



**Manual No.'20 • SRF-DB-310**

updated July 30, 2020

## **DATA BOOK**

### **INVERTER FLOOR STANDING TYPE RESIDENTIAL AIR-CONDITIONERS** (Split system, air to air heat pump type)

**SRF25ZS-W / SRC25ZS-W2**

**SRF35ZS-W / SRC35ZS-W2**

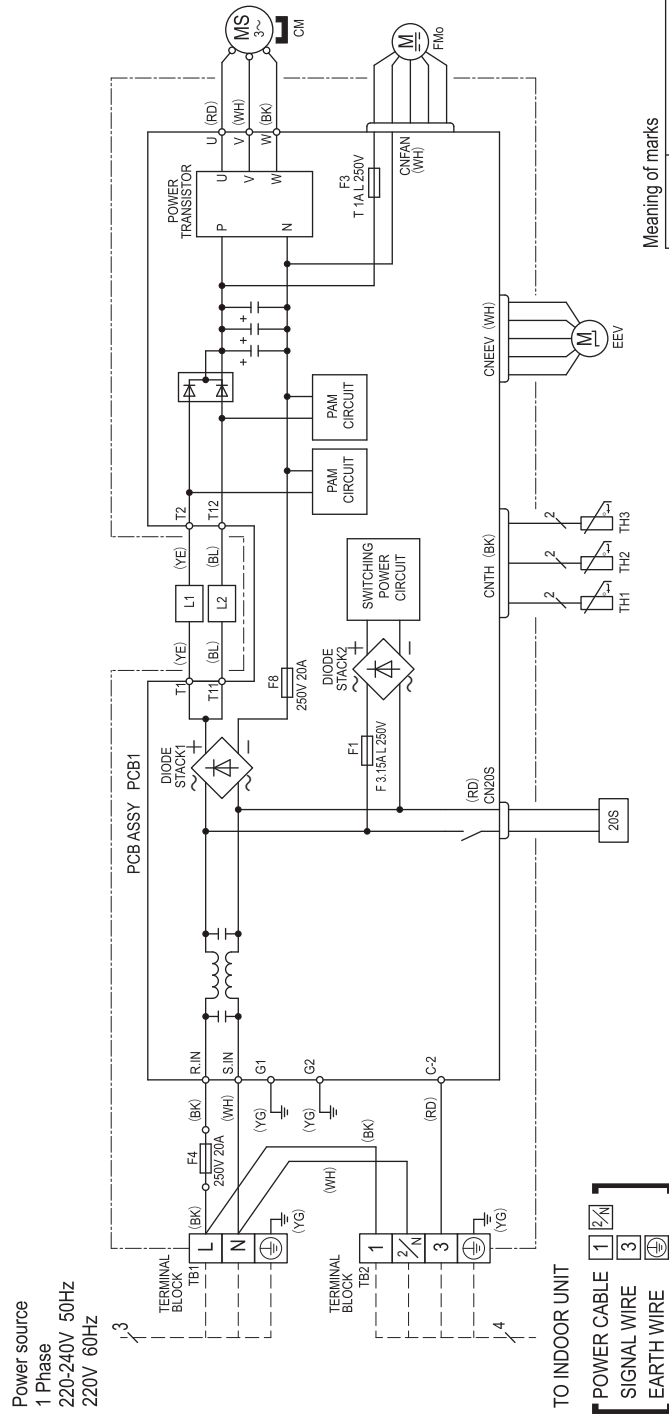
**SRF50ZSX-W / SRC50ZSX-W2**

**MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS, LTD.**

| Item                                                                                                                                     |                                           |                        | Model                                                                                                                                                                                                                          | Indoor unit                            | Outdoor unit |
|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|--------------|
|                                                                                                                                          |                                           |                        |                                                                                                                                                                                                                                | SRF50ZSX-W                             | SRC50ZSX-W2  |
| Power source                                                                                                                             |                                           |                        |                                                                                                                                                                                                                                | 1 Phase, 220 - 240V, 50Hz / 220V, 60Hz |              |
| Operation data                                                                                                                           | Nominal cooling capacity (range)          |                        | kW                                                                                                                                                                                                                             | 5.0 ( 1.1 (Min.) - 5.6 (Max.))         |              |
|                                                                                                                                          | Nominal heating capacity (range)          |                        | kW                                                                                                                                                                                                                             | 6.0 ( 0.8 (Min.) - 7.4 (Max.))         |              |
|                                                                                                                                          | Heating capacity (H2)                     |                        | kW                                                                                                                                                                                                                             | —                                      |              |
|                                                                                                                                          | Power consumption                         | Cooling                | kW                                                                                                                                                                                                                             | 1.32 ( 0.19 - 1.90 )                   |              |
|                                                                                                                                          |                                           | Heating                |                                                                                                                                                                                                                                | 1.58 ( 0.19 - 2.34 )                   |              |
|                                                                                                                                          |                                           | Heating (H2)           |                                                                                                                                                                                                                                | —                                      |              |
|                                                                                                                                          | Max power consumption                     |                        |                                                                                                                                                                                                                                | 2.90                                   |              |
|                                                                                                                                          | Running current                           | Cooling                | A                                                                                                                                                                                                                              | 6.1 / 5.8 / 5.6 (220/ 230/ 240 V)      |              |
|                                                                                                                                          |                                           | Heating                |                                                                                                                                                                                                                                | 7.3 / 6.9 / 6.6 (220/ 230/ 240 V)      |              |
|                                                                                                                                          | Inrush current, max current               |                        |                                                                                                                                                                                                                                | 5.0 Max. 9                             |              |
|                                                                                                                                          | Power factor                              | Cooling                | %                                                                                                                                                                                                                              | 99                                     |              |
|                                                                                                                                          |                                           | Heating                |                                                                                                                                                                                                                                | 99                                     |              |
|                                                                                                                                          | EER                                       | Cooling                |                                                                                                                                                                                                                                | 3.79                                   |              |
|                                                                                                                                          |                                           | Heating                |                                                                                                                                                                                                                                | 3.80                                   |              |
|                                                                                                                                          | COP                                       | Heating (H2)           |                                                                                                                                                                                                                                | —                                      |              |
| Sound power level                                                                                                                        | Cooling                                   | dB(A)                  | 58                                                                                                                                                                                                                             |                                        |              |
|                                                                                                                                          | Heating                                   |                        | 63                                                                                                                                                                                                                             |                                        |              |
| Sound pressure level                                                                                                                     | Cooling                                   |                        | Hi: 46 Me: 38 Lo: 33 ULo: 28                                                                                                                                                                                                   |                                        |              |
|                                                                                                                                          | Heating                                   |                        | 51                                                                                                                                                                                                                             |                                        |              |
| Silent mode sound pressure level                                                                                                         |                                           |                        | Hi: 46 Me: 41 Lo: 38 ULo: 32                                                                                                                                                                                                   |                                        |              |
|                                                                                                                                          |                                           |                        | 51                                                                                                                                                                                                                             |                                        |              |
|                                                                                                                                          |                                           |                        | —                                                                                                                                                                                                                              |                                        |              |
|                                                                                                                                          |                                           |                        | Cooling:42 / Heating:43                                                                                                                                                                                                        |                                        |              |
| Exterior dimensions (Height x Width x Depth)                                                                                             |                                           | mm                     | 600 × 860 × 238                                                                                                                                                                                                                |                                        |              |
| Exterior appearance (Equivalent color )                                                                                                  |                                           |                        | 640 × 800(+71) × 290                                                                                                                                                                                                           |                                        |              |
|                                                                                                                                          |                                           |                        | Fine snow                                                                                                                                                                                                                      |                                        |              |
|                                                                                                                                          |                                           |                        | Munsell: ( 8.0Y 9.3/0.1 ), RAL: 9003                                                                                                                                                                                           |                                        |              |
|                                                                                                                                          |                                           |                        | Stucco white                                                                                                                                                                                                                   |                                        |              |
|                                                                                                                                          |                                           |                        | Munsell: ( 4.2Y 7.5/1.1 ), RAL: 7044                                                                                                                                                                                           |                                        |              |
| Net weight                                                                                                                               |                                           | kg                     | 19                                                                                                                                                                                                                             |                                        |              |
|                                                                                                                                          |                                           |                        | 45                                                                                                                                                                                                                             |                                        |              |
| Compressor type & Quantity                                                                                                               |                                           |                        | —                                                                                                                                                                                                                              |                                        |              |
| Compressor motor (Starting method)                                                                                                       |                                           | kW                     | —                                                                                                                                                                                                                              |                                        |              |
|                                                                                                                                          |                                           |                        | RMT5113SWE11( Twin Rotary type ) × 1                                                                                                                                                                                           |                                        |              |
| Refrigerant oil (Amount, type)                                                                                                           |                                           | L                      | —                                                                                                                                                                                                                              |                                        |              |
|                                                                                                                                          |                                           |                        | 1.50 ( Inverter driven )                                                                                                                                                                                                       |                                        |              |
| Refrigerant (Type, amount, pre-charge length)                                                                                            |                                           | kg                     | —                                                                                                                                                                                                                              |                                        |              |
|                                                                                                                                          |                                           |                        | 0.45 ( DIAMOND FREEZE MB75 )                                                                                                                                                                                                   |                                        |              |
| Heat exchanger                                                                                                                           |                                           |                        | R32 1.30 in outdoor unit (Incl. the amount for the piping of 15m )                                                                                                                                                             |                                        |              |
| Refrigerant control                                                                                                                      |                                           |                        | Louver fins & inner grooved tubing                                                                                                                                                                                             |                                        |              |
| Fan type & Quantity                                                                                                                      |                                           |                        | M fins & inner grooved tubing                                                                                                                                                                                                  |                                        |              |
|                                                                                                                                          |                                           |                        | Capillary tubes + Electronic expansion valve                                                                                                                                                                                   |                                        |              |
| Fan motor (Starting method)                                                                                                              |                                           | W                      | Turbo fan × 1                                                                                                                                                                                                                  |                                        |              |
|                                                                                                                                          |                                           |                        | Propeller fan × 1                                                                                                                                                                                                              |                                        |              |
|                                                                                                                                          |                                           |                        | 40 ×1 (Direct drive)                                                                                                                                                                                                           |                                        |              |
|                                                                                                                                          |                                           |                        | 34 ×1 (Direct drive)                                                                                                                                                                                                           |                                        |              |
| Air flow                                                                                                                                 | Cooling                                   | m³/min                 | Hi: 11.5 Me: 9.6 Lo: 7.4 ULo: 6.6                                                                                                                                                                                              |                                        |              |
|                                                                                                                                          | Heating                                   |                        | 39.0                                                                                                                                                                                                                           |                                        |              |
|                                                                                                                                          |                                           |                        | Hi: 12.0 Me: 10.0 Lo: 9.4 ULo: 7.6                                                                                                                                                                                             |                                        |              |
|                                                                                                                                          |                                           |                        | 33.0                                                                                                                                                                                                                           |                                        |              |
| Available external static pressure                                                                                                       |                                           | Pa                     | 0                                                                                                                                                                                                                              |                                        |              |
| Outside air intake                                                                                                                       |                                           |                        | Not possible                                                                                                                                                                                                                   |                                        |              |
|                                                                                                                                          |                                           |                        | —                                                                                                                                                                                                                              |                                        |              |
| Air filter, Quality / Quantity                                                                                                           |                                           |                        | Polypropylene net ( Washable ) × 2                                                                                                                                                                                             |                                        |              |
|                                                                                                                                          |                                           |                        | —                                                                                                                                                                                                                              |                                        |              |
| Shock & vibration absorber                                                                                                               |                                           |                        | Rubber sleeve ( for fan motor )                                                                                                                                                                                                |                                        |              |
|                                                                                                                                          |                                           |                        | Rubber sleeve ( for fan motor & compressor )                                                                                                                                                                                   |                                        |              |
| Electric heater                                                                                                                          |                                           |                        | —                                                                                                                                                                                                                              |                                        |              |
|                                                                                                                                          |                                           |                        | —                                                                                                                                                                                                                              |                                        |              |
| Operation control                                                                                                                        | Remote control                            |                        | Wireless remote control                                                                                                                                                                                                        |                                        |              |
|                                                                                                                                          | Room temperature control                  |                        | Microcomputer thermostat                                                                                                                                                                                                       |                                        |              |
|                                                                                                                                          | Operation display                         |                        | RUN: Green, TIMER: Yellow, ECO: Blue                                                                                                                                                                                           |                                        |              |
| Safety equipments                                                                                                                        |                                           |                        | Compressor overheat protection, Overcurrent protection, Frost protection, Serial signal error protection, Indoor fan motor error protection, Heating overload protection( High pressure control ), Cooling overload protection |                                        |              |
| Installation data                                                                                                                        | Refrigerant piping size (O.D.)            | mm                     | Liquid line: ϕ6.35 (1/4") Gas line: ϕ 12.7 (1/2")                                                                                                                                                                              |                                        |              |
|                                                                                                                                          | Connecting method                         |                        | Flare connection                                                                                                                                                                                                               |                                        |              |
|                                                                                                                                          | Attached length of piping                 | m                      | —                                                                                                                                                                                                                              |                                        |              |
|                                                                                                                                          | Insulation for piping                     |                        | Necessary ( Both sides ), independent                                                                                                                                                                                          |                                        |              |
|                                                                                                                                          | Refrigerant line (one way) length         | m                      | Max.30                                                                                                                                                                                                                         |                                        |              |
|                                                                                                                                          | Vertical height diff. between O/U and I/U | m                      | Max.20 ( Outdoor unit is higher ) / Max.20 ( Outdoor unit is lower )                                                                                                                                                           |                                        |              |
| Drain hose                                                                                                                               |                                           |                        | Hose connectable ( VP16 )                                                                                                                                                                                                      |                                        |              |
|                                                                                                                                          |                                           |                        | Hole ϕ20 × 5 pcs.                                                                                                                                                                                                              |                                        |              |
| Drain pump, max lift height                                                                                                              |                                           | mm                     | —                                                                                                                                                                                                                              |                                        |              |
| Recommended breaker size                                                                                                                 |                                           | A                      | 20                                                                                                                                                                                                                             |                                        |              |
| L.R.A. (Locked rotor ampere)                                                                                                             |                                           | A                      | 5.0                                                                                                                                                                                                                            |                                        |              |
| Interconnecting wires                                                                                                                    |                                           | Size x Core number     | 1.5mm <sup>2</sup> × 4 cores (Including earth cable) / Terminal block (Screw fixing type)                                                                                                                                      |                                        |              |
| IP number                                                                                                                                |                                           |                        | IPX0                                                                                                                                                                                                                           |                                        |              |
|                                                                                                                                          |                                           |                        | IPX4                                                                                                                                                                                                                           |                                        |              |
| Standard accessories                                                                                                                     |                                           |                        | Mounting kit, Clean filter ( Allergen clear filter × 1, Photocatalytic washable deodorizing filter × 1 )                                                                                                                       |                                        |              |
| Option parts                                                                                                                             |                                           |                        | Interface kit ( SC-BIKN2-E )                                                                                                                                                                                                   |                                        |              |
| Notes (1) The data are measured at the following conditions. The pipe length is 5m.                                                      |                                           |                        |                                                                                                                                                                                                                                |                                        |              |
| Operation                                                                                                                                | Item                                      | Indoor air temperature |                                                                                                                                                                                                                                | Outdoor air temperature                |              |
|                                                                                                                                          |                                           | DB                     | WB                                                                                                                                                                                                                             | DB                                     | WB           |
|                                                                                                                                          | Cooling                                   | 27°C                   | 19°C                                                                                                                                                                                                                           | 35°C                                   | 24°C         |
|                                                                                                                                          | Heating                                   | 20°C                   | —                                                                                                                                                                                                                              | 7°C                                    | 6°C          |
|                                                                                                                                          | Heating (H2)                              | 20°C                   | —                                                                                                                                                                                                                              | 2°C                                    | 1°C          |
| (2) This air-conditioner is manufactured and tested in conformity with the ISO.                                                          |                                           |                        |                                                                                                                                                                                                                                |                                        |              |
| (3) Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions. |                                           |                        |                                                                                                                                                                                                                                |                                        |              |
| (4) Select the breaker size according to the own national standard.                                                                      |                                           |                        |                                                                                                                                                                                                                                |                                        |              |

RWA000Z283

## Model SRC50ZSX-W2



Power cable, indoor-outdoor connecting wires

| Model name  | MAX running current<br>(A) | Power cable<br>wire size x number* | Power cable length<br>(m) | Connecting cable<br>wire size x number* |
|-------------|----------------------------|------------------------------------|---------------------------|-----------------------------------------|
| SRG50ZSX-W2 | 15                         | 2.0mm <sup>2</sup> × 3             | 13                        | 1.5mm <sup>2</sup> × 4                  |

- \* The wire numbers include Earth wire (Yellow/Green).
- † Switchgear or Circuit breaker capacity should be chosen according to national or regional electricity regulations.
- ‡ The power cable specifications are based on the assumption that a metal or plastic conduit is used with no more than three cables contained in a conduit and a voltage drop is 2%. For an installation falling outside of these conditions, please follow the national or regional electricity regulations.

| Color marks | Mark | Color          |
|-------------|------|----------------|
|             | BK   | Black          |
|             | BL   | Blue           |
|             | RD   | Red            |
|             | WH   | White          |
|             | YE   | Yellow         |
|             | YG   | Yellow / Green |

| Meaning of marks |                                   |
|------------------|-----------------------------------|
| Item             | Description                       |
| 20S              | Solenoid coil for 4-way valve     |
| CN20S            | Connector                         |
| CNEEV            |                                   |
| CNFAN            |                                   |
| CNTH             |                                   |
| GM               | Compressor motor                  |
| EEV              | Electric expansion valve (coil)   |
| FMo              | Fan motor                         |
| L1.2             | Reactor                           |
| TH1              | Heat exchanger temperature sensor |
| TH2              | Outdoor air temperature sensor    |
| TH3              | Discharge pipe temperature sensor |

**Model SRF50ZSX-W**

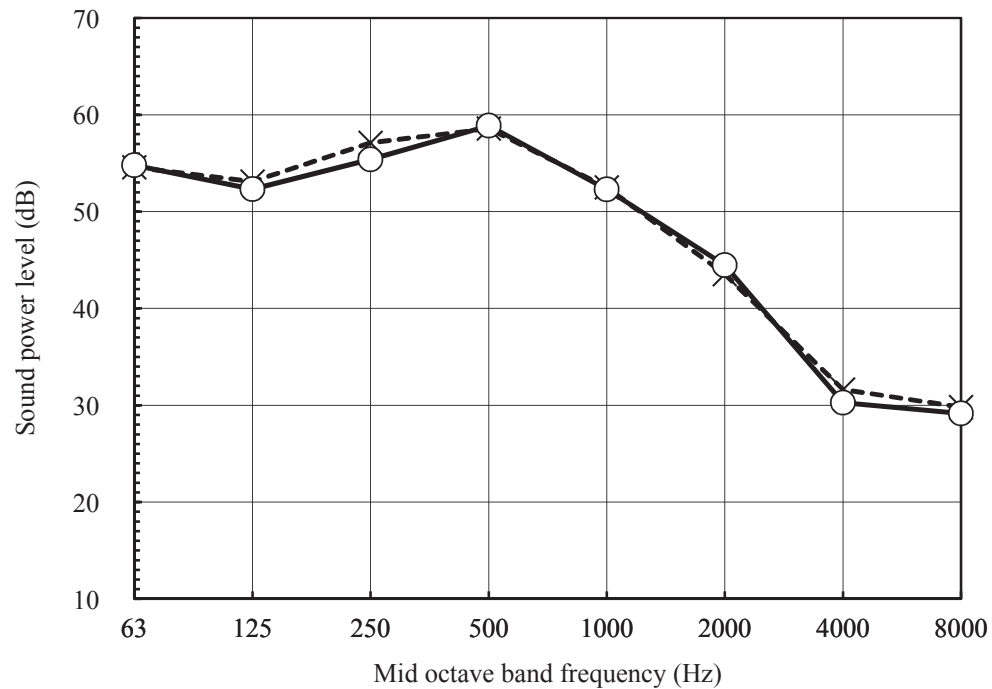
(Indoor unit)

|       |            |          |
|-------|------------|----------|
| Model | SRF50ZSX-W |          |
| Noise | Cooling    | 58 dB(A) |
| Level | Heating    | 58 dB(A) |

|           |               |
|-----------|---------------|
| Condition | ISO5151 T1/H1 |
|-----------|---------------|

|      |                           |
|------|---------------------------|
| MODE | Rated capacity value (Hi) |
|------|---------------------------|

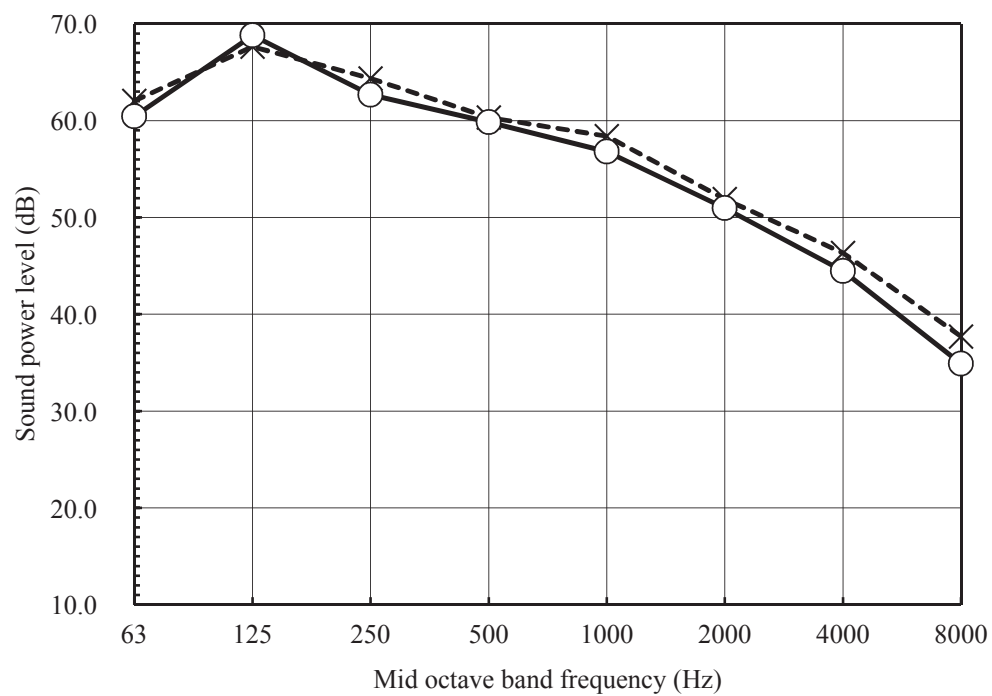
× ..... Cooling    ○ — Heating



(Outdoor unit)

|       |             |          |
|-------|-------------|----------|
| Model | SRC50ZSX-W2 |          |
| Noise | Cooling     | 63 dB(A) |
| Level | Heating     | 62 dB(A) |

× ..... Cooling    ○ — Heating



**Model SRF50ZSX-W**

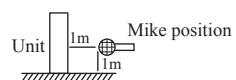
(Indoor unit)

| Model       | SRF50ZSX-W |          |
|-------------|------------|----------|
| Noise Level | Cooling    | 38 dB(A) |
|             | Heating    | 41 dB(A) |

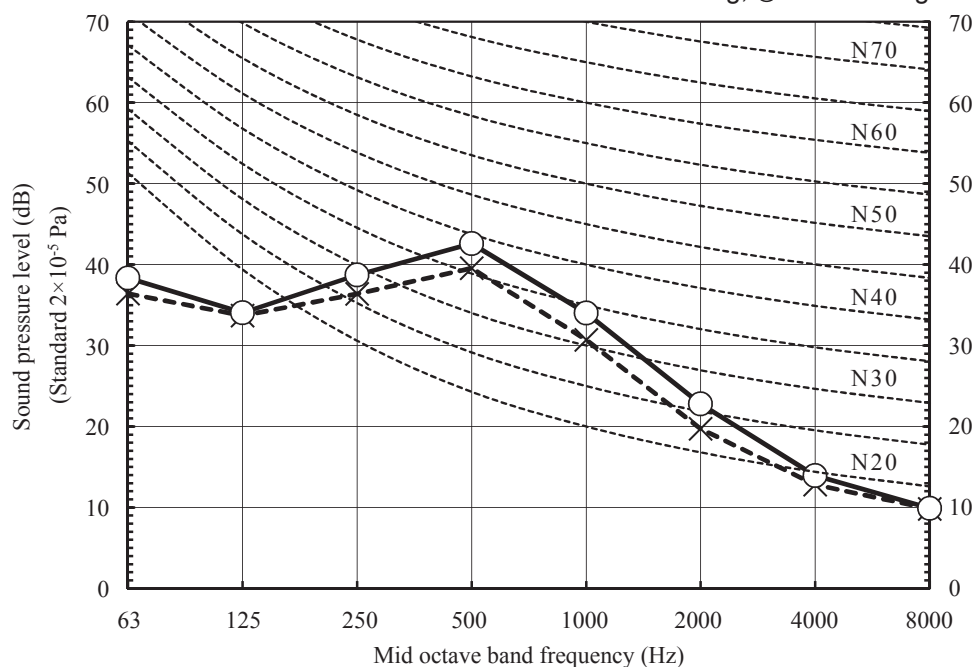
|           |               |
|-----------|---------------|
| Condition | ISO5151 T1/H1 |
|-----------|---------------|

|      |    |
|------|----|
| MODE | Me |
|------|----|

●Mike position



× ..... Cooling, ○ — Heating



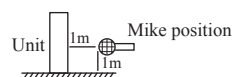
(Indoor unit)

| Model       | SRF50ZSX-W |          |
|-------------|------------|----------|
| Noise Level | Cooling    | 33 dB(A) |
|             | Heating    | 38 dB(A) |

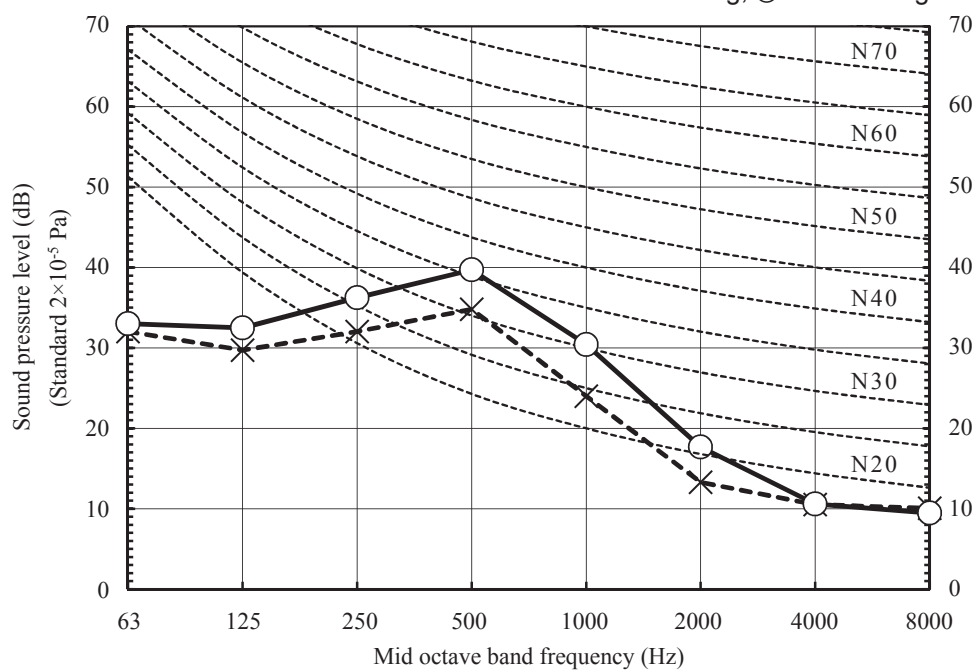
|           |               |
|-----------|---------------|
| Condition | ISO5151 T1/H1 |
|-----------|---------------|

|      |    |
|------|----|
| MODE | Lo |
|------|----|

●Mike position



× ..... Cooling, ○ — Heating



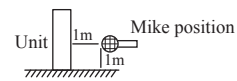
(Indoor unit)

| Model       | SRF50ZSX-W |          |
|-------------|------------|----------|
| Noise Level | Cooling    | 28 dB(A) |
|             | Heating    | 32 dB(A) |

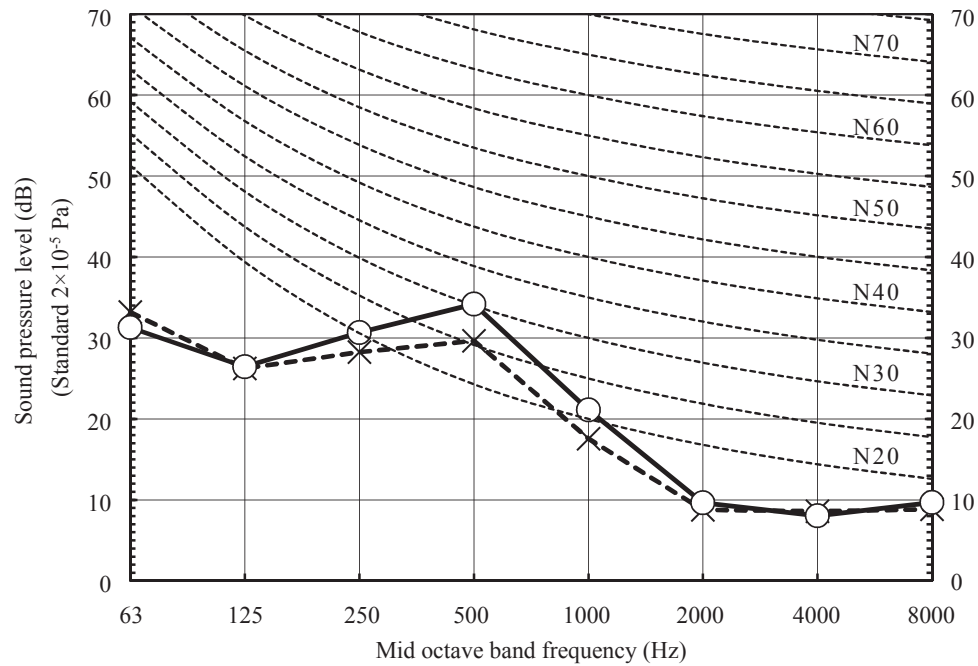
|           |               |
|-----------|---------------|
| Condition | ISO5151 T1/H1 |
|-----------|---------------|

|      |     |
|------|-----|
| MODE | ULo |
|------|-----|

●Mike position



× ..... Cooling, ○ — Heating



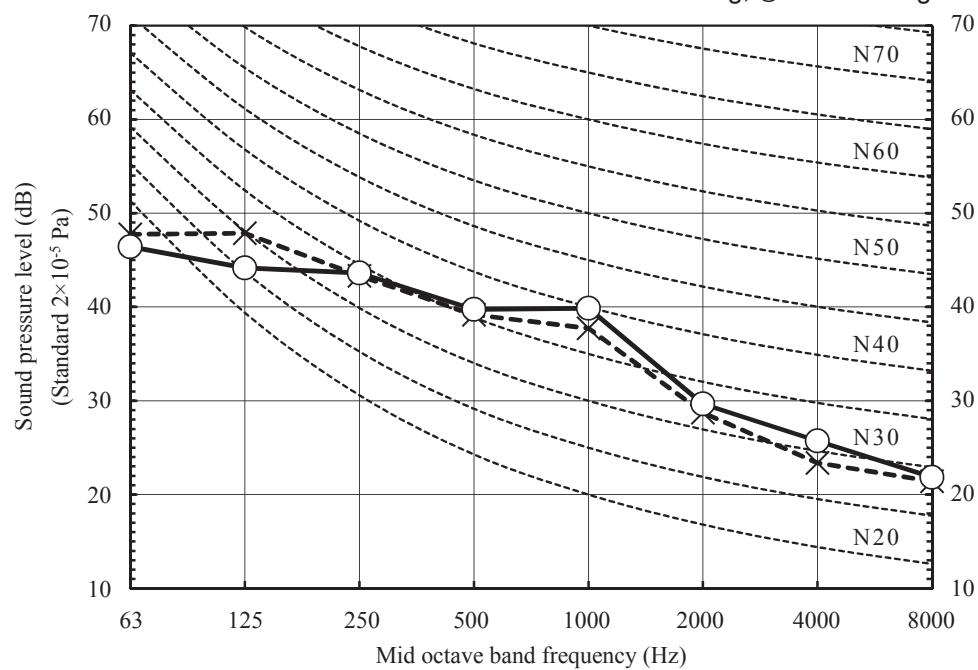
(Outdoor unit)

| Model       | SRC50ZSX-W2 |          |
|-------------|-------------|----------|
| Noise Level | Cooling     | 42 dB(A) |
|             | Heating     | 43 dB(A) |

|           |               |
|-----------|---------------|
| Condition | ISO5151 T1/H1 |
|-----------|---------------|

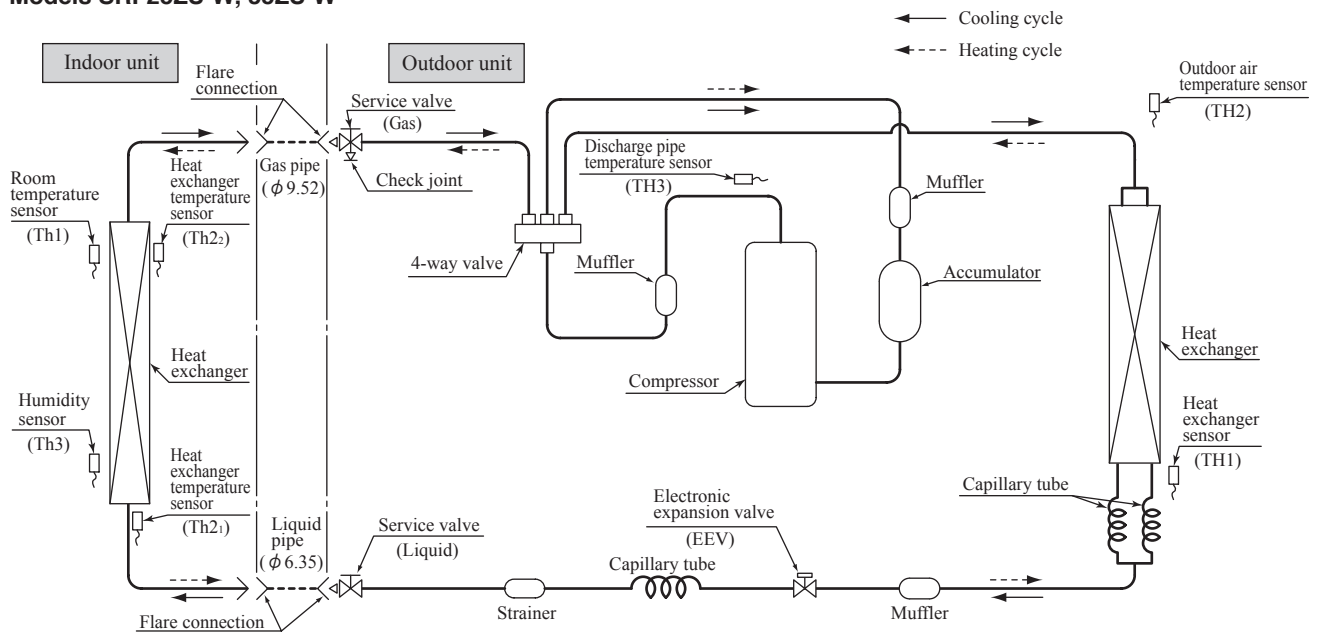
|      |        |
|------|--------|
| MODE | Silent |
|------|--------|

× ..... Cooling, ○ — Heating



## 5. PIPING SYSTEM

Models SRF25ZS-W, 35ZS-W



Model SRF50ZSX-W

