MITSUBISHI ELECTRIC

SPLIT-TYPE AIR CONDITIONERS

**Revision G:**
- **MXZ-2F33/42/53VF3 -** E2 and **MXZ-2F53VFH3 -** E2 have been added.

OBH790 REVISED EDITION-F is void.

# OUTDOOR UNIT

HFC utilized R32

**No. OBH790**
**REVISED EDITION-G**

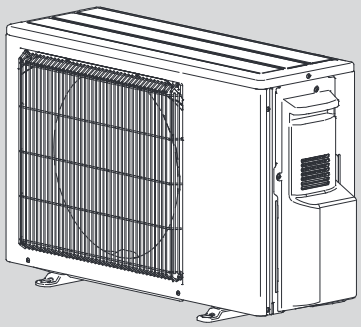
# SERVICE MANUAL

## Models

**MXZ-2F33VF -** E1, ET1
**MXZ-2F33VF2 -** E1, ET1
**MXZ-2F33VF3 -** E1, ET1, E2
**MXZ-2F42VF -** E1, ET1
**MXZ-2F42VF2 -** E1, ET1
**MXZ-2F42VF3 -** E1, ET1, E2
**MXZ-2F53VF -** E1, ET1
**MXZ-2F53VF2 -** E1, ET1
**MXZ-2F53VF3 -** E1, ET1, E2
**MXZ-2F53VFH -** E1
**MXZ-2F53VFH2 -** E1
**MXZ-2F53VFH3 -** E1, E2
**MXZ-3F54VF -** E1, ET1, E2, ET2
**MXZ-3F54VF2 -** E1, ET1
**MXZ-3F54VF3 -** E1, ET1
**MXZ-3F68VF -** E1, ET1, E2, ET2
**MXZ-3F68VF2 -** E1, ET1
**MXZ-3F68VF3 -** E1, ET1
**MXZ-4F72VF -** E1, ET1, E2, ET2
**MXZ-4F72VF2 -** E1, ET1
**MXZ-4F72VF3 -** E1, ET1
**MXZ-4F80VF2 -** E1, ET1
**MXZ-4F80VF3 -** E1, ET1
**MXZ-4F83VF -** E1, ET1
**MXZ-5F102VF -** E1, ET1
**MXZ-6F122VF -** E1, ET1
**MXZ-2F53VFHZ -** E1
**MXZ-4F83VFHZ -** E1

**Indoor unit service manual**

| | |
|---|---|
| MSZ-LN•VG Series (OBH766) | MLZ-KP•VF Series (OBH801) |
| MSZ-LN•VG2 Series (OBH766) | MFZ-KT•VG Series (OBH843) |
| MSZ-EF•VG Series (OBH589) | SLZ-M•FA Series (OCH522) |
| MSZ-AP•VF Series (OBH799) | SEZ-M•DA Series (HWE17040) |
| MSZ-AP•VG Series (OBH788) | PCA-M•KA Series (OCH659) |
| MSZ-BT•VG Series (OBH849) | PEAD-M•JA(L) Series (HWE16130) |



| | | |
|---|---|---|
| MXZ-2F33VF | MXZ-2F33VF2 | MXZ-2F33VF3 |
| MXZ-2F42VF | MXZ-2F42VF2 | MXZ-2F42VF3 |
| MXZ-2F53VF | MXZ-2F53VF2 | MXZ-2F53VF3 |
| MXZ-2F53VFH | MXZ-2F53VFH2 | MXZ-2F53VFH3 |

## CONTENTS

**Revision A:**
• **MXZ-3F54VF -** E2, ET2, **MXZ-3F68VF -** E2, ET2 and **MXZ-4F72VF -** E2, ET2 have been added.

**Revision B:**
• **MXZ-3F54VF2 -** E1, ET1, **MXZ-3F68VF2-** E1, ET1, **MXZ-4F72VF2 -** E1, ET1 and **MXZ-4F80VF2 -** E1, ET1 have been added.

**Revision C:**
• **MXZ-2F33VF2 -** E1, ET1, **MXZ-2F42VF2 -** E1, ET1, **MXZ-2F53VF2 -** E1, ET1 and **MXZ-2F53VFH2 -** E1 have been added.

**Revision D:**
• **MXZ-2F33VF3 -** E1, ET1, **MXZ-2F42VF3 -** E1, ET1, **MXZ-2F53VF3 -** E1, ET1, **MXZ-2F53VFH3-** E1, **MXZ-3F54VF3 -** E1, ET1, **MXZ-3F68VF3 -** E1, ET1, **MXZ-4F72VF3 -** E1, ET1 and **MXZ-4F80VF3-** E1, ET1 have been added.

**Revision E:**
• **MXZ-4F83VF -** E1, ET1, **MXZ-5F102VF -** E1, ET1, **MXZ-6F122VF -** E1, ET1, **MXZ-2F53VFHZ -** E1 and **MXZ-4F83VFHZ -** E1 have been added.

**Revision F:**
• Chart of heating capacity and total input for **MXZ-4F83VFHZ -** E1 have been added.
• Outdoor unit power supply for **MXZ-4F83VF -** ET1 and **MXZ-5F102VF -** ET1 have been added.

**Revision G:**
• **MXZ-2F33/42/53VF3 -** E2 and **MXZ-2F53VFH3 -** E2 have been added.

# 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 remove 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 refrigeration 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.**

# INDOOR / OUTDOOR UNIT COMPATIBILITY TABLE

**<MXZ-2F33VF>**

| Connectable indoor unit lineups(Heat pump inverter type) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model type | Model name | Capacity class [kW/h] | | | | | | | | | | |
| | | 15 | 18 | 20 | 22 | 25 | 35 | 42 | 50 | 60 | 71 | |
| Wall mounted | MSZ-LN**VG | | ● | | | ● | | | | | | |
| | MSZ-EF**VE3 | | ● | | ● | ● | | | | | | |
| | MSZ-AP**VG | | | | | ● | | | | | | |
| | MSZ-AP**VF | ● | | ● | | | | | | | | |
| 1way cassette | MLZ-KP**VF | | | | | ● | | | | | | |
| 4way cassette | SLZ-M**FA | ● | | | | ● | | | | | | |
| Ceiling concealed | PEAD-M**JA(L) | | | | | | | | | | | |
| | SEZ-M**DA(L) | | | | | ● | | | | | | |
| Ceiling suspended | PCA-M**KA | | | | | | | | | | | |

**<MXZ-2F33VF2>**

| Connectable indoor unit lineups(Heat pump inverter type) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model type | Model name | Capacity class [kW/h] | | | | | | | | | | |
| | | 15 | 18 | 20 | 22 | 25 | 35 | 42 | 50 | 60 | 71 | |
| Wall mounted | MSZ-LN**VG | | ● | | | ● | | | | | | |
| | MSZ-EF**VE3 | | ● | | ● | ● | | | | | | |
| | MSZ-EF**VG | | ● | | ● | ● | | | | | | |
| | MSZ-AP**VG | ● | | ● | | ● | | | | | | |
| | MSZ-AP**VF | ● | | ● | | | | | | | | |
| 1way cassette | MLZ-KP**VF | | | | | ● | | | | | | |
| Floor standing | MFZ-KT**VG | | | | | ● | | | | | | |
| 4way cassette | SLZ-M**FA | ● | | | | ● | | | | | | |
| Ceiling concealed | PEAD-M**JA(L) | | | | | | | | | | | |
| | SEZ-M**DA(L) | | | | | ● | | | | | | |
| Ceiling suspended | PCA-M**KA | | | | | | | | | | | |

**<MXZ-2F33VF3>**

| Connectable indoor unit lineups(Heat pump inverter type) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model type | Model name | Capacity class [kW/h] | | | | | | | | | | |
| | | 15 | 18 | 20 | 22 | 25 | 35 | 42 | 50 | 60 | 71 | |
| Wall mounted | MSZ-LN**VG | | | | | | | | | | | |
| | MSZ-LN**VG2 | | ● | | | ● | | | | | | |
| | MSZ-BT**VG | | | ● | | ● | | | | | | |
| | MSZ-EF**VE3 | | ● | | ● | ● | | | | | | |
| | MSZ-EF**VG | | ● | | ● | ● | | | | | | |
| | MSZ-AP**VG | ● | | ● | | ● | | | | | | |
| | MSZ-AP**VF | ● | | ● | | | | | | | | |
| 1way cassette | MLZ-KP**VF | | | | | ● | | | | | | |
| Floor standing | MFZ-KT**VG | | | | | ● | | | | | | |
| 4way cassette | SLZ-M**FA | ● | | | | ● | | | | | | |
| Ceiling concealed | PEAD-M**JA(L) | | | | | | | | | | | |
| | SEZ-M**DA(L) | | | | | ● | | | | | | |
| Ceiling suspended | PCA-M**KA | | | | | | | | | | | |

**<MXZ-2F42VF>**

| Connectable indoor unit lineups(Heat pump inverter type) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model type | Model name | Capacity class [kW/h] | | | | | | | | | | |
| | | 15 | 18 | 20 | 22 | 25 | 35 | 42 | 50 | 60 | 71 | |
| Wall mounted | MSZ-LN**VG | | ● | | | ● | ● | | | | | |
| | MSZ-EF**VE3 | | ● | | ● | ● | ● | | | | | |
| | MSZ-AP**VG | | | | | ● | ● | | | | | |
| | MSZ-AP**VF | ● | | ● | | | | | | | | |
| 1way cassette | MLZ-KP**VF | | | | | ● | ● | | | | | |
| 4way cassette | SLZ-M**FA | ● | | | | ● | ● | | | | | |
| Ceiling concealed | PEAD-M**JA(L) | | | | | | | | | | | |
| | SEZ-M**DA(L) | | | | | ● | ● | | | | | |
| Ceiling suspended | PCA-M**KA | | | | | | | | | | | |

**<MXZ-2F42VF2>**

| Connectable indoor unit lineups(Heat pump inverter type) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model type | Model name | Capacity class [kW/h] | | | | | | | | | | |
| | | 15 | 18 | 20 | 22 | 25 | 35 | 42 | 50 | 60 | 71 | |
| Wall mounted | MSZ-LN**VG | | ● | | | ● | ● | | | | | |
| | MSZ-EF**VE3 | | ● | | ● | ● | ● | | | | | |
| | MSZ-EF**VG | | ● | | ● | ● | ● | | | | | |
| | MSZ-AP**VG | ● | | ● | | ● | ● | | | | | |
| | MSZ-AP**VF | ● | | ● | | | | | | | | |
| 1way cassette | MLZ-KP**VF | | | | | ● | ● | | | | | |
| Floor standing | MFZ-KT**VG | | | | | ● | ● | | | | | |
| 4way cassette | SLZ-M**FA | ● | | | | ● | ● | | | | | |
| Ceiling concealed | PEAD-M**JA(L) | | | | | | | | | | | |
| | SEZ-M**DA(L) | | | | | ● | ● | | | | | |
| Ceiling suspended | PCA-M**KA | | | | | | | | | | | |

**<MXZ-2F42VF3>**

| Connectable indoor unit lineups(Heat pump inverter type) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model type | Model name | Capacity class [kW/h] | | | | | | | | | | |
| | | 15 | 18 | 20 | 22 | 25 | 35 | 42 | 50 | 60 | 71 | |
| Wall mounted | MSZ-LN**VG | | | | | | | | | | | |
| | MSZ-LN**VG2 | | ● | | | ● | ● | | | | | |
| | MSZ-BT**VG | | | ● | | ● | ● | | | | | |
| | MSZ-EF**VE3 | | ● | | ● | ● | ● | | | | | |
| | MSZ-EF**VG | | ● | | ● | ● | ● | | | | | |
| | MSZ-AP**VG | ● | | ● | | ● | ● | | | | | |
| | MSZ-AP**VF | ● | | ● | | | | | | | | |
| 1way cassette | MLZ-KP**VF | | | | | ● | ● | | | | | |
| Floor standing | MFZ-KT**VG | | | | | ● | ● | | | | | |
| 4way cassette | SLZ-M**FA | ● | | | | ● | ● | | | | | |
| Ceiling concealed | PEAD-M**JA(L) | | | | | | | | | | | |
| | SEZ-M**DA(L) | | | | | ● | ● | | | | | |
| Ceiling suspended | PCA-M**KA | | | | | | | | | | | |

**<MXZ-2F53VF / MXZ-2F53VFH>**

| Connectable indoor unit lineups(Heat pump inverter type) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model type | Model name | Capacity class [kW/h] | | | | | | | | | | |
| | | 15 | 18 | 20 | 22 | 25 | 35 | 42 | 50 | 60 | 71 | |
| Wall mounted | MSZ-LN**VG | | ● | | | ● | ● | | | | | |
| | MSZ-EF**VE3 | | ● | | ● | ● | ● | ● | ● | | | |
| | MSZ-AP**VG | | | | | ● | ● | ● | ● | | | |
| | MSZ-AP**VF | ● | | ● | | | | | | | | |
| 1way cassette | MLZ-KP**VF | | | | | ● | ● | | | | | |
| 4way cassette | SLZ-M**FA | ● | | | | ● | ● | | | | | |
| Ceiling concealed | PEAD-M**JA(L) | | | | | | | | | | | |
| | SEZ-M**DA(L) | | | | | ● | ● | | | | | |
| Ceiling suspended | PCA-M**KA | | | | | | | | | | | |

**<MXZ-2F53VF2 / MXZ-2F53VFH2>**

| Connectable indoor unit lineups(Heat pump inverter type) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model type | Model name | Capacity class [kW/h] | | | | | | | | | | |
| | | 15 | 18 | 20 | 22 | 25 | 35 | 42 | 50 | 60 | 71 | |
| Wall mounted | MSZ-LN**VG | | ● | | | ● | ● | | | | | |
| | MSZ-EF**VE3 | | ● | | ● | ● | ● | ● | ● | | | |
| | MSZ-EF**VG | | ● | | ● | ● | ● | ● | ● | | | |
| | MSZ-AP**VG | ● | | ● | | ● | ● | ● | ● | | | |
| | MSZ-AP**VF | ● | | ● | | | | | | | | |
| 1way cassette | MLZ-KP**VF | | | | | ● | ● | | | | | |
| Floor standing | MFZ-KT**VG | | | | | ● | ● | | | | | |
| 4way cassette | SLZ-M**FA | ● | | | | ● | ● | | | | | |
| Ceiling concealed | PEAD-M**JA(L) | | | | | | | | | | | |
| | SEZ-M**DA(L) | | | | | ● | ● | | | | | |
| Ceiling suspended | PCA-M**KA | | | | | | | | | | | |

**<MXZ-2F53VF3 / MXZ-2F53VFH3>**

| Connectable indoor unit lineups(Heat pump inverter type) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model type | Model name | Capacity class [kW/h] | | | | | | | | | | |
| | | 15 | 18 | 20 | 22 | 25 | 35 | 42 | 50 | 60 | 71 | |
| Wall mounted | MSZ-LN**VG | | | | | | | | | | | |
| | MSZ-LN**VG2 | | ● | | | ● | ● | | | | | |
| | MSZ-BT**VG | | | ● | | ● | ● | | | | | |
| | MSZ-EF**VE3 | | ● | | ● | ● | ● | ● | ● | | | |
| | MSZ-EF**VG | | ● | | ● | ● | ● | ● | ● | | | |
| | MSZ-AP**VG | ● | | ● | | ● | ● | ● | ● | | | |
| | MSZ-AP**VF | ● | | ● | | | | | | | | |
| 1way cassette | MLZ-KP**VF | | | | | ● | ● | | | | | |
| Floor standing | MFZ-KT**VG | | | | | ● | ● | | | | | |
| 4way cassette | SLZ-M**FA | ● | | | | ● | ● | | | | | |
| Ceiling concealed | PEAD-M**JA(L) | | | | | | | | | | | |
| | SEZ-M**DA(L) | | | | | ● | ● | | | | | |
| Ceiling suspended | PCA-M**KA | | | | | | | | | | | |

**<MXZ-3F54VF>**

| Connectable indoor unit lineups(Heat pump inverter type) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model type | Model name | Capacity class [kW/h] | | | | | | | | | | |
| | | 15 | 18 | 20 | 22 | 25 | 35 | 42 | 50 | 60 | 71 | |
| Wall mounted | MSZ-LN**VG | | ● | | | ● | ● | | | | | |
| | MSZ-LN**VG2 | | | | | | | | *1 | | | |
| | MSZ-EF**VE3 | | ● | | ● | ● | ● | ● | ● | | | |
| | MSZ-AP**VG | | | | | ● | ● | ● | ● | | | |
| | MSZ-AP**VF | ● | | ● | | | | | | | | |
| 1way cassette | MLZ-KP**VF | | | | | ● | ● | | ● | | | |
| 4way cassette | SLZ-M**FA | ● | | | | ● | ● | | ● | | | |
| Ceiling concealed | PEAD-M**JA(L) | | | | | | | | ● | | | |
| | SEZ-M**DA(L) | | | | | ● | ● | | ● | | | |
| Ceiling suspended | PCA-M**KA | | | | | | | | ● | | | |

*1: Models with service sub number -E2/ET2 are connectable.

**<MXZ-3F54VF2>**

| Connectable indoor unit lineups(Heat pump inverter type) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model type | Model name | Capacity class [kW/h] | | | | | | | | | | |
| | | 15 | 18 | 20 | 22 | 25 | 35 | 42 | 50 | 60 | 71 | |
| Wall mounted | MSZ-LN**VG | | ● | | | ● | ● | | | | | |
| | MSZ-LN**VG2 | | | | | | | | ● | | | |
| | MSZ-EF**VE3 | | ● | | ● | ● | ● | ● | ● | | | |
| | MSZ-EF**VG | | ● | | ● | ● | ● | ● | ● | | | |
| | MSZ-AP**VG | ● | | ● | | ● | ● | ● | ● | | | |
| | MSZ-AP**VF | ● | | ● | | | | | | | | |
| 1way cassette | MLZ-KP**VF | | | | | ● | ● | | ● | | | |
| Floor tanding | MFZ-KT**VG | | | | | ● | ● | | ● | | | |
| 4way cassette | SLZ-M**FA | ● | | | | ● | ● | | ● | | | |
| Ceiling concealed | PEAD-M**JA(L) | | | | | | | | ● | | | |
| | SEZ-M**DA(L) | | | | | ● | ● | | ● | | | |
| Ceiling suspended | PCA-M**KA | | | | | | | | ● | | | |

**<MXZ-3F54VF3>**

| Connectable indoor unit lineups(Heat pump inverter type) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model type | Model name | Capacity class [kW/h] | | | | | | | | | | |
| | | 15 | 18 | 20 | 22 | 25 | 35 | 42 | 50 | 60 | 71 | |
| Wall mounted | MSZ-LN**VG | | ● | | | ● | ● | | | | | |
| | MSZ-LN**VG2 | | ● | | | ● | ● | | ● | | | |
| | MSZ-BT**VG | | | ● | | ● | ● | | | | | |
| | MSZ-EF**VE3 | | ● | | ● | ● | ● | ● | ● | | | |
| | MSZ-EF**VG | | ● | | ● | ● | ● | ● | ● | | | |
| | MSZ-AP**VG | ● | | ● | | ● | ● | ● | ● | ● | | |
| | MSZ-AP**VF | ● | | ● | | | | | | | | |
| 1way cassette | MLZ-KP**VF | | | | | ● | ● | | ● | | | |
| Floor standing | MFZ-KT**VG | | | | | ● | ● | | ● | | | |
| 4way cassette | SLZ-M**FA | ● | | | | ● | ● | | ● | | | |
| Ceiling concealed | PEAD-M**JA(L) | | | | | | | | ● | | | |
| | SEZ-M**DA(L) | | | | | ● | ● | | ● | ● | | |
| Ceiling suspended | PCA-M**KA | | | | | | | | ● | ● | | |

**<MXZ-3F68VF / MXZ-4F72VF>**

| Connectable indoor unit lineups(Heat pump inverter type) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model type | Model name | Capacity class [kW/h] | | | | | | | | | | |
| | | 15 | 18 | 20 | 22 | 25 | 35 | 42 | 50 | 60 | 71 | |
| Wall mounted | MSZ-LN**VG | | ● | | | ● | ● | | | | | |
| | MSZ-LN**VG2 | | | | | | | | *1 | | | |
| | MSZ-EF**VE3 | | ● | | ● | ● | ● | ● | ● | | | |
| | MSZ-AP**VG | | | | | ● | ● | ● | ● | | | |
| | MSZ-AP**VF | ● | | ● | | | | | | | | |
| 1way cassette | MLZ-KP**VF | | | | | ● | ● | | ● | | | |
| 4way cassette | SLZ-M**FA | ● | | | | ● | ● | | ● | | | |
| Ceiling concealed | PEAD-M**JA(L) | | | | | | | | ● | | | |
| | SEZ-M**DA(L) | | | | | ● | ● | | ● | ● | | |
| Ceiling suspended | PCA-M**KA | | | | | | | | ● | ● | | |

*1: Models with service sub number -E2/ET2 are connectable.

**<MXZ-3F68VF2 / MXZ-4F72VF2 / MXZ-4F80VF2>**

| Connectable indoor unit lineups(Heat pump inverter type) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model type | Model name | Capacity class [kW/h] | | | | | | | | | | |
| | | 15 | 18 | 20 | 22 | 25 | 35 | 42 | 50 | 60 | 71 | |
| Wall mounted | MSZ-LN**VG | | ● | | | ● | ● | | | | | |
| | MSZ-LN**VG2 | | | | | | | | ● | | | |
| | MSZ-EF**VE3 | | ● | | ● | ● | ● | ● | ● | | | |
| | MSZ-EF**VG | | ● | | ● | ● | ● | ● | ● | | | |
| | MSZ-AP**VG | ● | | ● | | ● | ● | ● | ● | | | |
| | MSZ-AP**VF | ● | | ● | | | | | | | | |
| 1way cassette | MLZ-KP**VF | | | | | ● | ● | | ● | | | |
| Floor standing | MFZ-KT**VG | | | | | ● | ● | | ● | | | |
| 4way cassette | SLZ-M**FA | ● | | | | ● | ● | | ● | | | |
| Ceiling concealed | PEAD-M**JA(L) | | | | | | | | ● | | | |
| | SEZ-M**DA(L) | | | | | ● | ● | | ● | ● | | |
| Ceiling suspended | PCA-M**KA | | | | | | | | ● | ● | | |

**<MXZ-3F68VF3 / MXZ-4F72VF3 / MXZ-4F80VF3>**

| Connectable indoor unit lineups(Heat pump inverter type) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model type | Model name | Capacity class [kW/h] | | | | | | | | | | |
| | | 15 | 18 | 20 | 22 | 25 | 35 | 42 | 50 | 60 | 71 | |
| Wall mounted | MSZ-LN**VG | | ● | | | ● | ● | | | | | |
| | MSZ-LN**VG2 | | ● | | | ● | ● | | ● | | | |
| | MSZ-BT**VG | | | ● | | ● | ● | | | | | |
| | MSZ-EF**VE3 | | ● | | ● | ● | ● | ● | ● | | | |
| | MSZ-EF**VG | | ● | | ● | ● | ● | ● | ● | | | |
| | MSZ-AP**VG | ● | | ● | | ● | ● | ● | ● | ● | | |
| | MSZ-AP**VF | ● | | ● | | | | | | | | |
| 1way cassette | MLZ-KP**VF | | | | | ● | ● | | ● | | | |
| Floor standing | MFZ-KT**VG | | | | | ● | ● | | ● | | | |
| 4way cassette | SLZ-M**FA | ● | | | | ● | ● | | ● | | | |
| Ceiling concealed | PEAD-M**JA(L) | | | | | | | | ● | | | |
| | SEZ-M**DA(L) | | | | | ● | ● | | ● | ● | | |
| Ceiling suspended | PCA-M**KA | | | | | | | | ● | ● | | |

**<MXZ-4F83VF / MXZ-5F102VF / MXZ-6F122VF / MXZ-4F83VFHZ>**

| Connectable indoor unit lineups(Heat pump inverter type) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Model type | Model name | Capacity class [kW/h] | | | | | | | | | |
| | | 15 | 18 | 20 | 22 | 25 | 35 | 42 | 50 | 60 | 71 |
| Wall mounted | MSZ-LN**VG2 | | ● | | | ● | ● | | ● | | |
| | MSZ-BT**VG | | | ● | | ● | ● | | | | |
| | MSZ-EF**VG | | ● | | ● | ● | ● | ● | ● | | |
| | MSZ-AP**VG | ● | | ● | | ● | ● | ● | ● | ● | ● |
| 1way cassette | MLZ-KP**VF | | | | | ● | ● | | ● | | |
| Floor standing | MFZ-KT**VG | | | | | ● | ● | | ● | | |
| 4way cassette | SLZ-M**FA | ● | | | | ● | ● | | ● | | |
| Floor standing | SFZ-M**VA | | | | | ● | ● | | ● | ● | ● |
| Ceiling concealed | SEZ-M**DA(L) | | | | | ● | ● | | ● | ● | ● |

**<MXZ-2F53VFHZ>**

| Connectable indoor unit lineups(Heat pump inverter type) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Model type | Model name | Capacity class [kW/h] | | | | | | | | | |
| | | 15 | 18 | 20 | 22 | 25 | 35 | 42 | 50 | 60 | 71 |
| Wall mounted | MSZ-LN**VG2 | | ● | | | ● | ● | | | | |
| | MSZ-BT**VG | | | ● | | ● | ● | | | | |
| | MSZ-EF**VG | | ● | | ● | ● | ● | ● | ● | | |
| | MSZ-AP**VG | ● | | ● | | ● | ● | ● | ● | | |
| 1way cassette | MLZ-KP**VF | | | | | ● | ● | | ● | | |
| Floor standing | MFZ-KT**VG | | | | | ● | ● | | ● | | |
| 4way cassette | SLZ-M**FA | ● | | | | ● | ● | | ● | | |
| Floor standing | SFZ-M**VA | | | | | ● | ● | | ● | | |
| Ceiling concealed | SEZ-M**DA(L) | | | | | ● | ● | | ● | | |

# 1 TECHNICAL CHANGES

**MXZ-2F33VF -E1, ET1**
**MXZ-2F42VF -E1, ET1**
**MXZ-2F53VF -E1, ET1**
**MXZ-2F53VFH -E1**
**MXZ-3F54VF -E1, ET1**
**MXZ-3F68VF -E1, ET1**
**MXZ-4F72VF -E1, ET1**
**MXZ-4F83VF -E1, ET1**
**MXZ-5F102VF -E1, ET1**
**MXZ-6F122VF-E1, ET1**
**MXZ-2F53VFHZ-E1**
**MXZ-4F83VFHZ-E1**
1. New model

**MXZ-3F54VF -E1, ET1 → MXZ-3F54VF -E2, ET2**
**MXZ-3F68VF -E1, ET1 → MXZ-3F68VF -E2, ET2**
**MXZ-4F72VF -E1, ET1 → MXZ-4F72VF -E2, ET2**
1. LEV-R has been changed.
2. Outdoor control P. C. board has been changed.

**MXZ-3F54VF -E2, ET2 → MXZ-3F54VF2 -E1, ET1**
**MXZ-3F68VF -E2, ET2 → MXZ-3F68VF2 -E1, ET1**
**MXZ-4F72VF -E2, ET2 → MXZ-4F72VF2 -E1, ET1**
1. Pre charged refrigerant amount and additional refrigerant amount have been changed.
2. Outdoor control P.C. board has been changed.
3. Power board has been changed.
4. LEV R has been changed.

**MXZ-4F80VF2 -E1, ET1**
1. New model

**MXZ-2F33VF -E1, ET1 → MXZ-2F33VF2 -E1, ET1**
**MXZ-2F42VF -E1, ET1 → MXZ-2F42VF2 -E1, ET1**
**MXZ-2F53VF -E1, ET1 → MXZ-2F53VF2 -E1, ET1**
**MXZ-2F53VFH -E1 → MXZ-2F53VFH2 -E1, ET1**
1. Outdoor control P.C. board has been changed.
2. Outdoor fan motor has been changed.

**MXZ-2F33VF2 -E1, ET1 → MXZ-2F33VF3 -E1, ET1**
**MXZ-2F42VF2 -E1, ET1 → MXZ-2F42VF3 -E1, ET1**
**MXZ-2F53VF2 -E1, ET1 → MXZ-2F53VF3 -E1, ET1**
**MXZ-2F53VFH2 -E1 → MXZ-2F53VFH3 -E1**
**MXZ-3F54VF2 -E1, ET1 → MXZ-3F54VF3 -E1, ET1**
**MXZ-3F68VF2 -E1, ET1 → MXZ-3F68VF3 -E1, ET1**
**MXZ-4F72VF2 -E1, ET1 → MXZ-4F72VF3 -E1, ET1**
**MXZ-4F80VF2 -E1, ET1 → MXZ-4F80VF3 -E1, ET1**

**MXZ-2F33VF3 -E1 → MXZ-2F33VF3 -E2**
**MXZ-2F42VF3 -E1 → MXZ-2F42VF3 -E2**
**MXZ-2F53VF3 -E1 → MXZ-2F53VF3 -E2**
**MXZ-2F53VFH3 -E1 → MXZ-2F53VFH3 -E2**
1. Model name has been changed.

# 2 SAFETY PRECAUTION

**MEANINGS OF SYMBOLS DISPLAYED ON THE UNIT**

| | | |
|---|---|---|
|  | **WARNING** (Risk of fire) | This mark is for R32 refrigerant only. Refrigerant type is written on nameplate of outdoor unit.<br>In case that refrigerant type is R32, this unit uses a flammable refrigerant.<br>If refrigerant leaks and comes in contact with fire or heating part, it will create harmful gas and there is risk of fire. |
|  | Read the OPERATION MANUAL carefully before operation. | |
|  | Service personnel are required to carefully read the OPERATION MANUAL and INSTALLATION MANUAL before operation. | |
|  | Further information is available in the OPERATION MANUAL, INSTALLATION MANUAL, and the like. | |

## 2-1. ALWAYS OBSERVE FOR SAFETY

**Before obtaining access to terminal, all supply circuits must be disconnected.**

## 2-2. CAUTIONS RELATED TO NEW REFRIGERANT

**Cautions for units utilizing refrigerant R32**

**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.
- Discharge the condenser before the work involving the electric parts.

**Use new refrigerant pipes.**

In case of using the existing pipes for R22, be careful with the following.

· Be sure to clean the pipes and make sure that the insides of the pipes are clean.
· Change flare nut to the one provided with this product. Use a newly flared pipe.
· Avoid using thin pipes.

**Make sure that the inside and outside of refrigerant piping is clean and it has no contaminants such as sulfur, oxides, dirt, shaving particles, etc, which are hazard to refrigerant cycle.**
**In addition, use pipes with specified thickness.**

Contamination inside refrigerant piping can cause deterioration of refrigerant oil, etc.

**Store the piping indoors, and both ends of the piping sealed until just before brazing.**
**(Leave elbow joints, etc. in their packaging.)**

If dirt, dust or moisture enters into refrigerant cycle, that can cause deterioration of refrigerant oil or malfunction of compressor.

**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 refrigerating 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.
- When opening or closing the valve below freezing temperatures, refrigerant may spurt out from the valve gap, resulting in injuries.

**Use a vacuum pump with a reverse flow check valve.**

Vacuum pump oil may flow back into refrigerant cycle and that can cause deterioration of refrigerant oil, etc.

**Use the following tools specifically designed for use with R32 refrigerant.**

The following tools are necessary to use R32 refrigerant.

| Tools for R32 | |
|---|---|
| Gauge manifold | Flare tool |
| Charge hose | Size adjustment gauge |
| Gas leak detector | Vacuum pump adaptor |
| Torque wrench | Electronic refrigerant charging scale |

**Handle tools with care.**

If dirt, dust or moisture enters into refrigerant cycle, that can cause deterioration of refrigerant oil or malfunction of compressor.

**The refrigerant oil applied to flare and flange connections must be ester oil, ether oil or alkylbenzene oil in a small amount.**

If large amount of mineral oil enters, that can cause deterioration of refrigerant oil, etc.

**Do not use refrigerant other than R32.**

If other refrigerant (R22, etc.) is used, chlorine in refrigerant can cause deterioration of refrigerant oil, etc.

**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.

**Ventilate the room if refrigerant leaks during operation. If refrigerant comes into contact with a flame, poisonous gases will be released.**

## [1] Warning for service

(1) Do not alter the unit.
(2) For installation and relocation work, follow the instructions in the Installation Manual and use tools and pipe components specifically made for use with refrigerant specified in the outdoor unit installation manual.
(3) Ask a dealer or an authorized technician to install, relocate and repair the unit.
For appliances not accessible to the general public.
(4) Refrigerant pipes connection shall be accessible for maintenance purposes.
(5) If the air conditioner is installed in a small room or closed room, measures must be taken to prevent the refrigerant concentration in the room from exceeding the safety limit in the event of refrigerant leakage. Should the refrigerant leak and cause the concentration limit to be exceeded, hazards due to lack of oxygen in the room may result.
(6) Keep gas-burning appliances, electric heaters, and other fire sources (ignition sources) away from the location where installation, repair, and other air conditioner work will be performed.
If refrigerant comes into contact with a flame, poisonous gases will be released.
(7) When installing or relocating, or servicing the air conditioner, use only the specified refrigerant (R32) to charge the refrigerant lines.
Do not mix it with any other refrigerant and do not allow air to remain in the lines.
If air is mixed with the refrigerant, then it can be the cause of abnormal high pressure in the refrigerant line, and may result in an explosion and other hazards.
(8) After installation has been completed, check for refrigerant leaks. If refrigerant leaks into the room and comes into contact with the flame of a heater or portable cooking range, poisonous gases will be released.
(9) Do not use low temperature solder alloy in case of brazing the refrigerant pipes.
(10) When performing brazing work, be sure to ventilate the room sufficiently. Make sure that there are no hazardous or flammable materials nearby.
When performing the work in a closed room, small room, or similar location, make sure that there are no refrigerant leaks before performing the work.
If refrigerant leaks and accumulates, it may ignite or poisonous gases may be released.
(11) Do not install the unit in places where refrigerant may build-up or places with poor ventilation such as a semi-basement or a sunken place in outdoor: Refrigerant is heavier than air, and inclined to fall away from the leak source.
(12) Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
(13) 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).
(14) Do not pierce or burn.
(15) Be aware that refrigerants may not contain an odour.
(16) Pipe-work shall be protected from physical damage.
(17) The installation of pipe-work shall be kept to a minimum.
(18) Compliance with national gas regulations shall be observed.
(19) Keep any required ventilation openings clear of obstruction.
(20) Servicing shall be performed only as recommended by the manufacturer.
(21) The appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specified for operation.
(22) Maintenance, service and repair operations shall be performed by authorized technician with required qualification.
(23) Be sure to have appropriate ventilation in order to prevent ignition. Furthermore, be sure to carry out fire prevention measures that there are no dangerous or flammable objects in the surrounding area.

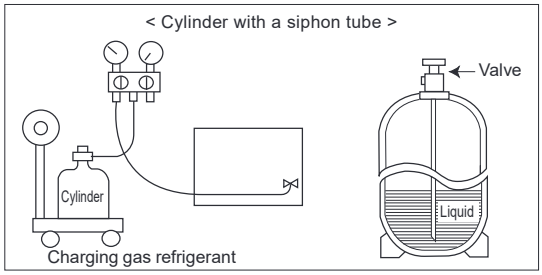
## [2] Cautions for service

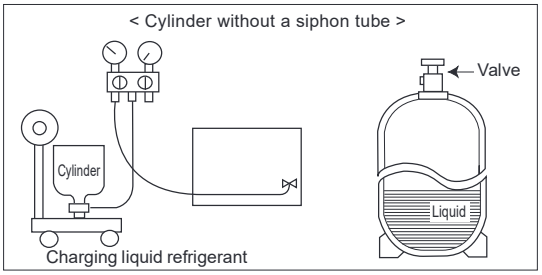
(1) Perform service after recovering the refrigerant left in unit completely.
(2) Do not release refrigerant in the air.
(3) After completing service, charge the cycle with specified amount of refrigerant.
(4) When performing service, install a filter drier simultaneously.
Be sure to use a filter drier for new refrigerant.

## [3] Additional refrigerant charge

**When charging directly from cylinder**

R32 is a single refrigerant and its composition does not change. Therefore, both liquid charging and gas charging are possible. Liquid charging of refrigerant all at once from the low-pressure side may cause the compressor malfunction. Accordingly, make sure that charging is gradual.



## [4] Cautions for unit using R32 refrigerant

**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

(1-1) Checks on the Area

Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimized.

For repair to the refrigerating systems, (1-3) to (1-7) shall be completed prior to conducting work on the systems.

(1-2) 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.

(1-3) 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. The area around the workspace shall be sectioned off. Ensure that the conditions within the area have been made safe by control of flammable material.

(1-4) 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.

(1-5) Presence of Fire Extinguisher

If any hot work is to be conducted on the refrigeration 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.

(1-6) No Ignition Sources

No person carrying out work in relation to a refrigeration system which involves exposing any pipe work shall use any sources of ignition in such a manner that it may 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.

(1-7) 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.

(1-8) Checks on the Refrigeration 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 charge size 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.
- Marking to the equipment continues to be visible and legible. Markings and signs that are illegible shall be corrected.
- Refrigeration pipe or components are installed in a position where they are unlikely to be exposed to any substance which may corrode refrigerant containing components, unless the components are constructed of materials which are inherently resistant to being corroded or are suitably protected against being corroded.

(1-9) Checks on 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) Repairs to Sealed Components

(2-1) During repairs to sealed components, all electrical supplies shall be disconnected from the equipment being worked upon prior to any removal of sealed covers, etc. If it is absolutely necessary to have an electrical supply to equipment during servicing, then a permanently operating form of leak detection shall be located at the most critical point to warn of a potentially hazardous situation.

(2-2) Particular attention shall be paid to the following to ensure that by working on electrical components, the casing is not altered in such a way that the level of protection is affected. This shall include damage to cables, excessive number of connections, terminals not made to original specification, damage to seals, incorrect fitting of glands, etc.

Ensure that the apparatus is mounted securely.

Ensure that seals or sealing materials have not degraded to the point that they no longer serve the purpose of preventing the ingress of flammable atmospheres.

Replacement parts shall be in accordance with the manufacturer’s specifications.

(3) Repair to intrinsically Safe Components
Do not apply any permanent inductive or capacitance loads to the circuit without ensuring that this will not exceed the permissible voltage and current permitted for the equipment in use.
Intrinsically safe components are the only types that can be worked on while live in the presence of a flammable atmosphere. The test apparatus shall be at the correct rating.
Replace components only with parts specified by the manufacturer. Other parts may result in the ignition of refrigerant in the atmosphere from a leak.

(4) 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.

(5) 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.

(6) Leak Detection Methods
Electronic leak detectors may be used to detect refrigerant leaks but, in the case of flammable refrigerants, the sensitivity may not be adequate, or may 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 suitable for use with most refrigerants but the use of detergents containing chlorine shall be avoided as the chlorine may 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. For appliances containing flammable refrigerants, oxygen free nitrogen (OFN) shall then be purged through the system both before and during the brazing process.

(7) Removal and 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:
- remove refrigerant
- purge the circuit with inert gas
- evacuate
- purge again with inert gas
- open the circuit by cutting or brazing.

The refrigerant charge shall be recovered into the correct recovery cylinders. For appliances containing flammable refrigerants, the system shall be “flushed” with OFN to render the unit safe. This process may need to be repeated several times.
Compressed air or oxygen shall not be used for purging refrigerant systems.
For appliances containing flammable refrigerants, flushing shall be achieved by breaking the vacuum in the system with OFN 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. When the final OFN charge is used, the system shall be vented down to atmospheric pressure to enable work to take place. This operation is absolutely vital if brazing operations on the pipe-work are to take place.
Ensure that the outlet for the vacuum pump is not close to any ignition sources and that ventilation is available.

(8) 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 minimize the amount of refrigerant contained in them.
- Cylinders shall be kept upright.
- Ensure that the refrigeration system is earthed prior to charging the system with refrigerant.
- Label the system when charging is complete (if not already).
- 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.

(9) 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 reclaimed refrigerant. It is essential that electrical power is available before the task is commenced.
a) Become familiar with the equipment and its operation.

b) Isolate system electrically.
c) 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.
d) Pump down refrigerant system, if possible.
e) If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system.
f) Make sure that cylinder is situated on the scales before recovery takes place.
g) Start the recovery machine and operate in accordance with manufacturer's instructions.
h) Do not overfill cylinders. (No more than 80 % volume liquid charge).
i) Do not exceed the maximum working pressure of the cylinder, even temporarily.
j) 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.
k) Recovered refrigerant shall not be charged into another refrigeration system unless it has been cleaned and checked.

(10) Labelling

Equipment shall be labelled 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.

(11) Recovery

When removing refrigerant from a system, either for servicing or decommissioning, it is recommended good practice 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 are available. All cylinders to be used are designated for the recovered refrigerant and labelled 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 all appropriate refrigerants including, when applicable, flammable refrigerants. 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. Before using the recovery machine, check that it is in satisfactory working order, has been properly maintained and that any associated electrical components are sealed to prevent ignition in the event of a refrigerant release. Consult manufacturer if in doubt.

The recovered refrigerant shall be returned to the refrigerant supplier 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 evacuation process shall be carried out prior to returning the compressor to the suppliers. Only electric heating to the compressor body shall be employed to accelerate this process. When oil is drained from a system, it shall be carried out safely.

## [5] Service tools

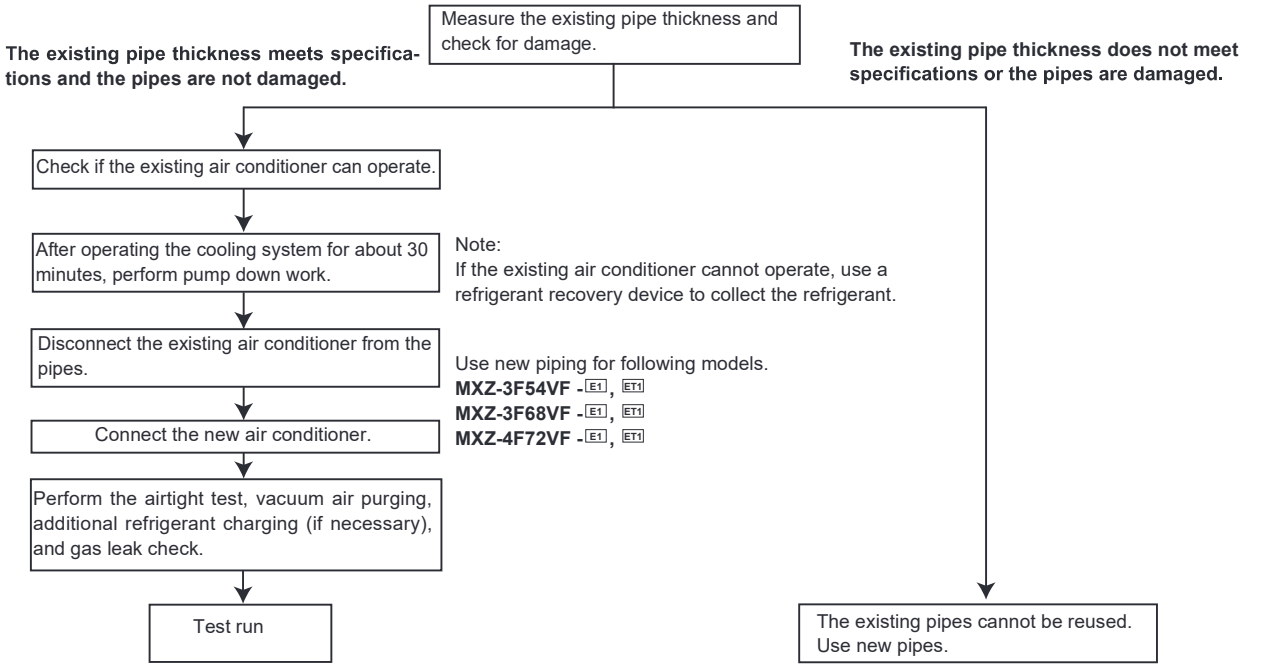
**Use the below service tools as exclusive tools for R32 refrigerant.**

| No. | Tool name | Specifications |
|---|---|---|
| ① | Gauge manifold | · Only for R32 |
| | | · Use the existing fitting specifications. (UNF1/2) |
| | | · Use high-tension side pressure of 5.3MPa·G or over. |
| ② | Charge hose | · Only for R32 |
| | | · Use pressure performance of 5.09MPa·G or over. |
| ③ | Electronic scale | — |
| ④ | Gas leak detector | · Use the detector for R134a, R407C, R410a or R32. |
| ⑤ | Adaptor for reverse flow check | · Attach on vacuum pump. |
| ⑥ | Refrigerant charge base | — |
| ⑦ | Refrigerant cylinder | · Only for R32<br>· Cylinder with syphon |
| ⑧ | Refrigerant recovery equipment | — |

## 2-3. PRECAUTIONS WHEN REUSING EXISTING R22/R410a REFRIGERANT PIPES

**(1) Flowchart**

- Refer to the flowchart below to determine if the existing pipes can be used and if it is necessary to use a filter dryer.
- If the diameter of the existing pipes is different from the specified diameter, refer to technological data materials to confirm if the pipes can be used.



**(2) Cautions for refrigerant piping work**

New refrigerant R32 is adopted for replacement inverter series. Although the refrigerant piping work for R32 is same as for R22, exclusive tools are necessary so as not to mix with different kind of refrigerant. Furthermore as the working pressure of R32 is 1.6 times higher than that of R22, their sizes of flared sections and flare nuts are different.

① Thickness of pipes

Because the working pressure of R32 is higher compared to R22, be sure to use refrigerant piping with thickness shown below. (Never use pipes of 0.7 mm or below.)

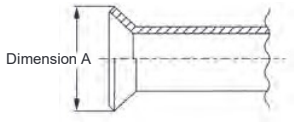
Diagram below: Piping diameter and thickness

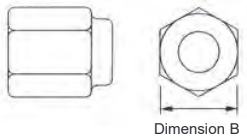
| Nominal dimensions(inch) | Outside diameter (mm) | Thickness (mm) | |
|---|---|---|---|
| | | R32/R410a | R22 |
| 1/4 | 6.35 | 0.8 | 0.8 |
| 3/8 | 9.52 | 0.8 | 0.8 |
| 1/2 | 12.70 | 0.8 | 0.8 |
| 5/8 | 15.88 | 1.0 | 1.0 |
| 3/4 | 19.05 | — | 1.0 |

② Dimensions of flare cutting and flare nut

The component molecules in HFC refrigerant are smaller compared to conventional refrigerants. In addition to that, R32 is a refrigerant, which has higher risk of leakage because its working pressure is higher than that of other refrigerants. Therefore, to enhance airtightness and strength, flare cutting dimension of copper pipe for R32 has been specified separately from the dimensions for other refrigerants as shown below. The dimension B of flare nut for R32 also has partly been changed to increase strength as shown below. Set copper pipe correctly referring to copper pipe flaring dimensions for R32 below. For 1/2 and 5/8 inch pipes, the dimension B changes.

Use torque wrench corresponding to each dimension.




Flare cutting dimensions

| Nominal dimensions(inch) | Outside diameter(mm) | Dimension A ($^{+0}_{-0.4}$) (mm) | |
|---|---|---|---|
| | | R32/R410a | R22 |
| 1/4 | 6.35 | 9.1 | 9.0 |
| 3/8 | 9.52 | 13.2 | 13.0 |
| 1/2 | 12.70 | 16.6 | 16.2 |
| 5/8 | 15.88 | 19.7 | 19.4 |
| 3/4 | 19.05 | — | 23.3 |

Flare nut dimensions

| Nominal dimensions(inch) | Outside diameter(mm) | Dimension B (mm) | |
|---|---|---|---|
| | | R32/R410a | R22 |
| 1/4 | 6.35 | 17.0 | 17.0 |
| 3/8 | 9.52 | 22.0 | 22.0 |
| 1/2 | 12.70 | 26.0 | 24.0 |
| 5/8 | 15.88 | 29.0 * | 27.0 |
| 3/4 | 19.05 | — | 36.0 |

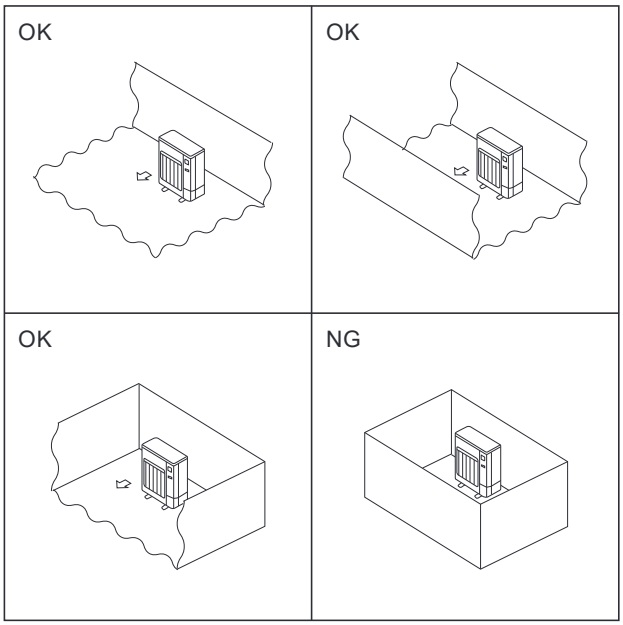
* 36.0mm for indoor unit of RP100, 125 and 140

③ Tools for R32 (The following table shows whether conventional tools can be used or not.)

| Tools and materials | Use | R32 tools | Can R22 tools be used? | Can R407C tools be used? | Can R410a tools be used? |
|---|---|---|---|---|---|
| Gauge manifold | Air purge, refrigerant charge and operation check | Tool exclusive for R32 | × | × | ○ |
| Charge hose | | Tool exclusive for R32 | × | × | ○ |
| Gas leak detector | Gas leak check | Tool for HFC refrigerant | × | ○ | ○ |
| Refrigerant recovery equipment | Refrigerant recovery | Tool exclusive for R32 | × | × | ○ |
| Refrigerant cylinder | Refrigerant charge | Tool exclusive for R32 | × | × | × |
| Safety charger | Prevent compressor malfunction when charging refrigerant by spraying liquid refrigerant | Tool exclusive for R32 | × | × | ○ |
| Charge valve | Prevent gas from blowing out when detaching charge hose | Tool exclusive for R32 | × | × | ○ |
| Vacuum pump | Vacuum drying and air purge | Tools for other refrigerants can be used if equipped with adapter for reverse flow check | △(Usable if equipped with adapter for reverse flow) | △(Usable if equipped with adapter for reverse flow) | △(Usable if equipped with adapter for reverse flow) |
| Flare tool | Flaring work of piping | Tools for other refrigerants can be used by adjusting flaring dimension | △(Usable by adjusting flaring dimension) | △(Usable by adjusting flaring dimension) | △(Usable by adjusting flaring dimension) |
| Bender | Bend the pipes | Tools for other refrigerants can be used | ○ | ○ | ○ |
| Pipe cutter | Cut the pipes | Tools for other refrigerants can be used | ○ | ○ | ○ |
| Welder and nitrogen gas cylinder | Weld the pipes | Tools for other refrigerants can be used | ○ | ○ | ○ |
| Refrigerant charging scale | Refrigerant charge | Tools for other refrigerants can be used | ○ | ○ | ○ |
| Vacuum gauge or thermistor vacuum gauge and vacuum valve | Check the degree of vacuum. (Vacuum valve prevents back flow of oil and refrigerant to thermistor vacuum gauge) | Tools for other refrigerants can be used | ○ | ○ | ○ |
| Charging cylinder | Refrigerant charge | Tool exclusive for R32 | × | – | × |

× : Prepare a new tool. (Use the new tool as the tool exclusive for R32.)
△ : Tools for other refrigerants can be used under certain conditions.
○ : Tools for other refrigerants can be used.

## 2-4. CHOOSING THE OUTDOOR UNIT INSTALLATION LOCATION




R32 is heavier than air—as well as other refrigerants—so tends to accumulate at the base (in the vicinity of the floor). If R32 accumulates around base, it may reach a flammable concentration in case room is small. To avoid ignition, maintaining a safe work environment is required by ensuring appropriate ventilation. If a refrigerant leak is confirmed in a room or an area where there is insufficient ventilation, refrain from using of flames until the work environment can be improved by ensuring appropriate ventilation.
Install outdoor unit in a place where at least one of the four sides is open, and in a sufficiently large space without depressions.

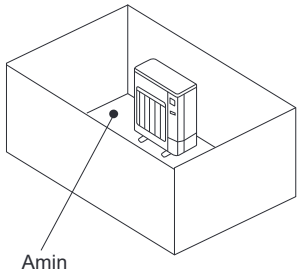
## 2-5. MINIMUM INSTALLATION AREA

If you unavoidably install a unit in a space where all four sides are blocked or there are depressions, confirm that one of these situations (A, B or C) is satisfied.

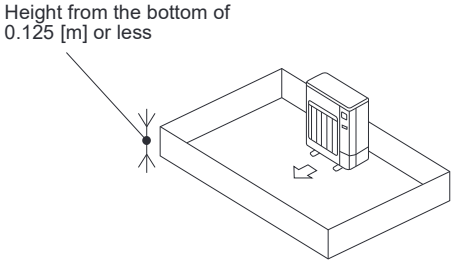
Note: These countermeasures are for keeping safety not for specification guarantee.

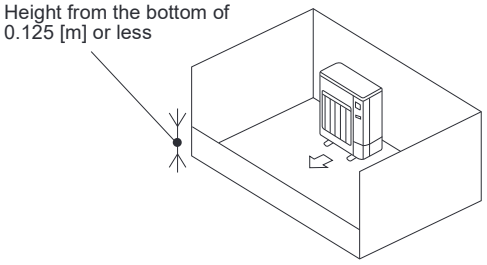
A) Secure sufficient installation space (minimum installation area Amin).
Install in a space with an installation area of Amin or more, corresponding to refrigerant quantity M (factory-charged refrigerant + locally added refrigerant).

| M [kg] | Amin [m²] |
|---|---|
| 1.0 | 12 |
| 1.5 | 17 |
| 2.0 | 23 |
| 2.5 | 28 |
| 3.0 | 34 |
| 3.5 | 39 |
| 4.0 | 45 |
| 4.5 | 50 |
| 5.0 | 56 |
| 5.5 | 62 |
| 6.0 | 67 |
| 6.5 | 73 |
| 7.0 | 78 |
| 7.5 | 84 |

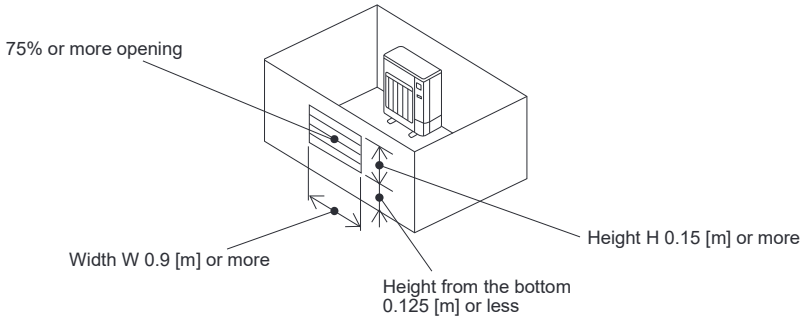



B) Install in a space with a depression height of 0.125 [m] or less.



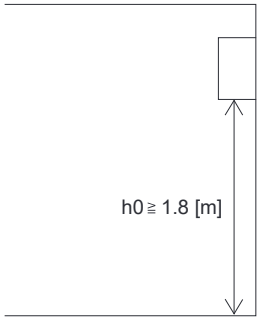
C) Create an appropriate ventilation open area.
Make sure that the width of the open area is 0.9 [m] or more and the height of the open area is 0.15 [m] or more.
However, the height from the bottom of the installation space to the bottom edge of the open area should be 0.125 [m] or less.
Open area should be 75% or more opening.



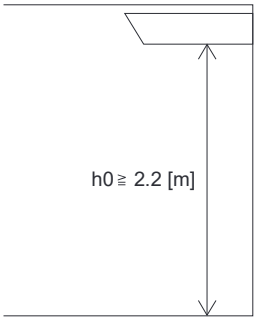

■ Indoor units
Install in a room with a floor area of A min or more, corresponding to refrigerant quantity M (factory-charged refrigerant + locally added refrigerant).
* For the factory-charged refrigerant amount, refer to the spec nameplate or installation manual.
For the amount to be added locally, refer to the installation manual.
Install the indoor unit so that the height from the floor to the bottom of the indoor unit is h0;
for wall mounted: 1.8 m or more;
for ceiling suspended, cassette and ceiling concealed: 2.2 m or more.
When installing floor standing, refer to indoor unit Installation manual.
There are restrictions in installation height for each model, so read the installation manual for the particular unit.

Case 1: for wall mounted, ceiling suspended, cassette and concealed

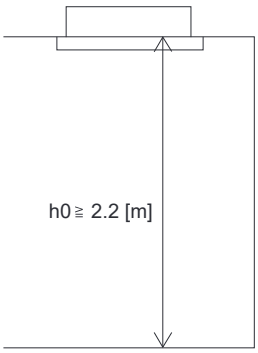
| M [kg] | Amin [m²] |
|---|---|
| 1.0 | 3 |
| 1.5 | 4.5 |
| 2.0 | 6 |
| 2.5 | 7.5 |
| 3.0 | 9 |
| 3.5 | 12 |
| 4.0 | 15.5 |
| 4.5 | 20 |
| 5.0 | 24 |
| 5.5 | 29 |
| 6.0 | 35 |
| 6.5 | 41 |
| 7.0 | 47 |
| 7.5 | 54 |



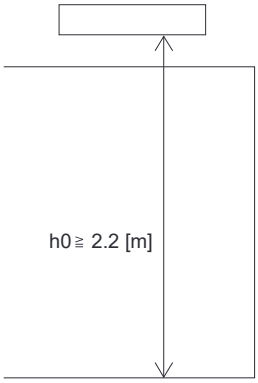
Wall mounted



Ceiling suspended



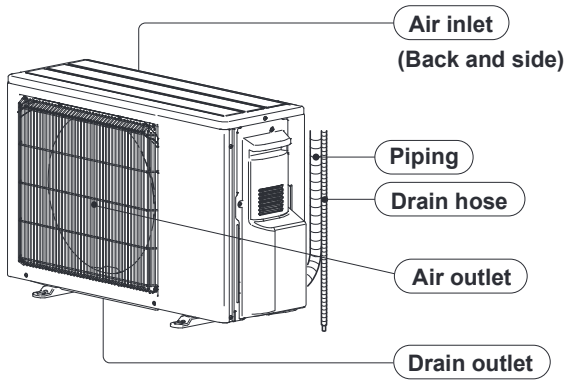
Cassette



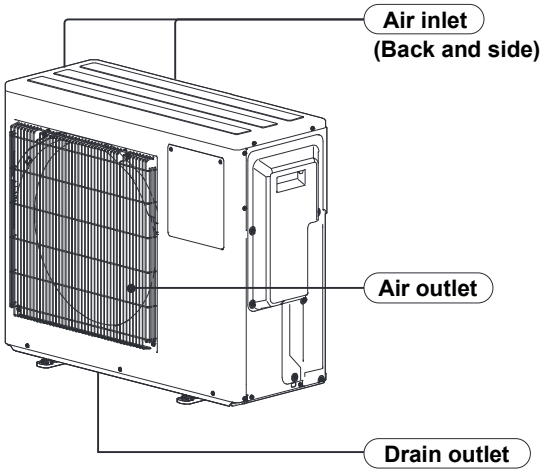
Ceiling concealed

# 3 PART NAMES AND FUNCTIONS

**MXZ-2F33VF MXZ-2F33VF2 MXZ-2F33VF3**
**MXZ-2F42VF MXZ-2F42VF2 MXZ-2F42VF3**
**MXZ-2F53VF MXZ-2F53VF2 MXZ-2F53VF3**
**MXZ-2F53VFH MXZ-2F53VFH2 MXZ-2F53VFH3**



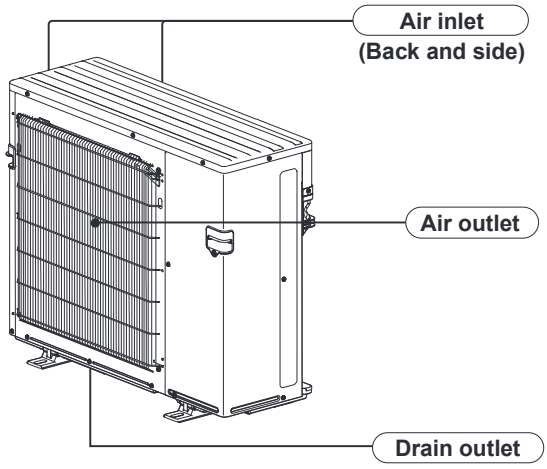

**MXZ-3F54VF MXZ-3F54VF2 MXZ-3F54VF3**
**MXZ-3F68VF MXZ-3F68VF2 MXZ-3F68VF3**
**MXZ-4F72VF MXZ-4F72VF2 MXZ-4F72VF3**
**MXZ-4F80VF2 MXZ-4F80VF3**



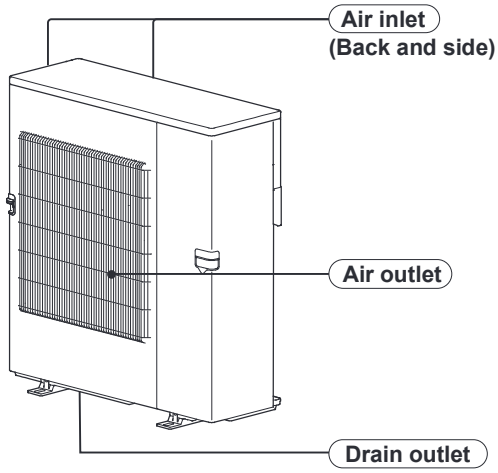

## ACCESSORIES

| Model | | MXZ-2F33VF MXZ-2F33VF2 MXZ-2F33VF3<br>MXZ-2F42VF MXZ-2F42VF2 MXZ-2F42VF3<br>MXZ-2F53VF MXZ-2F53VF2 MXZ-2F53VF3 | MXZ-3F54VF MXZ-3F54VF2 MXZ-3F54VF3<br>MXZ-3F68VF MXZ-3F68VF2 MXZ-3F68VF3<br>MXZ-4F72VF MXZ-4F72VF2 MXZ-4F72VF3<br>MXZ-4F80VF2 MXZ-4F80VF3 |
|---|---|---|---|
| ① | Drain socket | 1 | 1 |
| ② | Drain cap | - | 2 |

**MXZ-4F83VF**
**MXZ-5F102VF**
**MXZ-2F53VFHZ**




**MXZ-4F83VFHZ**
**MXZ-6F122VF**




## ACCESSORIES

| Model | | MXZ-4F83VF MXZ-5F102VF MXZ-6F122VF |
|---|---|---|
| ① | Drain socket | 1 |
| ② | Drain cap | 5 |

# 4 SPECIFICATION

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-2F33VF** | |
| | Outdoor unit power supply | | Single phase<br>220 - 230 - 240 V, 50 Hz | |
| System | Indoor units number | | 2 | |
| | Piping total length | m | Max. 20 | |
| | Connecting pipe length | m | Max. 15 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 3.3 (1.1 - 3.8) | 4.0 (1.0 - 4.1) |
| | Breaker capacity | A | 15 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 850 | 910 |
| | Running current (Total) ✻1, ✻2 | A | 4.3 - 4.1 - 3.9 | 4.6 - 4.4 - 4.2 |
| | Power factor (Total) ✻1, ✻2 | % | 90 | |
| | Starting current (Total) ✻1, ✻2 | A | 4.6 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 3.88 | 4.40 |
| Compressor | Model | | KVB073FYXMC | |
| | Output | W | 470 | |
| | Current ✻1, ✻2 | A | 3.8 | |
| | Refrigeration oil (Model) | L | 0.27 (FW68S) | |
| Fan motor | Model | | RC0J50-FA | |
| | Current ✻1, ✻2 | A | 0.35 | |
| | Dimensions W x H x D | mm | 800 x 550 x 285 | |
| | Weight | kg | 33 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 1,890 | 1,938 |
| | Sound level (Rated) | dB(A) | 49 | 50 |
| | Fan speed (Rated) | rpm | 860 | 880 |
| | Pre-charged refrigerant quantity (R32) | kg | 1.0 | |
| | Max refrigerant quantity (R32) | kg | 1.0 | |

✻1 Measured under rated operating frequency.
✻2 When connected with indoor units below.
**MSZ-AP15VF + MSZ-LN18VG**

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

COOLING INDOOR Dry-bulb temperature 27.0 °C Wet-bulb temperature 19.0 °C
OUTDOOR Dry-bulb temperature 35.0 °C Wet-bulb temperature 24.0 °C
HEATING INDOOR Dry-bulb temperature 20.0 °C
OUTDOOR Dry-bulb temperature 7.0 °C Wet-bulb temperature 6.0 °C

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-2F33VF2** | |
| | Outdoor unit power supply | | Single phase<br>220 - 230 - 240 V, 50 Hz | |
| System | Indoor units number | | 2 | |
| | Piping total length | m | Max. 20 | |
| | Connecting pipe length | m | Max. 15 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 3.3 (1.1 - 3.8) | 4.0 (1.0 - 4.1) |
| | Breaker capacity | A | 15 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 850 | 910 |
| | Running current (Total) ✻1, ✻2 | A | 4.3 - 4.1 - 3.9 | 4.6 - 4.4 - 4.2 |
| | Power factor (Total) ✻1, ✻2 | % | 90 | |
| | Starting current (Total) ✻1, ✻2 | A | 4.6 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 3.88 | 4.40 |
| Compressor | Model | | KVB073FYXMC | |
| | Output | W | 470 | |
| | Current ✻1, ✻2 | A | 3.8 | |
| | Refrigeration oil (Model) | L | 0.27 (FW68S) | |
| Fan motor | Model | | RC0J50-NA | |
| | Current ✻1, ✻2 | A | 0.35 | |
| | Dimensions W x H x D | mm | 800 x 550 x 285 | |
| | Weight | kg | 33 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 1,890 | 1,938 |
| | Sound level (Rated) | dB(A) | 49 | 50 |
| | Fan speed (Rated) | rpm | 860 | 880 |
| | Pre-charged refrigerant quantity (R32) | kg | 1.0 | |
| | Max refrigerant quantity (R32) | kg | 1.0 | |

✻1 Measured under rated operating frequency.
✻2 When connected with indoor units below.
**MSZ-AP15VG + MSZ-LN18VG**

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

COOLING INDOOR Dry-bulb temperature 27.0 °C Wet-bulb temperature 19.0 °C
OUTDOOR Dry-bulb temperature 35.0 °C Wet-bulb temperature 24.0 °C
HEATING INDOOR Dry-bulb temperature 20.0 °C
OUTDOOR Dry-bulb temperature 7.0 °C Wet-bulb temperature 6.0 °C

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-2F33VF3** | |
| | Outdoor unit power supply | | Single phase<br>220 - 230 - 240 V, 50 Hz | |
| System | Indoor units number | | 2 | |
| | Piping total length | m | Max. 20 | |
| | Connecting pipe length | m | Max. 15 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 3.3 (1.1 - 3.8) | 4.0 (1.0 - 4.1) |
| | Breaker capacity | A | 15 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 850 | 910 |
| | Running current (Total) ✻1, ✻2 | A | 4.3 - 4.1 - 3.9 | 4.6 - 4.4 - 4.2 |
| | Power factor (Total) ✻1, ✻2 | % | 90 | |
| | Starting current (Total) ✻1, ✻2 | A | 4.6 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 3.88 | 4.40 |
| Compressor | Model | | KVB073FYXMC | |
| | Output | W | 470 | |
| | Current ✻1, ✻2 | A | 3.8 | |
| | Refrigeration oil (Model) | L | 0.27 (FW68S) | |
| Fan motor | Model | | RC0J50-NA | |
| | Current ✻1, ✻2 | A | 0.35 | |
| | Dimensions W x H x D | mm | 800 x 550 x 285 | |
| | Weight | kg | 33 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 1,890 | 1,938 |
| | Sound level (Rated) | dB(A) | 49 | 50 |
| | Fan speed (Rated) | rpm | 860 | 880 |
| | Pre-charged refrigerant quantity (R32) | kg | 0.8 | |
| | Max refrigerant quantity (R32) | kg | 0.8 | |

✻1 Measured under rated operating frequency.
✻2 When connected with indoor units below.
**MSZ-AP15VG + MSZ-LN18VG2**
**NOTE:** Test conditions are based on ISO 5151. (Refrigerant piping length (one way): 5 m)
COOLING INDOOR Dry-bulb temperature 27.0 °C Wet-bulb temperature 19.0 °C
OUTDOOR Dry-bulb temperature 35.0 °C Wet-bulb temperature 24.0 °C
HEATING INDOOR Dry-bulb temperature 20.0 °C
OUTDOOR Dry-bulb temperature 7.0 °C Wet-bulb temperature 6.0 °C

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-2F42VF** | |
| | Outdoor unit power supply | | Single phase<br>220 - 230 - 240 V, 50 Hz | |
| System | Indoor units number | | 2 | |
| | Piping total length | m | Max. 30 | |
| | Connecting pipe length | m | Max. 20 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 4.2 (1.1 - 4.4) | 4.5 (1.0 - 4.8) |
| | Breaker capacity | A | 15 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 980 | 880 |
| | Running current (Total) ✻1, ✻2 | A | 4.9 - 4.7 - 4.5 | 4.4 - 4.3 - 4.1 |
| | Power factor (Total) ✻1, ✻2 | % | 90 | |
| | Starting current (Total) ✻1, ✻2 | A | 7.6 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 4.29 | 5.11 |
| Compressor | Model | | SVB130FBBMT | |
| | Output | W | 1,100 | |
| | Current ✻1, ✻2 | A | 3.99 | |
| | Refrigeration oil (Model) | L | 0.35 (FW68S) | |
| Fan motor | Model | | RC0J50-FA | |
| | Current ✻1, ✻2 | A | 0.35 | |
| | Dimensions W x H x D | mm | 800 x 550 x 285 | |
| | Weight | kg | 37 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 1,704 | 2,010 |
| | Sound level (Rated) | dB(A) | 44 | 50 |
| | Fan speed (Rated) | rpm | 780 | 910 |
| | Pre-charged refrigerant quantity (R32) | kg | 1.2 | |
| | Max refrigerant quantity (R32) | kg | 1.2 | |

✻1 Measured under rated operating frequency.
✻2 When connected with indoor units below.
**MSZ-LN18VG + MSZ-LN25VG**

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

COOLING INDOOR Dry-bulb temperature 27.0 °C Wet-bulb temperature 19.0 °C
OUTDOOR Dry-bulb temperature 35.0 °C Wet-bulb temperature 24.0 °C
HEATING INDOOR Dry-bulb temperature 20.0 °C
OUTDOOR Dry-bulb temperature 7.0 °C Wet-bulb temperature 6.0 °C

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-2F42VF2** | |
| | Outdoor unit power supply | | Single phase<br>220 - 230 - 240 V, 50 Hz | |
| System | Indoor units number | | 2 | |
| | Piping total length | m | Max. 30 | |
| | Connecting pipe length | m | Max. 20 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 4.2 (1.1 - 4.4) | 4.5 (1.0 - 4.8) |
| | Breaker capacity | A | 15 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 980 | 880 |
| | Running current (Total) ✻1, ✻2 | A | 4.9 - 4.7 - 4.5 | 4.4 - 4.3 - 4.1 |
| | Power factor (Total) ✻1, ✻2 | % | 90 | |
| | Starting current (Total) ✻1, ✻2 | A | 7.6 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 4.29 | 5.11 |
| Compressor | Model | | SVB130FBBMT | |
| | Output | W | 1,100 | |
| | Current ✻1, ✻2 | A | 3.99 | |
| | Refrigeration oil (Model) | L | 0.35 (FW68S) | |
| Fan motor | Model | | RC0J50-NA | |
| | Current ✻1, ✻2 | A | 0.35 | |
| | Dimensions W x H x D | mm | 800 x 550 x 285 | |
| | Weight | kg | 37 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 1,704 | 2,010 |
| | Sound level (Rated) | dB(A) | 44 | 50 |
| | Fan speed (Rated) | rpm | 780 | 910 |
| | Pre-charged refrigerant quantity (R32) | kg | 1.2 | |
| | Max refrigerant quantity (R32) | kg | 1.2 | |

✻1 Measured under rated operating frequency.
✻2 When connected with indoor units below.
**MSZ-LN18VG + MSZ-LN25VG**
**NOTE:** Test conditions are based on ISO 5151. (Refrigerant piping length (one way): 5 m)
COOLING INDOOR Dry-bulb temperature 27.0 °C Wet-bulb temperature 19.0 °C
OUTDOOR Dry-bulb temperature 35.0 °C Wet-bulb temperature 24.0 °C
HEATING INDOOR Dry-bulb temperature 20.0 °C
OUTDOOR Dry-bulb temperature 7.0 °C Wet-bulb temperature 6.0 °C

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-2F42VF3** | |
| | Outdoor unit power supply | | Single phase<br>220 - 230 - 240 V, 50 Hz | |
| System | Indoor units number | | 2 | |
| | Piping total length | m | Max. 30 | |
| | Connecting pipe length | m | Max. 20 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 4.2 (1.1 - 4.4) | 4.5 (1.0 - 4.8) |
| | Breaker capacity | A | 15 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 980 | 880 |
| | Running current (Total) ✻1, ✻2 | A | 4.9 - 4.7 - 4.5 | 4.4 - 4.3 - 4.1 |
| | Power factor (Total) ✻1, ✻2 | % | 90 | |
| | Starting current (Total) ✻1, ✻2 | A | 7.6 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 4.29 | 5.11 |
| Compressor | Model | | SVB130FBBMT | |
| | Output | W | 1,100 | |
| | Current ✻1, ✻2 | A | 3.99 | |
| | Refrigeration oil (Model) | L | 0.35 (FW68S) | |
| Fan motor | Model | | RC0J50-NA | |
| | Current ✻1, ✻2 | A | 0.35 | |
| | Dimensions W x H x D | mm | 800 x 550 x 285 | |
| | Weight | kg | 37 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 1,704 | 2,010 |
| | Sound level (Rated) | dB(A) | 44 | 50 |
| | Fan speed (Rated) | rpm | 780 | 910 |
| | Pre-charged refrigerant quantity (R32) | kg | 1.0 | |
| | Max refrigerant quantity (R32) | kg | 1.0 | |

✻1 Measured under rated operating frequency.
✻2 When connected with indoor units below.
**MSZ-LN18VG2 + MSZ-LN25VG2**

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

COOLING INDOOR Dry-bulb temperature 27.0 °C Wet-bulb temperature 19.0 °C
OUTDOOR Dry-bulb temperature 35.0 °C Wet-bulb temperature 24.0 °C
HEATING INDOOR Dry-bulb temperature 20.0 °C
OUTDOOR Dry-bulb temperature 7.0 °C Wet-bulb temperature 6.0 °C

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-2F53VF** | **MXZ-2F53VFH** |
| | Outdoor unit power supply | | Single phase<br>220 - 230 - 240 V, 50 Hz | |
| System | Indoor units number | | 2 | |
| | Piping total length | m | Max. 30 | |
| | Connecting pipe length | m | Max. 20 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 5.3 (1.1 - 5.6) | 6.4 (1.0 - 7.0) |
| | Breaker capacity | A | 15 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 1,400 | 1,560 |
| | Running current (Total) ✻1, ✻2 | A | 6.5 - 6.2 - 6.0 | 7.5 - 7.1 - 6.8 |
| | Power factor (Total) ✻1, ✻2 | % | 97.5 | 95 |
| | Starting current (Total) ✻1, ✻2 | A | 7.6 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 3.79 | 4.10 |
| Compressor | Model | | SVB130FBBMT | |
| | Output | W | 1,400 | |
| | Current ✻1, ✻2 | A | 6.59 | |
| | Refrigeration oil (Model) | L | 0.35 (FW68S) | |
| Fan motor | Model | | RC0J50-FA | |
| | Current ✻1, ✻2 | A | 0.35 | |
| | Dimensions W x H x D | mm | 800 x 550 x 285 | |
| | Weight | kg | **MXZ-2F53VF:** 37 | **MXZ-2F53VFH:** 38 |
| Special remarks | Air flow (Rated) | $m^3$ /h | 1,962 | 2,082 |
| | Sound level (Rated) | dB(A) | 46 | 51 |
| | Fan speed (Rated) | rpm | 890 | 940 |
| | Pre-charged refrigerant quantity (R32) | kg | 1.2 | |
| | Max refrigerant quantity (R32) | kg | 1.2 | |

✻1 Measured under rated operating frequency.
✻2 When connected with indoor units below.
**MSZ-LN18VG + MSZ-LN35VG**

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

COOLING INDOOR Dry-bulb temperature 27.0 °C Wet-bulb temperature 19.0 °C
OUTDOOR Dry-bulb temperature 35.0 °C Wet-bulb temperature 24.0 °C
HEATING INDOOR Dry-bulb temperature 20.0 °C
OUTDOOR Dry-bulb temperature 7.0 °C Wet-bulb temperature 6.0 °C

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-2F53VF2 MXZ-2F53VFH2** | |
| | Outdoor unit power supply | | Single phase<br>220 - 230 - 240 V, 50 Hz | |
| System | Indoor units number | | 2 | |
| | Piping total length | m | Max. 30 | |
| | Connecting pipe length | m | Max. 20 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 5.3 (1.1 - 5.6) | 6.4 (1.0 - 7.0) |
| | Breaker capacity | A | 15 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 1,400 | 1,560 |
| | Running current (Total) ✻1, ✻2 | A | 6.5 - 6.2 - 6.0 | 7.5 - 7.1 - 6.8 |
| | Power factor (Total) ✻1, ✻2 | % | 97.5 | 95 |
| | Starting current (Total) ✻1, ✻2 | A | 7.6 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 3.79 | 4.10 |
| Compressor | Model | | SVB130FBBMT | |
| | Output | W | 1,400 | |
| | Current ✻1, ✻2 | A | 6.59 | |
| | Refrigeration oil (Model) | L | 0.35 (FW68S) | |
| Fan motor | Model | | RC0J50-NA | |
| | Current ✻1, ✻2 | A | 0.35 | |
| | Dimensions W x H x D | mm | 800 x 550 x 285 | |
| | Weight | kg | **MXZ-2F53VF2:** 37 **MXZ-2F53VFH2:** 38 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 1,962 | 2,082 |
| | Sound level (Rated) | dB(A) | 46 | 51 |
| | Fan speed (Rated) | rpm | 890 | 940 |
| | Pre-charged refrigerant quantity (R32) | kg | 1.2 | |
| | Max refrigerant quantity (R32) | kg | 1.2 | |

✻1 Measured under rated operating frequency.
✻2 When connected with indoor units below.
**MSZ-LN18VG + MSZ-LN35VG**

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

COOLING INDOOR Dry-bulb temperature 27.0 °C Wet-bulb temperature 19.0 °C
OUTDOOR Dry-bulb temperature 35.0 °C Wet-bulb temperature 24.0 °C
HEATING INDOOR Dry-bulb temperature 20.0 °C
OUTDOOR Dry-bulb temperature 7.0 °C Wet-bulb temperature 6.0 °C

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-2F53VF3 MXZ-2F53VFH3** | |
| | Outdoor unit power supply | | Single phase<br>220 - 230 - 240 V, 50 Hz | |
| System | Indoor units number | | 2 | |
| | Piping total length | m | Max. 30 | |
| | Connecting pipe length | m | Max. 20 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 5.3 (1.1 - 5.6) | 6.4 (1.0 - 7.0) |
| | Breaker capacity | A | 15 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 1,400 | 1,560 |
| | Running current (Total) ✻1, ✻2 | A | 6.5 - 6.2 - 6.0 | 7.5 - 7.1 - 6.8 |
| | Power factor (Total) ✻1, ✻2 | % | 97.5 | 95 |
| | Starting current (Total) ✻1, ✻2 | A | 7.6 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 3.79 | 4.10 |
| Compressor | Model | | SVB130FBBMT | |
| | Output | W | 1,400 | |
| | Current ✻1, ✻2 | A | 6.59 | |
| | Refrigeration oil (Model) | L | 0.35 (FW68S) | |
| Fan motor | Model | | RC0J50-NA | |
| | Current ✻1, ✻2 | A | 0.35 | |
| | Dimensions W x H x D | mm | 800 x 550 x 285 | |
| | Weight | kg | **MXZ-2F53VF3:** 37 **MXZ-2F53VFH3:** 38 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 1,962 | 2,082 |
| | Sound level (Rated) | dB(A) | 46 | 51 |
| | Fan speed (Rated) | rpm | 890 | 940 |
| | Pre-charged refrigerant quantity (R32) | kg | 1.0 | |
| | Max refrigerant quantity (R32) | kg | 1.0 | |

✻1 Measured under rated operating frequency.
✻2 When connected with indoor units below.
**MSZ-LN18VG2 + MSZ-LN35VG2**
**NOTE:** Test conditions are based on ISO 5151. (Refrigerant piping length (one way): 5 m)
COOLING INDOOR Dry-bulb temperature 27.0 °C Wet-bulb temperature 19.0 °C
OUTDOOR Dry-bulb temperature 35.0 °C Wet-bulb temperature 24.0 °C
HEATING INDOOR Dry-bulb temperature 20.0 °C
OUTDOOR Dry-bulb temperature 7.0 °C Wet-bulb temperature 6.0 °C

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-3F54VF** | |
| | Outdoor unit power supply | | Single phase<br>220 - 230 - 240 V, 50 Hz | |
| System | Indoor units number | | 2 to 3 | |
| | Piping total length | m | Max. 50 | |
| | Connecting pipe length | m | Max. 25 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 5.4 (2.9 - 6.8) | 7.0 (2.6 - 9.0) |
| | Breaker capacity | A | 25 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 1,320 | 1,400 |
| | Running current (Total) ✻1, ✻2 | A | 6.0 - 5.7 - 5.5 | 6.4 - 6.1 - 5.9 |
| | Power factor (Total) ✻1, ✻2 | % | 99 | |
| | Starting current (Total) ✻1, ✻2 | A | 6.7 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 4.09 | 5.00 |
| Compressor | Model | | SVB130FBBM1T | |
| | Output | W | 1,400 | |
| | Current ✻1, ✻2 | A | 5.06 | |
| | Refrigeration oil (Model) | L | 0.6 (FW68S) | |
| Fan motor | Model | | SIC-82FX-F764-1 | |
| | Current ✻1, ✻2 | A | 0.5 | |
| | Dimensions W x H x D | mm | 840 x 710 x 330 | |
| | Weight | kg | 57 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 1,860 | 1,632 |
| | Sound level (Rated) | dB(A) | 46 | 50 |
| | Fan speed (Rated) | rpm | 600 | 560 |
| | Pre-charged refrigerant quantity (R32) | kg | 1.4 | |
| | Max refrigerant quantity (R32) | kg | 2.4 | |

✻1 Measured under rated operating frequency.
✻2 When connected with indoor units below.
**MSZ-LN18VG + MSZ-LN18VG + MSZ-LN18VG**

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

COOLING INDOOR Dry-bulb temperature 27.0 °C Wet-bulb temperature 19.0 °C
OUTDOOR Dry-bulb temperature 35.0 °C Wet-bulb temperature 24.0 °C
HEATING INDOOR Dry-bulb temperature 20.0 °C
OUTDOOR Dry-bulb temperature 7.0 °C Wet-bulb temperature 6.0 °C

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-3F54VF2** | |
| | Outdoor unit power supply | | Single phase<br>220 - 230 - 240 V, 50 Hz | |
| System | Indoor units number | | 2 to 3 | |
| | Piping total length | m | Max. 50 | |
| | Connecting pipe length | m | Max. 25 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 5.4 (2.9 - 6.8) | 7.0 (2.6 - 9.0) |
| | Breaker capacity | A | 25 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 1,320 | 1,400 |
| | Running current (Total) ✻1, ✻2 | A | 6.0 - 5.7 - 5.5 | 6.4 - 6.1 - 5.9 |
| | Power factor (Total) ✻1, ✻2 | % | 99 | |
| | Starting current (Total) ✻1, ✻2 | A | 6.7 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 4.09 | 5.00 |
| Compressor | Model | | SVB130FBBM1T | |
| | Output | W | 1,400 | |
| | Current ✻1, ✻2 | A | 5.06 | |
| | Refrigeration oil (Model) | L | 0.6 (FW68S) | |
| Fan motor | Model | | SIC-82FX-F764-1 | |
| | Current ✻1, ✻2 | A | 0.5 | |
| | Dimensions W x H x D | mm | 840 x 710 x 330 | |
| | Weight | kg | 58 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 1,860 | 1,860 |
| | Sound level (Rated) | dB(A) | 46 | 50 |
| | Fan speed (Rated) | rpm | 600 | 600 |
| | Pre-charged refrigerant quantity (R32) | kg | 2.4 | |
| | Max refrigerant quantity (R32) | kg | 2.4 | |

✻1 Measured under rated operating frequency.
✻2 When connected with indoor units below.
**MSZ-LN18VG + MSZ-LN18VG + MSZ-LN18VG**
**NOTE:** Test conditions are based on ISO 5151. (Refrigerant piping length (one way): 5 m)
COOLING INDOOR Dry-bulb temperature 27.0 °C Wet-bulb temperature 19.0 °C
OUTDOOR Dry-bulb temperature 35.0 °C Wet-bulb temperature 24.0 °C
HEATING INDOOR Dry-bulb temperature 20.0 °C
OUTDOOR Dry-bulb temperature 7.0 °C Wet-bulb temperature 6.0 °C

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-3F54VF3** | |
| | Outdoor unit power supply | | Single phase<br>220 - 230 - 240 V, 50 Hz | |
| System | Indoor units number | | 2 to 3 | |
| | Piping total length | m | Max. 50 | |
| | Connecting pipe length | m | Max. 25 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 5.4 (2.9 - 6.8) | 7.0 (2.6 - 9.0) |
| | Breaker capacity | A | 25 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 1,320 | 1,400 |
| | Running current (Total) ✻1, ✻2 | A | 6.0 - 5.7 - 5.5 | 6.4 - 6.1 - 5.9 |
| | Power factor (Total) ✻1, ✻2 | % | 99 | |
| | Starting current (Total) ✻1, ✻2 | A | 6.7 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 4.09 | 5.00 |
| Compressor | Model | | SVB130FBBM1T | |
| | Output | W | 1,400 | |
| | Current ✻1, ✻2 | A | 5.06 | |
| | Refrigeration oil (Model) | L | 0.6 (FW68S) | |
| Fan motor | Model | | SIC-82FX-F764-1 | |
| | Current ✻1, ✻2 | A | 0.5 | |
| | Dimensions W x H x D | mm | 840 x 710 x 330 | |
| | Weight | kg | 58 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 1,860 | 1,860 |
| | Sound level (Rated) | dB(A) | 46 | 50 |
| | Fan speed (Rated) | rpm | 600 | 600 |
| | Pre-charged refrigerant quantity (R32) | kg | 2.4 | |
| | Max refrigerant quantity (R32) | kg | 2.4 | |

✻1 Measured under rated operating frequency.
✻2 When connected with indoor units below.
**MSZ-LN18VG2 + MSZ-LN18VG2 + MSZ-LN18VG2**
**NOTE:** Test conditions are based on ISO 5151. (Refrigerant piping length (one way): 5 m)
COOLING INDOOR Dry-bulb temperature 27.0 °C Wet-bulb temperature 19.0 °C
OUTDOOR Dry-bulb temperature 35.0 °C Wet-bulb temperature 24.0 °C
HEATING INDOOR Dry-bulb temperature 20.0 °C
OUTDOOR Dry-bulb temperature 7.0 °C Wet-bulb temperature 6.0 °C

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-3F68VF** | |
| | Outdoor unit power supply | | Single phase<br>220 - 230 - 240 V, 50 Hz | |
| System | Indoor units number | | 2 to 3 | |
| | Piping total length | m | Max. 60 | |
| | Connecting pipe length | m | Max. 25 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 6.8 (2.9 - 8.4) | 8.6 (2.6 - 10.6) |
| | Breaker capacity | A | 25 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 1,840 | 1,910 |
| | Running current (Total) ✻1, ✻2 | A | 8.4 - 8.0 - 7.7 | 8.8 - 8.4 - 8.0 |
| | Power factor (Total) ✻1, ✻2 | % | 99 | |
| | Starting current (Total) ✻1, ✻2 | A | 10.1 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 3.70 | 4.50 |
| Compressor | Model | | SVB172FCKM1T | |
| | Output | W | 1,800 | |
| | Current ✻1, ✻2 | A | 8.58 | |
| | Refrigeration oil (Model) | L | 0.6 (FW68S) | |
| Fan motor | Model | | SIC-82FX-F764-1 | |
| | Current ✻1, ✻2 | A | 0.5 | |
| | Dimensions W x H x D | mm | 840 x 710 x 330 | |
| | Weight | kg | 57 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 2,124 | 2,376 |
| | Sound level (Rated) | dB(A) | 48 | 53 |
| | Fan speed (Rated) | rpm | 650 | 700 |
| | Pre-charged refrigerant quantity (R32) | kg | 1.4 | |
| | Max refrigerant quantity (R32) | kg | 2.4 | |

✻1 Measured under rated operating frequency.
✻2 When connected with indoor units below.
**MSZ-LN18VG + MSZ-LN25VG + MSZ-LN25VG**
**NOTE:** Test conditions are based on ISO 5151. (Refrigerant piping length (one way): 5 m)
COOLING INDOOR Dry-bulb temperature 27.0 °C Wet-bulb temperature 19.0 °C
OUTDOOR Dry-bulb temperature 35.0 °C Wet-bulb temperature 24.0 °C
HEATING INDOOR Dry-bulb temperature 20.0 °C
OUTDOOR Dry-bulb temperature 7.0 °C Wet-bulb temperature 6.0 °C

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-3F68VF2** | |
| | Outdoor unit power supply | | Single phase<br>220 - 230 - 240 V, 50 Hz | |
| System | Indoor units number | | 2 to 3 | |
| | Piping total length | m | Max. 60 | |
| | Connecting pipe length | m | Max. 25 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 6.8 (2.9 - 8.4) | 8.6 (2.6 - 10.6) |
| | Breaker capacity | A | 25 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 1,840 | 1,910 |
| | Running current (Total) ✻1, ✻2 | A | 8.4 - 8.0 - 7.7 | 8.8 - 8.4 - 8.0 |
| | Power factor (Total) ✻1, ✻2 | % | 99 | |
| | Starting current (Total) ✻1, ✻2 | A | 10.1 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 3.70 | 4.50 |
| Compressor | Model | | SVB172FCKM1T | |
| | Output | W | 1,800 | |
| | Current ✻1, ✻2 | A | 8.58 | |
| | Refrigeration oil (Model) | L | 0.6 (FW68S) | |
| Fan motor | Model | | SIC-82FX-F764-1 | |
| | Current ✻1, ✻2 | A | 0.5 | |
| | Dimensions W x H x D | mm | 840 x 710 x 330 | |
| | Weight | kg | 58 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 2,124 | 2,376 |
| | Sound level (Rated) | dB(A) | 48 | 53 |
| | Fan speed (Rated) | rpm | 650 | 700 |
| | Pre-charged refrigerant quantity (R32) | kg | 2.4 | |
| | Max refrigerant quantity (R32) | kg | 2.4 | |

✻1 Measured under rated operating frequency.
✻2 When connected with indoor units below.
**MSZ-LN18VG + MSZ-LN25VG + MSZ-LN25VG**

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

COOLING INDOOR Dry-bulb temperature 27.0 °C Wet-bulb temperature 19.0 °C
OUTDOOR Dry-bulb temperature 35.0 °C Wet-bulb temperature 24.0 °C
HEATING INDOOR Dry-bulb temperature 20.0 °C
OUTDOOR Dry-bulb temperature 7.0 °C Wet-bulb temperature 6.0 °C

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-3F68VF3** | |
| | Outdoor unit power supply | | Single phase<br>220 - 230 - 240 V, 50 Hz | |
| System | Indoor units number | | 2 to 3 | |
| | Piping total length | m | Max. 60 | |
| | Connecting pipe length | m | Max. 25 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 6.8 (2.9 - 8.4) | 8.6 (2.6 - 10.6) |
| | Breaker capacity | A | 25 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 1,840 | 1,910 |
| | Running current (Total) ✻1, ✻2 | A | 8.4 - 8.0 - 7.7 | 8.8 - 8.4 - 8.0 |
| | Power factor (Total) ✻1, ✻2 | % | 99 | |
| | Starting current (Total) ✻1, ✻2 | A | 10.1 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 3.70 | 4.50 |
| Compressor | Model | | SVB172FCKM1T | |
| | Output | W | 1,800 | |
| | Current ✻1, ✻2 | A | 8.58 | |
| | Refrigeration oil (Model) | L | 0.6 (FW68S) | |
| Fan motor | Model | | SIC-82FX-F764-1 | |
| | Current ✻1, ✻2 | A | 0.5 | |
| | Dimensions W x H x D | mm | 840 x 710 x 330 | |
| | Weight | kg | 58 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 2,124 | 2,376 |
| | Sound level (Rated) | dB(A) | 48 | 53 |
| | Fan speed (Rated) | rpm | 650 | 700 |
| | Pre-charged refrigerant quantity (R32) | kg | 2.4 | |
| | Max refrigerant quantity (R32) | kg | 2.4 | |

✻1 Measured under rated operating frequency.
✻2 When connected with indoor units below.
**MSZ-LN18VG2 + MSZ-LN25VG2 + MSZ-LN25VG2**
**NOTE:** Test conditions are based on ISO 5151. (Refrigerant piping length (one way): 5 m)
COOLING INDOOR Dry-bulb temperature 27.0 °C Wet-bulb temperature 19.0 °C
OUTDOOR Dry-bulb temperature 35.0 °C Wet-bulb temperature 24.0 °C
HEATING INDOOR Dry-bulb temperature 20.0 °C
OUTDOOR Dry-bulb temperature 7.0 °C Wet-bulb temperature 6.0 °C

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-4F72VF** | |
| | Outdoor unit power supply | | Single phase<br>220 - 230 - 240 V, 50 Hz | |
| System | Indoor units number | | 2 to 4 | |
| | Piping total length | m | Max. 60 | |
| | Connecting pipe length | m | Max. 25 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 7.2 (3.7 - 8.8) | 8.6 (3.4 - 10.7) |
| | Breaker capacity | A | 25 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 1,850 | 1,870 |
| | Running current (Total) ✻1, ✻2 | A | 8.5 - 8.1 - 7.8 | 8.6 - 8.2 - 7.9 |
| | Power factor (Total) ✻1, ✻2 | % | 99 | |
| | Starting current (Total) ✻1, ✻2 | A | 10.1 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 3.89 | 4.60 |
| Compressor | Model | | SVB172FCKM1T | |
| | Output | W | 2,000 | |
| | Current ✻1, ✻2 | A | 6.98 | |
| | Refrigeration oil (Model) | L | 0.6 (FW68S) | |
| Fan motor | Model | | SIC-82FX-F764-1 | |
| | Current ✻1, ✻2 | A | 0.5 | |
| | Dimensions W x H x D | mm | 840 x 710 x 330 | |
| | Weight | kg | 58 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 2,124 | 2,562 |
| | Sound level (Rated) | dB(A) | 48 | 54 |
| | Fan speed (Rated) | rpm | 650 | 740 |
| | Pre-charged refrigerant quantity (R32) | kg | 1.4 | |
| | Max refrigerant quantity (R32) | kg | 2.4 | |

✻1 Measured under rated operating frequency.
✻2 When connected with indoor units below.
**MSZ-LN18VG + MSZ-LN18VG + MSZ-LN18VG + MSZ-LN18VG**

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

COOLING INDOOR Dry-bulb temperature 27.0 °C Wet-bulb temperature 19.0 °C
OUTDOOR Dry-bulb temperature 35.0 °C Wet-bulb temperature 24.0 °C
HEATING INDOOR Dry-bulb temperature 20.0 °C
OUTDOOR Dry-bulb temperature 7.0 °C Wet-bulb temperature 6.0 °C

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-4F72VF2** | |
| | Outdoor unit power supply | | Single phase<br>220 - 230 - 240 V, 50 Hz | |
| System | Indoor units number | | 2 to 4 | |
| | Piping total length | m | Max. 60 | |
| | Connecting pipe length | m | Max. 25 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 7.2 (3.7 - 8.8) | 8.6 (3.4 - 10.7) |
| | Breaker capacity | A | 25 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 1,850 | 1,870 |
| | Running current (Total) ✻1, ✻2 | A | 8.5 - 8.1 - 7.8 | 8.6 - 8.2 - 7.9 |
| | Power factor (Total) ✻1, ✻2 | % | 99 | |
| | Starting current (Total) ✻1, ✻2 | A | 10.1 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 3.89 | 4.60 |
| Compressor | Model | | SVB172FCKM1T | |
| | Output | W | 2,000 | |
| | Current ✻1, ✻2 | A | 6.98 | |
| | Refrigeration oil (Model) | L | 0.6 (FW68S) | |
| Fan motor | Model | | SIC-82FX-F764-1 | |
| | Current ✻1, ✻2 | A | 0.5 | |
| | Dimensions W x H x D | mm | 840 x 710 x 330 | |
| | Weight | kg | 59 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 2,124 | 2,562 |
| | Sound level (Rated) | dB(A) | 48 | 54 |
| | Fan speed (Rated) | rpm | 650 | 740 |
| | Pre-charged refrigerant quantity (R32) | kg | 2.4 | |
| | Max refrigerant quantity (R32) | kg | 2.4 | |

✻1 Measured under rated operating frequency.
✻2 When connected with indoor units below.
**MSZ-LN18VG + MSZ-LN18VG + MSZ-LN18VG + MSZ-LN18VG**
**NOTE:** Test conditions are based on ISO 5151. (Refrigerant piping length (one way): 5 m)
COOLING INDOOR Dry-bulb temperature 27.0 °C Wet-bulb temperature 19.0 °C
OUTDOOR Dry-bulb temperature 35.0 °C Wet-bulb temperature 24.0 °C
HEATING INDOOR Dry-bulb temperature 20.0 °C
OUTDOOR Dry-bulb temperature 7.0 °C Wet-bulb temperature 6.0 °C

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-4F72VF3** | |
| | Outdoor unit power supply | | Single phase<br>220 - 230 - 240 V, 50 Hz | |
| System | Indoor units number | | 2 to 4 | |
| | Piping total length | m | Max. 60 | |
| | Connecting pipe length | m | Max. 25 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 7.2 (3.7 - 8.8) | 8.6 (3.4 - 10.7) |
| | Breaker capacity | A | 25 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 1,850 | 1,870 |
| | Running current (Total) ✻1, ✻2 | A | 8.5 - 8.1 - 7.8 | 8.6 - 8.2 - 7.9 |
| | Power factor (Total) ✻1, ✻2 | % | 99 | |
| | Starting current (Total) ✻1, ✻2 | A | 10.1 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 3.89 | 4.60 |
| Compressor | Model | | SVB172FCKM1T | |
| | Output | W | 2,000 | |
| | Current ✻1, ✻2 | A | 6.98 | |
| | Refrigeration oil (Model) | L | 0.6 (FW68S) | |
| Fan motor | Model | | SIC-82FX-F764-1 | |
| | Current ✻1, ✻2 | A | 0.5 | |
| | Dimensions W x H x D | mm | 840 x 710 x 330 | |
| | Weight | kg | 59 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 2,124 | 2,562 |
| | Sound level (Rated) | dB(A) | 48 | 54 |
| | Fan speed (Rated) | rpm | 650 | 740 |
| | Pre-charged refrigerant quantity (R32) | kg | 2.4 | |
| | Max refrigerant quantity (R32) | kg | 2.4 | |

✻1 Measured under rated operating frequency.
✻2 When connected with indoor units below.
**MSZ-LN18VG2 + MSZ-LN18VG2 + MSZ-LN18VG2 + MSZ-LN18VG2**
**NOTE:** Test conditions are based on ISO 5151. (Refrigerant piping length (one way): 5 m)
COOLING INDOOR Dry-bulb temperature 27.0 °C Wet-bulb temperature 19.0 °C
OUTDOOR Dry-bulb temperature 35.0 °C Wet-bulb temperature 24.0 °C
HEATING INDOOR Dry-bulb temperature 20.0 °C
OUTDOOR Dry-bulb temperature 7.0 °C Wet-bulb temperature 6.0 °C

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-4F80VF2** | |
| | Outdoor unit power supply | | Single phase<br>220 - 230 - 240 V, 50 Hz | |
| System | Indoor units number | | 2 to 4 | |
| | Piping total length | m | Max. 60 | |
| | Connecting pipe length | m | Max. 25 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 8.0 (3.7 - 9.0) | 8.8 (3.4 - 11.0) |
| | Breaker capacity | A | 25 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 2,250 | 2,000 |
| | Running current (Total) ✻1, ✻2 | A | 10.3 - 9.9 - 9.5 | 9.2 - 8.8 - 8.4 |
| | Power factor (Total) ✻1, ✻2 | % | 99 | |
| | Starting current (Total) ✻1, ✻2 | A | 10.1 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 3.56 | 4.40 |
| Compressor | Model | | SVB172FCKM1T | |
| | Output | W | 2,000 | |
| | Current ✻1, ✻2 | A | 6.98 | |
| | Refrigeration oil (Model) | L | 0.6 (FW68S) | |
| Fan motor | Model | | SIC-82FX-F764-1 | |
| | Current ✻1, ✻2 | A | 0.5 | |
| | Dimensions W x H x D | mm | 840 x 710 x 330 | |
| | Weight | kg | 59 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 2,418 | 2,646 |
| | Sound level (Rated) | dB(A) | 50 | 55 |
| | Fan speed (Rated) | rpm | 710 | 760 |
| | Pre-charged refrigerant quantity (R32) | kg | 2.4 | |
| | Max refrigerant quantity (R32) | kg | 2.4 | |

✻1 Measured under rated operating frequency.
✻2 When connected with indoor units below.
**MSZ-LN18VG + MSZ-LN18VG + MSZ-LN18VG + MSZ-LN25VG**
**NOTE:** Test conditions are based on ISO 5151. (Refrigerant piping length (one way): 5 m)
COOLING INDOOR Dry-bulb temperature 27.0 °C Wet-bulb temperature 19.0 °C
OUTDOOR Dry-bulb temperature 35.0 °C Wet-bulb temperature 24.0 °C
HEATING INDOOR Dry-bulb temperature 20.0 °C
OUTDOOR Dry-bulb temperature 7.0 °C Wet-bulb temperature 6.0 °C

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-4F80VF3** | |
| | Outdoor unit power supply | | Single phase<br>220 - 230 - 240 V, 50 Hz | |
| System | Indoor units number | | 2 to 4 | |
| | Piping total length | m | Max. 60 | |
| | Connecting pipe length | m | Max. 25 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 8.0 (3.7 - 9.0) | 8.8 (3.4 - 11.0) |
| | Breaker capacity | A | 25 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 2,250 | 2,000 |
| | Running current (Total) ✻1, ✻2 | A | 10.3 - 9.9 - 9.5 | 9.2 - 8.8 - 8.4 |
| | Power factor (Total) ✻1, ✻2 | % | 99 | |
| | Starting current (Total) ✻1, ✻2 | A | 10.1 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 3.56 | 4.40 |
| Compressor | Model | | SVB172FCKM1T | |
| | Output | W | 2,000 | |
| | Current ✻1, ✻2 | A | 6.98 | |
| | Refrigeration oil (Model) | L | 0.6 (FW68S) | |
| Fan motor | Model | | SIC-82FX-F764-1 | |
| | Current ✻1, ✻2 | A | 0.5 | |
| | Dimensions W x H x D | mm | 840 x 710 x 330 | |
| | Weight | kg | 59 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 2,418 | 2,646 |
| | Sound level (Rated) | dB(A) | 50 | 55 |
| | Fan speed (Rated) | rpm | 710 | 760 |
| | Pre-charged refrigerant quantity (R32) | kg | 2.4 | |
| | Max refrigerant quantity (R32) | kg | 2.4 | |

✻1 Measured under rated operating frequency.
✻2 When connected with indoor units below.
**MSZ-LN18VG2 + MSZ-LN18VG2 + MSZ-LN18VG2 + MSZ-LN25VG2**
**NOTE:** Test conditions are based on ISO 5151. (Refrigerant piping length (one way): 5 m)
COOLING INDOOR Dry-bulb temperature 27.0 °C Wet-bulb temperature 19.0 °C
OUTDOOR Dry-bulb temperature 35.0 °C Wet-bulb temperature 24.0 °C
HEATING INDOOR Dry-bulb temperature 20.0 °C
OUTDOOR Dry-bulb temperature 7.0 °C Wet-bulb temperature 6.0 °C

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-4F83VF** | |
| | Outdoor unit power supply | | Single phase<br>220 -230 - 240 V, 50 Hz ✻3 | |
| System | Indoor units number | | 1 to 4 ✻4 | |
| | Piping total length | m | Max. 70 | |
| | Connecting pipe length | m | Max. 25 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 8.3 (3.7 - 9.2) | 9.3 (3.4 - 11.6) |
| | Breaker capacity | A | 25 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 1,970 | 2,000 |
| | Running current (Total) ✻1, ✻2 | A | 9.1 - 8.7 - 8.3 | 9.2 - 8.8 - 8.4 |
| | Power factor (Total) ✻1, ✻2 | % | 99 | |
| | Starting current (Total) ✻1, ✻2 | A | 8.8 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 4.21 | 4.65 |
| Compressor | Model | | SVB220FUGMC-L1 | |
| | Output | W | 2,200 | |
| | Current ✻1, ✻2 | A | 7.4 | 7.5 |
| | Refrigeration oil (Model) | L | 0.6 (FW68CA) | |
| Fan motor | Model | | SIC-88FWJ-D888-4 | |
| | Current ✻1, ✻2 | A | 0.3 | |
| | Dimensions W x H x D | mm | 950 x 796 x 330 | |
| | Weight | kg | 62 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 3,420 | 3,720 |
| | Sound level (Rated) | dB(A) | 49 | 51 |
| | Fan speed (Rated) | rpm | 600 | 640 |
| | Pre-charged refrigerant quantity (R32) | kg | 2.4 | |
| | Max refrigerant quantity (R32) | kg | 2.4 | |

✻1 Measured under rated operating frequency.
✻2 When connected with below indoor units below.
**MSZ-LN18VG2 + MSZ-LN18VG2 + MSZ-LN25VG2 + MSZ-LN25VG2**
✻3 220 and 240 V are only -E1.
✻4 At least 2 indoor units must be connected when using indoor unit with capacity lower than 25 class.
**NOTE:** Test conditions are based on ISO 5151. (Refrigerant piping length (one way): 5 m)

| | | | | | |
|---|---|---|---|---|---|
| COOLING | INDOOR | Dry-bulb temperature | 27.0°C | Wet-bulb temperature | 19.0°C |
| | OUTDOOR | Dry-bulb temperature | 35.0°C | Wet-bulb temperature | 24.0°C |
| HEATING | INDOOR | Dry-bulb temperature | 20.0°C | | |
| | OUTDOOR | Dry-bulb temperature | 7.0°C | Wet-bulb temperature | 6.0°C |

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-5F102VF** | |
| | Outdoor unit power supply | | Single phase<br>220 -230 - 240 V, 50 Hz ✻3 | |
| System | Indoor units number | | 1 to 5 ✻4 | |
| | Piping total length | m | Max. 80 | |
| | Connecting pipe length | m | Max. 25 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 10.2 (3.9 - 11.0) | 10.5 (4.1 - 14.0) |
| | Breaker capacity | A | 25 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 2,800 | 2,280 |
| | Running current (Total) ✻1, ✻2 | A | 12.9 - 12.3 - 11.8 | 10.5 - 10.0 - 9.6 |
| | Power factor (Total) ✻1, ✻2 | % | 99 | |
| | Starting current (Total) ✻1, ✻2 | A | 12.3 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 3.64 | 4.60 |
| Compressor | Model | | SVB220FUGMC-L1 | |
| | Output | W | 2,800 | |
| | Current ✻1, ✻2 | A | 10.7 | 8.4 |
| | Refrigeration oil (Model) | L | 0.6 (FW68CA) | |
| Fan motor | Model | | SIC-88FWJ-D888-4 | |
| | Current ✻1, ✻2 | A | 0.3 | |
| | Dimensions W x H x D | mm | 950 x 796 x 330 | |
| | Weight | kg | 62 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 3,780 | 4,500 |
| | Sound level (Rated) | dB(A) | 52 | 56 |
| | Fan speed (Rated) | rpm | 650 | 750 |
| | Pre-charged refrigerant quantity (R32) | kg | 2.4 | |
| | Max refrigerant quantity (R32) | kg | 2.4 | |

✻1 Measured under rated operating frequency.
✻2 When connected with below indoor units below.
**MSZ-LN18VG2 + MSZ-LN18VG2 + MSZ-LN18VG2 + MSZ-LN25VG2 + MSZ-LN25VG2**
✻3 220 and 240 V are only - E1.
✻4 At least 2 indoor units must be connected when using indoor unit with capacity lower than 25 class.

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

| | | | | | |
|---|---|---|---|---|---|
| COOLING | INDOOR | Dry-bulb temperature | 27.0°C | Wet-bulb temperature | 19.0°C |
| | OUTDOOR | Dry-bulb temperature | 35.0°C | Wet-bulb temperature | 24.0°C |
| HEATING | INDOOR | Dry-bulb temperature | 20.0°C | | |
| | OUTDOOR | Dry-bulb temperature | 7.0°C | Wet-bulb temperature | 6.0°C |

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-6F122VF** | |
| | Outdoor unit power supply | | Single phase<br>220 - 230 - 240V, 50 Hz ✻3 | |
| System | Indoor units number | | 1 to 6 ✻4 | |
| | Piping total length | m | Max. 80 | |
| | Connecting pipe length | m | Max. 25 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 12.2 ( 3.5 - 14.0 ) | 14.0 ( 3.5 - 16.5 ) |
| | Breaker capacity | A | 32 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 3,660 | 3,310 |
| | Running current (Total) ✻1, ✻2 | A | 16.8 - 16.1 - 15.4 | 15.2 - 14.5 - 13.9 |
| | Power factor (Total) ✻1, ✻2 | % | 99 | |
| | Starting current (Total) ✻1, ✻2 | A | 16.1 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 3.33 | 4.23 |
| Compressor | Model | | MVB33FBFMC | |
| | Output | W | 3,300 | |
| | Current ✻1, ✻2 | A | 14.2 | 12.6 |
| | Refrigeration oil (Model) | L | 1.10 (FW68CA) | |
| Fan motor | Model | | SIC-88FWJ-D888-4 | |
| | Current ✻1, ✻2 | A | 0.3 | |
| | Dimensions W x H x D | mm | 950 x 1,048 x 330 | |
| | Weight | kg | 87 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 3,780 | 4,620 |
| | Sound level (Rated) | dB(A) | 55 | 57 |
| | Fan speed (Rated) | rpm | 650 | 770 |
| | Pre-charged refrigerant quantity (R32) | kg | 2.4 | |
| | Refrigerant filling capacity (R32) | kg | 2.4 | |

✻1 Measured under rated operating frequency.
✻2 When connected with indoor units below.
**MSZ-LN18VG2 + MSZ-LN18VG2 + MSZ-LN18VG2 + MSZ-LN18VG2 + MSZ-LN25VG2 + MSZ-LN25VG2**
✻3 220 and 240 V are only -E1.
✻4 At least 2 indoor units must be connected when using indoor unit with capacity lower than 25 class.
**NOTE:** Test conditions are based on ISO 5151. (Refrigerant piping length (one way): 5 m)
COOLING INDOOR Dry-bulb temperature 27.0 °C Wet-bulb temperature 19.0 °C
OUTDOOR Dry-bulb temperature 35.0 °C Wet-bulb temperature 24.0 °C
HEATING INDOOR Dry-bulb temperature 20.0 °C
OUTDOOR Dry-bulb temperature 7.0 °C Wet-bulb temperature 6.0 °C

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-2F53VFHZ** | |
| | Outdoor unit power supply | | Single phase<br>220 -230 - 240 V, 50 Hz | |
| System | Indoor units number | | 1 to 2 ✻3 | |
| | Piping total length | m | Max. 30 | |
| | Connecting pipe length | m | Max. 20 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 5.3 (1.1 - 6.0) | 6.4 (1.0 - 7.0) |
| | Breaker capacity | A | 16 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 1,290 | 1,360 |
| | Running current (Total) ✻1, ✻2 | A | 5.9 - 5.7 - 5.4 | 6.2 - 6.0 - 5.7 |
| | Power factor (Total) ✻1, ✻2 | % | 99 | |
| | Starting current (Total) ✻1, ✻2 | A | 6.0 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 4.11 | 4.71 |
| Compressor | Model | | SVB220FUGMC-L1 | |
| | Output | W | 1,400 | |
| | Current ✻1, ✻2 | A | 4.9 | 5.2 |
| | Refrigeration oil (Model) | L | 0.6 (FW68CA) | |
| Fan motor | Model | | SIC-88FWJ-D888-4 | |
| | Current ✻1, ✻2 | A | 0.3 | |
| | Dimensions W x H x D | mm | 950 x 796 x 330 | |
| | Weight | kg | 61 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 2,580 | 2,430 |
| | Sound level (Rated) | dB(A) | 45 | 47 |
| | Fan speed (Rated) | rpm | 480 | 460 |
| | Pre-charged refrigerant quantity (R32) | kg | 2.4 | |
| | Max refrigerant quantity (R32) | kg | 2.4 | |

✻1 Measured under rated operating frequency.
✻2 When connected with below indoor units below.
**MSZ-LN18VG2 + MSZ-LN35VG2**
✻3 At least 2 indoor units must be connected when using indoor unit with capacity lower than 25 class.
**NOTE:** Test conditions are based on ISO 5151. (Refrigerant piping length (one way): 5 m)

| | | | | | |
|---|---|---|---|---|---|
| COOLING | INDOOR | Dry-bulb temperature | 27.0°C | Wet-bulb temperature | 19.0°C |
| | OUTDOOR | Dry-bulb temperature | 35.0°C | Wet-bulb temperature | 24.0°C |
| HEATING | INDOOR | Dry-bulb temperature | 20.0°C | | |
| | OUTDOOR | Dry-bulb temperature | 7.0°C | Wet-bulb temperature | 6.0°C |

| | | | | |
|---|---|---|---|---|
| | Outdoor model | | **MXZ-4F83VFHZ** | |
| | Outdoor unit power supply | | Single phase<br>220 -230 - 240 V, 50 Hz | |
| System | Indoor units number | | 1 to 4 ✻3 | |
| | Piping total length | m | Max. 70 | |
| | Connecting pipe length | m | Max. 25 | |
| | Height difference (Indoor ~ Outdoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Height difference (Indoor ~ Indoor) | m | Refer to 8 REFRIGERANT SYSTEM DIAGRAM. | |
| | Function | | Cooling | Heating |
| | Capacity<br>Rated (Min.-Max.) ✻2 | kW | 8.3 ( 3.5 - 9.2 ) | 9.0 ( 3.5 - 11.6 ) |
| | Breaker capacity | A | 30 | |
| Electrical data | Power input (Total) ✻1, ✻2 | W | 1,900 | 1,700 |
| | Running current (Total) ✻1, ✻2 | A | 8.7 - 8.3 - 8.0 | 7.8 -7.5 -7.2 |
| | Power factor (Total) ✻1, ✻2 | % | 99 | |
| | Starting current (Total) ✻1, ✻2 | A | 8.3 | |
| Coefficient of performance (C.O.P) (Total) ✻1, ✻2 | | | 4.37 | 5.29 |
| Compressor | Model | | MVB33FBFMC | |
| | Output | W | 2,200 | |
| | Current ✻1, ✻2 | A | 7.0 | 6.2 |
| | Refrigeration oil (Model) | L | 1.10 (FW68CA) | |
| Fan motor | Model | | SIC-88FWJ-D888-4 | |
| | Current ✻1, ✻2 | A | 0.3 | |
| | Dimensions W x H x D | mm | 950 x 1,048 x 330 | |
| | Weight | kg | 86 | |
| Special remarks | Air flow (Rated) | $m^3$ /h | 3,780 | 4,620 |
| | Sound level (Rated) | dB(A) | 55 | 57 |
| | Fan speed (Rated) | rpm | 650 | 770 |
| | Pre-charged refrigerant quantity (R32) | | 2.4 | |
| | Max refrigerant quantity (R32) | kg | 2.4 | |

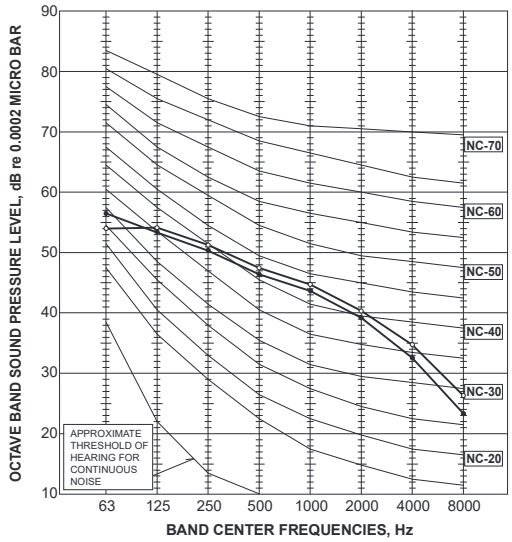
✻1 Measured under rated operating frequency.
✻2 When connected with below indoor units below.
**MSZ-LN18VG2 + MSZ-LN18VG2 + MSZ-LN25VG2 + MSZ-LN25VG2**
✻3 At least 2 indoor units must be connected when using indoor unit with capacity lower than 25 class.
**NOTE:** Test conditions are based on ISO 5151. (Refrigerant piping length (one way): 5 m)

| | | | | | |
|---|---|---|---|---|---|
| COOLING | INDOOR | Dry-bulb temperature | 27.0°C | Wet-bulb temperature | 19.0°C |
| | OUTDOOR | Dry-bulb temperature | 35.0°C | Wet-bulb temperature | 24.0°C |
| HEATING | INDOOR | Dry-bulb temperature | 20.0°C | | |
| | OUTDOOR | Dry-bulb temperature | 7.0°C | Wet-bulb temperature | 6.0°C |

# 5 NOISE CRITERIA CURVES

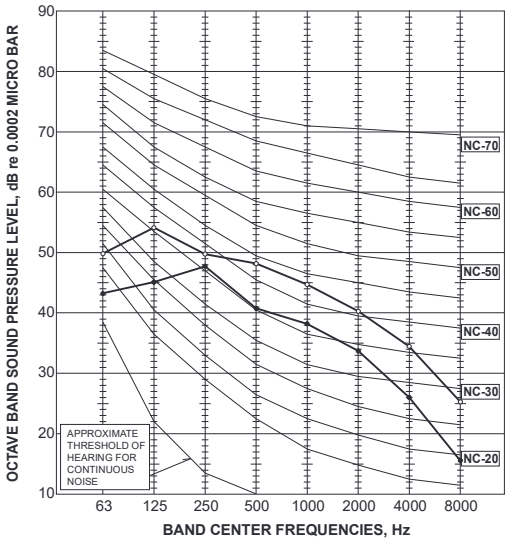
## MXZ-2F33VF
## MXZ-2F33VF2
## MXZ-2F33VF3

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



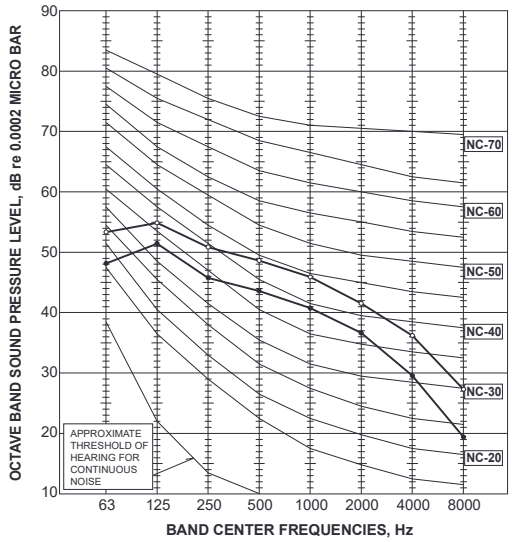

## MXZ-2F42VF
## MXZ-2F42VF2
## MXZ-2F42VF3

| FAN SPEED | FUNCTION | SPL(dB(A)) | LINE |
|---|---|---|---|
| High | Cooling | 44 | ●—● |
| High | Heating | 50 | ○—○ |



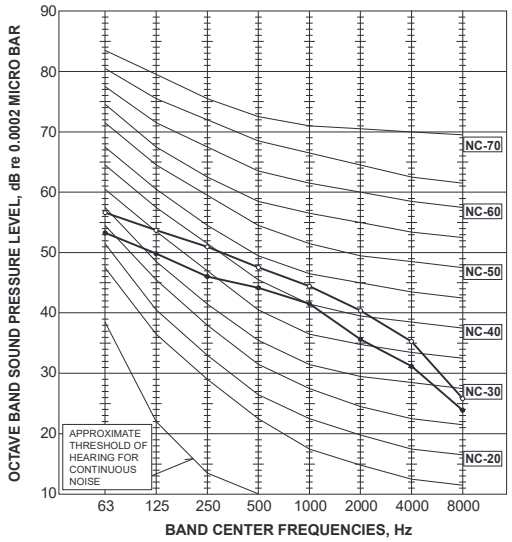

## MXZ-2F53VF MXZ-2F53VFH
## MXZ-2F53VF2 MXZ-2F53VFH2
## MXZ-2F53VF3 MXZ-2F53VFH3

| FAN SPEED | FUNCTION | SPL(dB(A)) | LINE |
|---|---|---|---|
| High | Cooling | 46 | ●—● |
| High | Heating | 51 | ○—○ |



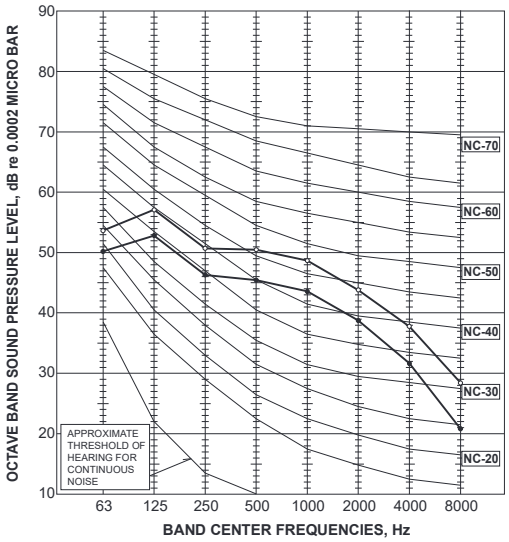
## MXZ-3F54VF
## MXZ-3F54VF2
## MXZ-3F54VF3

| FAN SPEED | FUNCTION | SPL($dB_{(A)}$) | LINE |
|---|---|---|---|
| High | Cooling | 46 | ●—● |
| High | Heating | 50 | ○—○ |



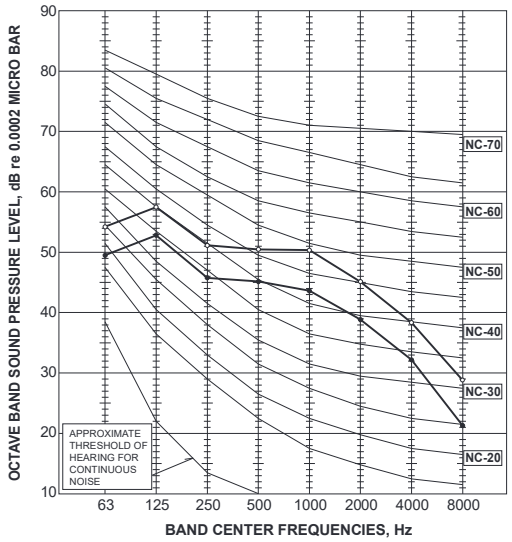

## MXZ-3F68VF
## MXZ-3F68VF2
## MXZ-3F68VF3

| FAN SPEED | FUNCTION | SPL($dB_{(A)}$) | LINE |
|---|---|---|---|
| High | Cooling | 48 | ●—● |
| High | Heating | 53 | ○—○ |



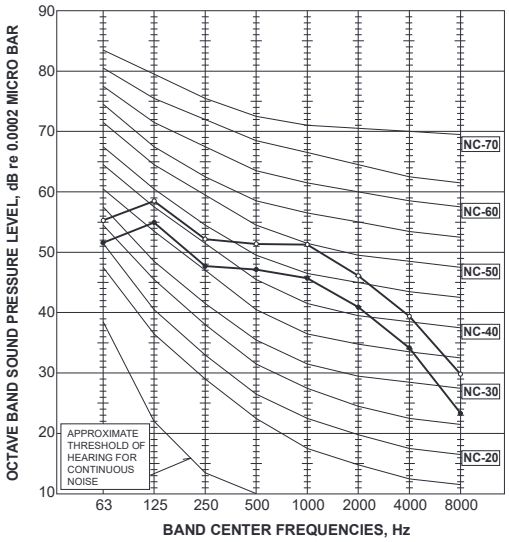

## MXZ-4F72VF
## MXZ-4F72VF2
## MXZ-4F72VF3

| FAN SPEED | FUNCTION | SPL($dB_{(A)}$) | LINE |
|---|---|---|---|
| High | Cooling | 48 | ●—● |
| High | Heating | 54 | ○—○ |



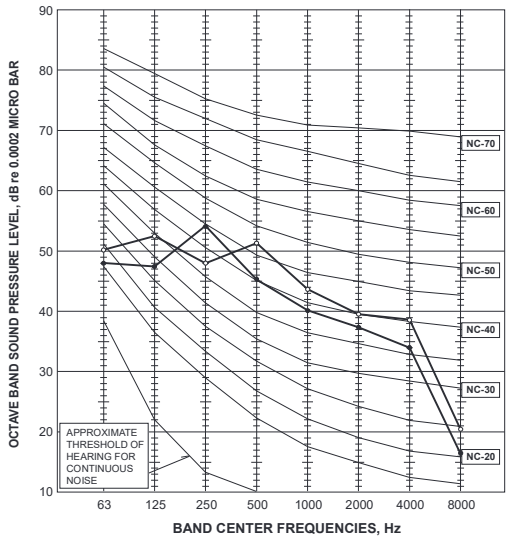

## MXZ-4F80VF2
## MXZ-4F80VF3

| FAN SPEED | FUNCTION | SPL($dB_{(A)}$) | LINE |
|---|---|---|---|
| High | Cooling | 50 | ●—● |
| High | Heating | 55 | ○—○ |



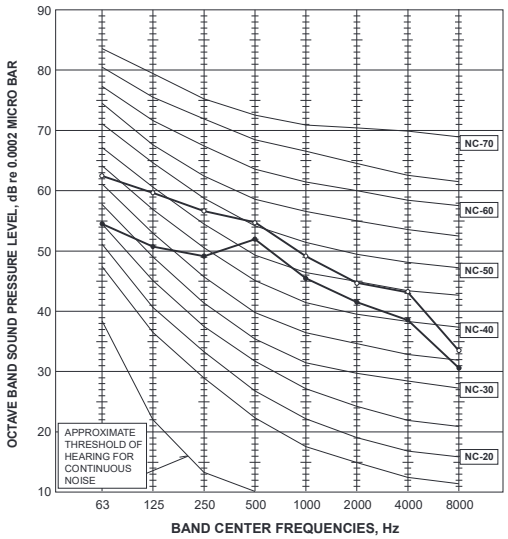
## MXZ-4F83VF

| FAN SPEED | FUNCTION | SPL(dB(A)) | LINE |
|---|---|---|---|
| High | Cooling | 49 | ●——● |
| High | Heating | 51 | ○——○ |



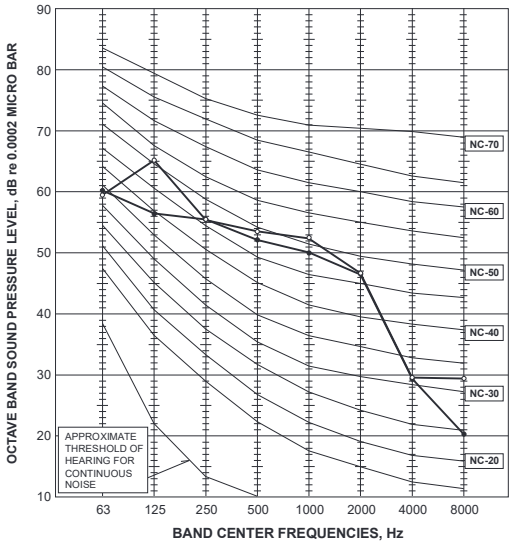

## MXZ-5F102VF

| FAN SPEED | FUNCTION | SPL(dB(A)) | LINE |
|---|---|---|---|
| High | Cooling | 52 | ●——● |
| High | Heating | 56 | ○——○ |



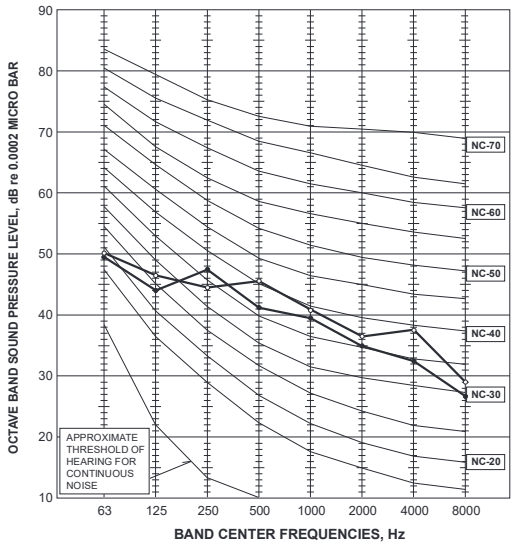

## MXZ-6F122VF

| FAN SPEED | FUNCTION | SPL(dB(A)) | LINE |
|---|---|---|---|
| High | Cooling | 55 | ●——● |
| High | Heating | 57 | ○——○ |



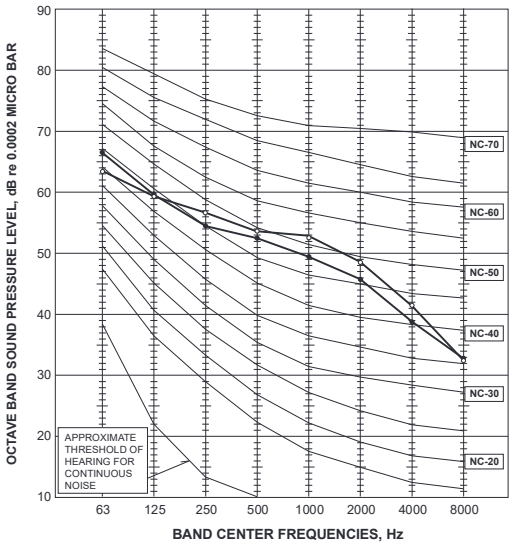
## MXZ-2F53VFHZ

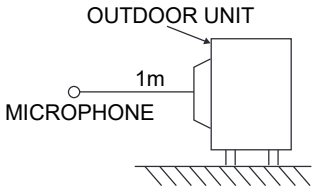
| FAN SPEED | FUNCTION | SPL($dB_{(A)}$) | LINE |
|---|---|---|---|
| High | Cooling | 45 | ●——● |
| High | Heating | 47 | ○——○ |




## MXZ-4F83VFHZ

| FAN SPEED | FUNCTION | SPL($dB_{(A)}$) | LINE |
|---|---|---|---|
| High | Cooling | 55 | ●——● |
| High | Heating | 57 | ○——○ |




Test conditions
Cooling :Dry-bulb temperature 35.0°C Wet-bulb temperature 24.0°C
Heating :Dry-bulb temperature 7.0°C Wet-bulb temperature 6.0°C

# 6 OUTLINES AND DIMENSIONS

**MXZ-2F33VF MXZ-2F42VF MXZ-2F53VF MXZ-2F53VFH**
**MXZ-2F33VF2 MXZ-2F42VF2 MXZ-2F53VF2 MXZ-2F53VFH2**
**MXZ-2F33VF3 MXZ-2F42VF3 MXZ-2F53VF3 MXZ-2F53VFH3**

Unit: mm

1.Installation space