



R410A

TECHNICAL MANUAL

Inverter Single Split Series Air Conditioner

FTXK-A Series

— Cooling only & Heatpump [50Hz] —

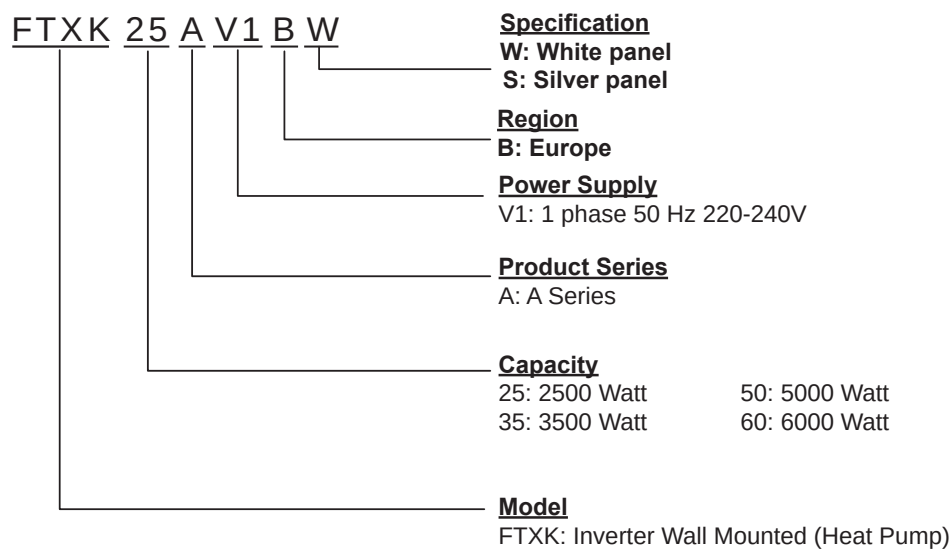


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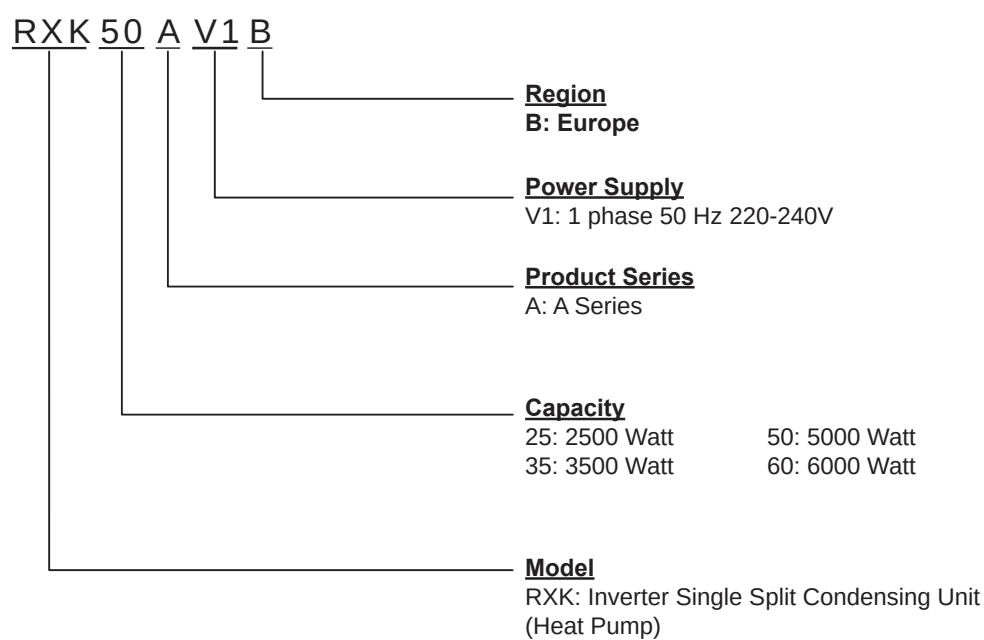
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Nomenclature

Indoor



Outdoor



Product Line-Up

Indoor Unit FTXK

Nomenclature	Classification				
	Handset	PCB	Air Purification	Marking	Others
	BRC52B63	W_2_03E_M	Saranet Filter	CE	Auto Restart
FTXK25AV1BW/BS	X	X	X	X	X
FTXK35AV1BW/BS	X	X	X	X	X
FTXK50AV1BW/BS	X	X	X	X	X
FTXK60AV1BW/BS	X	X	X	X	X

Outdoor Unit RXK

Nomenclature	Classification				
	PCB	Refrigerant Control	Fin	Compressor	Others
	DKR Board	EXV	Hydrophilic (Blue)	Swing	Drain Elbow
RXK25AV1B	X	X	X	X	X
RXK35AV1B	X	X	X	X	X
RXK50AV1B	X	X	X	X	X
RXK60AV1B	X	X	X	X	X

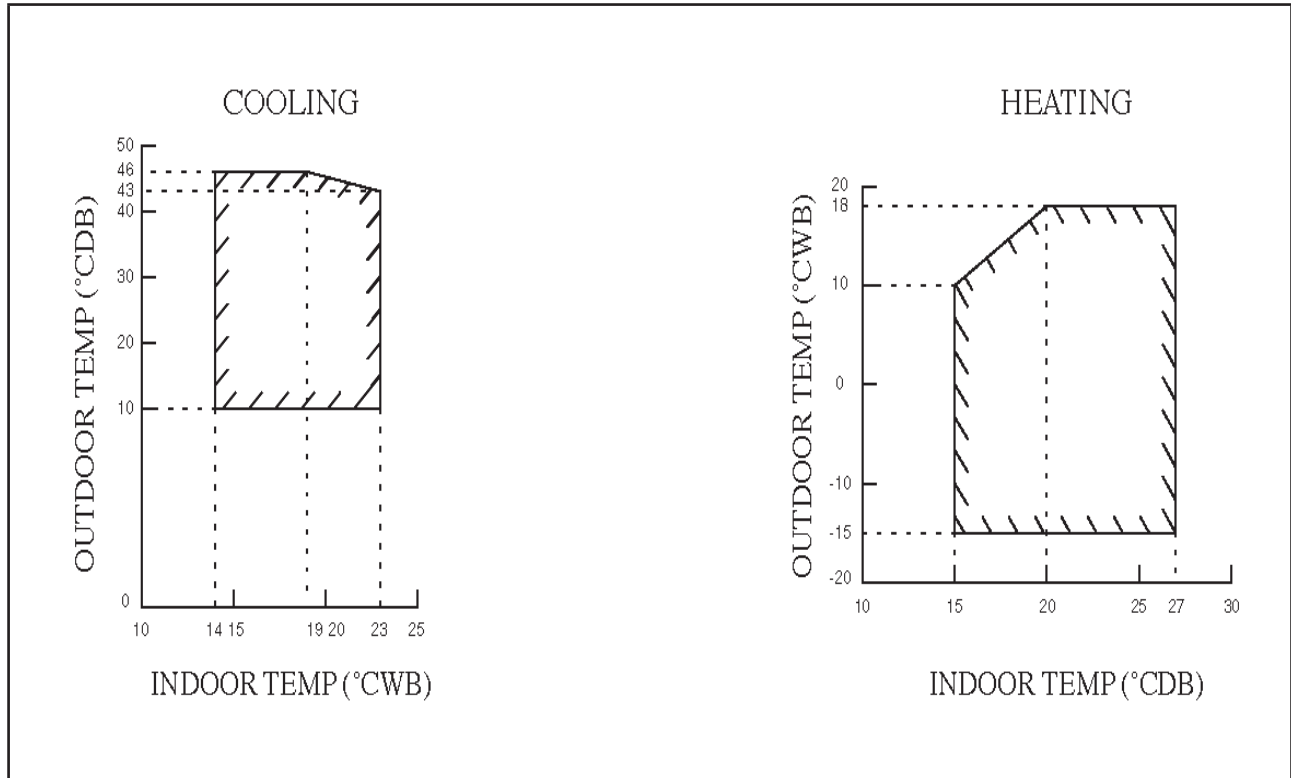
Application Information

Operating Range

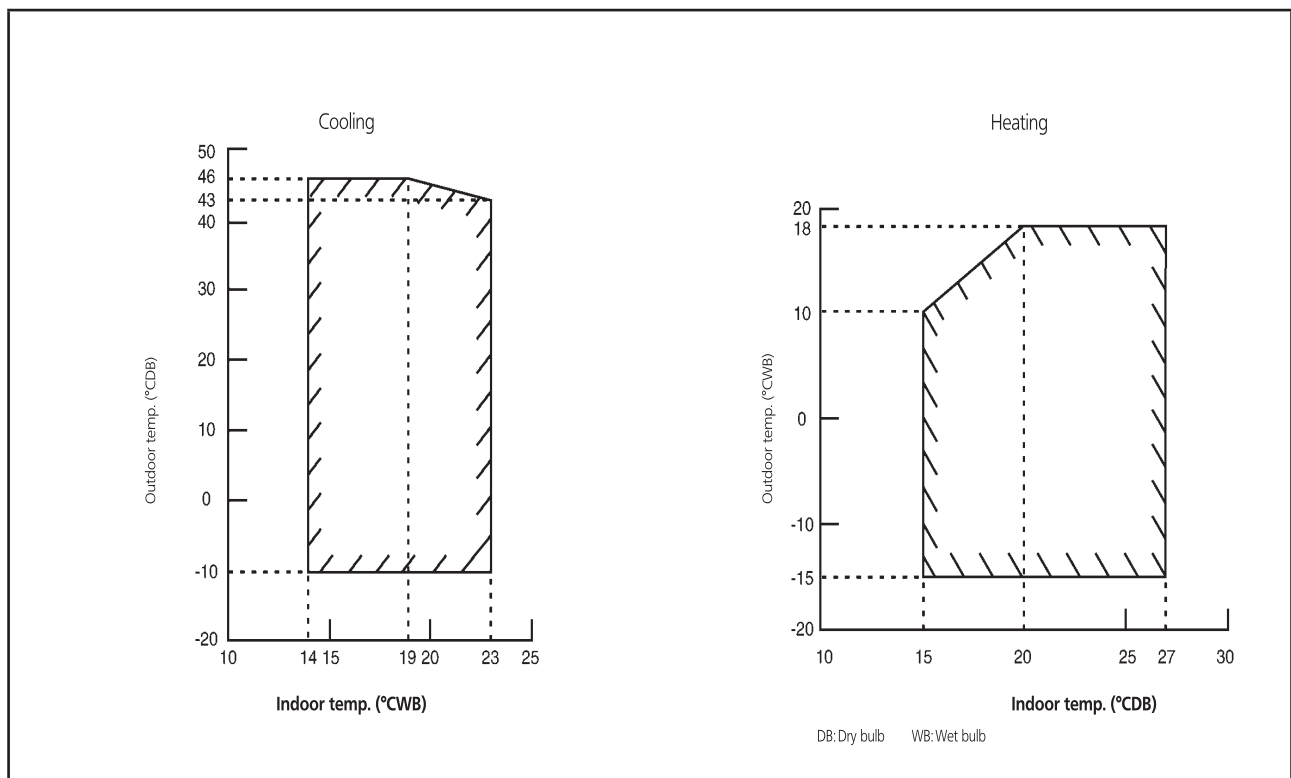
Ensure the operating temperature is in allowable range.

Heating

FTXK25/35A – RXK25/35A

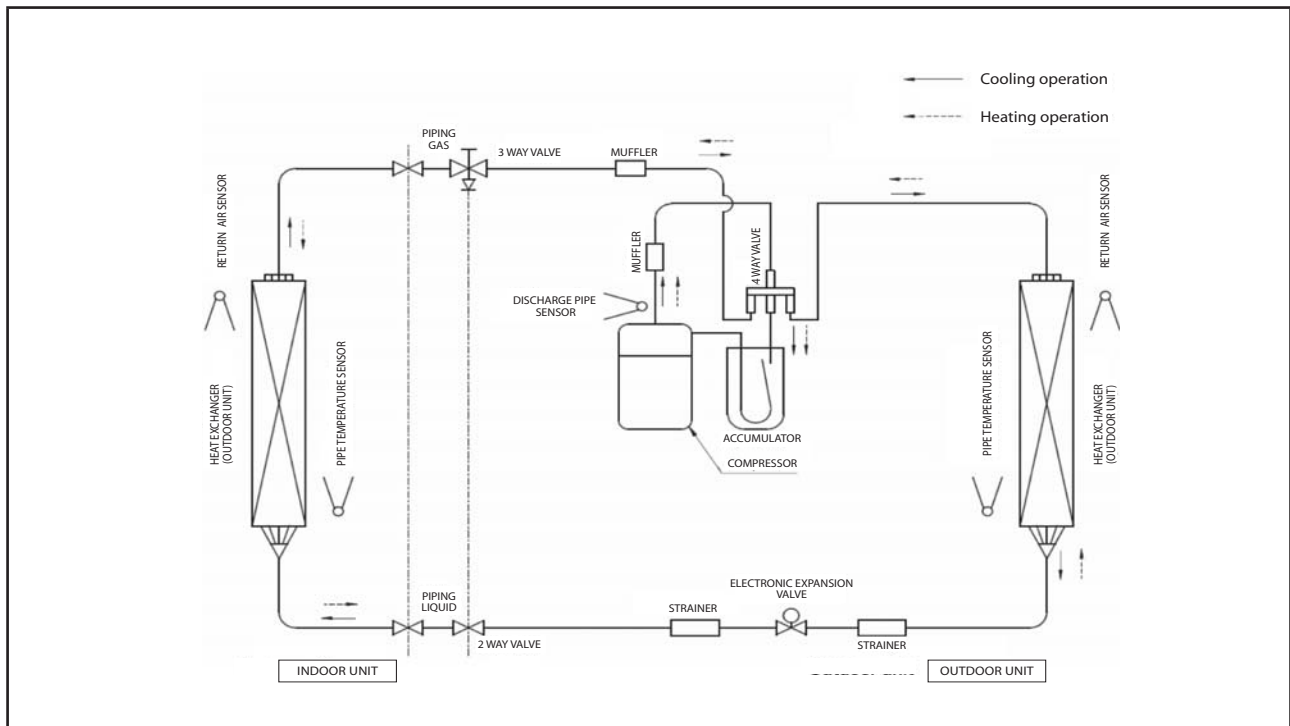


FTXK50/60A – RXK50/60A

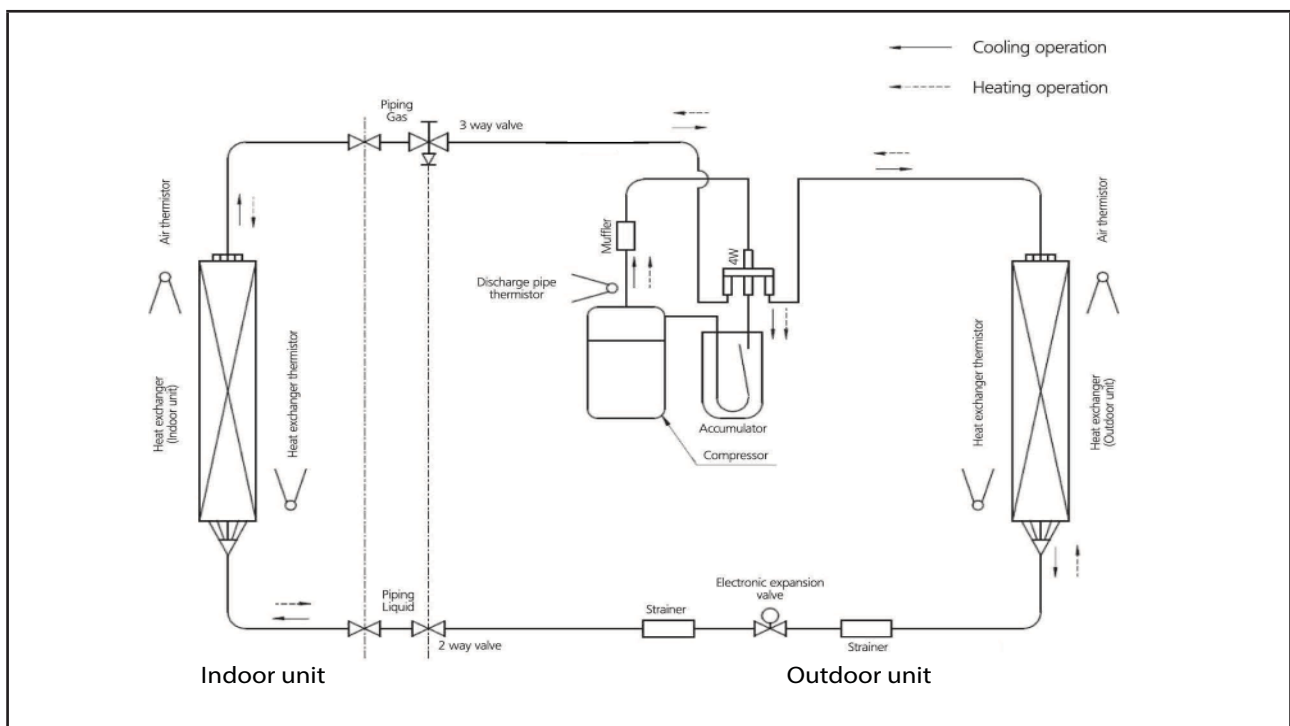


Refrigerant Circuit Diagrams

Model: FTXK25/35A – RXK25/35A



Model: FTXK50/60A – RXK50/60A



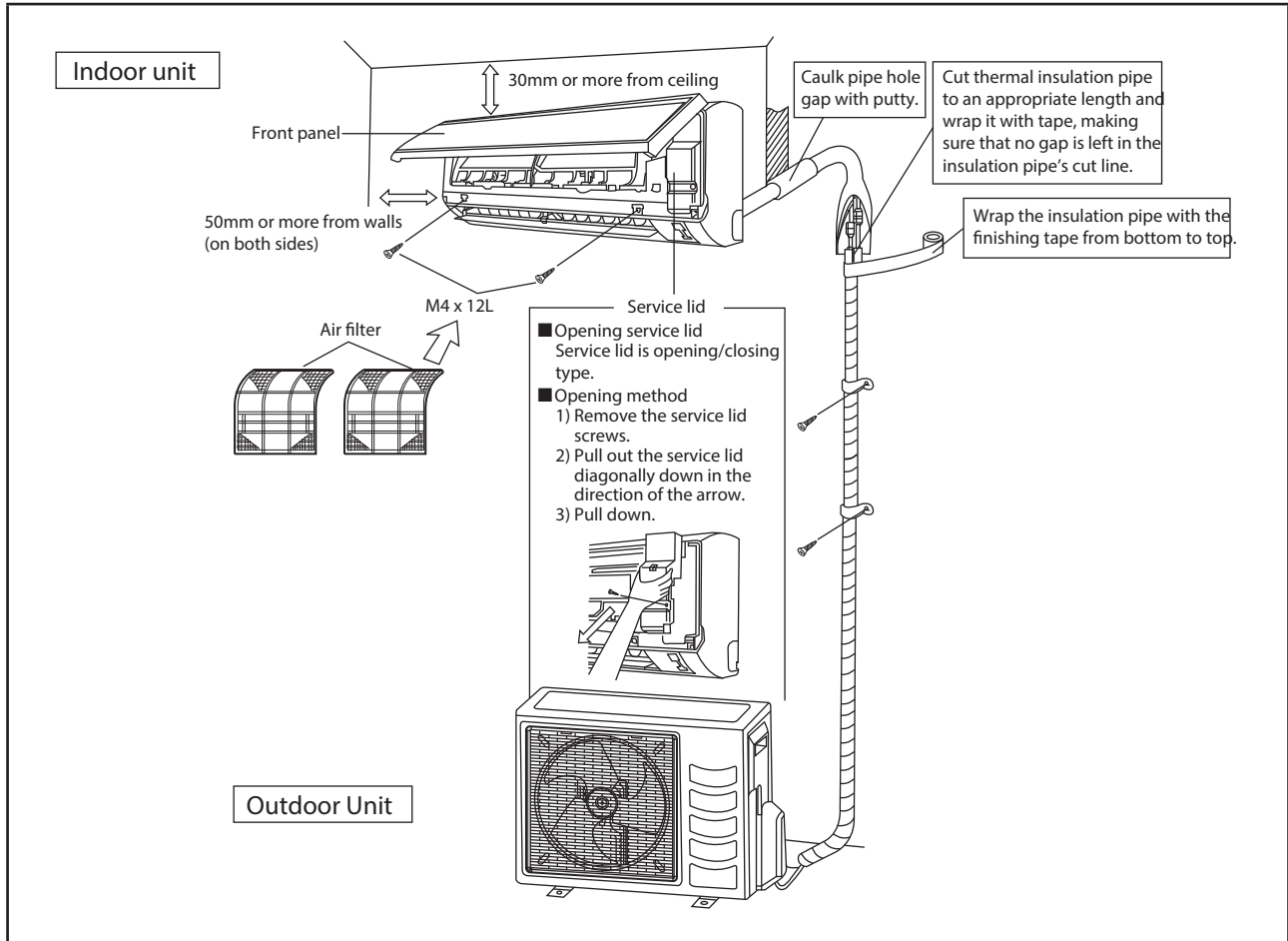
Installation Guideline



Caution

Sharp edges and coil surfaces are potential injury hazard. Avoid from contact with them.

Installation Diagram



Outdoor Clearance



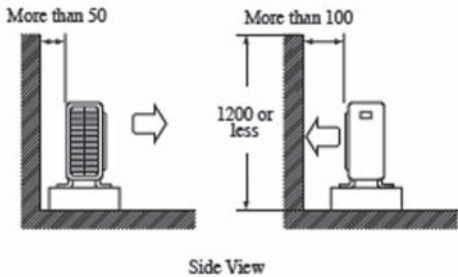
Caution

If the condensing unit is operated in an atmosphere containing oils (including machine oils), salt (coastal area), sulphide gas (near hot spring, oil refinery plant), such as substances may lead to failure of the unit.

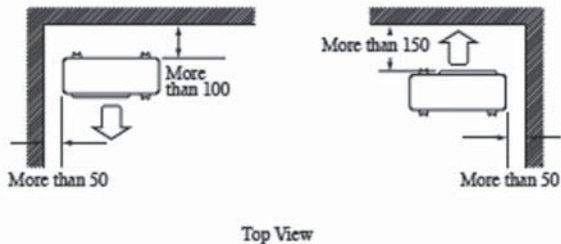
- Where a wall or other obstacle is in the path of outdoor unit's intake or exhaust airflow, follow the installation guidelines below.
- For any of the below installation patterns, the wall height on the exhaust side should be 1200mm or less.

Model: RXK25/35/50/60AV1B

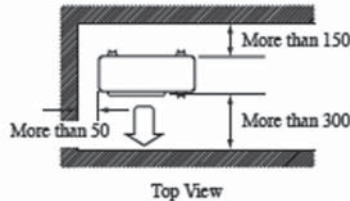
Wall facing one side



Wall facing two side

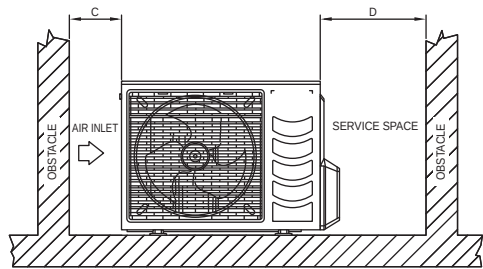
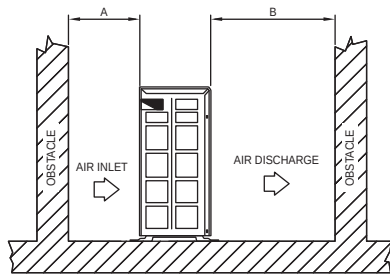


Wall facing three side



Unit : mm

Model: RXK25/35/50/60AV1B



ALL MODELS	A	B	C	D
Minimum Distance	300 mm	1000 mm	300 mm	500 mm

Cable Size

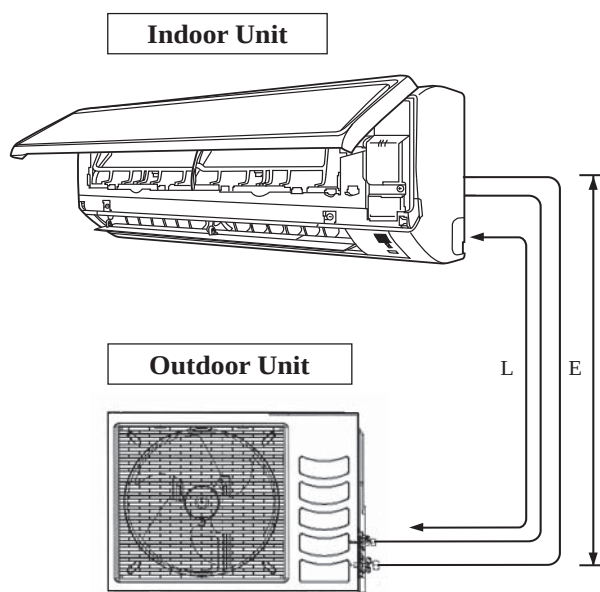
Model	Unit	FTXK25AV1BW /BS	FTXK35AV1BW /BS	FTXK50AV1BW /BS	FTXK60AV1BW /BS
		RXK25AV1B	RXK35AV1B	RXK50AV1B	RXK60AV1B
Power supply cable size	mm ²	1.5		2.5	
Number of wire		3		3	
Interconnection cable size	mm ²	1.5		2.5	
Number of wire		4		4	
Recommended fuse	A	16		20	

* If the length of the cable is more than 2m, use cable with bigger size.

Refrigerant Piping

Piping Length and Elevation

When the pipe length becomes too long, both the capacity and reliability drop. As the number of bends increases, system piping resistance to the refrigerant flow increases, thus lowering the cooling capacity, and as the result the compressor may become defective. Always choose the shortest path and follow the recommendation as tabulated below:



Model	FTXK_BW/BS	25	35	50	60
	RXK	25	35	50	60
Min. Allowable Length (L), m		3		3	
Max. Allowable Length (L), m		20		30	
Max. Allowable Elevation (E), m		10		10	
Gas Pipe Size, mm/(in)		9.52 (3/8")		12.70 (1/2")	15.88 (5/8")
Liquid Pipe Size, mm/(in)		6.35 (1/4")		6.35 (1/4")	

*Be sure to add the proper amount of additional refrigerant. Failure to do so may result in reduced performance.

Remark: The refrigerant pre-charged in the outdoor unit is for piping length up to 7.5m.

Equivalent length for various fitting (meter)

Pipe size	L Joint	Trap bend
		
3/8" (OD9.52mm)	0.18	1.3
1/2" (OD12.7mm)	0.20	1.5
5/8" (OD15.9mm)	0.25	2.0
3/4" (OD19.1mm)	0.35	2.4
7/8" (OD22.1mm)	0.40	3.0
1" (OD25.4mm)	0.45	3.4
1 1/8" (OD28.6mm)	0.50	3.7
1 3/8" (OD34.9mm)	0.60	4.4

Notes:

1. Equivalent piping length is obtained with actual length of gas piping.
2. 90° bend of piping is equivalent to L joint.

Additional Charge

- The refrigerant gas is charged in the outdoor unit and, if the piping length is 7.5m, additional charge of the refrigerant after vacuuming is not necessary.
- When the piping length is more than 7.5m, additional refrigerant charge (g) per additional 1m length as tabulated:

Indoor (FTXK)	25	35	50	60
Outdoor (RXK)	25	35	50	60
Additional Charge [g/m]	20	20	20	20

Example:

FTXK25 & RXK25 with 12m piping length, additional piping length is 4.5m.

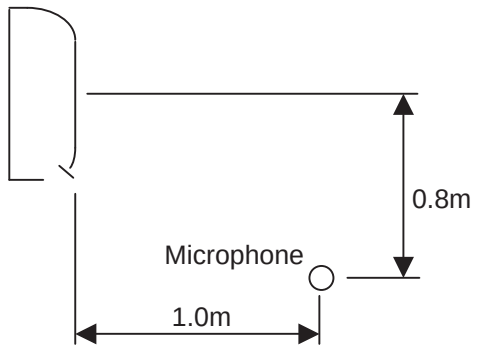
Thus, Additional charge = 4.5[m] x 20[g/m]

= 90.0[g]

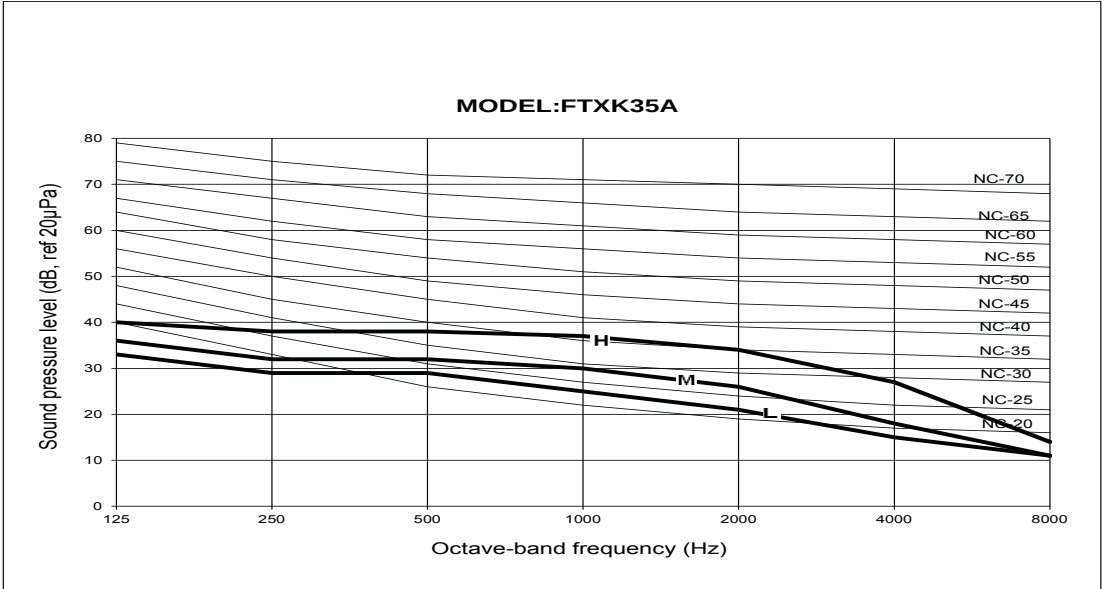
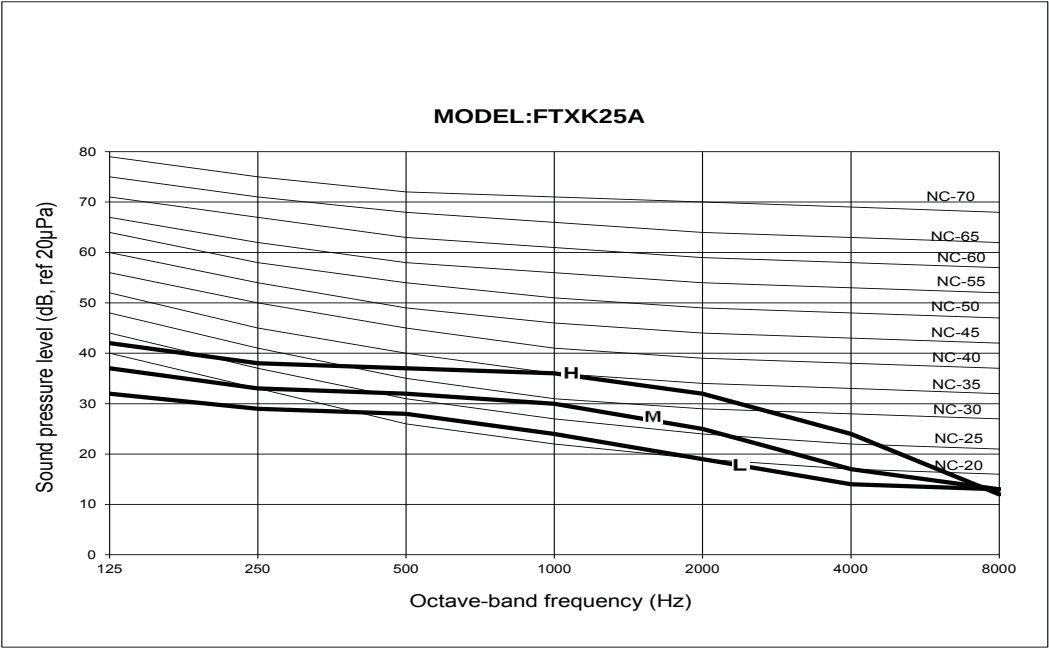
Sound Data

Sound Pressure Level

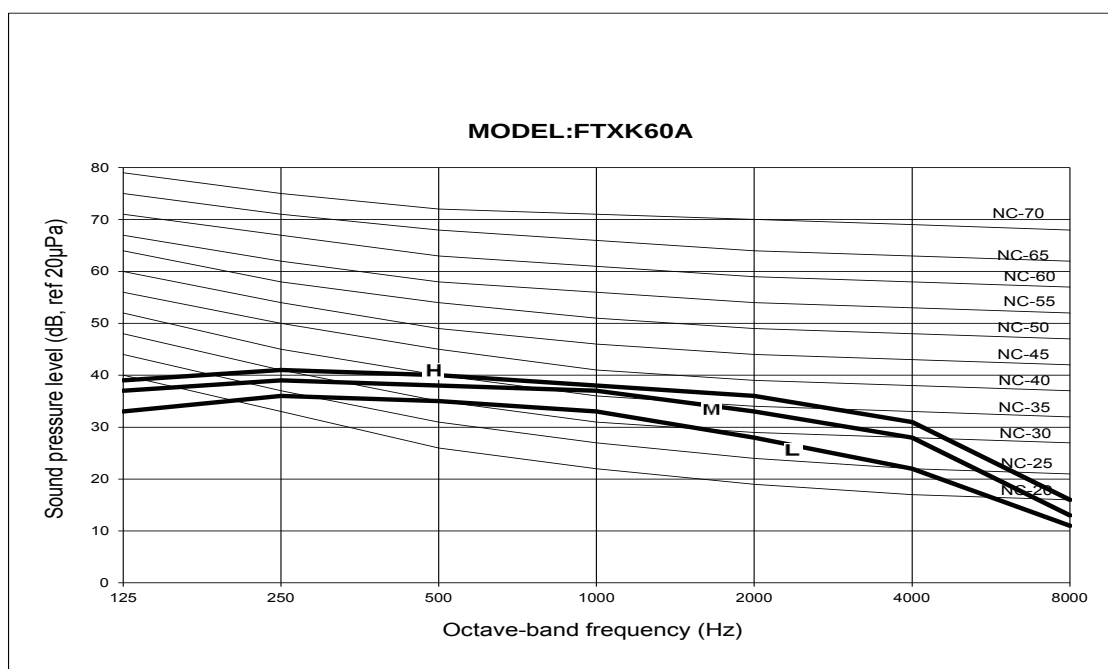
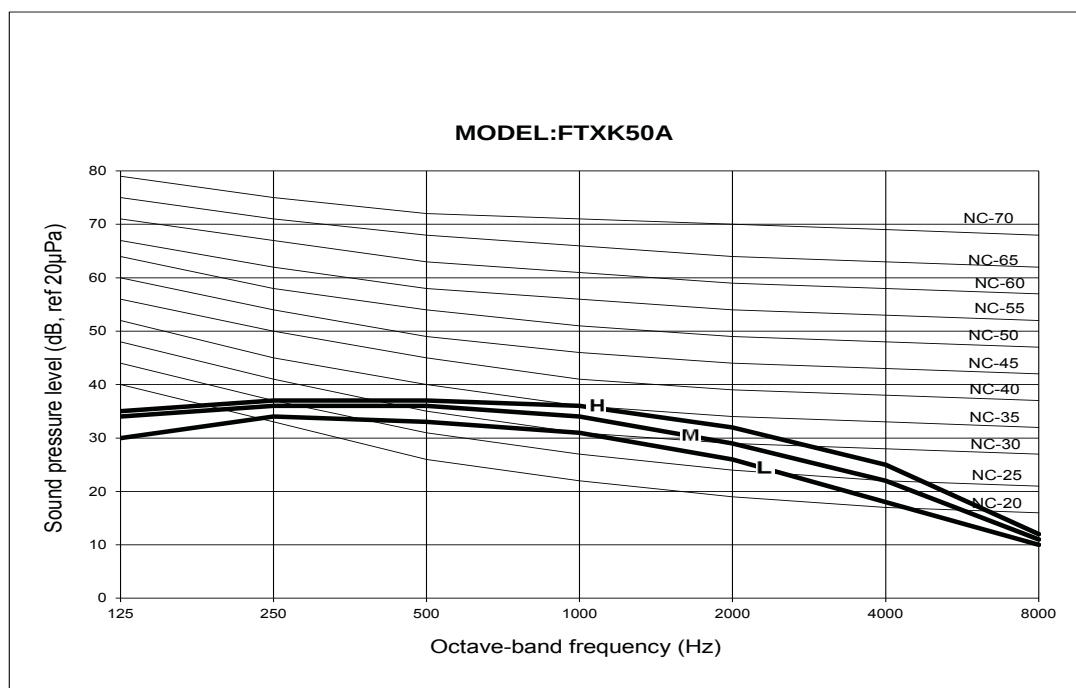
Model	Speed	1/1 Octave A-weighted Sound Pressure Level (dB, ref 20μPa)							Overall (dBA)	Noise Criteria
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
FTXK25A	Turbo	43	39	37	37	33	26	13	41	36
	Hi	42	38	37	36	32	24	12	40	35
	Me	37	33	32	30	25	17	13	34	29
	Lo	32	29	28	24	19	14	13	29	22
	Quiet	21	22	20	15	10	7	8	21	-
FTXK35A	Turbo	41	39	38	38	36	29	15	42	37
	Hi	40	38	38	37	34	27	14	41	36
	Me	36	32	32	30	26	18	11	34	29
	Lo	33	29	29	25	21	15	11	30	23
	Quiet	24	22	21	17	11	7	7	22	-
FTXK50A	Turbo	39	41	40	40	37	29	16	44	39
	Hi	35	37	37	36	32	25	12	40	35
	Me	34	36	36	34	29	22	11	38	33
	Lo	30	34	33	31	26	18	10	35	30
	Quiet	28	32	30	28	22	14	10	32	26
FTXK60A	Turbo	42	44	43	42	40	35	20	46	41
	Hi	39	41	40	38	36	31	16	43	37
	Me	37	39	38	37	33	28	13	41	36
	Lo	33	36	35	33	28	22	11	37	32
	Quiet	28	33	32	28	23	17	9	33	26

Model	Measuring Location
FTXK25/35/50/60A	 Standard : JIS C 9612

NC Curve



NC Curve



Engineering & Physical Data

Engineering Data - R410A MODEL (Heatpump)

MODEL		INDOOR UNIT		FTXK25AV1BW/BS		FTXK35AV1BW/BS		FTXK50AV1BW/BS		FTXK60AV1BW/BS				
		OUTDOOR UNIT		RXK25AV1B		RXK35AV1B		RXK50AV1B		RXK30AV1B				
NOMINAL COOLING CAPACITY (Max - Min)				Btu/h		8500 (10200 - 4400)		11900 (13000 - 4400)		18700 (21200 - 5600)		21300 (22200 - 6000)		
				W		2500 (3000 - 1300)		3500 (3800 - 1300)		5480 (6200 - 1630)		6230 (6500 - 1750)		
NOMINAL HEATING CAPACITY (Max - Min)				Btu/h		11300 (13600 - 4400)		12300 (16200 - 4400)		19200 (22500 - 4000)		21800 (27300 - 4100)		
				W		3300 (4000 - 1300)		3600 (4750 - 1300)		5620 (6600 - 1170)		6400 (8000 - 1200)		
NOMINAL TOTAL INPUT POWER (COOLING) (Max - Min)				W		731 (990 - 280)		1075 (1390 - 290)		1700 (2000 - 290)		1931 (2000 - 280)		
NOMINAL TOTAL INPUT POWER (HEATING) (Max - Min)				W		900 (1100 - 260)		957 (1480 - 285)		1550 (2510 - 260)		1680 (2000 - 240)		
NOMINAL RUNNING CURRENT (COOLING) (Max - Min)				A		4.03 (5.38 - 1.61)		4.86 (6.51 - 1.67)		7.50 (8.80 - 1.50)		8.52 (8.83 - 1.46)		
NOMINAL RUNNING CURRENT (HEATING) (Max - Min)				A		4.59 (5.30 - 1.52)		4.29 (6.93 - 1.64)		6.86 (11.01 - 1.38)		7.46 (11.24 - 1.29)		
EER				W/W		3.42		3.26		3.22		3.23		
COP				W/W		3.67		3.76		3.63		3.81		
SEER				W/W		A+		A+		A+		A+		
SCOP				W/W		A+		A+		A+		A+		
REFRIGERANT CHARGE				kg		0.74		1.00		1.25		1.45		
POWER SOURCE				V/Ph/Hz		220-240/1/50		220-240/1/50		220-240/1/50		220-240/1/50		
REFRIGERANT TYPE						R410A		R410A		R410A		R410A		
INDOOR UNIT	CONTROL	AIR DISCHARGE				AUTO LOUVER(UP & DOWN) & GRILLE (LEFT & RIGHT)		AUTO LOUVER(UP & DOWN) & GRILLE (LEFT & RIGHT)		AUTO LOUVER(UP & DOWN) & GRILLE (LEFT & RIGHT)		AUTO LOUVER(UP & DOWN) & GRILLE (LEFT & RIGHT)		
		OPERATION				LCD REMOTE CONTROL		LCD REMOTE CONTROL		LCD REMOTE CONTROL		LCD REMOTE CONTROL		
	AIR FLOW	TURBO		l/s / CFM		178 / 378		185 / 392		273 / 578		332 / 703		
		HIGH		l/s / CFM		163 / 345		169 / 358		250 / 529		309 / 654		
		MEDIUM		l/s / CFM		128 / 272		133 / 282		222 / 471		276 / 585		
		LOW		l/s / CFM		101 / 215		109 / 232		197 / 418		239 / 507		
	QUIET				l/s / CFM		78 / 165		78 / 165		177 / 374		206 / 437	
	SOUND PRESSURE LEVEL (T/H/M/L/Q)				dBA		41/40/34/29/21		42/41/34/30/22		44/40/38/35/32		46/43/41/37/33	
	SOUND POWER LEVEL				dBA		53		54		55		61	
	UNIT DIMENSION		HEIGHT X WIDTH X DEPTH		mm		297 X 890 X 210		297 X 890 X 210		320 X 1172 X 242		320 X 1172 X 242	
	PACKING DIMENSION		HEIGHT X WIDTH X DEPTH		mm		367 X 970 X 303		367 X 970 X 303		400 X 1252 X 333		400 X 1252 X 333	
	UNIT WEIGHT				kg		9.0		9.0		14.0		14.0	
	CONDENSATE DRAIN SIZE				mm		19.05		19.05		19.05		19.05	
	FAN	TYPE				CROSS FLOW		CROSS FLOW		CROSS FLOW		CROSS FLOW		
		DRIVE				DIRECT		DIRECT		DIRECT		DIRECT		
	FAN MOTOR	TYPE				INDUCTION		INDUCTION		BRUSHLESS		BRUSHLESS		
		INDEX OF PROTECTION (IP)				IP44		IP44		IP20		IP20		
		INSULATION GRADE				CLASS E		CLASS E		CLASS E		CLASS E		
		RATED INPUT POWER		W		37		42		37		63		
		RATED RUNNING CURRENT		A		0.19		0.21		0.32		0.56		
		MOTOR OUTPUT		W		18		18		40		40		
	COIL	TUBE	MATERIAL				SEAMLESS INNER GROOVE COPPER		SEAMLESS INNER GROOVE COPPER		SEAMLESS INNER GROOVE COPPER		SEAMLESS INNER GROOVE COPPER	
			DIAMETER		mm		7		7		7		7	
		FIN	MATERIAL				ALUMINIUM (HYDROPHILIC FIN)		ALUMINIUM (HYDROPHILIC FIN)		ALUMINIUM (HYDROPHILIC FIN)		ALUMINIUM (HYDROPHILIC FIN)	
			FACE AREA		m²		0.18		0.18		0.29		0.29	
			ROW				2		2		2		2	
	AIR QUALITY	FILTER	TYPE				SARANET		SARANET		SARANET		SARANET	
	QUANTITY				pc		2		2		2		2	
	CASING				COLOUR		WHITE (FTXK_BW) SILVER (FTXK_BS)							
OUTDOOR UNIT	AIR FLOW			l/s / CFM		425 / 900		345 / 730		798 / 1690		848 / 1796		
	SOUND PRESSURE LEVEL			dBA		45		46		51		51		
	SOUND POWER LEVEL			dBA		58		60		64		65		
	UNIT DIMENSION		HEIGHT X WIDTH X DEPTH		mm		550 X 658 X 289		550 X 658 X 289		628 X 855 X 328		753 X 855 X 328	
	PACKING DIMENSION		HEIGHT X WIDTH X DEPTH		mm		580 X 775 X 355		580 X 775 X 355		693 X 990 X 415		793 X 990 X 415	
	UNIT WEIGHT				kg		24		26		37		44	
	PIPE CONNECTION	SIZE	TYPE				FLARE VALVE		FLARE VALVE		FLARE VALVE		FLARE VALVE	
			LIQUID		mm		6.35		6.35		6.35		6.35	
			GAS		mm		9.52		9.52		12.70		15.90	
	PIPE LENGTH	PRE-CHARGED		m		7.5		7.5		7.5		7.5		
		MAXIMUM		m		20		20		30		30		
	FAN	TYPE				PROPELLER		PROPELLER		PROPELLER		PROPELLER		
		DRIVE				DIRECT		DIRECT		DIRECT		DIRECT		
	FAN MOTOR	TYPE				BRUSHLESS DC MOTOR		BRUSHLESS DC MOTOR		INDUCTION		INDUCTION		
		INDEX OF PROTECTION (IP)				IP24		IP24		IP23		IP23		
		INSULATION GRADE				CLASS E		CLASS E		CLASS E		CLASS E		
		RATED INPUT POWER		W		25		24		86		80		
		RATED RUNNING CURRENT		A		0.36		0.34		0.90		0.77		
		MOTOR OUTPUT		W		41		41		61		61		
	COMPRESSOR	POLES				8		8		8		8		
		TYPE				HERMETIC SWING		HERMETIC SWING		HERMETIC SWING		HERMETIC SWING		
		OIL TYPE				DAPHNE FVC50K (Ether Oil)		DAPHNE FVC50K (Ether Oil)		DAPHNE FVC50K (Ether Oil)		DAPHNE FVC50K (Ether Oil)		
		OIL AMOUNT		cm³		375		375		650		650		
		RATED INPUT POWER (COOLING)		W		NA		NA		NA		NA		
		RATED INPUT POWER (HEATING)		W		NA		NA		NA		NA		
		RATED RUNNING CURRENT (COOLING)		A		NA		NA		NA		NA		
		RATED RUNNING CURRENT (HEATING)		A		NA		NA		NA		NA		
	COIL	TUBE	MATERIAL				SEAMLESS INNER GROOVE COPPER		SEAMLESS INNER GROOVE COPPER		SEAMLESS INNER GROOVE COPPER		SEAMLESS INNER GROOVE COPPER	
			DIAMETER		mm		7		7		7		7	
		FIN	MATERIAL				ALUMINIUM (CORRUGATED)		ALUMINIUM (CORRUGATED)		ALUMINIUM (CORRUGATED)		ALUMINIUM (CORRUGATED)	
			FACE AREA		m²		0.33		0.32		0.62		0.62	
			ROW				1		2		2		2	
	CASING				COLOUR		IVORY WHITE		IVORY WHITE		IVORY WHITE		IVORY WHITE	
OPERATING RANGE		COOLING		°C DB		10 ~ 46		10 ~ 46		-10 ~ 46		-10 ~ 46		
		HEATING		°C WB		-15 ~ 18		-15 ~ 18		-15 ~ 18		-15 ~ 18		

1) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151 (NON-DUCTED UNIT) OR ISO 13253 (DUCTED UNIT).

2) ALL SPECIFICATIONS ARE SUBJECT TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

COOLING		HEATING	
INDOOR: 27°C DB / 19°C WB		INDOOR: 20°C DB	
OUTDOOR: 35°C DB / 24°C WB		OUTDOOR: 8°C DB / 6°C WB	

Performance Data

Calculation Steps

Interpolation method can be used to get the total cooling capacity, **TC** and sensible cooling capacity, **SC** and power input, **PI** at those temperatures which are not stated out in the table. Extrapolation method is not allowed to be used.

Example:

Model: FTXXK25AV1BW - RXK25AV1B

Indoor Condition: 25°C DB, 17°C WB

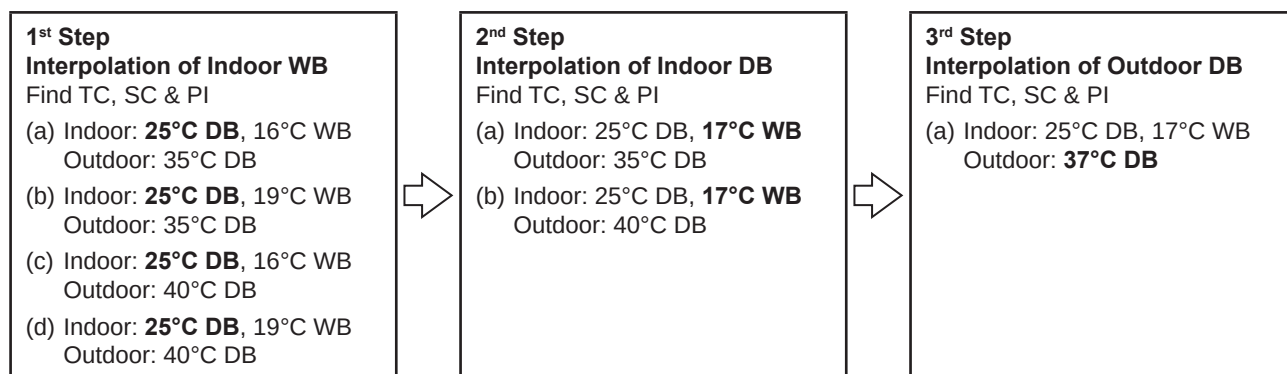
Outdoor Condition: 37°C DB

Fan Speed: High

Solution:

Based on the Performance Table,

1. Refer to the Indoor DB column,
 - **25°C** is located between 24°C & 27°C for 16°C WB.
 - **25°C** is located between 24°C & 27°C for 19°C WB.
 - Thus, Interpolation needs to be applied.
2. Refer to the Indoor WB column,
 - **17°C** is located between 16°C & 19°C for 25°C DB.
 - Thus, Interpolation needs to be applied.
3. Refer to the Outdoor DB column,
 - **37°C** is located between 35°C & 40°C.
 - Thus, Interpolation needs to be applied.



Details of Calculation:

1st Step:

To obtain the TC, SC & PI for

(a) Indoor Condition: 25°C DB, 16°C WB

Outdoor Condition: 35°C DB

EWB	EDB	Outdoor temperature			
			35°C		
			TC	SC	PI
			⋮	⋮	⋮
16	24		2.15	2.10	0.70
	25	-----	x_1	y_1	z_1
	27		2.18	2.18	0.71

By Interpolation Method

$$\Rightarrow \frac{25^\circ\text{C} - 24^\circ\text{C}}{27^\circ\text{C} - 24^\circ\text{C}} = \frac{x_1 - 2.15 \text{ kW}}{2.18 \text{ kW} - 2.15 \text{ kW}}$$

$$\Rightarrow x_1 = 2.16 \text{ kW}$$

Similarly,

$$y_1 = 2.13 \text{ kW}$$

$$z_1 = 0.70 \text{ kW}$$

(b) Indoor Condition: 25°C DB, 19°C WB

Outdoor Condition: 35°C DB

EWB	EDB	Outdoor temperature				
		35°C				
			TC	SC	PI	
			⋮	⋮	⋮	
19	24		2.37	1.62	0.72	
	25	-----	x ₂	y ₂	z ₂	
	27		2.37	1.87	0.72	

By Interpolation Method

$$\Rightarrow \frac{25^{\circ}\text{C} - 24^{\circ}\text{C}}{27^{\circ}\text{C} - 24^{\circ}\text{C}} = \frac{y_2 - 1.62 \text{ kW}}{1.87 \text{ kW} - 1.62 \text{ kW}}$$

$$\Rightarrow y_2 = 1.70 \text{ kW}$$

Similarly,

$$x_2 = 2.37 \text{ kW}$$

$$z_2 = 0.72 \text{ kW}$$

Repeat the same process for (c) & (d) in 1st Step

$$(c) \quad x_3 = 1.98 \text{ kW}; y_3 = 1.97 \text{ kW}; z_3 = 0.76 \text{ kW}$$

$$(d) \quad x_4 = 2.17 \text{ W}; y_4 = 1.59 \text{ kW}; z_4 = 0.78 \text{ kW}$$

2nd Step:

To obtain the TC, SC & PI for

(a) Indoor Condition: 25°C DB, 17°C WB

Outdoor Condition: 35°C DB

EWB	EDB	Outdoor temperature				
		35°C				
			TC	SC	PI	
			⋮	⋮	⋮	
16	25		2.16	2.13	0.70	
17		-----	x ₅	y ₅	z ₅	
19			2.37	1.70	0.72	

By Interpolation Method

$$\Rightarrow \frac{17^{\circ}\text{C} - 16^{\circ}\text{C}}{19^{\circ}\text{C} - 16^{\circ}\text{C}} = \frac{x_5 - 2.16 \text{ kW}}{2.37 \text{ kW} - 2.16 \text{ kW}}$$

$$\Rightarrow x_5 = 2.23 \text{ kW}$$

Similarly,

$$y_5 = 1.99 \text{ kW}$$

$$z_5 = 0.71 \text{ kW}$$

Repeat the same process for (b) in 2nd Step

$$(c) \quad x_6 = 2.04 \text{ kW}; y_6 = 1.84 \text{ kW}; z_6 = 0.77 \text{ kW}$$

3rd Step:

To obtain the TC, SC & PI for

(a) Indoor Condition: 25°C DB, 17°C WB

Outdoor Condition: 37°C DB

EWB	EDB	Outdoor temperature									
			35°C			37°C			40°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI
						⋮	⋮	⋮			
25	17	-----	2.23	1.99	0.71	x	y	z	2.04	1.84	0.77

By Interpolation Method

$$\Rightarrow \frac{37^{\circ}\text{C} - 35^{\circ}\text{C}}{40^{\circ}\text{C} - 35^{\circ}\text{C}} = \frac{x - 2.23 \text{ kW}}{2.04 \text{ kW} - 2.23 \text{ kW}}$$

$$\Rightarrow x = 2.15 \text{ kW}$$

Similarly,

$$y = 1.93 \text{ kW}$$

$$z = 0.73 \text{ kW}$$

Performance Tables

Model: FTXK25AV1BW/BS - RXK25AV1B

Cooling Mode

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
215	16°C	21°C	2.36	1.84	0.56	2.27	1.80	0.60	2.19	1.75	0.65	2.10	1.70	0.71	1.93	1.58	0.77	1.78	1.49	0.84
		24°C	2.36	2.21	0.56	2.28	2.16	0.60	2.19	2.11	0.65	2.10	2.06	0.71	1.93	1.92	0.77	1.79	1.79	0.84
		27°C	2.38	2.38	0.56	2.30	2.30	0.60	2.22	2.22	0.65	2.13	2.13	0.71	1.97	1.97	0.77	1.83	1.83	0.85
		30°C	2.45	2.45	0.56	2.38	2.38	0.61	2.31	2.31	0.66	2.23	2.23	0.71	2.07	2.07	0.77	1.94	1.94	0.86
	19°C	24°C	2.60	1.72	0.56	2.51	1.68	0.61	2.42	1.63	0.66	2.32	1.59	0.72	2.13	1.48	0.78	1.97	1.39	0.86
		27°C	2.60	1.97	0.56	2.51	1.93	0.61	2.42	1.88	0.66	2.32	1.84	0.72	2.13	1.72	0.78	1.97	1.63	0.86
		30°C	2.60	2.43	0.56	2.51	2.38	0.61	2.43	2.33	0.66	2.33	2.27	0.72	2.15	2.12	0.78	1.99	1.99	0.86
		33°C	2.64	2.64	0.57	2.55	2.55	0.61	2.47	2.47	0.66	2.38	2.38	0.72	2.20	2.20	0.78	2.06	2.06	0.87
	22°C	27°C	2.86	1.69	0.57	2.76	1.64	0.62	2.66	1.60	0.67	2.56	1.56	0.73	2.35	1.45	0.79	2.18	1.37	0.87
		30°C	2.86	2.05	0.57	2.76	2.01	0.62	2.66	1.96	0.67	2.56	1.92	0.73	2.35	1.80	0.79	2.18	1.70	0.87
		33°C	2.86	2.40	0.57	2.76	2.35	0.62	2.66	2.31	0.67	2.56	2.26	0.73	2.35	2.12	0.79	2.18	2.01	0.88
		36°C	2.87	2.72	0.57	2.78	2.67	0.62	2.68	2.61	0.68	2.58	2.55	0.73	2.38	2.38	0.80	2.21	2.21	0.88
272	16°C	21°C	2.45	1.92	0.56	2.36	1.87	0.61	2.27	1.82	0.66	2.18	1.77	0.71	2.00	1.65	0.77	1.85	1.55	0.85
		24°C	2.46	2.34	0.56	2.37	2.28	0.61	2.28	2.23	0.66	2.19	2.17	0.71	2.01	2.01	0.77	1.86	1.86	0.85
		27°C	2.49	2.49	0.56	2.41	2.41	0.61	2.32	2.32	0.66	2.24	2.24	0.71	2.07	2.07	0.78	1.93	1.93	0.86
		30°C	2.59	2.59	0.57	2.52	2.52	0.61	2.44	2.44	0.66	2.36	2.36	0.72	2.19	2.19	0.78	2.05	2.05	0.87
	19°C	24°C	2.70	1.82	0.57	2.61	1.77	0.62	2.51	1.73	0.67	2.41	1.68	0.72	2.21	1.57	0.79	2.04	1.48	0.87
		27°C	2.71	2.10	0.57	2.61	2.05	0.62	2.51	2.00	0.67	2.41	1.96	0.72	2.22	1.83	0.79	2.05	1.73	0.87
		30°C	2.72	2.59	0.57	2.62	2.53	0.62	2.53	2.47	0.67	2.43	2.41	0.73	2.24	2.24	0.79	2.08	2.08	0.87
		33°C	2.76	2.76	0.57	2.68	2.68	0.62	2.59	2.59	0.67	2.51	2.51	0.73	2.32	2.32	0.79	2.17	2.17	0.88
	22°C	27°C	2.97	1.78	0.58	2.86	1.74	0.63	2.76	1.70	0.68	2.65	1.65	0.74	2.43	1.54	0.80	2.25	1.45	0.88
		30°C	2.97	2.19	0.58	2.87	2.14	0.63	2.76	2.09	0.68	2.65	2.05	0.74	2.44	1.92	0.80	2.25	1.82	0.88
		33°C	2.98	2.56	0.58	2.87	2.51	0.63	2.77	2.46	0.68	2.66	2.41	0.74	2.45	2.26	0.80	2.27	2.15	0.88
		36°C	3.00	2.90	0.58	2.90	2.84	0.63	2.80	2.78	0.68	2.70	2.70	0.74	2.49	2.49	0.80	2.32	2.32	0.89
345	16°C	21°C	2.54	2.01	0.56	2.45	1.96	0.61	2.36	1.91	0.66	2.26	1.85	0.72	2.07	1.73	0.78	1.91	1.62	0.86
		24°C	2.56	2.44	0.57	2.46	2.38	0.61	2.37	2.32	0.66	2.28	2.26	0.72	2.09	2.09	0.78	1.93	1.93	0.86
		27°C	2.60	2.60	0.57	2.51	2.51	0.61	2.43	2.43	0.67	2.34	2.34	0.72	2.16	2.16	0.78	2.02	2.02	0.87
		30°C	2.73	2.73	0.57	2.65	2.65	0.62	2.57	2.57	0.67	2.48	2.48	0.73	2.30	2.30	0.79	2.15	2.15	0.88
	19°C	24°C	2.80	1.93	0.57	2.70	1.88	0.62	2.60	1.83	0.67	2.49	1.78	0.73	2.29	1.66	0.79	2.11	1.57	0.87
		27°C	2.81	2.23	0.57	2.71	2.18	0.62	2.61	2.13	0.67	2.50	2.08	0.73	2.30	1.94	0.79	2.12	1.84	0.87
		30°C	2.83	2.74	0.58	2.73	2.68	0.62	2.63	2.62	0.68	2.53	2.53	0.73	2.33	2.33	0.80	2.16	2.16	0.88
		33°C	2.89	2.89	0.58	2.81	2.81	0.63	2.72	2.72	0.68	2.63	2.63	0.74	2.44	2.44	0.80	2.28	2.28	0.89
	22°C	27°C	3.07	1.88	0.59	2.96	1.84	0.63	2.85	1.80	0.69	2.74	1.75	0.74	2.51	1.63	0.81	2.32	1.54	0.89
		30°C	3.08	2.32	0.59	2.97	2.28	0.63	2.86	2.23	0.69	2.74	2.18	0.75	2.52	2.04	0.81	2.33	1.93	0.89
		33°C	3.09	2.72	0.59	2.98	2.68	0.64	2.87	2.62	0.69	2.76	2.56	0.75	2.54	2.40	0.81	2.35	2.28	0.89
		36°C	3.12	3.07	0.59	3.02	3.02	0.64	2.91	2.91	0.69	2.81	2.81	0.75	2.60	2.60	0.81	2.42	2.42	0.90

Remark:

AFR: Air flow rate (CFM)
 EWB: Entering Wet Bulb Temp. (°C)
 EDB: Entering Dry Bulb Temp. (°C)
 TC: Total Cooling Capacity (kW)
 SC: Sensible Cooling Capacity (kW)
 PI: Power Input (kW)

Notes:

1. Ratings shown are gross capacities which do not include a deduction for indoor fan motor heat.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 0°C to 46°C without pressure trip.

Heating Mode

	Outdoor WB°C											
Indoor	-15		-10		-5		0		6		10	
DB°C	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	1.66	0.65	2.05	0.69	2.45	0.74	2.86	0.78	3.33	0.84	3.65	0.87
18	1.64	0.68	2.04	0.73	2.44	0.77	2.84	0.82	3.32	0.87	3.64	0.91
20	1.62	0.71	2.02	0.76	2.42	0.80	2.82	0.85	3.30	0.90	3.62	0.94
21	1.62	0.73	2.01	0.77	2.41	0.82	2.81	0.86	3.29	0.92	3.61	0.95
22	1.60	0.74	2.01	0.79	2.41	0.83	2.81	0.88	3.28	0.93	3.60	0.97
24	1.59	0.78	1.99	0.82	2.39	0.87	2.79	0.91	3.27	0.96	3.58	1.00

Remark:

EDB: Entering Dry Bulb Temp. (°C)
 TC: Total Cooling / Heating Capacity (kW)
 PI: Power Input (kW)

Notes:

1. Ratings shown are gross capacities which do not include a deduction for indoor fan motor heat.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.

Model: FTXK35AV1BW/BS - RXK35AV1B

Cooling Mode

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
232	16°C	21°C	3.30	2.33	0.82	3.18	2.27	0.88	3.06	2.21	0.96	2.94	2.15	1.04	2.70	2.00	1.13	2.49	1.88	1.24
		24°C	3.30	2.79	0.82	3.19	2.73	0.88	3.07	2.67	0.96	2.95	2.60	1.04	2.71	2.43	1.13	2.50	2.29	1.24
		27°C	3.33	3.17	0.82	3.22	3.10	0.89	3.11	3.02	0.96	2.99	2.95	1.04	2.76	2.74	1.13	2.57	2.57	1.25
		30°C	3.43	3.43	0.82	3.33	3.33	0.89	3.23	3.23	0.97	3.13	3.13	1.05	2.90	2.90	1.14	2.71	2.71	1.26
	19°C	24°C	3.64	2.18	0.83	3.51	2.12	0.90	3.38	2.07	0.97	3.25	2.01	1.06	2.99	1.87	1.14	2.76	1.76	1.26
		27°C	3.64	2.49	0.83	3.51	2.44	0.90	3.38	2.38	0.97	3.25	2.32	1.06	2.99	2.17	1.15	2.76	2.06	1.26
		30°C	3.65	3.08	0.83	3.52	3.01	0.90	3.40	2.94	0.97	3.27	2.87	1.06	3.01	2.69	1.15	2.79	2.54	1.26
		33°C	3.69	3.69	0.83	3.57	3.57	0.90	3.45	3.45	0.98	3.34	3.34	1.06	3.09	3.09	1.15	2.89	2.89	1.27
	22°C	27°C	4.00	2.13	0.84	3.86	2.08	0.92	3.72	2.03	0.99	3.58	1.97	1.08	3.29	1.84	1.17	3.05	1.73	1.29
		30°C	4.00	2.60	0.84	3.87	2.54	0.92	3.72	2.49	0.99	3.58	2.43	1.08	3.29	2.27	1.17	3.05	2.15	1.29
		33°C	4.01	3.03	0.84	3.87	2.98	0.92	3.73	2.92	0.99	3.58	2.86	1.08	3.30	2.68	1.17	3.05	2.55	1.29
		36°C	4.02	3.44	0.85	3.89	3.37	0.92	3.75	3.30	0.99	3.62	3.23	1.08	3.33	3.03	1.17	3.10	2.87	1.29
282	16°C	21°C	3.43	2.43	0.82	3.31	2.37	0.89	3.18	2.31	0.97	3.05	2.24	1.05	2.80	2.09	1.13	2.58	1.97	1.25
		24°C	3.44	2.95	0.82	3.32	2.89	0.89	3.20	2.82	0.97	3.07	2.75	1.05	2.82	2.56	1.14	2.60	2.42	1.25
		27°C	3.48	3.36	0.83	3.37	3.28	0.89	3.25	3.19	0.97	3.13	3.10	1.05	2.89	2.88	1.14	2.70	2.69	1.26
		30°C	3.63	3.63	0.83	3.53	3.53	0.90	3.42	3.42	0.98	3.31	3.31	1.06	3.06	3.06	1.15	2.86	2.86	1.27
	19°C	24°C	3.78	2.30	0.84	3.65	2.25	0.91	3.51	2.19	0.98	3.37	2.13	1.07	3.09	1.98	1.16	2.86	1.87	1.27
		27°C	3.79	2.65	0.84	3.65	2.59	0.91	3.52	2.54	0.98	3.38	2.48	1.07	3.10	2.31	1.16	2.87	2.19	1.27
		30°C	3.81	3.27	0.84	3.67	3.20	0.91	3.54	3.13	0.98	3.41	3.05	1.07	3.14	2.86	1.16	2.91	2.70	1.28
		33°C	3.87	3.87	0.84	3.75	3.75	0.91	3.63	3.63	0.99	3.51	3.51	1.07	3.25	3.25	1.17	3.04	3.04	1.29
	22°C	27°C	4.16	2.25	0.85	4.01	2.20	0.92	3.86	2.15	1.00	3.71	2.09	1.09	3.41	1.95	1.18	3.15	1.84	1.30
		30°C	4.16	2.77	0.85	4.01	2.71	0.92	3.86	2.65	1.00	3.71	2.59	1.09	3.41	2.42	1.18	3.16	2.30	1.30
		33°C	4.17	3.24	0.85	4.02	3.18	0.92	3.88	3.12	1.00	3.72	3.05	1.09	3.43	2.86	1.18	3.17	2.72	1.30
		36°C	4.19	3.67	0.86	4.06	3.60	0.93	3.92	3.52	1.01	3.77	3.44	1.09	3.48	3.22	1.18	3.25	3.04	1.31
358	16°C	21°C	3.56	2.54	0.83	3.43	2.48	0.90	3.30	2.41	0.97	3.16	2.34	1.05	2.90	2.18	1.14	2.67	2.05	1.26
		24°C	3.58	3.09	0.83	3.45	3.01	0.90	3.32	2.94	0.97	3.19	2.86	1.06	2.93	2.67	1.15	2.70	2.52	1.26
		27°C	3.64	3.54	0.83	3.52	3.45	0.90	3.40	3.35	0.98	3.28	3.25	1.06	3.03	3.01	1.15	2.82	2.81	1.27
		30°C	3.82	3.82	0.84	3.71	3.71	0.91	3.59	3.59	0.99	3.48	3.48	1.07	3.22	3.22	1.17	3.01	3.01	1.29
	19°C	24°C	3.92	2.44	0.84	3.78	2.38	0.91	3.63	2.32	0.99	3.49	2.25	1.07	3.20	2.10	1.16	2.95	1.98	1.28
		27°C	3.93	2.82	0.85	3.79	2.76	0.91	3.65	2.69	0.99	3.50	2.63	1.08	3.21	2.45	1.17	2.97	2.32	1.28
		30°C	3.96	3.47	0.85	3.82	3.39	0.92	3.69	3.32	0.99	3.54	3.23	1.08	3.26	3.02	1.17	3.03	2.85	1.29
		33°C	4.05	4.05	0.85	3.93	3.93	0.92	3.81	3.81	1.00	3.68	3.68	1.09	3.41	3.41	1.18	3.19	3.19	1.30
	22°C	27°C	4.30	2.38	0.86	4.15	2.33	0.93	3.99	2.27	1.01	3.83	2.21	1.10	3.52	2.07	1.19	3.25	1.95	1.31
		30°C	4.31	2.94	0.86	4.16	2.88	0.93	4.00	2.82	1.01	3.84	2.76	1.10	3.53	2.58	1.19	3.26	2.45	1.31
		33°C	4.32	3.44	0.86	4.17	3.38	0.93	4.02	3.31	1.01	3.86	3.24	1.10	3.55	3.04	1.19	3.29	2.88	1.31
		36°C	4.36	3.89	0.86	4.23	3.82	0.94	4.08	3.74	1.02	3.93	3.64	1.10	3.63	3.40	1.20	3.39	3.20	1.32

Remark:

AFR: Air flow rate (CFM)

EWB: Entering Wet Bulb Temp. (°C)

EDB: Entering Dry Bulb Temp. (°C)

TC: Total Cooling / Heating Capacity (kW)

SHC: Sensible Cooling / Heating Capacity (kW)

PI: Power Input (kW)

Notes:

1. Ratings shown are gross capacities which do not include a deduction for indoor fan motor heat.
2. ■■■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 0°C to 46°C without pressure trip.

Heating Mode

Indoor DB°C	Outdoor WB°C											
	-15		-10		-5		0		6		10	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	1.81	0.69	2.24	0.74	2.68	0.78	3.12	0.83	3.64	0.89	3.98	0.93
18	1.79	0.72	2.22	0.77	2.66	0.82	3.10	0.87	3.62	0.92	3.97	0.96
20	1.77	0.75	2.20	0.81	2.64	0.85	3.08	0.90	3.60	0.96	3.95	1.00
21	1.76	0.77	2.20	0.82	2.63	0.87	3.07	0.92	3.59	0.97	3.94	1.01
22	1.75	0.79	2.19	0.84	2.63	0.88	3.06	0.93	3.58	0.99	3.93	1.03
24	1.73	0.83	2.17	0.87	2.61	0.92	3.04	0.97	3.56	1.02	3.91	1.06

Remark:

EDB: Entering Dry Bulb Temp. (°C)

TC: Total Cooling / Heating Capacity (kW)

PI: Power Input (kW)

Notes:

1. Ratings shown are gross capacities which do not include a deduction for indoor fan motor heat.
2. ■■■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.

Performance Tables

Model: FTXK50AV1BW/BS - RXK50AV1B

Cooling Mode

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
418	16°C	21°C	5.17	3.46	1.29	4.98	3.37	1.40	4.80	3.28	1.51	4.61	3.19	1.64	4.23	2.97	1.78	3.91	2.79	1.96
		24°C	5.17	4.14	1.29	4.99	4.05	1.40	4.81	3.96	1.51	4.61	3.86	1.64	4.24	3.60	1.78	3.92	3.40	1.96
		27°C	5.22	4.70	1.29	5.04	4.59	1.40	4.86	4.48	1.52	4.68	4.37	1.64	4.32	4.07	1.79	4.02	3.82	1.97
		30°C	5.38	5.38	1.30	5.22	5.22	1.41	5.06	5.06	1.53	4.90	4.90	1.66	4.54	4.54	1.80	4.25	4.25	1.99
	19°C	24°C	5.70	3.23	1.31	5.50	3.15	1.42	5.30	3.07	1.54	5.09	2.98	1.67	4.68	2.78	1.81	4.32	2.61	2.00
		27°C	5.70	3.70	1.31	5.50	3.61	1.42	5.30	3.53	1.54	5.09	3.45	1.67	4.68	3.22	1.81	4.33	3.05	2.00
		30°C	5.71	4.56	1.31	5.52	4.47	1.42	5.32	4.37	1.54	5.12	4.26	1.67	4.71	3.99	1.81	4.37	3.77	2.00
		33°C	5.78	5.78	1.32	5.59	5.59	1.43	5.41	5.41	1.55	5.23	5.23	1.68	4.84	4.84	1.82	4.52	4.52	2.01
	22°C	27°C	6.27	3.16	1.34	6.05	3.09	1.45	5.83	3.01	1.57	5.61	2.93	1.70	5.15	2.73	1.85	4.77	2.57	2.03
		30°C	6.27	3.86	1.34	6.06	3.77	1.45	5.83	3.69	1.57	5.61	3.60	1.70	5.16	3.37	1.85	4.77	3.20	2.03
		33°C	6.28	4.50	1.34	6.06	4.42	1.45	5.84	4.33	1.57	5.61	4.24	1.70	5.16	3.98	1.85	4.78	3.78	2.04
		36°C	6.30	5.11	1.34	6.09	5.00	1.45	5.88	4.90	1.57	5.66	4.79	1.71	5.22	4.49	1.85	4.86	4.26	2.04
471	16°C	21°C	5.38	3.61	1.30	5.18	3.52	1.41	4.99	3.42	1.53	4.78	3.33	1.65	4.39	3.10	1.79	4.05	2.92	1.98
		24°C	5.39	4.38	1.30	5.20	4.28	1.41	5.00	4.18	1.53	4.80	4.07	1.66	4.41	3.80	1.80	4.08	3.58	1.98
		27°C	5.46	4.98	1.31	5.27	4.86	1.41	5.09	4.74	1.53	4.91	4.59	1.66	4.53	4.27	1.80	4.22	3.99	1.99
		30°C	5.68	5.68	1.32	5.52	5.52	1.43	5.35	5.35	1.55	5.18	5.18	1.68	4.80	4.80	1.82	4.48	4.48	2.01
	19°C	24°C	5.92	3.41	1.32	5.71	3.33	1.43	5.50	3.24	1.55	5.28	3.15	1.68	4.85	2.94	1.83	4.48	2.77	2.01
		27°C	5.93	3.93	1.32	5.72	3.85	1.43	5.51	3.76	1.55	5.29	3.67	1.69	4.86	3.43	1.83	4.49	3.25	2.01
		30°C	5.96	4.85	1.33	5.75	4.75	1.44	5.55	4.64	1.56	5.34	4.53	1.69	4.91	4.23	1.83	4.56	4.00	2.02
		33°C	6.06	6.06	1.33	5.88	5.88	1.44	5.69	5.69	1.56	5.50	5.50	1.70	5.09	5.09	1.85	4.76	4.76	2.04
	22°C	27°C	6.51	3.34	1.35	6.28	3.26	1.46	6.05	3.18	1.58	5.80	3.10	1.72	5.33	2.89	1.86	4.93	2.73	2.05
		30°C	6.52	4.10	1.35	6.29	4.02	1.46	6.05	3.93	1.58	5.81	3.84	1.72	5.34	3.59	1.86	4.94	3.41	2.05
		33°C	6.53	4.81	1.35	6.30	4.72	1.46	6.07	4.62	1.59	5.83	4.52	1.72	5.36	4.24	1.87	4.97	4.03	2.06
		36°C	6.57	5.43	1.35	6.36	5.33	1.47	6.13	5.22	1.59	5.91	5.10	1.72	5.45	4.77	1.87	5.08	4.50	2.07
529	16°C	21°C	5.58	3.77	1.31	5.37	3.67	1.42	5.16	3.57	1.54	4.95	3.47	1.67	4.54	3.24	1.81	4.19	3.05	1.99
		24°C	5.60	4.58	1.32	5.40	4.47	1.42	5.20	4.36	1.54	4.99	4.24	1.67	4.58	3.96	1.81	4.23	3.73	2.00
		27°C	5.69	5.24	1.32	5.51	5.11	1.43	5.32	4.97	1.55	5.13	4.81	1.68	4.74	4.46	1.82	4.42	4.16	2.01
		30°C	5.98	5.98	1.33	5.80	5.80	1.44	5.63	5.63	1.56	5.44	5.44	1.70	5.04	5.04	1.84	4.71	4.71	2.04
	19°C	24°C	6.14	3.61	1.34	5.91	3.52	1.45	5.69	3.43	1.57	5.46	3.34	1.70	5.01	3.11	1.84	4.62	2.94	2.03
		27°C	6.15	4.18	1.34	5.93	4.08	1.45	5.71	3.99	1.57	5.48	3.89	1.70	5.03	3.64	1.84	4.65	3.44	2.03
		30°C	6.21	5.14	1.34	5.99	5.03	1.45	5.77	4.92	1.57	5.55	4.79	1.70	5.11	4.48	1.85	4.74	4.22	2.04
		33°C	6.34	6.34	1.35	6.15	6.15	1.46	5.96	5.96	1.58	5.77	5.77	1.72	5.34	5.34	1.87	5.00	5.00	2.06
	22°C	27°C	6.73	3.53	1.36	6.49	3.46	1.47	6.25	3.37	1.60	6.00	3.28	1.73	5.51	3.06	1.88	5.09	2.89	2.07
		30°C	6.75	4.36	1.36	6.51	4.27	1.47	6.26	4.18	1.60	6.01	4.09	1.73	5.52	3.83	1.88	5.11	3.63	2.07
		33°C	6.77	5.11	1.36	6.54	5.02	1.48	6.30	4.91	1.60	6.05	4.80	1.74	5.57	4.50	1.88	5.16	4.27	2.07
		36°C	6.83	5.77	1.37	6.62	5.66	1.48	6.39	5.54	1.61	6.16	5.40	1.74	5.69	5.04	1.89	5.31	4.74	2.09

Remark:

AFR: Air flow rate (CFM)
 EWB: Entering Wet Bulb Temp. (°C)
 EDB: Entering Dry Bulb Temp. (°C)
 TC: Total Cooling Capacity (kW)
 SC: Sensible Cooling Capacity (kW)
 PI: Power Input (kW)

Notes:

1. Ratings shown are gross capacities which do not include a deduction for indoor fan motor heat.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 0°C to 46°C without pressure trip.

Heating Mode

	Outdoor WB°C											
Indoor	-15		-10		-5		0		6		10	
DB°C	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	2.82	1.11	3.50	1.19	4.18	1.27	4.86	1.35	5.68	1.44	6.22	1.50
18	2.79	1.17	3.47	1.25	4.16	1.32	4.84	1.40	5.65	1.50	6.19	1.56
20	2.76	1.22	3.44	1.30	4.13	1.38	4.81	1.46	5.62	1.55	6.16	1.61
21	2.75	1.25	3.43	1.33	4.11	1.40	4.79	1.49	5.61	1.58	6.15	1.64
22	2.73	1.28	3.42	1.36	4.10	1.43	4.78	1.51	5.59	1.60	6.13	1.67
24	2.70	1.34	3.39	1.41	4.07	1.50	4.75	1.57	5.56	1.66	6.10	1.72

Remark:

EDB: Entering Dry Bulb Temp. (°C)
 TC: Total Cooling / Heating Capacity (kW)
 PI: Power Input (kW)

Notes:

1. Ratings shown are gross capacities which do not include a deduction for indoor fan motor heat.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.

Model: FTXK60AV1BW/BS - RXK60AV1B

Cooling Mode

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
507	16°C	21°C	5.87	4.05	1.47	5.67	3.94	1.59	5.46	3.83	1.72	5.24	3.72	1.86	4.81	3.47	2.02	4.44	3.26	2.23
		24°C	5.88	4.84	1.47	5.67	4.73	1.59	5.46	4.62	1.72	5.25	4.51	1.86	4.82	4.21	2.02	4.46	3.97	2.23
		27°C	5.93	5.49	1.47	5.73	5.37	1.59	5.53	5.24	1.72	5.32	5.11	1.87	4.91	4.75	2.03	4.57	4.46	2.24
		30°C	6.11	6.11	1.48	5.94	5.94	1.60	5.76	5.76	1.73	5.57	5.57	1.88	5.16	5.16	2.05	4.83	4.83	2.26
	19°C	24°C	6.48	3.78	1.49	6.25	3.68	1.61	6.02	3.58	1.75	5.78	3.48	1.90	5.32	3.24	2.06	4.91	3.05	2.27
		27°C	6.48	4.32	1.49	6.26	4.22	1.61	6.03	4.13	1.75	5.79	4.03	1.90	5.32	3.77	2.06	4.92	3.57	2.27
		30°C	6.49	5.33	1.49	6.27	5.22	1.61	6.05	5.10	1.75	5.82	4.98	1.90	5.36	4.66	2.06	4.97	4.41	2.27
		33°C	6.57	6.57	1.49	6.36	6.36	1.62	6.15	6.15	1.76	5.94	5.94	1.91	5.50	5.50	2.07	5.14	5.14	2.29
	22°C	27°C	7.13	3.70	1.52	6.88	3.61	1.64	6.63	3.52	1.78	6.37	3.42	1.93	5.86	3.19	2.10	5.42	3.01	2.31
		30°C	7.13	4.51	1.52	6.88	4.41	1.64	6.63	4.31	1.78	6.37	4.21	1.93	5.86	3.94	2.10	5.43	3.73	2.31
		33°C	7.13	5.26	1.52	6.89	5.16	1.64	6.64	5.06	1.78	6.38	4.95	1.93	5.87	4.65	2.10	5.44	4.42	2.31
		36°C	7.16	5.97	1.52	6.92	5.85	1.65	6.68	5.73	1.79	6.44	5.60	1.94	5.94	5.25	2.10	5.52	4.98	2.32
585	16°C	21°C	6.11	4.22	1.48	5.89	4.11	1.60	5.67	4.00	1.73	5.44	3.89	1.88	4.99	3.62	2.04	4.60	3.41	2.25
		24°C	6.13	5.12	1.48	5.91	5.00	1.60	5.69	4.88	1.74	5.46	4.76	1.88	5.02	4.44	2.04	4.64	4.19	2.25
		27°C	6.20	5.82	1.48	6.00	5.68	1.61	5.79	5.53	1.74	5.58	5.37	1.89	5.15	4.99	2.05	4.80	4.67	2.26
		30°C	6.46	6.46	1.49	6.28	6.28	1.62	6.08	6.08	1.76	5.89	5.89	1.91	5.45	5.45	2.07	5.10	5.10	2.29
	19°C	24°C	6.73	3.99	1.50	6.49	3.89	1.63	6.25	3.79	1.76	6.00	3.69	1.91	5.51	3.43	2.08	5.09	3.24	2.29
		27°C	6.75	4.60	1.50	6.50	4.50	1.63	6.26	4.39	1.77	6.01	4.29	1.91	5.52	4.01	2.08	5.11	3.80	2.29
		30°C	6.78	5.67	1.51	6.54	5.55	1.63	6.31	5.42	1.77	6.07	5.29	1.92	5.59	4.95	2.08	5.18	4.67	2.29
		33°C	6.89	6.89	1.51	6.68	6.68	1.64	6.47	6.47	1.78	6.25	6.25	1.93	5.79	5.79	2.10	5.42	5.42	2.31
	22°C	27°C	7.40	3.91	1.53	7.14	3.82	1.66	6.87	3.72	1.80	6.60	3.62	1.95	6.06	3.38	2.12	5.61	3.19	2.33
		30°C	7.41	4.80	1.53	7.15	4.70	1.66	6.88	4.59	1.80	6.61	4.48	1.95	6.07	4.20	2.12	5.62	3.99	2.33
		33°C	7.42	5.62	1.53	7.16	5.51	1.66	6.90	5.40	1.80	6.63	5.28	1.95	6.10	4.96	2.12	5.65	4.71	2.34
		36°C	7.47	6.35	1.54	7.23	6.23	1.67	6.97	6.10	1.81	6.72	5.96	1.96	6.20	5.58	2.13	5.78	5.26	2.35
654	16°C	21°C	6.34	4.40	1.49	6.11	4.29	1.61	5.87	4.18	1.75	5.63	4.06	1.89	5.16	3.78	2.05	4.76	3.56	2.26
		24°C	6.37	5.35	1.49	6.14	5.22	1.62	5.91	5.09	1.75	5.67	4.96	1.90	5.21	4.63	2.06	4.81	4.36	2.27
		27°C	6.47	6.13	1.50	6.26	5.97	1.62	6.05	5.80	1.76	5.83	5.63	1.91	5.39	5.21	2.07	5.02	4.87	2.29
		30°C	6.80	6.80	1.51	6.60	6.60	1.64	6.40	6.40	1.78	6.19	6.19	1.93	5.73	5.73	2.09	5.35	5.35	2.31
	19°C	24°C	6.98	4.22	1.52	6.72	4.12	1.64	6.47	4.01	1.78	6.20	3.90	1.93	5.69	3.64	2.09	5.26	3.43	2.30
		27°C	7.00	4.89	1.52	6.75	4.77	1.64	6.49	4.66	1.78	6.23	4.55	1.93	5.72	4.25	2.09	5.29	4.02	2.31
		30°C	7.05	6.01	1.52	6.80	5.88	1.65	6.56	5.75	1.78	6.31	5.60	1.94	5.81	5.23	2.10	5.39	4.93	2.32
		33°C	7.21	7.21	1.53	7.00	7.00	1.66	6.78	6.78	1.80	6.56	6.56	1.95	6.07	6.07	2.12	5.68	5.68	2.34
	22°C	27°C	7.66	4.13	1.55	7.38	4.04	1.67	7.11	3.94	1.81	6.82	3.84	1.97	6.26	3.58	2.13	5.79	3.38	2.35
		30°C	7.67	5.09	1.55	7.40	5.00	1.68	7.12	4.89	1.82	6.83	4.78	1.97	6.28	4.47	2.14	5.81	4.24	2.35
		33°C	7.70	5.97	1.55	7.43	5.86	1.68	7.16	5.74	1.82	6.88	5.61	1.97	6.33	5.26	2.14	5.86	4.99	2.36
		36°C	7.77	6.74	1.55	7.52	6.62	1.68	7.26	6.47	1.82	7.00	6.31	1.98	6.47	5.89	2.15	6.03	5.54	2.37

Remark:

AFR: Air flow rate (CFM)

EWB: Entering Wet Bulb Temp. (°C)

EDB: Entering Dry Bulb Temp. (°C)

TC: Total Cooling / Heating Capacity (kW)

SHC: Sensible Cooling / Heating Capacity (kW)

PI: Power Input (kW)

Notes:

1. Ratings shown are gross capacities which do not include a deduction for indoor fan motor heat.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 0°C to 46°C without pressure trip.

Heating Mode

Indoor DB°C	Outdoor WB°C											
	-15		-10		-5		0		6		10	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
16	3.21	1.21	3.98	1.29	4.76	1.37	5.54	1.46	6.47	1.56	7.08	1.63
18	3.18	1.26	3.95	1.35	4.73	1.43	5.51	1.52	6.43	1.62	7.05	1.69
20	3.14	1.32	3.92	1.41	4.70	1.49	5.47	1.58	6.40	1.68	7.02	1.75
21	3.13	1.35	3.91	1.44	4.68	1.52	5.45	1.61	6.39	1.71	7.01	1.78
22	3.11	1.38	3.90	1.47	4.67	1.55	5.44	1.64	6.37	1.74	6.98	1.81
24	3.08	1.45	3.86	1.53	4.63	1.62	5.41	1.70	6.33	1.80	6.95	1.87

Remark:

EDB: Entering Dry Bulb Temp. (°C)

TC: Total Cooling / Heating Capacity (kW)

PI: Power Input (kW)

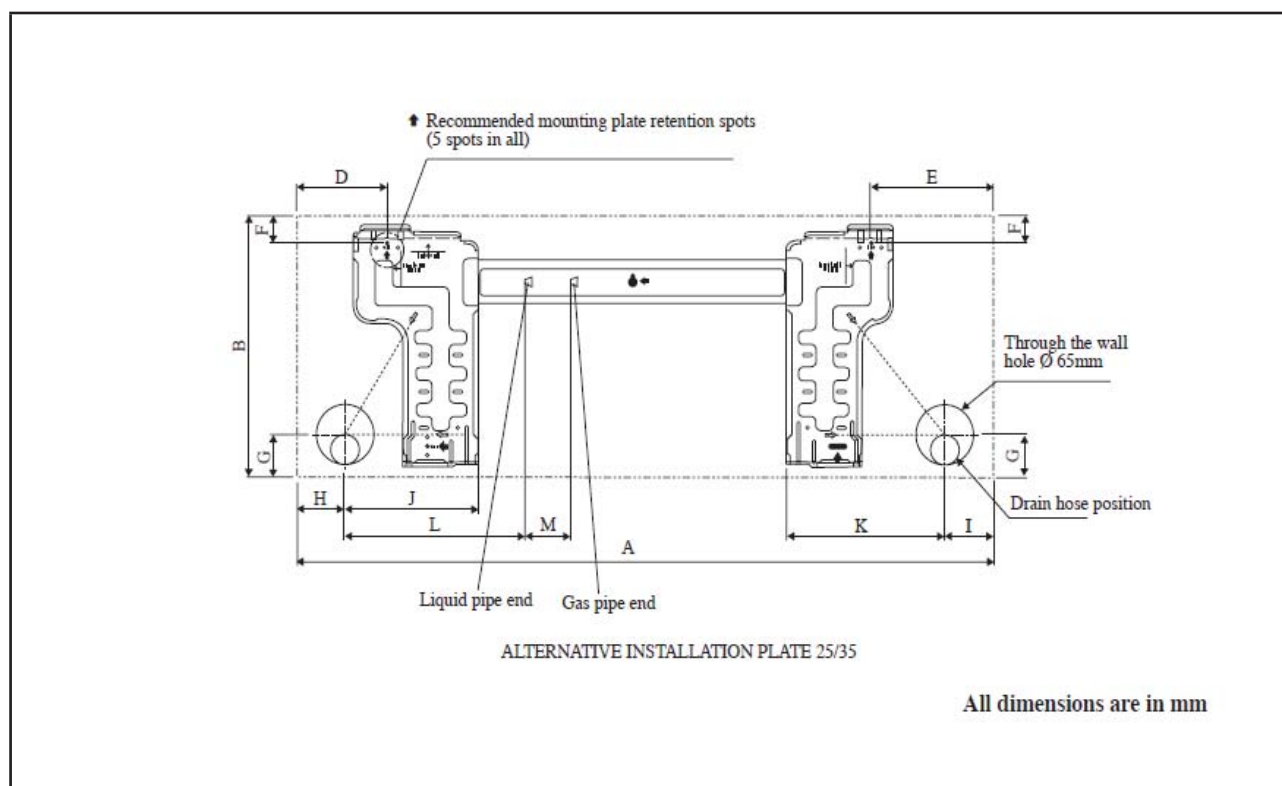
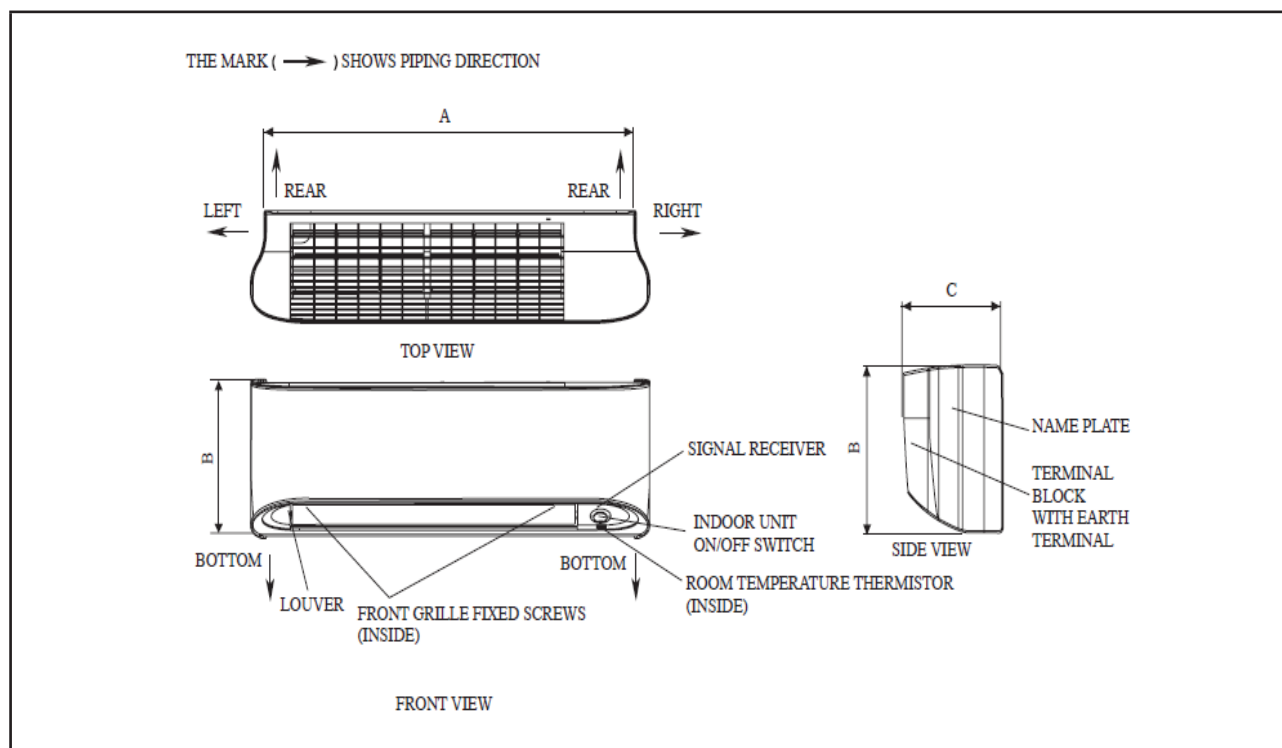
Notes:

1. Ratings shown are gross capacities which do not include a deduction for indoor fan motor heat.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.

Outline & Dimension

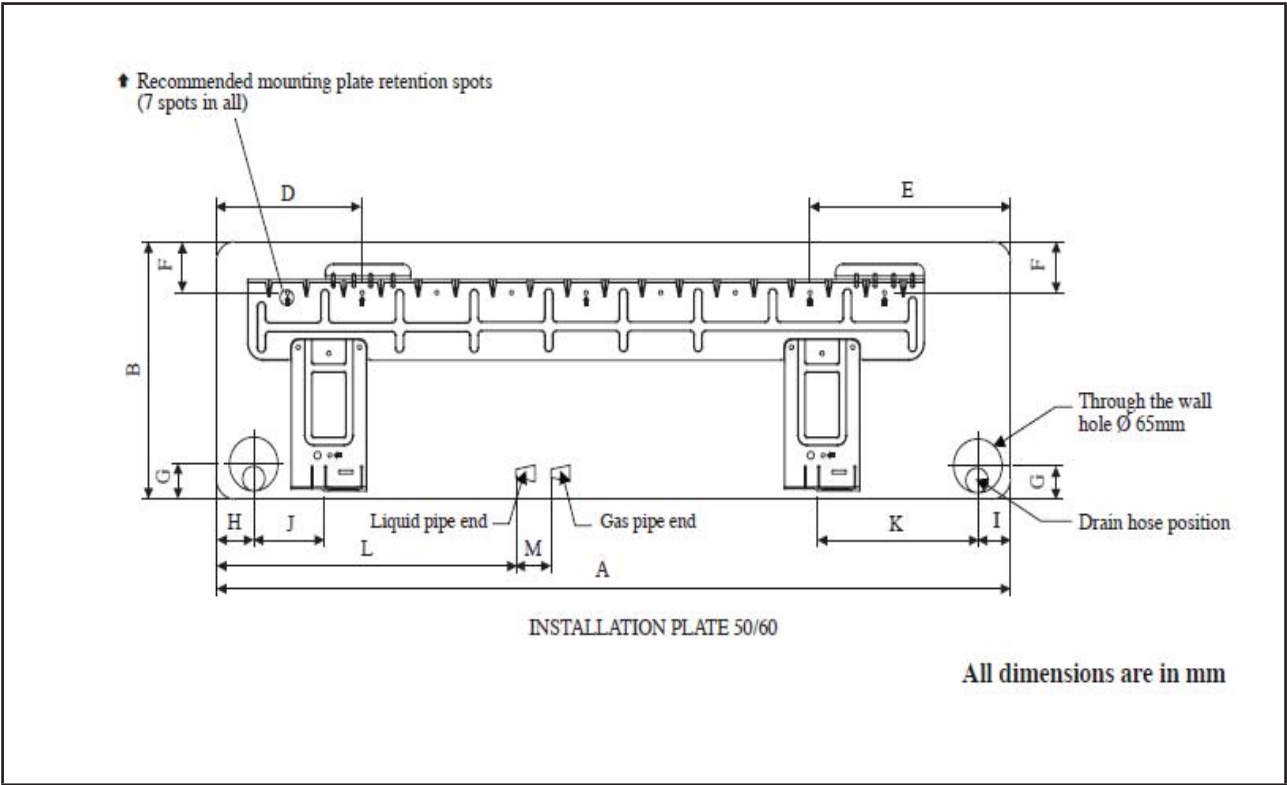
Indoor Unit

Model: FTXK25/35/50/60A



Dimension	A	B	C	D	E	F	G	H	I	J	K	L	M
Model													
FTXK25/35A	890	297	210	104	141	30	46	55	56	153	181	207	52

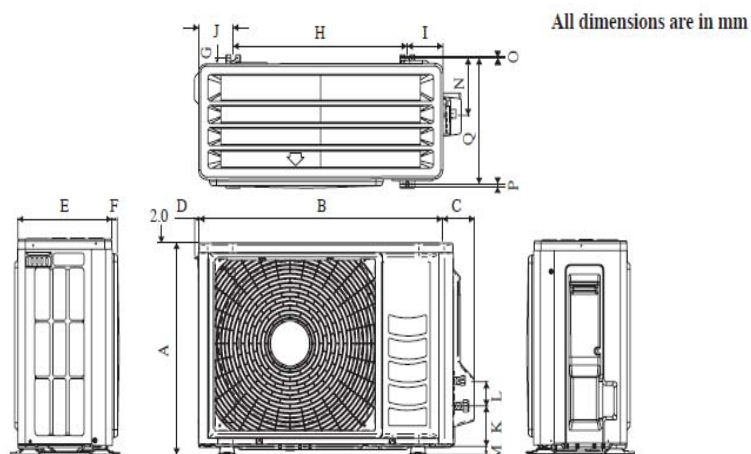
Indoor Unit



Dimension	A	B	C	D	E	F	G	H	I	J	K	L	M
Model													
FTXK50/60A	1172	320	242	190	173	61	40	45	48	91	219	580	45

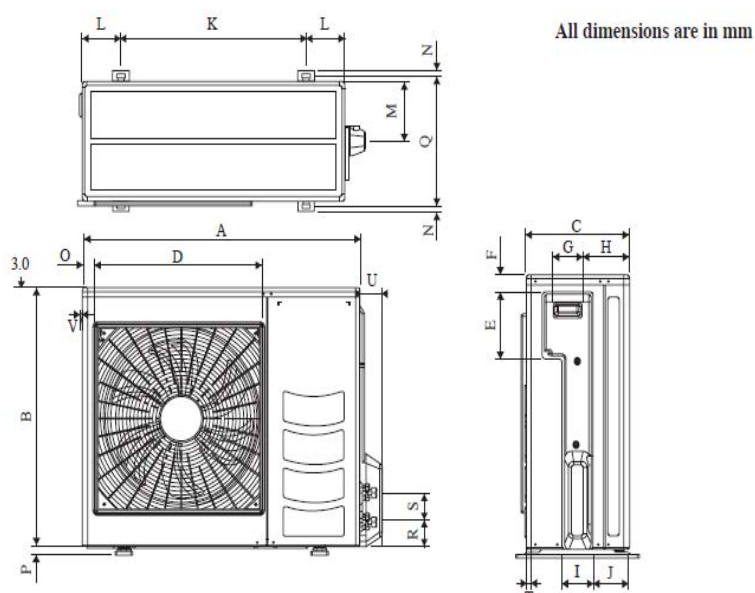
Outdoor Unit

Model: RXK25/35A



Dimension Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
25/35	505	658	51	11	273	16	14	470	96	93	94	60	14	133	8	10	299

Model: RXK50/60A



Dimension Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
50	855	628	328	520	179	46	93	149	101	113	603	126	164	15	24	23	362
60	855	730	328	520	179	46	93	149	101	113	603	126	164	15	24	23	362

Dimension Model	R	S	T	U	V
50	73	75	8	67	7
60	73	75	8	67	7

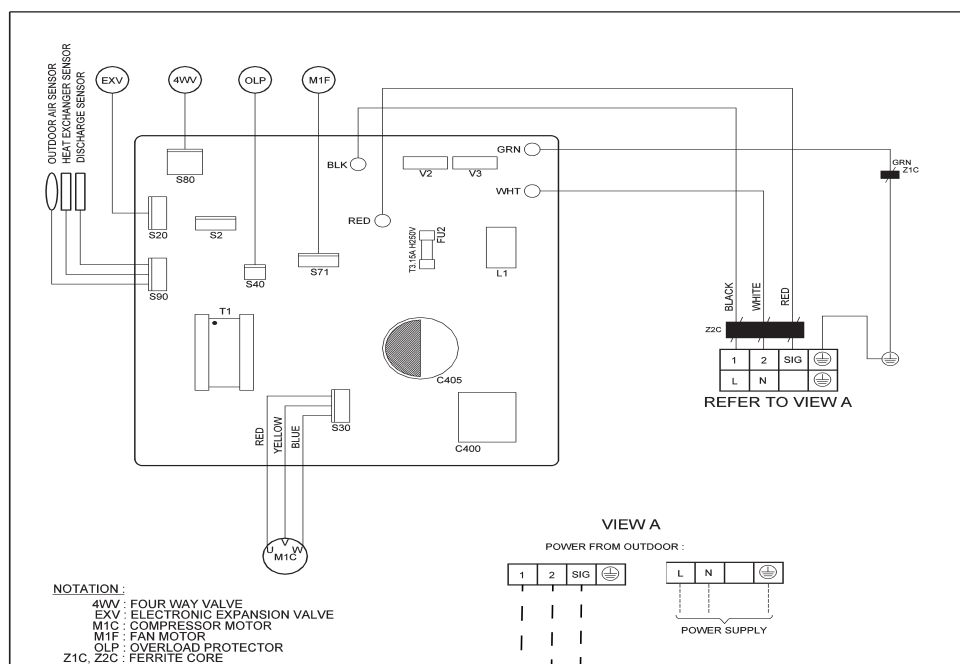
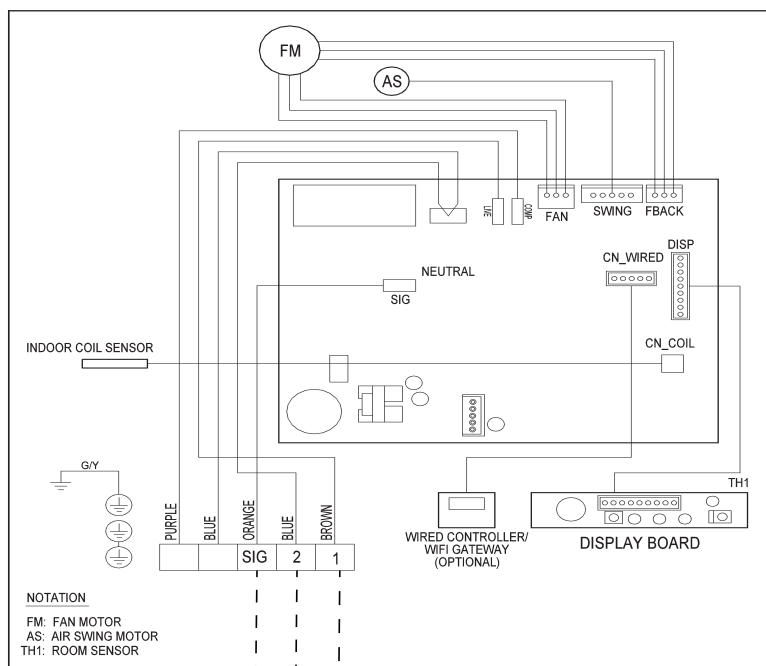
Wiring Diagram

Indoor Unit

Model: FTXK25/35AV1BW/BS

Outdoor Unit

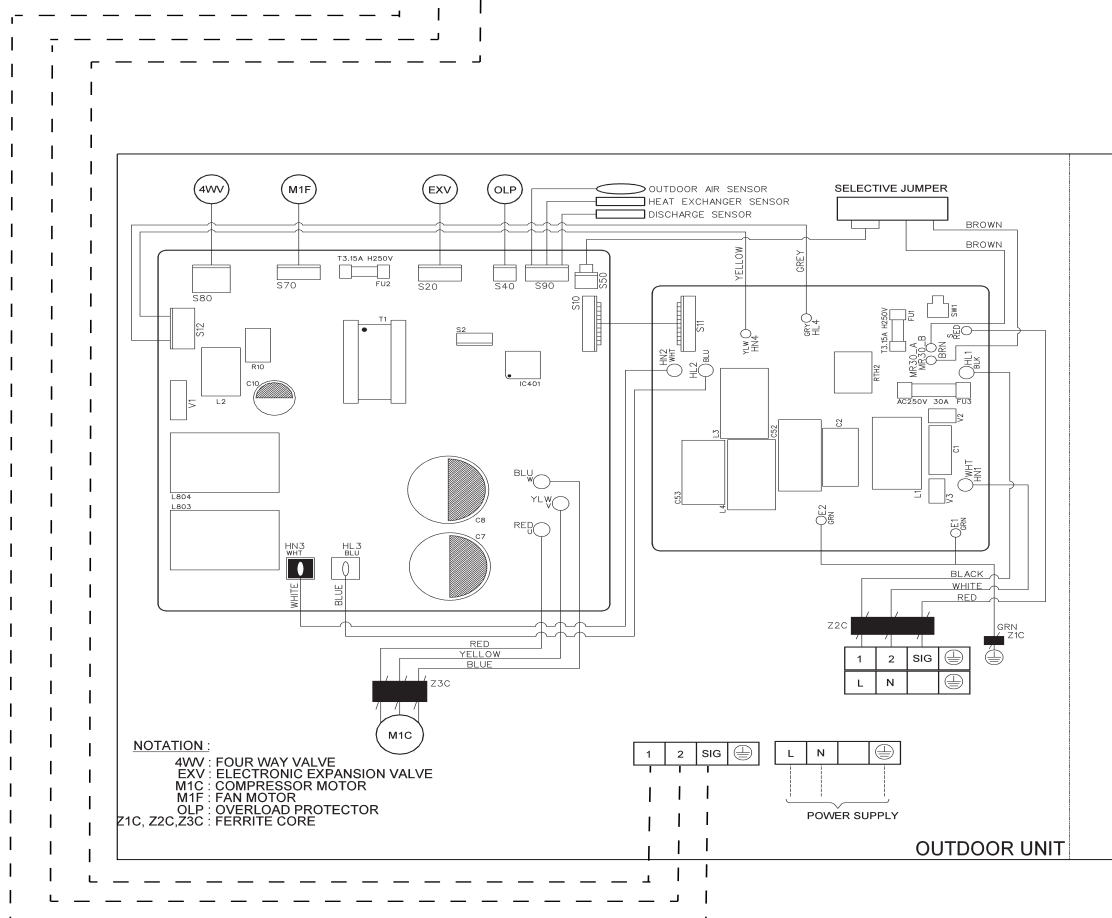
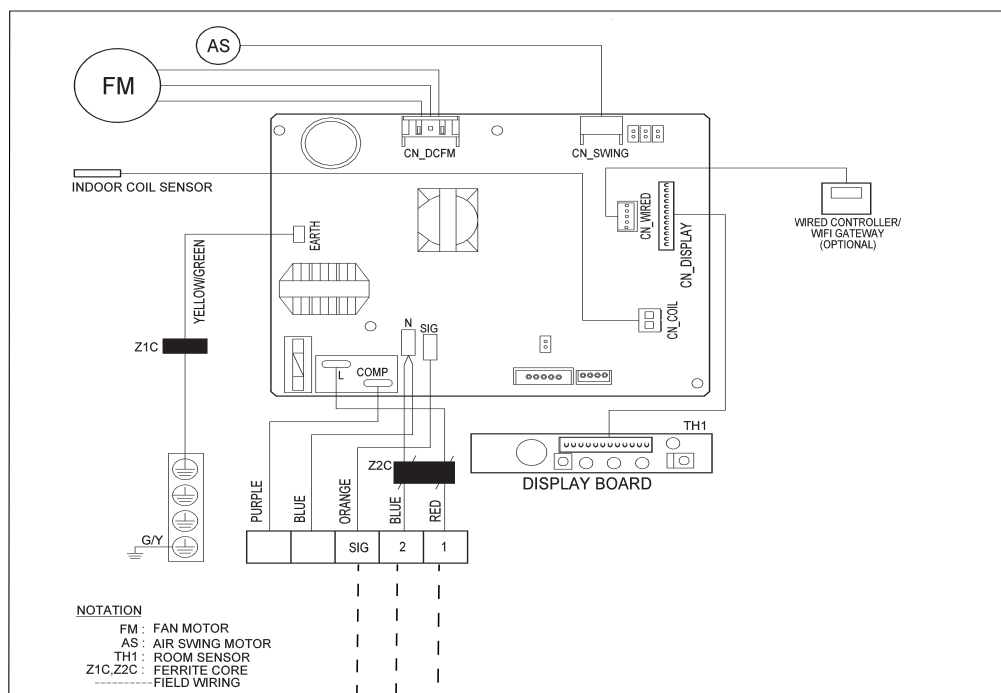
Model: RXK25/35AV1B



OUTDOOR UNIT

Indoor Unit
Model: FTXK50/60AV1BW/BS

Outdoor Unit
Model: RXK50/60AV1B



Service & Maintenance



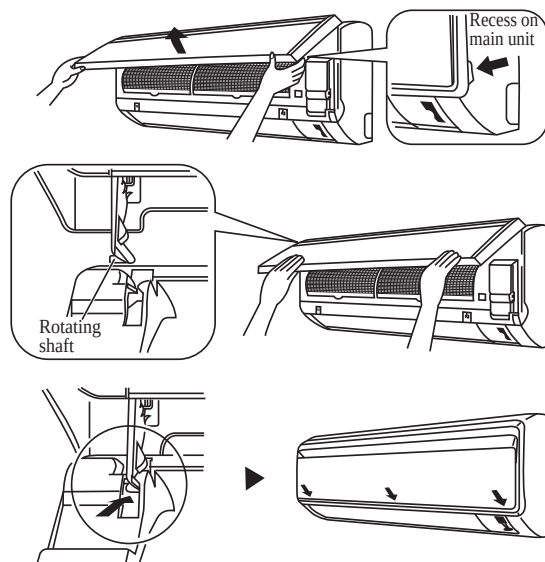
Warning

- Disconnect from main supply before servicing the air conditioner.
- The unit is designed to give long life operation with minimum maintenance required. However, it should be regularly checked and the following items should be given due attention.

Components	Maintenance Procedures	Period
Air Filter (Indoor Unit)	1. Remove any dust adhering to the filter by using a vacuum cleaner or wash in lukewarm water (below 40°C) with a neutral cleaning detergent. 2. Rinse the filter well and dry before placing it back onto the unit. 3. Note: Never use gasoline, volatile substances or chemicals to clean the filter.	At least once every 2 weeks. More frequently if necessary.
Indoor Unit	1. Clean any dirt or dust on the grille or panel by wiping it with a soft cloth soaked in lukewarm water (below 40°C) and a neutral detergent solution. 2. Note: Never use gasoline, volatile substances or chemicals to clean the indoor unit.	At least once every 2 weeks. More frequently if necessary.
Condense Drain Pan & Pipe	1. Check the cleanliness and clean it if necessary. 2. Check the condensate water flow.	Every 3 months.
Indoor Fan	Check if there is any abnormal noise.	If necessary.
Indoor / Outdoor Coil	1. Check and remove the dirt between the fins. 2. Check and remove any obstacles which hinder air flow through the indoor or outdoor.	Every month.
Power Supply	1. Check the running current and voltage for indoor and outdoor unit. 2. Check the electrical wiring and tighten the wire onto the terminal block if necessary.	Every 2 months. Every year.
Compressor	No maintenance needed if refrigerant circuit remains sealed. However, check for refrigerant leak at joint and fitting.	Every 6 months.

Indoor Models

1. Open the front panel
 - Hold the panel at the recesses on the main unit (2 recesses on right and left sides) and lift it until it stops.
2. Remove the front panel
 - While lifting the front panel further, slide it to the right and pull it to the front side. The left rotating shaft is detached. Slide the right rotating shaft to the left and pull it to the front side to remove it.
3. Attach the front panel
 - Align the right and left rotating shafts of the front panel with the grooves and push them all the way in.
 - Gently close the front panel. (Push both ends and the center on the front panel.)



Caution

- Don't touch the metal parts of the indoor unit. It may cause an injury.
- When removing or attaching the front panel, use a robust and stable stool and watch your steps carefully.
- When removing or attaching the front panel, support the panel securely with hand to prevent from it falling.
- For cleansing, do not use hot water above 40°C, benzene, gasoline, thinner, nor other volatile oils, polishing compound, scrubbing brushes, nor other hand stuff.
- After cleaning, make sure that the front panel is securely fixed.

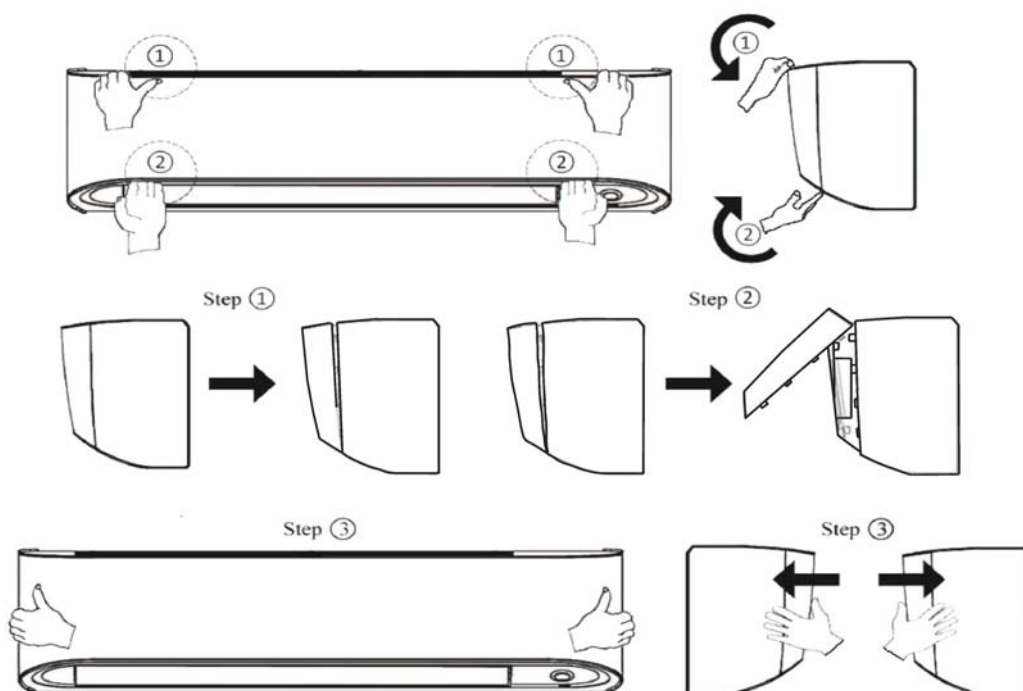
Service & Maintenance

Front Panel Opening Sequence

1. Lift up the two tips of front panel (step 1) until it stops at the pre-fix position.
2. Lift up the two tips of front panel (step 2) to open it and access to inner parts.

Front Panel closing Sequence

1. To close the front panel, reverse the steps of opening sequence. Slot in the ribs (4 ribs at each side, total 8 ribs), carefully at both left and right. Then, press the panel forward till it closes tight. Refer to step 3.



Caution

- Don't touch the metal parts of the indoor unit. It may cause an injury.
- When removing or attaching the front panel, use a robust and stable stool and watch your steps carefully.
- When removing or attaching the front panel, support the panel securely with hand to prevent from it falling.
- For cleansing, do no use hot water above 40°C, benzene, gasoline, thinner, nor other volatile oils, polishing compound, scrubbing brushes, nor other hand stuff.
- After cleaning, make sure that the front panel is securely fixed.

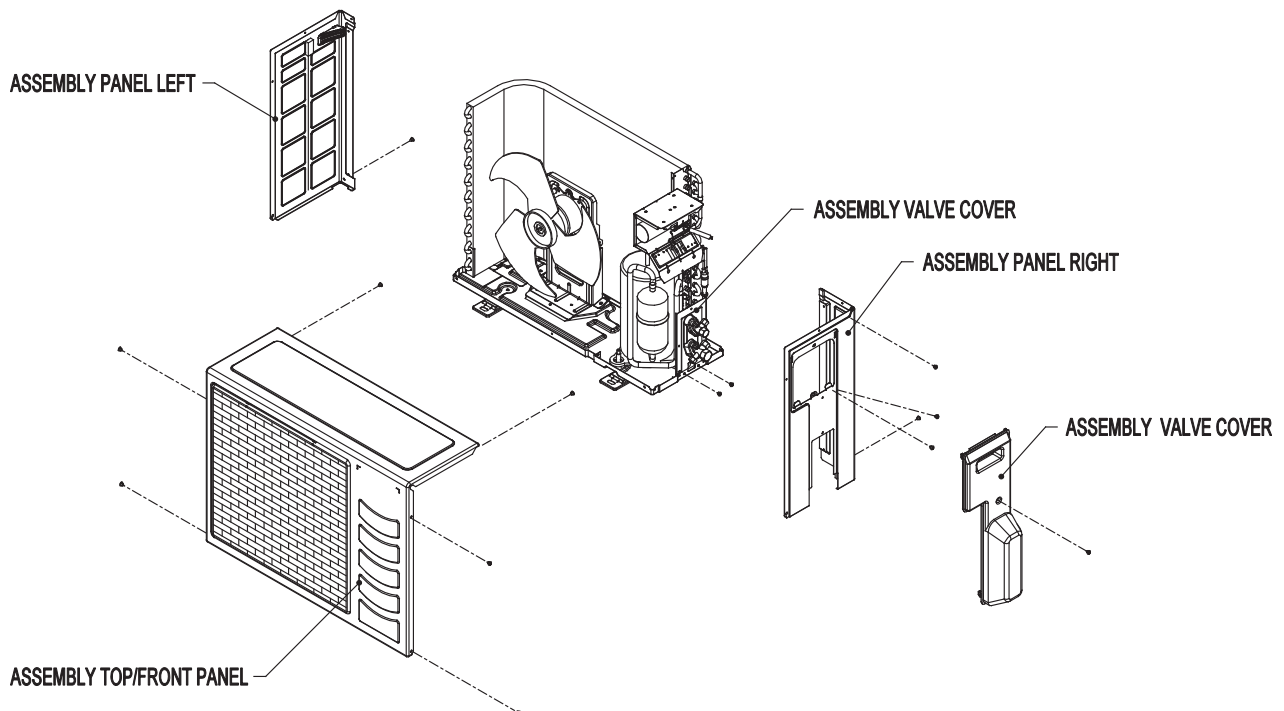
Pre Start Up Maintenance

(After Extended Shutdown)

- Inspect thoroughly and clean indoor and outdoor units.
- Clean or replace air filters.
- Clean condensates drain line.
- Clean clogged indoor and outdoor coils.
- Check fan imbalance before operation.
- Tighten all wiring connections and panels.
- Check for refrigerant leakage.

Outdoor Models

The design of the RXK outdoor series allows servicing to be carried out easily. The removal of the top, front and side panels makes almost every part accessible.



Under normal circumstances, these outdoor units only require a check and cleaning of air intake coil surface once every 3 months. However, if a unit is installed in areas subjected to much oil mist and dust, the coils must be regularly cleaned by qualified Air Conditioner Service Technicians to ensure sufficient heat exchange and proper operation. Otherwise, the systems life span may be shortened.



Caution

- Do not charge **OXYGEN, ACETYLENE OR OTHER FLAMMABLE** and poisonous gases into the unit when performing a leakage test or an airtight test. These gases could cause severe explosion and damage if exposed to high temperature and pressure.
- It is recommended that only nitrogen or refrigerant be charged when performing the leakage or airtight test.

Troubleshooting

Indicator Lights

IR Signal Receiver

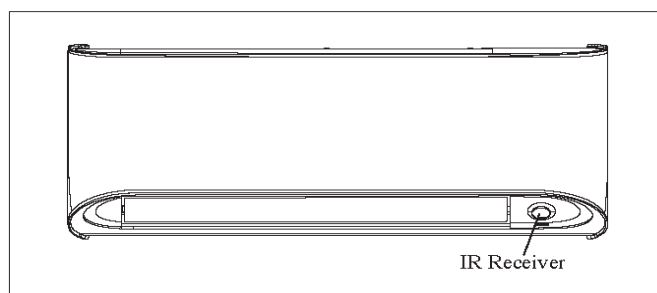
When an infrared remote control operating signal has been transmitted, the signal receiver on the indoor unit will respond as below to confirm acceptance of the signal transmission.

ON to OFF	1 Long Beep
OFF to ON Pump down/Cool force on	2 Short Beeps
Others	1 Short Beep

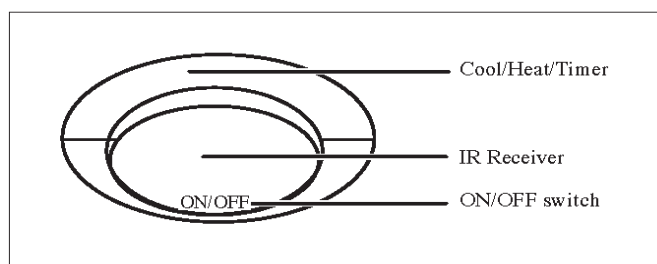
Cooling Unit / Heatpump Unit

The table below shows the LED indicator lights for the air conditioner unit under normal operation and fault conditions. The LED lights are located at the side of the air conditioner unit.

The heatpump units are equipped with an “auto” mode sensor whereby it will provide reasonable room temperature by switching automatically to either “cool” or “heat” mode according to the temperature set by the user.



LED Indicator Lights for Cooling Unit/Heat Pump Unit

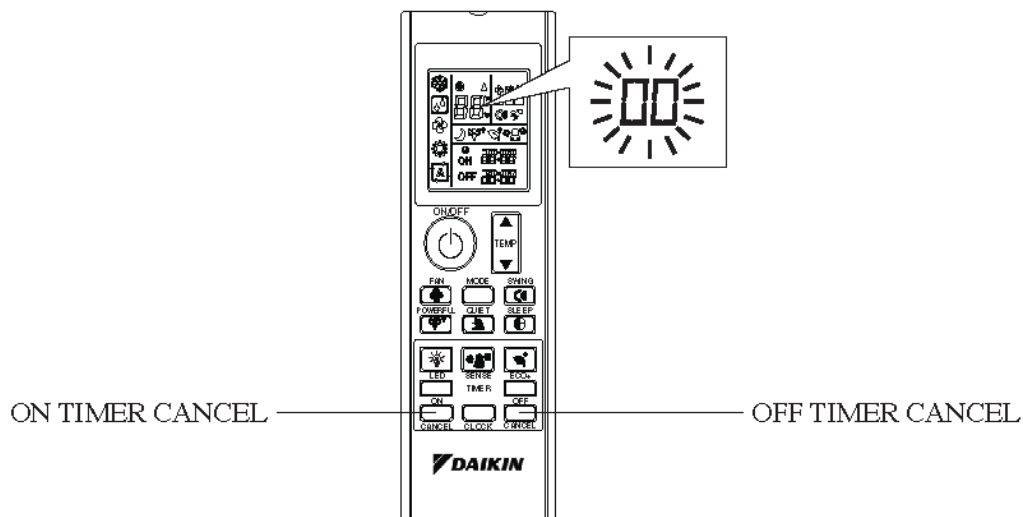


LED Indicator Lights: Normal Operation And Fault Conditions For Cooling/Heat Pump Unit

 COOL/HEAT/TIMER (BLUE/RED/VIOLET)	Operation / Fault Indication
 Blue	Cooling mode
 Red	Heating mode
 Red	Auto mode in heating operation
 Blue	Auto mode in cooling operation
 Violet	Time On
 Blue	Fan mode on
 Blue	Dry mode on
 Red	Defrost operation
 Blue	Error indication

 ON
  Blinking

Error Code Diagnosis by BRC52B63



Diagnosis Step

1. Hold down ON TIMER CANCEL button or OFF TIMER CANCEL button for 5 seconds, a " " indication flashes on the temperature display section.
2. Press ON TIMER CANCEL or OFF TIMER CANCEL repeatedly until indoor buzzer produces a continuous long beep. This indicates the error code, refers to Error Codes table and is displayed on the temperature display section.
3. A short beep or two consecutive beeps indicate non-corresponding error codes.
4. To cancel the error code display, hold down ON TIMER CANCEL button or OFF TIMER CANCEL button for 5 seconds. Alternatively, the code display will cancel itself if the button is not pressed for 1 minute.

Error Code Diagnosis by Unit Last State Memory

1. Remove battery from remote controller.
2. Replace battery again into remote controller.
3. Press Mode & ON/OFF buttons together.
4. Press Mode button to 5:00.
5. Press ON/OFF once.
6. Repeat the fault diagnosis steps by wireless handset BRC52A61.

Troubleshooting Guidelines

Error Codes	Error Description	Action
0	Normal	No action.
U0	Insufficient gas	1. Check sensor connection.
		2. Check stop valve.
		3. Check for gas leak.
		4. Check the EXV.
		5. Check H8.
U2	DC voltage out of range	1. Check the supply voltage.
		2. Check the outdoor fan by rotating with hand.
		3. Restart the system.
		4. Check power supply waveform.
U4	Communication error	1. Check the indoor unit - outdoor unit connection wires.
		2. Check the voltage of the signal terminal.
		3. Check the indoor fan by rotating with hand.
		4. Check the power supply waveform.
UA	Installation error	1. Check the indoor and outdoor unit model name.
		2. Check the part code on the indoor and outdoor PCB.
A1	Indoor PCB error	1. Check connector connection.
		2. Replace indoor PCB.
A5	Antifreeze	1. Check the air passage.
		2. Check the intake air filter.
		3. Check dust accumulation on indoor coil.
		4. Check wiring and piping.
		5. Check the EXV.
		6. Check indoor coil sensor resistance value.
		7. Check refrigerant level.
		8. Check room sensor resistance value.
A6	Indoor fan motor abnormal	1. Check the indoor fan by rotating with hand.
		2. Replace indoor fan motor if not rotating smoothly.
		3. Check fan motor voltage.
		4. Replace indoor PCB if not at the rated voltage.
		5. Check fan capacitor's conductivity (AC Motor).
		6. Replace fan capacitor if there's conductivity.
C4	Indoor heat exchanger thermistor short/open	1. Check the connector connection. 2. Check the sensor resistance value.
C9	Indoor room thermistor short/open	
E1	Outdoor PCB error	1. Restart the system.
		2. Replace outdoor PCB.
		3. Check to see that the unit is grounded.
		4. Check power supply waveform.
E5	Compressor motor lock/ overload	1. Check connection on discharge pipe sensor.
		2. Check discharge pipe sensor resistance value.
		3. Check the EXV.
		4. Check the refrigerant line on blockage or shortage.

Error Codes	Error Description	Action
E6	Compressor lock/start-up error	1. Check with inverter checker.
		2. Check the EXV.
E7	Outdoor DC fan motor lock	1. Check the fan motor connection.
		2. Check if foreign matters exist around or in the fan.
E8	Ac input over current	1. Measure the input current.
		2. Check the main circuit electrolytic capacitor.
		3. Check with inverter checker.
		4. Check discharge pressure.
		5. Check the installation condition.
EA	4-way valve error	1. Check 4WV coil connection.
		2. Check the continuity of the 4WV coil and harness.
		3. Check the 4WV switching output.
		4. Check sensor connection.
		5. Check sensor resistance value.
		6. Check the refrigerant line on blockage or shortage.
F3	Discharge pipe overheat	1. Check the discharge pipe sensor.
		2. Check the EXV.
		3. Check the refrigerant line on blockage or shortage.
F6	Heat exchanger overheat	1. Check the installation space.
		2. Check the outdoor fan.
		3. Check the EXV.
		4. Check the coil sensor.
H0	Compressor sensor system abnormality	1. Check the reactor connection.
		2. Check the compressor connection.
		3. Measure the resistance value between the reactor terminals.
		4. Measure the resistance value between the compressor terminals.
H6	Position sensor abnormality	1. Check for short circuit.
		2. Check the electrolytic capacitor voltage.
		3. Check compressor harness wire.
		4. Check with inverter checker.
H8	AC current sensor error	1. Restart the system.
		2. Check capacitor voltage.
		3. Measure the rectifier input voltage.
		4. Check compressor harness wire.
		5. Check with inverter checker.
H9	Outdoor air thermistor short/open	1. Check the sensor connection.
		2. Check the sensor resistance value.
J3	Compressor discharge pipe thermistor short/open/misplaced	1. Check the sensor connection.
		2. Check the sensor resistance value.
		3. Check indoor coil sensor resistance value.

Error	Codes Error Description	Action
J6	Outdoor heat exchanger	Same as H9.
L3	Electrical box temperature rise	1. Restart the system.
		2. Check sensor resistance value.
		3. Check heat sink temperature and conditions.
		4. Check outdoor fan.
		5. Check the installation condition.
L4	Heat sink overheat	1. Restart the system.
		2. Check the silicon grease condition on heat sink.
		3. Check sensor resistance value.
		4. Check heat sink temperature and conditions.
		5. Check outdoor fan.
L5	IPM error/IGBT error	6. Check the installation condition.
		1. Check stop valve.
		2. Check with inverter checker.
		3. Check the power transistor and supply voltage.
		4. Check the compressor phase.
		5. Check the discharge pressure.
P4	Heat sink thermistor short/open	6. Check the installation condition.
		Same as H9.

