Manual No.'18•SRK-T-250

MITSUBISHI HEAVY INDUSTRIES

TECHNICAL MANUAL

INVERTER WALL MOUNTED TYPE RESIDENTIAL AIR-CONDITIONERS

(Split system, air to air heat pump type)

SRK20ZS-W, -WB, -WT
25ZS-W, -WB, -WT
35ZS-W, -WB, -WT
50ZS-W, -WB, -WT

MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS, LTD.

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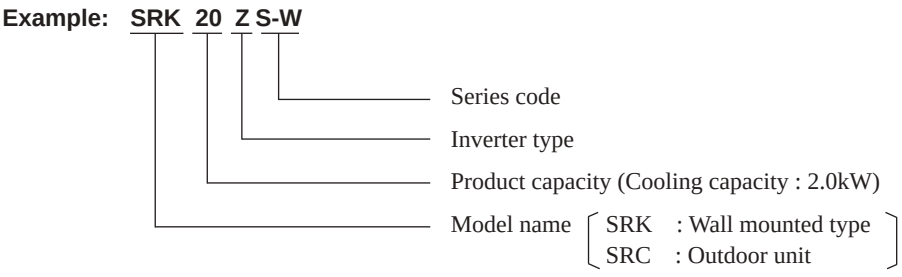


1. SPECIFICATIONS

Item			Model	SRK20ZS-W	
				Indoor unit **SRK20ZS-W**	Outdoor unit **SRC20ZS-W**
Power source				1 Phase, 220 - 240V, 50Hz / 220V, 60Hz	
Operation data	Nominal cooling capacity (range)		kW	2.0 (0.9 (Min.) - 2.9 (Max.))	
	Nominal heating capacity (range)		kW	2.7 (0.9 (Min.) - 4.3 (Max.))	
	Heating capacity (H2)		kW	—	
	Power consumption	Cooling	kW	0.44 (0.19 - 0.80)	
		Heating		0.59 (0.20 - 1.40)	
		Heating (H2)		—	
	Max power consumption			1.65	
	Running current	Cooling	A	2.6 / 2.5 / 2.4 (220/ 230/ 240V)	
		Heating		3.2 / 3.0 / 2.9 (220/ 230/ 240V)	
	Inrush current, max current			3.2 / 3.0 / 2.9 (220/ 230/ 240V) Max. 9	
	Power factor	Cooling	%	79	
		Heating		85	
	EER	Cooling		4.55	
	COP	Heating		4.58	
		Heating (H2)		—	
	Sound power level	Cooling	dB(A)	48	56
		Heating		50	56
	Sound pressure level	Cooling		Hi: 34 Me: 25 Lo: 22 ULo: 19	45
		Heating		Hi: 36 Me: 29 Lo: 23 ULo: 19	45
	Silent mode sound pressure level			—	Cooling:42 / Heating:43
Exterior dimensions (Height x Width x Depth)			mm	290 x 870 x 230	540 x 780(+62) x 290
Exterior appearance (Equivalent color : Munsell, RAL)				Fine snow (Pure white) (8.0Y 9.3/0.1) , (9003)	Stucco white (4.2Y 7.5/1.1) , (7044)
Net weight			kg	9.5	31.5
Compressor type & Quantity				—	RM-C5077SBE71(Rotary type) x 1
Compressor motor (Starting method)			kW	—	0.75 (Inverter driven)
Refrigerant oil (Amount, type)			ℓ	—	0.30 (DIAMOND FREEZE MB75)
Refrigerant (Type, amount, pre-charge length)			kg	R32 0.62 in outdoor unit (Incl. the amount for the piping of 15m)	
Heat exchanger				Louver fins & inner grooved tubing	M fins & inner grooved tubing
Refrigerant control				Capillary tubes + Electronic expansion valve	
Fan type & Quantity				Tangential fan x 1	Propeller fan x 1
Fan motor (Starting method)			W	42 x1 (Direct drive)	24 x1 (Direct drive)
Air flow		Cooling	m^3/min	Hi: 9.3 Me: 7.0 Lo: 5.9 ULo: 5.0	27.4
		Heating		Hi: 10.0 Me: 8.5 Lo: 6.5 ULo: 5.9	23.6
Available external static pressure			Pa	0	0
Outside air intake				Not possible	—
Air filter, Quality / Quantity				Polypropylene net (Washable) x 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	
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 9.52 (3/8")
	Connecting method			Flare connection	Flare connection
	Attached length of piping		m	Liquid line : 0.54 / Gas line : 0.47	—
	Insulation for piping			Necessary (Both sides), independent	
	Refrigerant line (one way) length		m	Max.20	
	Vertical height diff. between O.U. and I.U.		m	Max.10 (Outdoor unit is higher) / Max.10 (Outdoor unit is lower)	
	Drain hose			Hose connectable (VP 16)	Hole ϕ20 x 2 pcs
Drain pump, max lift height			mm	—	—
Recommended breaker size			A	16	
L.R.A. (Locked rotor ampere)			A	3.2 / 3.0 / 2.9 (220/ 230/ 240V)	
Interconnecting wires		Size x Core number		1.5mm^2 x 4 cores (Including earth cable) / Terminal block (Screw fixing type)	
IP number				IPX0	IPX4
Standard accessories				Mounting kit, Clean filter (Allergen clear filter x 1, Photocatalytic washable deodorizing filter x 1)	
Option parts				Interface kit (SC-BIKN2-E)	

Notes (1) The data are measured at the following conditions.

The pipe length is 5m.

Item / Operation	Indoor air temperature DB	Indoor air temperature WB	Outdoor air temperature DB	Outdoor air temperature WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	—	7°C	6°C	ISO5151-H1
Heating (H2)	20°C	—	2°C	1°C	ISO5151-H2

(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.

RWA000Z274

Item			Model	SRK25ZS-W	
				Indoor unit **SRK25ZS-W**	Outdoor unit **SRC25ZS-W**
Power source				1 Phase, 220 - 240V, 50Hz / 220V, 60Hz	
Operation data	Nominal cooling capacity (range)		kW	2.5 (0.9 (Min.) - 3.1 (Max.))	
	Nominal heating capacity (range)		kW	3.2 (0.9 (Min.) - 4.5 (Max.))	
	Heating capacity (H2)		kW	—	
	Power consumption	Cooling	kW	0.62 (0.19 - 0.90)	
		Heating		0.74 (0.20 - 1.42)	
		Heating (H2)		—	
	Max power consumption			1.65	
	Running current	Cooling	A	3.3 / 3.1 / 3.0 (220/ 230/ 240V)	
		Heating		3.7 / 3.6 / 3.4 (220/ 230/ 240V)	
	Inrush current, max current			3.7 / 3.6 / 3.4 (220/ 230/ 240V) Max. 9	
	Power factor	Cooling	%	86	
		Heating		90	
	EER	Cooling		4.03	
	COP	Heating		4.32	
		Heating (H2)		—	
	Sound power level	Cooling	dB(A)	50	56
		Heating		53	58
	Sound pressure level	Cooling		Hi: 34 Me: 25 Lo: 22 ULo: 19	46
		Heating		Hi: 36 Me: 29 Lo: 23 ULo: 19	46
	Silent mode sound pressure level			—	Cooling:42 / Heating:43
Exterior dimensions (Height x Width x Depth)			mm	290 x 870 x 230	540 x 780(+62) x 290
Exterior appearance (Equivalent color : Munsell, RAL)				Fine snow (Pure white) (8.0Y 9.3/0.1) , (9003)	Stucco white (4.2Y 7.5/1.1) , (7044)
Net weight			kg	9.5	31.0
Compressor type & Quantity				—	RM-C5077SBE71(Rotary type) x 1
Compressor motor (Starting method)			kW	—	0.75 (Inverter driven)
Refrigerant oil (Amount, type)			ℓ	—	0.30 (DIAMOND FREEZE MB75)
Refrigerant (Type, amount, pre-charge length)			kg	R32 0.62 in outdoor unit (Incl. the amount for the piping of 15m)	
Heat exchanger				Louver fins & inner grooved tubing	M fins & inner grooved tubing
Refrigerant control				Capillary tubes + Electronic expansion valve	
Fan type & Quantity				Tangential fan x 1	Propeller fan x 1
Fan motor (Starting method)			W	42 x1 (Direct drive)	24 x1 (Direct drive)
Air flow		Cooling	m^3/min	Hi: 9.9 Me: 8.0 Lo: 5.9 ULo: 5.0	27.4
		Heating		Hi: 11.3 Me: 8.7 Lo: 6.7 ULo: 5.9	23.6
Available external static pressure			Pa	0	0
Outside air intake				Not possible	—
Air filter, Quality / Quantity				Polypropylene net (Washable) x 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	
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 9.52 (3/8")
	Connecting method			Flare connection	Flare connection
	Attached length of piping		m	Liquid line : 0.54 / Gas line : 0.47	—
	Insulation for piping			Necessary (Both sides), independent	
	Refrigerant line (one way) length		m	Max.20	
	Vertical height diff. between O.U. and I.U.		m	Max.10 (Outdoor unit is higher) / Max.10 (Outdoor unit is lower)	
	Drain hose			Hose connectable (VP 16)	Hole ϕ20 x 2 pcs
Drain pump, max lift height			mm	—	—
Recommended breaker size			A	16	
L.R.A. (Locked rotor ampere)			A	3.7 / 3.6 / 3.4 (220/ 230/ 240V)	
Interconnecting wires		Size x Core number		1.5mm^2 x 4 cores (Including earth cable) / Terminal block (Screw fixing type)	
IP number				IPX0	IPX4
Standard accessories				Mounting kit, Clean filter (Allergen clear filter x 1, Photocatalytic washable deodorizing filter x 1)	
Option parts				Interface kit (SC-BIKN2-E)	

Notes (1) The data are measured at the following conditions.

The pipe length is 5m.

Item / Operation	Indoor air temperature DB	Indoor air temperature WB	Outdoor air temperature DB	Outdoor air temperature WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	—	7°C	6°C	ISO5151-H1
Heating (H2)	20°C	—	2°C	1°C	ISO5151-H2

(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.

RWA000Z274

Item			Model	SRK35ZS-W	
				Indoor unit **SRK35ZS-W**	Outdoor unit **SRC35ZS-W**
Power source				1 Phase, 220 - 240V, 50Hz / 220V, 60Hz	
Operation data	Nominal cooling capacity (range)		kW	3.5 (0.9 (Min.) - 4.0 (Max.))	
	Nominal heating capacity (range)		kW	4.0 (0.9 (Min.) - 5.0 (Max.))	
	Heating capacity (H2)		kW	—	
	Power consumption	Cooling	kW	0.89 (0.17 - 1.24)	
		Heating		0.94 (0.19 - 1.45)	
		Heating (H2)		—	
	Max power consumption			1.65	
	Running current	Cooling	A	4.4 / 4.2 / 4.0 (220/ 230/ 240V)	
		Heating		4.6 / 4.4 / 4.2 (220/ 230/ 240V)	
	Inrush current, max current			4.6 / 4.4 / 4.2 (220/ 230/ 240V) Max. 9	
	Power factor	Cooling	%	92	
		Heating		93	
	EER	Cooling		3.93	
	COP	Heating		4.26	
		Heating (H2)		—	
	Sound power level	Cooling	dB(A)	54	61
		Heating		56	61
	Sound pressure level	Cooling		Hi: 40 Me: 30 Lo: 26 ULo: 19	50
		Heating		Hi: 41 Me: 36 Lo: 25 ULo:19	48
	Silent mode sound pressure level			—	Cooling:45 / Heating:44
Exterior dimensions (Height x Width x Depth)			mm	290 x 870 x 230	540 x 780(+62) x 290
Exterior appearance (Equivalent color : Munsell, RAL)				Fine snow (Pure white) (8.0Y 9.3/0.1) , (9003)	Stucco white (4.2Y 7.5/1.1) , (7044)
Net weight			kg	9.5	34.5
Compressor type & Quantity				—	RM-B5077SBE2(Rotary type) x 1
Compressor motor (Starting method)			kW	—	0.90 (Inverter driven)
Refrigerant oil (Amount, type)			ℓ	—	0.30 (DIAMOND FREEZE MB75)
Refrigerant (Type, amount, pre-charge length)			kg	R32 0.78 in outdoor unit (Incl. the amount for the piping of 15m)	
Heat exchanger				Louver fins & inner grooved tubing	M fins & inner grooved tubing
Refrigerant control				Capillary tubes + Electronic expansion valve	
Fan type & Quantity				Tangential fan x 1	Propeller fan x 1
Fan motor (Starting method)			W	42 x1 (Direct drive)	24 x1 (Direct drive)
Air flow		Cooling	m^3/min	Hi: 11.3 Me: 8.7 Lo: 7.0 ULo: 5.0	31.5
		Heating		Hi: 12.3 Me: 11.0 Lo: 7.0 ULo: 5.6	27.8
Available external static pressure			Pa	0	0
Outside air intake				Not possible	—
Air filter, Quality / Quantity				Polypropylene net (Washable) x 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	
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 9.52 (3/8")
	Connecting method			Flare connection	Flare connection
	Attached length of piping		m	Liquid line : 0.54 / Gas line : 0.47	—
	Insulation for piping			Necessary (Both sides), independent	
	Refrigerant line (one way) length		m	Max.20	
	Vertical height diff. between O.U. and I.U.		m	Max.10 (Outdoor unit is higher) / Max.10 (Outdoor unit is lower)	
	Drain hose			Hose connectable (VP 16)	Hole ϕ20 x 2 pcs
Drain pump, max lift height			mm	—	—
Recommended breaker size			A	16	
L.R.A. (Locked rotor ampere)			A	4.6 / 4.4 / 4.2 (220/ 230/ 240V)	
Interconnecting wires		Size x Core number		1.5mm^2 x 4 cores (Including earth cable) / Terminal block (Screw fixing type)	
IP number				IPX0	IPX4
Standard accessories				Mounting kit, Clean filter (Allergen clear filter x 1, Photocatalytic washable deodorizing filter x 1)	
Option parts				Interface kit (SC-BIKN2-E)	

Notes (1) The data are measured at the following conditions.

The pipe length is 5m.

Item / Operation	Indoor air temperature DB	Indoor air temperature WB	Outdoor air temperature DB	Outdoor air temperature WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	—	7°C	6°C	ISO5151-H1
Heating (H2)	20°C	—	2°C	1°C	ISO5151-H2

(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.

RWA000Z274

Item			Model	SRK50ZS-W	
				Indoor unit **SRK50ZS-W**	Outdoor unit **SRC50ZS-W**
Power source				1 Phase, 220 - 240V, 50Hz / 220V, 60Hz	
Operation data	Nominal cooling capacity (range)		kW	5.0 (1.3 (Min.) - 5.5 (Max.))	
	Nominal heating capacity (range)		kW	5.8 (1.3 (Min.) - 6.6 (Max.))	
	Heating capacity (H2)		kW	—	
	Power consumption	Cooling	kW	1.35 (0.29 - 1.80)	
		Heating		1.56 (0.25 - 1.98)	
		Heating (H2)		—	
	Max power consumption			2.68	
	Running current	Cooling	A	6.2 / 5.9 / 5.7 (220/ 230/ 240V)	
		Heating		7.2 / 6.9 / 6.6 (220/ 230/ 240V)	
	Inrush current, max current			7.2 / 6.9 / 6.6 (220/ 230/ 240V) Max. 14.5	
	Power factor	Cooling	%	99	
		Heating		99	
	EER	Cooling		3.70	
	COP	Heating		3.72	
		Heating (H2)		—	
	Sound power level	Cooling	dB(A)	59	61
		Heating		60	63
	Sound pressure level	Cooling		Hi: 46 Me: 36 Lo: 29 ULo: 22	51
		Heating		Hi: 46 Me: 37 Lo: 31 ULo: 24	52
	Silent mode sound pressure level			—	Cooling:43 / Heating:45
Exterior dimensions (Height x Width x Depth)			mm	290 x 870 x 230	595 x 780(+62) x 290
Exterior appearance (Equivalent color : Munsell, RAL)				Fine snow (Pure white) (8.0Y 9.3/0.1) , (9003)	Stucco white (4.2Y 7.5/1.1) , (7044)
Net weight			kg	10.0	36.0
Compressor type & Quantity				—	9RS102XDA21(Rotary type) x 1
Compressor motor (Starting method)			kW	—	1.50 (Inverter driven)
Refrigerant oil (Amount, type)			ℓ	—	0.32 (FW50S)
Refrigerant (Type, amount, pre-charge length)			kg	R32 1.05 in outdoor unit (Incl. the amount for the piping of 15m)	
Heat exchanger				Louver fins & inner grooved tubing	M fins & inner grooved tubing
Refrigerant control				Capillary tubes + Electronic expansion valve	
Fan type & Quantity				Tangential fan x 1	Propeller fan x 1
Fan motor (Starting method)			W	42 x1 (Direct drive)	24 x1 (Direct drive)
Air flow		Cooling	m^3/min	Hi: 12.1 Me: 9.9 Lo: 7.4 ULo: 5.9	32.8
		Heating		Hi: 13.9 Me: 11.2 Lo: 9.1 ULo: 7.4	32.8
Available external static pressure			Pa	0	0
Outside air intake				Not possible	—
Air filter, Quality / Quantity				Polypropylene net (Washable) x 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	
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	Flare connection
	Attached length of piping		m	Liquid line : 0.54 / Gas line : 0.47	—
	Insulation for piping			Necessary (Both sides), independent	
	Refrigerant line (one way) length		m	Max.25	
	Vertical height diff. between O.U. and I.U.		m	Max.15 (Outdoor unit is higher) / Max.15 (Outdoor unit is lower)	
	Drain hose			Hose connectable (VP 16)	Hole ϕ20 x 2 pcs
Drain pump, max lift height			mm	—	—
Recommended breaker size			A	20	
L.R.A. (Locked rotor ampere)			A	7.2 / 6.9 / 6.6 (220/ 230/ 240V)	
Interconnecting wires		Size x Core number		1.5mm^2 x 4 cores (Including earth cable) / Terminal block (Screw fixing type)	
IP number				IPX0	IPX4
Standard accessories				Mounting kit, Clean filter (Allergen clear filter x 1, Photocatalytic washable deodorizing filter x 1)	
Option parts				Interface kit (SC-BIKN2-E)	

Notes (1) The data are measured at the following conditions.

The pipe length is 5m.

Item / Operation	Indoor air temperature DB	Indoor air temperature WB	Outdoor air temperature DB	Outdoor air temperature WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	—	7°C	6°C	ISO5151-H1
Heating (H2)	20°C	—	2°C	1°C	ISO5151-H2

(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.

RWA000Z274

Item			Model	SRK20ZS-WB	
				Indoor unit **SRK20ZS-WB**	Outdoor unit **SRC20ZS-W**
Power source				1 Phase, 220 - 240V, 50Hz / 220V, 60Hz	
Operation data	Nominal cooling capacity (range)		kW	2.0 (0.9 (Min.) - 2.9 (Max.))	
	Nominal heating capacity (range)		kW	2.7 (0.9 (Min.) - 4.3 (Max.))	
	Heating capacity (H2)		kW	—	
	Power consumption	Cooling	kW	0.44 (0.19 - 0.80)	
		Heating		0.59 (0.20 - 1.40)	
		Heating (H2)		—	
	Max power consumption			1.65	
	Running current	Cooling	A	2.6 / 2.5 / 2.4 (220/ 230/ 240V)	
		Heating		3.2 / 3.0 / 2.9 (220/ 230/ 240V)	
	Inrush current, max current			3.2 / 3.0 / 2.9 (220/ 230/ 240V) Max. 9	
	Power factor	Cooling	%	79	
		Heating		85	
	EER	Cooling		4.55	
	COP	Heating		4.58	
		Heating (H2)		—	
	Sound power level	Cooling	dB(A)	48	56
		Heating		50	56
	Sound pressure level	Cooling		Hi: 34 Me: 25 Lo: 22 ULo: 19	45
		Heating		Hi: 36 Me: 29 Lo: 23 ULo: 19	45
	Silent mode sound pressure level			—	Cooling:42 / Heating:43
Exterior dimensions (Height x Width x Depth)			mm	290 x 870 x 230	540 x 780(+62) x 290
Exterior appearance (Equivalent color : Munsell, RAL)				Fine snow (8.0Y 9.3/0.1) , (9003) Black (4.0PB 2.44/0.25) , (9011)	Stucco white (4.2Y 7.5/1.1) , (7044)
Net weight			kg	9.5	31.0
Compressor type & Quantity				—	RM-C5077SBE71(Rotary type) x 1
Compressor motor (Starting method)			kW	—	0.75 (Inverter driven)
Refrigerant oil (Amount, type)			ℓ	—	0.30 (DIAMOND FREEZE MB75)
Refrigerant (Type, amount, pre-charge length)			kg	R32 0.6 in outdoor unit (Incl. the amount for the piping of 15m)	
Heat exchanger				Louver fins & inner grooved tubing	M fins & inner grooved tubing
Refrigerant control				Capillary tubes + Electronic expansion valve	
Fan type & Quantity				Tangential fan x 1	Propeller fan x 1
Fan motor (Starting method)			W	42 x1 (Direct drive)	24 x1 (Direct drive)
Air flow		Cooling	m^3/min	Hi: 9.3 Me: 7.0 Lo: 5.9 ULo: 5.0	27.4
		Heating		Hi: 10.0 Me: 8.5 Lo: 6.5 ULo: 5.9	23.6
Available external static pressure			Pa	0	0
Outside air intake				Not possible	—
Air filter, Quality / Quantity				Polypropylene net (Washable) x 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	
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 9.52 (3/8")
	Connecting method			Flare connection	Flare connection
	Attached length of piping		m	Liquid line : 0.54 / Gas line : 0.47	—
	Insulation for piping			Necessary (Both sides), independent	
	Refrigerant line (one way) length		m	Max.20	
	Vertical height diff. between O.U. and I.U.		m	Max.10 (Outdoor unit is higher) / Max.10 (Outdoor unit is lower)	
	Drain hose			Hose connectable (VP 16)	Hole ϕ20 x 2 pcs
Drain pump, max lift height			mm	—	—
Recommended breaker size			A	16	
L.R.A. (Locked rotor ampere)			A	3.2 / 3.0 / 2.9 (220/ 230/ 240V)	
Interconnecting wires		Size x Core number		1.5mm^2 x 4 cores (Including earth cable) / Terminal block (Screw fixing type)	
IP number				IPX0	IPX4
Standard accessories				Mounting kit, Clean filter (Allergen clear filter x 1, Photocatalytic washable deodorizing filter x 1)	
Option parts				Interface kit (SC-BIKN2-E)	

Notes (1) The data are measured at the following conditions.

The pipe length is 5m.

Item / Operation	Indoor air temperature DB	Indoor air temperature WB	Outdoor air temperature DB	Outdoor air temperature WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	—	7°C	6°C	ISO5151-H1
Heating (H2)	20°C	—	2°C	1°C	ISO5151-H2

(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.

RWA000Z274

Item			Model	SRK25ZS-WB	
				Indoor unit **SRK25ZS-WB**	Outdoor unit **SRC25ZS-W**
Power source				1 Phase, 220 - 240V, 50Hz / 220V, 60Hz	
Operation data	Nominal cooling capacity (range)		kW	2.5 (0.9 (Min.) - 3.1 (Max.))	
	Nominal heating capacity (range)		kW	3.2 (0.9 (Min.) - 4.5 (Max.))	
	Heating capacity (H2)		kW	—	
	Power consumption	Cooling	kW	0.62 (0.19 - 0.90)	
		Heating		0.74 (0.20 - 1.42)	
		Heating (H2)		—	
	Max power consumption			1.65	
	Running current	Cooling	A	3.3 / 3.1 / 3.0 (220/ 230/ 240V)	
		Heating		3.7 / 3.6 / 3.4 (220/ 230/ 240V)	
	Inrush current, max current			3.7 / 3.6 / 3.4 (220/ 230/ 240V) Max. 9	
	Power factor	Cooling	%	86	
		Heating		90	
	EER	Cooling		4.03	
	COP	Heating		4.32	
		Heating (H2)		—	
	Sound power level	Cooling	dB(A)	50	56
		Heating		53	58
	Sound pressure level	Cooling		Hi: 36 Me: 28 Lo: 23 ULo: 19	46
		Heating		Hi: 39 Me: 30 Lo: 24 ULo: 19	46
	Silent mode sound pressure level			—	Cooling:42 / Heating:43
Exterior dimensions (Height x Width x Depth)			mm	290 x 870 x 230	540 x 780(+62) x 290
Exterior appearance (Equivalent color : Munsell, RAL)				Fine snow (8.0Y 9.3/0.1) , (9003) Black (4.0PB 2.44/0.25) , (9011)	Stucco white (4.2Y 7.5/1.1) , (7044)
Net weight			kg	9.5	31.0
Compressor type & Quantity				—	RM-C5077SBE71(Rotary type) x 1
Compressor motor (Starting method)			kW	—	0.75 (Inverter driven)
Refrigerant oil (Amount, type)			ℓ	—	0.30 (DIAMOND FREEZE MB75)
Refrigerant (Type, amount, pre-charge length)			kg	R32 0.62 in outdoor unit (Incl. the amount for the piping of 15m)	
Heat exchanger				Louver fins & inner grooved tubing	M fins & inner grooved tubing
Refrigerant control				Capillary tubes + Electronic expansion valve	
Fan type & Quantity				Tangential fan x 1	Propeller fan x 1
Fan motor (Starting method)			W	42 x1 (Direct drive)	24 x1 (Direct drive)
Air flow		Cooling	m^3/min	Hi: 9.9 Me: 8.0 Lo: 5.9 ULo: 5.0	27.4
		Heating		Hi: 11.3 Me: 8.7 Lo: 6.7 ULo: 5.9	23.6
Available external static pressure			Pa	0	0
Outside air intake				Not possible	—
Air filter, Quality / Quantity				Polypropylene net (Washable) x 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	
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 9.52 (3/8")
	Connecting method			Flare connection	Flare connection
	Attached length of piping		m	Liquid line : 0.54 / Gas line : 0.47	—
	Insulation for piping			Necessary (Both sides), independent	
	Refrigerant line (one way) length		m	Max.20	
	Vertical height diff. between O.U. and I.U.		m	Max.10 (Outdoor unit is higher) / Max.10 (Outdoor unit is lower)	
	Drain hose			Hose connectable (VP 16)	Hole ϕ20 x 2 pcs
Drain pump, max lift height			mm	—	—
Recommended breaker size			A	16	
L.R.A. (Locked rotor ampere)			A	3.7 / 3.6 / 3.4 (220/ 230/ 240V)	
Interconnecting wires		Size x Core number		1.5mm^2 x 4 cores (Including earth cable) / Terminal block (Screw fixing type)	
IP number				IPX0	IPX4
Standard accessories				Mounting kit, Clean filter (Allergen clear filter x 1, Photocatalytic washable deodorizing filter x 1)	
Option parts				Interface kit (SC-BIKN2-E)	

Notes (1) The data are measured at the following conditions.

The pipe length is 5m.

Item / Operation	Indoor air temperature DB	Indoor air temperature WB	Outdoor air temperature DB	Outdoor air temperature WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	—	7°C	6°C	ISO5151-H1
Heating (H2)	20°C	—	2°C	1°C	ISO5151-H2

(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.

RWA000Z274

Item			Model	SRK35ZS-WB	
				Indoor unit **SRK35ZS-WB**	Outdoor unit **SRC35ZS-W**
Power source				1 Phase, 220 - 240V, 50Hz / 220V, 60Hz	
Operation data	Nominal cooling capacity (range)		kW	3.5 (0.9 (Min.) - 4.0 (Max.))	
	Nominal heating capacity (range)		kW	4.0 (0.9 (Min.) - 5.0 (Max.))	
	Heating capacity (H2)		kW	—	
	Power consumption	Cooling	kW	0.89 (0.17 - 1.24)	
		Heating		0.94 (0.19 - 1.45)	
		Heating (H2)		—	
	Max power consumption			1.65	
	Running current	Cooling	A	4.4 / 4.2 / 4.0 (220/ 230/ 240V)	
		Heating		4.6 / 4.4 / 4.2 (220/ 230/ 240V)	
	Inrush current, max current			4.6 / 4.4 / 4.2 (220/ 230/ 240V) Max. 9	
	Power factor	Cooling	%	92	
		Heating		93	
	EER	Cooling		3.93	
	COP	Heating		4.26	
		Heating (H2)		—	
	Sound power level	Cooling	dB(A)	54	61
		Heating		56	61
	Sound pressure level	Cooling		Hi: 40 Me: 30 Lo: 26 ULo: 19	50
		Heating		Hi: 41 Me: 36 Lo: 25 ULo:19	48
	Silent mode sound pressure level			—	Cooling:45 / Heating:44
Exterior dimensions (Height x Width x Depth)			mm	290 x 870 x 230	540 x 780(+62) x 290
Exterior appearance (Equivalent color : Munsell, RAL)				Fine snow (8.0Y 9.3/0.1) , (9003) Black (4.0PB 2.44/0.25) , (9011)	Stucco white (4.2Y 7.5/1.1) , (7044)
Net weight			kg	9.5	34.5
Compressor type & Quantity				—	RM-B5077SBE2(Rotary type) x 1
Compressor motor (Starting method)			kW	—	0.90 (Inverter driven)
Refrigerant oil (Amount, type)			ℓ	—	0.30 (DIAMOND FREEZE MB75)
Refrigerant (Type, amount, pre-charge length)			kg	R32 0.78 in outdoor unit (Incl. the amount for the piping of 15m)	
Heat exchanger				Louver fins & inner grooved tubing	M fins & inner grooved tubing
Refrigerant control				Capillary tubes + Electronic expansion valve	
Fan type & Quantity				Tangential fan x 1	Propeller fan x 1
Fan motor (Starting method)			W	42 x1 (Direct drive)	24 x1 (Direct drive)
Air flow		Cooling	m^3/min	Hi: 11.3 Me: 8.7 Lo: 7.0 ULo: 5.0	31.5
		Heating		Hi: 12.3 Me: 11.0 Lo: 7.0 ULo: 5.6	27.8
Available external static pressure			Pa	0	0
Outside air intake				Not possible	—
Air filter, Quality / Quantity				Polypropylene net (Washable) x 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	
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 9.52 (3/8")
	Connecting method			Flare connection	Flare connection
	Attached length of piping		m	Liquid line : 0.54 / Gas line : 0.47	—
	Insulation for piping			Necessary (Both sides), independent	
	Refrigerant line (one way) length		m	Max.20	
	Vertical height diff. between O.U. and I.U.		m	Max.10 (Outdoor unit is higher) / Max.10 (Outdoor unit is lower)	
	Drain hose			Hose connectable (VP 16)	Hole ϕ20 x 2 pcs
Drain pump, max lift height			mm	—	—
Recommended breaker size			A	16	
L.R.A. (Locked rotor ampere)			A	4.6 / 4.4 / 4.2 (220/ 230/ 240V)	
Interconnecting wires		Size x Core number		1.5mm^2 x 4 cores (Including earth cable) / Terminal block (Screw fixing type)	
IP number				IPX0	IPX4
Standard accessories				Mounting kit, Clean filter (Allergen clear filter x 1, Photocatalytic washable deodorizing filter x 1)	
Option parts				Interface kit (SC-BIKN2-E)	

Notes (1) The data are measured at the following conditions.

The pipe length is 5m.

Item / Operation	Indoor air temperature DB	Indoor air temperature WB	Outdoor air temperature DB	Outdoor air temperature WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	—	7°C	6°C	ISO5151-H1
Heating (H2)	20°C	—	2°C	1°C	ISO5151-H2

(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.

RWA000Z274

Item			Model	SRK50ZS-WB	
				Indoor unit **SRK50ZS-WB**	Outdoor unit **SRC50ZS-W**
Power source				1 Phase, 220 - 240V, 50Hz / 220V, 60Hz	
Operation data	Nominal cooling capacity (range)		kW	5.0 (1.3 (Min.) - 5.5 (Max.))	
	Nominal heating capacity (range)		kW	5.8 (1.3 (Min.) - 6.6 (Max.))	
	Heating capacity (H2)		kW	—	
	Power consumption	Cooling	kW	1.35 (0.29 - 1.80)	
		Heating		1.56 (0.25 - 1.98)	
		Heating (H2)		—	
	Max power consumption			2.68	
	Running current	Cooling	A	6.2 / 5.9 / 5.7 (220/ 230/ 240V)	
		Heating		7.2 / 6.9 / 6.6 (220/ 230/ 240V)	
	Inrush current, max current			7.2 / 6.9 / 6.6 (220/ 230/ 240V) Max. 14.5	
	Power factor	Cooling	%	99	
		Heating		99	
	EER	Cooling		3.70	
	COP	Heating		3.72	
		Heating (H2)		—	
	Sound power level	Cooling	dB(A)	59	61
		Heating		60	63
	Sound pressure level	Cooling		Hi: 46 Me: 36 Lo: 29 ULo: 22	51
		Heating		Hi: 46 Me: 37 Lo: 31 ULo: 24	52
	Silent mode sound pressure level			—	Cooling:43 / Heating:45
Exterior dimensions (Height x Width x Depth)			mm	290 x 870 x 230	595 x 780(+62) x 290
Exterior appearance (Equivalent color : Munsell, RAL)				Fine snow (8.0Y 9.3/0.1) , (9003) Black (4.0PB 2.44/0.25) , (9011)	Stucco white (4.2Y 7.5/1.1) , (7044)
Net weight			kg	10.0	36.0
Compressor type & Quantity				—	9RS102XDA21(Rotary type) x 1
Compressor motor (Starting method)			kW	—	1.50 (Inverter driven)
Refrigerant oil (Amount, type)			ℓ	—	0.32 (FW50S)
Refrigerant (Type, amount, pre-charge length)			kg	R32 1.05 in outdoor unit (Incl. the amount for the piping of 15m)	
Heat exchanger				Louver fins & inner grooved tubing	M fins & inner grooved tubing
Refrigerant control				Capillary tubes + Electronic expansion valve	
Fan type & Quantity				Tangential fan x 1	Propeller fan x 1
Fan motor (Starting method)			W	42 x1 (Direct drive)	24 x1 (Direct drive)
Air flow		Cooling	m^3/min	Hi: 12.1 Me: 9.9 Lo: 7.4 ULo: 5.9	32.8
		Heating		Hi: 13.9 Me: 11.2 Lo: 9.1 ULo: 7.4	32.8
Available external static pressure			Pa	0	0
Outside air intake				Not possible	—
Air filter, Quality / Quantity				Polypropylene net (Washable) x 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	
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	Flare connection
	Attached length of piping		m	Liquid line : 0.54 / Gas line : 0.47	—
	Insulation for piping			Necessary (Both sides), independent	
	Refrigerant line (one way) length		m	Max.25	
	Vertical height diff. between O.U. and I.U.		m	Max.15 (Outdoor unit is higher) / Max.15 (Outdoor unit is lower)	
	Drain hose			Hose connectable (VP 16)	Hole ϕ20 x 2 pcs
Drain pump, max lift height			mm	—	—
Recommended breaker size			A	20	
L.R.A. (Locked rotor ampere)			A	7.2 / 6.9 / 6.6 (220/ 230/ 240V)	
Interconnecting wires		Size x Core number		1.5mm^2 x 4 cores (Including earth cable) / Terminal block (Screw fixing type)	
IP number				IPX0	IPX4
Standard accessories				Mounting kit, Clean filter (Allergen clear filter x 1, Photocatalytic washable deodorizing filter x 1)	
Option parts				Interface kit (SC-BIKN2-E)	

Notes (1) The data are measured at the following conditions.

The pipe length is 5m.

Item / Operation	Indoor air temperature DB	Indoor air temperature WB	Outdoor air temperature DB	Outdoor air temperature WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	—	7°C	6°C	ISO5151-H1
Heating (H2)	20°C	—	2°C	1°C	ISO5151-H2

(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.

RWA000Z274

Item			Model	SRK20ZS-WT	
				Indoor unit **SRK20ZS-WT**	Outdoor unit **SRC20ZS-W**
Power source				1 Phase, 220 - 240V, 50Hz / 220V, 60Hz	
Operation data	Nominal cooling capacity (range)		kW	2.0 (0.9 (Min.) - 2.9 (Max.))	
	Nominal heating capacity (range)		kW	2.7 (0.9 (Min.) - 4.3 (Max.))	
	Heating capacity (H2)		kW	—	
	Power consumption	Cooling	kW	0.44 (0.19 - 0.80)	
		Heating		0.59 (0.20 - 1.40)	
		Heating (H2)		—	
	Max power consumption			1.65	
	Running current	Cooling	A	2.6 / 2.5 / 2.4 (220/ 230/ 240V)	
		Heating		3.2 / 3.0 / 2.9 (220/ 230/ 240V)	
	Inrush current, max current			3.2 / 3.0 / 2.9 (220/ 230/ 240V) Max. 9	
	Power factor	Cooling	%	79	
		Heating		85	
	EER	Cooling		4.55	
	COP	Heating		4.58	
		Heating (H2)		—	
	Sound power level	Cooling	dB(A)	48	56
		Heating		50	56
	Sound pressure level	Cooling		Hi: 34 Me: 25 Lo: 22 ULo: 19	45
		Heating		Hi: 36 Me: 29 Lo: 23 ULo: 19	45
	Silent mode sound pressure level			—	Cooling:43 / Heating:45
Exterior dimensions (Height x Width x Depth)			mm	290 x 870 x 230	540 x 780(+62) x 290
Exterior appearance (Equivalent color : Munsell, RAL)				Titanium gray (1.6Y 6.59/0.63) , (7048) Black (4.0PB 2.44/0.25) , (9011)	Stucco white (4.2Y 7.5/1.1) , (7044)
Net weight			kg	9.5	31.0
Compressor type & Quantity				—	9RS102XDA21(Rotary type) x 1
Compressor motor (Starting method)			kW	—	1.50 (Inverter driven)
Refrigerant oil (Amount, type)			ℓ	—	0.32 (FW50S)
Refrigerant (Type, amount, pre-charge length)			kg	R32 0.62 in outdoor unit (Incl. the amount for the piping of 15m)	
Heat exchanger				0	M fins & inner grooved tubing
Refrigerant control				Capillary tubes + Electronic expansion valve	
Fan type & Quantity				Tangential fan x 1	Propeller fan x 1
Fan motor (Starting method)			W	42 x1 (Direct drive)	24 x1 (Direct drive)
Air flow		Cooling	m^3/min	Hi: 9.3 Me: 7.0 Lo: 5.9 ULo: 5.0	27.4
		Heating		Hi: 10.0 Me: 8.5 Lo: 6.5 ULo: 5.9	23.6
Available external static pressure			Pa	0	0
Outside air intake				Not possible	—
Air filter, Quality / Quantity				Polypropylene net (Washable) x 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	
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 9.52 (3/8")
	Connecting method			Flare connection	Flare connection
	Attached length of piping		m	Liquid line : 0.54 / Gas line : 0.47	—
	Insulation for piping			Necessary (Both sides), independent	
	Refrigerant line (one way) length		m	Max.20	
	Vertical height diff. between O.U. and I.U.		m	Max.10 (Outdoor unit is higher) / Max.10 (Outdoor unit is lower)	
	Drain hose			Hose connectable (VP 16)	Hole ϕ20 x 2 pcs
Drain pump, max lift height			mm	—	—
Recommended breaker size			A	16	
L.R.A. (Locked rotor ampere)			A	3.2 / 3.0 / 2.9 (220/ 230/ 240V)	
Interconnecting wires		Size x Core number		1.5mm^2 x 4 cores (Including earth cable) / Terminal block (Screw fixing type)	
IP number				IPX0	IPX4
Standard accessories				Mounting kit, Clean filter (Allergen clear filter x 1, Photocatalytic washable deodorizing filter x 1)	
Option parts				Interface kit (SC-BIKN2-E)	

Notes (1) The data are measured at the following conditions.

The pipe length is 5m.

Item / Operation	Indoor air temperature DB	Indoor air temperature WB	Outdoor air temperature DB	Outdoor air temperature WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	—	7°C	6°C	ISO5151-H1
Heating (H2)	20°C	—	2°C	1°C	ISO5151-H2

(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.

RWA000Z274

Item			Model	SRK25ZS-WT	
				Indoor unit **SRK25ZS-WT**	Outdoor unit **SRC25ZS-W**
Power source				1 Phase, 220 - 240V, 50Hz / 220V, 60Hz	
Operation data	Nominal cooling capacity (range)		kW	2.5 (0.9 (Min.) - 3.1 (Max.))	
	Nominal heating capacity (range)		kW	3.2 (0.9 (Min.) - 4.5 (Max.))	
	Heating capacity (H2)		kW	—	
	Power consumption	Cooling	kW	0.62 (0.19 - 0.90)	
		Heating		0.74 (0.20 - 1.42)	
		Heating (H2)		—	
	Max power consumption			1.65	
	Running current	Cooling	A	3.3 / 3.1 / 3.0 (220/ 230/ 240V)	
		Heating		3.7 / 3.6 / 3.4 (220/ 230/ 240V)	
	Inrush current, max current			3.7 / 3.6 / 3.4 (220/ 230/ 240V) Max. 9	
	Power factor	Cooling	%	86	
		Heating		90	
	EER	Cooling		4.03	
	COP	Heating		4.32	
		Heating (H2)		—	
	Sound power level	Cooling	dB(A)	50	56
		Heating		53	58
	Sound pressure level	Cooling		Hi: 36 Me: 28 Lo: 23 ULo: 19	46
		Heating		Hi: 39 Me: 30 Lo: 24 ULo: 19	46
	Silent mode sound pressure level			—	Cooling:42 / Heating:43
Exterior dimensions (Height x Width x Depth)			mm	290 x 870 x 230	540 x 780(+62) x 290
Exterior appearance (Equivalent color : Munsell, RAL)				Titanium gray (1.6Y 6.59/0.63) , (7048) Black (4.0PB 2.44/0.25) , (9011)	Stucco white (4.2Y 7.5/1.1) , (7044)
Net weight			kg	9.5	31.0
Compressor type & Quantity				—	RM-C5077SBE71(Rotary type)
Compressor motor (Starting method)			kW	—	0.75 (Inverter driven)
Refrigerant oil (Amount, type)			ℓ	—	0.30 (DIAMOND FREEZE MB75)
Refrigerant (Type, amount, pre-charge length)			kg	R32 0.62 in outdoor unit (Incl. the amount for the piping of 15m)	
Heat exchanger				Louver fins & inner grooved tubing	M fins & inner grooved tubing
Refrigerant control				Capillary tubes + Electronic expansion valve	
Fan type & Quantity				Tangential fan x 1	Propeller fan x 1
Fan motor (Starting method)			W	42 x1 (Direct drive)	24 x1 (Direct drive)
Air flow		Cooling	m^3/min	Hi: 9.9 Me: 8.0 Lo: 5.9 ULo: 5.0	27.4
		Heating		Hi: 11.3 Me: 8.7 Lo: 6.7 ULo: 5.9	23.6
Available external static pressure			Pa	0	0
Outside air intake				Not possible	—
Air filter, Quality / Quantity				Polypropylene net (Washable) x 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	
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 9.52 (3/8")
	Connecting method			Flare connection	Flare connection
	Attached length of piping		m	Liquid line : 0.54 / Gas line : 0.47	—
	Insulation for piping			Necessary (Both sides), independent	
	Refrigerant line (one way) length		m	Max.20	
	Vertical height diff. between O.U. and I.U.		m	Max.10 (Outdoor unit is higher) / Max.10 (Outdoor unit is lower)	
	Drain hose			Hose connectable (VP 16)	Hole ϕ20 x 2 pcs
Drain pump, max lift height			mm	—	—
Recommended breaker size			A	16	
L.R.A. (Locked rotor ampere)			A	3.2 / 3.0 / 2.9 (220/ 230/ 240V)	
Interconnecting wires		Size x Core number		1.5mm^2 x 4 cores (Including earth cable) / Terminal block (Screw fixing type)	
IP number				IPX0	IPX4
Standard accessories				Mounting kit, Clean filter (Allergen clear filter x 1, Photocatalytic washable deodorizing filter x 1)	
Option parts				Interface kit (SC-BIKN2-E)	

Notes (1) The data are measured at the following conditions.

The pipe length is 5m.

Item / Operation	Indoor air temperature DB	Indoor air temperature WB	Outdoor air temperature DB	Outdoor air temperature WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	—	7°C	6°C	ISO5151-H1
Heating (H2)	20°C	—	2°C	1°C	ISO5151-H2

(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.

RWA000Z274

Item			Model	SRK35ZS-WT	
				Indoor unit **SRK35ZS-WT**	Outdoor unit **SRC35ZS-W**
Power source				1 Phase, 220 - 240V, 50Hz / 220V, 60Hz	
Operation data	Nominal cooling capacity (range)		kW	3.5 (0.9 (Min.) - 4.0 (Max.))	
	Nominal heating capacity (range)		kW	4.0 (0.9 (Min.) - 5.0 (Max.))	
	Heating capacity (H2)		kW	—	
	Power consumption	Cooling	kW	0.89 (0.17 - 1.24)	
		Heating		0.94 (0.19 - 1.45)	
		Heating (H2)		—	
	Max power consumption			1.65	
	Running current	Cooling	A	4.4 / 4.2 / 4.0 (220/ 230/ 240V)	
		Heating		4.6 / 4.4 / 4.2 (220/ 230/ 240V)	
	Inrush current, max current			4.6 / 4.4 / 4.2 (220/ 230/ 240 V) Max. 9	
	Power factor	Cooling	%	92	
		Heating		93	
	EER	Cooling		3.93	
	COP	Heating		4.26	
		Heating (H2)		—	
	Sound power level	Cooling	dB(A)	54	61
		Heating		56	61
	Sound pressure level	Cooling		Hi: 40 Me: 30 Lo: 26 ULo: 19	50
		Heating		Hi: 41 Me: 36 Lo: 25 ULo:19	48
	Silent mode sound pressure level			—	Cooling:45 / Heating:44
Exterior dimensions (Height x Width x Depth)			mm	290 x 870 x 230	540 x 780(+62) x 290
Exterior appearance (Equivalent color : Munsell, RAL)				Titanium gray (1.6Y 6.59/0.63) , (7048) Black (4.0PB 2.44/0.25) , (9011)	Stucco white (4.2Y 7.5/1.1) , (7044)
Net weight			kg	9.5	34.5
Compressor type & Quantity				—	RM-B5077SBE2(Rotary type) x 1
Compressor motor (Starting method)			kW	—	0.90 (Inverter driven)
Refrigerant oil (Amount, type)			ℓ	—	0.30 (DIAMOND FREEZE MB75)
Refrigerant (Type, amount, pre-charge length)			kg	R32 0.78 in outdoor unit (Incl. the amount for the piping of 15m)	
Heat exchanger				Louver fins & inner grooved tubing	M fins & inner grooved tubing
Refrigerant control				Capillary tubes + Electronic expansion valve	
Fan type & Quantity				Tangential fan x 1	Propeller fan x 1
Fan motor (Starting method)			W	42 x1 (Direct drive)	24 x1 (Direct drive)
Air flow		Cooling	m^3/min	Hi: 11.3 Me: 8.7 Lo: 7.0 ULo: 5.0	31.5
		Heating		Hi: 12.3 Me: 11.0 Lo: 7.0 ULo: 5.6	27.8
Available external static pressure			Pa	0	0
Outside air intake				Not possible	—
Air filter, Quality / Quantity				Polypropylene net (Washable) x 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	
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 9.52 (3/8")
	Connecting method			Flare connection	Flare connection
	Attached length of piping		m	Liquid line : 0.54 / Gas line : 0.47	—
	Insulation for piping			Necessary (Both sides), independent	
	Refrigerant line (one way) length		m	Max.20	
	Vertical height diff. between O.U. and I.U.		m	Max.10 (Outdoor unit is higher) / Max.10 (Outdoor unit is lower)	
	Drain hose			Hose connectable (VP 16)	Hole ϕ20 x 2 pcs
Drain pump, max lift height			mm	—	—
Recommended breaker size			A	16	
L.R.A. (Locked rotor ampere)			A	4.6 / 4.4 / 4.2 (220/ 230/ 240 V)	
Interconnecting wires		Size x Core number		1.5mm^2 x 4 cores (Including earth cable) / Terminal block (Screw fixing type)	
IP number				IPX0	IPX4
Standard accessories				Mounting kit, Clean filter (Allergen clear filter x 1, Photocatalytic washable deodorizing filter x 1)	
Option parts				Interface kit (SC-BIKN2-E)	

Notes (1) The data are measured at the following conditions.

The pipe length is 5m.

Item / Operation	Indoor air temperature DB	Indoor air temperature WB	Outdoor air temperature DB	Outdoor air temperature WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	—	7°C	6°C	ISO5151-H1
Heating (H2)	20°C	—	2°C	1°C	ISO5151-H2

(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.

RWA000Z274

Item			Model	SRK50ZS-WT	
				Indoor unit **SRK50ZS-WT**	Outdoor unit **SRC50ZS-W**
Power source				1 Phase, 220 - 240V, 50Hz / 220V, 60Hz	
Operation data	Nominal cooling capacity (range)		kW	5.0 (1.3 (Min.) - 5.5 (Max.))	
	Nominal heating capacity (range)		kW	5.8 (1.3 (Min.) - 6.6 (Max.))	
	Heating capacity (H2)		kW	—	
	Power consumption	Cooling	kW	1.35 (0.29 - 1.80)	
		Heating		1.56 (0.25 - 1.98)	
		Heating (H2)		—	
	Max power consumption			2.68	
	Running current	Cooling	A	6.2 / 5.9 / 5.7 (220/ 230/ 240V)	
		Heating		7.2 / 6.9 / 6.6 (220/ 230/ 240V)	
	Inrush current, max current			7.2 / 6.9 / 6.6 (220/ 230/ 240V) Max. 14.5	
	Power factor	Cooling	%	99	
		Heating		99	
	EER	Cooling		3.70	
	COP	Heating		3.72	
		Heating (H2)		—	
	Sound power level	Cooling	dB(A)	59	61
		Heating		60	63
	Sound pressure level	Cooling		Hi: 46 Me: 36 Lo: 29 ULo: 22	51
		Heating		Hi: 46 Me: 37 Lo: 31 ULo: 24	52
	Silent mode sound pressure level			—	Cooling:45 / Heating:44
Exterior dimensions (Height x Width x Depth)			mm	290 x 870 x 230	595 x 780(+62) x 290
Exterior appearance (Equivalent color : Munsell, RAL)				Titanium gray (1.6Y 6.59/0.63) , (7048) Black (4.0PB 2.44/0.25) , (9011)	Stucco white (4.2Y 7.5/1.1) , (7044)
Net weight			kg	10.0	36.0
Compressor type & Quantity				—	9RS102XDA21(Rotary type) x 1
Compressor motor (Starting method)			kW	—	1.50 (Inverter driven)
Refrigerant oil (Amount, type)			ℓ	—	0.32 (FW50S)
Refrigerant (Type, amount, pre-charge length)			kg	R32 1.05 in outdoor unit (Incl. the amount for the piping of 15m)	
Heat exchanger				Louver fins & inner grooved tubing	M fins & inner grooved tubing
Refrigerant control				Capillary tubes + Electronic expansion valve	
Fan type & Quantity				Tangential fan x 1	Propeller fan x 1
Fan motor (Starting method)			W	42 x1 (Direct drive)	24 x1 (Direct drive)
Air flow		Cooling	m^3/min	Hi: 12.1 Me: 9.9 Lo: 7.4 ULo: 5.9	32.8
		Heating		Hi: 13.9 Me: 11.2 Lo: 9.1 ULo: 7.4	32.8
Available external static pressure			Pa	0	0
Outside air intake				Not possible	—
Air filter, Quality / Quantity				Polypropylene net (Washable) x 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	
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	Flare connection
	Attached length of piping		m	Liquid line : 0.54 / Gas line : 0.47	—
	Insulation for piping			Necessary (Both sides), independent	
	Refrigerant line (one way) length		m	Max.25	
	Vertical height diff. between O.U. and I.U.		m	Max.15 (Outdoor unit is higher) / Max.15 (Outdoor unit is lower)	
	Drain hose			Hose connectable (VP 16)	Hole ϕ20 x 2 pcs
Drain pump, max lift height			mm	—	—
Recommended breaker size			A	16	
L.R.A. (Locked rotor ampere)			A	7.2 / 6.9 / 6.6 (220/ 230/ 240V)	
Interconnecting wires		Size x Core number		1.5mm^2 x 4 cores (Including earth cable) / Terminal block (Screw fixing type)	
IP number				IPX0	IPX4
Standard accessories				Mounting kit, Clean filter (Allergen clear filter x 1, Photocatalytic washable deodorizing filter x 1)	
Option parts				Interface kit (SC-BIKN2-E)	

Notes (1) The data are measured at the following conditions.

The pipe length is 5m.

Item / Operation	Indoor air temperature DB	Indoor air temperature WB	Outdoor air temperature DB	Outdoor air temperature WB	Standards
Cooling	27°C	19°C	35°C	24°C	ISO5151-T1
Heating	20°C	—	7°C	6°C	ISO5151-H1
Heating (H2)	20°C	—	2°C	1°C	ISO5151-H2

(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.

RWA000Z274

Packing material weight list

Unit: kg

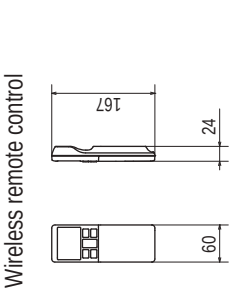
Model \ Material		Gross Weight	Packing Parts weight (Total)	Glass	Plastic	Paper and board	Metal		Wood	Other
							Aluminium	Steel		
Indoor	SRK20ZS-W	11.5	1.21	0.00	0.33	0.88	0.00	0.00	0.00	0.00
	SRK25ZS-W	11.5	1.21	0.00	0.33	0.88	0.00	0.00	0.00	0.00
	SRK35ZS-W	11.5	1.21	0.00	0.33	0.88	0.00	0.00	0.00	0.00
	SRK50ZS-W	12.0	1.21	0.00	0.33	0.88	0.00	0.00	0.00	0.00
	SRK20ZS-WB	11.5	1.21	0.00	0.33	0.88	0.00	0.00	0.00	0.00
	SRK25ZS-WB	11.5	1.21	0.00	0.33	0.88	0.00	0.00	0.00	0.00
	SRK35ZS-WB	11.5	1.21	0.00	0.33	0.88	0.00	0.00	0.00	0.00
	SRK50ZS-WB	12.0	1.21	0.00	0.33	0.88	0.00	0.00	0.00	0.00
	SRK20ZS-WT	11.5	1.21	0.00	0.33	0.88	0.00	0.00	0.00	0.00
	SRK25ZS-WT	11.5	1.21	0.00	0.33	0.88	0.00	0.00	0.00	0.00
	SRK35ZS-WT	11.5	1.21	0.00	0.33	0.88	0.00	0.00	0.00	0.00
	SRK50ZS-WT	12.0	1.21	0.00	0.33	0.88	0.00	0.00	0.00	0.00
Outdoor	SRC20ZS-W	32.5	2.04	0.00	0.35	1.69	0.00	0.00	0.00	0.00
	SRC25ZS-W	32.5	2.04	0.00	0.35	1.69	0.00	0.00	0.00	0.00
	SRC35ZS-W	36.0	2.04	0.00	0.35	1.69	0.00	0.00	0.00	0.00
	SRC50ZS-W	38.0	2.13	0.00	0.35	1.78	0.00	0.00	0.00	0.00

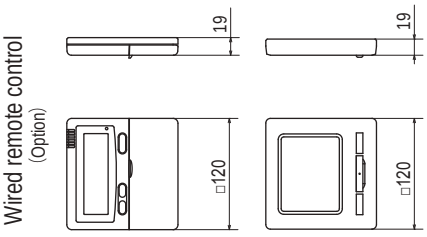
2. EXTERIOR DIMENSIONS

(1) Indoor units

Models SRK20ZS-W, 25ZS-W, 35ZS-W, 50ZS-W
SRK20ZS-WB, 25ZS-WB, 35ZS-WB, 50ZS-WB
SRK20ZS-WT, 25ZS-WT, 35ZS-WT, 50ZS-WT

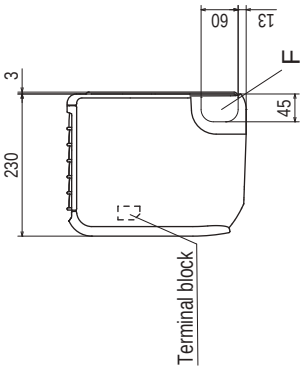
Symbol	Content	
A	Gas piping	SRK20, 25, 35 φ9.52 (3/8") (Flare) SRK50 φ12.7 (1/2") (Flare)
B	Liquid piping	φ6.35 (1/4") (Flare)
C	Hole on wall for right rear piping	(φ65)
D	Hole on wall for left rear piping	(φ65)
E	Drain hose	VP16
F	Outlet for piping (on both side)	

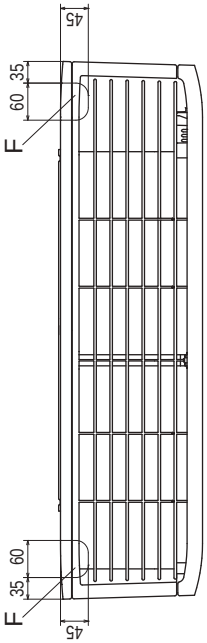


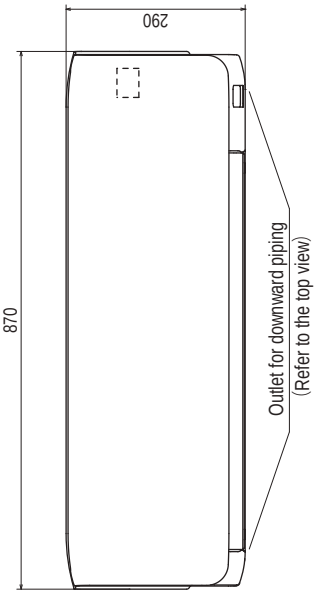


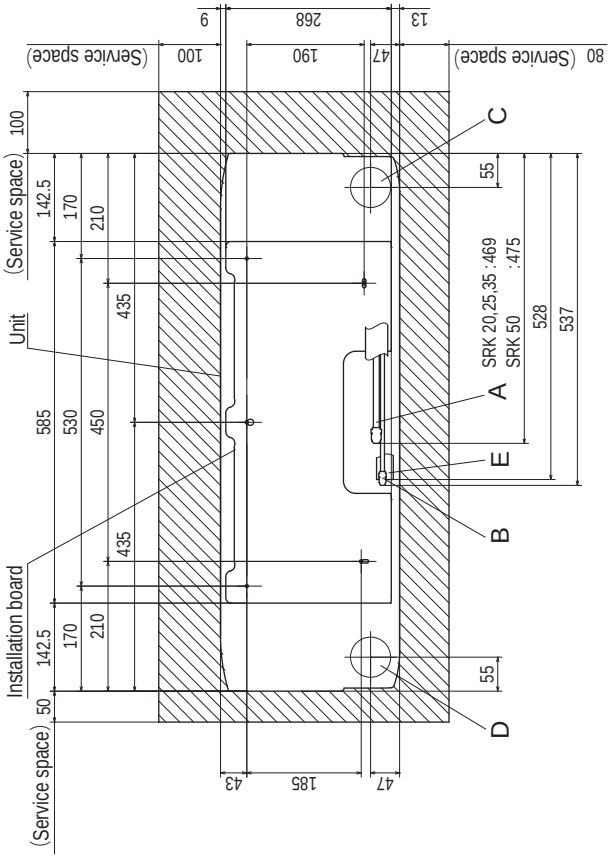
Notes (1) The model name label is attached on the right side of the unit.
(2) To connect the wired remote control, the interface kit (SC-BIKN2-E) is required.

Unit:mm









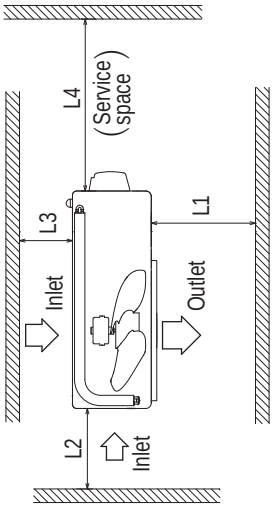
Space for installation and service when viewing from the front

RLF000Z103

(2) Outdoor units

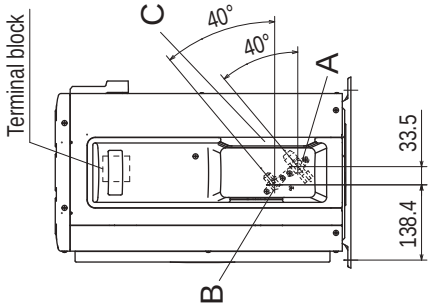
Models SRC20ZS-W, 25ZS-W, 35ZS-W

Notes
(1) The unit must not be surrounded by walls on the four sides.
(2) The unit must be fixed with anchor bolts. An anchor bolt must not protrude more than 15mm.
(3) If the unit is installed in the location where there is a possibility of strong winds, place the unit such that the direction of air from the outlet gets perpendicular to the wind direction.
(4) Leave 200mm or more space above the unit.
(5) The wall height on the outlet side should be 1200mm or less.
(6) The model name label is attached on the right side of the unit.

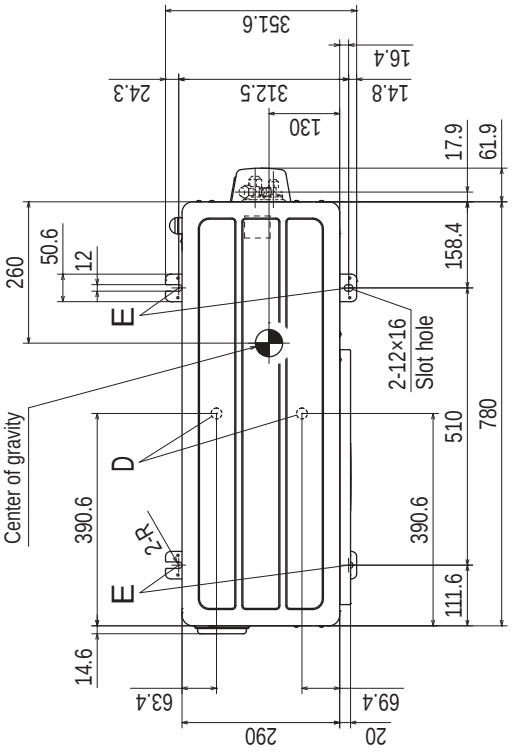


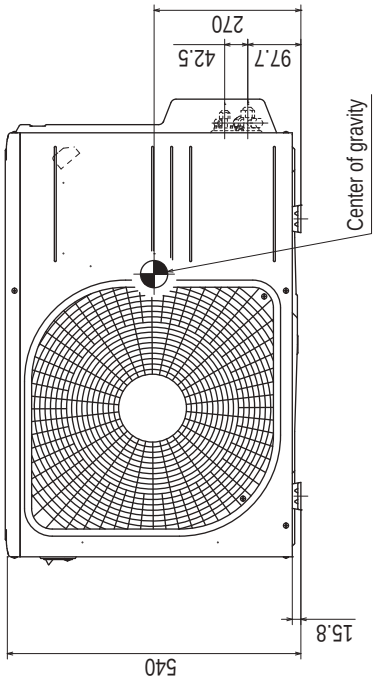
	Installation space
L1	280 or more
L2	100 or more
L3	80 or more
L4	250 or more

Unit:mm



Symbol	Content	
A	Service valve connection (gas side)	ϕ9.52 (3/8") (Flare)
B	Service valve connection (liquid side)	ϕ6.35 (1/4") (Flare)
C	Pipe/cable draw-out hole	
D	Drain discharge hole	ϕ20×2 places
E	Anchor bolt hole	M10-12×4 places





RCV000Z036

Model SRC50ZS-W

Notes

(1) The unit must not be surrounded by walls on the four sides.
(2) The unit must be fixed with anchor bolts. An anchor bolt must not protrude more than 15mm.
(3) If the unit is installed in the location where there is a possibility of strong winds, place the unit such that the direction of air from the outlet gets perpendicular to the wind direction.
(4) Leave 200mm or more space above the unit.
(5) The wall height on the outlet side should be 1200mm or less.
(6) The model name label is attached on the right side of the unit.

	Installation space
L1	280 or more
L2	100 or more
L3	80 or more
L4	250 or more

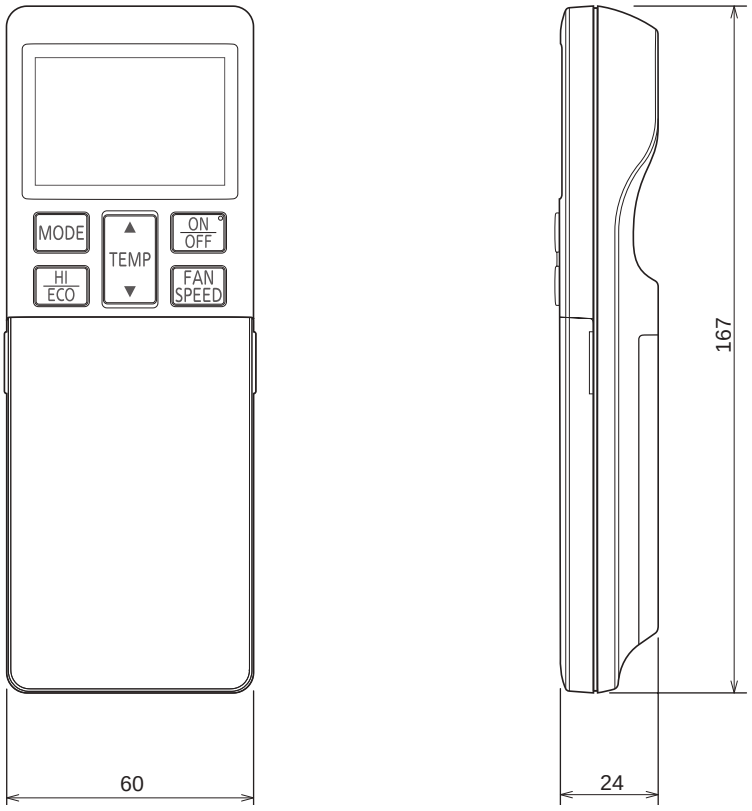
Unit:mm

Symbol	Content	
A	Service valve connection (gas side)	ϕ12.7 (1/2") (Flare)
B	Service valve connection (liquid side)	ϕ6.35 (1/4") (Flare)
C	Pipe/cable draw-out hole	
D	Drain discharge hole	ϕ20×2 places
E	Anchor bolt hole	M10-12×4 places

RCV000Z037

(3) Remote control
(a) Wireless remote control

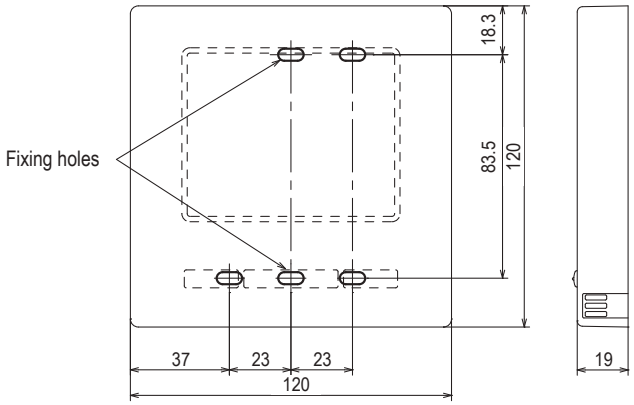
Unit : mm



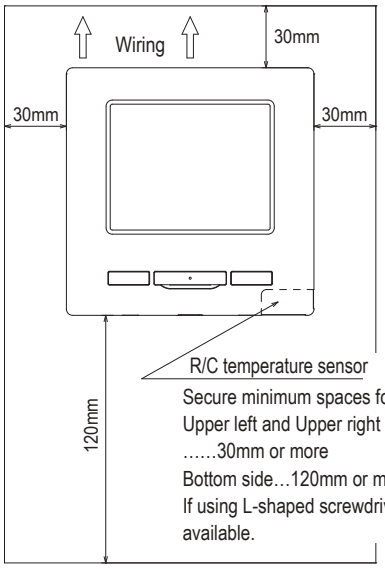
(b) Wired remote control (Option parts)
Interface kit (SC-BIKN2-E) is required to use the wired remote control.

Model RC-EX3A

Dimensions (Viewed from front)



Installation space



Secure minimum spaces for disassembling the case.
Upper left and Upper right sides
……30mm or more
Bottom side…120mm or more
If using L-shaped screwdriver, 50mm or more is available.

● Do not install the remote control at following places.

(1) It could cause break-down or deformation of remote control.
- Where it is exposed to direct sunlight
- Where the ambient temperature becomes 0 °C or below, or 40 °C or above
- Where the surface is not flat
- Where the strength of installation area is insufficient

(2) Moisture may be attached to internal parts of the remote control, resulting in a display failure.
- Place with high humidity where condensation occurs on the remote control
- Where the remote control gets wet

(3) Accurate room temperature may not be detected using the temperature sensor of the remote control.
- Where the average room temperature cannot be detected
- Place near the equipment to generate heat
- Place affected by outside air in opening/closing the door
- Place exposed to direct sunlight or wind from air-conditioner
- Where the difference between wall and room temperature is large

(4) When you are using the automatic grille up and down panel in the IU, you may not be able to confirm the up and down motion.
- Where the IU cannot be visually confirmed

● When installing the unit at a hospital, telecommunication facility, etc., take measures to suppress electric noises.

It could cause malfunction or break-down due to hazardous effects on the inverter, private power generator, high frequency medical equipment, radio communication equipment, etc.
The influences transmitted from the remote control to medical or communication equipment could disrupt medical activities, video broadcasting or cause noise interference.

R/C cable:0.3mm^{2}x2 cores

When the cable length is longer than 100 m, the max size for wires used in the R/C case is 0.5 mm^2 . Connect them to wires of larger size near the outside of R/C. When wires are connected, take measures to prevent water, etc. from entering inside.

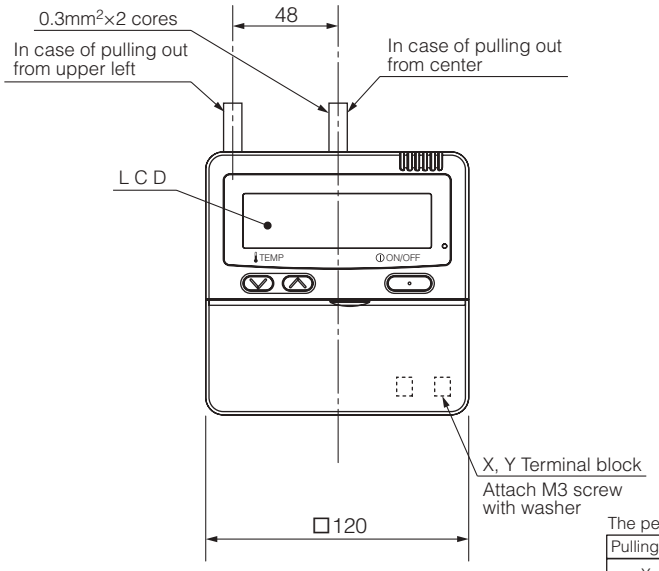
≦ 200 m	0.5 mm^2 x 2 cores
≦ 300m	0.75 mm^2 x 2 cores
≦ 400m	1.25 mm^2 x 2 cores
≦ 600m	2.0 mm^2 x 2 cores

Adapted RoHS directive

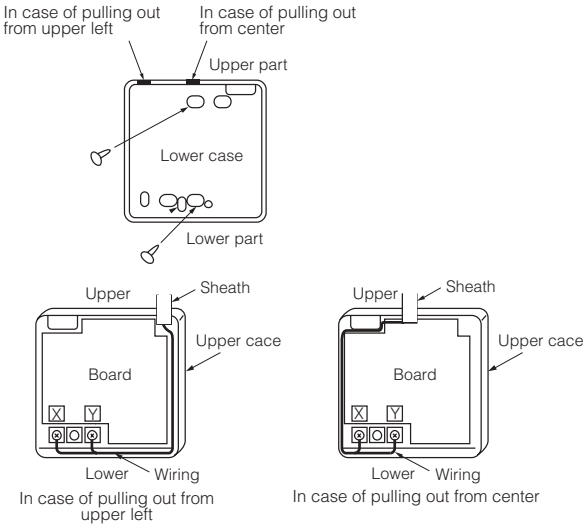
PJZ000Z333

Model RC-E5

Exposed mounting

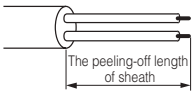


Wiring outlet
Cut off the upper thin part of remote control lower case with a nipper or knife, and grind burrs with a file etc.



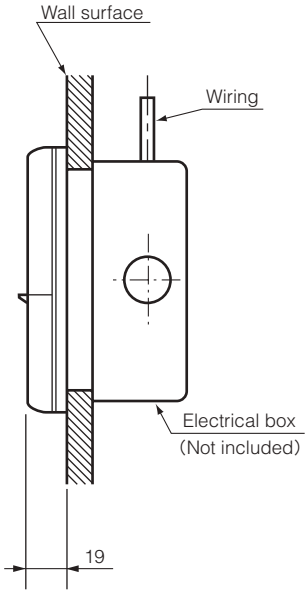
The peeling-off length of sheath

Pulling out from upper left	Pulling out from center
X wiring : 215mm Y wiring : 195mm	X wiring : 170mm Y wiring : 190mm

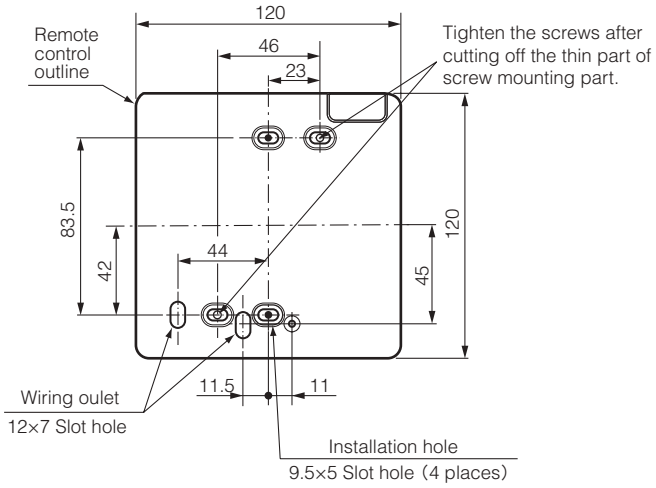


Exterior appearance (Munsell color)	Pearl white (N8.5) near equivalent

Embedded mounting



Remote control installation dimensions



(1) Installation screw for remote control
M4 screw (2 pieces)

Unit:mm

Wiring specifications

(1) If the prolongation is over 100m, change to the size below.
But, wiring in the remote control case should be under 0.5mm². Change the wire size outside of the case according to wire connecting. Waterproof treatment is necessary at the wire connecting section. Be careful about contact failure.

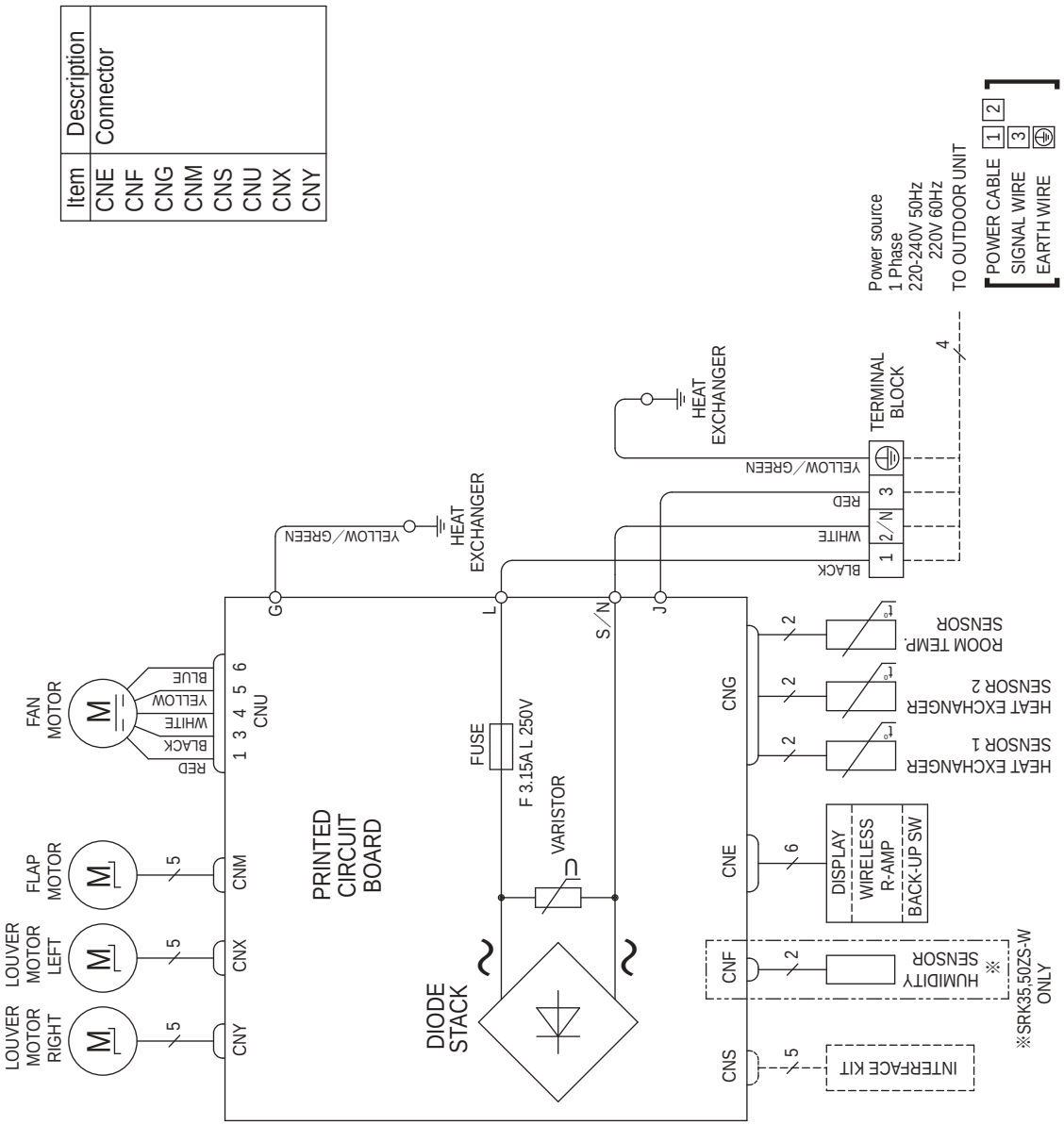
Length	Wiring thickness
100 to 200m	0.5mm²×2 cores
Under 300m	0.75mm²×2 cores
Under 400m	1.25mm²×2 cores
Under 600m	2.0mm²×2 cores

PJZ000Z295

3. ELECTRICAL WIRING

(1) Indoor units

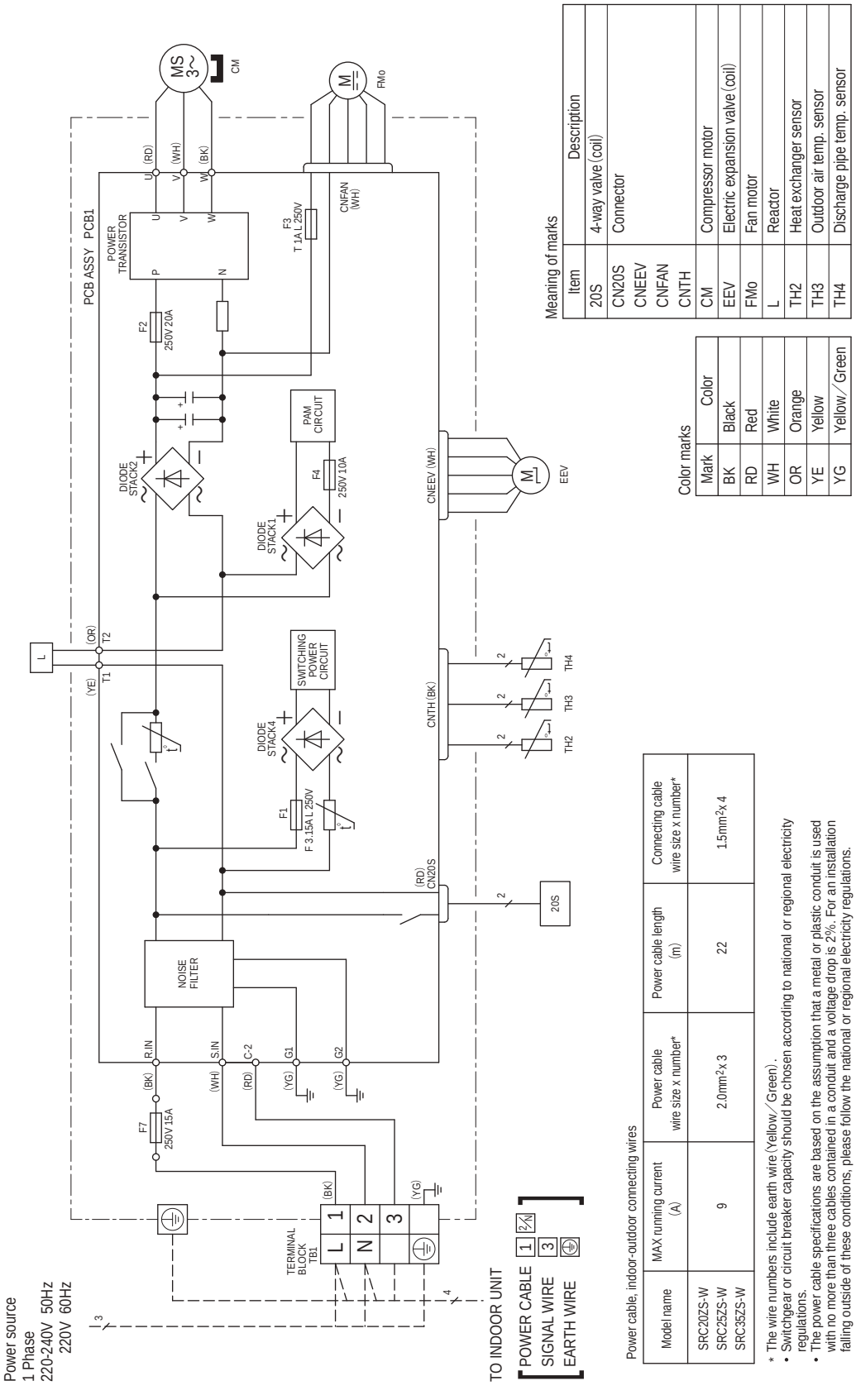
Models SRK20ZS-W, 25ZS-W, 35ZS-W, 50ZS-W
SRK20ZS-WB, 25ZS-WB, 35ZS-WB, 50ZS-WB
SRK20ZS-WT, 25ZS-WT, 35ZS-WT, 50ZS-WT



RWA000Z416

(2) Outdoor units

Models SRC20ZS-W, 25ZS-W, 35ZS-W



Meaning of marks

Item	Description
20S	4-way valve (coil)
CN20S CNEEV CNFAN CNTH	Connector
CM	Compressor motor
EEV	Electric expansion valve (coil)
FMo	Fan motor
L	Reactor
TH2	Heat exchanger sensor
TH3	Outdoor air temp. sensor
TH4	Discharge pipe temp. sensor

Color marks

Mark	Color
BK	Black
RD	Red
WH	White
OR	Orange
YE	Yellow
YG	Yellow／Green

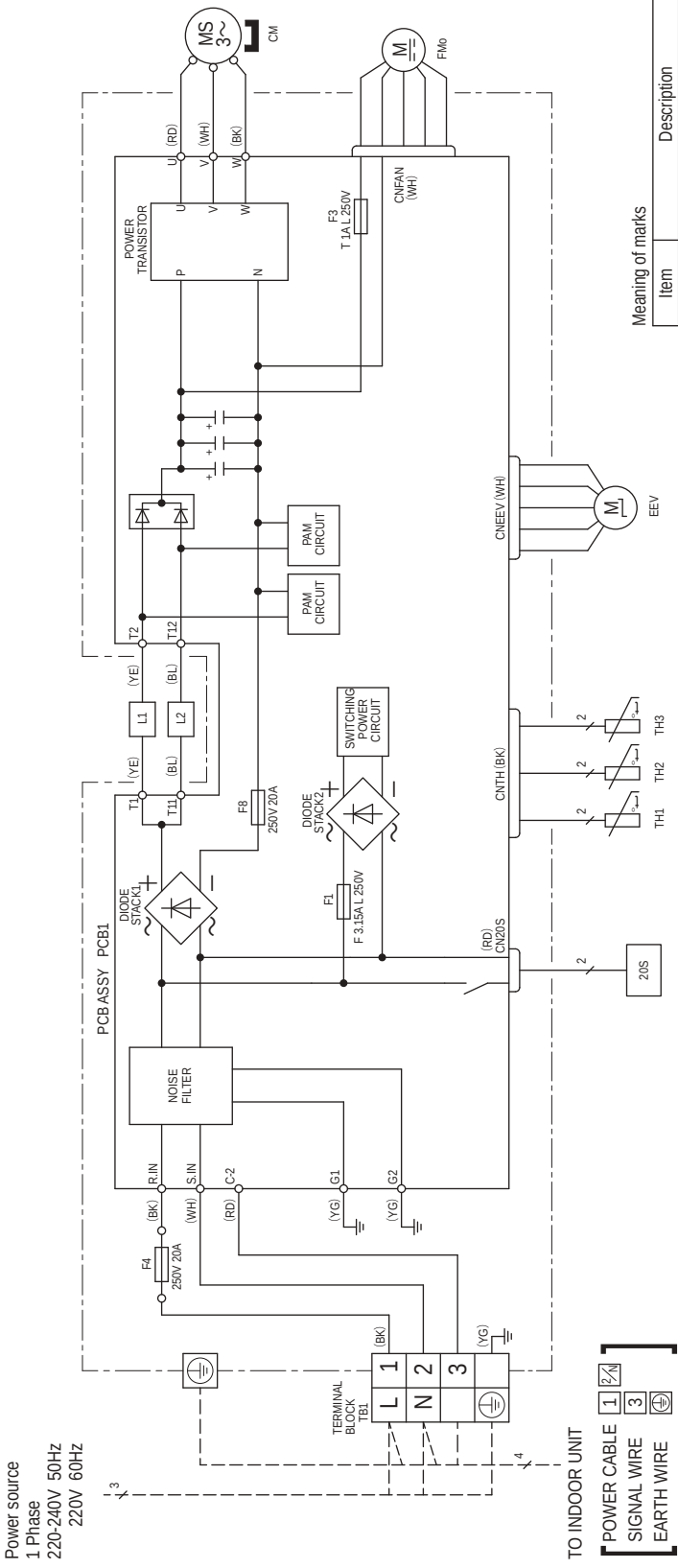
Power cable, indoor-outdoor connecting wires

Model name	MAX running current (A)	Power cable wire size x number*	Power cable length (m)	Connecting cable wire size x number*
SRC20ZS-W SRC25ZS-W SRC35ZS-W	9	2.0mm²x 3	22	1.5mm²x 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.

RWC000Z315

Model SRC50ZS-W



Meaning of marks

Item	Description
20S	4-way valve (coil)
CN20S CNEEV CNFAN CNTH	Connector
CM	Compressor motor
EEV	Electric expansion valve (coil)
FMo	Fan motor
L1,2	Reactor
TH1	Heat exchanger sensor
TH2	Outdoor air temp. sensor
TH3	Discharge pipe temp. sensor

Color marks

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

Power cable, indoor-outdoor connecting wires

Model name	MAX running current (A)	Power cable wire size x number*	Power cable length (m)	Connecting cable wire size x number*
SRC50ZS-W	14.5	2.0mm²x 3	14	1.5mm²x 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.

RWC000Z316

4. NOISE LEVEL

(1) Sound power level

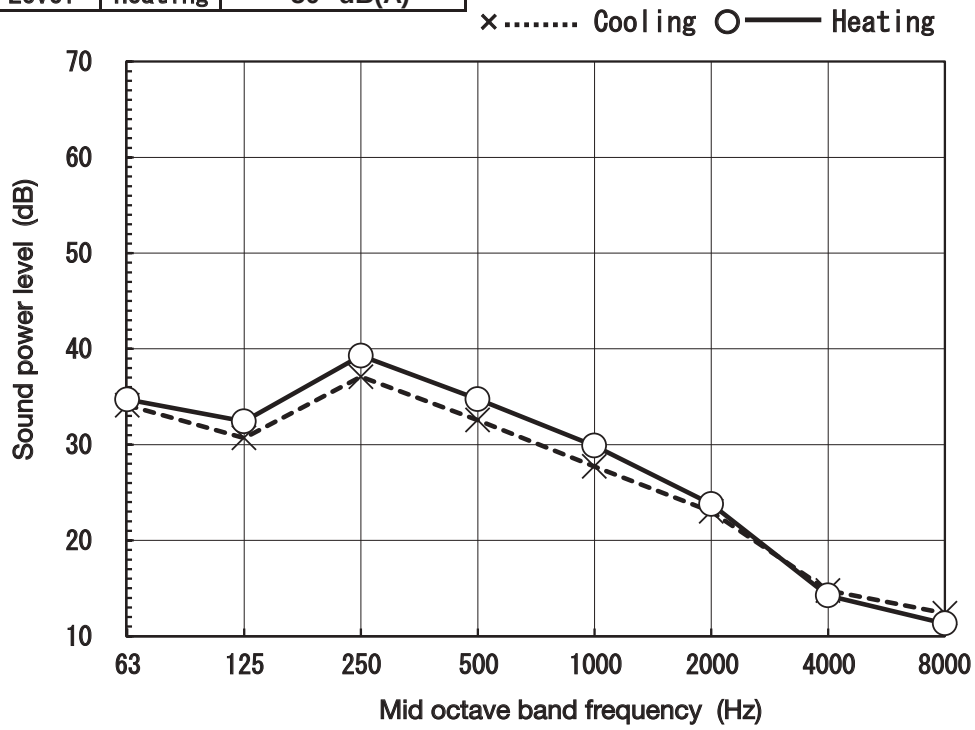
Model SRK20ZS-W, -WB, -WT

(Indoor unit)

Model	SRK20ZS-W,WB,WT	
Noise Level	Cooling	48 dB(A)
	Heating	50 dB(A)

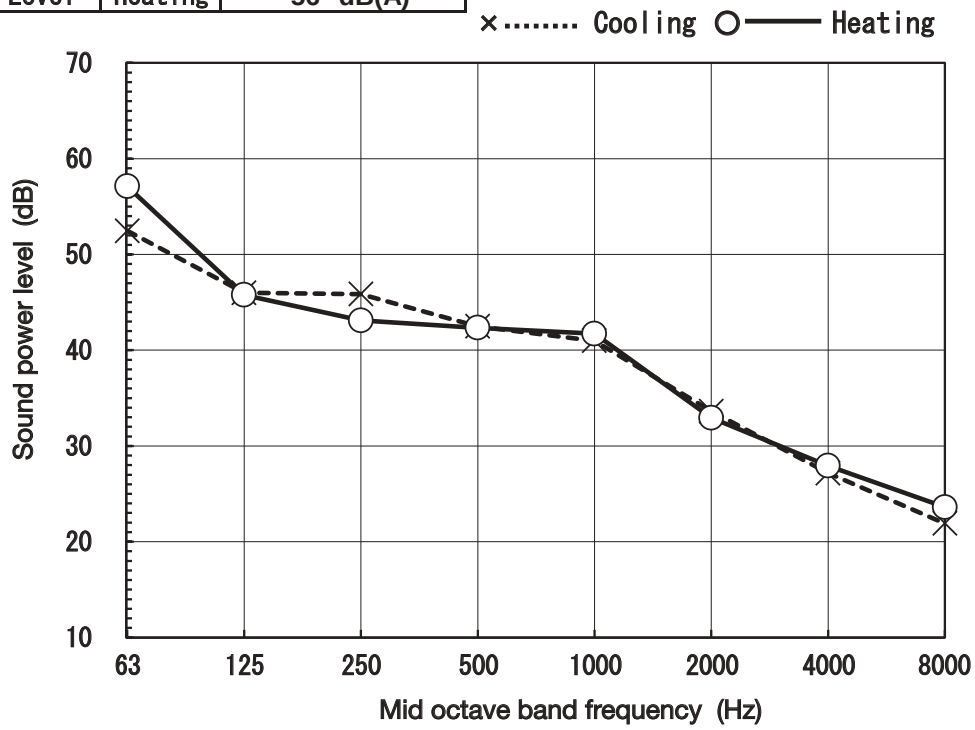
Condition	ISO5151 T1/H1

MODE	Rated capacity value



(Outdoor unit)

Model	SRC20ZS-W	
Noise Level	Cooling	56 dB(A)
	Heating	56 dB(A)



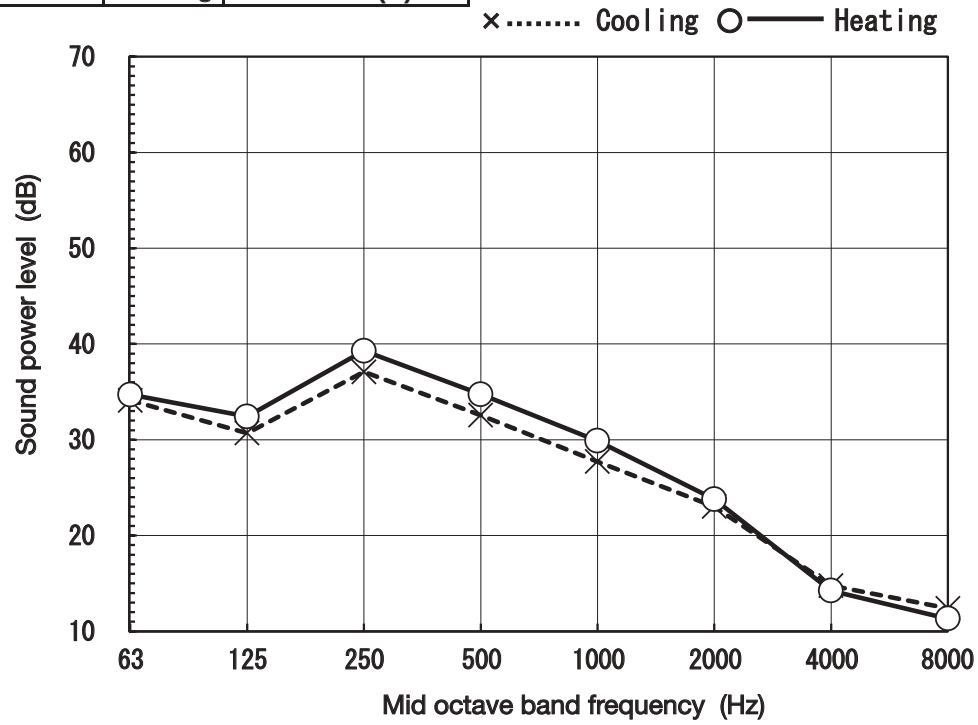
Model SRK25ZS-W, -WB, -WT

(Indoor unit)

Model	SRK25ZS-W,WB,WT	
Noise Level	Cooling	50 dB(A)
	Heating	53 dB(A)

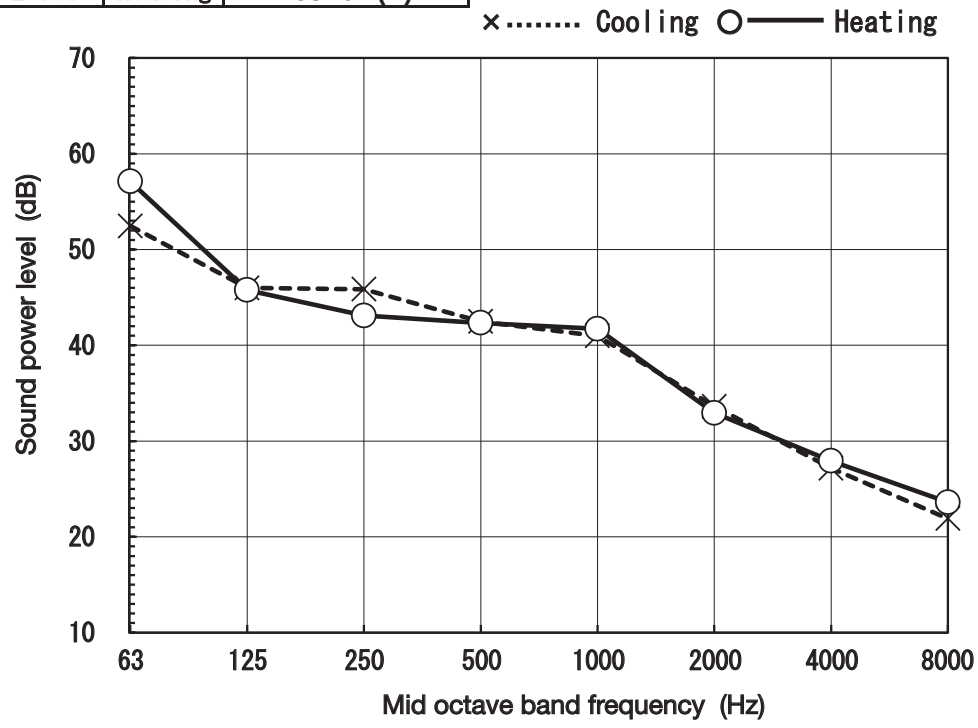
Condition	ISO5151 T1/H1

MODE	Rated capacity value



(Outdoor unit)

Model	SRC25ZS-W	
Noise Level	Cooling	56 dB(A)
	Heating	58 dB(A)



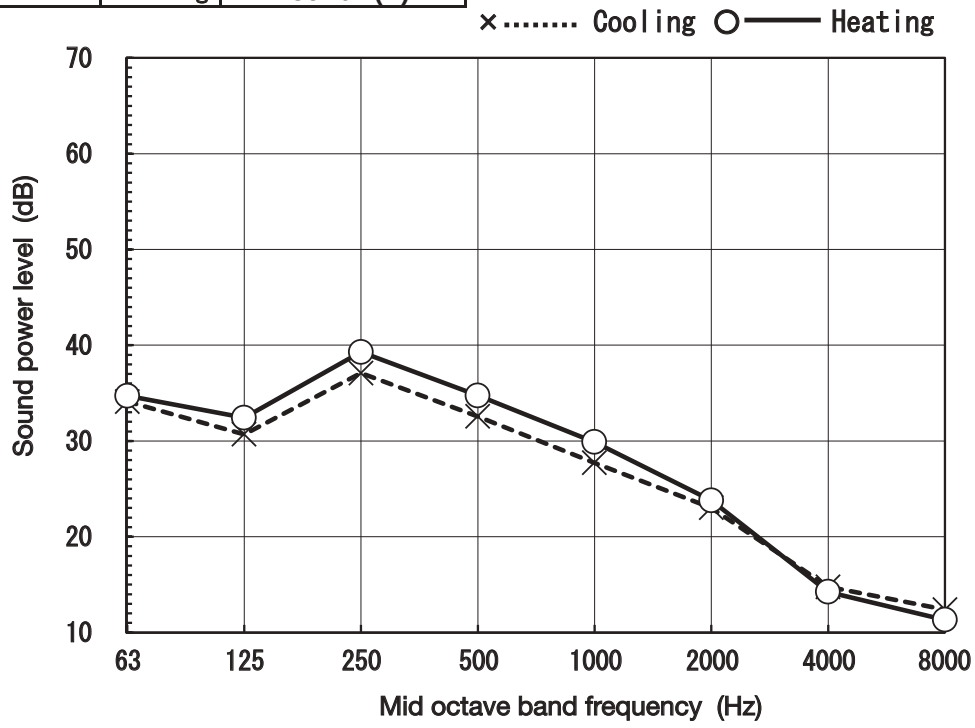
Model SRK35ZS-W, -WB, -WT

(Indoor unit)

Model	SRK35ZS-W,WB,WT	
Noise Level	Cooling	54 dB(A)
	Heating	56 dB(A)

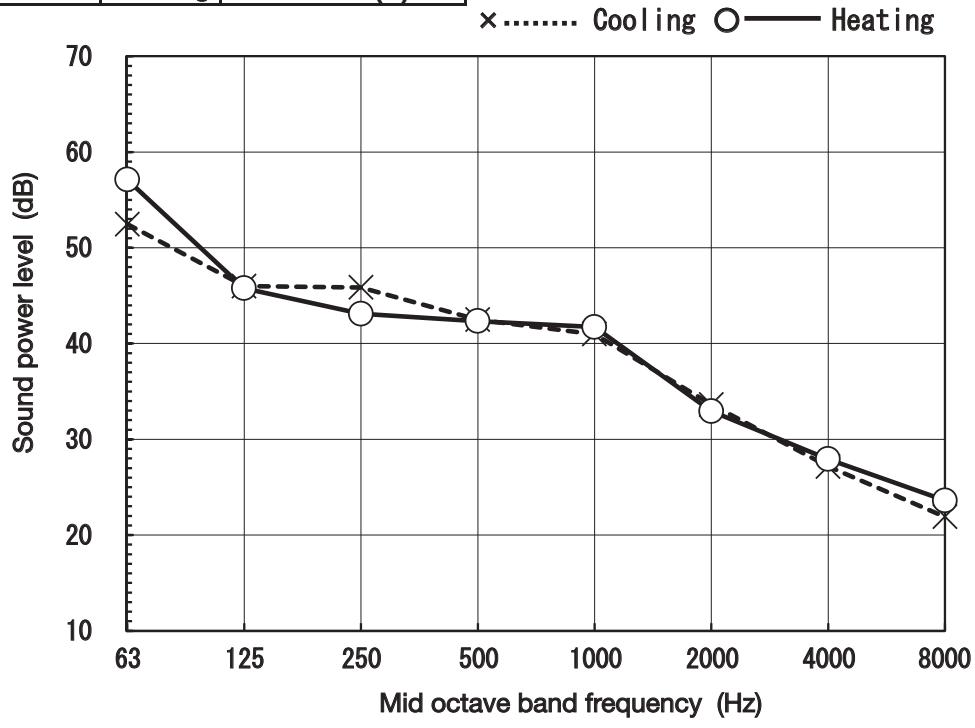
Condition	ISO5151 T1/H1

MODE	Rated capacity value



(Outdoor unit)

Model	SRC35ZS-W	
Noise Level	Cooling	61 dB(A)
	Heating	61 dB(A)



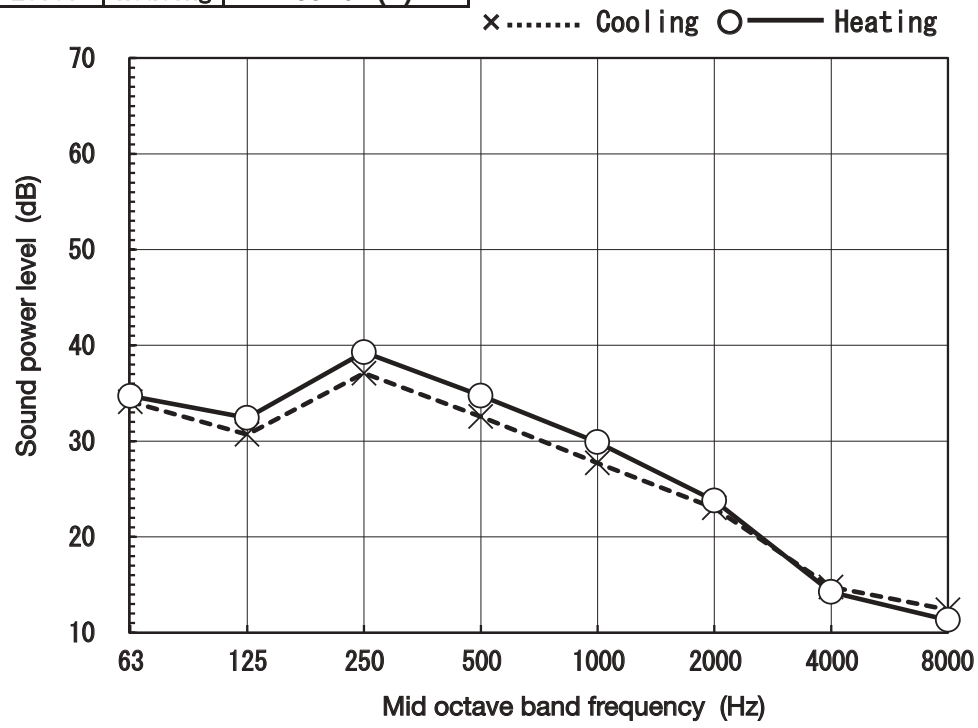
Model SRK50ZS-W, -WB, -WT

(Indoor unit)

Model	SRK50ZS-W,WB,WT	
Noise Level	Cooling	59 dB(A)
	Heating	60 dB(A)

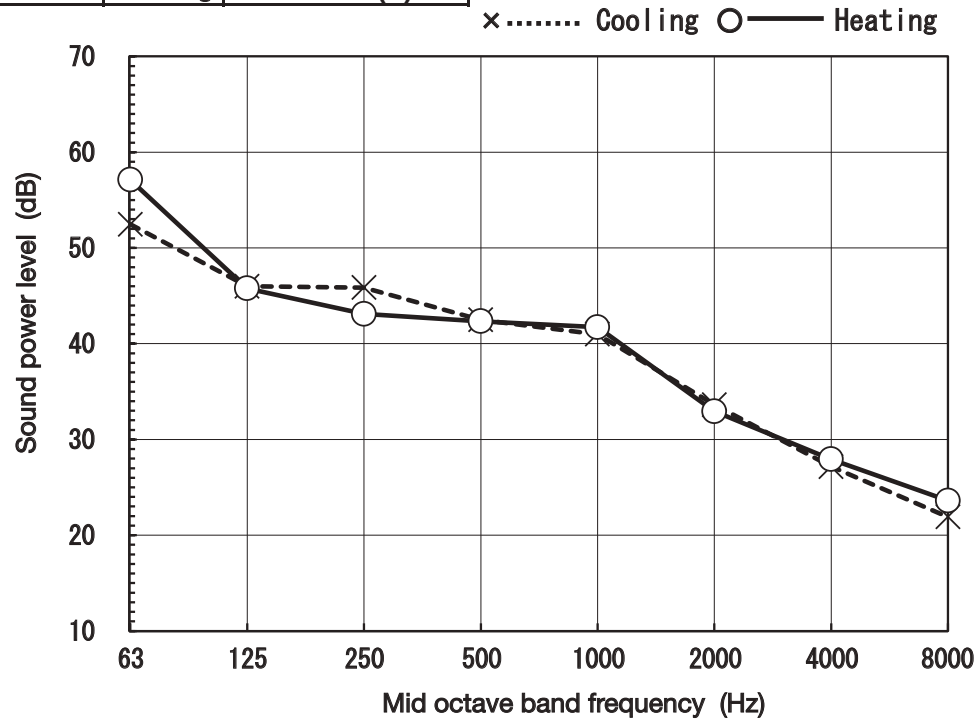
Condition	ISO5151 T1/H1

MODE	Rated capacity value



(Outdoor unit)

Model	SRC50ZS-W	
Noise Level	Cooling	61 dB(A)
	Heating	63 dB(A)



(2) Sound pressure level

(a) Rated capacity value

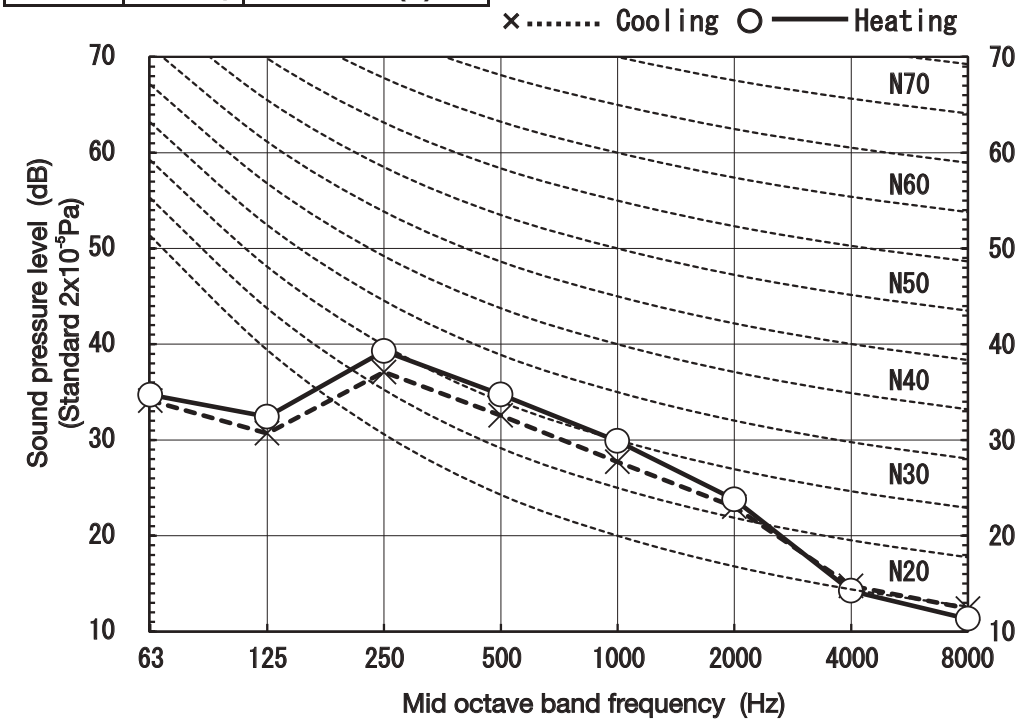
Model SRK20ZS-W, -WB, -WT

Condition	ISO5151 T1/H1
MODE	Rated capacity value

●Mike position

(Indoor unit)

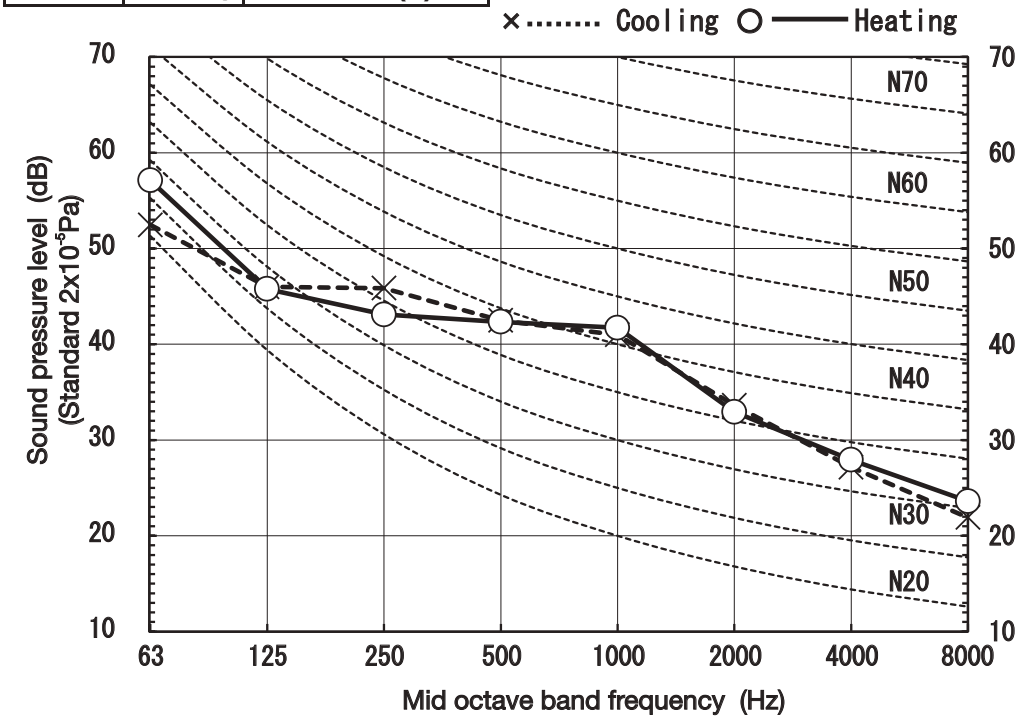
Model	SRK20ZS-W,WB,WT	
Noise Level	Cooling	34 dB(A)
	Heating	36 dB(A)



(Outdoor unit)

Model	SRC20ZS-W	
Noise Level	Cooling	45 dB(A)
	Heating	45 dB(A)

●Mike position: at highest noise level in position as mentioned below
Distance from front side 1m



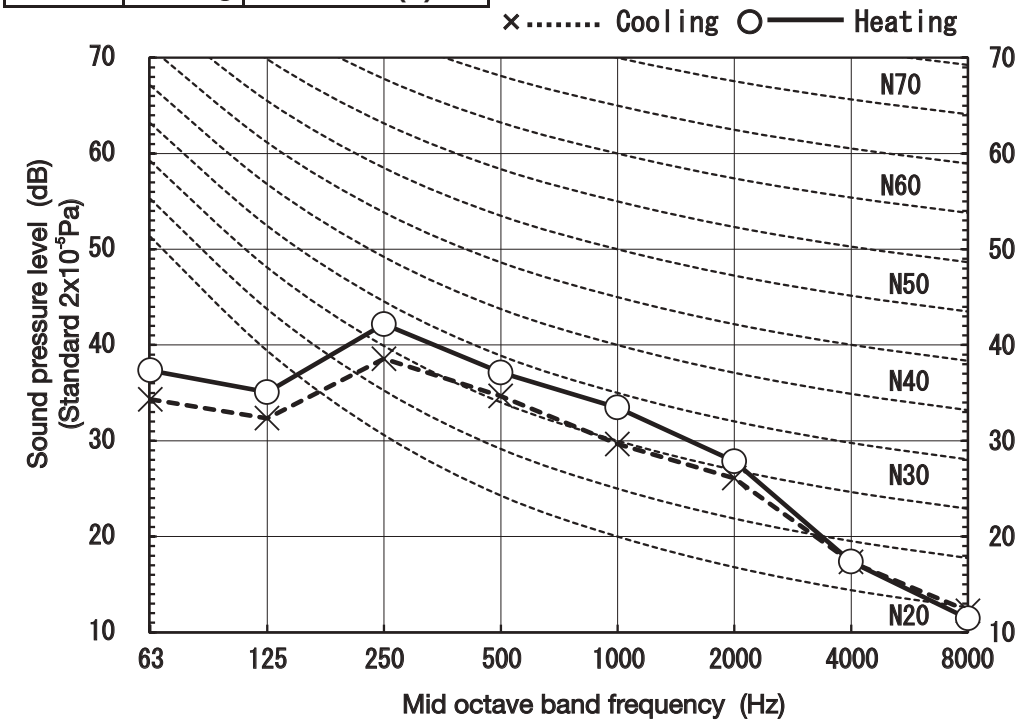
Model SRK25ZS-W, -WB, -WT

Condition	ISO5151 T1/H1
MODE	Rated capacity value

●Mike position

(Indoor unit)

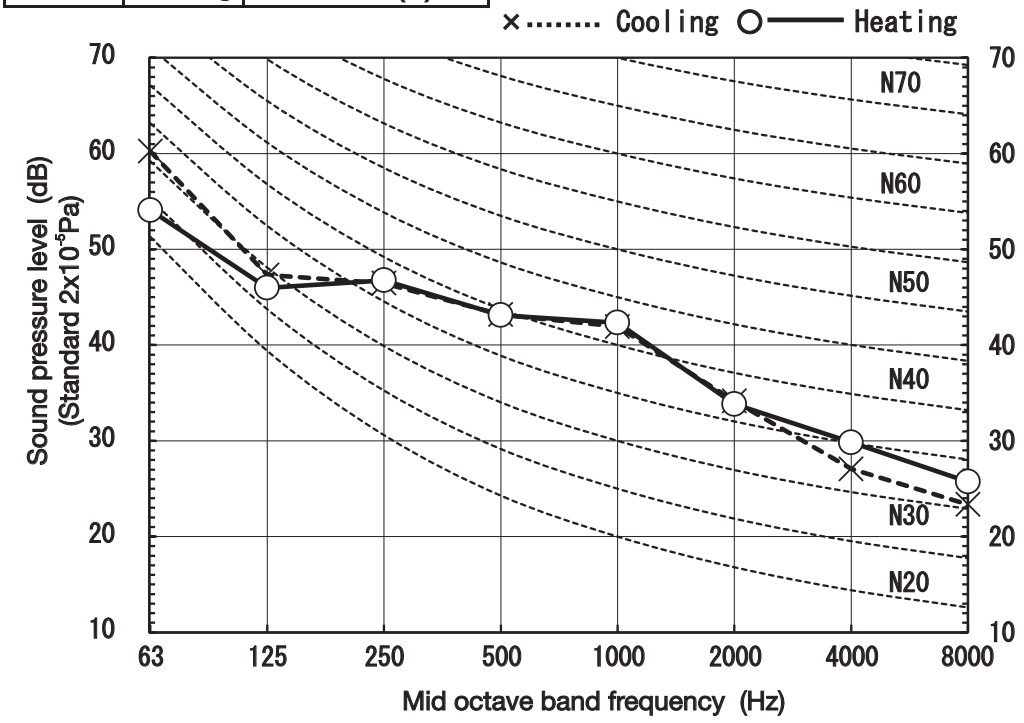
Model	SRK25ZS-W,WB,WT	
Noise Level	Cooling	36 dB(A)
	Heating	39 dB(A)



(Outdoor unit)

Model	SRC25ZS-W	
Noise Level	Cooling	46 dB(A)
	Heating	46 dB(A)

●Mike position: at highest noise level in position as mentioned below
Distance from front side 1m



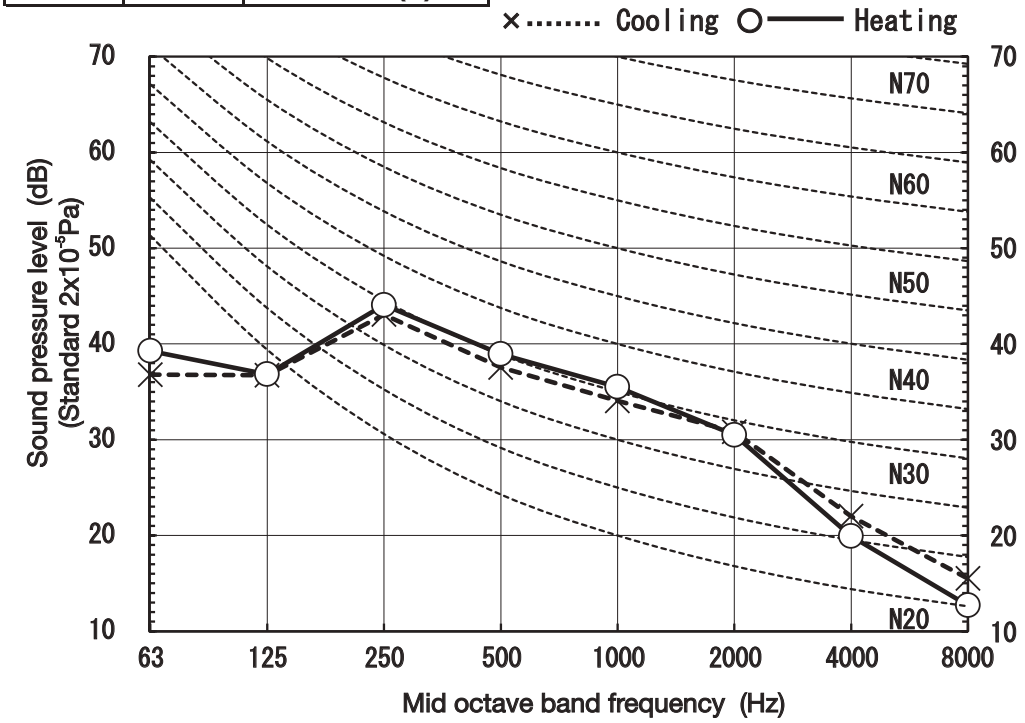
Model SRK35ZS-W, -WB, -WT

Condition	ISO5151 T1/H1
MODE	Rated capacity value

●Mike position

(Indoor unit)

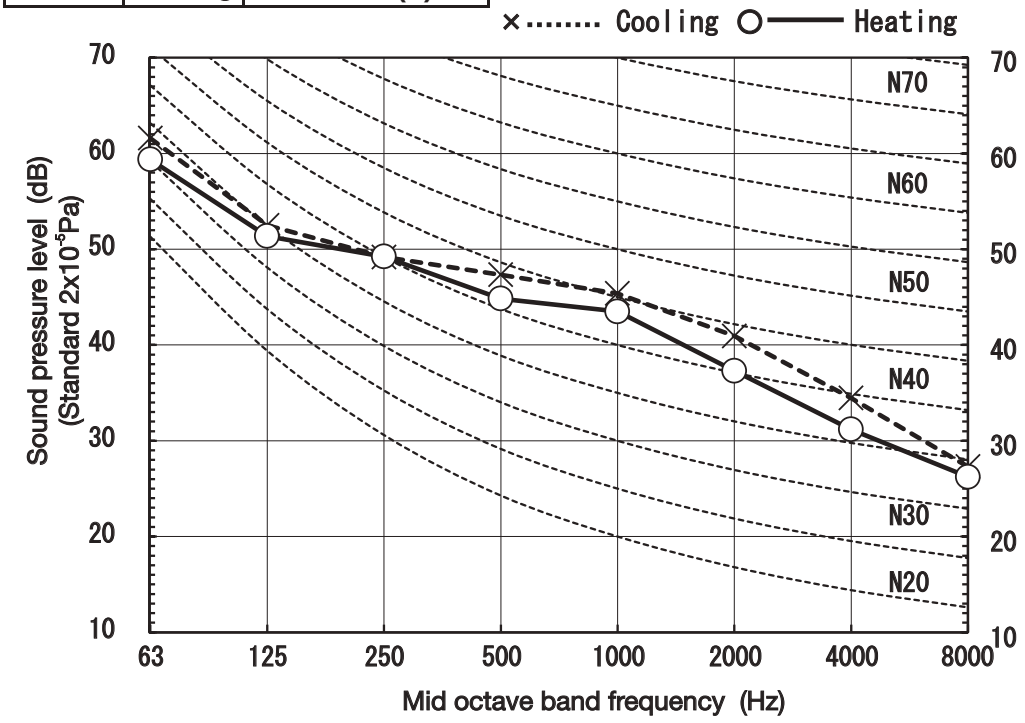
Model	SRK35ZS-W,WB,WT	
Noise Level	Cooling	40 dB(A)
	Heating	41 dB(A)



(Outdoor unit)

Model	SRC35ZS-W	
Noise Level	Cooling	50 dB(A)
	Heating	48 dB(A)

●Mike position: at highest noise level in position as mentioned below
Distance from front side 1m



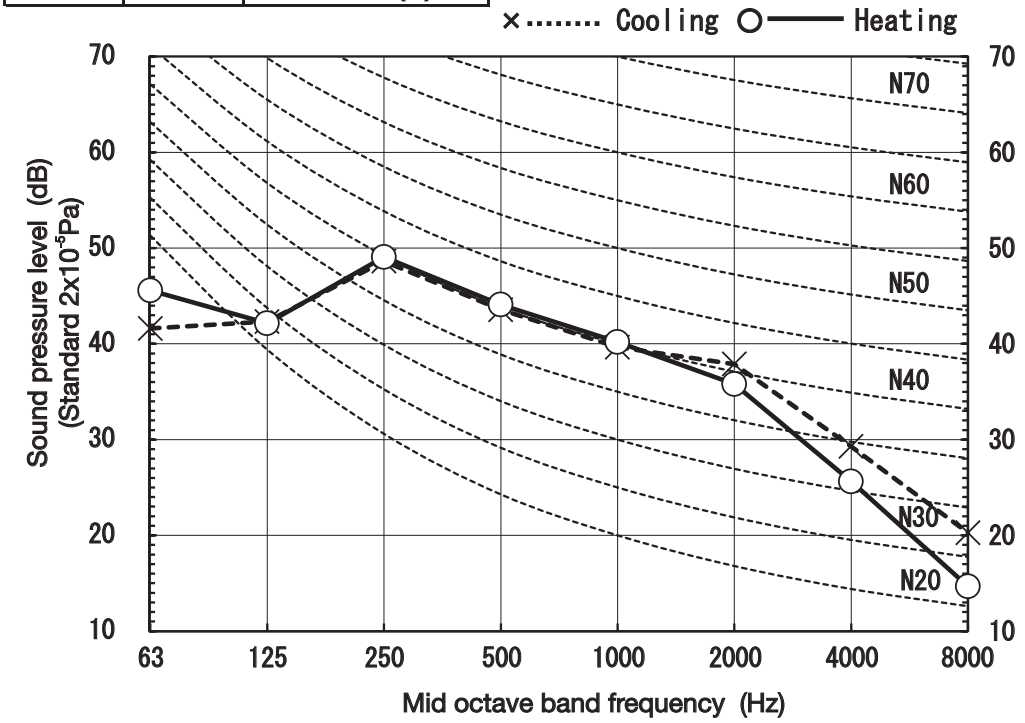
Model SRK50ZS-W, -WB, -WT

Condition	ISO5151 T1/H1
MODE	Rated capacity value

●Mike position

(Indoor unit)

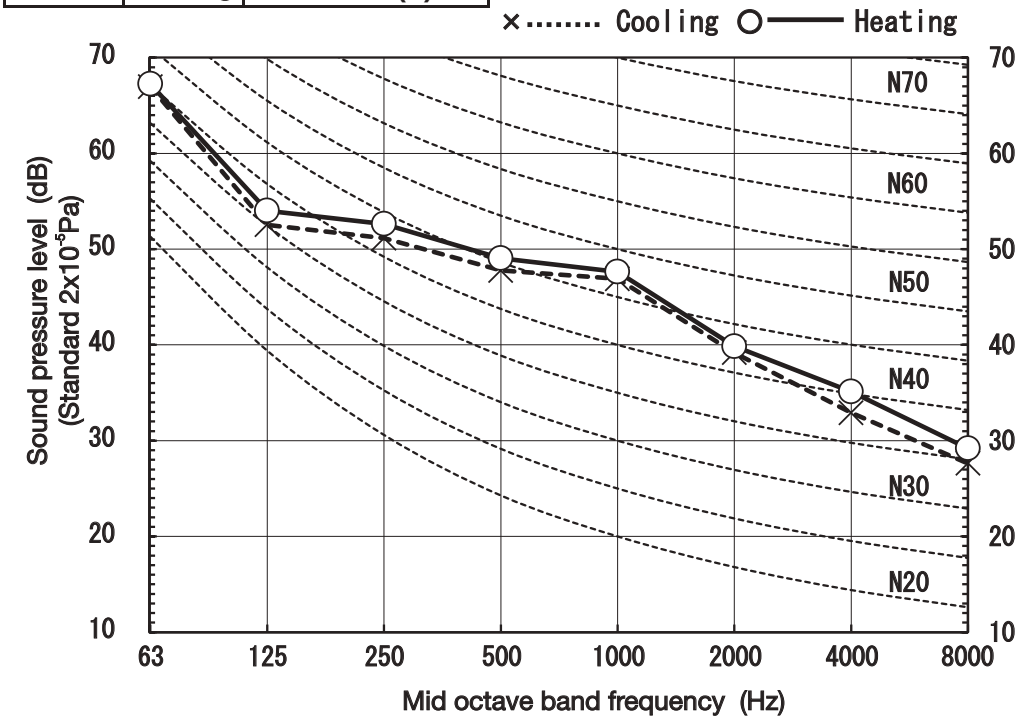
Model	SRK50ZS-W,WB,WT	
Noise Level	Cooling	46 dB(A)
	Heating	46 dB(A)



(Outdoor unit)

Model	SRC50ZS-W	
Noise Level	Cooling	51 dB(A)
	Heating	52 dB(A)

●Mike position: at highest noise level in position as mentioned below
Distance from front side 1m



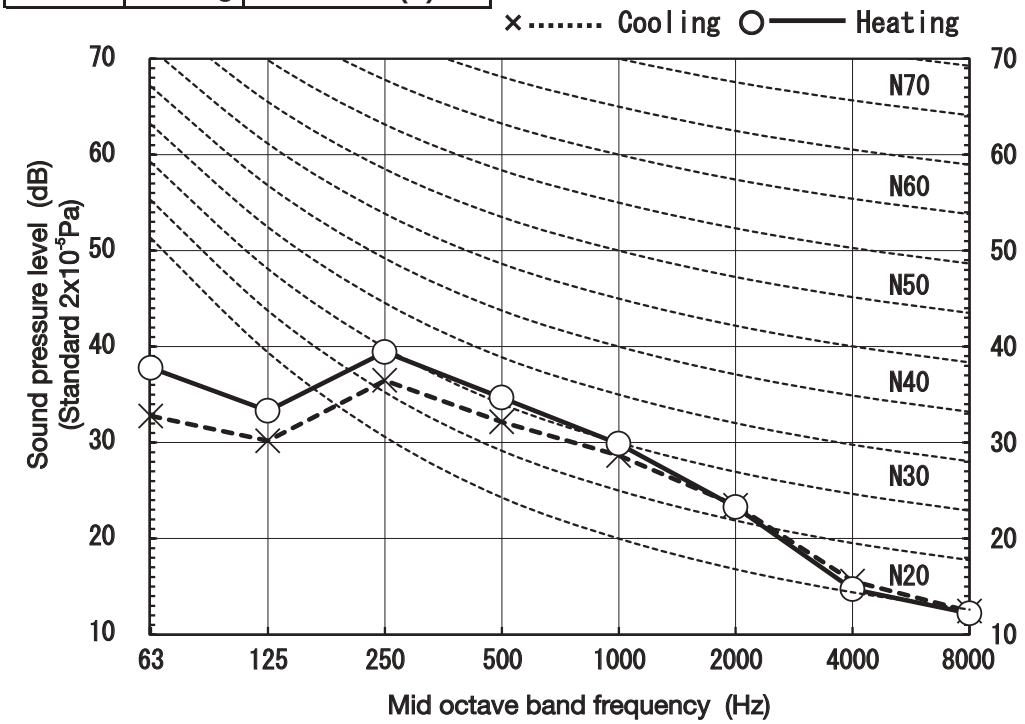
(b) Each fan speed mode

Condition	ISO5151 T1/H1
MODE	Hi

●Mike position

(Indoor unit)

Model	SRK20ZS-W,WB,WT	
Noise Level	Cooling	34 dB(A)
	Heating	36 dB(A)

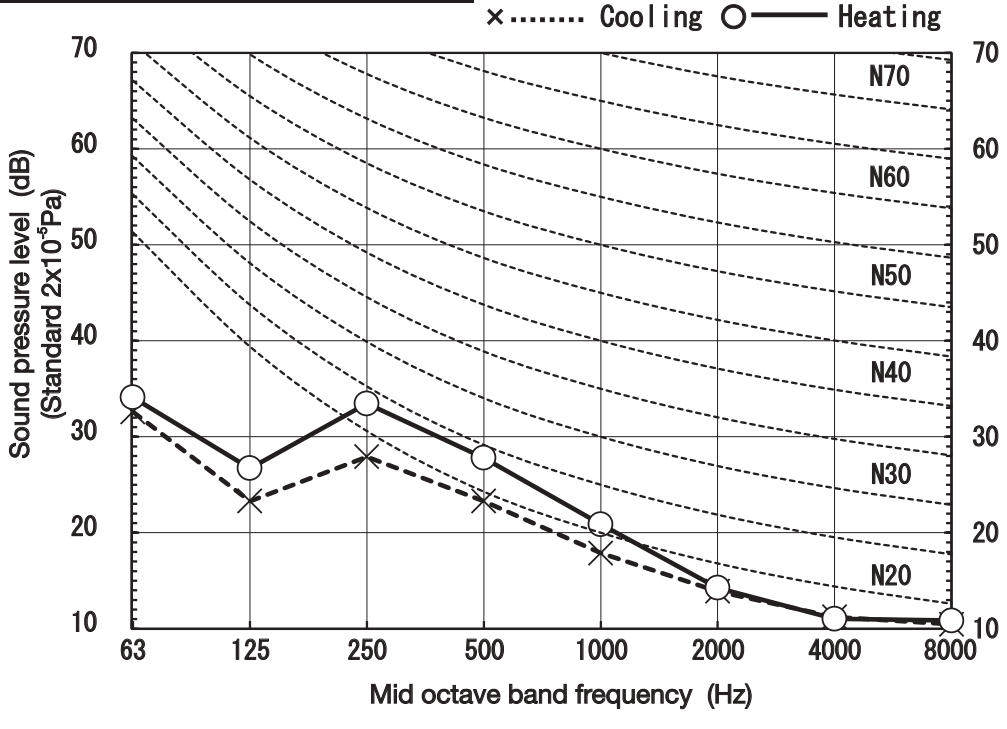


MODE	Me

●Mike position

(Indoor unit)

Model	SRK20ZS-W,WB,WT	
Noise Level	Cooling	25 dB(A)
	Heating	29 dB(A)

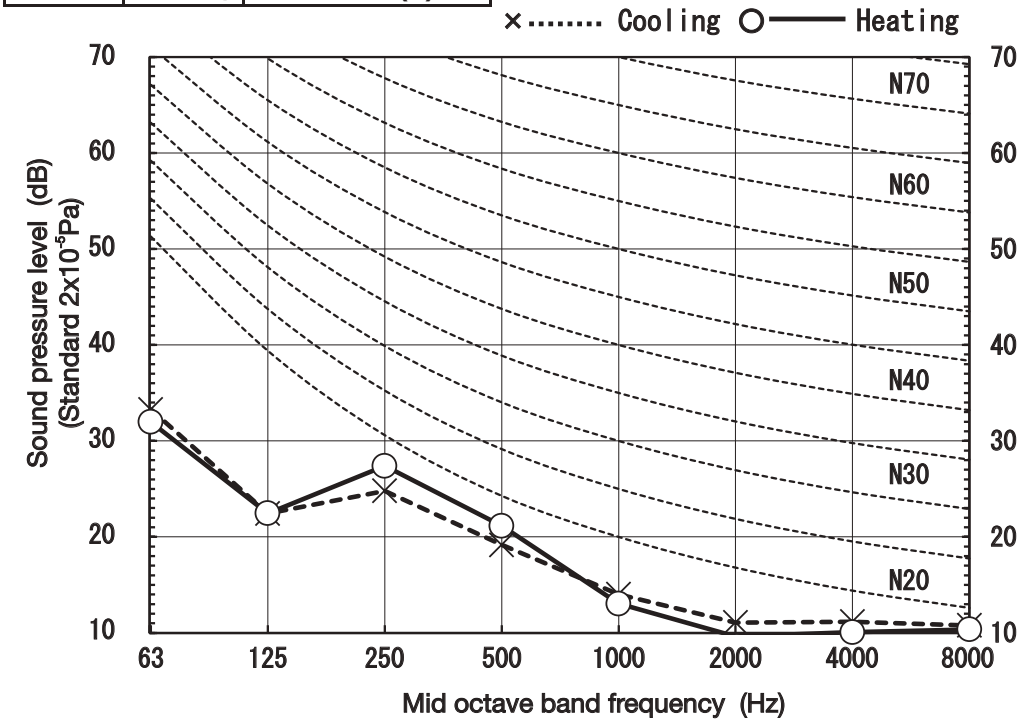


Condition	ISO5151 T1/H1
MODE	Lo

●Mike position

(Indoor unit)

Model	SRK20ZS-W,WB,WT	
Noise Level	Cooling	22 dB(A)
	Heating	23 dB(A)

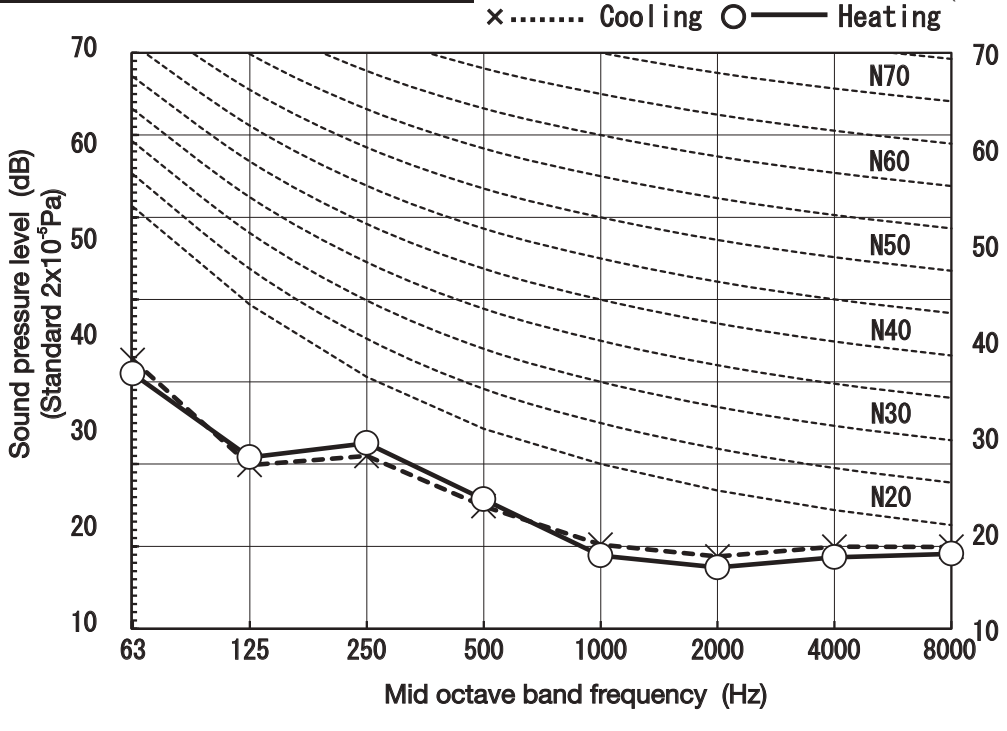


MODE	ULo

●Mike position

(Indoor unit)

Model	SRK20ZS-W,WB,WT	
Noise Level	Cooling	19 dB(A)
	Heating	19 dB(A)

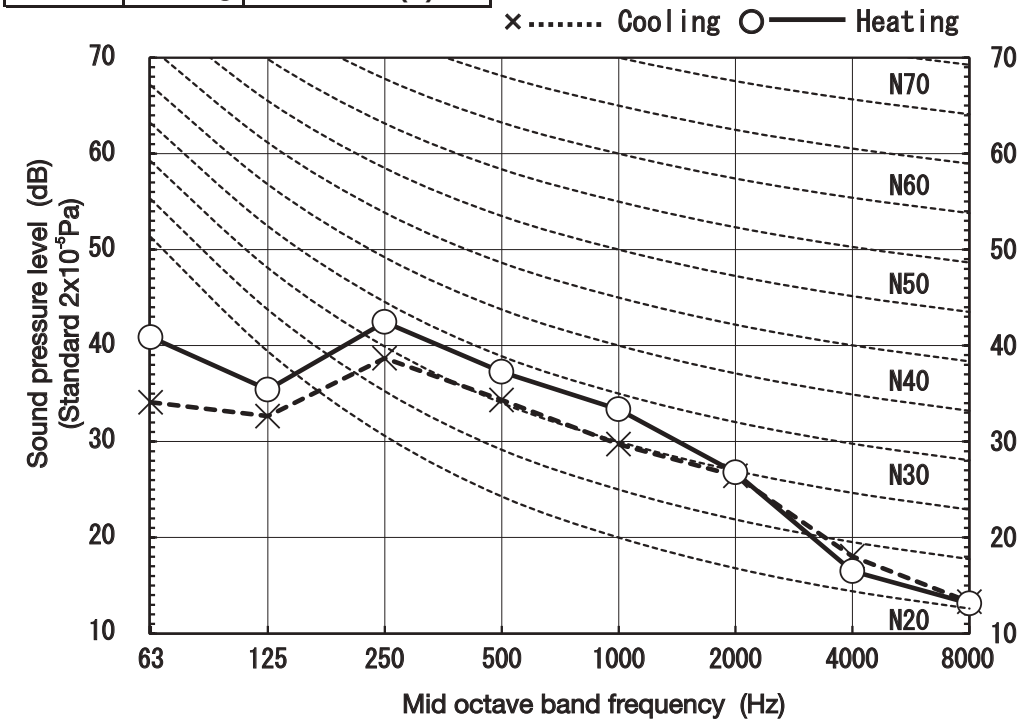


Condition	ISO5151 T1/H1
MODE	Hi

●Mike position

(Indoor unit)

Model	SRK25ZS-W,WB,WT	
Noise Level	Cooling	36 dB(A)
	Heating	39 dB(A)

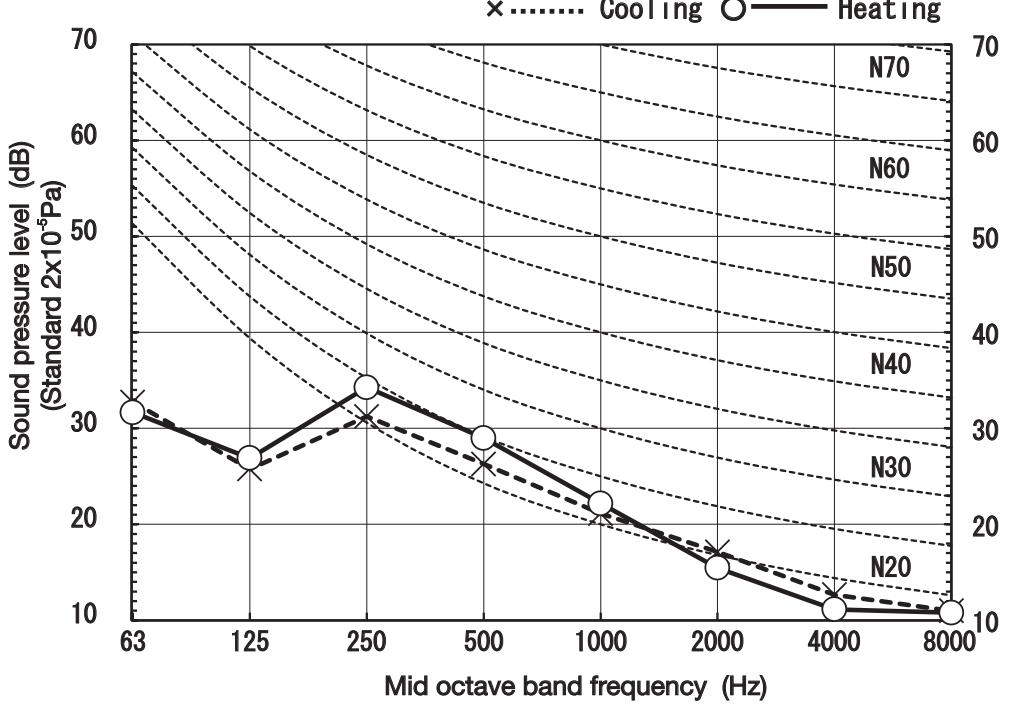


MODE	Me

●Mike position

(Indoor unit)

Model	SRK25ZS-W,WB,WT	
Noise Level	Cooling	28 dB(A)
	Heating	30 dB(A)

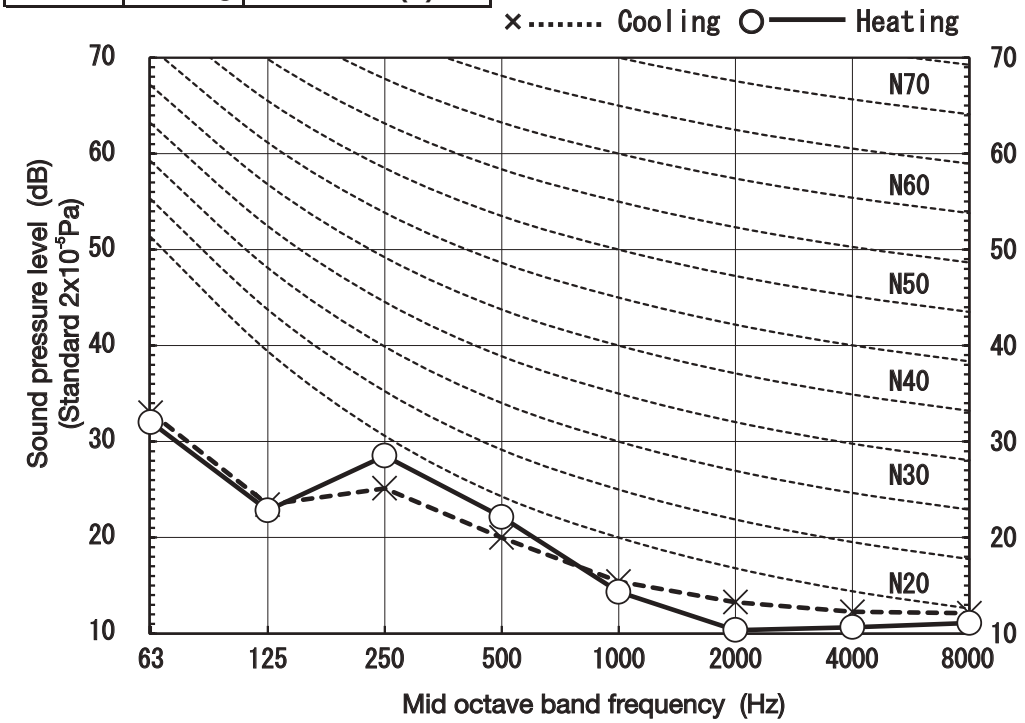


Condition	ISO5151 T1/H1
MODE	Lo

●Mike position

(Indoor unit)

Model	SRK25ZS-W,WB,WT	
Noise Level	Cooling	23 dB(A)
	Heating	24 dB(A)

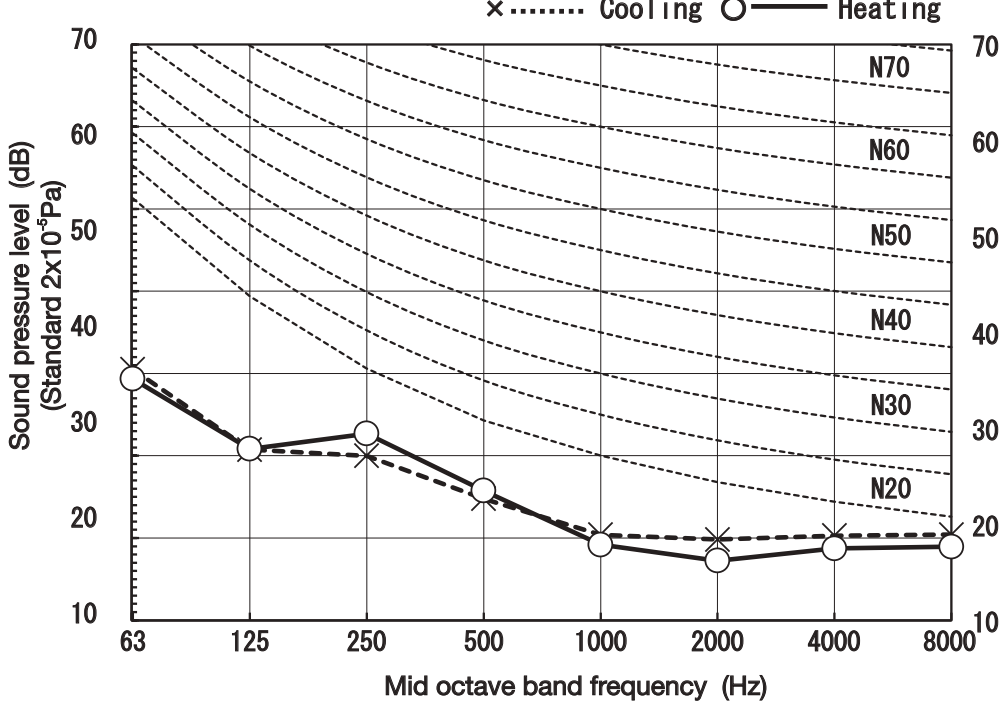


MODE	ULo

●Mike position

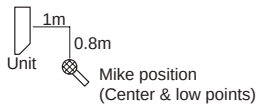
(Indoor unit)

Model	SRK25ZS-W,WB,WT	
Noise Level	Cooling	19 dB(A)
	Heating	19 dB(A)



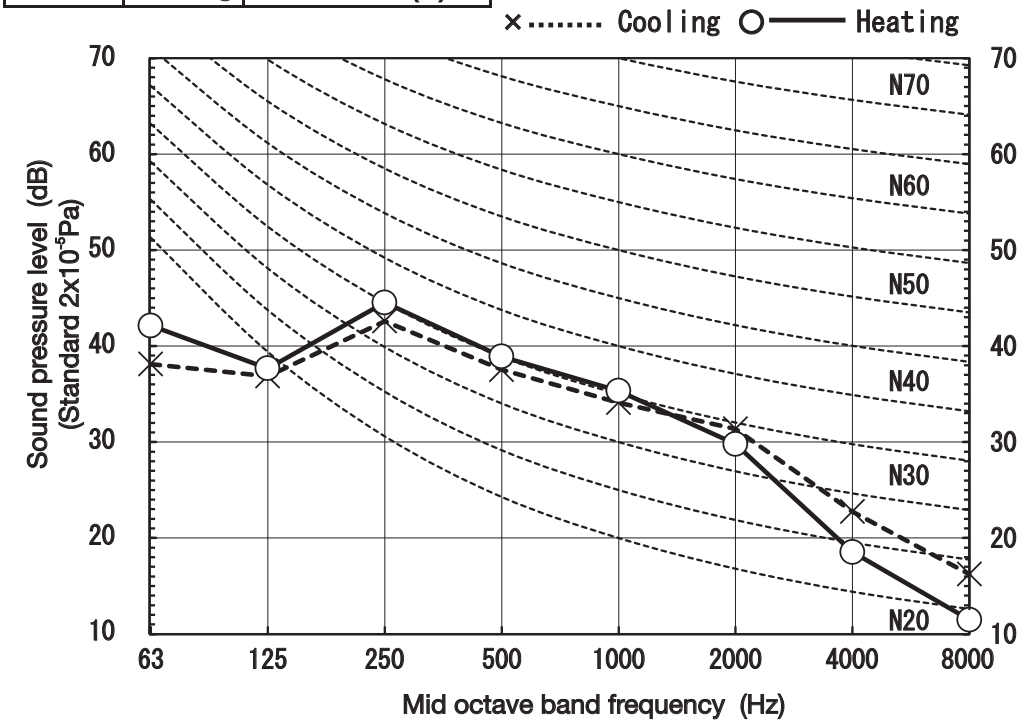
Condition	ISO5151 T1/H1
MODE	Hi

●Mike position



(Indoor unit)

Model	SRK35ZS-W,WB,WT	
Noise Level	Cooling	40 dB(A)
	Heating	41 dB(A)

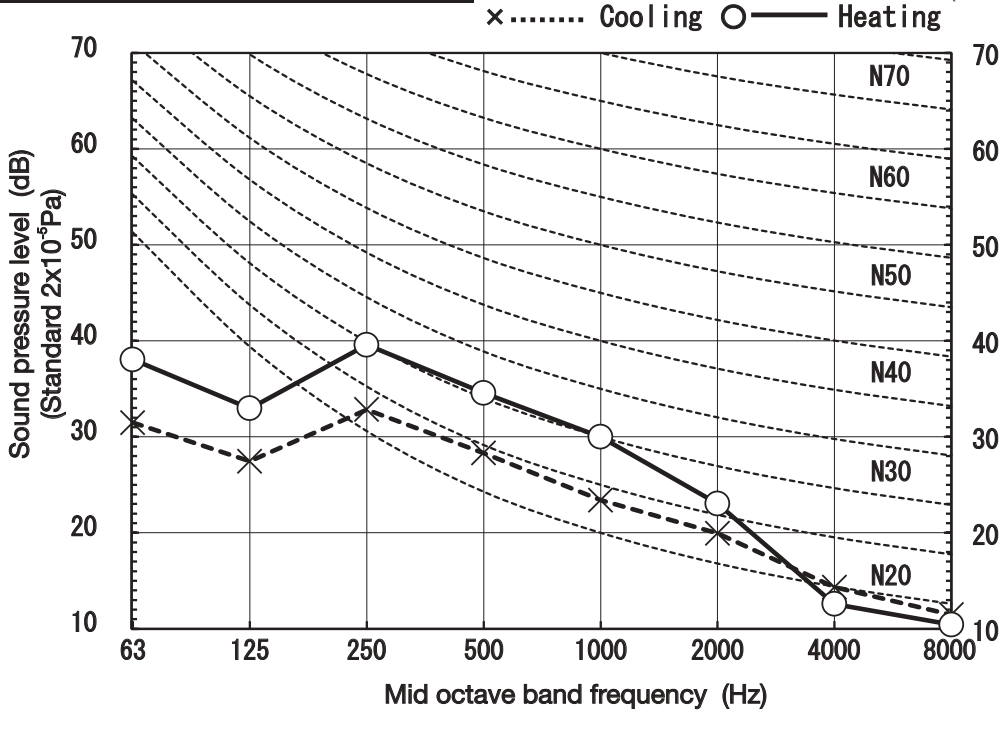


MODE	Me

●Mike position

(Indoor unit)

Model	SRK35ZS-W,WB,WT	
Noise Level	Cooling	30 dB(A)
	Heating	36 dB(A)

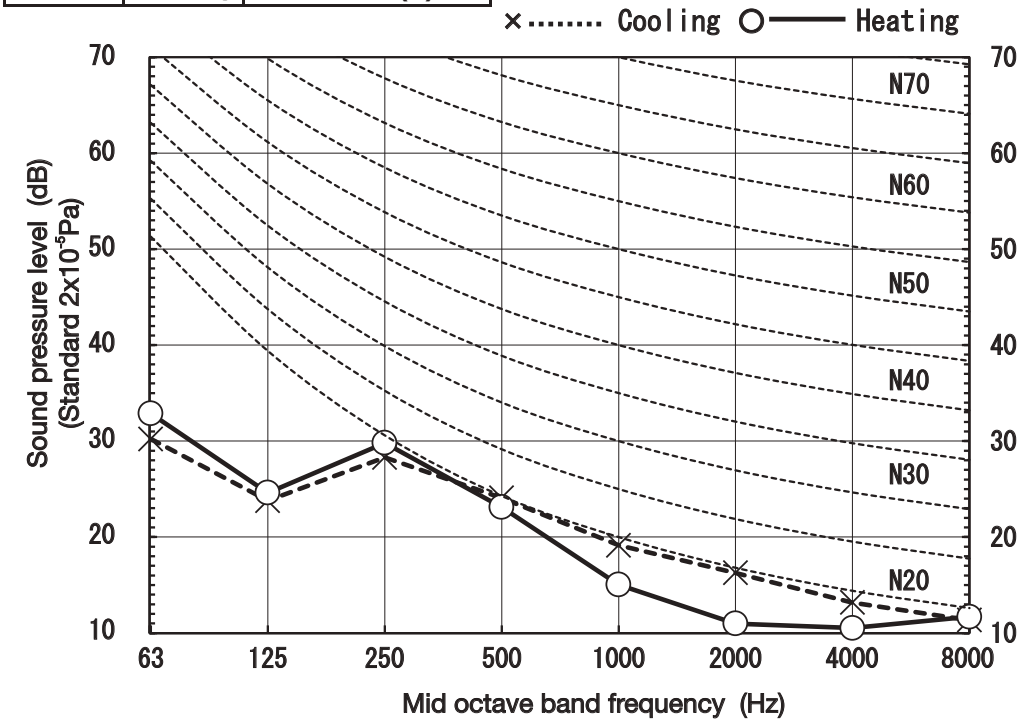


Condition	ISO5151 T1/H1
MODE	Lo

●Mike position

(Indoor unit)

Model	SRK35ZS-W,WB,WT	
Noise Level	Cooling	26 dB(A)
	Heating	25 dB(A)

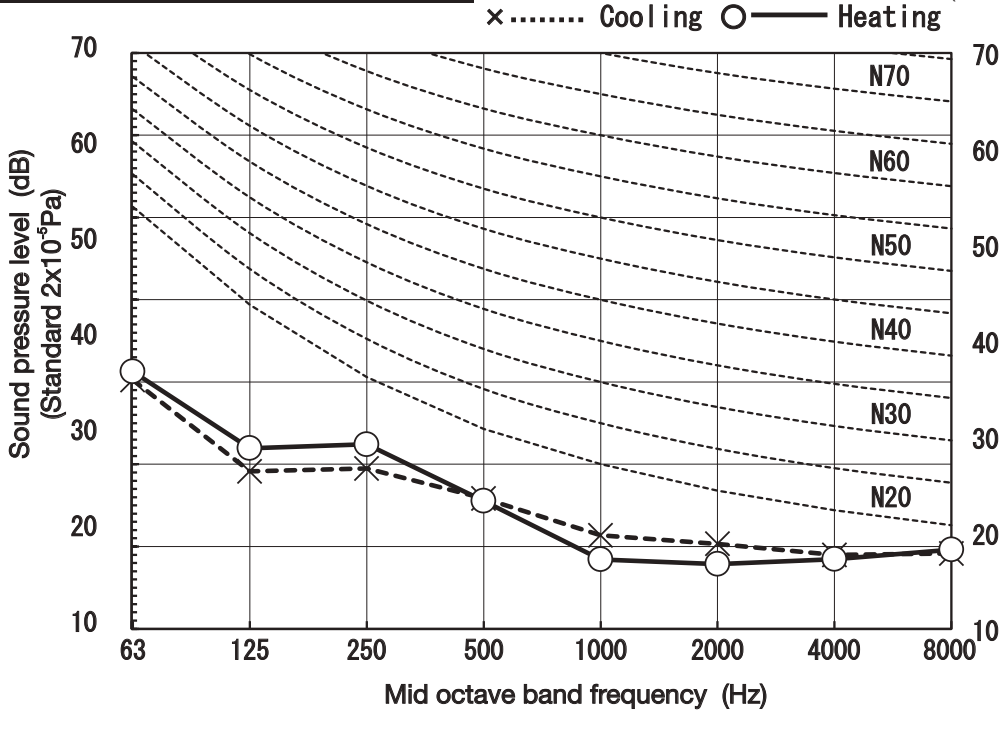


MODE	ULo

●Mike position

(Indoor unit)

Model	SRK35ZS-W,WB,WT	
Noise Level	Cooling	19 dB(A)
	Heating	19 dB(A)

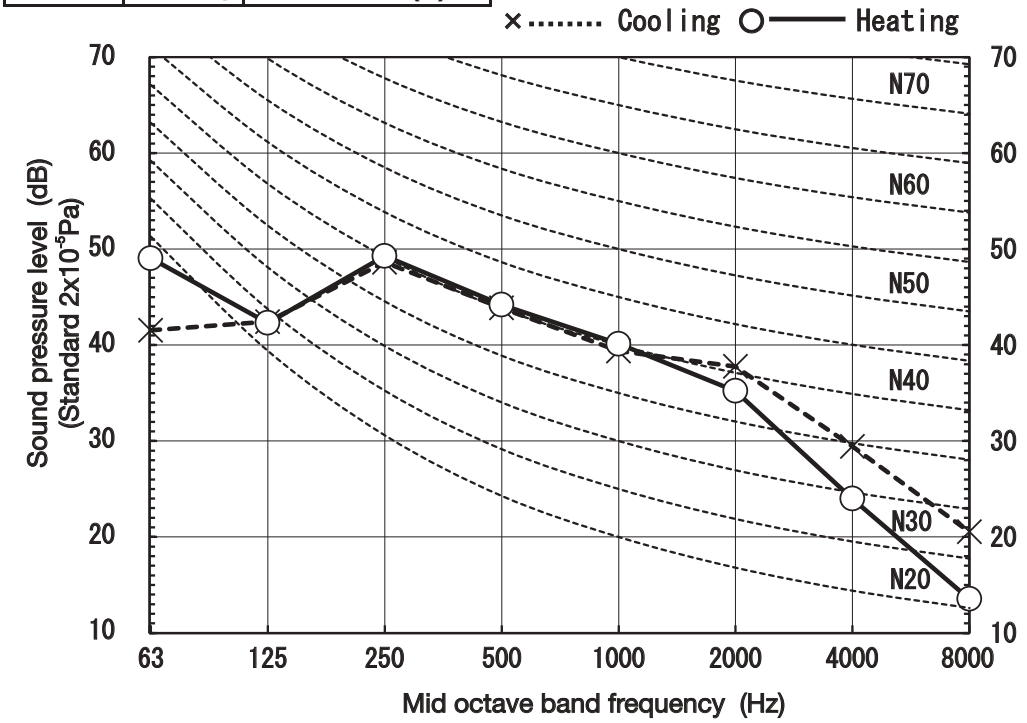


Condition	ISO5151 T1/H1
MODE	Hi

●Mike position

(Indoor unit)

Model	SRK50ZS-W,WB,WT	
Noise Level	Cooling	46 dB(A)
	Heating	46 dB(A)

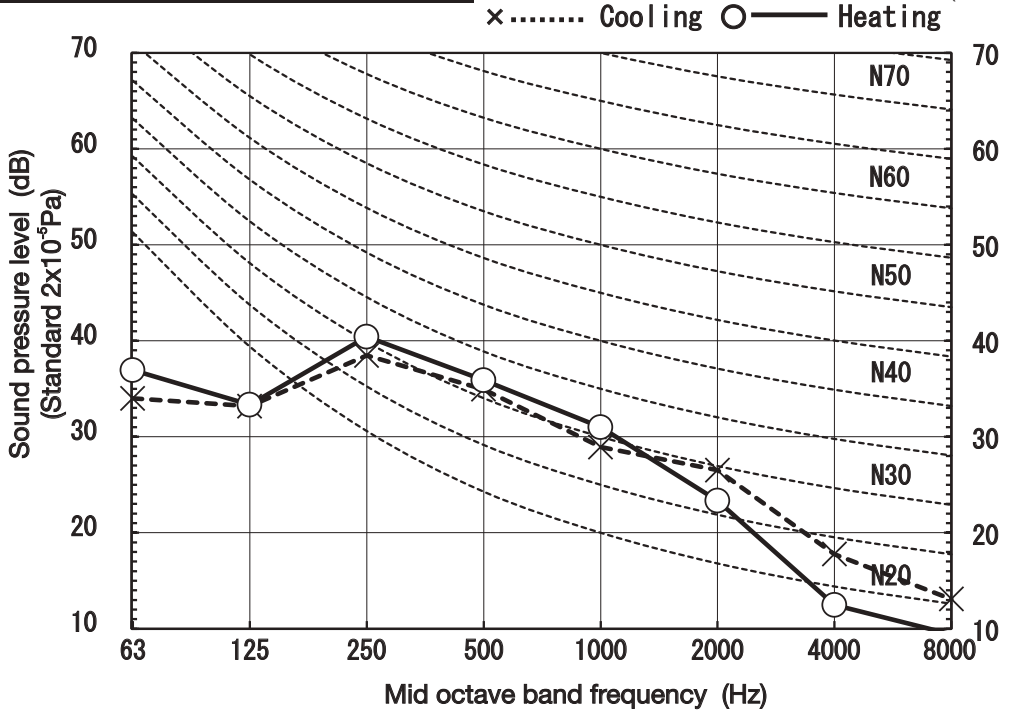


MODE	Me

●Mike position

(Indoor unit)

Model	SRK50ZS-W,WB,WT	
Noise Level	Cooling	36 dB(A)
	Heating	37 dB(A)

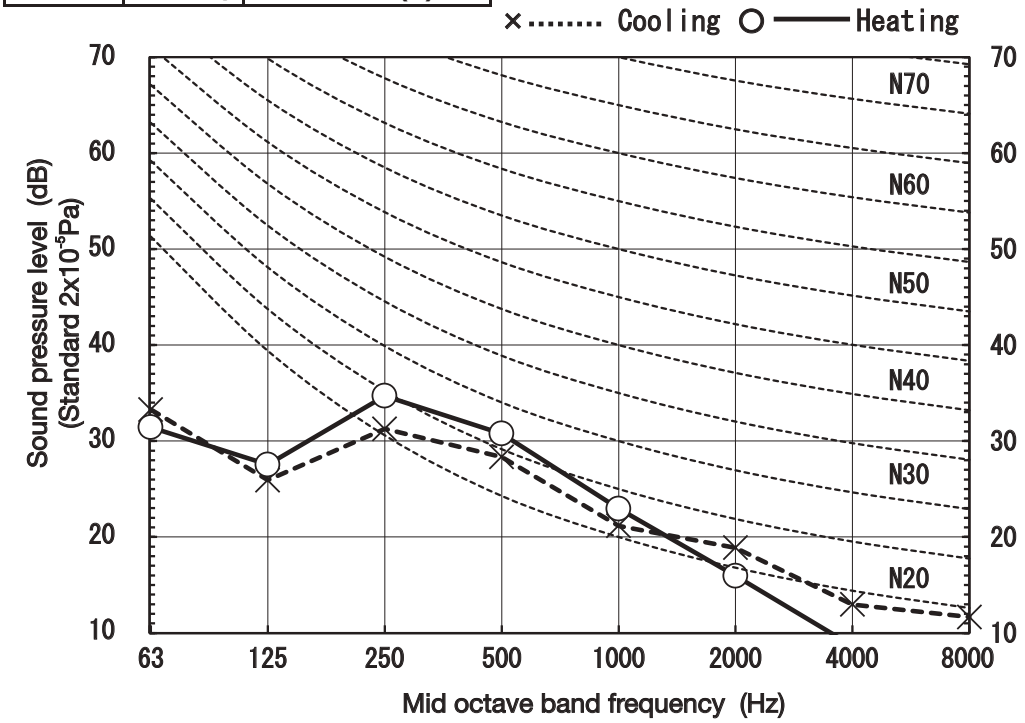


Condition	ISO5151 T1/H1
MODE	Lo

●Mike position

(Indoor unit)

Model	SRK50ZS-W,WB,WT	
Noise Level	Cooling	29 dB(A)
	Heating	31 dB(A)

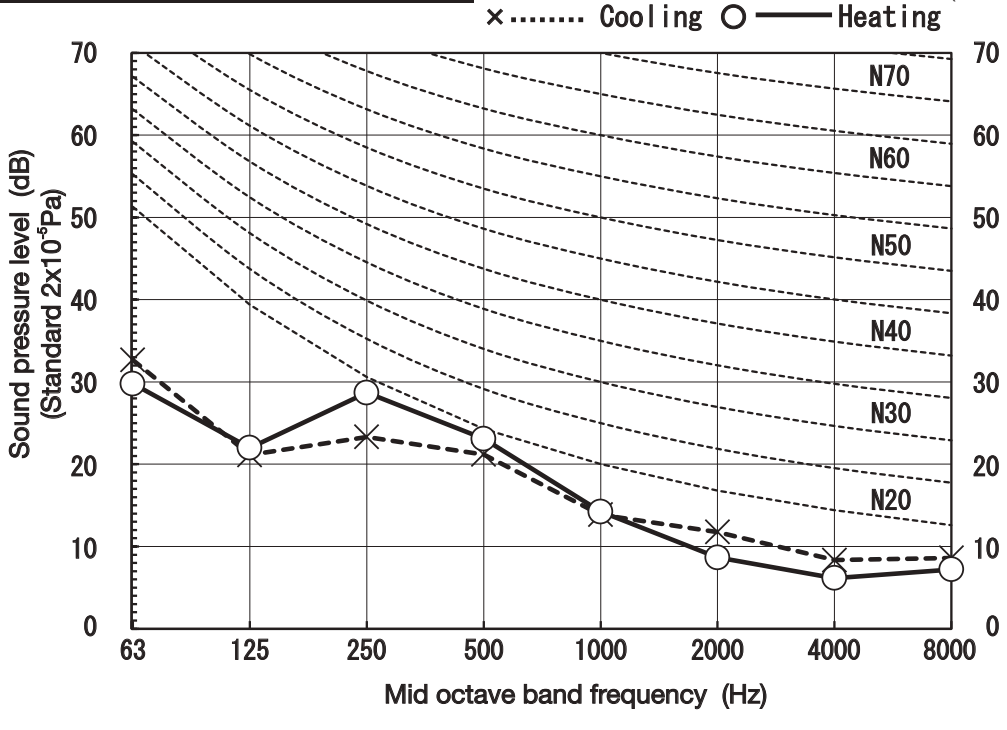


MODE	ULo

●Mike position

(Indoor unit)

	SRK50ZS-W,WB,WT	
Noise Level	Cooling	22 dB(A)
	Heating	24 dB(A)



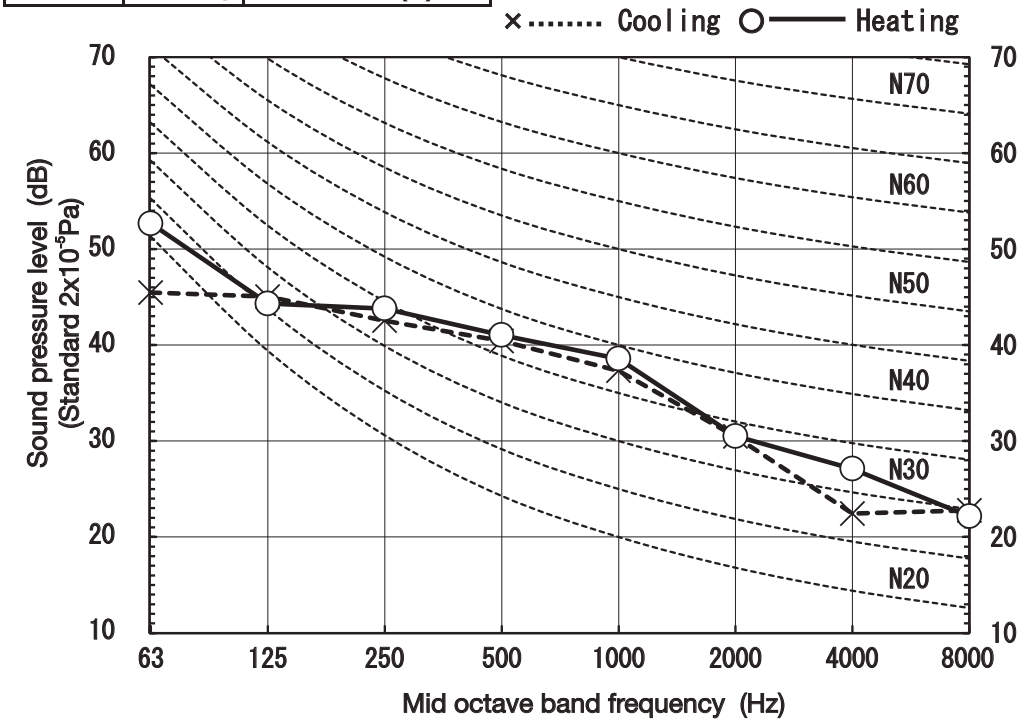
Condition	ISO5151 T1/H1

(Outdoor unit)

Model	SRC20ZS-W	
Noise Level	Cooling	42 dB(A)
	Heating	43 dB(A)

Mike position: at highest noise level in position as mentioned below
Distance from front side 1m

MODE	Silent

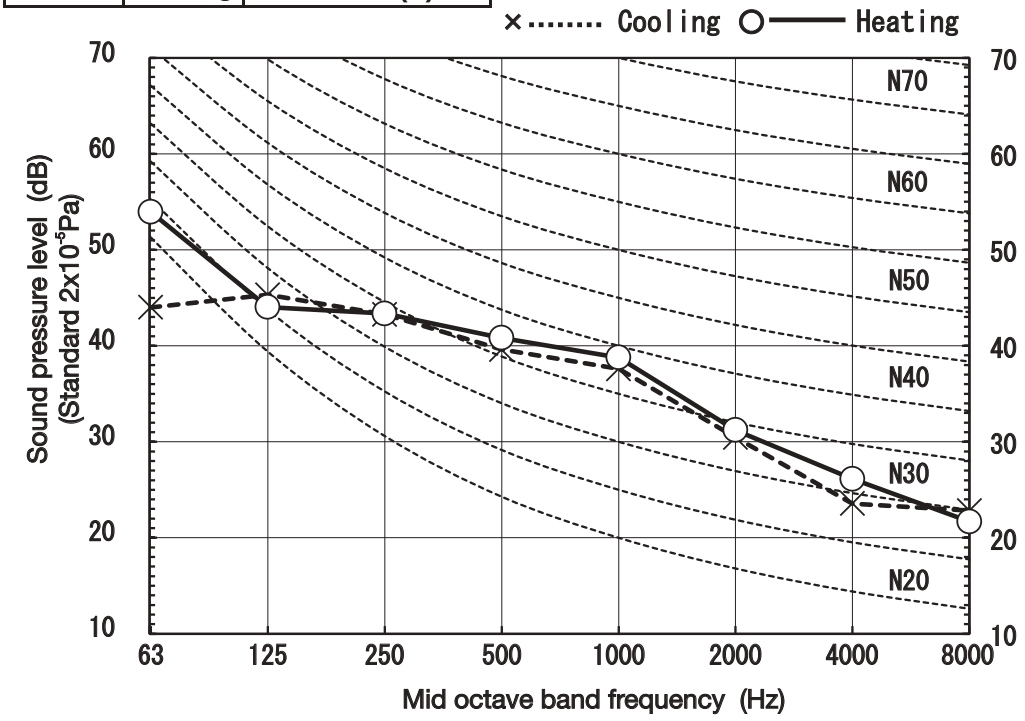


(Outdoor unit)

Model	SRC25ZS-W	
Noise Level	Cooling	42 dB(A)
	Heating	43 dB(A)

Mike position: at highest noise level in position as mentioned below
Distance from front side 1m

MODE	Silent



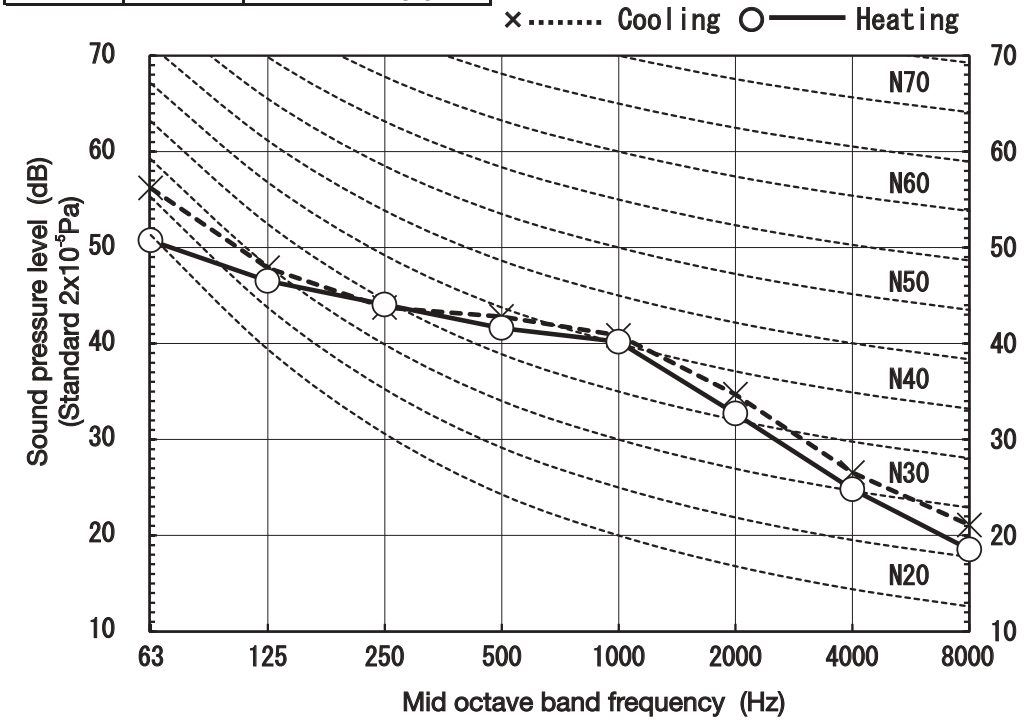
Condition	ISO5151 T1/H1

(Outdoor unit)

Model	SRC35ZS-W	
Noise Level	Cooling	45 dB(A)
	Heating	44 dB(A)

Mike position: at highest noise level in position as mentioned below
Distance from front side 1m

MODE	Silent

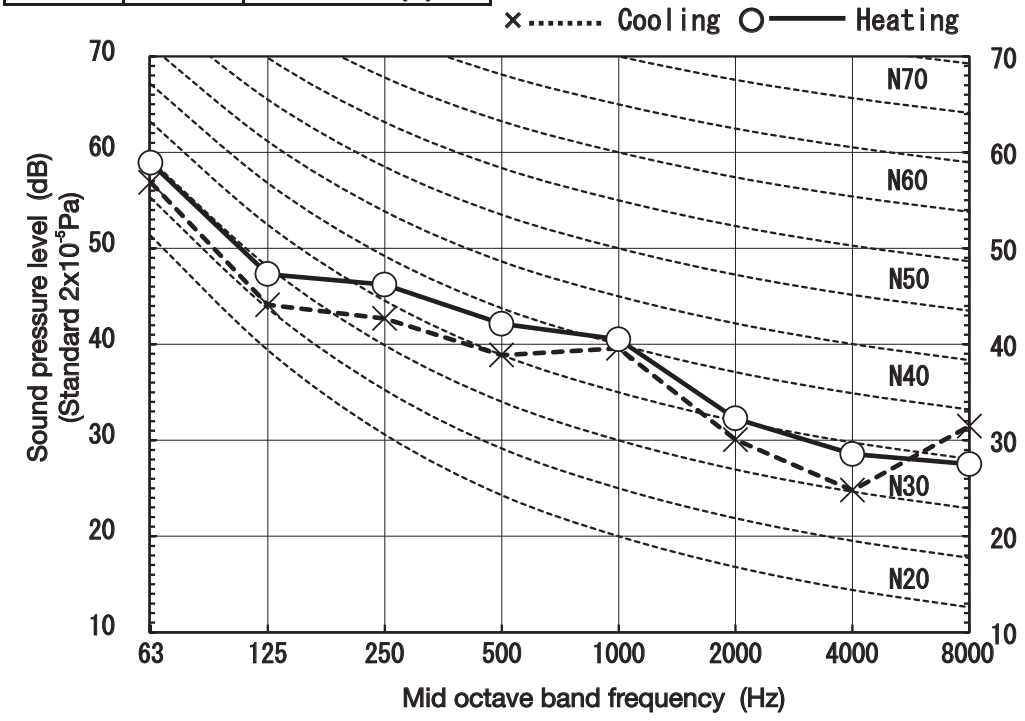


(Outdoor unit)

Model	SRC50ZS-W	
Noise Level	Cooling	43 dB(A)
	Heating	45 dB(A)

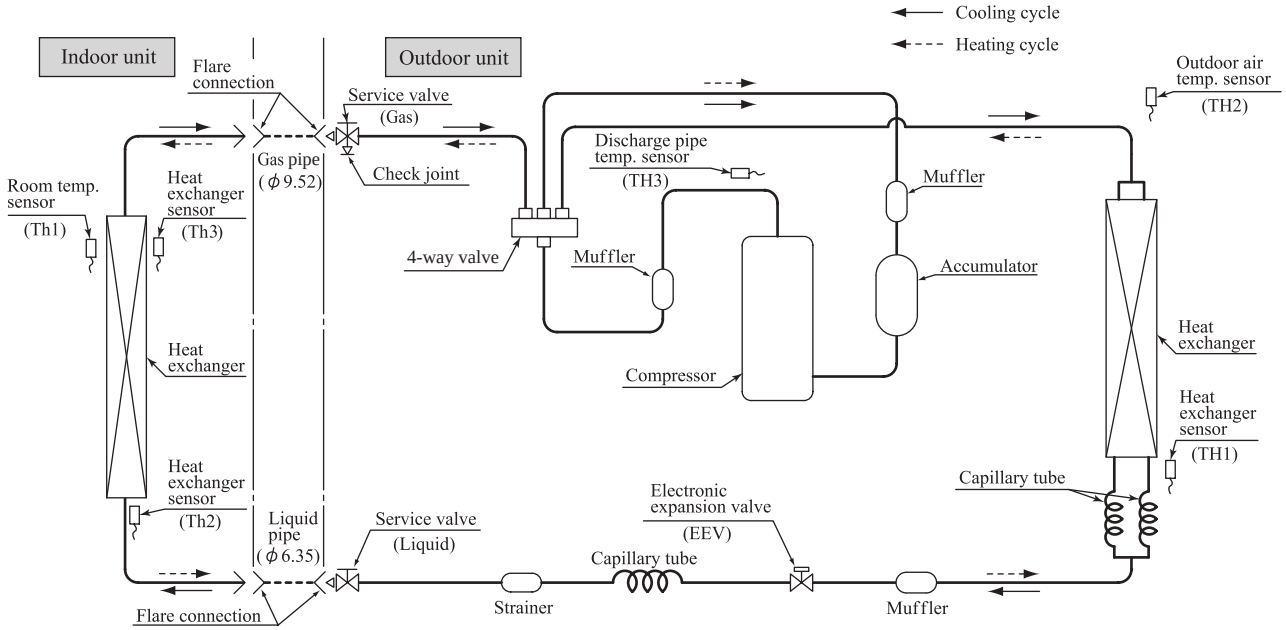
Mike position: at highest noise level in position as mentioned below
Distance from front side 1m

MODE	Silent

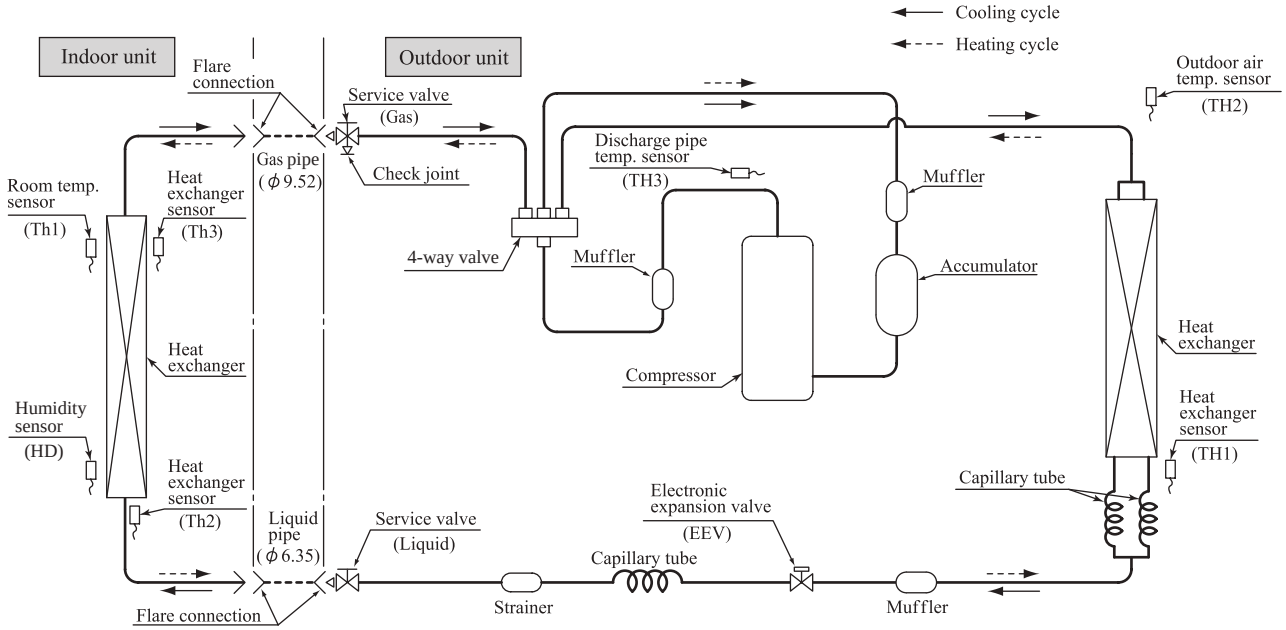


5. PIPING SYSTEM

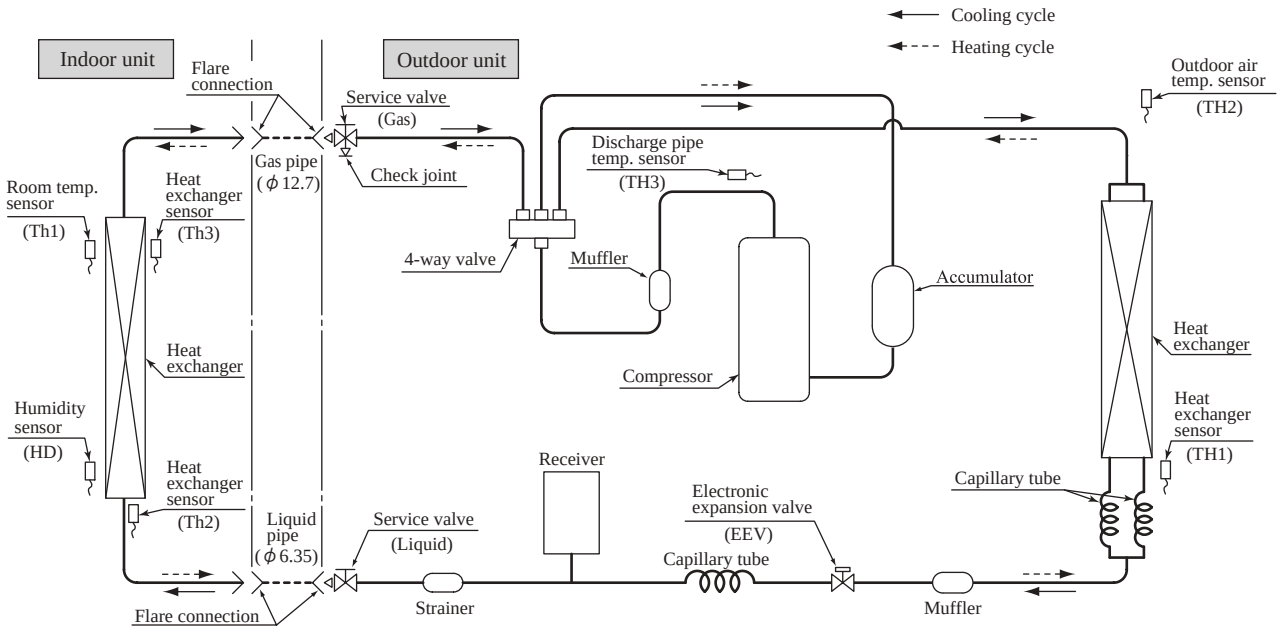
Models SRK20ZS-W, 25ZS-W
SRK20ZS-WB, 25ZS-WB
SRK20ZS-WT, 25ZS-WT



Models SRK35ZS-W
SRK35ZS-WB
SRK35ZS-WT



Models SRK50ZS-W
SRK50ZS-WB
SRK50ZS-WT



6. RANGE OF USAGE & LIMITATIONS

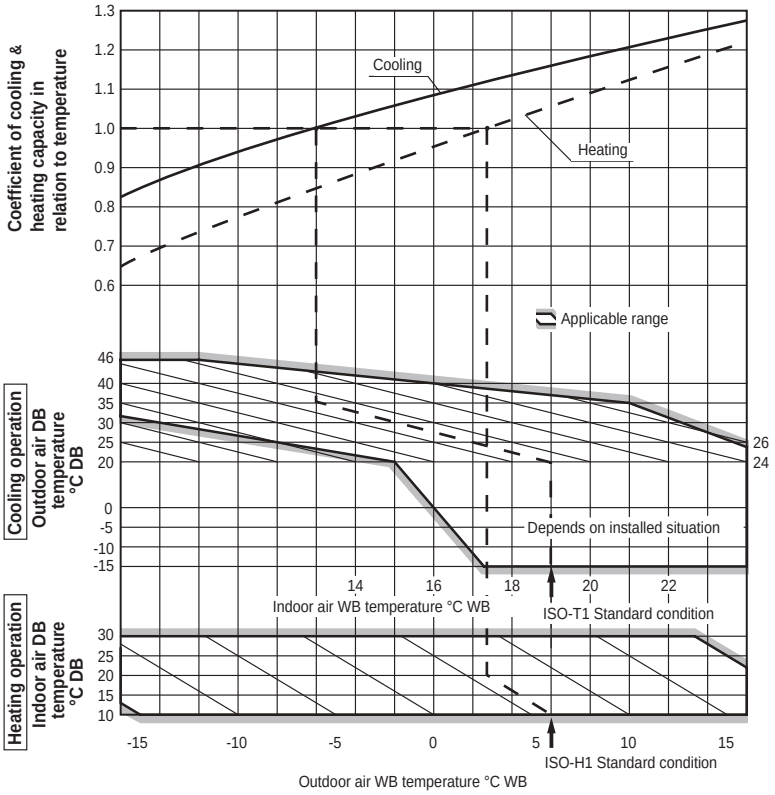
Item \ Model	SRK20,25,35ZS-W SRK20,25,35ZS-WB SRK20,25,35ZS-WT	SRK50ZS-W SRK50ZS-WB SRK50ZS-WT
Indoor return air temperature (Upper, lower limits)	Cooling operation : Approximately 18 to 32℃ D.B. Heating operation : Approximately 10 to 30℃ D.B. (Refer to the selection chart)	
Outdoor air temperature (Upper, lower limits)	Cooling operation : Approximately -15 to 46℃ D.B. Heating operation : Approximately -15 to 24℃ D.B. (Refer to the selection chart)	
Refrigerant line (one way) length	Max. 20m	Max. 25m
Vertical height difference between outdoor unit and indoor unit	Max. 10m (Outdoor unit is higher) Max. 10m (Outdoor unit is lower)	Max. 15m (Outdoor unit is higher) Max. 15m (Outdoor unit is lower)
Power source voltage	Rating ±10%	
Voltage at starting	Min. 85% of rating	
Frequency of ON-OFF cycle	Max. 4 times/h (Inching prevention 10 minutes)	Max. 7 times/h (Inching prevention 5 minutes)
ON and OFF interval	Min. 3 minutes	

Selection chart

Correct the cooling and heating capacity in accordance with the conditions as follows. The net cooling and heating capacity can be obtained in the following way.

Net capacity = Capacity shown on specification × Correction factors as follows.

(1) Coefficient of cooling and heating capacity in relation to temperatures



(2) Correction of cooling and heating capacity in relation to one way length of refrigerant piping

It is necessary to correct the cooling and heating capacity in relation to the one way piping length between the indoor and outdoor units.

Piping length [m]	7	10	15	20	25
Cooling	1.0	0.99	0.975	0.965	0.95
Heating	1.0	1.0	1.0	1.0	1.0

(3) Correction relative to frosting on outdoor heat exchanger during heating

In additions to the foregoing corrections (1), (2) the heating capacity needs to be adjusted also with respect to the frosting on the outdoor heat exchanger.

Air inlet temperature of outdoor unit in °CWB	-15	-10	-9	-7	-5	-3	-1	1	3	5 or more
Adjustment coefficient	0.95	0.95	0.94	0.93	0.91	0.88	0.86	0.87	0.92	1.00

How to obtain the cooling and heating capacity

Example : The net cooling capacity of the model SRK35ZS-W with the piping length of 15m, indoor wet-bulb temperature at 19.0˚C and outdoor dry-bulb temperature 35˚C is

Net cooling capacity = 3.5 × 0.975 × 1.0 ≒ 3.4 kW

- 3.5 : SRK35ZS-W
- 0.975 : Length 15m
- 1.0 : Factor by air temperatures

7. CAPACITY TABLES

Models SRK20ZS-W, -WB, -WT

Cooling mode (kW)

Air flow	Outdoor air temperature	Indoor air temperature													
		21°CDB		23°CDB		26°CDB		27°CDB		28°CDB		31°CDB		33°CDB	
		14°CWB		16°CWB		18°CWB		19°CWB		20°CWB		22°CWB		24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
Hi 9.3 (m^3/min)	10	2.25	2.11	2.36	2.08	2.45	2.19	2.49	2.17	2.53	2.15	2.60	2.25	2.67	2.20
	12	2.21	2.09	2.32	2.06	2.41	2.18	2.45	2.16	2.50	2.14	2.58	2.24	2.65	2.19
	14	2.17	2.06	2.28	2.04	2.38	2.17	2.42	2.15	2.47	2.12	2.55	2.23	2.62	2.18
	16	2.13	2.02	2.24	2.02	2.34	2.15	2.39	2.13	2.43	2.11	2.52	2.22	2.59	2.18
	18	2.08	1.98	2.19	2.01	2.30	2.14	2.35	2.12	2.40	2.10	2.49	2.21	2.56	2.17
	20	2.04	1.94	2.15	1.99	2.26	2.12	2.31	2.10	2.36	2.08	2.45	2.20	2.53	2.16
	22	1.99	1.89	2.10	1.97	2.22	2.10	2.28	2.09	2.32	2.07	2.42	2.19	2.50	2.14
	24	1.94	1.85	2.05	1.95	2.18	2.07	2.24	2.08	2.28	2.06	2.38	2.18	2.47	2.14
	26	1.90	1.80	2.01	1.91	2.14	2.03	2.20	2.06	2.24	2.04	2.35	2.17	2.43	2.13
	28	1.85	1.75	1.96	1.86	2.09	1.99	2.15	2.05	2.20	2.03	2.31	2.15	2.40	2.12
	30	1.79	1.70	1.90	1.81	2.05	1.94	2.11	2.01	2.16	2.01	2.27	2.14	2.36	2.09
	32	1.74	1.65	1.85	1.76	2.00	1.90	2.07	1.96	2.12	2.00	2.23	2.12	2.32	2.08
	34	1.69	1.60	1.80	1.71	1.95	1.85	2.02	1.92	2.07	1.97	2.19	2.08	2.28	2.07
	35	1.66	1.58	1.77	1.68	1.93	1.83	2.00	1.90	2.05	1.94	2.17	2.06	2.26	2.06
	36	1.63	1.55	1.74	1.65	1.90	1.81	1.98	1.88	2.02	1.92	2.15	2.04	2.24	2.05
	38	1.58	1.50	1.68	1.60	1.85	1.76	1.93	1.83	1.98	1.88	2.11	2.00	2.20	2.04
	39	1.55	1.47	1.66	1.57	1.83	1.74	1.91	1.81	1.95	1.85	2.08	1.98	2.18	2.04

Heating mode (HC) (kW)

Air flow	Outdoor air temperature	Indoor air temperature				
		16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
Hi 10.0 (m^3/min)	-15°CWB	1.66	1.63	1.59	1.55	1.52
	-10°CWB	1.88	1.85	1.82	1.78	1.74
	-5°CWB	2.04	2.01	1.97	1.94	1.91
	0°CWB	2.13	2.10	2.07	2.04	2.01
	5°CWB	2.72	2.69	2.67	2.62	2.58
	6°CWB	2.76	2.73	2.70	2.67	2.63
	10°CWB	2.94	2.91	2.89	2.85	2.82
	15°CWB	3.20	3.17	3.14	3.11	3.08
	20°CWB	3.43	3.41	3.39	3.35	3.32

Models SRK25ZS-W, -WB, -WT

Cooling mode (kW)

Air flow	Outdoor air temperature	Indoor air temperature													
		21°CDB		23°CDB		26°CDB		27°CDB		28°CDB		31°CDB		33°CDB	
		14°CWB		16°CWB		18°CWB		19°CWB		20°CWB		22°CWB		24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
Hi 9.9 (m^3/min)	10	2.82	2.45	2.95	2.41	3.06	2.54	3.11	2.51	3.16	2.48	3.26	2.59	3.34	2.52
	12	2.77	2.43	2.90	2.39	3.01	2.52	3.07	2.49	3.12	2.47	3.22	2.58	3.31	2.51
	14	2.71	2.41	2.85	2.37	2.97	2.50	3.03	2.48	3.08	2.45	3.18	2.56	3.28	2.50
	16	2.66	2.38	2.80	2.35	2.92	2.49	2.98	2.46	3.04	2.44	3.15	2.55	3.24	2.49
	18	2.60	2.36	2.74	2.33	2.88	2.47	2.94	2.45	2.99	2.42	3.11	2.54	3.20	2.48
	20	2.55	2.33	2.68	2.30	2.83	2.45	2.89	2.43	2.95	2.40	3.07	2.52	3.17	2.47
	22	2.49	2.31	2.63	2.28	2.78	2.42	2.84	2.41	2.90	2.38	3.02	2.51	3.13	2.45
	24	2.43	2.28	2.57	2.26	2.72	2.40	2.80	2.39	2.85	2.37	2.98	2.49	3.08	2.44
	26	2.37	2.25	2.51	2.23	2.67	2.38	2.74	2.37	2.80	2.35	2.93	2.48	3.04	2.43
	28	2.31	2.19	2.44	2.20	2.61	2.36	2.69	2.35	2.75	2.33	2.89	2.46	3.00	2.41
	30	2.24	2.13	2.38	2.17	2.56	2.34	2.64	2.33	2.70	2.31	2.84	2.44	2.95	2.40
	32	2.18	2.07	2.31	2.15	2.50	2.32	2.58	2.31	2.64	2.29	2.79	2.43	2.90	2.38
	34	2.11	2.00	2.25	2.12	2.44	2.29	2.53	2.29	2.59	2.27	2.74	2.41	2.85	2.37
	35	2.08	1.97	2.21	2.10	2.41	2.28	2.50	2.28	2.56	2.26	2.71	2.40	2.83	2.36
	36	2.04	1.94	2.18	2.07	2.38	2.26	2.47	2.27	2.53	2.25	2.69	2.40	2.80	2.36
	38	1.97	1.87	2.11	2.00	2.32	2.20	2.41	2.24	2.47	2.22	2.63	2.38	2.75	2.34
	39	1.94	1.84	2.07	1.97	2.28	2.17	2.38	2.23	2.44	2.21	2.61	2.37	2.72	2.33

Heating mode (HC) (kW)

Air flow	Outdoor air temperature	Indoor air temperature				
		16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
Hi 11.3 (m^3/min)	-15°CWB	1.97	1.93	1.88	1.84	1.80
	-10°CWB	2.23	2.19	2.16	2.10	2.06
	-5°CWB	2.41	2.38	2.33	2.30	2.27
	0°CWB	2.53	2.49	2.45	2.42	2.38
	5°CWB	3.22	3.19	3.17	3.10	3.06
	6°CWB	3.27	3.24	3.20	3.16	3.12
	10°CWB	3.48	3.45	3.42	3.38	3.34
	15°CWB	3.79	3.75	3.73	3.69	3.65
	20°CWB	4.07	4.04	4.02	3.97	3.94

Models SRK35ZS-W -WB, -WT

Cooling mode (kW)

Air flow	Outdoor air temperature	IIndoor air temperature													
		21°CDB		23°CDB		26°CDB		27°CDB		28°CDB		31°CDB		33°CDB	
		14°CWB		16°CWB		18°CWB		19°CWB		20°CWB		22°CWB		24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
Hi 11.3 (m^3/min)	10	3.94	3.19	4.13	3.14	4.28	3.27	4.35	3.22	4.43	3.18	4.56	3.29	4.68	3.20
	12	3.87	3.15	4.06	3.11	4.22	3.24	4.29	3.20	4.37	3.16	4.51	3.27	4.63	3.18
	14	3.80	3.12	3.99	3.07	4.16	3.21	4.24	3.17	4.31	3.14	4.46	3.26	4.59	3.16
	16	3.72	3.08	3.91	3.04	4.09	3.18	4.18	3.15	4.25	3.12	4.40	3.24	4.54	3.15
	18	3.65	3.04	3.84	3.00	4.03	3.16	4.11	3.13	4.19	3.09	4.35	3.21	4.49	3.13
	20	3.57	3.01	3.76	2.97	3.96	3.12	4.05	3.10	4.13	3.06	4.29	3.19	4.43	3.12
	22	3.49	2.96	3.68	2.93	3.89	3.10	3.98	3.07	4.06	3.04	4.23	3.17	4.38	3.10
	24	3.40	2.93	3.59	2.89	3.81	3.07	3.91	3.05	3.99	3.02	4.17	3.15	4.32	3.08
	26	3.32	2.89	3.51	2.86	3.74	3.03	3.84	3.01	3.92	2.98	4.11	3.13	4.26	3.06
	28	3.23	2.84	3.42	2.82	3.66	3.00	3.77	2.99	3.85	2.96	4.04	3.11	4.20	3.04
	30	3.14	2.80	3.33	2.78	3.58	2.97	3.70	2.96	3.78	2.93	3.98	3.08	4.13	3.02
	32	3.05	2.75	3.24	2.74	3.50	2.93	3.62	2.92	3.70	2.90	3.91	3.06	4.06	2.99
	34	2.95	2.71	3.14	2.69	3.41	2.90	3.54	2.89	3.62	2.87	3.84	3.03	4.00	2.97
	35	2.91	2.69	3.10	2.67	3.37	2.89	3.50	2.88	3.58	2.86	3.80	3.02	3.96	2.96
	36	2.86	2.67	3.05	2.65	3.33	2.87	3.46	2.87	3.54	2.84	3.76	3.01	3.92	2.95
	38	2.76	2.62	2.95	2.61	3.24	2.83	3.38	2.84	3.46	2.81	3.69	2.98	3.85	2.93
	39	2.71	2.57	2.90	2.59	3.20	2.81	3.33	2.81	3.42	2.79	3.65	2.97	3.81	2.92

Heating mode (HC) (kW)

Air flow	Outdoor air temperature	Indoor air temperature				
		16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
Hi 12.3 (m^3/min)	-15°CWB	2.46	2.41	2.35	2.30	2.25
	-10°CWB	2.79	2.74	2.70	2.63	2.58
	-5°CWB	3.02	2.97	2.91	2.88	2.83
	0°CWB	3.16	3.12	3.06	3.02	2.98
	5°CWB	4.03	3.98	3.96	3.88	3.83
	6°CWB	4.09	4.04	4.00	3.95	3.90
	10°CWB	4.35	4.31	4.28	4.22	4.18
	15°CWB	4.73	4.69	4.66	4.61	4.56
	20°CWB	5.09	5.05	5.02	4.96	4.92

Models SRK50ZS-W, -WB, -WT

Cooling mode (kW)

Air flow	Outdoor air temperature	Indoor air temperature													
		21°CDB		23°CDB		26°CDB		27°CDB		28°CDB		31°CDB		33°CDB	
		14°CWB		16°CWB		18°CWB		19°CWB		20°CWB		22°CWB		24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
Hi 12.1 (m^3/min)	10	5.63	4.25	5.90	4.17	6.11	4.29	6.22	4.23	6.32	4.17	6.51	4.28	6.69	4.14
	12	5.53	4.19	5.80	4.12	6.03	4.25	6.14	4.19	6.25	4.14	6.44	4.25	6.62	4.12
	14	5.43	4.14	5.70	4.07	5.94	4.21	6.05	4.16	6.16	4.10	6.37	4.22	6.55	4.09
	16	5.32	4.08	5.59	4.02	5.85	4.17	5.96	4.12	6.08	4.07	6.29	4.19	6.48	4.07
	18	5.21	4.02	5.48	3.97	5.75	4.13	5.88	4.08	5.99	4.03	6.21	4.16	6.41	4.04
	20	5.10	3.96	5.37	3.92	5.65	4.08	5.78	4.04	5.90	3.99	6.13	4.13	6.33	4.02
	22	4.98	3.90	5.25	3.86	5.55	4.04	5.69	4.00	5.80	3.95	6.05	4.10	6.25	3.99
	24	4.86	3.84	5.14	3.80	5.45	3.99	5.59	3.96	5.71	3.91	5.96	4.07	6.17	3.96
	26	4.74	3.78	5.01	3.74	5.34	3.94	5.49	3.92	5.61	3.87	5.87	4.03	6.08	3.93
	28	4.61	3.72	4.89	3.68	5.23	3.89	5.39	3.87	5.50	3.83	5.78	4.00	5.99	3.90
	30	4.49	3.66	4.76	3.62	5.11	3.85	5.28	3.83	5.40	3.79	5.68	3.96	5.90	3.86
	32	4.35	3.59	4.63	3.56	5.00	3.80	5.17	3.78	5.29	3.75	5.58	3.92	5.81	3.83
	34	4.22	3.53	4.49	3.49	4.88	3.74	5.06	3.74	5.18	3.70	5.48	3.88	5.71	3.80
	35	4.15	3.48	4.42	3.46	4.82	3.72	5.00	3.71	5.12	3.68	5.43	3.86	5.66	3.78
	36	4.08	3.45	4.35	3.43	4.76	3.69	4.94	3.69	5.06	3.66	5.37	3.84	5.61	3.76
	38	3.94	3.38	4.21	3.36	4.63	3.64	4.82	3.64	4.94	3.61	5.27	3.81	5.50	3.73
	39	3.87	3.35	4.14	3.33	4.57	3.61	4.76	3.62	4.88	3.59	5.21	3.79	5.45	3.71

Heating mode (HC) (kW)

Air flow	Outdoor air temperature	Indoor air temperature				
		16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
Hi 13.9 (m^3/min)	-15°CWB	3.57	3.49	3.41	3.34	3.26
	-10°CWB	4.04	3.97	3.91	3.81	3.73
	-5°CWB	4.37	4.31	4.22	4.18	4.11
	0°CWB	4.59	4.52	4.44	4.39	4.32
	5°CWB	5.84	5.77	5.74	5.63	5.55
	6°CWB	5.94	5.87	5.80	5.73	5.66
	10°CWB	6.31	6.25	6.21	6.12	6.06
	15°CWB	6.86	6.80	6.76	6.68	6.62
	20°CWB	7.38	7.32	7.28	7.20	7.14

Notes(1) These data show average statuses.
Depending on the system control, there may be ranges where the operation is not conducted continuously.
These data show the case where the operation frequency of a compressor is fixed.
(2) Capacities are based on the following conditions.
Corresponding refrigerant piping length :5m
Level difference of Zero.
(3) Symbols are as follows.
TC : Total cooling capacity (kW)
SHC : Sensible heat capacity (kW)
HC : Heating capacity (kW)

8. APPLICATION DATA

(1) Installation of indoor unit

Model SRK20,25,35,50ZS
R32/R410A REFRIGERANT USED

- This installation manual deals with an indoor unit installation only. For an outdoor unit installation, refer to page 56.
- This unit is designed for R32 or R410A. See a label on the outdoor unit to check refrigerant information.

SAFETY PRECAUTIONS

- Before installation, read the "SAFETY PRECAUTIONS" carefully and strictly follow it during the installation work in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, ⚠ WARNING and ⚠ CAUTION .

⚠ WARNING Indicates a potentially hazardous situation which, if not avoided, can result in serious consequences such as death or severe injury.

⚠ CAUTION Indicates a potentially hazardous situation which, if not avoided, can result in personal injury or property damage.

Both mention the important items to protect your health and safety. Therefore, strictly follow them by any means.

- Be sure to confirm no operation problem on the equipment after completing the installation. If unusual noise can be heard during the test run, consult the dealer.
- Be sure to explain the operating methods as well as the maintenance methods of this equipment to the user according to the user's manual.
- Be sure to keep the installation manual together with user's manual at a place where it is easily accessible to the user any time. Moreover, ask the user to hand the manuals to a new user, whenever required.

⚠ WARNING

- **Be sure to use only for residential purpose.**
  If this unit is installed in inferior environment such as machine shop, vehicle (like ship), warehouse, etc., it can malfunction.
- **Installation must be carried out by the qualified installer completely in accordance with the installation manual.**
  Installation by non qualified person or incorrect installation can cause serious troubles such as water leak, electric shock, fire and personal injury.
- **Be sure to wear protective goggles and gloves while performing installation work.**
  Improper safety measures can result in personal injury.
- **Use the original accessories and the specified components for the installation.**
  Using parts other than those prescribed may cause water leak, electric shock, fire and personal injury.
- **Do not install the unit near the location where leakage of flammable gases can occur.**
  If leaked gases accumulate around the unit, it can cause fire resulting in property damage and personal injury.
- **When installing the unit in small rooms, make sure that refrigerant density does not exceed the limit (Reference: ISO5149) in the event of leakage.**
  If refrigerant density exceeds the limit, consult the dealer and install the ventilation system.
  Otherwise lack of oxygen can occur resulting in serious accident.
- **Install the unit in a location where unit will remain stable, horizontal and free of any vibration transmission.**
  Unsuitable installation location can cause the unit to fall resulting in material damage and personal injury.
- **Do not run the unit with removed panels or protections.**
  Touching rotating equipments, hot surfaces or high voltage parts can cause personal injury due to entrapment, burn or electric shock.
- **This unit is designed specifically for R32 or R410A.**
  Using any other refrigerant can cause unit failure and personal injury.
- **Do not vent R32 or R410A into atmosphere.**
  R32 is a fluorinated greenhouse gas with a Global Warming Potential(GWP)=675.
  R410A is a fluorinated greenhouse gas with a Global Warming Potential(GWP)=2088.
- **Make sure that no air enters the refrigerant circuit when the unit is installed and removed.**
  If air enters the refrigerant circuit, the pressure in the refrigerant circuit will become too high, which can cause burst and personal injury.
- **Be sure to use the prescribed pipes, flare nuts and tools for R32 or R410A.**
  Using existing parts (for R22 or R407C) can cause refrigerant circuit burst resulting in unit failure and personal injury.
- **Be sure to connect both liquid and gas connecting pipes properly before operating the compressor.**
  Do not open the liquid and gas service valves before completing piping work, and evacuation.
  If the compressor is operated when connecting pipes are not connected and service valves are open, air can be sucked into the refrigerant circuit which can cause anomalous high pressure resulting in burst or personal injury.
- **Be sure to tighten the flare nuts to specified torque using the torque wrench.**
  Tightening flare nuts with excess torque can cause burst and refrigerant leakage after a long period.
- **During pump down work, be sure to stop the compressor before closing service valves and removing connecting pipes.**
  If the connecting pipes are removed when the compressor is in operation and operation valves are open, air can be sucked into the refrigerant circuit which can cause anomalous high pressure resulting in burst or personal injury.
- **In the event of refrigerant leakage during installation, be sure to ventilate the working area properly.**
  If the refrigerant comes into contact with naked flames, poisonous gases will be produced.
- **Electrical work must be carried out by the qualified electrician, strictly in accordance with national or regional electricity regulations.**
  Incorrect installation can cause electric shock, fire or personal injury.
- **Make sure that earth leakage breaker and circuit breaker of appropriate capacities are installed.**
  Circuit breaker should be able to disconnect all poles under over current. Absence of appropriate breakers can cause electric shock, personal injury or property damage.
- **Be sure to switch off the power source in the event of installation, maintenance or service.**
  If the power source is not switched off, there is a risk of electric shock, unit failure or personal injury.
- **Be sure to tighten the cables securely in terminal block and relieve the cables properly to prevent overloading the terminal blocks.**
  Loose connections or cable mountings can cause anomalous heat production or fire.
- **Do not process, splice or modify the power cable, or share the socket with other power plugs.**
  Improper power cable or power plug can cause fire or electric shock due to poor connection, insufficient insulation or over-current.
- **Do not perform any change in protective device or its setup condition yourself.**
  Changing protective device specifications can cause electric shock, fire or burst.
- **Be sure to clamp the cables properly so that they do not touch any internal component of the unit.**
  If cables touch any internal component, it can cause overheating and fire.
- **Be sure to install service cover properly.**
  Improper installation can cause electric shock or fire due to intrusion of dust or water.
- **Be sure to use the prescribed power and connecting cables for electrical work.**
  Using improper cables can cause electric leak or fire.
- **This appliance must be connected to main power source by means of a circuit breaker or switch with a contact separation of at least 3mm.**
  Improper electrical work can cause unit failure or personal injury.
- **When plugging this unit, a plug conforming to the standard IEC60884-1 must be used.**
  Using improper plug can cause electric shock or fire.
- **Be sure to connect the power source cable with power source properly.**
  Improper connection can cause intrusion of dust or water resulting in electric shock or fire.

⚠ CAUTION

- **Take care when carrying the unit by hand.**
  If the unit weight is more than 20kg, it must be carried by two or more persons.
  Do not carry the unit by the plastic straps. Always use the carry handle.
- **Do not install the outdoor unit in a location where insects and small animals can inhabit.**
  Insects and small animals can enter the electrical parts and cause damage resulting in fire or personal injury. Instruct the user to keep the surroundings clean.
- **If the outdoor unit is installed at height, make sure that there is enough space for installation, maintenance and service.**
  Insufficient space can result in personal injury due to falling from the height.
- **Do not install the unit near the location where neighbours are bothered by noise or air generating from the unit.**
  It can affect surrounding environment and cause a claim.
- **Do not install in the locations where unit is directly exposed to corrosive gases (like sulphide gas, chloride gas), sea breeze or salty atmosphere.**
  It can cause corrosion of heat exchanger and damage to plastic parts.
- **Do not install the unit close to the equipments that generate electromagnetic waves and/or high-harmonic waves.**
  Equipment such as inverters, standby generators, medical high frequency equipments and telecommunication equipments can affect the system, and cause malfunctions and breakdowns.
  The system can also affect medical equipment and telecommunication equipment, and obstruct its function or cause jamming.
- **Do not install the unit in the locations where:**
  - There are heat sources nearby.
  - Unit is directly exposed to rain or sunlight.
  - There is any obstacle which can prevent smooth air circulation from inlet and outlet side of the unit.
  - Unit is directly exposed to oil mist and steam such as kitchen.
  - Chemical substances like ammonia (organic fertilizer), calcium chloride (snow melting agent) and acid (sulfurous acid etc.), which can harm the unit, will generate or accumulate.
  - Drain water can not be discharged properly.
  - TV set or radio receiver is placed within 1m.
  - Height above sea level is more than 1000m.

  It can cause performance degradation, corrosion and damage of components, unit malfunction and fire.
- **Dispose of all packing materials properly.**
  Packing materials contain nails and wood which can cause personal injury.
  Keep the polybag away from children to avoid the risk of suffocation.
- **Do not put anything on the outdoor unit.**
  Object may fall causing property damage or personal injury.
- **Do not touch the aluminum fin of the outdoor unit.**
  Aluminium fin temperature is high during heating operation. Touching fin can cause burn.
- **Do not touch any refrigerant pipe with your hands when the system is in operation.**
  During operation the refrigerant pipes become extremely hot or extremely cold depending on the operating condition. Touching pipes can cause personal injury like burn (hot/cold).
- **Install isolator or disconnect switch on the power source wiring in accordance with the local codes and regulations.**
  The isolator should be locked in OFF state in accordance with EN60204-1.

1. ACCESSORIES AND TOOLS

Standard accessories (supplied with indoor unit)

(1)	Installation board	1pc	(6)	Batteries [R03 (AAA, Micro) 1.5V]	2pcs
(2)	Remote control	1pc	(7)	Air-cleaning filters	2pcs
(3)	Remote control holder	1pc	(8)	Filter holders	2pcs
(4)	Tapping screws (for installation board ø4 X 25mm)	5pcs	(9)	Insulation (#486 50 X 100 t3)	1pc
(5)	Wood screws (for remote control holder ø3.5 X 16mm)	2pcs			

Locally procured parts

(a)	Sleeve (1pc)
(b)	Sealing plate (1pc)
(c)	Inclination plate (1pc)
(d)	Putty
(e)	Connecting cable
(f)	Drain hose (extension hose)
(g)	Piping cover (for insulation of connection piping)
(h)	Clamp and screw (for finishing work)
(i)	Electrical tape

Tools for installation Work

Plus headed driver	Hole core drill (65mm in diameter)
Knife	Wrench key (Hexagon) [4mm]
Saw	Flaring tool set*
Tape measure	Gas leak detector*
Torque wrench (14.0-62.0N·m (1.4-6.2kgf·m))	Pipe bender
Plier	Gauge for projection adjustment (Used when flare is made by using conventional flare tool)
Pipe cutter	

* Designed specifically for R32 or R410A

2. SELECTING INSTALLATION LOCATION

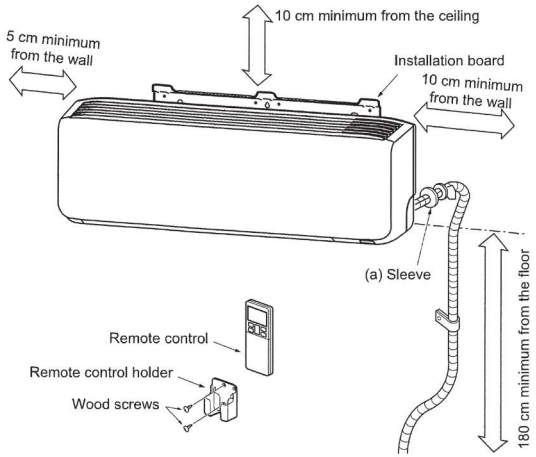
After getting customer's approval, select installation location according to following guidelines.

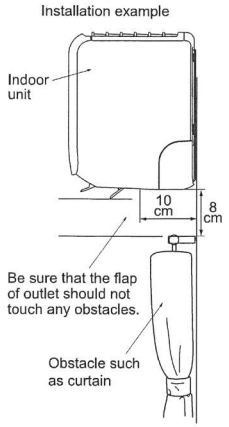
1. Indoor unit

- Where there is no obstruction to the air flow and where the cooled and heated air can be evenly distributed.
- A solid place where the unit or the wall will not vibrate.
- A place where there will be enough space for servicing. (Where space mentioned on the right side can be secured.)
- Where it is easy to conduct wiring and piping work.
- A place where unit is not directly exposed to sunlight or street light.
- A place where it can be easily drained.
- A place separated at least 1m away from the television or the radio. (To prevent interference to images and sounds.)
- A place where this unit is not affected by the high frequency equipment or electric equipment.
- Avoid installing this unit in place where there is much oil mist.
- A place where there is no electric equipment or household.
- Install the indoor unit on the wall where the height from the floor to the bottom of the unit is more than 180 cm.

2. Remote control

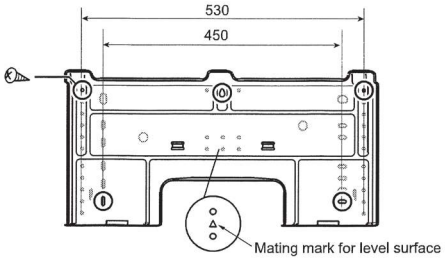
- A place where the air-conditioner can receive the signal surely during operating the remote control.
- A place where it is not affected by the TV, radio etc.
- Do not place where it is exposed to direct sunlight or near heat devices such as a stove.

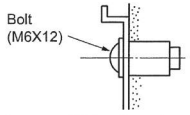




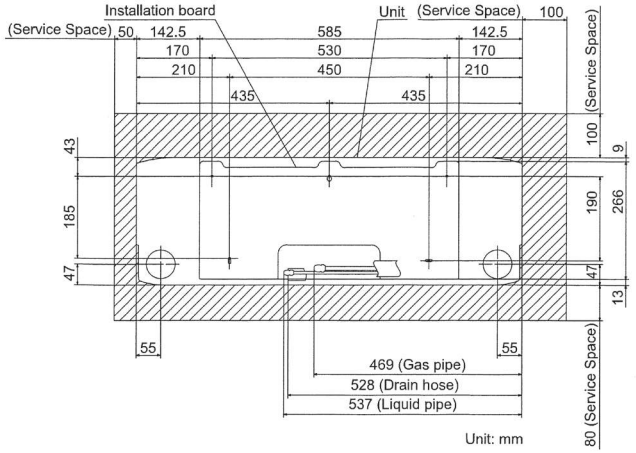
3. INSTALLING INSTALLATION BOARD

- Installation board should be installed on the wall which can support the weight of the indoor unit.
- Adjustment of the installation board in the horizontal direction is to be conducted with five screws in a temporary tightened state.
- With the standard hole as a center, adjust the board and level it.





In case of fixing the unit on concrete wall, use nut anchor.

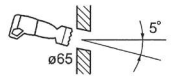


⚠ CAUTION

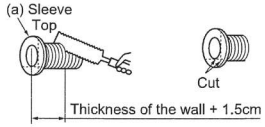
Improper adjustment of the installation board can cause water leakage.

4. DRILLING HOLE AND FIXTURE OF SLEEVE

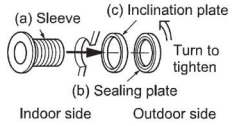
When drilling the wall that contains a metal lath, wire lath or metal plate, be sure to use sealing plate, sleeve and inclination plate (Locally procured parts).



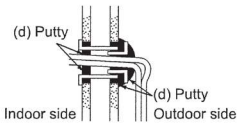
(1) Drill a hole with hole core drill.



(2) Cut sleeve to adjust to wall thickness. In case of rear piping draw out, cut off the lower and the right side portions of the sleeve collar.



(3) Fix sealing plate, sleeve and inclination plate.



(4) After piping work, seal the hole in the wall with putty.

⚠ WARNING

Completely seal the hole in the wall with putty.
If not sealed properly, dust, insects, small animals, and highly humid air may enter the room from outside, which could result in fire or other hazards.

⚠ CAUTION

Completely seal the hole in the wall with putty.
If not sealed properly, furniture and other fixtures may be damaged by water leakage or condensation.

5. ELECTRICAL WIRING WORK

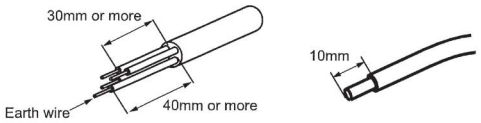
- Before installation, make sure that the power source complies with the air-conditioner's power specification.
- Carry out electrical wiring work according to following guidelines.

1. Preparing cable

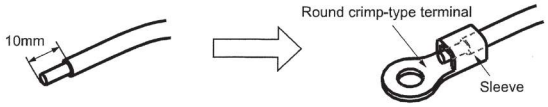
(1) Selecting cable
Select the connecting cable in accordance with the specifications mentioned below.
4-core* 1.5mm^2 conformed with 60245 IEC57
* 1 Earth wire is included (Yellow/Green).

(2) Arrange each wire length as shown below.
Make sure that each wire is stripped 10mm from the end.

<Connecting cable> <Wire end>



(3) Attach round crimp-type terminal to each wire as shown in the below.
Select the size of round crimp-type terminal after considering the specifications of terminal block and wire diameter.

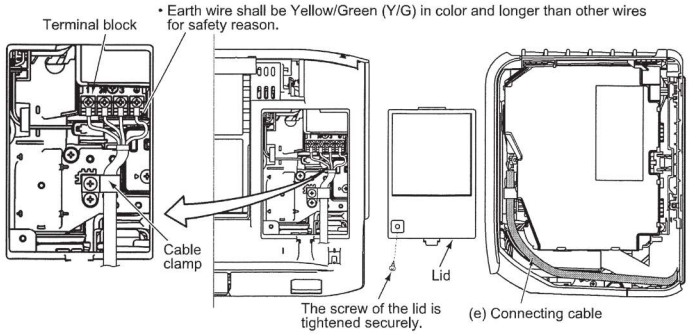


2. Connecting cable

(1) Open the air inlet panel.
(2) Remove the lid.
(3) Remove the cable clamp.
(4) Connect the connecting wires to the terminal block.
(5) Fix the connecting cable by cable clamp.
(6) Fix the lid.
(7) Close the air inlet panel.

NOTE

Take care not to confuse the terminal numbers for indoor and outdoor connections.



⚠ WARNING

Incorrect wiring connection can cause malfunction or fire.

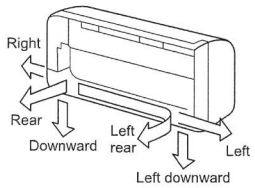
6. FORMING PIPING AND DRAIN HOSE

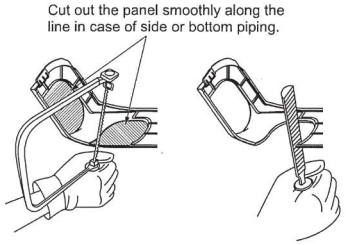
1. Forming piping

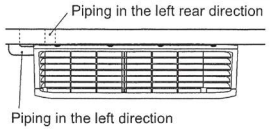
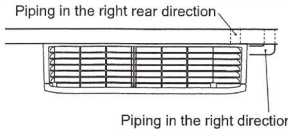
Piping is possible in the right, rear, downward, left, left rear or left downward direction.

NOTE

Sufficient care must be taken not to damage the panels when connecting pipes.

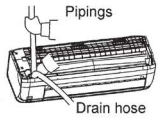




Left hand side piping	Right hand side piping
	

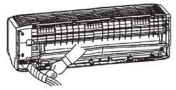
Forming of pipings.

- Hold the bottom of the piping and fix direction before stretching it and shaping it.



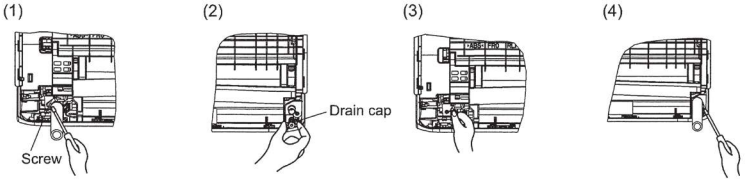
Taping of the exterior

- Tape only the portion that goes through the wall.
- Always tape the wiring with the piping.



2. Drain change procedures

(1) Remove the screw and drain hose.
(2) Remove the drain cap by hand or pliers.
(3) Insert the drain cap which was removed at procedure (2) securely using a hexagonal wrench etc.
(4) Install the drain hose and screw securely.



⚠ CAUTION

Incorrect installation of drain hose and cap can cause water leakage.

7. DRAINAGE WORK

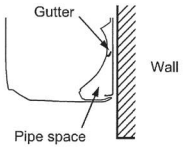
- Arrange the drain hose in a downward angle.
- Avoid the following drain piping.

- Pour water to the drain pan located under the heat exchanger, and ensure that the water is discharged outdoor.
- When extended drain hose is present inside the room, insulate it securely with heat insulator available in the market.

Since this air-conditioner is designed to collect dew drops on the rear surface to the drain pan, do not install the connecting wire above the gutter.

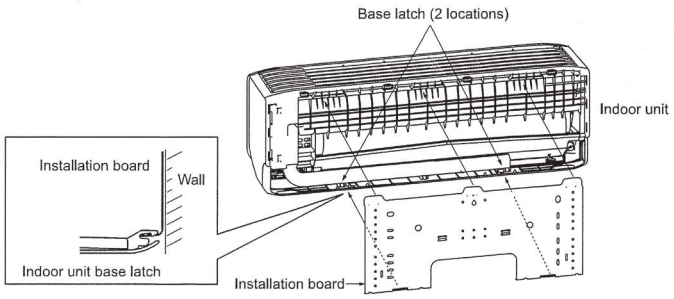
⚠ CAUTION

Incorrect drainage work can cause water leakage.



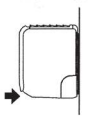
8. INSTALLING INDOOR UNIT

Installing the indoor unit to installation board



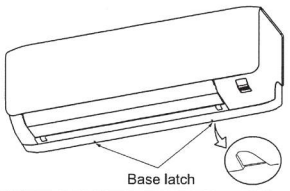
(1) Pass the pipe through the hole in the wall, and hook the upper part of the indoor unit to the installation board.

(2) Gently push the lower part to fix the indoor unit base lower latch to installation board.



Removing the indoor unit from installation board

(1) Push up at the marked portion of the indoor unit base latch, and slightly pull it toward you (both right and left hand sides). (The indoor unit base latch can be removed from the installation board.)
(2) Push up the indoor unit upward so that it can be removed from installation board.



9. CONNECTING PIPING WORK

1. Preparation of connecting pipe

1.1. Selecting connecting pipe

Select connecting pipe according to the following table.

	Model SRK20/25/35	Model SRK50
Gas pipe	ø9.52	ø12.7
Liquid pipe	ø6.35	ø6.35

- Pipe wall thickness must be greater than or equal to 0.8 mm.
- Pipe material must be O-type (Phosphorus deoxidized seamless copper pipe ICS 23.040.15, ICS 77.150.30).

1.2. Cutting connecting pipe

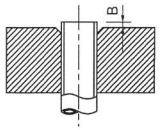
(1) Cut the connecting pipe to the required length with pipe cutter.
(2) Hold the pipe downward and remove the burrs. Make sure that no foreign material enters the pipe.
(3) Cover the connecting pipe ends with the tape.

2. Piping work

2.1. Flaring pipe

(1) Take out flare nuts from the operation valves of indoor unit and engage them onto connecting pipes.
(2) Flare the pipes according to table and figure shown below.
Flare dimensions for R32 are different from those for conventional refrigerant.
Although it is recommended to use the flaring tools designed specifically for R32 or R410A, conventional flaring tools can also be used by adjusting the dimension B with a flare adjustment gauge.

Copper pipe outer diameter	A
ø6.35	9.1
ø9.52	13.2
ø12.7	16.6

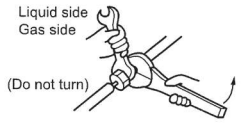


Copper pipe outer diameter	B [Rigid (clutch) type]	
	R32 or R410A	Conventional
ø6.35	0-0.5	1.0-1.5
ø9.52		
ø12.7		

2.2 Connecting pipes

(1) Connect pipes on both liquid and gas sides.
(2) Tighten nuts to specified torque shown in the table below.

Operation valve size (mm)	Tightening torque (N·m)
ø6.35 (1/4")	14-18
ø9.52 (3/8")	34-42
ø12.7 (1/2")	49-61

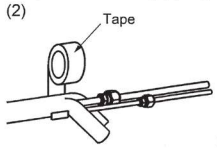


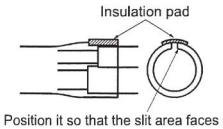
⚠ CAUTION

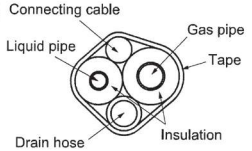
- Do not apply refrigerating machine oil to the flared surface. It can cause refrigerant leakage.
- Do not apply excess torque to the flared nuts. The flared nuts may crack resulting in refrigerant leakage.

3. Heating and condensation prevention

(1) Dress the connecting pipes (both liquid and gas pipes) with insulation to prevent it from heating and dew condensation.
Use the heat insulating material which can withstand 120°C or higher temperature. Make sure that insulation is wrapped tightly around the pipes and no gap is left between them.
(2) Wrap the refrigerant pipings of indoor unit with indoor unit heat insulation using tape.
(3) Cover the flare-connected joints (indoor side) with the indoor unit heat insulation and wrap it with an insulation pad (standard accessory provided with indoor unit).
(4) Wrap the connecting pipes, connecting cable and drain hose with the tape.







NOTE

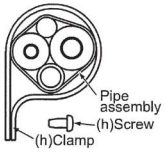
Locations where relative humidity exceeds 70%, both liquid and gas pipes need to be dressed with 20mm or thicker heat insulation materials.

⚠ CAUTION

- Improper insulation can cause condensate(water) formation during cooling operation. Condensate can leak or drip causing damage to household property.
- Poor heat insulating capacity can cause pipe outer surface to reach high temperature during heating operation. It can cause cable deterioration and personal injury.

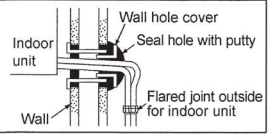
4. Finishing work

(1) Make sure that the exterior portion of connecting pipes, connecting cable and drain hose is wrapped properly with tape. Shape the connecting pipes to match with the contours of the pipe assembly route.
(2) Fix the pipe assembly with the wall using clamps and screws. Pipe assembly should be anchored every 1.5m or less to isolate the vibration.
(3) Install the service cover securely. Water may enter the unit if service cover is not installed properly, resulting in unit malfunction and failure.



⚠ WARNING (only for R32)

- To avoid the risk of fire or explosion, the flared connection must/shall be installed outdoors.
- Reusable mechanical connectors and flared joints are not allowed indoors.



⚠ CAUTION

Make sure that the connecting pipes do not touch the components within the unit. If pipes touch the internal components, it may generate abnormal sounds and/or vibrations.

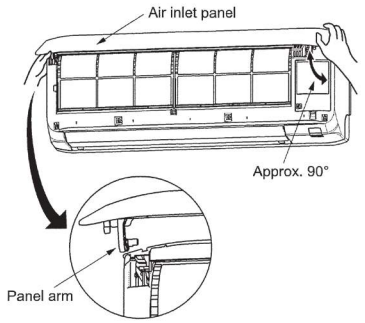
10. HOW TO OPEN, CLOSE, REMOVE AND INSTALL THE AIR INLET PANEL

1. Open
Pull the air inlet panel at both ends of lower part and release latches, then pull up the panel until you feel resistance.
(The panel stops at approx. 70° open position)

2. Close
Hold the panel at both ends of lower part, lower it downward slowly, then push it slightly until the latch works.

3. Removing
Open the panel by 90° (as shown in the right illustration) and then pull it forward.

4. Installing
Insert the panel arm into the slot on the front panel from the position shown in right illustration, hold the panel at both ends of lower part, lower it downward slowly, then push it slightly until the latch works.



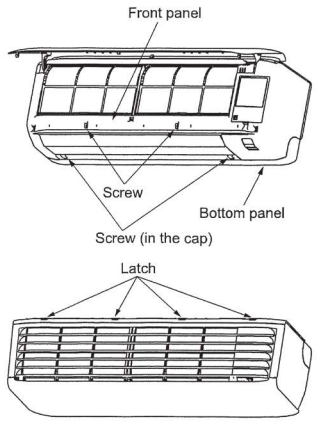
11. HOW TO REMOVE AND INSTALL THE BOTTOM AND FRONT PANEL

1. Bottom panel
1.1. Removing
(1) Remove the 2 screws (in the cap).
(2) Remove the 2 hooks of left and right side and then bottom panel can be removed.

1.2. Installing
(1) Install the 2 hooks of left and right side.
(2) Secure the bottom panel with the 2 screws (in the cap).

2. Front panel
2.1. Removing
(1) Remove the air inlet panel, the air filters and the bottom panel.
(2) Remove the 2 screws.
(3) Remove the 4 upper latches and then front panel can be removed.

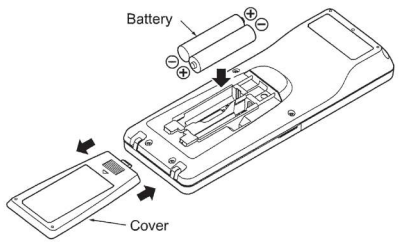
2.2. Installing
(1) Cover the unit with the front panel and fix 4 upper latches.
(2) Secure the front panel with the 2 screws.
(3) Install the bottom panel, the air inlet panel and the air filters.



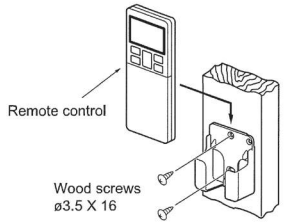
12. INSTALLING REMOTE CONTROL

Mount the batteries
(1) Slide and take out the cover of backside.
(2) Mount the batteries [R03 (AAA, Micro), ×2 pieces] in the body properly.
(Fit he poles with the indication marks + & −)
(3) Set the cover again.

NOTE
- Do not use new and old batteries together.
- In case the unit is not operated for a long time, take out the batteries



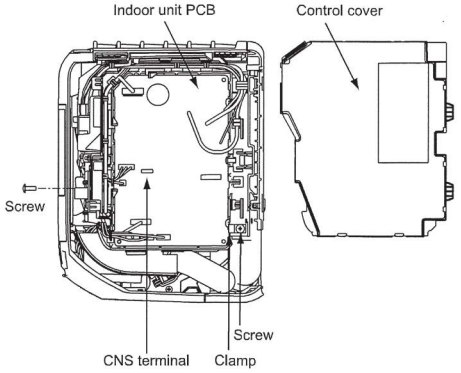
Installing remote control holder
(1) Select the place where the unit can receive signals.
(2) Fix the holder to pillar or wall with wood screws.



13. TERMINAL CONNECTION FOR AN INTERFACE

To install wired remote control, superlink etc., interface kit is needed.

(1) Remove the air inlet panel, bottom panel and front panel.
(2) Remove the control cover. (Remove the screw.)
(3) There is a terminal (respectively marked with CNS) for the indoor control board. While connecting an interface, connect to the respective terminal securely with the connection harness supplied with an optional "Interface connection kit SC-BIKN-E and SC-BIKN2-E" and fasten the connection harness onto the indoor control box with the clamp and screw supplied with the kit.
For more details, refer to the user's manual of "Interface connection kit SC-BIKN-E and SC-BIKN2-E".

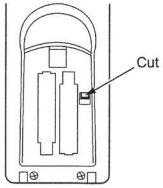


14. INSTALLING TWO AIR-CONDITIONERS IN THE SAME ROOM

In case two air-conditioners are installed in the same room, apply this setting so that one unit can be operated with only one remote control.

Setting one remote control

(1) Slide and take out the cover and batteries.
(2) Cut the switching line next to the battery with wire cutters.
(3) Set the batteries and cover again.

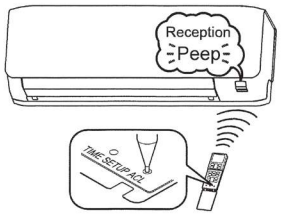


Setting one indoor unit

(1) Turn off the power source and turn it on after 1 minute.
(2) Send the signal by pressing the ACL switch on the remote control that was set according to the procedure described on the left side.
(3) Check that the reception buzzer sound "Peep" is emitted from the indoor unit. Since the signal is sent about 6 seconds after the ACL switch is pressed, point the remote control to the indoor unit for a while.

NOTE

If no reception buzzer is emitted, restart the setting from the beginning.



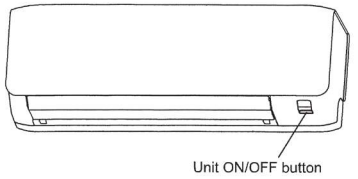
15. PUMP DOWN WORK

For the environmental protection, be sure to pump down when relocating or disposing of the unit. Pump down is the method of recovering refrigerant from the indoor unit to the outdoor unit before the connecting pipes are removed from the unit. When pump down is carried out, forced cooling operation is needed.

Forced cooling operation

(1) Turn off the power source and turn it on again after 1 miniute.
(2) Press the ON/OFF button continuously for at least 5 seconds. Then operation will start.

For the detail of pump down, refer to the installation manual of outdoor unit.



16. INSTALLATION CHECK AND TEST RUN

After finishing the installation work, check the following points again before turning on the power. Conduct a test run and ensure that the unit operates properly.
At the same time, explain to the customer how to use the unit and how to take care of the unit following the user's manual.

Before test run

Before test run, check following points.

Power source voltage complies with the rated voltage of air-conditioner.	
Earth leakage breaker and circuit breaker are installed.	
Power cable and connecting cable are securely fixed to the terminal block.	
Both liquid and gas service valves are fully open.	
No gas leaks from the joints of the service valves.	
Indoor and outdoor side pipe joints have been insulated.	
Hole on the wall is completely sealed with putty.	
Drain hose and cap are installed properly.	
Screw of the lid is tightened securely.	

Test run

Check following points during test run.

Indoor unit receives signal of remote control.	
Air-conditioning operation is normal.	
There is no abnormal noise.	
Water drains out smoothly.	
Display of remote control is normal.	

After test run

Explain the operating and maintenance methods to the user according to the user's manual.	
Keep this installation manual together with user's manual.	

NOTE

During restart or change in operation mode, the unit will not start operating for approximately 3 minutes. This is to protect the unit and it is not malfunction.

(2) Installation of outdoor unit

RWC012A068

Model SRC20,25,35,50ZS-W
R32 REFRIGERANT USED

• This installation manual deals with an outdoor unit installation only. For an indoor unit installation, refer to page 48.

SAFETY PRECAUTIONS

- Before installation, read the "SAFETY PRECAUTIONS" carefully and strictly follow it during the installation work in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, ⚠ WARNING and ⚠ CAUTION.

⚠ WARNING Indicates a potentially hazardous situation which, if not avoided, can result in serious consequences such as death or severe injury.

⚠ CAUTION Indicates a potentially hazardous situation which, if not avoided, can result in personal injury or property damage.

Both mention the important items to protect your health and safety. Therefore, strictly follow them by any means.

- Be sure to confirm no operation problem on the equipment after completing the installation. If unusual noise can be heard during the test run, consult the dealer.
- Be sure to explain the operating methods as well as the maintenance methods of this equipment to the user according to the user's manual.
- Be sure to keep the installation manual together with user's manual at a place where it is easily accessible to the user any time. Moreover, ask the user to hand the manuals to a new user, whenever required.

⚠ WARNING

- **Be sure to use only for residential purpose.**
  If this unit is installed in inferior environment such as machine shop, vehicle (like ship), warehouse, etc., it can malfunction.
- **Installation must be carried out by the qualified installer completely in accordance with the installation manual.**
  Installation by non qualified person or incorrect installation can cause serious troubles such as water leak, electric shock, fire and personal injury.
- **Be sure to wear protective goggles and gloves while performing installation work.**
  Improper safety measures can result in personal injury.
- **Use the original accessories and the specified components for the installation.**
  Using parts other than those prescribed may cause water leak, electric shock, fire and personal injury.
- **Do not install the unit near the location where leakage of flammable gases can occur.**
  If leaked gases accumulate around the unit, it can cause fire resulting in property damage and personal injury.
- **When installing the unit in small rooms, make sure that refrigerant density does not exceed the limit (Reference: ISO5149) in the event of leakage.**
  If refrigerant density exceeds the limit, consult the dealer and install the ventilation system.
  Otherwise lack of oxygen can occur resulting in serious accident.
- **Install the unit in a location where unit will remain stable, horizontal and free of any vibration transmission.**
  Unsuitable installation location can cause the unit to fall resulting in material damage and personal injury.
- **Do not run the unit with removed panels or protections.**
  Touching rotating equipments, hot surfaces or high voltage parts can cause personal injury due to entrapment, burn or electric shock.
- **This unit is designed specifically for R32.**
  Using any other refrigerant can cause unit failure and personal injury.
- **Do not vent R32 into atmosphere.**
  R32 is a fluorinated greenhouse gas with a Global Warming Potential(GWP)=675.
- **Make sure that no air enters the refrigerant circuit when the unit is installed and removed.**
  If air enters the refrigerant circuit, the pressure in the refrigerant circuit will become too high, which can cause burst and personal injury.
- **Be sure to use the prescribed pipes, flare nuts and tools for R32 or R410A.**
  Using existing parts (for R22 or R407C) can cause refrigerant circuit burst resulting in unit failure and personal injury.
- **Be sure to connect both liquid and gas connecting pipes properly before operating the compressor.**
  Do not open the liquid and gas service valves before completing piping work, and evacuation.
  If the compressor is operated when connecting pipes are not connected and service valves are open, air can be sucked into the refrigerant circuit which can cause anomalous high pressure resulting in burst or personal injury.
- **Be sure to tighten the flare nuts to specified torque using the torque wrench.**
  Tightening flare nuts with excess torque can cause burst and refrigerant leakage after a long period.
- **During pump down work, be sure to stop the compressor before closing service valves and removing connecting pipes.**
  If the connecting pipes are removed when the compressor is in operation and service valves are open, air can be sucked into the refrigerant circuit which can cause anomalous high pressure resulting in burst or personal injury.
- **In the event of refrigerant leakage during installation, be sure to ventilate the working area properly.**
  If the refrigerant comes into contact with naked flames, poisonous gases will be produced.
- **Electrical work must be carried out by the qualified electrician, strictly in accordance with national or regional electricity regulations.**
  Incorrect installation can cause electric shock, fire or personal injury.
- **Make sure that earth leakage breaker and circuit breaker of appropriate capacities are installed.**
  Circuit breaker should be able to disconnect all poles under over current. Absence of appropriate breakers can cause electric shock, personal injury or property damage.
- **Be sure to switch off the power source in the event of installation, maintenance or service.**
  If the power source is not switched off, there is a risk of electric shock, unit failure or personal injury.
- **Be sure to tighten the cables securely in terminal block and relieve the cables properly to prevent overloading the terminal blocks.**
  Loose connections or cable mountings can cause anomalous heat production or fire.
- **Do not process, splice or modify the power cable, or share the socket with other power plugs.**
  Improper power cable or power plug can cause fire or electric shock due to poor connection, insufficient insulation or over-current.
- **Do not perform any change in protective device or its setup condition yourself.**
  Changing protective device specifications can cause electric shock, fire or burst.
- **Be sure to clamp the cables properly so that they do not touch any internal component of the unit.**
  If cables touch any internal component, it can cause overheating and fire.
- **Be sure to install service cover properly.**
  Improper installation can cause electric shock or fire due to intrusion of dust or water.
- **Be sure to use the prescribed power and connecting cables for electrical work.**
  Using improper cables can cause electric leak or fire.
- **This appliance must be connected to main power source by means of a circuit breaker or switch with a contact separation of at least 3mm.**
  Improper electrical work can cause unit failure or personal injury.
- **When plugging this unit, a plug conforming to the standard IEC60884-1 must be used.**
  Using improper plug can cause electric shock or fire.
- **Be sure to connect the power source cable with power source properly.**
  Improper connection can cause intrusion of dust or water resulting in electric shock or fire.

⚠ CAUTION

- **Take care when carrying the unit by hand.**
  If the unit weight is more than 20kg, it must be carried by two or more persons.
  Do not carry the unit by the plastic straps. Always use the carry handle.
- **Do not install the outdoor unit in a location where insects and small animals can inhabit.**
  Insects and small animals can enter the electrical parts and cause damage resulting in fire or personal injury. Instruct the user to keep the surroundings clean.
- **If the outdoor unit is installed at height, make sure that there is enough space for installation, maintenance and service.**
  Insufficient space can result in personal injury due to falling from the height.
- **Do not install the unit near the location where neighbours are bothered by noise or air generating from the unit.**
  It can affect surrounding environment and cause a claim.
- **Do not install in the locations where unit is directly exposed to corrosive gases (like sulphide gas, chloride gas), sea breeze or salty atmosphere.**
  It can cause corrosion of heat exchanger and damage to plastic parts.
- **Do not install the unit close to the equipments that generate electromagnetic waves and/or high-harmonic waves.**
  Equipment such as inverters, standby generators, medical high frequency equipments and telecommunication equipments can affect the system, and cause malfunctions and breakdowns.
  The system can also affect medical equipment and telecommunication equipment, and obstruct its function or cause jamming.
- **Do not install the unit in the locations where:**
  - There are heat sources nearby.
  - Unit is directly exposed to rain or sunlight.
  - There is any obstacle which can prevent smooth air circulation from inlet and outlet side of the unit.
  - Unit is directly exposed to oil mist and steam such as kitchen.
  - Chemical substances like ammonia (organic fertilizer), calcium chloride (snow melting agent) and acid (sulfurous acid etc.), which can harm the unit, will generate or accumulate.
  - Drain water can not be discharged properly.
  - TV set or radio receiver is placed within 1m.
  - Height above sea level is more than 1000m.

  It can cause performance degradation, corrosion and damage of components, unit malfunction and fire.
- **Dispose of all packing materials properly.**
  Packing materials contain nails and wood which can cause personal injury.
  Keep the polybag away from children to avoid the risk of suffocation.
- **Do not put anything on the outdoor unit.**
  Object may fall causing property damage or personal injury.
- **Do not touch the aluminum fin of the outdoor unit.**
  Aluminium fin temperature is high during heating operation. Touching fin can cause burn.
- **Do not touch any refrigerant pipe with your hands when the system is in operation.**
  During operation the refrigerant pipes become extremely hot or extremely cold depending on the operating condition. Touching pipes can cause personal injury like burn (hot/cold).
- **Install isolator or disconnect switch on the power source wiring in accordance with the local codes and regulations.**
  The isolator should be locked in OFF state in accordance with EN60204-1.

1. ACCESSORIES AND TOOLS

Standard accessories (Supplied with outdoor unit)		Q'ty
(1)	Drain grommet	1
(2)	Drain elbow	1

Locally procured parts	
(a)	Anchor bolt(M10-M12)×4 pcs
(b)	Putty
(c)	Electrical tape
(d)	Connecting pipe
(e)	Connecting cable
(f)	Power cable
(g)	Clamp and screw (for finishing work)

Tools for installation work		
Plus headed driver	Spanner wrench	Vacuum pump*
Knife	Torque wrench [14.0-62.0N•m(1.4-6.2kgf•m)]	Gauge manifold *
Saw	Wrench key (Hexagon) [4mm]	Charge hose *
Tape measure	Flaring tool set *	Vacuum pump adapter* (Anti-reverse flow type)
Pipe cutter	Flare adjustment gauge	Gas leak detector *

*Designed specifically for R32 or R410A

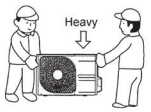
2. OUTDOOR UNIT INSTALLATION

Note as a unit designed for R32

- Do not use any refrigerant other than R32. R32 will rise to pressure about 1.6 times higher than that of a conventional refrigerant. A cylinder containing R32 has a light blue indication mark on the top.
- Do not use a charge cylinder. The use of a charge cylinder will cause the refrigerant composition to change, which results in performance degradation.
- In charging refrigerant, always take it out from a cylinder in the liquid phase.
- All indoor units must be models designed exclusively for R32. Check connectable indoor unit models in a catalog, etc. (A wrong indoor unit, if connected into the system, will impair proper system operation)

1. Haulage

- Always carry or move the unit with two or more persons.
- The right hand side of the unit as viewed from the front (outlet side) is heavier.
  A person carrying the right hand side must take care of this fact. A person carrying the left hand side must hold the handle provided on the front panel of the unit with his right hand and the corner column section of the unit with his left hand.



⚠ CAUTION

When a unit is hauled, take care of its gravity center position which is shifted towards right hand side.
If the unit is not hauled properly, it can go off balance and fall resulting in serious injury.

2. Selecting the installation location

Select the suitable installation location where:

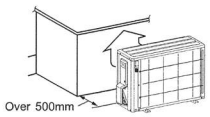
- Unit will be stable, horizontal and free of any vibration transmission.
- There is no obstacle which can prevent smooth air circulation from inlet and outlet side of the unit.
- There is enough space for service and maintenance of unit.
- Neighbours are not bothered by noise or air generating from the unit.
- Outlet air of the unit does not blow directly to animals or plants.
- Drain water can be discharged properly.
- There is no risk of flammable gas leakage.
- There are no other heat sources nearby.
- Unit is not directly exposed to rain or sunlight.
- Unit is not directly exposed to oil mist and steam.
- Chemical substances like ammonia (organic fertilizer), calcium chloride (snow melting agent) and acid (sulfurous acid etc.), which can harm the unit, will not generate or accumulate.
- Unit is not directly exposed to corrosive gases (like sulphide gas, chloride gas), sea breeze or salty atmosphere.
- No TV set or radio receiver is placed within 1m.
- Unit is not affected by electromagnetic waves and/or high-harmonic waves generated by other equipments.
- Strong wind does not blow against the unit outlet.
- Heavy snowfalls do not occur (If installed, provide proper protection to avoid snow accumulation).

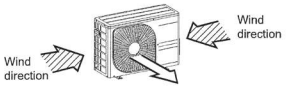
NOTE

If the unit is installed in the area where there is a possibility of strong wind or snow accumulation, the following measures are required.

(1) Location of strong wind

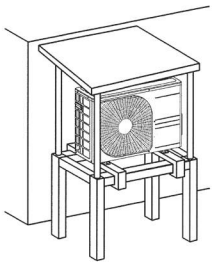
- Place the unit with its outlet side facing the wall.
- Place the unit such that the direction of air from the outlet gets perpendicular to the wind direction.





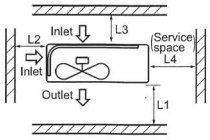
(2) Location of snow accumulation

- Install the unit on the base so that the bottom is higher than snow cover surface.
- Install the unit under eaves or provide the roof on site.



3. Installation space

- There must be 1 meter or larger space between the unit and the wall in at least 1 of the 4 sides. Walls surrounding the unit from 4 sides is not acceptable. The wall height on the outlet side should be 1200 mm or less. Refer to the following figure and table for details.



	Installation space (mm)
L1	280 or more
L2	100 or more
L3	80 or more
L4	250 or more

NOTE

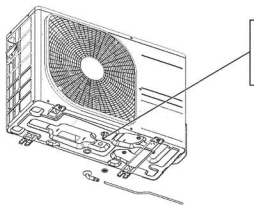
When more than one unit are installed side by side, provide a 250mm or wider interval between them as a service space.

⚠ CAUTION

When more than one unit are installed in parallel directions, provide sufficient inlet space so that short-circuiting may not occur.

4. Drain piping work (If necessary)

Carry out drain piping work by using a drain elbow and a drain grommet supplied separately as accessories if condensed water needs to be drained out.
(1) Install drain elbow and drain grommet.
(2) Seal around the drain elbow and drain grommet with putty or adequate caulking material.

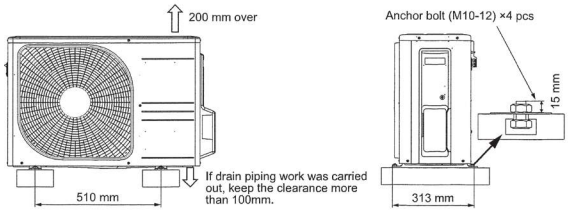


⚠ CAUTION

Do not use drain elbow and drain grommet if there is a possibility to have several consecutive days of sub zero temperature. (There is a risk of drain water freezing inside and blocking the drain.)

5. Installation

- Install the unit on a flat level base.
- While installing the unit, keep space and fix the unit's legs with 4 anchor bolts as shown in the figure below. The protrusion of an anchor bolt from the foundation surface must be kept within 15mm.



⚠ CAUTION

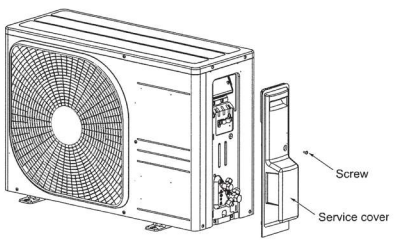
- Install the unit properly so that it does not fall over during earthquake, strong wind, etc.
- Make sure that unit is installed on a flat level base. Installing unit on uneven base may result in unit malfunction.

3. PREPARATION FOR WORK

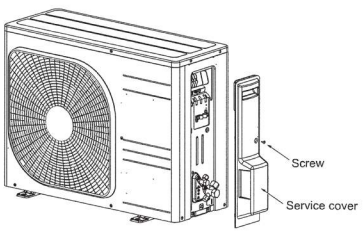
1. Removing service cover

Remove the screw. Slide service cover downwards and remove it.

<SRC20/25/35>

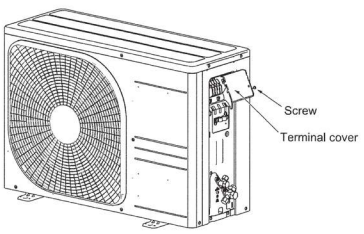


<SRC50>



2. Removing terminal cover

Remove the screw and take out terminal cover.
(For SRC50, terminal cover is attached to service cover.
Therefore, there is no need to remove terminal cover separately.)

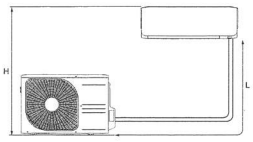


4. CONNECTING PIPING WORK

1. Restrictions on unit installation

Abide by the following restrictions on unit installation.
Improper installation can cause compressor failure or performance degradation.

	Dimensional restrictions	
	Model SRC20/25/35	Model SRC50
Connecting pipe length(L)	20m or less	25m or less
Elevation difference between indoor and outdoor units(H)*	10m or less	15m or less



* Outdoor unit installation position can be higher as well as lower than the indoor unit installation position.

2. Preparation of connecting pipe

2.1. Selecting connecting pipe

Select connecting pipe according to the following table.

	Model SRC20/25/35	Model SRC50
Gas pipe	ø9.52	ø12.7
Liquid pipe	ø6.35	ø6.35

- Pipe wall thickness must be greater than or equal to 0.8 mm.
- Pipe material must be O-type (Phosphorus deoxidized seamless copper pipe ICS 23.040.15, ICS 77.150.30).

NOTE

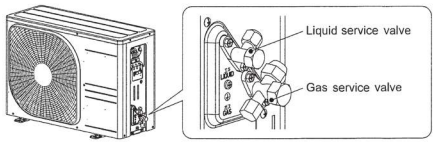
If it is required to reuse the existing connecting pipe system, refer to 5. UTILIZATION OF EXISTING PIPE.

2.2. Cutting connecting pipe

(1) Cut the connecting pipe to the required length with pipe cutter.
(2) Hold the pipe downward and remove the burrs. Make sure that no foreign material enters the pipe.
(3) Cover the connecting pipe ends with the tape.

3. Piping work

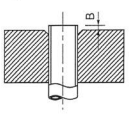
Check that both liquid and gas service valves are fully closed.
Carry out the piping work with service valves fully closed.



3.1. Flaring pipe

(1) Take out flare nuts from the service valves of outdoor unit and engage them onto connecting pipes.
(2) Flare the pipes according to table and figure shown below.
Flare dimensions for R32 are different from those for conventional refrigerant.
Although it is recommended to use the flaring tools designed specifically for R32 or R410A, conventional flaring tools can also be used by adjusting the dimension B with a flare adjustment gauge.

Copper pipe outer diameter	A
ø6.35	9.1
ø9.52	13.2
ø12.7	16.6

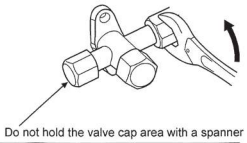


Copper pipe outer diameter	B [Rigid (clutch) type]	
	R32 or R410A	Conventional
ø6.35	0-0.5	1.0-1.5
ø9.52		
ø12.7		

3.2. Connecting pipes

(1) Connect pipes on both liquid and gas sides.
(2) Tighten nuts to specified torque shown in the table below.

Service valve size (mm)	Tightening torque (N·m)
ø6.35 (1/4")	14-18
ø9.52 (3/8")	34-42
ø12.7 (1/2")	49-61



Do not hold the valve cap area with a spanner

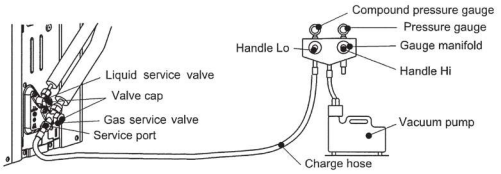
⚠ CAUTION

- Do not apply refrigerating machine oil to the flared surface. It can cause refrigerant leakage.
- Do not apply excess torque to the flared nuts. The flared nuts may crack resulting in refrigerant leakage.

4. Evacuation

(1) Connect vacuum pump to gauge manifold. Connect charge hose of gauge manifold to service port of outdoor unit.
(2) Run the vacuum pump for at least one hour after the vacuum gauge shows -0.1MPa (–76cm Hg).
(3) Confirm that the vacuum gauge indicator does not rise even if the system is left for 15 minutes or more.
Vacuum gauge indicator will rise if the system has moisture left inside or has a leakage point.
Check the system for the leakage point. If leakage point is found, repair it and return to (1) again.
(4) Close the Handle Lo and stop the vacuum pump.
Keep this state for a few minutes to make sure that the compound pressure gauge pointer does not swing back.
(5) Remove valve caps from liquid service valve and gas operation valve.
(6) Turn the liquid service valve's rod 90 degree counterclockwise with a hexagonal wrench key to open valve.
Close it after 5 seconds, and check for gas leakage.
Using soapy water, check for gas leakage from indoor unit's flare and outdoor unit's flare and valve rods.
Wipe off all the water after completing the check.
(7) Disconnect charging hose from gas service valve's service port and fully open liquid and gas service valves. (Do not attempt to turn valve rod beyond its stop.)
(8) Tighten service valve caps and service port cap to the specified torque shown in the table below.

Service valve size (mm)	Service valve cap tightening torque (N·m)	Service port cap tightening torque (N·m)
ø6.35 (1/4")	20-30	10-12
ø9.52 (3/8")		
ø12.7 (1/2")	25-35	



⚠ CAUTION

To prevent vacuum pump oil from entering into the refrigerant system, use a counterflow prevention adapter.

5. Additional refrigerant charge

Additional refrigerant charge is required only when connecting pipe length exceeds 15 m.

5.1 Calculating additional refrigerant charge

Additional refrigerant charge can be calculated using the formula given below.
Additional refrigerant charge (g) = { Connecting pipe length (m) – Factory charged length 15 (m) } x 20 (g/m)

NOTE

- If additional refrigerant charge calculation result is negative, there is no need to remove the refrigerant.
- If refrigerant recharge is required for the unit with connecting pipe length 15m or shorter, charge the factory charged amount as shown in the table below.

	Model SRC20/25	Model SRC35	Model SRC50
The factory refrigerant charge amount(kg)	0.62	0.78	1.05
The maximum refrigerant charge amount(kg)	0.72	0.88	1.25

5.2 Charging refrigerant

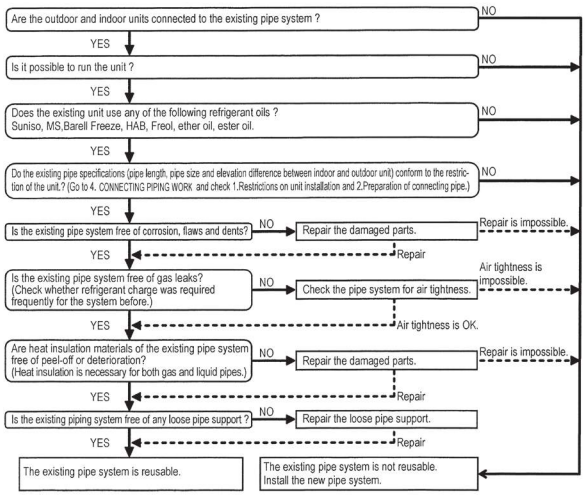
(1) Charge the R32 refrigerant in liquid phase from service port with both liquid and gas service valves shut. Since R32 refrigerant must be charged in the liquid phase, make sure that refrigerant is discharged from the cylinder in the liquid phase all the time.
(2) When it is difficult to charge a required refrigerant amount, fully open both liquid and gas service valves and charge refrigerant, while running the unit in the cooling mode. When refrigerant is charged with the unit being run, complete the charge operation within 30 minutes.
(3) Write the additional refrigerant charge calculated from the connecting pipe length on the label attached on the service cover.

⚠ CAUTION

- Running the unit with an insufficient quantity of refrigerant for a long time can cause unit malfunction.
- Do not charge more than the maximum refrigerant amount. It can cause unit malfunction.

5. UTILIZATION OF EXISTING PIPE

(1) Check whether an existing pipe system is reusable or not by using the following flow chart.



NOTE

- Consult with our distributor in the area, if you need to recover refrigerant and charge it again.

(2) Clean the existing pipe system according to the procedure given below.
(a) Carry out forced cooling operation of existing unit for 30 minutes.
For 'Forced cooling operation' refer to the indoor unit installation manual.
(b) Stop the indoor fan and carry out forced cooling operation for 3 minutes (Liquid return).
(c) Close the liquid service valve of the outdoor unit and carry out pump down operation (Refer to 6. PUMP DOWN).
(d) Blow with nitrogen gas. If discolored refrigeration oil or any foreign matter is discharged by the blow, wash the pipe system or install a new pipe system.
(3) Remove the flare nuts from the existing pipe system. Go back to 4.CONNECTING PIPING WORK and proceed to step 2.2 Cutting connecting pipe.

⚠ CAUTION

- Do not use the old flare nuts (of existing unit). Make sure that the flare nuts supplied with the (new) outdoor unit are used.
- If the flared / compression connection to the indoor unit is located inside the house / room then this pipework can't be reused.

* If the existing piping is specified as liquid pipe ø9.52 or gas pipe ø12.7, refer to the following. (SRC50 only)

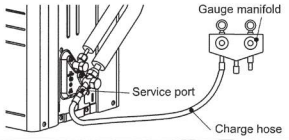
<Table of pipe size restrictions>

Additional charge volume per meter of pipe		0.054kg/m
Pipe size	Liquid pipe	ø9.52
	Gas pipe	ø12.7
Maximum one-way pipe length		10
Length covered without additional charge		5

Additional charge amount (kg) = {Main pipe length (m) - Length covered without additional charge shown in the table (m)} X Additional charge amount per meter of pipe shown in the table (kg/m)

6. PUMP DOWN

(1) Connect charge hose of gauge manifold to service port of outdoor unit.
(2) Close the liquid service valve with hexagonal wrench key.
(3) Fully open the gas service valve with hexagonal wrench key.
(4) Carry out forced cooling operation (For forced cooling operation procedure, refer to indoor unit installation manual).
(5) When the low pressure gauge becomes 0.01MPa, close the gas service valve and stop forced cooling operation.



7. ELECTRICAL WIRING WORK

⚠ WARNING

- Make sure that all the electrical work is carried out in accordance with the national or regional electrical standards.
- Make sure that the earth leakage breaker and circuit breaker of appropriate capacities are installed (Refer to the table given below).
- Do not turn on the power until the electrical work is completed.
- Do not use a condensive capacitor for power factor improvement under any circumstances. (It does not improve power factor. Moreover, it can cause an abnormal overheat accident).

Breaker specifications

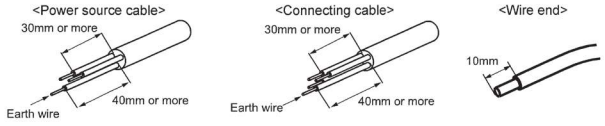
Model	Phase	Earth leakage breaker	Circuit breaker
SRC20/25/35	Single phase	Leakage current: 30mA, 0.1sec or less	Over current: 16A
SRC50			Over current: 20A

Main fuse specification

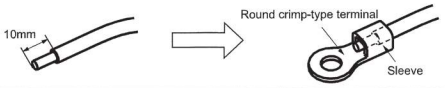
Model	Specification	Parts No.	Code on LABEL,WIRING
SRC20/25/35	250V 15A	SSA564A136	F7
SRC50	250V 20A	SSA564A136A	F4

1.Preparing cable

(1) Selecting cable
Select the power source cable and connecting cable in accordance with the specifications mentioned below.
(a) Power source cable
3 cores* 2.5mm^2 or more, conformed with 60245 IEC57
When selecting the power source cable length, make sure that voltage drop is less than 2%.
If the wire length gets longer, increase the wire diameter.
(b) Connecting cable
4 cores* 1.5mm^2, conformed with 60245 IEC57
* 1 Earth wire is included (Yellow/Green).
(2) Arrange each wire length as shown below.
Make sure that each wire is stripped 10mm from the end.



(3) Attach round crimp-type terminal to each wire as shown in the below.
Select the size of round crimp-type terminal after considering the specifications of terminal block and wire diameter.



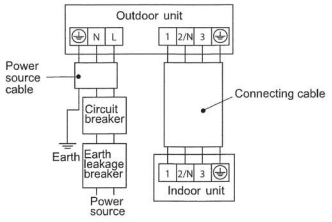
⚠ CAUTION

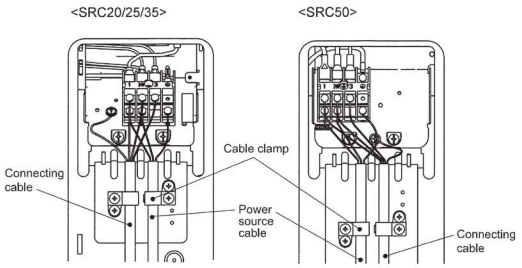
Power source cable and connecting cable must conform to the specifications mentioned in the manual.
Using cables with wrong specifications may result in unit malfunction.

2.Connecting cable

(1) Remove the service cover.
(2) Connect the cables according to the instructions and figures given below.
(a) Connect the earth wire of power source cable.
An earth wire must be connected before connecting the other wires of power source cable.
Keep the earth wire longer than the remaining two wires of power source cable.
(b) Connect the remaining two wires (N and L) of power source cable.
(c) Connect the wires of connecting cable. Make sure that for each wire, outdoor and indoor side terminal numbers match.
(3) Fasten the cables properly with cable clamps so that no external force may work on terminal connections.
Moreover, make sure that cables do not touch the piping, etc. When cables are connected, make sure that all electrical components within the electrical component box are free of loose connector coupling or terminal connection.

<Circuit diagram>

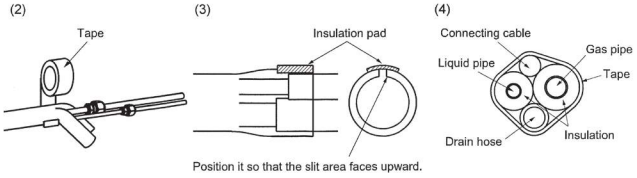




8. FINISHING WORK

1. Heating and condensation prevention

(1) Dress the connecting pipes (both liquid and gas pipes) with insulation to prevent it from heating and dew condensation.
Use the heat insulating material which can withstand 120°C or higher temperature. Make sure that insulation is wrapped tightly around the pipes and no gap is left between them.
(2) Wrap the refrigerant pipings of indoor unit with indoor unit heat insulation using tape.
(3) Cover the flare-connected joints (indoor side) with the indoor unit heat insulation and wrap it with an insulation pad (standard accessory provided with indoor unit).
(4) Wrap the connecting pipes, connecting cable and drain hose with the tape.



NOTE

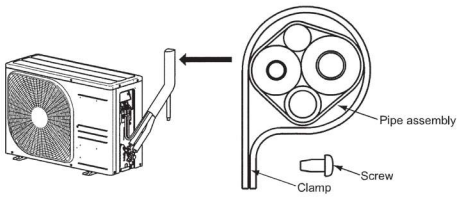
Locations where relative humidity exceeds 70%, both liquid and gas pipes need to be dressed with 20mm or thicker heat insulation materials.

⚠ CAUTION

- Improper insulation can cause condensate(water) formation during cooling operation. Condensate can leak or drip causing damage to household property.
- Poor heat insulating capacity can cause pipe outer surface to reach high temperature during heating operation. It can cause cable deterioration and personal injury.

2.Finishing work

(1) Make sure that the exterior portion of connecting pipes, connecting cable and drain hose is wrapped properly with tape. Shape the connecting pipes to match with the contours of the pipe assembly route.
(2) Fix the pipe assembly with the wall using clamps and screws. Pipe assembly should be anchored every 1.5m or less to isolate the vibration.
(3) Install the service cover securely. Water may enter the unit if service cover is not installed properly, resulting in unit malfunction and failure.



⚠ CAUTION

Make sure that the connecting pipes do not touch the components within the unit. If pipes touch the internal components, it may generate abnormal sounds and/or vibrations.

9. INSTALLATION TEST CHECK POINTS

After finishing the installation work, check the following points again before turning on the power.
Conduct test run (Refer to indoor unit installation manual) and ensure that the unit operates properly.

Power source voltage complies with the rated voltage of air-conditioner.	
Earth leakage breaker and circuit breaker are installed.	
Power cable and connecting cable are securely fixed to the terminal block.	
Both liquid and gas service valves are fully open.	

No gas leaks from the joints of the service valves.	
Indoor and outdoor side pipe joints have been insulated.	
Drain hose (if installed) is fixed properly.	
Screw of the service cover is tightened properly.	

(3) Safety precautions in handling air-conditioners with flammable refrigerants

WALL TYPE AIR-CONDITIONER
R32 REFRIGERANT USED

RSA012A061A△C

	This equipment uses flammable refrigerants. If the refrigerant is leaked, together with an external ignition source, there is a possibility of ignition.		There is information included in the user's manual and/or installation manual.
	The user's manual should be read carefully.		A service personnel should be handing this equipment with reference to the installation manual.

- The precautionary items mentioned below are distinguished into two levels, ⚠ WARNING and ⚠ CAUTION.

⚠ WARNING : Wrong installation would cause serious consequences such as injuries or death.

⚠ CAUTION : Wrong installation might cause serious consequences depending on circumstances.

⚠ WARNING

- Strict compliance of the domestic laws must be observed when disposing the appliance.
- Do not use means to accelerate the defrost operation process or to clean, other than those recommended by the manufacturer.
- The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater.
- Do not pierce or burn.
- Be aware that refrigerants may not contain an odour.
- The indoor unit shall be stored in a room that has a minimum area of 4.0 m^2.

⚠ CAUTION

1. General

- That the installation of pipe-work shall be kept to a minimum.
- That pipe-work shall be protected from physical damage.
- That compliance with national gas regulations shall be observed.
- That mechanical connections shall be accessible for maintenance purposes.
- Keep any required ventilation openings clear of obstruction.
- Servicing shall be performed only as recommended by the manufacturer.

2. Unventilated areas

- The appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specified for operation.

3. Qualification of workers

- The staff in servicing operations must hold the national qualification or other relevant qualifications.

4. Information on servicing

4.1 Checks to the area
- Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimised.
- For repair to the refrigerating system, 4.3 to 4.7 shall be completed prior to conducting work on the system.

4.2 Work procedure
- Work shall be undertaken under a controlled procedure so as to minimise the risk of a flammable gas or vapour being present while the work is being performed.

4.3 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.

4.4 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.

4.5 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 CO_2 fire extinguisher adjacent to the charging area.

4.6 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.

4.7 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.

4.8 Checks to 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;
  – if an indirect refrigerating circuit is being used, the secondary circuit shall be checked for the presence of refrigerant;
  – marking to the equipment continues to be visible and legible. Markings and signs that are illegible shall be corrected;
  – 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 so corroded.

4.9 Checks to electrical devices
- Repair and maintenance to electrical components shall include initial safety checks and component inspection procedures.
- If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with.
- If the fault cannot be corrected immediately but it is necessary to continue operation, an adequate temporary solution shall be used.
- This shall be reported to the owner of the equipment so all parties are advised.
- Initial safety checks shall include:
  – that capacitors are discharged: this shall be done in a safe manner to avoid possibility of sparking;
  – that no live electrical components and wiring are exposed while charging, recovering or purging the system;
  – that there is continuity of earth bonding.

5. Repairs to sealed components

- 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.
- 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.

NOTE
The use of silicon sealant can inhibit the effectiveness of some types of leak detection equipment.
Intrinsically safe components do not have to be isolated prior to working on them.

⚠ CAUTION

6. 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.

7. 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.

8. 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.

9. 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.

10. 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.

11. Charging procedures

- In addition to conventional charging procedures, the following requirements shall be followed.
  – Ensure that contamination of different refrigerants does not occur when using charging equipment. Hoses or lines shall be as short as possible to minimise the amount of refrigerant contained in them.
  – Cylinders shall be kept 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.

12. 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.

13. 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.

14. 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.

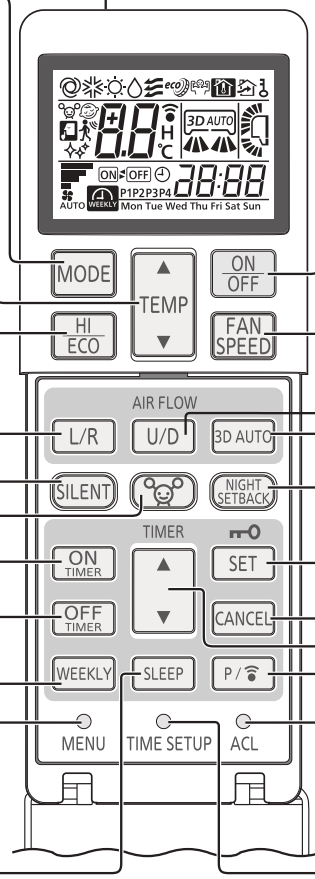
15. Other safety precautions

- A brazed, welded, or mechanical connection shall be made before opening the valves to permit refrigerant to flow between the refrigerating system parts.
- Flammable refrigerant used, refrigerant tubing protected or enclosed to avoid mechanical damage (IEC/EN 60335-2-40/A1).
- Tubing protected to extent that it will not be handled or used for carrying during moving of product (IEC/EN 60335-2-40/A1).
- Flammable refrigerant used, low temperature solder alloys, such as lead/tin alloys, not acceptable for pipe connections (IEC/EN 60335-2-40/A1).
- When there is flare connection, it must be installed outdoor.

9. OUTLINE OF OPERATION CONTROL BY MICROCOMPUTER

(1) Operation control function by wireless remote control

Operation section



[View with the cover opened]

The above illustration shows all controls, but in practice only the relevant parts are shown.

Transmission section

ON/OFF (luminous) button
Press to start operation, press again to stop.

FAN SPEED button
Each time the button is pressed, the fan speed changes.

AIR FLOW (UP/DOWN) button
This button changes the air flow (up/down) direction.

3D AUTO button
This button sets 3D AUTO operation.

NIGHT SETBACK button
This button sets NIGHT SETBACK operation.

SET/Child lock button
Use this button to set the timer and Child lock.

CANCEL button
This button cancels the ON timer, OFF timer, and SLEEP operation.

TIMER button
This button is used for setting the current time and timer function.

PROGRAM button
This button sets WEEKLY TIMER.

ACL switch
This switch resets the program to default state.

TIME SET UP switch
This switch is used for setting the time.

OPERATION MODE select button
Each time the button is pressed, the mode changes.

TEMPERATURE button
This button sets the room temperature.

HI/ECO button
This button changes the HIGH POWER/ECONOMY operation.

AIR FLOW (LEFT/RIGHT) button
This button changes the air flow (left/right) direction.

SILENT button
This button sets the SILENT operation.

ALLERGEN CLEAR button
This button selects ALLERGEN CLEAR operation.

ON TIMER button
This button selects ON TIMER operation.

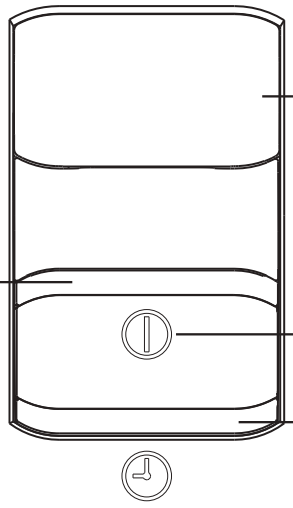
OFF TIMER button
This button selects OFF TIMER operation.

WEEKLY button
This button switches the WEEKLY TIMER to ON/OFF.

MENU switch
This switch selects the CLEAN operation, display brightness adjustment and PRESET operation.

SLEEP button
This button selects SLEEP operation.

Unit display section



RUN light (green)

- Illuminates during operation.
- Blinks slowly when CLEAN operation (3 seconds ON, 1 second OFF).
- Blinks when air flow is stopped to prevent blowing out of cold air in heating operation. (1.5 seconds ON, 0.5 seconds OFF)

Wireless remote control signal receiver

Unit ON/OFF button
This button can be used for turning on/off the unit when a remote control is not available.

TIMER light (yellow)
Illuminates during TIMER operation.

• RUN and TIMER lights blink quickly during invalid operation mode.

(2) Unit ON/OFF button

When the wireless remote control batteries become weak, or if the wireless remote control is lost or malfunctioning, this button may be used to turn the unit on and off.

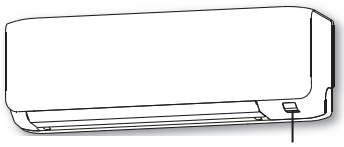
(a) Operation

Push the button once to place the unit in the automatic mode. Push it once more to turn the unit off.

(b) Details of operation

The unit will go into the automatic mode in which it automatically determines, from room temperature (as detected by sensor), whether to go into the COOL or HEAT modes.

Function / Operation mode	Room temperature setting	Fan speed	Flap/Louver	Timer switch
COOL	About 24ºC	Auto	Auto	Continuous
HEAT	About 26ºC			



Unit ON/OFF button

(3) Auto restart function

(a) Auto restart function records the operational status of the air-conditioner immediately prior to be switched off by a power cut, and then automatically resumes operations after the power has been restored.

(b) The following settings will be cancelled:

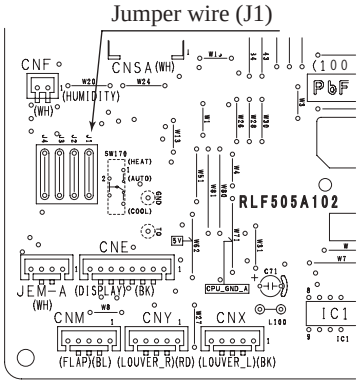
(i) Timer settings

(ii) HIGH POWER operation

Notes (1) Auto restart function is set at on when the air-conditioner is shipped from the factory. Consult with your dealer if this function needs to be switched off.

(2) When power failure ocurrs, the timer setting is cancelled. Once power is resumed, reset the timer.

(3) If the jumper wire (J1) "AUTO RESTART" is cut, auto restart is disabled. (See the diagram at right.)



(4) Installing two air-conditioners in the same room

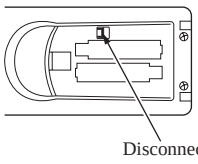
In case two air-conditioners are installed in the same room, apply this setting so that one unit can be operated with only one remote control.

(a) Setting the wireless remote control

(i) Slide the cover and take out the batteries.

(ii) Disconnect the switching line next to the battery with wire cutters.

(iii) Set the batteries and cover again.



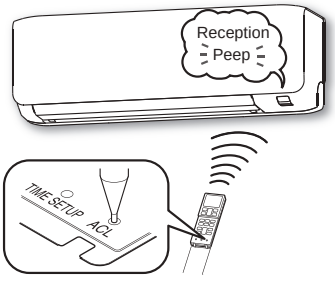
Disconnect

(b) Setting an indoor unit

(i) Turn off the power source, and turn it on after 1 minute.

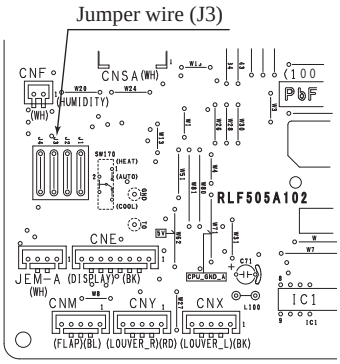
(ii) Point the wireless remote control (that was set according to the procedure described on the left side) at the indoor unit and send a signal by pressing the ACL switch on the wireless remote control.
Since the signal is sent in about 6 seconds after the ACL switch is pressed, point the wireless remote control at the indoor unit for some time.

(iii) Check that the reception buzzer sound "Peep" is emitted from the indoor unit.
At completion of the setting, the indoor unit emits a buzzer sound "Peep".
(If no reception sound is emitted, start the setting from the beginning again.)



(5) Selection of the annual cooling function

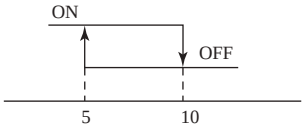
(a) The annual cooling control is valid from factory default setting. It is possible to disable by cutting jumper wire (J3), or changing the setting of dip switch (SW2-4) on the interface kit (option) PCB if it is connected.



Jumper wire (J3)	Interface kit (SC-BIKN2-E) SW2-4	Function
Shorted	ON	Enabled
Shorted	OFF	Disabled
Open	ON	Disabled
Open	OFF	Disabled

Note: (1) Default states of the jumper wire (J3) and the interface kit at the shipping from factory – On the PCB, the dip switch (SW2-4) is set to enable the annual cooling function.

(2) To cancel the annual cooling setting, consult your dealer.



Outdoor air temperature (℃)

(b) **Content of control**

(i) If the outdoor air temperature sensor (TH2) detects below 5°C, the indoor unit speed is switched to 7th step.

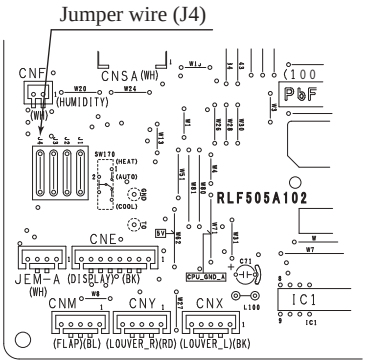
(ii) If the outdoor air temperature sensor (TH2) detects higher than 10°C, the indoor unit speed is changed to the normal control speed.

(6) Heating only function

(a) Heating only function is enabled by disconnecting the jumper wire (J4).

(b) **Content of control**

Operation mode setting	Operation mode
COOL/DRY/FAN	FAN
AUTO/HEAT	HEAT



(7) High power operation

Pressing the HI POWER/ECONOMY button intensifies the operating power and initiates powerful cooling and heating operation for 15 minutes continuously. The wireless remote control displays HIGH POWER mark and the FAN SPEED display disappears.

(a) During the HIGH POWER operation, the room temperature is not controlled. When it causes an excessive cooling and heating, press the HI POWER/ECONOMY button again to cancel the HIGH POWER operation.

(b) HIGH POWER operation is not available during the DRY and the ON timer to OFF timer operations.

(c) When HIGH POWER operation is set after ON timer operation, HIGH POWER operation will start from the set time.

(d) When the following operation are set, HIGH POWER operation will be cancelled.

① When the HI POWER/ECONOMY button is pressed again.

② When the operation mode is changed.

③ When it has been 15 minutes since HIGH POWER operation has started.

④ When the 3D AUTO botton is pressed.

⑤ When the SILENT botton is pressed.

⑥ When the NIGHT SETBACK botton is pressed.

(e) Not operable while the air-conditioner is OFF.

(f) After HIGH POWER operation, the sound of refrigerant flowing may be heard.

(8) Economy operation

Pressing the HI POWER/ECONOMY button initiates a soft operation with the power suppressed in order to avoid an excessive cooling or heating. The unit operate 1.5℃ higher than the setting temperature during cooling or 2.5℃ lower than that during heating. The wireless remote control displays ECONOMY mark and the FAN SPEED display disappears.

(a) It will go into ECONOMY operation at the next time the air-conditioner runs in the following cases.
① When the air-conditioner is stopped by ON/OFF button during ECONOMY operation.
② When the air-conditioner is stopped in SLEEP or OFF TIMER operation during ECONOMY operation.
③ When the operation is retrieved from CLEAN or ALLERGEN CLEAR operation.

(b) When the following operation are set, ECONOMY operation will be cancelled.
① When the HI POWER/ECONOMY button is pressed again.
② When the operation mode is changed from DRY to FAN.
③ When the NIGHT SETBACK botton is pressed.

(c) Not operable while the air-conditioner is OFF.

(d) The setting temperature is adjusted according to the following table.

Item \ Mode	Cooling	Heating
Temperature adjustment	①+0.5	①−1.0
	②+1.0	②−2.0
	③+1.5	③−2.5

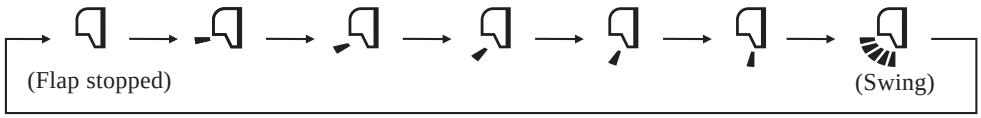
① at the start of operation.
② one hour after the start of operation.
③ two hours after the start of operation.

(9) Air flow direction adjustment

Air flow direction can be adjusted with by AIR FLOW ⬍ (UP/DOWN) and ⬌ (LEFT/RIGHT) button on the wireless remote control.

(a) Flap

Every time when you press the AIR FLOW ⬍ (UP/DOWN) button the mode changes as follows.

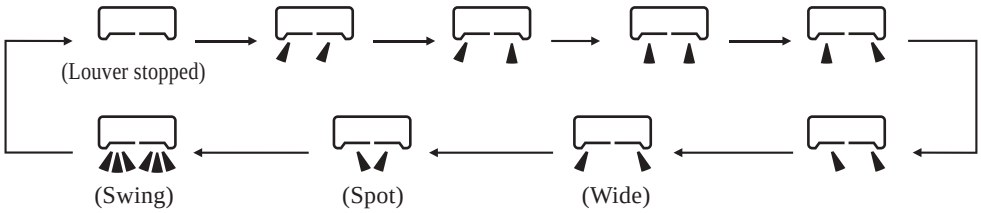


• Angle of flap from horizontal

Wireless remote control display					
COOL, DRY, FAN	Approx. 25°	Approx. 30°	Approx. 40°	Approx. 50°	Approx. 60°
HEAT	Approx. 25°	Approx. 35°	Approx. 50°	Approx. 60°	Approx. 70°

(b) Louver

Every time when you press the AIR FLOW ⬌ (LEFT/RIGHT) button the mode changes as follows.



• Angle of louver

Wireless remote control display					
Center installation	Left approx. 50°	Left approx. 20°	Center	Right approx. 20°	Right approx. 50°
Right end installation	Left approx. 50°	Left approx. 45°	Left approx. 30°	Center	Right approx. 20°
Left end installation	Left approx. 20°	Center	Right approx. 30°	Right approx. 45°	Right approx. 50°

(c) Swing

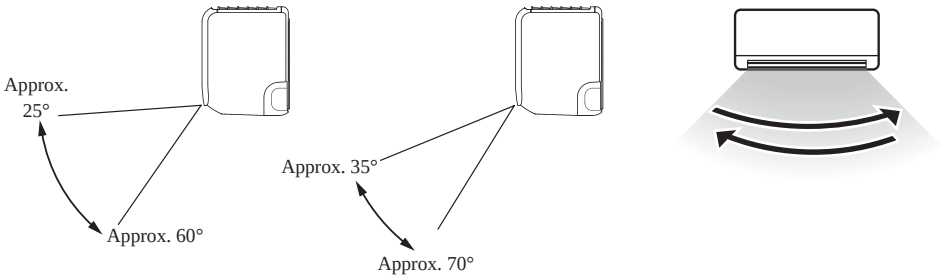
(i) Swing flap

Flap moves in upward and downward directions continuously.

(ii) Swing louver

Louver moves in left and right directions continuously.

◆ In COOL, DRY, FAN operation ◆ In HEAT operation



(d) Memory flap (Flap or louver stopped)

When you press the AIR FLOW (UP/DOWN or LEFT/RIGHT) button once while the flap or louver is operating, it stops swinging at the position. Since this angle is memorized in the microcomputer, the flap or louver will automatically be set at this angle when the next operation is started.

(10) 3D auto operation

Control the flap and louver by 3D AUTO button on the wireless remote control.

Fan speed and air flow direction are automatically controlled, allowing the entire indoor to efficiently conditioned.

(a) During cooling and heating (Including auto cooling and heating)

(i) Air flow selection is determined according to indoor temperature and setting temperature.

Operation mode	Air flow selection				
	AUTO		HI	MED	LO
Cooling	Room temp. – Setting temp. >5°C	Room temp. – Setting temp. ≦5°C	HI	MED	LO
	HIGH POWER	AUTO			
Heating	Setting temp. – Room temp. >5°C	Setting temp. – Room temp. ≦ 5°C			
	HIGH POWER	AUTO			

(ii) Air flow direction is controlled according to the room temperature and setting temperature.

1) When 3D auto operation starts

	Cooling	Heating
Flap	Up/down swing	
Louver	Wide (Fixed)	Center (Fixed)

2) When Room temp. – Setting temp. is ≦ 5ºC during cooling and when setting temp. – Room temp. is ≦ 5ºC during heating, the system switches to the following air flow direction control. After the louver swings left and right symmetrically for 3 cycles, control is switched to the control in 3).

	Cooling	Heating
Flap	Horizontal blowing (Fixed)	Slant forwardl blowing (Fixed)
Louver	Left/right swing	

3) After the flap swings for 5 cycles, control is switched to the control in 4).

	Cooling	Heating
Flap	Up/down swing	
Louver	Center (Fixed)	

4) For 5 minutes, the following air flow direction control is carried out.

	Cooling	Heating
Flap	Horizontal blowing (Fixed)	Slant forwardl blowing (Fixed)
Louver	Wide (Fixed)	

5) After 5 minutes have passed, the air flow direction is determined according to the room temperature and setting temperature.

Operation mode	Air flow direction contorol		
Cooling	Room temp. – Setting temp. ≦2°C	2°C < Room temp. – Setting temp. ≦ 5°C	Room temp. – Setting temp. > 5°C
	The control in 4) continues.	Control returns to the control in 2).	Control returns to the control in 1).
Heating	Setting temp. – Room temp. ≦2°C	2°C < Setting temp. – Room temp. ≦ 5°C	Setting temp. – Room temp. > 5°C
	The control in 4) continues.	Control returns to the control in 2).	Control returns to the control in 1).

(b) During DRY operation

Flap	Horizontal blowing (Fixed)
Louver	Wide (Fixed)

(11) Timer operation

(a) Comfort start-up (ON timer operation)

The unit starts the operation 5 to 60 minutes earlier so that the room can approach optimum temperature at ON timer.

(b) Sleep timer operation

Pressing the SLEEP button causes the temperature to be controlled with respect to the set temperature.

(c) OFF timer operation

The OFF timer can be set at a specific time (in 10-minute units) within a 24-hour period.

(d) Weekly timer operation

Up to 4 programs with timer operation (ON timer / OFF timer) are available for each day of the week.

(12) Silent operation

When the silent operation is set, the unit operates by dropping the outdoor fan speed and the compressor speed.

	SRK20		SRK25		SRK35		SRK50	
	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Outdoor fan speed (Upper limit)	4th speed	4th speed	4th speed	4th speed	5th speed	4th speed	4th speed	4th speed
Compressor speed (Upper limit)	30 rps	46 rps	37 rps	49 rps	46 rps	56 rps	46 rps	70rps

(13) Night setback operation

When the night setback operation is set, the heating operation starts with the setting temperature at 10℃.

(14) Air flow range setting

Take the air-conditioner location into account and adjust the left/right air flow range to maximize air-conditioning.

(a) Setting

(i) If the air-conditioning unit is running, press the ON/OFF button to stop.

The installation location setting cannot be made while the unit is running.

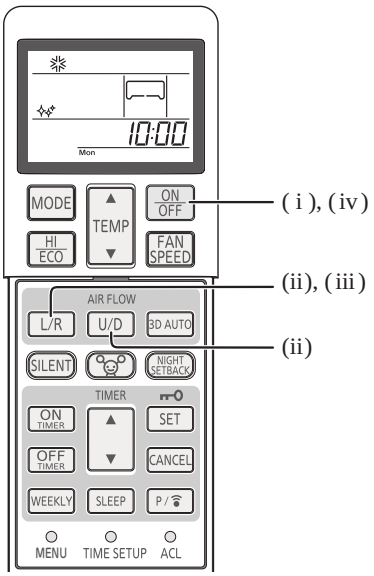
(ii) Press the AIR FLOW U/D (UP/DOWN) button and the AIR FLOW L/R (LEFT/RIGHT) button together for 5 seconds or more.

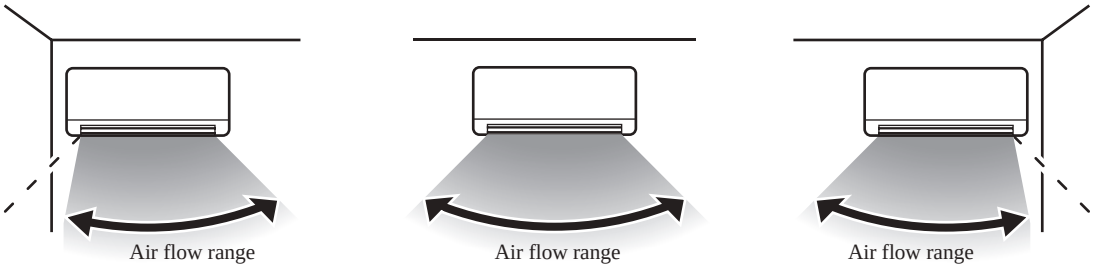
The installation location display illuminates.

(iii) Setting the air-conditioning installation location.

Press the AIR FLOW L/R (LEFT/RIGHT) button and adjust to the desired location.

Each time the AIR FLOW L/R (LEFT/RIGHT) button is pressed, the indicator is switched in the order of:





(Left end installation) (Center installation) (Right end installation)

(iv) Press the ON/OFF button.

The air-conditioner's installation location is set.

Press within 60 seconds of setting the installation location (while the installation location setting display illuminates).

(15) Display brightness adjustment

This function can be used when it is necessary to adjust the brightness of unit display.

Brightness level	Run light	Timer light
LV2	100%	100%
LV1	50%	50%
LV0	0%	0%

Note(1) When the unit displays self diagnosis or service mode, brightness level is always LV2.

(16) Outline of heating operation

(a) Operation of major functional components in heating mode

	Heating		
	Thermostat ON	Thermostat OFF	Failure
Compressor	ON	OFF	OFF
Indoor fan motor	ON	ON(HOT KEEP)*	OFF
Outdoor fan motor	ON	OFF (few minutes ON)	OFF
4-way valve	ON	ON	OFF (3 minutes ON)

*It can be set the indoor fan motor off or the heating thermostat OFF with connecting a wired remote control. In the case, indoor air temperature is detected by sensor on the wired remote control.

(b) Details of control at each operation mode (pattern)

(i) Fuzzy operation

Deviation between the indoor temperature setting correction temperature and the return air temperature is calculated in accordance with the fuzzy rule, and used for control of the air capacity and the compressor speed.

Model / Fan speed	SRK20	SRK25	SRK35	SRK50
Auto	20-115rps	20-115rps	20-115rps	20-110rps
HI	20-115rps	20-115rps	20-115rps	20-110rps
MED	20-86rps	20-104rps	20-108rps	20-106rps
LO	20-70rps	20-84rps	20-96rps	20-94rps
ULO	20-44rps	20-54rps	20-60rps	20-63rps

When the defrost operation, protection device, etc. is actuated, operation is performed in the corresponding mode.

(ii) Hot keep operation

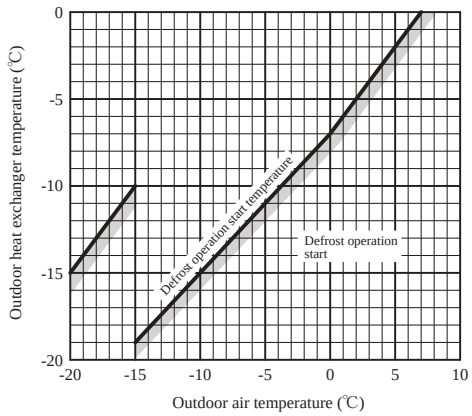
During the heating operation, the indoor fan speed can be controlled based on the temperature of the indoor heat exchanger (Th2) to prevent blowing out of cold air.

(c) Defrost operation

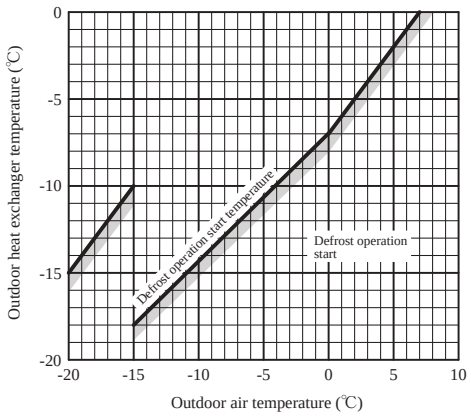
(i) Starting conditions (Defrost operation can be started only when all of the following conditions are satisfied.)

1) After start heating operation
   When it elapsed 35 minutes. (Total compressor operation time)
2) After finish of defrost operation
   When it elapsed 35 minutes. (Total compressor operation time)
3) Outdoor heat exchanger sensor (TH1) temperature
   When the temperature has been −5ºC or less for 3 minutes continuously.
4) The difference between the outdoor air sensor temperature and the outdoor heat exchanger sensor temperature is as following.

Models SRK20, 25



Models SRK35, 50

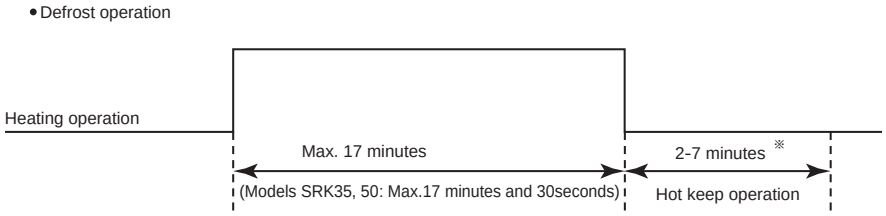


5) During continuous compressor operation
In case satisfied all of following conditions.
- Connect compressor speed 0 rps 10 times or more.
- Satisfy 1), 2) and 3) conditions above.
- Outdoor air temperature is 3°C or less.

(ii) Ending conditions (Operation returns to the heating cycle when either one of the following is satisfied.)

1) Outdoor heat exchanger sensor (TH1) temperature: 13ºC (model SRK50 : 10ºC) or higher

2) Continued operation time of defrost operation → For more than 17 minutes (models SRK35, 50 : 17 minutes and 30seconds).



※Depends on an operation condition, the time can be longer than 7 minutes.

(d) Countermeasure for excessive temperature rise

If it feels excessive temperature rise in heating operation, setting temperature can be lower.

(i) Setting

Push ON/OFF button 30 seconds or more after turn on the power source and operate the air-conditioner at least once time, At completion of the setting, the indoor unit emits a buzzer sound “Pip”.

(ii) Contents of control

Unit : °C

	Signal of wireless remote control (Display)												
	18	19	20	21	22	23	24	25	26	27	28	29	30
Before setting	20	21	22	23	24	25	26	27	28	29	30	31	32
After setting	18	19	20	21	22	23	24	25	26	27	28	29	30

(iii) Reset condition

Push ON/OFF button 30 seconds or more during setting this mode. At completion of the reset, the indoor unit emits a buzzer sound “PiPiPi”.

(17) Outline of cooling operation

(a) Operation of major functional components in cooling mode

	Cooling		
	Thermostat ON	**Thermostat OFF**	**Failure**
Compressor	ON	OFF	OFF
Indoor fan motor	ON	ON	OFF
Outdoor fan motor	ON	OFF (few minutes ON)	OFF (few minutes ON)
4-way valve	OFF	OFF	OFF

(b) Detail of control in each mode (Pattern)

(i) Fuzzy operation

During the fuzzy operation, the air flow and the compressor speed are controlled by calculating the difference between the indoor temperature setting correction temperature and the return air temperature.

Model / Fan speed	SRK20	SRK25	SRK35	SRK50
Auto	15-66rps	15-74rps	15-98rps	20-100rps
HI	15-66rps	15-74rps	15-98rps	20-100rps
MED	15-52rps	15-60rps	15-80rps	20-82rps
LO	15-42rps	15-48rps	15-70rps	20-66rps
ULO	15-34rps	15-38rps	15-46rps	20-40rps

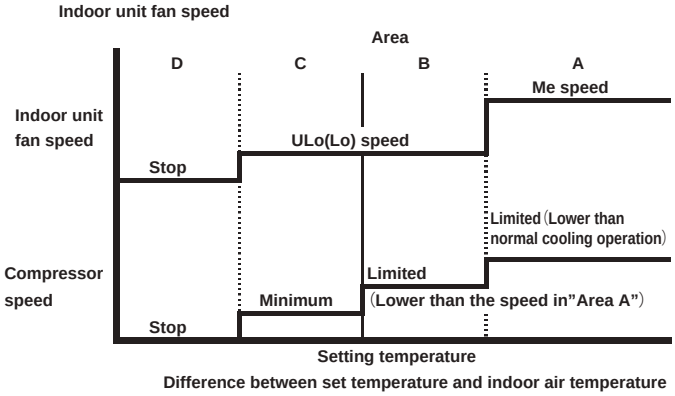
(18) Outline of dehumidifying (DRY) operation

(a) Purpose of DRY mode

The purpose is "Dehumidification", and not to control the humidity to the target condition.
Indoor/outdoor unit control the operation condition to reduce the humidity, and also prevent over cooling.

(b) Outline of control

(i) Indoor unit fan speed and compressor are controlled by the area which is selected by the temperature difference.



(ii) The indoor unit checks the current area by every 5 minutes, and operates by the next checking.

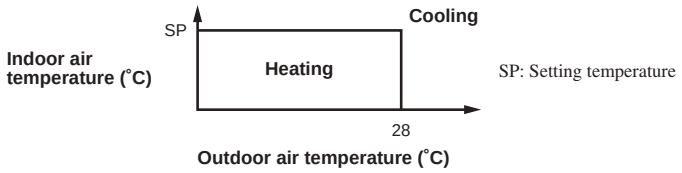
(c) Other

When the outdoor air temperature and room temperature are low in cooling operation, indoor unit can not operate cooling mode, and DRY mode. In this case, the unit operates in heating mode to rise the indoor air temperature and after that start DRY mode.

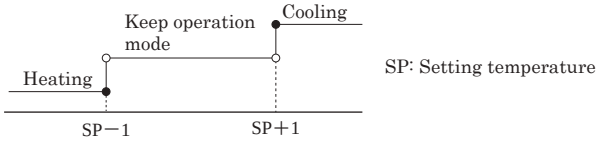
(19) Outline of automatic operation

(a) Determination of operation mode

Operation mode is determined by indoor air temperature and outdoor air temperature as following.



(b) Operation mode is changes when keep cooling and heating thermostat off 20 minutes and be satisfied with following conditions.
If the setting temperature is changed with the remote control, the operation mode is judged immediately.



※It can not be changed to heating mode if outdoor air temperature is 28℃ or higher.

(c) When the unit is started again within one hour after the stop of automatic operation or when the automatic operation is selected during heating, cooling or DRY mode, the unit is operated in the previous operation mode.

(d) Setting temperature can be adjusted within the following range. There is the relationship as shown below between the signals of the wireless remote control and the setting temperature.

Unit : ℃

		Signals of wireless remote control (Display)												
		18	19	20	21	22	23	24	25	26	27	28	29	30
Setting temperature	Cooling	18	19	20	21	22	23	24	25	26	27	28	29	30
	Heating	20	21	22	23	24	25	26	27	28	29	30	31	32

(e) When the unit is operated automatically with the wired remote control, the cooling operation is controlled according to the display temperatures while the setting temperature is compensated by +2℃ during heating.

(20) Protective control function

(a) Dew prevention control (During cooling)

Prevents dewing on the indoor unit. (SRK35, 50 only)

(i) Operating conditions

When the following conditions have been satisfied for more than 30 minutes after starting operation

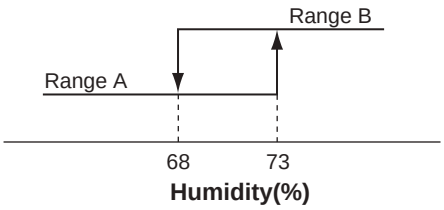
1) Compressor's speed is 32 (model SRK50:28) rps or higher.
2) Detected value of humidity is 68% or higher.

(ii) Contents of operation

1) Air capacity control

Item \ Model		SRK35	SRK50
LO	Upper limit of compressor's speed	RangeA: 60rps, RangeB: 60rps	RangeA: 62rps, RangeB: 50ps
	Indoor fan	5th speed	4th speed
AUTO,HI,MED	Upper limit of compressor's speed	RangeA: 60rps, RangeB: 60rps	RangeA: 62rps, RangeB: 50rps
	Indoor fan	Adaptable to compressor speed	
		(Lower limit 5th speed)	(Lower limit 4th speed)

Note (1) Ranges A and B are as shown below.



2) When this control has continued for more than 30 minutes continuously,the following wind direction control is performed.
   a) When the vertical wind direction is set at other than the vertical swing,the flaps change to the horizontal position.
   b) When the horizontal wind direction is set at other than the horizontal swing,the louver changes to the vertical position.

(iii) Reset condition

Humidity is less than 63%.

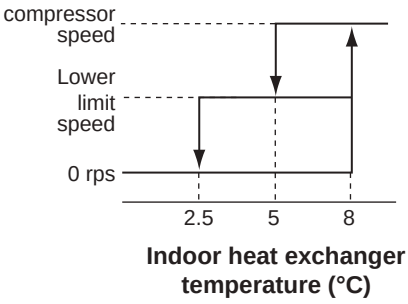
(b) Frost prevention control (During cooling or dehumidifying)

(i) Operating conditions

1) Indoor heat exchanger temperature (Th2) is lower than 5ºC.
2) 5 minutes after reaching the compressor speed except 0 rps.

(ii) Detail of anti-frost operation

Item \ Indoor heat exchanger temperature	5°C or lower	2.5°C or lower
Lower limit of compressor command speed	22 rps(model SRK50 : 23 rps)	0 rps
Indoor fan	Depends on operation mode	Keep the fan speed before frost prevention control
Outdoor fan	Depends on compressor speed	Depends on stop mode
4-way valve	OFF	



Notes (1) When the indoor heat exchanger temperature is in the range of 2.5–5ºC, the speed is reduced by 4 rps at each 20 seconds.
(2) When the temperature is lower than 2.5ºC, the compressor is stopped.
(3) When the indoor heat exchanger temperature is in the range of 5–8ºC, the compressor speed is been maintained.

(iii) Reset conditions

When either of the following condition is satisfied.

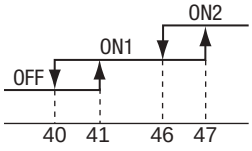
1) The indoor heat exchanger temperature (Th2) is 8ºC or higher.
2) The compressor speed is 0 rps.

(c) Cooling overload protective control

(i) Operating conditions

When the outdoor air temperature (TH2) has become continuously for 30 seconds at 41°C or more, or 47ºC or more with the compressor running, the lower limit speed of compressor is brought up.

Item \ Model	SRK20-35		SRK50	
Outdoor air temperature	41°C or more	47°C or more	41°C or more	47°C or more
Lower limit speed	30 rps	45 rps	27 rps	35 rps



Outdoor air temperature (°C)

(ii) Detail of operation

1) The outdoor fan is stepped up by 3 speed step. [Upper limit 8 (model SRK50 : 8) th speed.]
2) The lower limit of compressor speed is set to 30 or 45 (model SRK50 : 27 or 35) rps.
   However, when the thermo OFF, the speed is reduced to 0 rps.

(iii) Reset conditions

When either of the following condition is satisfied.

1) The outdoor air temperature is lower than 40ºC.
2) The compressor speed is 0 rps.

(d) Cooling high pressure control

(i) Purpose

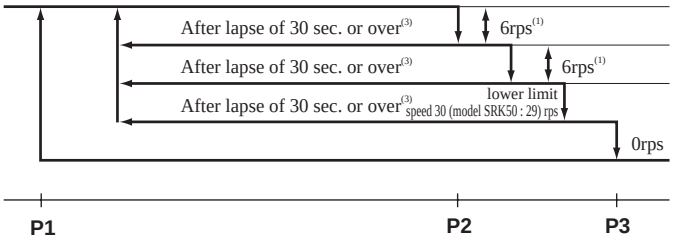
Prevents anomalous high pressure operation during cooling.

(ii) Detector

Outdoor heat exchanger sensor (TH1).

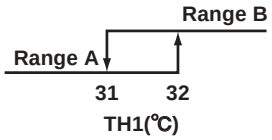
(iii) Detail of operation

(Example) Compressor speed



Outdoor heat exchanger temperature (°C)

		TH1(℃)		
		P1	P2	P3
SRK20, 25	Range A	47	50	53
	Range B	53	58	63
SRK35, 50	Range A	48	53	55
	Range B	53	58	63



Notes (1) When the outdoor heat exchanger temperature is in the range of P2-P3℃, the speed is reduced by 6 rps at each 30 seconds.
(2) When the temperature is P3℃ or higher, the compressor is stopped.
(3) When the outdoor heat exchanger temperature is in the range of P1-P2℃, if the compressor speed is been maintained and the operation has continued for more than 30 seconds at the same speed, it returns to the normal cooling operation.

(e) Cooling low outdoor air temperature protective control

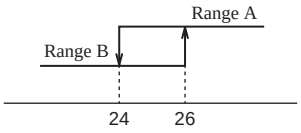
(i) Operating conditions

When the outdoor air temperature (TH2) is 22°C or lower continues for 20 seconds while the compressor speed is other than 0 rps.

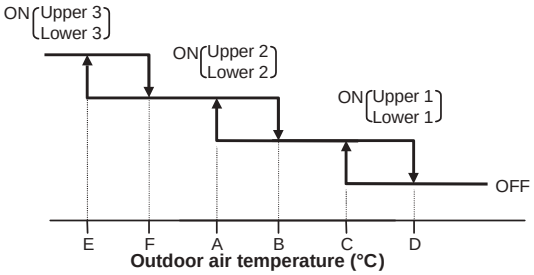
(ii) Detail of operation

1) It controls the upper and lower limit values for the compressor speed according to the following table.
2) It checks the outdoor temperature (TH2) once every hour to judge the operation range.

	Compressor speed: Upper/lower limit (rps)						
	Lower 1		Upper 1	Lower 2	Upper 2	Lower 3	Upper 3
	Range B	Range A					
SRK20, 25, 35	30	Release	60	44	50	50	50
SRK50	27	Release	60	44	50	—	—



Outdoor air temperature (℃)



● Values of A, B, C, D, E, F (Models SRK20-35)

	Outdoor air temperature (˚C)					
	E	F	A	B	C	D
First time	–8	–5	0	3	22	25
After the second times	–2	1	5	8	25	28

● Values of A, B, C, D (Model SRK50)

	Outdoor air temperature (˚C)			
	A	B	C	D
First time	9	11	22	25
After the second times	16	19	25	28

(iii) Reset conditions

When either of the following condition is satisfied.

1) The outdoor air temperature (TH2) is D°C or higher.
2) The compressor speed is 0 rps.

(f) Heating high pressure control

(i) Purpose

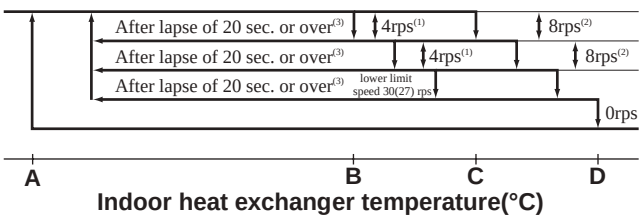
Prevents anomalous high pressure operation during heating.

(ii) Detector

Indoor heat exchanger sensor (Th2)

(iii) Detail of operation

(Example) Compressor speed



Note (1) Value in ( ) are for the model SRK50.

Notes (1) When the indoor heat exchanger temperature is in the range of B - C ºC, the speed is reduced by 4 rps at each 20 seconds.
(2) When the indoor heat exchanger temperature is in the range of C - D ºC, the speed is reduced by 8 rps at each 20 seconds. When the temperature is D ºC or higher continues for 1 minute, the compressor is stopped.
(3) When the indoor heat exchanger temperature is in the range of A-B °C, if the compressor speed is been maintained and the operation has continued for more than 20 seconds at the same speed, it returns to the normal heating operation.
(4) Indoor fan retains the fan speed when it enters in the high pressure control. Outdoor fan is operated in accordance with the speed.

● **Temperature list**

Models SRK20, 25, 35

Unit : ºC

	A	B	C	D
RPSmin < 50	47	52	54	58
50 ≦ RPSmin < 92	47.5	55	57	61
92 ≦ RPSmin ≦ 115	47.5 - 39	55 - 40	57 - 42	61

Note (1) RPSmin: The lower one between the outdoor speed and the compressor speed

Model SRK50

Unit : ºC

	A	B	C	D
RPSmin < 35	49	54	55	55.5
35 ≦ RPSmin < 40	49 - 52	54 - 57	55 - 58	55.5 - 62
40 ≦ RPSmin < 80	52	57	58	62
80 ≦ RPSmin < 95	52 - 48.1	57 - 52.2	58 - 53.2	62 - 56
95 ≦ RPSmin < 115	48.1 - 43	52.2 - 46	53.2 - 47	56 - 50.5
115 ≦ RPSmin	43	46	47	50.5

Note (1) RPSmin: The lower one between the outdoor speed and the compressor speed

(g) Heating overload protective control

Outdoor unit side

• Models SRK20, 25, 35

1) Operating conditions

When the outdoor air temperature (TH2) is 22°C or higher continues for 30 seconds while the compressor speed other than 0 rps.

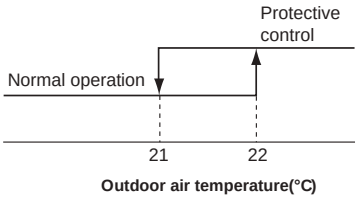
2) Detail of operation

a) Taking the upper limit of compressor speed at 60 rps, if the output speed obtained with the fuzzy calculation exceeds the upper limit, the upper limit value is maintained.

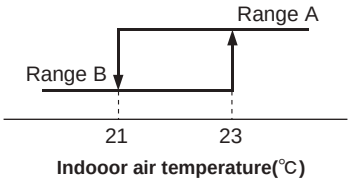
b) The lower limit of compressor speed is set to 40 rps and even if the calculated result becomes lower than that after fuzzy calculation, the speed is kept to 40 rps. However, when the thermostat OFF, the speed is reduced to 0 rps.

c) Inching prevention control is activated and inching prevention control is carried out with the minimum speed set at 40 rps.

d) The outdoor fan speed is set on 2nd speed.



Compressor speed : Upper/lower limit (rps)			
Lower limit		Upper limit	Outdoor fan speed
Range A	Range B		
40	Release	60	2nd



3) Reset conditions

The outdoor air temperature (TH2) is lower than 21°C.

• Model SRK50

1) Operating conditions

When the outdoor air temperature (TH2) is 11ºC or higher continues for 30 seconds while the compressor speed other than 0 rps.

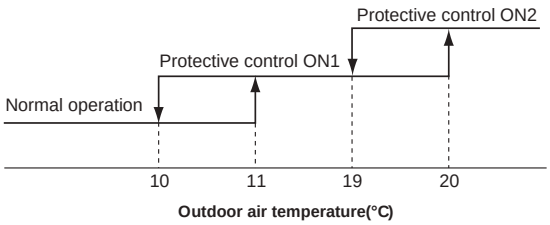
2) Detail of operation

a) Taking the upper limit of compressor speed range at 90 rps, if the output speed obtained with the fuzzy calculation exceeds the upper limit, the upper limit value is maintained.

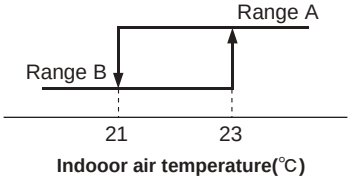
b) The lower limit of compressor speed is set to 27 rps and even if the calculated result becomes lower than that after fuzzy calculation, the speed is kept to 27 rps. However, when the thermostat OFF, the speed is reduced to 0 prs.

c) Inching prevention control is activated and inching prevention control is carried out with the minimum speed set at 27 rps.

d) Refer to the right table about the outdoor fan speed.



	Compressor speed : Upper/lower limit (rps)			
	Lower limit		Upper limit	Outdoor fan speed
	Range A	Range B		
ON1	27	Release	90	It depends on compressor speed
ON2	27	27	60	2nd



3) Reset conditions

The outdoor air temperature (TH2) is lower than 10°C.

(h) Heating low outdoor temperature protective control

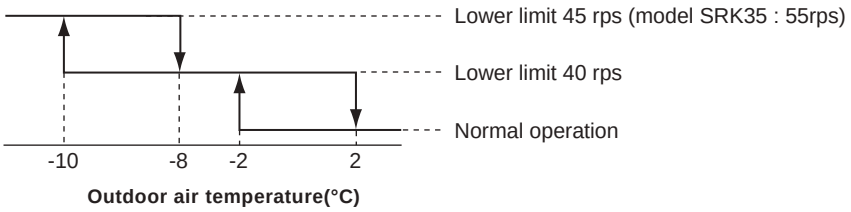
• Models SRK20, 25, 35

(i) Operating conditions

When the outdoor air temperature (TH2) is lower than −2°C or higher continues for 30 seconds while the compressor speed is other than 0 rps.

(ii) Detail of operation

The lower limit compressor speed is change as shown in the figure below.



(iii) Reset conditions

When either of the following condition is satisfied.

1) The outdoor air temperature (TH2) becomes 2ºC.
2) The compressor speed is 0 rps.

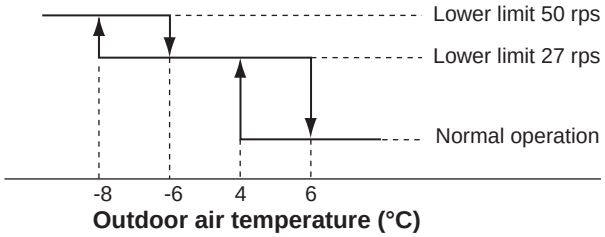
• Model SRK50

(i) Operating conditions

When the outdoor air temperature (TH2) is lower than 4ºC or higher than 13ºC continues for 30 seconds while the compressor speed is other than 0 rps.

(ii) Detail of operation

The lower limit compressor speed is change as shown in the figure below.



(iii) Reset conditions

When either of the following condition is satisfied.

1) The outdoor air temperature (TH2) becomes 6ºC.
2) The compressor speed is 0 rps.

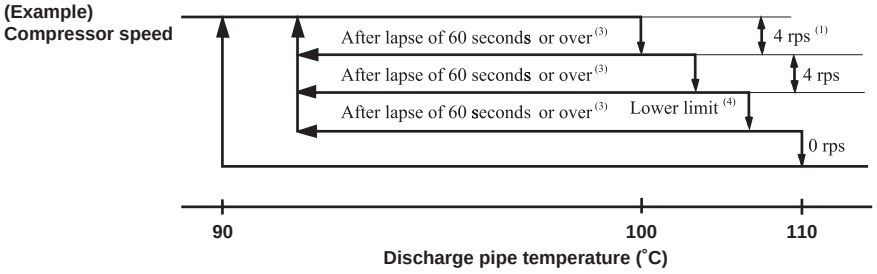
(i) Compressor overheat protection

(i) Purpose

It is designed to prevent deterioration of oil, burnout of motor coil and other trouble resulting from the compressor overheat.

(ii) Detail of operation

1) Speeds are controlled with temperature detected by the sensor (TH3) mounted on the discharge pipe.



Notes (1) When the discharge pipe temperature is in the range of 100 - 110°C, the speed is reduced by 4 rps.
(2) When the discharge pipe temperature is raised and continues operation for 20 seconds without changing, then the speed is reduced again by 4 rps.
(3) If the discharge pipe temperature is in the range of 90 - 100°C even when the compressor speed is maintained for 60 seconds when the temperature is in the range of 90 - 100°C, the speed is raised by 1 rps and kept at that speed for 60 seconds. This process is repeated until the command speed is reached.
(4) Lower limit speed

Model \ Item		Cooling	Heating
Lower limit speed	SRK20 - 35	15 rps	20 rps
	SRK50	20 rps	20 rps

2) If the temperature of 110ºC is detected by the sensor on the discharge pipe, then the compressor will stop immediately. When the discharge pipe temperature drops and 3 minutes has elapsed, the unit starts again within 1 hour but there is no start at the third time.

(j) Current safe

(i) Purpose

Current is controlled not to exceed the upper limit of the setting operation current.

(ii) Detail of operation

Input current to the converter is monitored with the current sensor fixed on the printed circuit board of the outdoor unit and, if the operation current value reaches the limiting current value, the compressor speed is reduced.
If the mechanism is actuated when the compressor speed is less than 30 rps, the compressor is stopped immediately.
Operation starts again after 3 minutes.

(k) Current cut

(i) Purpose

Inverter is protected from overcurrent.

(ii) Detail of operation

Output current from the inverter is monitored with a shunt resistor and, if the current exceeds the setting value, the compressor is stopped immediately. Operation starts again after 3 minutes.

(l) Outdoor unit failure

This is a function for determining when there is trouble with the outdoor unit during air-conditioning.
The compressor is stopped if any one of the following in item (i), (ii) is satisfied. Once the unit is stopped by this function, it is not restarted.
(i) When the input current is measured at 1 A or less for 3 continuous minutes or more.
(ii) If the outdoor unit sends a 0 rps signal to the indoor unit 3 times or more within 20 minutes of the power being turned on.

(m) Indoor fan motor protection

When the air-conditioner is operating and the indoor fan motor is turned ON, if the indoor fan motor has operated at 300 min^{-1} or under for more than 30 seconds, the unit enters first in the stop mode and then stops the entire system.

(n) Serial signal transmission error protection

(i) Purpose

Prevents malfunction resulting from error on the indoor ↔ outdoor signals.

(ii) Detail of operation

If the compressor is operating and a serial signal cannot be received from the indoor control with outdoor control having serial signals continues for 7 minutes and 35 seconds, the compressor is stopped.
After the compressor has been stopped, it will be restarted after the compressor start delay if a serial signal can be received again from the indoor control.

(o) Rotor lock

If the motor for the compressor does not turn after it has been started, it is determined that a compressor lock has occurred and the compressor is stopped.

(p) Outdoor fan motor protection

If the outdoor fan motor has operated at 75 min^{-1} or under for more than 30 seconds, the compressor and fan motor are stopped.

(q) Outdoor fan control at low outdoor temperature

(i) Cooling

1) Operating conditions

When the outdoor air temperature (TH2) is 22ºC or lower continues for 30 seconds while the compressor speed is other than 0 rps.

2) Detail of operation

After the outdoor fan operates at A speed for 60 seconds; the corresponding outdoor heat exchanger temperature shall implement the following controls.

● Value of A

	Outdoor fan
Outdoor temperature > 10˚C	2nd speed
Outdoor temperature ≦ 10˚C	1st speed

a) Outdoor heat exchanger temperature (TH1) ≦ 21ºC

After the outdoor fan speed drops (down) to 1 speed for 60 seconds; if the outdoor heat exchanger temperature is lower than 21ºC, gradually reduce the outdoor fan speed by 1 speed. (Lower limit 1st speed)

b) 21ºC < Outdoor heat exchanger temperature (TH1) ≦ 38ºC

After the outdoor fan speed maintains at A speed for 20 seconds; if the outdoor heat exchanger temperature is 21°C-38°C, maintain outdoor fan speed.

c) Outdoor heat exchanger tempeature (TH1) > 38ºC

After the outdoor fan speed rises (up) to 1 speed for 60 seconds; if the outdoor heat exchanger temperature is higher than 38ºC, gradually increase outdoor fan speed by 1 speed. (Upper limit 3rd speed)

3) Reset conditions

When either of the following conditions is satisfied.

a) The outdoor air temperature (TH2) is 24ºC or higher.

b) The compressor command speed is 0 rps.

(ii) Heating

1) Operating conditions

When the outdoor air temperature (TH2) is 0ºC or lower continues for 30 seconds while the compressor speed is other than 0 rps.

2) Detail of operation

The outdoor fan is stepped up by 2 speed step at each 20 seconds. (Upper limit 8th speed)

3) Reset conditions

When either of the following conditions is satisfied.

a) The outdoor air temperature (TH2) is 2ºC or higher.

b) The compressor speed is 0 rps.

(r) Refrigeration cycle system protection

(i) Starting conditions

1) When 5 minutes have elapsed after the compressor ON or the completion of the defrost operation.

2) Other than the defrost operation.

3) When, after satisfying the conditions of 1) and 2) above, the compressor speed, indoor temperature (Th1) and indoor heat exchanger temperature (Th2) have satisfied the conditions in the following table for 5 minutes.

Operation mode	Compressor speed (N)	Indoor temperature (Th1)	Indoor temperature (Th1)/ Indoor heat exchanger temperature (Th2)
Cooling	50≦N	10≦Th1≦40	Th1−4<Th2
Heating (1)	50≦N	0≦Th1≦40	Th2<Th1+6

Note (1) Except that the fan speed is HI in heating operation.

(ii) Contents of control

1) When the conditions of (i) above are satisfied , the compressor stops.

2) Error stop occurs when the compressor has stopped 3 times within 60 minutes.

(iii) Reset condition

When the compressor has been turned OFF

10. MAINTENANCE DATA

(1) Cautions

(a) If you are disassembling and checking an air-conditioner, be sure to turn off the power before beginning. When working on indoor units, let the unit sit for about 1 minute after turning off the power before you begin work. When working on an outdoor unit, there may be an electrical charge applied to the main circuit (electrolytic condenser), so begin work only after discharging this electrical charge (to DC10V or lower).

(b) When taking out printed circuit boards, be sure to do so without exerting force on the circuit boards or package components.

(c) When disconnecting and connecting connectors, take hold of the connector housing and do not pull on the lead wires.

(2) Items to check before troubleshooting

(a) Have you thoroughly investigated the details of the trouble which the customer is complaining about?

(b) Is the air-conditioner running? Is it displaying any self-diagnosis information?

(c) Is a power source with the correct voltage connected?

(d) Are the control lines connecting the indoor and outdoor units wired correctly and connected securely?

(e) Is the outdoor unit's service valve open?

(3) Troubleshooting procedure (If the air-conditioner does not run at all)

If the air-conditioner does not run at all, diagnose the trouble using the following troubleshooting procedure. If the air-conditioner is running but breaks down, proceed to troubleshooting step (4).

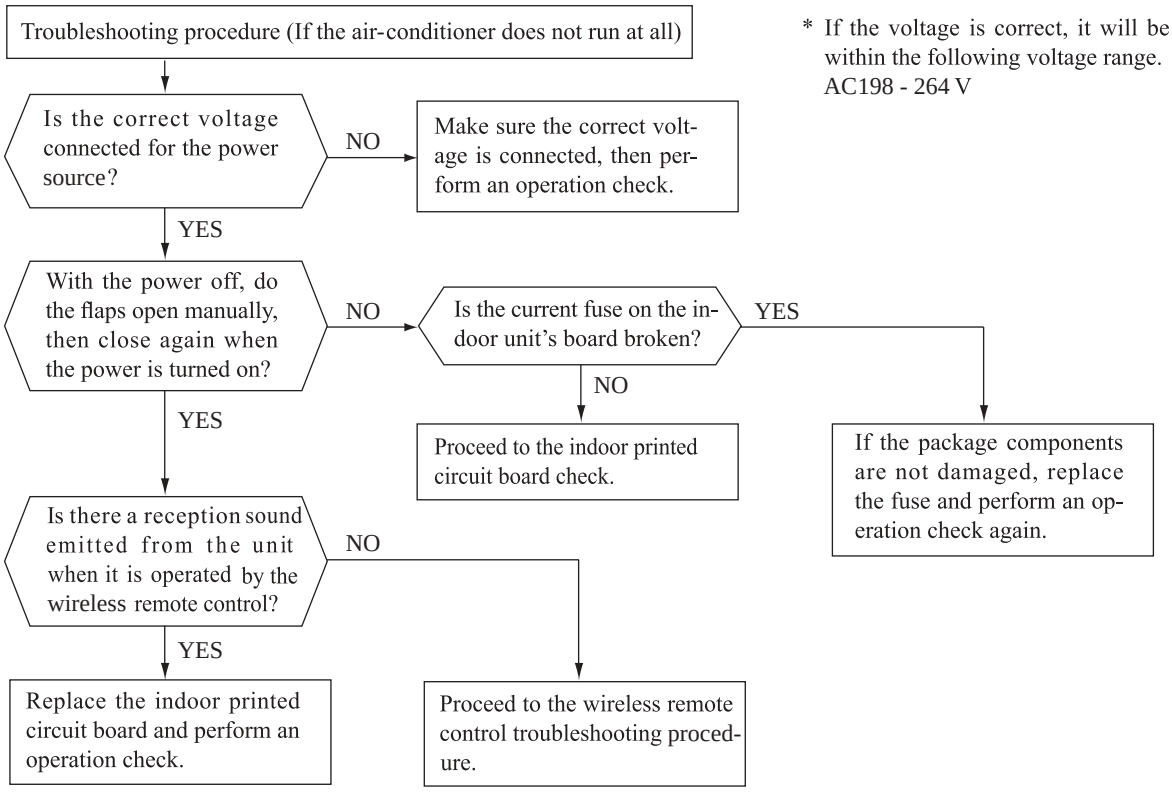
Important When all the following conditions are satisfied, we say that the air-conditioner will not run at all.

(a) The RUN light does not light up.

(b) The flaps do not open.

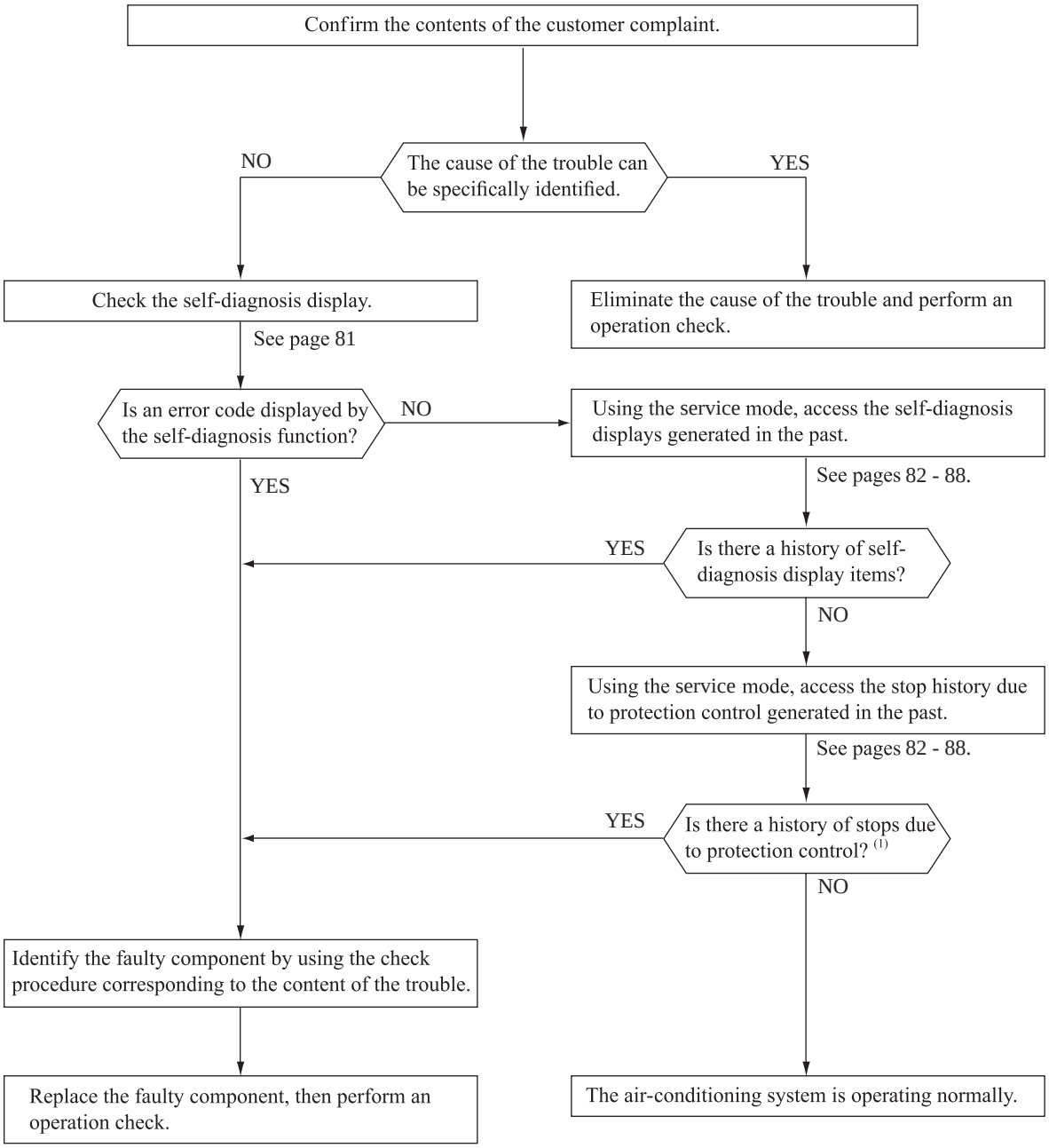
(c) The indoor unit fan motors do not run.

(d) The self-diagnosis display does not function.



* If the voltage is correct, it will be within the following voltage range.
AC198 - 264 V

(4) Troubleshooting procedure (If the air-conditioner runs)



Note (1) Even in cases where only intermittent stop data are generated, the air-conditioning system is normal. However, if the same protective operation recurs repeatedly (3 or more times), it will lead to customer complaints. Judge the conditions in comparison with the contents of the complaints.