Manual No.'18•SRK-DB-252
updated October 25, 2018

MITSUBISHI HEAVY INDUSTRIES

DATA BOOK

INVERTER WALL MOUNTED TYPE RESIDENTIAL AIR-CONDITIONERS

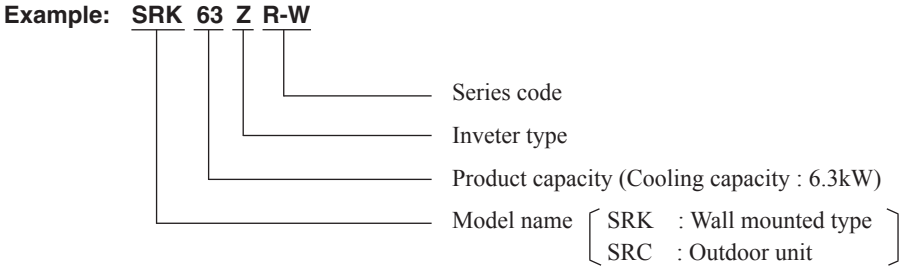
(Split system, air to air heat pump type)

SRK63ZR-W
71ZR-W
80ZR-W

MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS, LTD.

CONTENTS

■How to read the model name



1. SPECIFICATIONS

Item \ Model				SRK63ZR-W	
				Indoor unit SRK63ZR-W	Outdoor unit SRC63ZR-W
Power source				1 Phase, 220 - 240V, 50Hz / 220V, 60Hz	
Operation data	Nominal cooling capacity (range)		kW	6.3 (1.2 (Min.) - 7.4 (Max.))	
	Nominal heating capacity (range)		kW	7.1 (0.8 (Min.) - 9.3 (Max.))	
	Heating capacity (H2)		kW	—	
	Power consumption	Cooling	kW	1.63 (0.2 - 2.5)	
		Heating		1.64 (0.16 - 2.8)	
		Heating (H2)		—	
	Max power consumption			2.9	
	Running current	Cooling	A	7.6 / 7.2 / 6.9 (220/ 230/ 240 V)	
		Heating		7.5 / 7.2 / 6.9 (220/ 230/ 240 V)	
	Inrush current, max current			7.6 / 7.2 / 6.9 (220/ 230/ 240 V) Max. 14.5	
	Power factor	Cooling	%	98	
		Heating		99	
	EER	Cooling		3.87	
	COP	Heating		4.33	
		Heating (H2)		—	
	Sound power level	Cooling	dB(A)	56	64
		Heating		58	65
	Sound pressure level	Cooling		Hi: 44 Me: 39 Lo: 35 ULo: 25	54
		Heating		Hi: 44 Me: 38 Lo: 34 ULo: 28	54
	Silent mode sound pressure level			—	Cooling:45 / Heating:45
Exterior dimensions (Height x Width x Depth)			mm	339 x 1197 x 262	640 x 800(+71) x 290
Exterior appearance (Munsell color)				Fine snow (8.0Y 9.3/0.1) near equivalent	Stucco white (4.2Y 7.5/1.1) near equivalent
Net weight			kg	15.5	45
Compressor type & Q'ty				—	RMT5113SWE11(Twin rotary type) x 1
Compressor motor (Starting method)			kW	—	1.40 (Inverter driven)
Refrigerant oil (Amount, type)			ℓ	—	0.45 (DIAMOND FREEZE MB75)
Refrigerant (Type, amount, pre-charge length)			kg	R32 1.25 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 & Q'ty				Tangential fan x 1	Propeller fan x 1
Fan motor (Starting method)			W	56 x1 (Direct drive)	34 x1 (Direct drive)
Air flow		Cooling	m^3/min	Hi: 20.5 Me: 18.1 Lo: 15.7 ULo: 10.4	41.5
		Heating		Hi: 22.5 Me: 19.0 Lo: 16.5 ULo: 13.1	41.5
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 , HI POWER: Green ,3D AUTO: Green	
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: φ12.7 (1/2")	
	Connecting method			Flare connection	Flare connection
	Attached length of piping		m	Liquid line : 0.78 / Gas line : 0.71	—
	Insulation for piping			Necessary (Both sides), independent	
	Refrigerant line (one way) length		m	Max.30	
	Vertical height diff. between O.U. and I.U.		m	Max.20 (Outdoor unit is higher) / Max.20 (Outdoor unit is lower)	
	Drain hose			Hose connectable (VP 16)	Holes φ20 x 5 pcs
Drain pump, max lift height			mm	—	—
Recommended breaker size			A	16	
L.R.A. (Locked rotor ampere)			A	7.6 / 7.2 / 6.9 (220/ 230/ 240 V)	
Interconnecting wires		Size x Core number		1.5mm² 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℃	19℃	35℃	24℃	ISO5151-T1
Heating	20℃	—	7℃	6℃	ISO5151-H1
Heating (H2)	20℃	—	2℃	1℃	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.

RWA000Z267 Ⓓ

Item			Model	SRK71ZR-W	
				Indoor unit SRK71ZR-W	Outdoor unit SRC71ZR-W
Power source				1 Phase, 220 - 240V, 50Hz / 220V, 60Hz	
Operation data	Nominal cooling capacity (range)		kW	7.1 (2.3 (Min.) - 7.8 (Max.))	
	Nominal heating capacity (range)		kW	8.0 (2.0 (Min.) - 10.8 (Max.))	
	Heating capacity (H2)		kW	—	
	Power consumption	Cooling	kW	1.93 (0.48 - 2.4)	
		Heating		1.95 (0.4 - 3.6)	
		Heating (H2)		—	
	Max power consumption			3.65	
	Running current	Cooling	A	9.0 / 8.6 / 8.2 (220/ 230/ 240 V)	
		Heating		9.1 / 8.7 / 8.4 (220/ 230/ 240 V)	
	Inrush current, max current			9.1 / 8.7 / 8.4 (220/ 230/ 240 V) Max. 17	
	Power factor	Cooling	%	98	
		Heating		97	
	EER	Cooling		3.68	
	COP	Heating		4.10	
		Heating (H2)		—	
	Sound power level	Cooling	dB(A)	57	63
		Heating		60	63
	Sound pressure level	Cooling		Hi: 44 Me: 41 Lo: 37 ULo: 25	53
		Heating		Hi: 46 Me: 39 Lo: 35 ULo: 28	51
	Silent mode sound pressure level			—	Cooling:45 / Heating:41
Exterior dimensions (Height x Width x Depth)			mm	339 x 1197 x 262	750 x 880(+88) x 340
Exterior appearance (Munsell color)				Fine snow (8.0Y 9.3/0.1) near equivalent	Stucco white (4.2Y 7.5/1.1) near equivalent
Net weight			kg	15.5	56
Compressor type & Q'ty				—	RMT5118SBP2 (Twin rotary type) x 1
Compressor motor (Starting method)			kW	—	1.40 (Inverter driven)
Refrigerant oil (Amount, type)			ℓ	—	0.675 (DIAMOND FREEZE MB75)
Refrigerant (Type, amount, pre-charge length)			kg	R32 1.5 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 & Q'ty				Tangential fan x 1	Propeller fan x 1
Fan motor (Starting method)			W	56 x1 (Direct drive)	86 x1 (Direct drive)
Air flow		Cooling	m^3/min	Hi: 20.5 Me: 18.6 Lo: 16.2 ULo: 10.4	55
		Heating		Hi: 25.0 Me: 19.8 Lo: 17.3 ULo: 13.3	43.5
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 , HI POWER: Green ,3D AUTO: Green	
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: ϕ15.88 (5/8")
	Connecting method			Flare connection	Flare connection
	Attached length of piping		m	Liquid line : 0.78 / Gas line : 0.72	—
	Insulation for piping			Necessary (Both sides), independent	
	Refrigerant line (one way) length		m	Max.30	
	Vertical height diff. between O.U. and I.U.		m	Max.20 (Outdoor unit is higher) / Max.20 (Outdoor unit is lower)	
	Drain hose			Hose connectable (VP 16)	Holes ϕ20 x 3 pcs
Drain pump, max lift height			mm	—	—
Recommended breaker size			A	20	
L.R.A. (Locked rotor ampere)			A	9.1 / 8.7 / 8.4 (220/ 230/ 240 V)	
Interconnecting wires		Size x Core number		1.5mm² 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℃	19℃	35℃	24℃	ISO5151-T1
Heating	20℃	—	7℃	6℃	ISO5151-H1
Heating (H2)	20℃	—	2℃	1℃	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.

RWA000Z267 Ⓓ

Item				Model	SRK80ZR-W	
					Indoor unit SRK80ZR-W	Outdoor unit SRC80ZR-W
Power source					1 Phase, 220 - 240V, 50Hz / 220V, 60Hz	
Operation data	Nominal cooling capacity (range)			kW	8.0 (2.3 (Min.) - 9.7 (Max.))	
	Nominal heating capacity (range)			kW	9.0 (2.1 (Min.) - 11.2 (Max.))	
	Heating capacity (H2)			kW	—	
	Power consumption		Cooling	kW	2.09 (0.48 - 3.2)	
			Heating		2.27 (0.4 - 3.5)	
			Heating (H2)		—	
	Max power consumption				3.65	
	Running current		Cooling	A	9.7 / 9.3 / 8.9 (220/ 230/ 240 V)	
			Heating		10.5 / 10.1 / 9.7 (220/ 230/ 240 V)	
	Inrush current, max current				10.5 / 10.1 / 9.7 (220/ 230/ 240 V) Max. 17	
	Power factor		Cooling	%	98	
			Heating		98	
	EER		Cooling		3.83	
	COP		Heating		3.96	
			Heating (H2)		—	
	Sound power level		Cooling	dB(A)	60	67
			Heating		62	67
	Sound pressure level		Cooling		Hi: 47 Me: 44 Lo: 39 ULo: 26	56
			Heating		Hi: 47 Me: 41 Lo: 36 ULo: 29	55
	Silent mode sound pressure level				—	Cooling:47 / Heating:42
Exterior dimensions (Height x Width x Depth)				mm	339 x 1197 x 262	750 x 880(+88) x 340
Exterior appearance (Munsell color)					Fine snow (8.0Y 9.3/0.1) near equivalent	Stucco white (4.2Y 7.5/1.1) near equivalent
Net weight				kg	16.5	57
Compressor type & Q'ty					—	RMT5118SBP2 (Twin rotary type) x 1
Compressor motor (Starting method)				kW	—	1.40 (Inverter driven)
Refrigerant oil (Amount, type)				ℓ	—	0.675 (DIAMOND FREEZE MB75)
Refrigerant (Type, amount, pre-charge length)				kg	R32 1.6 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 & Q'ty					Tangential fan x 1	Propeller fan x 1
Fan motor (Starting method)				W	56 x1 (Direct drive)	86 x1 (Direct drive)
Air flow			Cooling	m^3/min	Hi: 23.5 Me: 20.2 Lo: 17.5 ULo: 10.4	63
			Heating		Hi: 26.5 Me: 21.3 Lo: 18.4 ULo: 13.5	49.5
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 , HI POWER: Green ,3D AUTO: Green	
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: ϕ15.88 (5/8")
	Connecting method				Flare connection	Flare connection
	Attached length of piping			m	Liquid line : 0.78 / Gas line : 0.72	—
	Insulation for piping				Necessary (Both sides), independent	
	Refrigerant line (one way) length			m	Max.30	
	Vertical height diff. between O.U. and I.U.			m	Max.20 (Outdoor unit is higher) / Max.20 (Outdoor unit is lower)	
	Drain hose				Hose connectable (VP 16)	Holes ϕ20 x 3 pcs
Drain pump, max lift height				mm	—	—
Recommended breaker size				A	20	
L.R.A. (Locked rotor ampere)				A	10.5 / 10.1 / 9.7 (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℃	19℃	35℃	24℃	ISO5151-T1
Heating	20℃	—	7℃	6℃	ISO5151-H1
Heating (H2)	20℃	—	2℃	1℃	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.

RWA000Z267 Ⓓ

Packing material weight list

Unit: kg

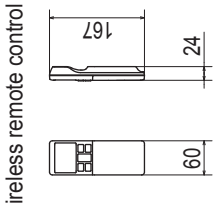
Model \ Material		Gross Weight	Packing Parts weight (Total)	Glass	Plastic	Paper and board	Metal		Wood	Others
							Aluminium	Steel		
Indoor	SRK63ZR-W	19.5	2.64	0.00	0.77	1.87	0.00	0.00	0.00	0.00
	SRK71ZR-W	19.5	2.64	0.00	0.77	1.87	0.00	0.00	0.00	0.00
	SRK80ZR-W	20.0	2.64	0.00	0.77	1.87	0.00	0.00	0.00	0.00
Outdoor	SRC63ZR-W	47.0	2.43	0.00	0.46	1.97	0.00	0.00	0.00	0.00
	SRC71ZR-W	61.0	6.14	0.00	0.41	2.43	0.00	0.04	3.26	0.00
	SRC80ZR-W	62.0	6.14	0.00	0.41	2.43	0.00	0.04	3.26	0.00

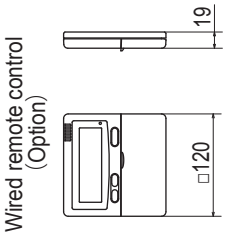
2. EXTERIOR DIMENSIONS

(1) Indoor units

Models SRK63ZR-W, 71ZR-W, 80ZR-W

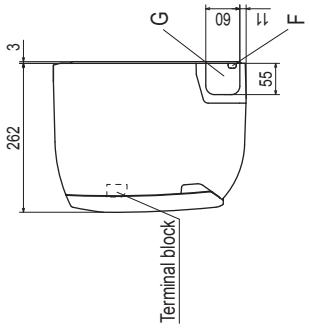
Symbol	Content		
A	Gas piping	SRK 63	ϕ12.7 (1/2") (Flare)
		SRK 71,80	ϕ15.88 (5/8") (Flare)
B	Liquid piping	SRK 63,71,80	ϕ6.35 (1/4") (Flare)
C	Hole on wall for right rear piping		(ϕ65)
D	Hole on wall for left rear piping		(ϕ65)
E	Drain hose		VP16
F	Outlet for wiring (on both side)		
G	Outlet for piping (on both side)		

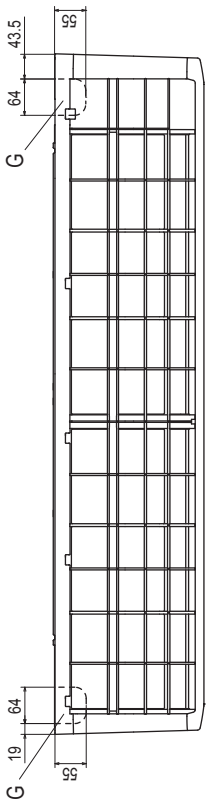


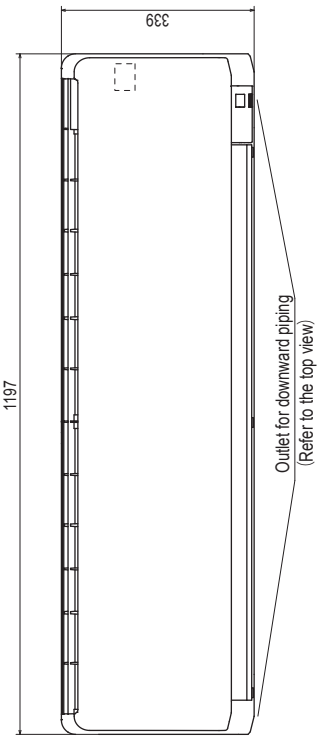


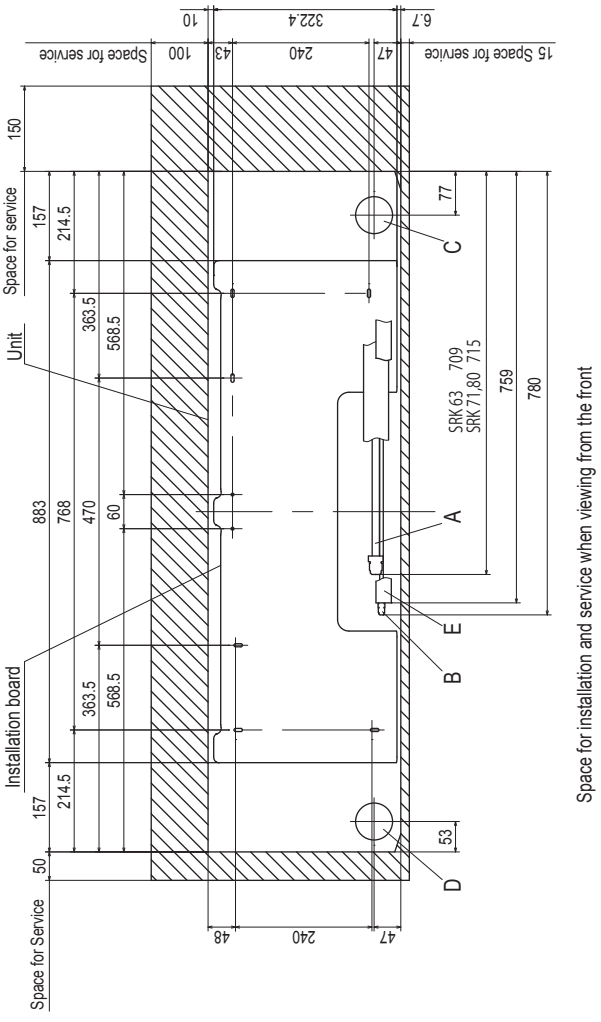
Notes (1) The model name label is attached on the underside of the indoor unit.
(2) To connect the wired remote control, the interface kit (SC-BIKN2-E) is required.

Unit:mm







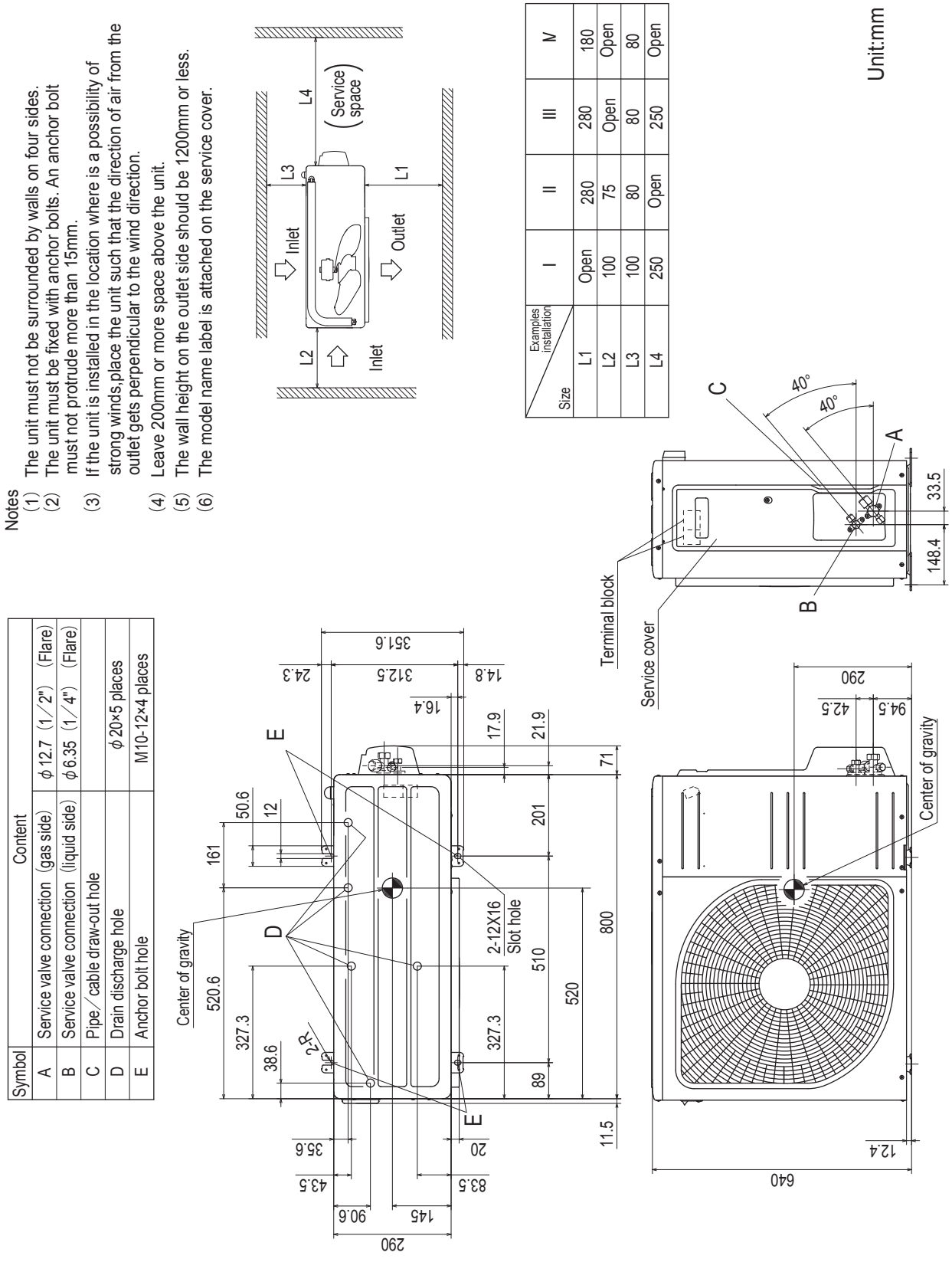


Space for installation and service when viewing from the front

RLD000Z005

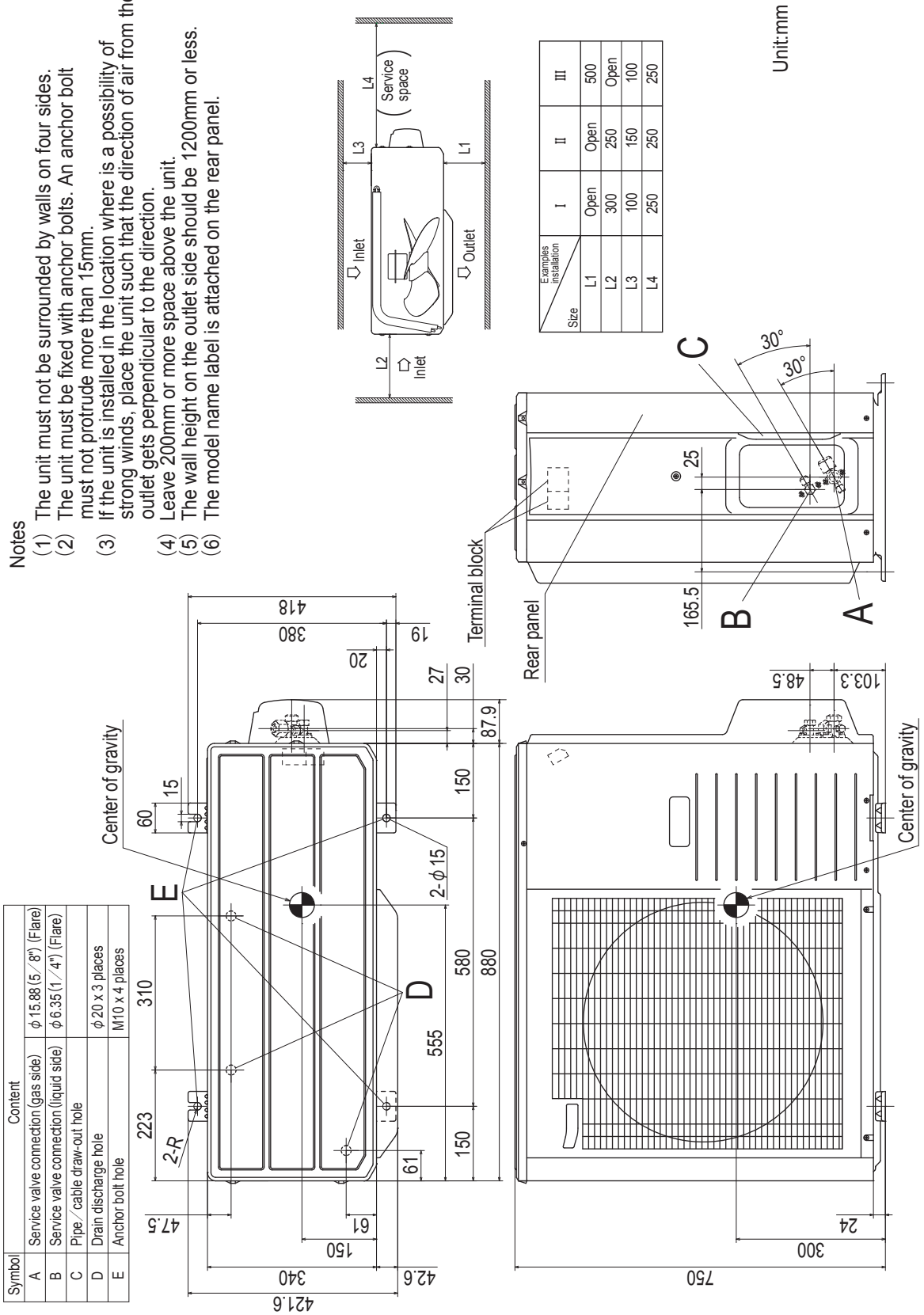
(2) Outdoor units

Model SRC63ZR-W



RCT000Z031

Model SRC71ZR-W, 80ZR-W

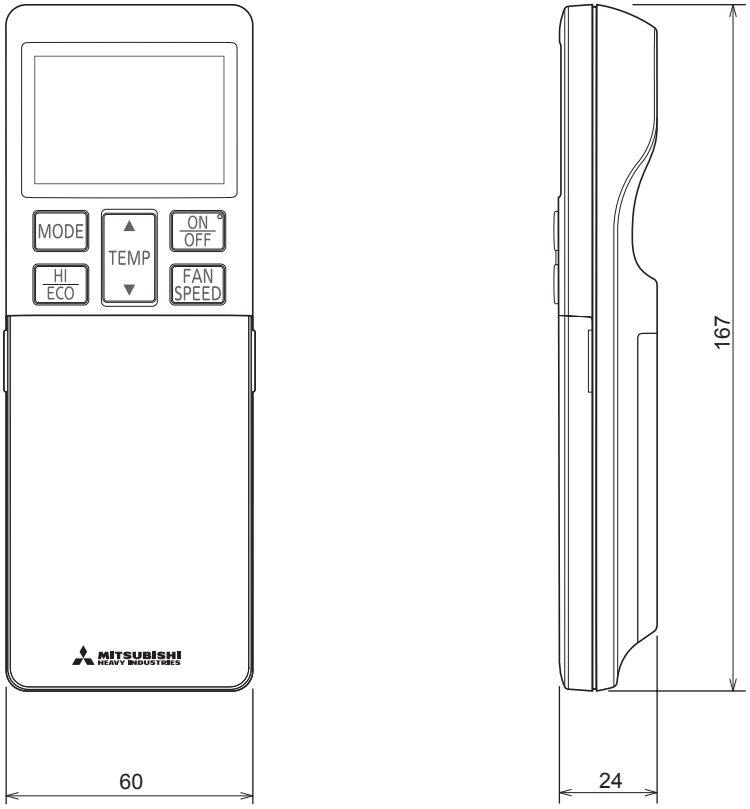


RCR000Z038

(3) Remote control

(a) Wireless remote control

Unit : mm

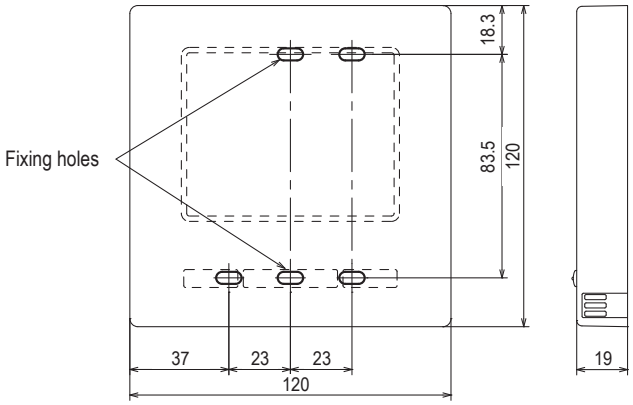


(b) Wired remote control (Option parts)

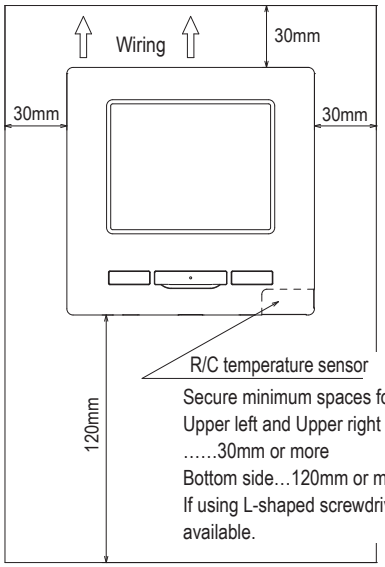
Interface kit (SC-BIKN2-E) is required to use the wired remote control.

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.

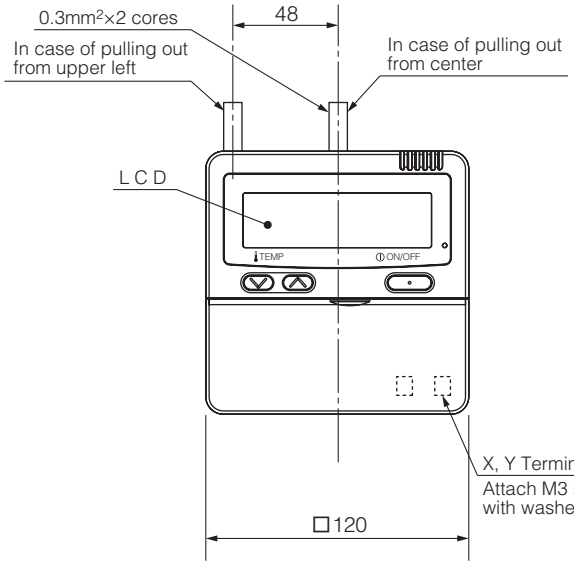
≦ 200 m	0.5 mm^2 x 2 cores
≦ 300m	0.75 mm^2 x 2 cores
≦ 400m	1.25 mm^2 x 2 cores
≦ 600m	2.0 mm^2 x 2 cores

Adapted RoHS directive

PJZ000Z333

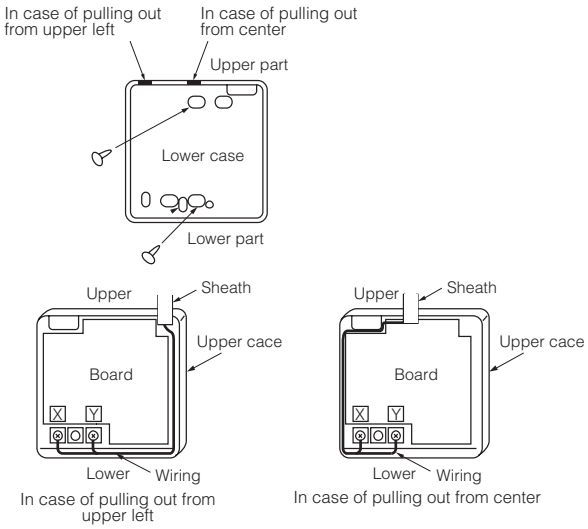
Model RC-E5

Exposed mounting



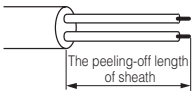
Exterior appearance (Munsell color)	Pearl white (N8.5) near equivalent

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.

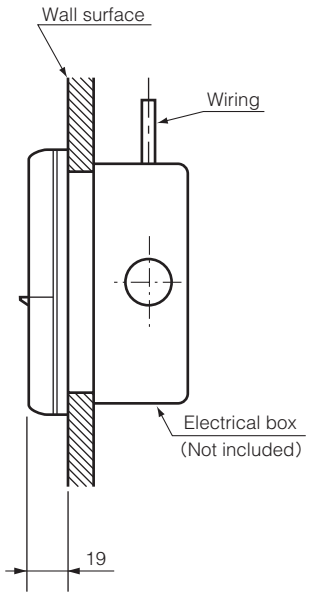


The peeling-off length of sheath

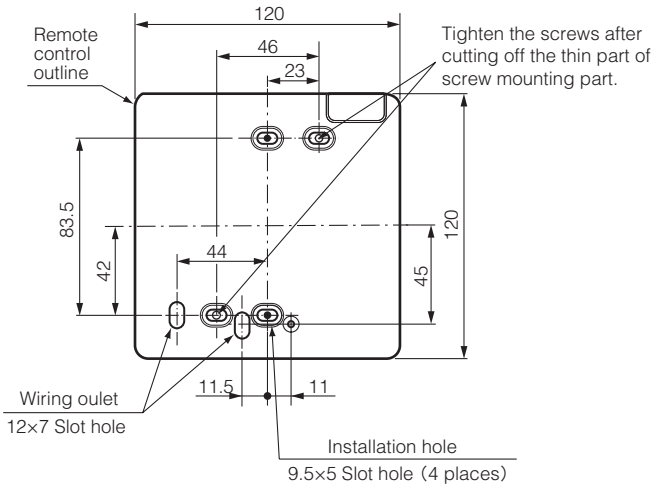
Pulling out from upper left	Pulling out from center
X wiring : 215mm Y wiring : 195mm	X wiring : 170mm Y wiring : 190mm



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

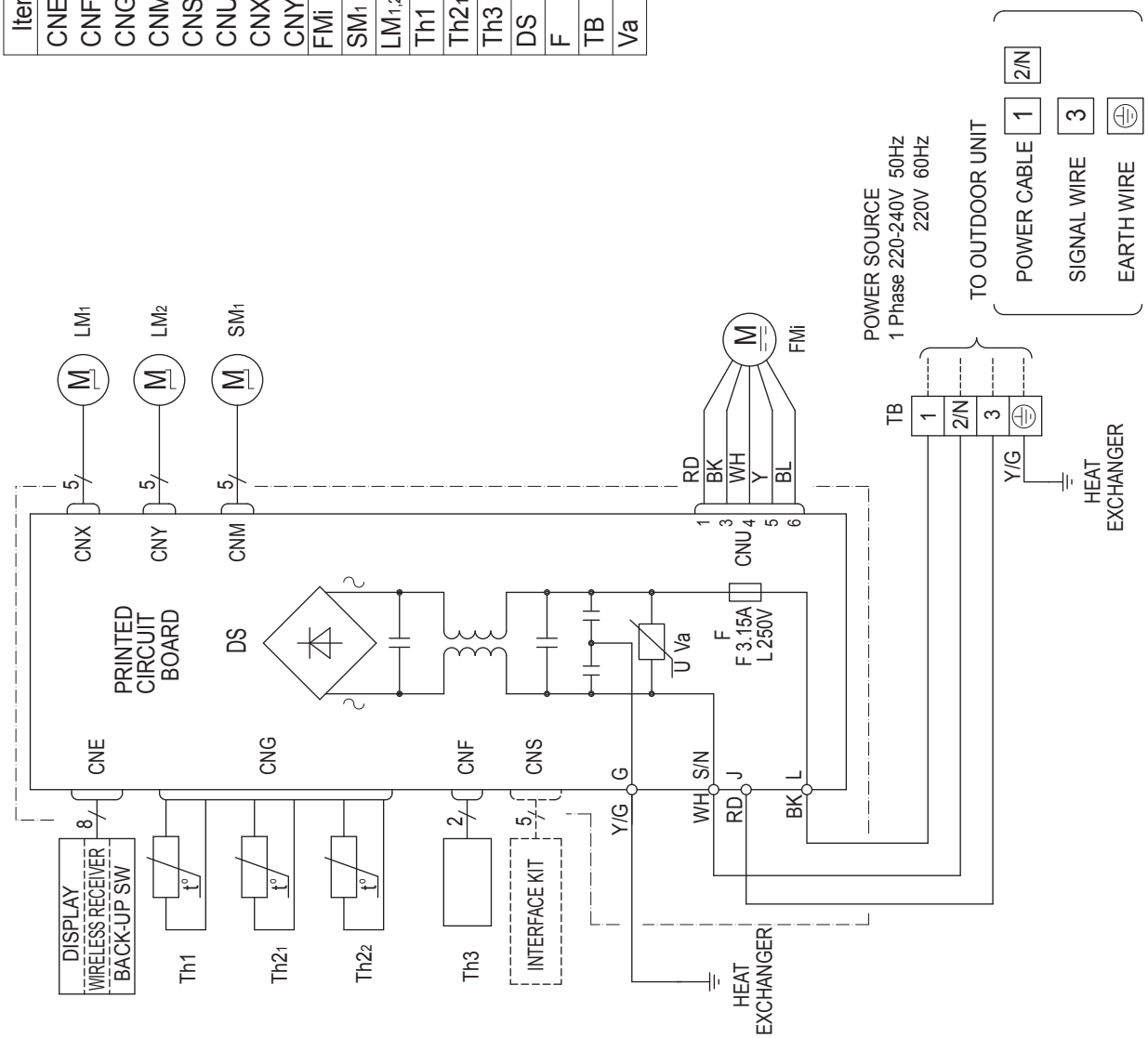
3. ELECTRICAL WIRING

(1) Indoor units

Models SRK63ZR-W, 71ZR-W, 80ZR-W

Item	Description
CNE	Connector
CNF	
CNG	
CNM	
CNS	
CNU	
CNX	
CNY	
FMi	Fan motor
SM_1	Flap motor
$LM_{1,2}$	Louver motor
Th1	Room temp. sensor
$Th2_{1,2}$	Heat exchanger sensor
Th3	Humidity sensor
DS	Diode stack
F	Fuse
TB	Terminal block
Va	Varistor

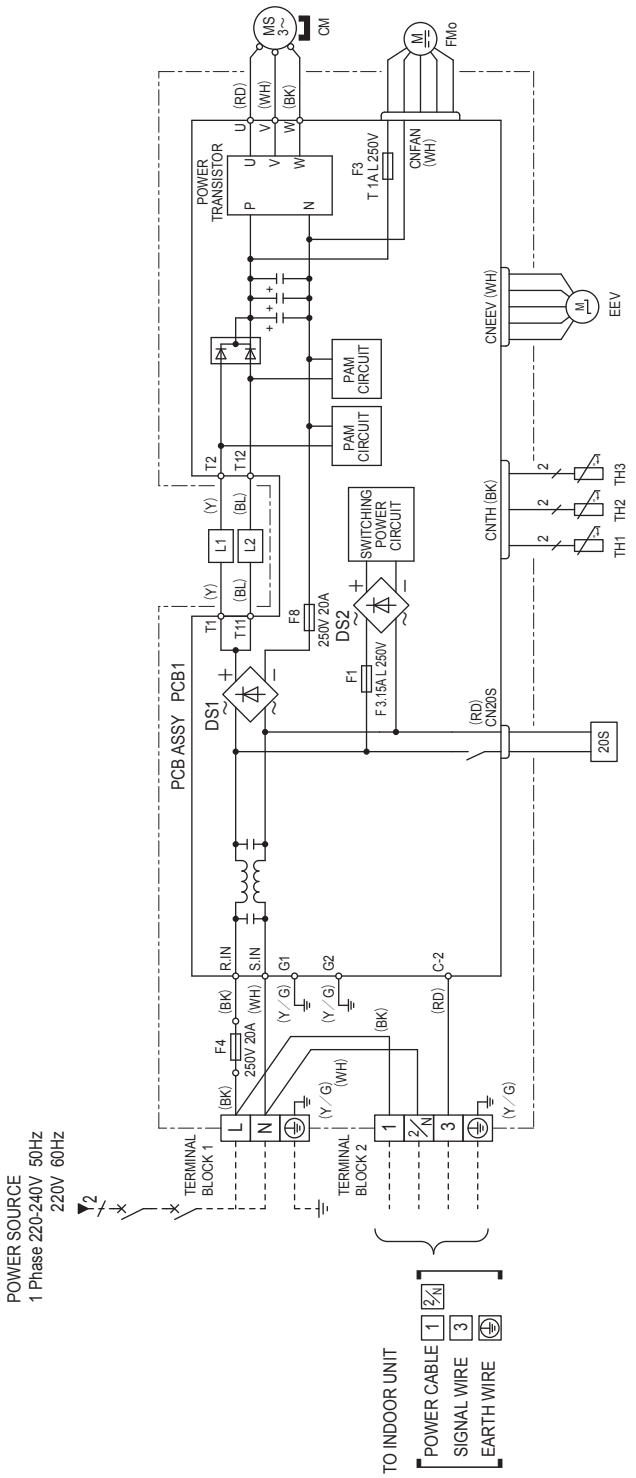
Color Marks	
Mark	Color
BK	Black
BL	Blue
RD	Red
WH	White
Y	Yellow
Y／G	Yellow／Green



RWA000Z417

(2) Outdoor units

Models SRC63ZR-W, 71ZR-W, 80ZR-W



Item	Description
20S	Solenoid coil for 4-way valve
CN20S CNEEV CNFAN CNTH	Connector
CM	Compressor motor
DS1,2	Diode stack
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
Y	Yellow
Y／G	Yellow ／Green

Power cable, indoor-outdoor connecting wires

Model name	MAX running current (A)	Power cable size wire size x number *	Power cable length (m)	Connecting cable wire size x number *
SRC63ZR-W	14.5	2.5mm² x 3	17	1.5mm² x 4
SRC71ZR-W	17.0		15	
SRC80ZR-W	17.0		15	

* The wire numbers include Earth wire (Yellow／Green)
- Switchgear or Circuit breaker capacity should be chosen according to national 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.

RCR000Z039

4. NOISE LEVEL

(1) Sound power level

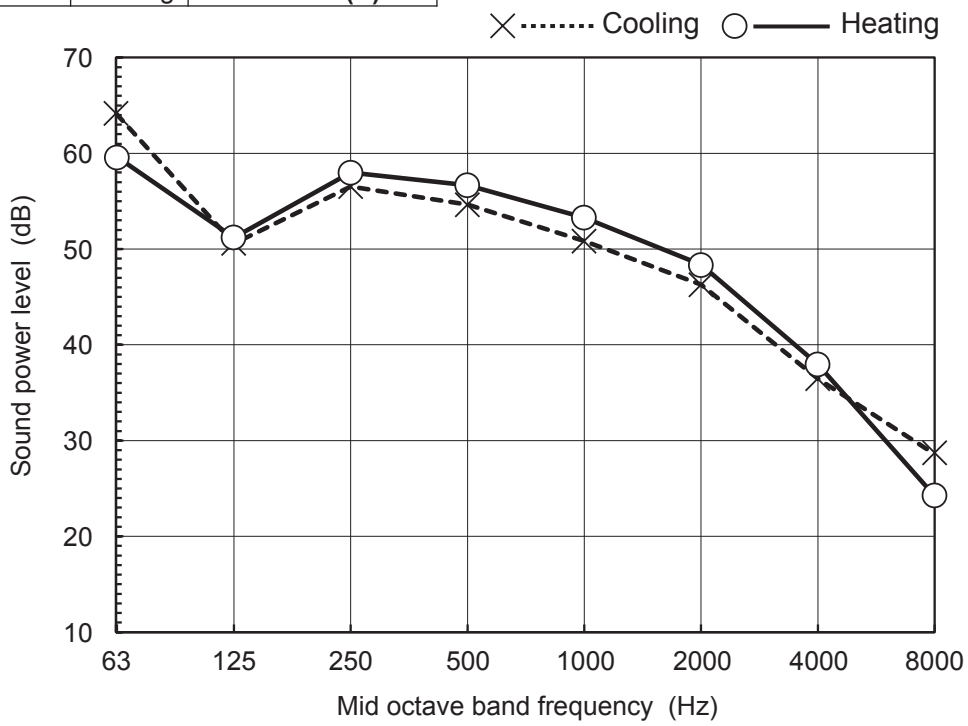
Model SRK63ZR-W

(Indoor unit)

Model	SRK63ZR-W	
Noise level	Cooling	**56 dB(A)**
	Heating	**58 dB(A)**

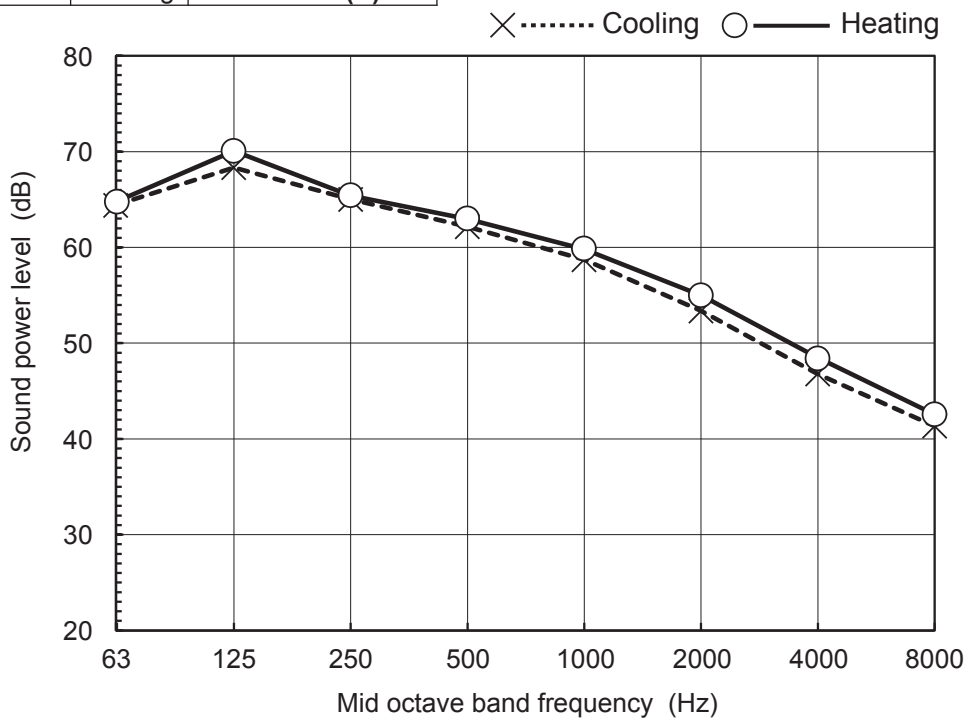
Condition	ISO5151 T1/H1

MODE	Rated capacity value (Hi)



(Outdoor unit)

Model	SRC63ZR-W	
Noise level	Cooling	**64 dB(A)**
	Heating	**65 dB(A)**



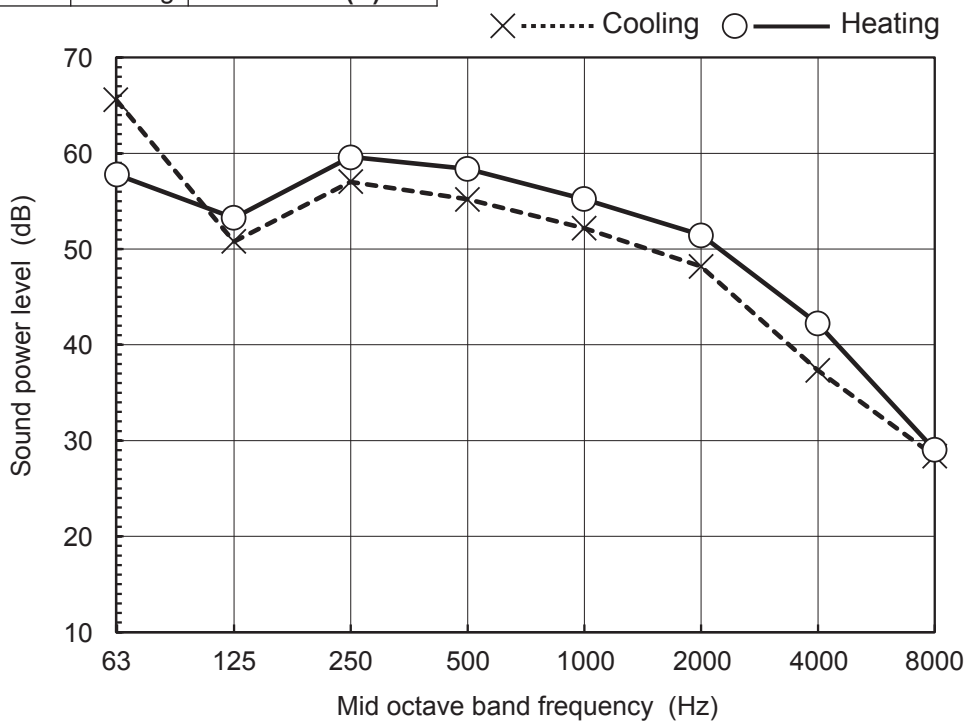
Model SRK71ZR-W

(Indoor unit)

Model	SRK71ZR-W	
Noise level	Cooling	**57 dB(A)**
	Heating	**60 dB(A)**

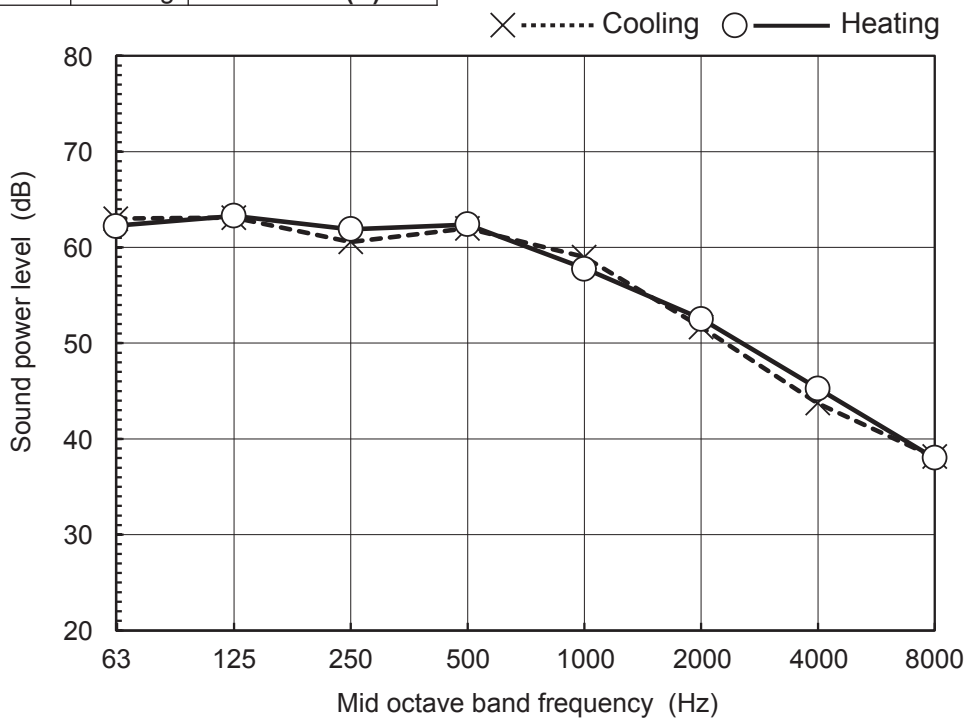
Condition	ISO5151 T1/H1

MODE	Rated capacity value (Hi)



(Outdoor unit)

Model	SRC71ZR-W	
Noise level	Cooling	**63 dB(A)**
	Heating	**63 dB(A)**



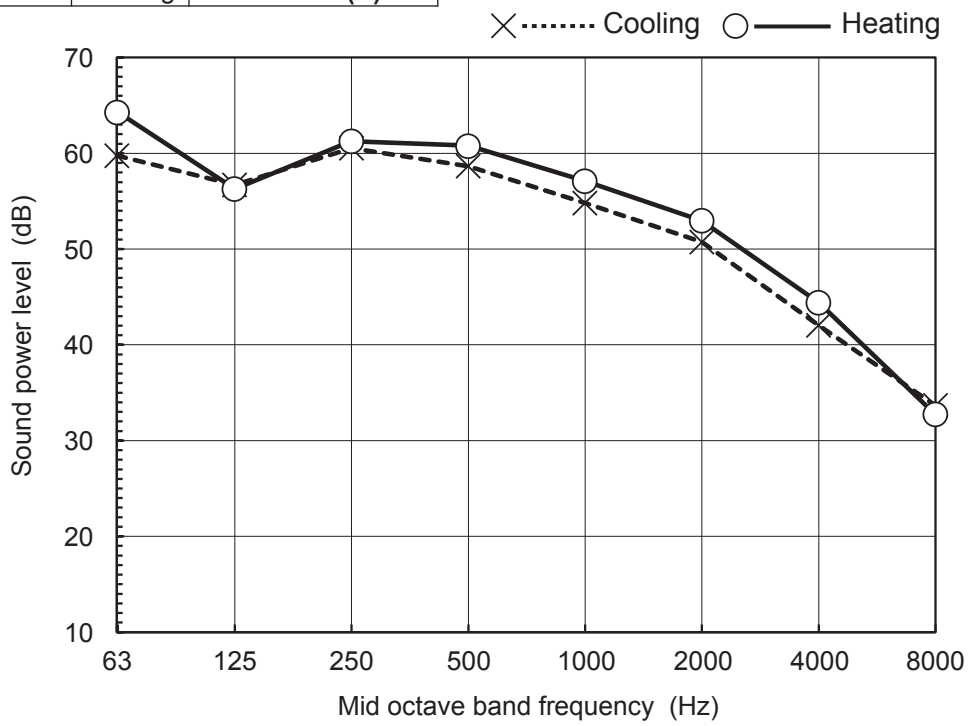
Model SRK80ZR-W

(Indoor unit)

Model	SRK80ZR-W	
Noise level	Cooling	**60 dB(A)**
	Heating	**62 dB(A)**

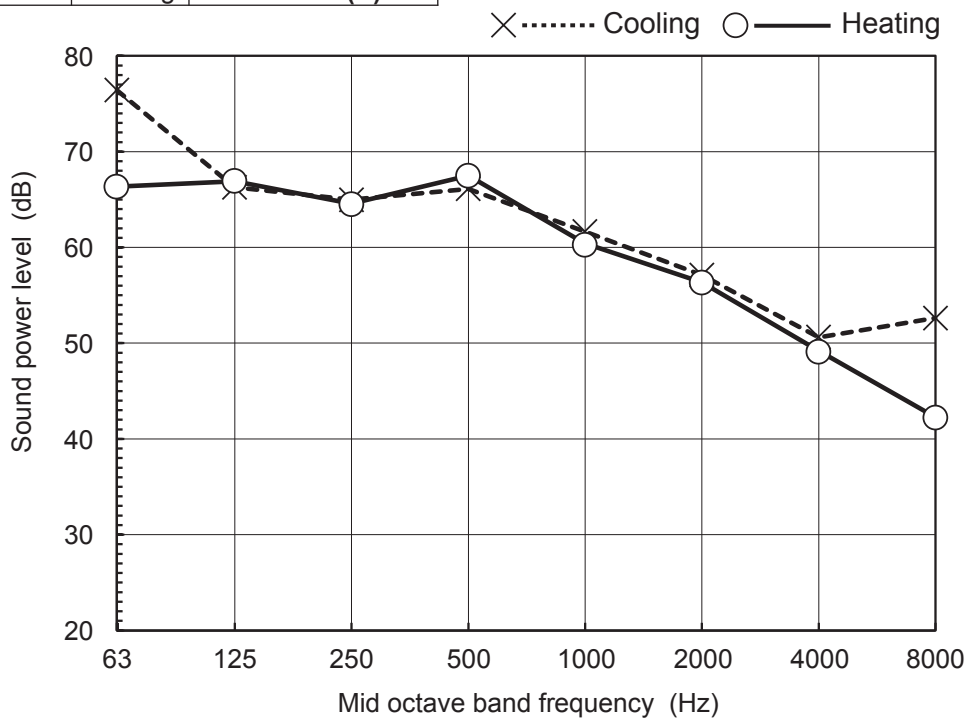
Condition	ISO5151 T1/H1

MODE	Rated capacity value (Hi)



(Outdoor unit)

Model	SRC80ZR-W	
Noise level	Cooling	**67 dB(A)**
	Heating	**67 dB(A)**



Condition	ISO5151 T1/H1

MODE	Rated capacity value

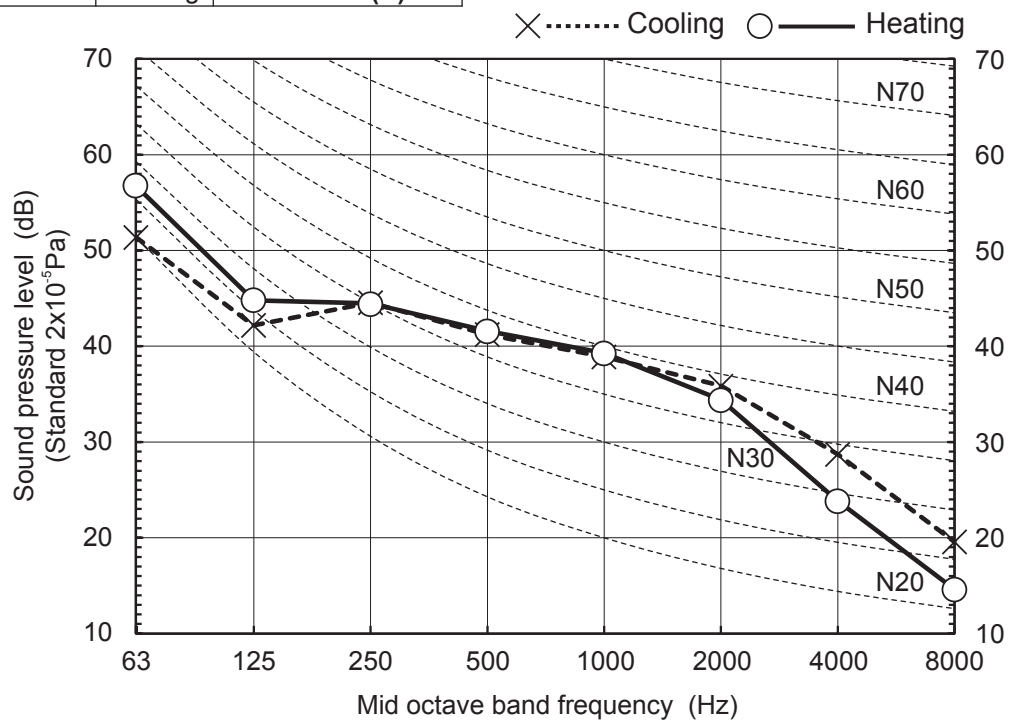
(2) Sound pressure level

Model SRK63ZR-W

●Mike position

(Indoor unit)

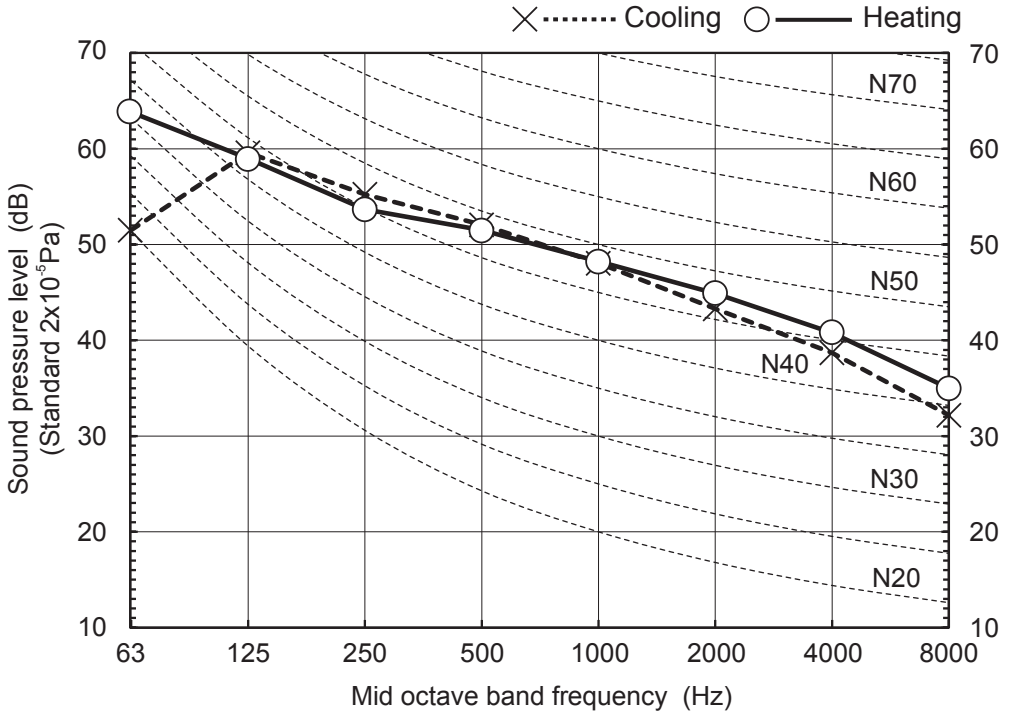
Model	SRK63ZR-W	
Noise level	Cooling	**44 dB(A)**
	Heating	**44 dB(A)**



(Outdoor unit)

Model	SRC63ZR-W	
Noise level	Cooling	**54 dB(A)**
	Heating	**54 dB(A)**

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

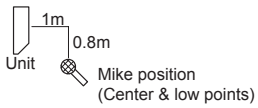


Condition	ISO5151 T1/H1

MODE	Rated capacity value

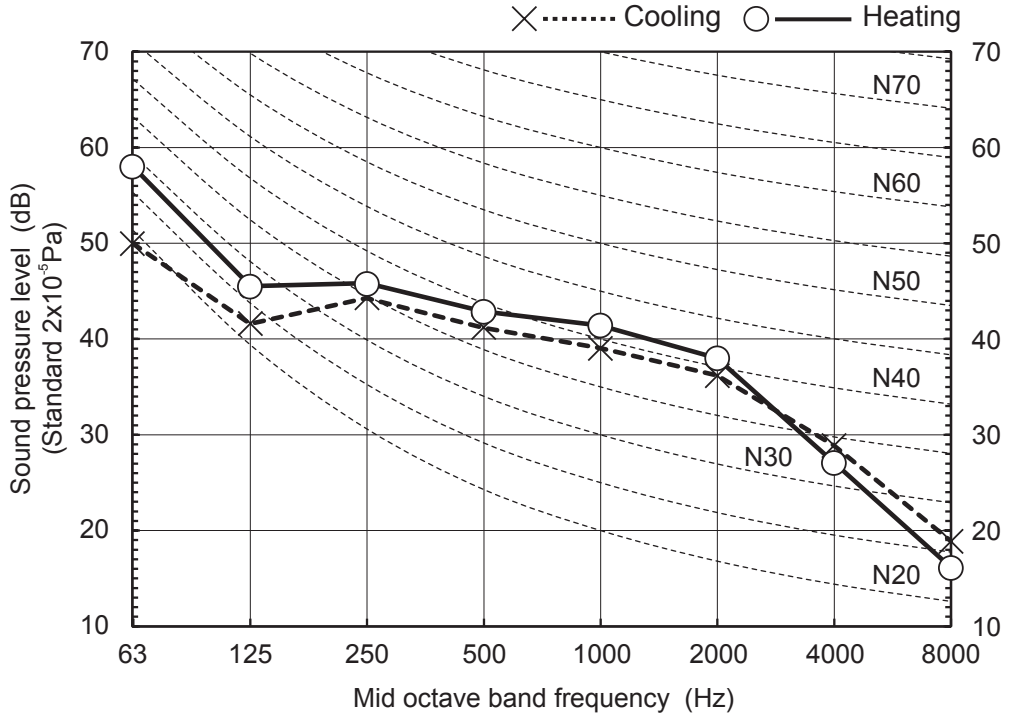
Model SRK71ZR-W

●Mike position



(Indoor unit)

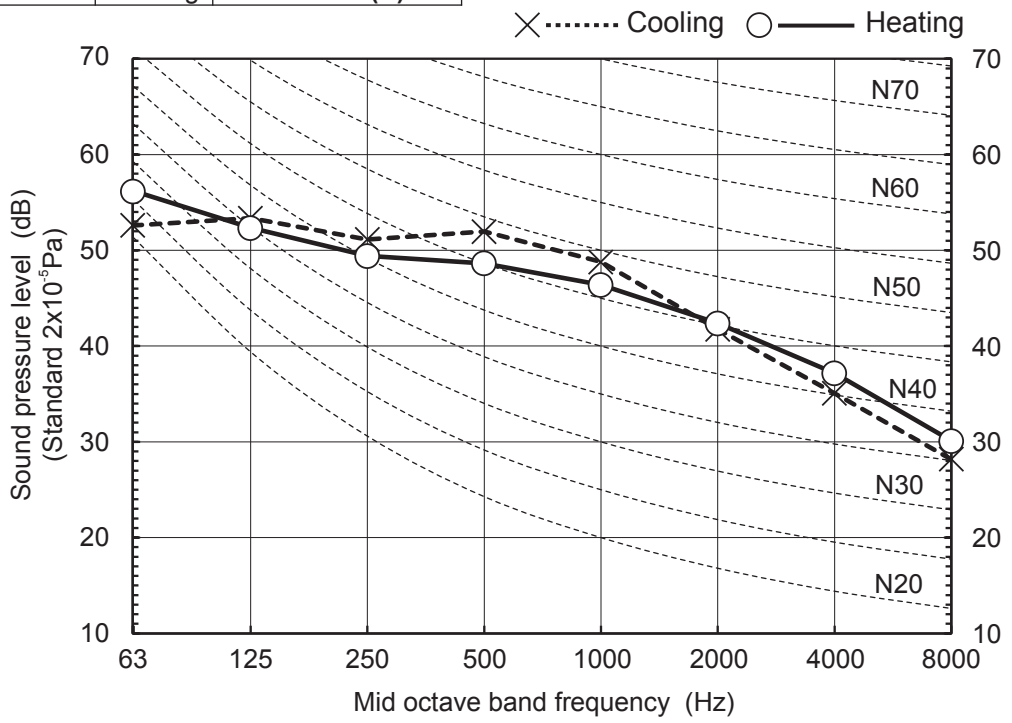
Model	SRK71ZR-W	
Noise level	Cooling	**44 dB(A)**
	Heating	**46 dB(A)**



(Outdoor unit)

Model	SRC71ZR-W	
Noise level	Cooling	**53 dB(A)**
	Heating	**51 dB(A)**

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



Condition	ISO5151 T1/H1

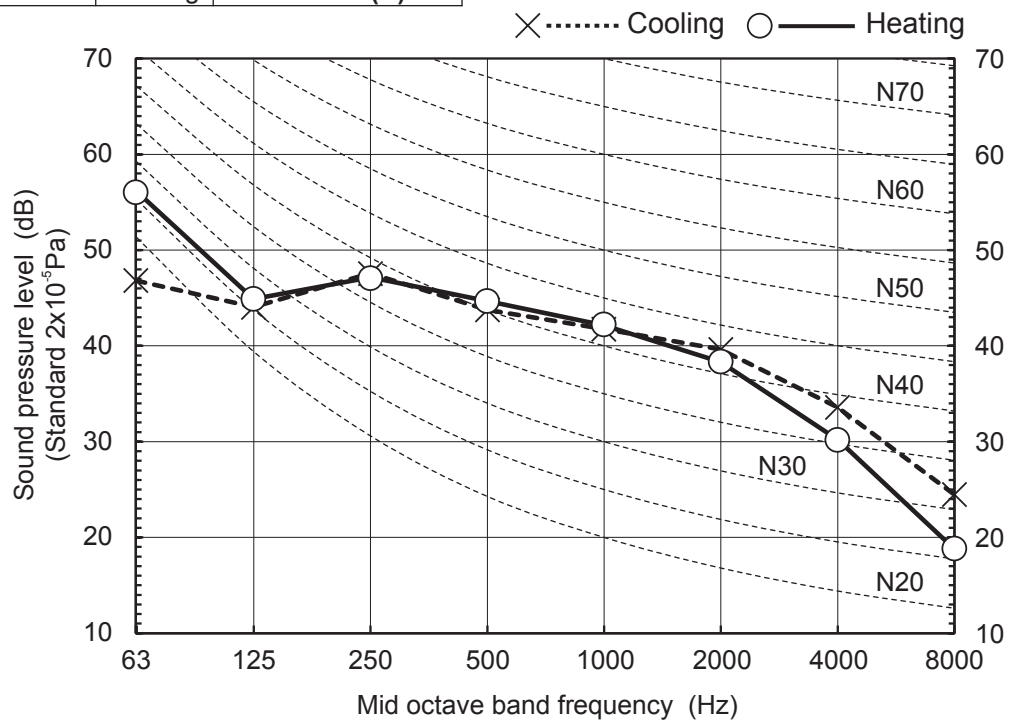
MODE	Rated capacity value

Model SRK80ZR-W

(Indoor unit)

Model	SRK80ZR-W	
Noise level	Cooling	**47 dB(A)**
	Heating	**47 dB(A)**

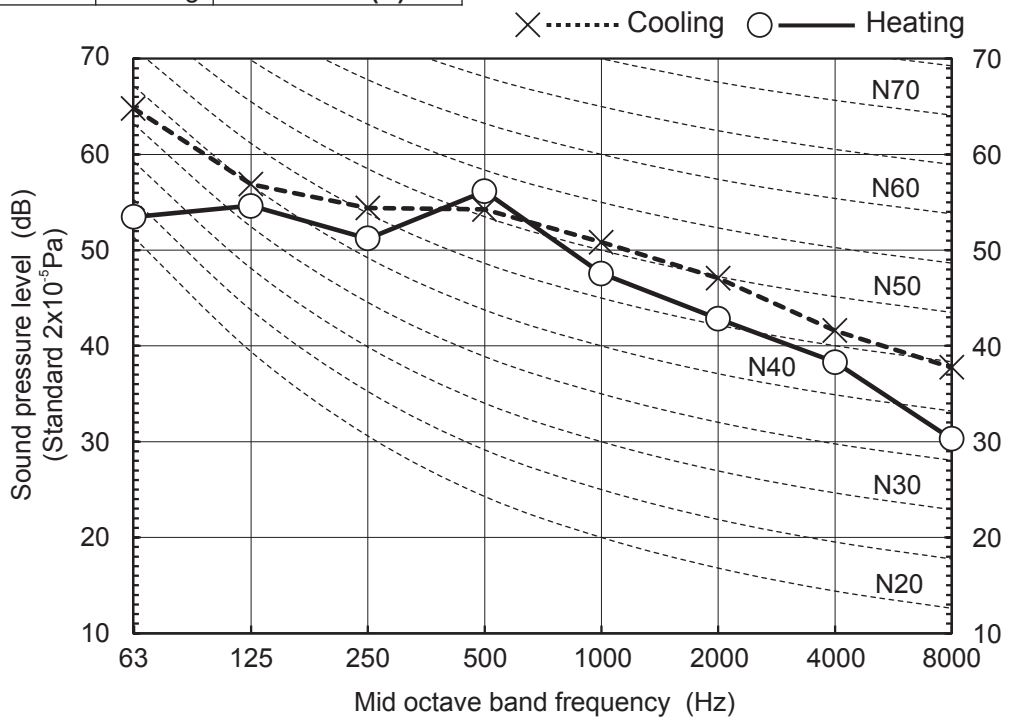
●Mike position



(Outdoor unit)

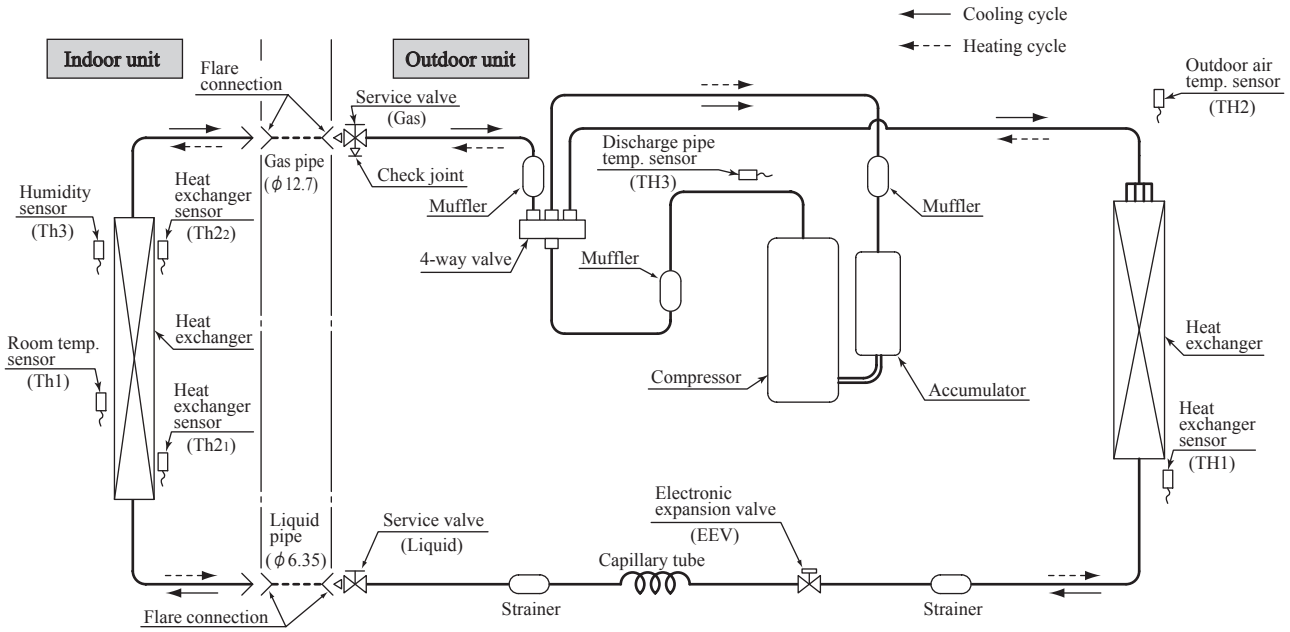
Model	SRC80ZR-W	
Noise level	Cooling	**56 dB(A)**
	Heating	**55 dB(A)**

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

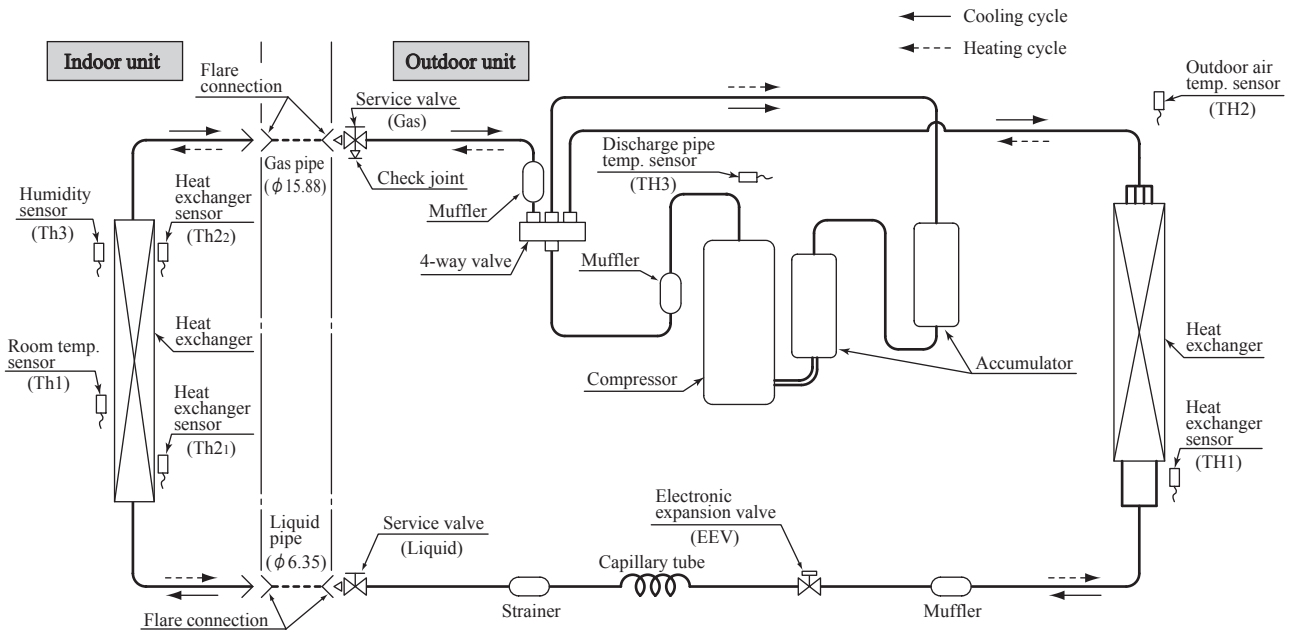


5. PIPING SYSTEM

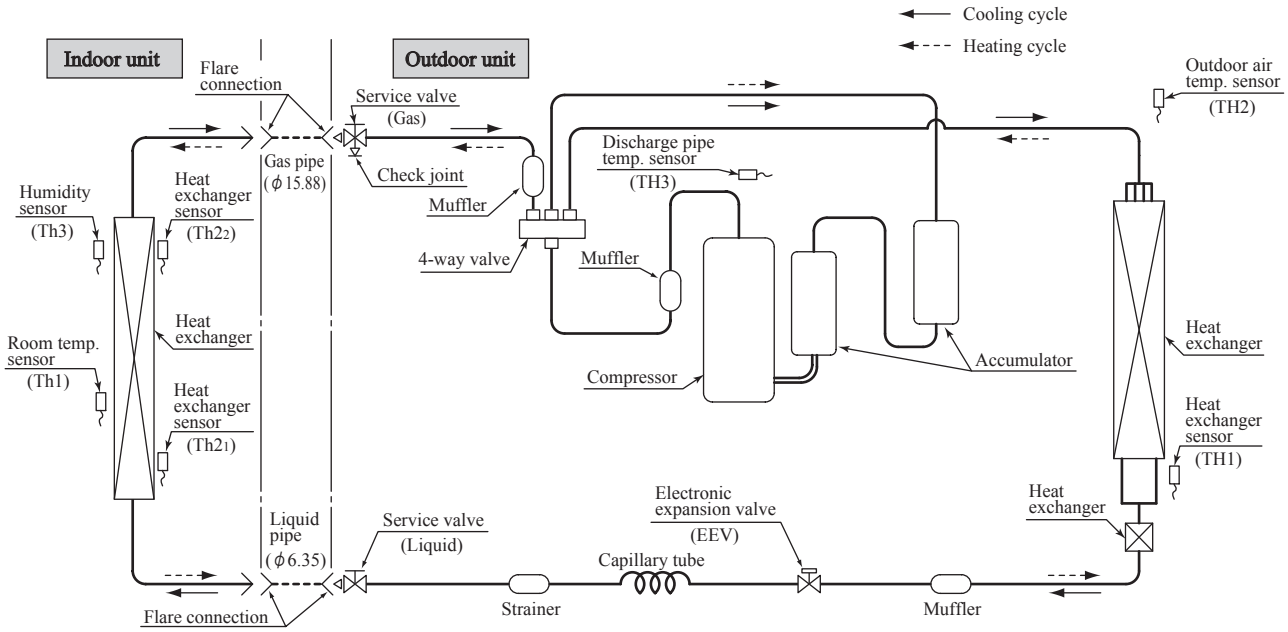
Model SRK63ZR-W



Model SRK71ZR-W



Model SRK80ZR-W



6. RANGE OF USAGE & LIMITATIONS

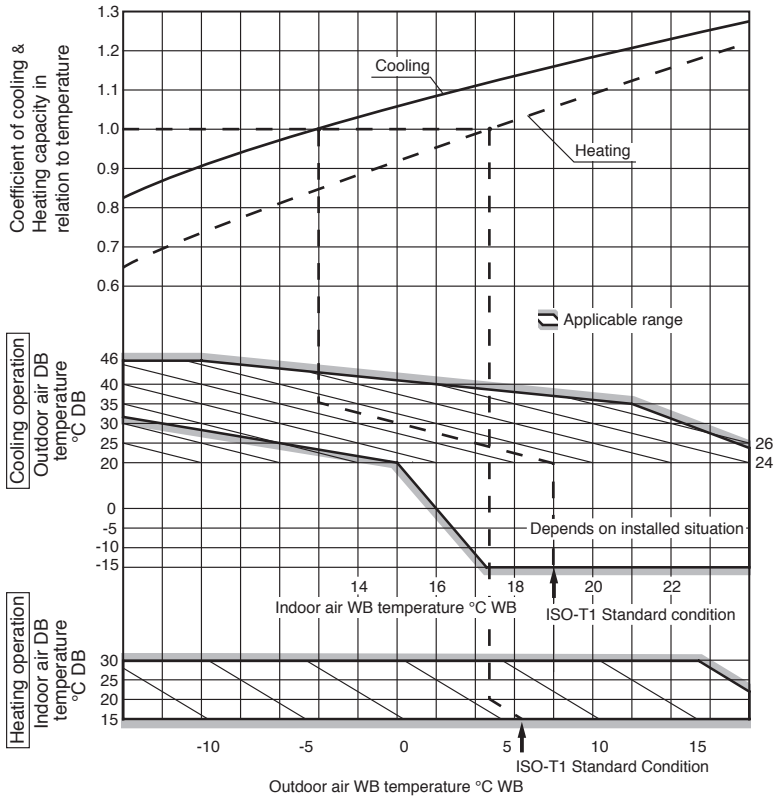
Item \ Model	SRK63ZR-W,71ZR-W,80ZR-W
Indoor return air temperature (Upper, lower limits)	Cooling operation : Approximately 18 to 32℃ DB Heating operation : Approximately 15 to 30℃ DB (Refer to the selection chart)
Outdoor air temperature (Upper, lower limits)	Cooling operation : Approximately -15 to 46℃ DB Heating operation : Approximately -15 to 24℃ DB (Refer to the selection chart)
Refrigerant line (one way) length	Max. 30m
Vertical height difference between outdoor unit and indoor unit	Max. 20m (Outdoor unit is higher) Max. 20m (Outdoor unit is lower)
Power source voltage	Rating ±10%
Voltage at starting	Min. 85% of rating
Frequency of ON-OFF cycle	Max. 7 times/h (Inching prevention 5-9 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	30
Cooling	1.0	0.99	0.975	0.965	0.95	0.935
Heating	1.0	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 SRK63ZR-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 = 6.3 × 0.975 × 1.0 ≒ 6.1kW

- 6.3 → SRK63ZR-W
- 0.975 → Length 15m
- 1.0 → Factor by air temperatures

7. CAPACITY TABLES

Model SRK63ZR-W

Cooling mode (kW)

Air flow	Outdoor air temp. ℃DB	Indoor air temp. 21 ℃DB / 14 ℃WB		23 ℃DB / 16 ℃WB		26 ℃DB / 18 ℃WB		27 ℃DB / 19 ℃WB		28 ℃DB / 20 ℃WB		31 ℃DB / 22 ℃WB		33 ℃DB / 24 ℃WB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
Hi 20.5 (m^3/min)	10	7.10	5.94	7.43	5.84	7.70	6.10	7.83	6.02	7.97	5.95	8.20	6.18	8.42	6.01
	12	6.97	5.88	7.30	5.78	7.59	6.05	7.73	5.98	7.87	5.91	8.11	6.14	8.34	5.98
	14	6.84	5.81	7.18	5.73	7.48	6.01	7.62	5.94	7.77	5.87	8.02	6.11	8.26	5.95
	16	6.70	5.75	7.04	5.67	7.37	5.96	7.52	5.90	7.66	5.83	7.93	6.08	8.17	5.93
	18	6.56	5.68	6.91	5.61	7.25	5.91	7.40	5.85	7.55	5.79	7.83	6.04	8.08	5.90
	20	6.42	5.61	6.77	5.54	7.12	5.86	7.29	5.81	7.43	5.75	7.73	6.01	7.98	5.86
	22	6.28	5.54	6.62	5.48	6.99	5.81	7.17	5.76	7.31	5.70	7.62	5.97	7.88	5.83
	24	6.12	5.47	6.47	5.41	6.86	5.75	7.04	5.71	7.19	5.66	7.51	5.93	7.77	5.80
	26	5.97	5.40	6.32	5.34	6.73	5.70	6.92	5.66	7.06	5.61	7.40	5.89	7.67	5.77
	28	5.81	5.32	6.16	5.27	6.59	5.64	6.79	5.61	6.93	5.56	7.28	5.85	7.55	5.73
	30	5.65	5.25	6.00	5.20	6.44	5.59	6.65	5.56	6.80	5.51	7.16	5.81	7.44	5.69
	32	5.49	5.17	5.83	5.13	6.30	5.53	6.51	5.51	6.66	5.46	7.03	5.77	7.32	5.66
	34	5.32	5.05	5.66	5.06	6.15	5.47	6.37	5.45	6.52	5.41	6.90	5.73	7.19	5.62
	35	5.23	4.97	5.57	5.02	6.07	5.44	6.30	5.43	6.45	5.38	6.84	5.70	7.13	5.60
	36	5.14	4.89	5.49	4.98	5.99	5.41	6.23	5.40	6.38	5.36	6.77	5.68	7.06	5.58
	38	4.97	4.72	5.31	4.91	5.83	5.33	6.08	5.34	6.23	5.30	6.64	5.64	6.93	5.54
	39	4.88	4.63	5.22	4.87	5.75	5.30	6.00	5.31	6.15	5.27	6.57	5.61	6.87	5.52
	40	4.79	4.55	5.12	4.83	5.67	5.27	5.93	5.28	6.07	5.25	6.50	5.59	6.80	5.50
	41	4.70	4.46	5.03	4.78	5.59	5.24	5.85	5.25	6.00	5.22	6.43	5.57	6.73	5.48
	42	4.60	4.37	4.94	4.69	5.51	5.21	5.77	5.22	5.92	5.18	6.35	5.54	6.66	5.45
	43	4.51	4.29	4.84	4.60	5.42	5.15	5.69	5.19	5.84	5.15	6.28	5.52	6.59	5.43
	44	4.42	4.20	4.75	4.51	5.34	5.07	5.61	5.16	5.76	5.12	6.21	5.49	6.51	5.41
	45	4.32	4.11	4.65	4.42	5.25	4.99	5.53	5.13	5.67	5.09	6.13	5.47	6.44	5.39
	46	4.12	3.91	4.43	4.21	5.03	4.78	5.31	5.04	5.45	5.01	5.90	5.40	6.20	5.32

Heating mode (kW)

Air flow	Outdoor air temp. ℃WB	Indoor air temp. 16℃ DB	18℃ DB	20℃ DB	22℃ DB	24℃ DB
Hi 22.5 (m^3/min)	-15	4.37	4.27	4.17	4.09	4.00
	-10	4.94	4.86	4.79	4.67	4.57
	-5	5.35	5.28	5.17	5.11	5.03
	0	5.61	5.53	5.43	5.37	5.29
	5	7.15	7.07	7.03	6.89	6.79
	6	7.27	7.18	7.10	7.01	6.93
	10	7.72	7.65	7.60	7.50	7.42
	15	8.40	8.33	8.27	8.18	8.10
	20	9.03	8.96	8.92	8.81	8.74

Model SRK71ZR-W

Cooling mode (kW)

Air flow	Outdoor air temp. ℃DB	Indoor air temp. 21 ℃DB / 14 ℃WB		23 ℃DB / 16 ℃WB		26 ℃DB / 18 ℃WB		27 ℃DB / 19 ℃WB		28 ℃DB / 20 ℃WB		31 ℃DB / 22 ℃WB		33 ℃DB / 24 ℃WB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
Hi 20.5 (m^3/min)	10	8.00	6.27	8.37	6.16	8.68	6.39	8.83	6.31	8.98	6.23	9.24	6.40	9.49	6.21
	12	7.86	6.20	8.23	6.10	8.56	6.34	8.71	6.26	8.87	6.19	9.15	6.37	9.40	6.18
	14	7.71	6.13	8.09	6.03	8.43	6.28	8.59	6.21	8.75	6.13	9.04	6.33	9.31	6.15
	16	7.55	6.05	7.94	5.96	8.30	6.22	8.47	6.16	8.63	6.08	8.93	6.29	9.21	6.12
	18	7.40	5.97	7.78	5.89	8.17	6.17	8.34	6.11	8.51	6.04	8.82	6.25	9.10	6.09
	20	7.24	5.89	7.62	5.82	8.03	6.10	8.21	6.04	8.38	5.98	8.71	6.21	8.99	6.04
	22	7.07	5.81	7.46	5.74	7.88	6.04	8.08	5.99	8.24	5.93	8.59	6.17	8.88	6.01
	24	6.90	5.73	7.29	5.66	7.73	5.98	7.94	5.94	8.10	5.87	8.46	6.12	8.76	5.97
	26	6.73	5.63	7.12	5.57	7.58	5.92	7.79	5.88	7.96	5.82	8.33	6.07	8.64	5.93
	28	6.55	5.55	6.94	5.49	7.42	5.85	7.65	5.81	7.81	5.76	8.20	6.03	8.51	5.89
	30	6.37	5.46	6.76	5.41	7.26	5.78	7.50	5.75	7.66	5.70	8.07	5.98	8.38	5.84
	32	6.18	5.37	6.57	5.33	7.10	5.71	7.34	5.69	7.51	5.64	7.92	5.92	8.25	5.80
	34	5.99	5.29	6.38	5.25	6.93	5.64	7.18	5.63	7.35	5.58	7.78	5.87	8.11	5.75
	35	5.90	5.24	6.28	5.21	6.84	5.60	7.10	5.59	7.27	5.54	7.71	5.85	8.03	5.73
	36	5.80	5.20	6.18	5.16	6.75	5.57	7.02	5.56	7.19	5.51	7.63	5.82	7.96	5.71
	38	5.60	5.10	5.98	5.08	6.58	5.50	6.85	5.50	7.02	5.45	7.48	5.77	7.81	5.66
	39	5.50	5.05	5.88	5.03	6.48	5.46	6.76	5.47	6.93	5.42	7.40	5.75	7.74	5.63
	40	5.40	5.01	5.78	4.98	6.39	5.42	6.68	5.43	6.84	5.39	7.32	5.71	7.66	5.61
	41	5.29	4.96	5.67	4.94	6.30	5.38	6.59	5.40	6.76	5.36	7.24	5.68	7.58	5.58
	42	5.19	4.91	5.56	4.89	6.21	5.34	6.50	5.36	6.67	5.31	7.16	5.65	7.50	5.56
	43	5.08	4.83	5.46	4.85	6.11	5.31	6.41	5.32	6.58	5.28	7.08	5.63	7.42	5.53
	44	4.83	4.59	5.19	4.73	5.84	5.20	6.13	5.22	6.29	5.18	6.78	5.53	7.12	5.44
	45	4.70	4.46	5.05	4.67	5.71	5.14	6.01	5.17	6.17	5.13	6.66	5.49	7.00	5.40
	46	4.33	4.12	4.67	4.43	5.30	4.96	5.59	4.98	5.73	4.95	6.21	5.33	6.53	5.25

Heating mode (kW)

Air flow	Outdoor air temp. ℃WB	Indoor air temp. 16℃ DB	18℃ DB	20℃ DB	22℃ DB	24℃ DB
Hi 25.0 (m^3/min)	-15	4.92	4.82	4.70	4.61	4.50
	-10	5.57	5.47	5.40	5.26	5.15
	-5	6.03	5.94	5.82	5.76	5.67
	0	6.32	6.23	6.12	6.05	5.96
	5	8.06	7.96	7.92	7.76	7.65
	6	8.19	8.09	8.00	7.90	7.80
	10	8.70	8.62	8.56	8.45	8.36
	15	9.47	9.38	9.32	9.21	9.13
	20	10.17	10.09	10.05	9.93	9.85

Model SRK80ZR-W

Cooling mode (kW)

Air flow	Outdoor air temp. ℃DB	Indoor air temp. 21 ℃DB / 14 ℃WB		23 ℃DB / 16 ℃WB		26 ℃DB / 18 ℃WB		27 ℃DB / 19 ℃WB		28 ℃DB / 20 ℃WB		31 ℃DB / 22 ℃WB		33 ℃DB / 24 ℃WB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
Hi 23.5 (m^3/min)	10	9.01	7.02	9.43	6.90	9.78	7.15	9.95	7.05	10.12	6.96	10.42	7.16	10.70	6.94
	12	8.85	6.94	9.28	6.83	9.64	7.09	9.82	6.99	9.99	6.91	10.30	7.12	10.59	6.91
	14	8.68	6.86	9.11	6.75	9.50	7.02	9.68	6.94	9.86	6.86	10.19	7.07	10.49	6.87
	16	8.51	6.77	8.94	6.66	9.35	6.96	9.54	6.89	9.72	6.79	10.07	7.03	10.37	6.80
	18	8.34	6.68	8.77	6.59	9.20	6.89	9.40	6.82	9.58	6.74	9.94	6.98	10.25	6.76
	20	8.15	6.59	8.59	6.50	9.04	6.82	9.25	6.76	9.44	6.69	9.81	6.90	10.13	6.72
	22	7.97	6.48	8.41	6.40	8.88	6.75	9.10	6.69	9.29	6.59	9.68	6.86	10.00	6.68
	24	7.78	6.39	8.22	6.31	8.71	6.66	8.94	6.61	9.13	6.54	9.54	6.81	9.87	6.64
	26	7.58	6.30	8.02	6.23	8.54	6.59	8.78	6.55	8.97	6.48	9.39	6.76	9.73	6.60
	28	7.38	6.21	7.82	6.14	8.36	6.52	8.62	6.48	8.81	6.42	9.24	6.71	9.59	6.56
	30	7.18	6.10	7.62	6.06	8.18	6.45	8.45	6.42	8.64	6.36	9.09	6.66	9.44	6.51
	32	6.97	6.01	7.40	5.96	8.00	6.37	8.27	6.35	8.46	6.29	8.93	6.61	9.29	6.47
	34	6.75	5.90	7.19	5.87	7.81	6.29	8.09	6.28	8.28	6.23	8.77	6.55	9.13	6.42
	35	6.64	5.85	7.08	5.81	7.71	6.25	8.00	6.24	8.19	6.18	8.68	6.53	9.05	6.38
	36	6.53	5.80	6.97	5.76	7.61	6.21	7.91	6.20	8.10	6.15	8.60	6.48	8.97	6.36
	38	6.31	5.69	6.74	5.66	7.41	6.12	7.72	6.13	7.91	6.08	8.43	6.43	8.80	6.31
	39	6.20	5.64	6.62	5.61	7.31	6.08	7.62	6.09	7.81	6.05	8.34	6.40	8.72	6.28
	40	6.08	5.59	6.51	5.56	7.20	6.04	7.53	6.05	7.71	6.00	8.25	6.37	8.63	6.24
	41	5.96	5.53	6.39	5.51	7.10	6.00	7.43	6.01	7.61	5.97	8.16	6.33	8.54	6.22
	42	5.85	5.47	6.27	5.46	6.99	5.95	7.33	5.98	7.51	5.93	8.07	6.30	8.45	6.19
	43	5.70	5.41	6.12	5.39	6.85	5.90	7.19	5.93	7.37	5.88	7.93	6.25	8.32	6.15
	44	5.30	5.03	5.69	5.21	6.40	5.72	6.73	5.75	6.90	5.71	7.45	6.08	7.81	5.99
	45	4.91	4.66	5.28	5.02	5.97	5.55	6.28	5.57	6.45	5.53	6.97	5.92	7.32	5.83
	46	4.53	4.31	4.88	4.64	5.54	5.26	5.85	5.41	6.00	5.37	6.50	5.77	6.83	5.69

Heating mode (kW)

Air flow	Outdoor air temp. ℃WB	Indoor air temp. 16℃ DB	18℃ DB	20℃ DB	22℃ DB	24℃ DB
Hi 26.5 (m^3/min)	-15	5.54	5.42	5.29	5.18	5.06
	-10	6.27	6.15	6.07	5.92	5.79
	-5	6.79	6.69	6.55	6.48	6.37
	0	7.12	7.01	6.89	6.81	6.71
	5	9.06	8.96	8.91	8.73	8.61
	6	9.21	9.10	9.00	8.89	8.78
	10	9.79	9.69	9.63	9.50	9.41
	15	10.65	10.56	10.48	10.37	10.27
	20	11.45	11.35	11.30	11.17	11.08

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 :7m
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

RLD012A018

Model SRK63,71,80,100ZR
R32/R410A REFRIGERANT USED

- This installation manual deals with an indoor unit installation only. For an outdoor unit installation, refer to page 29.
- 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 operation valves before completing piping work, and evacuation.
  If the compressor is operated when connecting pipes are not connected 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.
- **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 operation 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)	10pcs	(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 (14.0-82.0N·m (1.4-8.2kgf·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

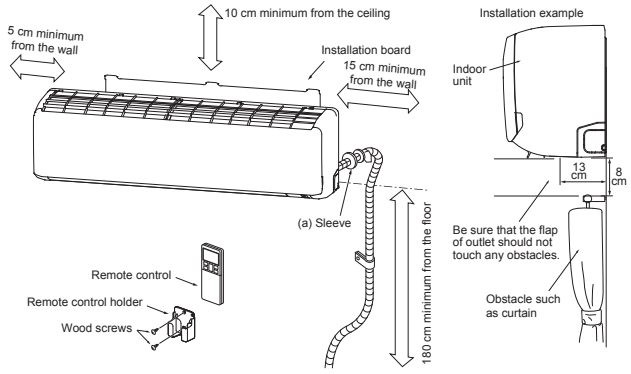
After getting customer's approval, select installation location according to following guidelines.

1. Indoor unit

- Where there is no obstruction to the airflow 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.

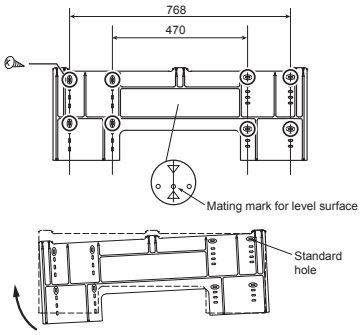
2. Remote control

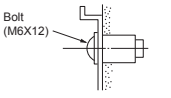
- A place where the air-conditioner can receive the signal surely during operating the remote control.
- A place where it is not affected by the TV, radio etc.
- Do not place where it is exposed to direct sunlight or near heat devices such as a stove.



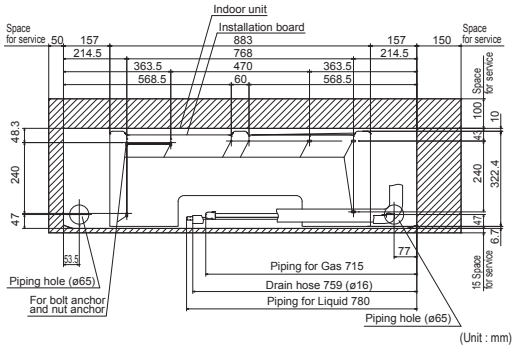
3. INSTALLING INSTALLATION BOARD

- 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 8 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.

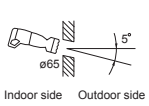


⚠ CAUTION

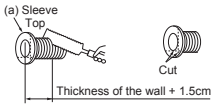
Improper adjustment of the installation board can cause water leakage.

4. DRILLING HOLE AND FIXTURE OF SLEEVE

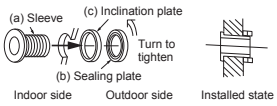
When drilling the wall that contains a metal lath, wire lath or metal plate, be sure to use sealing plate, sleeve and inclination plate (Locally procured parts).



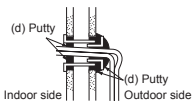
(1) Drill a hole with hole core drill.



(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

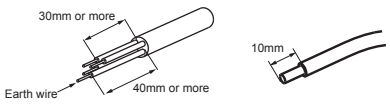
- Before installation, make sure that the power source complies with the air-conditioner's power specification.
- Carry out electrical wiring work according to following guidelines.

1. Preparing cable

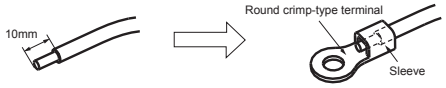
(1) Selecting cable
Select the connecting cable in accordance with the specifications mentioned below.
4-core* 1.5mm² conformed with 60245 IEC57
* 1 Earth wire is included (Yellow/Green).

(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.

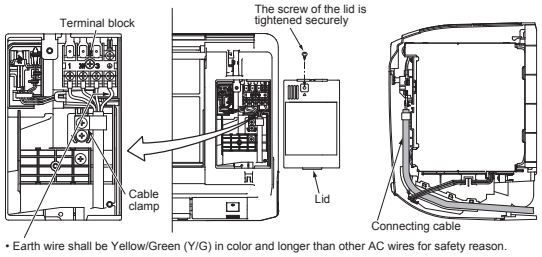


2. Connecting cable

(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.



• Earth wire shall be Yellow/Green (Y/G) in color and longer than other AC wires for safety reason.

⚠ WARNING

Incorrect wiring connection can cause malfunction or fire.

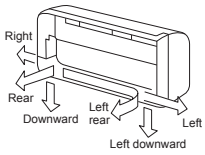
6. FORMING PIPING AND DRAIN HOSE

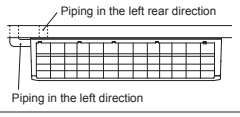
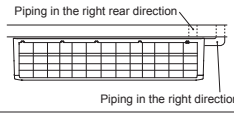
1. Forming piping

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

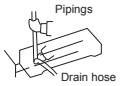
NOTE

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



Left hand side piping	Right hand side piping
	

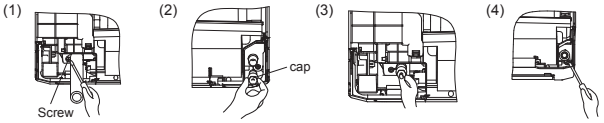
Forming of pipings.
- Hold the bottom of the piping and fix direction before stretching it and shaping it.



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

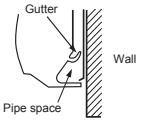
- Arrange the drain hose in a downward angle.
- Avoid the following drain piping.

- 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.

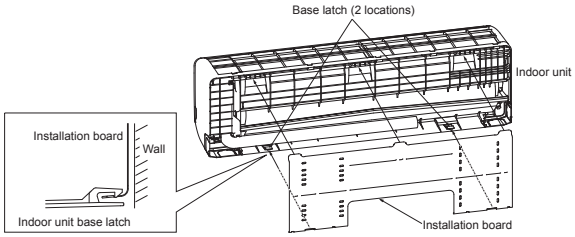
⚠ CAUTION

Incorrect drainage work can cause water leakage.



8. INSTALLING INDOOR UNIT

Installing the indoor unit to installation board

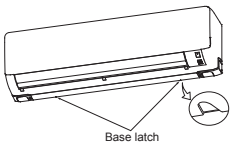


(1) Pass the pipe through the hole in the wall, and hook the upper part of the indoor unit to the installation board.

(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 SRK63	Model SRK71/80	Model SRK100
Gas pipe	ø12.7	ø15.88	ø15.88
Liquid pipe	ø6.35	ø6.35	ø9.52

- Pipe wall thickness must be greater than or equal to 0.8 mm (ø15.88:1.0mm).
- Pipe material must be O-type (Phosphorus deoxidized seamless copper pipe ICS 23.040.15, ICS 77.150.30).

1.2. Cutting connecting pipe

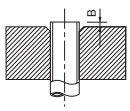
(1) Cut the connecting pipe to the required length with pipe cutter.
(2) Hold the pipe downward and remove the burrs. Make sure that no foreign material enters the pipe.
(3) Cover the connecting pipe ends with the tape.

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
ø15.88	19.7

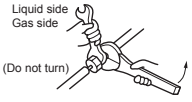


Copper pipe outer diameter	B [Rigid (clutch) type]	
	R32 or R410A	Conventional
ø6.35	0-0.5	1.0-1.5
ø9.52		
ø12.7		
ø15.88		

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
ø15.88 (5/8")	68-82

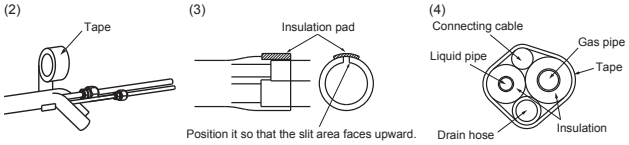


⚠ CAUTION

- 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

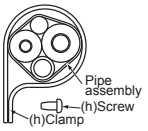
Locations where relative humidity exceeds 70%, both liquid and gas pipes need to be dressed with 20mm or thicker heat insulation materials.

⚠ 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.

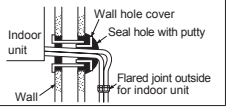
4. Finishing work

(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.

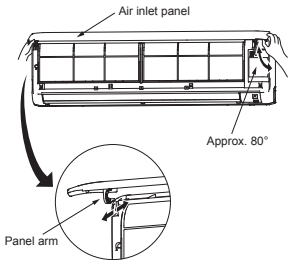
10. HOW TO OPEN, CLOSE, REMOVE AND INSTALL THE AIR INLET PANEL

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. 60° 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 80° (as shown in the right illustration) and then pull it forward.

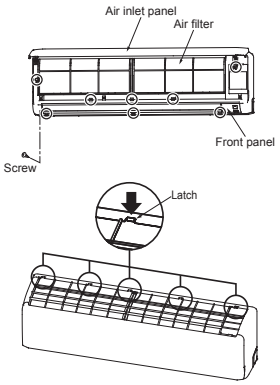
4. Installing
Insert the panel arm into the slot on the front panel from the position shown in right illustration, hold the panel at both ends of lower part, lower it downward slowly, then push it slightly until the latch works.



11. HOW TO REMOVE AND INSTALL FRONT PANEL

1. Removing
(1) Remove the air inlet panel and the air filters.
(2) Remove the 8 screws.
(3) Remove the 5 upper latches and then front panel can be removed.

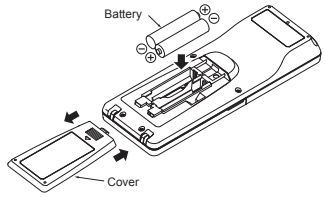
2. Installing
(1) Cover the unit with the front panel and fix 5 upper latches.
(2) Secure the front panel with the 8 screws.
(3) Install the air inlet panel and the air filters.



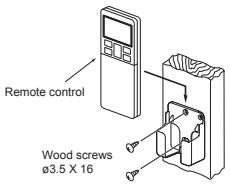
12. INSTALLING REMOTE CONTROL

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



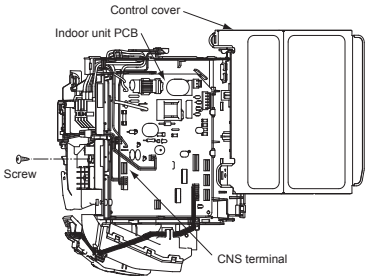
Installing remote control holder
(1) Select the place where the unit can receive signals.
(2) Fix the holder to pillar or wall with wood screws.



13. TERMINAL CONNECTION FOR AN INTERFACE

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

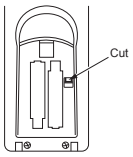
(1) Remove the air inlet panel and front panel.
(2) Remove the control cover. (Remove the screw.)
(3) There is a terminal (respectively marked with CNS) for the indoor control board. While connecting an interface, connect to the respective terminal securely with the connection harness supplied with an 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

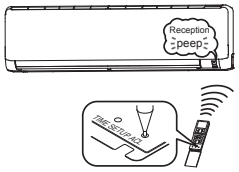
In case two air-conditioners are installed in the same room, apply this setting so that one unit can be operated with only one remote control.

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.

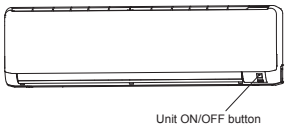


15. PUMP DOWN WORK

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 operation valves are fully open.	
No gas leaks from the joints of the operation 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.

RCT012A220

(2) Installation of outdoor unit

Model SRC63,71,80ZR-W
R32 REFRIGERANT USED

• This installation manual deals with an outdoor unit installation only. For an indoor unit installation, refer to page 25.

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 operation valves before completing piping work, and evacuation.
  If the compressor is operated when connecting pipes are not connected 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.
- **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 operation 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 outdoor unit)			Q'ty
(1)	Drain grommet	SRC63	4
		SRC71/80	2
(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 [14.0-82.0N·m(1.4-8.2kgf·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

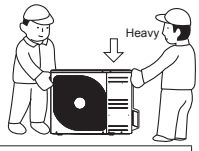
2. OUTDOOR UNIT INSTALLATION

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:

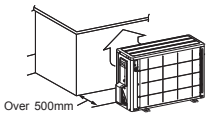
- Unit will be stable, horizontal and free of any vibration transmission.
- There is no obstacle which can prevent smooth air circulation from inlet and outlet side of the unit.
- There is enough space for service and maintenance of unit.
- Neighbours are not bothered by noise or air generating from 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.

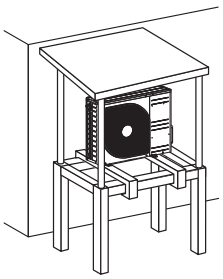
(1) Location of strong wind

- 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.



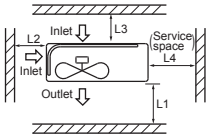
(2) Location of snow accumulation

- 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.



(mm)

Example installation / Size	Model SRC63				Model SRC71/80		
	I	II	III	IV	I	II	III
L1	Open	280	280	180	Open	Open	500
L2	100	75	Open	Open	300	250	Open
L3	100	80	80	80	100	150	100
L4	250	Open	250	Open	250	250	250

NOTE

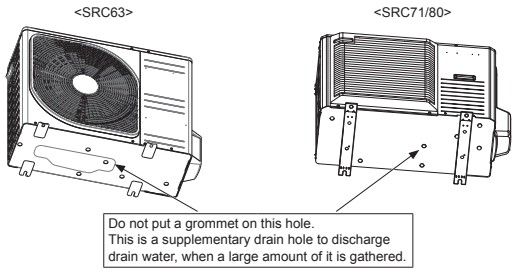
When more than one unit are installed side by side, provide a 250mm or wider interval between them as a service space.

⚠ 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.

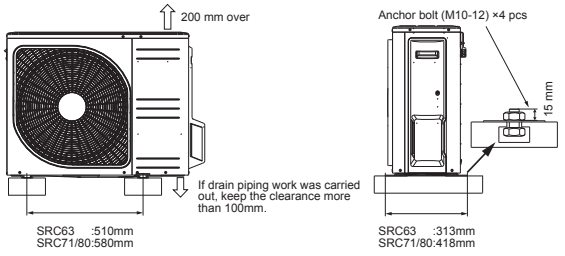


⚠ CAUTION

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.



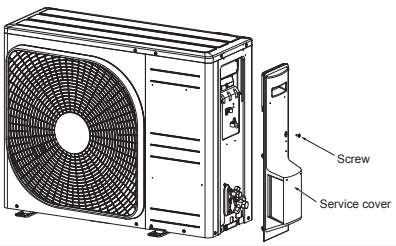
⚠ CAUTION

- 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

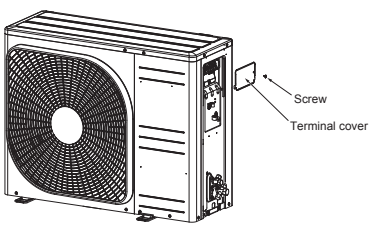
1. Removing service cover

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



2. Removing terminal cover

Remove the screw and take out terminal cover.

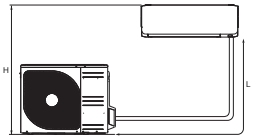


4. CONNECTING PIPING WORK

1. Restrictions on unit installation

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

	Dimensional restrictions
Connecting pipe length(L)	30m or less
Elevation difference between indoor and outdoor units(H)*	20m 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 SRC63	Model SRC71/80
Gas pipe	ø12.7	ø15.88
Liquid pipe	ø6.35	ø6.35

- Pipe wall thickness must be greater than or equal to 0.8 mm (ø15.88:1.0mm).
- Pipe material must be O-type (Phosphorus deoxidized seamless copper pipe ICS 23.040.15, ICS 77.150.30).

NOTE

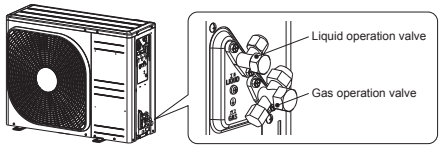
If it is required to reuse the existing connecting pipe system, refer to 5. UTILIZATION OF EXISTING PIPE.

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

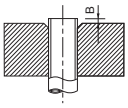
Check that both liquid and gas operation valves are fully closed.
Carry out the piping work with operation valves fully closed.



3.1. Flaring pipe

(1) Take out flare nuts from the operation 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
ø12.7	16.6
ø15.88	19.7

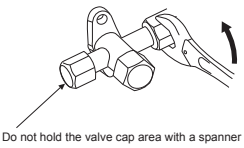


Copper pipe outer diameter	B [Rigid (clutch) type]	
	R32 or R410A	Conventional
ø6.35	0-0.5	1.0-1.5
ø12.7		
ø15.88		

3.2. 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
ø12.7 (1/2")	49-61
ø15.88 (5/8")	68-82



Do not hold the valve cap area with a spanner

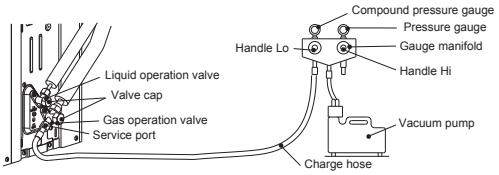
⚠ CAUTION

- 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 operation valve and gas operation valve.
(6) Turn the liquid operation 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 operation valve's service port and fully open liquid and gas operation valves. (Do not attempt to turn valve rod beyond its stop.)
(8) Tighten operation valve caps and service port cap to the specified torque shown in the table below.

Operation valve size (mm)	Operation valve cap tightening torque (N·m)	Service port cap tightening torque (N·m)
ø6.35 (1/4")	20-30	10-12
ø12.7 (1/2")	25-35	
ø15.88 (5/8")	30-40	



⚠ 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.

<SRC63>
Additional refrigerant charge (g) = { Connecting pipe length (m) – Factory charged length 15 (m) } x 20 (g/m)

<SRC71/80>
Additional refrigerant charge (g) = { Connecting pipe length (m) – Factory charged length 15 (m) } x 25 (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 SRC63	Model SRC71/80
The factory refrigerant charge amount(kg)	1.25	1.60
The maximum refrigerant charge amount(kg)	1.55	1.975

5.2 Charging refrigerant

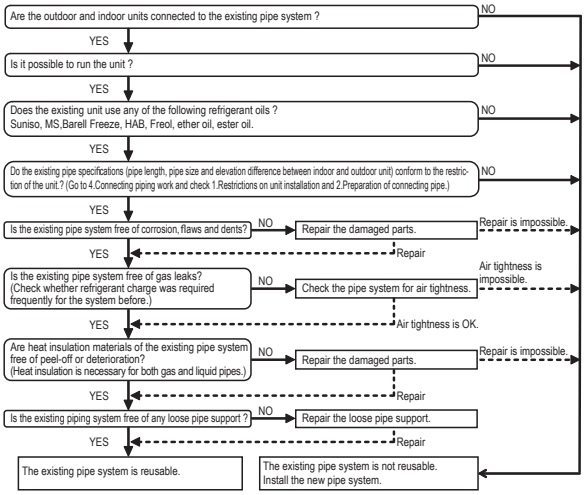
(1) Charge the R32 refrigerant in liquid phase from service port with both liquid and gas operation valves shut. Since R32 refrigerant must be charged in the liquid phase, make sure that refrigerant is discharged from the cylinder in the liquid phase all the time.
(2) When it is difficult to charge a required refrigerant amount, fully open both liquid and gas operation 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 operation 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.

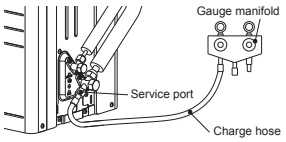
* If the existing piping is specified as liquid pipe ø9.52 or gas pipe ø12.7, refer to the following.

<Table of pipe size restrictions>		Model SRC63	Model SRC71/80
Additional charge volume per meter of pipe		54g/m	54g/m
Pipe size	Liquid pipe	ø9.52	ø9.52
	Gas pipe	ø12.7	ø15.88
Maximum one-way pipe length		10	12
Length covered without additional charge		5	6

Additional charge volume (g) = {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 (g/m)

6. PUMP DOWN

(1) Connect charge hose of gauge manifold to service port of outdoor unit.
(2) Close the liquid operation valve with hexagonal wrench key.
(3) Fully open the gas operation 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 operation 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

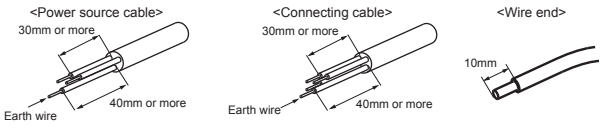
Model	Phase	Earth leakage breaker	Circuit breaker
SRC63	Single phase	Leakage current: 30mA, 0.1sec or less	Over current: 16A
SRC71/80			Over current: 20A

Main fuse specification

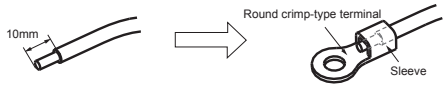
Specification	Parts No.	Code on LABEL,WIRING
250V 20A	SSA564A136A	F4

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-core* 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-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.



(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.



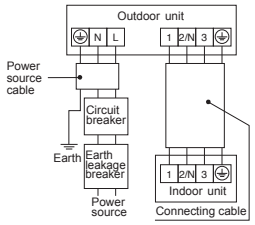
⚠ CAUTION

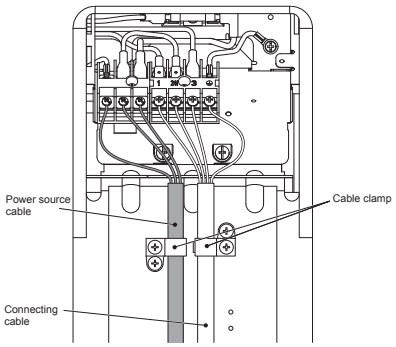
Power source cable and connecting cable must conform to the specifications mentioned in the manual.
Using cables with wrong specifications may result in unit malfunction.

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>

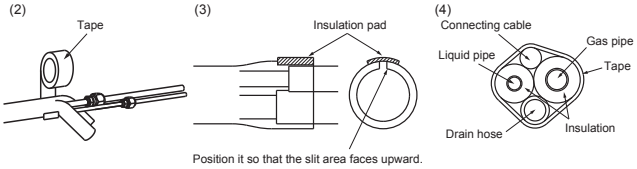




8. FINISHING WORK

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

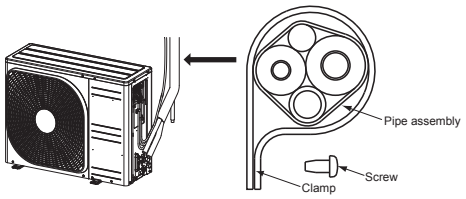
Locations where relative humidity exceeds 70%, both liquid and gas pipes need to be dressed with 20mm or thicker heat insulation materials.

⚠ 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.		No gas leaks from the joints of the operation valves.	
Earth leakage breaker and circuit breaker are installed.		Indoor and outdoor side pipe joints have been insulated.	
Power cable and connecting cable are securely fixed to the terminal block.		Drain hose (if installed) is fixed properly.	
Both liquid and gas operation valves are fully open.		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

RSA012A061B

	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.

- This safety precaution sheet is for R32 refrigerant. If you want to know the type of refrigerant in the unit, check the label attached to the outdoor unit.
- 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 defrosting process or to clean, other than those recommended by the manufacturer.
- The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater.
- Do not pierce or burn.
- Be aware that refrigerants may not contain an 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. TECHNICAL INFORMATION

Model SRK63ZR-W

Information to identify the model(s) to which the information relates to:	
Indoor unit model name	**SRK63ZR-W**
Outdoor unit model name	**SRC63ZR-W**

If function includes heating: Indicate the heating season the information relates to. Indicated values should relate to one heating season at a time. Include at least the heating season 'Average'.

Function(indicate if present)	
cooling	**Yes**
heating	**Yes**

Average(mandatory)	**Yes**
Warmer(if designated)	**Yes**
Colder(if designated)	**No**

Item	symbol	value	unit
Design load			
cooling	Pdesignc	**6.30**	kW
heating / Average	Pdesignh	**5.40**	kW
heating / Warmer	Pdesignh	**6.60**	kW
heating / Colder	Pdesignh	**-**	kW

Item	symbol	value	class
Seasonal efficiency and energy efficiency class			
cooling	SEER	**8.10**	A++
heating / Average	SCOP/A	**4.70**	A++
heating / Warmer	SCOP/W	**6.00**	A+++
heating / Colder	SCOP/C	**-**	-

Declared capacity at outdoor temperature Tdesignh			
heating / Average (-10℃)	Pdh	**5.40**	kW
heating / Warmer (2℃)	Pdh	**6.60**	kW
heating / Colder (-22℃)	Pdh	**-**	kW

Back up heating capacity at outdoor temperature Tdesignh			unit
heating / Average (-10℃)	elbu	**0**	kW
heating / Warmer (2℃)	elbu	**0**	kW
heating / Colder (-22℃)	elbu	**-**	kW

Declared capacity for cooling, at indoor temperature 27(19)℃ and outdoor temperature Tj			
Tj=35℃	Pdc	**6.30**	kW
Tj=30℃	Pdc	**4.64**	kW
Tj=25℃	Pdc	**2.98**	kW
Tj=20℃	Pdc	**1.60**	kW

Declared energy efficiency ratio, at indoor temperature 27(19)℃ and outdoor temperature Tj			
Tj=35℃	EERd	**3.87**	-
Tj=30℃	EERd	**5.50**	-
Tj=25℃	EERd	**9.67**	-
Tj=20℃	EERd	**19.00**	-

Declared capacity for heating / Average season, at indoor temperature 20℃ and outdoor temperature Tj			
Tj=-7℃	Pdh	**4.78**	kW
Tj=2℃	Pdh	**2.80**	kW
Tj=7℃	Pdh	**1.87**	kW
Tj=12℃	Pdh	**0.94**	kW
Tj=bivalent temperature	Pdh	**5.40**	kW
Tj=operating limit	Pdh	**4.90**	kW

Declared coefficient of performance / Average season, at indoor temperature 20℃ and outdoor temperature Tj			
Tj=-7℃	COPd	**2.93**	-
Tj=2℃	COPd	**4.73**	-
Tj=7℃	COPd	**6.00**	-
Tj=12℃	COPd	**6.50**	-
Tj=bivalent temperature	COPd	**2.60**	-
Tj=operating limit	COPd	**2.40**	-

Declared capacity for heating / Warmer season, at indoor temperature 20℃ and outdoor temperature Tj			
Tj=2℃	Pdh	**6.60**	kW
Tj=7℃	Pdh	**4.25**	kW
Tj=12℃	Pdh	**1.89**	kW
Tj=bivalent temperature	Pdh	**6.60**	kW
Tj=operating limit	Pdh	**4.90**	kW

Declared coefficient of performance / Warmer season, at indoor temperature 20℃ and outdoor temperature Tj			
Tj=2℃	COPd	**2.90**	-
Tj=7℃	COPd	**5.54**	-
Tj=12℃	COPd	**7.31**	-
Tj=bivalent temperature	COPd	**2.90**	-
Tj=operating limit	COPd	**2.40**	-

Declared capacity for heating / Colder season, at indoor temperature 20℃ and outdoor temperature Tj			
Tj=-7℃	Pdh	**-**	kW
Tj=2℃	Pdh	**-**	kW
Tj=7℃	Pdh	**-**	kW
Tj=12℃	Pdh	**-**	kW
Tj=bivalent temperature	Pdh	**-**	kW
Tj=operating limit	Pdh	**-**	kW
Tj=-15℃	Pdh	**-**	kW

Declared coefficient of performance / Colder season, at indoor temperature 20℃ and outdoor temperature Tj			
Tj=-7℃	COPd	**-**	-
Tj=2℃	COPd	**-**	-
Tj=7℃	COPd	**-**	-
Tj=12℃	COPd	**-**	-
Tj=bivalent temperature	COPd	**-**	-
Tj=operating limit	COPd	**-**	-
Tj=-15℃	COPd	**-**	-

Bivalent temperature			
heating / Average	Tbiv	**-10**	℃
heating / Warmer	Tbiv	**2**	℃
heating / Colder	Tbiv	**-**	℃

Operating limit temperature			
heating / Average	Tol	**-15**	℃
heating / Warmer	Tol	**-15**	℃
heating / Colder	Tol	**-**	℃

Cycling interval capacity			
for cooling	Pcycc	**-**	kW
for heating	Pcych	**-**	kW

Cycling interval efficiency			
for cooling	EERcyc	**-**	-
for heating	COPcyc	**-**	-

Degradation coefficient			
cooling	Cdc	**0.25**	-

Degradation coefficient			
heating	Cdh	**0.25**	-

Electric power input in power modes other than 'active mode'			
off mode	Poff	**5**	W
standby mode	Psb	**5**	W
thermostat-off mode	Pto(cooling)	**16**	W
	Pto(heating)	**17**	W
crankcase heater mode	Pck	**0**	W

Annual electricity consumption			
cooling	Qce	**273**	kWh/a
heating / Average	Qhe	**1608**	kWh/a
heating / Warmer	Qhe	**1539**	kWh/a
heating / colder	Qhe	**-**	kWh/a

Capacity control(indicate one of three options)	
fixed	**No**
staged	**No**
variable	**Yes**

Other items			
Sound power level(indoor)	Lwa	**56**	dB(A)
Sound power level(outdoor)	Lwa	**64**	dB(A)
Global warming potential	GWP	**675**	kgCO2eq.
Rated air flow(indoor)	-	**1230**	m^3/h
Rated air flow(outdoor)	-	**2490**	m^3/h

Contact details for obtaining more information	Name and address of the manufacturer or of its authorised representative. Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd. 5 The Square, Stockley Park, Uxbridge, Middlesex, UB11 1ET, United Kingdom

RWA000Z267 D

Model SRK71ZR-W

Information to identify the model(s) to which the information relates to:	
Indoor unit model name	**SRK71ZR-W**
Outdoor unit model name	**SRC71ZR-W**

If function includes heating: Indicate the heating season the information relates to. Indicated values should relate to one heating season at a time. Include at least the heating season 'Average'.

Function(indicate if present)	
cooling	**Yes**
heating	**Yes**

Average(mandatory)	**Yes**
Warmer(if designated)	**Yes**
Colder(if designated)	**No**

Item	symbol	value	unit
Design load			
cooling	Pdesignc	**7.10**	kW
heating / Average	Pdesignh	**6.60**	kW
heating / Warmer	Pdesignh	**8.30**	kW
heating / Colder	Pdesignh	**-**	kW
Declared capacity at outdoor temperature Tdesignh			
heating / Average (-10℃)	Pdh	**6.60**	kW
heating / Warmer (2℃)	Pdh	**8.30**	kW
heating / Colder (-22℃)	Pdh	**-**	kW
Declared capacity for cooling, at indoor temperature 27(19)℃ and outdoor temperature Tj			
Tj=35℃	Pdc	**7.10**	kW
Tj=30℃	Pdc	**5.23**	kW
Tj=25℃	Pdc	**3.36**	kW
Tj=20℃	Pdc	**3.20**	kW
Declared capacity for heating / Average season, at indoor temperature 20℃ and outdoor temperature Tj			
Tj=-7℃	Pdh	**5.80**	kW
Tj=2℃	Pdh	**3.55**	kW
Tj=7℃	Pdh	**2.28**	kW
Tj=12℃	Pdh	**2.65**	kW
Tj=bivalent temperature	Pdh	**6.60**	kW
Tj=operating limit	Pdh	**6.46**	kW
Declared capacity for heating / Warmer season, at indoor temperature 20℃ and outdoor temperature Tj			
Tj=2℃	Pdh	**8.30**	kW
Tj=7℃	Pdh	**5.34**	kW
Tj=12℃	Pdh	**2.65**	kW
Tj=bivalent temperature	Pdh	**8.30**	kW
Tj=operating limit	Pdh	**6.46**	kW
Declared capacity for heating / Colder season, at indoor temperature 20℃ and outdoor temperature Tj			
Tj=-7℃	Pdh	**-**	kW
Tj=2℃	Pdh	**-**	kW
Tj=7℃	Pdh	**-**	kW
Tj=12℃	Pdh	**-**	kW
Tj=bivalent temperature	Pdh	**-**	kW
Tj=operating limit	Pdh	**-**	kW
Tj=-15℃	Pdh	**-**	kW
Bivalent temperature			
heating / Average	Tbiv	**-10**	℃
heating / Warmer	Tbiv	**2**	℃
heating / Colder	Tbiv	**-**	℃
Cycling interval capacity			
for cooling	Pcycc	**-**	kW
for heating	Pcych	**-**	kW
Degradation coefficient			
cooling	Cdc	**0.25**	-
Electric power input in power modes other than 'active mode'			
off mode	Poff	**5**	W
standby mode	Psb	**5**	W
thermostat-off mode	Pto(cooling)	**16**	W
	Pto(heating)	**17**	W
crankcase heater mode	Pck	**0**	W

Item	symbol	value	class
Seasonal efficiency and energy efficiency class			
cooling	SEER	**7.40**	A++
heating / Average	SCOP/A	**4.50**	A+
heating / Warmer	SCOP/W	**5.70**	A+++
heating / Colder	SCOP/C	**-**	-
			unit
Back up heating capacity at outdoor temperature Tdesignh			
heating / Average (-10℃)	elbu	**0**	kW
heating / Warmer (2℃)	elbu	**0**	kW
heating / Colder (-22℃)	elbu	**-**	kW
Declared energy efficiency ratio, at indoor temperature 27(19)℃ and outdoor temperature Tj			
Tj=35℃	EERd	**3.68**	-
Tj=30℃	EERd	**5.45**	-
Tj=25℃	EERd	**9.40**	-
Tj=20℃	EERd	**13.40**	-
Declared coefficient of performance / Average season, at indoor temperature 20℃ and outdoor temperature Tj			
Tj=-7℃	COPd	**2.75**	-
Tj=2℃	COPd	**4.50**	-
Tj=7℃	COPd	**5.90**	-
Tj=12℃	COPd	**7.30**	-
Tj=bivalent temperature	COPd	**2.20**	-
Tj=operating limit	COPd	**2.15**	-
Declared coefficient of performance / Warmer season, at indoor temperature 20℃ and outdoor temperature Tj			
Tj=2℃	COPd	**2.62**	-
Tj=7℃	COPd	**5.15**	-
Tj=12℃	COPd	**7.30**	-
Tj=bivalent temperature	COPd	**2.62**	-
Tj=operating limit	COPd	**2.15**	-
Declared coefficient of performance / Colder season, at indoor temperature 20℃ and outdoor temperature Tj			
Tj=-7℃	COPd	**-**	-
Tj=2℃	COPd	**-**	-
Tj=7℃	COPd	**-**	-
Tj=12℃	COPd	**-**	-
Tj=bivalent temperature	COPd	**-**	-
Tj=operating limit	COPd	**-**	-
Tj=-15℃	COPd	**-**	-
Operating limit temperature			
heating / Average	Tol	**-15**	℃
heating / Warmer	Tol	**-15**	℃
heating / Colder	Tol	**-**	℃
Cycling interval efficiency			
for cooling	EERcyc	**-**	-
for heating	COPcyc	**-**	-
Degradation coefficient			
heating	Cdh	**0.25**	-
Annual electricity consumption			
cooling	Qce	**337**	kWh/a
heating / Average	Qhe	**2055**	kWh/a
heating / Warmer	Qhe	**2040**	kWh/a
heating / colder	Qhe	**-**	kWh/a

Capacity control(indicate one of three options)	
fixed	**No**
staged	**No**
variable	**Yes**

Other items			
Sound power level(indoor)	Lwa	**57**	dB(A)
Sound power level(outdoor)	Lwa	**63**	dB(A)
Global warming potential	GWP	**675**	kgCO2eq.
Rated air flow(indoor)	-	**1230**	m^3/h
Rated air flow(outdoor)	-	**3300**	m^3/h

Contact details for obtaining more information	Name and address of the manufacturer or of its authorised representative. Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd. 5 The Square, Stockley Park, Uxbridge, Middlesex, UB11 1ET, United Kingdom

RWA000Z267 D

Model SRK80ZR-W

Information to identify the model(s) to which the information relates to:	
Indoor unit model name	**SRK80ZR-W**
Outdoor unit model name	**SRC80ZR-W**

If function includes heating: Indicate the heating season the information relates to. Indicated values should relate to one heating season at a time. Include at least the heating season 'Average'.

Function(indicate if present)	
cooling	**Yes**
heating	**Yes**

Average(mandatory)	**Yes**
Warmer(if designated)	**Yes**
Colder(if designated)	**No**

Item	symbol	value	unit
Design load			
cooling	Pdesignc	**8.00**	kW
heating / Average	Pdesignh	**7.10**	kW
heating / Warmer	Pdesignh	**8.40**	kW
heating / Colder	Pdesignh	**-**	kW
Declared capacity at outdoor temperature Tdesignh			
heating / Average (-10℃)	Pdh	**7.10**	kW
heating / Warmer (2℃)	Pdh	**8.40**	kW
heating / Colder (-22℃)	Pdh	**-**	kW
Declared capacity for cooling, at indoor temperature 27(19)℃ and outdoor temperature Tj			
Tj=35℃	Pdc	**8.00**	kW
Tj=30℃	Pdc	**5.89**	kW
Tj=25℃	Pdc	**3.79**	kW
Tj=20℃	Pdc	**3.30**	kW
Declared capacity for heating / Average season, at indoor temperature 20℃ and outdoor temperature Tj			
Tj=-7℃	Pdh	**6.28**	kW
Tj=2℃	Pdh	**3.82**	kW
Tj=7℃	Pdh	**2.42**	kW
Tj=12℃	Pdh	**2.65**	kW
Tj=bivalent temperature	Pdh	**7.10**	kW
Tj=operating limit	Pdh	**6.48**	kW
Declared capacity for heating / Warmer season, at indoor temperature 20℃ and outdoor temperature Tj			
Tj=2℃	Pdh	**8.40**	kW
Tj=7℃	Pdh	**5.40**	kW
Tj=12℃	Pdh	**2.65**	kW
Tj=bivalent temperature	Pdh	**8.40**	kW
Tj=operating limit	Pdh	**6.48**	kW
Declared capacity for heating / Colder season, at indoor temperature 20℃ and outdoor temperature Tj			
Tj=-7℃	Pdh	**-**	kW
Tj=2℃	Pdh	**-**	kW
Tj=7℃	Pdh	**-**	kW
Tj=12℃	Pdh	**-**	kW
Tj=bivalent temperature	Pdh	**-**	kW
Tj=operating limit	Pdh	**-**	kW
Tj=-15℃	Pdh	**-**	kW
Bivalent temperature			
heating / Average	Tbiv	**-10**	℃
heating / Warmer	Tbiv	**2**	℃
heating / Colder	Tbiv	**-**	℃
Cycling interval capacity			
for cooling	Pcycc	**-**	kW
for heating	Pcych	**-**	kW
Degradation coefficient			
cooling	Cdc	**0.25**	-
Electric power input in power modes other than 'active mode'			
off mode	Poff	**5**	W
standby mode	Psb	**5**	W
thermostat-off mode	Pto(cooling)	**16**	W
	Pto(heating)	**17**	W
crankcase heater mode	Pck	**0**	W
Capacity control(indicate one of three options)			
fixed		**No**	
staged		**No**	
variable		**Yes**	

Item	symbol	value	class
Seasonal efficiency and energy efficiency class			
cooling	SEER	**7.00**	A++
heating / Average	SCOP/A	**4.40**	A+
heating / Warmer	SCOP/W	**5.70**	A+++
heating / Colder	SCOP/C	**-**	-
			unit
Back up heating capacity at outdoor temperature Tdesignh			
heating / Average (-10℃)	elbu	**0**	kW
heating / Warmer (2℃)	elbu	**0**	kW
heating / Colder (-22℃)	elbu	**-**	kW
Declared energy efficiency ratio, at indoor temperature 27(19)℃ and outdoor temperature Tj			
Tj=35℃	EERd	**3.83**	-
Tj=30℃	EERd	**5.40**	-
Tj=25℃	EERd	**8.20**	-
Tj=20℃	EERd	**12.40**	-
Declared coefficient of performance / Average season, at indoor temperature 20℃ and outdoor temperature Tj			
Tj=-7℃	COPd	**2.70**	-
Tj=2℃	COPd	**4.40**	-
Tj=7℃	COPd	**5.70**	-
Tj=12℃	COPd	**7.20**	-
Tj=bivalent temperature	COPd	**2.30**	-
Tj=operating limit	COPd	**2.20**	-
Declared coefficient of performance / Warmer season, at indoor temperature 20℃ and outdoor temperature Tj			
Tj=2℃	COPd	**2.63**	-
Tj=7℃	COPd	**5.21**	-
Tj=12℃	COPd	**7.19**	-
Tj=bivalent temperature	COPd	**2.63**	-
Tj=operating limit	COPd	**2.20**	-
Declared coefficient of performance / Colder season, at indoor temperature 20℃ and outdoor temperature Tj			
Tj=-7℃	COPd	**-**	-
Tj=2℃	COPd	**-**	-
Tj=7℃	COPd	**-**	-
Tj=12℃	COPd	**-**	-
Tj=bivalent temperature	COPd	**-**	-
Tj=operating limit	COPd	**-**	-
Tj=-15℃	COPd	**-**	-
Operating limit temperature			
heating / Average	Tol	**-15**	℃
heating / Warmer	Tol	**-15**	℃
heating / Colder	Tol	**-**	℃
Cycling interval efficiency			
for cooling	EERcyc	**-**	-
for heating	COPcyc	**-**	-
Degradation coefficient			
heating	Cdh	**0.25**	-
Annual electricity consumption			
cooling	Qce	**401**	kWh/a
heating / Average	Qhe	**2259**	kWh/a
heating / Warmer	Qhe	**2064**	kWh/a
heating / colder	Qhe	**-**	kWh/a
Other items			
Sound power level(indoor)	Lwa	**60**	dB(A)
Sound power level(outdoor)	Lwa	**67**	dB(A)
Global warming potential	GWP	**675**	kgCO2eq.
Rated air flow(indoor)	-	**1410**	m^3/h
Rated air flow(outdoor)	-	**3780**	m^3/h

Contact details for obtaining more information	Name and address of the manufacturer or of its authorised representative.
	Mitsubishi Heavy Industries Air-Conditioning Europe, Ltd. 5 The Square, Stockley Park, Uxbridge, Middlesex, UB11 1ET, United Kingdom

RWA000Z267 D

INVERTER WALL MOUNTED TYPE
RESIDENTIAL AIR-CONDITIONERS

MITSUBISHI HEAVY INDUSTRIES

MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS, LTD.
16-5 Konan 2-chome, Minato-ku, Tokyo, 108-8215, Japan
http://www.mhi-mth.co.jp/en/