-way valve

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