New SRK**ZS-S

Contents

- Line up

- Basic concept

- New features

- Specifications

- New functions

- Hardware

- Service & Maintenance

- Options

Line up

					Capacity Range							
		Current	2016	2017	20	25	35	45	50	60	63	71	80
Diamond series	ZMX	←	**ZSX**	🔵	🔵	🔵		🔵	🔵			
	ZR	← Keep								⚫	⚫	⚫
Premium series	ZM		**ZS**	🔵	🔵	🔵		🔵				
Standard series	ZMP	← Keep			⚫	⚫	⚫					

European Design

Higher Seasonal efficiency

Lower noise

New functions

Basic concept

Exterior design:

ZSX series (Diamond series)

ZS series (Premium series)

Design Concept:
To introduce a new sleek European design to the high end and the standard model indoor units , adapting unification in design for both models to represent MHI wall mounted model recognition.

MITSUBISHI HEAVY INDUSTRIES AIR CONDITIONING EUROPE, LTD.

Basic concept

Why is the standard model applied with European design before the Hi-end?

Answer

- Most sold wall mounted units in Europe.
- To be applied to split and multi
  = "Popular face" of MHI unit
- No other manufacturer has placed a "design model" in their standard range line-up

Basic concept

Exterior design:

FTXS-K

FTXS-G

MSZ-SF/S/V/E

MSZ-GF80/7/VE

Daikin
FTXS-K/G

Melco
MSZ-SF/GF

Hitachi
RAK-PPA

MHI
SRK-ZS-S

Toshiba
Akita EVO

Fujitsu
LM/LE series

Panasonic
Etherea

New and beautiful design for most popular wall mounted unit

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Basic concept

Exterior design:

"Floating effect"
Ribs in intake area are connected internally.

Covered
Wrapped
Thin
Subtle

Round corner makes outline of unit smaller than actual

MITSUBISHI

INVERTER

"Floating effect" by radius corner

Stylish logo and LED design

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AIR CONDITIONING EUROPE, LTD.

Basic concept

Only new design good enough for standard series?

No

- **Keep balance between performance and price competitive**
- **Keep difference in specification from Hi-end series and popular series**

Better performance as standard series with the new European design

New features

- European design

- Higher seasonal efficiency

- Lower noise level down to 19dB(A)

- Increase max piping length

- Pre-set operation

- Improve Cool/Heat auto change over.

- LED brightness adjustment

- Optional Wi-Fi control

- Colour variation available

Comparison with current model

			Current model (ZM series)				New model (ZS series)			
Indoor unit			SRK20ZM-S	SRK25ZM-S	SRK35ZM-S	SRK50ZM-S	SRK20ZS-S	SRK25ZS-S	SRK35ZS-S	SRK50ZS-S
Outdoor unit			SRC20ZM-S	SRC25ZM-S	SRC35ZM-S	SRC50ZM-S	SRC20ZS-S	SRC25ZS-S	SRC35ZS-S	SRC50ZS-S
Cooling	Capacity (kw)		2.0	2.5	3.5	5.0	2.0	2.5	3.5	5.0
	Max. Capacity		2.7	2.9	3.8	5.5	2.8	3.0	3.8	5.5
	EER		4.55	4.03	3.47	3.23	4.55	4.03	3.47	3.21
	SEER		7.00	7.10	7.10	6.30	7.80	7.80	7.80	6.30
	E-class		A++	A++	A++	A++	A++	A++	A++	A++
Heating	Capacity		2.7	3.2	4.0	5.8	2.7	3.2	4.0	5.8
	Max. Capacity (kw)		3.9	4.2	4.8	6.6	4.2	4.4	4.8	6.6
	COP		4.35	4.00	4.00	3.65	4.35	4.00	4.00	3.65
	SCOP (kw)		4.05	4.16	4.17	4.20	4.60	4.60	4.60	4.20
	E-class		A+	A+	A+	A+	A++	A++	A++	A+
Exterior Dimensions	indoor	Height (mm)	294				290			
		Width (mm)	798				870			
		Depth (mm)	229				230			
	Outdoor	Height (mm)	540		640		540			595
		Width (mm)	780		800		780			780
		Depth (mm)	290		290		290			290

Specifications

Comparison with current model

				Current model (ZM series)				New model (ZS series)			
Indoor unit				SRK20ZM-S	SRK25ZM-S	SRK35ZM-S	SRK50ZM-S	SRK20ZS-S	SRK25ZS-S	SRK35ZS-S	SRK50ZS-S
Outdoor unit				SRC20ZM-S	SRC25ZM-S	SRC35ZM-S	SRC50ZM-S	SRC20ZS-S	SRC25ZS-S	SRC35ZS-S	SRC50ZS-S
SPL	Indoor	Cooling		33/27/24/21	34/28/24/21	42/32/26/22	46/37/28/25	34/25/22/19	36/28/23/19	40/30/26/19	45/36/28/22
		Heating		36/31/24/21	39/31/24/21	43/37/25/22	45/37/31/27	36/29/23/19	39/30/24/19	41/36/25/19	45/37/31/24
	Outdoor	Cooling	dB(A)	47	48	50	51	45	46	50	51
		Heating	dB(A)	46	49	51	53	45	46	48	53
	Outdoor Silent	Cooling	dB(A)	42	42	45	43	42	42	45	43
		Heating	dB(A)	45	45	45	45	43	43	44	45
PWL	Indoor	Cooling	dB(A)	49	50	58	60	50	52	56	58
		Heating	dB(A)	52	55	59	61	52	55	58	59
	Outdoor	Cooling	dB(A)	59	60	62	61	57	58	62	62
		Heating	dB(A)	58	61	63	63	57	58	61	63
Refrigerant piping				Max.15			Max.25	Max.20			Max.25
Vertical height differences (OU is higher/lower)				Max.10/Max.10			Max.15/Max.15	Max.10/Max.10			Max.15/Max.15

Higher energy efficiency
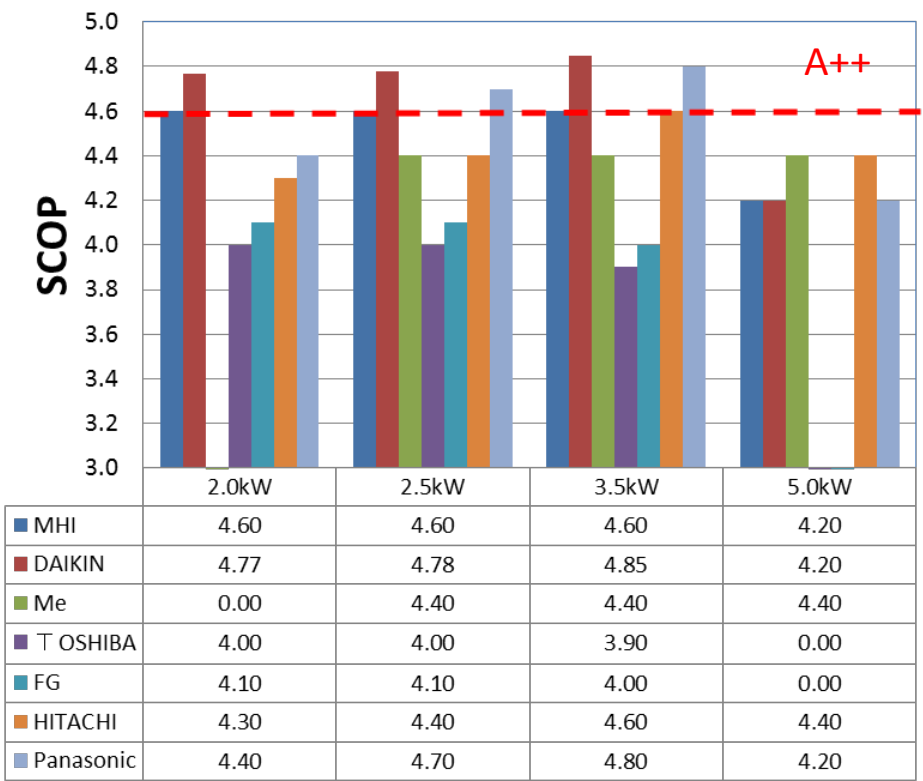
Improve in seasonal efficiency and energy class.
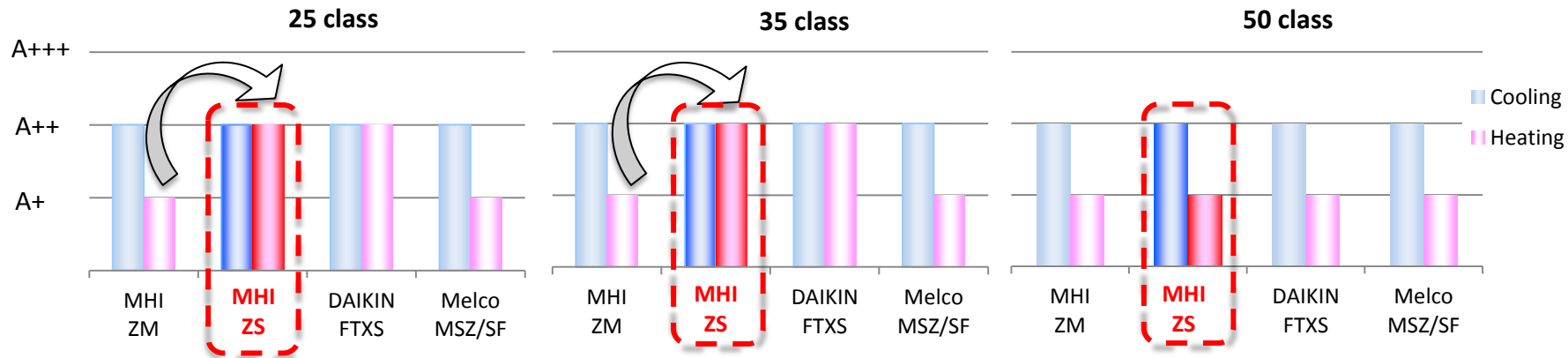
			Current model				New model			
			2.0	2.5	3.5	5.0	2.0	2.5	3.5	5.0
Z* series	Cooling	SEER	7.00	7.10	7.10	6.30	**7.80**	**7.80**	**7.80**	6.30
		E-class	A++	A++	A++	A++	A++	A++	A++	A++
	Heating	SCOP	4.05	4.16	4.17	4.20	**4.60**	**4.60**	**4.60**	4.20
		E-class	A+	A+	A+	A+	**A++**	**A++**	**A++**	A+

Improve partial load efficiency

Specifications

Higher energy class

SEER

	2.0kW	2.5kW	3.5kW	5.0kW
■ MHI	7.80	7.80	7.80	6.30
■ DAIKIN	7.40	7.90	7.47	6.80
■ Me	0.00	7.60	7.20	7.20
■ TOSHIBA	6.70	6.70	6.20	0.00
■ FG	7.20	7.10	7.05	0.00
■ HITACHI	7.00	7.60	7.20	7.20
■ Panasonic	6.90	6.90	7.60	6.90

A++

SCOP

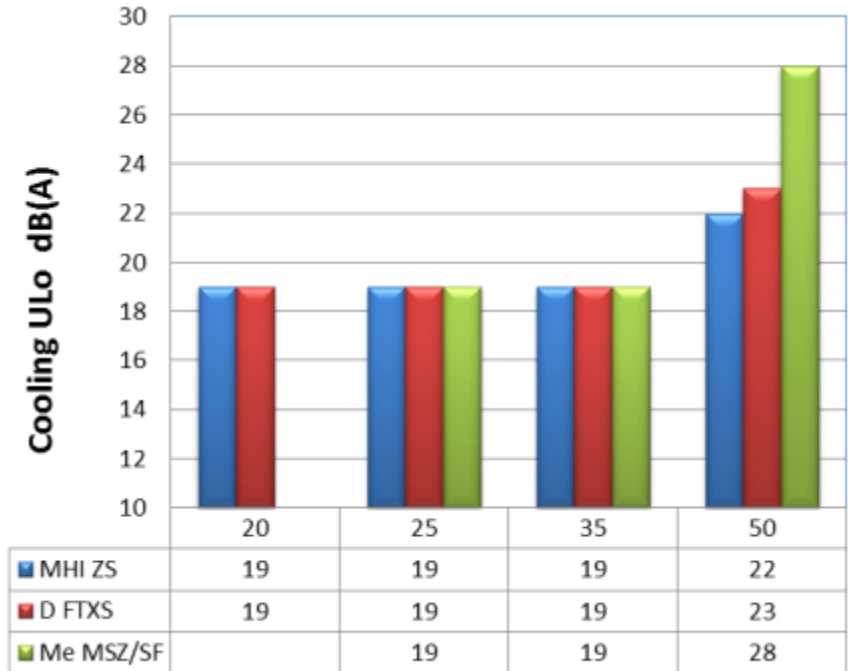|	2.0kW	2.5kW	3.5kW	5.0kW
■ MHI	4.60	4.60	4.60	4.20
■ DAIKIN	4.77	4.78	4.85	4.20
■ Me	0.00	4.40	4.40	4.40
■ TOSHIBA	4.00	4.00	3.90	0.00
■ FG	4.10	4.10	4.00	0.00
■ HITACHI	4.30	4.40	4.60	4.40
■ Panasonic	4.40	4.70	4.80	4.20

A++
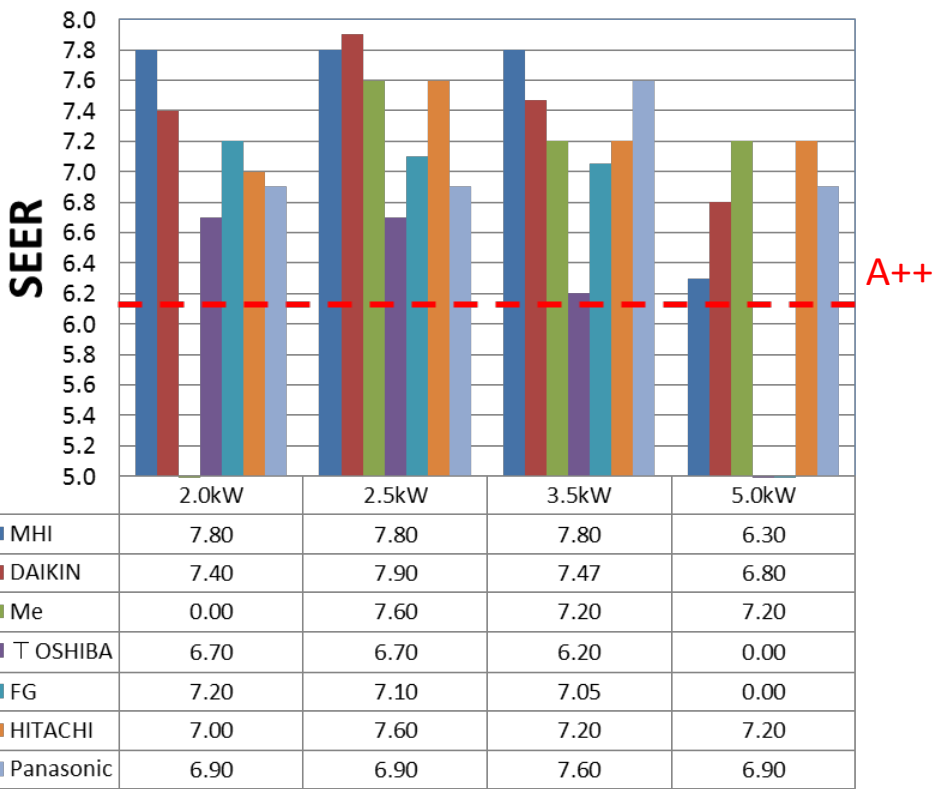
SEER : Keep competitive A++ with higher values
SCOP: Only MHI, D and P achieve A++
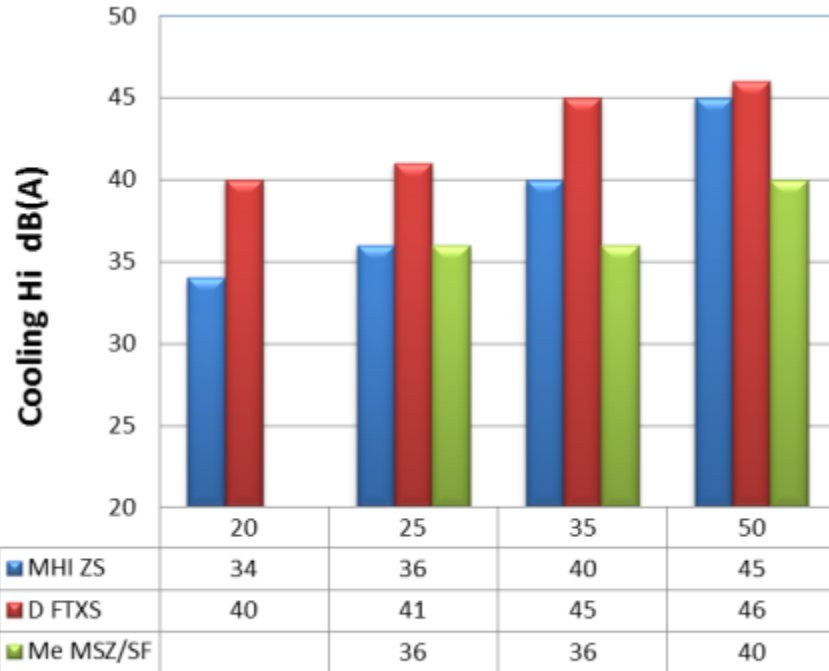
Specifications

Lower noise level

	20	25	35	50
MHI ZS	34	36	40	45
D FTXS	40	41	45	46
Me MSZ/SF		36	36	40

Cooling Hi dB(A)

	20	25	35	50
MHI ZS	19	19	19	22
D FTXS	19	19	19	23
Me MSZ/SF		19	19	28

Cooling ULo dB(A)
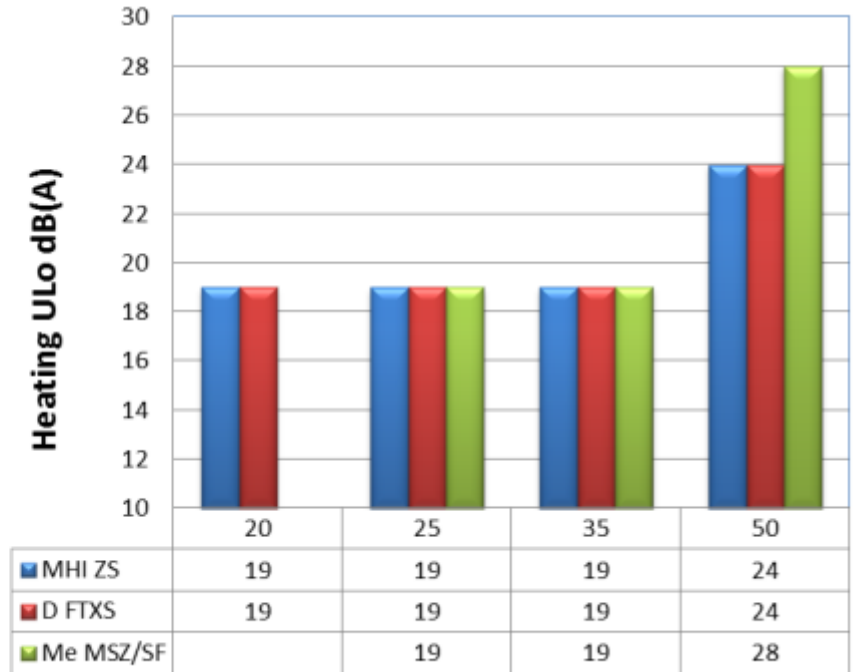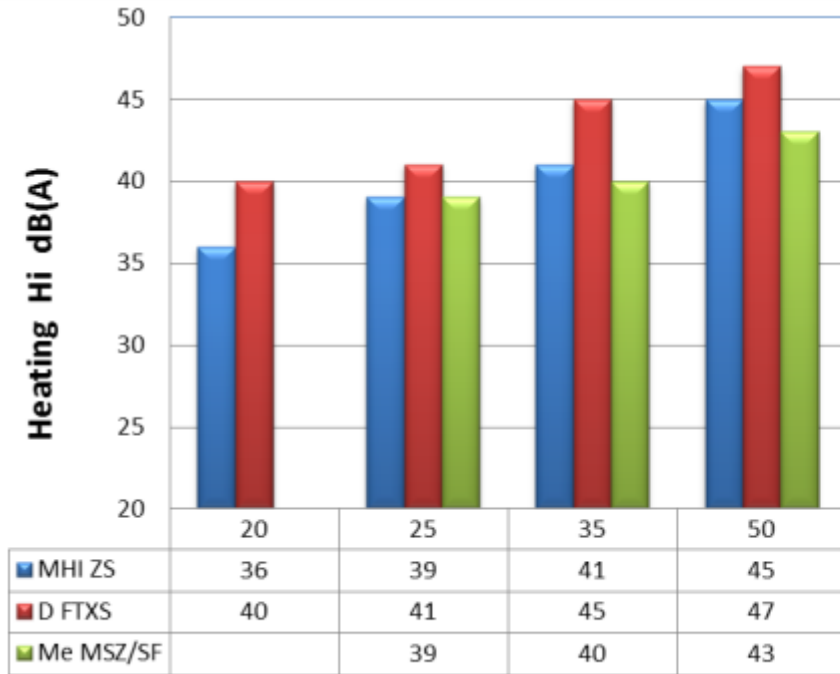
- MHI can achieve lower noise @Hi, with high energy efficiency
- Only MHI and D, Me can achieve 19dB(A)@ULo
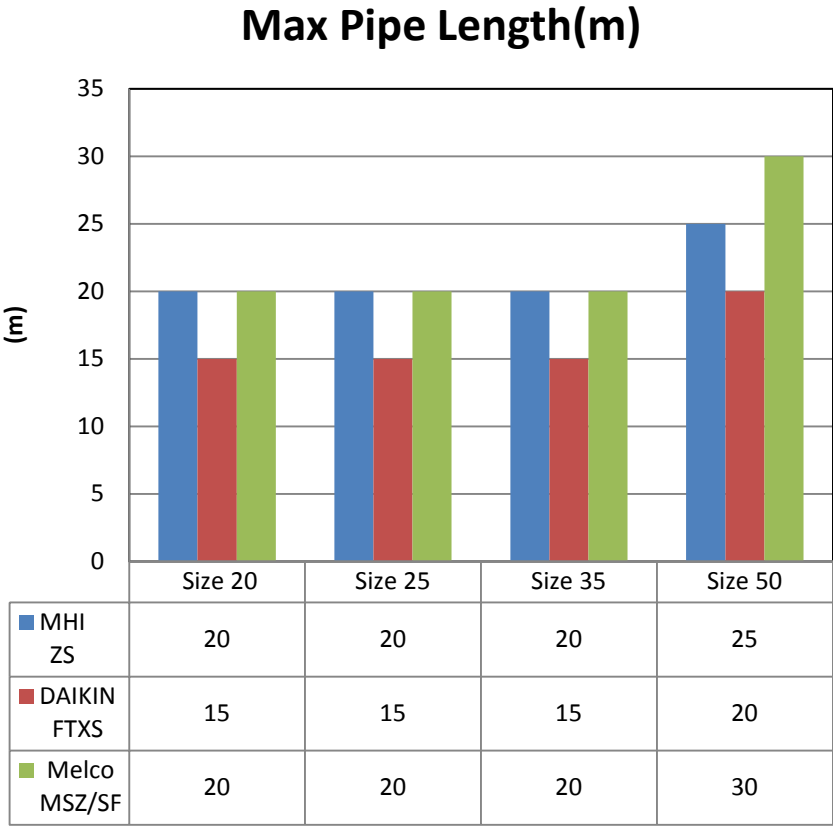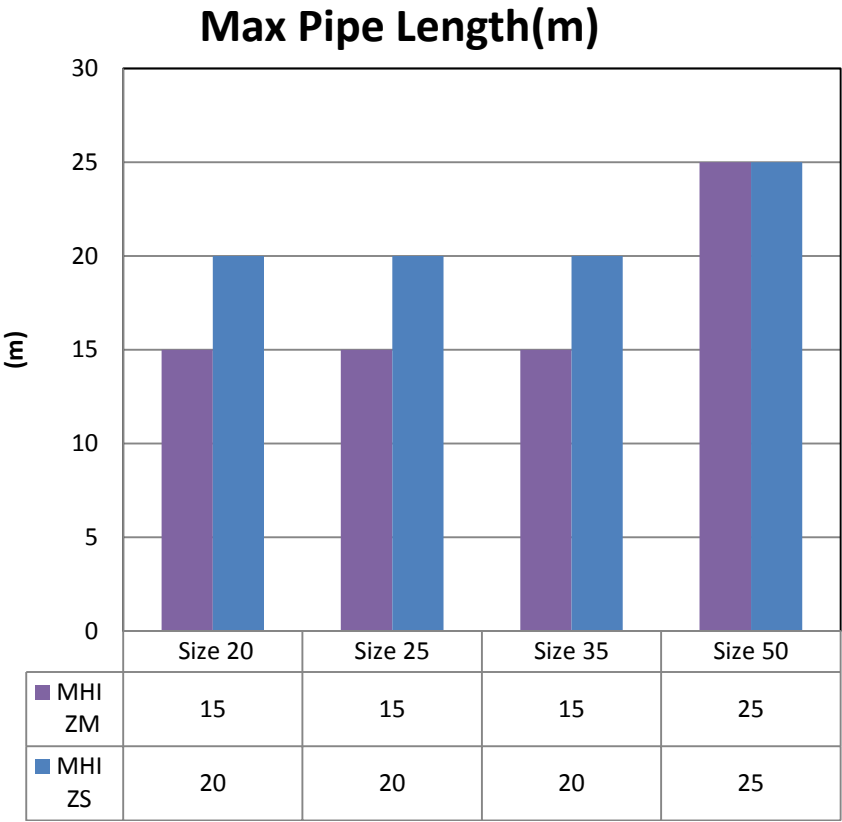- For 50 class, MHI can achieve lower noise with 22dB(A)

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Specifications

Lower noise level

	20	25	35	50
■ MHI ZS	36	39	41	45
■ D FTXS	40	41	45	47
■ Me MSZ/SF		39	40	43

	20	25	35	50
■ MHI ZS	19	19	19	24
■ D FTXS	19	19	19	24
■ Me MSZ/SF		19	19	28

- **MHI can achieve lower noise @Hi, with high energy efficiency**
- **Only MHI and D, Me can achieve 19dB(A)@ULo**
- **For 50 class, MHI and D can achieve lower noise with 24dB(A)**

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Increase maximum piping length

Max Pipe Length(m)

	Size 20	Size 25	Size 35	Size 50
■ MHI ZM	15	15	15	25
■ MHI ZS	20	20	20	25

Max Pipe Length(m)

	Size 20	Size 25	Size 35	Size 50
■ MHI ZS	20	20	20	25
■ DAIKIN FTXS	15	15	15	20
■ Melco MSZ/SF	20	20	20	30

- **Piping length is good enough to cover requirements for standard range**

Smaller size of outdoor unit (model 50)
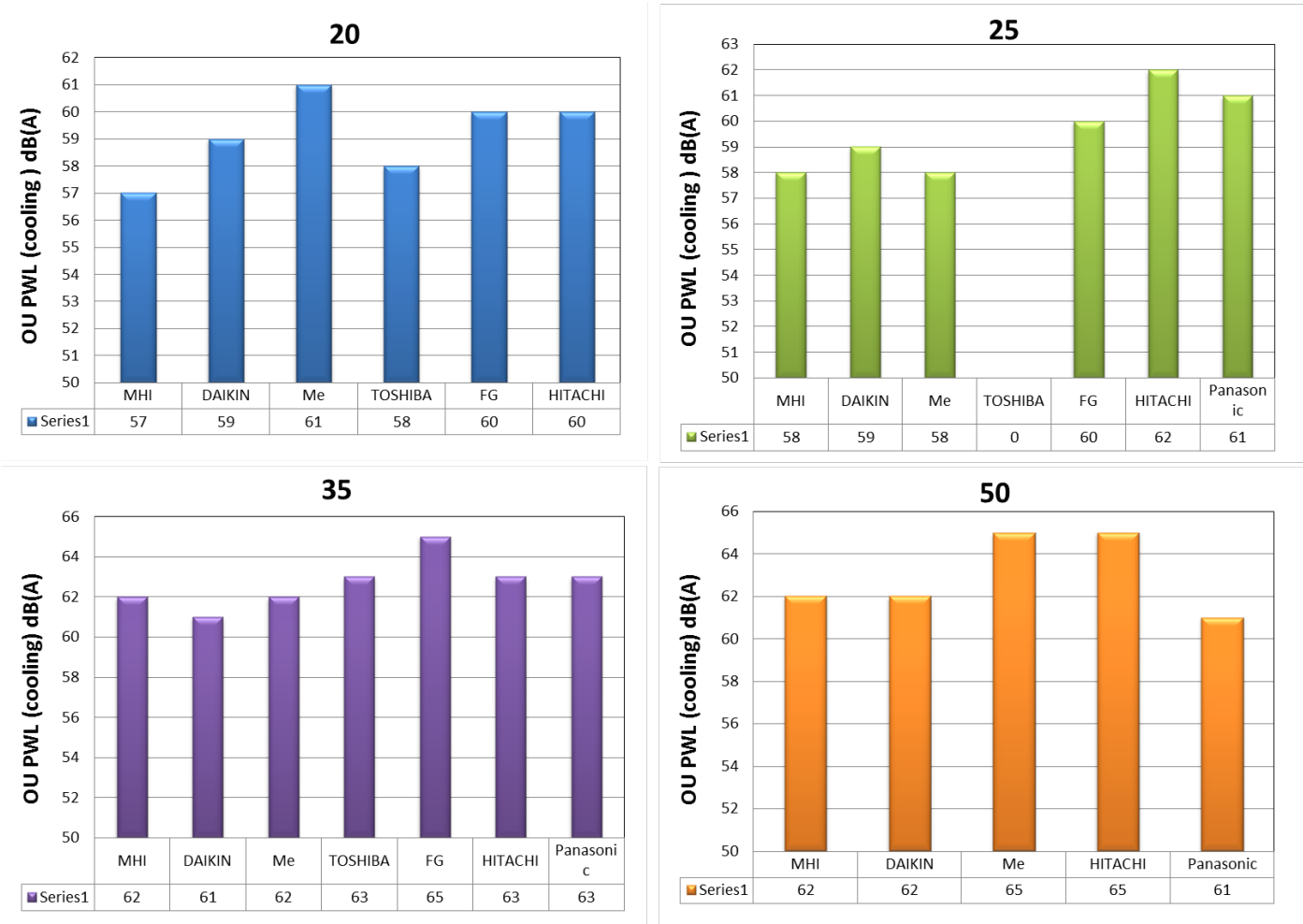

△55mm

△20mm

SRC50ZM-S
640 x 800 x 290
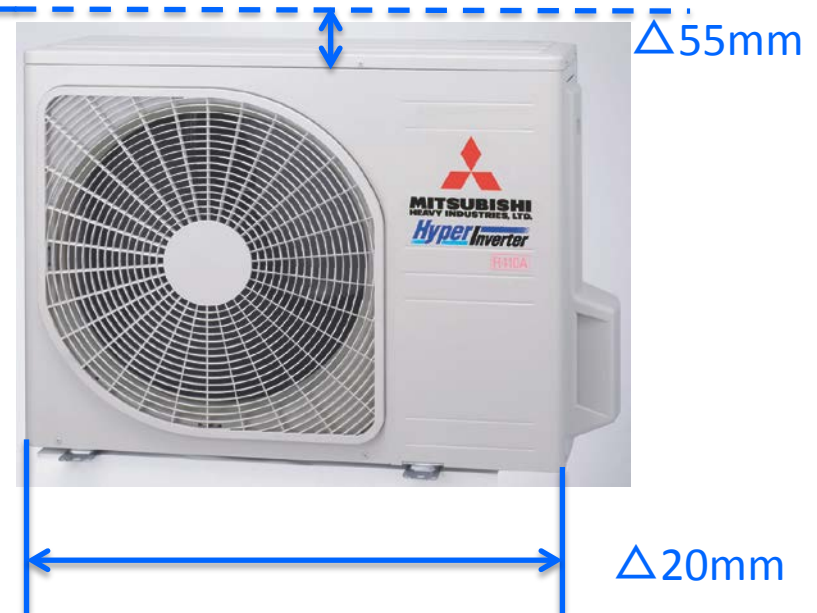
SRC50ZS-S
595 x 780 x 290

	MHI	D	Me	H	P
	SRC50ZS–S	RXS50L2V1B	MUZ–SF50VE	RAC–50WPB	CU–E18QKE
H (mm)	595	735	880	600	695
W (mm)	780	825	840	792	875
D (mm)	290	300	330	299	320

Lower PWL for outdoor unit

20 — OU PWL (cooling) dB(A)

	MHI	DAIKIN	Me	TOSHIBA	FG	HITACHI
Series1	57	59	61	58	60	60

25 — OU PWL (cooling) dB(A)

	MHI	DAIKIN	Me	TOSHIBA	FG	HITACHI	Panasonic
Series1	58	59	58	0	60	62	61

35 — OU PWL (cooling) dB(A)

	MHI	DAIKIN	Me	TOSHIBA	FG	HITACHI	Panasonic
Series1	62	61	62	63	65	63	63

50 — OU PWL (cooling) dB(A)

	MHI	DAIKIN	Me	HITACHI	Panasonic
Series1	62	62	65	65	61

Competitive noise level for outdoor unit

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Specifications

New LED display

RUN light (green)

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

Remote control signal receiver

Unit ON/OFF button

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

TIMER light (yellow)

Illuminates during TIMER operation.

Simple and not too outstanding

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AIR CONDITIONING EUROPE, LTD.

New functions

New and Improved functions

> ➤ Pre-set operation
> ➤ LED brightness adjustment
> ➤ Fuzzy Auto
> ➤ Heating only function

Keep good functions

> ➤ HI POWER
> ➤ ECONOMY
> ➤ 3D Auto
> ➤ Silent mode
> ➤ Night set back
> ➤ Allergen Clear operation
> ➤ On/Off timer
> ➤ Weekly timer
> ➤ Child lock
> ➤ Auto restart function

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New functions

New wireless remote controller

New

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

TEMPERATURE button
This button sets the room temperature.

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

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

SILENT button
This button sets the SILENT operation.

ALLERGEN CLEAR button
This button selects ALLERGEN CLEAR operation.

ON TIMER button
This button selects ON TIMER operation.

OFF TIMER button
This button selects OFF TIMER operation.

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

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

SLEEP button
This button selects SLEEP operation.

Transmission section

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

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

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

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

NIGHT SETBACK button
This button sets NIGHT SETBACK operation.

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

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

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

PROGRAM button
This button sets WEEKLY TIMER.

ACL switch
This switch resets the program to default state.

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

[View with the cover opened]

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

" Clean" -> "Menu"

Menu
- **Clean**
- **Brightness adjustment**
- **PRESET**

New functions

Preset operation

What is the previous setting…. ..

Or

New

PRESET operation
"Mode" button for 3 sec

Operation mode
Set temperature
Fan speed
Air flow direction

Setting Recovered
(*) Only 1 setting is possible

Child lock
"SET" button for 3 sec

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Preset operation (Setting and activation)
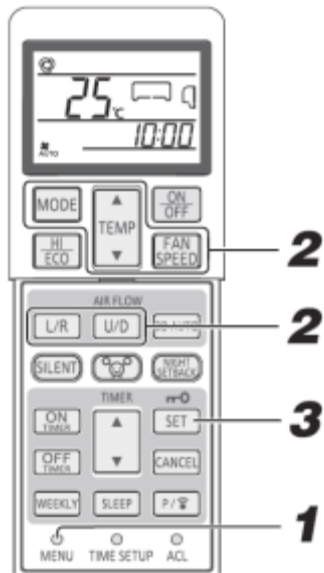
1. **Select the PRESET operation by pressing the MENU switch.**
2. **Select preferred OPERATION MODE, TEMPERATURE,FAN SPEED and AIR FLOW direction.**
3. **Press the SET button.**
4. **press MODE button 3 seconds or more**

LED brightness adjustment

100%	50%	0%
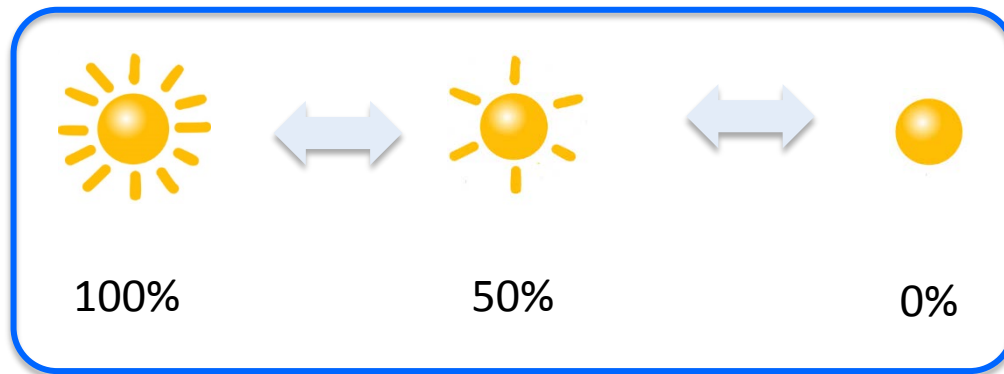
No more paper on it …

New functions

Display brightness adjustment

■ This function can be used when it is necessary to adjust the brightness of unit display.
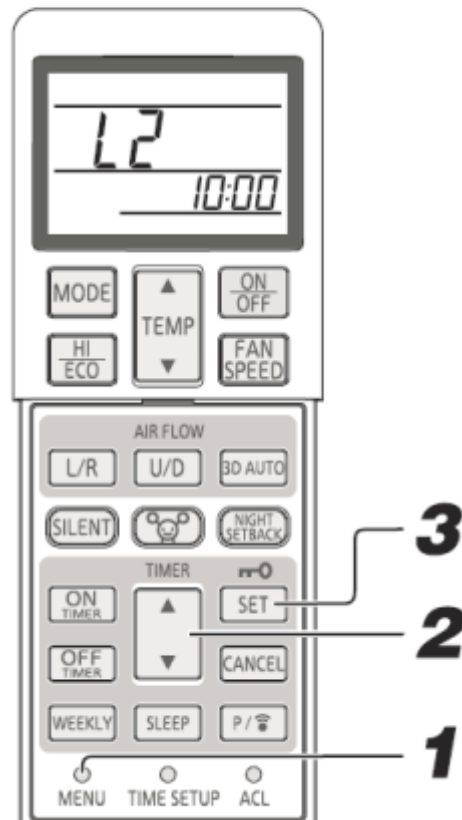
1 Select the display brightness adjustment by pressing the MENU switch.

2 Select the brightness level by pressing "▲ or ▼ (TIMER)" button.

L2 ⇔ L1 ⇔ L0

100% (Original)　　50%　　0% (Turned off)
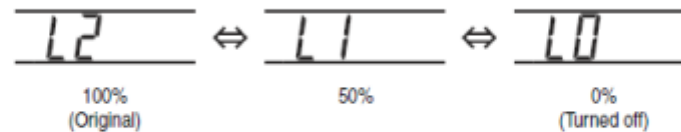
3 Press the SET button.

New functions

Improvement Cool/Heat auto change over

Aug/2015,UK,Heathrow

Auto mode is frequently used (especially in the UK)

New functions

Improvement Cool/Heat auto change over

Determination operation mode

ZM

Zone A

Cooling
Heating

-3   0

ZS
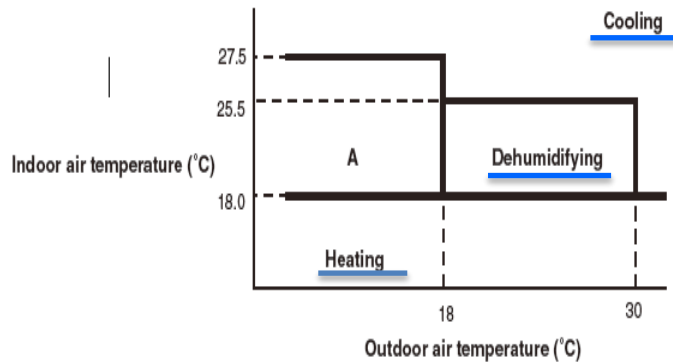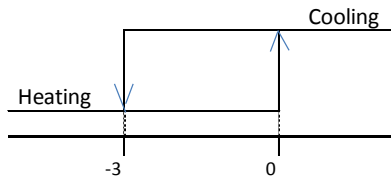
- Cooling <-> Dehumidifying <-> Heating
- Mode change is possible
(1) After every 1 hour check
(2) When set temp is changed
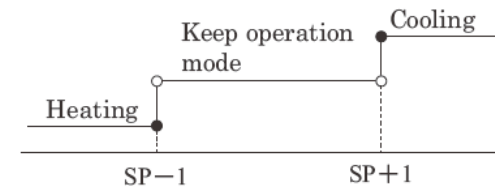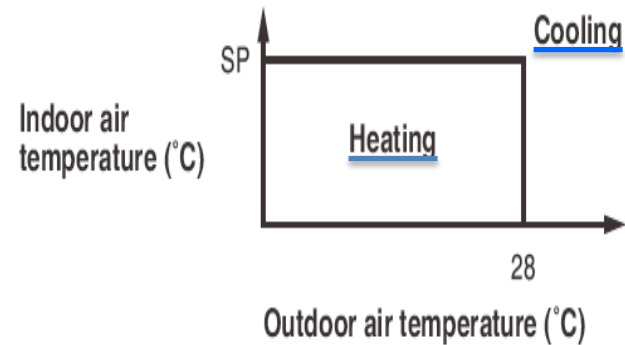
- Cooling <-> Heating
- Mode change is possible
(1) After every 20min check
(2) When set temp is changed

New functions

Improvement Cool/Heat auto change over

(1) After every check

ZM

Every 1 hour check
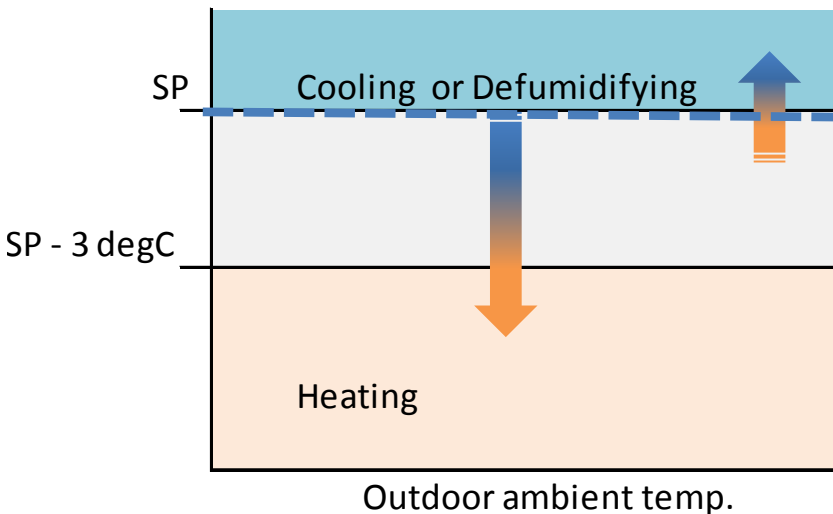
ZS

Every 20 min check
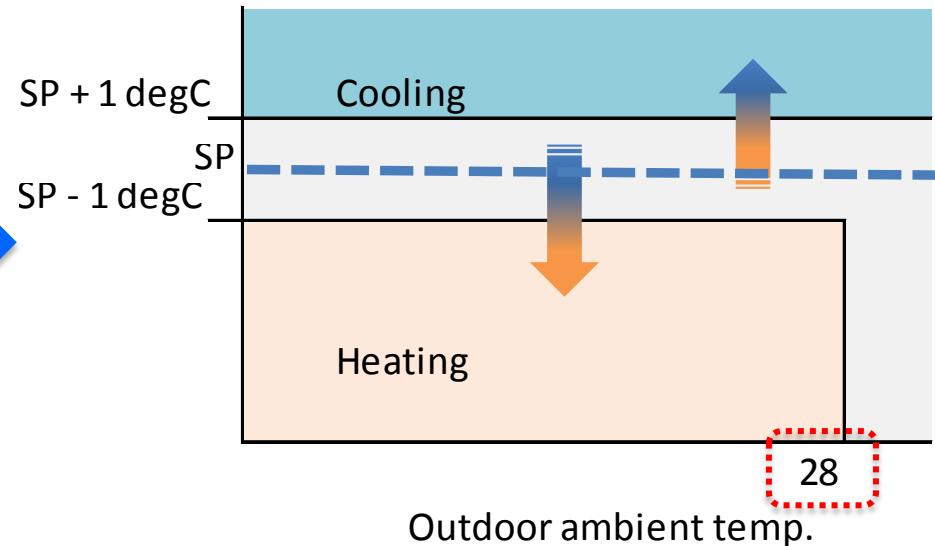
- **Min every 20 minutes of mode change**
- **Mode change by ± 1deg**
- **Added condition for OU ambient**

Improvement Cool/Heat auto change over

Set temp shift in heating mode

ZM

Set temp by RC		18	19	20	21	22	23	24	25	26	27	28	29	30
Set temp in IU	Cool (Auto)	18	19	20	21	22	23	24	25	26	27	28	29	30
	Heat (Auto)	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**

+ 2 degC shift in heating (Auto)

ZS

Set temp by RC		18	19	20	21	22	23	24	25	26	27	28	29	30
Set temp in IU	Cool/Heat (Auto)	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**

No shift in heating (Auto)

New functions

Improvement Cool/Heat auto change over
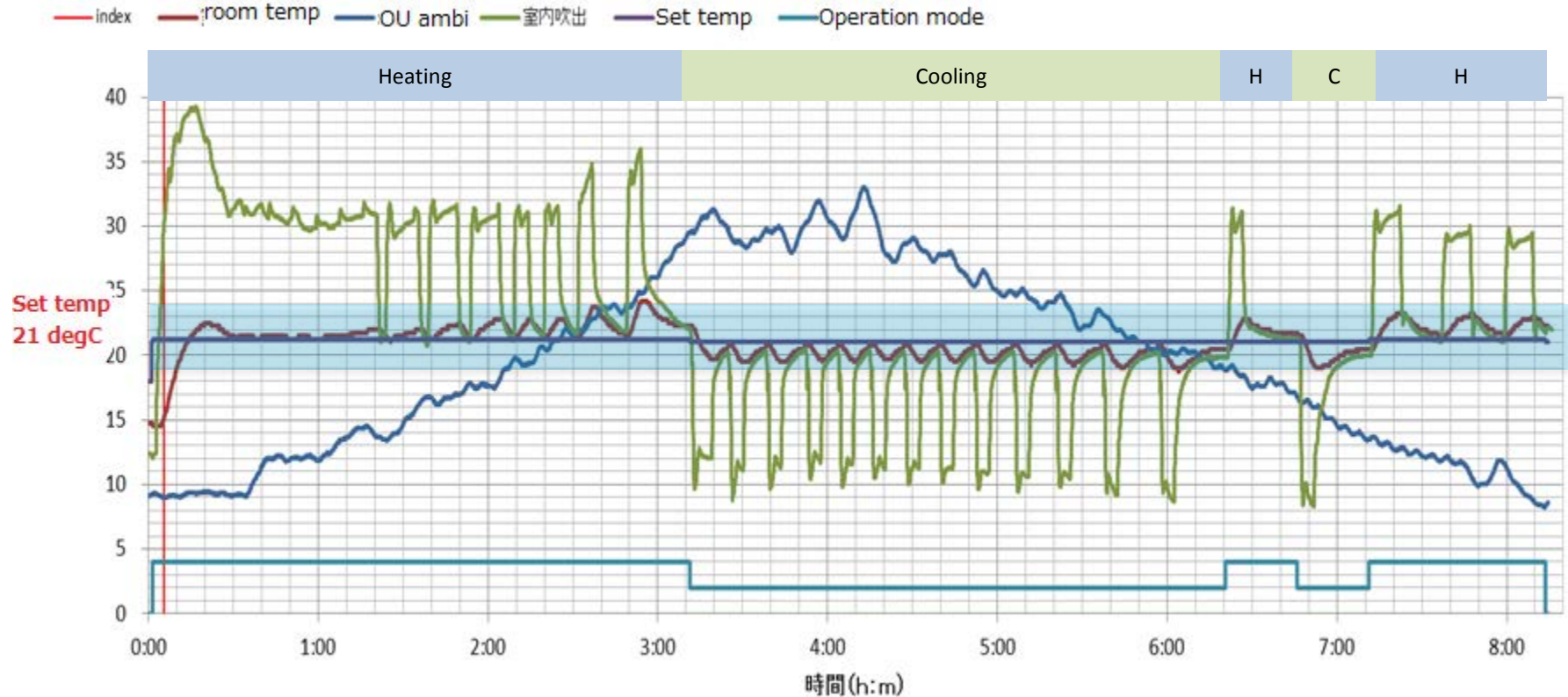
MHI lab data
OU temp. 10 -30 degC

New functions

Improvement Cool/Heat auto change over

Set temperature display

ZM

±0, 1, …… 6

ZS

18 ….. 30
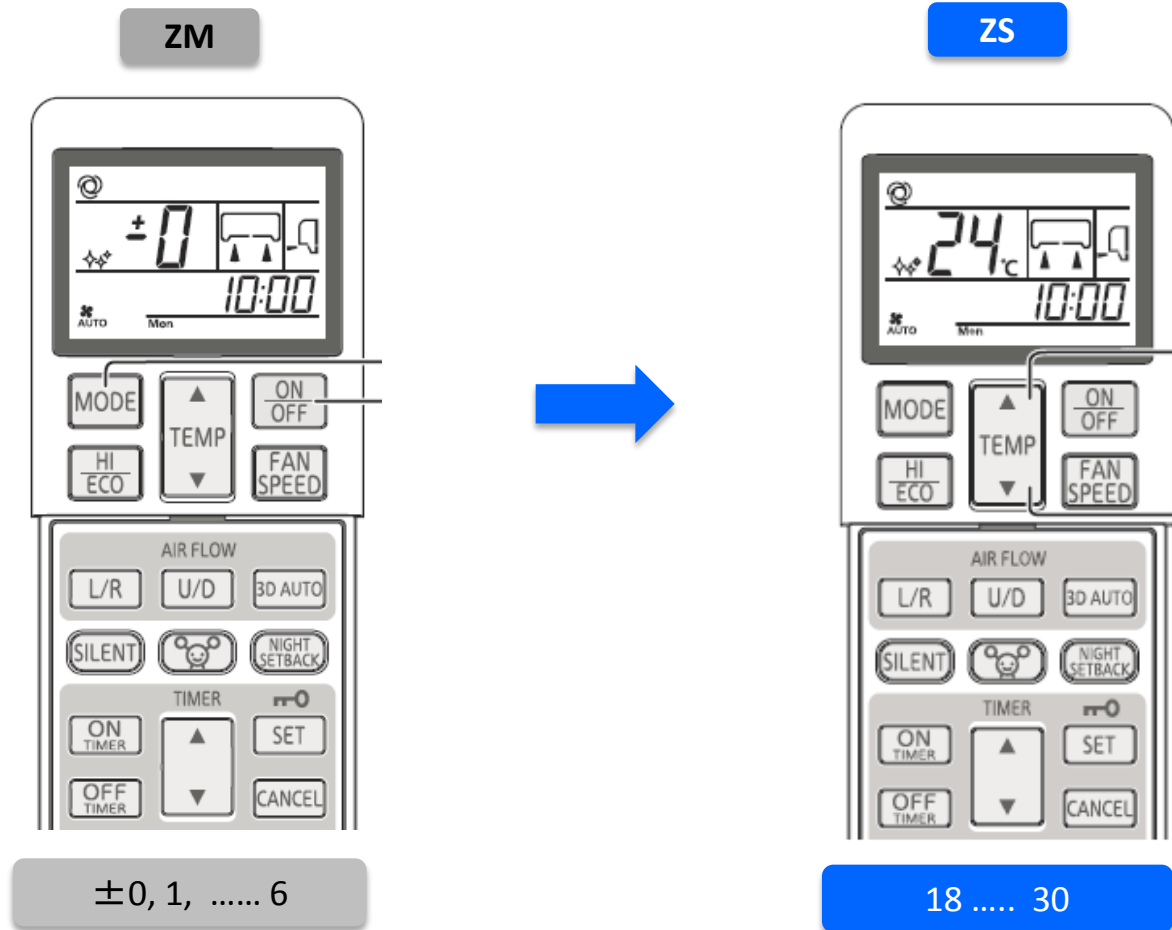
Heating only function

| RC | | Operation | | Indoor unit PCB |

AUTO/HEAT → **HEAT**

Cool/DRY/FAN → FAN

Jumper wire (J4)

RLF505A102
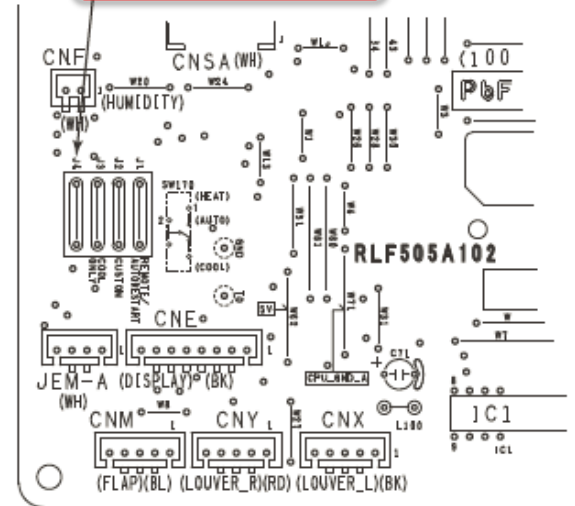
Only heating mode is enabled

Basic structure

Hardware components

		Current model (ZM series)				New model (ZS series)			
Indoor unit		SRK20ZM-S	SRK25ZM-S	SRK35ZM-S	SRK50ZM-S	SRK20ZS-S	SRK25ZS-S	SRK35ZS-S	SRK50ZS-S
Outdoor unit		SRC20ZM-S	SRC25ZM-S	SRC35ZM-S	SRC50ZM-S	SRC20ZS-S	SRC25ZS-S	SRC35ZS-S	SRC50ZS-S
Indoor unit	Height (mm)	294				290			
	Width (mm)	798				870			
	Depth (mm)	229				230			
	Weight (kg)	9.5				9.5			10
	Fan motor	30W x 1				30W x 1			
	PCB	main PCB x 1			Main PCB x 1 Sub PCB x 1	main PCB x 1			
	Air filter (pre-filter)	Polypropylene net (washable x 2)				Polypropylene net (washable x 2)			
	Clean filter	Allergen clear filter x 1 Photocatalytic washable deodorizing filter x 1				Allergen clear filter x 1 Photocatalytic washable deodorizing filter x 1			
Outdoor unit	Height (mm)	540			640	540			595
	Width (mm)	780 (+62)			800 (+71)	780 (+62)			780 (+62)
	Depth (mm)	290			290	290			290
	Weight (kg)	31.5		34.5	40.5	31.5		34.5	36.5
	Compressor	RM-B5077MDE1(Rotary)			5RS132XAB21(Rotary)	RM-B5077MDE1(Rotary type)			5RS132XAB21(Rotary)
	Fan motor	24W x 1			34W x1	24W x 1			
	PCB	main PCB x 1				main PCB x 1			
	Refrigerant	R410A				R410A			
	Ref. amount	0.75		1.05	1.35	0.75		0.95	1.25

Specifications

Outline   SRK20,25,35,50ZS-S
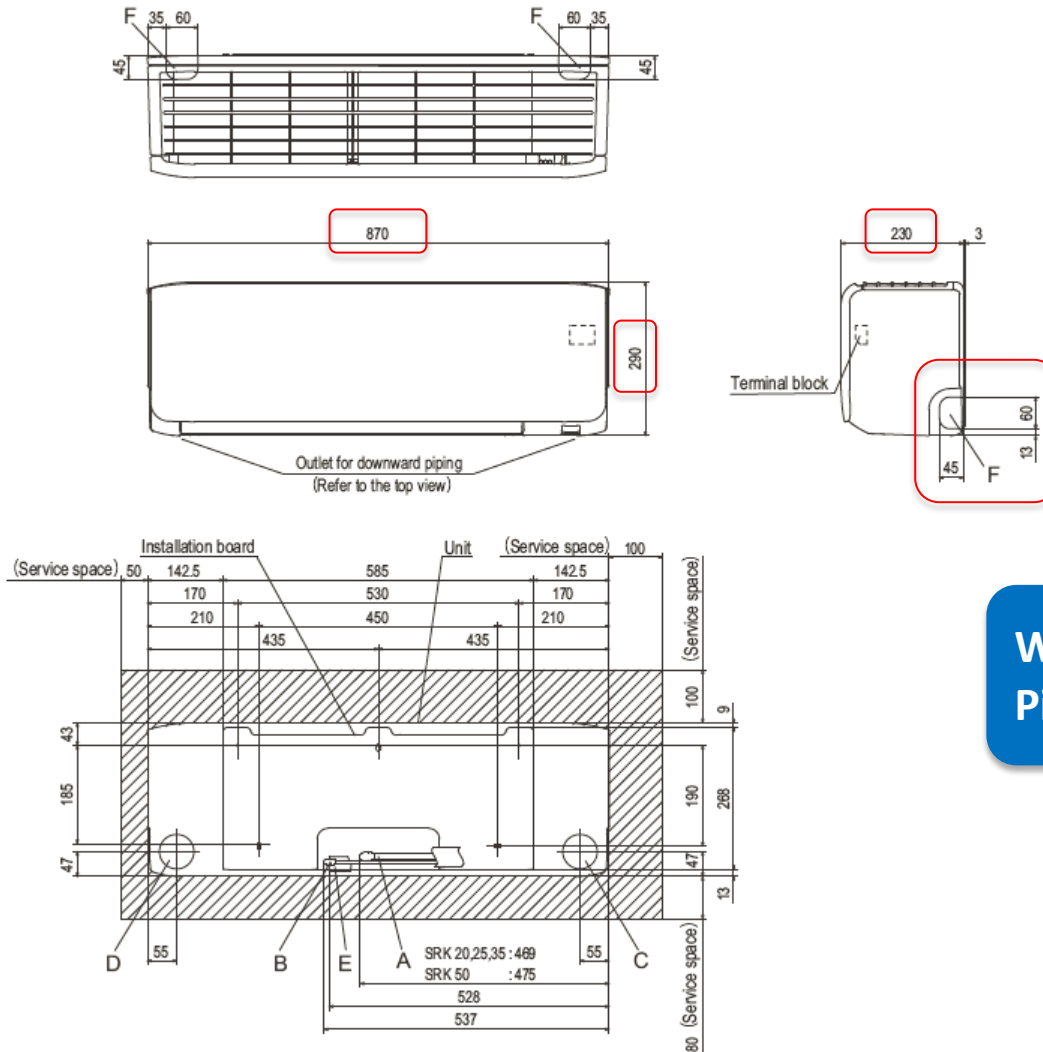
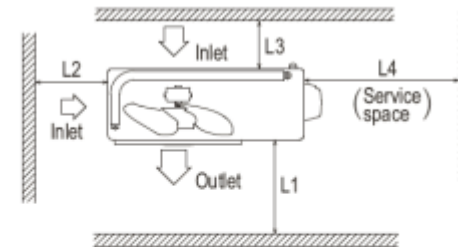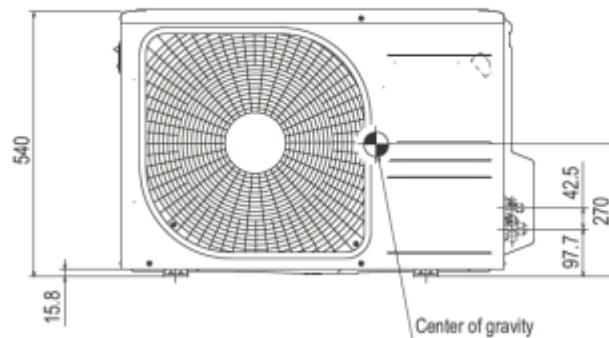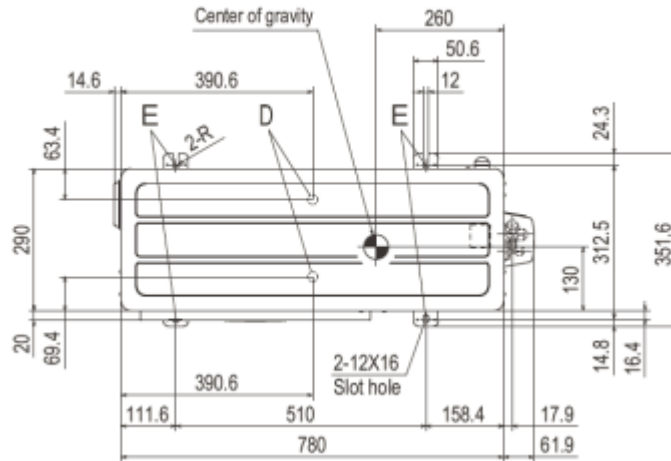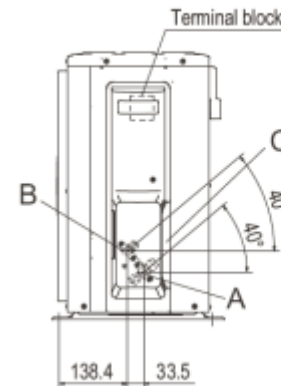> **Whole dimension is different**
> **Pipe outlet is different**

SRC20,25,35ZS-S: Same platform with ZM.
SRC50ZS-S: New

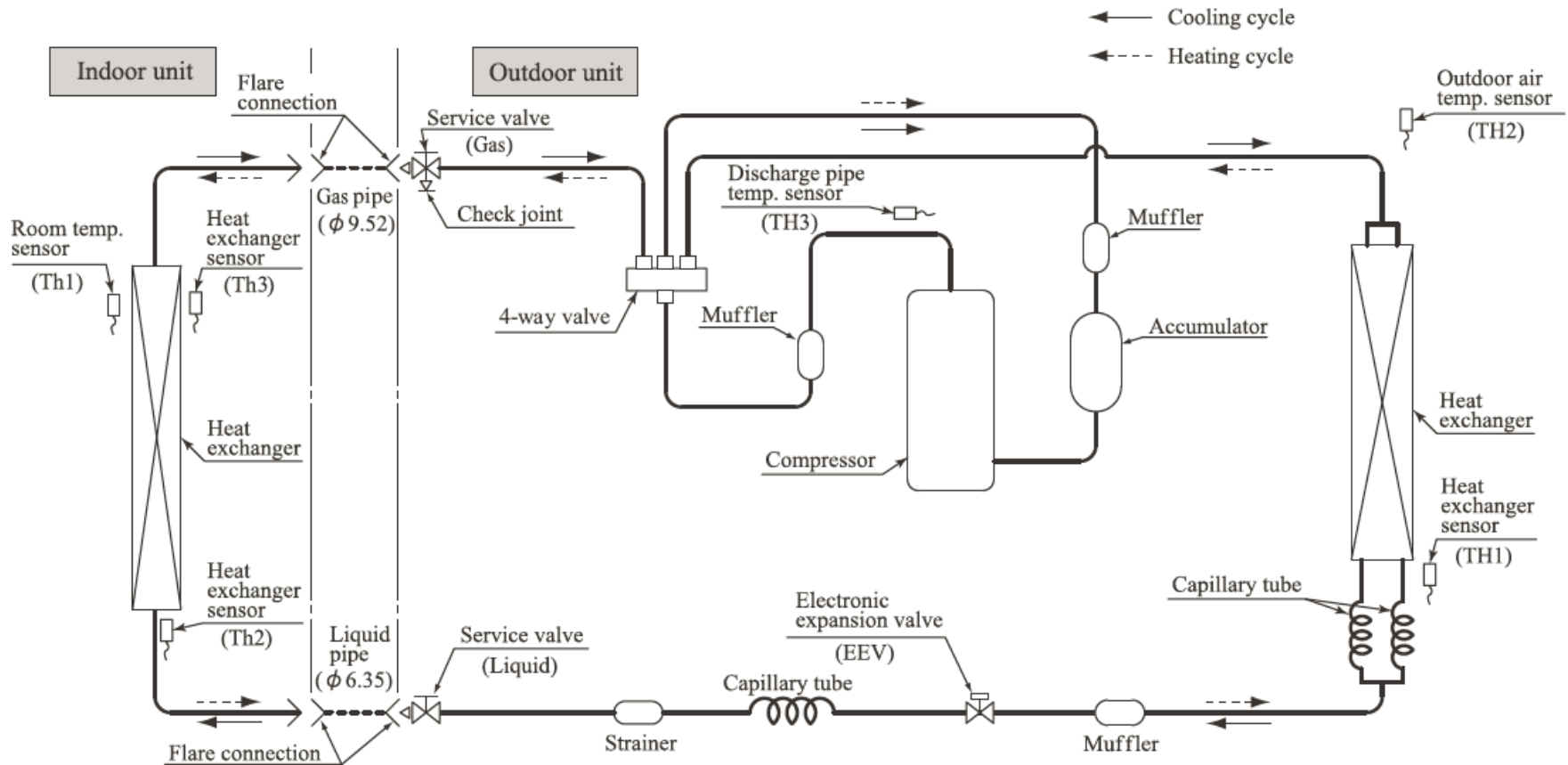|	Installation space
L1	280 or more
L2	100 or more
L3	80 or more
L4	250 or more

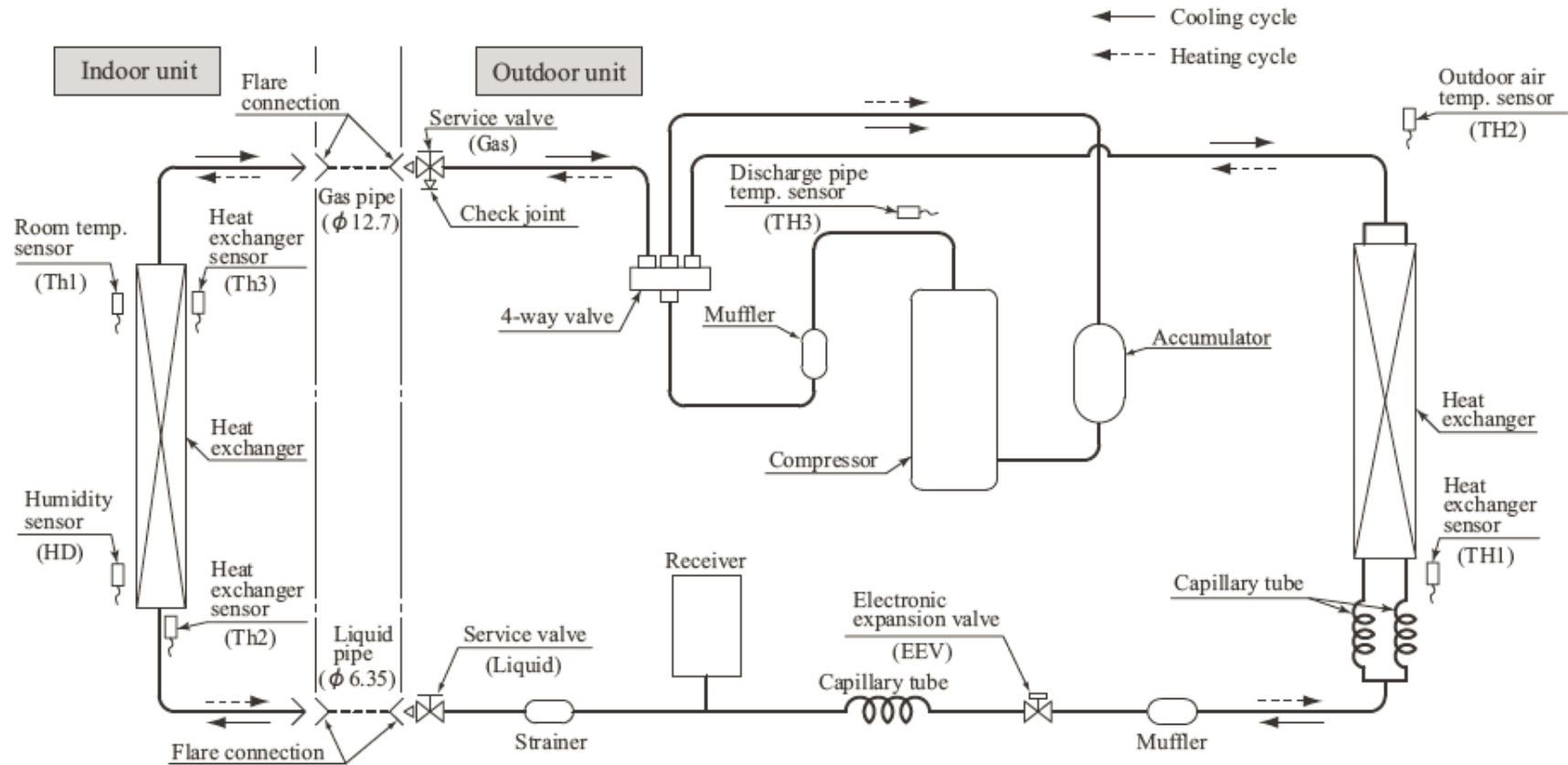**Whole dimension is different**

Piping diagram

SRK/SRC20,25,35ZS-S

Circuit component is the same.

Piping diagram

SRK/SRC50ZS-S

Circuit component is the same.

Wiring diagram

SRK/SRC20,25,35ZS-S

Same wiring diagram with 20,25,35ZM.

Specifications

Wiring diagram

SRK/SRC50ZS-S

Parallel PAM circuit is adapted.

Compatibility

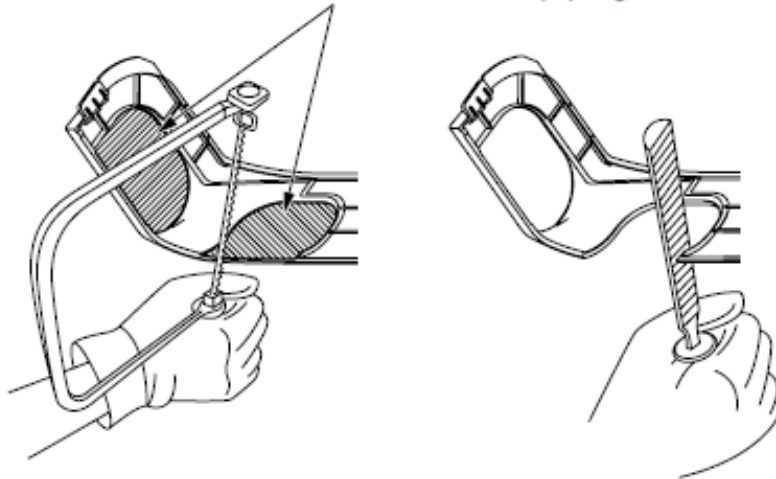| Outdoor \ Indoor	SRK20,25,35ZM-S	SRK50ZM-S	SRK20,25,35ZS-S	SRK50ZS-S
SRC20,25,35ZM-S	OK		No (*1)	
SRC50ZM-S		OK		No (*1)
SRC20,25,35ZS-S	No (*1)		OK	
SRC50ZS-S		No (*1)		OK
(SCM-Multi)				
SCM40,45,50ZM-S	OK	OK	No (*1)	No (*1)
SCM40,45,50ZS-S (New)	No (*1)	No (*1)	OK	OK
SCM60-125ZM-S	OK	OK	OK	OK

No (*1)
No technical data is available,
MHI-J has not evaluated this combination
Mismatch for actuator control (compressor, EEV) may happen

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Piping outlet

Right
Rear
Downward
Left rear
Left downward
Left

Front panel
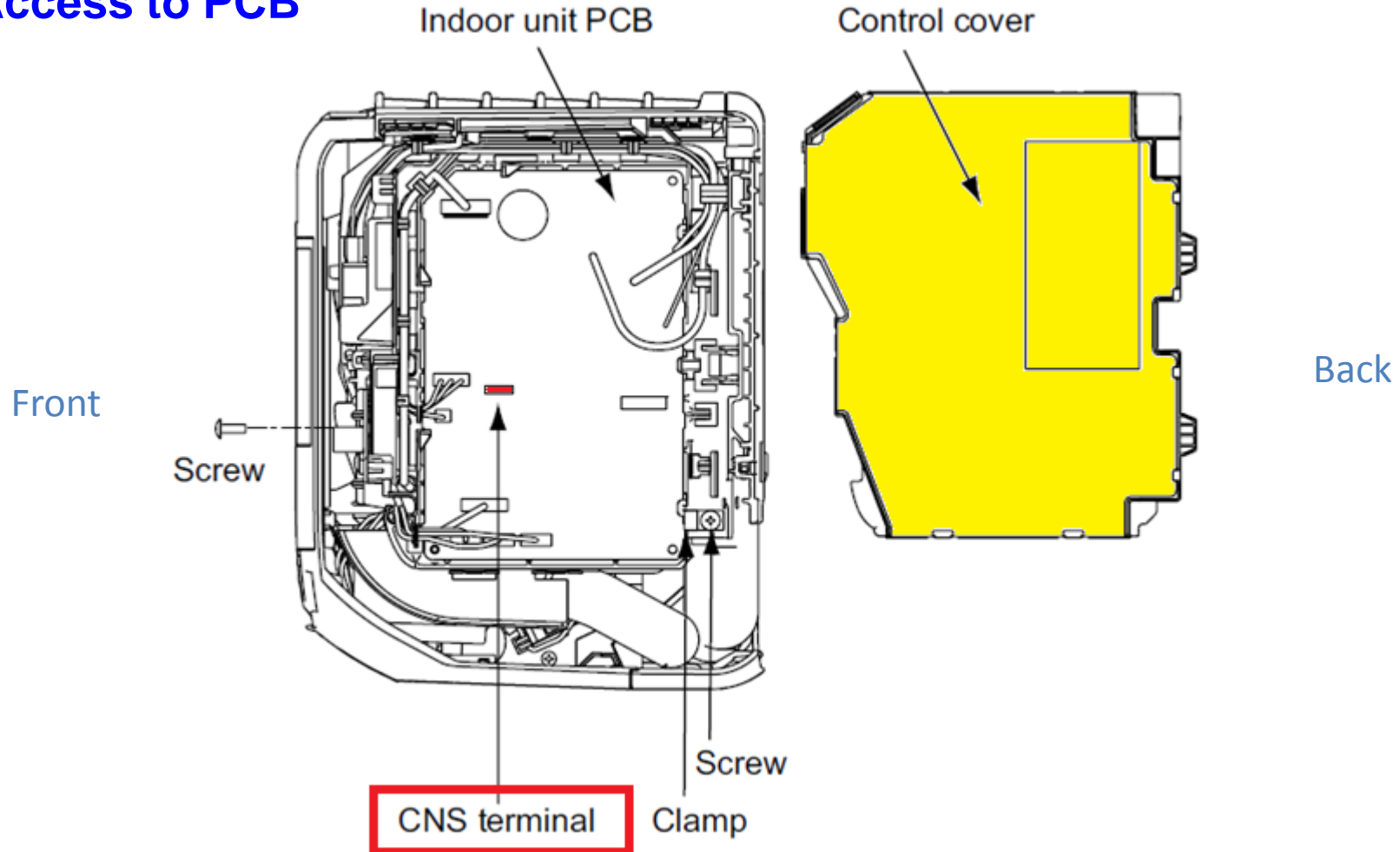Screw
Screw (in the cap)
Bottom panel
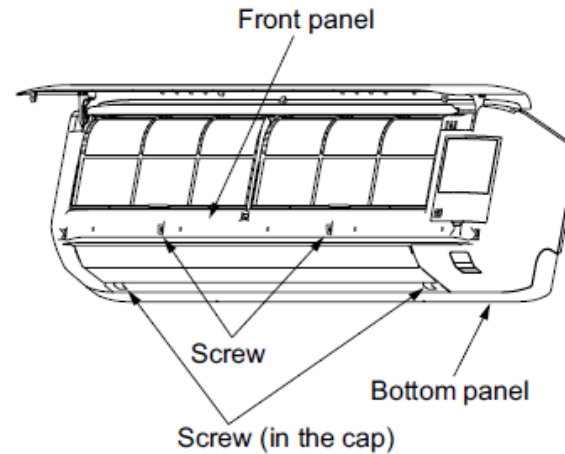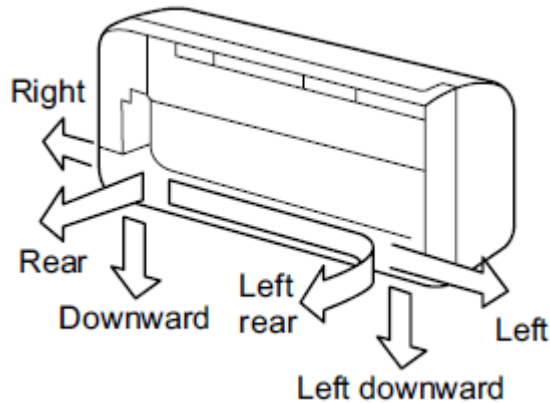
Cut out the panel smoothly along the line in case of side or bottom piping.

- Bottom panel can be removed
- Piping outlet needs to be cut

Access to PCB

Indoor unit PCB

Control cover

Front

Back

Screw

CNS terminal   Clamp

Screw

- **CNS connector comes forward**
- **Control box side cover is to be removed**

Colour variation option

Pure White

(Standard Model)

CONTRAST
(*) Production by order

TITANIUM
(*) Production by order

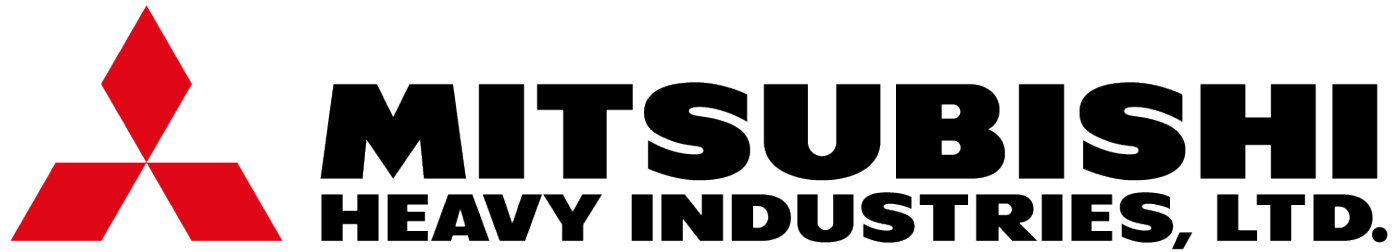# Wi-Fi option

Wi-Fi is available as an option

- **Device can be installed inside unit**
- **Basic control and monitoring**
   On/Off, Set temp, fan speed, louver control
- **Multi language interface**
- **Error code description**

(*) Subject to change

Available from Spring/2017

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Thank you