

MHI

TECHNICAL MANUAL

DRAFT

Manual No.'15•SCM-DB-181D

INVERTER MULTI-SPLIT SYSTEM RESIDENTIAL AIR-CONDITIONERS (Split system, air to air heat pump type)

Ceiling concealed type

SRR25ZM-S

35ZM-S

50ZM-S

60ZM-S



MITSUBISHI HEAVY INDUSTRIES, LTD.

CONTENTS

1. SPECIFICATIONS	2
2. EXTERIOR DIMENSIONS	6
3. ELECTRICAL WIRING	8

1. SPECIFICATIONS

Item			Model	SRR25ZM-S		
Power source				1 Phase, 220V - 240V, 50Hz		
Operation data (1)	Nominal cooling capacity (range)		kW	2.5		
	Nominal heating capacity (range)		kW	3.4		
	Sound power level	Cooling	dB(A)	56		
		Heating		59		
	Sound pressure level	Cooling		Hi: 37 Me: 33 Lo: 30 ULo: 24		
		Heating		Hi: 40 Me: 37 Lo: 34		
Silent mode sound pressure level				—		
Exterior dimensions (Height x Width x Depth)			mm	200 x 750 x 500		
Exterior appearance (Munsell color)				—		
Net weight			kg	20.5		
Heat exchanger				Louver fins & inner grooved tubing		
Fan type & Q'ty				Centrifugal fan x 2		
Fan motor (Stating method)			W	51 x 1 (Direct drive)		
Air flow	Cooling	m³/min	Hi: 9.5 Me: 8.5 Lo: 6.5			
	Heating		Hi: 10.0 Me: 9.0 Lo: 8.0			
Available external static pressure			Pa	35		
Outside air intake				Not possible		
Air filter, Quality / Quantity				Polypropylene net x 1		
Shock & vibration absorber				Cushion rubber (for fan motor)		
Operation control	Remote control			Wireless remote control		
	Room temperature control			Microcomputer thermostat		
	Operation display			RUN: Green, TIMER: Yellow, HI POWER: Green, ECONO: Green		
Safety equipments				Frost protection, Serial signal error protection, Indoor fan motor error protection		
Installation data	Refrigerant piping size (O.D)		mm	Liquid line : ϕ 6.35 (1/4") Gas line : ϕ 9.52 (3/8")		
	Connecting method			Flare connection		
	Attached length of piping		m	—		
	Insulation for piping			Necessary (Both sides), independent		
	Drain hose			Hose connectable (VP 25)		
Drain pump, max lift height			mm	—		
Interconnecting wires		Size x Core number		1.5mm² x 4 cores (Including earth cable) / Terminal block (Screw fixing type)		
IP number				IPX0		
Standard accessories				Mounting kit		
Option parts				Wired remote control, Interface kit (SC-BIKN-E), Bottom air inlet kit		
Note (1) The data are measured at the following conditions.				The pipe length is 7.5m.		
Operation	Item	Indoor air temperature		Outdoor air temperature		Standards
		DB	WB	DB	WB	
	Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
	Heating	20°C	—	7°C	6°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.						

RWA000Z263

Item			Model	SRR35ZM-S		
Power source				1 Phase, 220V - 240V, 50Hz		
Operation data (1)	Nominal cooling capacity (range)		kW	3.5		
	Nominal heating capacity (range)		kW	4.5		
	Sound power level	Cooling	dB(A)	57		
		Heating		60		
	Sound pressure level	Cooling		Hi: 38 Me: 34 Lo: 31 ULo: 25		
		Heating		Hi: 41 Me: 38 Lo: 35		
Silent mode sound pressure level				—		
Exterior dimensions (Height x Width x Depth)			mm	200 x 750 x 500		
Exterior appearance (Munsell color)				—		
Net weight			kg	20.5		
Heat exchanger				Louver fins & inner grooved tubing		
Fan type & Q'ty				Centrifugal fan x 2		
Fan motor (Stating method)			W	51 x 1 (Direct drive)		
Air flow	Cooling	m³/min	Hi: 10.0 Me: 8.5 Lo: 7.0			
	Heating		Hi: 10.5 Me: 9.5 Lo: 8.5			
Available external static pressure			Pa	35		
Outside air intake				Not possible		
Air filter, Quality / Quantity				Polypropylene net x 1		
Shock & vibration absorber				Cushion rubber (for fan motor)		
Operation control	Remote control			Wireless remote control		
	Room temperature control			Microcomputer thermostat		
	Operation display			RUN: Green, TIMER: Yellow, HI POWER: Green, ECONO: Green		
Safety equipments				Frost protection, Serial signal error protection, Indoor fan motor error protection		
Installation data	Refrigerant piping size (O.D)		mm	Liquid line : ϕ 6.35 (1/4") Gas line : ϕ 9.52 (3/8")		
	Connecting method			Flare connection		
	Attached length of piping		m	—		
	Insulation for piping			Necessary (Both sides), independent		
	Drain hose			Hose connectable (VP 25)		
Drain pump, max lift height			mm	—		
Interconnecting wires		Size x Core number		1.5mm² x 4 cores (Including earth cable) / Terminal block (Screw fixing type)		
IP number				IPX0		
Standard accessories				Mounting kit		
Option parts				Wired remote control, Interface kit (SC-BIKN-E), Bottom air inlet kit		
Note (1) The data are measured at the following conditions.				The pipe length is 7.5m.		
Operation	Item	Indoor air temperature		Outdoor air temperature		Standards
		DB	WB	DB	WB	
	Cooling		27°C	19°C	35°C	24°C
Heating		20°C	—	7°C	6°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.						

RWA000Z263

Item			Model	SRR50ZM-S		
Power source				1 Phase, 220V - 240V, 50Hz		
Operation data (1)	Nominal cooling capacity (range)		kW	5.0		
	Nominal heating capacity (range)		kW	5.8		
	Sound power level	Cooling	dB(A)	59		
		Heating		61		
	Sound pressure level	Cooling		Hi: 41 Me: 37 Lo: 34 ULo: 29		
		Heating		Hi: 43 Me: 39 Lo: 37		
Silent mode sound pressure level				—		
Exterior dimensions (Height x Width x Depth)			mm	200 x 950 x 500		
Exterior appearance (Munsell color)				—		
Net weight			kg	24		
Heat exchanger				Louver fins & inner grooved tubing		
Fan type & Q'ty				Centrifugal fan x 3		
Fan motor (Stating method)			W	85 x 1 (Direct drive)		
Air flow	Cooling	m³/min	Hi: 13.5 Me: 11.0 Lo: 10.0			
	Heating		Hi: 14.5 Me: 12.5 Lo: 11.0			
Available external static pressure			Pa	35		
Outside air intake				Not possible		
Air filter, Quality / Quantity				Polypropylene net x 1		
Shock & vibration absorber				Cushion rubber (for fan motor)		
Operation control	Remote control			Wireless remote control		
	Room temperature control			Microcomputer thermostat		
	Operation display			RUN: Green, TIMER: Yellow, HI POWER: Green, ECONO: Green		
Safety equipments				Frost protection, Serial signal error protection, Indoor fan motor error protection		
Installation data	Refrigerant piping size (O.D)		mm	Liquid line : ϕ 6.35 (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		
	Drain hose			Hose connectable (VP 25)		
Drain pump, max lift height			mm	—		
Interconnecting wires		Size x Core number	1.5mm² x 4 cores (Including earth cable) / Terminal block (Screw fixing type)			
IP number				IPX0		
Standard accessories				Mounting kit		
Option parts				Wired remote control, Interface kit (SC-BIKN-E), Bottom air inlet kit		
Note (1) The data are measured at the following conditions.				The pipe length is 7.5m.		
Operation	Item	Indoor air temperature		Outdoor air temperature		Standards
		DB	WB	DB	WB	
	Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
	Heating	20°C	—	7°C	6°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.						

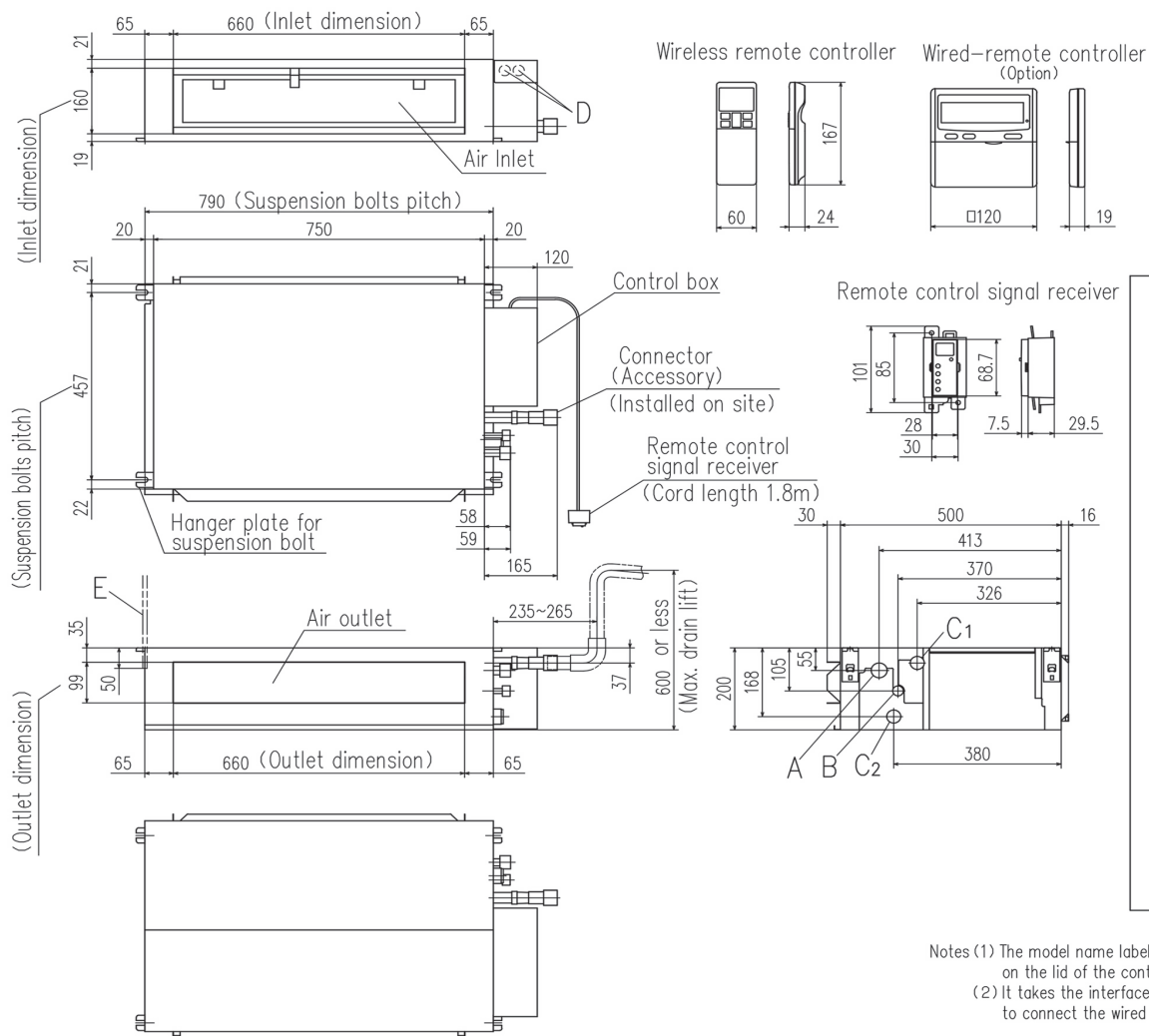
RWA000Z263

Item			Model	SRR60ZM-S		
Power source				1 Phase, 220V - 240V, 50Hz		
Operation data (1)	Nominal cooling capacity (range)		kW	6.1		
	Nominal heating capacity (range)		kW	6.8		
	Sound power level	Cooling	dB(A)	60		
		Heating		63		
	Sound pressure level	Cooling		Hi: 44 Me: 38 Lo: 35 ULo: 30		
		Heating		Hi: 45 Me: 41 Lo: 38		
Silent mode sound pressure level				—		
Exterior dimensions (Height x Width x Depth)			mm	200 x 950 x 500		
Exterior appearance (Munsell color)				—		
Net weight			kg	24		
Heat exchanger				Louver fins & inner grooved tubing		
Fan type & Q'ty				Centrifugal fan x 3		
Fan motor (Stating method)			W	85 x 1 (Direct drive)		
Air flow	Cooling	m³/min	Hi: 14.5 Me: 11.5 Lo: 10.5			
			Hi: 15.0 Me: 13.0 Lo: 11.5			
Available external static pressure			Pa	35		
Outside air intake				Not possible		
Air filter, Quality / Quantity				Polypropylene net x 1		
Shock & vibration absorber				Cushion rubber (for fan motor)		
Operation control	Remote control			Wireless remote control		
	Room temperature control			Microcomputer thermostat		
	Operation display			RUN: Green, TIMER: Yellow, HI POWER: Green, ECONO: Green		
Safety equipments				Frost protection, Serial signal error protection, Indoor fan motor error protection		
Installation data	Refrigerant piping size (O.D)		mm	Liquid line : ϕ 6.35 (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		
	Drain hose			Hose connectable (VP 25)		
Drain pump, max lift height			mm	—		
Interconnecting wires		Size x Core number		1.5mm² x 4 cores (Including earth cable) / Terminal block (Screw fixing type)		
IP number				IPX0		
Standard accessories				Mounting kit		
Option parts				Wired remote control, Interface kit (SC-BIKN-E), Bottom air inlet kit		
Note (1) The data are measured at the following conditions.				The pipe length is 7.5m.		
Operation	Item	Indoor air temperature		Outdoor air temperature		Standards
		DB	WB	DB	WB	
	Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
	Heating	20°C	—	7°C	6°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.						

RWA000Z263

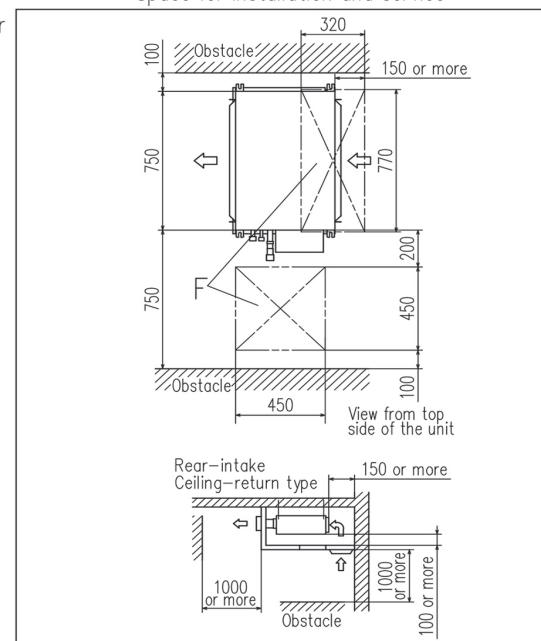
2. EXTERIOR DIMENSIONS

Models SRR25ZM-S, 35ZM-S



Symbol	Content
	Model
A	Gas piping
B	Liquid piping
C1	Drain piping
C2	Drain piping (Gravity drainage)
D	Hole for wiring
E	Suspension bolts
F	Inspection hole

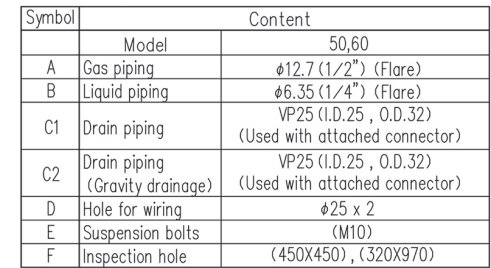
Space for installation and service



Unit: mm

- Notes (1) The model name label is attached on the lid of the control box.
- (2) It takes the interface kit (SC-BIKN-E) to connect the wired remote controller.

RJJ000Z001



Notes (1) The model name label is attached on the lid of the control box.
(2) It takes the interface kit (SC-BIKN-E) to connect the wired remote controller.

3. ELECTRICAL WIRING

Models SRR25ZM-S, 35ZM-S, 50ZM-S, 60ZM-S

Item	Description
CNE	Connector
CNG	
CNS	
CNU	
CNW	
CNY	
FMi	
Th1	Room temp. sensor
Th2,2	Heat exch. sensor
DS	Diode stack
F _{1,2}	Fuse
TB	Terminal block
DM	Drain motor
FS	Float switch
Va	Varistor

Color Marks	
Mark	Color
BK	Black
BL	Blue
RD	Red
WH	White
OR	Orange
Y	Yellow
Y/G	Yellow/Green

