

Digital Inverter R32

3 Phase Model

Outdoor units

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

RAV-GM1101AT8JP-E
RAV-GM1401AT8JP-E

Indoor units

4-way cassette type

RAV-HM561UTP-E / TR
RAV-HM801UTP-E / TR
RAV-HM1101UTP-E / TR
RAV-HM1401UTP-E / TR

Compact 4-way cassette type

RAV-HM561MUTP-E / TR

Standard Duct type

RAV-HM561BTP-E / TR
RAV-HM801BTP-E / TR
RAV-HM1101BTP-E / TR
RAV-HM1401BTP-E / TR

Slim Duct type

RAV-HM561SDT-E / TR

Under Ceiling type

RAV-HM561CTP-E / TR
RAV-HM801CTP-E / TR
RAV-HM1101CTP-E / TR
RAV-HM1401CTP-E / TR

High Wall type

RAV-HM561KRTP-E / TR
RAV-HM801KRTP-E / TR
RAV-HM1101KRTP-E / TR


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1. Line up

1-1. Single Line-up

Outdoor unit line-up


Model name	RAV-GM1101AT8(J)P-E RAV-GM1401AT8(J)P-E	RAV-GM1101AT8P-TR RAV-GM1401AT8P-TR
Appearance	 <p>4 and 5 HP</p>	

Indoor unit line-up

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

1-2. Twin Line-up

Outdoor unit line-up (Twin system)

Model name	RAV-GM1101AT8(J)P-E RAV-GM1401AT8(J)P-E	RAV-GM1101AT8P-TR RAV-GM1401AT8P-TR
Appearance	 <p>4 and 5 HP</p>	

Indoor unit line-up

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

2. Indoor Units

2-1. 4-way Cassette Type

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2-1-1. Specifications

4-way Cassette Type <Single Type>

Model		Indoor unit		RAV-HM1101UTP-E/TR		RAV-HM1401UTP-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-U31PGP(W)-E , RBC-U31PGSP(W)-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-HM561UTP-E/TR		RAV-HM801UTP-E/TR	
			Indoor unit 2		RAV-HM561UTP-E/TR		RAV-HM801UTP-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-U31PGP(W)-E , RBC-U31PGSP(W)-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.

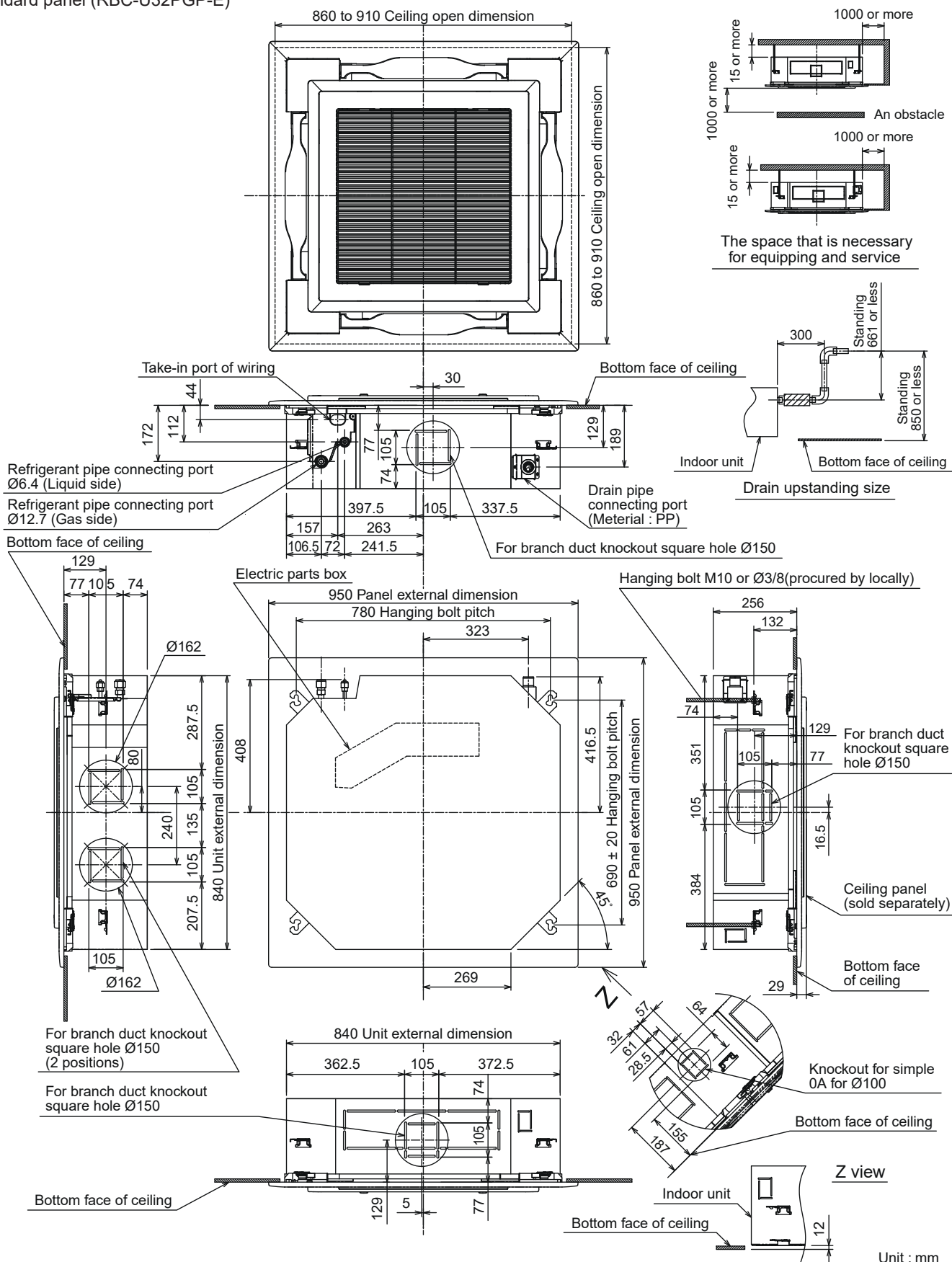
Note :

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

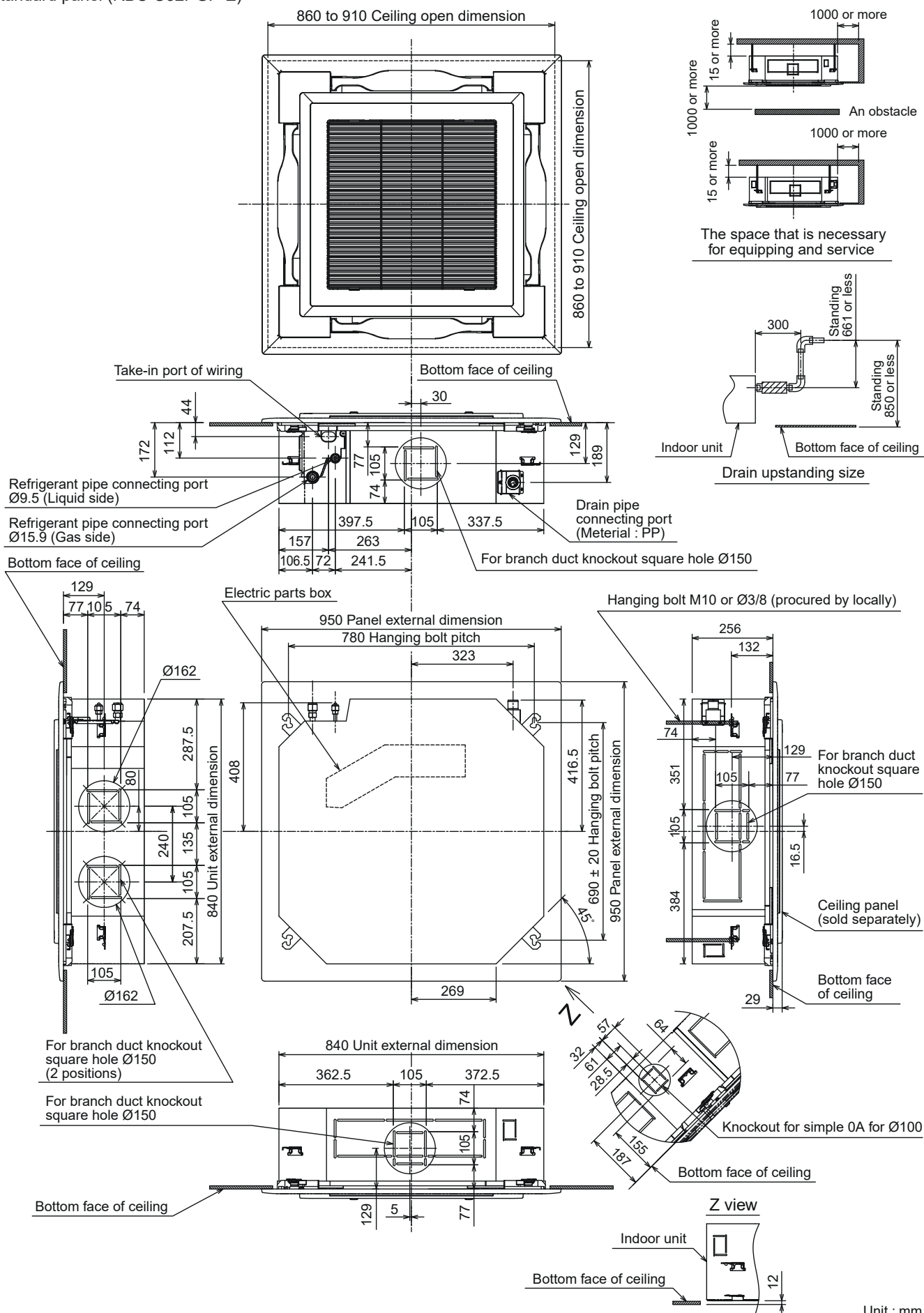
RAV-HM561UTP-E / TR

Standard panel (RBC-U32PGP-E)



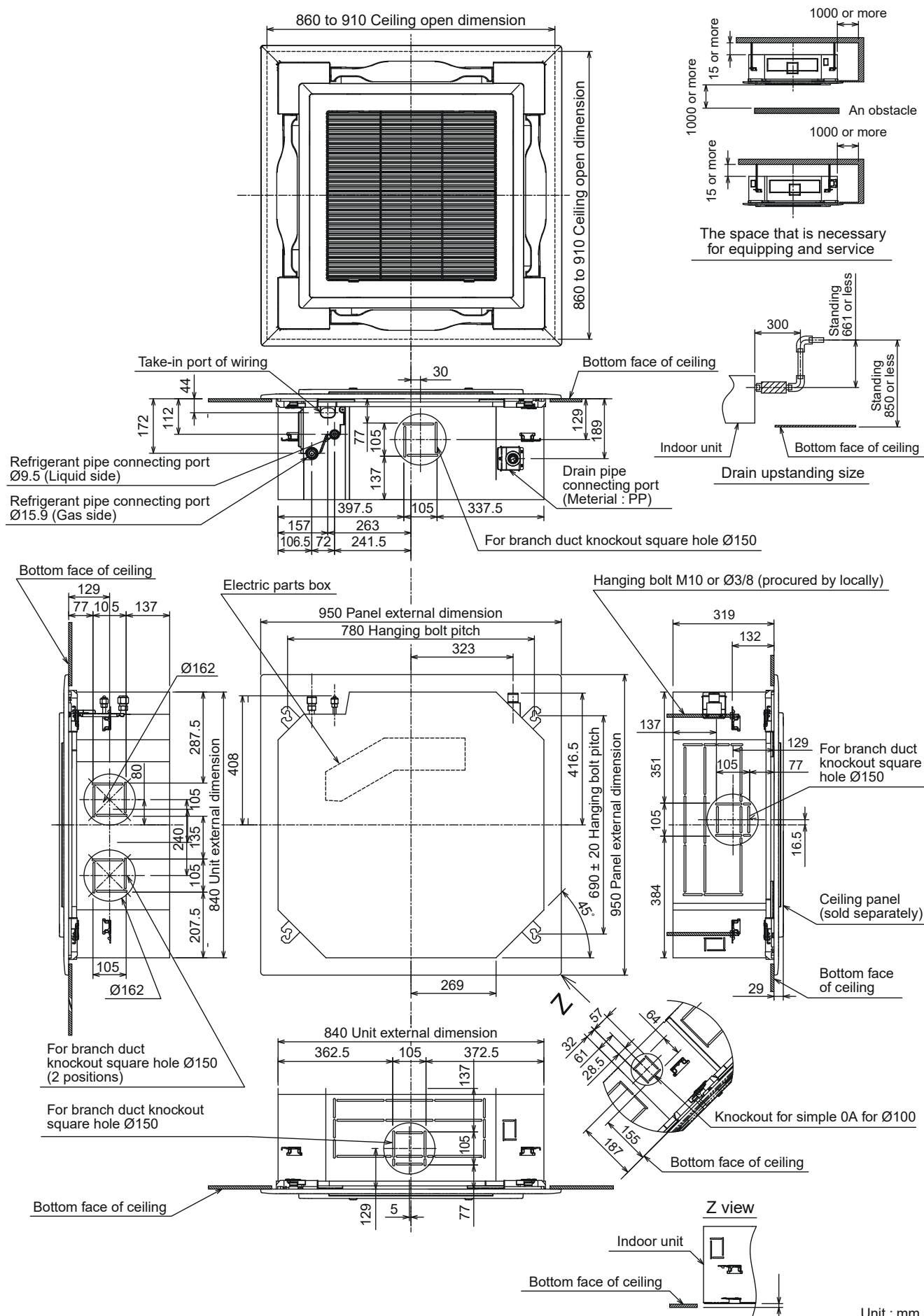
RAV-HM801UTP-E / TR

Standard panel (RBC-U32PGP-E)



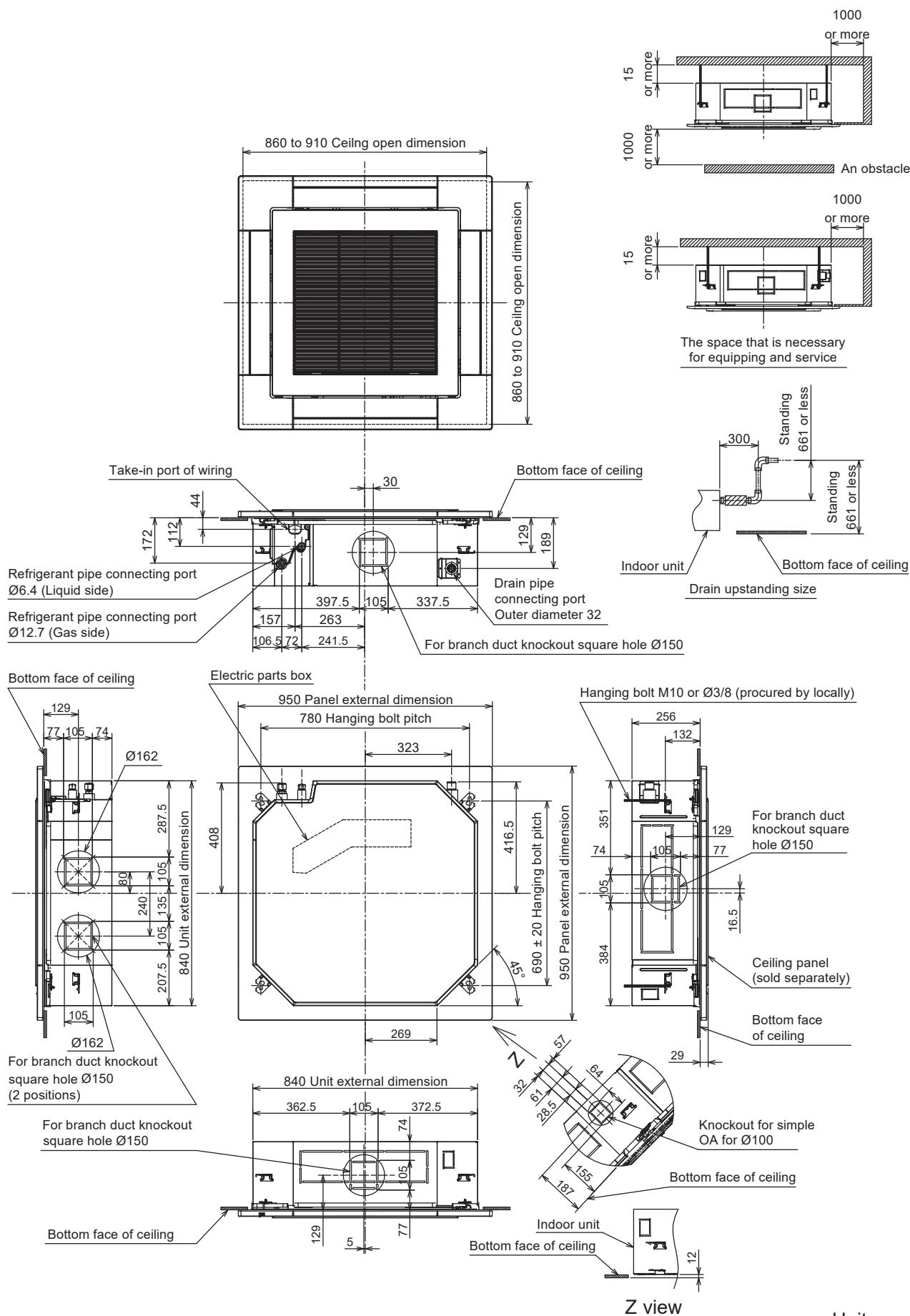
RAV-HM*_1UTP-E / TR (*110 / 140)

Standard panel (RBC-U32PGP-E)



RAV-HM561UTP-E / TR

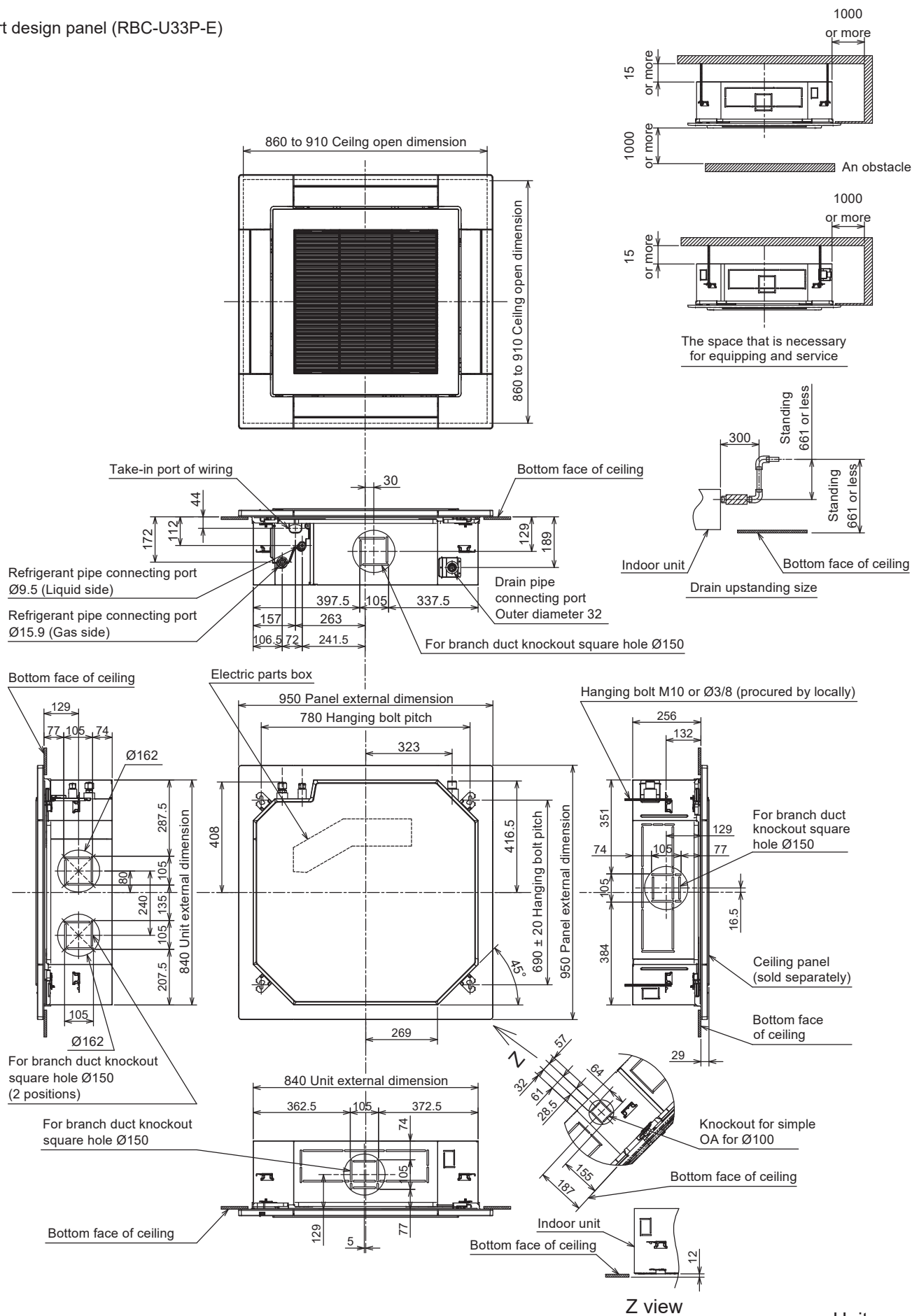
Smart design panel (RBC-U33P-E)



Unit : mm

RAV-HM801UTP-E / TR

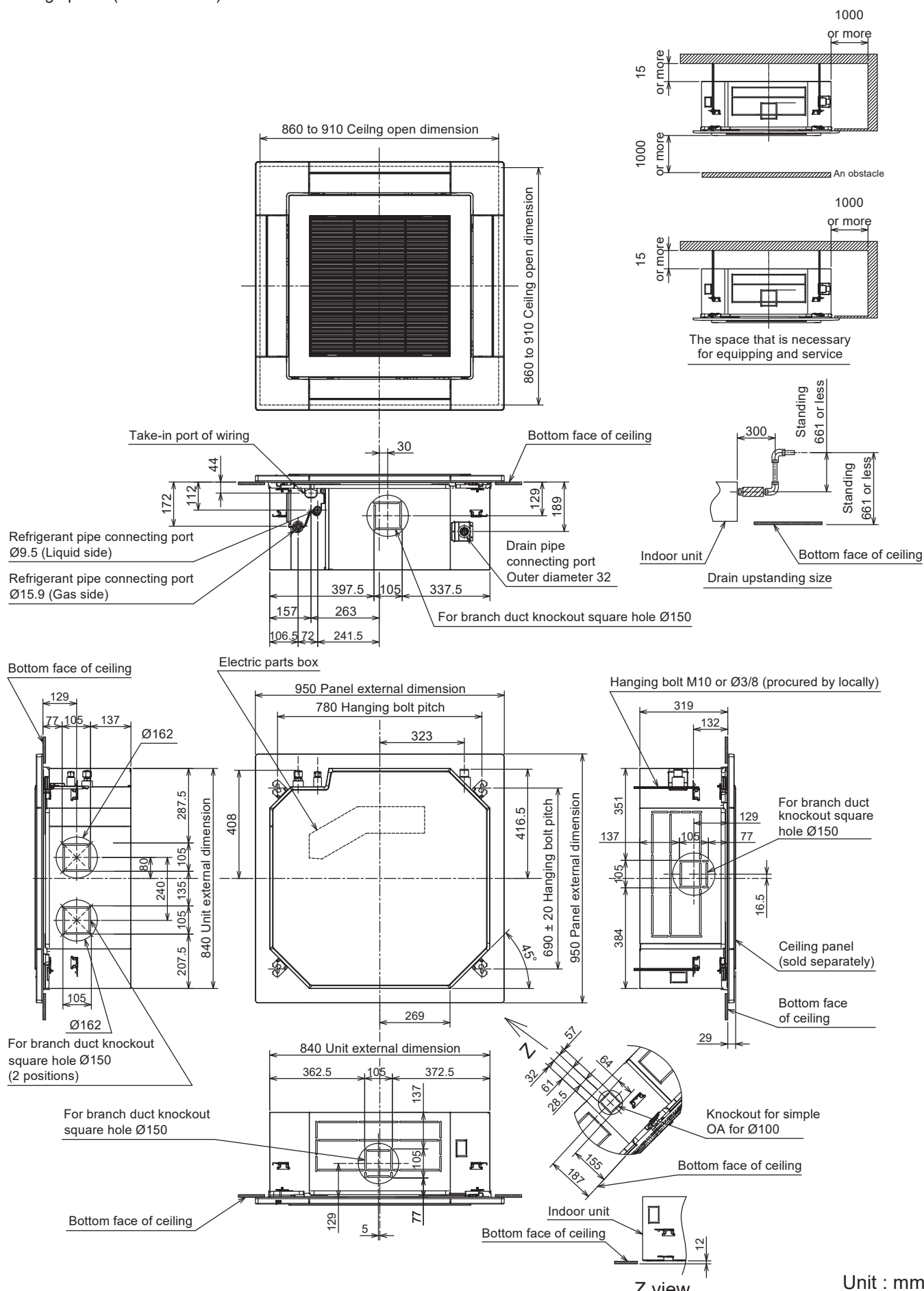
Smart design panel (RBC-U33P-E)



Unit : mm

RAV-HM*_1UTP-E / TR (*110 / 140)

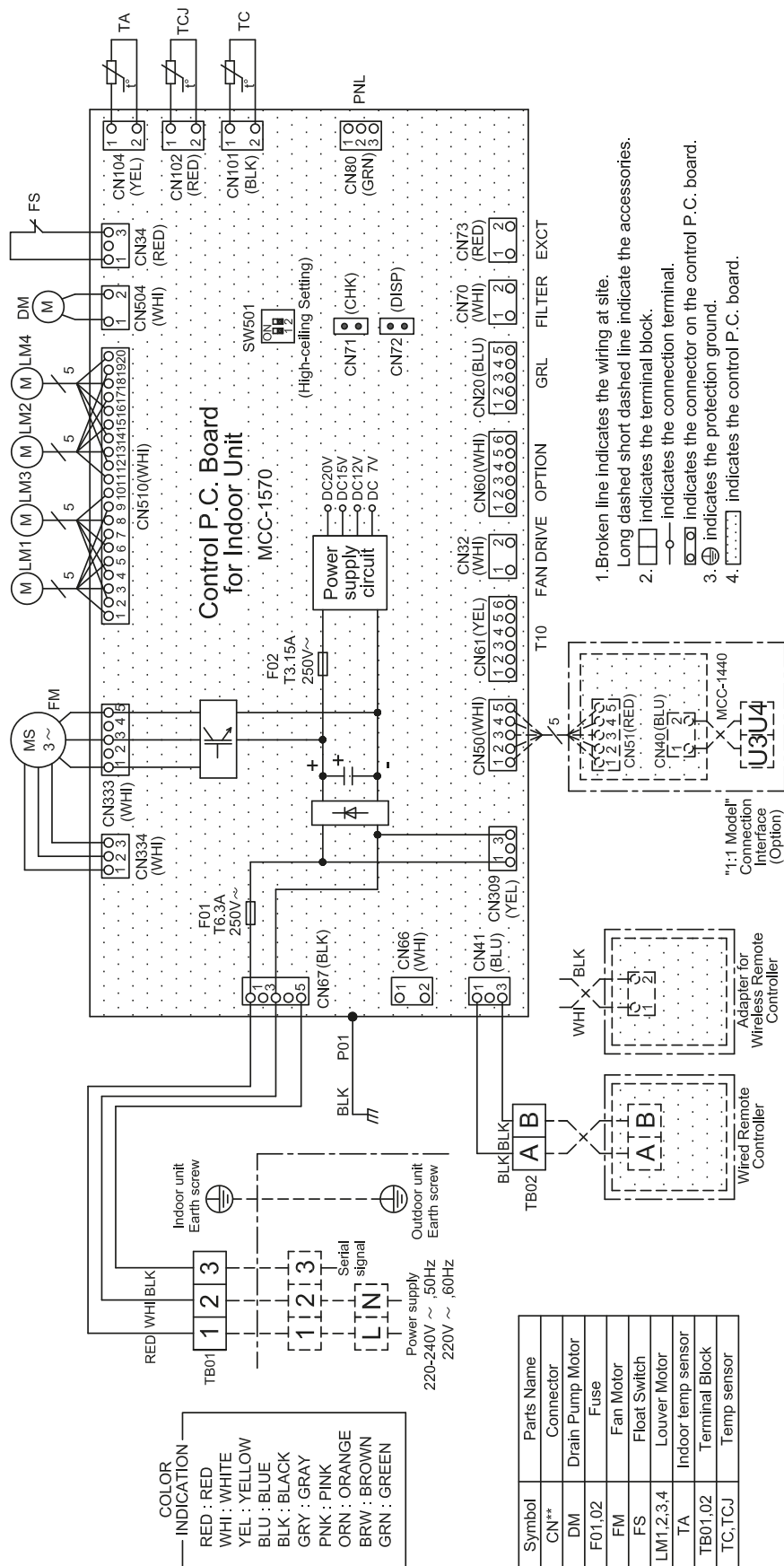
Smart design panel (RBC-U33P-E)



Unit : mm

2-1-3. Wiring Diagrams

RAV-HM561UTP-E/TR, RAV-HM801UTP-E/TR,
RAV-HM1101UTP-E/TR and RAV-HM1401UTP-E/TR



2-1-4. Sensible Capacity Table

Digital Inverter R32 Sensible Heat Capacity : RAV-HM***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	
		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. °C DB	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	
		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		

2-1-5. Part Load Performance

Combination

Indoor unit : RAV-HM1101UTP-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(°C)		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(°C)		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-HM1401UTP-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(°C)		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(°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	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-HM561UTP-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(°C)		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(°C)		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-HM801UTP-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

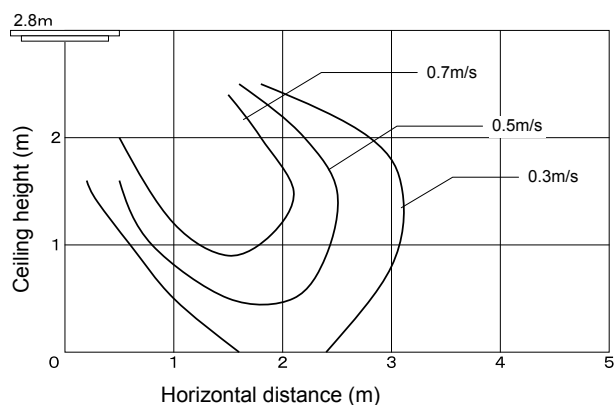
Outdoor temperature(°C)		Load(%)									
		100	90	80	70	60	50	40	30	20	10
40	Q	11370	10230	9100	7960	6820	5680	4550	3410	2840	2840
	W	4670	3770	2960	2270	1730	1300	990	750	650	650
35	Q	12000	10800	9600	8400	7200	6000	4800	3600	3000	3000
	W	4290	3470	2720	2090	1590	1200	910	690	600	600
30	Q	12580	11320	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

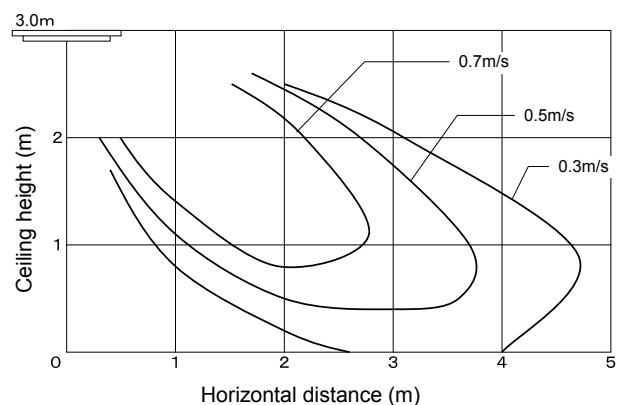
Outdoor temperature(°C)		Load(%)									
		100	90	80	70	60	50	40	30	20	10
15	Q	15570	14010	12460	10900	9340	7780	6230	4670	3590	3590
	W	3800	3190	2650	2180	1770	1390	1080	810	660	660
10	Q	14150	12730	11320	9900	8490	7070	5660	4240	3260	3260
	W	3610	3040	2530	2080	1680	1330	1020	770	630	630
7	Q	13000	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

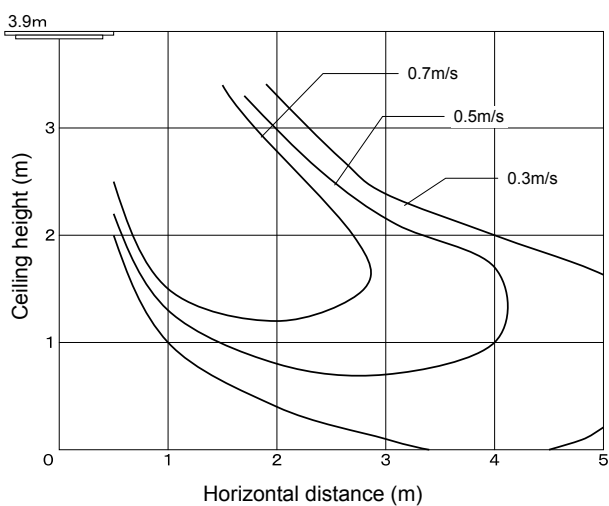
RAV-HM561UTP-E/TR



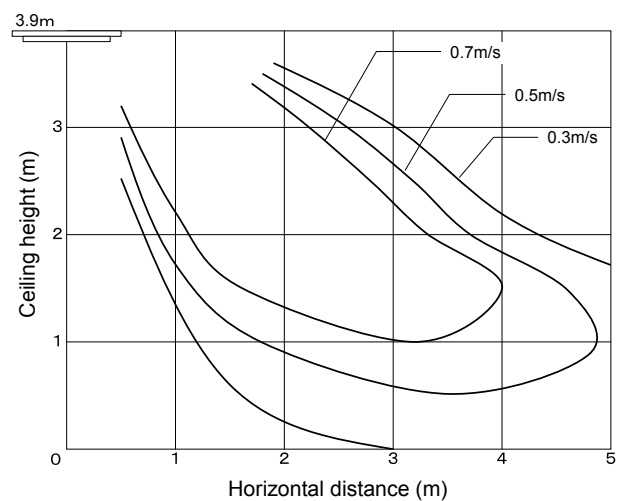
RAV-HM801UTP-E/TR



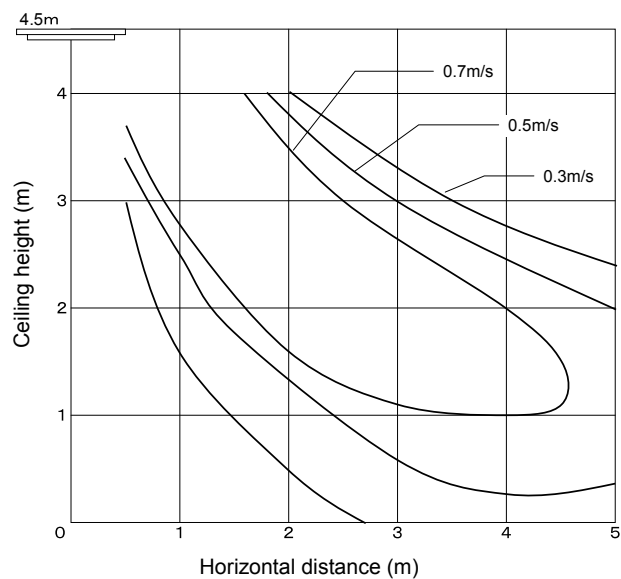
RAV-HM1101UTP-E/TR



RAV-HM1401UTP-E/TR

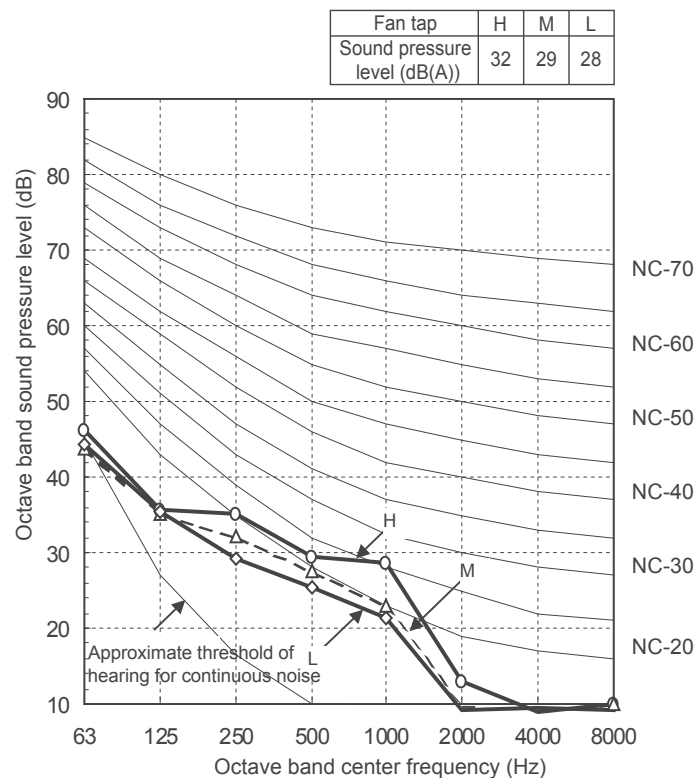


**RAV-HM1101UTP-E/TR, RAV-HM1041UTP-E/TR
(High ceiling)**

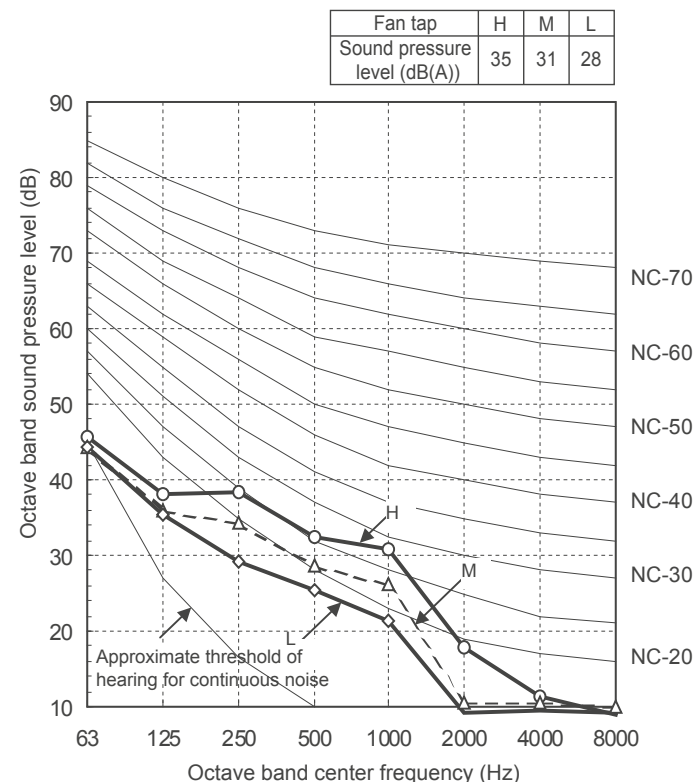


2-1-7. Sound characteristics (NC curve)

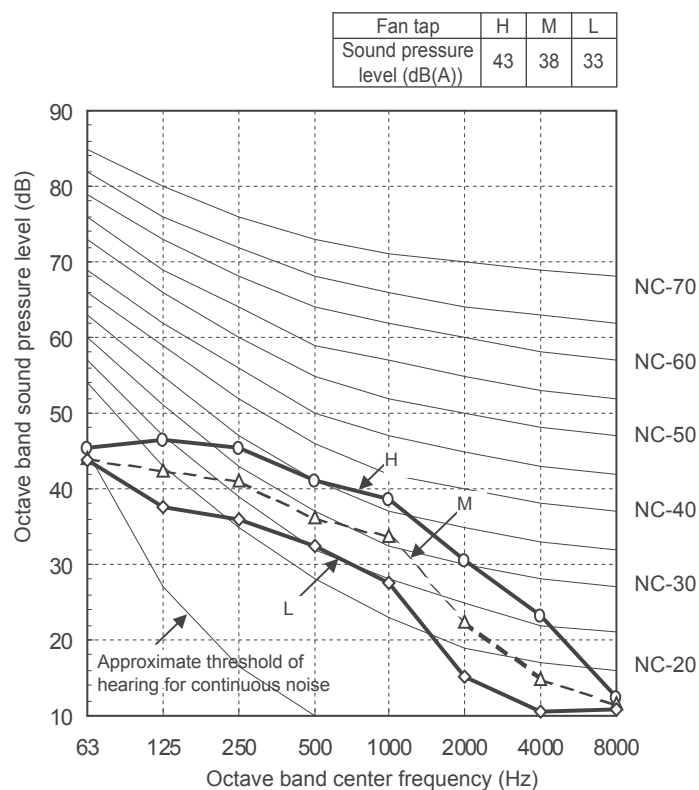
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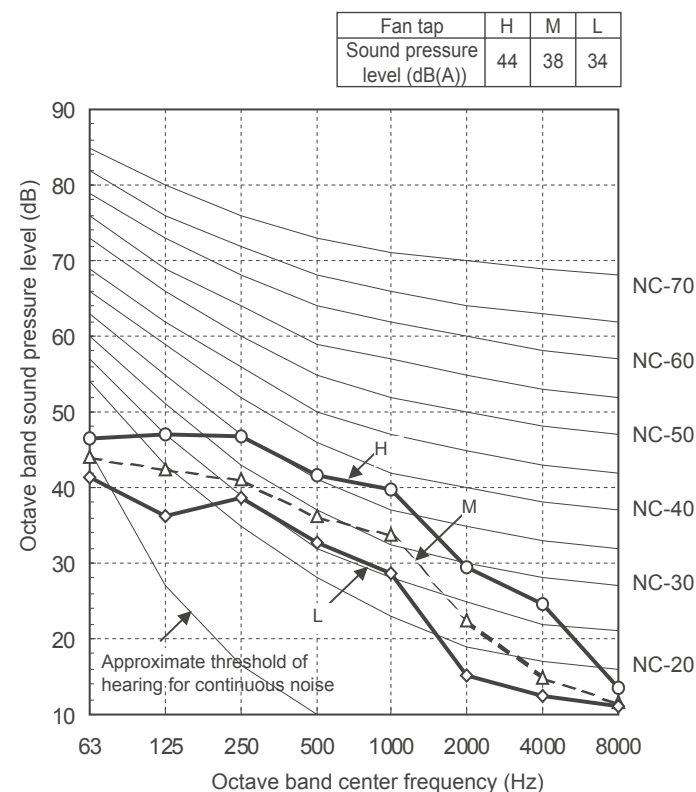
RAV-HM801UTP-E/TR



RAV-HM1101UTP-E/TR

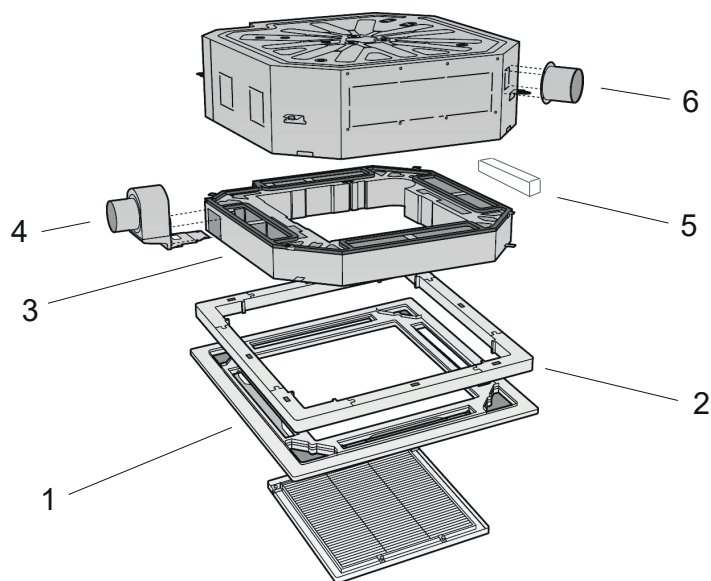


RAV-HM1041UTP-E/TR



2-1-8. Accessories

Optional parts for 4-Way Cassette type



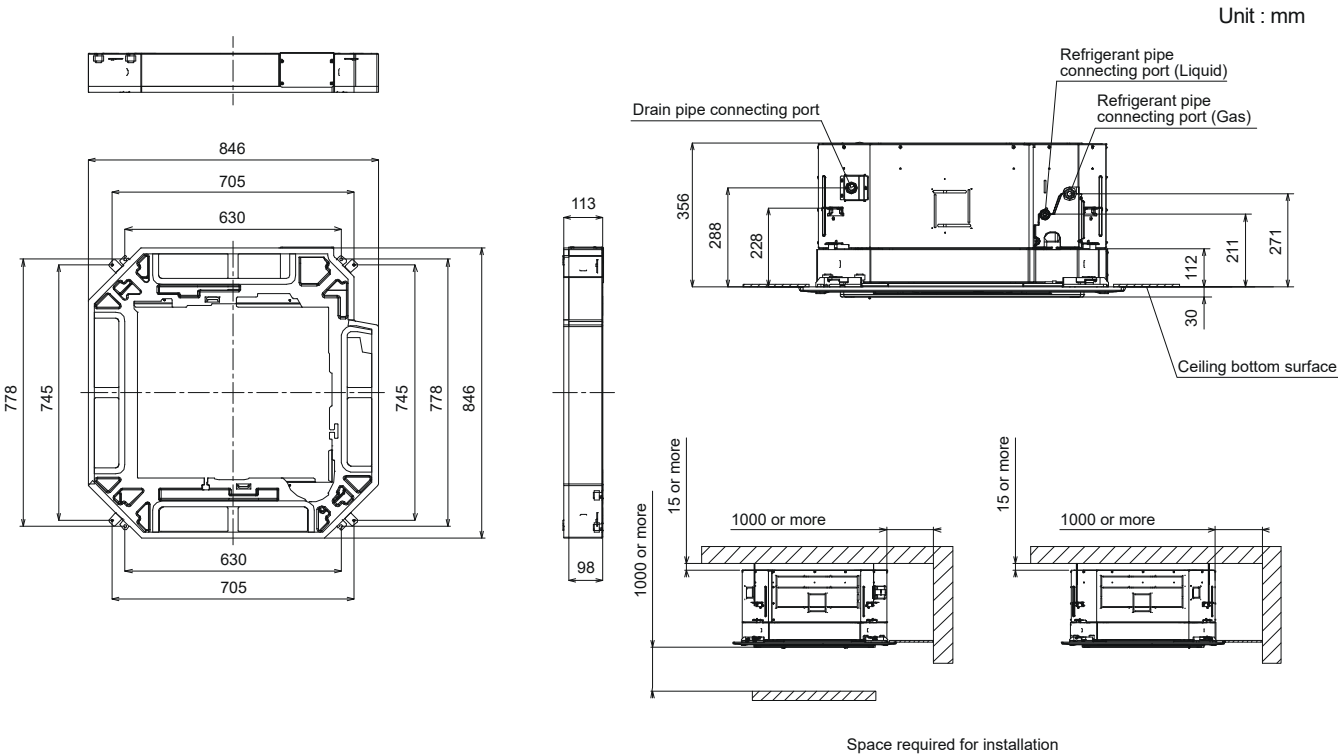
Optional parts list

No	Type	Model name	Qty/unit	Note
1	1.1 Ceiling panel	RBC-U32PGP-E	1	White (2.5GY9.0/0.5)
	1.2 Ceiling panel (Smart design)	RBC-U33P-E	1	White (5PB9/1)
	1.3 Ceiling panel (Smart design)	RBC-U33PB-E	1	Black (RAL9005)
2	Spacer for height adjustment	TCB-SP1602UE	1	50 mm
3	Fresh-air chamber	TCB-GFC1602UE	1	Use with TCB-GB1602UUL
4	Fresh-air inlet box	TCB-GB1602UE	1	Connection = Dia. 100 mm.
5	Air-discharge direction kit	TCB-BC1602UE	1	6-direction patterns
6	Auxiliary fresh air flange	TCB-FF101URE2		Connection = Dia.100

Ceiling panel	RBC-U32PGP-E
Ceiling panel (smart design)	RBC-U33P-E
	RBC-U33PB-E

Appendix

1. Fresh-air chamber (TCB-GFC1602UE)



2. Fresh-air inlet box (TCB-GB1602UE)

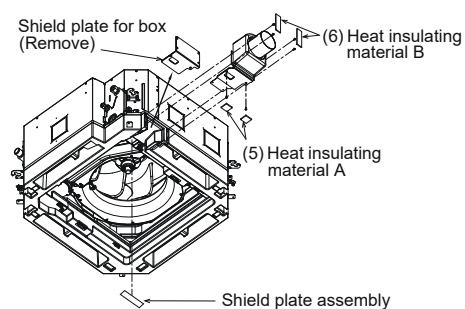
Accessories

(The following parts are included.)

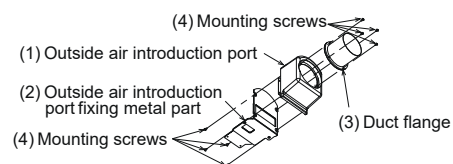
No.	Name	Qty	Remark
(1)	Outside air introduction port	1	
(2)	Outside air introduction port fixing metal part	1	
(3)	Duct flange 100 mm	1	
(4)	Mounting screws 4 × 10 mm	16	
(5)	Heat insulating material A	2	
(6)	Heat insulating material B	2	
(7)	Wind shield	1	
(8)	Installation manual	1	
(9)	Wire	1	

Installation

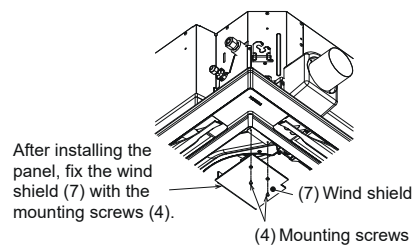
(Fig. 1)



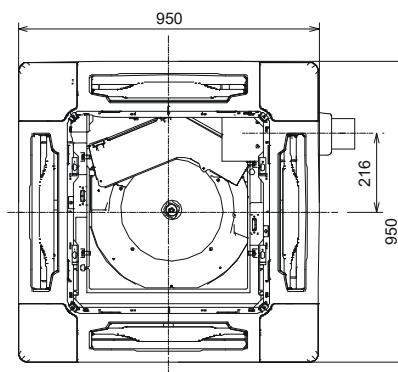
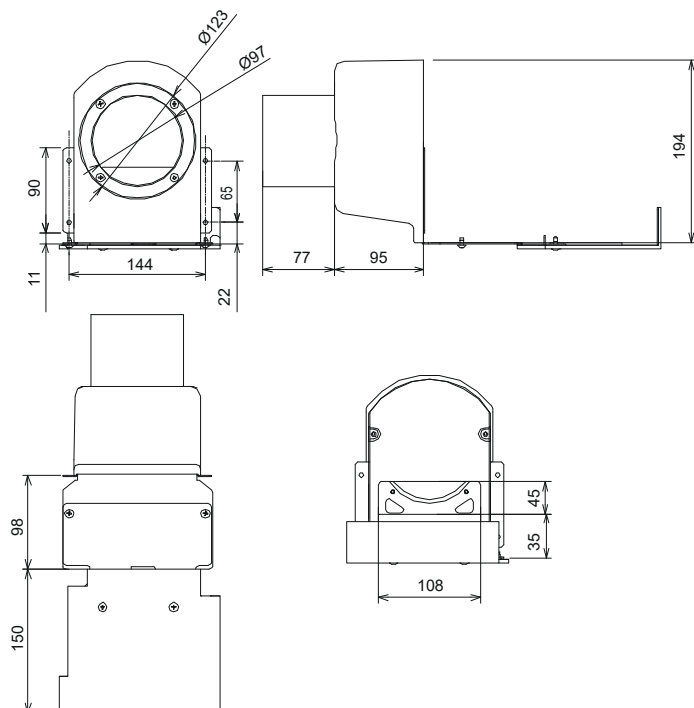
(Fig. 2)



(Fig. 3)



Dimension



Unit: mm

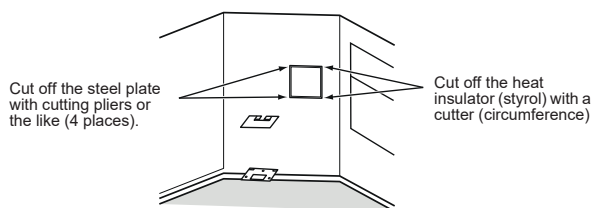
NOTE

This inlet box shall be used with the fresh-air chamber.

3. Auxiliary fresh air flange (TCB-FF101URE2)

Installation

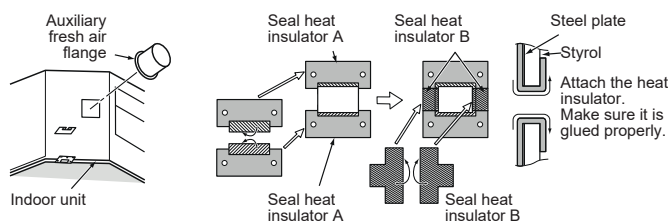
1. Using the knockout of the indoor unit main body, as a marker, cut off the flange with the heat insulator (styrol) with cutting pliers or cutter.



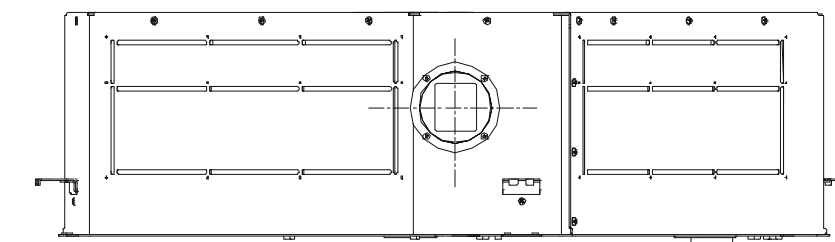
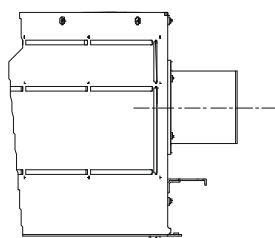
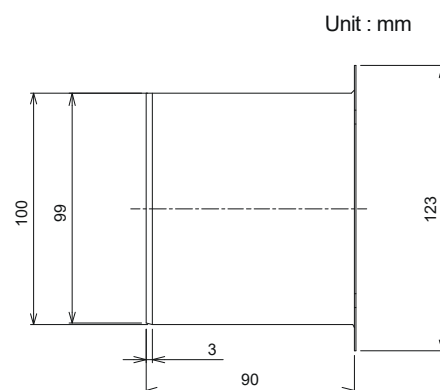
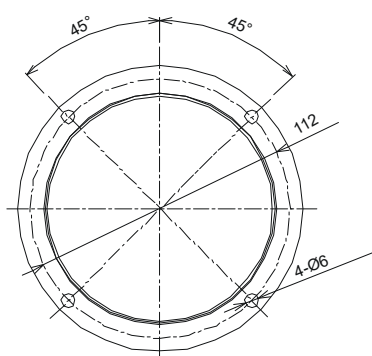
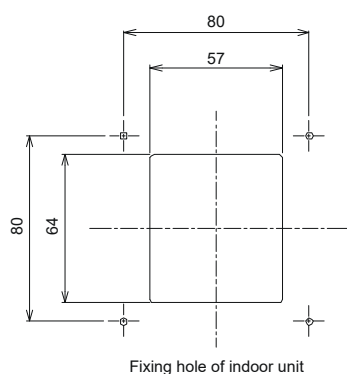
NOTE

When cutting off the styrol inside, be careful not to insert the cutter blade deeper than 30 mm. (Damage to the drain pan inside can cause water leakage.) Wear safety globes to carry out these works. Do not attempt with bare hands.

2. A gap between the styrol and steel plate may cause a trouble such as condensation. Be sure to attach the attached heat insulator A first with it aligned to the screw hole, and then attach B, according to the right figure.
3. Install the auxiliary fresh air flange to the indoor unit main body with attached 4 fixing screws.



Dimension

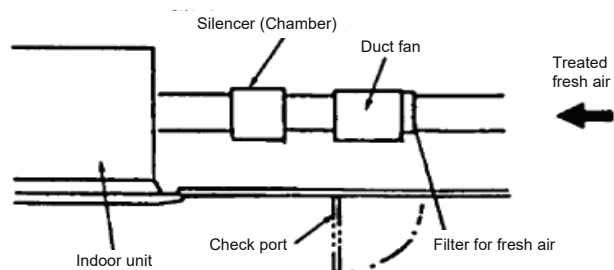


Installation status of indoor unit

Duct fan

In order to take fresh air, provide the duct fan separately.

1. Install the filter for fresh air
2. Provide the check port beneath the duct fan for maintenance.
3. Provide the silencer to prevent the effect of noise.



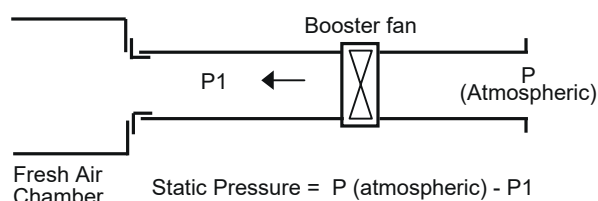
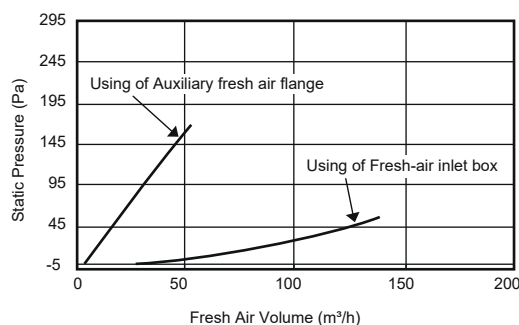
4. Fresh Air Intake

Usage

Fresh air is taken by using Fresh-air chamber and Fresh-air inlet box. And also is subsidiarily taken by using Auxiliary fresh air flange through the knock-out hole of the indoor unit body.

Caution

1. Be sure to provide air return.
2. The fresh air shall be treated by heat reclaim ventilator or the like.
3. Recommended treated air temperature is 12 °C to 30 °C.
4. Be sure to decide the fresh air volume so that mixed suction air with fresh air keep operating temperature.
Provide an air filter in fresh air way to prevent sucking dust.
5. Be sure to insulate the fresh air duct.
In order to accelerate starting up in heating mode, implement pre-heating operation by cutting off Fresh Air Intake.
6. The operating sound might increase when fresh air intake.



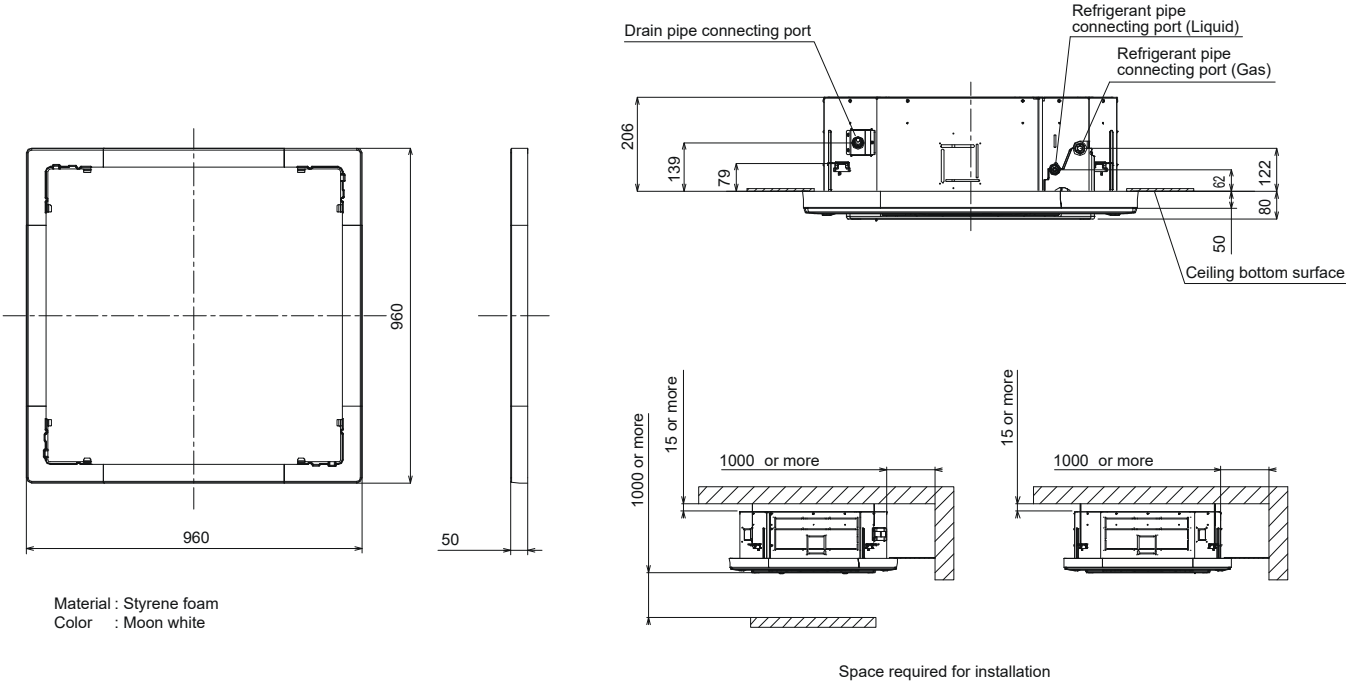
Characteristics between air volume of branching duct and static pressure

Following fresh air intake ratio is available by using the booster fan.

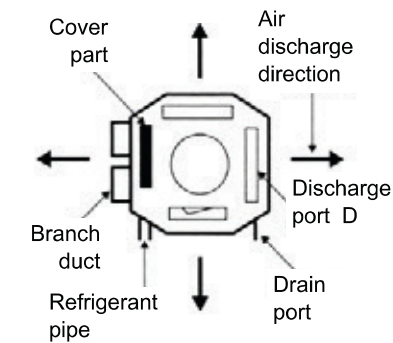
1. Fresh-air inlet box with Fresh-air chamber.
By using duct fan (local procurement), it is available to inlet up to 110 m³/h and 5% of rated air volume.
2. Auxiliary fresh air flange through the knock-out hole of the indoor unit body.
By using duct fan (local procurement), it is available to inlet up to 30 m³/h and 2% of rated air volume.

5. Spacer for height adjustment (TCB-SP1602UE)

Unit : mm



6. Air discharge direction kit (TCB-BC1602UE)



		Limited models only		
3-way air flow				
	Available for all models	Available for all models	Available only for 56 to 80 type	Available only for 110 to 160 type
2-way air flow				
	Available for all models	Available for all models	Available for all models	

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)

2-2-8. Accessories

2-2-1. Specifications

Compact 4-way Cassette (Twin System)

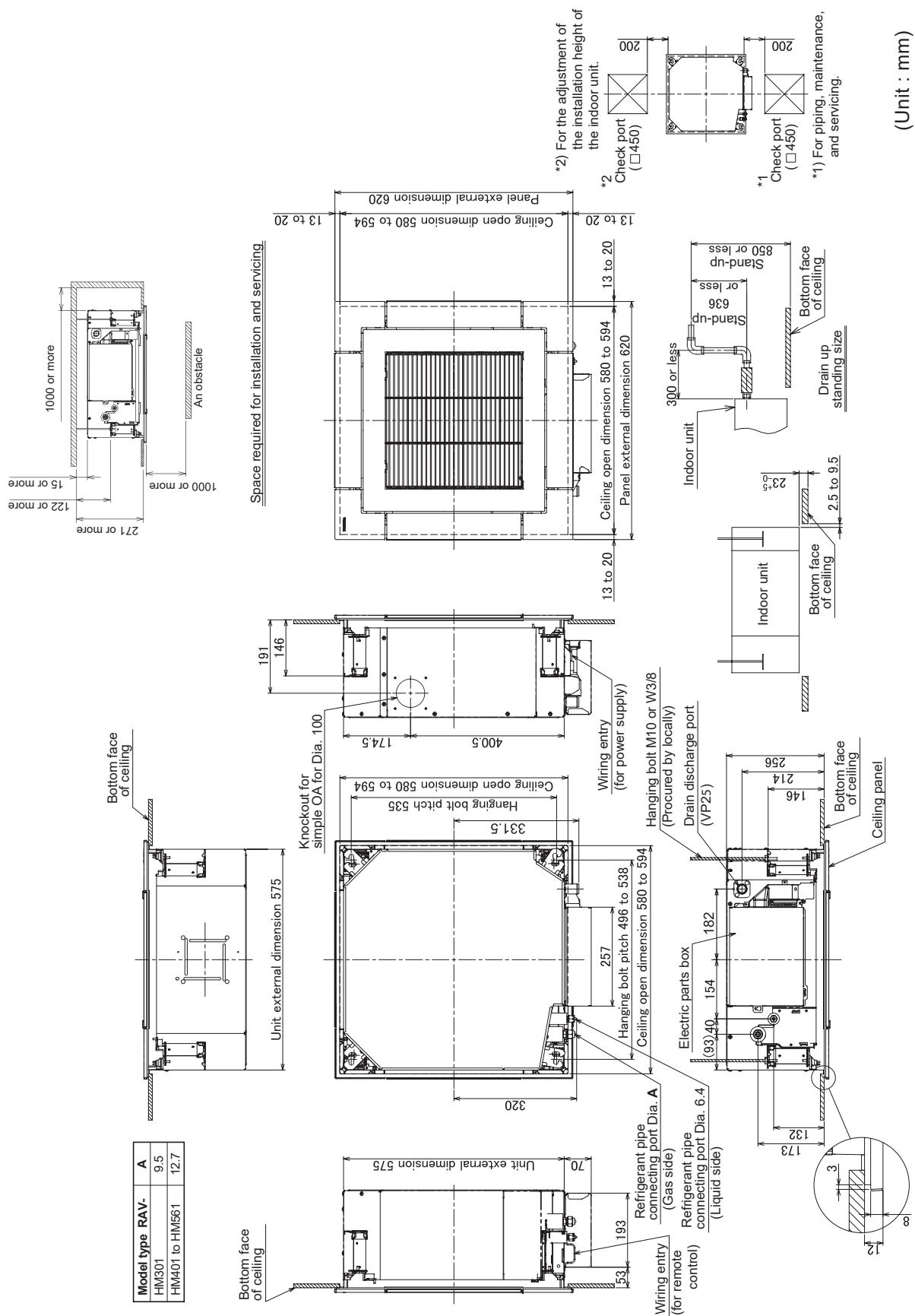
Model		Indoor unit 1		RAV-HM561MUTP-E/TR	
		Indoor unit 2		RAV-HM561MUTP-E/TR	
		Outdoor unit (RAV-GM***ATJP-E)		RAV-GM1101ATP-E/TR	
Cooling capacity (kW)				9.5 < 3.0 - 11.2 >	
Heating capacity (kW)				11.2 < 3.0 - 13.0 >	
Power supply				1 phase 220V-240V/50Hz, 1phase 220V/60Hz	
Electrical characteristics	Cooling	Running current (A)		14.55-13.30	
		Power consumption (kW)		3.00	
		Power factor (%)		94	
		EER		3.17	
		SEER		5.50	
	Heating	Running current (A)		15.44 - 14.15	
		Power consumption (kW)		3.26	
		Power factor (%)		96	
		COP		3.44	
		SCOP		4.02	
Maximum current (A)		22.8			
Indoor unit					
Appearance		Main unit		Zinc hot dipping steel plate	
		Ceiling panel (Sold separately)	Model	RBC-UM21P-E, RBC-UM21PB-E	
			Panel color	Gran White (Mansell 5PB9/1) , Black 3 C	
Outer dimension		Main unit	Height (mm)	256	
			Width (mm)	575	
			Depth (mm)	575	
		Ceiling panel (Sold separately)	Height (mm)	12	
			Width (mm)	620	
			Depth (mm)	620	
Total weight		Main unit (kg)		15	
		Ceiling panel (Sold separately) (kg)		3	
Fan unit		Fan		Turbo fan	
		Standard air flow	H/M+/M/L+/L (m3/h)	798/720/672/562/546	
		Motor (W)		60	
Air filter				Standard filter (Long life filter)	
Sound pressure level			H/M+/M/L+/L (dB)	44/42/39/36/35	
Sound power level			H/M+/M/L+/L (dB)	59/57/54/51/50	
Connecting pipe		Drain port		VP25	

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

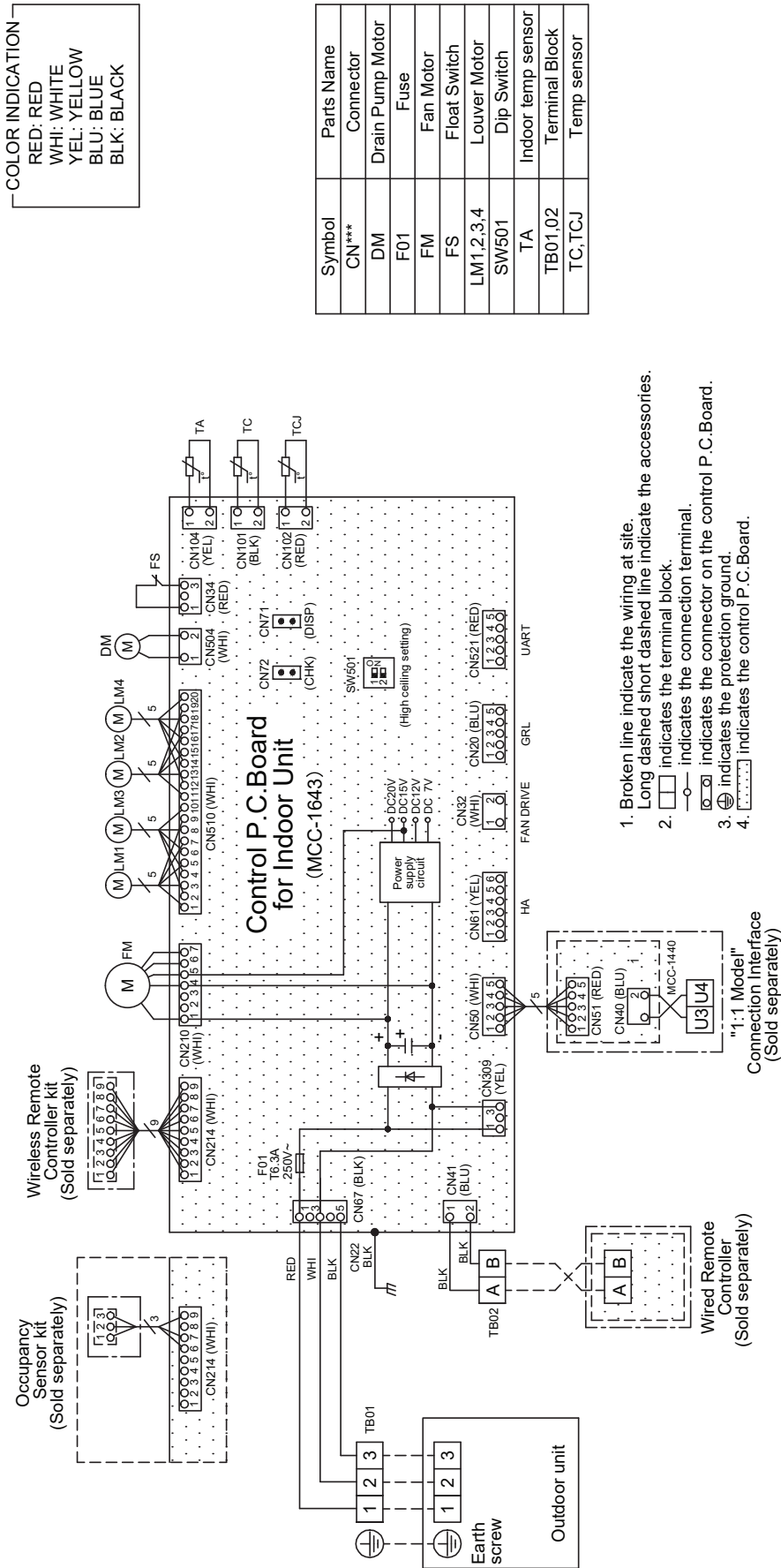
2-2-2. Dimension

RAV-HM561MUTP-E/TR



2-2-3. Wiring Diagrams

RAV-HM561MUTP-E/TR



2-2-4. Sensible Capacity Table

RAV-HM561MUTP-E(x2) / RAV-GM1101ATP-E, RAV-GM1101ATJP-E, RAV-GM1101AT8P-E

Standard Condition

Indoor	27.0 °C DB / 19.0 °C WB
Outdoor	35.0 °C DB / 24.0 °C WB

Specification of product at standard condition.

Total Cooling Capacity (TC)	5.00 kW
Sensible Heat Capacity (SHC)	4.05 kW

	Indoor Air temperature																	
Outdoor air temp.	14.0 °C WB		15.0 °C WB		16.0 °C WB		17.0 °C WB		18.0 °C WB		19.0 °C WB		20.0 °C WB		22.0 °C WB		24.0 °C WB	
	20.0 °C DB		21.0 °C DB		23.0 °C DB		24.0 °C DB		26.0 °C DB		27.0 °C DB		28.0 °C DB		30.0 °C DB		32.0 °C DB	
	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
10.0	4.83	4.20	5.00	4.30	5.33	4.48	5.46	4.58	5.71	4.77	5.88	4.76	6.05	4.76	6.40	4.72	6.70	4.63
12.0	4.79	4.17	4.96	4.27	5.29	4.45	5.41	4.54	5.66	4.73	5.83	4.72	6.00	4.72	6.35	4.68	6.64	4.60
14.0	4.75	4.13	4.91	4.23	5.24	4.41	5.37	4.50	5.61	4.69	5.78	4.68	5.94	4.68	6.30	4.64	6.58	4.56
16.0	4.70	4.09	4.87	4.19	5.19	4.37	5.32	4.46	5.56	4.64	5.72	4.64	5.89	4.64	6.24	4.60	6.52	4.51
18.0	4.65	4.05	4.82	4.15	5.14	4.32	5.26	4.41	5.50	4.60	5.67	4.59	5.83	4.59	6.17	4.55	6.45	4.47
20.0	4.60	4.01	4.76	4.10	5.08	4.27	5.20	4.36	5.44	4.54	5.60	4.54	5.76	4.54	6.10	4.50	6.38	4.42
21.0	4.57	3.98	4.73	4.08	5.05	4.25	5.17	4.34	5.41	4.52	5.57	4.51	5.73	4.51	6.07	4.47	6.35	4.39
23.0	4.52	3.93	4.68	4.02	4.99	4.20	5.11	4.29	5.34	4.46	5.50	4.46	5.66	4.45	5.99	4.42	6.27	4.34
25.0	4.46	3.88	4.61	3.97	4.92	4.14	5.04	4.23	5.27	4.40	5.43	4.40	5.58	4.40	5.91	4.36	6.18	4.28
27.0	4.39	3.83	4.55	3.92	4.85	4.08	4.97	4.17	5.20	4.34	5.35	4.33	5.50	4.33	5.83	4.30	6.10	4.22
29.0	4.33	3.77	4.48	3.86	4.78	4.02	4.89	4.11	5.12	4.27	5.27	4.27	5.42	4.27	5.74	4.23	6.00	4.15
31.0	4.26	3.71	4.41	3.79	4.70	3.96	4.81	4.04	5.04	4.21	5.18	4.20	5.33	4.20	5.65	4.16	5.91	4.09
33.0	4.19	3.64	4.33	3.73	4.62	3.89	4.73	3.97	4.95	4.13	5.10	4.13	5.24	4.13	5.55	4.09	5.81	4.02
35.0	4.11	3.58	4.25	3.66	4.54	3.81	4.64	3.90	4.86	4.06	5.00	4.05	5.14	4.05	5.45	4.02	5.70	3.94
37.0	4.03	3.51	4.17	3.59	4.45	3.74	4.56	3.82	4.77	3.98	4.91	3.97	5.05	3.97	5.34	3.94	5.59	3.87
39.0	3.95	3.44	4.08	3.52	4.36	3.67	4.46	3.74	4.67	3.90	4.80	3.89	4.94	3.89	5.23	3.86	5.47	3.79
40.0	3.90	3.40	4.04	3.48	4.31	3.63	4.41	3.70	4.62	3.85	4.75	3.85	4.89	3.85	5.18	3.82	5.41	3.75
42.0	3.82	3.32	3.95	3.40	4.21	3.54	4.31	3.62	4.51	3.77	4.65	3.76	4.78	3.76	5.06	3.73	5.29	3.66
43.0	3.77	3.28	3.90	3.36	4.16	3.50	4.26	3.58	4.46	3.72	4.59	3.72	4.72	3.72	5.00	3.69	5.23	3.62
45.0	3.68	3.20	3.81	3.28	4.06	3.42	4.16	3.49	4.35	3.63	4.48	3.63	4.61	3.63	4.88	3.60	5.10	3.53
46.0	3.63	3.16	3.76	3.23	4.01	3.37	4.10	3.44	4.29	3.58	4.42	3.58	4.55	3.58	4.81	3.55	5.04	3.48

2-2-5. Part load performance

Combination

Indoor unit : RAV-HM561MUT-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	3000	11200	3260

Q: Capacity in W

W: Power Consumption in W

Cooling

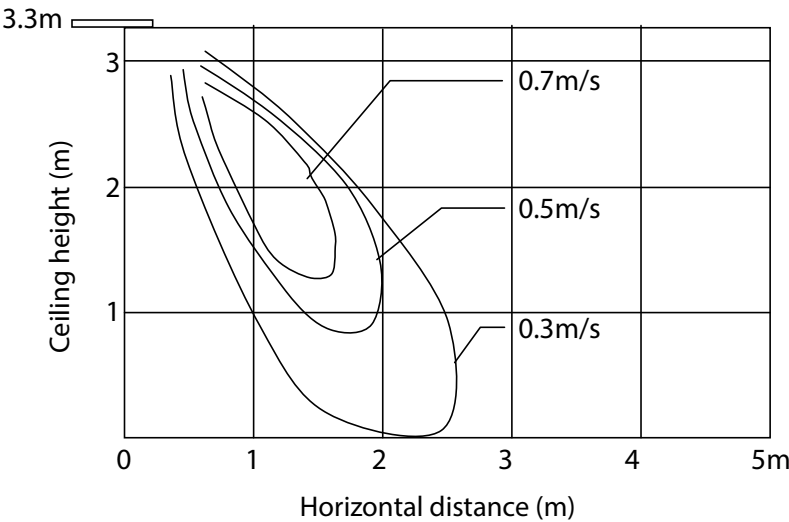
Outdoor temperature(°C)		Load(%)									
		100	90	80	70	60	50	40	30	20	10
40	Q	9000	8100	7200	6300	5400	4500	3600	2840	2840	2840
	W	3260	2600	2120	1710	1360	1050	830	650	650	650
35	Q	9500	8550	7600	6650	5700	4750	3800	3000	3000	3000
	W	3000	2390	1950	1570	1250	970	760	600	600	600
30	Q	9960	8960	7960	6970	5970	4980	3980	3140	3140	3140
	W	2720	2170	1770	1420	1130	880	690	540	540	540
25	Q	10340	9300	8270	7240	6200	5170	4130	3260	3260	3260
	W	2470	1970	1610	1290	1030	800	630	490	490	490
20	Q	10610	9550	8490	7430	6370	5310	4240	3350	3350	3350
	W	2240	1780	1450	1170	930	720	570	450	450	450

Heating

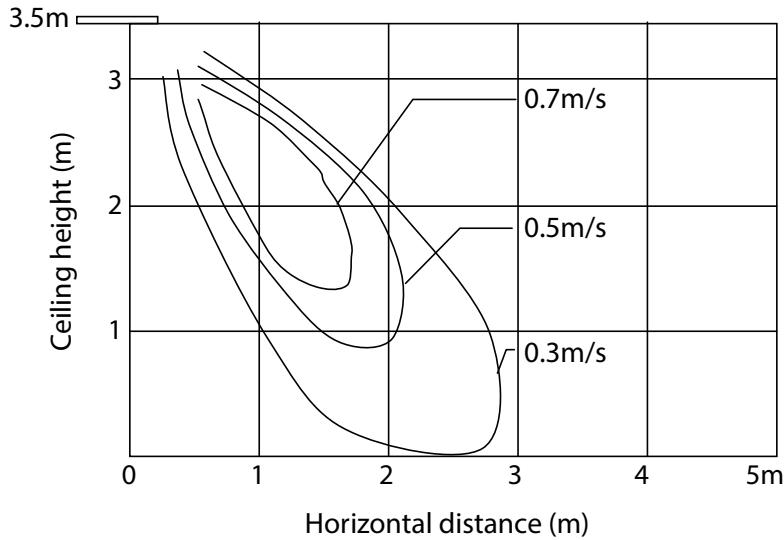
Outdoor temperature(°C)		Load(%)									
		100	90	80	70	60	50	40	30	20	10
15	Q	13510	12160	10800	9450	8100	6750	5400	4050	3620	3620
	W	3680	3050	2560	2110	1710	1330	990	690	680	680
10	Q	12060	10850	9650	8440	7230	6030	4820	3620	3230	3230
	W	3410	2830	2380	1960	1580	1240	920	640	630	630
7	Q	11200	10080	8960	7840	6720	5600	4480	3360	3000	3000
	W	3260	2700	2270	1870	1510	1180	880	610	600	600
5	Q	8500	7650	6800	5950	5100	4250	3400	2550	2280	2280
	W	2990	2480	2080	1720	1390	1080	810	560	550	550
2	Q	8100	7290	6480	5670	4860	4050	3240	2430	2170	2170
	W	2880	2380	2000	1650	1330	1040	780	540	530	530
0	Q	7840	7060	6270	5490	4700	3920	3140	2350	2100	2100
	W	2800	2320	1950	1610	1300	1010	760	520	520	520
-5	Q	7180	6460	5740	5030	4310	3590	2870	2150	1920	1920
	W	2610	2160	1820	1500	1210	940	700	490	480	480
-7	Q	6920	6230	5530	4840	4150	3460	2770	2080	1850	1850
	W	2530	2100	1760	1450	1170	920	680	470	470	470
-10	Q	6290	5660	5030	4400	3780	3150	2520	1890	1690	1690
	W	2420	2000	1680	1390	1120	870	650	450	440	440
-15	Q	4840	4360	3870	3390	2910	2420	1940	1450	1300	1300
	W	2150	1780	1500	1230	990	780	580	400	400	400

2-2-6. Air Throw Distance Chart

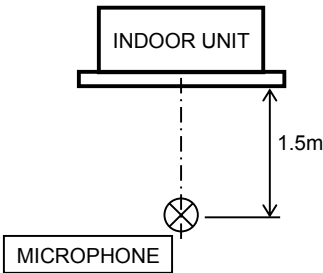
RAV-HM561MUT-E/TR



RAV-HM561MUT-E/TR (High ceiling mode)

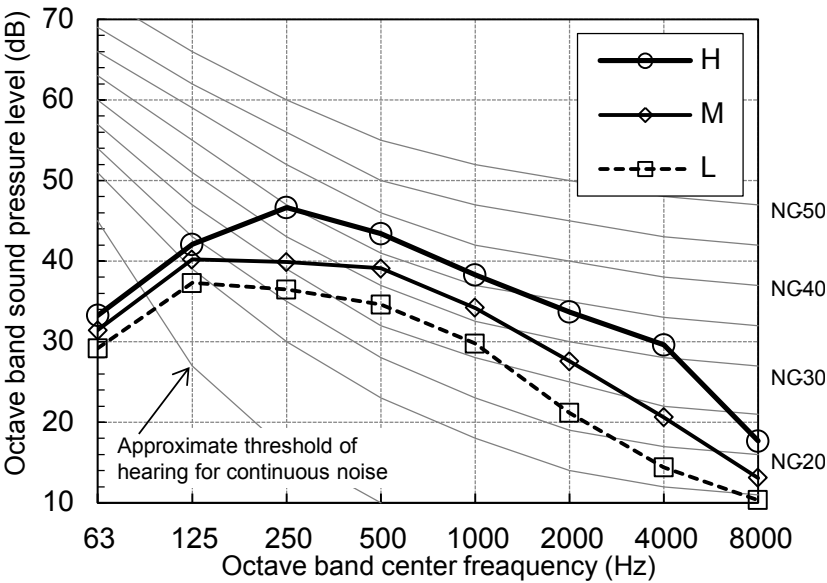


2-2-7. Sound Characteristics (NC curve)

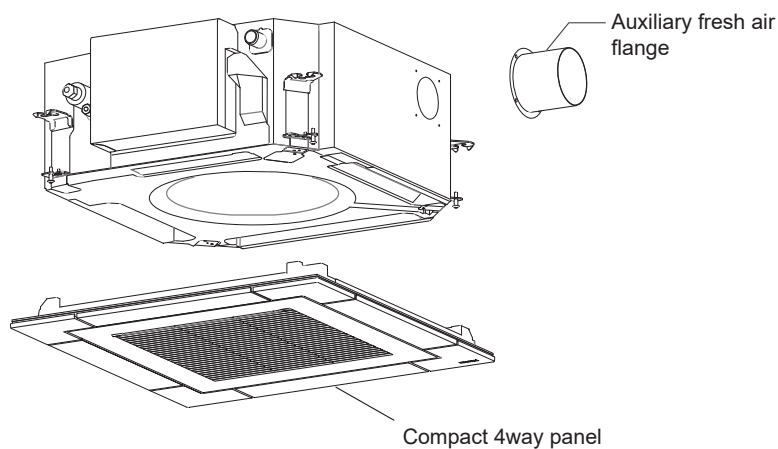


RAV-HM561MUT-E/TR

Fan tap	H	M	L
Sound pressure level (dB(A))	44	39	35



2-2-8. Accessoiresis



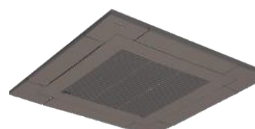
Compact 4way panel

RBC-UM21P-E



(White)

RBC-UM21PB-E



(Black)

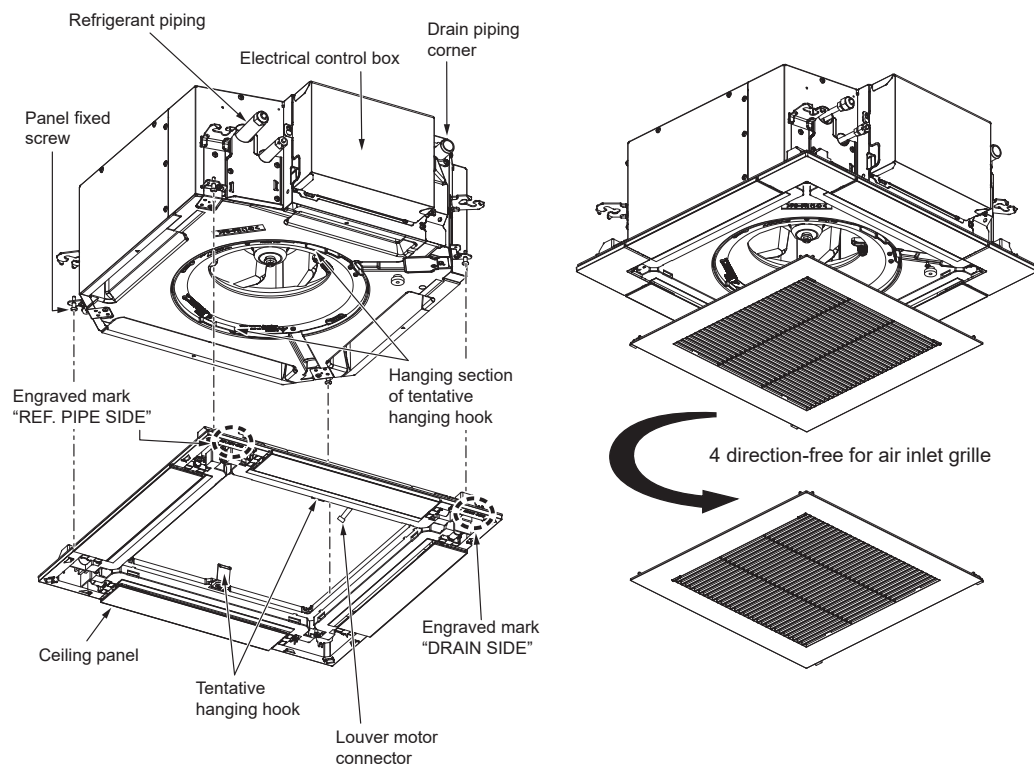
No	Type	Model Name	Qty/unit
1	1.1 Compact 4way panel (White)	RBC-UM21P-E	1
	1.2 Compact 4way panel (Black)	RBC-UM21PB-E	1
2	Auxiliary fresh air flange	TCB-FF101URE2	1
3	Wireless RC (White)	RBC-AXU31UMP-E	1
	Wireless RC (Black)	RBC-AXU31UMPB-E	1
	Occupancy sensor kit	TCB-SIR41UMP-E	1
	3.2 Standard wired remote controller	RBC-ASCU11-E	1
	3.3 Wired remote controller	RBC-AMTU31-E	1
	Premium wired remote controller with bluetooth	RBC-AWSU52-E	1
	3.4 Premium wired remote without bluetooth	RBC-AMSU52-E	1

Combination pattern		Compact 4way panel (White) RBC-UM21P-E	Compact 4way panel (Black) RBC-UM21PB-E	Wireless RC (White) RBC-AXU31UMP-E	Wireless RC (Black) RBC-AXU31UMPB-E	Occupancy sensor kit TCB-SIR41UMP-E	Standard wired remote controller RBC-ASCU11-E	Wired remote controller RBC-AMTU31-E	Premium wired remote controller with bluetooth RBC-AWSU52-E	Premium wired remote without bluetooth RBC-AMSU52-E	Auxiliary fresh air flange TCB-FF101URE2
Ceiling Panel	Compact 4way panel (White)	RBC-UM21P-E		OK		OK	OK	OK	OK	OK	OK
	Compact 4way panel (Black)	RBC-UM21PB-E			OK		OK	OK	OK	OK	OK
Wireless RC (White)		RBC-AXU31UMP-E	OK			OK	OK	OK	OK	OK	OK
Wireless RC (Black)		RBC-AXU31UMPB-E		OK			OK	OK	OK	OK	OK
Occupancy sensor kit		TCB-SIR41UMP-E	OK		OK		OK	OK	OK	OK	OK
Standard wired remote controller		RBC-ASCU11-E	OK	OK	OK	OK		OK	OK	OK	OK
Wired remote controller		RBC-AMTU31-E	OK	OK	OK	OK	OK		OK	OK	OK
Premium wired remote controller with bluetooth		RBC-AWSU52-E	OK	OK	OK	OK	OK	OK		OK	OK
Premium wired remote without bluetooth		RBC-AMSU52-E	OK	OK	OK	OK	OK	OK	OK		OK
Auxiliary fresh air flange		TCB-FF101URE2	OK	OK	OK	OK	OK	OK	OK	OK	

Appendix

1. Ceiling Panel

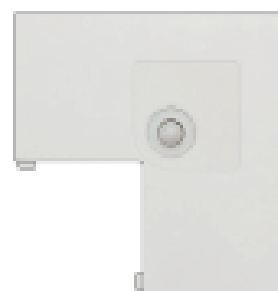
1.1 Compact 4way panel (white) : RBC-UM21P-E



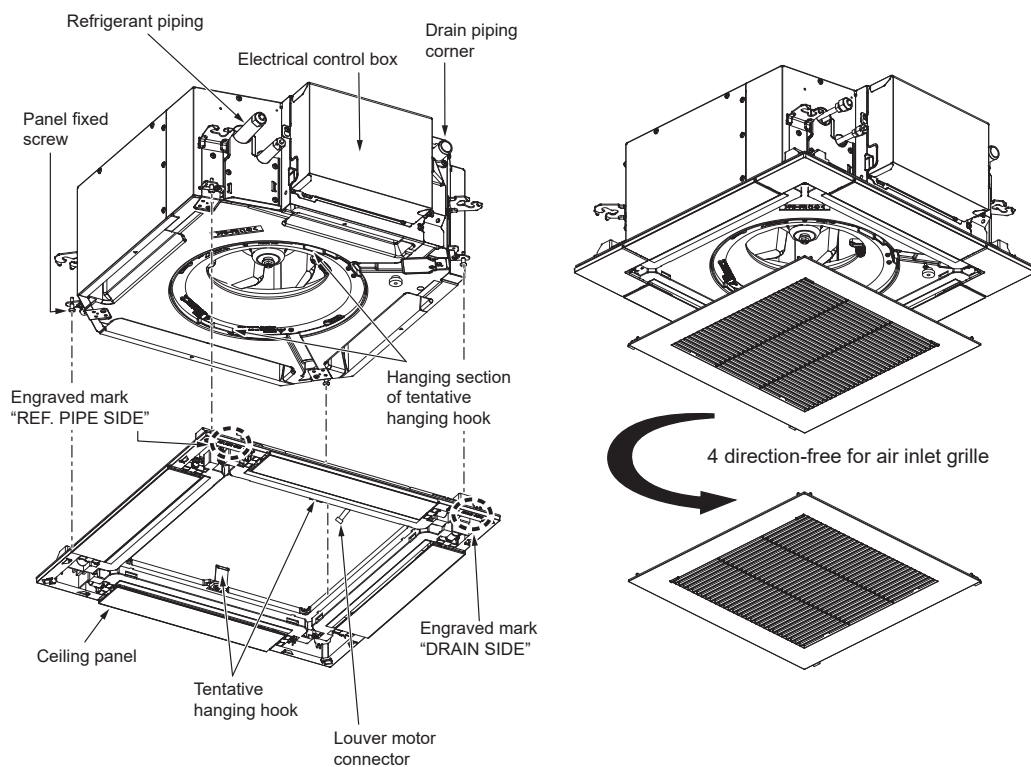
Wireless RC (White) : TCB-AXU31UMP-E



Occupancy sensor kit : TCB-SIR41UMP-E



1.2 Compact 4way panel (Black) : RBC-UM21PB-E



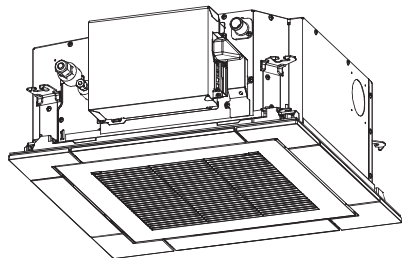
Wireless RC (Black) : TCB-AXU31UMPB-E



2.Auxiliary fresh air flange : TCB-FF101URE2

Installation

1. Using the knockout of the indoor unit main body, as a marker, cut off the flange with the heat insulator (styrol) with cutting pliers or cutter.

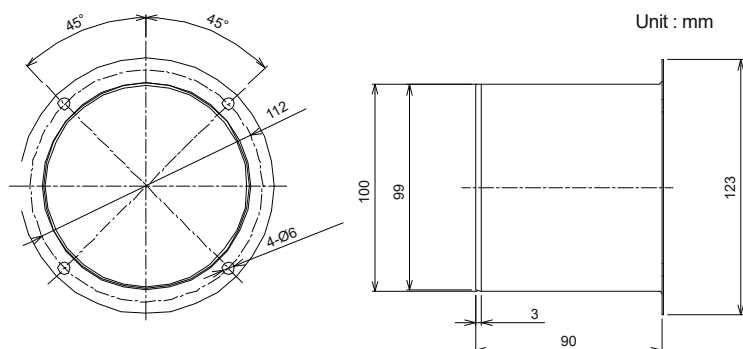


NOTE

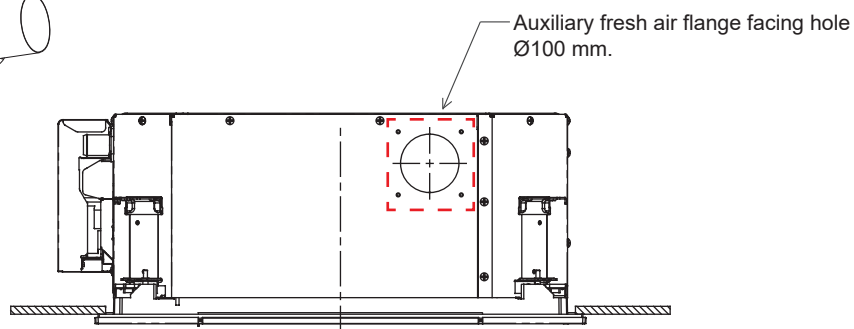
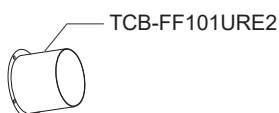
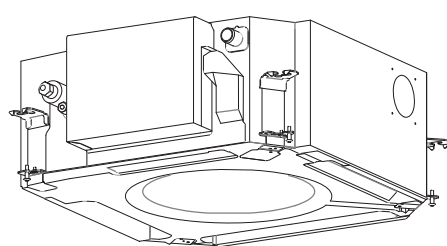
When cutting off the styrol inside, be careful not to insert the cutter blade deeper than 30 mm. (Damage to the drain pan inside can cause water leakage.)
Wear safety globes to carry out these works. Do not attempt with bare hands.

2. A gap between the styrol and steel plate may cause a trouble such as condensation. Be sure to attach the attached heat insulator A first with it aligned to the screw hole, and then attach B, according to the right figure.
3. Install the auxiliary fresh air flange to the indoor unit main body with attached 4 fixing screws.

Dimension



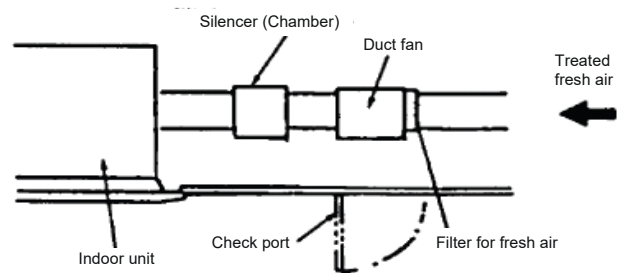
Installation



Duct fan

In order to take fresh air, provide the duct fan separately.

1. Install the filter for fresh air
2. Provide the check port beneath the duct fan for maintenance.
3. Provide the silencer to prevent the effect of noise.



Caution

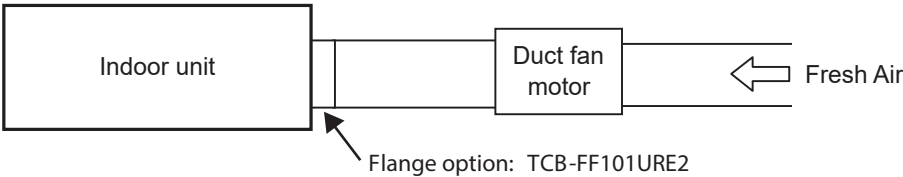
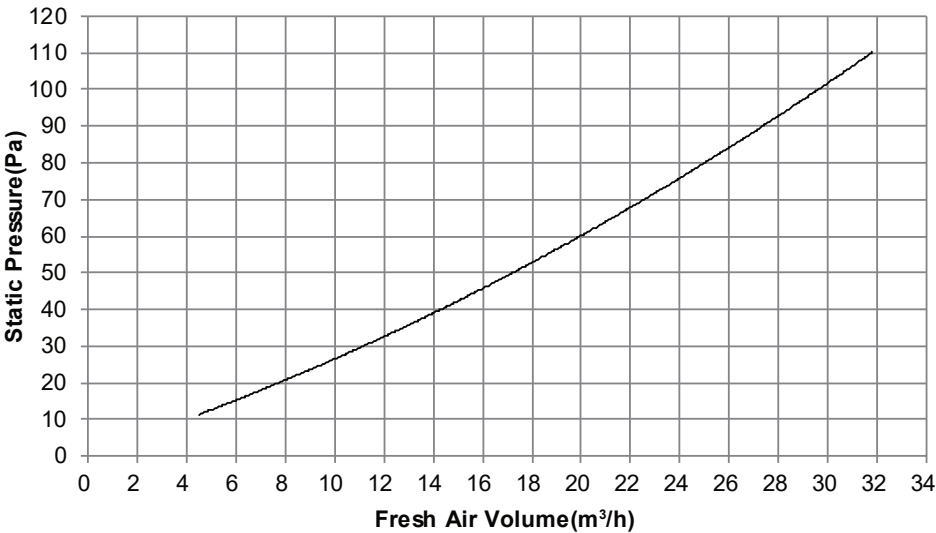
The fresh air shall be conditioned by a heat reclaim ventilator or similar.
Ensure the fresh air volume is determined so that mixed suction air and fresh air can maintain the operating temperature.

*1. Recommended conditioned air temperature is 12 °C to 30 °C.

However, Make a fresh air volume within 2% of standard.

Model name		RAV-HM561MUTP-E
Standard air flow	m³/h	798

Install a filter within the fresh air duct.
(Fresh air does not pass through the filter of Indoor unit.)
Insulate the fresh air duct.
Electrically connect the fan of the Heat exchanger unit and the Indoor unit to a single isolator.

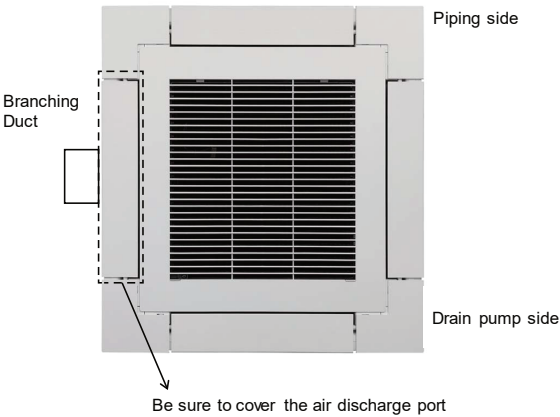
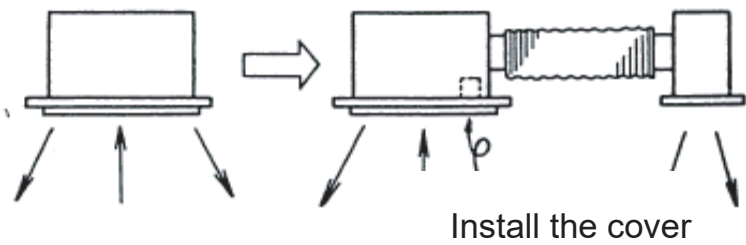


Inter - lock circuit

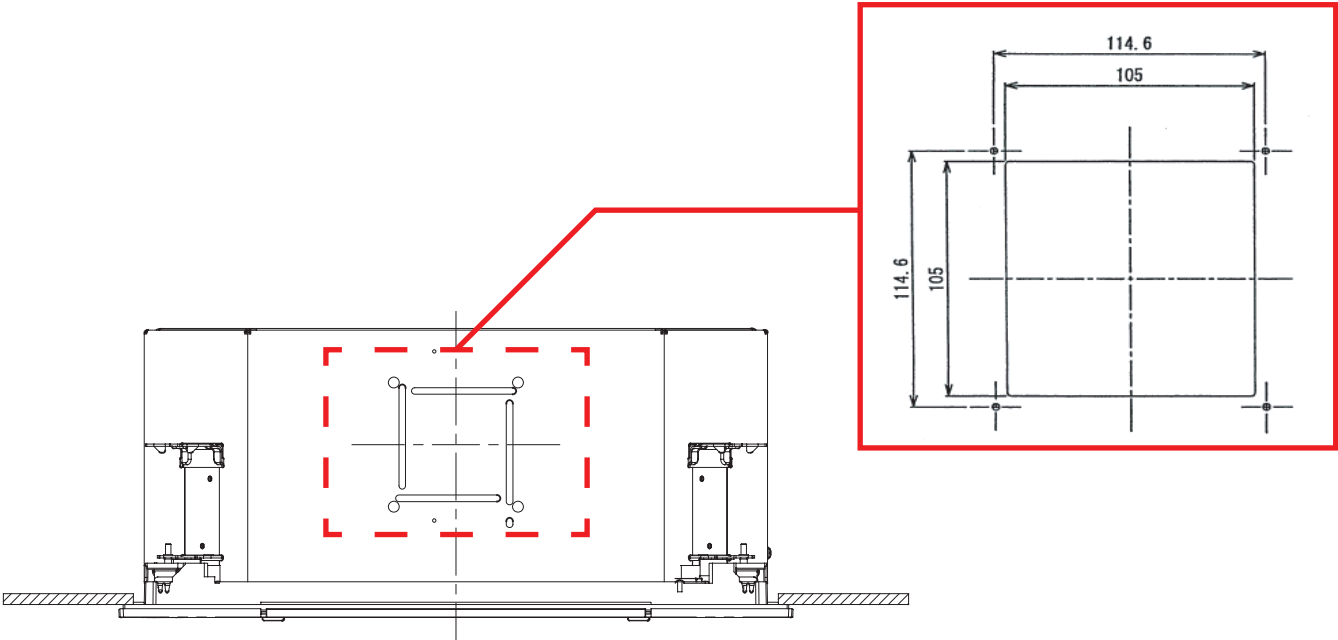
Connect the driving relay of the duct fan(DC 12V) between 1 and 6 on the indoor P.C. board.
(Rated current of the relay for duct fan should be up to 75mA.)
After installation, carry out a test run to check that the duct fan of the indoor unit start/stop simultaneously.
(Carry out the test run following the installation manual of the indoor unit.)

Branching duct (design guide)

Cover method

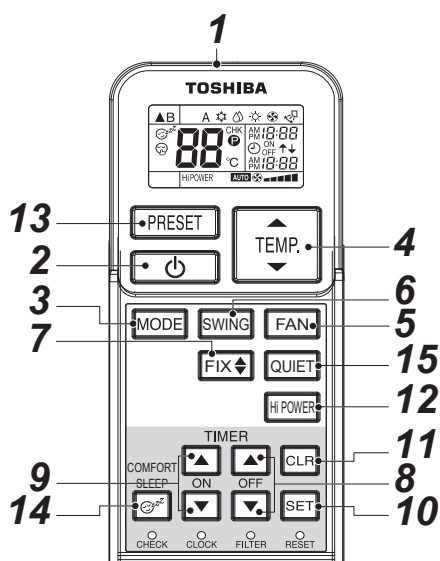






Dimension









3.Remote controller

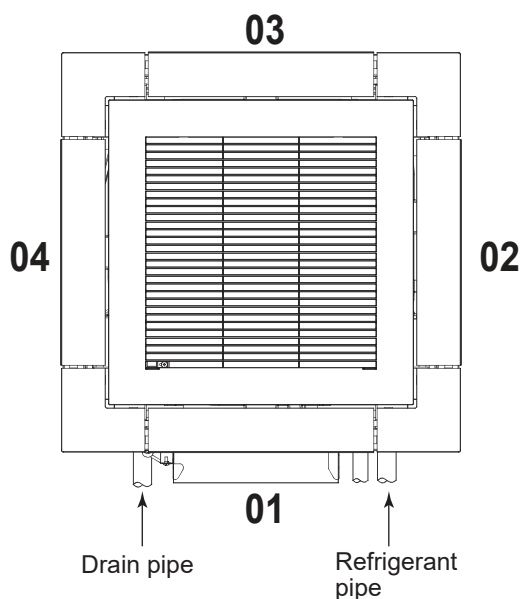
3.1 Wireless RC (White / Black) : RBC-AXU31UMP-E / RBC-AXU31UMPB-E



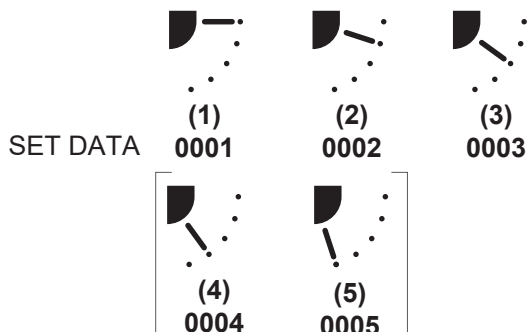
- 1 **Infrared signal emitter**
Transmits a signal to the indoor unit.
- 2 **START/S TOP button**
Press the button to start operation.
(A receiving beep is heard.)
Press the button again to stop operation.
(A receiving beep is heard.)
If no receiving sound is heard from the indoor unit, press the button twice.
- 3 **Mode select button (MODE)**
Press this button to select a mode.
Each time you press the button, a mode is selected in a sequence that goes from A : Auto, ☀ : Cool, ☁ : Dry, ☀ : Heat, ☁ : Fan only, and back to A.
(A receiving beep is heard.)
- 4 **Temperature button ()**
 The set temperature is increased up to 30°C.
 The set temperature is dropped down to 17°C. (A receiving beep is heard.)
- 5 **Fan speed button ()**
Press this button to select fan speed.
When you select AUTO, the fan speed is automatically adjusted according to the room temperature.

You can also manually select the desired fan speed from among five settings.
(LOW , LOW + , MED , MED + , HIGH )
(A receiving beep is heard.)
- 6 **Auto louver button (SWING)**
Press this button to swing the louvers.
(A receiving beep is heard.)
Press the SWING button to stop the louver swinging.
(A receiving beep is heard.)
- 7 **Set louver button (FIX)**
Press this button to adjust the airflow direction.
(A receiving beep is heard.) While this FIX button is kept depressed, the receiving tone continuously sounds.
- 8 **Off timer button (OFF)**
Press this button to set the OFF timer.
- 9 **On timer button (ON)**
Press this button to set the ON timer.
- 10 **Reserve button (SET)**
Press this button to reserve time settings.
(A receiving beep is heard.)
- 11 **Cancel button (CLR)**
Press this button to cancel ON timer and OFF timer.
(A receiving beep is heard.)
- 12 **High power button (Hi POWER)**
Press this button to start the high power operation.
This function is not operated group control.
- 13 **PRESET button**
Press this button to change the operation mode to the preferred operation mode memorized previously. To memorize the operation mode, press this button for at least 3 seconds during the preferred operation mode. **P** is displayed and the operation mode is memorized.
- 14 **COMFORT SLEEP  button**
Press this button to start the OFF timer operation that automatically adjusts the room temperature and the fan speed. You can select the OFF timer time from four durations (1, 3, 5 or 9 hours). During group control operation, the set temperature and the fan speed are not automatically adjusted. Only off timer function is activated.
- 15 **QUIET button**
Press this button to start quiet operation.
Pressing this button again will restore normal operation.

Louvers position

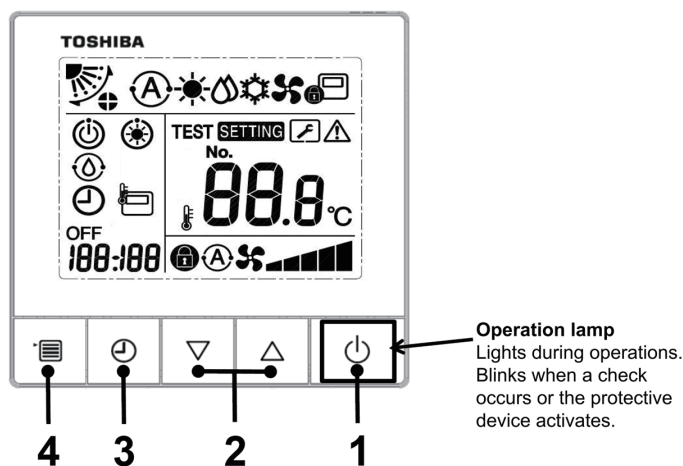


A position of the individual louvers (four directions) can be locked.



* When (4) or (5) is selected, dew drop may occur during cooling mode.

3.2 Standard wired remote controller : RBC-ASCU11-E



1 ON/OFF button

Press the button to turn on the air conditioner, and press the button again to turn off the air conditioner.

2 Setting button

It is used for temperature setting in general conditions. In running mode, fan speed mode and wind direction mode, it is used for the change of respective settings.

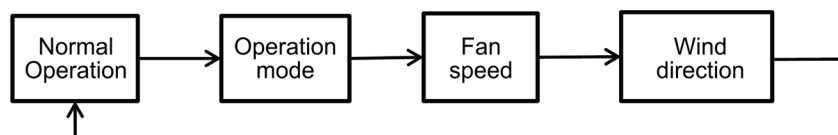
3 Timer off button

Set the timer off.

4 Menu button

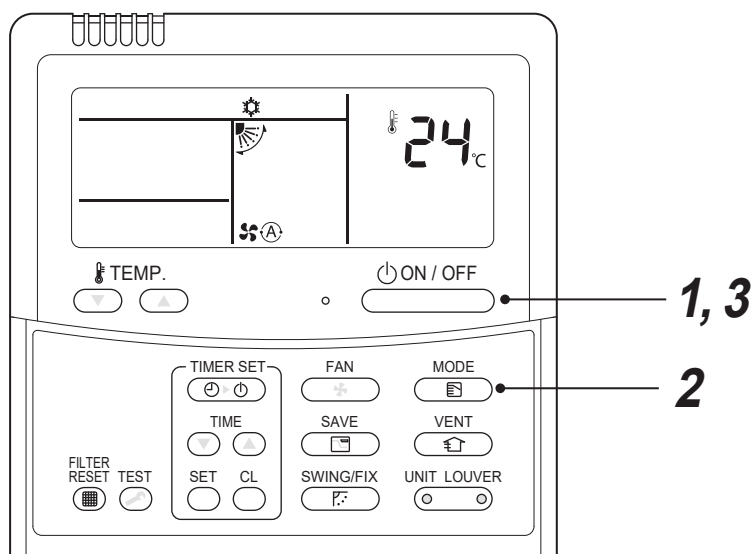
It is used for the selection of the running mode, fan speed and wind direction. Press of the button each time, then it will switch in the following order.

- In different modes of the indoor unit, the selection of fan speed or wind direction may be omitted.



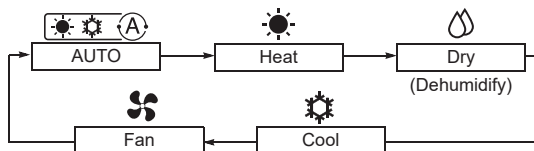
3.3 Wired remote controller : RBC-AMTU31-E

■ Operations



1 Push the button.
The operation lamp lights up.

2 Push the button to select a operation mode.
Each time you push the button, the operation mode and its icon change in the following order:



Depending on the type of unit connected, the operation modes that cannot be set will not be displayed.

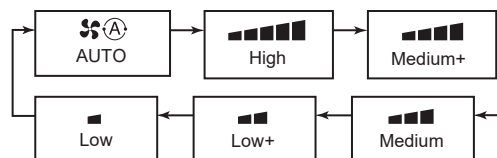
3 Push the button to stop running.
The operation lamp turns off.

■ Changing the fan speed

Push the button to select a fan speed.

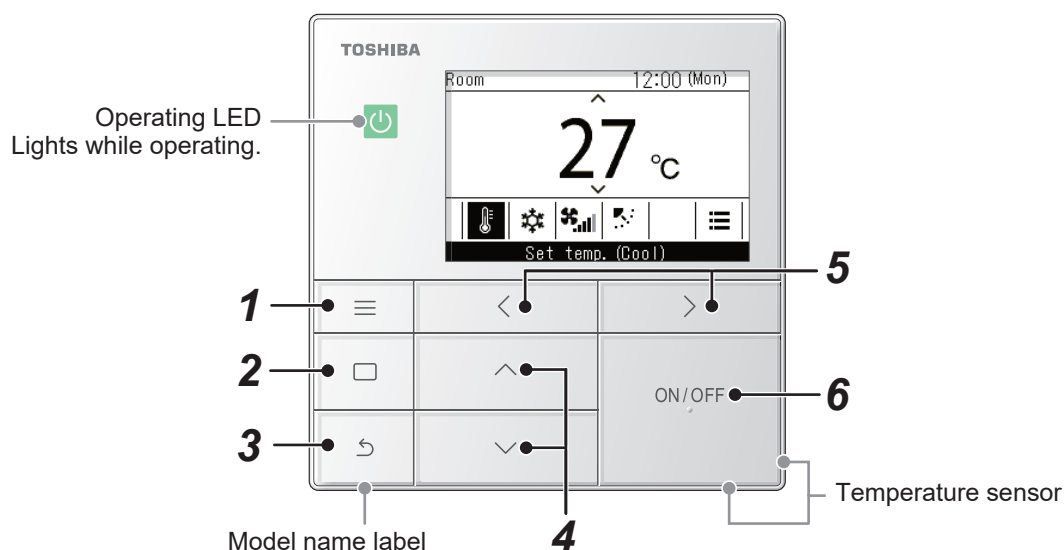
- Each time you push the button, fan speed and its indication change in the following order:
("Auto" cannot be selected in the FAN mode.)

* The available fan speeds vary depending on the indoor unit connected.



- The temperature sensor detects the return air temperature at the indoor unit, which may slightly differ from the actual room temperature depending on installation condition. Set temperature is a target of room temperature.

3.4 Premium wired remote controller with/without bluetooth : RBC-AWSU52-E / RBC-AMSU52-E



* The screens shown here are examples. The content that is displayed may differ, depending on the environment settings being used.

1 [Menu] button

Shows the "Menu".
(Page 17)

2 [Set/Fix] button

Fixes and applies settings.
Ways to use it are shown on screen.

3 [Return] button

Deletes selections.
Ways to use it are shown on screen.

4 [Up] and [Down] buttons

Changes settings and selects items.

5 [Left] and [Right] buttons

Selects setting items.
Other ways to use it are shown on screen.

6 [ON/OFF] button

Starts and stops connected devices.

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-HM561SDT-E/TR		
		Indoor unit 2		RAV-HM561SDT-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	
External static pressure		Standard (Upper - Lower)		(Pa)	4-14-29-44	
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.

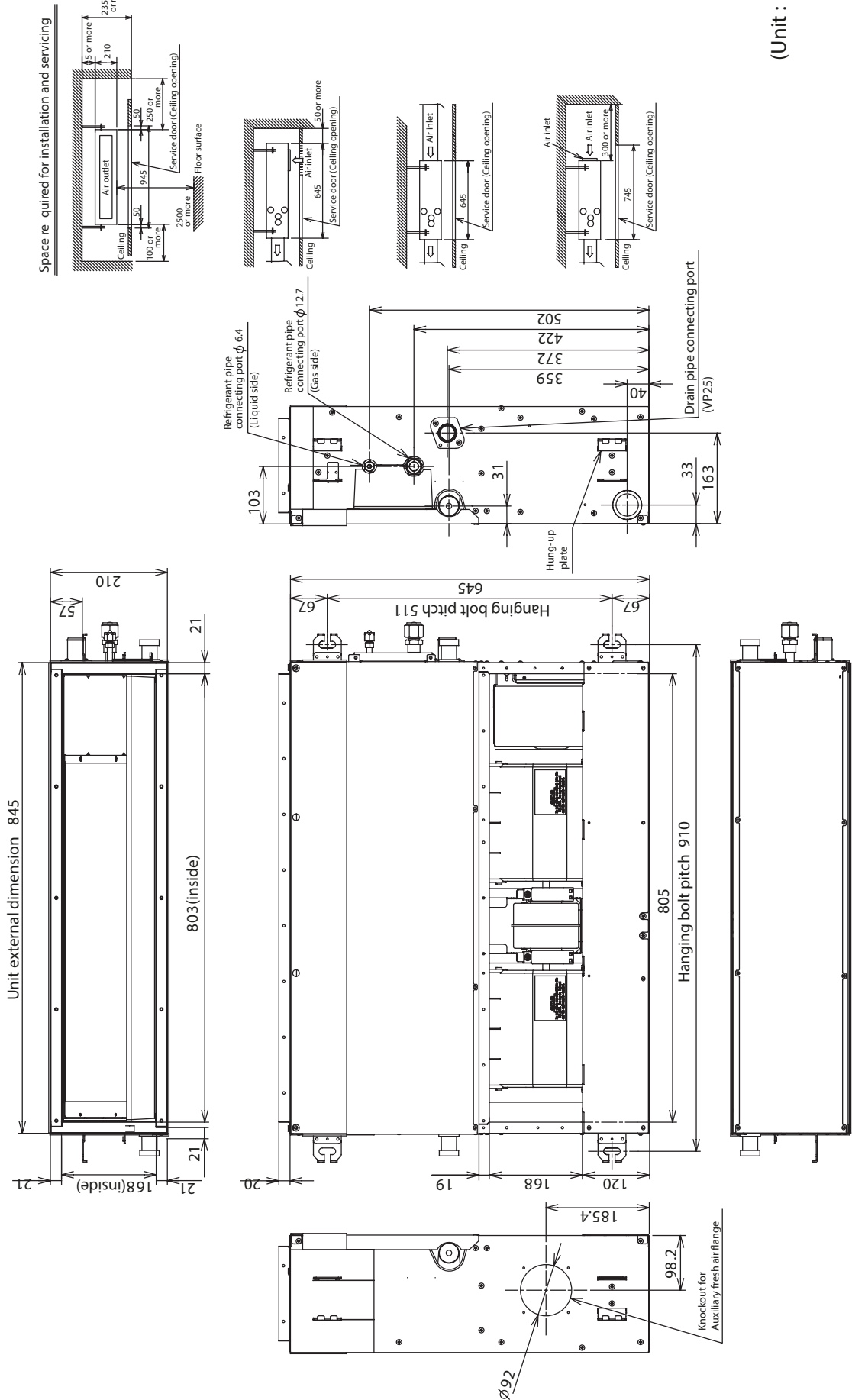
Note :

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

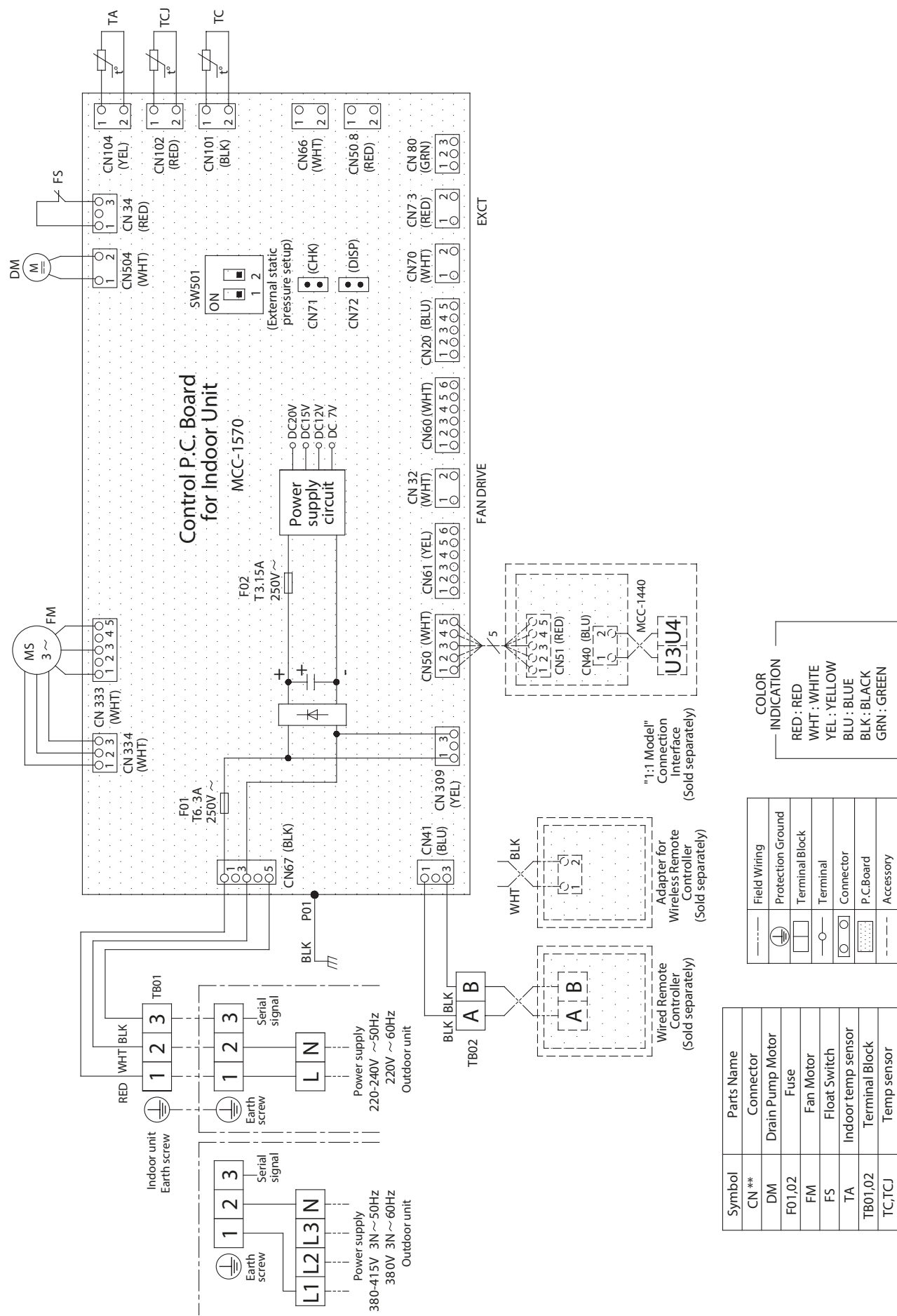
RAV-HM561SDT-E/TR

(Unit : mm)



2-3-3. Wiring Diagrams

RAV-HM561SDT-E/TR



2-3-4. Sensible Capacity Table

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

unit size	outdoor air temp. CDB	indoor air temp.																	
		14.0CWB 20.0CDB		15.0CWB 21.5CDB		16.0CWB 23.0CDB		17.0CWB 24.5CDB		18.0CWB 26.0CDB		19.0CWB 27.0CDB		20.0CWB 28.0CDB		22.0CWB 30.0CDB		24.0CWB 32.0CDB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
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-HM561SDT-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	3030	11200	2990

Q: Capacity in W

W: Power Consumption in W

Cooling

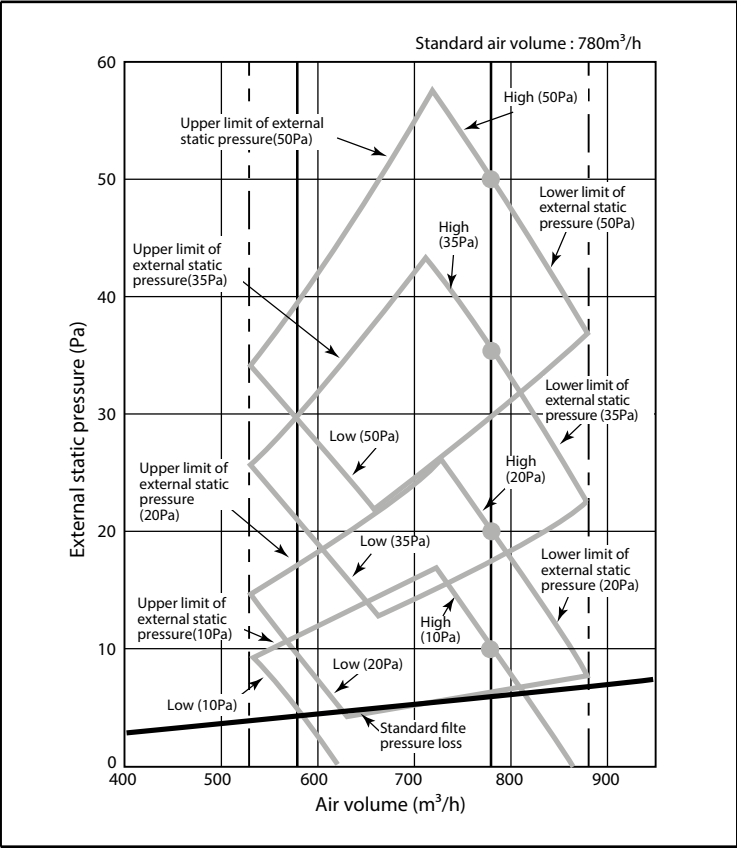
Outdoor temperature(°C)		Load(%)									
		100	90	80	70	60	50	40	30	20	10
40	Q	9000	8100	7200	6300	5400	4500	3600	2840	2840	2840
	W	3290	2630	2140	1730	1370	1060	840	650	650	650
35	Q	9500	8550	7600	6650	5700	4750	3800	3000	3000	3000
	W	3030	2420	1970	1590	1260	980	770	600	600	600
30	Q	9960	8960	7960	6970	5970	4980	3980	3140	3140	3140
	W	2750	2200	1790	1440	1140	890	700	540	540	540
25	Q	10340	9300	8270	7240	6200	5170	4130	3260	3260	3260
	W	2500	2000	1620	1310	1040	810	630	490	490	490
20	Q	10610	9550	8490	7430	6370	5310	4240	3350	3350	3350
	W	2260	1800	1470	1180	940	730	570	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	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

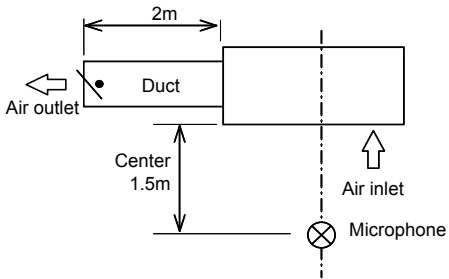
2-3-6. Fan Static Characteristic

RAV-HM561SDT-E/TR



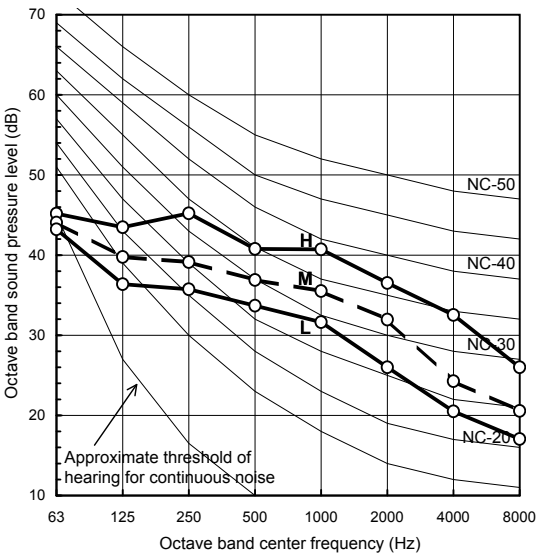
2-3-7. Sound Characteristics (NC curve)

RAV-HM561SDT-E/TR



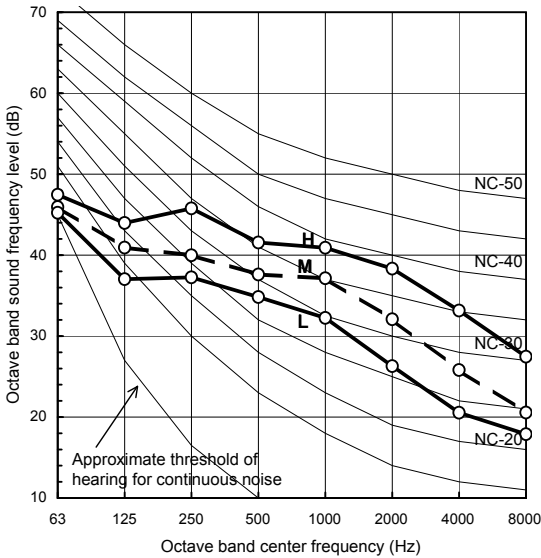
[External static pressure 10Pa]

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



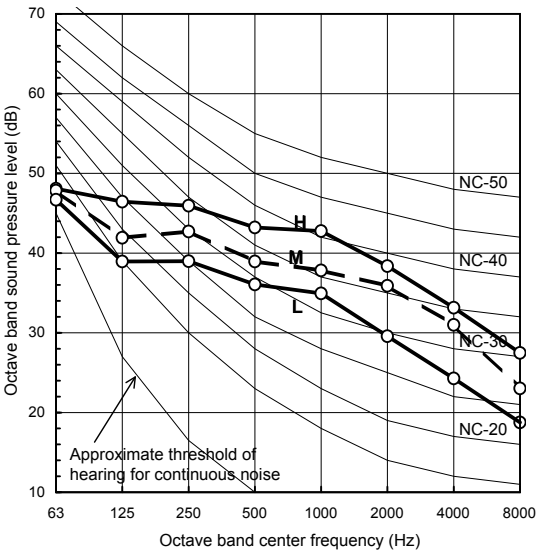
[External static pressure 20Pa]

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



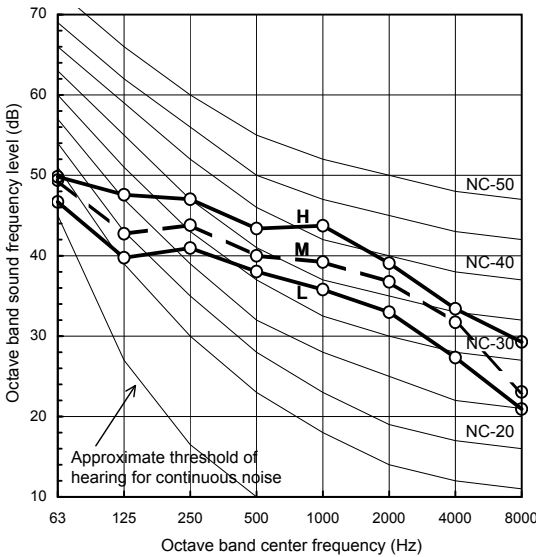
[External static pressure 35Pa]

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)

2-4-8. Accessories

2-4-1. Specifications

Standard Duct Type <Single type>

Model		Indoor unit		RAV-HM1101BTP-E/TR		RAV-HM1401BTP-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	
		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)	4.85-4.45		5.80-5.30	
		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			
External 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-HM561BTP-E/TR		RAV-HM801BTP-E/TR		
		Indoor unit 2		RAV-HM561BTP-E/TR		RAV-HM801BTP-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 - 4.44		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)	4.85 - 4.45		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			
External 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.

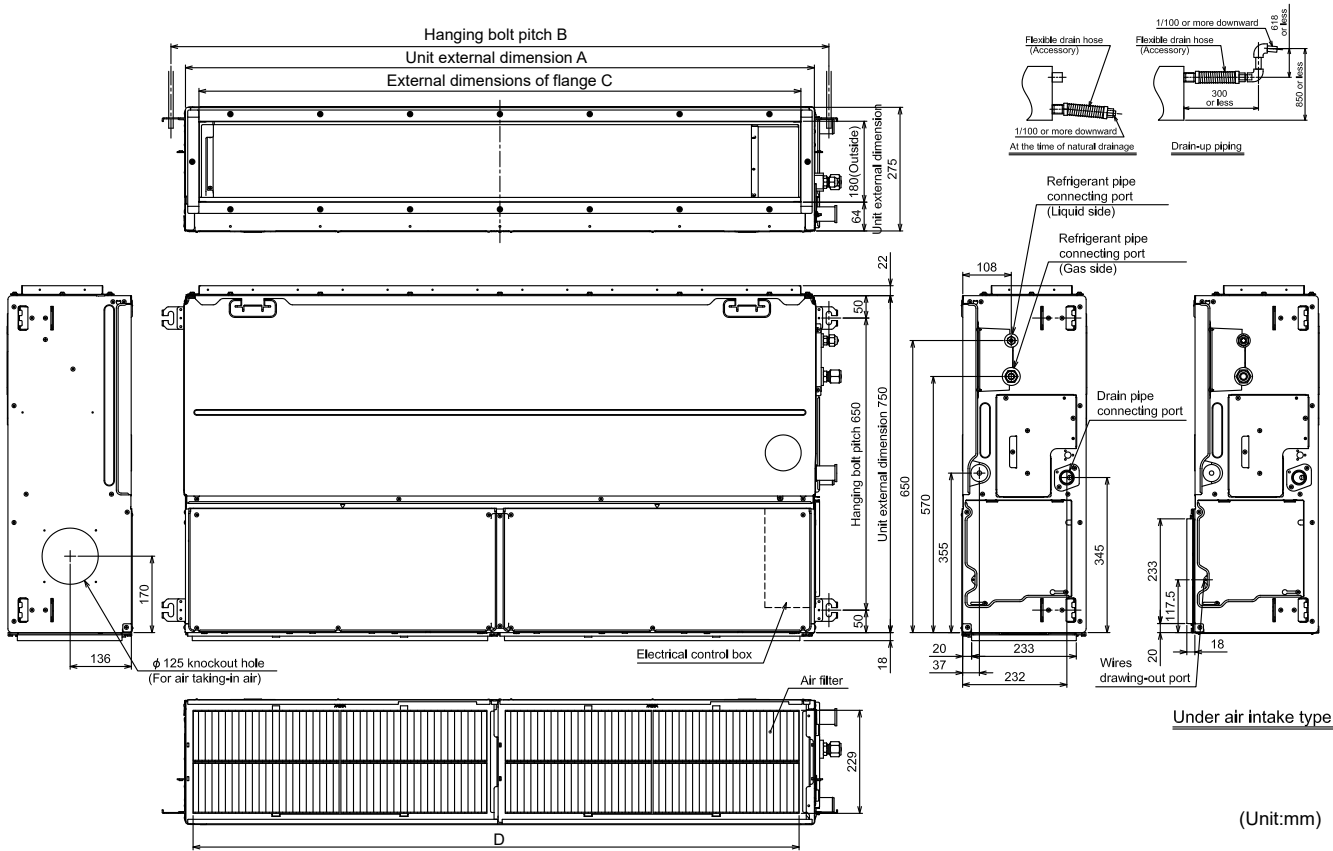
*2 : The sound level are measured in an anechoic chamber in accordance with JIS B 8616. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

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

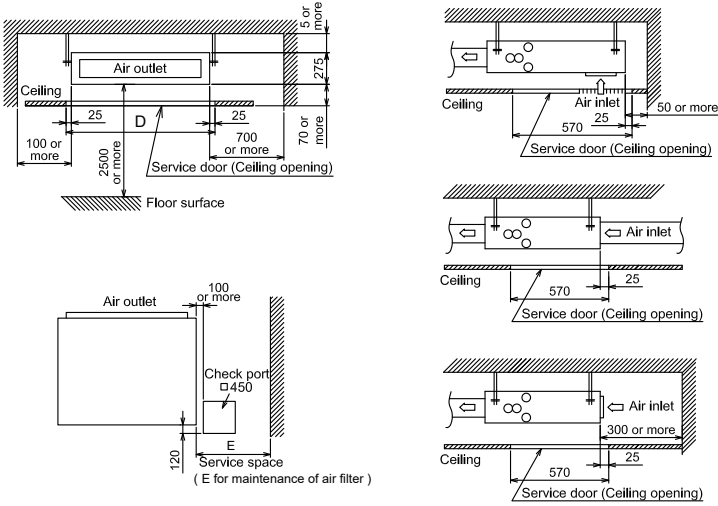
RAV-HM561BTP-E/TR, RAV-HM801BTP-E/TR, RAV-HM1101BTP-E/TR and RAV-HM1401BTP-E/TR



Dimension

	A	B	C	D
RAV-HM561BTP-E / TR	700	765	640	750
RAV-HM801BTP-E / TR	1000	1065	940	1050
RAV-HM1101BTP-E/TR	1400	1465	1340	1450
RAV-HM1401BTP-E / TR				

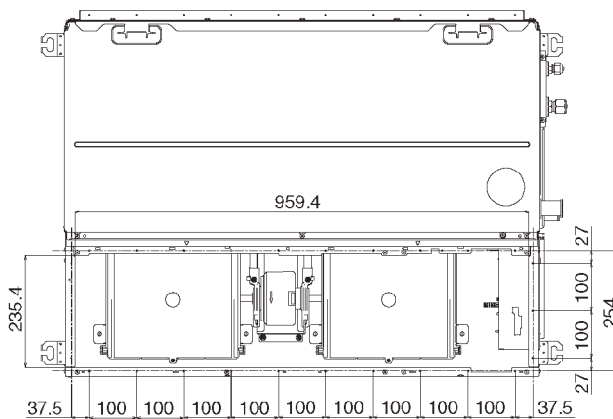
Space required for installation and servicing



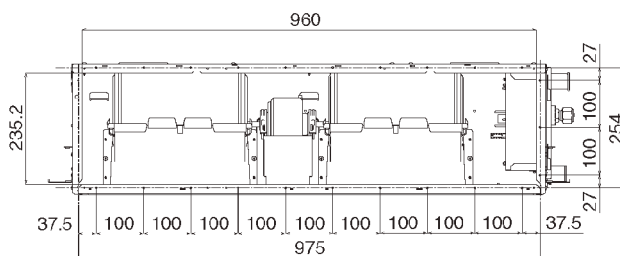
	E
RAV-HM561BTP-E / TR	700
RAV-HM801BTP-E / TR	500
RAV-HM1101BTP-E / TR	700
RAV-HM1401BTP-E / TR	

RAV-HM801BTP-E/TR

<Under air intake>

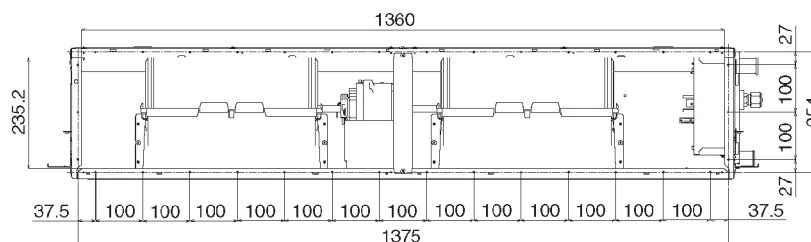


<Back air intake>



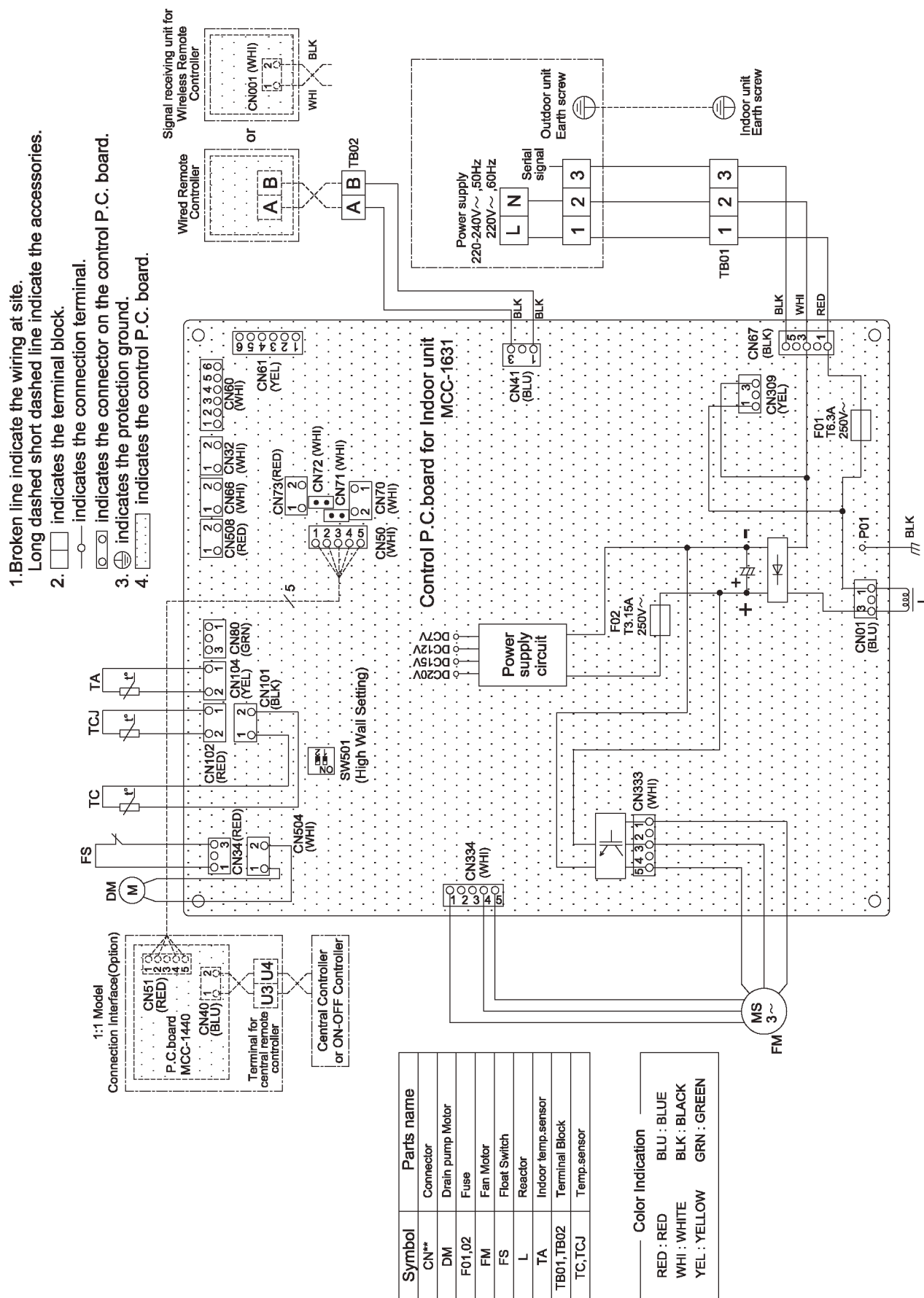
RAV-HM1101BTP-E/TR and RAV-HM1401BTP-E/TR

<Back air intake>



2-4-3. Wiring Diagrams

RAV-HM561BTP-E/TR, RAV-HM801BTP-E/TR, RAV-HM1101BTP-E/TR and RAV-HM1401BTP-E/TR



2-4-4. Sensible Capacity Table

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

unit size	outdoor air temp. CDB	indoor air temp.																	
		14.0CWB 20.0CDB		15.0CWB 21.5CDB		16.0CWB 23.0CDB		17.0CWB 24.5CDB		18.0CWB 26.0CDB		19.0CWB 27.0CDB		20.0CWB 28.0CDB		22.0CWB 30.0CDB		24.0CWB 32.0CDB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
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

unit size	outdoor air temp. CDB	door 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	
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

	Outdoor air temp.	Indoor 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
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

unit size	outdoor air temp. CDB	indoor 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	
		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

2-4-5. Part load performance

Combination

Indoor unit : RAV-HM1101BTP-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(°C)		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(°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	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-HM1401BTP-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(°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	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(°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	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-HM561BTP-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(°C)		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(°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	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-HM801BTP-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

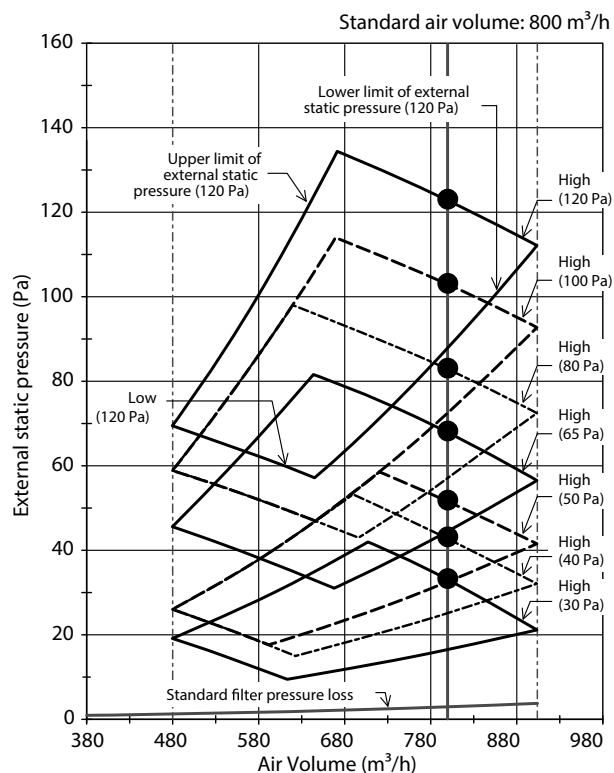
Outdoor temperature(°C)		Load(%)									
		100	90	80	70	60	50	40	30	20	10
40	Q	11460	10310	9170	8030	6880	5730	4590	3440	2840	2840
	W	4810	3880	3050	2340	1770	1340	1020	760	650	650
35	Q	12100	10890	9680	8470	7260	6050	4840	3630	3000	3000
	W	4420	3570	2800	2150	1630	1230	940	700	600	600
30	Q	12680	11410	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	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

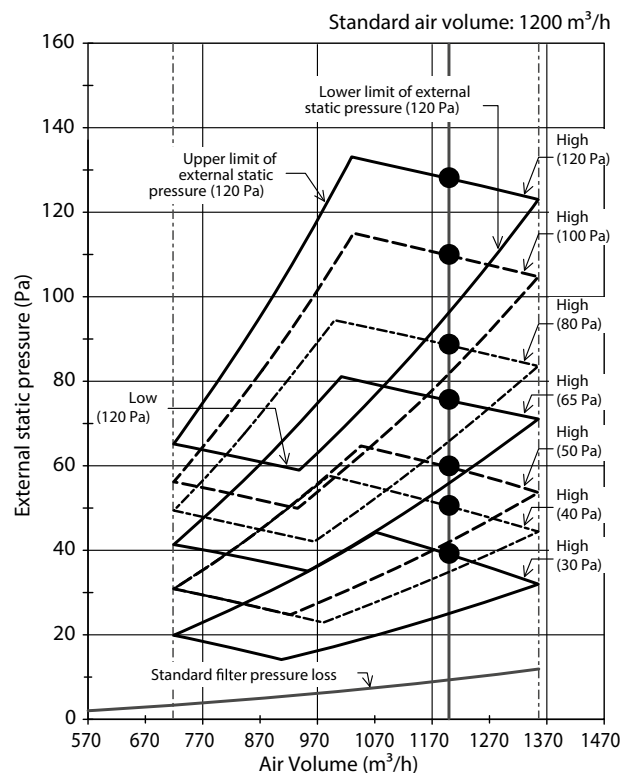
Outdoor temperature(°C)		Load(%)									
		100	90	80	70	60	50	40	30	20	10
15	Q	15570	14010	12460	10900	9340	7780	6230	4670	3590	3590
	W	3950	3320	2760	2280	1830	1450	1120	840	660	660
10	Q	14150	12730	11320	9900	8490	7070	5660	4240	3260	3260
	W	3760	3160	2630	2170	1740	1380	1070	800	630	630
7	Q	13000	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

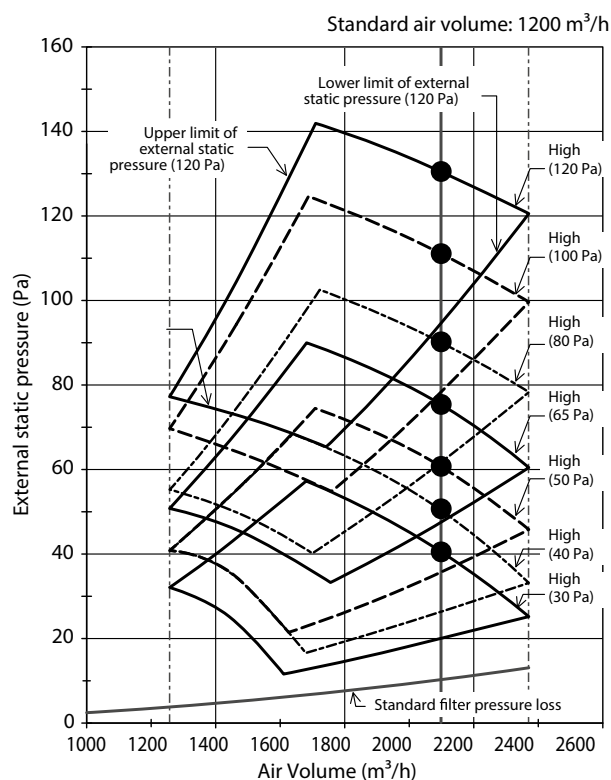
RAV-HM561BTP-E/TR



RAV-HM801BTP-E/TR

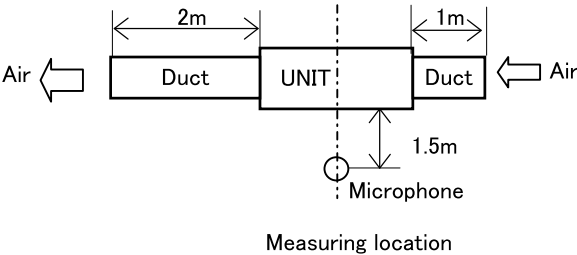


RAV-HM1101BTP-E/TR and RAV-HM1401BTP-E/TR



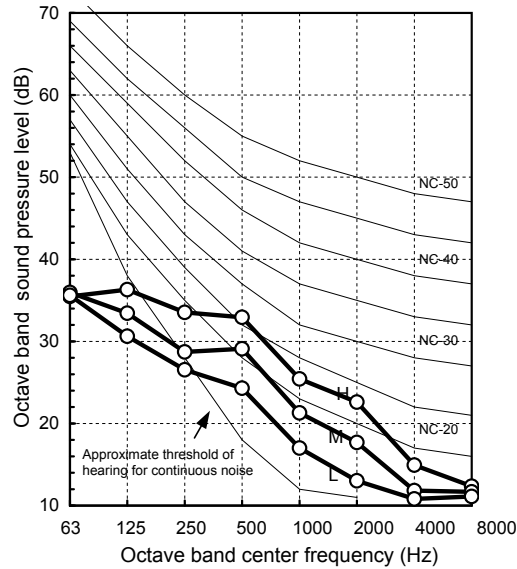
2-4-7. Sound Characteristics (NC curve)

RAV-HM561BTP-E/TR



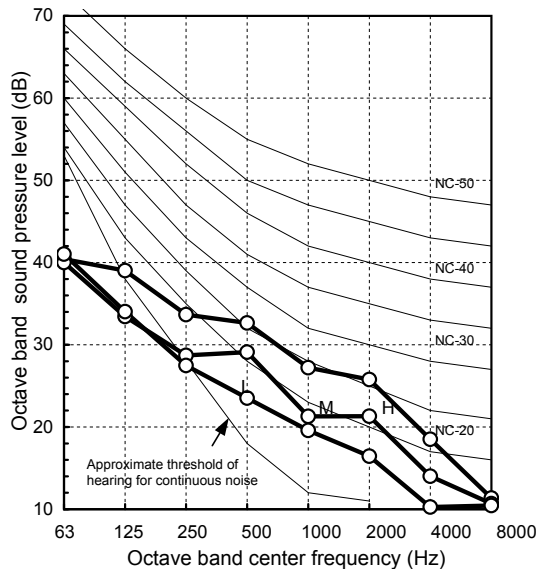
External static pressure 30Pa

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



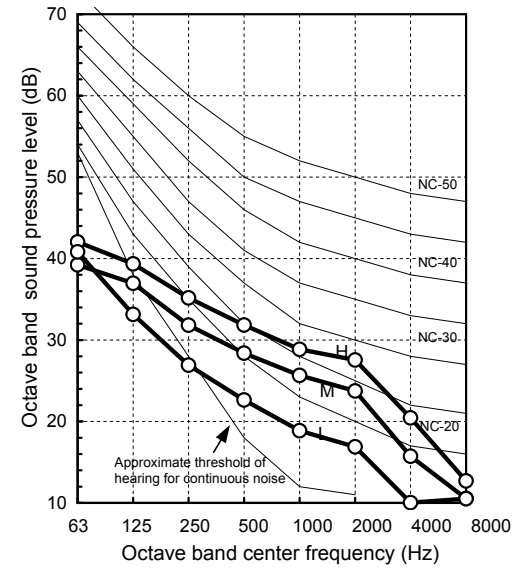
External static pressure 40Pa

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



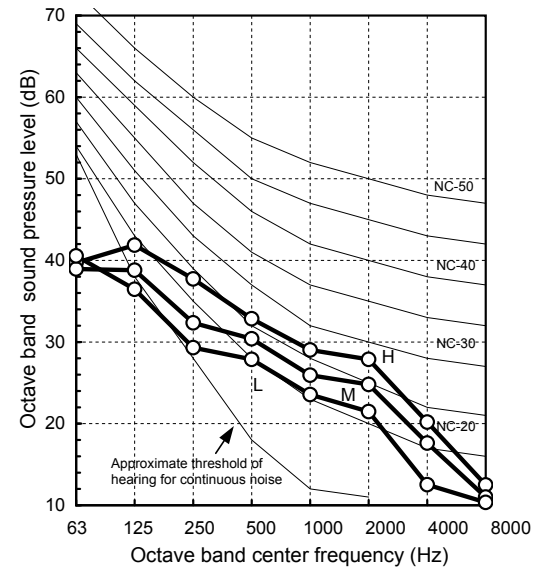
External static pressure 50Pa

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



External static pressure 65Pa

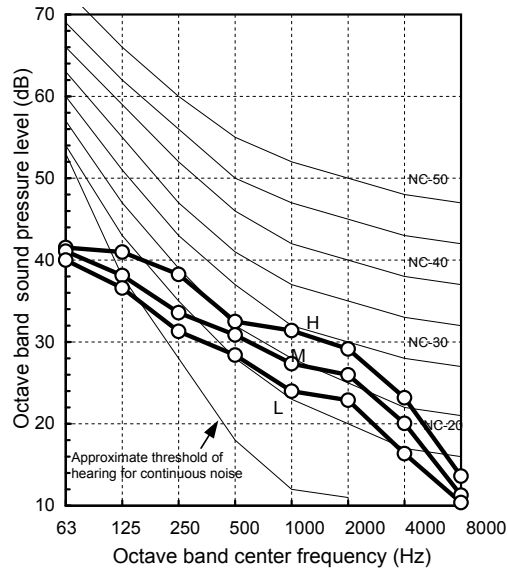
FAN tap	H	M	L
Sound pressure level (dB(A))	36	32	29



RAV-HM561BTP-E/TR

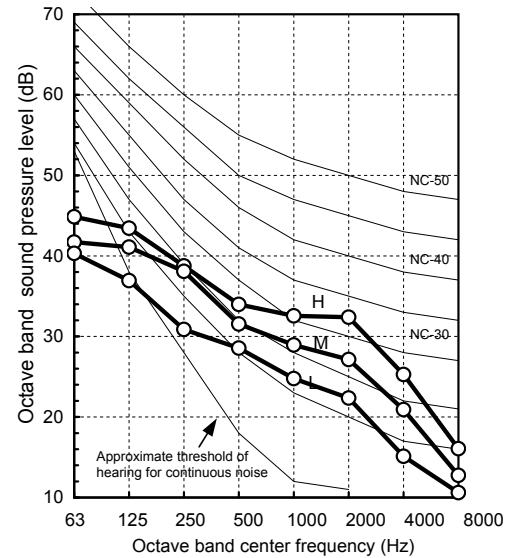
External static pressure 80Pa

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



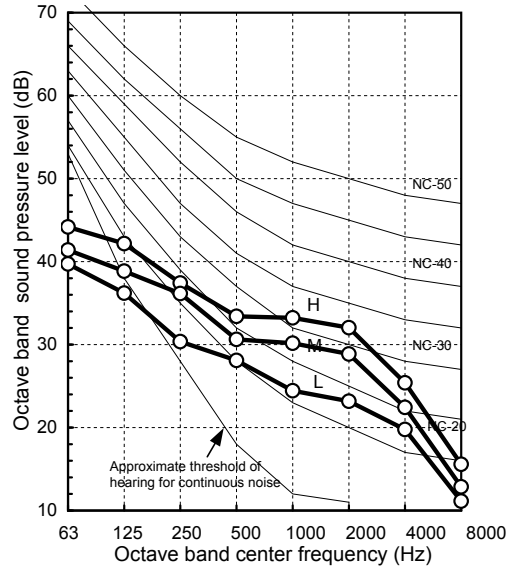
External static pressure 100Pa

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

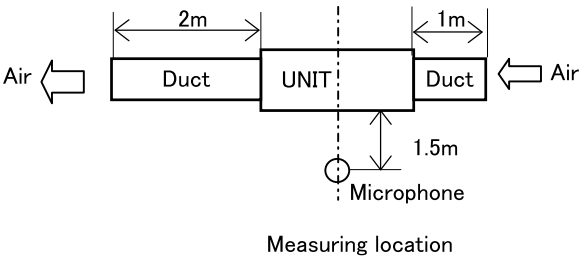


External static pressure 120Pa

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

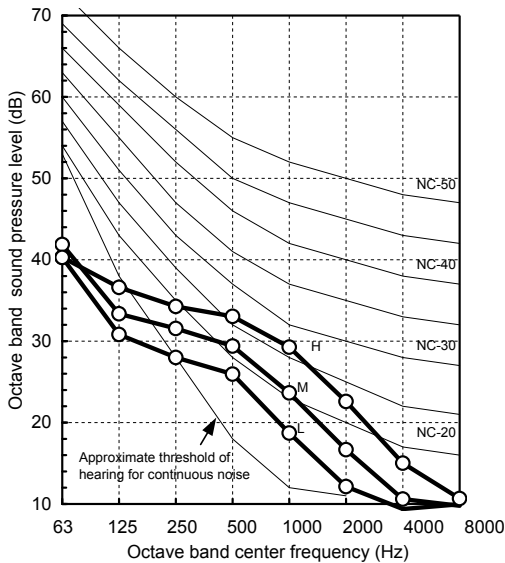


RAV-HM801BTP-E/TR



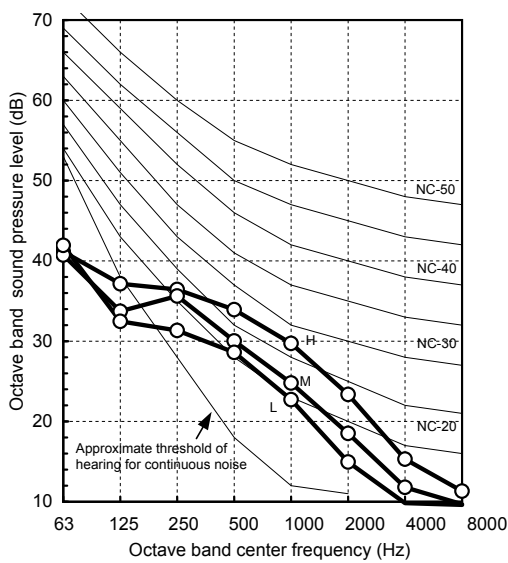
External static pressure 30Pa

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



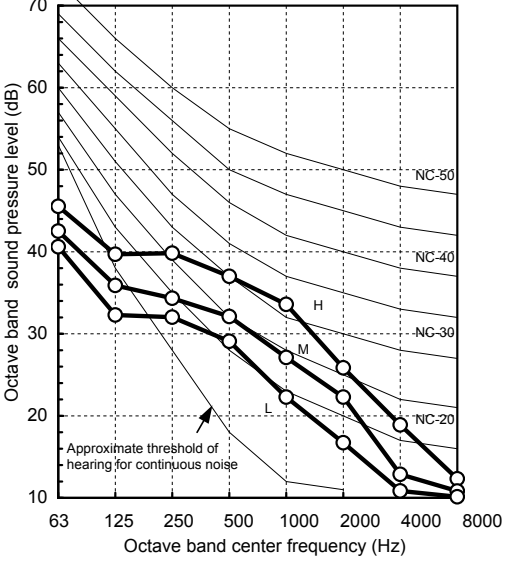
External static pressure 40Pa

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



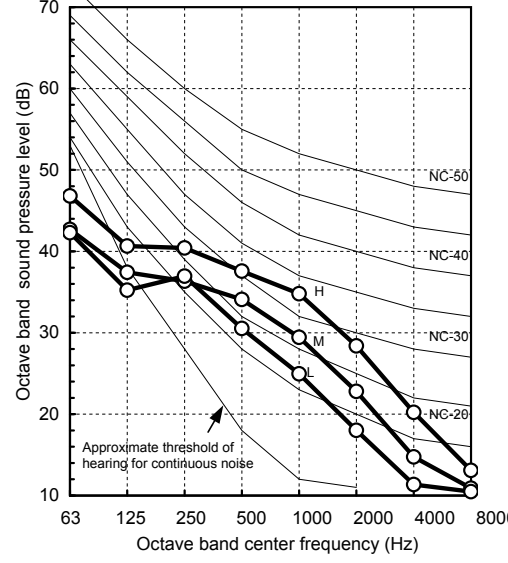
External static pressure 50Pa

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



External static pressure 65Pa

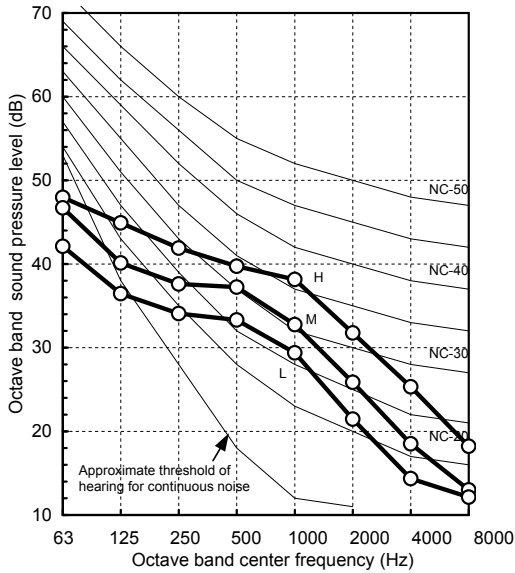
FAN tap	H	M	L
Sound pressure level (dB(A))	39	35	32



RAV-HM801BTP-E/TR

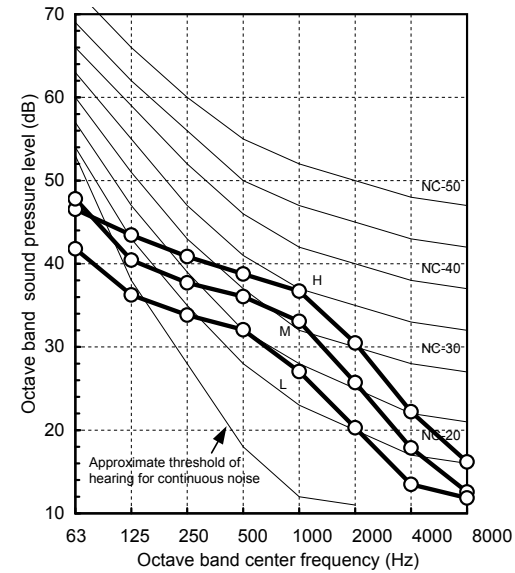
External static pressure 80Pa

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



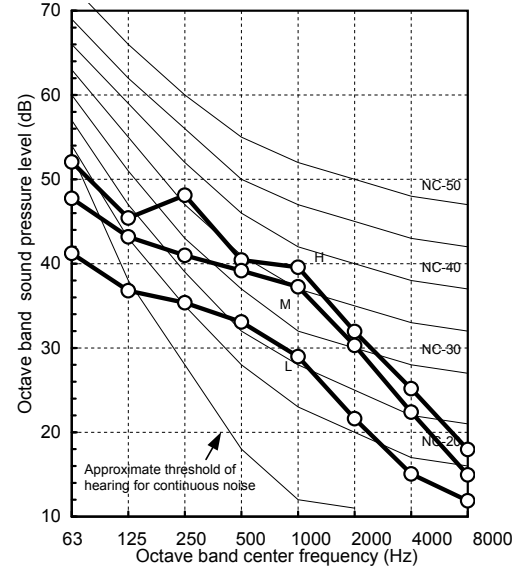
External static pressure 100Pa

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

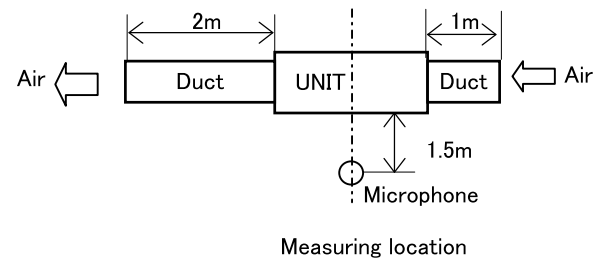


External static pressure 120Pa

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

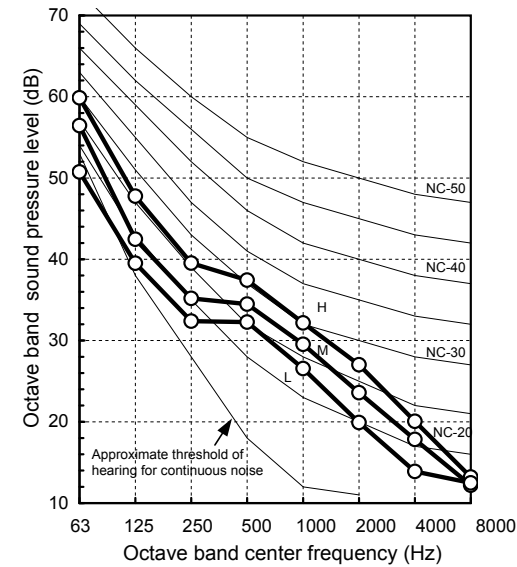


RAV-HM1101BTP-E/TR, RAV-HM1401BTP-E/TR



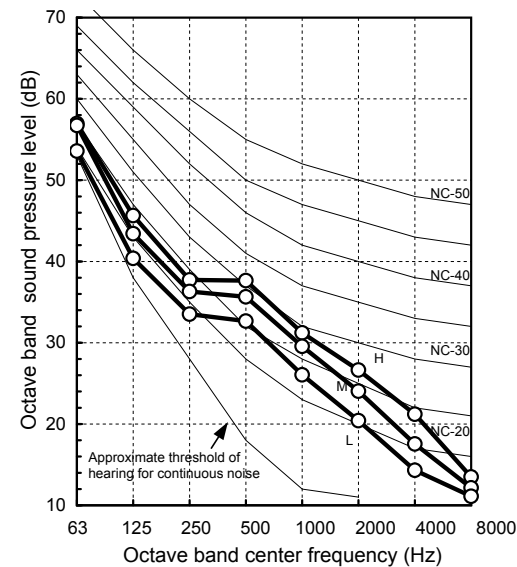
External static pressure 30Pa

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



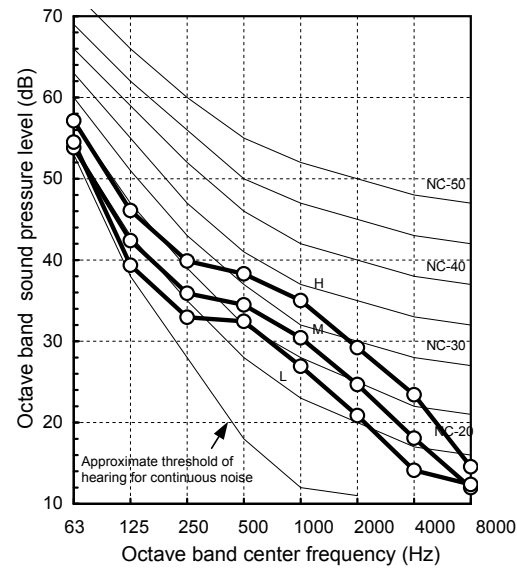
External static pressure 40Pa

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



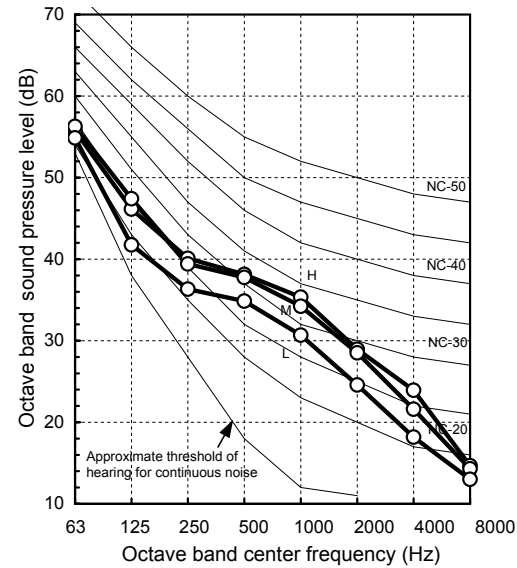
External static pressure 50Pa

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



External static pressure 65Pa

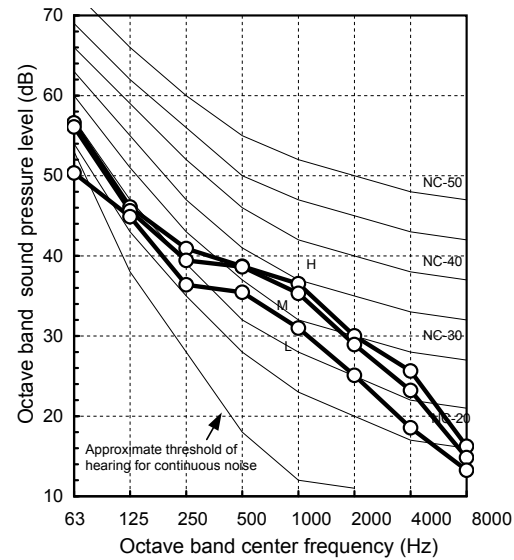
FAN tap	H	M	L
Sound pressure level (dB(A))	41	39	36



RAV-HM1101BTP-E/TR, RAV-HM1401BTP-E/TR

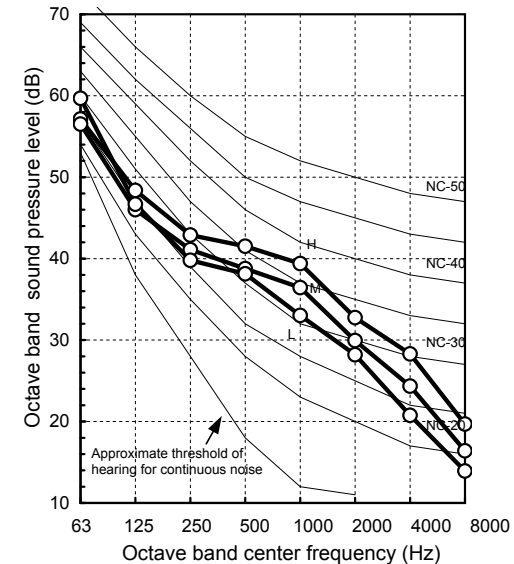
External static pressure 80Pa

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



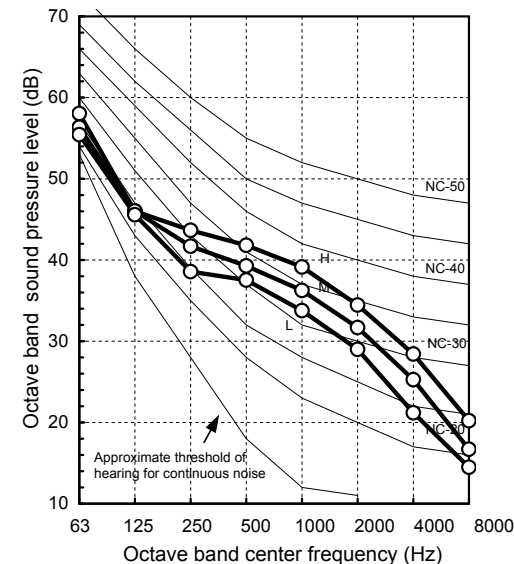
External static pressure 100Pa

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



External static pressure 120Pa

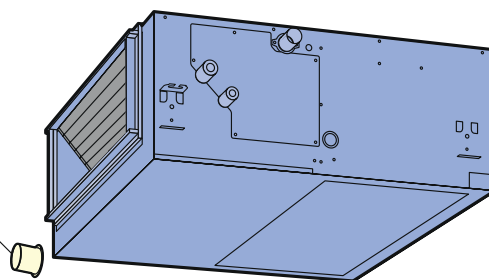
FAN tap	H	M	L
Sound pressure level (dB(A))	44	42	39



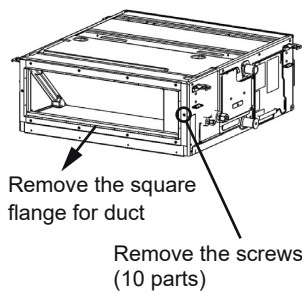
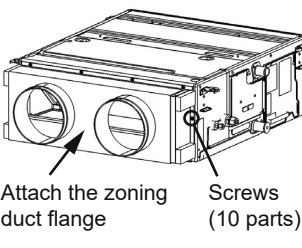
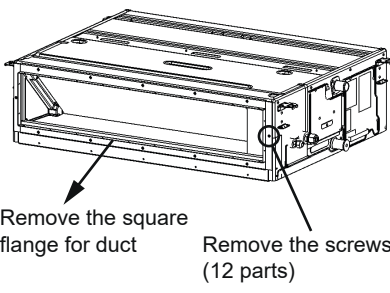
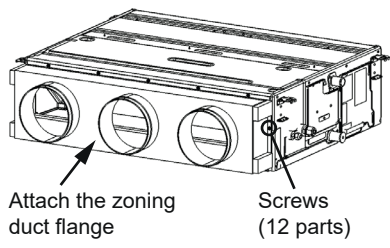
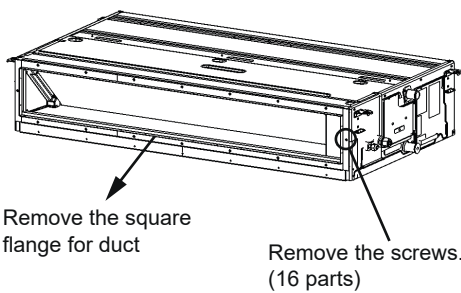
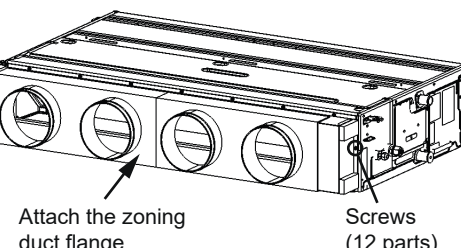
Accessories

Option Parts	Model Name	Applicable FOU
Auxiliary fresh air flange	TCB-FF151US-E	For Duct type
Zoning duct flange	TCB-SF5606BPE	For Duct type
	TCB-SF8006BPE	For Duct type
	TCB-SF16006BPE	For Duct type

Auxiliary fresh air flange
TCB-FF151US-E



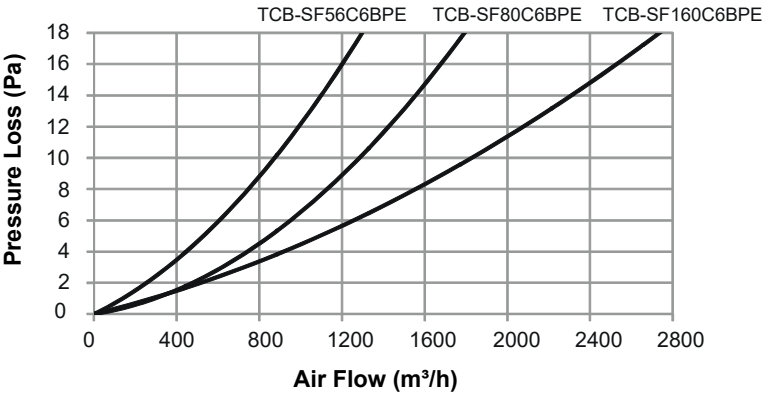
Appendix

Zoning duct flange TCB-SF56C6BPE	Zoning duct flange TCB-SF80C6BPE	Zoning duct flange TCB-SF160C6BPE
 <p>Remove the square flange for duct</p> <p>Remove the screws. (10 parts)</p>  <p>Attach the zoning duct flange</p> <p>Screws (10 parts)</p>	 <p>Remove the square flange for duct</p> <p>Remove the screws. (12 parts)</p>  <p>Attach the zoning duct flange</p> <p>Screws (12 parts)</p>	 <p>Remove the square flange for duct</p> <p>Remove the screws. (16 parts)</p>  <p>Attach the zoning duct flange</p> <p>Screws (12 parts)</p>

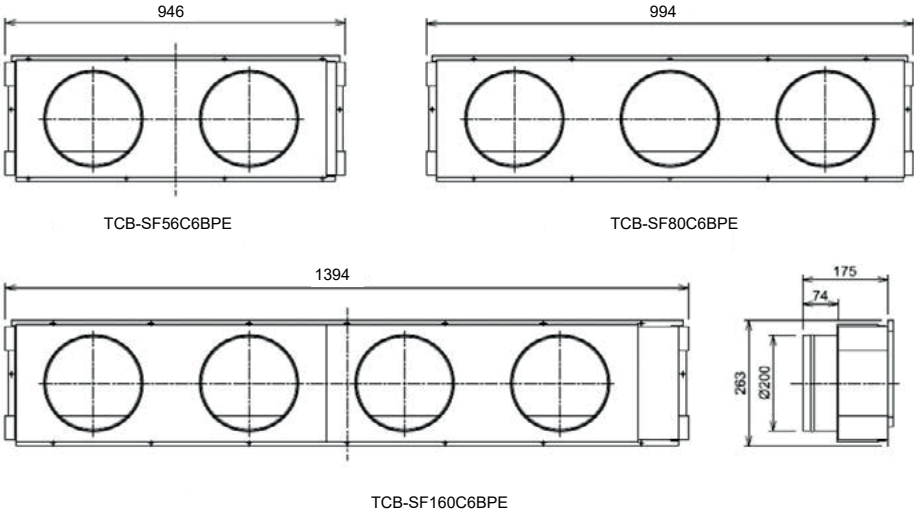
Remove screws on square flange for duct of indoor unit and attach the zoning duct flange with the screw.

External pressure loss characteristic

When you use these “Zoning duct flange” with Concealed Duct Type and High Static Presure type, pressure-loss characteristics depends on Air Flow.



External dimension



Auxiliary fresh air flange

Arrange a flexible duct (locally procured).

It is necessary to install auxiliary fresh air flange.

INSTALLATION PROCEDURE

- 1 Using the knockout of the indoor unit, as a marker, cut off the steel plate with cutting pliers or cutter.
- 2 Install the auxiliary fresh air flange to the indoor unit with attached 4 fixing screws.

CAUTION

The fresh air shall be conditioned by heat reclaim ventilator or similar.

Emsure the fresh air volume is determined so that mixed suction air and fresh air maintain the operating temperature.

Recommended conditioned air temperature is 12°C to 30°C.

however, make a fresh air volume within 10% of standard.

Provide an air filter in fresh air duct. (Fresh air doesn't pass through the filter of indoor unit.)

Besure to insulate fresh air duct.

Please wire for inter-lock with fan of indoor unit by using CN60.

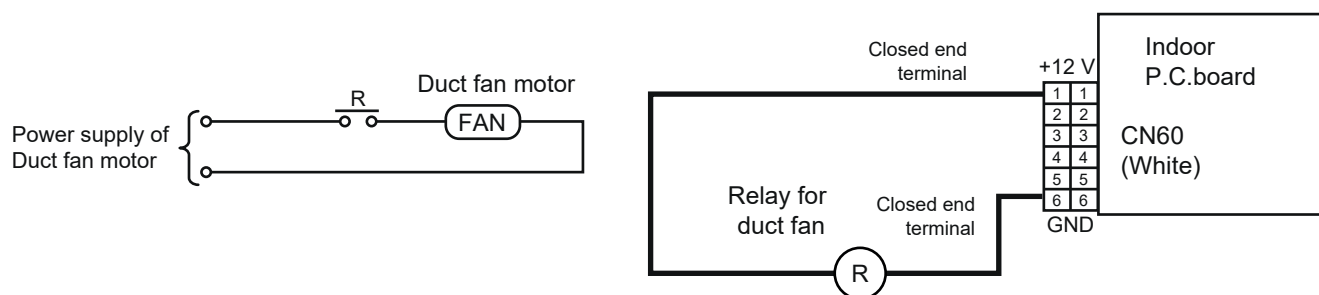
Inter - lock circuit

1. Connect the driving relay of the duct fan (DC 12 V) between 1 and 6 on the indoor P.C.board.

Part indicated with a bold line is the connecting circuit.

After installation, implement a test run to check that the duct fan of the indoor unit start / stop simultaneously.

(Implement the test run following to the installation manual of the indoor unit.)



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)

2-5-8 Accessories

2-5-1. Specifications

Under Ceilling Type <Single Type>

Model		Indoor unit		RAV-HM1101CTP-E/TR		RAV-HM1401CTP-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-HM561CTP-E/TR		RAV-HM801CTP-E/TR		
		Indoor unit 2		RAV-HM561CTP-E/TR		RAV-HM801CTP-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.

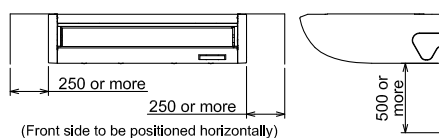
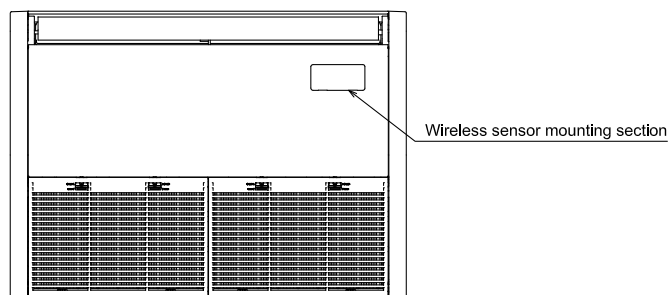
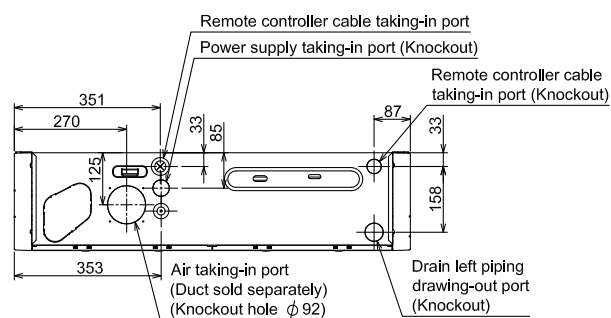
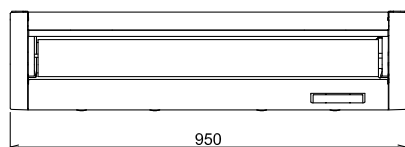
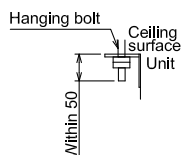
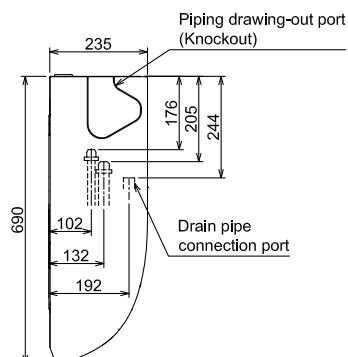
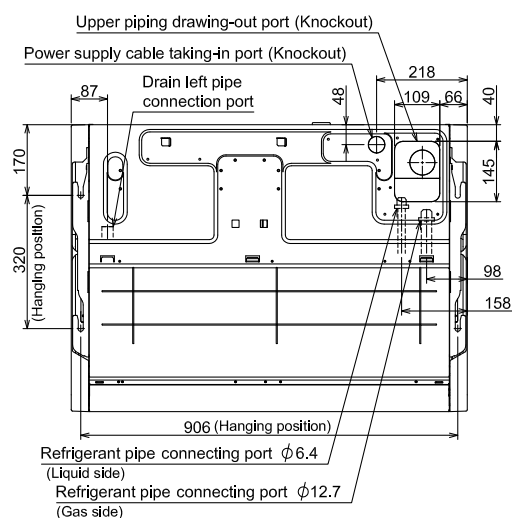
*2 : The sound level are measured in an anechoic chamber in accordance with JIS B 8616. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

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

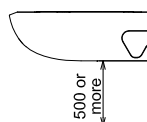
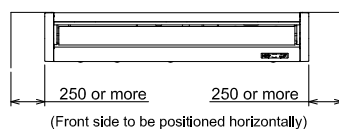
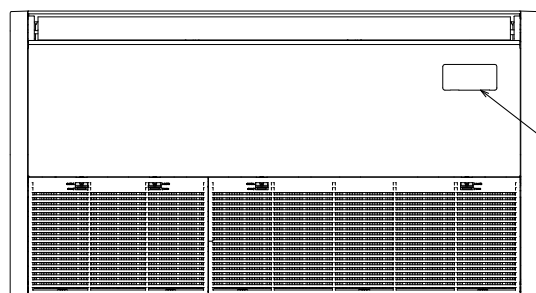
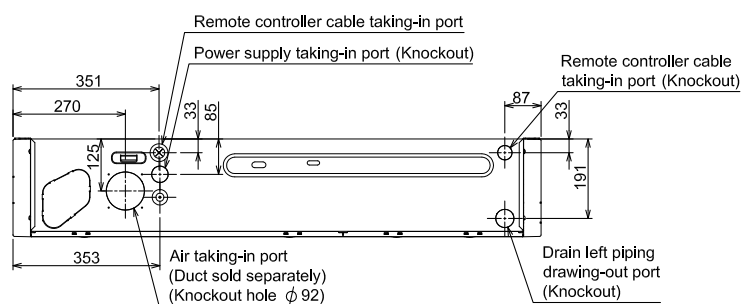
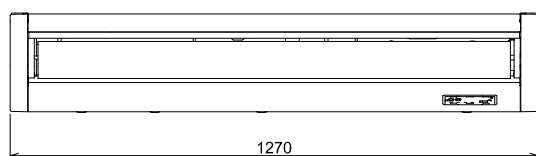
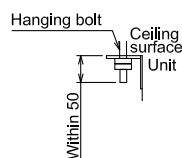
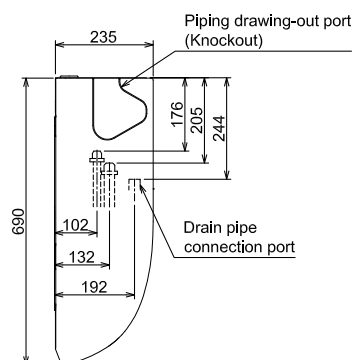
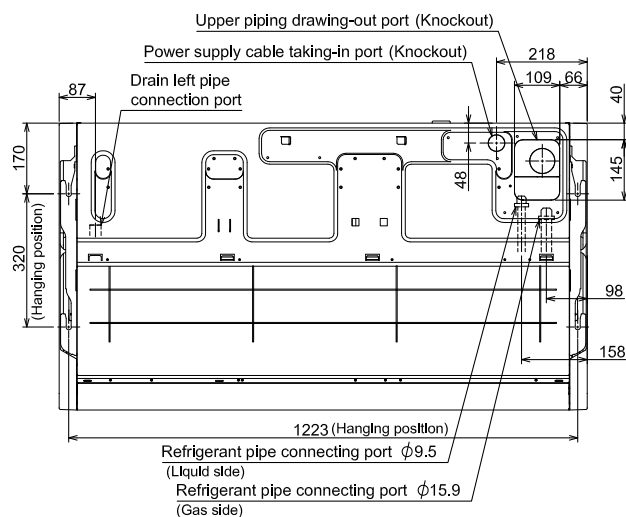
RAV-HM561CTP-E/TR



Space required for installation and servicing

(Unit:mm)

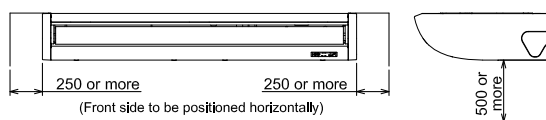
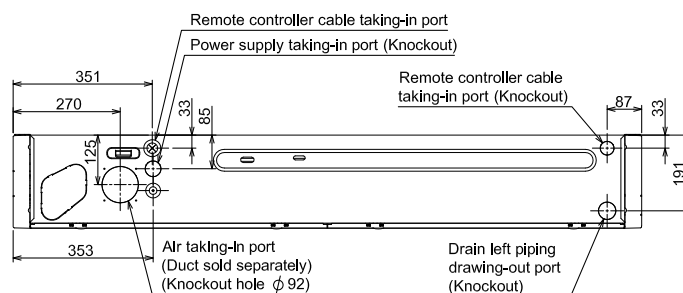
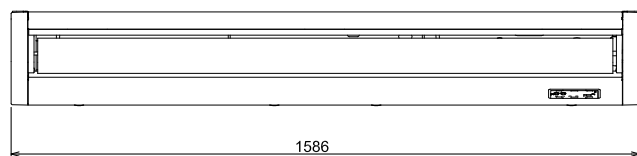
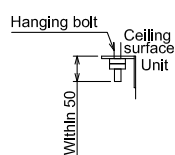
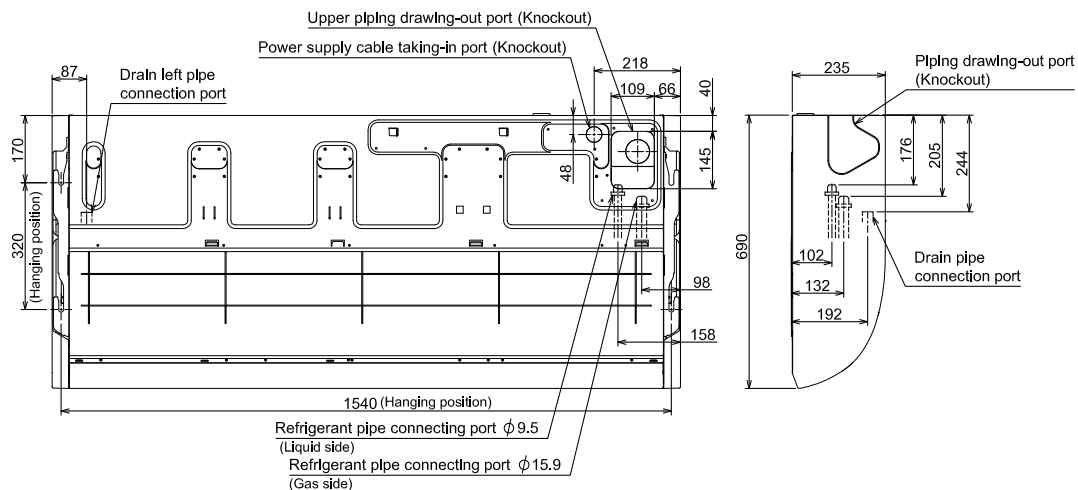
RAV-HM801CTP-E/TR



Space required for installation and servicing

(Unit:mm)

RAV-HM1101CTP-E/TR and RAV-HM1401CTP-E/TR

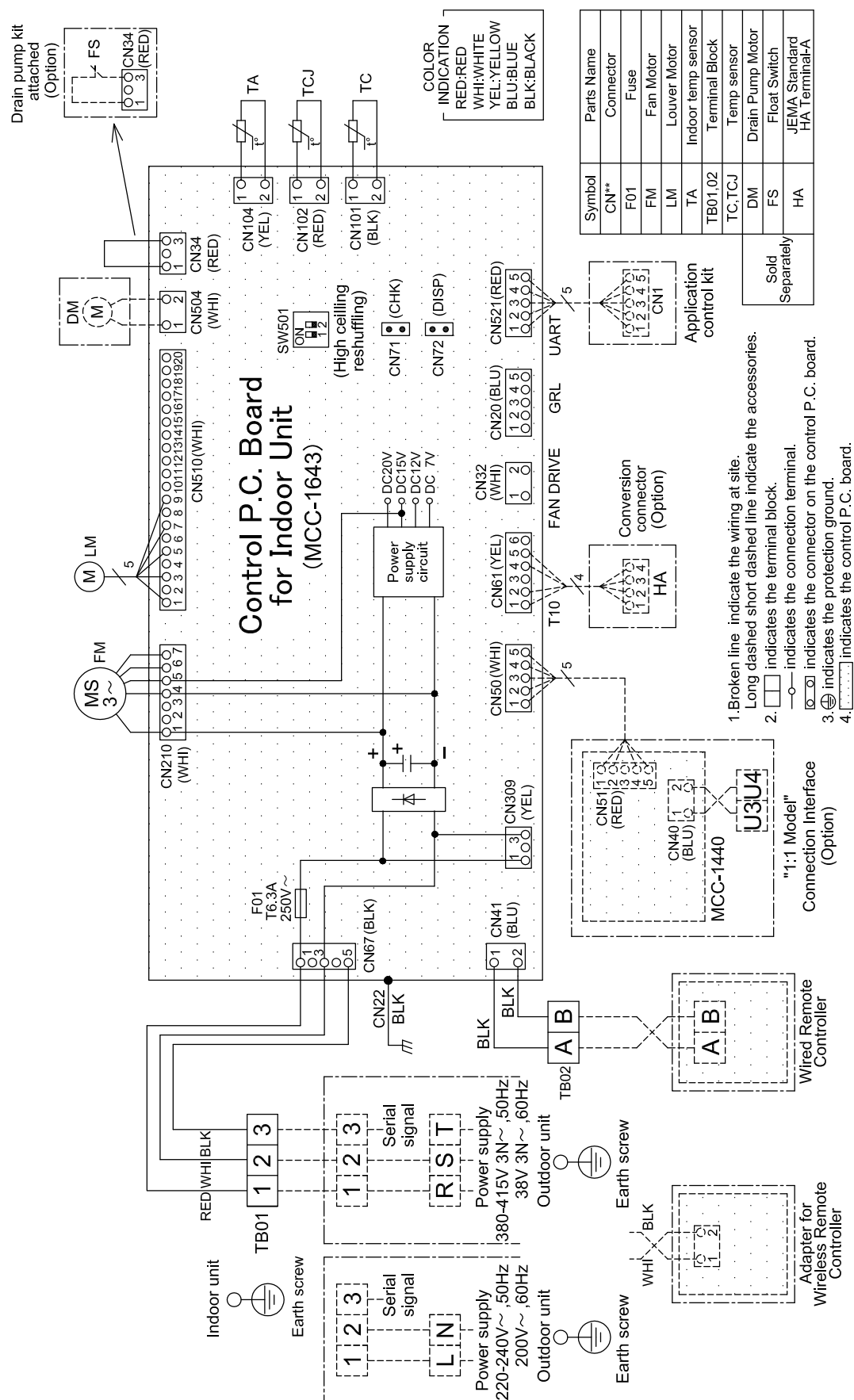


Space required for installation and servicing

(Unit:mm)

2-5-3. Wiring Diagrams

**RAV-HM561CTP-E/TR, RAV-HM801CTP-E/TR,
RAV-HM1101CTP-E/TR and RAV-HM1401CTP-E/TR**



2-5-4. Sensible Capacity Table

Digital Inverter R32 Sensible Heat Capacity : RAV-HM***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
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. 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
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.																			
unit size	Outdoor air temp. °C DB	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	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	°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-HM***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-HM1101CTP-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		Load(%)									
Outdoor temperature(°C)		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

Heating		Load(%)									
Outdoor temperature(°C)		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-HM1401CTP-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(°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

Combination

Indoor unit : RAV-HM561CTP-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(°C)		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(°C)		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-HM801CTP-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

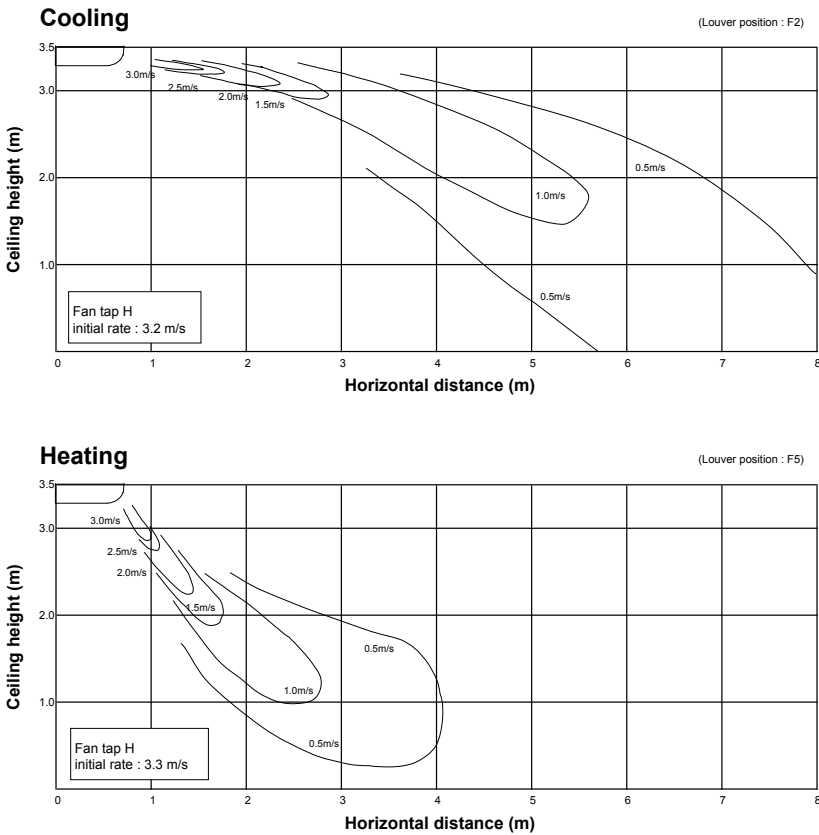
Outdoor temperature(°C)		Load(%)									
		100	90	80	70	60	50	40	30	20	10
40	Q	11460	10310	9170	8030	6880	5730	4590	3440	2840	2840
	W	4810	3880	3050	2340	1770	1340	1020	760	650	650
35	Q	12100	10890	9680	8470	7260	6050	4840	3630	3000	3000
	W	4420	3570	2800	2150	1630	1230	940	700	600	600
30	Q	12680	11410	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

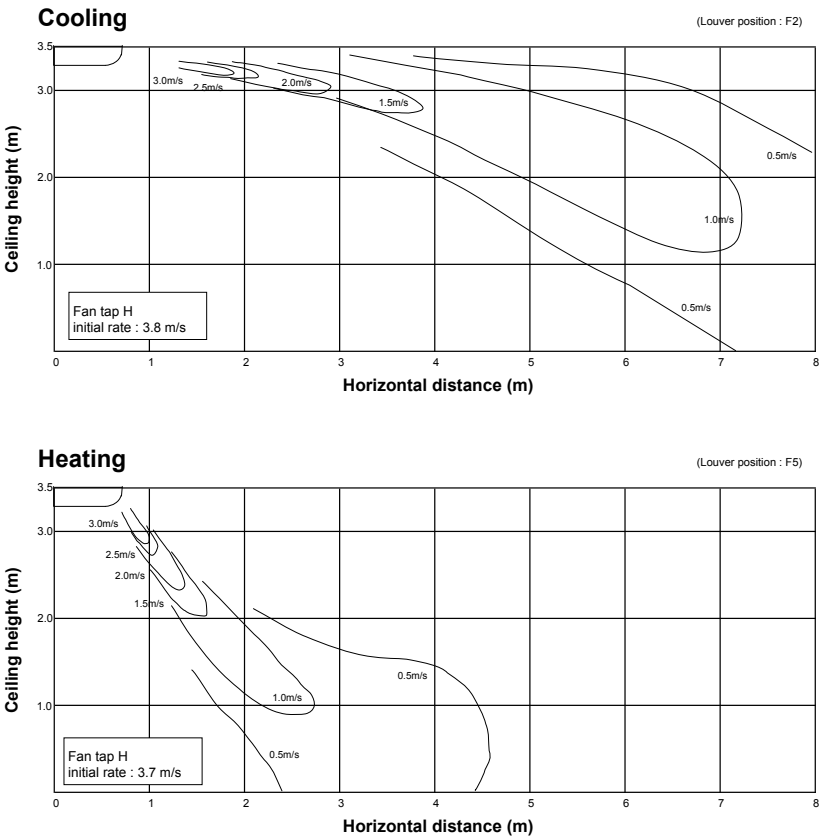
Outdoor temperature(°C)		Load(%)									
		100	90	80	70	60	50	40	30	20	10
15	Q	15570	14010	12460	10900	9340	7780	6230	4670	3590	3590
	W	3820	3210	2680	2210	1780	1400	1080	820	660	660
10	Q	14150	12730	11320	9900	8490	7070	5660	4240	3260	3260
	W	3630	3060	2550	2100	1690	1340	1020	780	630	630
7	Q	13000	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

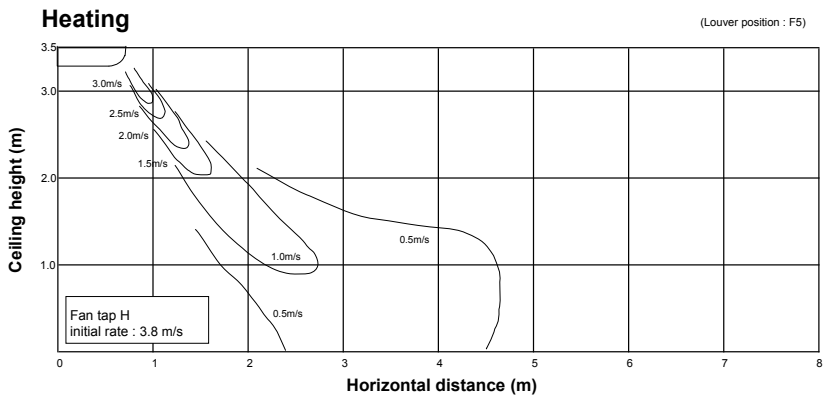
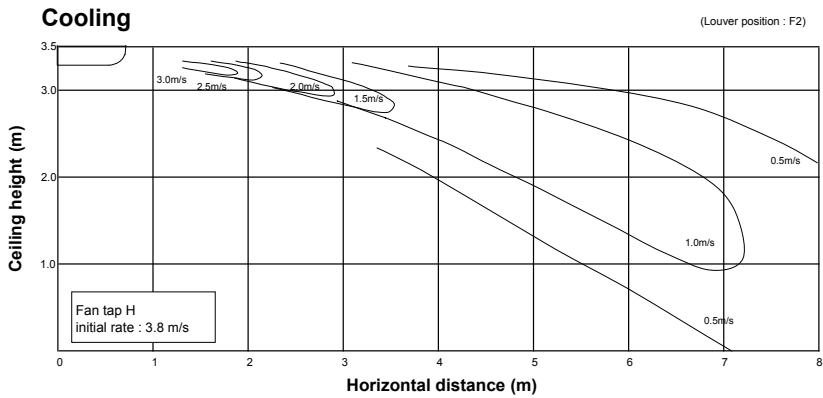
RAV-HM561CTP-E



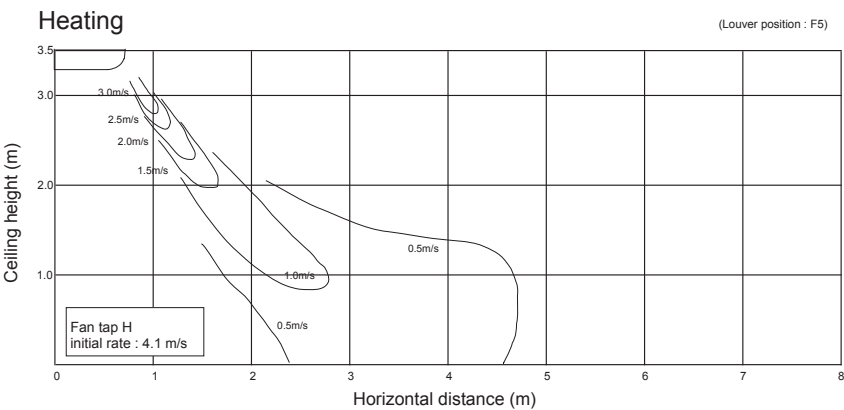
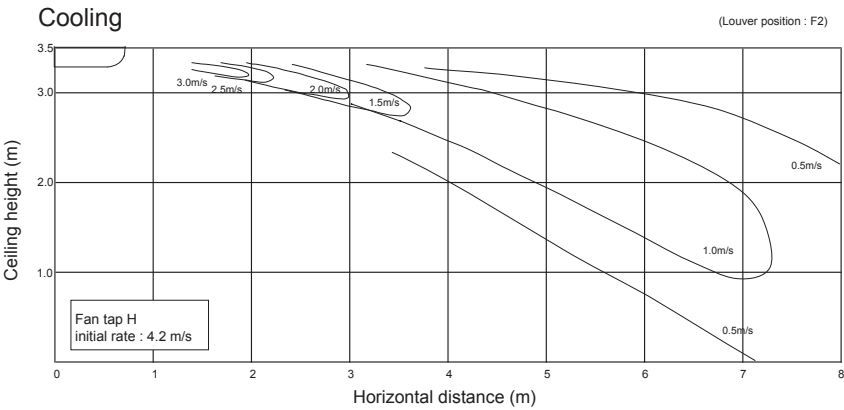
RAV-HM801CTP-E



RAV-HM1101CTP-E



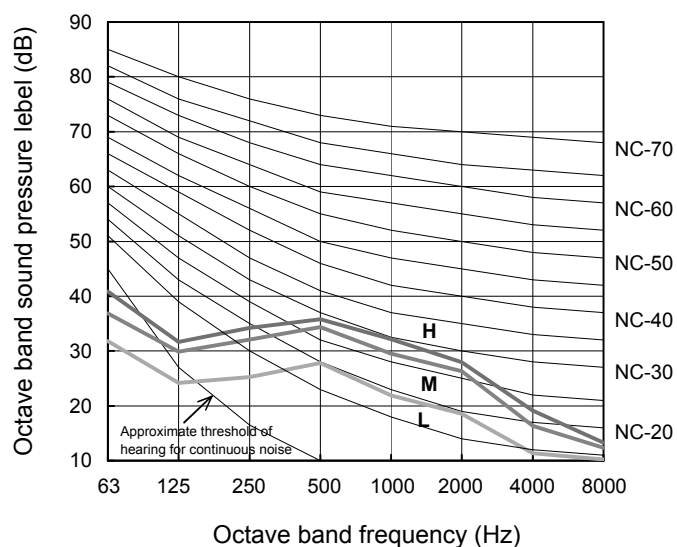
RAV-HM1401CTP-E



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

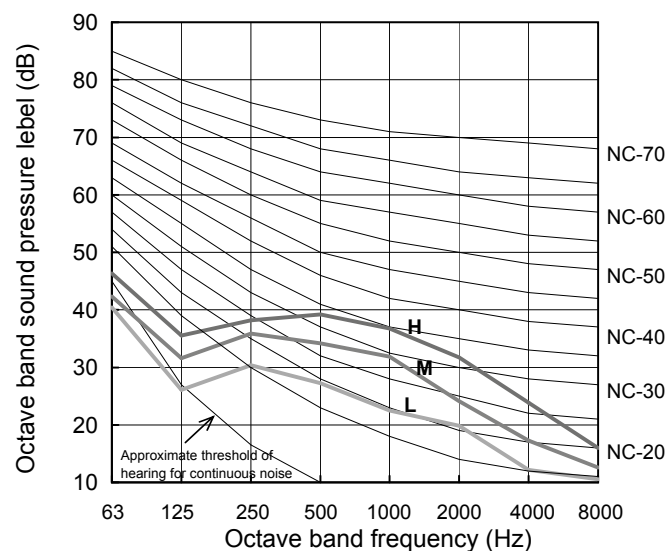
RAV-HM561CTP-E/TR

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



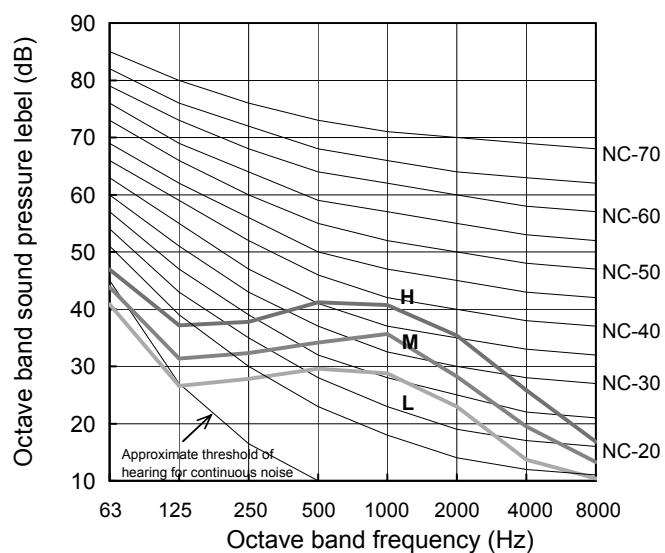
RAV-HM801CTP-E/TR

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



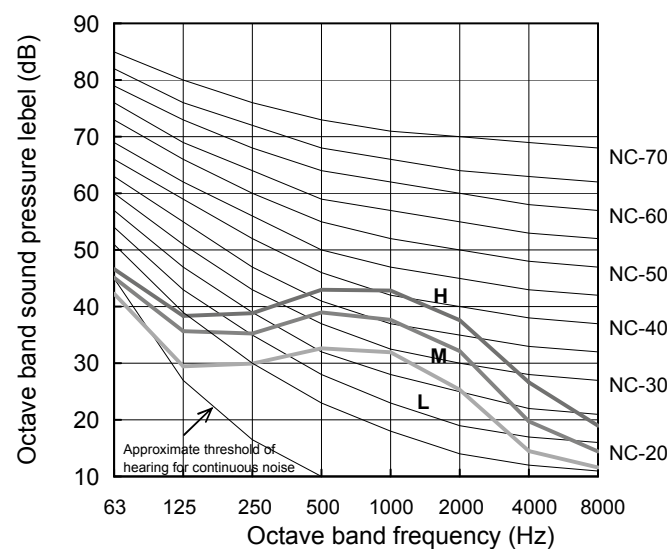
RAV-HM1101CTP-E/TR

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



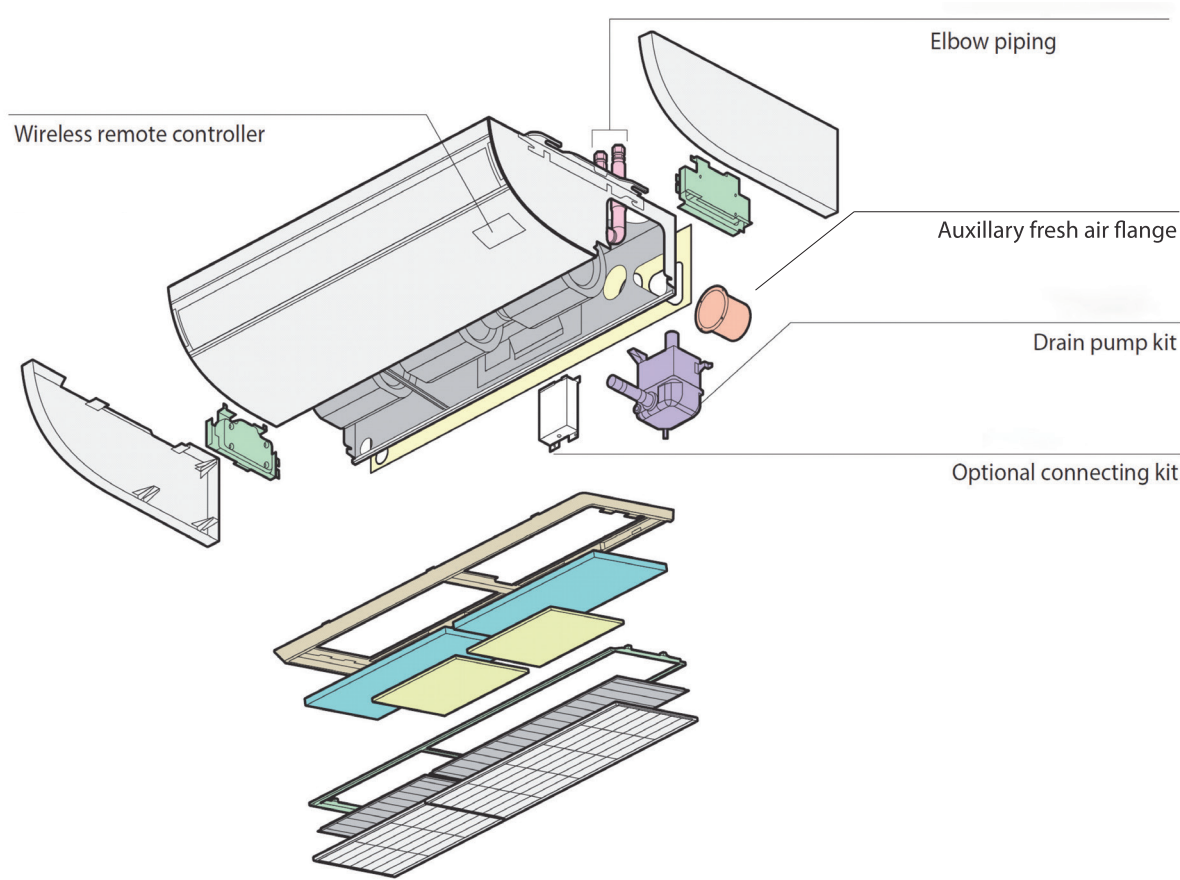
RAV-HM1401CTP-E

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



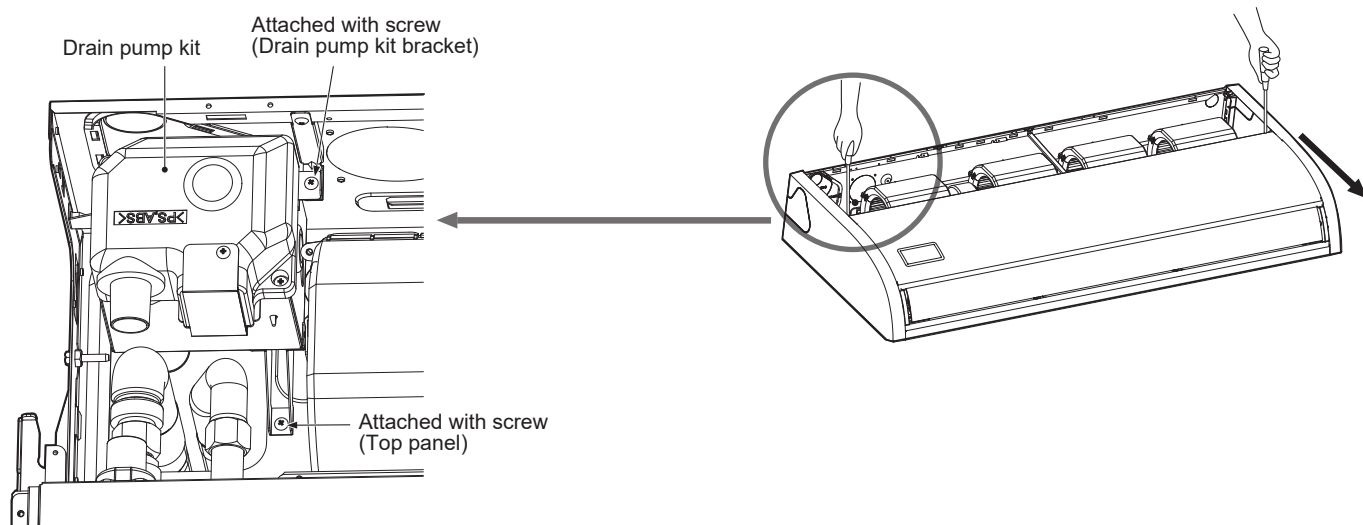
Accessories

Parts name	Model name	Applied Model	Feature	Remark
Wireless Remote Controller kit	RBC-AXU31C-E	All Model	-	
Drain pump kit	TCB-DP31CE	All Model	Antibacterial glass is built into Drain pump kit	
Elbow piping kit	TCB-KP14CPE	All Model	It is necessary for installation of Drain pump kit	Use with TCB-DP31CE
Option connecting kit	TCB-PCUC2E	All Model	For external I/O signal without local relay preparation	
Auxillary fresh air flange	TCB-FF101URE2	All Model		

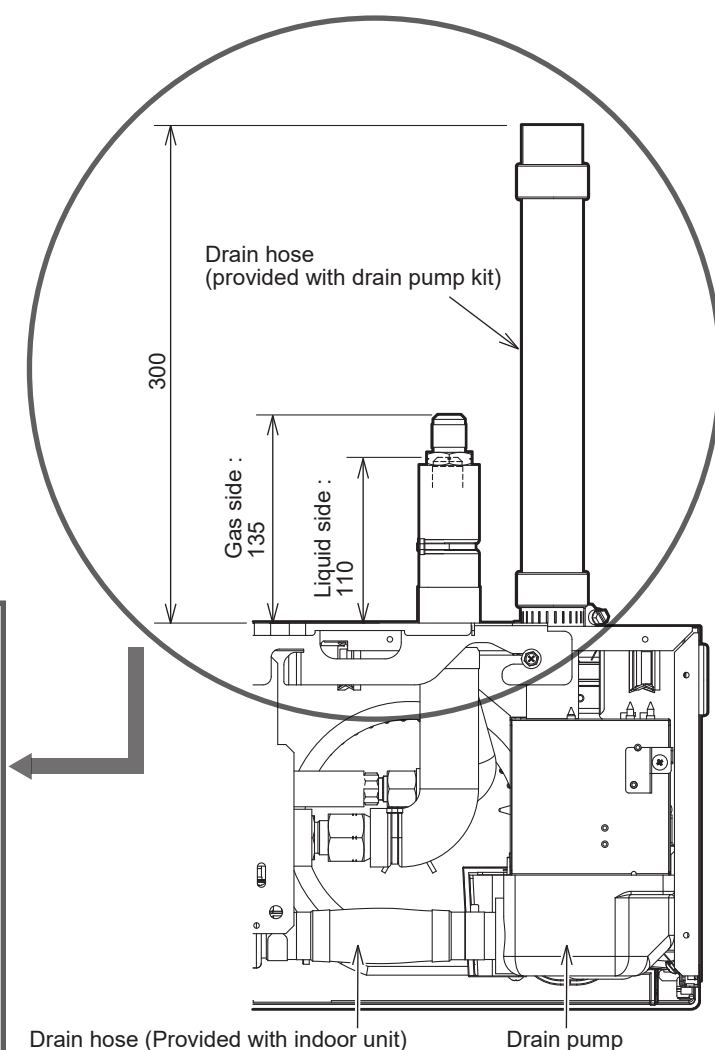
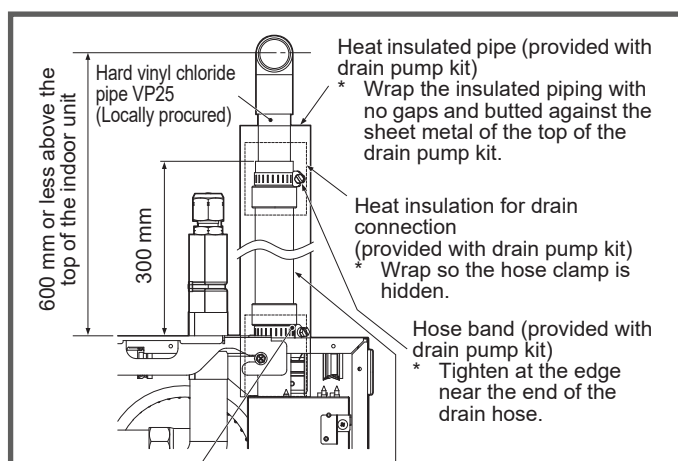
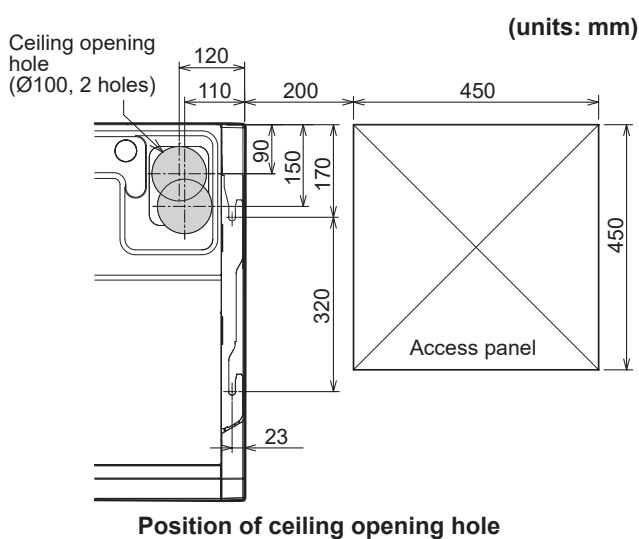


Appendix

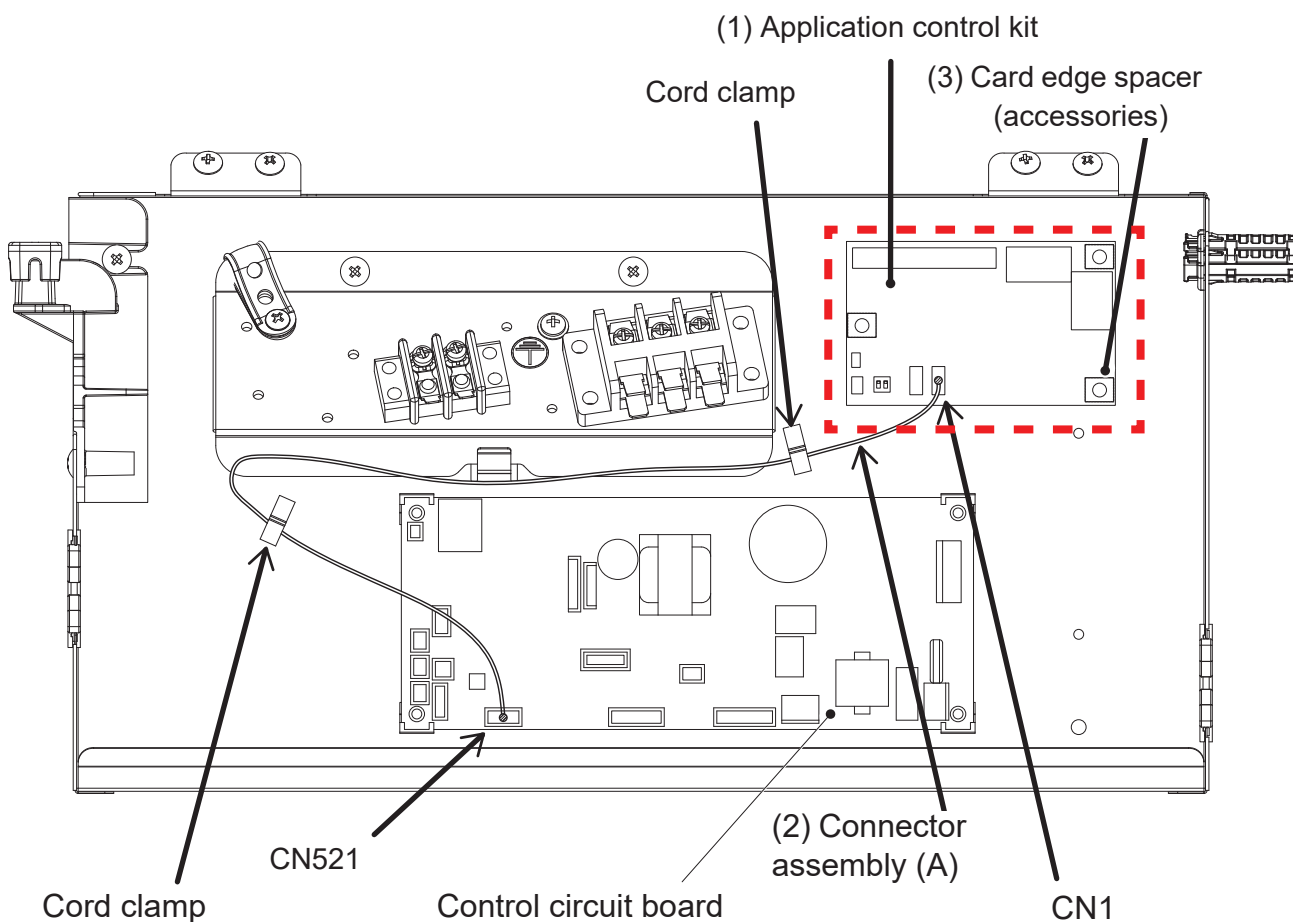
Drain pump kit : TCB-DP31CE



- The elbow piping kit (TCB-KP13CE, KP23CE) (sold separately) is also needed to install the drain pump kit because the pipes must be directed upward.
- Insulate all drain pipes.
- Cut two holes in the ceiling ($\varnothing 100$) where the installation is being done through which to pass the refrigerant pipe and the drain pipe.
- Install a 450×450 access panel in the ceiling where the installation is being done.



Option Connecting Kit : TCB-PCUC2E




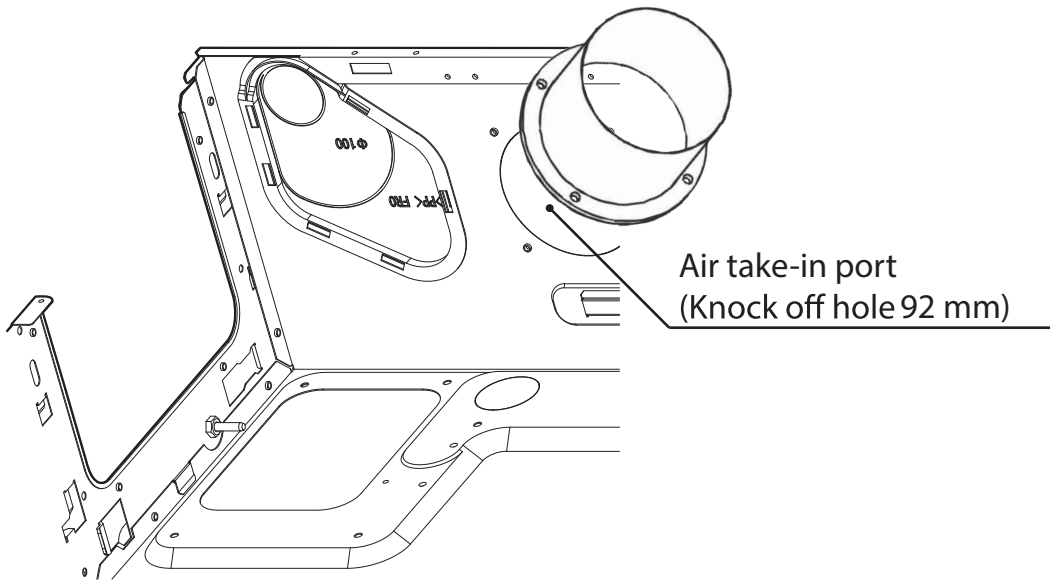
- 1 Use the (3) card edge spacers (3 pcs) provided with the electrical control box to install the (1) application control kit.
- 2 Use the (2) connector assembly (A) provided to connect CN1 on the (1) application control kit and CN521 on the indoor control circuit board, then run the wires and fix it in place with two cord clamps.

REQUIREMENT

Remove the clamp filter of (2) Connector assembly (A).

Auxiliary outside air flange : TCB-FF101URE2

Name		Q'ty
Auxiliary fresh air flange 100 mm		1



Approximately 5% or less of standard airflow volume will be reduced

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-HM 561KRTP-E/-TR		RAV-HM801KRTP-E/-TR		
		Indoor unit 2		RAV-HM561KRTP-E/-TR		RAV-HM801KRTP-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		5.24	
	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

< High-wall Type >

Model		Indoor unit		RAV-HM1101KRTP-E / TR		RAV-HM1101KRTP-E / TR		
		Outdoor unit		RAV-GM1101ATP-E / TR		RAV-GM1101AT8P-E / TR		
Cooling capacity				(kW)	9.5 < 3.0 - 11.2 >		9.5 < 3.0 - 11.2 >	
Heating capacity				(kW)	11.2 < 3.0 - 13.0 >		11.2 < 3.0 - 13.0 >	
Power supply				1 phase 220V-240V/50Hz, 1phase 220V/60Hz			3 phase 380V-415V/50Hz, 3phase 380V/60Hz	
Electrical characteristics	Cooling	Running current		(A)	14.35 - 13.15		4.80 - 4.40	
		Power consumption		(kW)	2.97		2.97	
		Power factor		(%)	94		94	
		EER			3.20		3.20	
		PdisignC			9.50		9.50	
		SEER			6.10		6.10	
	Heating	Running current		(A)	16.80 - 15.40		5.60 - 5.15	
		Power consumption		(kW)	3.47		3.47	
		Power factor		(%)	94		94	
		COP			3.23		3.23	
		PdisignH (Tbiv -7°C)			8.00		8.00	
		SCOP			4.20		4.20	
	Maximum current		(A)	22.8		14.1		
Indoor unit								
Outer dimension		Main unit		Height	(mm)	348		
				Width	(mm)	1200		
				Depth	(mm)	280		
Total weight		Main unit		(kg)	19.0			
Fan unit		Fan			Cross flow fan			
		Standard air flow	H/M/L	(m3/h)	1610 / 1350 / 1180			
		Motor		(W)	61.0			
Controller (Packed with unit)				WH-TA09NE				
Air filter				Standard filter (Long life filter)				
Sound pressure level			H/M/L	(dB)	49 / 45 / 41			
Sound power level			H/M/L	(dB)	64 / 60 / 56			
Outdoor unit								
Air Flow				(m3/h)	4,080		4,080	
Outer dimension		Height		(mm)	890		890	
		Width		(mm)	900		900	
		Depth		(mm)	320		320	
Total weight		Main unit		(kg)	68		68	
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			
Sound power level		Cooling/Heating		(dB)	70 / 74			
Enegy label		Cooling/Heating			A++ / A+			
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.

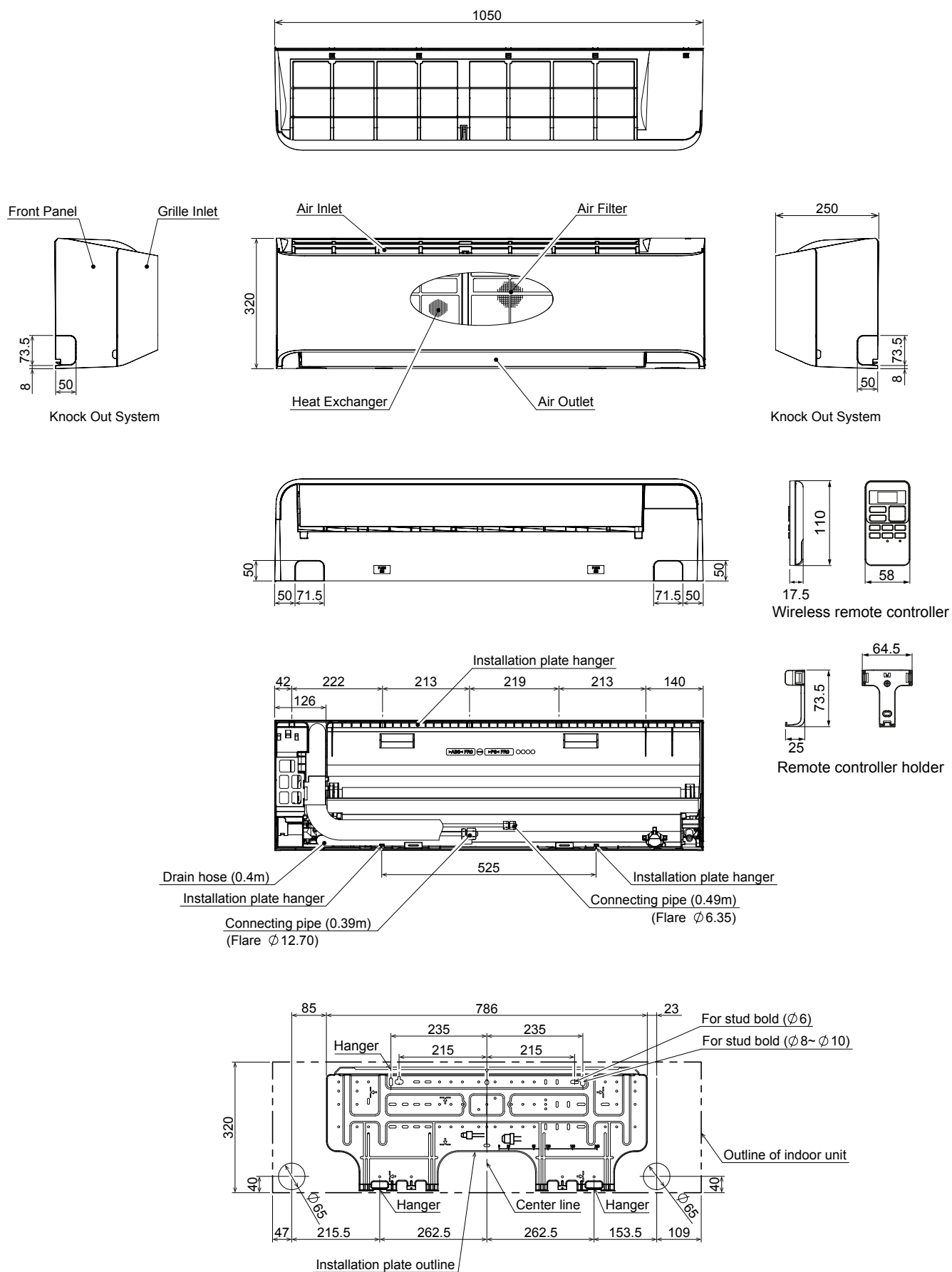
*2 : The sound level are measured in an anechoic chamber in accordance with JIS B 8616. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

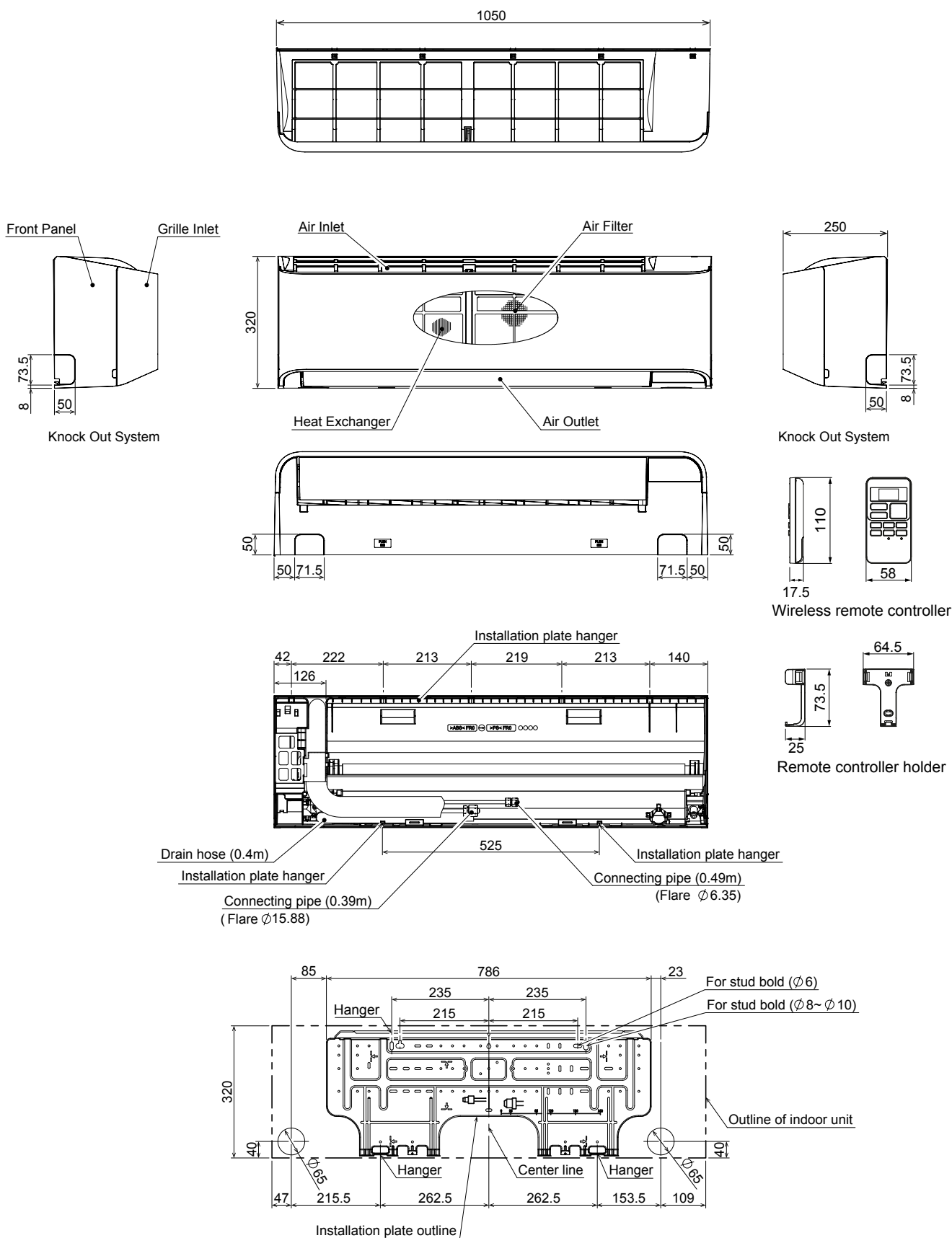
Note :

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

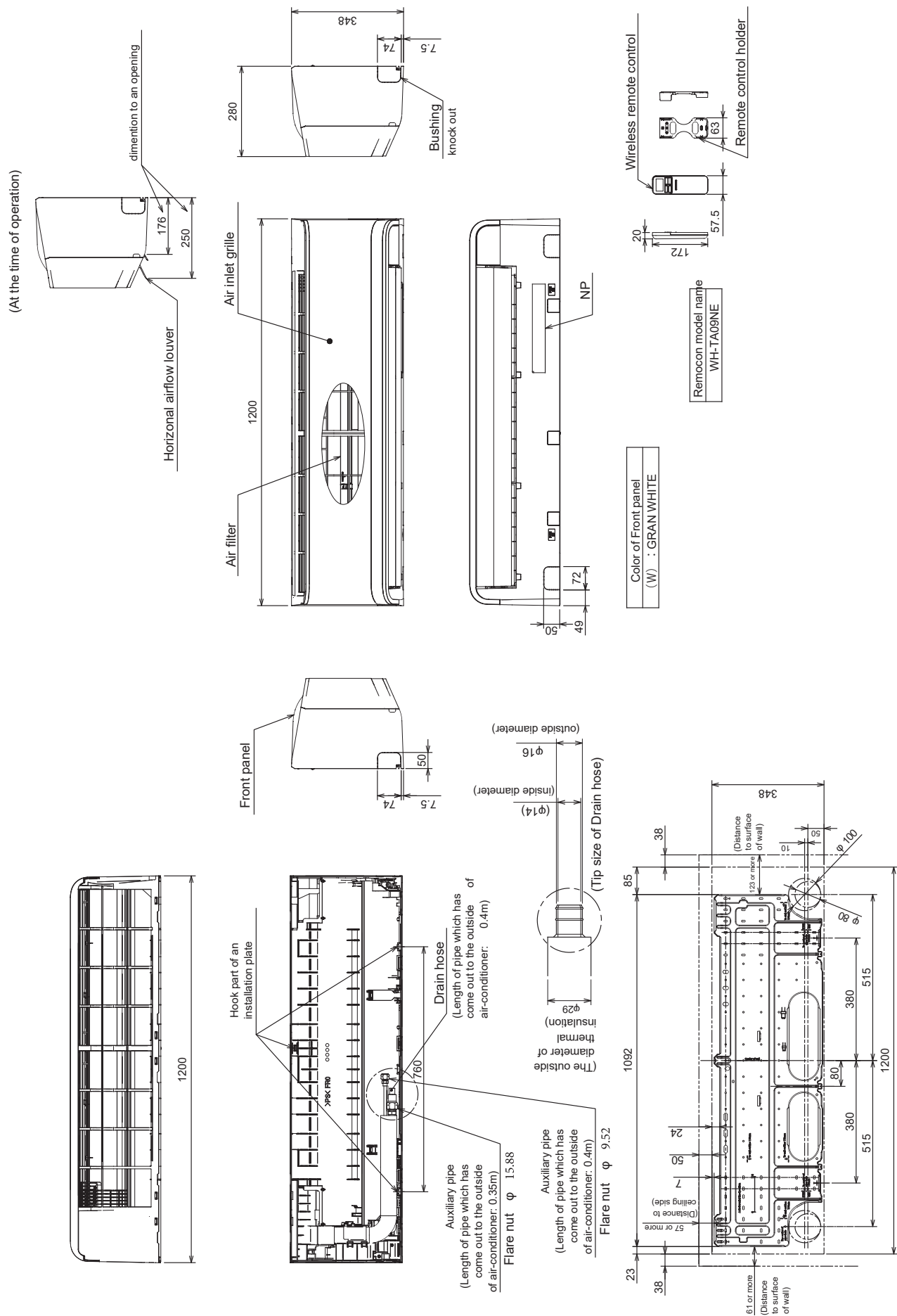
2-6-2. Dimension

RAV-HM561KRTP-E/TR



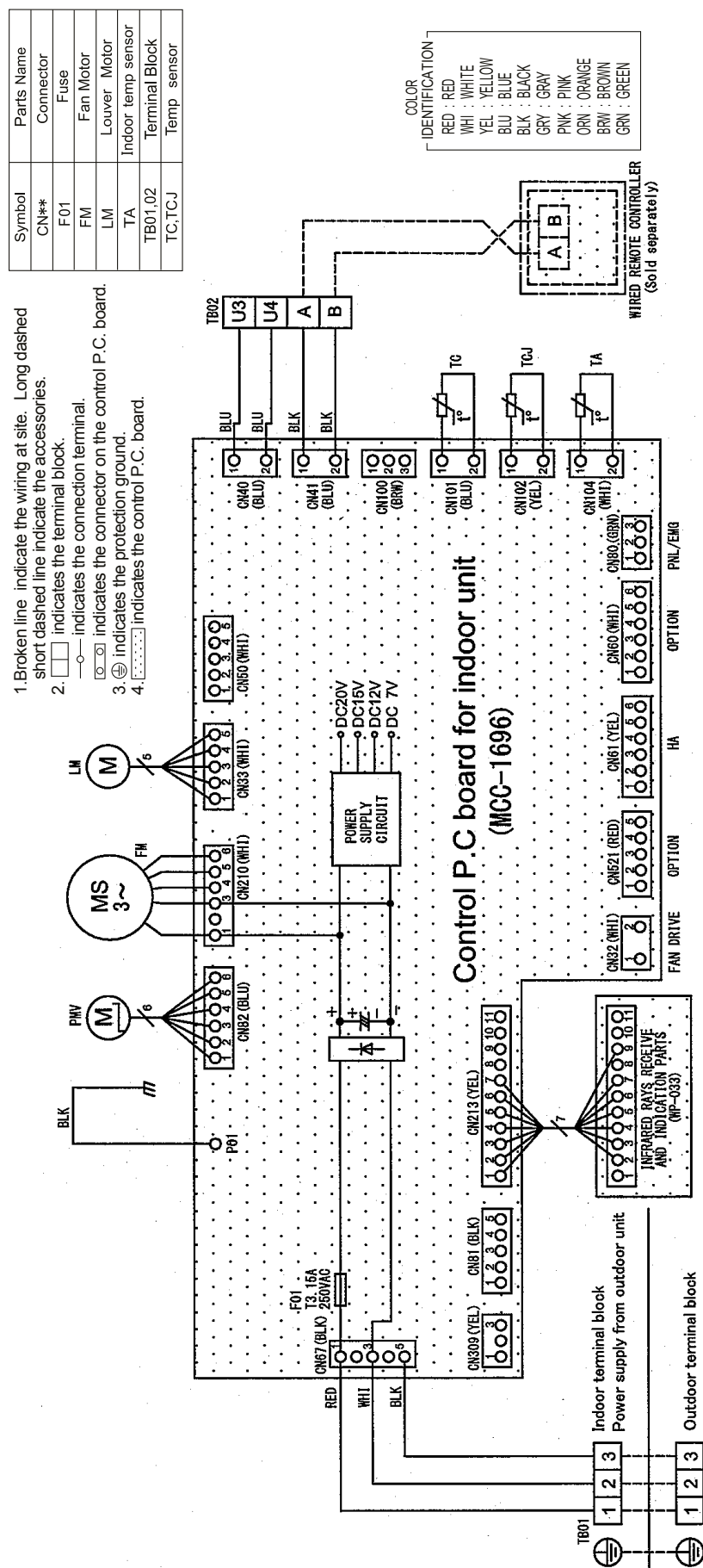
RAV-HM801KRTP-E/TR

RAV-HM1101KRTP-E / TR

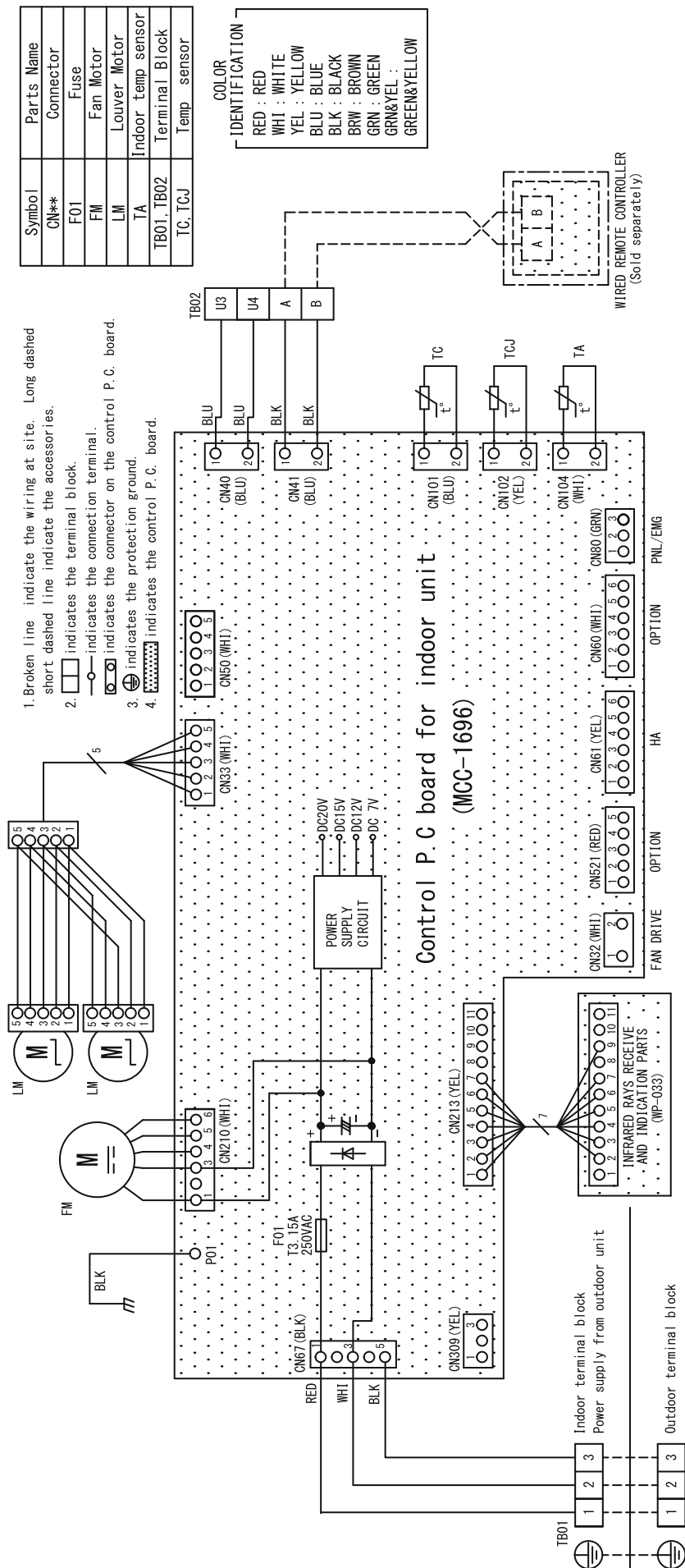


2-6-3. Wiring Diagrams

RAV-HM561KRTP-E/TR and RAV-HM801KRTP-E/TR



RAV-HM1101KRTP-E / TR



2-6-4. Sensible Capacity Table

Digital Inverter R32 Sensible Heat Capacity : RAV-HM***K RTP-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	
561	°C DB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	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	
801	°C DB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	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]

Product models : RAV-HM1101KRTP-E / RAV-GM1101AT8P-E
RAV-HM1101KRTP-TR / RAV-GM1101AT8P-TR

Specification of product at standard condition

Standard Condition	Indoor	27°C (DB) / 19°C (WB)	Total Cooling Capacity (TC)	9.50 kW
	Outdoor	35°C (DB) / 24°C (WB)	Sensible Heat Capacity (SHC)	7.10 kW

Outdoor air temperature DB (°C)	Indoor air temperature													
	20.0°C (DB) 14.0°C (WB)		23.0°C (DB) 16.0°C (WB)		26.0°C (DB) 18.0°C (WB)		27.0°C (DB) 19.0°C (WB)		28.0°C (DB) 20.0°C (WB)		30.0°C (DB) 22.0°C (WB)		32.0°C (DB) 24.0°C (WB)	
	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
20	9.31	7.52	10.28	8.00	11.00	8.50	11.33	8.47	11.65	8.44	12.34	8.32	12.91	8.12
21	9.21	7.44	10.17	7.91	10.89	8.41	11.21	8.38	11.53	8.35	12.21	8.23	12.77	8.03
22	9.11	7.36	10.06	7.83	10.77	8.32	11.08	8.28	11.40	8.26	12.07	8.15	12.63	7.95
23	9.01	7.28	9.94	7.74	10.65	8.23	10.96	8.19	11.28	8.17	11.94	8.06	12.49	7.86
24	8.90	7.20	9.83	7.65	10.53	8.13	10.84	8.10	11.15	8.08	11.81	7.97	12.35	7.77
25	8.80	7.12	9.72	7.57	10.41	8.04	10.72	8.01	11.03	7.99	11.68	7.88	12.21	7.68
26	8.70	7.03	9.61	7.48	10.29	7.95	10.60	7.92	10.90	7.90	11.54	7.79	12.07	7.60
27	8.60	6.95	9.50	7.40	10.18	7.86	10.48	7.83	10.77	7.81	11.41	7.70	11.93	7.51
28	8.50	6.87	9.39	7.31	10.06	7.77	10.35	7.74	10.65	7.72	11.28	7.61	11.80	7.42
29	8.40	6.79	9.28	7.22	9.94	7.68	10.23	7.65	10.52	7.63	11.15	7.52	11.66	7.34
30	8.30	6.71	9.17	7.14	9.82	7.59	10.11	7.56	10.40	7.54	11.01	7.43	11.52	7.25
31	8.20	6.63	9.06	7.05	9.70	7.49	9.99	7.46	10.27	7.44	10.88	7.34	11.38	7.16
32	8.10	6.55	8.95	6.97	9.58	7.40	9.87	7.37	10.15	7.35	10.75	7.25	11.24	7.07
33	8.00	6.47	8.84	6.88	9.47	7.31	9.74	7.28	10.02	7.26	10.61	7.16	11.10	6.99
34	7.90	6.39	8.73	6.79	9.35	7.22	9.62	7.19	9.90	7.17	10.48	7.07	10.96	6.90
35	7.80	6.31	8.62	6.71	9.23	7.13	9.50	7.10	9.77	7.08	10.35	6.98	10.82	6.81
36	7.70	6.23	8.51	6.62	9.11	7.04	9.38	7.01	9.65	6.99	10.22	6.89	10.68	6.72
37	7.60	6.14	8.40	6.54	8.99	6.94	9.26	6.92	9.52	6.90	10.08	6.80	10.55	6.64
38	7.50	6.06	8.29	6.45	8.87	6.85	9.13	6.83	9.40	6.81	9.95	6.71	10.41	6.55
39	7.40	5.98	8.18	6.36	8.75	6.76	9.01	6.74	9.27	6.72	9.82	6.62	10.27	6.46
40	7.30	5.90	8.06	6.28	8.64	6.67	8.89	6.64	9.14	6.63	9.68	6.53	10.13	6.37
41	7.20	5.82	7.95	6.19	8.52	6.58	8.77	6.55	9.02	6.54	9.55	6.44	9.99	6.29
42	7.10	5.74	7.84	6.10	8.40	6.49	8.65	6.46	8.89	6.45	9.42	6.35	9.85	6.20
43	7.00	5.66	7.73	6.02	8.28	6.40	8.52	6.37	8.77	6.35	9.29	6.26	9.71	6.11
44	6.90	5.58	7.62	5.93	8.16	6.30	8.40	6.28	8.64	6.26	9.15	6.17	9.57	6.02
45	6.80	5.50	7.51	5.85	8.04	6.21	8.28	6.19	8.52	6.17	9.02	6.08	9.43	5.94
46	6.70	5.42	7.40	5.76	7.93	6.12	8.16	6.10	8.39	6.08	8.89	6.00	9.30	5.85

2-6-5. Part load performance

Combination

Indoor unit : RAV-HM561KRTP-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(°C)		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(°C)		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-HM801KRTP-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(°C)		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(°C)		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

Combination

Indoor : RAV-HM1101KRTPE, TR
Outdoor : RAV-GM1101AT8P-E, TR

Operation range		Cooling	
		Q	P
MINIMUM	W	3000	600
RATING	W	9500	2970
MAXIMUM	W	11200	4300

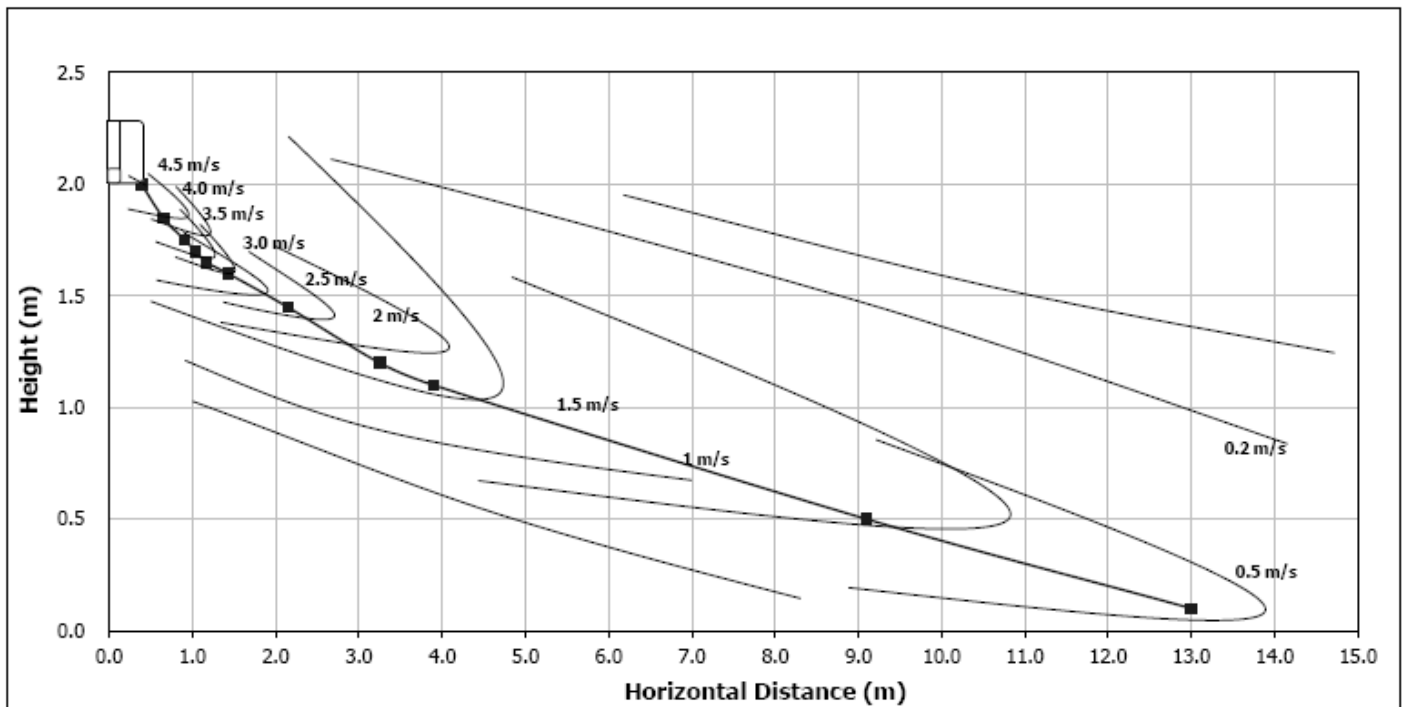
Cooling		Parts Load (%)																			
Outdoor Temperature DB (°C)		100		90		80		70		60		50		40		30		20		10	
		Q	P	Q	P	Q	P	Q	P	Q	P	Q	P	Q	P	Q	P	Q	P	Q	P
20		11329	2331	10196	2060	9063	1788	7930	1516	6797	1244	5664	972	4532	700	3578	471	3578	471	3578	471
21		11207	2374	10086	2097	8965	1820	7845	1543	6724	1267	5603	990	4483	713	3539	480	3539	480	3539	480
22		11085	2417	9976	2135	8868	1853	7759	1571	6651	1289	5542	1007	4434	726	3501	488	3501	488	3501	488
23		10963	2459	9867	2172	8770	1886	7674	1599	6578	1312	5482	1025	4385	738	3462	497	3462	497	3462	497
24		10841	2502	9757	2210	8673	1918	7589	1626	6505	1335	5421	1043	4336	751	3424	505	3424	505	3424	505
25		10719	2544	9647	2248	8575	1951	7503	1654	6432	1357	5360	1061	4288	764	3385	514	3385	514	3385	514
26		10597	2587	9538	2285	8478	1983	7418	1682	6358	1380	5299	1078	4239	777	3347	523	3347	523	3347	523
27		10475	2629	9428	2323	8380	2016	7333	1709	6285	1403	5238	1096	4190	789	3308	531	3308	531	3308	531
28		10353	2672	9318	2360	8283	2049	7247	1737	6212	1425	5177	1114	4141	802	3270	540	3270	540	3270	540
29		10232	2715	9208	2398	8185	2081	7162	1765	6139	1448	5116	1132	4093	815	3231	548	3231	548	3231	548
30		10110	2757	9099	2436	8088	2114	7077	1792	6066	1471	5055	1149	4044	828	3193	557	3193	557	3193	557
31		9988	2800	8989	2473	7990	2147	6991	1820	5993	1494	4994	1167	3995	841	3154	566	3154	566	3154	566
32		9866	2842	8879	2511	7893	2179	6906	1848	5919	1516	4933	1185	3946	853	3116	574	3116	574	3116	574
33		9744	2885	8769	2548	7795	2212	6821	1875	5846	1539	4872	1203	3898	866	3077	583	3077	583	3077	583
34		9622	2927	8660	2586	7698	2245	6735	1903	5773	1562	4811	1220	3849	879	3039	591	3039	591	3039	591
35		9500	2970	8550	2624	7600	2277	6650	1931	5700	1584	4750	1238	3800	892	3000	600	3000	600	3000	600
36		9378	3013	8440	2661	7502	2310	6565	1959	5627	1607	4689	1256	3751	904	2962	609	2962	609	2962	609
37		9256	3055	8331	2699	7405	2343	6479	1986	5554	1630	4628	1274	3702	917	2923	617	2923	617	2923	617
38		9134	3098	8221	2736	7307	2375	6394	2014	5481	1653	4567	1291	3654	930	2885	626	2885	626	2885	626
39		9012	3140	8111	2774	7210	2408	6309	2042	5407	1675	4506	1309	3605	943	2846	634	2846	634	2846	634
40		8890	3183	8001	2812	7112	2440	6223	2069	5334	1698	4445	1327	3556	956	2808	643	2808	643	2808	643
41		8769	3225	7892	2849	7015	2473	6138	2097	5261	1721	4384	1345	3507	968	2769	652	2769	652	2769	652
42		8647	3268	7782	2887	6917	2506	6053	2125	5188	1743	4323	1362	3459	981	2731	660	2731	660	2731	660
43		8525	3311	7672	2924	6820	2538	5967	2152	5115	1766	4262	1380	3410	994	2692	669	2692	669	2692	669
44		8403	3353	7562	2962	6722	2571	5882	2180	5042	1789	4201	1398	3361	1007	2654	677	2654	677	2654	677
45		8281	3396	7453	3000	6625	2604	5797	2208	4969	1812	4140	1416	3312	1020	2615	686	2615	686	2615	686
46		8159	3438	7343	3037	6527	2636	5711	2235	4895	1834	4079	1433	3264	1032	2577	695	2577	695	2577	695

Heating		Parts Load (%)																			
Outdoor Temperature DB (°C)		100		90		80		70		60		50		40		30		20		10	
		Q	P	Q	P	Q	P	Q	P	Q	P	Q	P	Q	P	Q	P	Q	P	Q	P
-15		5072	2061	4565	1828	4058	1595	3551	1362	3043	1130	2536	897	2029	664	1522	431	1359	356	1359	356
-14		5263	2124	4736	1884	4210	1644	3684	1404	3158	1164	2631	924	2105	684	1579	444	1410	367	1410	367
-13		5453	2186	4908	1939	4362	1692	3817	1445	3272	1198	2726	951	2181	704	1636	457	1461	378	1461	378
-12		5643	2249	5079	1995	4514	1741	3950	1487	3386	1233	2822	979	2257	725	1693	471	1512	389	1512	389
-11		5833	2312	5250	2051	4667	1790	4083	1528	3500	1267	2917	1006	2333	745	1750	484	1563	400	1563	400
-10		6024	2375	5421	2107	4819	1838	4216	1570	3614	1302	3012	1033	2409	765	1807	497	1613	411	1613	411
-9		6214	2438	5592	2162	4971	1887	4350	1611	3728	1336	3107	1061	2486	785	1864	510	1664	421	1664	421
-8		6404	2500	5764	2218	5123	1935	4483	1653	3842	1371	3202	1088	2562	806	1921	523	1715	432	1715	432
-7		6594	2563	5935	2274	5275	1984	4616	1695	3957	1405	3297	1115	2638	826	1978	536	1766	443	1766	443
-6		6763	2620	6087	2324	5411	2028	4734	1732	4058	1436	3382	1140	2705	844	2029	548	1812	453	1812	453
-5		6932	2676	6239	2374	5546	2071	4853	1769	4159	1467	3466	1164	2773	862	2080	560	1857	463	1857	463
-4		7101	2732	6391	2424	5681	2115	4971	1806	4261	1498	3551	1189	2841	880	2130	572	1902	472	1902	472
-3		7271	2789	6543	2474	5816	2159	5089	1844	4362	1529	3635	1214	2908	899	2181	583	1947	482	1947	482
-2		7440	2845	6696	2524	5952	2202	5208	1881	4464	1560	3720	1238	2976	917	2232	595	1993	492	1993	492
-1		7609	2902	6848	2574	6087	2246	5326	1918	4565	1590	3804	1263	3043	935	2283	607	2038	502	2038	502
0		7778	2958	7000	2624	6222	2290	5444	1956	4667	1621	3889	1287	3111	953	2333	619	2083	511	2083	511
1		7947	3014	7152	2674	6357	2333	5563	1993	4768	1652	3973	1312	3179	971	2384	631	2129	521	2129	521
2		8116	3071	7304	2724	6493	2377	5681	2030	4870	1683	4058	1336	3246	989	2435	642	2174	531	2174	531
3		8249	3112	7424	2761	6599	2409	5774	2057	4949	1706	4124	1354	3300	1003	2475	651	2210	538	2210	538
4		8382	3153	7544	2797	6705	2441	5867	2085	5029	1728	4191	1372	3353	1016	2515	660	2245	545	2245	545
5		8515	3195	7663	2834	6812	2473	5960	2112	5109	1751	4257	1390	3406	1029	2554	668	2281	552	2281	552
6		10911	3416	9820	3030	8729	2644	7638	2258	6547	1873	5455	1487	4364	1101	3273	715	2923	591	2923	591
7		11200	3470	10080	3078	8960	2686	7840	2294	6720	1902	5600	1510	4480	1118	3360	726	3000	600	3000	600
8		11489	3524	10340	3126	9191	2728	8042	2330	6893	1931	5745	1533	4596	1135	3447	737	3077	609	3077	609
9		11778	3577	10600	3173	9422	2769	8245	2365	7067	1961	5889	1557	4711	1153	3533	748	3155	619	3155	619
10		12067	3631	10860	3221	9654	2811	8447	2401	7240	1990	6034	1580	4827	1170	3620	760	3232	628	3232	628
11		12356	3685	11121	3269	9885	2852	8649	2436	7414	2020	6178	1604	4942	1187	3707	771	3310	637	3310	637
12		12645	3739	11381	3316	10116	2894	8852	2472	7587	2049	6323	1627	5058	1205	3794	782	3387	646	3387	646
13		12934	3792	11641	3364	10347	2936	9054	2507	7761	2079	6487	1650	5174	1222	3880	793	3465	656	3465	656
14		13223	3846	11901	3412	10579	2977	9256	2543	7934	2108	6612	1674	5289	1239	3967	805	3542	665	3542	665
15		13512	3900	12161	3459	10810	3019	9459	2578	8107	2138	6756	1697	5405	1256	4054	816	3619	674	3619	674
16		13801	3954	12421	3507	11041	3060	9661	2614	8281	2167	6901	1720	5521	1274	4140	827	3697	684	3697	684
17		14090	4007	12681	3555	11272	3102	9863	2649	8454	2197	7045	1744	5636	1291	4227	838	3774	693	3774	693
18		14379	4061	12941	3602	11503	3143	10066	2685	8628	2226	7190	1767	5752	1308	4314	850	3852	702	3852	702
19		14668	4115	13202	3650	11735	3185	10268	2720	8801	2255	7334	1791	5867	1326	4401	861	3929	711	3929	711
20		14957	4168	13462	3698	11966	3227	10470	2756	8974	2285	7479	1814	5983	1343	4487	872	4006	721	4006	721
21		15246	4222	13722	3745	12197	3268	10673	2791	9148	2314	7623	1837	6099	1360	4574	883	4084	730	4084	730
22		15535	4276	13982	3793	12428	3310	10875	2827	9321	2344	7768	1861	6214	1378	4661	895	4161	739	4161	739
23		15825	4330	14242	3841	12660	3351	11077	2862	9495	2373	7912	1884	6330	1395	4747	906	4239	749	4239	749
24		16114	4383	14502	3888	12891	3393	11279	2898	9668	2403	8057	1907	6445	1412	4834	917	4316	758	4316	758

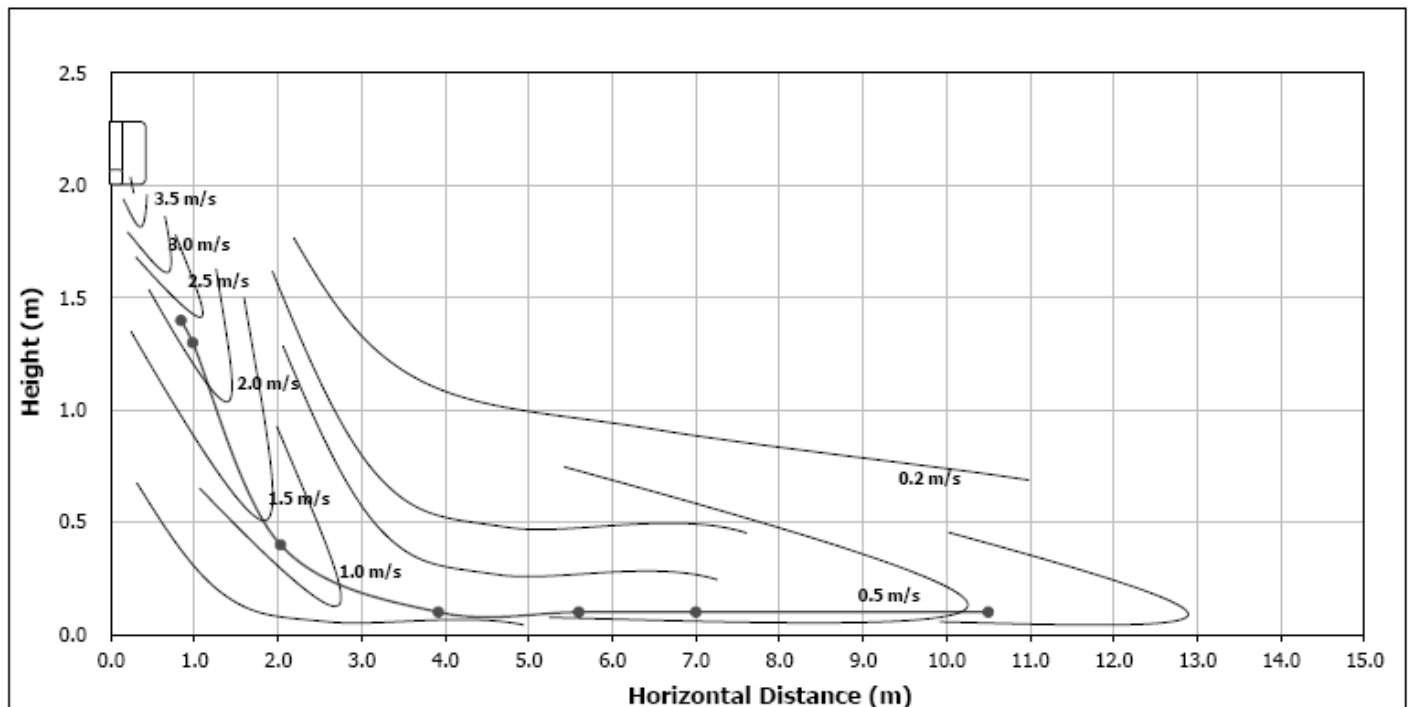
2-6-6. Air Throw Distance Chart

RAV-HM561KRTP-E/TR

Cooling

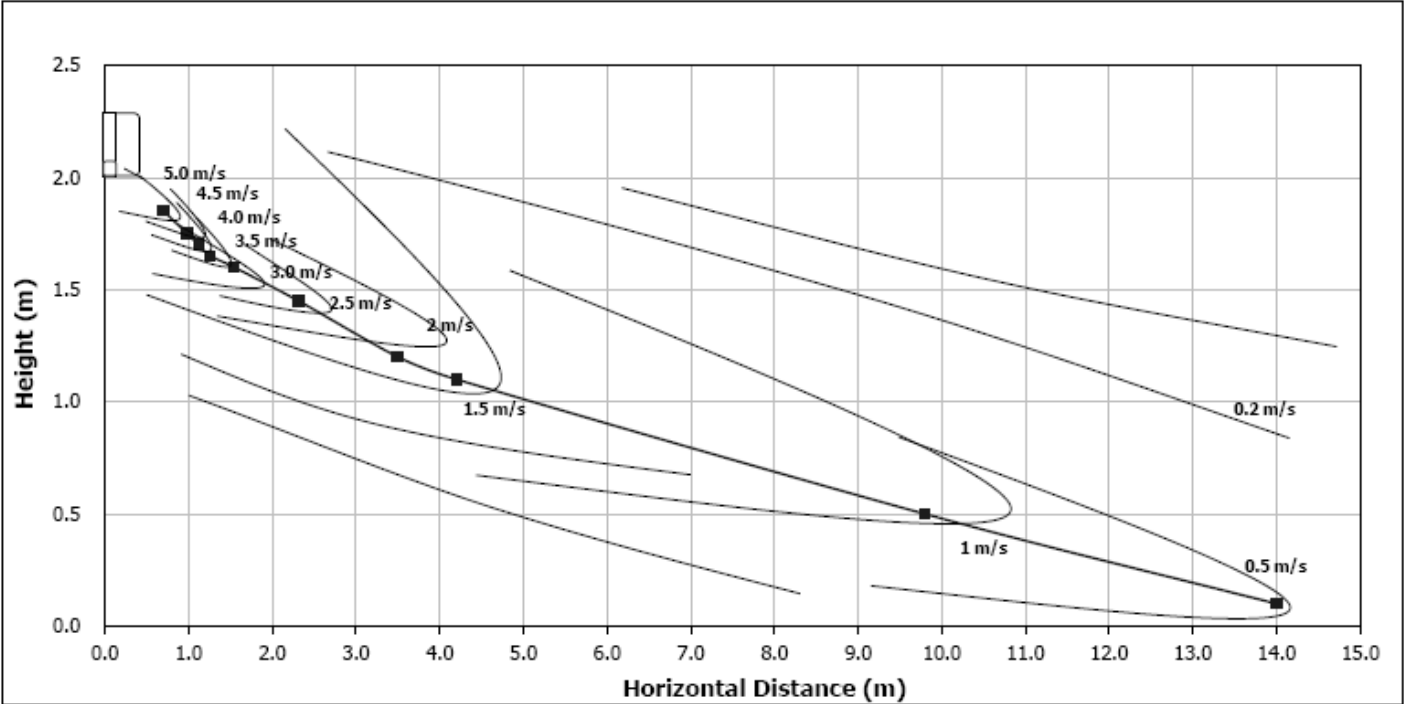


Heating

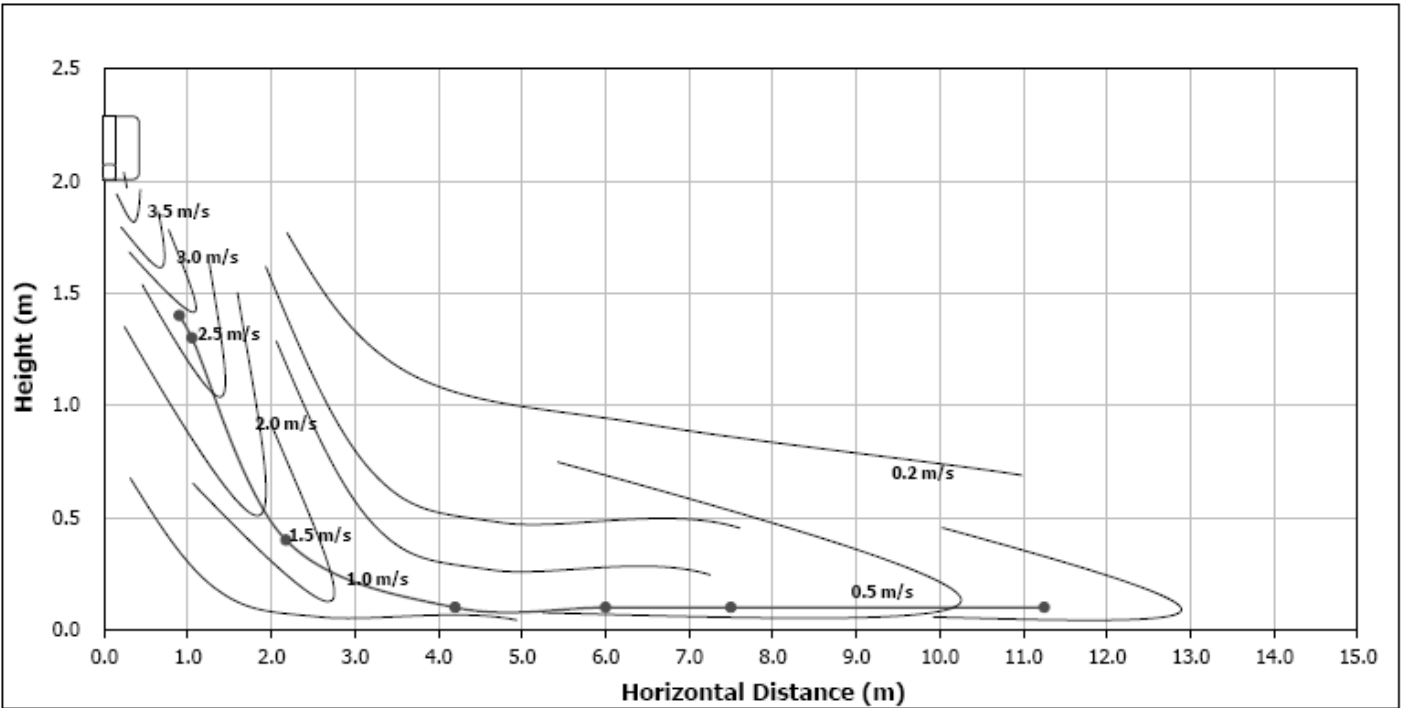


RAV-HM801KRTP-E/TR

Cooling

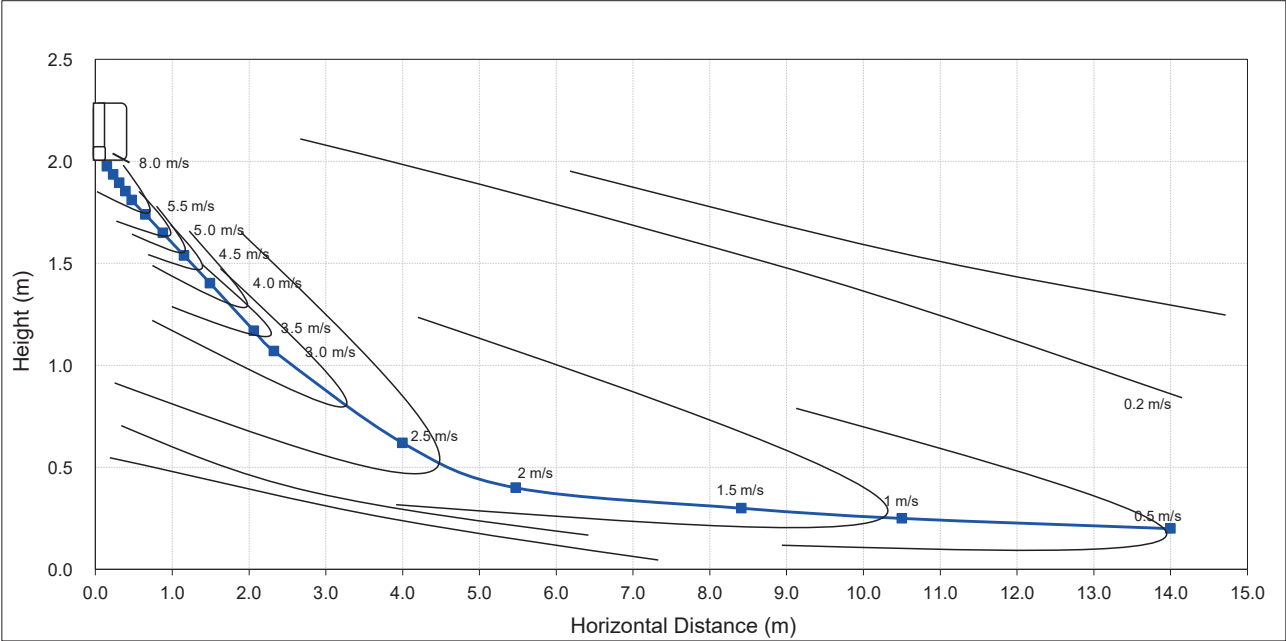


Heating

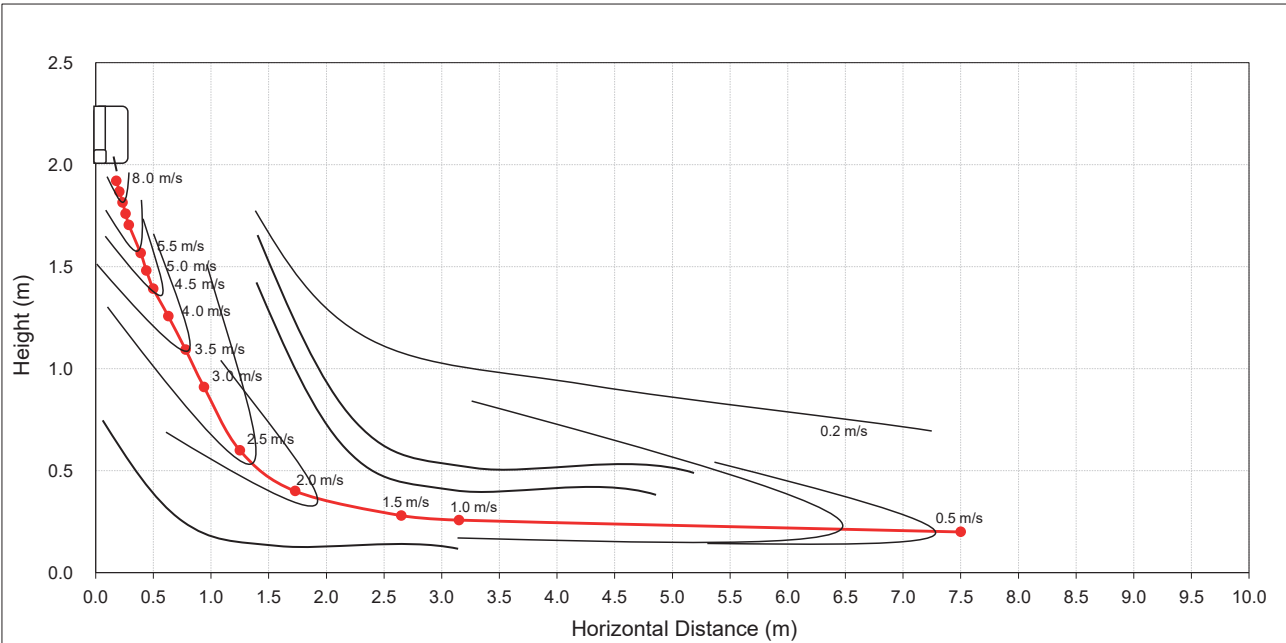


RAV-HM1101KRTP-E / TR

Cooling



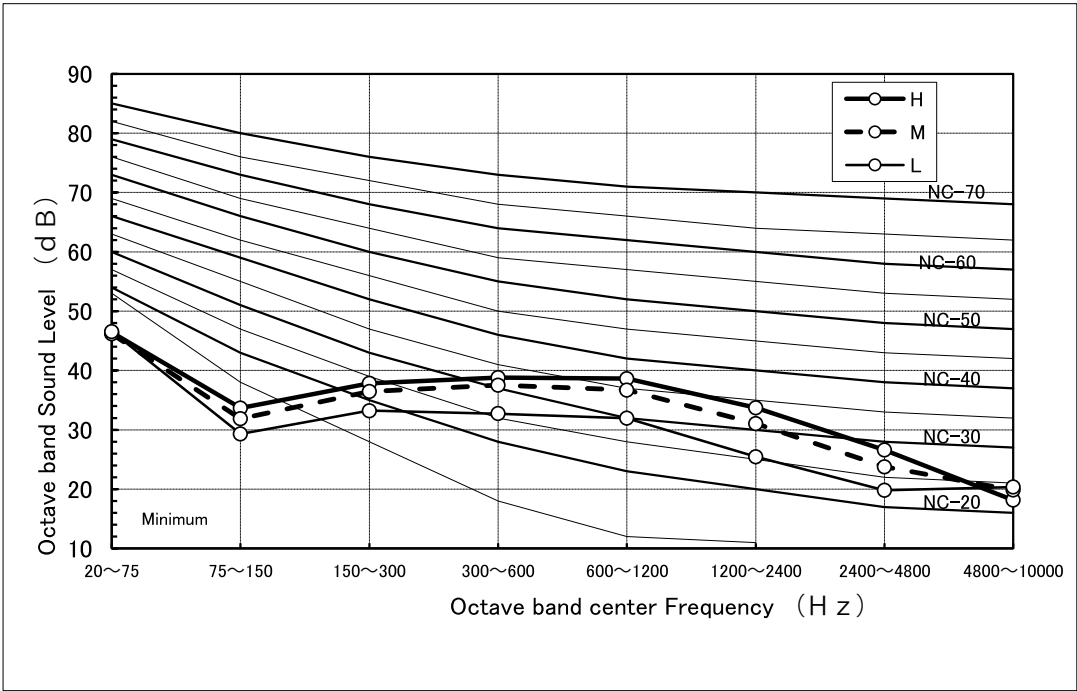
Heating



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

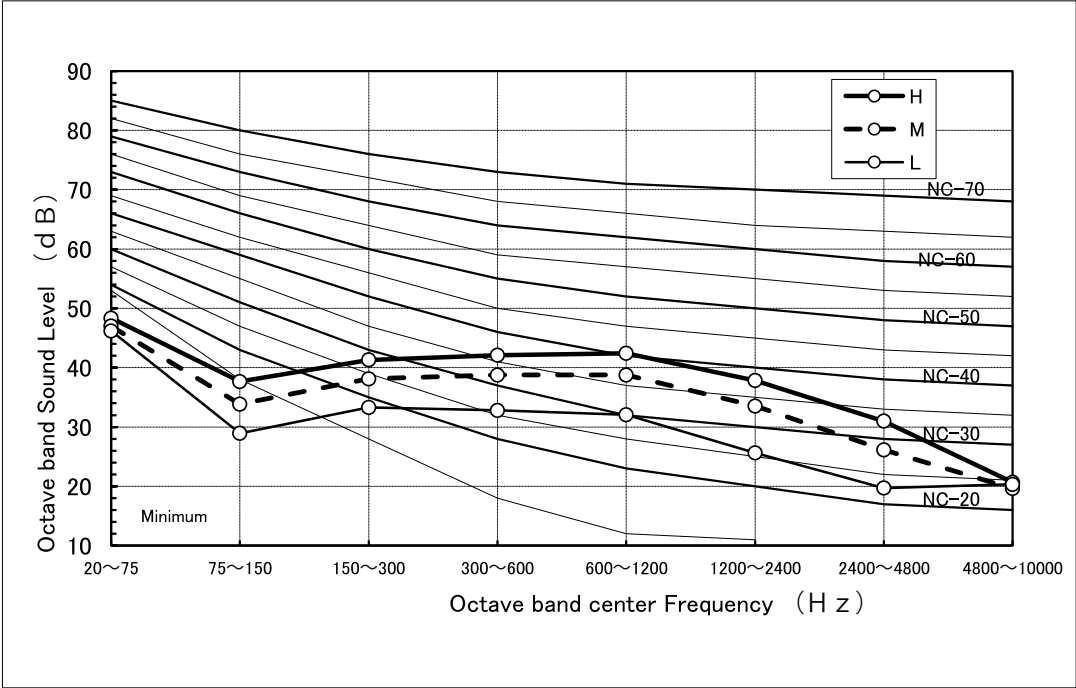
RAV-HM561KRTP-E/TR

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



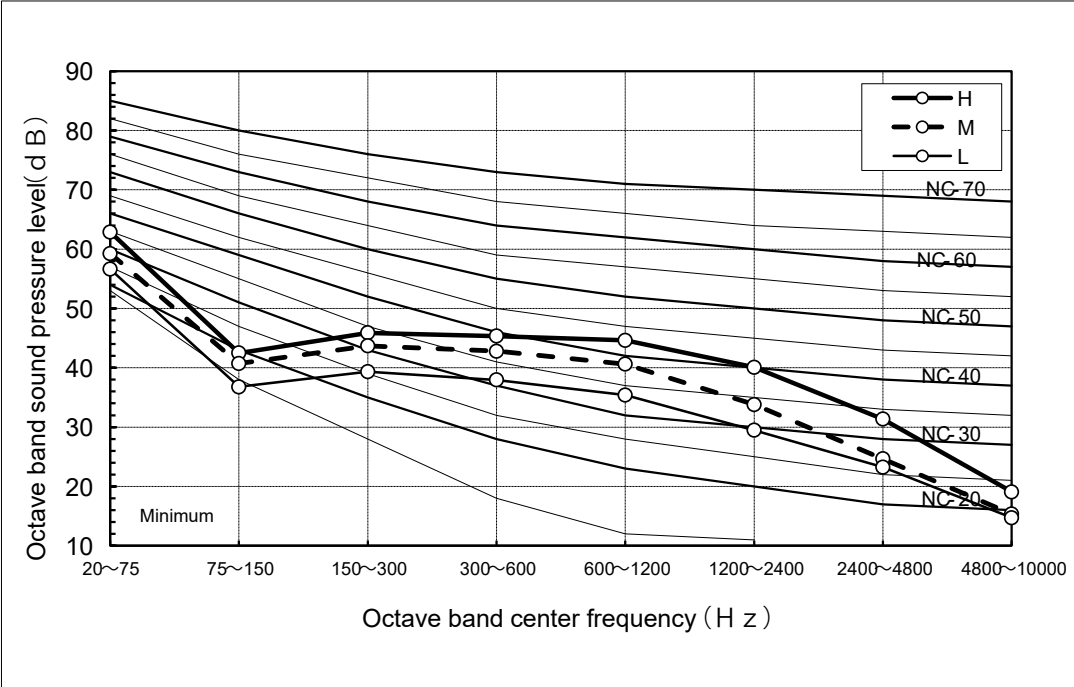
RAV-HM801KRTP-E/TR

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



RAV-HM1101KRTP-E / TR

Specification (d B)			
Fan tap	H	M	L
Sound pressure level (dB(A))	49	45	41



3. Outdoor Unit

2-2-1. Specifications

2-2-2. Dimension

2-2-3. Wiring Diagrams

2-2-4. Refrigerant Cycle Diagram

2-2-5. Sound Characteristic

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

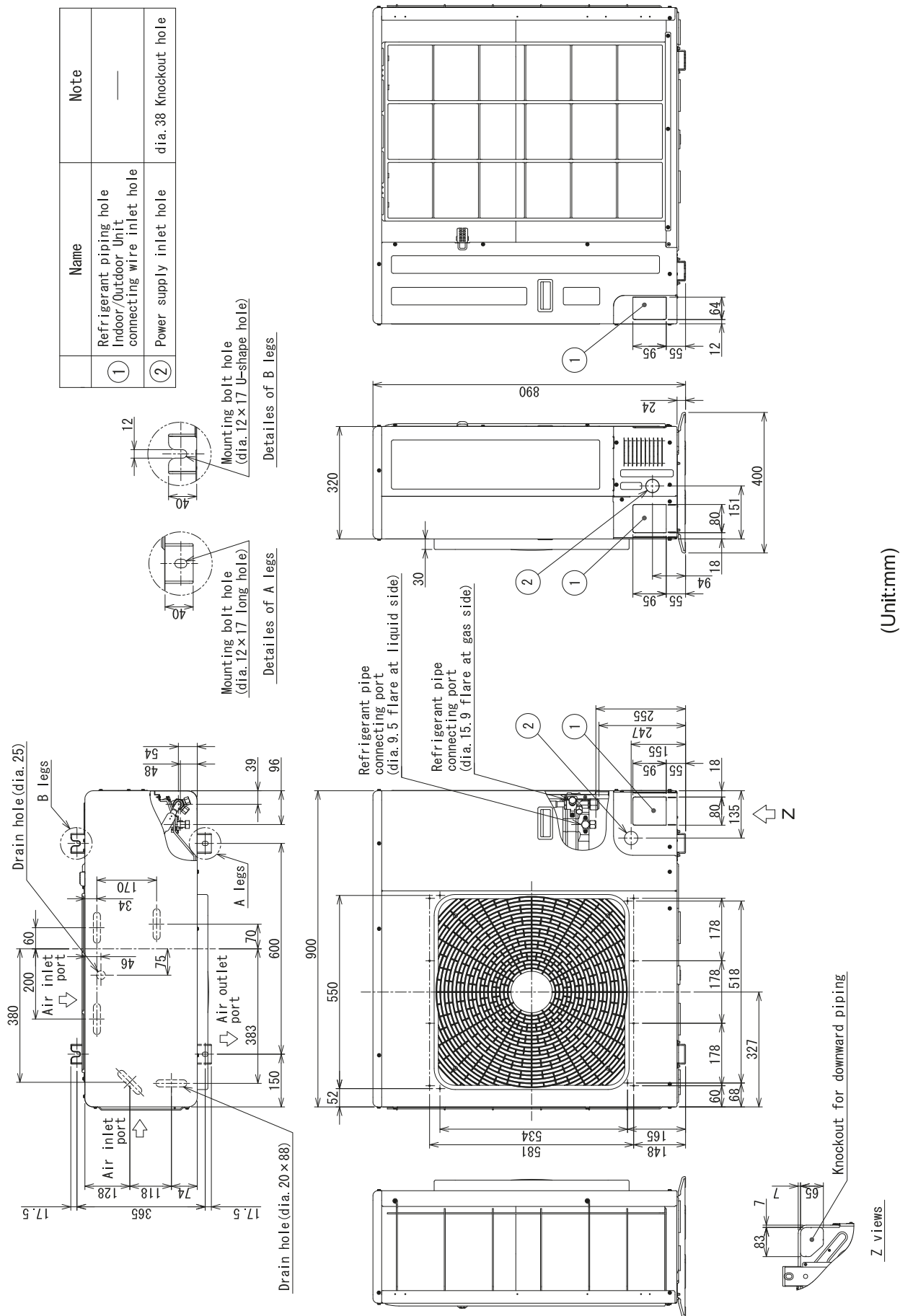
2-4-7. Accessories

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)	2.1	2.1
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 (m³/min)	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		35 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	

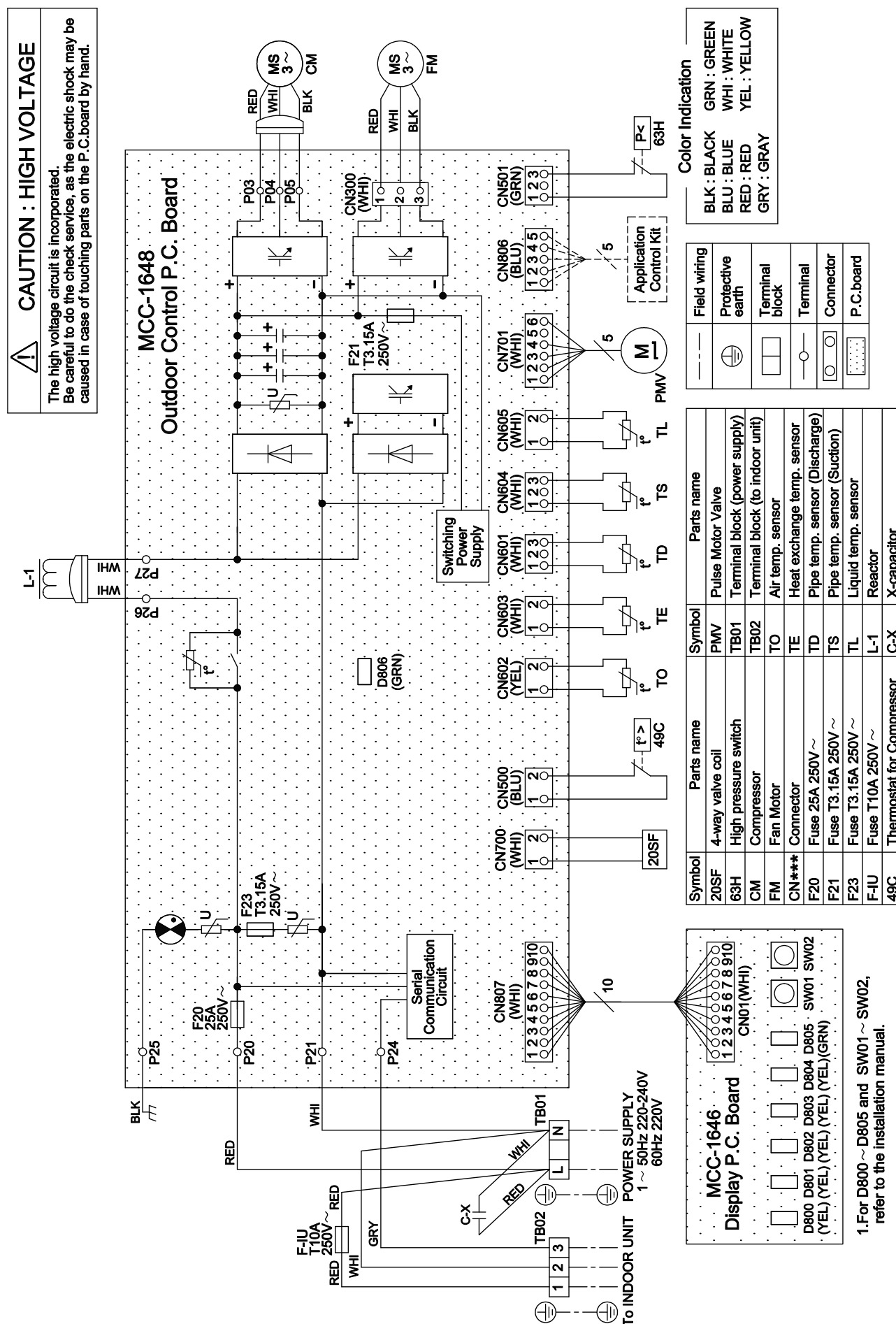
3-2. Dimension

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



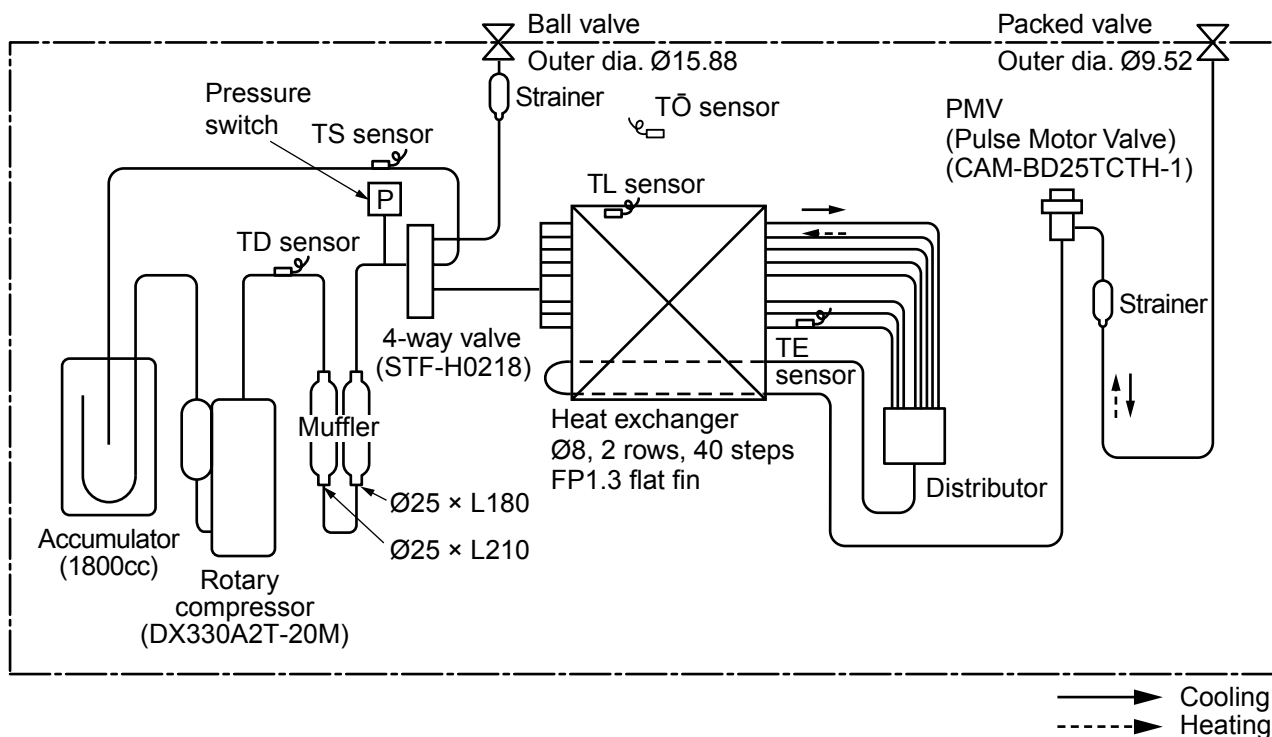
3-3. Wiring diagrams

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



3-4. Refrigerant cycle diagram

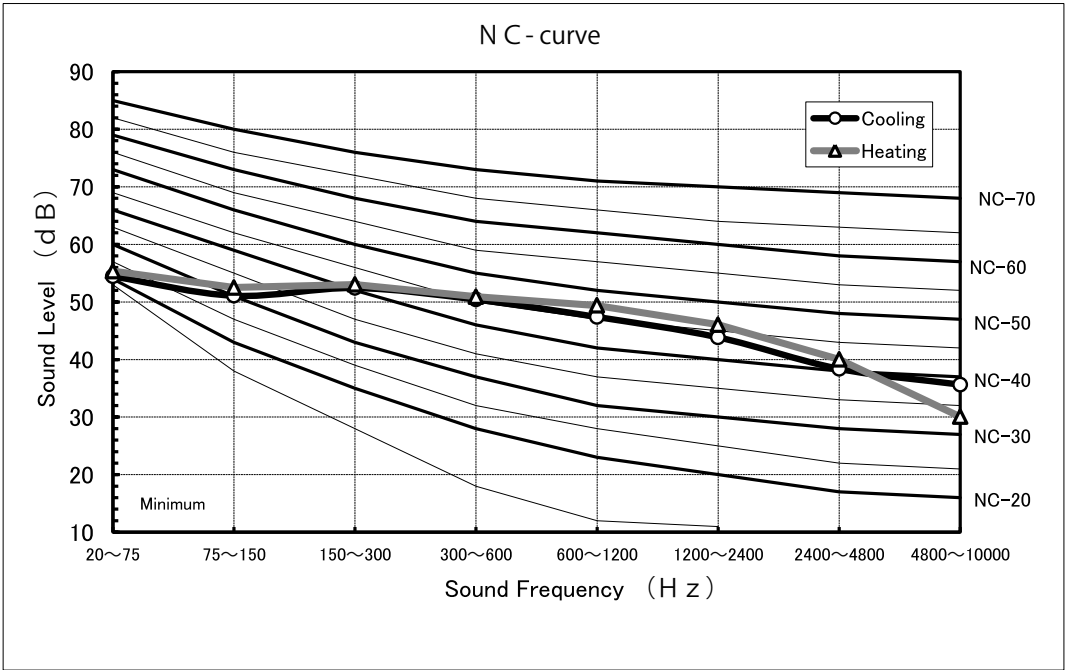
RAV-GM1101ATP-E/TR, RAV-GM1401ATP-E/TR (*ATJP-E)



3-5. Sound characteristics (NC curve)

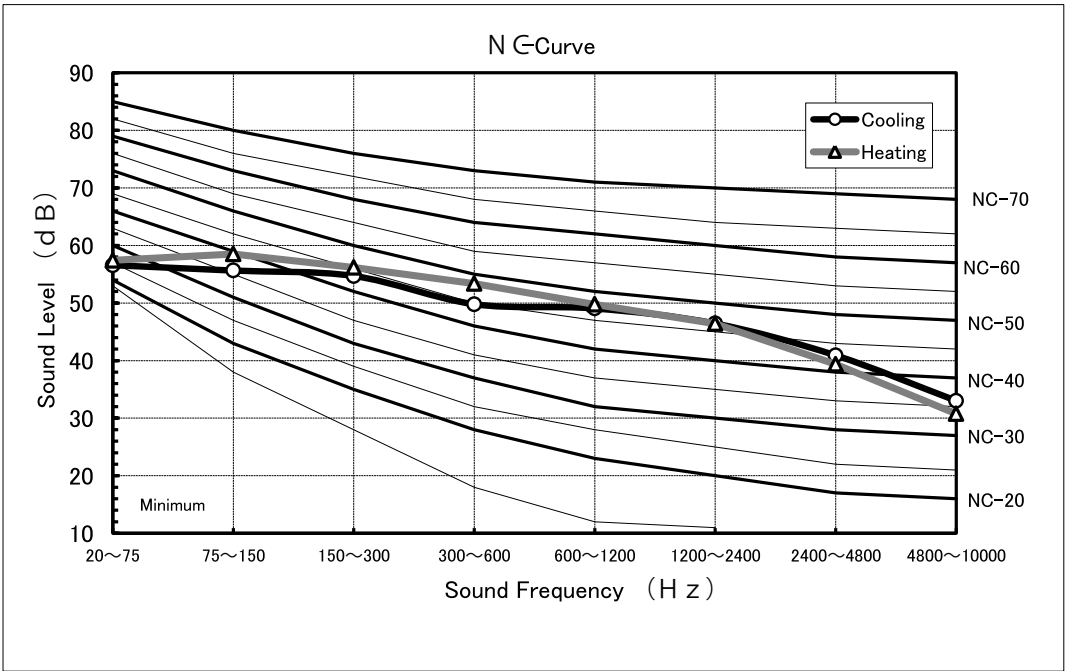
RAV-GM1101ATP-E/TR (*ATJP-E)

Measured point	Specification (d B)	Specification (d B)
	Cooling	Heating
Horizontal 1.0 m	54	57



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

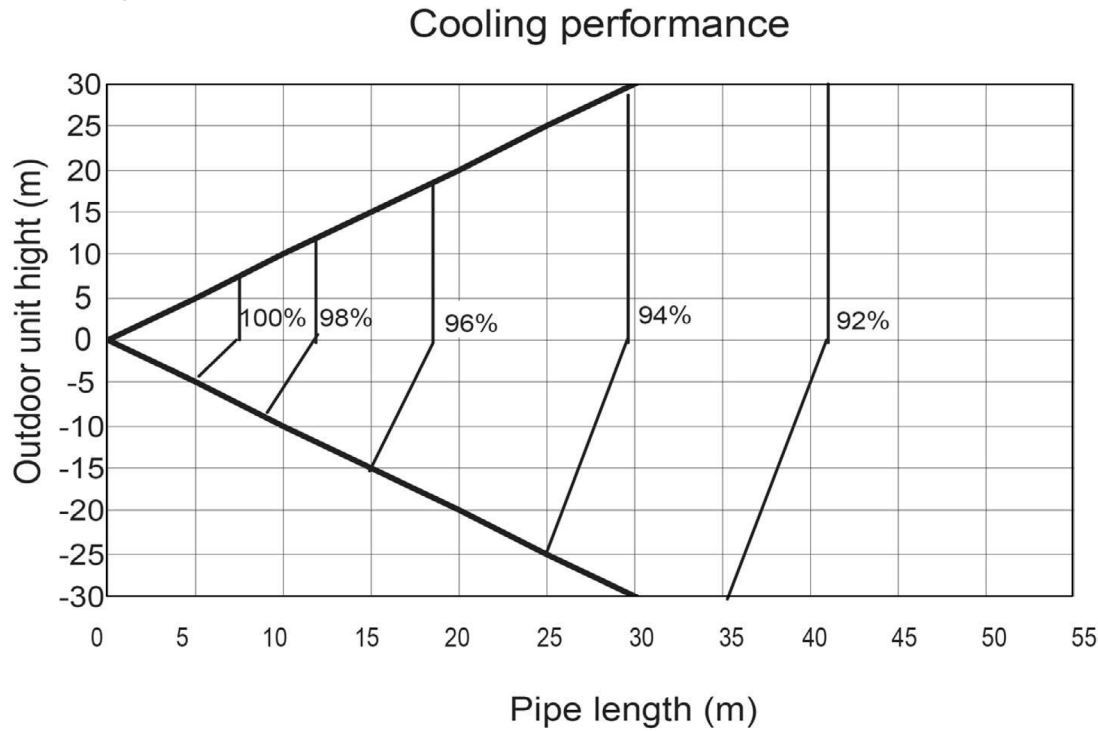
Measured point	Specification (d B)	Specification (d B)
	Cooling	Heating
Horizontal 1.0 m	55	57



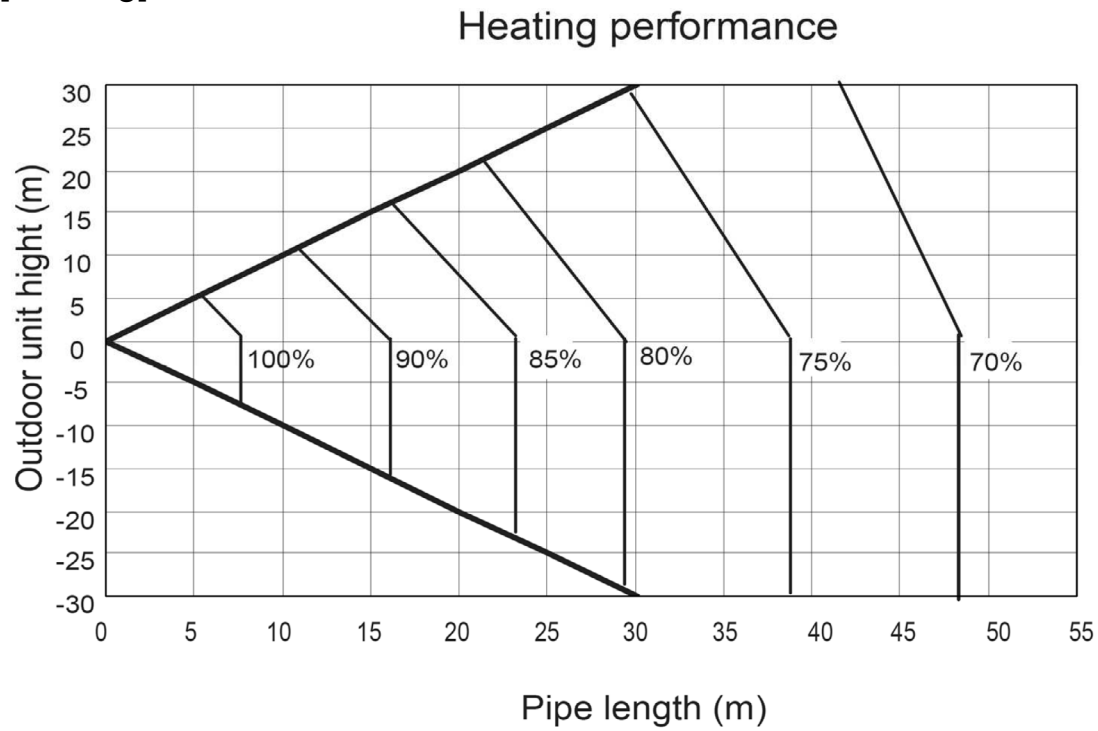
3-6. Connecting pipe length and lift difference between indoor units vs. capacity correction value

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

[Cooling]



[Heating]



4. Option

4.1 Accessories

Accessory Parts List		4way Cassette				Compact 4way	Slim duct		Stadard duct		Under ceiling		High Wall								
		series 1				series 1		series 1	series 1		series 1		series 1								
		RAV- HM561UTP-E /-TR	RAV- HM801UTP-E /-TR	RAV- HM1101UTP-E/-TR	RAV- HM1401UTP-E/-TR	RAV-HM561MUT-E/-TR		RAV-HM561SDT-E/-TR		RAV- HM561BTP-E/-TR	RAV- HM801BTP-E/-TR	RAV-HM1101BTP-E/-TR	RAV-HM1401BTP-E/-TR	RAV-HM561CTP-E/-TR	RAV-HM801CTP-E/-TR	RAVHM1101CTP-E/-TR	RAV-HM1401CTP-E/-TR	RAV-HM561CTP-E/-TR	RAV-HM801CTP-E/-TR	RAVHM1101CTP-E/-TR	
Wired Remote Controller	RBC-AMS51E-EN,ES	OK				OK		OK		OK		OK			OK				OK		OK
	RBC-AMS55E-EN, ES	OK				OK		OK		OK		OK			OK				OK		OK
	RBC-AMS41E	OK				OK		OK		OK		OK			OK				OK		OK
	RBC-AMT32E	OK				OK		OK		OK		OK			OK				OK		OK
	AS41E	OK				OK		OK		OK		OK			OK				OK		OK
Wireless Remote Controller	RBC-AX32UM(W)-E					OK															
	TCB-AX32E2	OK				OK		OK		OK		OK			OK						
	RBC-AX32U(W)-E	OK																			
	AX33CE														OK						
Schedule Timer	TCB-EXS21TLE	OK				OK		OK		OK		OK			OK						OK
TCC-Link adaptor	TCB-PCNT30TLE2	OK				OK		OK		OK		OK			OK						
Ceiling Panel	RBC-UM21PG(W)-E					OK															
	RBC-U31PGP(W)-E	OK																			
Occupancy Sensor	TCB-SIR41UM-E					OK															
Fresh air filter chamber	TCB-GFC1602UE	OK																			
Spacer for height adjustment	TCB-SP1602UE	OK																			
Air discharge direction kit	TCB-BC1602UE	OK																			
Auxiliary fresh air flange	TCB-FF101URE2	OK				OK		OK		OK											
Optional connecting kit	TCB-PCUC2E														OK						
Spiqot shaped flange	TCB-SF56C6BPE, TCB-SF80C6BPE, TCB-SF160C6BPE											OK									
Application control kit	TCB-PCOS1E2			OK								OK		OK			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-AX32UM (W)-E	Compact 4-way
	TCB-AX32E2	All indoor Units
	RBC-AX32U(W)-E	4-way Cassette
	RBC-AX33CE	Under Ceiling
Schedule timer	TCB-EXS21TLE	Wired remote controller
ON-OFF controller	TCB-CC163TLE2	Wired remote controller/Central remote controller
Central controller	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

Energy Save operation (RBC-AMS54/55E-EN/ES)

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		
			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-HM**1UTP-E/TP	×	○	×	×
Compact 4-way cassette type	RAV-HM**1MUT-E/TP	OK	○	×	×
Standard duct	RAV-HM**1BTP -E/TP	OK	○	×	×
Slim Duct	RAV-HM**1SDT- E/TP	×	○	×	×
Ceiling type	RAV-HM**1CTP-E/TP	OK	○	×	×
High Wall type	RAV-HM**1KRTP-E/TP	×	○	×	×

*1) A2A HEX: VN-M**HE

*2) New Controller : RBC-AMS54/55E-EN/ES

*3) Only 75% :Even if save ratio is set over 50%, the save operation will be 75% automatically

	RBC-AMS54/55E-EN/ES	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**

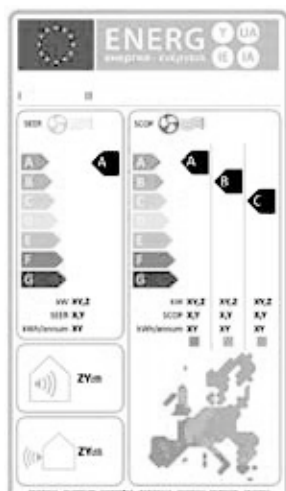
No	Outdoor unit type	Connection type	HP	Indoor unit		Outdoor unit		Rated Capacity (kW)		Specification					
				Model name	Qty	Model name	Qty	Cooling	Heating	SEER	Energy Label	PdesignC	SCOP (average)	Energy Label	Pdesignh (average)
1	DI	Single	4.0	RAV-HM1101UTP-E	1	RAV-GM1101AT8P-E	1	9.5	11.2	6.15	A++	9.5	4.28	A+	8.0
2	DI	Single	4.0	RAV-HM1101BTP-E	1	RAV-GM1101AT8P-E	1	9.5	11.2	5.28	A	9.5	4.19	A+	7.6
3	DI	Single	4.0	RAV-HM1101CTP-E	1	RAV-GM1101AT8P-E	1	9.5	11.2	5.86	A+	9.5	4.27	A+	7.6
4	DI	Twin	4.0	RAV-HM561UTP-E	2	RAV-GM1101AT8P-E	1	9.5	11.2	5.94	A+	9.5	4.28	A+	8.0
5	DI	Twin	4.0	RAV-HM561MUT-E	2	RAV-GM1101AT8P-E	1	9.5	11.2	5.50	A	9.5	4.02	A+	7.4
6	DI	Twin	4.0	RAV-HM561BTP-E	2	RAV-GM1101AT8P-E	1	9.5	11.2	5.28	A	9.5	4.22	A+	7.6
7	DI	Twin	4.0	RAV-HM561SDT-E	2	RAV-GM1101AT8P-E	1	9.5	11.2	5.32	A	9.5	4.19	A+	7.4
8	DI	Twin	4.0	RAV-HM561CTP-E	2	RAV-GM1101AT8P-E	1	9.5	11.2	5.85	A+	9.5	4.28	A+	7.6
9	DI	Twin	4.0	RAV-HM561KRTP-E	2	RAV-GM1101AT8P-E	2	9.5	11.2	5.32	A	9.5	4.19	A+	7.6
10	DI	Single	5.0	RAV-HM1401UTP-E	1	RAV-GM1401AT8P-E	1	12.0	13.0	5.71	A+	12.0	4.29	A+	8.0
11	DI	Single	5.0	RAV-HM1401BTP-E	1	RAV-GM1401AT8P-E	1	12.1	13.0	5.36	-	12.1	4.19	-	7.6
12	DI	Single	5.0	RAV-HM1401CTP-E	1	RAV-GM1401AT8P-E	1	12.1	13.0	5.36	-	12.1	4.19	-	7.6
13	DI	Twin	5.0	RAV-HM801UTP-E	2	RAV-GM1401AT8P-E	1	12.0	13.0	5.57	A	12.0	4.29	A+	8.0
14	DI	Twin	5.0	RAV-HM801BTP-E	2	RAV-GM1401AT8P-E	1	12.1	13.0	5.36	-	12.1	4.21	-	7.6
15	DI	Twin	5.0	RAV-HM801CTP-E	2	RAV-GM1401AT8P-E	1	12.1	13.0	5.36	-	12.1	4.19	-	7.6
16	DI	Twin	5.0	RAV-HM801KRTP-E	2	RAV-GM1401AT8P-E	1	12.1	13.0	5.24	-	12.1	4.19	-	8.0

*** 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 introduced. 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**

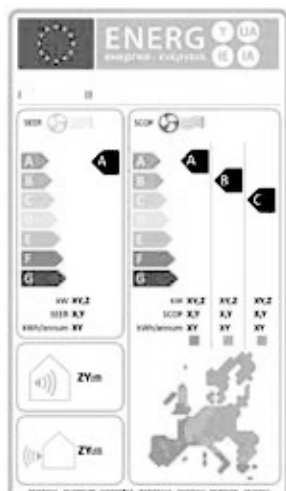
No	Outdoor unit type	Connection type	HP	Indoor unit		Outdoor unit		Rated Capacity (kW)		Specification					
				Model name	Qty	Model name	Qty	Cooling	Heating	SEER	Energy Label	PdesignC	SCOP (average)	Energy Label	Pdesignh (average)
1	DI	Single	4.0	RAV-HM1101UTP-TR	1	RAV-GM1101AT8P-TR	1	9.5	11.2	6.15	A++	9.5	4.28	A+	8.0
2	DI	Single	4.0	RAV-HM1101BTP-TR	1	RAV-GM1101AT8P-TR	1	9.5	11.2	5.28	A	9.5	4.19	A+	7.6
3	DI	Single	4.0	RAV-HM1101CTP-TR	1	RAV-GM1101AT8P-TR	1	9.5	11.2	5.86	A+	9.5	4.27	A+	7.6
4	DI	Twin	4.0	RAV-HM561UTP-TR	2	RAV-GM1101AT8P-TR	1	9.5	11.2	5.94	A+	9.5	4.28	A+	8.0
5	DI	Twin	4.0	RAV-HM561MUT-TR	2	RAV-GM1101AT8P-TR	1	9.5	11.2	5.50	A	9.5	4.02	A+	7.4
6	DI	Twin	4.0	RAV-HM561BTP-TR	2	RAV-GM1101AT8P-TR	1	9.5	11.2	5.28	A	9.5	4.22	A+	7.6
7	DI	Twin	4.0	RAV-HM561SDT-TR	2	RAV-GM1101AT8P-TR	1	9.5	11.2	5.32	A	9.5	4.19	A+	7.4
8	DI	Twin	4.0	RAV-HM561CTP-TR	2	RAV-GM1101AT8P-TR	1	9.5	11.2	5.85	A+	9.5	4.28	A+	7.6
9	DI	Twin	4.0	RAV-HM561KRTP-TR	2	RAV-GM1101AT8P-TR	2	9.5	11.2	5.32	A	9.5	4.19	A+	7.6
10	DI	Single	5.0	RAV-HM1401UTP-TR	1	RAV-GM1401AT8P-TR	1	12.0	13.0	5.71	A+	12.0	4.29	A+	8.0
11	DI	Single	5.0	RAV-HM1401BTP-TR	1	RAV-GM1401AT8P-TR	1	12.1	13.0	5.36	-	12.1	4.19	-	7.6
12	DI	Single	5.0	RAV-HM1401CTP-TR	1	RAV-GM1401AT8P-TR	1	12.1	13.0	5.36	-	12.1	4.19	-	7.6
13	DI	Twin	5.0	RAV-HM801UTP-TR	2	RAV-GM1401AT8P-TR	1	12.0	13.0	5.57	A	12.0	4.29	A+	8.0
14	DI	Twin	5.0	RAV-HM801BTP-TR	2	RAV-GM1401AT8P-TR	1	12.1	13.0	5.36	-	12.1	4.21	-	7.6
15	DI	Twin	5.0	RAV-HM801CTP-TR	2	RAV-GM1401AT8P-TR	1	12.1	13.0	5.36	-	12.1	4.19	-	7.6
16	DI	Twin	5.0	RAV-HM801KRTP-TR	2	RAV-GM1401AT8P-TR	1	12.1	13.0	5.24	-	12.1	4.19	-	8.0

*** 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 introduced. 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

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