

Engineering Data

Slim Duct Type

Indoor Unit

RAV-SM404SDT-E

RAV-SM454SDT-E

RAV-SM564SDT-E

Outdoor Unit

RAV-SP404AT(Z)(ZG)-E

RAV-SP454AT(Z)(ZG)-E

RAV-SP562AT(Z)(ZG)-E

RAV-SP1104AT(Z)(ZG)-E

RAV-SP1102AT(Z)(ZG)-E

RAV-SM563AT-E

RAV-SM1103AT-E

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1. Specifications

1-1. Slim Duct Type

■ Single type

Model	Indoor unit		RAV-SM	404SDT-E	454SDT-E	564SDT-E
	Outdoor unit		RAV-SP	404AT(Z)(ZG)-E	454AT(Z)(ZG)-E	562AT(Z)(ZG)-E
Cooling capacity			(kW)	3.6	4.0	5.0
Heating capacity			(kW)	4.0	4.5	5.6
Power supply			1 phase 230V (220 – 240V) 50Hz			
Electrical characteristics	Cooling	Running current	(A)	5.20 – 4.77	5.87 – 5.38	7.26 – 6.66
		Power consumption	(kW)	1.03	1.20	1.55
		Power factor	(%)	90	93	97
		EER		3.50	3.33	3.23
		Energy efficiency class *		A	A	A
		Energy rating **		5.0	4.5	4.0
	Heating	Running current	(A)	4.94 – 4.53	5.62 – 5.15	6.75 – 6.19
		Power consumption	(kW)	1.00	1.15	1.44
		Power factor	(%)	92	93	97
		COP		4.00	3.91	3.89
		Energy efficiency class *		A	A	A
		Energy rating **		5.5	5.0	5.0
Maximum current		(A)	15.00	15.00	15.00	
Appearance	Main unit		Zinc hot dipping steel plate			
	Ceiling panel (Sold separately)	Model	—			
		Panel color	—			
Outer dimension	Main unit	Height	(mm)	210	210	210
		Width	(mm)	845	845	845
		Depth	(mm)	645	645	645
	Ceiling panel (Sold separately)	Height	(mm)	—	—	—
		Width	(mm)	—	—	—
		Depth	(mm)	—	—	—
Total weight	Main unit		(kg)	22	22	22
	Ceiling panel (Sold separately)		(kg)	—	—	—
Heat exchanger			Finned tube			
Fan unit	Fan		Centrifugal			
	Standard air flow	H/M/L	(m³/min.)	11.5 / 10.0 / 8.7	11.5 / 10.0 / 8.7	13.0 / 11.3 / 9.7
	Motor		(W)	60	60	60
	External static ptrssure		(Pa)	5 (–15/–30/–45)	5 (–15/–30/–45)	4 (–14/–29/–44)
Air filter			Standard filter attached (Long life filter)			
Controller (Sold separately)			RBC-AMT32E, AS21E2			
Sound pressure level	Under air inlet	H/M/L	(dB•A)	39 / 36 / 33	39 / 36 / 33	45 / 40 / 36
	Back air inlet	H/M/L	(dB•A)	30 / 28 / 26	30 / 28 / 26	33 / 31 / 28
Sound power level	Under air inlet	H/M/L	(dB•A)	54 / 51 / 48	54 / 51 / 48	60 / 55 / 51
	Back air inlet	H/M/L	(dB•A)	45 / 43 / 41	45 / 43 / 41	48 / 46 / 43
Connecting pipe		Gas side	(mm)	12.7	12.7	12.7
		Liquid side	(mm)	6.4	6.4	6.4
		Drain port	(mm)	VP25		

* IEC standard

**AS standard

Single type

Model	Indoor unit		RAV-SM	564SDT-E
	Outdoor unit		RAV-SM	563AT-E
Cooling capacity			(kW)	5.0
Heating capacity			(kW)	5.6
Power supply			1 phase 230V (220 – 240V) 50Hz	
Electrical characteristics	Cooling	Running current	(A)	7.94 – 7.28
		Power consumption	(kW)	1.66
		Power factor	(%)	95
		EER		3.01
		Energy efficiency class *		B
		Energy rating **		3.5
	Heating	Running current	(A)	7.61 – 6.97
		Power consumption	(kW)	1.59
		Power factor	(%)	95
		COP		3.52
		Energy efficiency class *		B
		Energy rating **		4.0
Maximum current		(A)	15.00	
Appearance	Main unit		Zinc hot dipping steel plate	
	Ceiling panel (Sold separately)	Model	—	
		Panel color	—	
Outer dimension	Main unit	Height	(mm)	210
		Width	(mm)	845
		Depth	(mm)	645
	Ceiling panel (Sold separately)	Height	(mm)	—
		Width	(mm)	—
		Depth	(mm)	—
Total weight	Main unit		(kg)	22
	Ceiling panel (Sold separately)		(kg)	—
Heat exchanger			Finned tube	
Fan unit	Fan		Centrifugal	
	Standard air flow	H/M/L	(m³/min.)	13.0 / 11.3 / 9.7
	Motor		(W)	60
	External static ptssure		(Pa)	4 (–14/–29/–44)
Air filter			Standard filter attached (Long life filter)	
Controller (Sold separately)			RBC-AMT32E, AS21E2	
Sound pressure level	Under air inlet	H/M/L	(dB•A)	45 / 40 / 36
	Back air inlet	H/M/L	(dB•A)	33 / 31 / 28
Sound power level	Under air inlet	H/M/L	(dB•A)	60 / 55 / 51
	Back air inlet	H/M/L	(dB•A)	48 / 46 / 43
Connecting pipe		Gas side	(mm)	12.7
		Liquid side	(mm)	6.4
		Drain port	(mm)	VP25

* IEC standard

** AS standard

■ Twin type

Model	Indoor unit 1		RAV-SM	564SDT-E	564SDT-E
	Indoor unit 2		RAV-SM	564SDT-E	564SDT-E
	Outdoor unit		RAV-SP	1104AT(Z)(ZG)-E	1102AT(Z)(ZG)-E
Cooling capacity			(kW)	10.0	10.0
Heating capacity			(kW)	11.2	11.2
Indoor unit					
Power supply			1 phase 230V (220 – 240V) 50Hz		
Electrical characteristics	Cooling	Running current (A)		12.98 – 11.90	11.72 – 10.74
		Power consumption (kW)		2.77	2.50
		Power factor (%)		97	97
		EER		3.61	4.00
		Energy efficiency class *		A	A
	Heating	Running current (A)		12.51 – 11.47	11.95 – 10.95
		Power consumption (kW)		2.67	2.55
		Power factor (%)		97	97
		COP		4.19	4.39
		Energy efficiency class *		A	A
Fan unit	Fan		Centrifugal	Centrifugal	
	Standard air flow	H/M/L (m³/min.)	13.0 / 11.3 / 9.7	13.0 / 11.3 / 9.7	
	Motor (W)		60	60	
Sound pressure level	Under air inlet	H/M/L (dB•A)	45 / 40 / 36	45 / 40 / 36	
	Back air inlet	H/M/L (dB•A)	33 / 31 / 28	33 / 31 / 28	
Sound power level	Under air inlet	H/M/L (dB•A)	60 / 55 / 51	60 / 55 / 51	
	Back air inlet	H/M/L (dB•A)	48 / 46 / 43	48 / 46 / 43	
Outdoor unit					
Power supply			1 phase 230V (220 – 240V) 50Hz		
Outer dimension	Standard length (m)		7.5	7.5	
	Min. length (m)		3	5	
	Max. total length (m)		50	50	
	Over 30m		40g/m (31m to 50m)	40g/m (31m to 50m)	
	Height difference	Outdoor lower (m)	30	30	
		Outdoor higher (m)	30	30	
Fan unit	Fan		Propeller fan	Propeller fan	
	Standard air flow volume (m³/min.)		101	125	
	Motor (W)		100 + 100	63 + 63	
Connecting pipe	Gas side	Main (mm)	15.9	15.9	
		Sub (mm)	12.7	12.7	
	Liquid side	Main (mm)	9.5	9.5	
		Sub (mm)	6.4	6.4	
Sound pressure level	Cooling/Heating (dB•A)		49 / 50	49 / 51	
Sound power level	Cooling/Heating (dB•A)		66 / 67	66 / 68	

* IEC standard

■ Twin type

Model	Indoor unit 1 RAV-SM		564SDT-E
	Indoor unit 2 RAV-SM		564SDT-E
	Outdoor unit RAV-SM		1103AT-E
Cooling capacity		(kW)	10.0
Heating capacity		(kW)	11.2
Indoor unit			
Power supply		1 phase 230V (220 – 240V) 50Hz	
Electrical characteristics	Cooling	Running current (A)	16.47 – 15.09
		Power consumption (kW)	3.55
		Power factor (%)	98
		EER	2.82
		Energy efficiency class *	C
	Heating	Running current (A)	14.56 – 13.35
		Power consumption (kW)	3.14
		Power factor (%)	98
		COP	3.57
		Energy efficiency class *	B
Fan unit	Fan		Centrifugal
	Standard air flow	H/M/L (m³/min.)	13.0 / 11.3 / 9.7
	Motor (W)		60
Sound pressure level	Under air inlet	H/M/L (dB•A)	45 / 40 / 36
	Back air inlet	H/M/L (dB•A)	33 / 31 / 28
Sound power level	Under air inlet	H/M/L (dB•A)	60 / 55 / 51
	Back air inlet	H/M/L (dB•A)	48 / 46 / 43
Outdoor unit			
Power supply		1 phase 230V (220 – 240V) 50Hz	
Outer dimension	Standard length (m)		7.5
	Min. length (m)		5
	Max. total length (m)		50
	Over 30m		40g/m (31m to 50m)
	Height difference	Outdoor lower (m)	30
		Outdoor higher (m)	30
Fan unit	Fan		Propeller fan
	Standard air flow volume (m³/min.)		75
	Motor (W)		100
Connecting pipe	Gas side	Main (mm)	15.9
		Sub (mm)	12.7
	Liquid side	Main (mm)	9.5
		Sub (mm)	6.4
Sound pressure level	Cooling/Heating (dB•A)		53 / 54
Sound power level	Cooling/Heating (dB•A)		70 / 71

* IEC standard

1-2. Outdoor Unit

■ Super Digital Inverter

Model name	Outdoor unit	RAV-SP	404AT(Z)(ZG)-E	454AT(Z)(ZG)-E
Power supply			1 phase 230V (220 – 240V) 50Hz (Power exclusive to outdoor is required.)	
Compressor	Type		Hermetic compressor	
	Motor	(kW)	1.1	1.1
	Pole		4	4
Refrigerant charged		(kg)	1.0	1.0
Refrigerant control			Pulse motor valve	
Inter connecting pipe	Standard length	(m)	7.5	7.5
	Max. total length	(m)	30	30
	Additional refrigerant charge under long piping connector		20g/m (21m to 30m)	20g/m (21m to 30m)
	Height difference	Outdoor lower	(m)	30
		Outdoor higher	(m)	30
Outer dimension	Height	(mm)	550	550
	Width	(mm)	780	780
	Depth	(mm)	290	290
Appearance			Silky shade (Muncel 1Y8.5/0.5)	
Total weight		(kg)	40	40
Heat exchanger			Finned tube	
Fan unit	Fan		Propeller fan	
	Standard air flow	(m³/h)	40	40
	Motor	(W)	43	43
Connecting pipe	Gas side	(mm)	12.7	12.7
	Liquid side	(mm)	6.4	6.4
Sound pressure level	Cooling/Heating	(dB•A)	45 / 47	45 / 47
Sound power level	Cooling/Heating	(dB•A)	62 / 64	62 / 64
Outside air temperature, Cooling		(°C)	43 to –15°C	
Outside air temperature, Heating		(°C)	15 to –15°C	

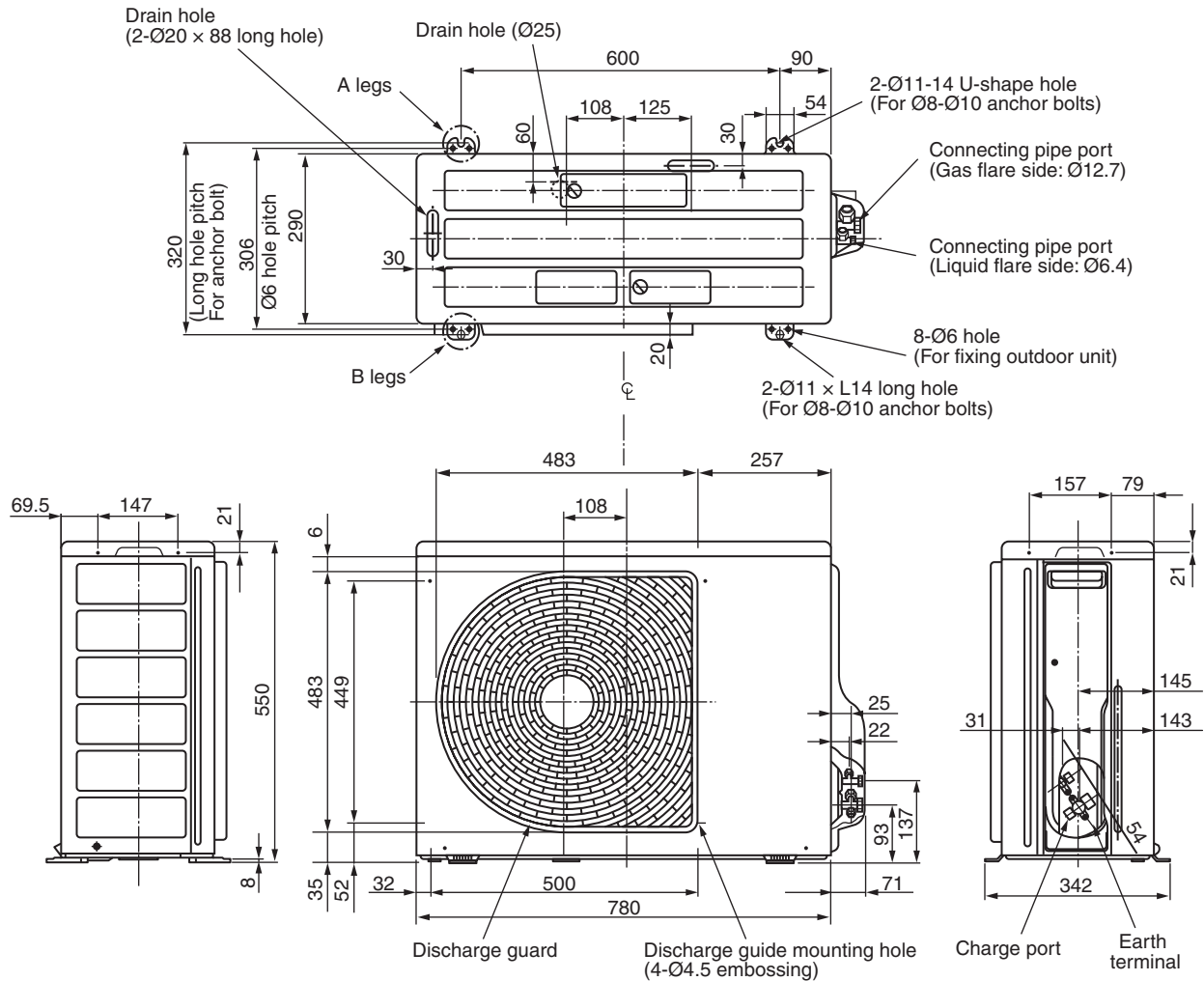
Model name	Outdoor unit		RAV-SP	562AT(Z)(ZG)-E	802AT(Z)(ZG)-E	1104AT(Z)(ZG)-E	1404AT(Z)(ZG)-E
Power supply				1 phase 230V (220 – 240V) 50Hz (Power exclusive to outdoor is required.)			
Compressor	Type		Hermetic compressor				
	Motor (kW)		2	2	3.75	3.75	
	Pole		4	4	4	4	
Refrigerant charged (kg)			1.5	2.1	3.1	3.1	
Refrigerant control			Pulse motor valve				
Inter connecting pipe	Standard length (m)		7.5	7.5	7.5	7.5	
	Max. total length (m)		50	50	75	75	
	Additional refrigerant charge under long piping connector		20g/m (21m to 50m)	40g/m (31m to 50m)	40g/m (31m to 75m)	40g/m (31m to 75m)	
	Height difference	Outdoor lower (m)	30	30	30	30	
		Outdoor higher (m)	30	30	30	30	
Outer dimension	Height (mm)		795	795	1340	1340	
	Width (mm)		900	900	900	900	
	Depth (mm)		320	320	320	320	
Appearance			Silky shade (Muncel 1Y8.5/0.5)				
Total weight (kg)			55	62	93	93	
Heat exchanger			Finned tube				
Fan unit	Fan		Propeller fan				
	Standard air flow (m³/h)		57	57	101	103	
	Motor (W)		63	63	100 + 100	100 + 100	
Connecting pipe	Gas side (mm)		12.7	15.9	15.9	15.9	
	Liquid side (mm)		6.4	9.5	9.5	9.5	
Sound pressure level	Cooling/Heating (dB•A)		46 / 47	47 / 49	49 / 50	51 / 52	
Sound power level	Cooling/Heating (dB•A)		63 / 64	64 / 66	66 / 67	68 / 69	
Outside air temperature, Cooling (°C)			43 to –15°C				
Outside air temperature, Heating (°C)			15 to –15°C			15 to –20°C	

■ Digital Inverter

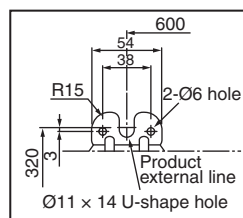
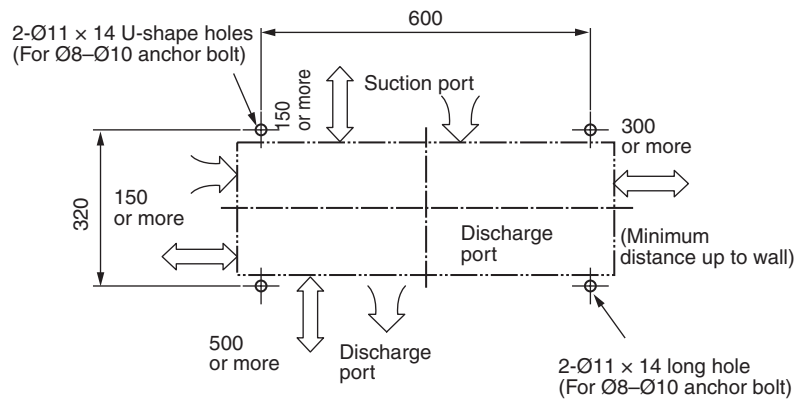
Model name			RAV-	SM563AT-E	SM1103AT-E
Power supply			1 phase 230V (220 – 240V) 50Hz (Power exclusive to outdoor is required.)		
Compressor	Type	Hermetic compressor			
	Motor	(kW)	1.1	2.5	
	Pole		4	4	
Refrigerant charged		(kg)	1.0	2.8	
Refrigerant control			Pulse motor valve		
Inter connecting pipe	Standard length		(m)	7.5	7.5
	Min. length		(m)	5.0	5.0
	Max. total length		(m)	30	50
	Additional refrigerant charge under long piping connector			20g/m (21m to 30m)	40g/m (31m to 50m)
	Height difference	Outdoor lower	(m)	30	30
		Outdoor higher	(m)	30	30
Outer dimension	Height		(mm)	550	795
	Width		(mm)	780	900
	Depth		(mm)	290	320
Appearance			Silky shade (Muncel 1Y8.5/0.5)		
Total weight		(kg)	38	77	
Heat exchanger			Finned tube		
Fan unit	Fan		Propeller fan		
	Standard air flow		(m³/h)	40	75
	Motor		(W)	43	100
Connecting pipe	Gas side		(mm)	12.7	15.9
	Liquid side		(mm)	6.4	9.5
Sound pressure level	Cooling/Heating		(dB•A)	46/48	53/54
Sound power level	Cooling/Heating		(dB•A)	63/65	70/71
Outside air temperature, Cooling			(°C)	43 to −15	
Outside air temperature, Heating			(°C)	15 to −15	

2-2. Outdoor Unit

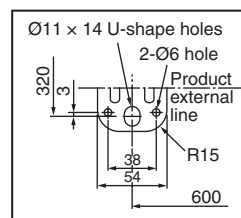
RAVSP404AT(Z)(ZG)-E, RAV-SP454AT(Z)(ZG)-E



Space required for service

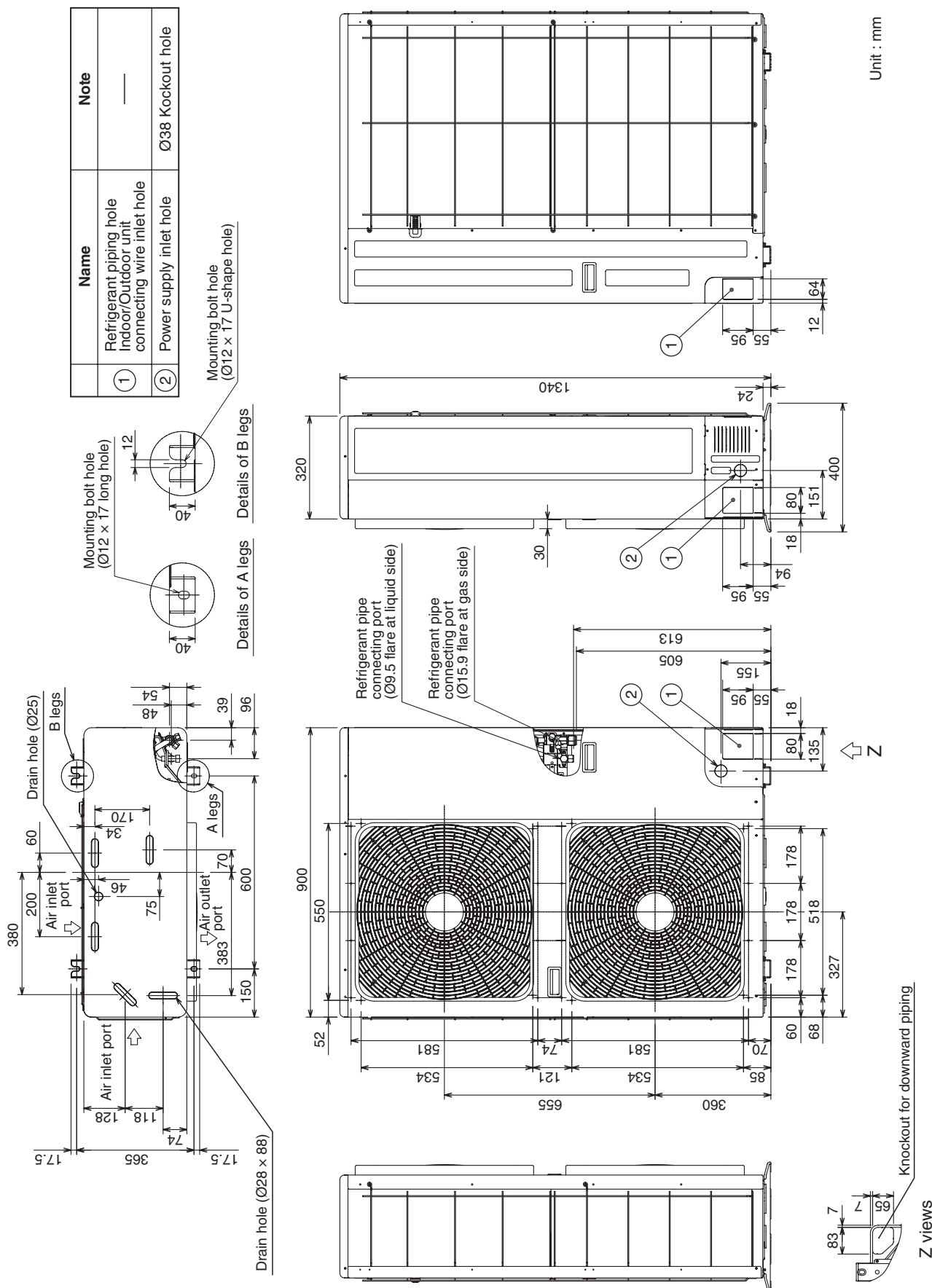


Details of A legs

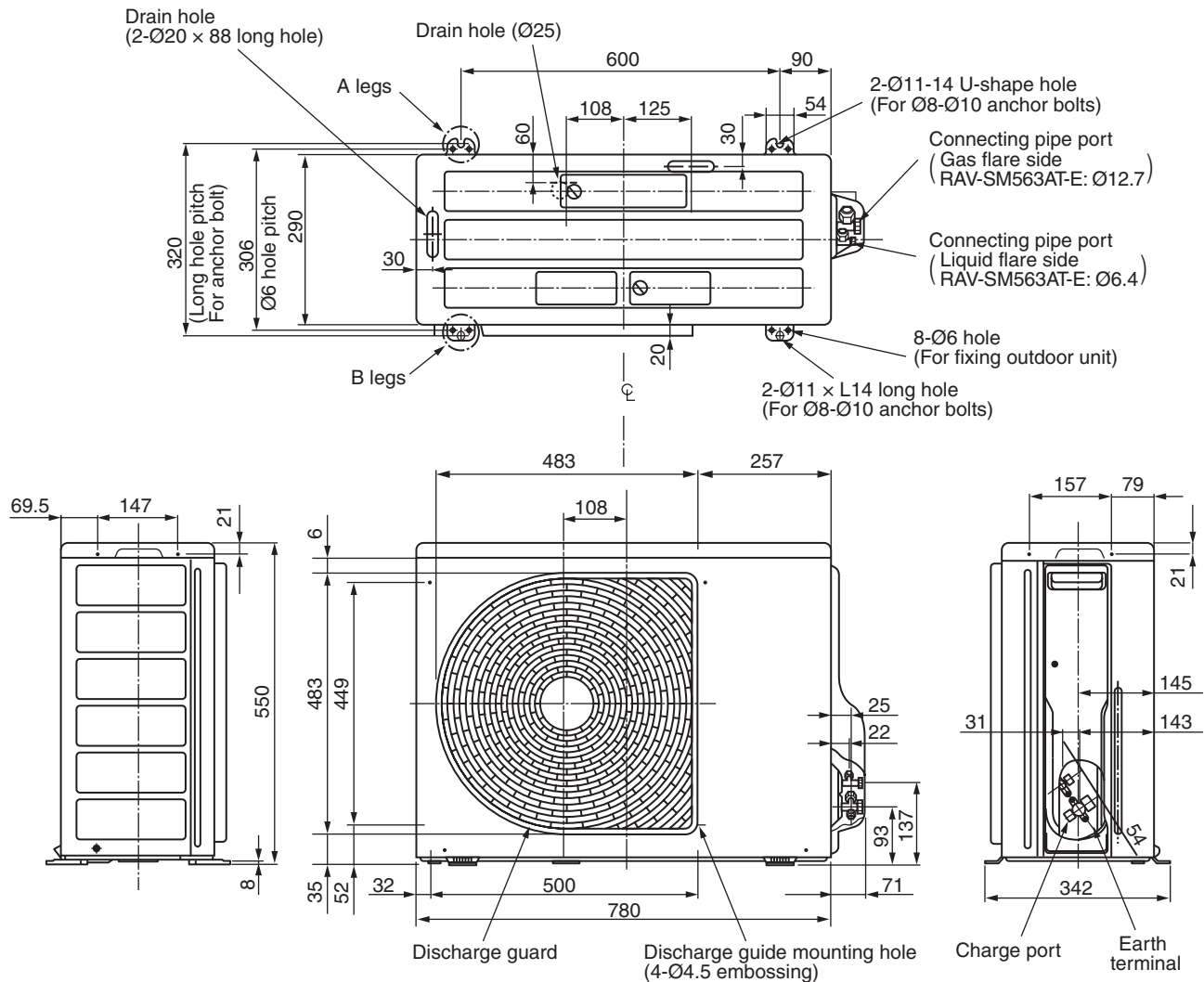
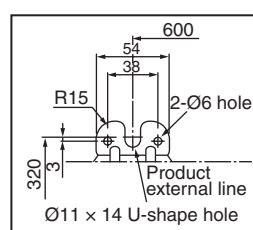
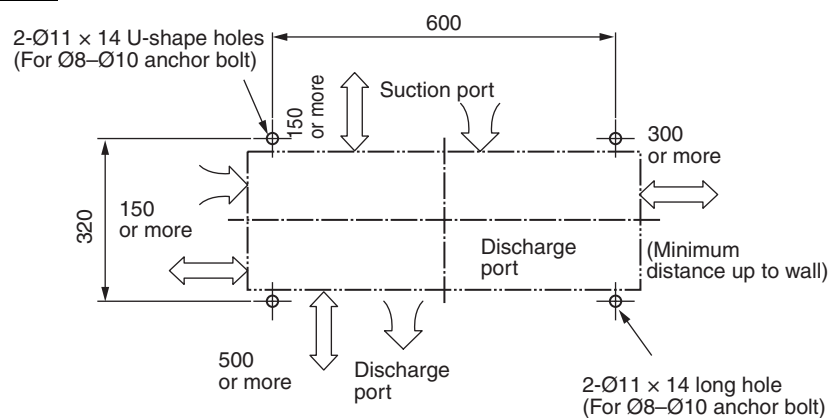


Details of B legs

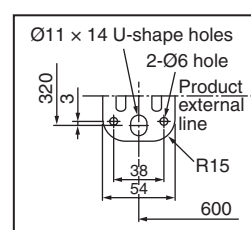
RAV-SP1104AT(Z)(ZG)-E, RAV-SP1404AT(Z)(ZG)-E



RAV-SM563AT-E, RAV-SM803AT-E

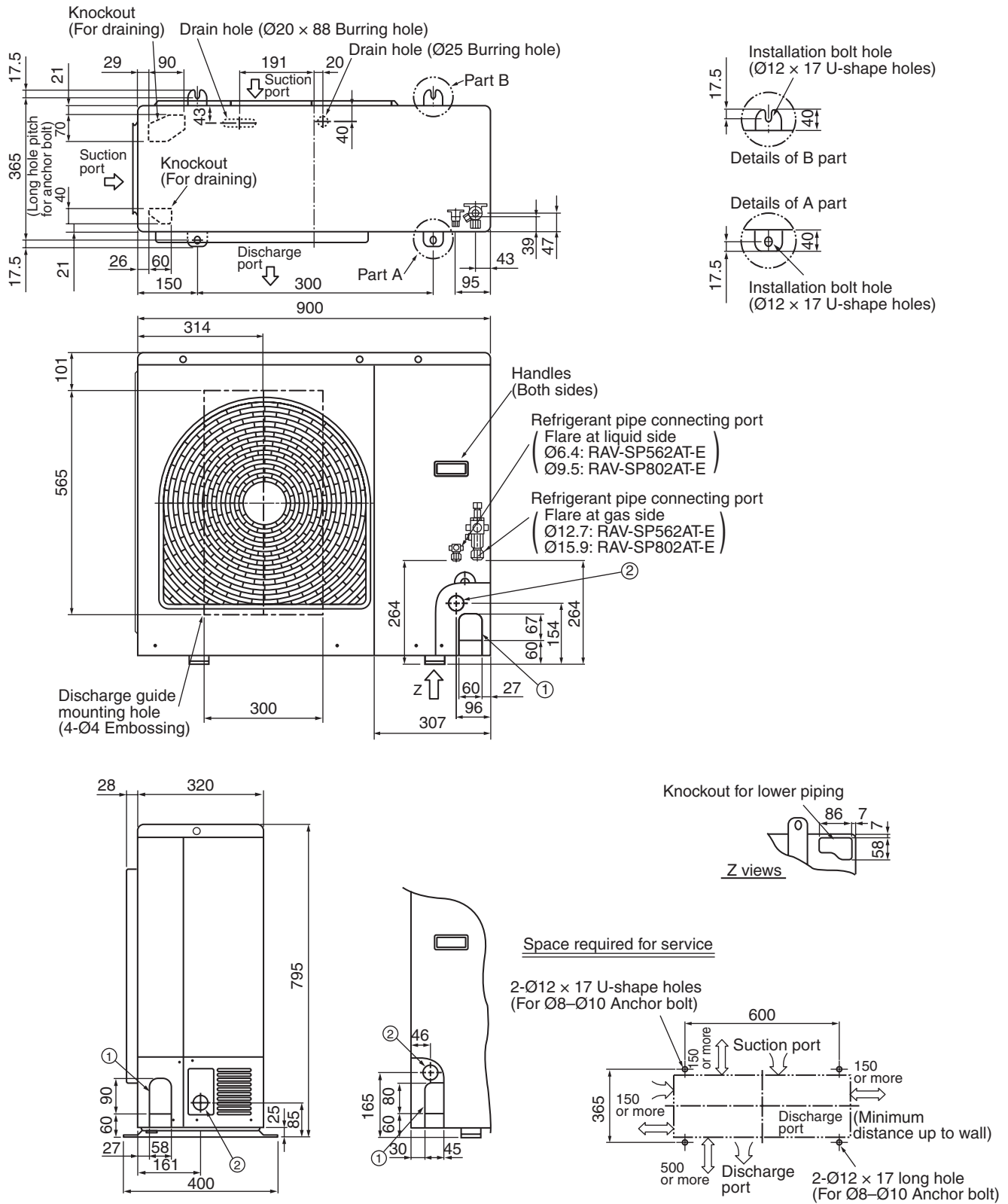
Space required for service

Details of A legs



Details of B legs

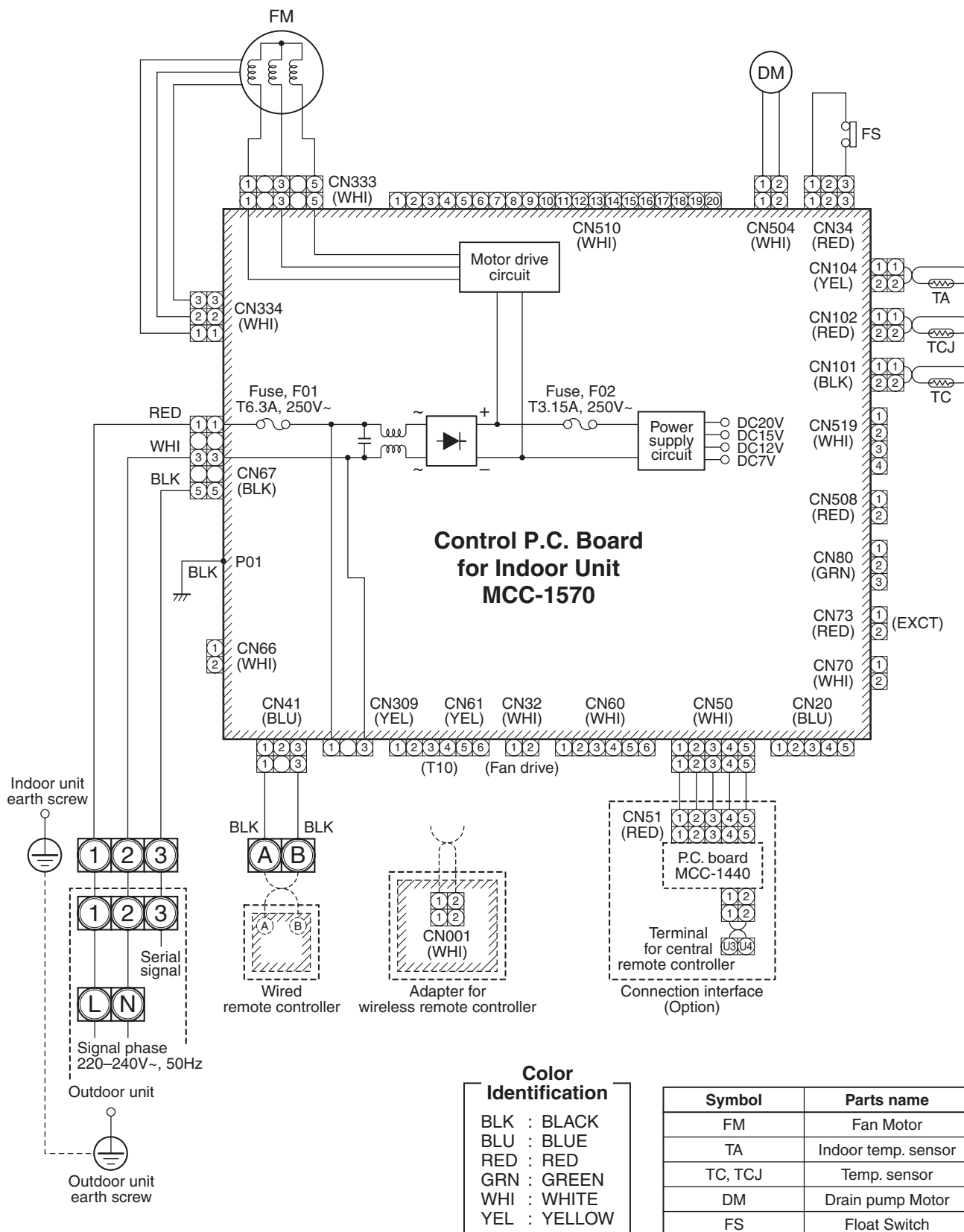
RAV-SM1103AT-E, RAV-SM1403AT-E / RAV-SP562AT-E, RAV-SP802AT-E



3. Wiring diagram

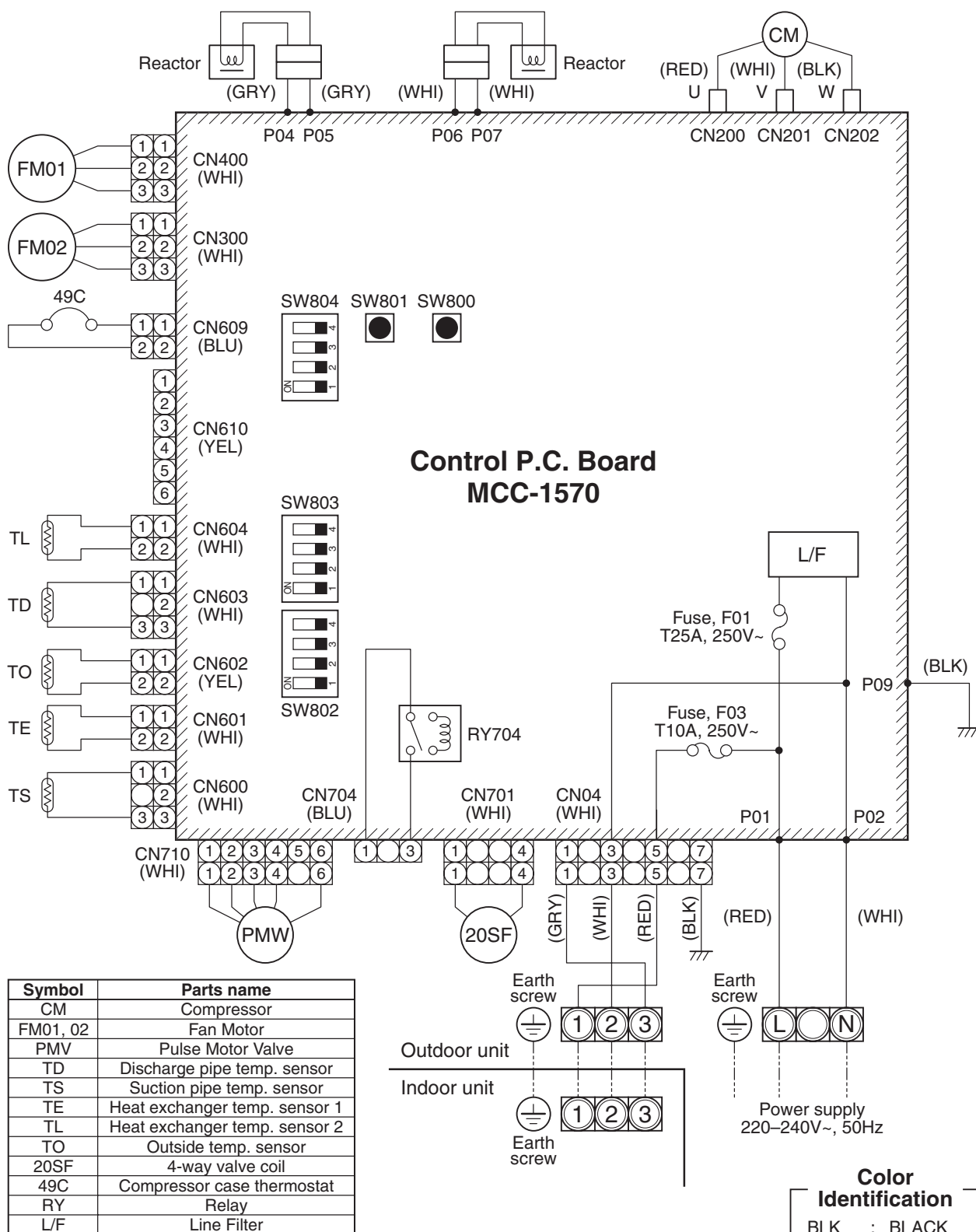
3-1. Slim Duct Type

RAV-SM404SDT-E, RAV-SM454SDT-E, RAV-SM564SDT-E



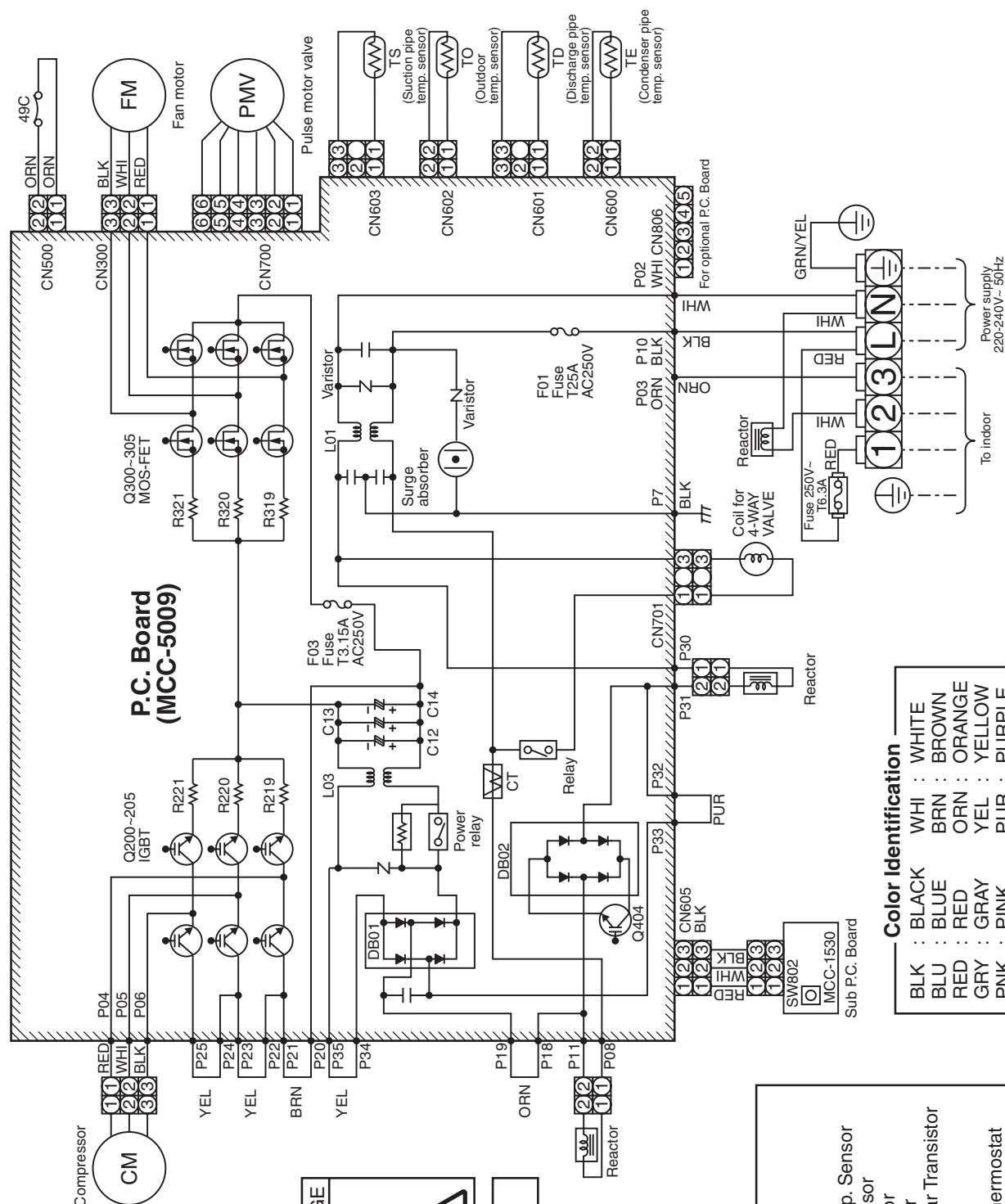
3-2. Outdoor Unit

RAV-SP1104AT-E, SP1104ATZ-E, 1104ATZG-E
RAV-SP1404AT-E, SP1404ATZ-E, 1404ATZG-E

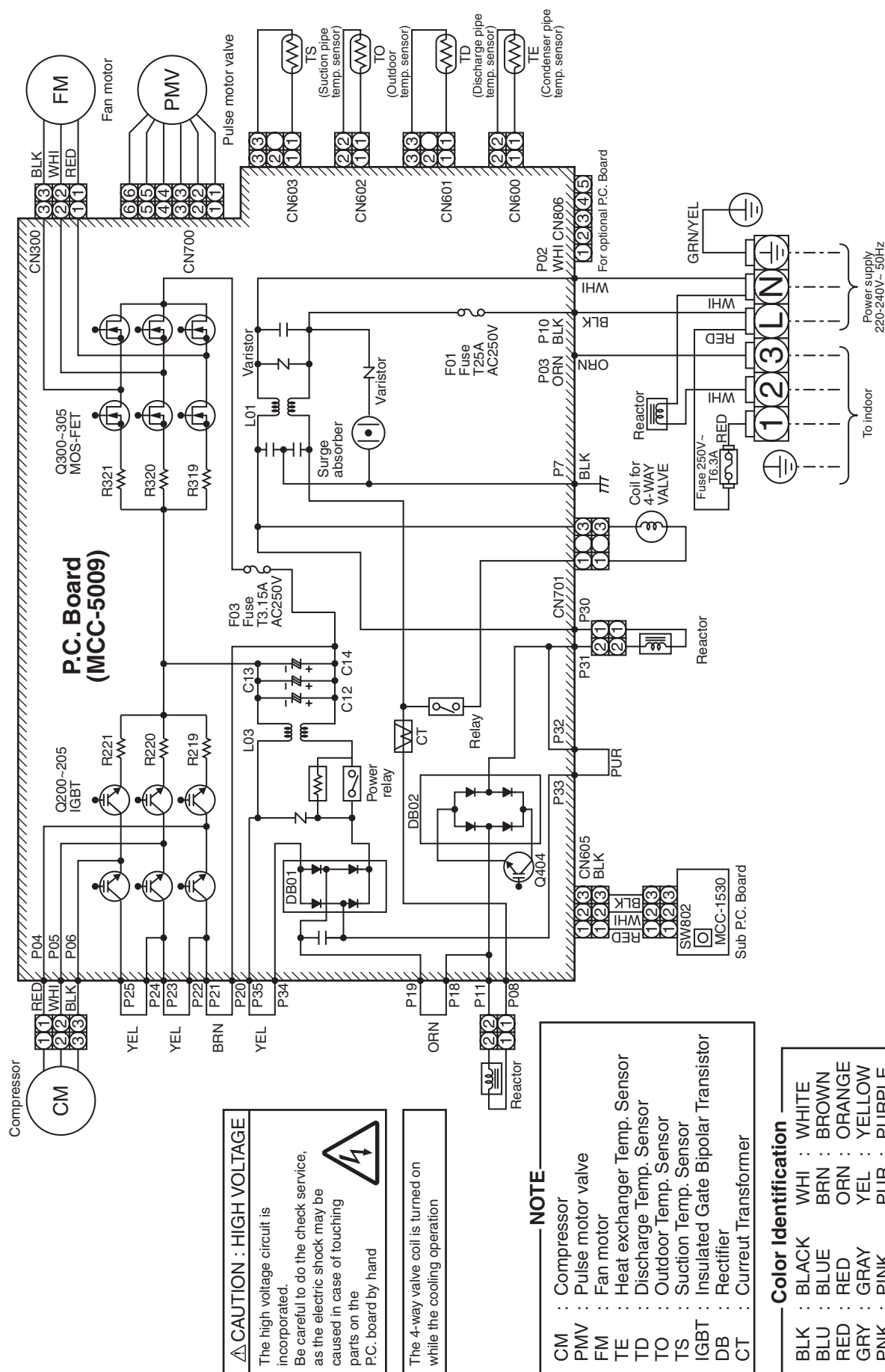


1. ○ indicates the terminal block.
Alphanumeric characters in the cycle indicate the terminal No.
2. The two-dot chain line indicates the wiring procured locally.
3. ▨ indicates the P.C. board.
4. For the indoor unit circuit, refer to the wiring diagram of the indoor unit.

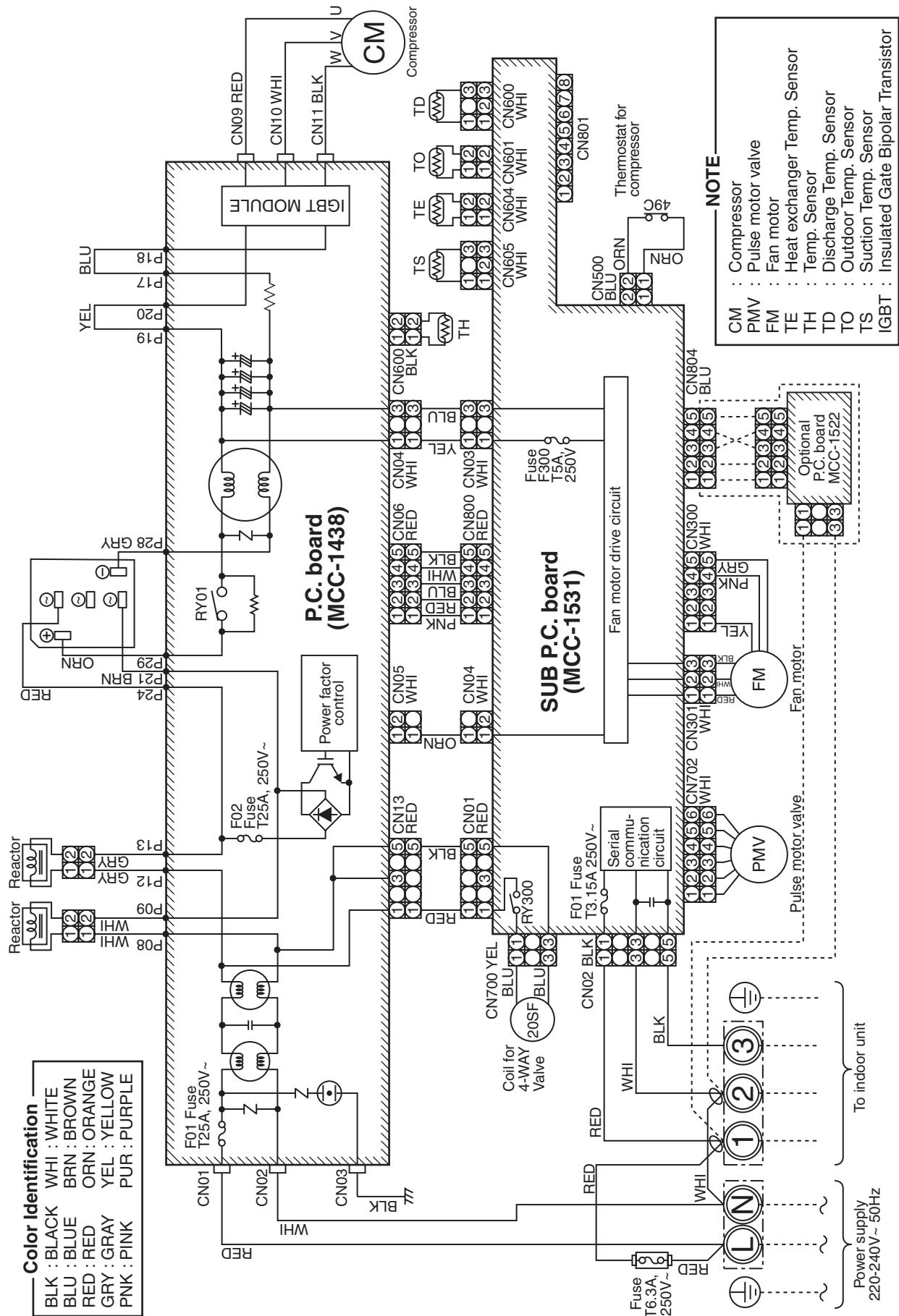
RAV-SP404AT-E, RAV-SP404ATZ-E, RAV-SP404ATZG-E RAV-SP454AT-E, RAV-SP454ATZ-E, RAV-SP454ATZG-E



RAV-SM563AT-E, RAV-SM803AT-E



RAV-SM1103AT-E, RAV-SM1403AT-E



4. Sensible capacity table

Slim Duct Series Sensible Heat Capacity : RAV-SM***SDT-E

with SDI4

unit size	outdoor air temp. CDB	indoor air temp.																	
		14.0CWB 20.0CDB		15.0CWB 21.5CDB		16.0CWB 23.0CDB		17.0CWB 24.5CDB		18.0CWB 26.0CDB		19.0CWB 27.0CDB		20.0CWB 28.0CDB		22.0CWB 30.0CDB		24.0CWB 32.0CDB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
404	10.0	3.4	2.3	3.6	2.4	3.7	2.5	3.9	2.6	4.0	2.7	4.1	2.8	4.2	2.9	4.5	3.0	4.7	3.2
	12.0	3.4	2.3	3.5	2.4	3.7	2.5	3.8	2.6	4.0	2.7	4.1	2.8	4.2	2.8	4.5	3.0	4.7	3.1
	14.0	3.3	2.2	3.5	2.4	3.7	2.5	3.8	2.6	3.9	2.7	4.1	2.7	4.2	2.8	4.4	3.0	4.6	3.1
	16.0	3.3	2.2	3.5	2.3	3.7	2.5	3.8	2.6	3.9	2.6	4.0	2.7	4.2	2.8	4.4	3.0	4.6	3.1
	18.0	3.3	2.2	3.5	2.3	3.6	2.4	3.8	2.5	3.9	2.6	4.0	2.7	4.1	2.8	4.4	2.9	4.6	3.1
	20.0	3.3	2.2	3.4	2.3	3.6	2.4	3.7	2.5	3.9	2.6	4.0	2.7	4.1	2.8	4.3	2.9	4.5	3.0
	21.0	3.2	2.2	3.4	2.3	3.6	2.4	3.7	2.5	3.8	2.6	4.0	2.7	4.1	2.7	4.3	2.9	4.5	3.0
	23.0	3.2	2.2	3.4	2.3	3.5	2.4	3.7	2.5	3.8	2.6	3.9	2.6	4.0	2.7	4.3	2.9	4.5	3.0
	25.0	3.2	2.1	3.3	2.3	3.5	2.4	3.6	2.4	3.8	2.5	3.9	2.6	4.0	2.7	4.2	2.8	4.4	3.0
	27.0	3.1	2.1	3.3	2.2	3.5	2.3	3.6	2.4	3.7	2.5	3.8	2.6	3.9	2.6	4.2	2.8	4.4	2.9
	29.0	3.1	2.1	3.3	2.2	3.4	2.3	3.5	2.4	3.7	2.5	3.8	2.5	3.9	2.6	4.1	2.8	4.3	2.9
	31.0	3.1	2.1	3.2	2.2	3.4	2.3	3.5	2.4	3.6	2.4	3.7	2.5	3.8	2.6	4.1	2.7	4.2	2.9
	33.0	3.0	2.0	3.2	2.1	3.3	2.2	3.4	2.3	3.6	2.4	3.7	2.5	3.8	2.5	4.0	2.7	4.2	2.8
	35.0	3.0	2.0	3.1	2.1	3.3	2.2	3.4	2.3	3.5	2.4	3.6	2.4	3.7	2.5	3.9	2.6	4.1	2.8
	37.0	2.9	2.0	3.1	2.1	3.2	2.2	3.3	2.2	3.4	2.3	3.5	2.4	3.6	2.4	3.8	2.6	4.0	2.7
	39.0	2.8	1.9	3.0	2.0	3.1	2.1	3.2	2.2	3.4	2.3	3.5	2.3	3.6	2.4	3.8	2.5	3.9	2.7
454	10.0	3.8	2.4	4.0	2.6	4.1	2.7	4.3	2.8	4.4	2.9	4.6	3.0	4.7	3.0	5.0	3.2	5.2	3.4
	12.0	3.7	2.4	3.9	2.5	4.1	2.7	4.3	2.8	4.4	2.9	4.5	2.9	4.7	3.0	4.9	3.2	5.2	3.4
	14.0	3.7	2.4	3.9	2.5	4.1	2.7	4.2	2.7	4.4	2.8	4.5	2.9	4.6	3.0	4.9	3.2	5.1	3.3
	16.0	3.7	2.4	3.9	2.5	4.1	2.6	4.2	2.7	4.4	2.8	4.5	2.9	4.6	3.0	4.9	3.2	5.1	3.3
	18.0	3.7	2.4	3.8	2.5	4.0	2.6	4.2	2.7	4.3	2.8	4.4	2.9	4.6	3.0	4.8	3.1	5.1	3.3
	20.0	3.6	2.3	3.8	2.5	4.0	2.6	4.1	2.7	4.3	2.8	4.4	2.9	4.5	2.9	4.8	3.1	5.0	3.3
	21.0	3.6	2.3	3.8	2.5	4.0	2.6	4.1	2.7	4.3	2.8	4.4	2.8	4.5	2.9	4.8	3.1	5.0	3.2
	23.0	3.6	2.3	3.8	2.4	3.9	2.6	4.1	2.6	4.2	2.7	4.3	2.8	4.5	2.9	4.7	3.1	5.0	3.2
	25.0	3.5	2.3	3.7	2.4	3.9	2.5	4.0	2.6	4.2	2.7	4.3	2.8	4.4	2.9	4.7	3.0	4.9	3.2
	27.0	3.5	2.3	3.7	2.4	3.9	2.5	4.0	2.6	4.1	2.7	4.2	2.8	4.4	2.8	4.6	3.0	4.8	3.1
	29.0	3.4	2.2	3.6	2.3	3.8	2.5	3.9	2.5	4.1	2.6	4.2	2.7	4.3	2.8	4.6	3.0	4.8	3.1
	31.0	3.4	2.2	3.6	2.3	3.7	2.4	3.9	2.5	4.0	2.6	4.1	2.7	4.3	2.8	4.5	2.9	4.7	3.0
	33.0	3.3	2.2	3.5	2.3	3.7	2.4	3.8	2.5	4.0	2.6	4.1	2.6	4.2	2.7	4.4	2.9	4.6	3.0
	35.0	3.3	2.1	3.5	2.2	3.6	2.3	3.8	2.4	3.9	2.5	4.0	2.6	4.1	2.7	4.4	2.8	4.6	3.0
	37.0	3.2	2.1	3.4	2.2	3.6	2.3	3.7	2.4	3.8	2.5	3.9	2.5	4.0	2.6	4.3	2.8	4.5	2.9
	39.0	3.2	2.0	3.3	2.2	3.5	2.3	3.6	2.3	3.7	2.4	3.8	2.5	4.0	2.6	4.2	2.7	4.4	2.8

with SDI2

unit size	outdoor air temp. CDB	indoor air temp.																	
		14.0CWB 20.0CDB		15.0CWB 21.5CDB		16.0CWB 23.0CDB		17.0CWB 24.5CDB		18.0CWB 26.0CDB		19.0CWB 27.0CDB		20.0CWB 28.0CDB		22.0CWB 30.0CDB		24.0CWB 32.0CDB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
564	10.0	4.7	3.4	4.9	3.6	5.2	3.7	5.4	3.8	5.6	3.9	5.7	3.9	5.9	3.9	6.2	3.8	6.5	3.8
	12.0	4.7	3.4	4.9	3.6	5.2	3.6	5.3	3.8	5.5	3.9	5.7	3.9	5.8	3.9	6.2	3.8	6.5	3.7
	14.0	4.6	3.4	4.9	3.6	5.1	3.6	5.3	3.7	5.5	3.8	5.6	3.8	5.8	3.8	6.1	3.8	6.4	3.7
	16.0	4.6	3.4	4.8	3.5	5.1	3.6	5.3	3.7	5.4	3.8	5.6	3.8	5.8	3.8	6.1	3.8	6.4	3.7
	18.0	4.6	3.3	4.8	3.5	5.0	3.6	5.2	3.7	5.4	3.8	5.6	3.8	5.7	3.8	6.1	3.7	6.3	3.7
	20.0	4.5	3.3	4.8	3.5	5.0	3.5	5.2	3.7	5.4	3.8	5.5	3.7	5.7	3.7	6.0	3.7	6.3	3.6
	21.0	4.5	3.3	4.7	3.5	5.0	3.5	5.2	3.6	5.3	3.7	5.5	3.7	5.6	3.7	6.0	3.7	6.3	3.6
	23.0	4.5	3.3	4.7	3.4	4.9	3.5	5.1	3.6	5.3	3.7	5.4	3.7	5.6	3.7	5.9	3.6	6.2	3.6
	25.0	4.4	3.2	4.6	3.4	4.9	3.4	5.0	3.6	5.2	3.7	5.4	3.7	5.5	3.6	5.9	3.6	6.1	3.5
	27.0	4.4	3.2	4.6	3.4	4.8	3.4	5.0	3.5	5.2	3.6	5.3	3.6	5.5	3.6	5.8	3.6	6.0	3.5
	29.0	4.3	3.2	4.5	3.3	4.8	3.4	4.9	3.5	5.1	3.6	5.2	3.6	5.4	3.6	5.7	3.5	6.0	3.4
	31.0	4.2	3.1	4.5	3.3	4.7	3.3	4.9	3.4	5.0	3.5	5.2	3.5	5.3	3.5	5.6	3.5	5.9	3.4
	33.0	4.2	3.1	4.4	3.2	4.6	3.3	4.8	3.4	4.9	3.5	5.1	3.5	5.2	3.5	5.5	3.4	5.8	3.3
	35.0	4.1	3.0	4.3	3.2	4.5	3.2	4.7	3.3	4.9	3.4	5.0	3.4	5.1	3.4	5.4	3.4	5.7	3.3
	37.0	4.0	3.0	4.2	3.1	4.4	3.1	4.6	3.3	4.8	3.3	4.9	3.3	5.0	3.3	5.3	3.3	5.6	3.2
	39.0	3.9	2.9	4.2	3.0	4.4	3.1	4.5	3.2	4.7	3.3	4.8	3.3	4.9	3.3	5.2	3.2	5.5	3.2

with DI3

unit size	outdoor air temp. CDB	indoor air temp.																	
		14.0CWB 20.0CDB		15.0CWB 21.5CDB		16.0CWB 23.0CDB		17.0CWB 24.5CDB		18.0CWB 26.0CDB		19.0CWB 27.0CDB		20.0CWB 28.0CDB		22.0CWB 30.0CDB		24.0CWB 32.0CDB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
564	10.0	4.7	3.4	4.9	3.6	5.2	3.7	5.4	3.8	5.6	3.9	5.7	3.9	5.9	3.9	6.2	3.8	6.5	3.8
	12.0	4.7	3.4	4.9	3.6	5.2	3.6	5.3	3.8	5.5	3.9	5.7	3.9	5.8	3.9	6.2	3.8	6.5	3.7
	14.0	4.6	3.4	4.9	3.6	5.1	3.6	5.3	3.7	5.5	3.8	5.6	3.8	5.8	3.8	6.1	3.8	6.4	3.7
	16.0	4.6	3.4	4.8	3.5	5.1	3.6	5.3	3.7	5.4	3.8	5.6	3.8	5.8	3.8	6.1	3.8	6.4	3.7
	18.0	4.6	3.3	4.8	3.5	5.0	3.6	5.2	3.7	5.4	3.8	5.6	3.8	5.7	3.8	6.1	3.7	6.3	3.7
	20.0	4.5	3.3	4.8	3.5	5.0	3.5	5.2	3.7	5.4	3.8	5.5	3.7	5.7	3.7	6.0	3.7	6.3	3.6
	21.0	4.5	3.3	4.7	3.5	5.0	3.5	5.2	3.6	5.3	3.7	5.5	3.7	5.6	3.7	6.0	3.7	6.3	3.6
	23.0	4.5	3.3	4.7	3.4	4.9	3.5	5.1	3.6	5.3	3.7	5.4	3.7	5.6	3.7	5.9	3.6	6.2	3.6
	25.0	4.4	3.2	4.6	3.4	4.9	3.4	5.0	3.6	5.2	3.7	5.4	3.7	5.5	3.6	5.9	3.6	6.1	3.5
	27.0	4.4	3.2	4.6	3.4	4.8	3.4	5.0	3.5	5.2	3.6	5.3	3.6	5.5	3.6	5.8	3.6	6.0	3.5
	29.0	4.3	3.2	4.5	3.3	4.8	3.4	4.9	3.5	5.1	3.6	5.2	3.6	5.4	3.6	5.7	3.5	6.0	3.4
	31.0	4.2	3.1	4.5	3.3	4.7	3.3	4.9	3.4	5.0	3.5	5.2	3.5	5.3	3.5	5.6	3.5	5.9	3.4
33.0	4.2	3.1	4.4	3.2	4.6	3.3	4.8	3.4	4.9	3.5	5.1	3.5	5.2	3.5	5.5	3.4	5.8	3.3	
35.0	4.1	3.0	4.3	3.2	4.5	3.2	4.7	3.3	4.9	3.4	5.0	3.4	5.1	3.4	5.4	3.4	5.7	3.3	
37.0	4.0	3.0	4.2	3.1	4.4	3.1	4.6	3.3	4.8	3.3	4.9	3.3	5.0	3.3	5.3	3.3	5.6	3.2	
39.0	3.9	2.9	4.2	3.0	4.4	3.1	4.5	3.2	4.7	3.3	4.8	3.3	4.9	3.3	5.2	3.2	5.5	3.2	

5. Part load performance

Combination

Indoor unit : RAV-SM404SDT-E

Outdoor unit : RAV-SP404AT-E, ATZ-E, ATZG-E

	Cooling		Heating	
	Capacity Q(W)	Power consumption W(W)	Capacity Q(W)	Power consumption W(W)
MINIMUM	1500	370	1500	370
RATING	3600	1030	4000	1000

Q : Capacity in W

W : Power Consumption in W

Cooling

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
40	Q	3420	3080	2740	2400	2050	1710	1430	1430	1430	1430
	W	1110	950	810	680	560	450	400	400	400	400
35	Q	3600	3240	2880	2520	2160	1800	1500	1500	1500	1500
	W	1030	884	751	629	518	415	370	370	370	370
30	Q	3750	3370	3000	2620	2250	1870	1560	1560	1560	1560
	W	950	820	690	580	480	380	340	340	340	340
25	Q	3870	3480	3100	2710	2320	1940	1610	1610	1610	1610
	W	880	760	640	540	440	360	320	320	320	320
20	Q	3970	3570	3180	2780	2380	1990	1650	1650	1650	1650
	W	820	700	600	500	410	330	290	290	290	290

Heating

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
20	Q	5340	4800	4270	3740	3200	2670	2140	2000	2000	2000
	W	1170	1040	910	780	650	540	430	430	430	430
15	Q	4820	4340	3860	3380	2890	2410	1930	1810	1810	1810
	W	1100	980	860	740	620	510	410	410	410	410
10	Q	4380	3940	3500	3070	2630	2190	1750	1640	1640	1640
	W	1050	930	820	700	590	480	390	390	390	390
7	Q	4000	3600	3200	2800	2400	2000	1600	1500	1500	1500
	W	1000	890	780	670	560	460	370	370	370	370
5	Q	3730	3360	2990	2610	2240	1870	1490	1400	1400	1400
	W	970	860	760	650	540	450	360	360	360	360
2	Q	3340	3010	2680	2340	2010	1670	1340	1250	1250	1250
	W	920	820	720	620	520	420	340	340	340	340
0	Q	2610	2350	2090	1830	1570	1310	1040	980	980	980
	W	820	730	640	550	460	380	300	300	300	300
-5	Q	2610	2350	2090	1830	1570	1310	1040	980	980	980
	W	820	730	640	550	460	380	300	300	300	300
-7	Q	2460	2210	1960	1720	1470	1230	980	920	920	920
	W	790	710	620	530	440	370	290	290	290	290
-10	Q	2250	2020	1800	1570	1350	1120	900	840	840	840
	W	760	680	590	510	430	350	280	280	280	280
-15	Q	1900	1710	1520	1330	1140	950	760	710	710	710
	W	720	640	560	480	400	330	270	270	270	270

Combination**Indoor unit : RAV-SM454SDT-E****Outdoor unit : RAV-SP454AT-E, ATZ-E, ATZG-E**

	Cooling		Heating	
	Capacity Q(W)	Power consumption W(W)	Capacity Q(W)	Power consumption W(W)
MINIMUM	1500	370	1500	370
RATING	4000	1200	4500	1150

Q : Capacity in W

W : Power Consumption in W

Cooling

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
40	Q	3800	3420	3040	2660	2280	1900	1520	1430	1430	1430
	W	1290	1070	880	720	570	450	340	400	400	400
35	Q	4000	3600	3200	2800	2400	2000	1600	1500	1500	1500
	W	1200	995	818	667	535	419	317	370	370	370
30	Q	4160	3750	3330	2910	2500	2080	1670	1560	1560	1560
	W	1110	920	760	620	490	390	290	340	340	340
25	Q	4300	3870	3440	3010	2580	2150	1720	1610	1610	1610
	W	1030	850	700	570	460	360	270	320	320	320
20	Q	4410	3970	3530	3090	2650	2210	1760	1650	1650	1650
	W	950	790	650	530	430	330	250	290	290	290

Heating

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
20	Q	6010	5410	4800	4200	3600	3000	2400	2000	2000	2000
	W	1340	1180	1030	880	740	600	470	430	430	430
15	Q	5430	4880	4340	3800	3260	2710	2170	1810	1810	1810
	W	1270	1110	970	830	690	560	440	410	410	410
10	Q	4930	4430	3940	3450	2960	2460	1970	1640	1640	1640
	W	1200	1060	920	780	660	530	420	390	390	390
7	Q	4500	4050	3600	3150	2700	2250	1800	1500	1500	1500
	W	1150	1010	880	750	630	510	400	370	370	370
5	Q	4200	3780	3360	2940	2520	2100	1680	1400	1400	1400
	W	1110	980	850	730	610	490	390	360	360	360
2	Q	3760	3390	3010	2630	2260	1880	1500	1250	1250	1250
	W	1060	930	810	690	580	470	370	340	340	340
0	Q	2940	2640	2350	2060	1760	1470	1180	980	980	980
	W	940	830	720	610	520	420	330	300	300	300
-5	Q	2940	2640	2350	2060	1760	1470	1180	980	980	980
	W	940	830	720	610	520	420	330	300	300	300
-7	Q	2760	2490	2210	1930	1660	1380	1110	920	920	920
	W	910	800	700	600	500	400	320	290	290	290
-10	Q	2530	2280	2020	1770	1520	1270	1010	840	840	840
	W	880	770	670	570	480	390	300	280	280	280
-15	Q	2130	1920	1710	1490	1280	1070	850	710	710	710
	W	830	720	630	540	450	370	290	270	270	270

Combination**Indoor unit : RAV-SM564SDT-E****Outdoor unit : RAV-SP562AT-E, ATZ-E, ATZG-E**

	Cooling		Heating	
	Capacity Q(W)	Power consumption W(W)	Capacity Q(W)	Power consumption W(W)
MINIMUM	2200	500	2200	500
RATING	5000	1550	5600	1440

Q : Capacity in W

W : Power Consumption in W

Cooling

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
40	Q	4760	4280	3800	3330	2850	2380	2090	2090	2090	2090
	W	1660	1380	1130	920	740	580	540	540	540	540
35	Q	5000	4500	4000	3500	3000	2500	2200	2200	2200	2200
	W	1550	1285	1057	862	691	541	500	500	500	500
30	Q	5210	4680	4160	3640	3120	2600	2290	2290	2290	2290
	W	1430	1190	980	800	640	500	460	460	460	460
25	Q	5380	4840	4300	3760	3230	2690	2370	2370	2370	2370
	W	1330	1100	910	740	590	460	430	430	430	430
20	Q	5520	4960	4410	3860	3310	2760	2430	2430	2430	2430
	W	1230	1020	840	690	550	430	400	400	400	400

Heating

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
20	Q	7470	6730	5980	5230	4480	3740	2990	2940	2940	2940
	W	1680	1470	1280	1100	920	750	580	580	580	580
15	Q	6750	6080	5400	4730	4050	3380	2700	2650	2650	2650
	W	1590	1390	1210	1040	870	710	550	550	550	550
10	Q	6130	5520	4910	4290	3680	3070	2450	2410	2410	2410
	W	1500	1320	1150	980	830	670	520	520	520	520
7	Q	5600	5040	4480	3920	3360	2800	2240	2200	2200	2200
	W	1440	1260	1100	940	790	640	500	500	500	500
5	Q	5220	4700	4180	3660	3130	2610	2090	2050	2050	2050
	W	1400	1220	1070	910	770	620	480	480	480	480
2	Q	4680	4210	3750	3280	2810	2340	1870	1840	1840	1840
	W	1330	1160	1010	870	730	590	460	460	460	460
0	Q	3660	3290	2930	2560	2190	1830	1460	1440	1440	1440
	W	1180	1030	900	770	650	520	410	410	410	410
-5	Q	3660	3290	2930	2560	2190	1830	1460	1440	1440	1440
	W	1180	1030	900	770	650	520	410	410	410	410
-7	Q	3440	3090	2750	2410	2060	1720	1380	1350	1350	1350
	W	1140	1000	870	750	630	510	400	400	400	400
-10	Q	3150	2830	2520	2200	1890	1570	1260	1240	1240	1240
	W	1100	960	840	720	600	490	380	380	380	380
-15	Q	2650	2390	2120	1860	1590	1330	1060	1040	1040	1040
	W	1030	900	790	670	570	460	360	360	360	360

Combination**Indoor unit : RAV-SM564SDT-E****Outdoor unit : RAV-SM563AT-E**

	Cooling		Heating	
	Capacity Q(W)	Power consumption W(W)	Capacity Q(W)	Power consumption W(W)
MINIMUM	1500	380	1500	380
RATING	5000	1660	5600	1590

Q : Capacity in W

W : Power Consumption in W

Cooling

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
40	Q	4760	4280	3800	3330	2850	2380	1900	1430	1430	1430
	W	1780	1480	1210	990	790	620	470	410	410	410
35	Q	5000	4500	4000	3500	3000	2500	2000	1500	1500	1500
	W	1660	1376	1132	923	740	579	438	380	380	380
30	Q	5210	4680	4160	3640	3120	2600	2080	1560	1560	1560
	W	1530	1270	1050	850	680	540	400	350	350	350
25	Q	5380	4840	4300	3760	3230	2690	2150	1610	1610	1610
	W	1420	1180	970	790	630	500	380	330	330	330
20	Q	5520	4960	4410	3860	3310	2760	2210	1650	1650	1650
	W	1320	1090	900	730	590	460	350	300	300	300

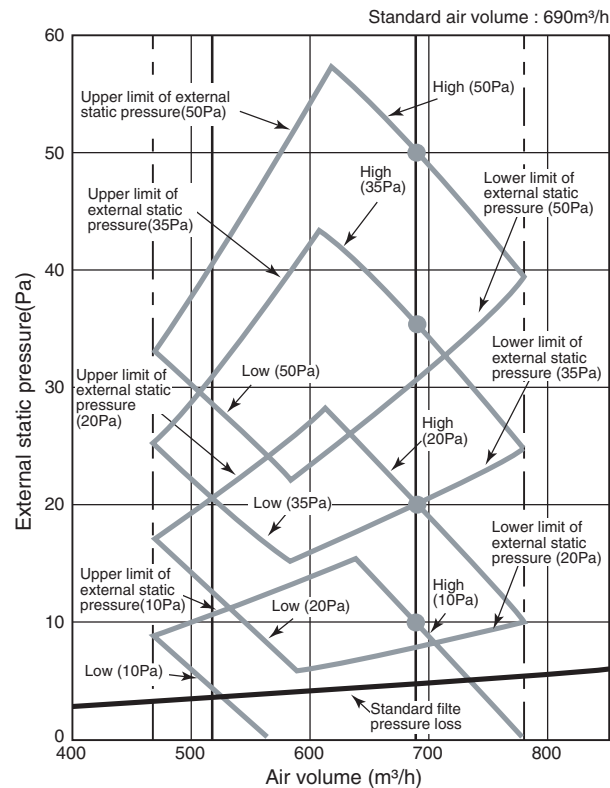
Heating

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
20	Q	7470	6730	5980	5230	4480	3740	2990	2240	2000	2000
	W	1860	1630	1410	1210	1020	830	640	480	440	440
15	Q	6750	6080	5400	4730	4050	3380	2700	2030	1810	1810
	W	1750	1540	1330	1150	960	780	610	450	420	420
10	Q	6130	5520	4910	4290	3680	3070	2450	1840	1640	1640
	W	1660	1460	1260	1090	910	740	570	430	400	400
7	Q	5600	5040	4480	3920	3360	2800	2240	1680	1500	1500
	W	1590	1400	1210	1040	870	710	550	410	380	380
5	Q	5220	4700	4180	3660	3130	2610	2090	1570	1400	1400
	W	1540	1360	1170	1010	840	690	530	400	370	370
2	Q	4680	4210	3750	3280	2810	2340	1870	1400	1250	1250
	W	1470	1290	1120	960	800	650	510	380	350	350
0	Q	3660	3290	2930	2560	2190	1830	1460	1100	980	980
	W	1300	1150	990	850	710	580	450	340	310	310
-5	Q	3660	3290	2930	2560	2190	1830	1460	1100	980	980
	W	1300	1150	990	850	710	580	450	340	310	310
-7	Q	3440	3090	2750	2410	2060	1720	1380	1030	920	920
	W	1260	1110	960	830	690	560	440	330	300	300
-10	Q	3150	2830	2520	2200	1890	1570	1260	940	840	840
	W	1210	1070	920	790	660	540	420	310	290	290
-15	Q	2650	2390	2120	1860	1590	1330	1060	800	710	710
	W	1140	1000	870	750	620	510	390	290	270	270

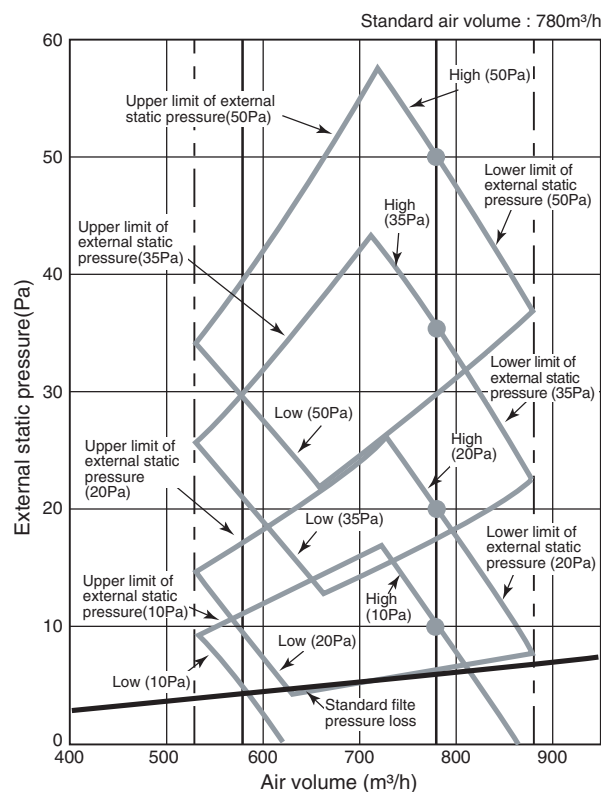
6. Fan characteristics

6-1. Slim Duct (Filter Attached)

RAV-SM404SDT-E, RAV-SM454SDT-E



RAV-SM564SDT-E

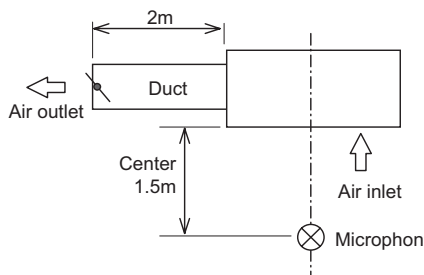


7. Sound characteristics (NC Curve)

RAV-SM564SDT-E

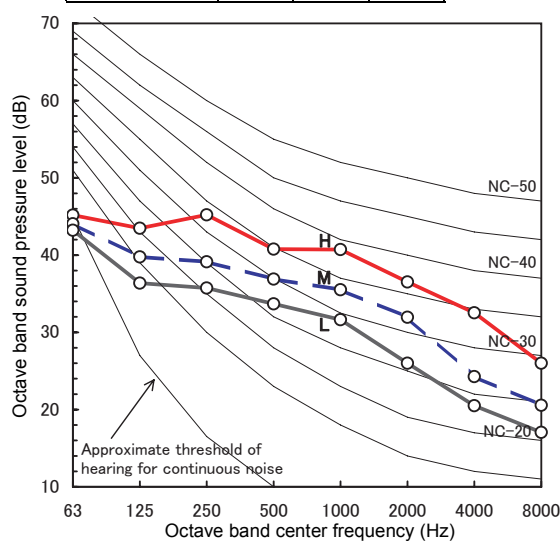
[Measuring location]

Under air intake



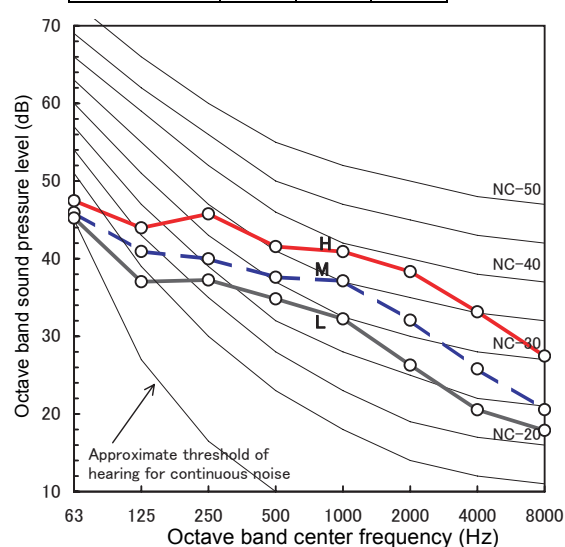
[External static pressure 10Pa]

Fan tap	H	M	L
Sound pressure level (dB(A))	45	40	36



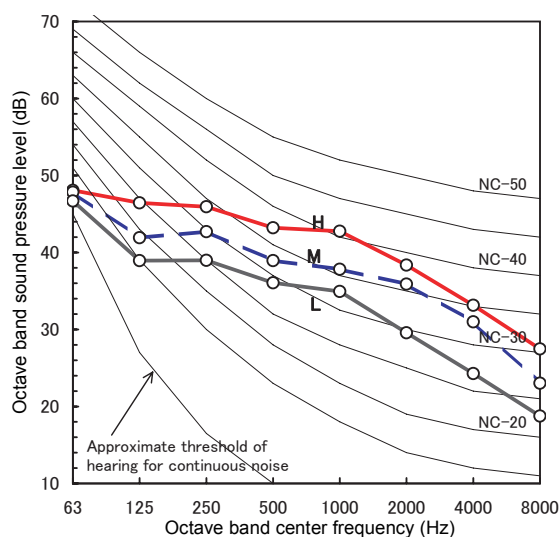
[External static pressure 20Pa]

Fan tap	H	M	L
Sound pressure level (dB(A))	46	41	37



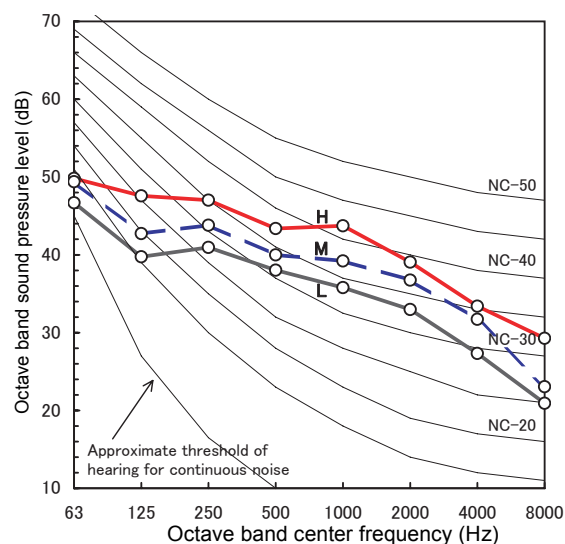
[External static pressure 35Pa]

Fan tap	H	M	L
Sound pressure level (dB(A))	47	43	39



[External static pressure 50Pa]

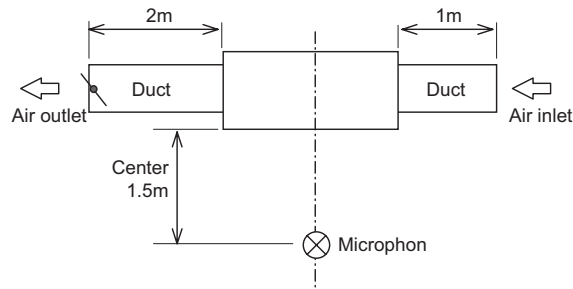
Fan tap	H	M	L
Sound pressure level (dB(A))	48	44	41



RAV-SM564SDT-E

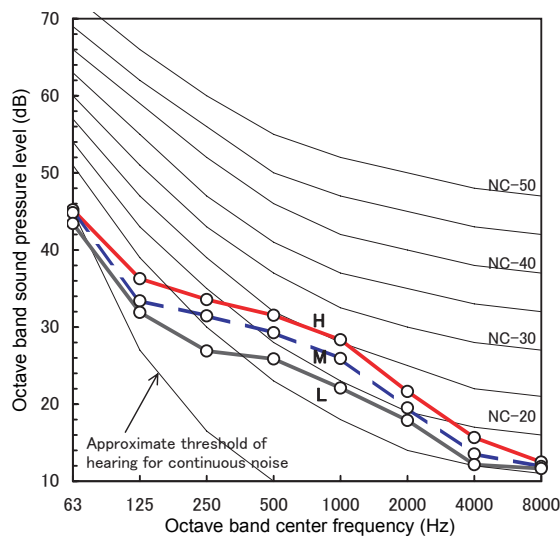
[Measuring location]

Back air intake



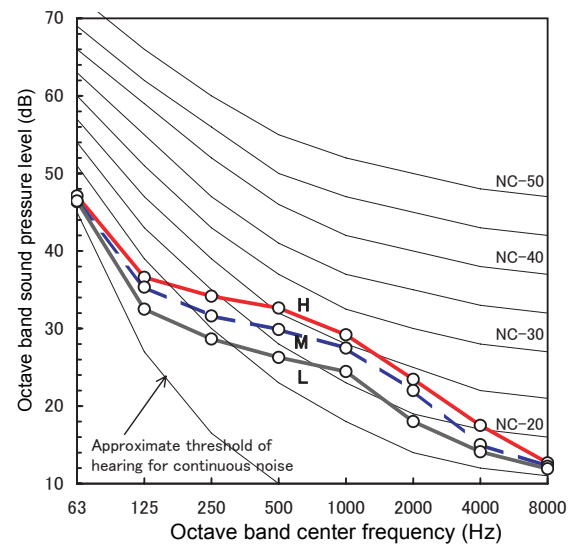
[External static pressure 10Pa]

Fan tap	H	M	L
Sound pressure level (dB(A))	33	31	28



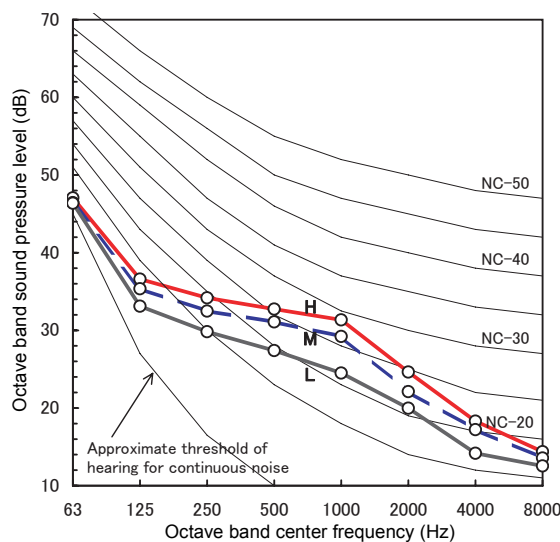
[External static pressure 20Pa]

Fan tap	H	M	L
Sound pressure level (dB(A))	34	32	29



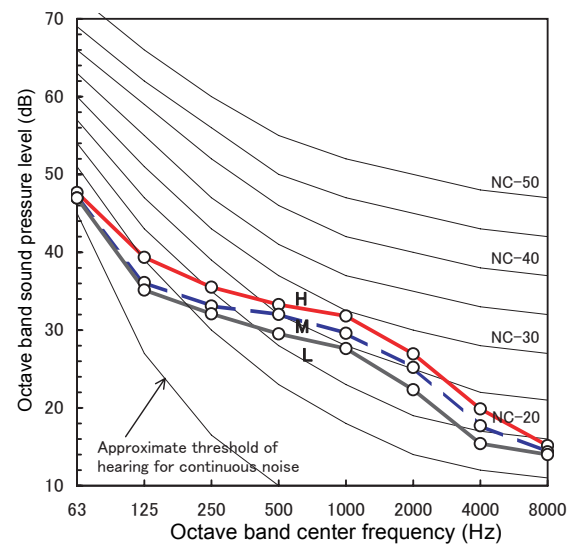
[External static pressure 35Pa]

Fan tap	H	M	L
Sound pressure level (dB(A))	35	33	30



[External static pressure 50Pa]

Fan tap	H	M	L
Sound pressure level (dB(A))	36	34	32



TOSHIBA AIRCONDITIONING

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Slim Duct Type Engineering Data Book