TOSHIBA
Leading Innovation

TCTC-E18-LC005

Engineering Data Book

Digital Inverter R32

3 Phase Model

Outdoor units

RAV-GM1101AT8P-E/TR
RAV-GM1401AT8P-E/TR

RAV-GM1101AT8JP-E
RAV-GM1401AT8JP-E

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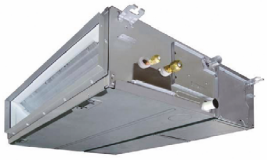
1. Line up

1-1. Single Line-up

Outdoor unit line-up

Model name	RAV-GM1101AT8P-E RAV-GM1401AT8P-E	RAV-GM1101AT8JP-E RAV-GM1401AT8JP-E	RAV-GM1101AT8P-TR RAV-GM1401AT8P-TR
Appearance	4 and 5 HP		

Indoor unit line-up

Capacity Type	**	56	80	110	140
(HP equivalent)		2.0	3.0	4.0	5.0
4-way Cassette	RAV-RM**1UTP-E/TR	-	-	110	140
Standard Duct	 RAV-RM**1BTP-E/TR	-	-	110	140
Under Celling	RAV-RM**1CTP-E/TR	-	-	110	140

1-2. Twin Line-up

Outdoor unit line-up (Twin system)

Model name	RAV-GM1101AT8P-E RAV-GM1401AT8P-E	RAV-GM1101AT8JP-E RAV-GM1401AT8JP-E	RAV-GM1101AT8P-TR RAV-GM1401AT8P-TR
Appearance	4 and 5 HP		

Indoor unit line-up

Capacity Type		**	56	80
(HP equivalent)			2.0	3.0
Outdoor Unit		RAV-	GM1101AT8xx	GM1401AT8xx
4-way Cassette		RAV-RM**1UTP-E/TR x 2 units	56	80
Compact 4-way Cassette		RAV-RM**1MUT-E/TR x 2 units	56	-
Standard Duct		RAV-RM**1BTP-E/TR x 2 units	56	80
Slim Duct		RAV-RM**1SDT-E/TR x 2 units	56	-
Under Celling		RAV-RM**1CTP-E/TR x 2 units	56	80
High Wall		RAV-RM**1KRTP-E/TR x 2 units	56	80

2. Indoor Units

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2-1-1. Specifications

4-way Cassette Type <Single Type>

Model		Indoor unit		RAV-RM1101UTP-E/TR	RAV-RM1401UTP-E/TR
		Outdoor unit		RAV-GM1101AT8P-E/TR (*AT8JP-E)	RAV-GM1401AT8P-E/TR (*AT8JP-E)
Cooling capacity			(kW)	9.5 < 3.0 - 11.2 >	12.0 < 3.0 - 13.2 >
Heating capacity			(kW)	11.2 < 3.0 - 13.0 >	13.0 < 3.0 - 16.0 >
Power supply				3 phase 380V-415V/50Hz, 3phase 380V/60Hz	
Electrical characteristics	Cooling	Running current	(A)	4.65-4.25	6.90-6.35
		Power consumption	(kW)	2.87	4.29
		Power factor	(%)	94	94
		EER		3.31	2.80
		SEER		6.15	5.71
	Heating	Running current	(A)	4.75-4.35	5.50-5.10
		Power consumption	(kW)	2.93	3.46
		Power factor	(%)	94	94
		COP		3.82	3.76
		SCOP		4.28	4.29
	Maximum current		(A)	14.1	14.1
Indoor unit					
Appearance	Main unit			Zinc hot dipping steel plate	
	Ceiling panel (Sold separately)	Model		RBC-U31PGPW-E , RBC-U31PGSPW-E	
		Panel color		W:Moon-white(2.5GY 9.0/0.5)	
Outer dimension	Main unit	Height	(mm)	319	
		Width	(mm)	840	
		Depth	(mm)	840	
	Ceiling panel (Sold separately)	Height	(mm)	30	
		Width	(mm)	950	
		Depth	(mm)	950	
Total weight	Main unit		(kg)	24.0	
	Ceiling panel (Sold separately)		(kg)	4.2	
Fan unit	Fan			Turbo fan	
	Standard air flow	H/M/L	(m3/h)	2010 / 1440 / 1170	2100 / 1440 / 1230
	Motor		(W)	68	72
Air filter				Standard filter (Long life filter)	
Sound pressure level		H/M/L	(dB)	43 / 38 / 33	44 / 38 / 34
Sound power level		H/M/L	(dB)	58 / 53 / 48	59 / 53 / 49
Connecting pipe	Drain port			VP25	
Outdoor unit					
Air Flow			(m3/h)	4,080	4,200
Outer dimension	Height		(mm)	890	
	Width		(mm)	900	
	Depth		(mm)	320	
Total weight	Main unit		(kg)	69	
Pipe	Min. length		(m)	5.0	
	Max. total length		(m)	50.0	
Flare Connections	Gas side		(mm)	15.9	
	Liquid side		(mm)	9.5	
Sound pressure level	Cooling/Heating		(dB)	54 / 57	55 / 57
Sound power level	Cooling/Heating		(dB)	70 / 74	70 / 74
Operating Range	Cooling		(°C)	-15 / 46	
	Heating		(°C)	-15 / 15	

*1 : The cooling capacities and electrical characteristics are measured under the conditions specified by JIS B 8615 based on the reference piping. The reference piping consists of 5 m of main piping and 2.5 m of branch piping connected with 0 meter height.

*2 : The sound level are measured in an anechoic chamber in accordance with JIS B 8616. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

Note :

Rated conditions Cooling : Indoor air temperature 27°C DB/19°C WB, Outdoor air temperature 35°C DB
Heating : Indoor air temperature 20°C DB, Outdoor air temperature 7°C DB/6°C WB

4-way Cassette (Twin System)

Model		Indoor unit 1		RAV-RM561UTP-E/TR	RAV-RM801UTP-E/TR
		Indoor unit 2		RAV-RM561UTP-E/TR	RAV-RM801UTP-E/TR
		Outdoor unit		RAV-GM1101AT8P-E/TR (*AT8JP-E)	RAV-GM1401AT8P-E/TR (*AT8JP-E)
Cooling capacity			(kW)	9.5 < 3.0 - 11.2 >	12.0 < 3.0 - 13.2 >
Heating capacity			(kW)	11.2 < 3.0 - 13.0 >	13.0 < 3.0 - 16.0 >
Power supply				3 phase 380V-415V/50Hz, 3phase 380V/60Hz	
Electrical characteristics	Cooling	Running current	(A)	4.65-4.25	6.90-6.35
		Power consumption	(kW)	2.87	4.29
		Power factor	(%)	94	94
		EER		3.31	2.80
		SEER		5.94	5.57
	Heating	Running current	(A)	4.75-4.35	5.60-5.10
		Power consumption	(kW)	2.93	3.46
		Power factor	(%)	94	94
		COP		3.82	3.76
		SCOP		4.28	4.29
	Maximum current		(A)	14.1	14.1
Indoor unit					
Appearance	Main unit			Zinc hot dipping steel plate	
	Ceiling panel (Sold separately)	Model		RBC-U31PGPW-E , RBC-U31PGSPW-E	
		Panel color		W:Moon-white(2.5GY 9.0/0.5)	
Outer dimension	Main unit	Height	(mm)	256	
		Width	(mm)	840	
		Depth	(mm)	840	
	Ceiling panel (Sold separately)	Height	(mm)	30	
		Width	(mm)	950	
		Depth	(mm)	950	
Total weight	Main unit		(kg)	20	
	Ceiling panel (Sold separately)		(kg)	4.2	
Fan unit	Fan			Turbo fan	
	Standard air flow	H/M/L	(m3/h)	1050 / 870 / 780	1230 / 960 / 810
	Motor		(W)	14	20
Air filter				Standard filter (Long life filter)	
Sound pressure level		H/M/L	(dB)	32 / 29 / 28	35 / 31 / 28
Sound power level		H/M/L	(dB)	47 / 44 / 43	50 / 46 / 43
Connecting pipe	Drain port			VP25	
Outdoor unit					
Air Flow			(m3/h)	4,080	4,200
Outer dimension	Height		(mm)	890	
	Width		(mm)	900	
	Depth		(mm)	320	
Total weight	Main unit		(kg)	69	
Pipe	Min. length		(m)	5.0	
	Max. total length		(m)	50.0	
Flare Connections	Main	Gas	(mm)	15.9	
		Liquid	(mm)	9.5	
	Branch	Gas	(mm)	12.7	
		Liquid	(mm)	6.4	
Sound pressure level	Cooling/Heating		(dB)	54 / 57	55 / 57
Sound power level	Cooling/Heating		(dB)	70 / 74	70 / 74
Operating Range	Cooling		(°C)	-15 / 46	
	Heating		(°C)	-15 / 15	

*1 : The cooling capacities and electrical characteristics are measured under the conditions specified by JIS B 8615 based on the reference piping. The reference piping consists of 5 m of main piping and 2.5 m of branch piping connected with 0 meter height.

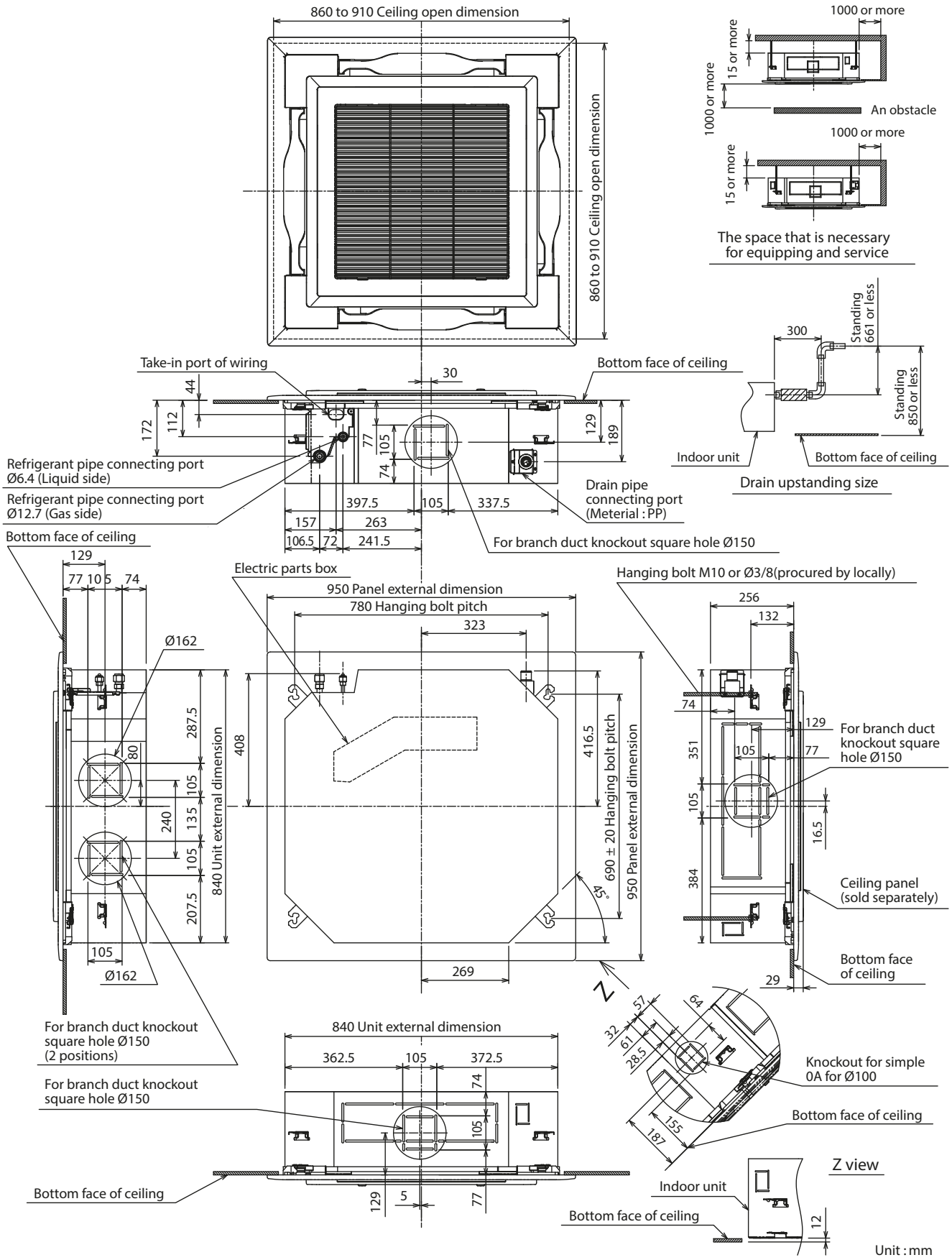
*2 : The sound level are measured in an anechoic chamber in accordance with JIS B 8616. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

Note :

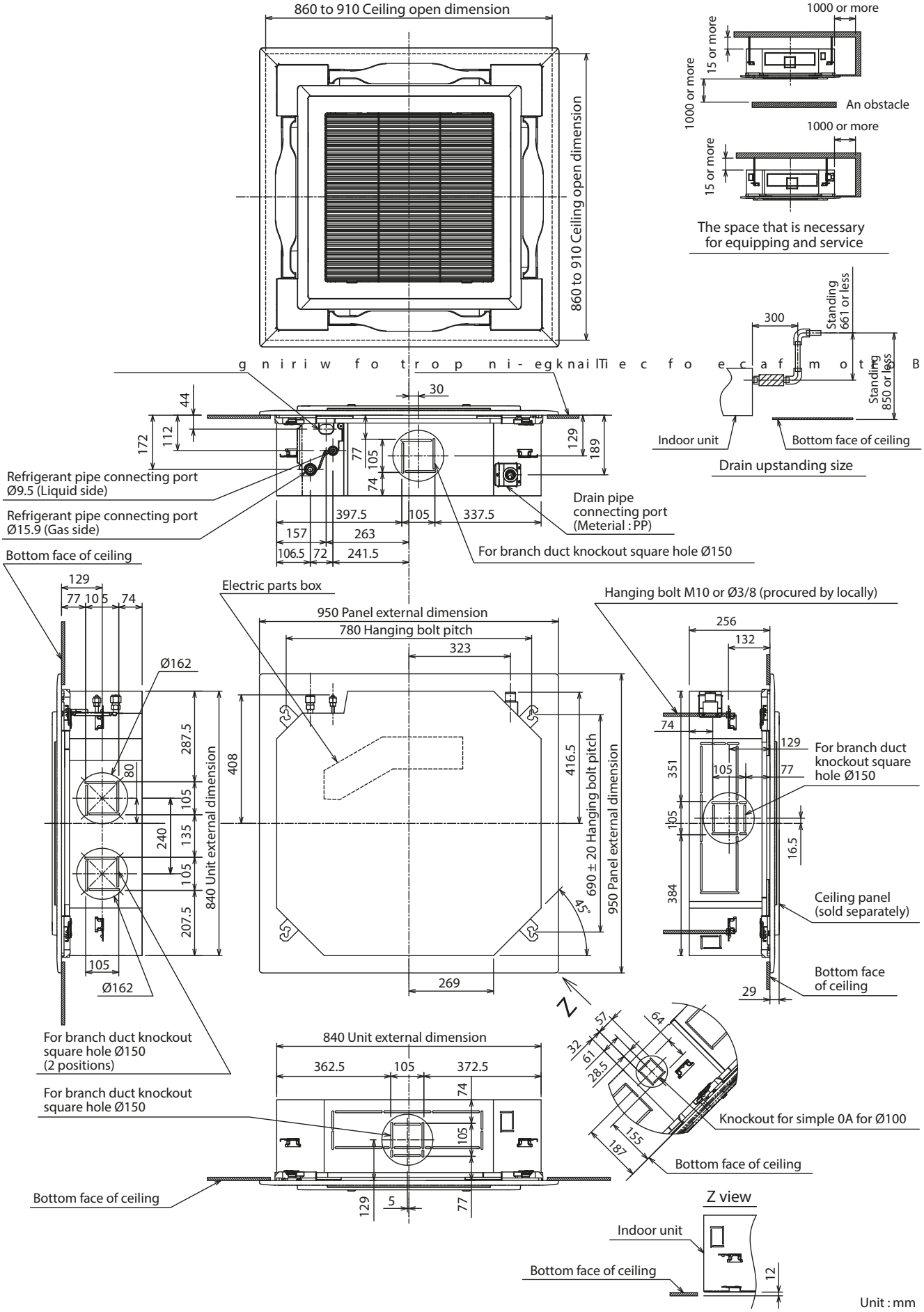
Rated conditions Cooling : Indoor air temperature 27°C DB/19°C WB, Outdoor air temperature 35°C DB
Heating : Indoor air temperature 20°C DB, Outdoor air temperature 7°C DB/6°C WB

2-1-2. Dimension

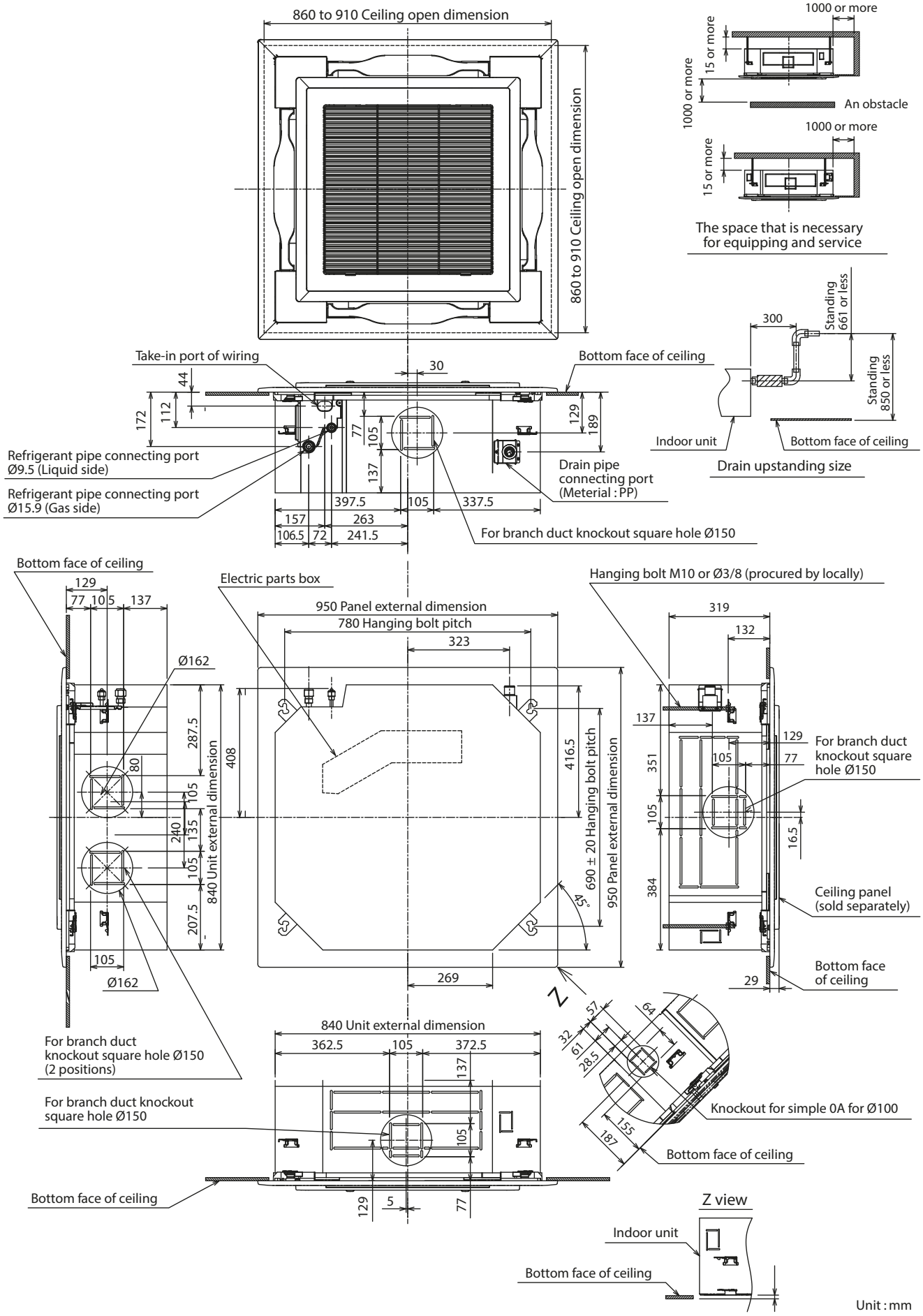
RAV-RM561UTP-E/TR



RAV-RM801UTP-E/TR



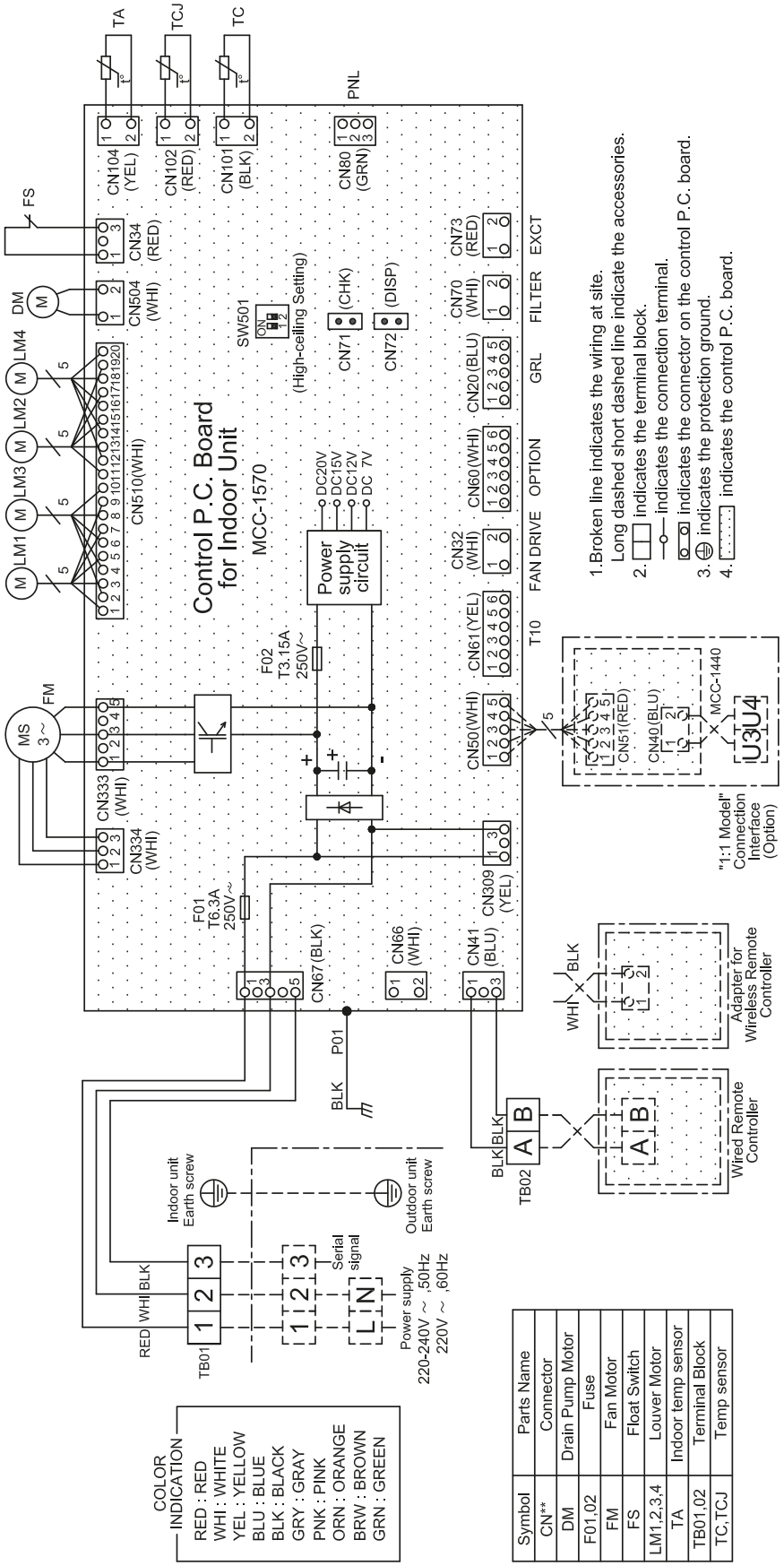
RAV-RM1101UTP-E/TR and RAV-RM1401UTP-E/TR



2-1-3. Wiring Diagrams

RAV-RM561UTP-E/TR, RAV-RM801UTP-E/TR,

RAV-RM1101UTP-E/TR and RAV-RM1401UTP-E/TR



2-1-4. Sensible Capacity Table

Digital Inverter R32 Sensible Heat Capacity : RAV-RM***UTP-E/TR

		indoor air temp.																	
unit size	outdoor air temp . CDB	14.0CWB		15.0CWB		16.0CWB		17.0CWB		18.0CWB		19.0CWB		20.0CWB		22.0CWB		24.0CWB	
		20.0CDB		21.5CDB		23.0CDB		24.5CDB		26.0CDB		27.0CDB		28.0CDB		30.0CDB		32.0CDB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
561	10.0	4.7	3.6	4.9	3.8	5.2	3.9	5.4	4.1	5.6	4.2	5.7	4.3	5.9	4.5	6.2	4.7	6.5	4.9
	12.0	4.7	3.5	4.9	3.7	5.2	3.9	5.3	4.1	5.5	4.2	5.7	4.3	5.8	4.4	6.2	4.7	6.5	4.9
	14.0	4.6	3.5	4.9	3.7	5.1	3.9	5.3	4.0	5.5	4.2	5.6	4.3	5.8	4.4	6.1	4.7	6.4	4.9
	16.0	4.6	3.5	4.8	3.7	5.1	3.9	5.3	4.0	5.4	4.1	5.6	4.3	5.8	4.4	6.1	4.6	6.4	4.9
	18.0	4.6	3.5	4.8	3.7	5.0	3.8	5.2	4.0	5.4	4.1	5.6	4.2	5.7	4.3	6.1	4.6	6.3	4.8
	20.0	4.5	3.4	4.8	3.6	5.0	3.8	5.2	3.9	5.4	4.1	5.5	4.2	5.7	4.3	6.0	4.6	6.3	4.8
	21.0	4.5	3.4	4.7	3.6	5.0	3.8	5.2	3.9	5.3	4.1	5.5	4.2	5.6	4.3	6.0	4.5	6.3	4.8
	23.0	4.5	3.4	4.7	3.6	4.9	3.7	5.1	3.9	5.3	4.0	5.4	4.1	5.6	4.2	5.9	4.5	6.2	4.7
	25.0	4.4	3.4	4.6	3.5	4.9	3.7	5.0	3.8	5.2	4.0	5.4	4.1	5.5	4.2	5.9	4.4	6.1	4.7
	27.0	4.4	3.3	4.6	3.5	4.8	3.7	5.0	3.8	5.2	3.9	5.3	4.0	5.5	4.2	5.8	4.4	6.0	4.6
	29.0	4.3	3.3	4.5	3.4	4.8	3.6	4.9	3.7	5.1	3.9	5.2	4.0	5.4	4.1	5.7	4.3	6.0	4.5
	31.0	4.2	3.2	4.5	3.4	4.7	3.6	4.9	3.7	5.0	3.8	5.2	3.9	5.3	4.0	5.6	4.3	5.9	4.5
	33.0	4.2	3.2	4.4	3.3	4.6	3.5	4.8	3.6	4.9	3.8	5.1	3.9	5.2	4.0	5.5	4.2	5.8	4.4
	35.0	4.1	3.1	4.3	3.3	4.5	3.4	4.7	3.6	4.9	3.7	5.0	3.8	5.1	3.9	5.4	4.1	5.7	4.3
	37.0	4.0	3.1	4.2	3.2	4.4	3.4	4.6	3.5	4.8	3.6	4.9	3.7	5.0	3.8	5.3	4.1	5.6	4.2
	39.0	3.9	3.0	4.2	3.2	4.4	3.3	4.5	3.4	4.7	3.5	4.8	3.7	4.9	3.8	5.2	4.0	5.5	4.2

		indoor air temp.																	
unit size	outdoor air temp. CDB	14.0CWB		15.0CWB		16.0CWB		17.0CWB		18.0CWB		19.0CWB		20.0CWB		22.0CWB		24.0CWB	
		20.0CDB		21.5CDB		23.0CDB		24.5CDB		26.0CDB		27.0CDB		28.0CDB		30.0CDB		32.0CDB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
801	10.0	6.3	4.7	6.6	4.9	6.9	5.2	7.2	5.4	7.4	5.6	7.7	5.7	7.9	5.9	8.3	6.2	8.7	6.5
	12.0	6.3	4.7	6.6	4.9	6.9	5.2	7.1	5.3	7.4	5.5	7.6	5.7	7.8	5.8	8.3	6.2	8.7	6.5
	14.0	6.2	4.6	6.5	4.9	6.9	5.1	7.1	5.3	7.3	5.5	7.6	5.6	7.8	5.8	8.2	6.1	8.6	6.4
	16.0	6.2	4.6	6.5	4.8	6.8	5.1	7.1	5.3	7.3	5.4	7.5	5.6	7.7	5.8	8.2	6.1	8.6	6.4
	18.0	6.1	4.6	6.4	4.8	6.8	5.0	7.0	5.2	7.2	5.4	7.5	5.6	7.7	5.7	8.1	6.1	8.5	6.3
	20.0	6.1	4.5	6.4	4.8	6.7	5.0	6.9	5.2	7.2	5.4	7.4	5.5	7.6	5.7	8.1	6.0	8.4	6.3
	21.0	6.0	4.5	6.4	4.7	6.7	5.0	6.9	5.2	7.1	5.3	7.4	5.5	7.6	5.6	8.0	6.0	8.4	6.3
	23.0	6.0	4.5	6.3	4.7	6.6	4.9	6.8	5.1	7.1	5.3	7.3	5.4	7.5	5.6	7.9	5.9	8.3	6.2
	25.0	5.9	4.4	6.2	4.6	6.5	4.9	6.8	5.0	7.0	5.2	7.2	5.4	7.4	5.5	7.8	5.9	8.2	6.1
	27.0	5.8	4.4	6.1	4.6	6.5	4.8	6.7	5.0	6.9	5.2	7.1	5.3	7.3	5.5	7.8	5.8	8.1	6.0
	29.0	5.8	4.3	6.1	4.5	6.4	4.8	6.6	4.9	6.8	5.1	7.0	5.2	7.2	5.4	7.6	5.7	8.0	6.0
	31.0	5.7	4.2	6.0	4.5	6.3	4.7	6.5	4.9	6.7	5.0	6.9	5.2	7.1	5.3	7.5	5.6	7.9	5.9
	33.0	5.6	4.2	5.9	4.4	6.2	4.6	6.4	4.8	6.6	4.9	6.8	5.1	7.0	5.2	7.4	5.5	7.8	5.8
	35.0	5.5	4.1	5.8	4.3	6.1	4.5	6.3	4.7	6.5	4.9	6.7	5.0	6.9	5.1	7.3	5.4	7.6	5.7
	37.0	5.4	4.0	5.7	4.2	6.0	4.4	6.2	4.6	6.4	4.8	6.6	4.9	6.8	5.0	7.2	5.3	7.5	5.6
	39.0	5.3	3.9	5.6	4.2	5.8	4.4	6.0	4.5	6.3	4.7	6.4	4.8	6.6	4.9	7.0	5.2	7.3	5.5

		Indoor air temp.																	
Unit size	Outdoor air temp.	14.0 CWB		15.0 CWB		16.0 CWB		17.0 CWB		18.0 CWB		19.0 CWB		20.0 CWB		22.0 CWB		24.0 CWB	
		20.0 CDB		21.0 CDB		23.0 CDB		24.0 CDB		26.0 CDB		27.0 CDB		28.0 CDB		30.0 CDB		32.0 CDB	
	°C DB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
1101	10.0	9.09	7.83	9.41	8.00	10.04	8.34	10.28	8.52	10.75	8.87	11.07	8.85	11.39	8.85	12.06	8.77	12.61	8.60
	12.0	9.03	7.78	9.35	7.95	9.98	8.29	10.21	8.47	10.68	8.81	11.00	8.80	11.31	8.79	11.98	8.71	12.53	8.54
	14.0	8.97	7.72	9.28	7.90	9.90	8.23	10.14	8.40	10.61	8.75	10.92	8.73	11.23	8.73	11.89	8.65	12.44	8.48
	16.0	8.90	7.66	9.21	7.83	9.82	8.16	10.06	8.34	10.52	8.68	10.83	8.66	11.14	8.66	11.80	8.58	12.34	8.41
	18.0	8.82	7.59	9.12	7.76	9.74	8.09	9.97	8.26	10.43	8.60	10.73	8.59	11.04	8.58	11.69	8.50	12.23	8.34
	20.0	8.71	7.50	9.02	7.67	9.62	8.00	9.85	8.17	10.31	8.50	10.61	8.49	10.91	8.48	11.56	8.40	12.09	8.24
	21.0	8.68	7.48	8.99	7.65	9.59	7.97	9.82	8.14	10.27	8.47	10.57	8.46	10.87	8.45	11.52	8.37	12.05	8.21
	23.0	8.59	7.39	8.88	7.56	9.48	7.88	9.71	8.05	10.15	8.38	10.45	8.36	10.75	8.36	11.39	8.28	11.91	8.12
	25.0	8.49	7.31	8.79	7.48	9.38	7.79	9.60	7.96	10.04	8.28	10.34	8.27	10.63	8.26	11.26	8.19	11.78	8.03
	27.0	8.36	7.20	8.66	7.36	9.24	7.68	9.46	7.84	9.89	8.16	10.18	8.15	10.47	8.14	11.09	8.07	11.60	7.91
	29.0	8.24	7.09	8.53	7.26	9.10	7.56	9.32	7.72	9.75	8.04	10.03	8.03	10.32	8.02	10.93	7.95	11.43	7.79
	31.0	8.11	6.98	8.39	7.14	8.95	7.44	9.17	7.60	9.59	7.91	9.87	7.90	10.15	7.89	10.75	7.82	11.25	7.67
	33.0	7.97	6.86	8.24	7.01	8.80	7.31	9.00	7.46	9.42	7.77	9.70	7.76	9.97	7.75	10.56	7.68	11.05	7.53
	35.0	7.80	6.72	8.07	6.87	8.62	7.16	8.82	7.31	9.23	7.61	9.50	7.60	9.77	7.60	10.35	7.53	10.82	7.38
	37.0	7.65	6.58	7.92	6.74	8.45	7.02	8.65	7.17	9.05	7.46	9.31	7.45	9.58	7.45	10.14	7.38	10.61	7.23
	39.0	7.48	6.44	7.74	6.58	8.26	6.86	8.45	7.01	8.84	7.29	9.10	7.28	9.36	7.28	9.91	7.21	10.37	7.07

		indoor air temp.																	
unit size	outdoor air temp. CDB	14.0CWB		15.0CWB		16.0CWB		17.0CWB		18.0CWB		19.0CWB		20.0CWB		22.0CWB		24.0CWB	
		20.0CDB		21.5CDB		23.0CDB		24.5CDB		26.0CDB		27.0CDB		28.0CDB		30.0CDB		32.0CDB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
1401	10.0	11.3	8.7	11.9	9.2	12.4	9.6	12.9	10.0	13.3	10.3	13.7	10.6	14.1	10.9	14.9	11.6	15.6	12.1
	12.0	11.2	8.7	11.8	9.1	12.4	9.6	12.8	9.9	13.2	10.3	13.6	10.6	14.0	10.9	14.8	11.5	15.5	12.0
	14.0	11.1	8.6	11.7	9.1	12.3	9.5	12.7	9.9	13.2	10.2	13.5	10.5	13.9	10.8	14.8	11.4	15.4	12.0
	16.0	11.0	8.6	11.6	9.0	12.2	9.5	12.6	9.8	13.1	10.1	13.5	10.4	13.8	10.7	14.7	11.4	15.3	11.9
	18.0	11.0	8.5	11.5	8.9	12.1	9.4	12.5	9.7	13.0	10.0	13.3	10.3	13.7	10.6	14.5	11.3	15.2	11.8
	20.0	10.9	8.4	11.4	8.9	12.0	9.3	12.4	9.6	12.9	10.0	13.2	10.3	13.6	10.6	14.4	11.2	15.1	11.7
	21.0	10.8	8.4	11.4	8.8	12.0	9.3	12.4	9.6	12.8	9.9	13.2	10.2	13.6	10.5	14.4	11.1	15.0	11.6
	23.0	10.7	8.3	11.3	8.7	11.8	9.2	12.3	9.5	12.7	9.8	13.0	10.1	13.4	10.4	14.2	11.0	14.9	11.5
	25.0	10.6	8.2	11.1	8.6	11.7	9.1	12.1	9.4	12.5	9.7	12.9	10.0	13.3	10.3	14.1	10.9	14.7	11.4
	27.0	10.5	8.1	11.0	8.5	11.6	9.0	12.0	9.3	12.4	9.6	12.7	9.9	13.1	10.2	13.9	10.8	14.5	11.3
	29.0	10.3	8.0	10.9	8.4	11.4	8.8	11.8	9.2	12.2	9.5	12.6	9.7	12.9	10.0	13.7	10.6	14.3	11.1
	31.0	10.2	7.9	10.7	8.3	11.2	8.7	11.6	9.0	12.0	9.3	12.4	9.6	12.8	9.9	13.5	10.5	14.1	10.9
	33.0	10.0	7.8	10.5	8.2	11.1	8.6	11.5	8.9	11.9	9.2	12.2	9.5	12.6	9.7	13.3	10.3	13.9	10.8
	35.0	9.9	7.6	10.4	8.0	10.9	8.4	11.3	8.7	11.7	9.0	12.0	9.3	12.3	9.6	13.1	10.1	13.7	10.6
	37.0	9.7	7.5	10.2	7.9	10.7	8.3	11.1	8.6	11.4	8.9	11.8	9.1	12.1	9.4	12.8	9.9	13.4	10.4
	39.0	9.5	7.3	10.0	7.7	10.5	8.1	10.8	8.4	11.2	8.7	11.5	8.9	11.9	9.2	12.6	9.7	13.1	10.2

TC:Total Capacity [kW]
SHC:Sensible Heat Capacity [kW]

2-1-5. Part Load Performance

Combination

Indoor unit : RAV-RM1101UTP-E/TR

Outdoor unit : RAV-GM1101AT8P-E/TR, RAV-GM1101AT8JP-E

	Cooling		Heating	
	Capacity(W)	Power consumption (W)	Capacity(W)	Power consumption (W)
MINIMUM	3000	600	3000	600
RATING	9500	2870	11200	2930

Q: Capacity in W
W: Power Consumption in W

Cooling

Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
40	Q	9000	8100	7200	6300	5400	4500	3600	2840	2840	2840
	W	3120	2490	2020	1630	1300	1010	790	650	650	650
35	Q	9500	8550	7600	6650	5700	4750	3800	3000	3000	3000
	W	2870	2290	1860	1500	1200	930	730	600	600	600
30	Q	9960	8960	7960	6970	5970	4980	3980	3140	3140	3140
	W	2600	2080	1690	1360	1090	840	660	540	540	540
25	Q	10340	9300	8270	7240	6200	5170	4130	3260	3260	3260
	W	2370	1890	1530	1240	990	770	600	490	490	490
20	Q	10610	9550	8490	7430	6370	5310	4240	3350	3350	3350
	W	2140	1710	1390	1120	890	690	540	450	450	450

Heating

Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
15	Q	13410	12060	10730	9390	8050	6700	5360	4010	3590	3590
	W	3220	2760	2320	1890	1510	1190	920	710	660	660
10	Q	12190	10950	9750	8530	7310	6090	4870	3640	3260	3260
	W	3060	2630	2210	1800	1440	1130	870	680	630	630
7	Q	11200	10080	8960	7840	6720	5600	4480	3360	3000	3000
	W	2930	2520	2120	1730	1380	1080	840	650	600	600
5	Q	8630	7760	6900	6040	5180	4310	3450	2580	2310	2310
	W	2510	2160	1820	1480	1180	930	720	560	520	520
2	Q	8440	7580	6750	5900	5060	4210	3370	2520	2260	2260
	W	2480	2130	1790	1460	1170	910	710	550	510	510
0	Q	8310	7470	6650	5820	4990	4150	3320	2490	2230	2230
	W	2460	2110	1770	1450	1160	910	700	550	500	500
-5	Q	8010	7200	6410	5610	4810	4000	3200	2400	2150	2150
	W	2400	2060	1730	1410	1130	880	680	530	490	490
-7	Q	7890	7090	6310	5520	4730	3940	3150	2360	2110	2110
	W	2370	2040	1710	1400	1120	880	680	530	490	490
-10	Q	7280	6550	5830	5100	4370	3640	2910	2180	1950	1950
	W	2290	1970	1650	1350	1080	840	650	510	470	470
-15	Q	5600	5040	4480	3920	3360	2800	2240	1680	1500	1500
	W	2040	1760	1480	1200	960	750	580	450	420	420

Combination

Indoor unit : RAV-RM1401UTP-E/TR

Outdoor unit : RAV-GM1401AT8P-E/TR, RAV-GM1401AT8JP-E

	Cooling		Heating	
	Capacity(W)	Power consumption (W)	Capacity(W)	Power consumption (W)
MINIMUM	3000	600	3000	600
RATING	12000	4290	13000	3460

Q: Capacity in W
W: Power Consumption in W

Cooling

Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
40	Q	11370	10230	9100	7960	6820	5680	4550	3410	2840	2840
	W	4670	3770	2960	2270	1730	1300	990	750	650	650
35	Q	12000	10800	9600	8400	7200	6000	4800	3600	3000	3000
	W	4290	3470	2720	2090	1590	1200	910	690	600	600
30	Q	12580	11320	10060	8810	7550	6290	5040	3770	3140	3140
	W	3890	3150	2470	1900	1440	1090	830	630	540	540
25	Q	13050	11750	10450	9140	7830	6530	5230	3920	3260	3260
	W	3540	2860	2240	1730	1310	990	750	570	500	500
20	Q	13410	12070	10730	9390	8050	6700	5370	4020	3350	3350
	W	3200	2590	2030	1560	1180	890	680	510	450	450

Heating

Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
15	Q	15570	14010	12460	10900	9340	7780	6230	4670	3590	3590
	W	3800	3190	2650	2180	1770	1390	1080	810	660	660
10	Q	14150	12730	11320	9900	8490	7070	5660	4240	3260	3260
	W	3610	3040	2530	2080	1680	1330	1020	770	630	630
7	Q	13000	11700	10400	9100	7800	6500	5200	3900	3000	3000
	W	3460	2910	2420	1990	1610	1270	980	740	600	600
5	Q	10010	9010	8010	7010	6010	5010	4010	3000	2310	2310
	W	2970	2500	2080	1710	1380	1090	840	640	520	520
2	Q	9790	8810	7830	6850	5870	4900	3920	2940	2260	2260
	W	2930	2460	2050	1690	1360	1080	830	630	510	510
0	Q	9650	8680	7720	6750	5790	4820	3860	2890	2230	2230
	W	2900	2440	2030	1670	1350	1060	820	620	500	500
-5	Q	9300	8370	7440	6510	5580	4650	3720	2790	2150	2150
	W	2830	2380	1980	1630	1320	1040	800	610	490	490
-7	Q	9160	8240	7330	6410	5500	4580	3660	2750	2110	2110
	W	2800	2350	1960	1610	1300	1030	790	600	490	490
-10	Q	8460	7610	6770	5920	5080	4230	3380	2540	1950	1950
	W	2700	2270	1890	1550	1250	990	760	580	470	470
-15	Q	6500	5850	5200	4550	3900	3250	2600	1950	1500	1500
	W	2410	2030	1690	1390	1120	890	680	520	420	420

Combination

Indoor unit : RAV-RM561UTP-E/TR x 2 (Twin System)

Outdoor unit : RAV-GM1101AT8P-E/TR, RAV-GM1101AT8JP-E

	Cooling		Heating	
	Capacity(W)	Power consumption (W)	Capacity(W)	Power consumption (W)
MINIMUM	3000	600	3000	600
RATING	9500	2870	11200	2930

Q: Capacity in W
W: Power Consumption in W

Cooling

Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
40	Q	9000	8100	7200	6300	5400	4500	3600	2840	2840	2840
	W	3120	2490	2020	1630	1300	1010	790	650	650	650
35	Q	9500	8550	7600	6650	5700	4750	3800	3000	3000	3000
	W	2870	2290	1860	1500	1200	930	730	600	600	600
30	Q	9960	8960	7960	6970	5970	4980	3980	3140	3140	3140
	W	2600	2080	1690	1360	1090	840	660	540	540	540
25	Q	10340	9300	8270	7240	6200	5170	4130	3260	3260	3260
	W	2370	1890	1530	1240	990	770	600	490	490	490
20	Q	10610	9550	8490	7430	6370	5310	4240	3350	3350	3350
	W	2140	1710	1390	1120	890	690	540	450	450	450

Heating

Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
15	Q	13410	12060	10730	9390	8050	6700	5360	4010	3590	3590
	W	3220	2760	2320	1890	1510	1190	920	710	660	660
10	Q	12190	10950	9750	8530	7310	6090	4870	3640	3260	3260
	W	3060	2630	2210	1800	1440	1130	870	680	630	630
7	Q	11200	10080	8960	7840	6720	5600	4480	3360	3000	3000
	W	2930	2520	2120	1730	1380	1080	840	650	600	600
5	Q	8630	7760	6900	6040	5180	4310	3450	2580	2310	2310
	W	2510	2160	1820	1480	1180	930	720	560	520	520
2	Q	8440	7580	6750	5900	5060	4210	3370	2520	2260	2260
	W	2480	2130	1790	1460	1170	910	710	550	510	510
0	Q	8310	7470	6650	5820	4990	4150	3320	2490	2230	2230
	W	2460	2110	1770	1450	1160	910	700	550	500	500
-5	Q	8010	7200	6410	5610	4810	4000	3200	2400	2150	2150
	W	2400	2060	1730	1410	1130	880	680	530	490	490
-7	Q	7890	7090	6310	5520	4730	3940	3150	2360	2110	2110
	W	2370	2040	1710	1400	1120	880	680	530	490	490
-10	Q	7280	6550	5830	5100	4370	3640	2910	2180	1950	1950
	W	2290	1970	1650	1350	1080	840	650	510	470	470
-15	Q	5600	5040	4480	3920	3360	2800	2240	1680	1500	1500
	W	2040	1760	1480	1200	960	750	580	450	420	420

Combination

Indoor unit : RAV-RM801UTP-E/TR x 2 (Twin System)

Outdoor unit : RAV-GM1401AT8P-E/TR, RAV-GM1401AT8JP-E

	Cooling		Heating	
	Capacity(W)	Power consumption (W)	Capacity(W)	Power consumption (W)
MINIMUM	3000	600	3000	600
RATING	12000	4290	13000	3460

Q: Capacity in W
W: Power Consumption in W

Cooling

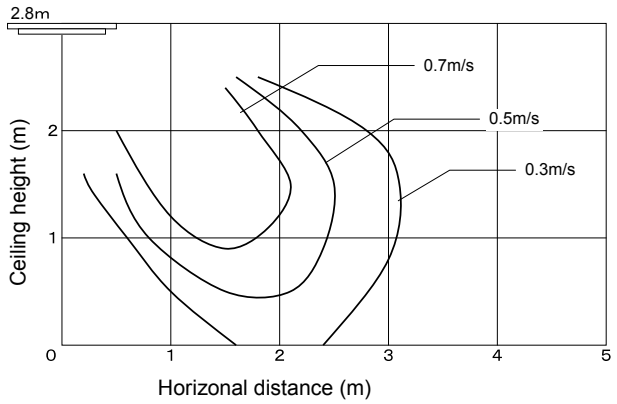
Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
40	Q	11370	10230	9100	7960	6820	5680	4550	3410	2840	2840
	W	4670	3770	2960	2270	1730	1300	990	750	650	650
35	Q	12000	10800	9600	8400	7200	6000	4800	3600	3000	3000
	W	4290	3470	2720	2090	1590	1200	910	690	600	600
30	Q	12580	11320	10060	8810	7550	6290	5040	3770	3140	3140
	W	3890	3150	2470	1900	1440	1090	830	630	540	540
25	Q	13050	11750	10450	9140	7830	6530	5230	3920	3260	3260
	W	3540	2860	2240	1730	1310	990	750	570	500	500
20	Q	13410	12070	10730	9390	8050	6700	5370	4020	3350	3350
	W	3200	2590	2030	1560	1180	890	680	510	450	450

Heating

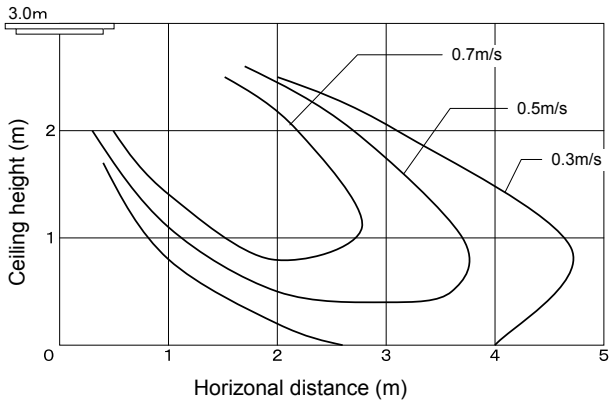
Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
15	Q	15570	14010	12460	10900	9340	7780	6230	4670	3590	3590
	W	3800	3190	2650	2180	1770	1390	1080	810	660	660
10	Q	14150	12730	11320	9900	8490	7070	5660	4240	3260	3260
	W	3610	3040	2530	2080	1680	1330	1020	770	630	630
7	Q	13000	11700	10400	9100	7800	6500	5200	3900	3000	3000
	W	3460	2910	2420	1990	1610	1270	980	740	600	600
5	Q	10010	9010	8010	7010	6010	5010	4010	3000	2310	2310
	W	2970	2500	2080	1710	1380	1090	840	640	520	520
2	Q	9790	8810	7830	6850	5870	4900	3920	2940	2260	2260
	W	2930	2460	2050	1690	1360	1080	830	630	510	510
0	Q	9650	8680	7720	6750	5790	4820	3860	2890	2230	2230
	W	2900	2440	2030	1670	1350	1060	820	620	500	500
-5	Q	9300	8370	7440	6510	5580	4650	3720	2790	2150	2150
	W	2830	2380	1980	1630	1320	1040	800	610	490	490
-7	Q	9160	8240	7330	6410	5500	4580	3660	2750	2110	2110
	W	2800	2350	1960	1610	1300	1030	790	600	490	490
-10	Q	8460	7610	6770	5920	5080	4230	3380	2540	1950	1950
	W	2700	2270	1890	1550	1250	990	760	580	470	470
-15	Q	6500	5850	5200	4550	3900	3250	2600	1950	1500	1500
	W	2410	2030	1690	1390	1120	890	680	520	420	420

2-1-6. Air Throw Distance Chart

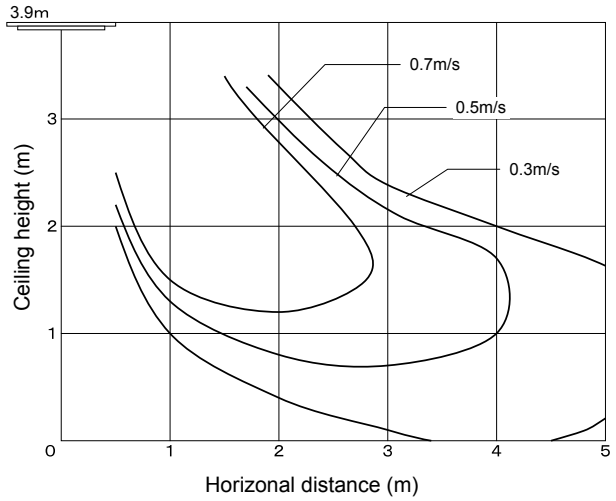
RAV-RM561UTP-E/TR



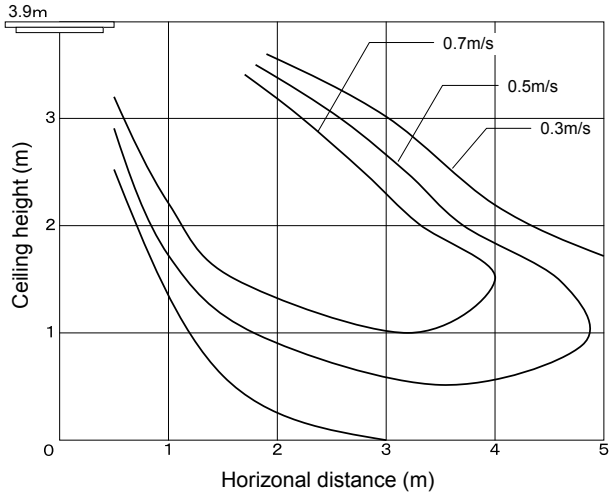
RAV-RM801UTP-E/TR



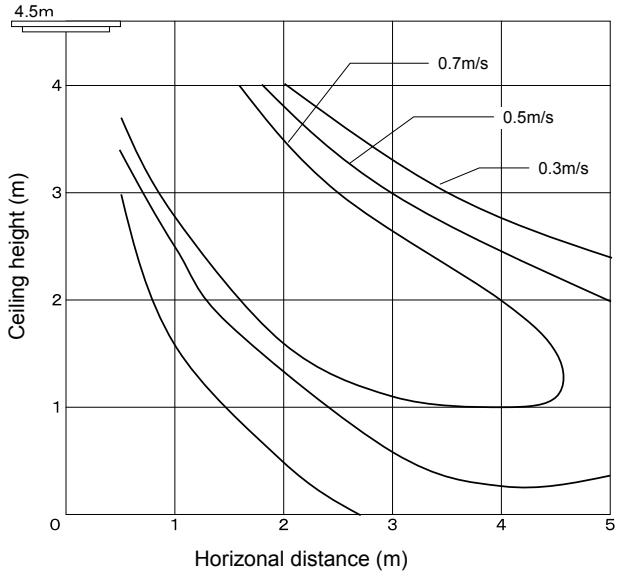
RAV-RM1101UTP-E/TR



RAV-RM1401UTP-E/TR



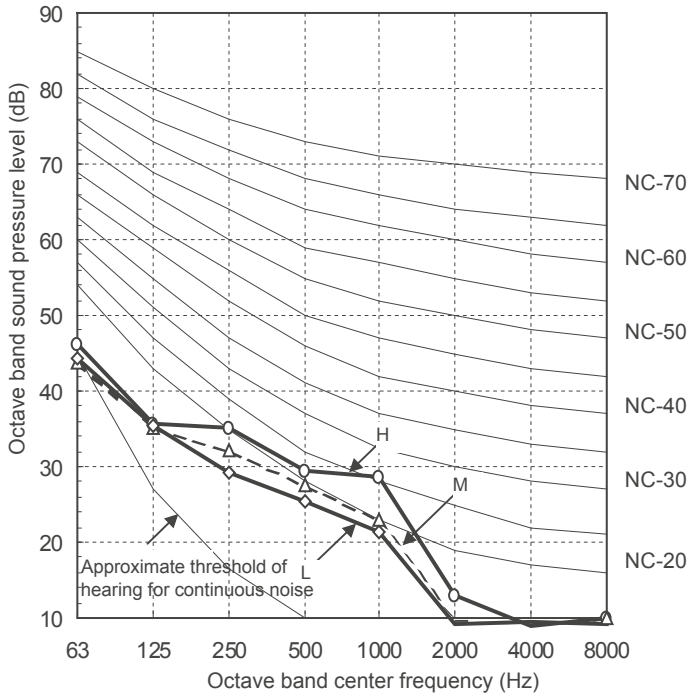
RAV-RM1101UTP-E/TR, RAV-RM1041UTP-E/TR (High ceiling)



2-1-7. Sound characteristics (NC curve)

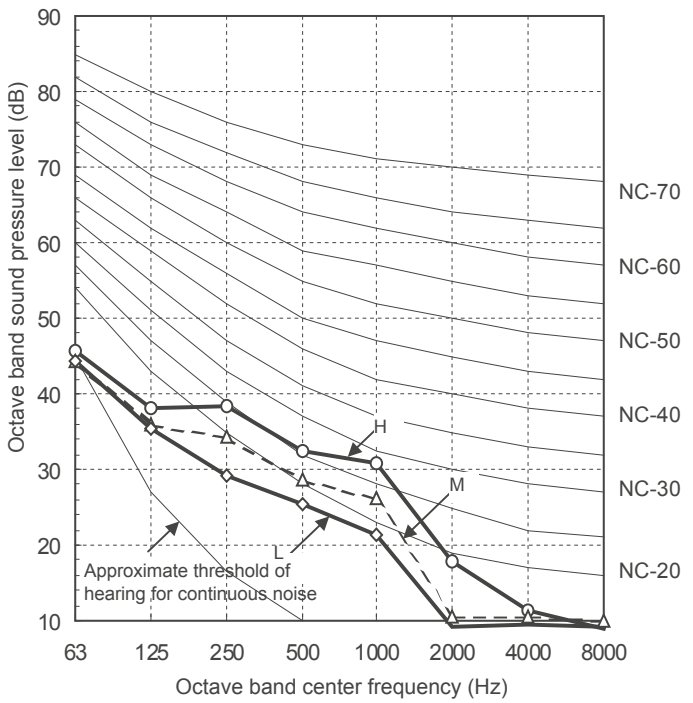
RAV-RM561UTP-E/TR

Fan tap	H	M	L
Sound pressure level (dB(A))	32	29	28



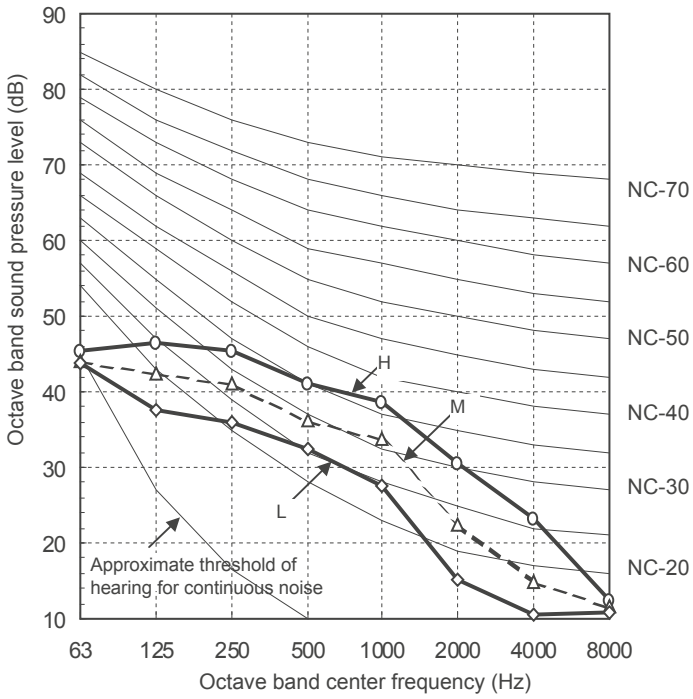
RAV-RM801UTP-E/TR

Fan tap	H	M	L
Sound pressure level (dB(A))	35	31	28



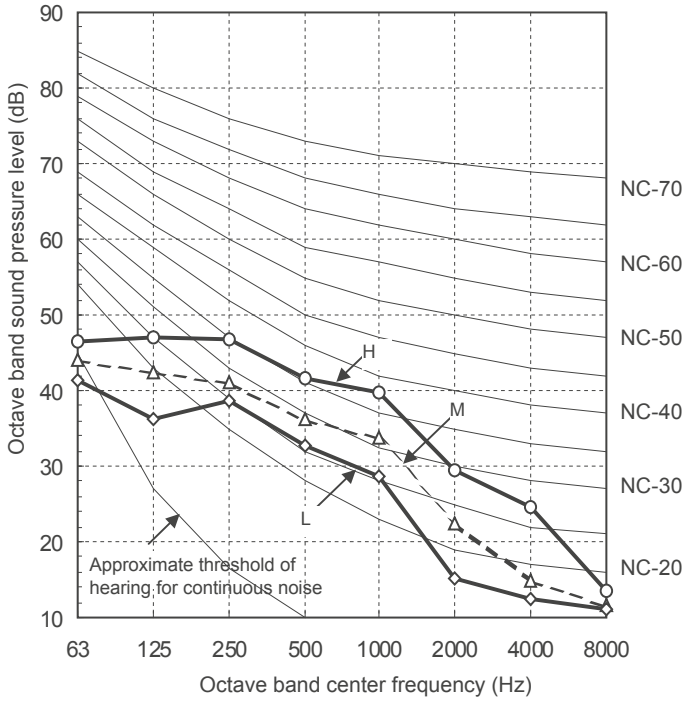
RAV-RM1101UTP-E/TR

Fan tap	H	M	L
Sound pressure level (dB(A))	43	38	33



RAV-RM1041UTP-E/TR

Fan tap	H	M	L
Sound pressure level (dB(A))	44	38	34



2-2. Compact 4-way Cassette Type

2-2-1. Specifications

2-2-2. Dimension

2-2-3. Wiring Diagrams

2-2-4. Sensible Capacity Table

2-2-5. Part Load Performance

2-2-6. Air Throw Distance Chart

2-2-7. Sound Characteristics (NC Curve)

2-2-1. Specifications

Compact 4-way Cassette (Twin System)

Model		**Indoor unit 1**		**RAV-RM561MUT-E/TR**
		Indoor unit 2		**RAV-RM561MUT-E/TR**
		Outdoor unit		**RAV-GM1101AT8P-E/TR (*AT8JP-E)**
Cooling capacity			(kW)	9.5 < 3.0 - 11.2 >
Heating capacity			(kW)	11.2 < 3.0 - 13.0 >
Power supply				3 phase 380V-415V/50Hz, 3phase 380V/60Hz
Electrical characteristics	Cooling	Running current	(A)	4.83-4.44
		Power consumption	(kW)	3.00
		Power factor	(%)	94
		EER		3.17
		SEER		5.50
	Heating	Running current	(A)	5.15-4.70
		Power consumption	(kW)	3.26
		Power factor	(%)	96
		COP		3.44
		SCOP		4.02
	Maximum current		(A)	14.1
Indoor unit				
Appearance	Main unit			Zinc hot dipping steel plate
	Ceiling panel (Sold separately)	Model		RBC-UM21PG(W)-E
		Panel color		Gran White (Mansell 5PB9/1)
Outer dimension	Main unit	Height	(mm)	256
		Width	(mm)	575
		Depth	(mm)	575
	Ceiling panel (Sold separately)	Height	(mm)	27
		Width	(mm)	700
		Depth	(mm)	700
Total weight	Main unit		(kg)	15
	Ceiling panel (Sold separately)		(kg)	3
Fan unit	Fan			Turbo fan
	Standard air flow	H/M/L	(m3/h)	798/672/546
	Motor		(W)	60
Air filter				Standard filter (Long life filter)
Sound pressure level		H/M/L	(dB)	44/39/35
Sound power level		H/M/L	(dB)	57
Connecting pipe	Drain port			VP20
Outdoor unit				
Air Flow			(m3/h)	4,080
Outer dimension	Height		(mm)	890
	Width		(mm)	900
	Depth		(mm)	320
Total weight	Main unit		(kg)	69
Pipe	Min. length		(m)	5.0
	Max. total length		(m)	50.0
Flare Connections	Main	Gas	(mm)	15.9
		Liquid	(mm)	9.5
	Branch	Gas	(mm)	12.7
		Liquid	(mm)	6.4
Sound pressure level	Cooling / Heating		(dB)	55 / 57
Sound power level	Cooling/Heating		(dB)	70 / 74
Operating Range	Cooling		(°C)	-15 / 46
	Heating		(°C)	-15 / 15

*1 : The cooling capacities and electrical characteristics are measured under the conditions specified by JIS B 8615 based on the reference piping. The reference piping consists of 5 m of main piping and 2.5 m of branch piping connected with 0 meter height.

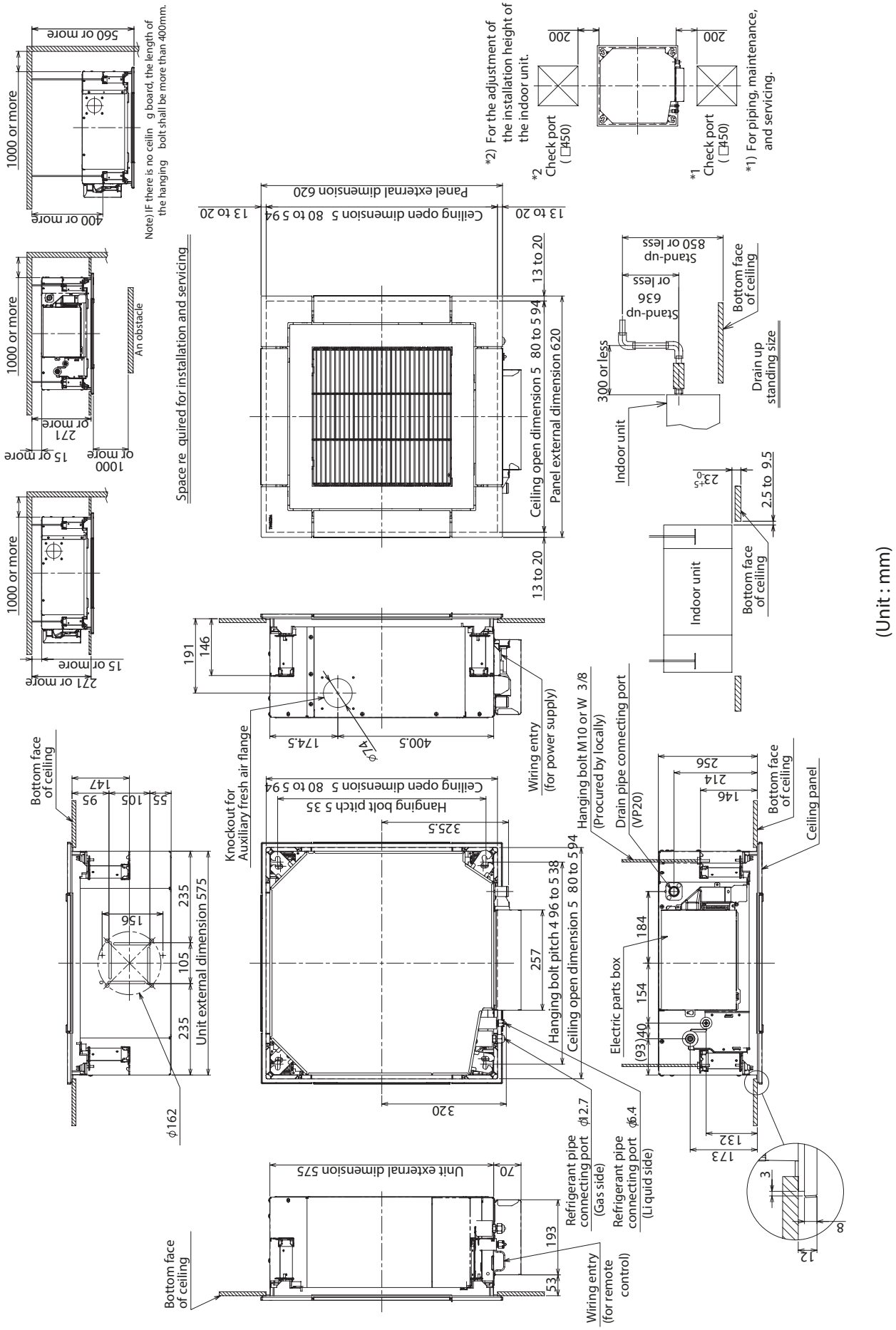
*2 : The sound level are measured in an anechoic chamber in accordance with JIS B 8616. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

Note :

Rated conditions Cooling : Indoor air temperature 27°C DB/19°C WB, Outdoor air temperature 35°C DB
Heating : Indoor air temperature 20°C DB, Outdoor air temperature 7°C DB/6°C WB

2-2-2. Dimension

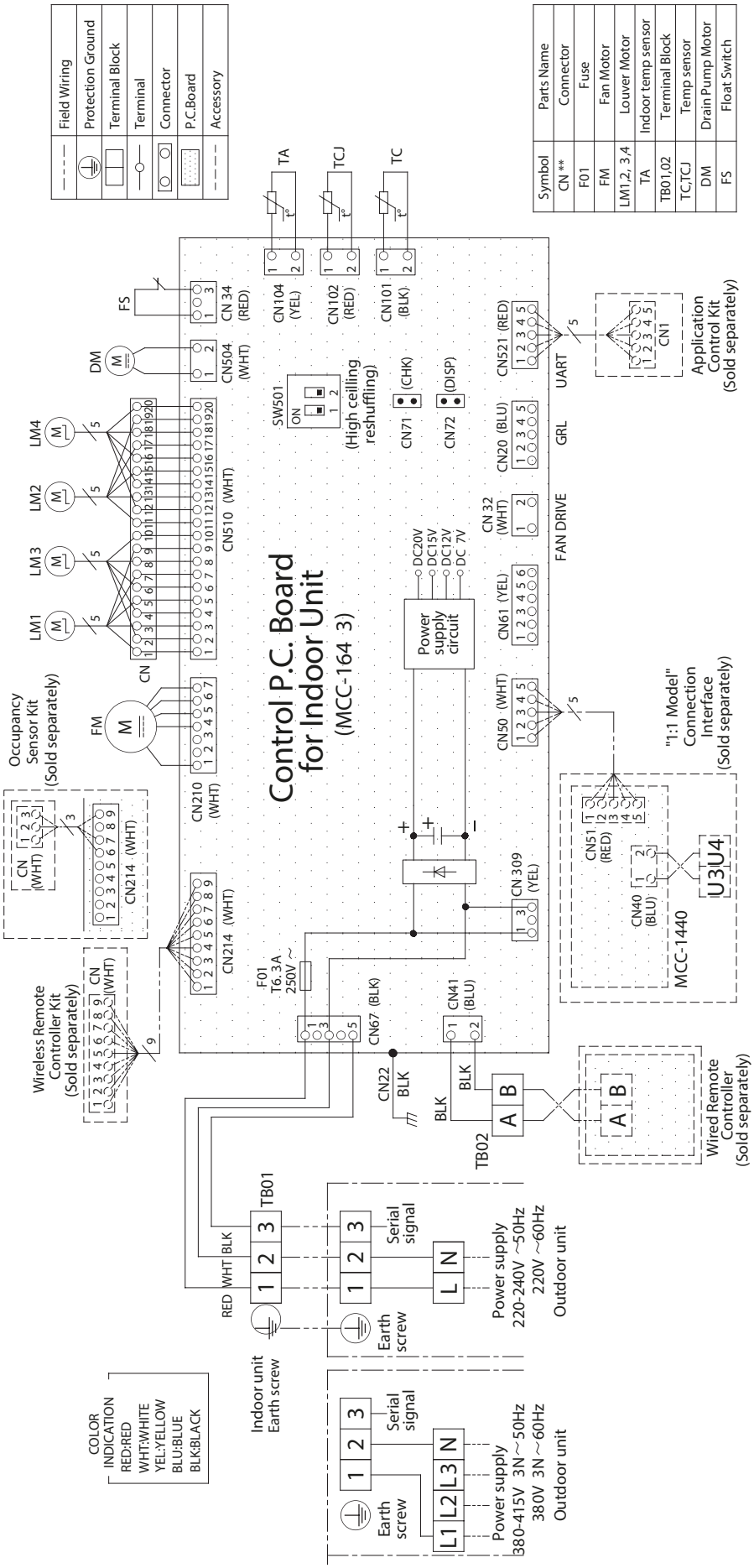
RAV-RM561MUT-E/TR



(Unit : mm)

2-2-3. Wiring Diagrams

RAV-RM561MUT-E/TR



2-2-4. Sensible Capacity Table

Digital Inverter R32 Sensible Heat Capacity : RAV-RM***MUT-E/TR

indoor air temp.																			
unit size	outdoor 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	
	CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
561	10.0	4.7	3.5	4.9	3.7	5.2	3.8	5.4	4.0	5.6	4.1	5.7	4.2	5.9	4.4	6.2	4.6	6.5	4.8
	12.0	4.7	3.5	4.9	3.6	5.2	3.8	5.3	3.9	5.5	4.1	5.7	4.2	5.8	4.3	6.2	4.6	6.5	4.8
	14.0	4.6	3.4	4.9	3.6	5.1	3.8	5.3	3.9	5.5	4.1	5.6	4.2	5.8	4.3	6.1	4.6	6.4	4.8
	16.0	4.6	3.4	4.8	3.6	5.1	3.8	5.3	3.9	5.4	4.0	5.6	4.1	5.8	4.3	6.1	4.5	6.4	4.7
	18.0	4.6	3.4	4.8	3.6	5.0	3.7	5.2	3.9	5.4	4.0	5.6	4.1	5.7	4.2	6.1	4.5	6.3	4.7
	20.0	4.5	3.4	4.8	3.5	5.0	3.7	5.2	3.8	5.4	4.0	5.5	4.1	5.7	4.2	6.0	4.4	6.3	4.6
	21.0	4.5	3.3	4.7	3.5	5.0	3.7	5.2	3.8	5.3	3.9	5.5	4.1	5.6	4.2	6.0	4.4	6.3	4.6
	23.0	4.5	3.3	4.7	3.5	4.9	3.6	5.1	3.8	5.3	3.9	5.4	4.0	5.6	4.1	5.9	4.4	6.2	4.6
	25.0	4.4	3.3	4.6	3.4	4.9	3.6	5.0	3.7	5.2	3.9	5.4	4.0	5.5	4.1	5.9	4.3	6.1	4.5
	27.0	4.4	3.2	4.6	3.4	4.8	3.6	5.0	3.7	5.2	3.8	5.3	3.9	5.5	4.0	5.8	4.3	6.0	4.5
	29.0	4.3	3.2	4.5	3.4	4.8	3.5	4.9	3.6	5.1	3.8	5.2	3.9	5.4	4.0	5.7	4.2	6.0	4.4
	31.0	4.2	3.1	4.5	3.3	4.7	3.5	4.9	3.6	5.0	3.7	5.2	3.8	5.3	3.9	5.6	4.2	5.9	4.4
	33.0	4.2	3.1	4.4	3.3	4.6	3.4	4.8	3.5	4.9	3.7	5.1	3.8	5.2	3.9	5.5	4.1	5.8	4.3
	35.0	4.1	3.0	4.3	3.2	4.5	3.4	4.7	3.5	4.9	3.6	5.0	3.7	5.1	3.8	5.4	4.0	5.7	4.2
	37.0	4.0	3.0	4.2	3.1	4.4	3.3	4.6	3.4	4.8	3.5	4.9	3.6	5.0	3.7	5.3	4.0	5.6	4.1
	39.0	3.9	2.9	4.2	3.1	4.4	3.2	4.5	3.3	4.7	3.5	4.8	3.6	4.9	3.7	5.2	3.9	5.5	4.1

TC:Total Capacity [kW]
SHC:Sensible Heat Capacity [kW]

2-2-5. Part load performance

Combination

Indoor unit : RAV-RM561MUT-E/TR x 2 (Twin system)

Outdoor unit : RAV-GM1101AT8P-E/TR, RAV-GM1101AT8JP-E

	Cooling		Heating	
	Capacity(W)	Power consumption (W)	Capacity(W)	Power consumption (W)
MINIMUM	3000	600	3000	600
RATING	10000	3150	11200	3260

Cooling

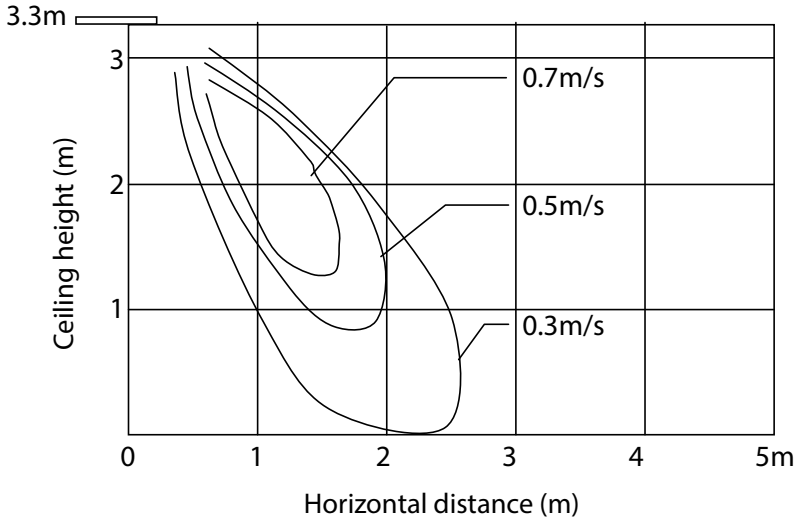
OD temp.		Load(%)									
		100	90	80	70	60	50	40	30	20	10
40	Q	9460	8510	7570	6620	5680	4730	3780	2840	2840	2840
	W	3380	2850	2380	1930	1520	1210	1020	640	640	640
35	Q	10000	9000	8000	7000	6000	5000	4000	3000	3000	3000
	W	3150	2660	2220	1800	1420	1130	950	600	600	600
30	Q	10540	9490	8430	7380	6320	5270	4220	3160	3160	3160
	W	2920	2470	2060	1670	1320	1050	880	560	560	560
25	Q	11070	9960	8860	7750	6640	5540	4430	3320	3320	3320
	W	2700	2280	1900	1540	1220	970	810	510	510	510
20	Q	11610	10450	9290	8130	6970	5810	4640	3480	3480	3480
	W	2290	1940	1620	1310	1040	820	690	440	440	440

Heating

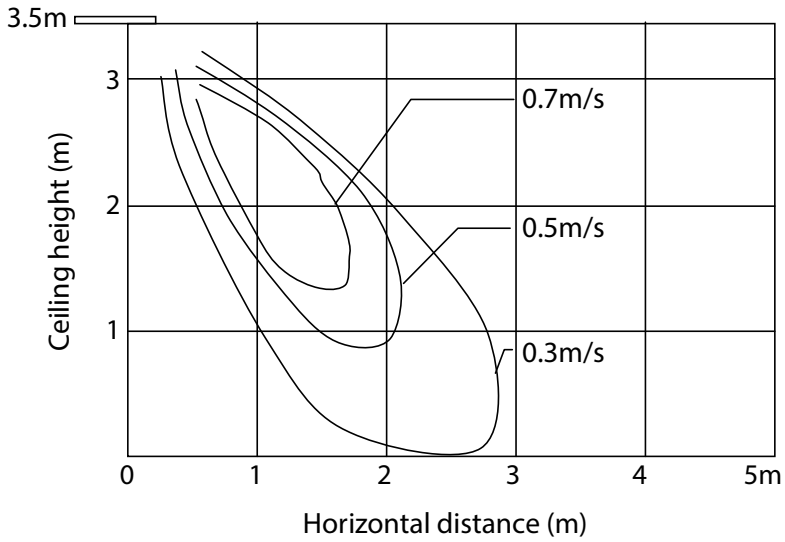
OD temp.		Load(%)									
		100	90	80	70	60	50	40	30	20	10
20	Q	14760	13290	11810	10330	8860	7380	5900	4430	3950	3950
	W	3700	3210	2700	2200	1800	1400	1080	890	680	680
15	Q	13510	12160	10810	9450	8100	6750	5400	4050	3620	3620
	W	3590	3120	2620	2140	1750	1350	1050	860	660	660
10	Q	12260	11040	9810	8580	7360	6130	4910	3680	3280	3280
	W	3410	2960	2490	2030	1660	1290	990	820	630	630
7	Q	11200	10080	8960	7840	6720	5600	4480	3360	3000	3000
	W	3260	2830	2380	1940	1590	1230	950	780	600	600
5	Q	10450	9400	8360	7310	6270	5220	4180	3130	2800	2800
	W	3160	2750	2310	1880	1540	1190	920	760	580	580
2	Q	9360	8430	7490	6550	5620	4680	3750	2810	2510	2510
	W	3000	2530	2130	1730	1420	1100	850	700	530	530
0	Q	7310	6580	5850	5120	4390	3660	2930	2190	1960	1960
	W	2670	2320	1950	1590	1300	1010	780	640	490	490
-5	Q	7310	6580	5850	5120	4390	3660	2930	2190	1960	1960
	W	2670	2320	1950	1590	1300	1010	780	640	490	490
-7	Q	6880	6190	5500	4810	4130	3440	2750	2060	1840	1840
	W	2590	2250	1890	1540	1260	980	750	620	480	480
-10	Q	6300	5670	5040	4410	3780	3150	2520	1890	1690	1690
	W	2480	2150	1810	1470	1210	930	720	590	460	460
-15	Q	5310	4780	4250	3720	3190	2650	2120	1590	1420	1420
	W	2340	2030	1710	1390	1140	880	680	560	430	430

2-2-6. Air Throw Distance Chart

RAV-RM561MUT-E/TR



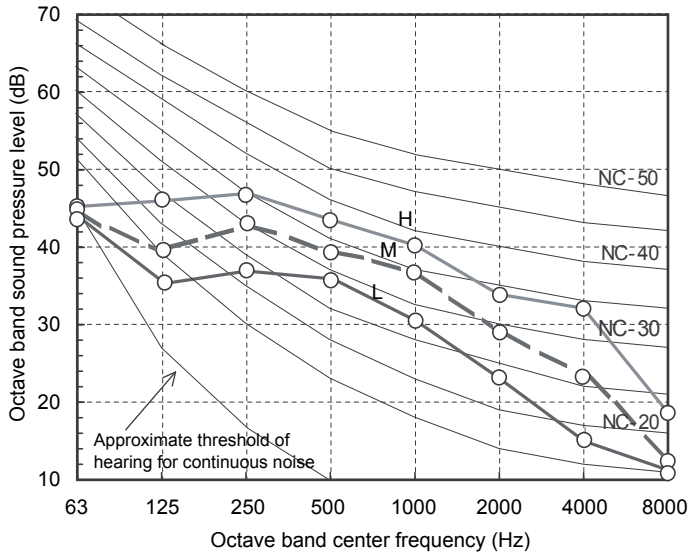
RAV-RM561MUT-E/TR (High ceiling mode)



2-2-7. Sound Characteristics (NC curve)

RAV-RM561MUT-E/TR

Fan tap	H	M	L
Sound pressure level (dB(A))	43	39	34



2-3. Slim Duct Type

2-3-1. Specifications

2-3-2. Dimension

2-3-3. Wiring Diagrams

2-3-4. Sensible Capacity Table

2-3-5. Part Load Performance

2-3-6. Fan Static Characteristic

2-3-7. Sound Characteristics (NC Curve)

2-3-1. Specifications

Slim Duct Type <Twin system>

Model		Indoor unit 1		RAV-RM561SDT-E/TR
		Indoor unit 2		RAV-RM561SDT-E/TR
		Outdoor unit		RAV-GM1101AT8P-E/TR (*AT8JP-E)
Cooling capacity			(kW)	9.5 < 3.0 - 11.2 >
Heating capacity			(kW)	11.2 < 3.0 - 13.0 >
Power supply				3 phase 380V-415V/50Hz, 3phase 380V/60Hz
Electrical characteristics	Cooling	Running current	(A)	4.90-4.48
		Power consumption	(kW)	3.03
		Power factor	(%)	94
		EER		3.14
		SEER		5.32
	Heating	Running current	(A)	4.85-4.44
		Power consumption	(kW)	2.99
		Power factor	(%)	94
		COP		3.75
		SCOP		4.19
	Maximum current		(A)	14.1
Indoor unit				
Appearance	Main unit			Zinc hot dipping steel plate
Outer dimension	Main unit	Height	(mm)	210
		Width	(mm)	845
		Depth	(mm)	645
Total weight	Main unit		(kg)	22
Fan unit	Fan			Centrifugal fan
	Standard air flow	H/M/L	(m3/h)	780 / 678 / 582
	Motor		(W)	60
Extarnal static pressure	Standard (Upper - Lower)		(Pa)	4 (24 - 0)
Air filter				Long life filter
Sound pressure level		H/M/L	(dB)	45 / 40 / 36
Sound power level		H/M/L	(dB)	60 / 55 / 51
Connecting pipe	Drain port			VP25
Outdoor unit				
Air Flow			(m3/h)	4,080
Outer dimension	Height		(mm)	890
	Width		(mm)	900
	Depth		(mm)	320
Total weight	Main unit		(kg)	68
Pipe	Min. length		(m)	5
	Max. total length		(m)	50
Flare Connections	Main	Gas	(mm)	15.9
		Liquid	(mm)	9.5
	Branch	Gas	(mm)	12.7
		Liquid	(mm)	6.4
Sound pressure level	Cooling / Heating		(dB)	55 / 57
Sound power level	Cooling/Heating		(dB)	70 / 74
Operating Range	Cooling		(°C)	-15 / 46
	Heating		(°C)	-15 / 15

*1 : The cooling capacities and electrical characteristics are measured under the conditions specified by JIS B 8615 based on the reference piping. The reference piping consists of 5 m of main piping and 2.5 m of branch piping connected with 0 meter height.

*2 : The sound level are measured in an anechoic chamber in accordance with JIS B 8616. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

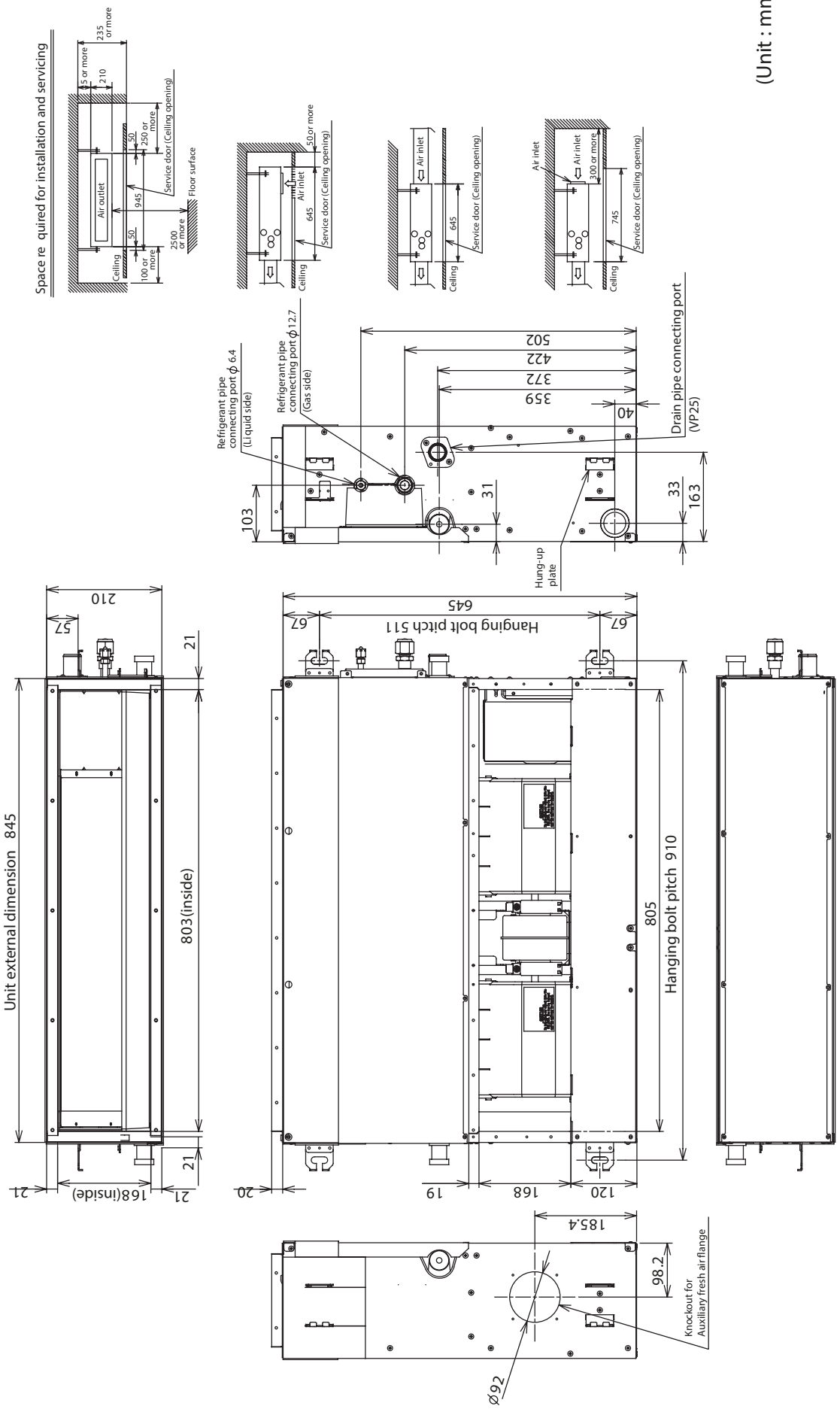
Note :

Rated conditions Cooling : Indoor air temperature 27°C DB/19°C WB, Outdoor air temperature 35°C DB
Heating : Indoor air temperature 20°C DB, Outdoor air temperature 7°C DB/6°C WB

2-3-2. Dimension

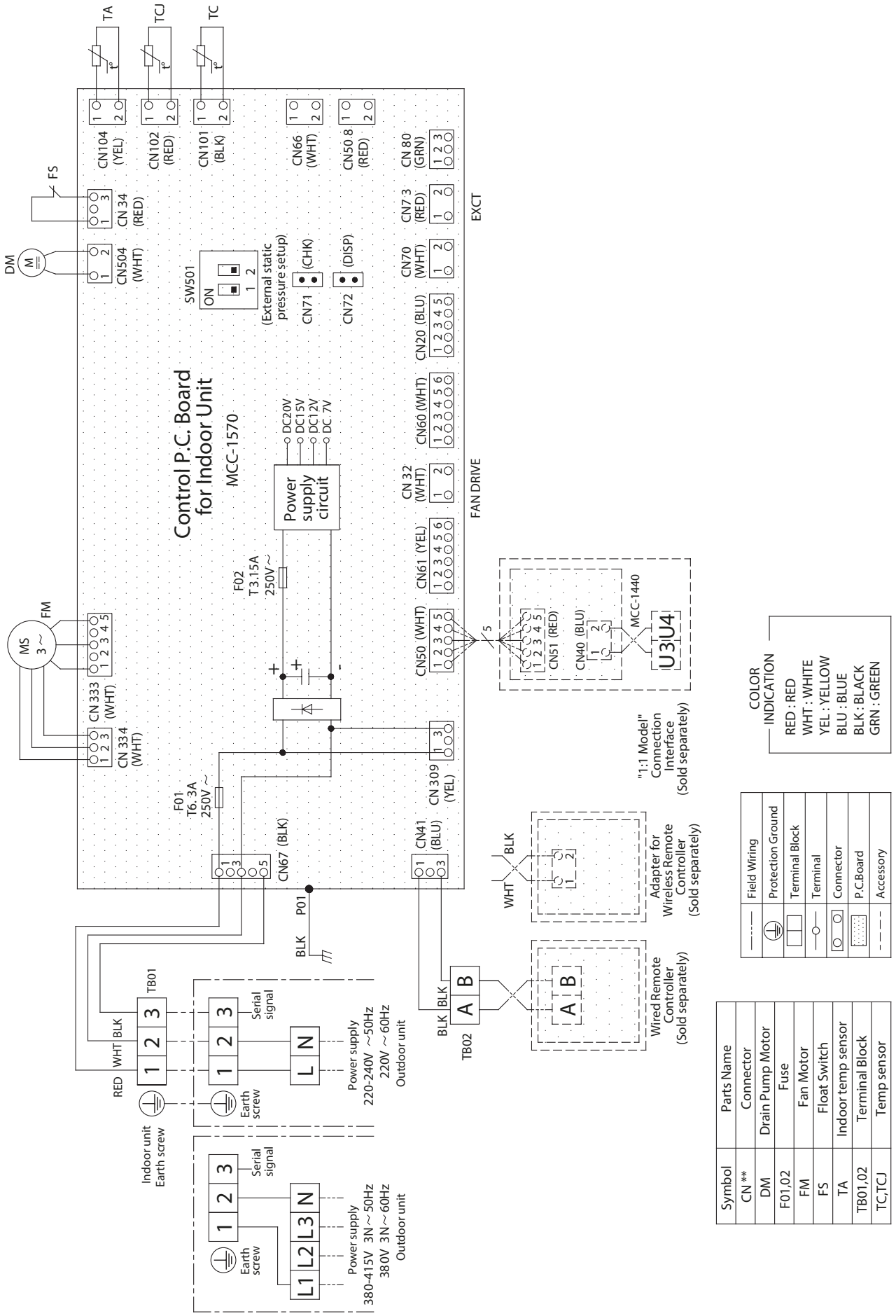
RAV-RM561SDT-E/TR

(Unit : mm)



2-3-3. Wiring Diagrams

RAV-RM561SDT-E/TR



Symbol	Parts Name
CN **	Connector
DM	Drain Pump Motor
F01,02	Fuse
FM	Fan Motor
FS	Float Switch
TA	Indoor temp sensor
TB01,02	Terminal Block
TC,TCJ	Temp sensor

2-3-4. Sensible Capacity Table

Digital Inverter R32 Sensible Heat Capacity : RAV-RM***SDT-E/TR

		indoor air temp.																	
unit size	outdoor 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	
	CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
561	10.0	4.7	3.3	4.9	3.5	5.2	3.6	5.4	3.8	5.6	3.9	5.7	4.0	5.9	4.1	6.2	4.4	6.5	4.6
	12.0	4.7	3.3	4.9	3.4	5.2	3.6	5.3	3.7	5.5	3.9	5.7	4.0	5.8	4.1	6.2	4.3	6.5	4.5
	14.0	4.6	3.2	4.9	3.4	5.1	3.6	5.3	3.7	5.5	3.8	5.6	4.0	5.8	4.1	6.1	4.3	6.4	4.5
	16.0	4.6	3.2	4.8	3.4	5.1	3.6	5.3	3.7	5.4	3.8	5.6	3.9	5.8	4.0	6.1	4.3	6.4	4.5
	18.0	4.6	3.2	4.8	3.4	5.0	3.5	5.2	3.7	5.4	3.8	5.6	3.9	5.7	4.0	6.1	4.2	6.3	4.4
	20.0	4.5	3.2	4.8	3.3	5.0	3.5	5.2	3.6	5.4	3.8	5.5	3.9	5.7	4.0	6.0	4.2	6.3	4.4
	21.0	4.5	3.2	4.7	3.3	5.0	3.5	5.2	3.6	5.3	3.7	5.5	3.8	5.6	4.0	6.0	4.2	6.3	4.4
	23.0	4.5	3.1	4.7	3.3	4.9	3.5	5.1	3.6	5.3	3.7	5.4	3.8	5.6	3.9	5.9	4.1	6.2	4.3
	25.0	4.4	3.1	4.6	3.3	4.9	3.4	5.0	3.5	5.2	3.7	5.4	3.8	5.5	3.9	5.9	4.1	6.1	4.3
	27.0	4.4	3.1	4.6	3.2	4.8	3.4	5.0	3.5	5.2	3.6	5.3	3.7	5.5	3.8	5.8	4.0	6.0	4.2
	29.0	4.3	3.0	4.5	3.2	4.8	3.3	4.9	3.4	5.1	3.6	5.2	3.7	5.4	3.8	5.7	4.0	6.0	4.2
	31.0	4.2	3.0	4.5	3.1	4.7	3.3	4.9	3.4	5.0	3.5	5.2	3.6	5.3	3.7	5.6	3.9	5.9	4.1
	33.0	4.2	2.9	4.4	3.1	4.6	3.2	4.8	3.3	4.9	3.5	5.1	3.6	5.2	3.7	5.5	3.9	5.8	4.1
	35.0	4.1	2.9	4.3	3.0	4.5	3.2	4.7	3.3	4.9	3.4	5.0	3.5	5.1	3.6	5.4	3.8	5.7	4.0
	37.0	4.0	2.8	4.2	3.0	4.4	3.1	4.6	3.2	4.8	3.3	4.9	3.4	5.0	3.5	5.3	3.7	5.6	3.9
	39.0	3.9	2.8	4.2	2.9	4.4	3.1	4.5	3.2	4.7	3.3	4.8	3.4	4.9	3.5	5.2	3.7	5.5	3.8

TC:Total Capacity [kW]

SHC:Sensible Heat Capacity [kW]

2-3-5. Part load performance

Combination

Indoor unit : RAV-RM561SDT-E/TR x 2 (Twin system)

Outdoor unit : RAV-GM1101AT8P-E/TR, RAV-GM1101AT8JP-E

	Cooling		Heating	
	Capacity Q (W)	Power consumption W (W)	Capacity Q (W)	Power consumption W (W)
MINIMUM	3000	600	3000	600
RATING	10000	3180	11200	2990

Q: Capacity in W
W: Power Consumption in W

Cooling

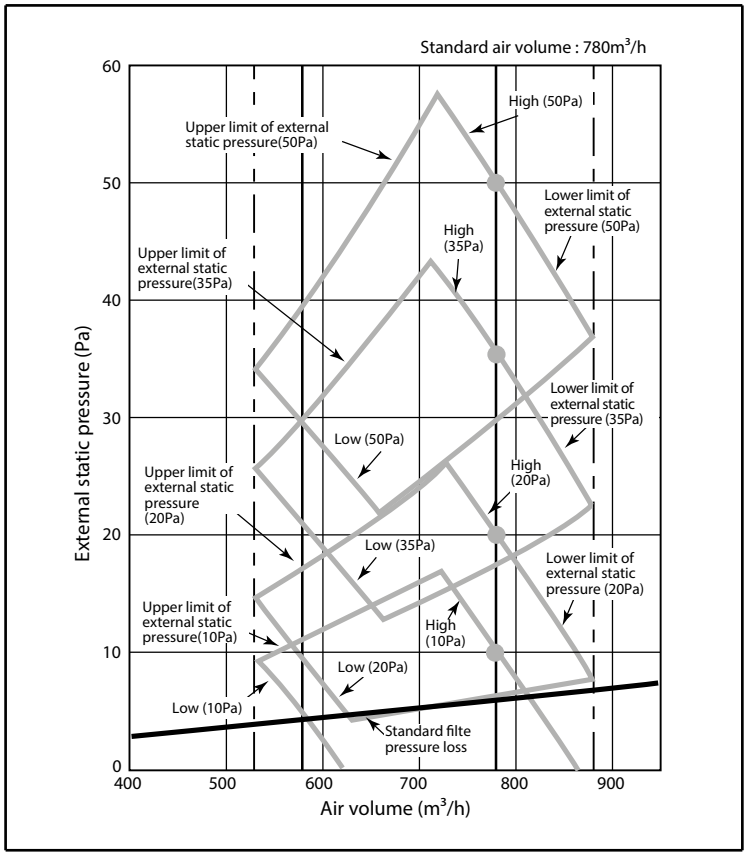
Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
40	Q	9470	8520	7580	6630	5680	4730	3780	2840	2840	2840
	W	3460	2760	2240	1810	1450	1130	870	650	650	650
35	Q	10000	9000	8000	7000	6000	5000	4000	3000	3000	3000
	W	3180	2540	2060	1670	1330	1040	800	600	600	600
30	Q	10480	9430	8390	7340	6290	5240	4190	3140	3140	3140
	W	2880	2300	1870	1510	1210	940	730	540	540	540
25	Q	10880	9780	8710	7620	6530	5440	4340	3260	3260	3260
	W	2620	2090	1700	1380	1100	860	660	500	500	500
20	Q	11170	10050	8940	7820	6700	5580	4460	3350	3350	3350
	W	2370	1890	1540	1240	990	770	600	450	450	450

Heating

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
15	Q	13410	12060	10730	9390	8050	6700	5360	4020	3590	3590
	W	3280	2820	2370	1930	1540	1210	940	720	660	660
10	Q	12190	10950	9750	8530	7310	6090	4870	3660	3260	3260
	W	3120	2680	2250	1840	1470	1150	900	690	630	630
7	Q	11200	10080	8960	7840	6720	5600	4480	3360	3000	3000
	W	2990	2570	2160	1760	1410	1100	860	660	600	600
5	Q	8630	7760	6900	6040	5180	4310	3450	2590	2310	2310
	W	2570	2210	1850	1510	1210	950	740	570	520	520
2	Q	8440	7580	6750	5900	5060	4210	3370	2530	2260	2260
	W	2530	2180	1830	1490	1190	930	730	560	510	510
0	Q	8310	7470	6650	5820	4990	4150	3320	2490	2230	2230
	W	2510	2150	1810	1480	1180	920	720	550	500	500
-5	Q	8010	7200	6410	5610	4810	4000	3200	2400	2150	2150
	W	2450	2100	1770	1440	1150	900	700	540	490	490
-7	Q	7890	7090	6310	5520	4730	3940	3150	2370	2110	2110
	W	2420	2080	1750	1430	1140	890	700	540	490	490
-10	Q	7280	6550	5830	5100	4370	3640	2910	2180	1950	1950
	W	2330	2010	1680	1370	1100	860	670	520	470	470
-15	Q	5600	5040	4480	3920	3360	2800	2240	1680	1500	1500
	W	2080	1790	1510	1230	980	770	600	460	420	420

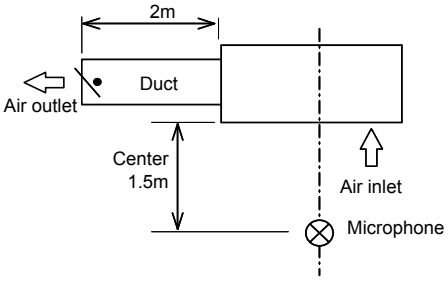
2-3-6. Fan Static Characteristic

RAV-RM561SDT-E/TR



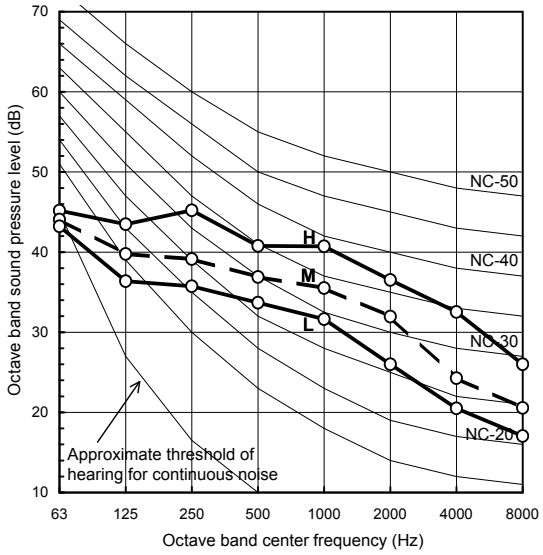
2-3-7. Sound Characteristics (NC curve)

RAV-RM561SDT-E/TR



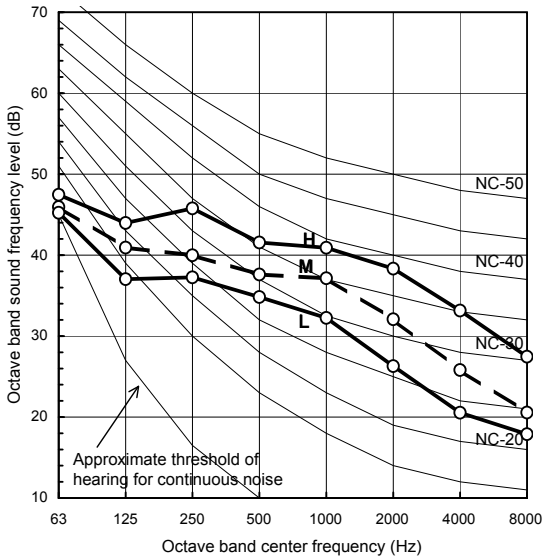
[External static pressure 10Pa]

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



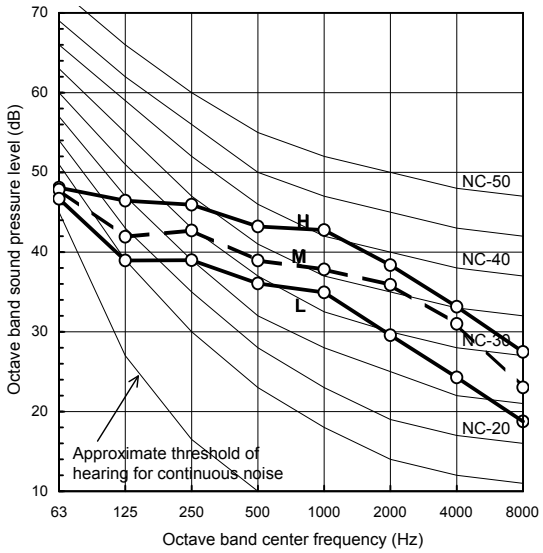
[External static pressure 20Pa]

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



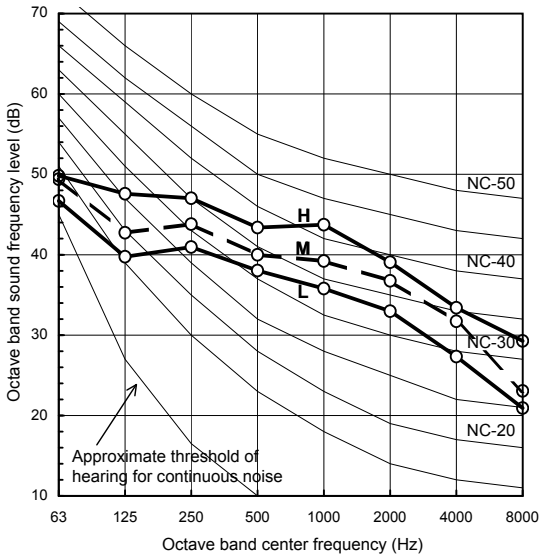
[External static pressure 35Pa]

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



2-4. Standard Duct Type

2-4-1. Specifications

2-4-2. Dimension

2-4-3. Wiring Diagrams

2-4-4. Sensible Capacity Table

2-4-5. Part Load Performance

2-4-6. Fan Static Characteristic

2-4-7. Sound Characteristics (NC Curve)

2-4-1. Specifications

Standard Duct Type <Single type>

Model		Indoor unit		RAV-RM1101BTP-E/TR	RAV-RM1401BTP-E/TR
		Outdoor unit		RAV-GM1101AT8P-E/TR (*AT8JP-E)	RAV-GM1401AT8P-E/TR (*AT8JP-E)
Cooling capacity			(kW)	9.5 < 3.0 - 11.2 >	12.1 < 3.0 - 13.2 >
Heating capacity			(kW)	11.2 < 3.0 - 13.0>	13.0 < 3.0 - 16.0 >
Power supply				3 phase 380V-415V/50Hz, 3phase 380V/60Hz	
Electrical characteristics	Cooling	Running current	(A)	4.85-4.45	7.15-6.55
	Cooling	Power consumption	(kW)	2.99	4.42
		Power factor	(%)	94	p
		EER		3.18	2.74
		SEER		5.28	5.36
	Heating	Running current	(A)	4.85-4.45	5.80-5.30
	Heating	Power consumption	(kW)	2.99	3.60
		Power factor	(%)	94	94
		COP		3.75	3.61
		SCOP		4.19	4.19
	Maximum current			14.1	14.1
Indoor unit					
Appearance		Main unit		Zinc hot dipping hot steel	
Outer dimension		Main unit	Height (mm)	275	
			Width (mm)	1,400	
			Depth (mm)	750	
Total weight		Main unit	(kg)	40	
Fan unit		Fan		Centrifugal fan	
		Air Flow	H/M/L (m3/h)	2100 / 1650 / 1260	2100 / 1650 / 1260
		Motor	(W)	250	
Extarnal static pressure		Standard (Upper - Lower)	(Pa)	50 (120 - 30)	
Air filter				Standard filter (Long life filter)	
Sound pressure level			H/M/L (dB)	40 / 36 / 33	40 / 36 / 33
Sound power level			H/M/L (dB)	55 / 51 / 48	55 / 51 / 48
Connecting pipe		Drain port		VP25	
Outdoor unit					
Air Flow			(m3/h)	4,080	4,200
Outer dimension		Height	(mm)	890	
		Width	(mm)	900	
		Depth	(mm)	320	
Total weight		Main unit	(kg)	69	
Pipe		Min. length	(m)	5.0	
		Max. total length	(m)	50.0	
Flare Connections		Gas side	(mm)	15.9	
		Liquid side	(mm)	9.5	
Sound pressure level		Cooling/Heating	(dB)	54 / 57	55 / 57
Sound power level		Cooling/Heating	(dB)	70 / 74	70 / 74
Operating Range		Cooling	(°C)	-15 / 46	
		Heating	(°C)	-15 / 15	

*1 : The cooling capacities and electrical characteristics are measured under the conditions specified by JIS B 8615 based on the reference piping. The reference piping consists of 5 m of main piping and 2.5 m of branch piping connected with 0 meter height.

*2 : The sound level are measured in an anechoic chamber in accordance with JIS B 8616. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

Note :

Rated conditions Cooling : Indoor air temperature 27°C DB/19°C WB, Outdoor air temperature 35°C DB
Heating : Indoor air temperature 20°C DB, Outdoor air temperature 7°C DB/6°C WB

Standard Duct (Twin System)

Model		Indoor unit 1		RAV-RM561BTP-E/TR	RAV-RM801BTP-E/TR
		Indoor unit 2		RAV-RM561BTP-E/TR	RAV-RM801BTP-E/TR
		Outdoor unit		RAV-GM1101AT8P-E/TR (*AT8JP-E)	RAV-GM1401AT8P-E/TR (*AT8JP-E)
Cooling capacity			(kW)	9.5 < 3.0 - 11.2 >	12.1 < 3.0 - 13.2 >
Heating capacity			(kW)	11.2 < 3.0 - 13.0 >	13.0 < 3.0 - 16.0 >
Power supply				3 phase 380V-415V/50Hz, 3phase 380V/60Hz	
Electrical characteristics	Cooling	Running current	(A)	15.18 - 13.92	7.15-6.55
		Power consumption	(kW)	2.99	4.42
		Power factor	(%)	94	94
		EER		3.18	2.74
		SEER		5.28	5.36
	Heating	Running current	(A)	14.46 - 13.25	5.80-5.30
		Power consumption	(kW)	2.99	3.60
		Power factor	(%)	94	94
		COP		3.75	3.61
		SCOP		4.22	4.21
	Maximum current			14.1	14.1
Indoor unit					
Appearance		Main unit		Zinc hot dipping steel plate	
Outer dimension		Main unit	Height (mm)	275	
			Width (mm)	700	1,000
			Depth (mm)	750	
Total weight		Main unit		23	30
Fan unit		Fan		Centrifugal fan	
		Standard air flow	H/M/L (m3/h)	800/630/480	1200/930/720
		Motor	(W)	150	
Extarnal static pressure		Standard (Upper - Lower)	(Pa)	30 (120 - 30)	
Air filter				Long life filter	
Sound pressure level			H/M/L (dB)	33 / 29 / 25	34 / 30 / 26
Sound power level			H/M/L (dB)	48 / 44 / 40	49 / 45 / 41
Connecting pipe		Drain port		VP25	
Outdoor unit					
Air Flow			(m3/h)	4,080	4,200
Outer dimension		Height	(mm)	890	
		Width	(mm)	900	
		Depth	(mm)	320	
Total weight		Main unit	(kg)	68	
Pipe		Min. length	(m)	5.0	
		Max. total length	(m)	50.0	
Flare Connections		Main	Gas (mm)	15.9	
			Liquid (mm)	9.5	
		Branch	Gas (mm)	12.7	
			Liquid (mm)	6.4	
Sound pressure level		Cooling/Heating	(dB)	54 / 57	55 / 57
Sound power level		Cooling/Heating	(dB)	70 / 74	70 / 74
Operating Range		Cooling	(°C)	-15 / 46	
		Heating	(°C)	-15 / 15	

*1 : The cooling capacities and electrical characteristics are measured under the conditions specified by JIS B 8615 based on the reference piping. The reference piping consists of 5 m of main piping and 2.5 m of branch piping connected with 0 meter height.

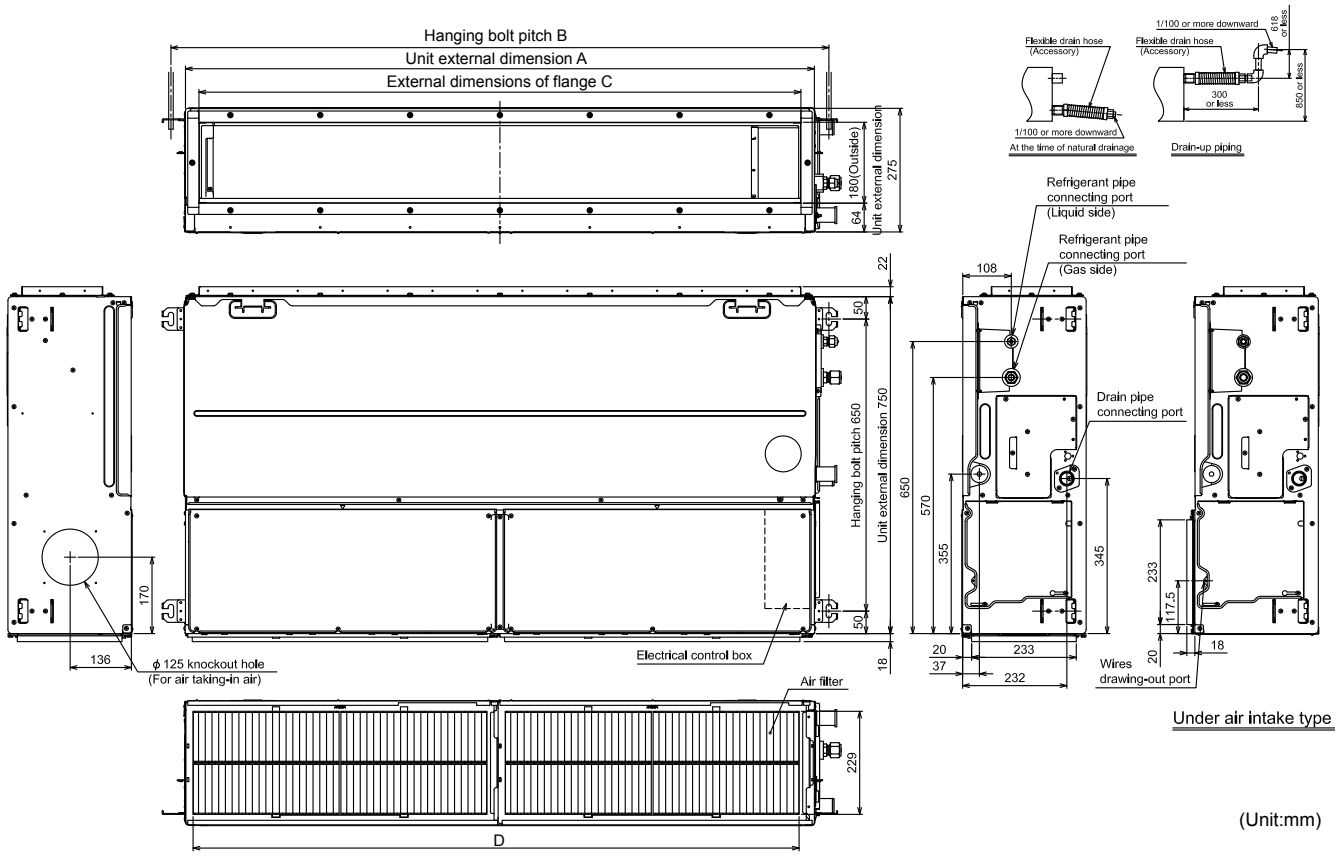
*2 : The sound level are measured in an anechoic chamber in accordance with JIS B 8616. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

Note :

Rated conditions Cooling : Indoor air temperature 27°C DB/19°C WB, Outdoor air temperature 35°C DB
Heating : Indoor air temperature 20°C DB, Outdoor air temperature 7°C DB/6°C WB

2-4-2. Dimension

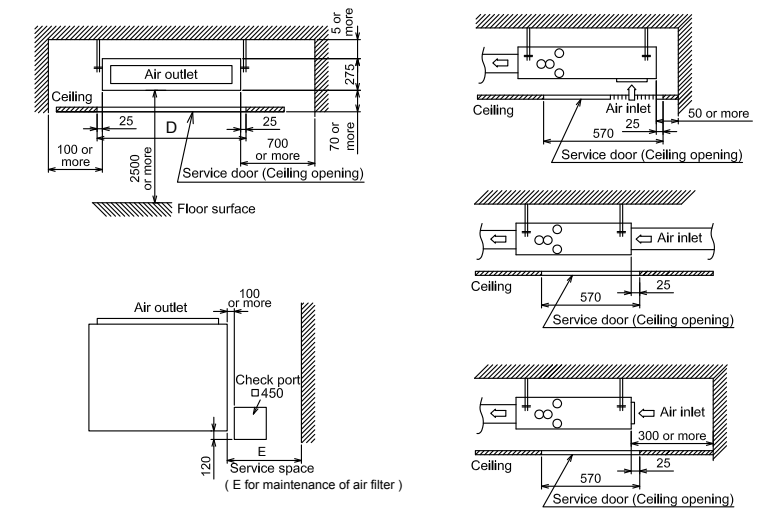
RAV-RM561BTP-E/TR, RAV-RM801BTP-E/TR, RAV-RM1101BTP-E/TR and RAV-RM1401BTP-E/TR



Dimension

	A	B	C	D
RAV-SM566BTP-E / E1	700	765	640	750
RAV-SM806BTP-E / E1	1000	1065	940	1050
RAV-SM1106BTP-E / E1 RAV-SM1406BTP-E	1400	1465	1340	1450

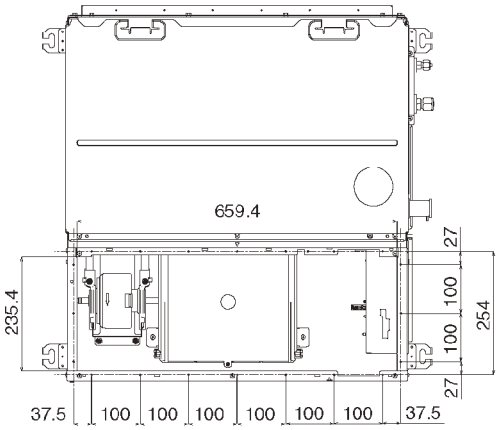
Space required for installation and servicing



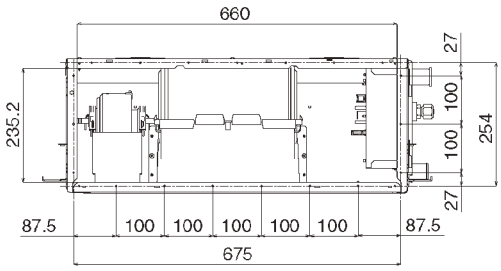
	E
RAV-SM566BTP-E / E1	700
RAV-SM806BTP-E / E1	500
RAV-SM1106BTP-E / E1 RAV-SM1406BTP-E	700

RAV-RM561BTP-E/TR

<Under air intake>



<Back air intake>



RAV-RM801BTP-E/TR

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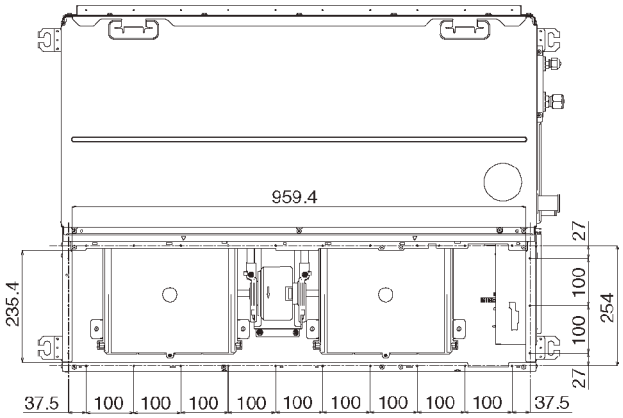

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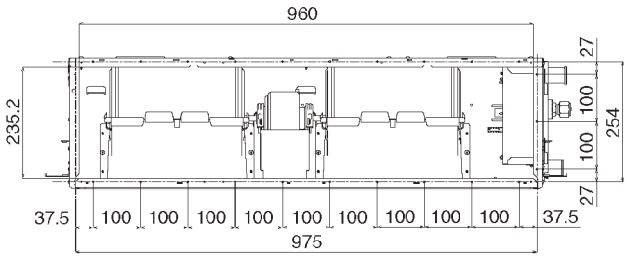
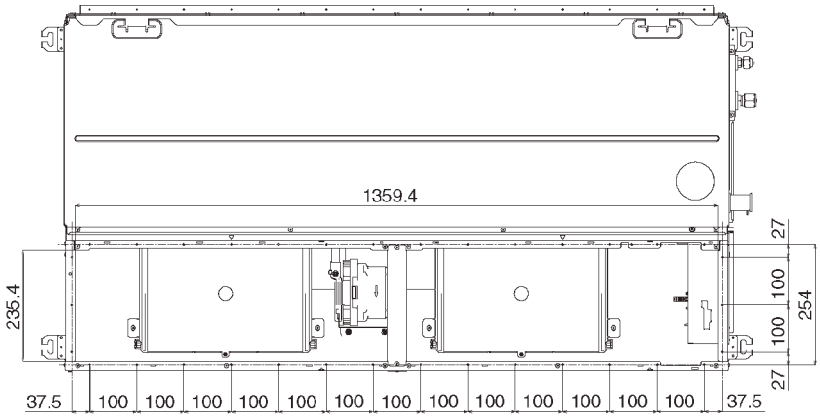


RAV-RM1101BTP-E/TR and RAV-RM1401BTP-E/TR

<Under air intake>



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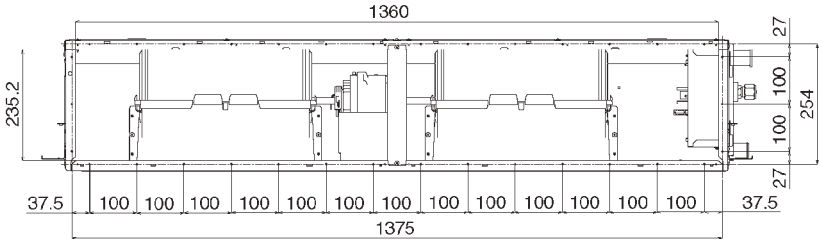
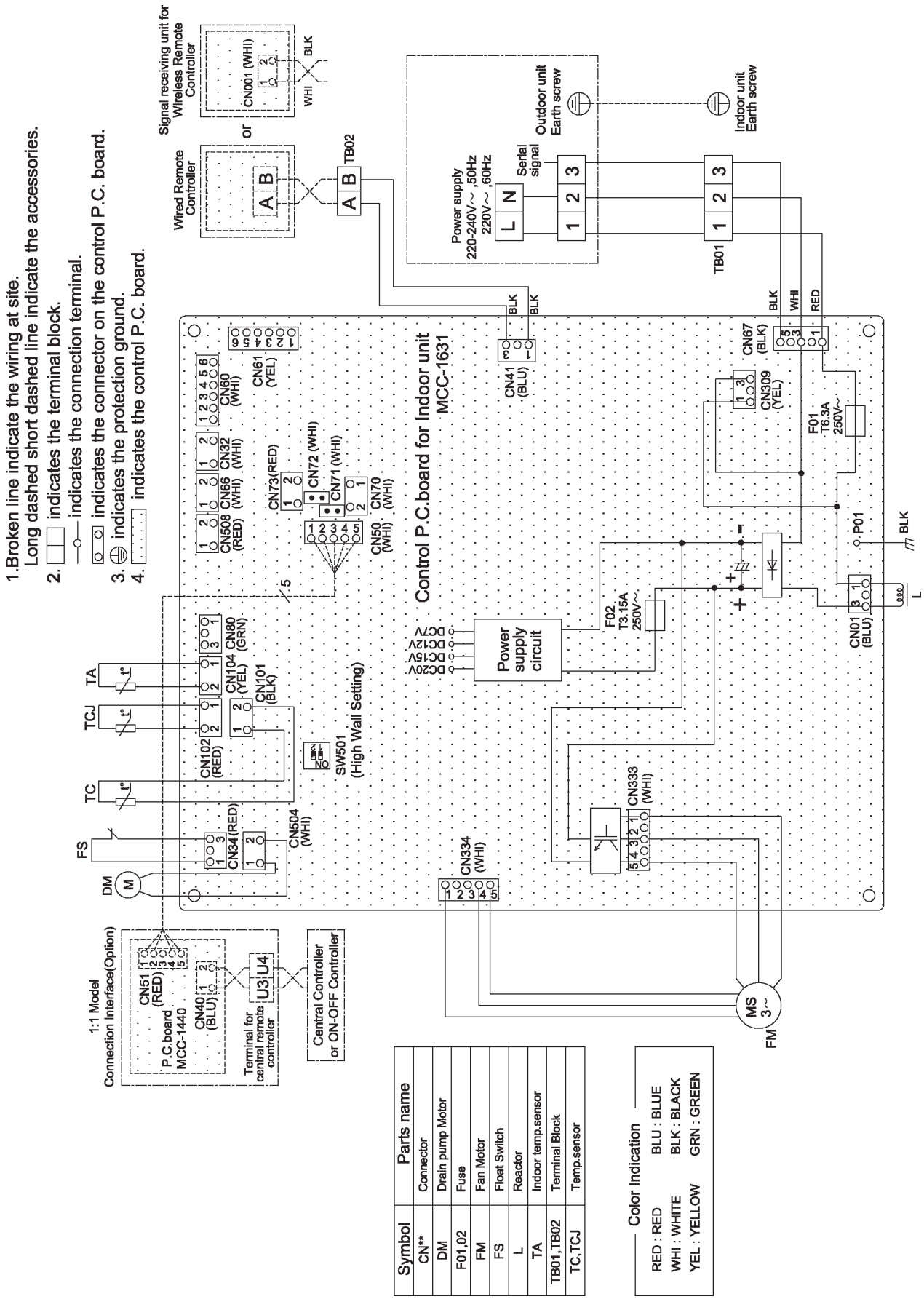


2-4-3. Wiring Diagrams

RAV-RM561BTP-E/TR, RAV-RM801BTP-E/TR, RAV-RM1101BTP-E/TR and RAV-RM1401BTP-E/TR



Symbol	Parts name
CN**	Connector
DM	Drain pump Motor
F01,02	Fuse
FM	Fan Motor
FS	Float Switch
L	Reactor
TA	Indoor temp.sensor
TB01,TB02	Terminal Block
TC,TCJ	Temp.sensor

Color Indication

RED : RED BLU : BLUE
WHI : WHITE BLK : BLACK
YEL : YELLOW GRN : GREEN

2-4-4. Sensible Capacity Table

Digital Inverter R32 Sensible Heat Capacity : RAV-RM***BTP-E/TR

		indoor air temp.																	
unit size	outdoor air temp.	14.0CWB		15.0CWB		16.0CWB		17.0CWB		18.0CWB		19.0CWB		20.0CWB		22.0CWB		24.0CWB	
		20.0CDB		21.5CDB		23.0CDB		24.5CDB		26.0CDB		27.0CDB		28.0CDB		30.0CDB		32.0CDB	
	CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
561	10.0	4.7	3.6	4.9	3.8	5.2	3.9	5.4	4.1	5.6	4.2	5.7	4.3	5.9	4.5	6.2	4.7	6.5	4.9
	12.0	4.7	3.5	4.9	3.7	5.2	3.9	5.3	4.1	5.5	4.2	5.7	4.3	5.8	4.4	6.2	4.7	6.5	4.9
	14.0	4.6	3.5	4.9	3.7	5.1	3.9	5.3	4.0	5.5	4.2	5.6	4.3	5.8	4.4	6.1	4.7	6.4	4.9
	16.0	4.6	3.5	4.8	3.7	5.1	3.9	5.3	4.0	5.4	4.1	5.6	4.3	5.8	4.4	6.1	4.6	6.4	4.9
	18.0	4.6	3.5	4.8	3.7	5.0	3.8	5.2	4.0	5.4	4.1	5.6	4.2	5.7	4.3	6.1	4.6	6.3	4.8
	20.0	4.5	3.4	4.8	3.6	5.0	3.8	5.2	3.9	5.4	4.1	5.5	4.2	5.7	4.3	6.0	4.6	6.3	4.8
	21.0	4.5	3.4	4.7	3.6	5.0	3.8	5.2	3.9	5.3	4.1	5.5	4.2	5.6	4.3	6.0	4.5	6.3	4.8
	23.0	4.5	3.4	4.7	3.6	4.9	3.7	5.1	3.9	5.3	4.0	5.4	4.1	5.6	4.2	5.9	4.5	6.2	4.7
	25.0	4.4	3.4	4.6	3.5	4.9	3.7	5.0	3.8	5.2	4.0	5.4	4.1	5.5	4.2	5.9	4.4	6.1	4.7
	27.0	4.4	3.3	4.6	3.5	4.8	3.7	5.0	3.8	5.2	3.9	5.3	4.0	5.5	4.2	5.8	4.4	6.0	4.6
	29.0	4.3	3.3	4.5	3.4	4.8	3.6	4.9	3.7	5.1	3.9	5.2	4.0	5.4	4.1	5.7	4.3	6.0	4.5
	31.0	4.2	3.2	4.5	3.4	4.7	3.6	4.9	3.7	5.0	3.8	5.2	3.9	5.3	4.0	5.6	4.3	5.9	4.5
	33.0	4.2	3.2	4.4	3.3	4.6	3.5	4.8	3.6	4.9	3.8	5.1	3.9	5.2	4.0	5.5	4.2	5.8	4.4
	35.0	4.1	3.1	4.3	3.3	4.5	3.4	4.7	3.6	4.9	3.7	5.0	3.8	5.1	3.9	5.4	4.1	5.7	4.3
	37.0	4.0	3.1	4.2	3.2	4.4	3.4	4.6	3.5	4.8	3.6	4.9	3.7	5.0	3.8	5.3	4.1	5.6	4.2
	39.0	3.9	3.0	4.2	3.2	4.4	3.3	4.5	3.4	4.7	3.5	4.8	3.7	4.9	3.8	5.2	4.0	5.5	4.2

		door air temp.																	
unit size	outdoor air temp.	14.0CWB		15.0CWB		16.0CWB		17.0CWB		18.0CWB		19.0CWB		20.0CWB		22.0CWB		24.0CWB	
		20.0CDB		21.5CDB		23.0CDB		24.5CDB		26.0CDB		27.0CDB		28.0CDB		30.0CDB		32.0CDB	
	CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
801	10.0	6.3	4.9	6.8	5.3	7.0	5.4	7.2	5.6	7.5	5.8	7.6	6.0	7.8	6.1	8.3	6.4	8.7	6.7
	12.0	6.2	4.8	6.8	5.3	6.9	5.4	7.2	5.6	7.4	5.7	7.6	5.9	7.8	6.1	8.3	6.4	8.7	6.7
	14.0	6.2	4.8	6.7	5.2	6.9	5.3	7.1	5.5	7.4	5.7	7.5	5.9	7.7	6.1	8.2	6.3	8.6	6.6
	16.0	6.1	4.8	6.7	5.2	6.8	5.3	7.1	5.5	7.3	5.7	7.5	5.8	7.7	6.0	8.2	6.3	8.6	6.5
	18.0	6.1	4.7	6.6	5.1	6.8	5.2	7.0	5.4	7.3	5.6	7.5	5.8	7.6	6.0	8.1	6.2	8.5	6.5
	20.0	6.0	4.7	6.6	5.1	6.7	5.2	7.0	5.4	7.2	5.6	7.4	5.7	7.6	5.9	8.0	6.2	8.4	6.4
	21.0	6.0	4.7	6.5	5.1	6.7	5.2	6.9	5.4	7.2	5.6	7.4	5.7	7.5	5.9	8.0	6.2	8.4	6.4
	23.0	5.9	4.6	6.5	5.0	6.6	5.1	6.8	5.3	7.1	5.5	7.3	5.7	7.5	5.8	7.9	6.2	8.3	6.3
	25.0	5.9	4.6	6.4	5.0	6.5	5.1	6.8	5.3	7.0	5.4	7.2	5.6	7.5	5.8	7.8	6.1	8.2	6.2
	27.0	5.9	4.5	6.3	4.9	6.4	5.0	6.7	5.2	6.9	5.4	7.1	5.5	7.4	5.7	7.7	6.0	8.1	6.2
	29.0	5.8	4.5	6.2	4.8	6.3	4.9	6.6	5.1	6.8	5.3	7.0	5.5	7.3	5.6	7.6	6.0	8.0	6.1
	31.0	5.7	4.4	6.1	4.8	6.3	4.9	6.5	5.0	6.7	5.2	6.9	5.4	7.1	5.5	7.5	5.9	7.9	6.0
	33.0	5.6	4.3	6.0	4.7	6.1	4.8	6.4	5.0	6.6	5.1	6.8	5.3	7.0	5.4	7.5	5.8	7.7	6.2
	35.0	5.5	4.3	5.9	4.6	6.0	4.7	6.3	4.9	6.5	5.0	6.7	5.2	6.9	5.4	7.3	5.7	7.6	5.9
	37.0	5.4	4.2	5.9	4.5	5.9	4.6	6.1	4.8	6.4	5.0	6.6	5.1	6.8	5.2	7.2	5.6	7.5	5.8
	39.0	5.3	4.1	5.8	4.4	5.9	4.5	6.0	4.7	6.2	4.8	6.4	5.0	6.6	5.1	7.0	5.4	7.4	5.7

		Indoor air temp.																	
	Outdoor air temp.	14.0 CWB		15.0 CWB		16.0 CWB		17.0 CWB		18.0 CWB		19.0 CWB		20.0 CWB		22.0 CWB		24.0 CWB	
		20.0 CDB		21.0 CDB		23.0 CDB		24.0 CDB		26.0 CDB		27.0 CDB		28.0 CDB		30.0 CDB		32.0 CDB	
	°C DB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
1101	10.0	9.09	7.63	9.41	7.81	10.04	8.13	10.28	8.30	10.75	8.64	11.07	8.62	11.39	8.61	12.06	8.51	12.61	8.33
	12.0	9.03	7.59	9.35	7.76	9.98	8.08	10.21	8.25	10.68	8.59	11.00	8.57	11.31	8.55	11.98	8.46	12.53	8.28
	14.0	8.97	7.53	9.28	7.70	9.90	8.02	10.14	8.19	10.61	8.53	10.92	8.50	11.23	8.49	11.89	8.40	12.44	8.22
	16.0	8.90	7.47	9.21	7.64	9.82	7.96	10.06	8.13	10.52	8.46	10.83	8.44	11.14	8.42	11.80	8.33	12.34	8.15
	18.0	8.82	7.40	9.12	7.57	9.74	7.89	9.97	8.05	10.43	8.38	10.73	8.36	11.04	8.35	11.69	8.26	12.23	8.08
	20.0	8.71	7.32	9.02	7.48	9.62	7.79	9.85	7.96	10.31	8.29	10.61	8.26	10.91	8.25	11.56	8.16	12.09	7.99
	21.0	8.68	7.29	8.99	7.46	9.59	7.77	9.82	7.93	10.27	8.26	10.57	8.24	10.87	8.22	11.52	8.13	12.05	7.96
	23.0	8.59	7.21	8.88	7.37	9.48	7.68	9.71	7.84	10.15	8.16	10.45	8.14	10.75	8.13	11.39	8.04	11.91	7.87
	25.0	8.49	7.13	8.79	7.29	9.38	7.59	9.60	7.75	10.04	8.07	10.34	8.05	10.63	8.04	11.26	7.95	11.78	7.78
	27.0	8.36	7.02	8.66	7.18	9.24	7.48	9.46	7.64	9.89	7.95	10.18	7.93	10.47	7.92	11.09	7.83	11.60	7.67
	29.0	8.24	6.92	8.53	7.08	9.10	7.37	9.32	7.53	9.75	7.84	10.03	7.81	10.32	7.80	10.93	7.72	11.43	7.55
	31.0	8.11	6.81	8.39	6.96	8.95	7.25	9.17	7.41	9.59	7.71	9.87	7.69	10.15	7.68	10.75	7.59	11.25	7.43
	33.0	7.97	6.69	8.24	6.84	8.80	7.12	9.00	7.28	9.42	7.57	9.70	7.55	9.97	7.54	10.56	7.46	11.05	7.30
	35.0	7.80	6.55	8.07	6.70	8.62	6.98	8.82	7.13	9.23	7.42	9.50	7.40	9.77	7.39	10.35	7.31	10.82	7.15
	37.0	7.65	6.42	7.92	6.57	8.45	6.84	8.65	6.99	9.05	7.27	9.31	7.25	9.58	7.24	10.14	7.16	10.61	7.01
	39.0	7.48	6.28	7.74	6.42	8.26	6.69	8.45	6.83	8.84	7.11	9.10	7.09	9.36	7.08	9.91	7.00	10.37	6.85

		indoor air temp.																	
unit size	outdoor air temp.	14.0CWB		15.0CWB		16.0CWB		17.0CWB		18.0CWB		19.0CWB		20.0CWB		22.0CWB		24.0CWB	
		20.0CDB		21.5CDB		23.0CDB		24.5CDB		26.0CDB		27.0CDB		28.0CDB		30.0CDB		32.0CDB	
	CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
1401	10.0	11.3	9.1	12.3	9.6	12.6	9.7	13.0	10.1	13.5	10.3	13.8	10.2	14.2	10.2	15.1	10.1	15.8	10.0
	12.0	11.3	9.1	12.2	9.5	12.5	9.7	12.9	10.0	13.4	10.2	13.7	10.2	14.1	10.2	15.0	10.1	15.7	9.9
	14.0	11.2	9.0	12.1	9.5	12.4	9.6	12.9	10.0	13.3	10.1	13.6	10.1	14.0	10.1	14.9	10.1	15.6	9.9
	16.0	11.1	8.9	12.1	9.4	12.3	9.5	12.8	9.9	13.2	10.1	13.6	10.1	13.9	10.1	14.8	10.0	15.5	9.8
	18.0	11.0	8.9	12.0	9.3	12.2	9.5	12.7	9.8	13.1	10.1	13.5	10.1	13.8	10.0	14.6	9.9	15.3	9.7
	20.0	10.9	8.8	11.9	9.2	12.1	9.4	12.5	9.7	13.0	10.0	13.4	10.0	13.7	10.0	14.5	9.8	15.2	9.6
	21.0	10.9	8.7	11.8	9.2	12.0	9.3	12.5	9.7	12.9	9.9	13.3	9.9	13.6	9.9	14.5	9.8	15.1	9.6
	23.0	10.8	8.6	11.7	9.1	11.9	9.2	12.4	9.6	12.8	9.8	13.2	9.8	13.6	9.8	14.4	9.7	15.0	9.5
	25.0	10.6	8.5	11.5	9.0	11.8	9.1	12.2	9.5	12.7	9.7	13.0	9.7	13.4	9.7	14.1	9.6	14.8	9.4
	27.0	10.6	8.4	11.4	8.9	11.6	9.0	12.1	9.3	12.5	9.6	12.9	9.6	13.3	9.6	14.0	9.5	14.6	9.3
	29.0	10.5	8.3	1.5	8.8	11.5	8.9	11.9	9.2	12.3	9.5	12.7	9.5	13.1	9.4	13.8	9.3	14.4	9.1
	31.0	10.3	8.2	11.1	8.6	11.3	8.8	11.7	9.1	12.1	9.3	12.5	9.3	12.9	9.3	13.6	9.2	14.2	8.6
	33.0	10.1	8.1	10.9	8.5	11.1	8.6	11.5	8.9	11.9	9.2	12.3	9.2	12.7	9.1	13.4	9.0	14.0	8.8
	35.0	10.0	7.9	10.7	8.3	10.9	8.5	11.3	8.8	11.7	9.0	12.1	9.0	12.5	9.0	13.2	8.9	13.7	8.7
	37.0	9.8	7.9	10.6	8.2	10.7	8.3	11.1	8.6	11.5	8.8	11.9	8.8	12.2	8.8	13.0	8.7	13.6	8.5
	39.0	9.6	7.7	10.4	8.0	10.6	8.1	10.9	8.4	11.3	8.7	11.6	8.6	12.0	8.6	12.7	8.5	13.3	8.3

TC:Total Capacity [kW]

SHC:Sensible Heat Capacity [kW]

2-4-5. Part load performance

Combination

Indoor unit : RAV-RM1101BTP-E/TR

Outdoor unit : RAV-GM1101AT8P-E/TR, RAV-GM1101AT8JP-E

	Cooling		Heating	
	Capacity(W)	Power consumption (W)	Capacity(W)	Power consumption (W)
MINIMUM	3000	600	3000	600
RATING	9500	2990	11200	2990

Q: Capacity in W
W: Power Consumption in W

Cooling

Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
40	Q	9000	8100	7200	6300	5400	4500	3600	2840	2840	2840
	W	3250	2600	2110	1690	1360	1050	830	650	650	650
35	Q	9500	8550	7600	6650	5700	4750	3800	3000	3000	3000
	W	2990	2390	1940	1560	1250	970	760	600	600	600
30	Q	10480	8960	7960	6970	5970	4980	3980	3140	3140	3140
	W	2820	2170	1760	1420	1130	880	690	540	540	540
25	Q	10880	9300	8270	7240	6200	5170	4130	3260	3260	3260
	W	2570	1970	1600	1290	1030	800	630	490	490	490
20	Q	11170	9550	8490	7430	6370	5310	4240	3350	3350	3350
	W	2320	1780	1450	1160	930	720	570	450	450	450

Heating

Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
15	Q	13410	12060	10730	9390	8050	6700	5360	4020	3590	3590
	W	3280	2820	2370	1930	1540	1210	940	720	660	660
10	Q	12190	10950	9750	8530	7310	6090	4870	3660	3260	3260
	W	3120	2680	2250	1840	1470	1150	900	690	630	630
7	Q	11200	10080	8960	7840	6720	5600	4480	3360	3000	3000
	W	2990	2570	2160	1760	1410	1100	860	660	600	600
5	Q	8630	7760	6900	6040	5180	4310	3450	2590	2310	2310
	W	2570	2210	1850	1510	1210	950	740	570	520	520
2	Q	8440	7580	6750	5900	5060	4210	3370	2530	2260	2260
	W	2530	2180	1830	1490	1190	930	730	560	510	510
0	Q	8310	7480	6650	5820	4990	4150	3320	2490	2230	2230
	W	2510	2150	1810	1480	1180	920	720	550	500	500
-5	Q	8010	7200	6410	5610	4810	4000	3200	2400	2150	2150
	W	2450	2100	1770	1440	1150	900	700	540	490	490
-7	Q	7890	7090	6310	5520	4730	3940	3150	2370	2110	2110
	W	2420	2080	1750	1430	1140	890	700	540	490	490
-10	Q	7280	6550	5830	5100	4370	3640	2910	2180	1950	1950
	W	2330	2010	1680	1370	1100	860	670	520	470	470
-15	Q	5600	5040	4480	3920	3360	2800	2240	1680	1500	1500
	W	2080	1790	1510	1230	980	770	600	460	420	420

Combination

Indoor unit : RAV-RM1401BTP-E/TR

Outdoor unit : RAV-GM1401AT8P-E/TR, RAV-GM1401AT8JP-E

	Cooling		Heating	
	Capacity(W)	Power consumption (W)	Capacity(W)	Power consumption (W)
MINIMUM	3000	600	3000	600
RATING	12100	4420	13000	3600

Q: Capacity in W
W: Power Consumption in W

Cooling

Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
40	Q	11460	10310	9170	8030	6880	5730	4590	3440	2840	2840
	W	4810	3880	3050	2340	1770	1340	1020	760	650	650
35	Q	12100	10890	9680	8470	7260	6050	4840	3630	3000	3000
	W	4420	3570	2800	2150	1630	1230	940	700	600	600
30	Q	12680	11410	10140	8880	7610	6340	5080	3810	3140	3140
	W	4010	3240	2540	1950	1480	1120	850	640	540	540
25	Q	13160	11840	10530	9220	7900	6580	5270	3960	3260	3260
	W	3650	2950	2310	1770	1350	1020	780	580	500	500
20	Q	13520	12160	10810	9470	8120	6760	5410	4060	3350	3350
	W	3290	2660	2090	1600	1210	920	700	520	450	450

Heating

Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
15	Q	15570	14010	12460	10900	9340	7780	6230	4670	3590	3590
	W	3950	3320	2760	2280	1830	1450	1120	840	660	660
10	Q	14150	12730	11320	9900	8490	7070	5660	4240	3260	3260
	W	3760	3160	2630	2170	1740	1380	1070	800	630	630
7	Q	13000	11700	10400	9100	7800	6500	5200	3900	3000	3000
	W	3600	3030	2520	2080	1670	1320	1020	770	600	600
5	Q	10010	9010	8010	7010	6010	5010	4010	3000	2310	2310
	W	3090	2600	2160	1790	1430	1130	880	660	520	520
2	Q	9790	8810	7830	6850	5870	4900	3920	2940	2260	2260
	W	3050	2570	2130	1760	1410	1120	860	650	510	510
0	Q	9650	8680	7720	6750	5790	4820	3860	2890	2230	2230
	W	3020	2540	2110	1740	1400	1110	860	650	500	500
-5	Q	9300	8370	7440	6510	5580	4650	3720	2790	2150	2150
	W	2940	2480	2060	1700	1370	1080	830	630	490	490
-7	Q	9160	8240	7330	6410	5500	4580	3660	2750	2110	2110
	W	2910	2450	2040	1680	1350	1070	830	620	490	490
-10	Q	8460	7610	6770	5920	5080	4230	3380	2540	1950	1950
	W	2810	2360	1960	1620	1300	1030	800	600	470	470
-15	Q	6500	5850	5200	4550	3900	3250	2600	1950	1500	1500
	W	2510	2110	1760	1450	1160	920	710	540	420	420

Combination

Indoor unit : RAV-RM561BTP-E/TR x 2 (Twin system)

Outdoor unit : RAV-GM1101AT8P-E/TR, RAV-GM1101AT8JP-E

	Cooling		Heating	
	Capacity(W)	Power consumption (W)	Capacity(W)	Power consumption (W)
MINIMUM	3000	600	3000	600
RATING	9500	2990	11200	2990

Q: Capacity in W
W: Power Consumption in W

Cooling

Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
40	Q	9000	8100	7200	6300	5400	4500	3600	2840	2840	2840
	W	3250	2600	2110	1690	1360	1050	830	650	650	650
35	Q	9500	8550	7600	6650	5700	4750	3800	3000	3000	3000
	W	2990	2390	1940	1560	1250	970	760	600	600	600
30	Q	10480	8960	7960	6970	5970	4980	3980	3140	3140	3140
	W	2820	2170	1760	1420	1130	880	690	540	540	540
25	Q	10880	9300	8270	7240	6200	5170	4130	3260	3260	3260
	W	2570	1970	1600	1290	1030	800	630	490	490	490
20	Q	11170	9550	8490	7430	6370	5310	4240	3350	3350	3350
	W	2320	1780	1450	1160	930	720	570	450	450	450

Heating

Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
15	Q	13410	12060	10730	9390	8050	6700	5360	4020	3590	3590
	W	3280	2820	2370	1930	1540	1210	940	720	660	660
10	Q	12190	10950	9750	8530	7310	6090	4870	3660	3260	3260
	W	3120	2680	2250	1840	1470	1150	900	690	630	630
7	Q	11200	10080	8960	7840	6720	5600	4480	3360	3000	3000
	W	2990	2570	2160	1760	1410	1100	860	660	600	600
5	Q	8630	7760	6900	6040	5180	4310	3450	2590	2310	2310
	W	2570	2210	1850	1510	1210	950	740	570	520	520
2	Q	8440	7580	6750	5900	5060	4210	3370	2530	2260	2260
	W	2530	2180	1830	1490	1190	930	730	560	510	510
0	Q	8310	7480	6650	5820	4990	4150	3320	2490	2230	2230
	W	2510	2150	1810	1480	1180	920	720	550	500	500
-5	Q	8010	7200	6410	5610	4810	4000	3200	2400	2150	2150
	W	2450	2100	1770	1440	1150	900	700	540	490	490
-7	Q	7890	7090	6310	5520	4730	3940	3150	2370	2110	2110
	W	2420	2080	1750	1430	1140	890	700	540	490	490
-10	Q	7280	6550	5830	5100	4370	3640	2910	2180	1950	1950
	W	2330	2010	1680	1370	1100	860	670	520	470	470
-15	Q	5600	5040	4480	3920	3360	2800	2240	1680	1500	1500
	W	2080	1790	1510	1230	980	770	600	460	420	420

Combination

Indoor unit : RAV-RM801BTP-E/TR x 2 (Twin system)

Outdoor unit : RAV-GM1401AT8P-E/TR, RAV-GM1401AT8JP-E

	Cooling		Heating	
	Capacity(W)	Power consumption (W)	Capacity(W)	Power consumption (W)
MINIMUM	3000	600	3000	600
RATING	12100	4420	13000	3600

Q: Capacity in W
W: Power Consumption in W

Cooling

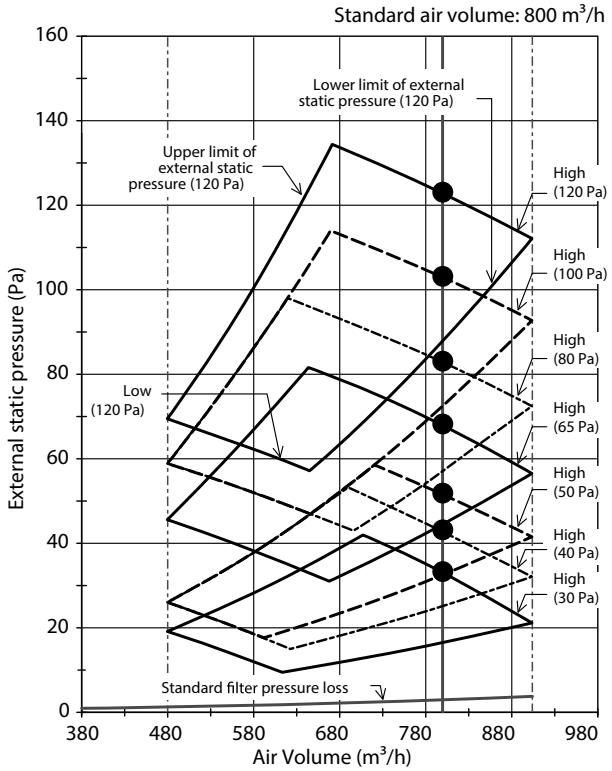
Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
40	Q	11460	10310	9170	8030	6880	5730	4590	3440	2840	2840
	W	4810	3880	3050	2340	1770	1340	1020	760	650	650
35	Q	12100	10890	9680	8470	7260	6050	4840	3630	3000	3000
	W	4420	3570	2800	2150	1630	1230	940	700	600	600
30	Q	12680	11410	10140	8880	7610	6340	5080	3810	3140	3140
	W	4010	3240	2540	1950	1480	1120	850	640	540	540
25	Q	13160	11840	10530	9220	7900	6580	5270	3960	3260	3260
	W	3650	2950	2310	1770	1350	1020	780	580	500	500
20	Q	13520	12160	10810	9470	8120	6760	5410	4060	3350	3350
	W	3290	2660	2090	1600	1210	920	700	520	450	450

Heating

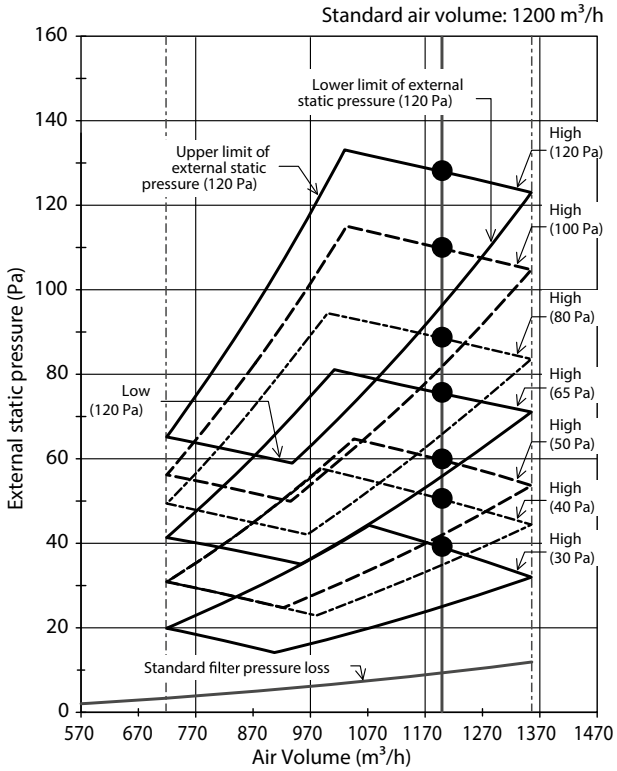
Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
15	Q	15570	14010	12460	10900	9340	7780	6230	4670	3590	3590
	W	3950	3320	2760	2280	1830	1450	1120	840	660	660
10	Q	14150	12730	11320	9900	8490	7070	5660	4240	3260	3260
	W	3760	3160	2630	2170	1740	1380	1070	800	630	630
7	Q	13000	11700	10400	9100	7800	6500	5200	3900	3000	3000
	W	3600	3030	2520	2080	1670	1320	1020	770	600	600
5	Q	10010	9010	8010	7010	6010	5010	4010	3000	2310	2310
	W	3090	2600	2160	1790	1430	1130	880	660	520	520
2	Q	9790	8810	7830	6850	5870	4900	3920	2940	2260	2260
	W	3050	2570	2130	1760	1410	1120	860	650	510	510
0	Q	9650	8680	7720	6750	5790	4820	3860	2890	2230	2230
	W	3020	2540	2110	1740	1400	1110	860	650	500	500
-5	Q	9300	8370	7440	6510	5580	4650	3720	2790	2150	2150
	W	2940	2480	2060	1700	1370	1080	830	630	490	490
-7	Q	9160	8240	7330	6410	5500	4580	3660	2750	2110	2110
	W	2910	2450	2040	1680	1350	1070	830	620	490	490
-10	Q	8460	7610	6770	5920	5080	4230	3380	2540	1950	1950
	W	2810	2360	1960	1620	1300	1030	800	600	470	470
-15	Q	6500	5850	5200	4550	3900	3250	2600	1950	1500	1500
	W	2510	2110	1760	1450	1160	920	710	540	420	420

2-4-6. Fan Static Characteristic

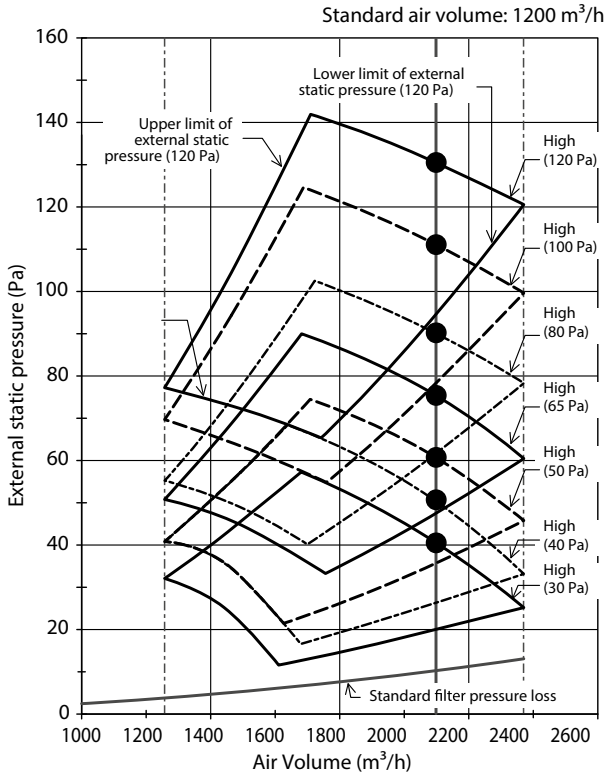
RAV-RM561BTP-E/TR



RAV-RM801BTP-E/TR

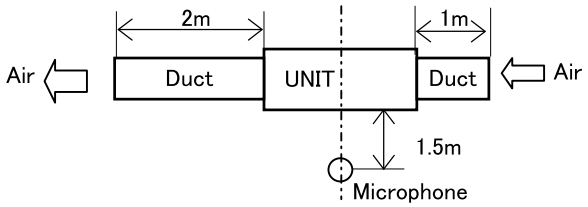


RAV-RM1101BTP-E/TR and RAV-RM1401BTP-E/TR



2-4-7. Sound Characteristics (NC curve)

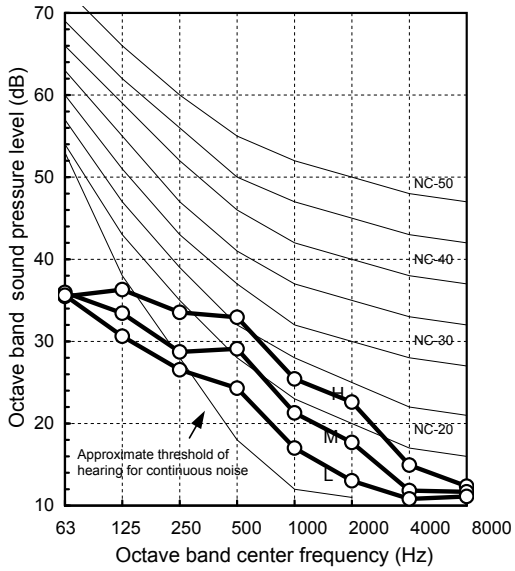
RAV-RM561BTP-E/TR



Measuring location

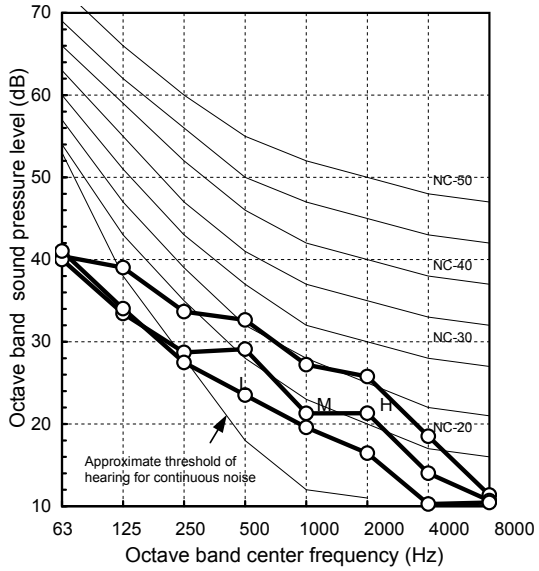
External static pressure 30Pa

FAN tap	H	M	L
Sound pressure level (dB(A))	33	29	25



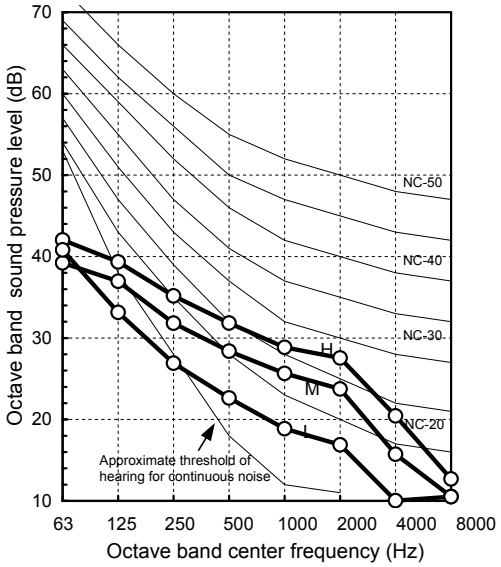
External static pressure 40Pa

FAN tap	H	M	L
Sound pressure level (dB(A))	34	30	26



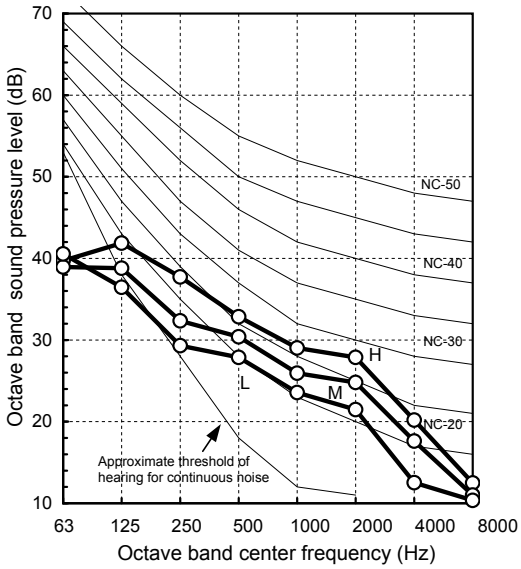
External static pressure 50Pa

FAN tap	H	M	L
Sound pressure level (dB(A))	35	31	26



External static pressure 65Pa

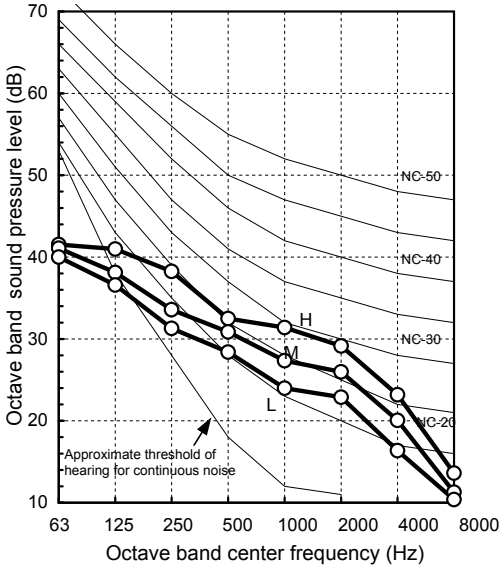
FAN tap	H	M	L
Sound pressure level (dB(A))	36	32	29



RAV-RM561BTP-E/TR

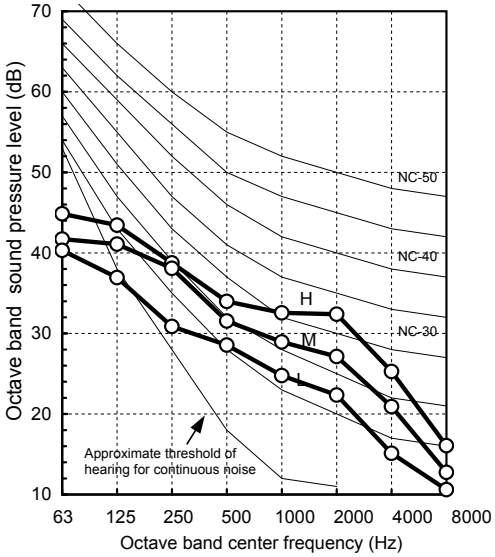
External static pressure 80Pa

FAN tap	H	M	L
Sound pressure level (dB(A))	37	33	31



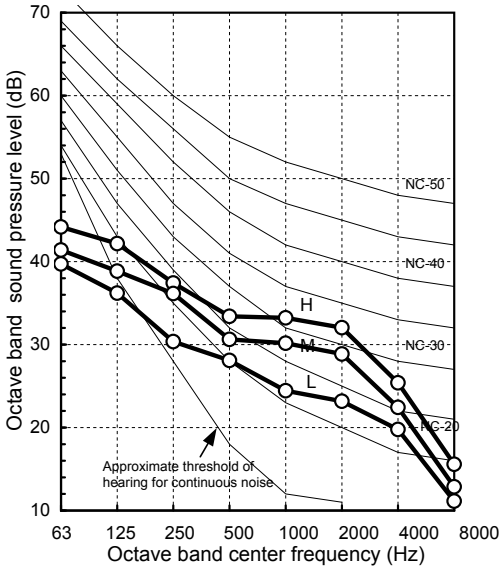
External static pressure 100Pa

FAN tap	H	M	L
Sound pressure level (dB(A))	38	35	31

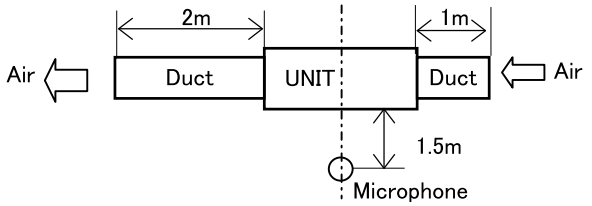


External static pressure 120Pa

FAN tap	H	M	L
Sound pressure level (dB(A))	39	35	31



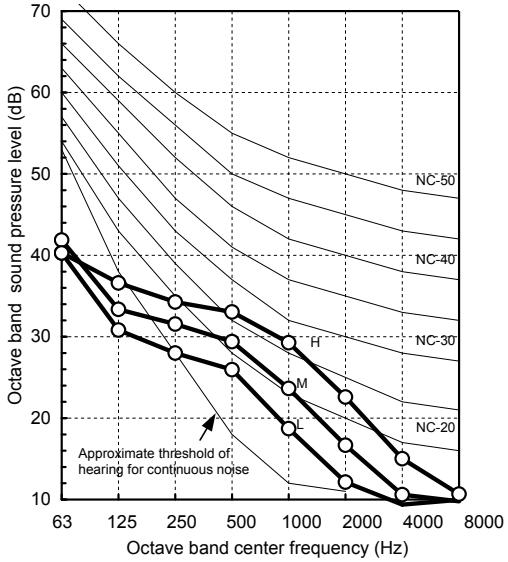
RAV-RM801BTP-E/TR



Measuring location

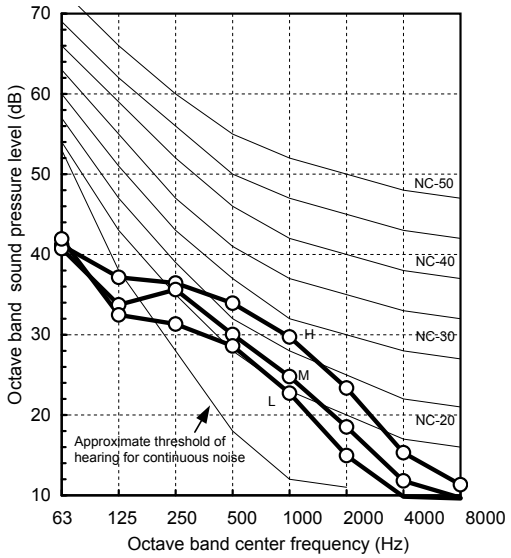
External static pressure 30Pa

FAN tap	H	M	L
Sound pressure level (dB(A))	34	30	26



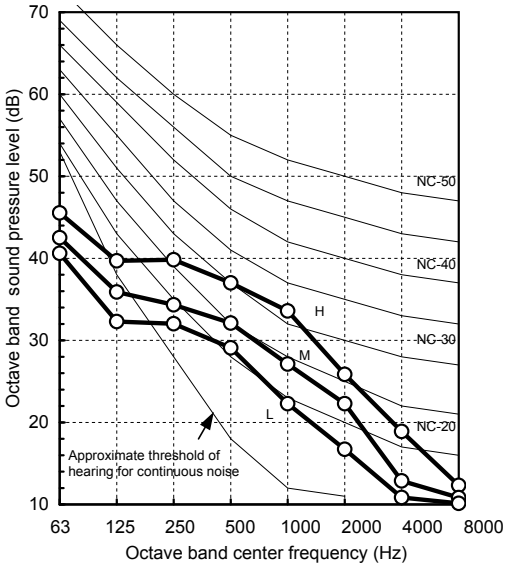
External static pressure 40Pa

FAN tap	H	M	L
Sound pressure level (dB(A))	35	32	29



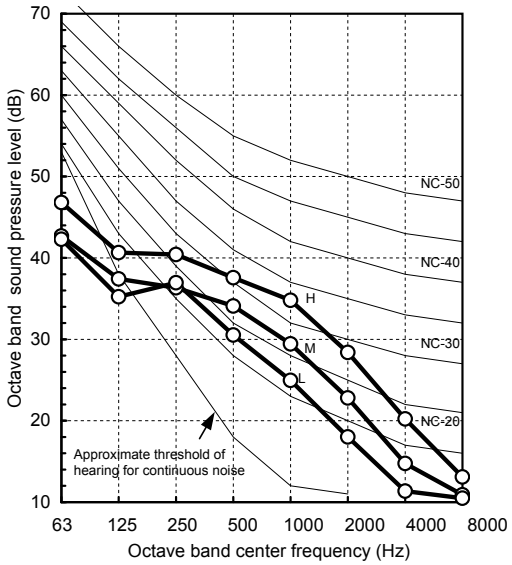
External static pressure 50Pa

FAN tap	H	M	L
Sound pressure level (dB(A))	38	33	29



External static pressure 65Pa

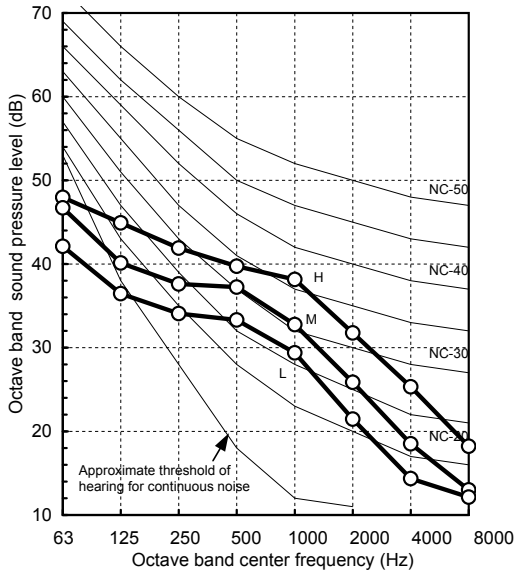
FAN tap	H	M	L
Sound pressure level (dB(A))	39	35	32



RAV-RM801BTP-E/TR

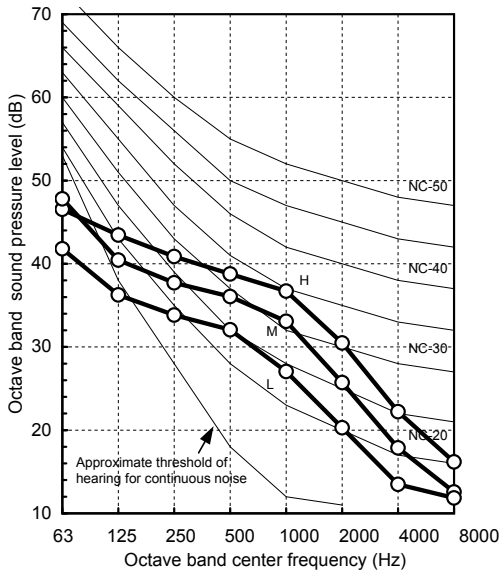
External static pressure 80Pa

FAN tap	H	M	L
Sound pressure level (dB(A))	42	38	34



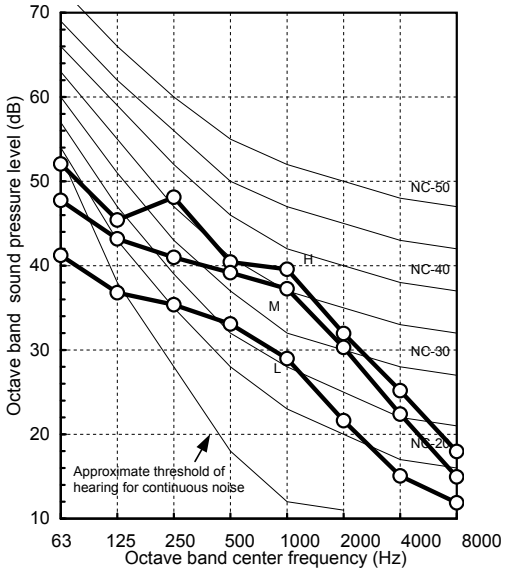
External static pressure 100Pa

FAN tap	H	M	L
Sound pressure level (dB(A))	42	39	33

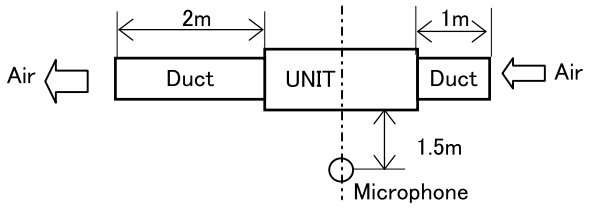


External static pressure 120Pa

FAN tap	H	M	L
Sound pressure level (dB(A))	44	41	34



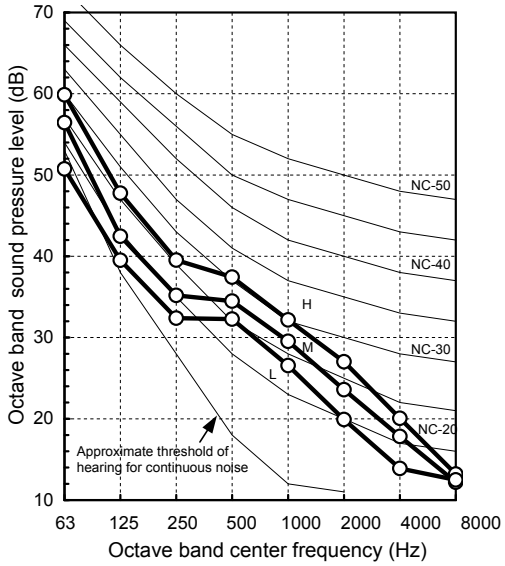
RAV-RM1101BTP-E/TR, RAV-RM1401BTP-E/TR



Measuring location

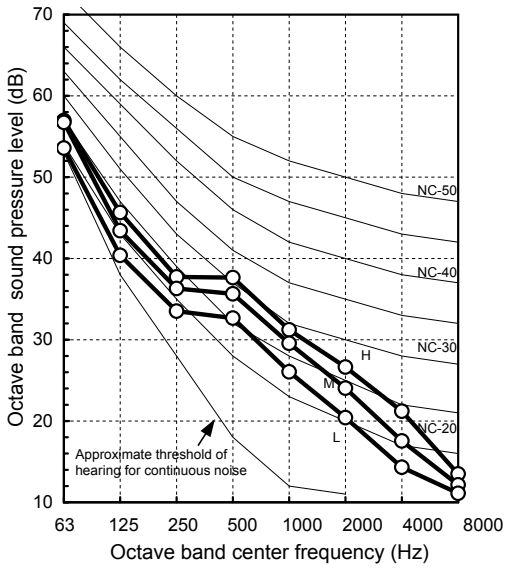
External static pressure 30Pa

FAN tap	H	M	L
Sound pressure level (dB(A))	39	36	33



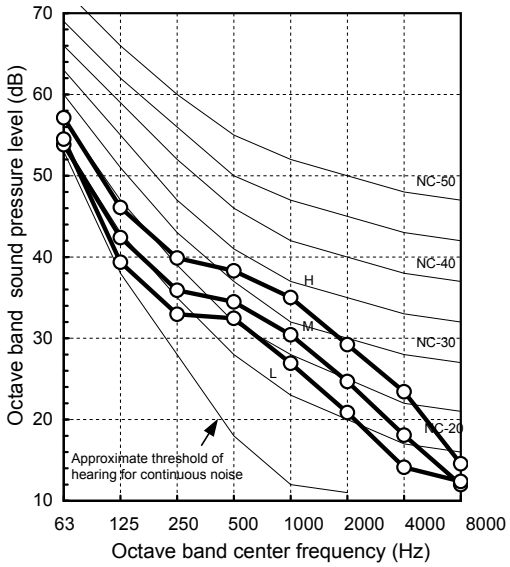
External static pressure 40Pa

FAN tap	H	M	L
Sound pressure level (dB(A))	39	36	33



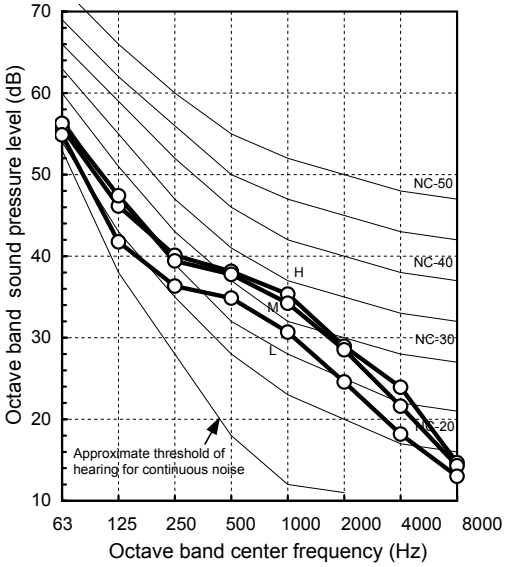
External static pressure 50Pa

FAN tap	H	M	L
Sound pressure level (dB(A))	40	36	33



External static pressure 65Pa

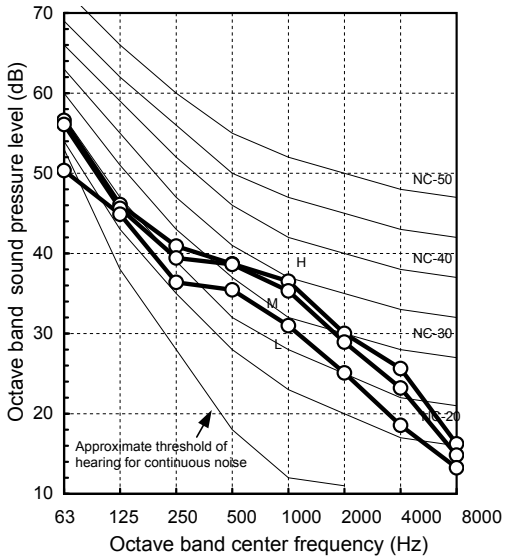
FAN tap	H	M	L
Sound pressure level (dB(A))	41	39	36



RAV-RM1101BTP-E/TR, RAV-RM1401BTP-E/TR

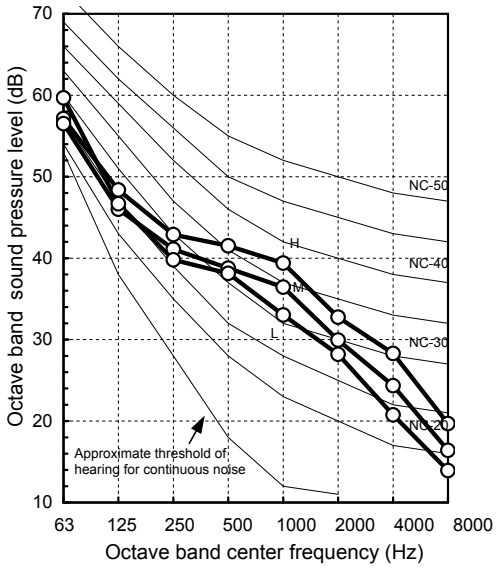
External static pressure 80Pa

FAN tap	H	M	L
Sound pressure level (dB(A))	41	40	36



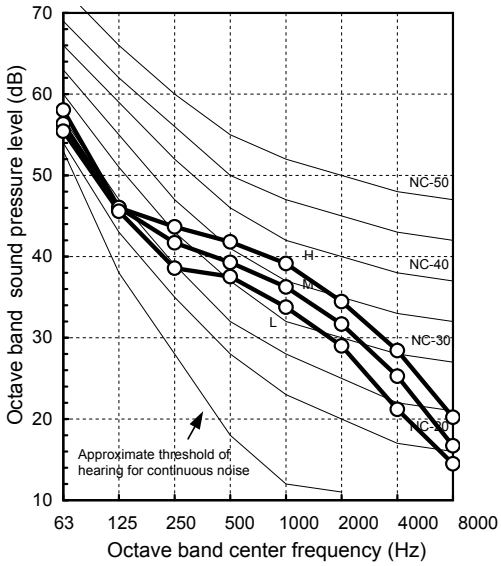
External static pressure 100Pa

FAN tap	H	M	L
Sound pressure level (dB(A))	43	41	39



External static pressure 120Pa

FAN tap	H	M	L
Sound pressure level (dB(A))	44	42	39



2-5. Under Ceiling Type

2-5-1. Specifications

2-5-2. Dimension

2-5-3. Wiring Diagrams

2-5-4. Sensible Capacity Table

2-5-5. Part Load Performance

2-5-6. Air Throw Distance Chart

2-5-7. Sound Characteristics (NC Curve)

2-5-1. Specifications

Under Ceilling Type <Single Type>

Model		Indoor unit		RAV-RM1101CTP-E/TR	RAV-RM1401CTP-E/TR
		Outdoor unit		RAV-GM1101AT8P-E/TR (*AT8JP-E)	RAV-GM1401AT8P-E/TR (*AT8JP-E)
Cooling capacity			(kW)	9.5 < 3.0 - 11.2 >	12.1 < 3.0 - 13.2 >
Heating capacity			(kW)	11.2 < 3.0 - 13.0>	13.0 < 3.0 - 16.0 >
Power supply				3 phase 380V-415V/50Hz, 3phase 380V/60Hz	
Electrical characteristics	Cooling	Running current	(A)	4.75-4.35	7.15-6.55
		Power consumption	(kW)	2.95	4.42
		Power factor	(%)	94	94
		EER		3.22	2.74
		SEER		5.86	5.36
	Heating	Running current	(A)	4.75-4.35	5.65-5.15
		Power consumption	(kW)	2.94	3.48
		Power factor	(%)	94	94
		COP		3.81	3.74
		SCOP		4.27	4.19
	Maximum current			14.1	14.1
Indoor unit					
Appearance		Main unit		Pure white	
Outer dimension		Main unit	Height (mm)	235	
			Width (mm)	1,586	
			Depth (mm)	690	
Total weight		Main unit	(kg)	37	
Fan unit		Fan		Centrifugal fan	
		Standard air flow	H/M/L (m3/h)	1860 / 1350 / 1020	2040 / 1530 / 1200
		Motor	(W)	139	
Air filter				Standard filter (Long life filter)	
Sound pressure level			H/M/L (dB)	44 / 38 / 32	46 / 41 / 35
Sound power level			H/M/L (dB)	59 / 53 / 47	61 / 56 / 50
Controller (Sold Separately)				VP20	
Outdoor unit					
Air Flow			(m3/h)	4,080	4,200
Outer dimension		Height	(mm)	890	
		Width	(mm)	900	
		Depth	(mm)	320	
Total weight		Main unit	(kg)	69	
Pipe		Min. length	(m)	5.0	
		Max. total length	(m)	50.0	
Flare Connections		Gas side	(mm)	15.9	
		Liquid side	(mm)	9.5	
Sound pressure level		Cooling/Heating	(dB)	54 / 57	55 / 57
Sound power level		Cooling/Heating	(dB)	70 / 74	70 / 74
Operating Range		Cooling	(°C)	-15 / 46	
		Heating	(°C)	-15 / 15	

*1 : The cooling capacities and electrical characteristics are measured under the conditions specified by JIS B 8615 based on the reference piping. The reference piping consists of 5 m of main piping and 2.5 m of branch piping connected with 0 meter height.

*2 : The sound level are measured in an anechoic chamber in accordance with JIS B 8616. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

Note :

Rated conditions Cooling : Indoor air temperature 27°C DB/19°C WB, Outdoor air temperature 35°C DB
Heating : Indoor air temperature 20°C DB, Outdoor air temperature 7°C DB/6°C WB

Under Ceiling (Twin System)

Model		Indoor unit 1		RAV-RM561CTP-E/TR	RAV-RM801CTP-E/TR
		Indoor unit 2		RAV-RM561CTP-E/TR	RAV-RM801CTP-E/TR
		Outdoor unit		RAV-GM1101AT8P-E/TR (*AT8JP-E)	RAV-GM1401AT8P-E/TR (*AT8JP-E)
Cooling capacity			(kW)	9.5 < 3.0 - 11.2 >	12.1 < 3.0 - 13.2 >
Heating capacity			(kW)	11.2 < 3.0 - 13.0 >	13.0 < 3.0 - 16.0 >
Power supply				3 phase 380V-415V/50Hz, 3phase 380V/60Hz	
Electrical characteristics	Cooling	Running current	(A)	4.75-4.35	7.15-6.55
		Power consumption	(kW)	2.95	4.42
		Power factor	(%)	94	94
		EER		3.22	2.74
		SEER		5.85	5.36
	Heating	Running current	(A)	4.75-4.35	5.65-6.15
		Power consumption	(kW)	2.94	3.48
		Power factor	(%)	94	94
		COP		3.81	3.74
		SCOP		4.28	4.19
	Maximum current			14.1	14.1
Indoor unit					
Appearance	Main unit			Pure White	
Outer dimension	Main unit	Height	(mm)	235	
		Width	(mm)	950	1,270
		Depth	(mm)	690	
Total weight	Main unit			23	29
Fan unit	Fan			Centrifugal fan	
	Standard air flow	H/M/L	(m3/h)	900 / 720 / 540	1410 / 1002 / 750
	Motor		(W)	94	
Air filter				Long life filter	
Sound pressure level		H/M/L	(dB)	37 / 35 / 28	41 / 36 / 29
Sound power level		H/M/L	(dB)	52 / 50 / 43	56 / 51 / 44
Connecting pipe	Drain port			VP20	
Outdoor unit					
Air Flow			(m3/h)	4,080	4,200
Outer dimension	Height		(mm)	890	
	Width		(mm)	900	
	Depth		(mm)	320	
Total weight	Main unit		(kg)	69	
Pipe	Min. length		(m)	5	
	Max. total length		(m)	50	
Flare Connections	Main	Gas	(mm)	15.9	
		Liquid	(mm)	9.5	
	Branch	Gas	(mm)	12.7	
		Liquid	(mm)	6.4	
Sound pressure level	Cooling/Heating		(dB)	54 / 57	55 / 57
Sound power level	Cooling/Heating		(dB)	70 / 74	70 / 74
Operating Range	Cooling		(°C)	-15 / 46	
	Heating		(°C)	-15 / 15	

*1 : The cooling capacities and electrical characteristics are measured under the conditions specified by JIS B 8615 based on the reference piping. The reference piping consists of 5 m of main piping and 2.5 m of branch piping connected with 0 meter height.

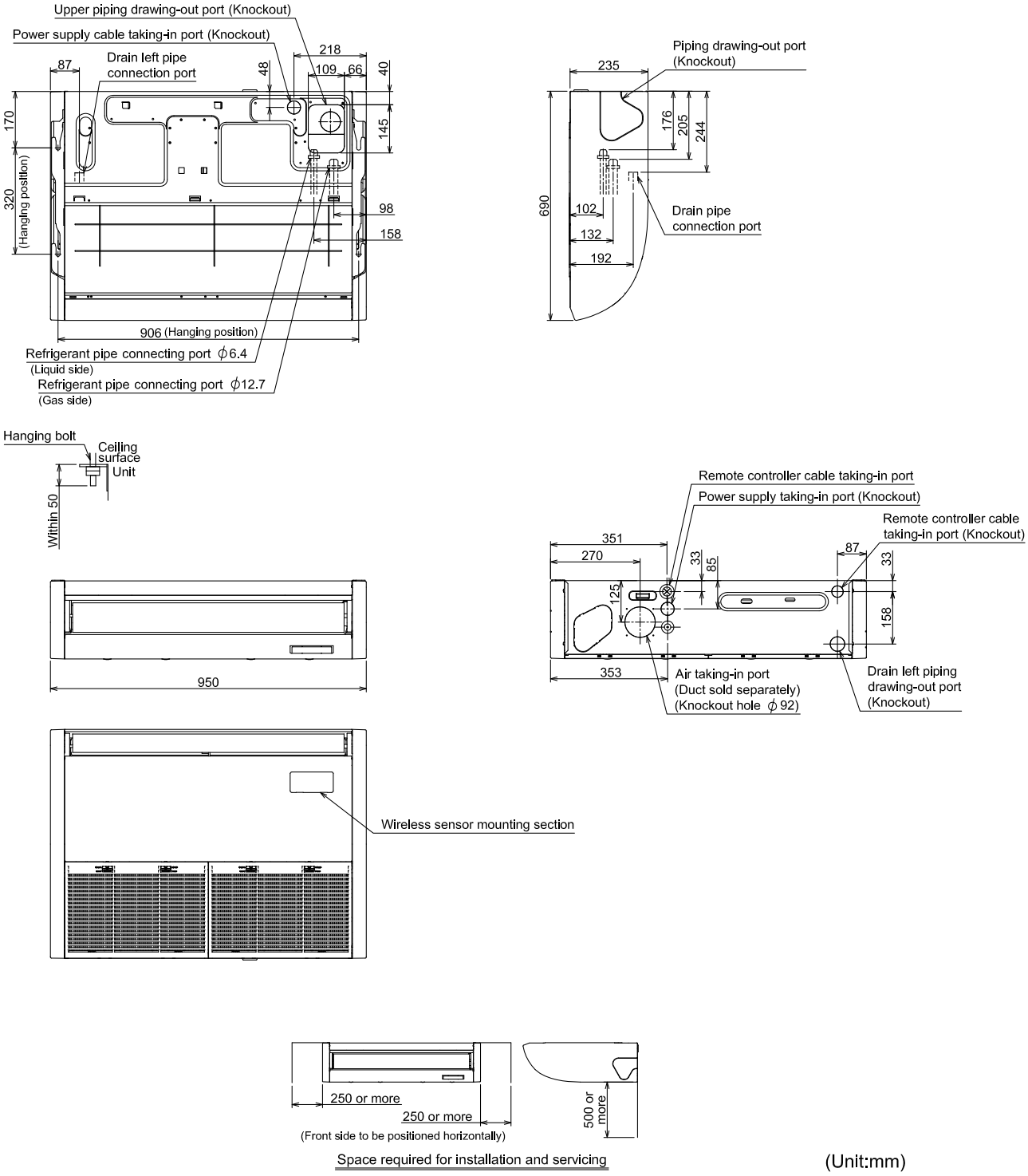
*2 : The sound level are measured in an anechoic chamber in accordance with JIS B 8616. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

Note :

Rated conditions Cooling : Indoor air temperature 27°C DB/19°C WB, Outdoor air temperature 35°C DB
Heating : Indoor air temperature 20°C DB, Outdoor air temperature 7°C DB/6°C WB

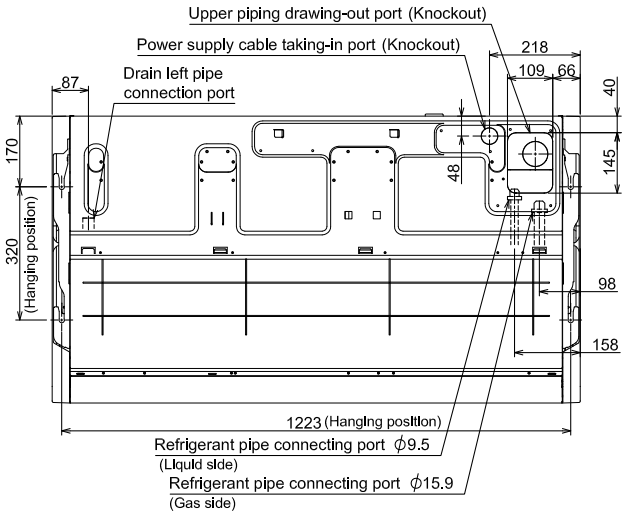
2-5-2. Dimension

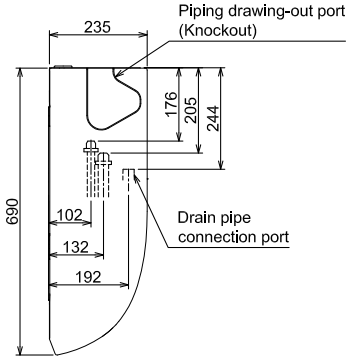
RAV-RM561CTP-E/TR

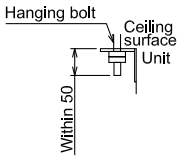


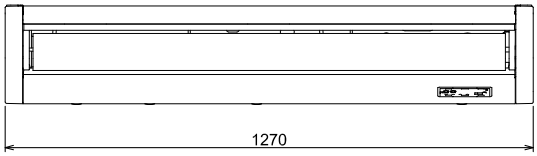
(Unit:mm)

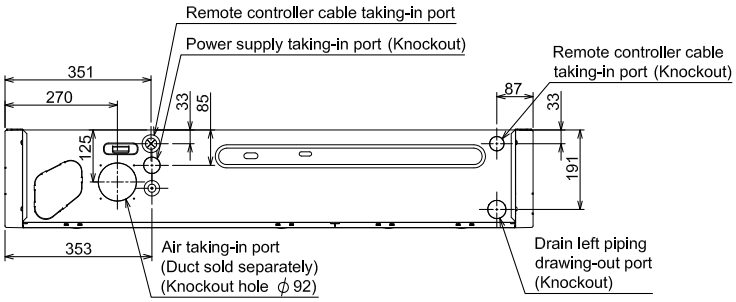
RAV-RM801CTP-E/TR

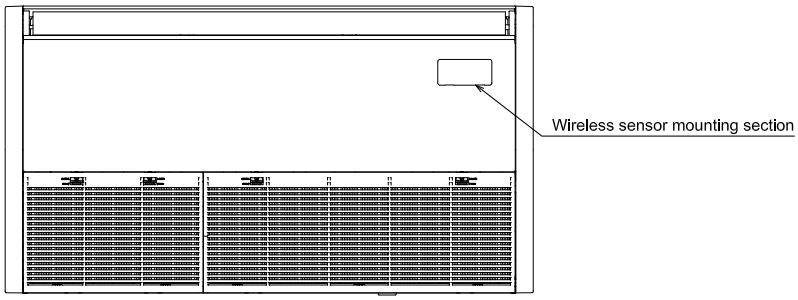


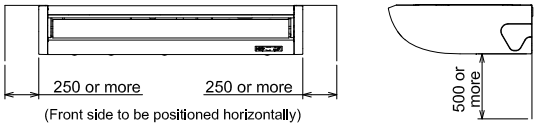








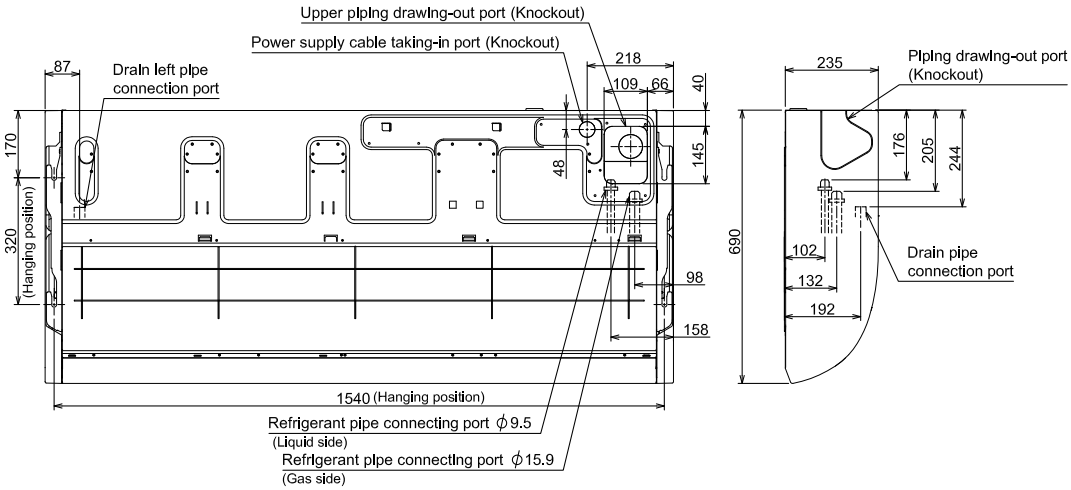


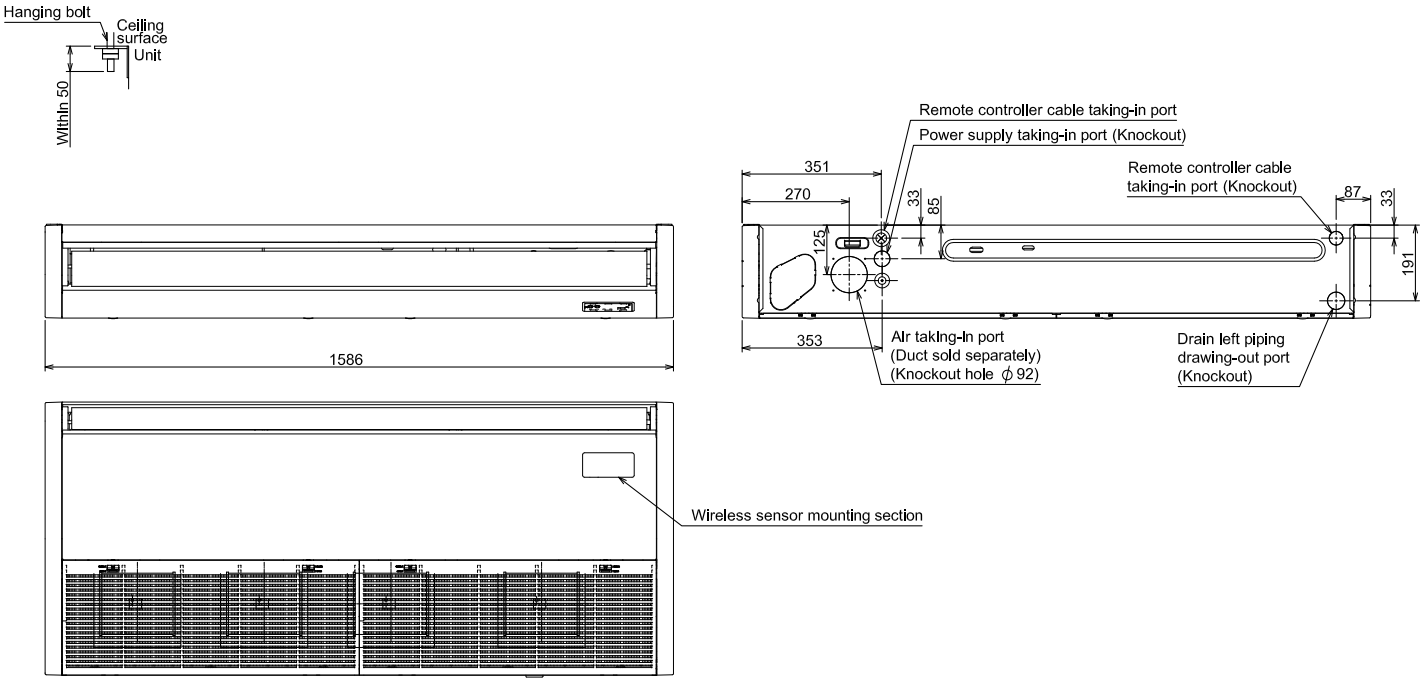


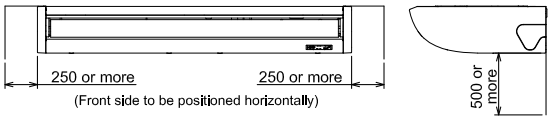
Space required for installation and servicing

(Unit:mm)

RAV-RM1101CTP-E/TR and RAV-RM1401CTP-E/TR





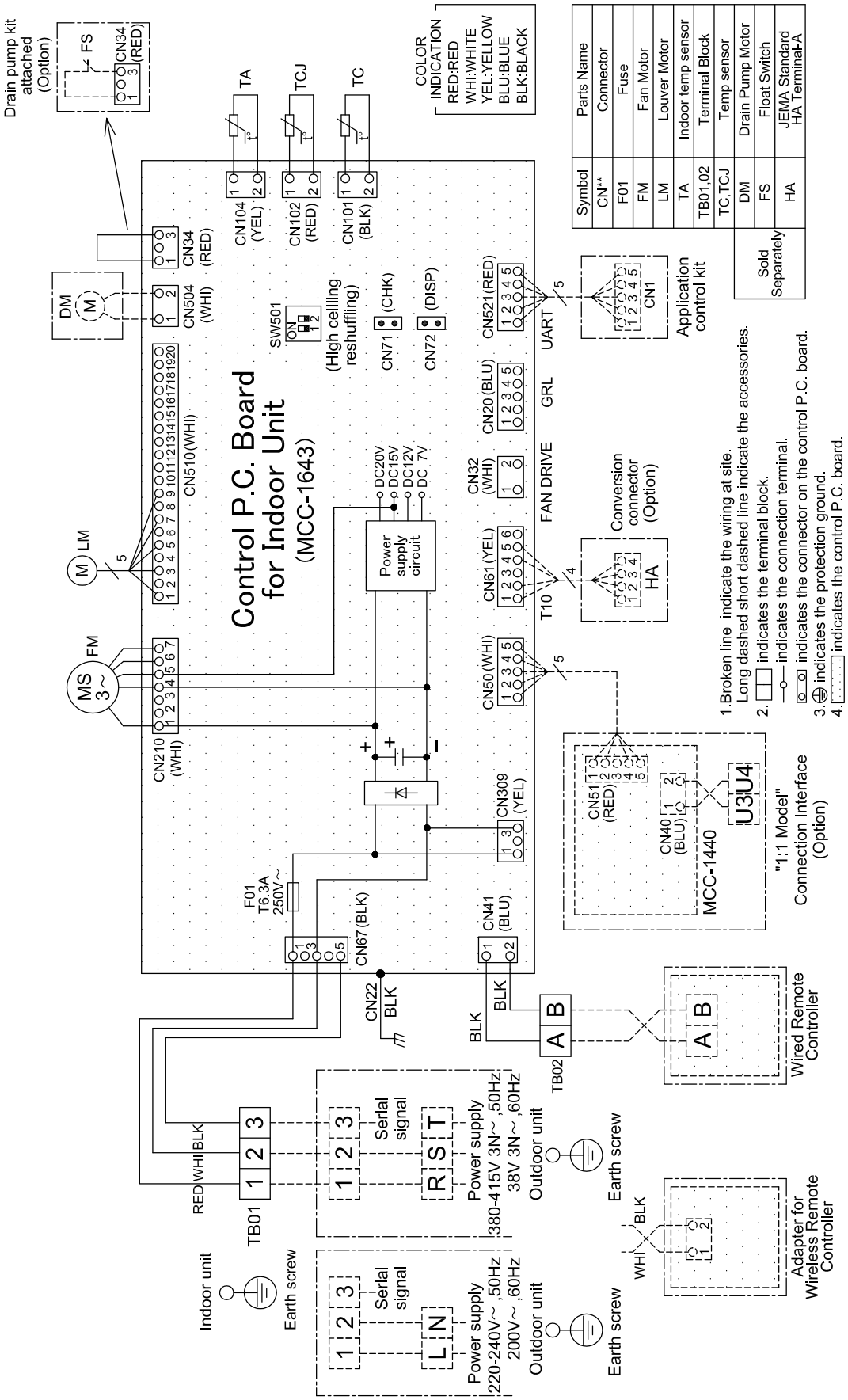


Space required for installation and servicing

(Unit:mm)

2-5-3. Wiring Diagrams

RAV-RM561CTP-E/TR, RAV-RM801CTP-E/TR, RAV-RM1101CTP-E/TR and RAV-RM1401CTP-E/TR



2-5-4. Sensible Capacity Table

Digital Inverter R32 Sensible Heat Capacity : RAV-RM***CTP-E/TR

		indoor air temp.																	
unit size	outdoor 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	
	CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
561	10.0	4.7	3.5	4.9	3.7	5.2	3.9	5.4	4.0	5.6	4.2	5.7	4.3	5.9	4.4	6.2	4.7	6.5	4.9
	12.0	4.7	3.5	4.9	3.7	5.2	3.9	5.3	4.0	5.5	4.1	5.7	4.3	5.8	4.4	6.2	4.6	6.5	4.9
	14.0	4.6	3.5	4.9	3.7	5.1	3.8	5.3	4.0	5.5	4.1	5.6	4.2	5.8	4.4	6.1	4.6	6.4	4.8
	16.0	4.6	3.5	4.8	3.6	5.1	3.8	5.3	3.9	5.4	4.1	5.6	4.2	5.8	4.3	6.1	4.6	6.4	4.8
	18.0	4.6	3.4	4.8	3.6	5.0	3.8	5.2	3.9	5.4	4.1	5.6	4.2	5.7	4.3	6.1	4.5	6.3	4.8
	20.0	4.5	3.4	4.8	3.6	5.0	3.8	5.2	3.9	5.4	4.0	5.5	4.1	5.7	4.3	6.0	4.5	6.3	4.7
	21.0	4.5	3.4	4.7	3.6	5.0	3.7	5.2	3.9	5.3	4.0	5.5	4.1	5.6	4.2	6.0	4.5	6.3	4.7
	23.0	4.5	3.3	4.7	3.5	4.9	3.7	5.1	3.8	5.3	4.0	5.4	4.1	5.6	4.2	5.9	4.4	6.2	4.6
	25.0	4.4	3.3	4.6	3.5	4.9	3.7	5.0	3.8	5.2	3.9	5.4	4.0	5.5	4.1	5.9	4.4	6.1	4.6
	27.0	4.4	3.3	4.6	3.4	4.8	3.6	5.0	3.7	5.2	3.9	5.3	4.0	5.5	4.1	5.8	4.3	6.0	4.5
	29.0	4.3	3.2	4.5	3.4	4.8	3.6	4.9	3.7	5.1	3.8	5.2	3.9	5.4	4.0	5.7	4.3	6.0	4.5
	31.0	4.2	3.2	4.5	3.3	4.7	3.5	4.9	3.6	5.0	3.8	5.2	3.9	5.3	4.0	5.6	4.2	5.9	4.4
	33.0	4.2	3.1	4.4	3.3	4.6	3.5	4.8	3.6	4.9	3.7	5.1	3.8	5.2	3.9	5.5	4.2	5.8	4.3
	35.0	4.1	3.1	4.3	3.2	4.5	3.4	4.7	3.5	4.9	3.6	5.0	3.8	5.1	3.9	5.4	4.1	5.7	4.3
	37.0	4.0	3.0	4.2	3.2	4.4	3.3	4.6	3.5	4.8	3.6	4.9	3.7	5.0	3.8	5.3	4.0	5.6	4.2
	39.0	3.9	3.0	4.2	3.1	4.4	3.3	4.5	3.4	4.7	3.5	4.8	3.6	4.9	3.7	5.2	3.9	5.5	4.1

		indoor air temp.																	
unit size	outdoor 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	
	CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
801	10.0	6.5	4.9	6.8	5.2	7.2	5.4	7.4	5.6	7.7	5.8	7.9	6.0	8.1	6.2	8.6	6.5	9.0	6.8
	12.0	6.4	4.9	6.8	5.1	7.1	5.4	7.4	5.6	7.6	5.8	7.8	6.0	8.1	6.1	8.5	6.5	8.9	6.8
	14.0	6.4	4.9	6.7	5.1	7.1	5.4	7.3	5.6	7.6	5.8	7.8	5.9	8.0	6.1	8.5	6.4	8.9	6.7
	16.0	6.4	4.8	6.7	5.1	7.0	5.3	7.3	5.5	7.5	5.7	7.7	5.9	8.0	6.0	8.4	6.4	8.8	6.7
	18.0	6.3	4.8	6.6	5.0	7.0	5.3	7.2	5.5	7.5	5.7	7.7	5.8	7.9	6.0	8.4	6.4	8.7	6.6
	20.0	6.3	4.8	6.6	5.0	6.9	5.2	7.1	5.4	7.4	5.6	7.6	5.8	7.8	5.9	8.3	6.3	8.7	6.6
	21.0	6.2	4.7	6.5	5.0	6.9	5.2	7.1	5.4	7.4	5.6	7.6	5.8	7.8	5.9	8.3	6.3	8.6	6.6
	23.0	6.2	4.7	6.5	4.9	6.8	5.2	7.0	5.4	7.3	5.5	7.5	5.7	7.7	5.9	8.2	6.2	8.5	6.5
	25.0	6.1	4.6	6.4	4.9	6.7	5.1	7.0	5.3	7.2	5.5	7.4	5.6	7.6	5.8	8.1	6.1	8.5	6.4
	27.0	6.0	4.6	6.3	4.8	6.6	5.1	6.9	5.2	7.1	5.4	7.3	5.6	7.5	5.7	8.0	6.1	8.3	6.3
	29.0	5.9	4.5	6.2	4.7	6.6	5.0	6.8	5.2	7.0	5.3	7.2	5.5	7.4	5.7	7.9	6.0	8.2	6.3
	31.0	5.9	4.4	6.2	4.7	6.5	4.9	6.7	5.1	6.9	5.3	7.1	5.4	7.3	5.6	7.8	5.9	8.1	6.2
	33.0	5.8	4.4	6.1	4.6	6.4	4.8	6.6	5.0	6.8	5.2	7.0	5.3	7.2	5.5	7.6	5.8	8.0	6.1
	35.0	5.7	4.3	6.0	4.5	6.3	4.8	6.5	4.9	6.7	5.1	6.9	5.2	7.1	5.4	7.5	5.7	7.9	6.0
	37.0	5.6	4.2	5.9	4.4	6.1	4.7	6.4	4.8	6.6	5.0	6.8	5.1	7.0	5.3	7.4	5.6	7.7	5.9
	39.0	5.4	4.1	5.7	4.4	6.0	4.6	6.2	4.7	6.4	4.9	6.6	5.0	6.8	5.2	7.2	5.5	7.6	5.7

		Indoor air temp.																	
	Outdoor air temp.	14.0 CWB 20.0 CDB		15.0 CWB 21.0 CDB		16.0 CWB 23.0 CDB		17.0 CWB 24.0 CDB		18.0 CWB 26.0 CDB		19.0 CWB 27.0 CDB		20.0 CWB 28.0 CDB		22.0 CWB 30.0 CDB		24.0 CWB 32.0 CDB	
	°C DB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
1101	10.0	9.09	7.44	9.41	7.61	10.04	7.92	10.28	8.09	10.75	8.42	11.07	8.39	11.39	8.37	12.06	8.26	12.61	8.07
	12.0	9.03	7.40	9.35	7.56	9.98	7.87	10.21	8.04	10.68	8.36	11.00	8.33	11.31	8.32	11.98	8.21	12.53	8.02
	14.0	8.97	7.34	9.28	7.50	9.90	7.81	10.14	7.98	10.61	8.30	10.92	8.27	11.23	8.26	11.89	8.15	12.44	7.96
	16.0	8.90	7.28	9.21	7.44	9.82	7.75	10.06	7.91	10.52	8.24	10.83	8.21	11.14	8.19	11.80	8.08	12.34	7.89
	18.0	8.82	7.22	9.12	7.38	9.74	7.68	9.97	7.84	10.43	8.16	10.73	8.14	11.04	8.12	11.69	8.01	12.23	7.82
	20.0	8.71	7.13	9.02	7.29	9.62	7.59	9.85	7.75	10.31	8.07	10.61	8.04	10.91	8.02	11.56	7.92	12.09	7.73
	21.0	8.68	7.11	8.99	7.27	9.59	7.57	9.82	7.73	10.27	8.04	10.57	8.01	10.87	8.00	11.52	7.89	12.05	7.71
	23.0	8.59	7.03	8.88	7.19	9.48	7.48	9.71	7.64	10.15	7.95	10.45	7.92	10.75	7.90	11.39	7.80	11.91	7.62
	25.0	8.49	6.95	8.79	7.11	9.38	7.40	9.60	7.55	10.04	7.86	10.34	7.83	10.63	7.82	11.26	7.71	11.78	7.53
	27.0	8.36	6.85	8.66	7.00	9.24	7.29	9.46	7.44	9.89	7.74	10.18	7.72	10.47	7.70	11.09	7.60	11.60	7.42
	29.0	8.24	6.75	8.53	6.90	9.10	7.18	9.32	7.33	9.75	7.63	10.03	7.60	10.32	7.59	10.93	7.49	11.43	7.31
	31.0	8.11	6.64	8.39	6.79	8.95	7.06	9.17	7.21	9.59	7.51	9.87	7.48	10.15	7.46	10.75	7.37	11.25	7.19
	33.0	7.97	6.52	8.24	6.67	8.80	6.94	9.00	7.09	9.42	7.37	9.70	7.35	9.97	7.33	10.56	7.24	11.05	7.07
	35.0	7.80	6.39	8.07	6.53	8.62	6.80	8.82	6.94	9.23	7.22	9.50	7.20	9.77	7.18	10.35	7.09	10.82	6.92
	37.0	7.65	6.26	7.92	6.40	8.45	6.66	8.65	6.80	9.05	7.08	9.31	7.06	9.58	7.04	10.14	6.95	10.61	6.79
	39.0	7.48	6.12	7.74	6.26	8.26	6.51	8.45	6.65	8.84	6.92	9.10	6.90	9.36	6.88	9.91	6.79	10.37	6.63

TC:Total Capacity [kW]

SHC:Sensible Heat Capacity [kW]

Digital Inverter R32 Sensible Heat Capacity : RAV-RM***CTP-E/TR

		indoor air temp.																	
unit size	outdoor air temp. CDB	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
1401	10.0	11.4	8.3	12.0	8.7	12.5	9.2	13.0	9.5	13.4	9.8	13.8	10.1	14.2	10.4	15.1	11.0	15.8	11.5
	12.0	11.3	8.2	11.9	8.7	12.5	9.1	12.9	9.4	13.4	9.7	13.7	10.0	14.1	10.3	15.0	10.9	15.7	11.4
	14.0	11.2	8.2	11.8	8.6	12.4	9.0	12.8	9.4	13.3	9.7	13.7	10.0	14.1	10.3	14.9	10.9	15.6	11.4
	16.0	11.1	8.1	11.7	8.6	12.3	9.0	12.7	9.3	13.2	9.6	13.6	9.9	14.0	10.2	14.8	10.8	15.5	11.3
	18.0	11.1	8.1	11.6	8.5	12.2	8.9	12.6	9.2	13.1	9.5	13.5	9.8	13.8	10.1	14.7	10.7	15.3	11.2
	20.0	11.0	8.0	11.5	8.4	12.1	8.8	12.5	9.2	13.0	9.5	13.3	9.7	13.7	10.0	14.5	10.6	15.2	11.1
	21.0	10.9	8.0	11.5	8.4	12.1	8.8	12.5	9.1	12.9	9.4	13.3	9.7	13.7	10.0	14.5	10.6	15.1	11.0
	23.0	10.8	7.9	11.4	8.3	11.9	8.7	12.4	9.0	12.8	9.3	13.2	9.6	13.5	9.9	14.3	10.5	15.0	10.9
	25.0	10.7	7.8	11.2	8.2	11.8	8.6	12.2	8.9	12.6	9.2	13.0	9.5	13.4	9.8	14.2	10.3	14.8	10.8
	27.0	10.6	7.7	11.1	8.1	11.7	8.5	12.1	8.8	12.5	9.1	12.9	9.4	13.2	9.6	14.0	10.2	14.6	10.7
	29.0	10.4	7.6	11.0	8.0	11.5	8.4	11.9	8.7	12.3	9.0	12.7	9.3	13.0	9.5	13.8	10.1	14.4	10.5
	31.0	10.3	7.5	10.8	7.9	11.3	8.3	11.7	8.6	12.1	8.9	12.5	9.1	12.9	9.4	13.6	9.9	14.2	10.4
	33.0	10.1	7.4	10.6	7.8	11.2	8.1	11.6	8.4	12.0	8.7	12.3	9.0	12.7	9.2	13.4	9.8	14.0	10.2
	35.0	9.9	7.3	10.5	7.6	11.0	8.0	11.4	8.3	11.8	8.6	12.1	8.8	12.4	9.1	13.2	9.6	13.8	10.1
	37.0	9.8	7.1	10.3	7.5	10.8	7.9	11.1	8.1	11.5	8.4	11.9	8.7	12.2	8.9	12.9	9.4	13.5	9.9
	39.0	9.6	7.0	10.0	7.3	10.5	7.7	10.9	8.0	11.3	8.2	11.6	8.5	12.0	8.7	12.7	9.2	13.2	9.7

TC:Total Capacity [kW]
SHC:Sensible Heat Capacity [kW]

2-5-5. Part load performance

Combination

Indoor unit : RAV-RM1101CTP-E/TR

Outdoor unit : RAV-GM1101AT8P-E/TR, RAV-GM1101AT8JP-E

	Cooling		Heating	
	Capacity(W)	Power consumption (W)	Capacity(W)	Power consumption (W)
MINIMUM	3000	600	3000	600
RATING	9500	2950	11200	2940

Q: Capacity in W
W: Power Consumption in W

Cooling

Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
40	Q	9000	8100	7200	6300	5400	4500	3600	2840	2840	2840
	W	3200	2550	2070	1670	1340	1040	810	650	650	650
35	Q	9500	8550	7600	6650	5700	4750	3800	3000	3000	3000
	W	2950	2350	1910	1540	1230	960	750	600	600	600
30	Q	9960	8960	7960	6970	5970	4980	3980	3140	3140	3140
	W	2680	2130	1730	1400	1120	870	680	540	540	540
25	Q	10340	9300	8270	7240	6200	5170	4130	3260	3260	3260
	W	2430	1940	1570	1270	1010	790	620	490	490	490
20	Q	10610	9550	8490	7430	6370	5310	4240	3350	3350	3350
	W	2200	1750	1420	1150	920	720	560	450	450	450

Heating

Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
15	Q	13410	12060	10730	9390	8050	6700	5360	4010	3600	3600
	W	3230	2770	2330	1900	1520	1200	940	720	660	660
10	Q	12190	10950	9750	8530	7310	6090	4870	3640	3270	3270
	W	3070	2640	2220	1810	1440	1140	900	690	630	630
7	Q	11200	10080	8960	7840	6720	5600	4480	3360	3000	3000
	W	2940	2530	2120	1730	1380	1090	860	660	600	600
5	Q	8630	7760	6900	6040	5180	4310	3450	2580	2310	2310
	W	2520	2170	1820	1490	1190	940	740	570	520	520
2	Q	8440	7580	6750	5900	5060	4210	3370	2520	2260	2260
	W	2490	2140	1800	1470	1170	920	730	560	510	510
0	Q	8310	7470	6650	5820	4990	4150	3320	2490	2230	2230
	W	2460	2120	1780	1450	1160	910	720	550	500	500
-5	Q	8010	7200	6410	5610	4810	4000	3200	2400	2150	2150
	W	2410	2070	1740	1420	1130	890	700	540	490	490
-7	Q	7890	7090	6310	5520	4730	3940	3150	2360	2120	2120
	W	2380	2050	1720	1400	1120	880	700	540	490	490
-10	Q	7280	6550	5830	5100	4370	3640	2910	2180	1950	1950
	W	2290	1970	1660	1350	1080	850	670	520	470	470
-15	Q	5600	5040	4480	3920	3360	2800	2240	1680	1500	1500
	W	2050	1760	1480	1210	960	760	600	460	420	420

Combination

Indoor unit : RAV-RM1401CTP-E/TR

Outdoor unit : RAV-GM1401AT8P-E/TR, RAV-GM1401AT8JP-E

	Cooling		Heating	
	Capacity(W)	Power consumption (W)	Capacity(W)	Power consumption (W)
MINIMUM	3000	600	3000	600
RATING	12100	4420	13000	3480

Q: Capacity in W
W: Power Consumption in W

Cooling

Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
40	Q	11460	10310	9170	8030	6880	5730	4590	3440	2840	2840
	W	4810	3880	3050	2340	1770	1340	1020	760	650	650
35	Q	12100	10890	9680	8470	7260	6050	4840	3630	3000	3000
	W	4420	3570	2800	2150	1630	1230	940	700	600	600
30	Q	12680	11410	10140	8880	7610	6340	5080	3810	3140	3140
	W	4010	3240	2540	1950	1480	1120	850	640	540	540
25	Q	13160	11840	10530	9220	7900	6580	5270	3960	3260	3260
	W	3650	2950	2310	1780	1350	1020	780	580	500	500
20	Q	13520	12160	10810	9470	8120	6760	5410	4060	3350	3350
	W	3290	2660	2090	1600	1210	920	700	520	450	450

Heating

Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
15	Q	15570	14010	12460	10900	9340	7780	6230	4670	3590	3590
	W	3820	3210	2680	2210	1780	1400	1080	820	660	660
10	Q	14150	12730	11320	9900	8490	7070	5660	4240	3260	3260
	W	3630	3060	2550	2100	1690	1340	1020	780	630	630
7	Q	13000	11700	10400	9100	7800	6500	5200	3900	3000	3000
	W	3480	2930	2440	2010	1620	1280	980	750	600	600
5	Q	10010	9010	8010	7010	6010	5010	4010	3000	2310	2310
	W	2990	2520	2100	1730	1390	1100	840	640	520	520
2	Q	9790	8810	7830	6850	5870	4900	3920	2940	2260	2260
	W	2950	2480	2070	1700	1370	1080	830	640	510	510
0	Q	9650	8680	7720	6750	5790	4820	3860	2890	2230	2230
	W	2920	2460	2050	1680	1360	1070	820	630	500	500
-5	Q	9300	8370	7440	6510	5580	4650	3720	2790	2150	2150
	W	2850	2400	2000	1640	1320	1050	800	610	490	490
-7	Q	9160	8240	7330	6410	5500	4580	3660	2750	2110	2110
	W	2810	2370	1970	1630	1310	1040	790	610	490	490
-10	Q	8460	7610	6770	5920	5080	4230	3380	2540	1950	1950
	W	2710	2280	1900	1570	1260	1000	760	580	470	470
-15	Q	6500	5850	5200	4550	3900	3250	2600	1950	1500	1500
	W	2430	2040	1700	1400	1130	890	680	520	420	420

Combination

Indoor unit : RAV-RM561CTP-E/TR x 2 (Twin system)

Outdoor unit : RAV-GM1101AT8P-E/TR, RAV-GM1101AT8JP-E

	Cooling		Heating	
	Capacity(W)	Power consumption (W)	Capacity(W)	Power consumption (W)
MINIMUM	3000	600	3000	600
RATING	9500	2950	11200	2940

Q: Capacity in W
W: Power Consumption in W

Cooling

Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
40	Q	9000	8100	7200	6300	5400	4500	3600	2840	2840	2840
	W	3200	2550	2070	1670	1340	1040	810	650	650	650
35	Q	9500	8550	7600	6650	5700	4750	3800	3000	3000	3000
	W	2950	2350	1910	1540	1230	960	750	600	600	600
30	Q	9960	8960	7960	6970	5970	4980	3980	3140	3140	3140
	W	2680	2130	1730	1400	1120	870	680	540	540	540
25	Q	10340	9300	8270	7240	6200	5170	4130	3260	3260	3260
	W	2430	1940	1570	1270	1010	790	620	490	490	490
20	Q	10610	9550	8490	7430	6370	5310	4240	3350	3350	3350
	W	2200	1750	1420	1150	920	720	560	450	450	450

Heating

Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
15	Q	13410	12060	10730	9390	8050	6700	5360	4010	3600	3600
	W	3230	2770	2330	1900	1520	1200	940	720	660	660
10	Q	12190	10950	9750	8530	7310	6090	4870	3640	3270	3270
	W	3070	2640	2220	1810	1440	1140	900	690	630	630
7	Q	11200	10080	8960	7840	6720	5600	4480	3360	3000	3000
	W	2940	2530	2120	1730	1380	1090	860	660	600	600
5	Q	8630	7760	6900	6040	5180	4310	3450	2580	2310	2310
	W	2520	2170	1820	1490	1190	940	740	570	520	520
2	Q	8440	7580	6750	5900	5060	4210	3370	2520	2260	2260
	W	2490	2140	1800	1470	1170	920	730	560	510	510
0	Q	8310	7470	6650	5820	4990	4150	3320	2490	2230	2230
	W	2460	2120	1780	1450	1160	910	720	550	500	500
-5	Q	8010	7200	6410	5610	4810	4000	3200	2400	2150	2150
	W	2410	2070	1740	1420	1130	890	700	540	490	490
-7	Q	7890	7090	6310	5520	4730	3940	3150	2360	2120	2120
	W	2380	2050	1720	1400	1120	880	700	540	490	490
-10	Q	7280	6550	5830	5100	4370	3640	2910	2180	1950	1950
	W	2290	1970	1660	1350	1080	850	670	520	470	470
-15	Q	5600	5040	4480	3920	3360	2800	2240	1680	1500	1500
	W	2050	1760	1480	1210	960	760	600	460	420	420

Combination

Indoor unit : RAV-RM801CTP-E/TR x 2 (Twin system)

Outdoor unit : RAV-GM1401AT8P-E/TR, RAV-GM1401AT8JP-E

	Cooling		Heating	
	Capacity(W)	Power consumption (W)	Capacity(W)	Power consumption (W)
MINIMUM	3000	600	3000	600
RATING	12100	4420	13000	3480

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	11460	10310	9170	8030	6880	5730	4590	3440	2840	2840
	W	4810	3880	3050	2340	1770	1340	1020	760	650	650
35	Q	12100	10890	9680	8470	7260	6050	4840	3630	3000	3000
	W	4420	3570	2800	2150	1630	1230	940	700	600	600
30	Q	12680	11410	10140	8880	7610	6340	5080	3810	3140	3140
	W	4010	3240	2540	1950	1480	1120	850	640	540	540
25	Q	13160	11840	10530	9220	7900	6580	5270	3960	3260	3260
	W	3650	2950	2310	1780	1350	1020	780	580	500	500
20	Q	13520	12160	10810	9470	8120	6760	5410	4060	3350	3350
	W	3290	2660	2090	1600	1210	920	700	520	450	450

Heating

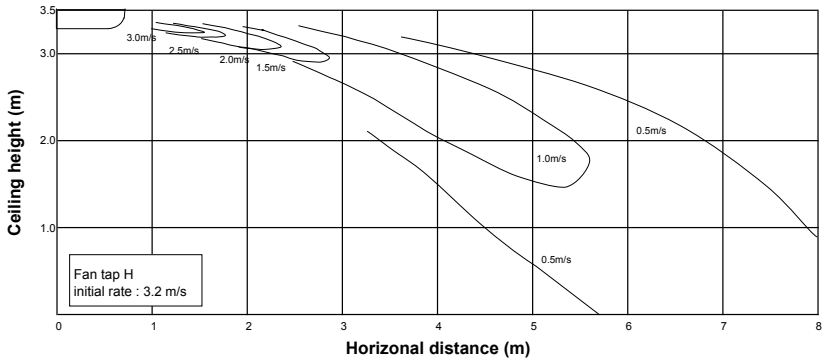
Outdoor temperature(°C)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
15	Q	15570	14010	12460	10900	9340	7780	6230	4670	3590	3590
	W	3820	3210	2680	2210	1780	1400	1080	820	660	660
10	Q	14150	12730	11320	9900	8490	7070	5660	4240	3260	3260
	W	3630	3060	2550	2100	1690	1340	1020	780	630	630
7	Q	13000	11700	10400	9100	7800	6500	5200	3900	3000	3000
	W	3480	2930	2440	2010	1620	1280	980	750	600	600
5	Q	10010	9010	8010	7010	6010	5010	4010	3000	2310	2310
	W	2990	2520	2100	1730	1390	1100	840	640	520	520
2	Q	9790	8810	7830	6850	5870	4900	3920	2940	2260	2260
	W	2950	2480	2070	1700	1370	1080	830	640	510	510
0	Q	9650	8680	7720	6750	5790	4820	3860	2890	2230	2230
	W	2920	2460	2050	1680	1360	1070	820	630	500	500
-5	Q	9300	8370	7440	6510	5580	4650	3720	2790	2150	2150
	W	2850	2400	2000	1640	1320	1050	800	610	490	490
-7	Q	9160	8240	7330	6410	5500	4580	3660	2750	2110	2110
	W	2810	2370	1970	1630	1310	1040	790	610	490	490
-10	Q	8460	7610	6770	5920	5080	4230	3380	2540	1950	1950
	W	2710	2280	1900	1570	1260	1000	760	580	470	470
-15	Q	6500	5850	5200	4550	3900	3250	2600	1950	1500	1500
	W	2430	2040	1700	1400	1130	890	680	520	420	420

2-5-6. Air Throw Distance Chart

RAV-RM561CTP-E

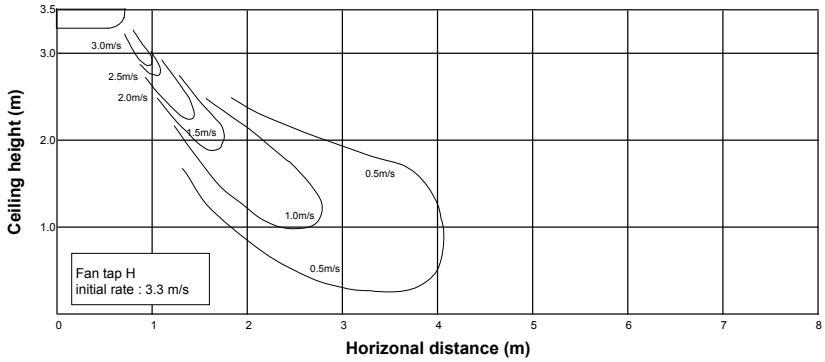
Cooling

(Louver position : F2)



Heating

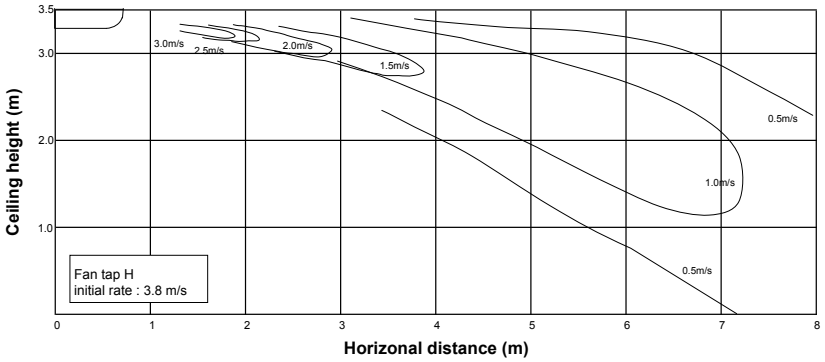
(Louver position : F5)



RAV-RM801CTP-E

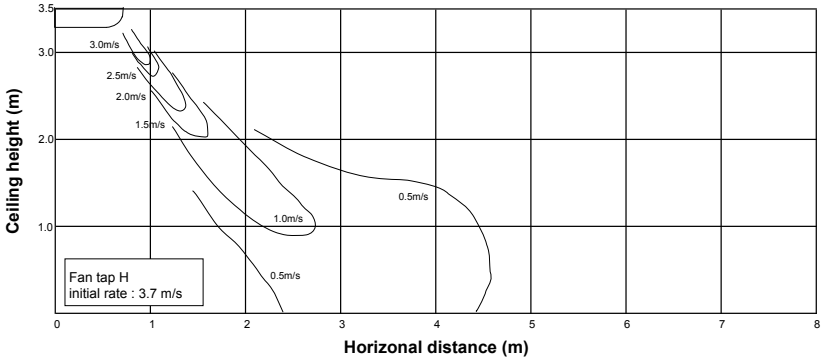
Cooling

(Louver position : F2)

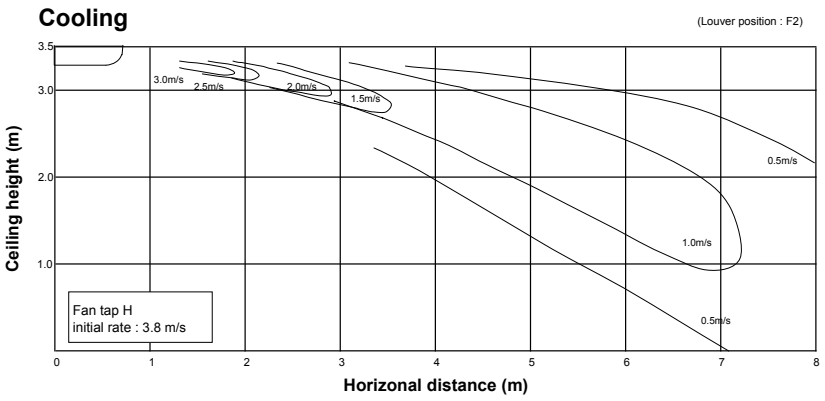


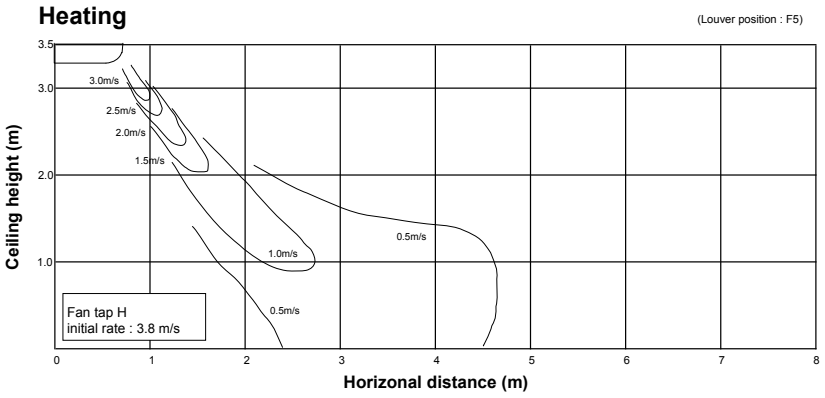
Heating

(Louver position : F5)

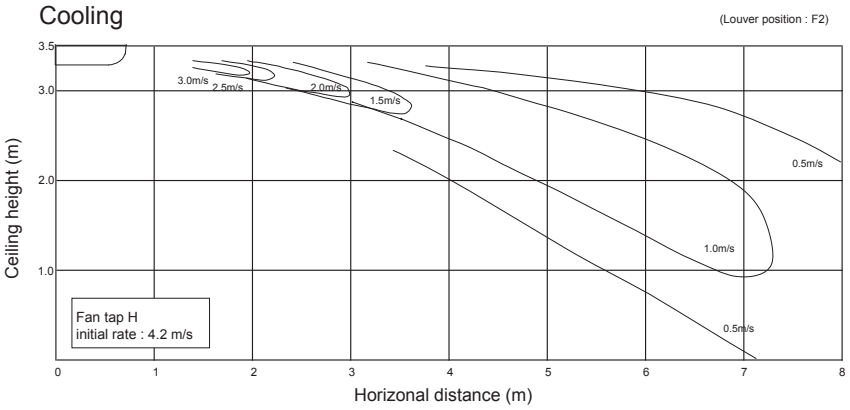


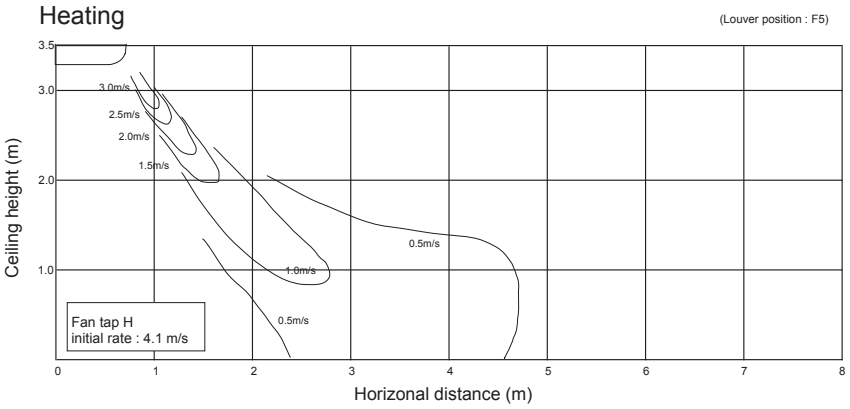
RAV-RM1101CTP-E





RAV-RM1401CTP-E

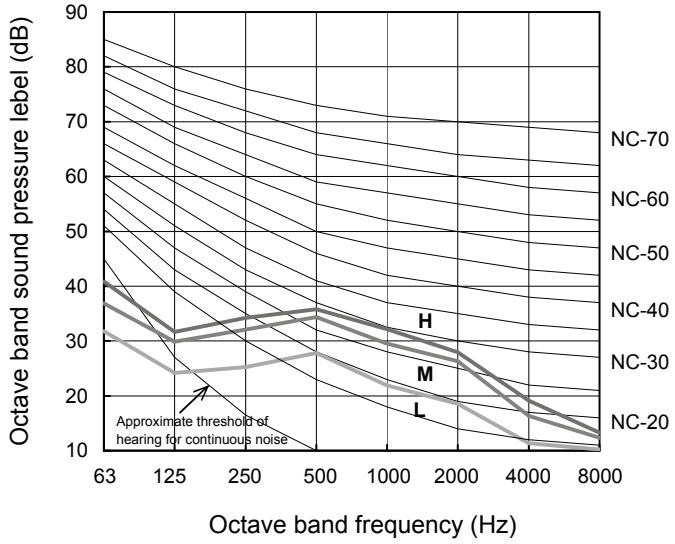




2-5-7. Sound Characteristics (NC curve)

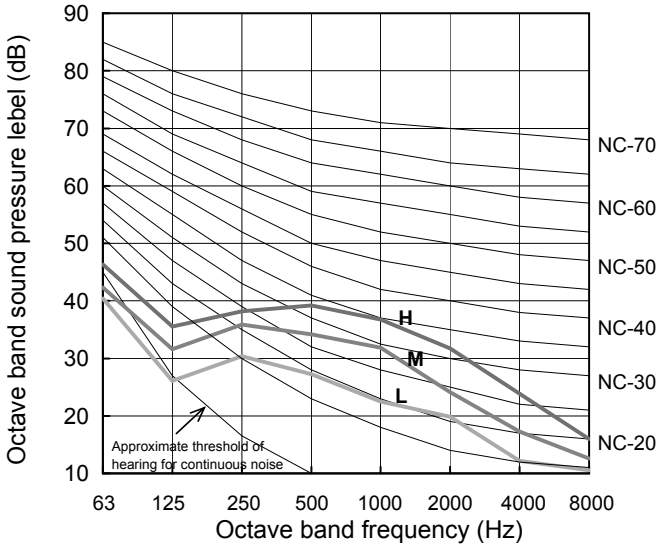
RAV-RM561CTP-E/TR

Fan tap	H	M	L
Sound pressure level (dB(A))	37	35	28



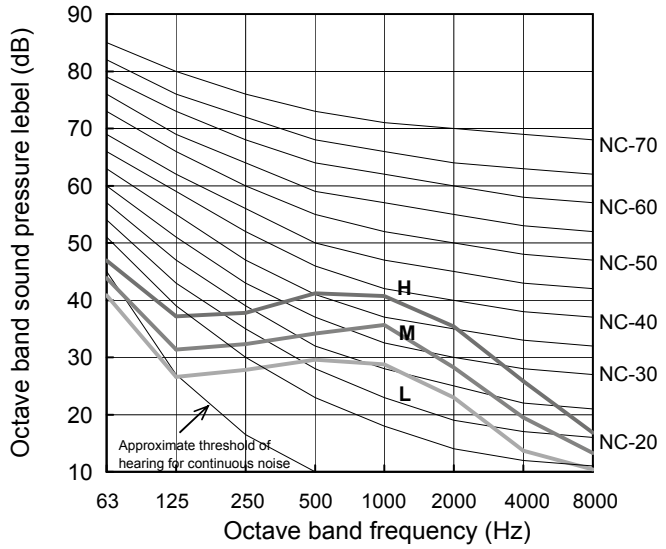
RAV-RM801CTP-E/TR

Fan tap	H	M	L
Sound pressure level (dB(A))	41	36	29



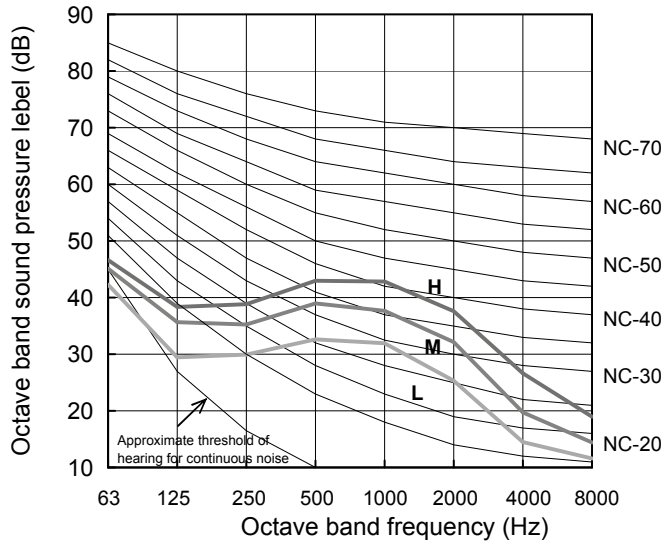
RAV-RM1101CTP-E/TR

Fan tap	H	M	L
Sound pressure level (dB(A))	44	38	32



RAV-SM1401CTP-E

Fan tap	H	M	L
Sound pressure level (dB(A))	46	41	35



2-6. High-wall Type

2-6-1. Specifications

2-6-2. Dimension

2-6-3. Wiring Diagrams

2-6-4. Sensible Capacity Table

2-6-5. Part Load Performance

2-6-6. Air Throw Distance Chart

2-6-7. Sound Characteristics (NC Curve)

2-5-1. Specifications

High-wall Type <Twin System>

Model		Indoor unit 1		RAV-RM561KRTP-E/-TR	RAV-RM801KRTP-E/-TR
		Indoor unit 2		RAV-RM561KRTP-E/-TR	RAV-RM801KRTP-E/-TR
		Outdoor unit		RAV-GM1101AT8P-E/-TR (*AT8JP-E)	RAV-GM1401AT8P-E/-TR (*AT8JP-E)
Cooling capacity			(kW)	9.5 < 3.0 - 11.2 >	12.1 < 3.0 - 13.2 >
Heating capacity			(kW)	11.2 < 3.0 - 13.0 >	13.0 < 3.0 - 16.0 >
Power supply				3 phase 380V-415V/50Hz, 3phase 380V/60Hz	
Electrical characteristics	Cooling	Running current	(A)	4.80-4.40	7.60-7.00
		Power consumption	(kW)	2.98	4.71
		Power factor	(%)	94	94
		EER		3.19	2.57
		SEER		5.32	5.54
	Heating	Running current	(A)	4.85-4.45	6.25-5.70
		Power consumption	(kW)	2.99	3.86
		Power factor	(%)	94	94
		COP		3.75	3.37
		SCOP		4.19	4.19
	Maximum current		(A)	14.1	14.1
Indoor unit					
Outer dimension	Main unit	Height	(mm)	320	320
		Width	(mm)	1050	1050
		Depth	(mm)	250	250
Total weight	Main unit		(kg)	14.0	14.0
Fan unit	Fan			Cross flow fan	
	Standard air flow	H/M/L	(m³/h)	960/830/680	1040/910/680
	Motor		(W)	30	
Air filter				Standard filter (Long life filter)	
Sound pressure level		H/M/L	(dB)	42 / 39 / 36	45 / 41 / 35
Sound power level		H/M/L	(dB)	57 / 54 / 51	60 / 56 / 51
Outdoor unit					
Air Flow			(m³/h)	4,080	4,200
Outer dimension	Height		(mm)	890	
	Width		(mm)	900	
	Depth		(mm)	320	
Total weight	Main unit		(kg)	68	
Pipe	Min. length		(m)	5.0	
	Max. total length		(m)	50.0	
Flare Connections	Main	Gas	(mm)	15.9	
		Liquid	(mm)	9.5	
	Branch	Gas	(mm)	12.7	15.9
		Liquid	(mm)	6.4	9.5
Sound pressure level	Cooling / Heating		(dB)	54 / 57	55 / 57
Sound power level	Cooling/Heating		(dB)	70 / 74	70 / 74
Operating Range	Cooling		(°C)	-15 / 46	
	Heating		(°C)	-15 / 15	

*1 : The cooling capacities and electrical characteristics are measured under the conditions specified by JIS B 8615 based on the reference piping. The reference piping consists of 5 m of main piping and 2.5 m of branch piping connected with 0 meter height.

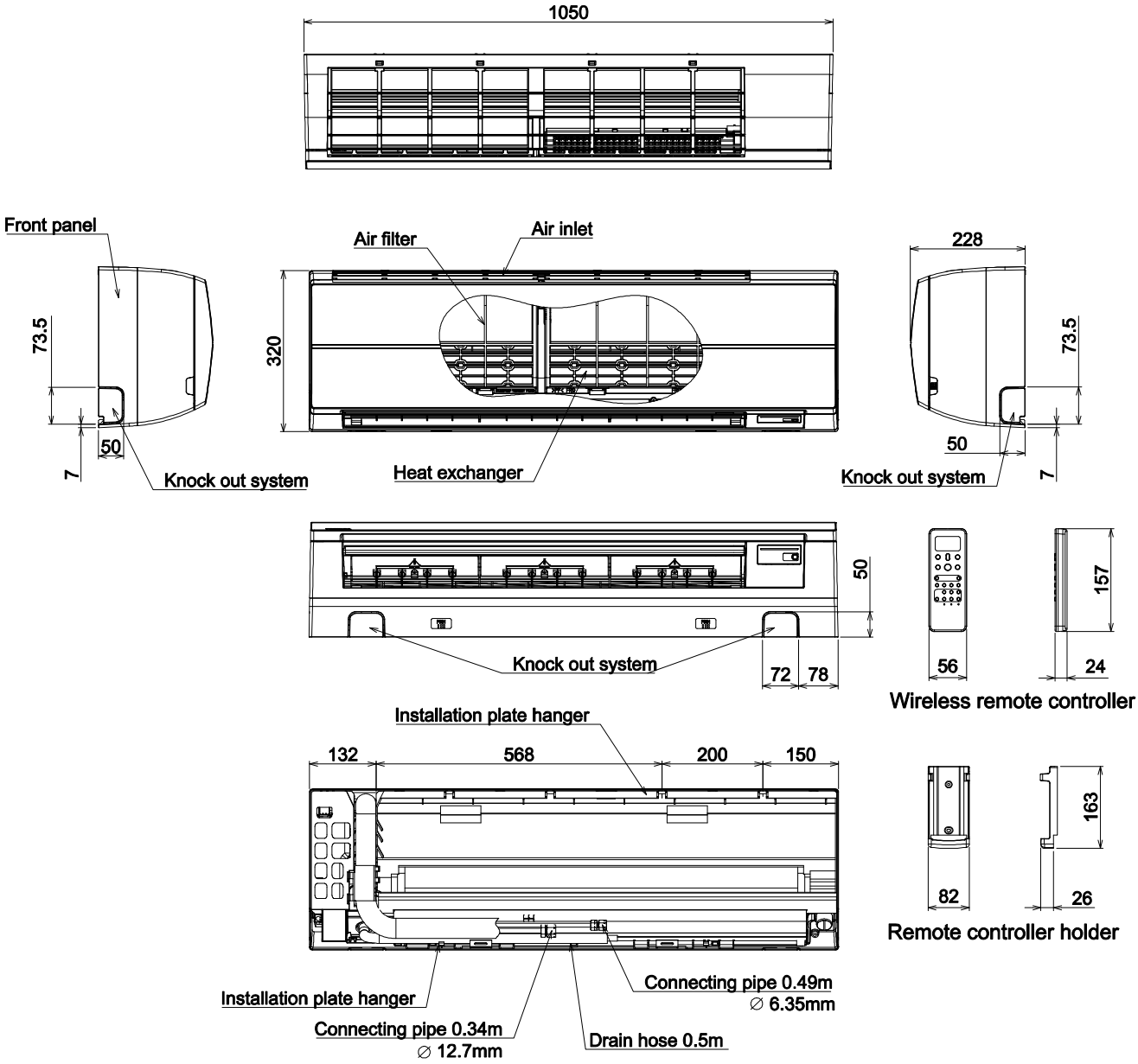
*2 : The sound level are measured in an anechoic chamber in accordance with JIS B 8616. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

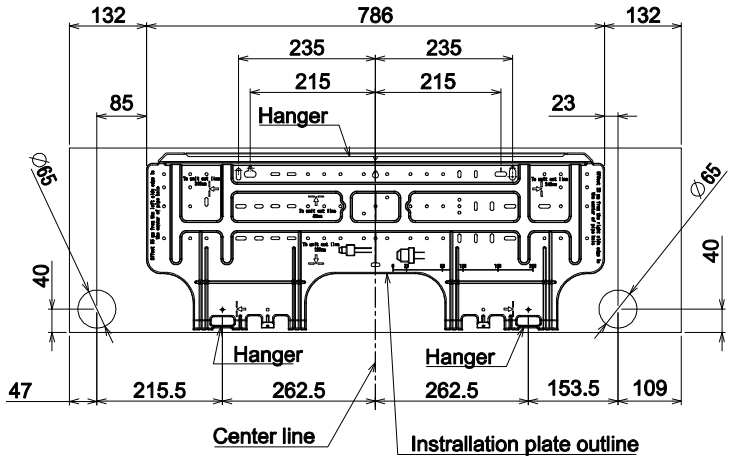
Note :

Rated conditions Cooling : Indoor air temperature 27°C DB/19°C WB, Outdoor air temperature 35°C DB
Heating : Indoor air temperature 20°C DB, Outdoor air temperature 7°C DB/6°C WB

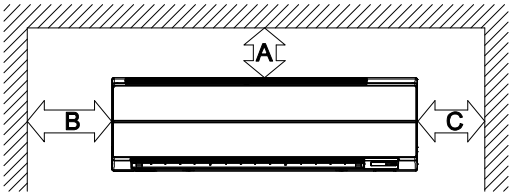
2-6-2. Dimension

RAV-RM561KRTP-E/TR





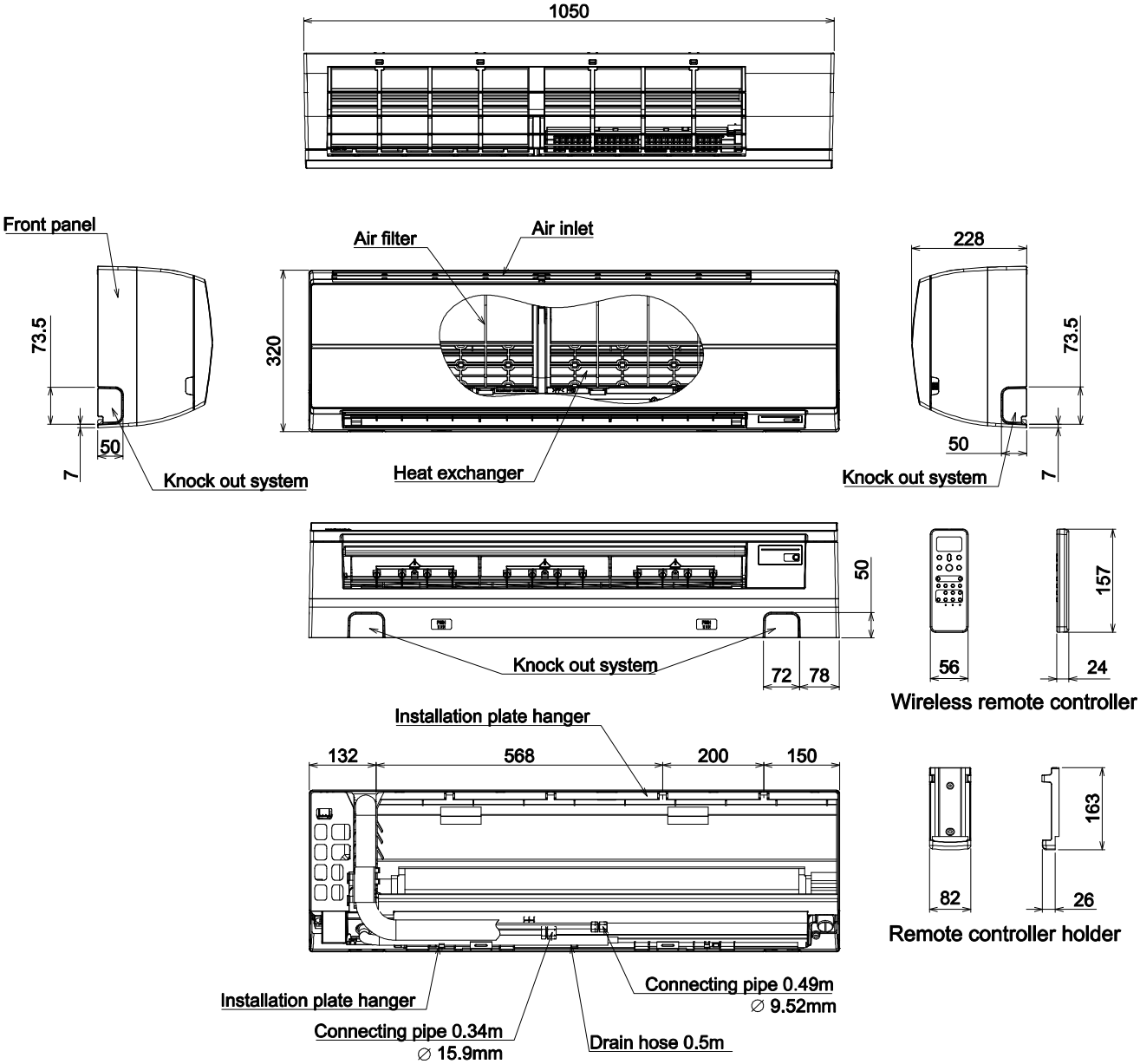
Space required for installation and servicing

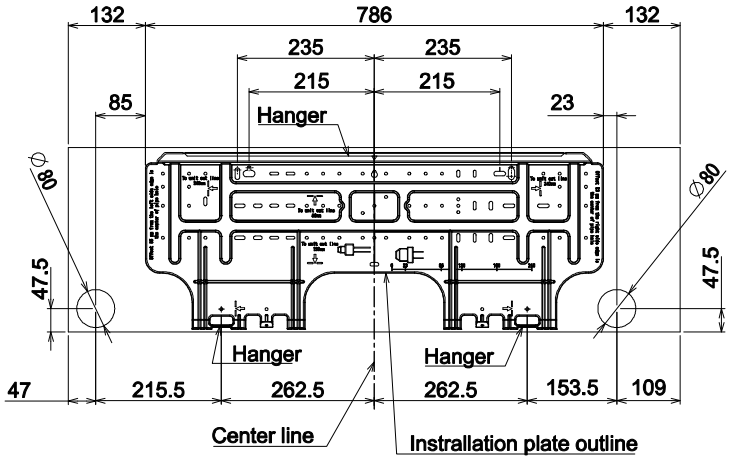


	Distance	Comments
A	50mm or more	
B	850mm or more	For exchange of cross flow fan
C	170mm or more	

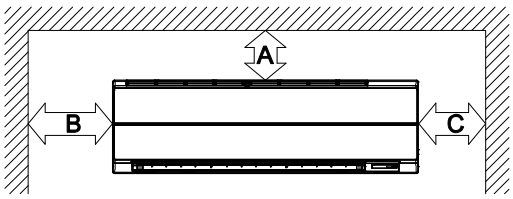
Unit:mm

RAV-RM801KRTP-E/TR





Space required for installation and servicing

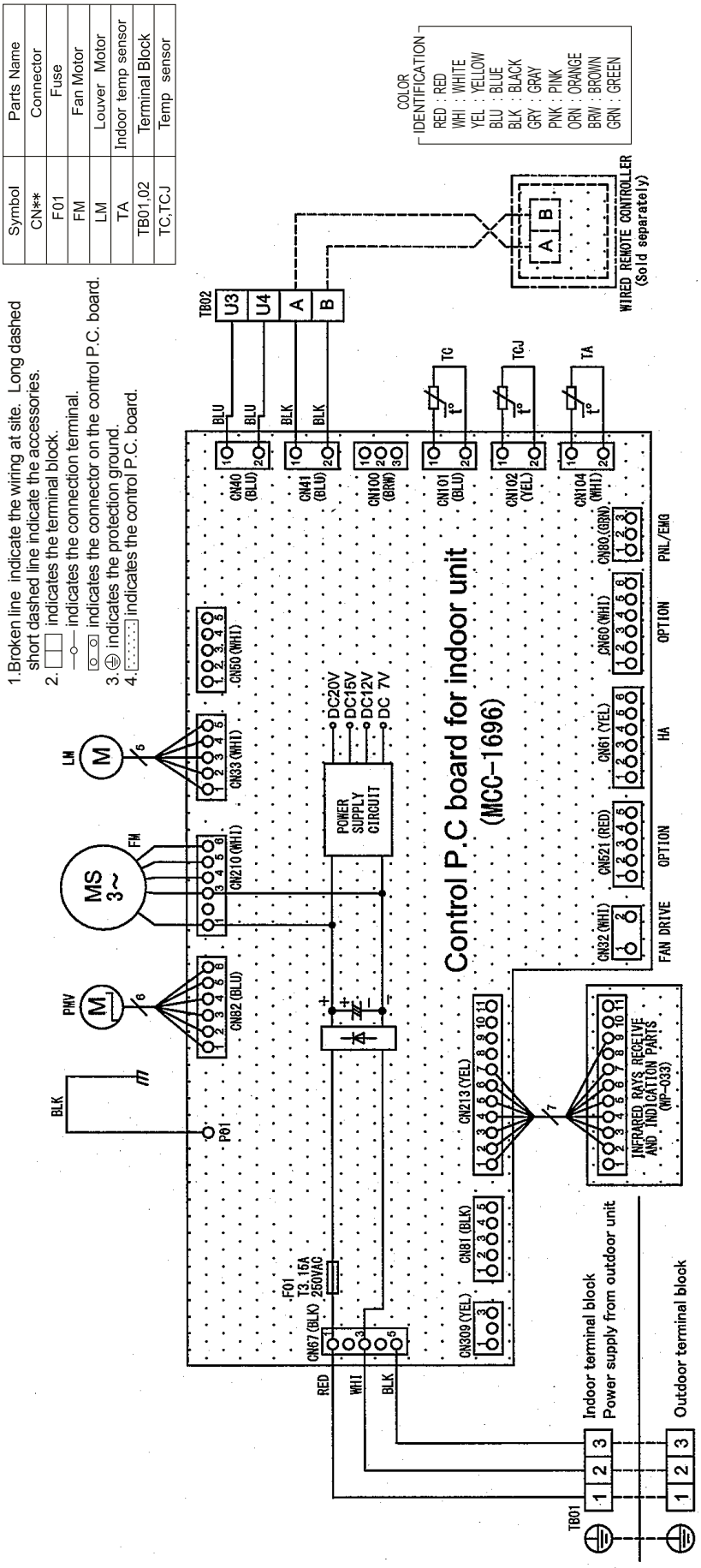


	Distance	Comments
A	50mm or more	
B	850mm or more	For exchange of cross flow fan
C	170mm or more	

Unit:mm

2-6-3. Wiring Diagrams

RAV-RM561KRTP-E/TR and RAV-RM801KRTP-E/TR



2-6-4. Sensible Capacity Table

Digital Inverter R32 Sensible Heat Capacity : RAV-RM***KRTP-E/TR

		Indoor Air temperature																	
Unit size	Outdoor air temp.	14.0 °F WB		15.0 °F WB		16.0 °F WB		17.0 °F WB		18.0 °F WB		19.0 °F WB		20.0 °F WB		22.0 °F WB		24.0 °F WB	
		20.0 °F DB		21.0 °F DB		23.0 °F DB		24.0 °F DB		26.0 °F DB		27.0 °F DB		28.0 °F DB		30.0 °F DB		32.0 °F DB	
	°C DB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
561	10.0	4.72	3.74	4.89	3.82	5.22	3.97	5.34	4.05	5.59	4.22	5.75	4.20	5.92	4.18	6.27	4.12	6.55	4.01
	12.0	4.69	3.71	4.85	3.79	5.18	3.94	5.30	4.02	5.55	4.19	5.71	4.17	5.87	4.15	6.22	4.09	6.50	3.98
	14.0	4.65	3.68	4.81	3.76	5.14	3.91	5.26	3.99	5.50	4.15	5.66	4.13	5.83	4.12	6.17	4.05	6.45	3.95
	16.0	4.61	3.65	4.77	3.73	5.09	3.88	5.21	3.96	5.46	4.12	5.62	4.10	5.78	4.09	6.12	4.02	6.40	3.92
	18.0	4.57	3.61	4.73	3.69	5.05	3.84	5.17	3.92	5.41	4.08	5.57	4.06	5.72	4.05	6.06	3.98	6.34	3.88
	20.0	4.53	3.58	4.68	3.66	5.00	3.80	5.12	3.88	5.35	4.04	5.51	4.02	5.67	4.01	6.00	3.95	6.28	3.84
	21.0	4.50	3.56	4.66	3.64	4.97	3.79	5.09	3.86	5.33	4.02	5.48	4.00	5.64	3.99	5.97	3.93	6.25	3.82
	23.0	4.46	3.52	4.61	3.60	4.92	3.75	5.04	3.82	5.27	3.98	5.43	3.96	5.58	3.95	5.91	3.88	6.18	3.78
	25.0	4.41	3.49	4.56	3.56	4.87	3.70	4.98	3.78	5.21	3.93	5.37	3.92	5.52	3.90	5.84	3.84	6.11	3.74
	27.0	4.35	3.44	4.51	3.52	4.81	3.66	4.92	3.74	5.15	3.89	5.30	3.87	5.45	3.86	5.78	3.80	6.04	3.70
	29.0	4.30	3.40	4.45	3.47	4.75	3.61	4.86	3.69	5.09	3.84	5.24	3.82	5.39	3.81	5.70	3.75	5.96	3.65
	31.0	4.24	3.36	4.39	3.43	4.69	3.57	4.80	3.64	5.02	3.79	5.17	3.77	5.31	3.76	5.63	3.70	5.89	3.60
	33.0	4.18	3.31	4.33	3.38	4.62	3.52	4.73	3.59	4.95	3.74	5.09	3.72	5.24	3.71	5.55	3.65	5.80	3.55
	35.0	4.11	3.25	4.25	3.32	4.54	3.45	4.64	3.52	4.86	3.67	5.00	3.65	5.14	3.64	5.45	3.58	5.70	3.49
	37.0	4.06	3.21	4.20	3.28	4.48	3.41	4.59	3.48	4.80	3.63	4.94	3.61	5.08	3.60	5.38	3.54	5.63	3.45
	39.0	3.99	3.16	4.13	3.23	4.41	3.36	4.52	3.43	4.72	3.57	4.86	3.55	5.00	3.54	5.30	3.48	5.54	3.39

		Indoor Air temperature																	
Unit size	Outdoor air temp.	14.0 °F WB		15.0 °F WB		16.0 °F WB		17.0 °F WB		18.0 °F WB		19.0 °F WB		20.0 °F WB		22.0 °F WB		24.0 °F WB	
		20.0 °F DB		21.0 °F DB		23.0 °F DB		24.0 °F DB		26.0 °F DB		27.0 °F DB		28.0 °F DB		30.0 °F DB		32.0 °F DB	
	°C DB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
801	10.0	6.33	4.83	6.55	4.93	6.99	5.12	7.16	5.23	7.49	5.44	7.71	5.41	7.93	5.38	8.40	5.28	8.78	5.12
	12.0	6.28	4.79	6.50	4.89	6.94	5.08	7.10	5.19	7.43	5.40	7.65	5.37	7.87	5.34	8.33	5.24	8.72	5.08
	14.0	6.23	4.75	6.45	4.85	6.88	5.04	7.05	5.15	7.37	5.36	7.59	5.32	7.81	5.30	8.27	5.20	8.65	5.04
	16.0	6.18	4.71	6.40	4.81	6.83	5.00	6.99	5.10	7.31	5.31	7.53	5.28	7.74	5.25	8.20	5.15	8.57	5.00
	18.0	6.13	4.67	6.34	4.77	6.76	4.95	6.92	5.06	7.24	5.26	7.46	5.23	7.67	5.21	8.12	5.11	8.50	4.96
	20.0	6.07	4.62	6.28	4.72	6.70	4.91	6.86	5.01	7.17	5.21	7.39	5.18	7.60	5.16	8.04	5.06	8.41	4.91
	21.0	6.04	4.60	6.25	4.70	6.67	4.88	6.82	4.98	7.14	5.19	7.35	5.15	7.56	5.13	8.00	5.03	8.37	4.88
	23.0	5.97	4.55	6.18	4.65	6.60	4.83	6.75	4.93	7.06	5.13	7.27	5.10	7.48	5.08	7.92	4.98	8.28	4.83
	25.0	5.91	4.50	6.11	4.60	6.52	4.78	6.68	4.88	6.98	5.07	7.19	5.04	7.40	5.02	7.83	4.92	8.19	4.78
	27.0	5.84	4.45	6.04	4.54	6.44	4.72	6.60	4.82	6.90	5.01	7.10	4.98	7.31	4.96	7.74	4.87	8.09	4.72
	29.0	5.76	4.39	5.96	4.49	6.36	4.66	6.51	4.76	6.82	4.95	7.02	4.92	7.22	4.90	7.64	4.80	7.99	4.66
	31.0	5.69	4.34	5.88	4.43	6.28	4.60	6.43	4.70	6.73	4.89	6.92	4.86	7.12	4.83	7.54	4.74	7.89	4.60
	33.0	5.61	4.27	5.80	4.37	6.19	4.54	6.34	4.63	6.63	4.82	6.83	4.79	7.02	4.77	7.44	4.68	7.78	4.54
	35.0	5.50	4.20	5.69	4.28	6.08	4.45	6.22	4.54	6.51	4.73	6.70	4.70	6.89	4.68	7.30	4.59	7.63	4.45
	37.0	5.44	4.15	5.63	4.24	6.01	4.40	6.15	4.49	6.43	4.67	6.62	4.65	6.81	4.62	7.21	4.54	7.55	4.40
	39.0	5.35	4.08	5.54	4.17	5.91	4.33	6.05	4.42	6.33	4.60	6.52	4.57	6.70	4.55	7.10	4.46	7.42	4.33

TC:Total Capacity [kW]

SHC:Sensible Heat Capacity [kW]

2-6-5. Part load performance

Combination

Indoor unit : RAV-RM561KRTP-E/TR x 2 (Twin system)

Outdoor unit : RAV-GM1101AT8P-E/TR, RAV-GM1101AT8JP-E

	Cooling		Heating	
	Capacity(W)	Power consumption (W)	Capacity(W)	Power consumption (W)
MINIMUM	3000	600	3000	600
RATING	9500	2980	11200	2990

Q: Capacity in W
W: Power Consumption in W

Cooling

Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
40	Q	9160	8240	7330	6410	5500	4580	3660	2890	2890	2890
	W	3250	2610	2070	1650	1310	1000	760	650	650	650
35	Q	9500	8550	7600	6650	5700	4750	3800	3000	3000	3000
	W	2980	2390	1900	1510	1200	920	700	600	600	600
30	Q	9880	8890	7910	6920	5930	4940	3950	3120	3120	3120
	W	2710	2170	1730	1370	1090	840	640	550	550	550
25	Q	10190	9170	8160	7140	6120	5100	4080	3220	3220	3220
	W	2450	1970	1570	1240	990	760	580	490	490	490
20	Q	10470	9420	8380	7330	6280	5240	4190	3310	3310	3310
	W	2210	1770	1410	1120	890	680	520	450	450	450

Heating

Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
15	Q	13310	11980	10650	9310	7980	6650	5320	3990	3560	3560
	W	3210	2710	2240	1810	1410	1110	830	610	640	640
10	Q	12080	10870	9670	8460	7250	6040	4830	3620	3240	3240
	W	3080	2600	2150	1740	1350	1060	790	590	620	620
7	Q	11200	10080	8960	7840	6720	5600	4480	3360	3000	3000
	W	2990	2530	2090	1690	1310	1030	770	570	600	600
5	Q	8620	7760	6900	6040	5170	4310	3450	2590	2310	2310
	W	2570	2170	1790	1450	1120	880	660	490	510	510
2	Q	8430	7590	6750	5900	5060	4220	3370	2530	2260	2260
	W	2530	2140	1770	1430	1110	870	650	480	510	510
0	Q	8310	7470	6640	5810	4980	4150	3320	2490	2220	2220
	W	2510	2120	1750	1420	1100	860	650	480	500	500
-5	Q	8010	7210	6410	5610	4810	4010	3200	2400	2150	2150
	W	2450	2070	1710	1390	1070	840	630	470	490	490
-7	Q	7880	7090	6310	5520	4730	3940	3150	2360	2110	2110
	W	2420	2050	1690	1370	1060	830	620	460	490	490
-10	Q	7280	6550	5820	5090	4370	3640	2910	2180	1950	1950
	W	2340	1980	1630	1320	1020	800	600	450	470	470
-15	Q	5600	5040	4480	3920	3360	2800	2240	1680	1500	1500
	W	2080	1760	1460	1180	910	720	540	400	420	420

Combination

Indoor unit : RAV-RM801KRTP-E/TR x 2 (Twin system)

Outdoor unit : RAV-GM1401AT8P-E/TR, RAV-GM1401AT8JP-E

	Cooling		Heating	
	Capacity(W)	Power consumption (W)	Capacity(W)	Power consumption (W)
MINIMUM	3000	600	3000	600
RATING	12100	4710	13000	3860

Q: Capacity in W
W: Power Consumption in W

Cooling

Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
40	Q	11670	10500	9330	8170	7000	5830	4670	3500	2890	2890
	W	5130	4190	3280	2530	1900	1430	1110	840	650	650
35	Q	12100	10890	9680	8470	7260	6050	4840	3630	3000	3000
	W	4710	3840	3010	2320	1740	1310	1020	770	600	600
30	Q	12590	11330	10070	8810	7550	6290	5040	3780	3120	3120
	W	4290	3490	2740	2110	1580	1190	930	700	550	550
25	Q	12980	11690	10390	9090	7790	6490	5190	3900	3220	3220
	W	3880	3160	2480	1910	1430	1080	840	630	490	490
20	Q	13340	12000	10670	9340	8000	6670	5340	4000	3310	3310
	W	3490	2850	2230	1720	1290	970	760	570	450	450

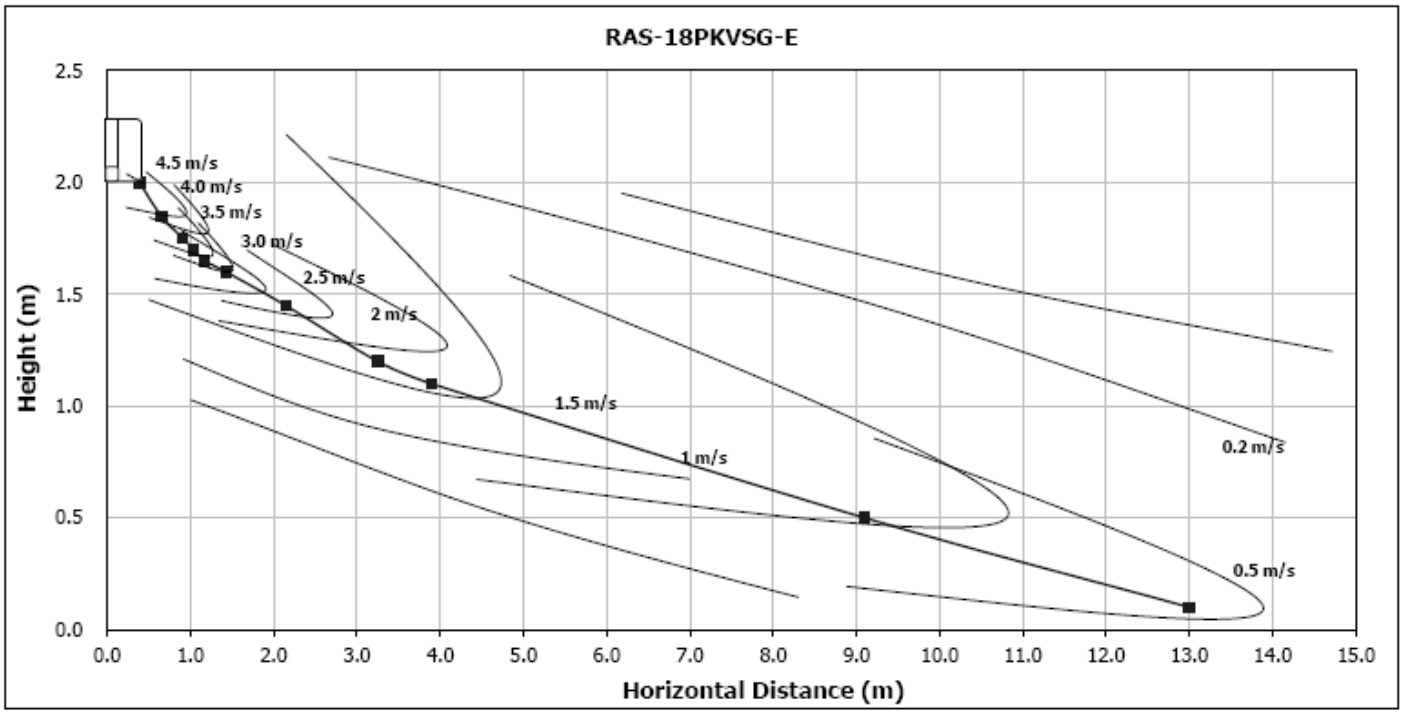
Heating

Outdoor temperature(ºC)		Load(%)									
		100	**90**	**80**	**70**	**60**	**50**	**40**	**30**	**20**	**10**
15	Q	15450	13900	12360	10810	9270	7720	6180	4630	3560	3560
	W	4140	3510	2900	2340	1810	1420	1060	780	640	640
10	Q	14020	12620	11220	9820	8410	7010	5610	4210	3240	3240
	W	3970	3360	2780	2240	1740	1360	1020	750	620	620
7	Q	13000	11700	10400	9100	7800	6500	5200	3900	3000	3000
	W	3860	3270	2700	2180	1690	1320	990	730	600	600
5	Q	10010	9010	8010	7010	6010	5000	4000	3000	2310	2310
	W	3310	2810	2320	1870	1450	1130	850	630	510	510
2	Q	9790	8810	7830	6850	5870	4890	3920	2940	2260	2260
	W	3270	2770	2280	1840	1430	1120	840	620	510	510
0	Q	9640	8680	7710	6750	5780	4820	3860	2890	2220	2220
	W	3240	2740	2270	1830	1420	1110	830	610	500	500
-5	Q	9300	8370	7440	6510	5580	4650	3720	2790	2150	2150
	W	3160	2680	2210	1790	1390	1080	810	600	490	490
-7	Q	9150	8230	7320	6400	5490	4570	3660	2740	2110	2110
	W	3130	2650	2190	1770	1370	1070	800	590	490	490
-10	Q	8450	7600	6760	5910	5070	4220	3380	2530	1950	1950
	W	3020	2550	2110	1700	1320	1030	770	570	470	470
-15	Q	6500	5850	5200	4550	3900	3250	2600	1950	1500	1500
	W	2690	2280	1880	1520	1180	920	690	510	420	420

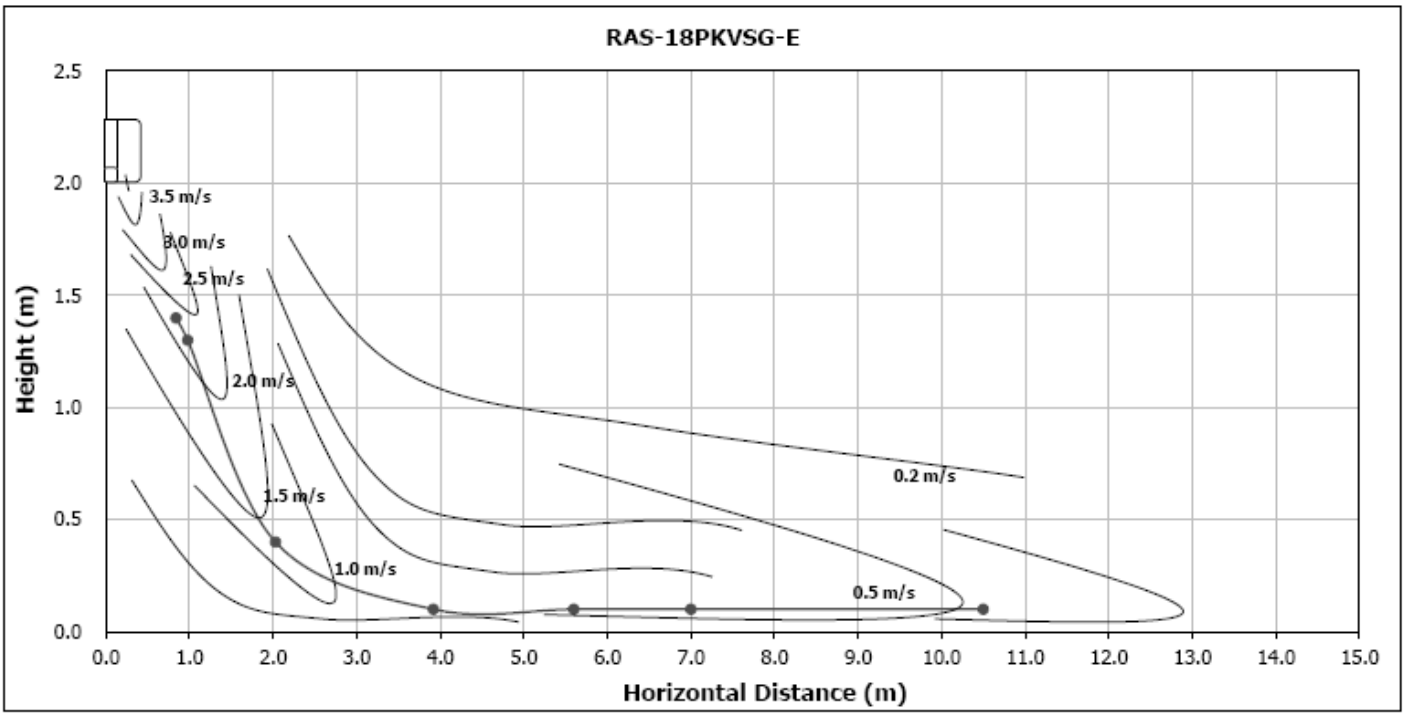
2-6-6. Air Throw Distance Chart

RAV-RM561KRTP-E/TR

Cooling

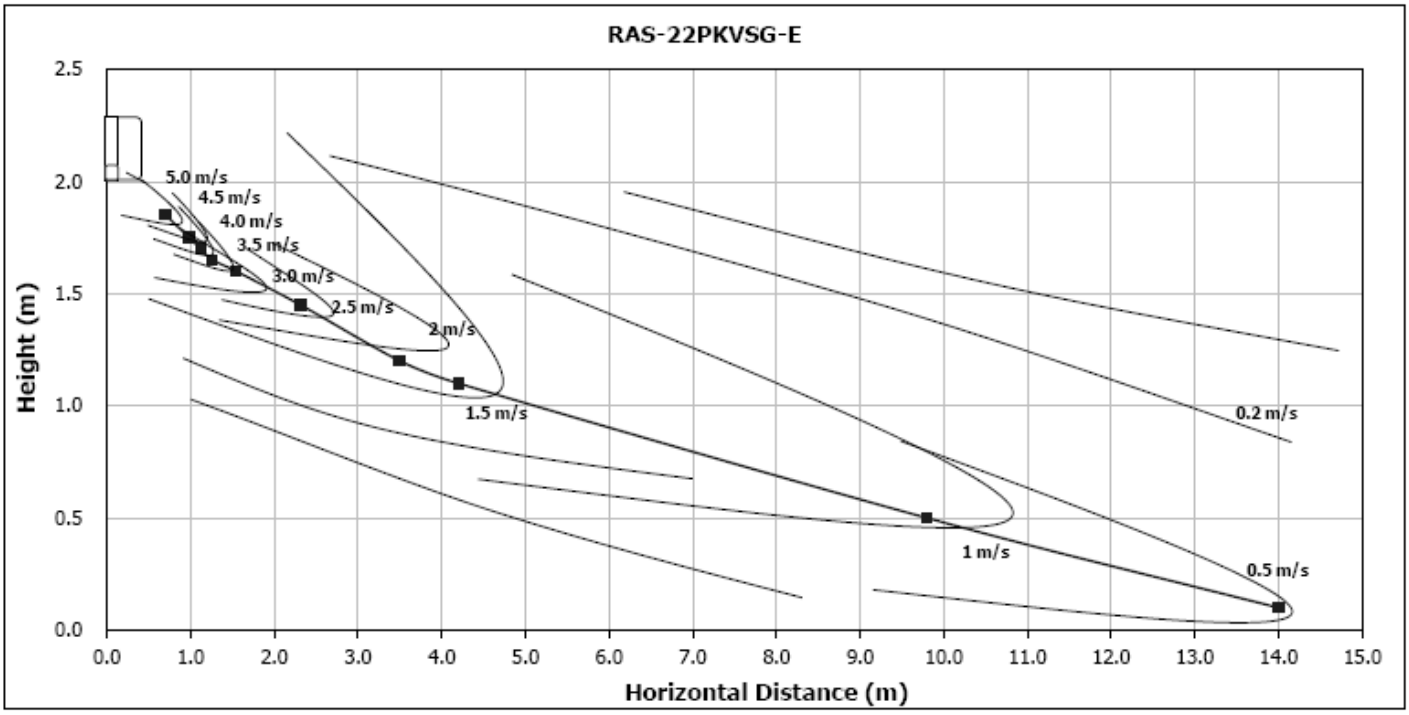


Heating

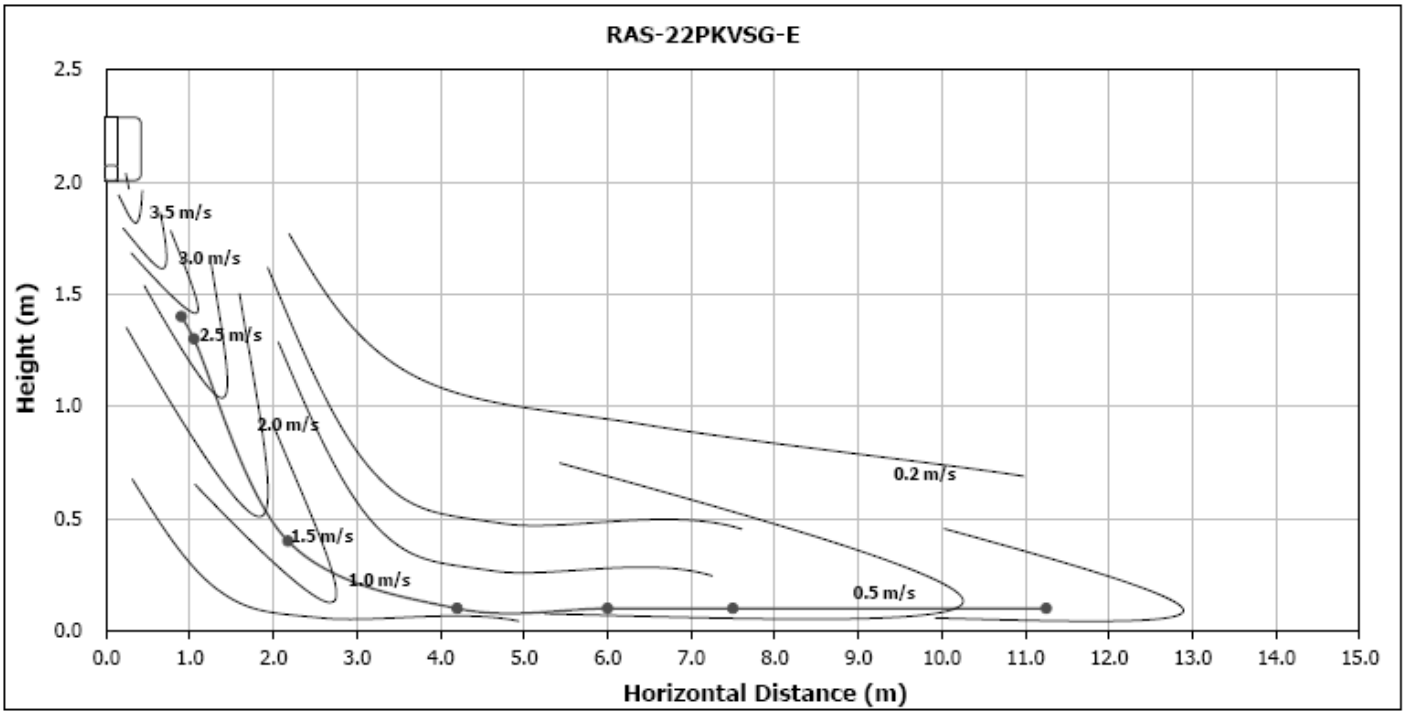


RAV-RM801KRTP-E/TR

Cooling



Heating

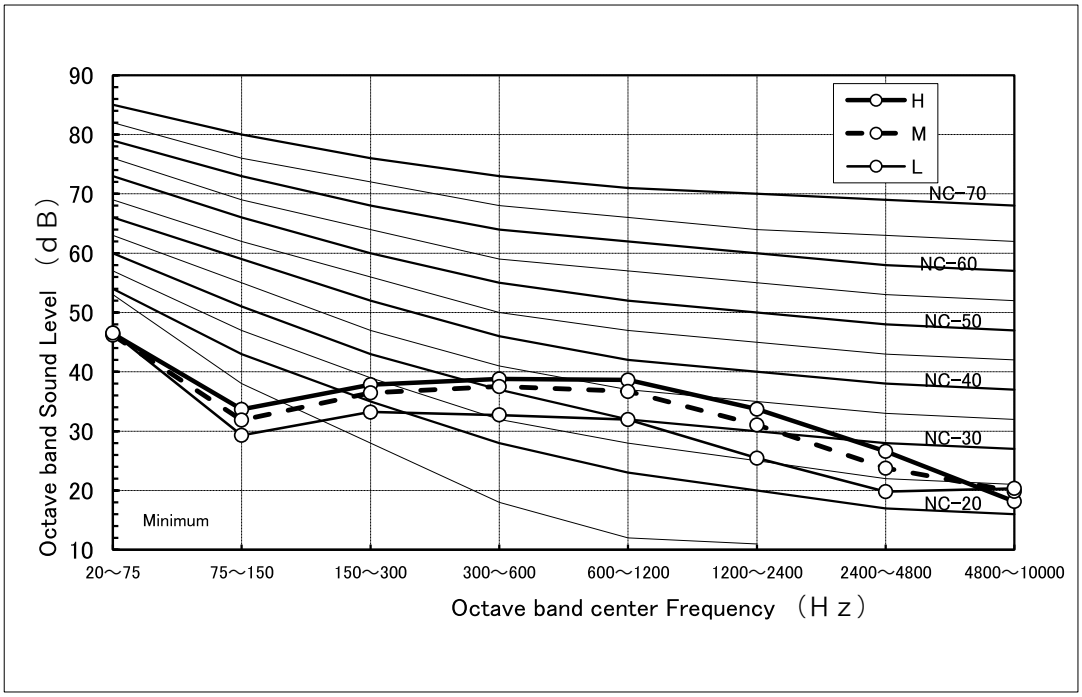


2-6-7. Sound Characteristics (NC curve)

RAV-RAM561KRTP-E/TR

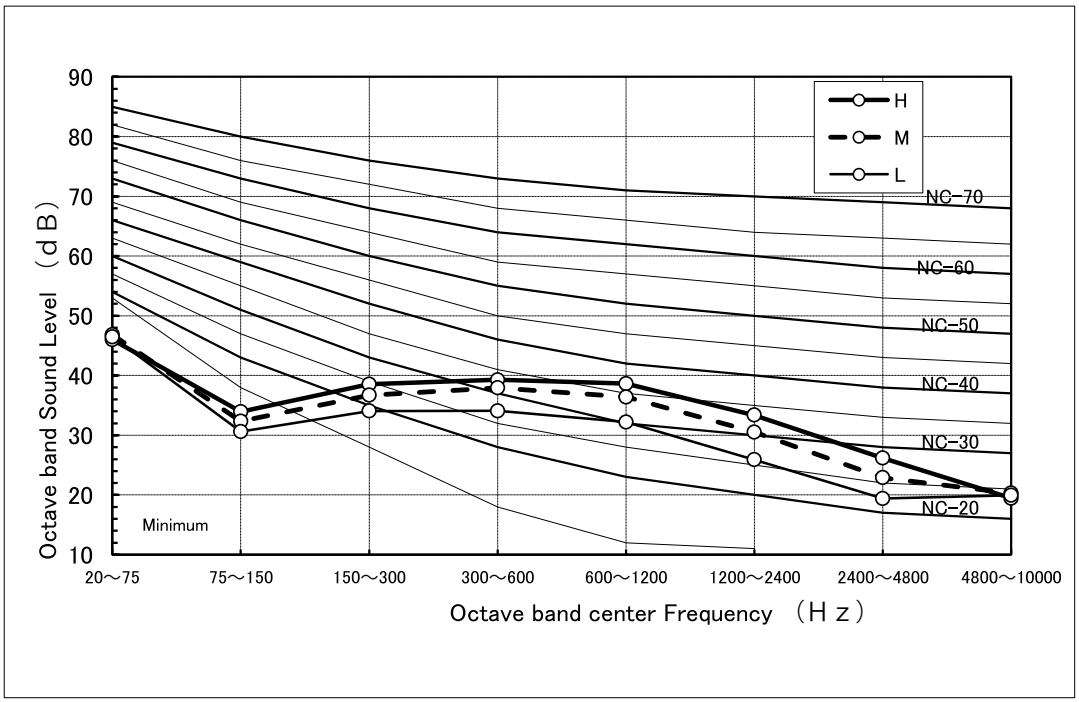
Cooling

Specification （d B）			
Fan tap	H	M	L
Sound pressure level (dB(A))	42	39	35



Heating

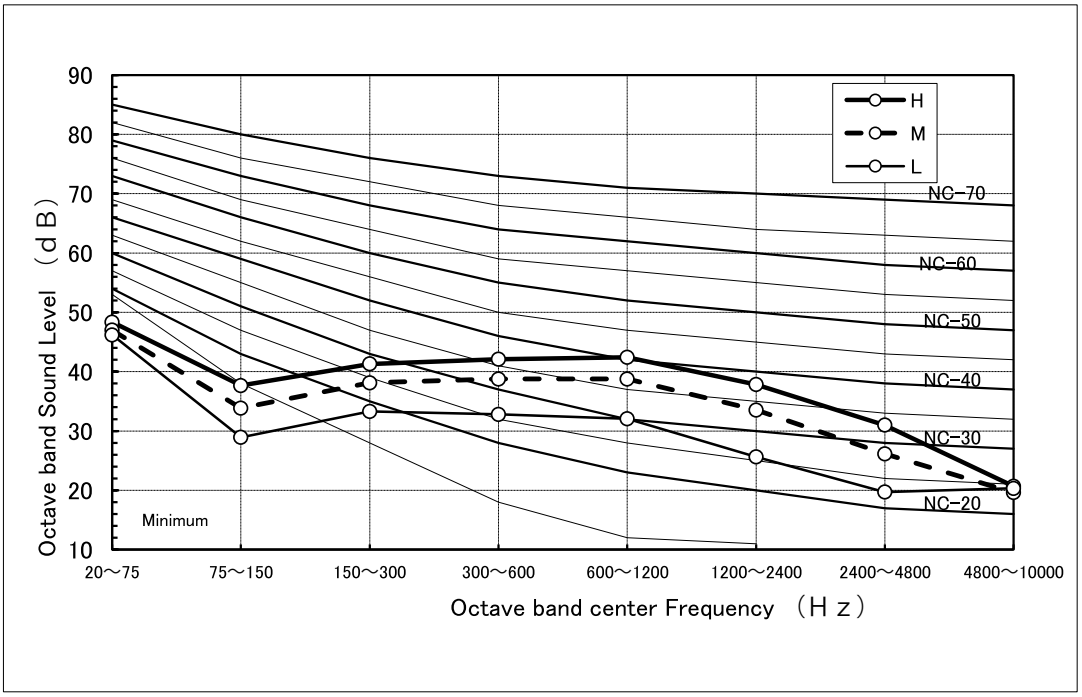
Specification （d B）			
Fan tap	H	M	L
Sound pressure level (dB(A))	42	39	35



RAV-RAM801KRTP-E/TR

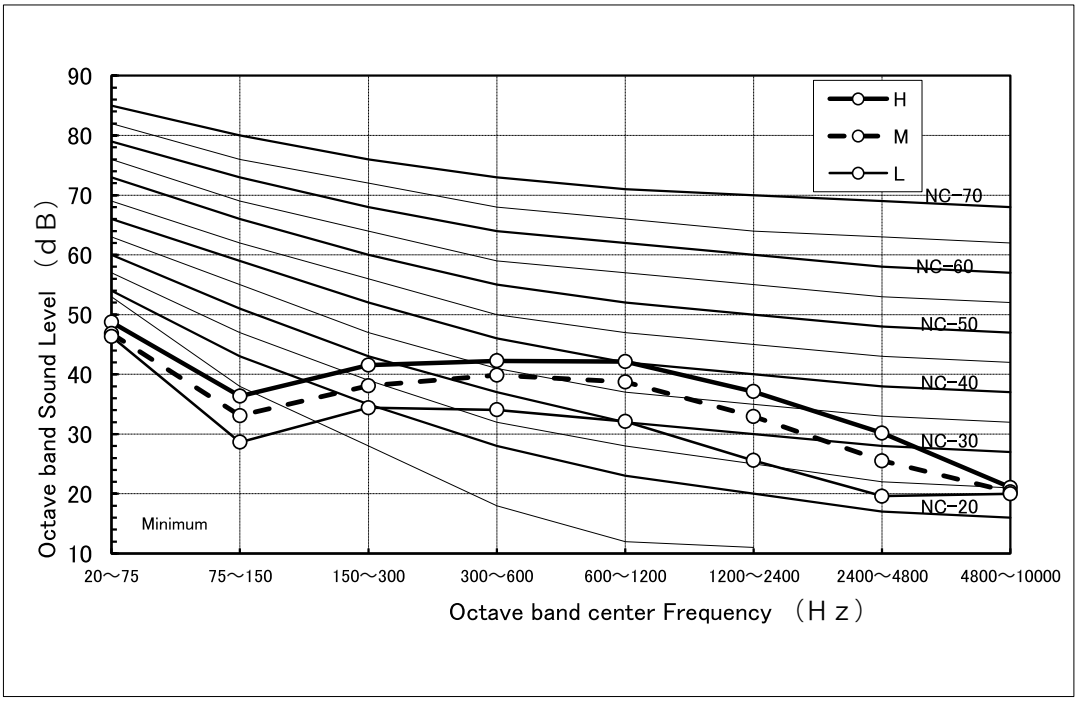
Cooling

Specification （d B）			
Fan tap	H	M	L
Sound pressure level (dB(A))	45	41	35



Heating

Specification （d B）			
Fan tap	H	M	L
Sound pressure level (dB(A))	45	41	35



3. Outdoor Unit

2-2-1. Specifications

2-2-2. Dimension

2-2-3. Wiring Diagrams

2-2-4. Rrfrigerant Cycle Diagram

2-2-5. Sound Characteristic

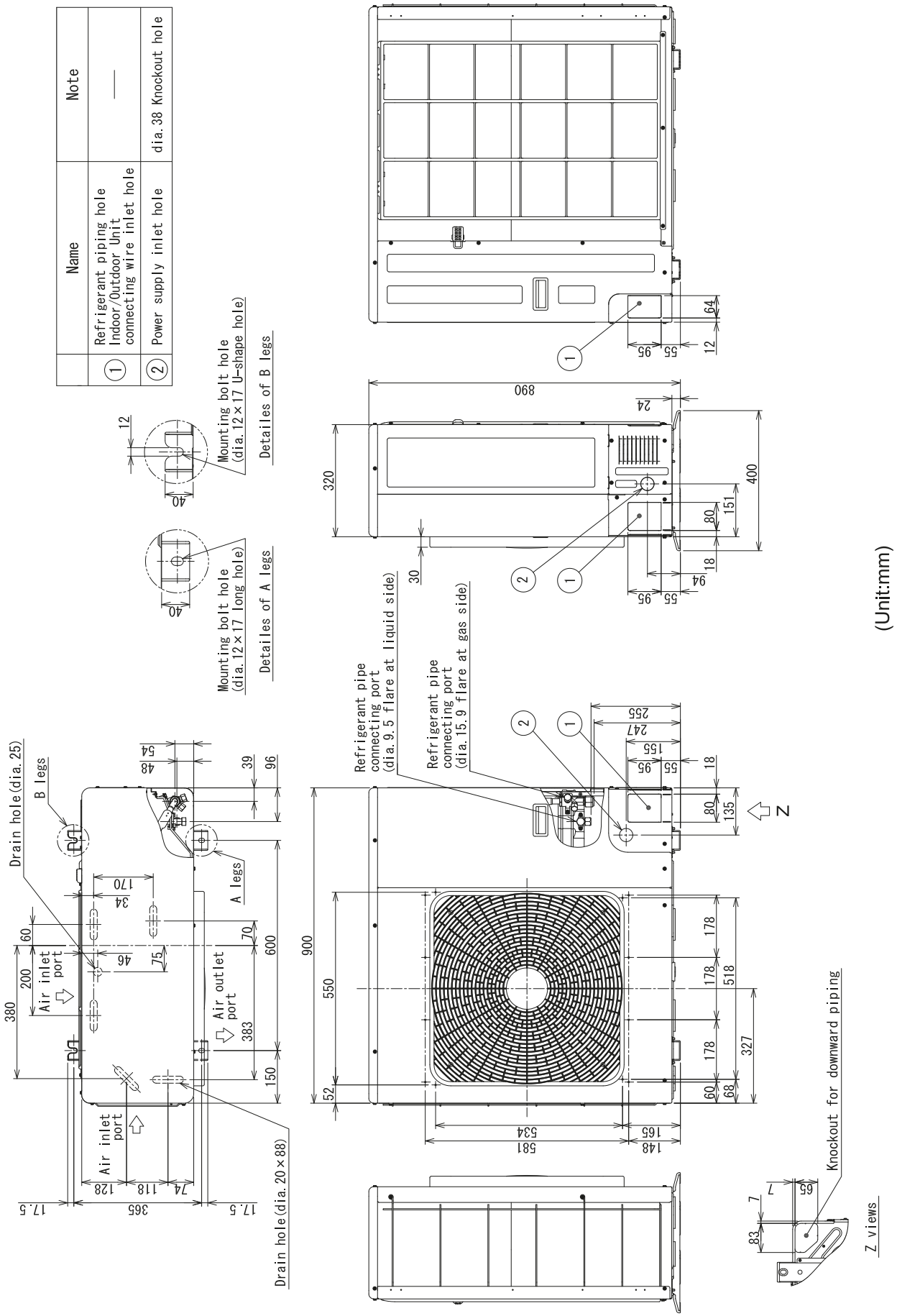
2-2-6. Connecting Pipe Length and Lift Difference Between Indoor Units VS. Capacity Correction Value

3-1 Specification

Model	Outdoor unit		RAV-GM1101AT8P-E/TR RAV-GM1101AT8JP-E	RAV-GM1401AT8P-E/TR RAV-GM1401AT8JP-E
Power supply			3 phase 380V-415V/50Hz, 3phase 380V/60Hz	
Compressor	Type		Hermetic compressor	
	Motor	(kW)	2.5	3.0
	Pole	(W)	4	
Refrigerant Charged		(kg)	2.8	2.8
Refrigerant Control		(kg)	Pulse motor valve	
Outer dimension	Height	(mm)	890	
	Width	(mm)	900	
	Depth	(mm)	320	
Appearance			Silky shade (Muncel 1Y 8.5 / 0.5)	
Total weight	Main unit	(kg)	69	
Heat exchanger			Finned tube	
Fan unit	Fan		Propeller fan	
	Standard air flow	(m^3/h)	68	70
	Motor	(W)	100	100
Inter Connecting Pipe	Standard length	(m)	7.5	
	Min. length	(m)	5	
	Max. total length	(m)	50	
	Additional refrigerant charge under long piping connector		40 g / m (31 m to 50 m)	
	High difference	Outdoor lower (m)	30	
		Outdoor higher (m)	30	
Flare Connections	Gas side	(mm)	15.9	
	Liquid side	(mm)	9.5	
Sound pressure level	Cooling/Heating	(dB)	54 / 57	55 / 57
Sound power level	Cooling/Heating	(dB)	70 / 74	70 / 74
Operating Range	Cooling	(°C)	-15 / 46	
	Heating	(°C)	-15 / 15	

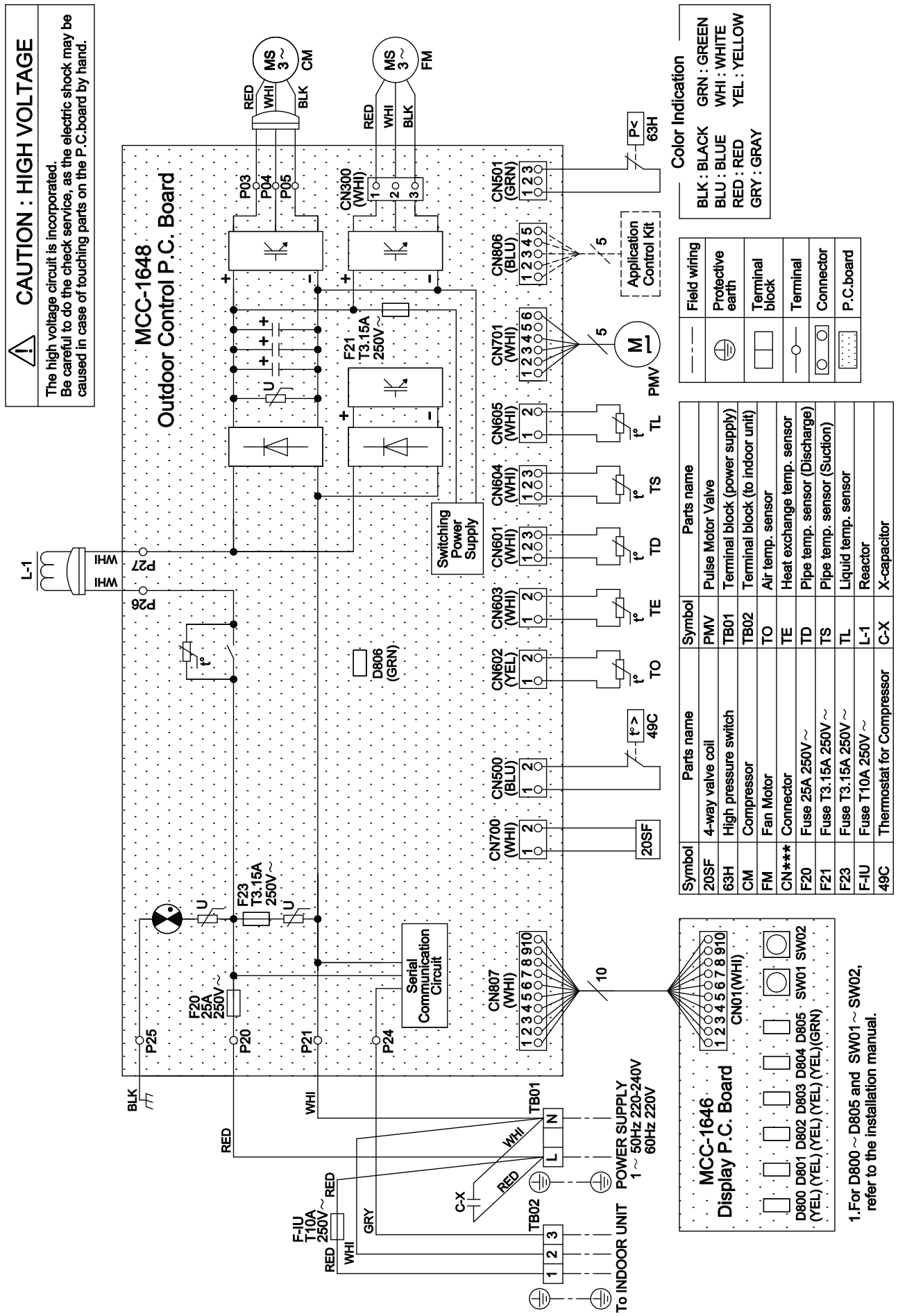
3-2. Dimension

RAV-GM1101AT8P-E/TR and RAV-GM1401AT8P-E/TR (*ATJ8P-E)



3-3. Wiring diagrams

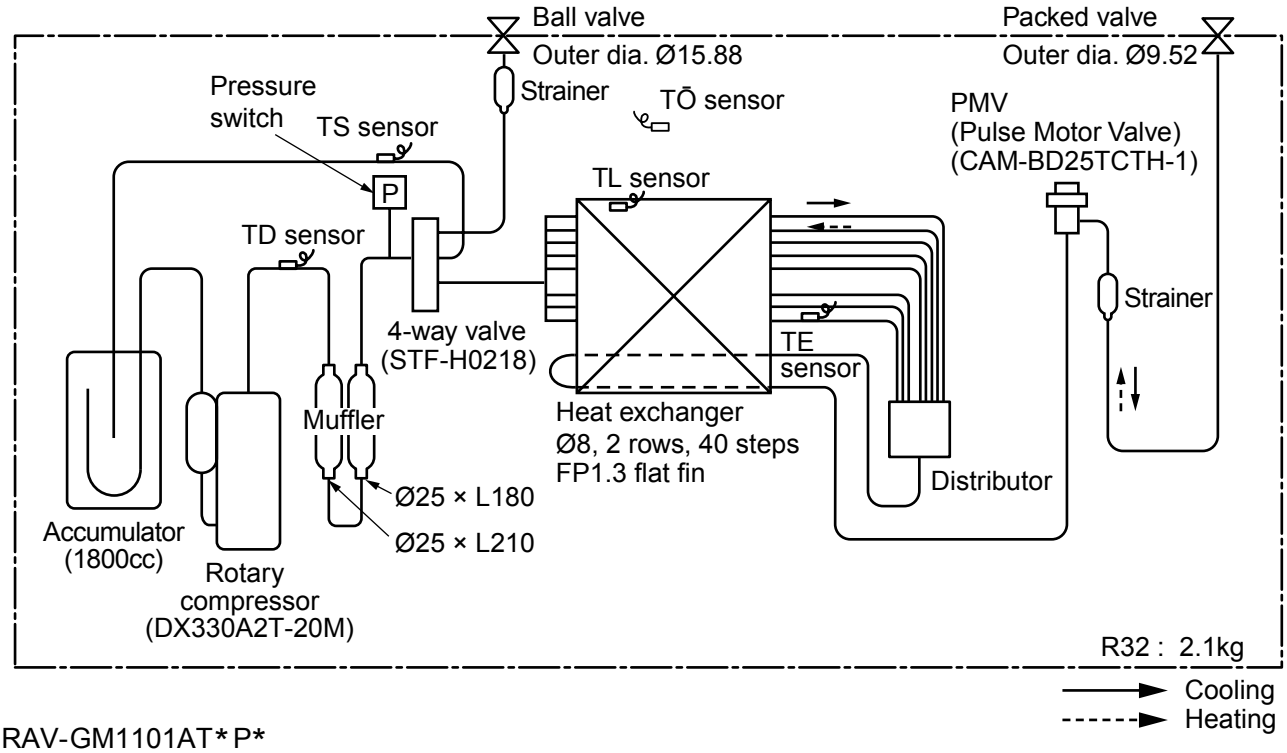
RAV-GM1101AT8P-E/TR and RAV-GM1401AT8P-E/TR (*ATJ8P-E)



Symbol	Parts name	Symbol	Parts name
20SF	4-way valve coil	PMV	Pulse Motor Valve
63H	High pressure switch	TB01	Terminal block (power supply)
CM	Compressor	TB02	Terminal block (to indoor unit)
FM	Fan Motor	TO	Air temp. sensor
CN***	Connector	TE	Heat exchange temp. sensor
F20	Fuse 25A 250V ~	TD	Pipe temp. sensor (Discharge)
F21	Fuse T3.15A 250V ~	TS	Pipe temp. sensor (Suction)
F23	Fuse T3.15A 250V ~	TL	Liquid temp. sensor
F-IU	Fuse T10A 250V ~	L-1	Reactor
49C	Thermostat for Compressor	C-X	X-capacitor

3-4. Refrigerant cycle diagram

RAV-GM1101ATP-E/TR, RAV-GM1401ATP-E/TR (*ATJP-E)



RAV-GM1101AT* P*

		Pressure				Pipe surface temperature (°C)				* Comp. Hz	Fan	Temp	
		(MPa)		(kg/cm²G)									
		Pd	Ps	Pd	Ps	(TD)	(TS)	(TC)	(TE)			In	Out
Cooling	Standard	3.10	0.94	31.6	9.6	90	12	11	39	47	HIGH	27/19	35/-
	Overload	3.60	1.13	36.7	11.5	78	16	18	54	50	HIGH	32/24	46/-
	Low load	2.03	0.82	20.7	8.4	55	11	8	4	30	LOW	18/15.5	-15/-
Heating	Standard	2.57	0.65	26.2	6.6	90	1	41	1	58	HIGH	20/-	7/6
	Overload	3.13	1.12	31.9	11.4	76	19	52	16	30	LOW	30/-	24/18
	Low load	2.15	0.24	21.9	2.4	82	-19	34	-17	79	HIGH	15/-	-15/-

RAV-GM1401AT* P*

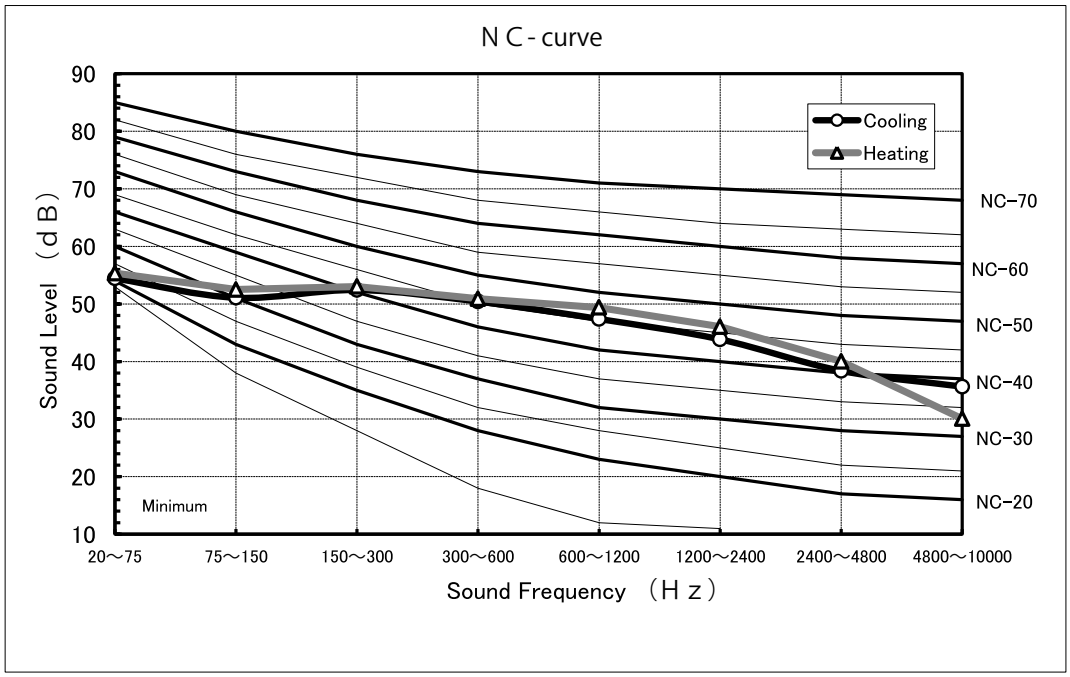
		Pressure				Pipe surface temperature (°C)				* Comp. Hz	Fan	Temp	
		(MPa)		(kg/cm²G)									
		Pd	Ps	Pd	Ps	(TD)	(TS)	(TC)	(TE)			In	Out
Cooling	Standard	3.37	0.85	34.4	8.7	92	9	10	44	68	HIGH	27/19	35/-
	Overload	3.65	1.07	37.2	10.9	80	16	18	54	53	HIGH	32/24	46/-
	Low load	2.05	0.83	20.9	8.5	56	10	8	4	30	LOW	18/15.5	-15/-
Heating	Standard	2.79	0.63	28.4	6.4	90	1	42	1	68	HIGH	20/-	7/6
	Overload	3.10	1.12	30.6	11.4	75	19	51	16	30	LOW	30/-	24/18
	Low load	2.30	0.23	23.5	2.3	86	-19	38	-17	99	HIGH	15/-	-15/-

* 4 poles are provided to this compressor.
The compressor frequency (Hz) measured with a clamp meter is 2 times of revolutions (rps) of the compressor.

3-5. Sound characteristics (NC curve)

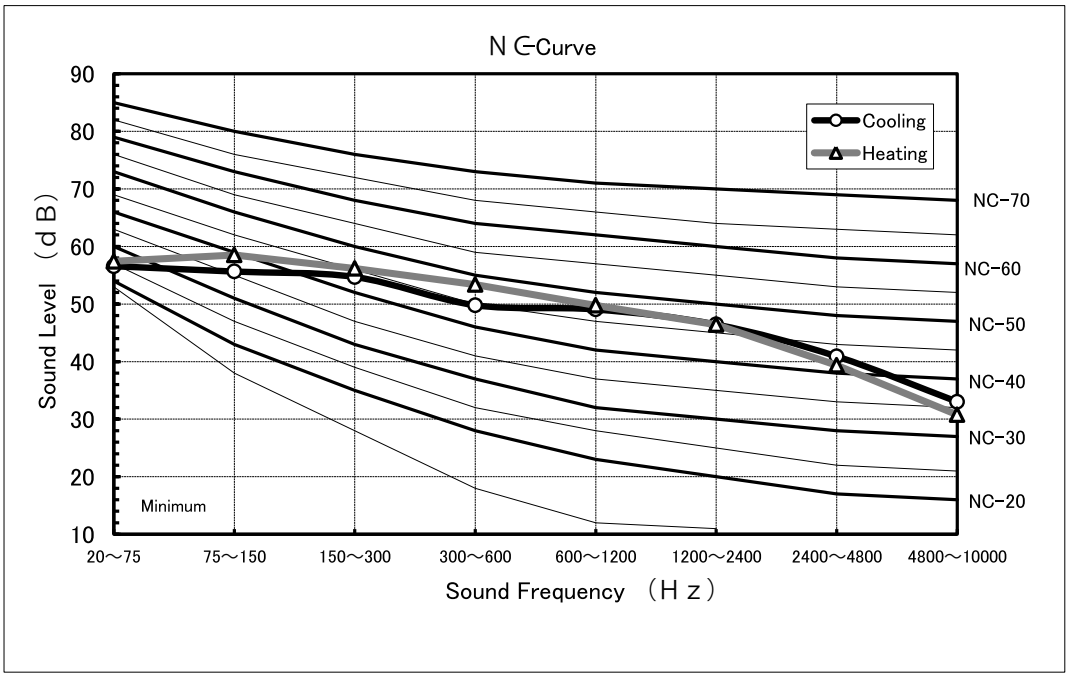
RAV-GM1101ATP-E/TR (*ATJP-E)

Measured point	Specification （d B）	Specification （d B）
	Cooling	Heating
Horizontal 1 .0 m	54	57



RAV-GM1401ATP-E/TR (*ATJP-E)

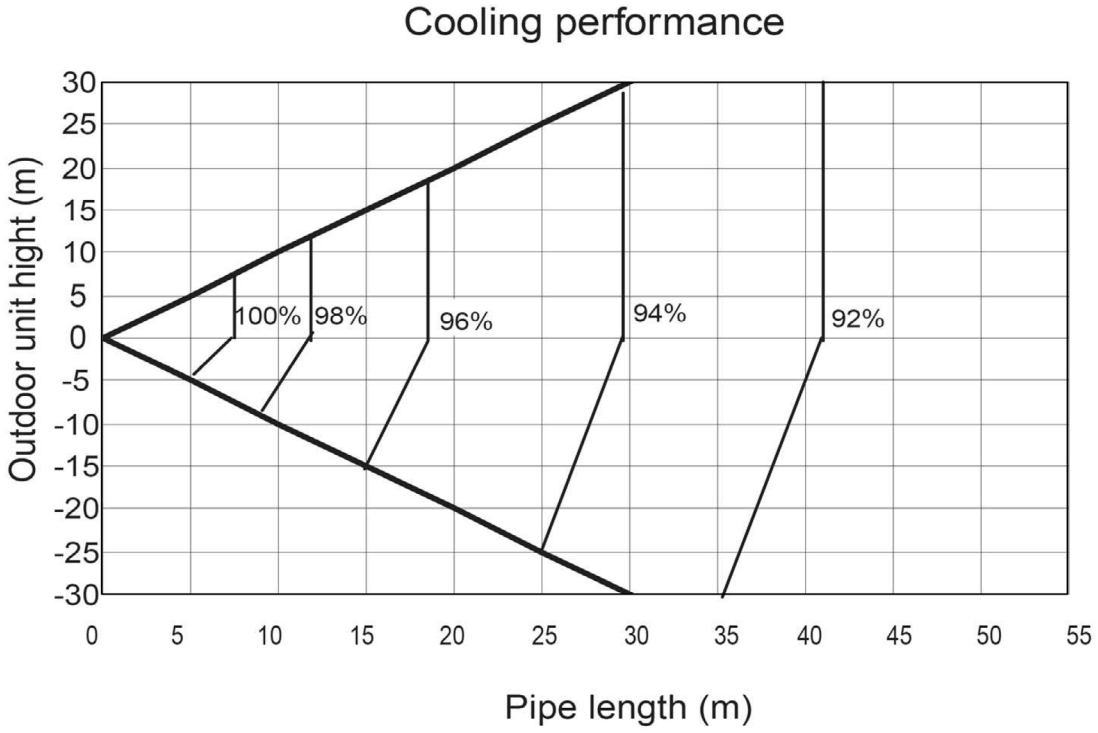
Measured point	Specification （d B）	Specification （d B）
	Cooling	Heating
Horizontal 1 .0 m	55	57



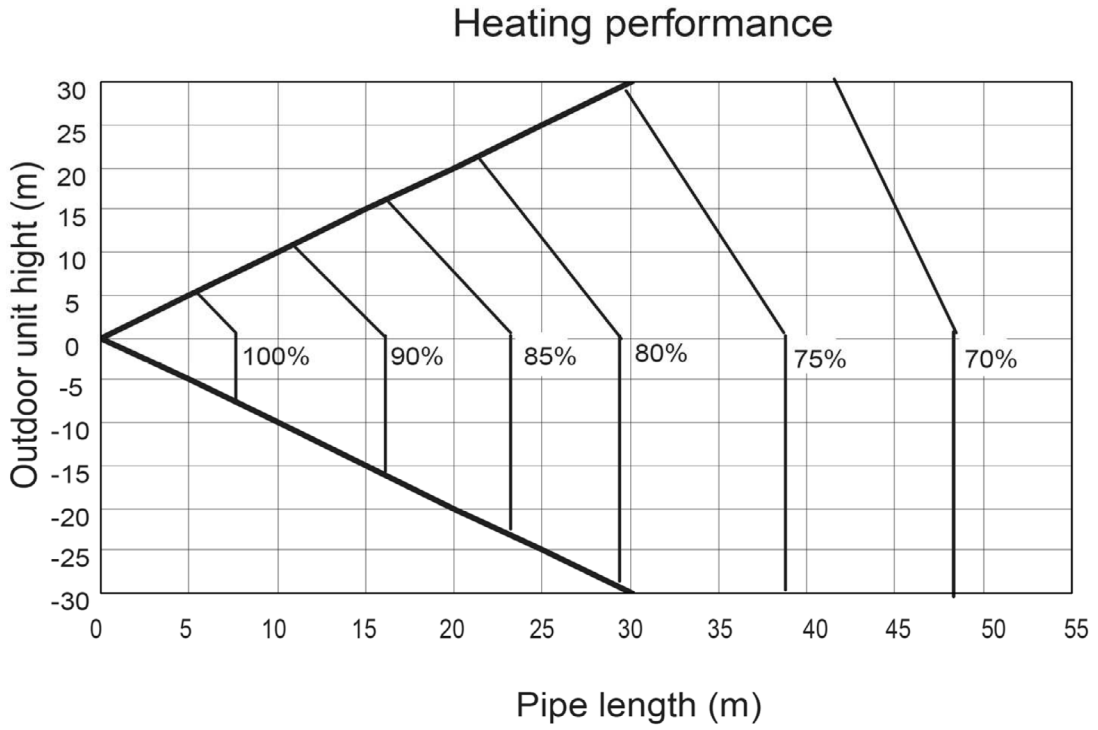
3-6. Connecting pipe length and lift difference between indoor units vs. capacity correction value

RAV-GM1101ATP-E/TR and RAV-GM1401ATP-E/TR (*ATJP-E)

[Cooling]



[Heating]



4. Option

4.1 Accessories

Parts List		4way Smart Cassette				4way Cassette				Compact 4way				Slim duct				Stadard duct				Under ceiling			
		series 1				series 1				series 1				series 1				series 1				series 1			
		RAV-GM561UT-E/-TR	RAV-GM801UT-E/-TR	RAV-GM1101UT-E/-TR	RAV-GM1401UT-E/-TR	RAV-RM561UTP-E/-TR	RAV-RM801UTP-E/-TR	RAV-RM1101UTP-E/-TR	RAV-RM1401UTP-E/-TR	RAV-RM301MUT-E/-TR	RAV-RM401MUT-E/-TR	RAV-RM451MUT-E/-TR	RAV-RM561MUT-E/-TR	RAV-RM301SDT-E/-TR	RAV-RM401SDT-E/-TR	RAV-RM451SDT-E/-TR	RAV-RM561SDT-E/-TR	RAV-RM561BTP-E/-TR	RAV-RM801BTP-E/-TR	RAV-RM1101BTP-E/-TR	RAV-RM1401BTP-E/-TR	RAV-RM561CTP-E/-TR	RAV-RM801CTP-E/-TR	RAV-RM1101CTP-E/-TR	RAV-RM1401CTP-E/-TR
Wired Remote Controller	RBC-AMS51E-EN,ES	OK				OK				OK				OK				OK				OK			
	RBC-AMS55E-EN, ES	OK				OK				OK				OK				OK				OK			
	RBC-AMS41E	OK				OK				OK				OK				OK				OK			
	RBC-AMT32E	OK				OK				OK				OK				OK				OK			
	RBC-AS41E	OK				OK				OK				OK				OK				OK			
Wireless Remote Controller	RBC-AX41U(W)-E	OK																							
	RBC-AX32UM(W)-E									OK															
	TCB-AX32E2	OK				OK				OK				OK				OK				OK			
	RBC-AX32U(W)-E					OK																			
	RBC-AX33CE																					OK			
Schedule Timer	TCB-EXS21TLE	OK				OK				OK				OK				OK				OK			
TCC-Link adaptor	TCB-PCNT30TLE2	OK				OK				OK				OK				OK				OK			
Ceiling Panel	RBC-U41PG(W)-E	OK																							
	RBC-UM21PG(W)-E									OK															
	RBC-U31PGP(W)-E					OK																			
Occupancy Sensor	TCB-SIR41UM-E									OK															
	TCB-SIR41U-E	OK																							
Fresh air filter chamber	TCB-GFC1603UE	OK																							
	TCB-GFC1602UE					OK																			
Spacer for height adjustment	TCB-SP1603UE	OK																							
	TCB-SP1602UE					OK																			
Air discharge direction kit	TCB-BC1603UE	OK																							
	TCB-BC1602UE					OK																			
Auxiliary fresh air flange	TCB-FF101URE2	OK				OK				OK				OK											
Optional connecting kit	TCB-PCUC1E																					OK			
Spigot shaped flange	TCB-SF56C6BPE, TCB-SF80C6BPE, TCB-SF160C6BPE																	OK							

4.2 Controller

Parts name	Model name	Used with
Wired remote controller	RBC-AMS51E-EN, ES	All indoor Units
	RBC-AMS55E-EN, ES	
	RBC-AMS41E	
	RBC-AMT32E	
	RBC-AS41E	
Simple wired controller	RBC-AS21E2	All indoor units
Wireless remote controller	RBC-AX41U(W)-E	4-way Smart Cassette
	RBC-AX32UM (W)-E	Compact 4-way
	TCB-AX32E2	All indoor Units
	RBC-AX32U(W)-E	4-way Cassette
	RBC-AX33CE	Under Ceiling
Remote controller with weekly timer	RBC-SMS41E	All indoor units
Schedule timer	TCB-EXS21TLE	Wired remote controller
ON-OFF controller	TCB-CC163TLE2	Wired remote controller/Central remote controller
Central controller	TCB-SC642TLE2	All indoor units
	BMS-CM1280TLE	All indoor units
1:1 model connection interface	TCB-PCNT30TLE2	4 way cassette type / Compact 4-way cassette type / Ducted type Slim Duct type / Ceiling type / High wall type
Terminal box	TCB-PX30MUE	Used with TCB-PCNT30TLE2
		4-way cassette (4 series) type / Compact 4 way cassette type

Energy Save operation (RBC-AMS51E/RBC-AMT32E/RBC-AMS41E)
The method to control power consumption by limiting the peak of the compressor's electric current.
= To control peak current by limiting **% of the current release

		FCU only function	Combination function with CDU		
			DI R32		
		Linked with A2A HEX by TCC link*1	Energy save operation (Limit the peak of electric current)	Night Operation by only New Controller *2	Frost Protection (8°C set temp. in heating mode)
4-way cassette type	RAV-RM**1UTP-E/TP	×	○	×	×
Compact 4-way cassette type	RAV-RM**1MUT-E/TP	OK	○	×	×
Standard duct	RAV-RM**1BTP-E/TP	OK	○	×	×
Slim Duct	RAV-RM**1SDT-E/TP	×	○	×	×
Ceiling type	RAV-RM**1CTP-E/TP	OK	○	×	×
High Wall type	RAV-RM**1KRTP-E/TP	×	○	×	×

*1) A2A HEX: VN-M**HE
*2) New Controller : RBC-AMS51E-ES, RBC-AMS51E-EN
*3) Only 75% :Even if save ratio is set over 50%, the save operation will be 75% automatically

	RBC-AMS51E-ES/EN	RBC-AMT32E/RBC-AMS41E
○	0%, 50%, Option (Only 75%)*3	Option (Only 75%)*3
×	NA	NA

Appendix

Specifications for ErP Lot-10

Digital Inverter < Series 1> 3 phase

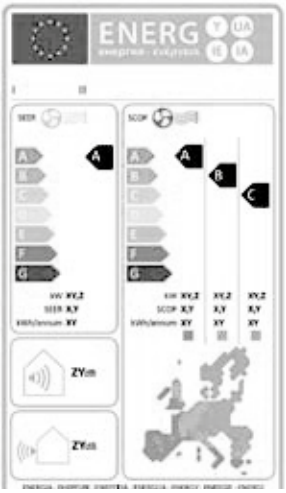
No	Outdoor unit type	Connection type	HP	Indoor unit		Outdoor unit		Rated Capacity (kW)		Specification					
				Model name	Qty	Model name	Qty	Cooling	Heating	SEER	Energy Label	PdesignC	SCOP (average)	Energy Label	Pdesignh (average)
1	DI	Single	4.0	RAV-RM1101UTP-E	1	RAV-GM1101AT8P-E/-TR	1	9.5	11.2	6.15	**A++**	9.5	4.28	A+	8.0
2	DI	Single	4.0	RAV-RM1101BTP-E	1	RAV-GM1101AT8P-E/-TR	1	9.5	11.2	5.28	A	9.5	4.19	A+	7.6
3	DI	Single	4.0	RAV-RM1101CTP-E	1	RAV-GM1101AT8P-E/-TR	1	9.5	11.2	5.86	A+	9.5	4.27	A+	7.6
4	DI	Twin	4.0	RAV-RM561UTP-E	2	RAV-GM1101AT8P-E/-TR	1	9.5	11.2	5.94	A+	9.5	4.28	A+	8.0
5	DI	Twin	4.0	RAV-RM561MUT-E	2	RAV-GM1101AT8P-E/-TR	1	9.5	11.2	5.50	A	9.5	4.02	A+	7.4
6	DI	Twin	4.0	RAV-RM561BTP-E	2	RAV-GM1101AT8P-E/-TR	1	9.5	11.2	5.28	A	9.5	4.22	A+	7.6
7	DI	Twin	4.0	RAV-RM561SDT-E	2	RAV-GM1101AT8P-E/-TR	1	9.5	11.2	5.32	**A**	9.5	4.19	A+	7.4
8	DI	Twin	4.0	RAV-RM561CTP-E	2	RAV-GM1101AT8P-E/-TR	1	9.5	11.2	5.85	A+	9.5	4.28	A+	7.6
9	DI	Single	5.0	RAV-RM1401UTP-E	1	RAV-GM1401AT8P-E/-TR	1	12.0	13.0	5.71	**A+**	12.0	4.29	A+	8.0
10	DI	Single	5.0	RAV-RM1401BTP-E	1	RAV-GM1401AT8P-E/-TR	1	12.1	13.0	5.36	-	12.1	4.19	-	7.6
11	DI	Single	5.0	RAV-RM1401CTP-E	1	RAV-GM1401AT8P-E/-TR	1	12.1	13.0	5.36	-	12.1	4.19	-	7.6
12	DI	Twin	5.0	RAV-RM801UTP-E	2	RAV-GM1401AT8P-E/-TR	1	12.0	13.0	5.57	A	12.0	4.29	A+	8.0
13	DI	Twin	5.0	RAV-RM801BTP-E	2	RAV-GM1401AT8P-E/-TR	1	12.1	13.0	5.36	-	12.1	4.21	-	7.6
14	DI	Twin	5.0	RAV-RM801CTP-E	2	RAV-GM1401AT8P-E/-TR	1	12.1	13.0	5.36	-	12.1	4.19	-	7.6

* ErP Lot 10

In Europe the nominal efficiency method is becoming outdated.

The Seasonal Energy Efficiency Ratio (SEER) and the Seasonal Coefficient Of Performance (SCOP) will be introducted. The SEER/SCOP measuring method is more reliable and better represent the performance of the units during the year. Instead of a single reference temperature condition, with this new method the air conditioning systems are evaluated at different operating conditions (partial load); where Toshiba inverter units are known for being extremely efficient.

The SEER/SCOP measurement applies only to air conditioners in single or multi split combinations with a cooling capacity below 12kW.



Energy Efficiency Class	SEER	SCOP
A+++	SEER ≥ 8.50	SCOP ≥ 5.10
A++	6.10 ≤ SEER < 8.50	4.60 ≤ SCOP < 5.10
A+	5.60 ≤ SEER < 6.10	4.00 ≤ SCOP < 4.60
A	5.10 ≤ SEER < 5.60	3.40 ≤ SCOP < 4.00
B	4.60 ≤ SEER < 5.10	3.10 ≤ SCOP < 3.40
C	4.10 ≤ SEER < 4.60	2.80 ≤ SCOP < 3.10
D	3.60 ≤ SEER < 4.10	2.50 ≤ SCOP < 2.80
E	3.10 ≤ SEER < 3.60	2.20 ≤ SCOP < 2.50
F	2.60 ≤ SEER < 3.10	1.90 ≤ SCOP < 2.20
G	SEER < 2.60	SCOP < 1.90

Specifications for Turkey Lot-10

Digital Inverter < Series 1> 3 phase

No	Outdoor unit type	Connection type	HP	Indoor unit		Outdoor unit		Rated Capacity (kW)		Specification					
				Model name	Qty	Model name	Qty	Cooling	Heating	SEER	Energy Label	PdesignC	SCOP (average)	Energy Label	Pdesignh (average)
1	DI	Single	4.0	RAV-RM1101UTP-TR	1	RAV-GM1101AT8P-E/-TR	1	9.5	11.2	6.15	**A++**	9.5	4.28	A+	8.0
2	DI	Single	4.0	RAV-RM1101BTP-TR	1	RAV-GM1101AT8P-E/-TR	1	9.5	11.2	5.28	A	9.5	4.19	A+	7.6
3	DI	Single	4.0	RAV-RM1101CTP-TR	1	RAV-GM1101AT8P-E/-TR	1	9.5	11.2	5.86	A+	9.5	4.27	A+	7.6
4	DI	Twin	4.0	RAV-RM561UTP-TR	2	RAV-GM1101AT8P-E/-TR	1	9.5	11.2	5.94	A+	9.5	4.28	A+	8.0
5	DI	Twin	4.0	RAV-RM561MUT-TR	2	RAV-GM1101AT8P-E/-TR	1	9.5	11.2	5.50	A	9.5	4.02	A+	7.4
6	DI	Twin	4.0	RAV-RM561BTP-TR	2	RAV-GM1101AT8P-E/-TR	1	9.5	11.2	5.28	A	9.5	4.22	A+	7.6
7	DI	Twin	4.0	RAV-RM561SDT-TR	2	RAV-GM1101AT8P-E/-TR	1	9.5	11.2	5.32	**A**	9.5	4.19	A+	7.4
8	DI	Twin	4.0	RAV-RM561CTP-TR	2	RAV-GM1101AT8P-E/-TR	1	9.5	11.2	5.85	A+	9.5	4.28	A+	7.6
9	DI	Single	5.0	RAV-RM1401UTP-TR	1	RAV-GM1401AT8P-E/-TR	1	12.0	13.0	5.71	**A+**	12.0	4.29	A+	8.0
10	DI	Single	5.0	RAV-RM1401BTP-TR	1	RAV-GM1401AT8P-E/-TR	1	12.1	13.0	5.36	-	12.1	4.19	-	7.6
11	DI	Single	5.0	RAV-RM1401CTP-TR	1	RAV-GM1401AT8P-E/-TR	1	12.1	13.0	5.36	-	12.1	4.19	-	7.6
12	DI	Twin	5.0	RAV-RM801UTP-TR	2	RAV-GM1401AT8P-E/-TR	1	12.0	13.0	5.57	A	12.0	4.29	A+	8.0
13	DI	Twin	5.0	RAV-RM801BTP-TR	2	RAV-GM1401AT8P-E/-TR	1	12.1	13.0	5.36	-	12.1	4.21	-	7.6
14	DI	Twin	5.0	RAV-RM801CTP-TR	2	RAV-GM1401AT8P-E/-TR	1	12.1	13.0	5.36	-	12.1	4.19	-	7.6

* ErP Lot 10

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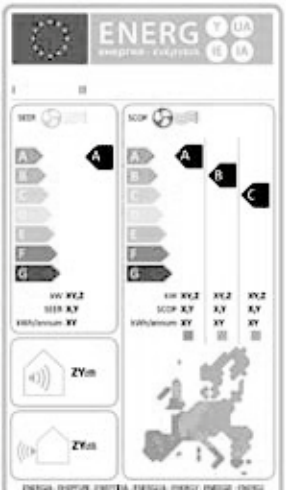

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A+	5.60 ≤ SEER < 6.10	4.00 ≤ SCOP < 4.60
A	5.10 ≤ SEER < 5.60	3.40 ≤ SCOP < 4.00
B	4.60 ≤ SEER < 5.10	3.10 ≤ SCOP < 3.40
C	4.10 ≤ SEER < 4.60	2.80 ≤ SCOP < 3.10
D	3.60 ≤ SEER < 4.10	2.50 ≤ SCOP < 2.80
E	3.10 ≤ SEER < 3.60	2.20 ≤ SCOP < 2.50
F	2.60 ≤ SEER < 3.10	1.90 ≤ SCOP < 2.20
G	SEER < 2.60	SCOP < 1.90

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