

# Residential Inverter Heat Pump Console

## Indoor Units

**RAS-25G3FVG-ND**

**RAS-35G3FVG-ND**

## Outdoor Units

**RAS-25J2AVSG-ND1**



**RAS-35J2AVSG-ND1**



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# 1. Line up

Indoor Unit	Outdoor Unit	Model Name		Capacity Rank
		FCU	CDU	
		RAS-25G3FVG-ND	RAS-25J2AVSG-ND1	10k
		RAS-35G3FVG-ND	RAS-35J2AVSG-ND1	13k

Accessories	
 <p>①      ②</p>	<p>① Standard remote controller WH-TA12LE</p> <p>② Option Black remote controller RB-RXS34-E</p>
	<p>Accessory Wireless adapter RB-N106S-G with cable for outside unit installation</p> <p>Application <b>Toshiba Home AC Control</b></p>

## 2. Specifications

System	Indoor		RAS-25G3FVG-ND	RAS-35G3FVG-ND
	Outdoor		RAS-25J2AVSG-ND1	RAS-35J2AVSG-ND1
Power supply		(V/Ph/Hz)	220 - 240 / 1 / 50	
Cooling	Capacity	(kW)	2.5	3.5
	Power Consumption	(kW)	0.55	0.94
	EER		4.55	3.72
	PdesignC	(kW)	2.50	3.50
	SEER		<b>7.00</b>	<b>6.70</b>
	Indoor Noise (H/L/Q)	(dB)	40/25/20	41/25/20
	Outdoor Noise	(dB)	46	48
	Indoor Air Flow	m <sup>3</sup> /hr	510	510
Heating	Capacity	(kW)	3.4	4.3
	Power Consumption	(kW)	0.89	1.14
	COP		3.82	3.77
	PdesignH (Tbiv -10°C)	(kW)	3.50	3.60
	SCOP		<b>4.30</b>	<b>4.30</b>
	Indoor Noise (H/L/Q)	(dB)	41/24/19	42/24/19
	Outdoor Noise	(dB)	48	49
	Indoor Air Flow	m <sup>3</sup> /hr	550	580
FCU	Dimensions	H x W x D (mm)	600 x 700 x 220	
		Net Weight (kg)	16	16
CDU	Dimensions	H x W x D (mm)	550 x 780 x 290	
		Net Weight (kg)	38	38
Pipe	Chargeless	(m)	15	15
	Maximum Length	(m)	20	20
	Maximum Height	(m)	12	12
	Refrigerant		R32	
	Refrigerant amount	(kg)	0.76	0.76
Energy Label		Cooling / Heating	<b>A++ / A+</b>	<b>A++ / A+</b>
Useable Range Temperature		Cooling (°C)	Indoor: 21 ~ 32 °C , Outdoor: (-15) ~ 46 °C	
		Heating (°C)	Indoor: 0 ~ 28 °C , Outdoor: (-25) ~ 24 °C	

For performance when each indoor unit is combined with other unit, refer to the separate table.

\* The specifications may be subject to change without notice for purpose of improvement.

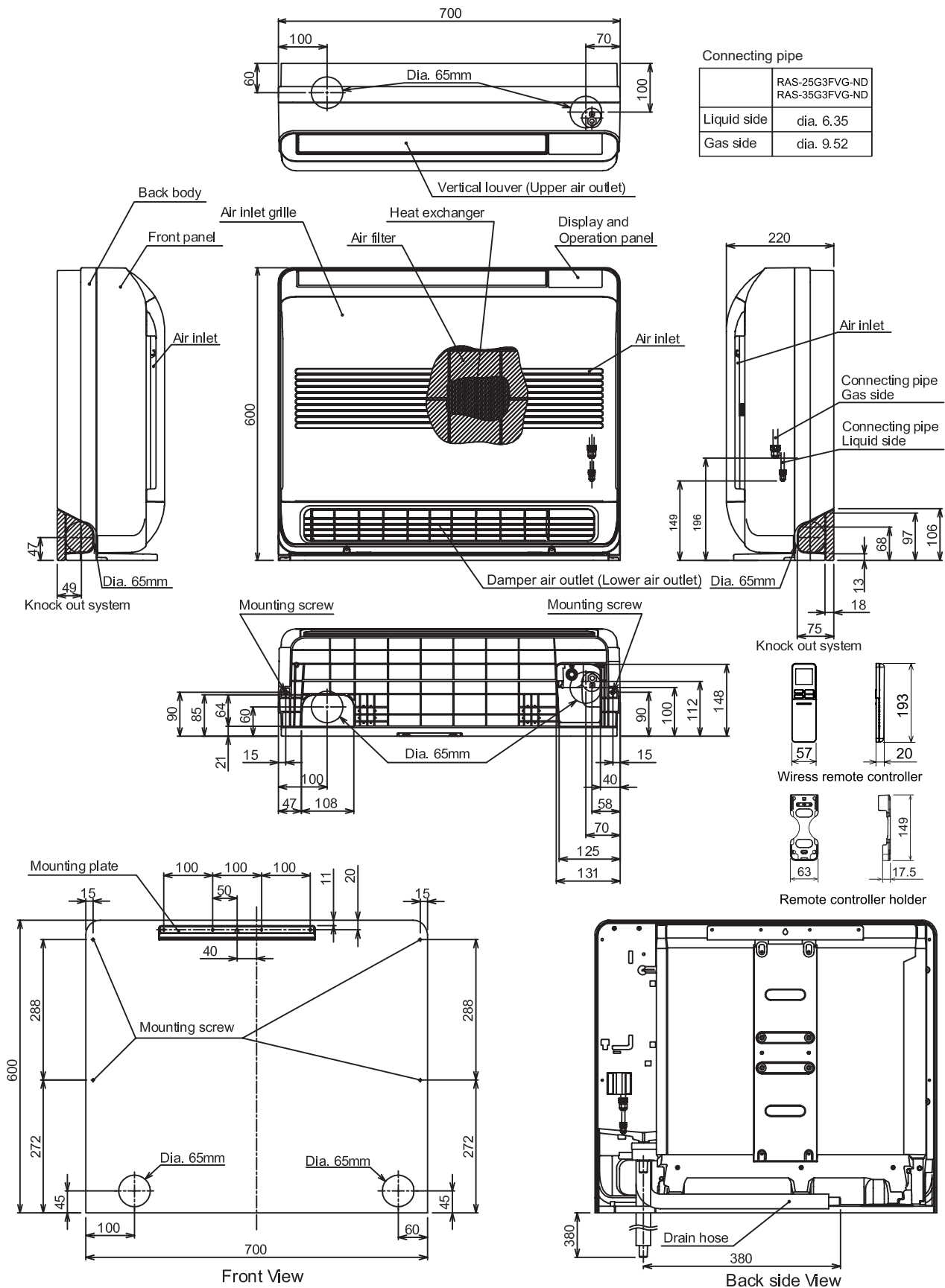
Cooling : Capacity test condition, inside : 27 °C (Db) / 19 °C (Wb), outside : 35 °C (Db) / 24 °C (Wb)

Heating : Capacity test condition, inside : 20 °C (Db), outside : 7 °C (Db) / 6°C (Wb)

Piping length : 5 m per Indoor Unit.

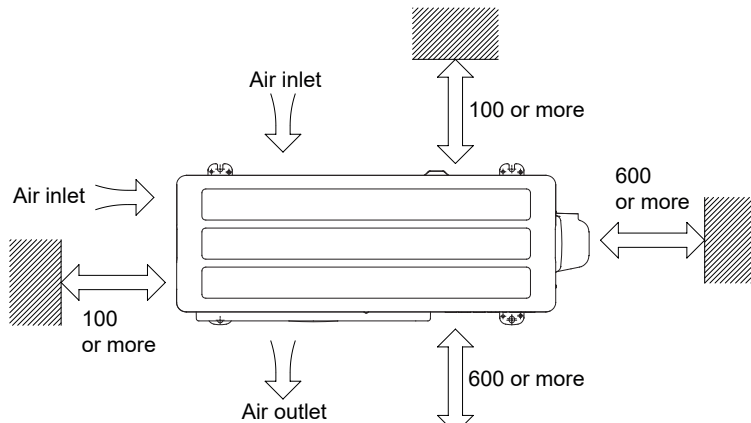
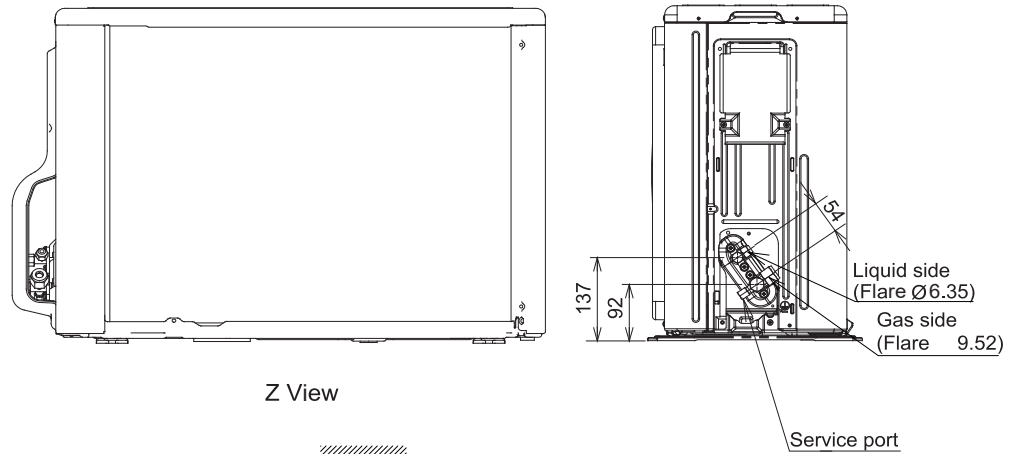
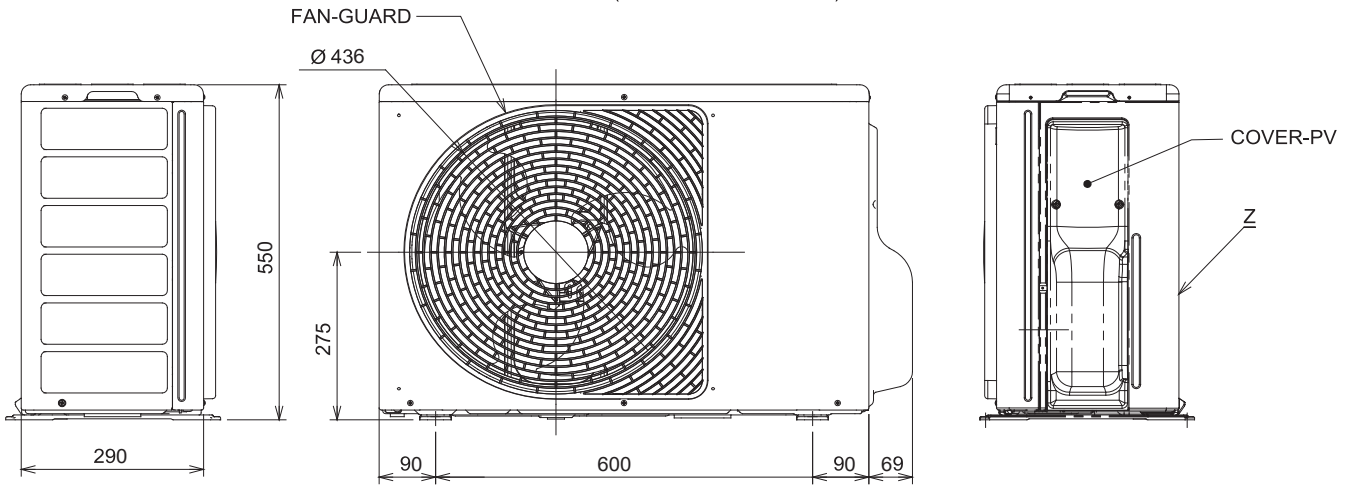
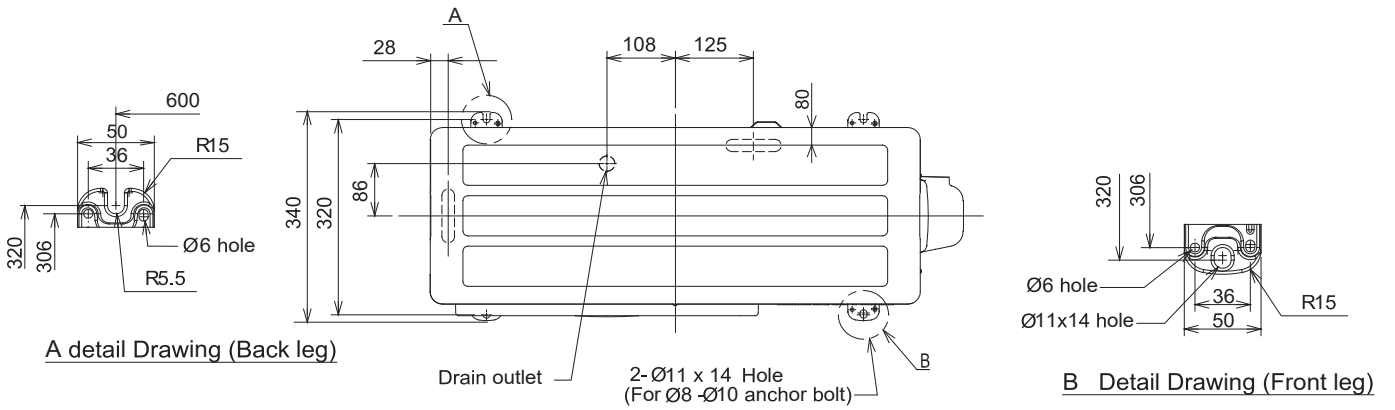
### 3. Dimension

Indoor Unit : RAS-25G3FVG-ND / RAS-35G3FVG-ND



Connecting pipe	
	RAS-25G3FVG-ND RAS-35G3FVG-ND
Liquid side	dia. 6.35
Gas side	dia. 9.52

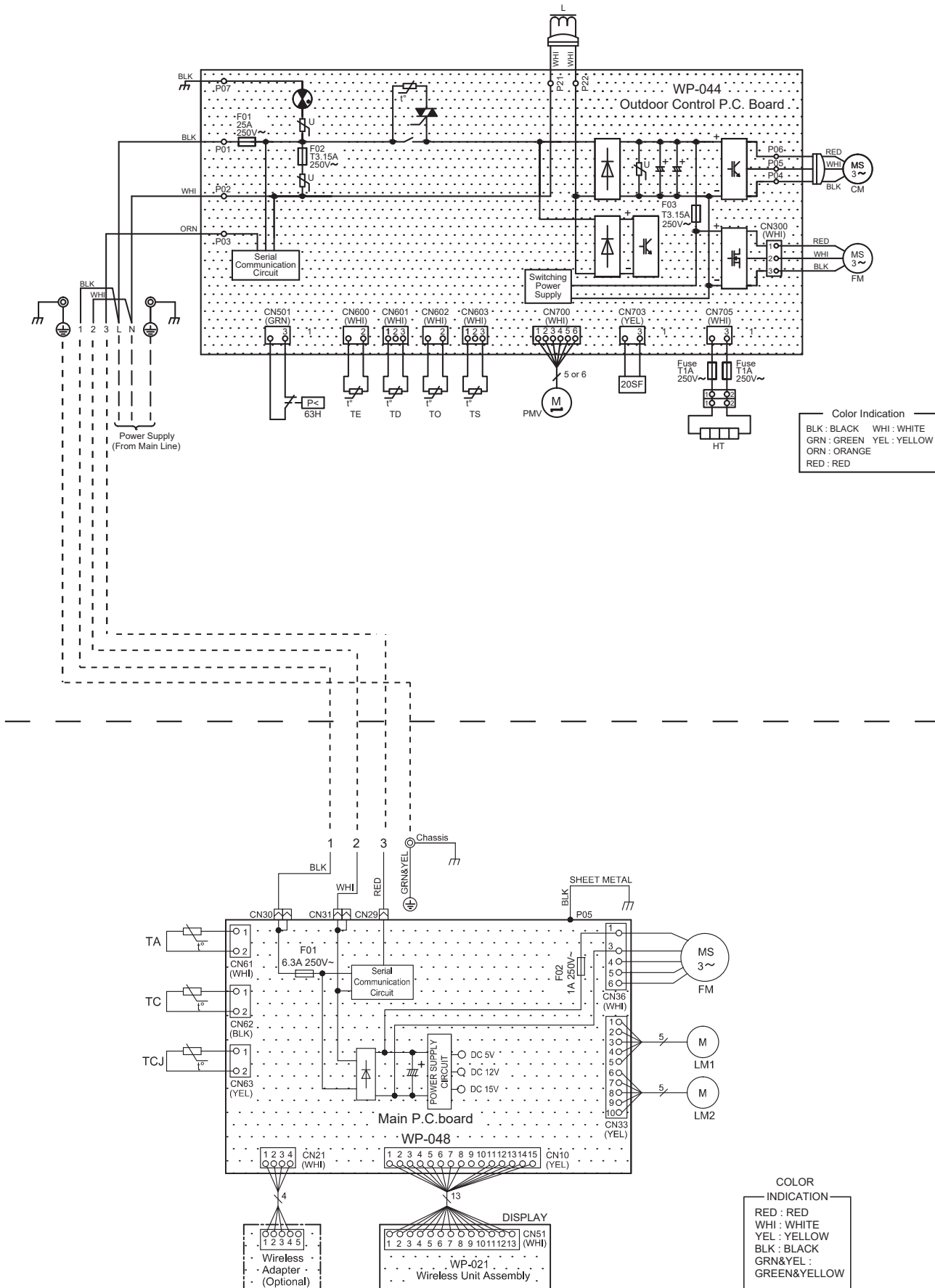
Outdoor Unit : RAS-25J2AVSG-ND1 / RAS-35J2AVSG-ND1



Installation dimension

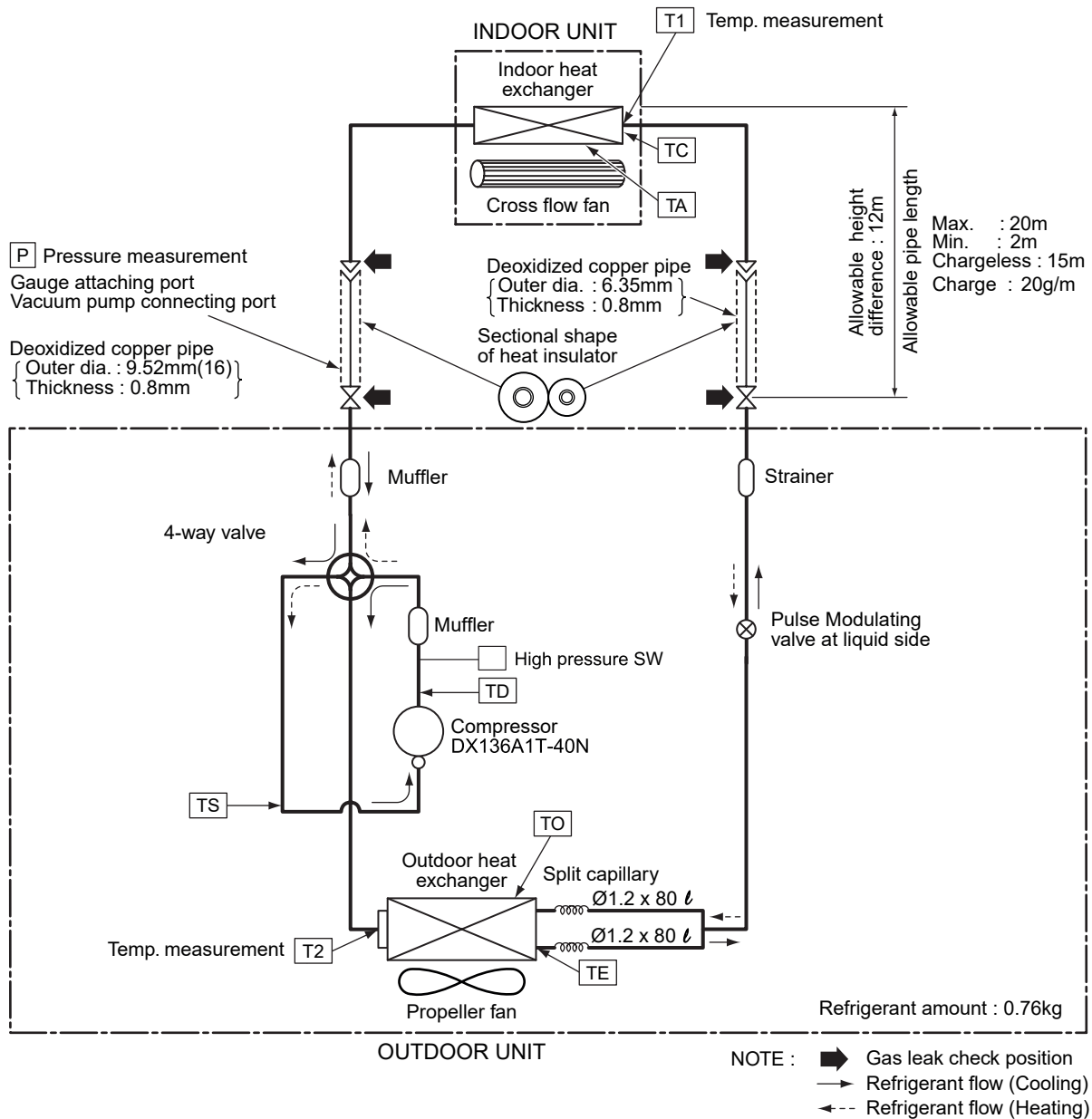
# 4. Wiring diagrams

RAS-25G3FVG-ND : RAS-25J2AVSG-ND1  
 RAS-35G3FVG-ND : RAS-35J2AVSG-ND1



# 5. Refrigerant cycle diagram

RAS-25G3FVG-ND : RAS-25J2AVSG-ND1



NOTE : The maximum pipe length of this air conditioner is 20 m. When the pipe length exceeds 15 m, the additional charging of refrigerant, 20 g per 1 m for the part of pipe exceeded 15 m is required. (max. 100 g)

## Operation data

### < Cooling >

Temperature condition (°C)		Model name	Standard pressure P (MPa)	Heat exchanger pipe temp.		Indoor fan mode	Outdoor fan mode	Compressor revolution (rps)	Connecting piping (m)
Indoor	Outdoor								
27 / 19	35 / -	RAS-25G3FVG-ND	0.9 to 1.1	14 to 15	41 to 42	High	High	31	5

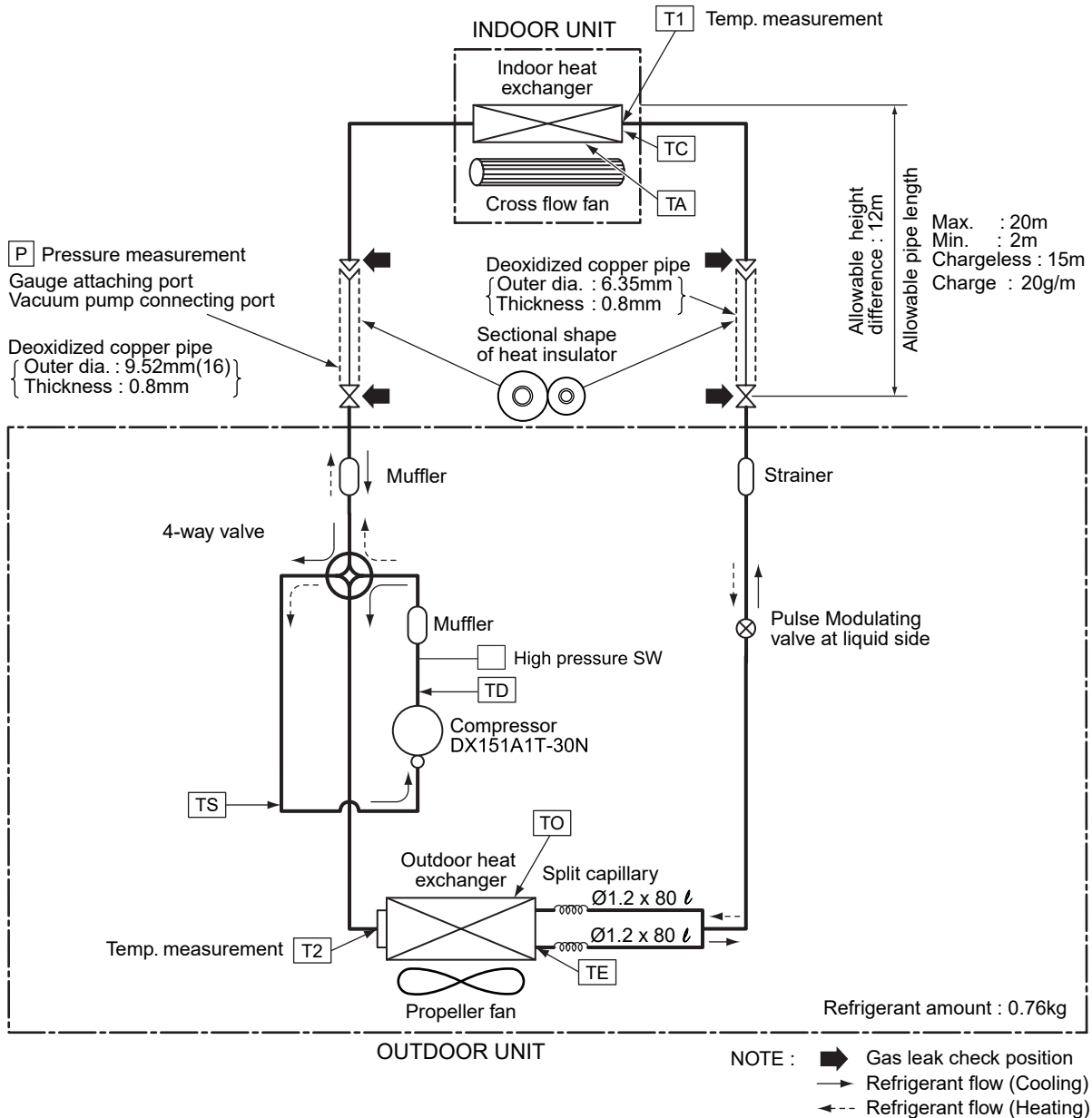
### < Heating >

Temperature condition (°C)		Model name	Standard pressure P (MPa)	Heat exchanger pipe temp.		Indoor fan mode	Outdoor fan mode	Compressor revolution (rps)	Connecting piping (m)
Indoor	Outdoor								
20 / -	7 / 6	RAS-25G3FVG-ND	1.0 to 1.2	40 to 41	1 to 3	High	High	46	5

NOTE : Measure surface temperature of heat exchanger pipe around center of heat exchanger path U bent. (Thermistor thermometer)



RAS-35G3FVG-ND : RAS-35J2AVSG-ND1



NOTE : The maximum pipe length of this air conditioner is 20 m. When the pipe length exceeds 15 m, the additional charging of refrigerant, 20 g per 1 m for the part of pipe exceeded 15 m is required. (max. 100 g)

Operation data

< Cooling >

Temperature condition (°C)		Model name	Standard pressure P (MPa)	Heat exchanger pipe temp.		Indoor fan mode	Outdoor fan mode	Compressor revolution (rps)	Connecting piping (m)
Indoor	Outdoor								
27 / 19	35 / -	RAS-35G3FVG-ND	0.9 to 1.2	9 to 11	43 to 45	High	High	43	5

< Heating >

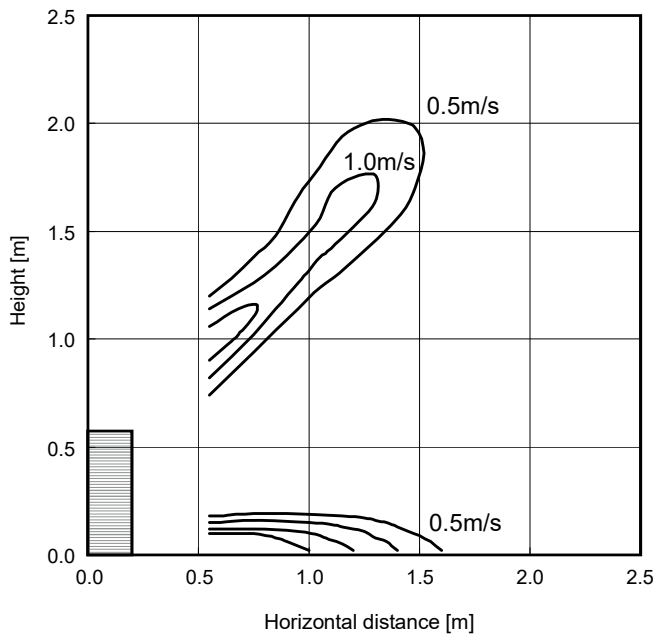
Temperature condition (°C)		Model name	Standard pressure P (MPa)	Heat exchanger pipe temp.		Indoor fan mode	Outdoor fan mode	Compressor revolution (rps)	Connecting piping (m)
Indoor	Outdoor								
20 / -	7 / 6	RAS-35G3FVG-ND	1.0 to 1.3	43 to 44	1 to 2	High	High	51	5

NOTE : Measure surface temperature of heat exchanger pipe around center of heat exchanger path U bent. (Thermistor thermometer)

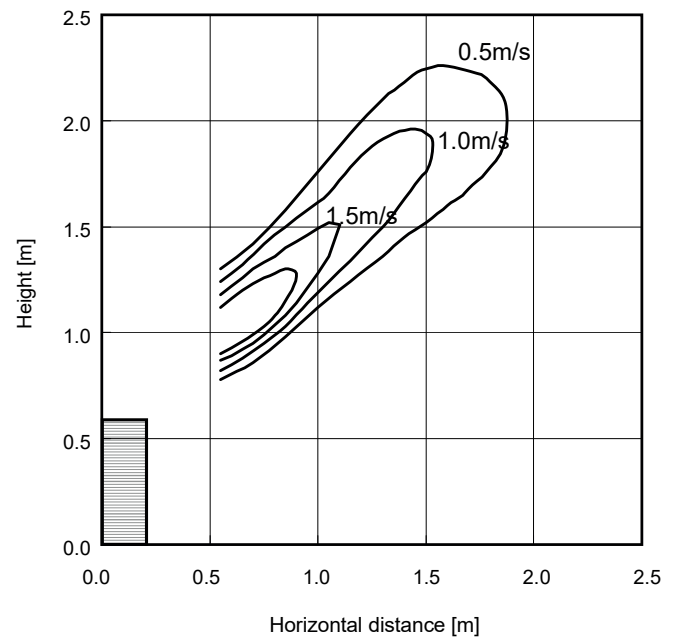
# 6. Air speed distribution

RAS-25G3FVG-ND

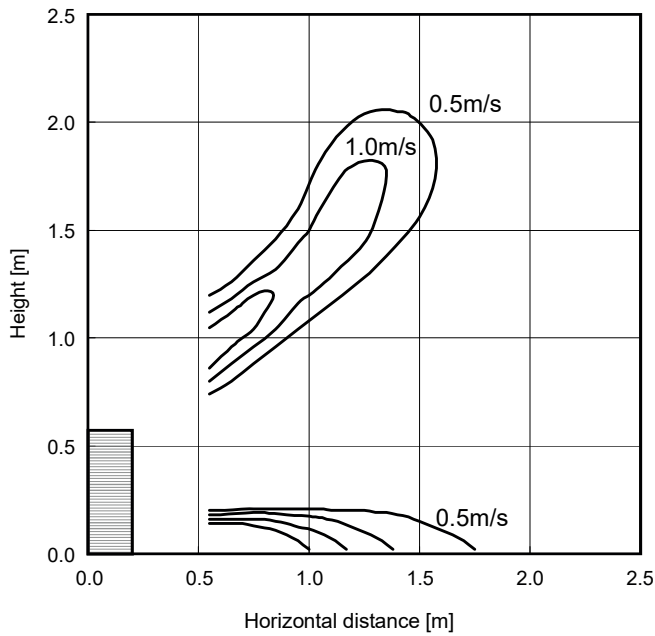
Cooling - Upper & Lower



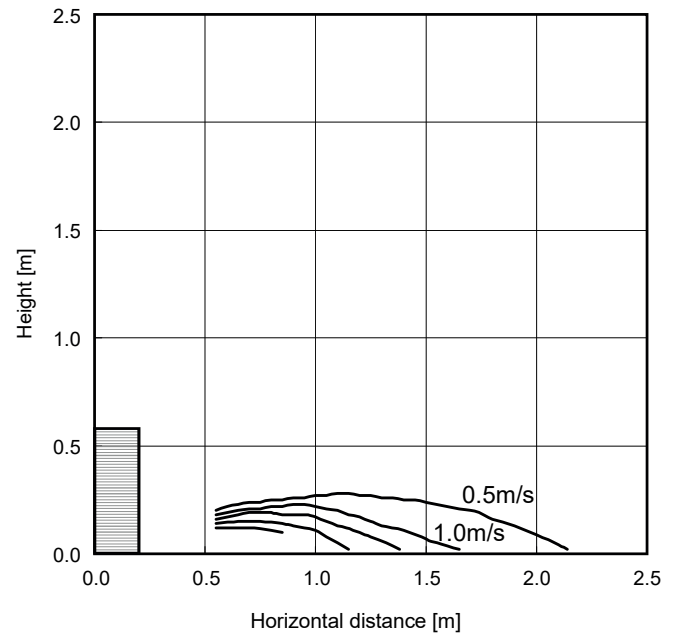
Cooling - Upper



Heating - Upper & Lower

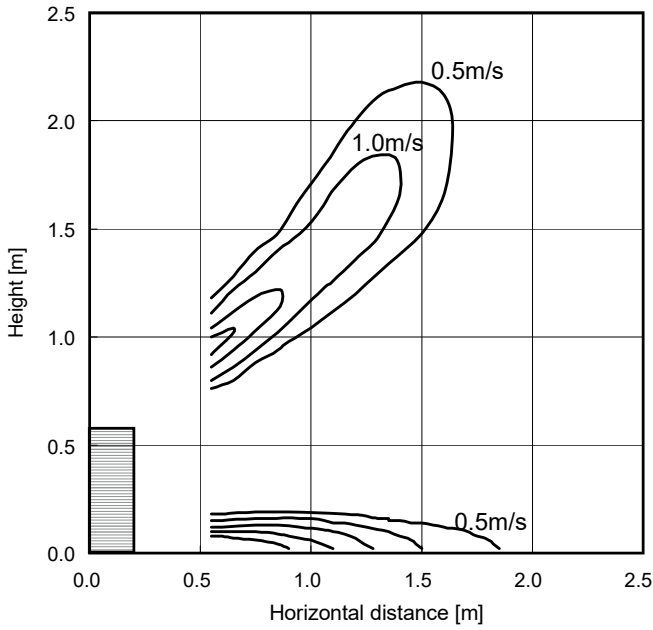


Heating - Lower

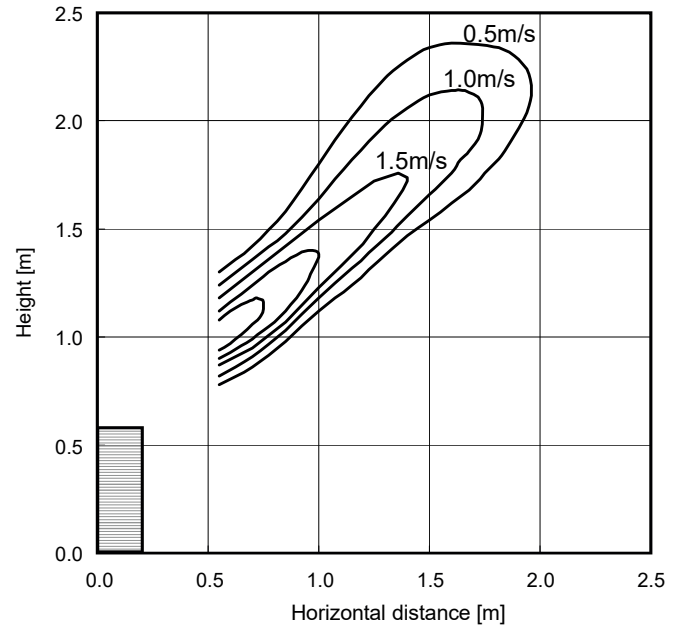


**RAS-35G3FVG-ND**

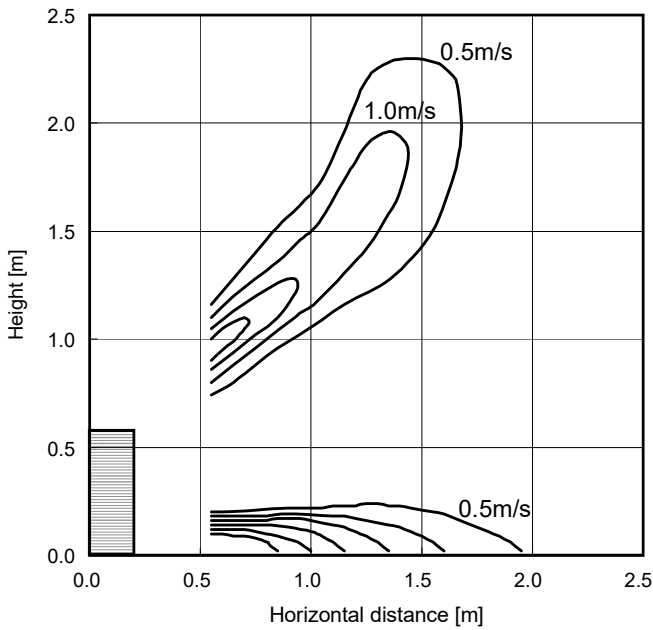
Cooling - Upper & Lower



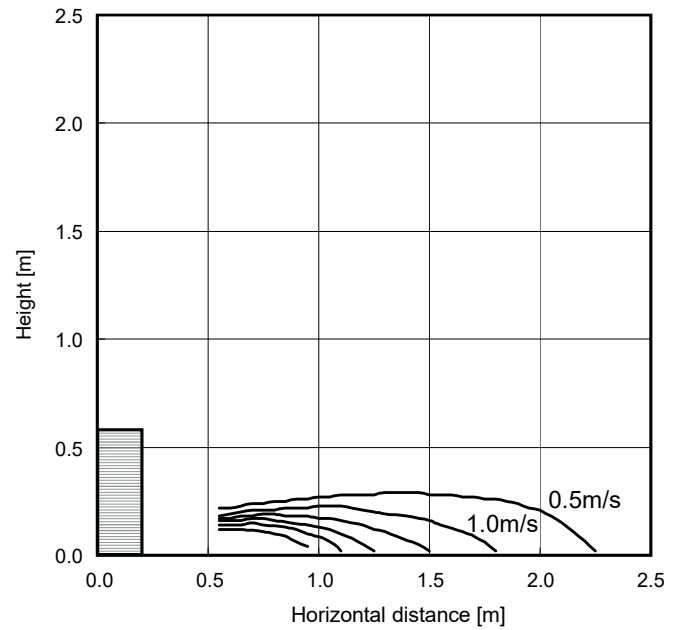
Cooling - Upper



Heating - Upper & Lower



Heating - Lower

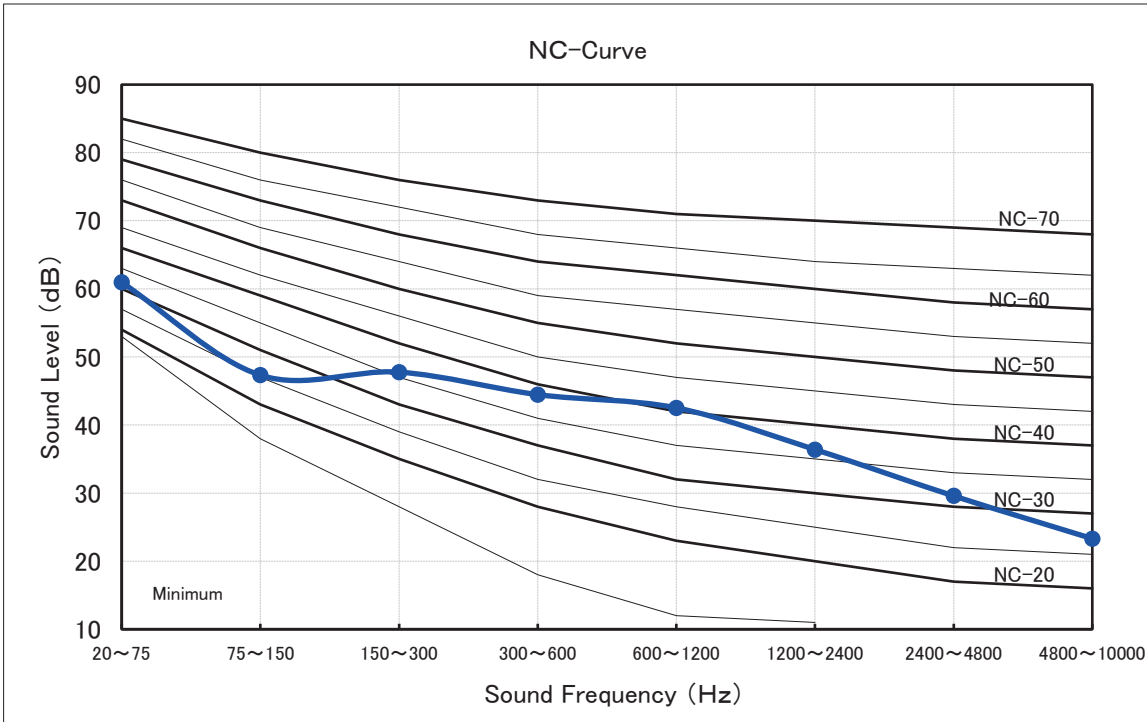


# 7. Sound Characteristics (NC Curve)

RAS-25J2AVSG-ND1

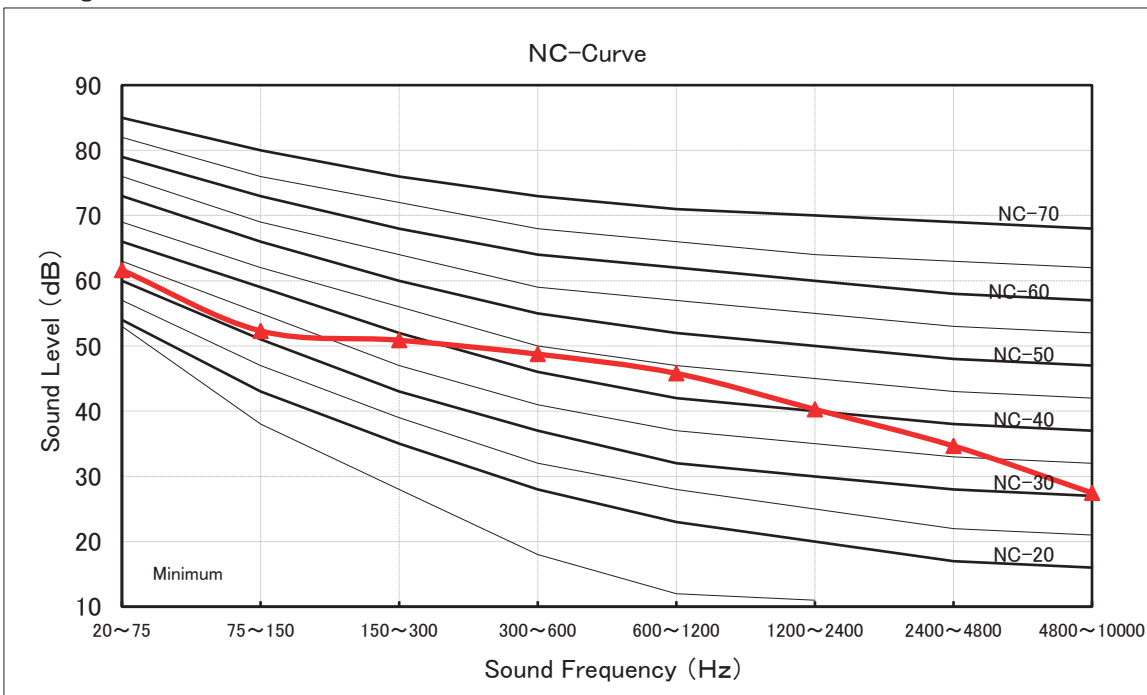
Measured point	Specification
	Cooling
Horizontal 1.0 m	46

Cooling



Measured point	Specification
	Heating
Horizontal 1.0 m	48

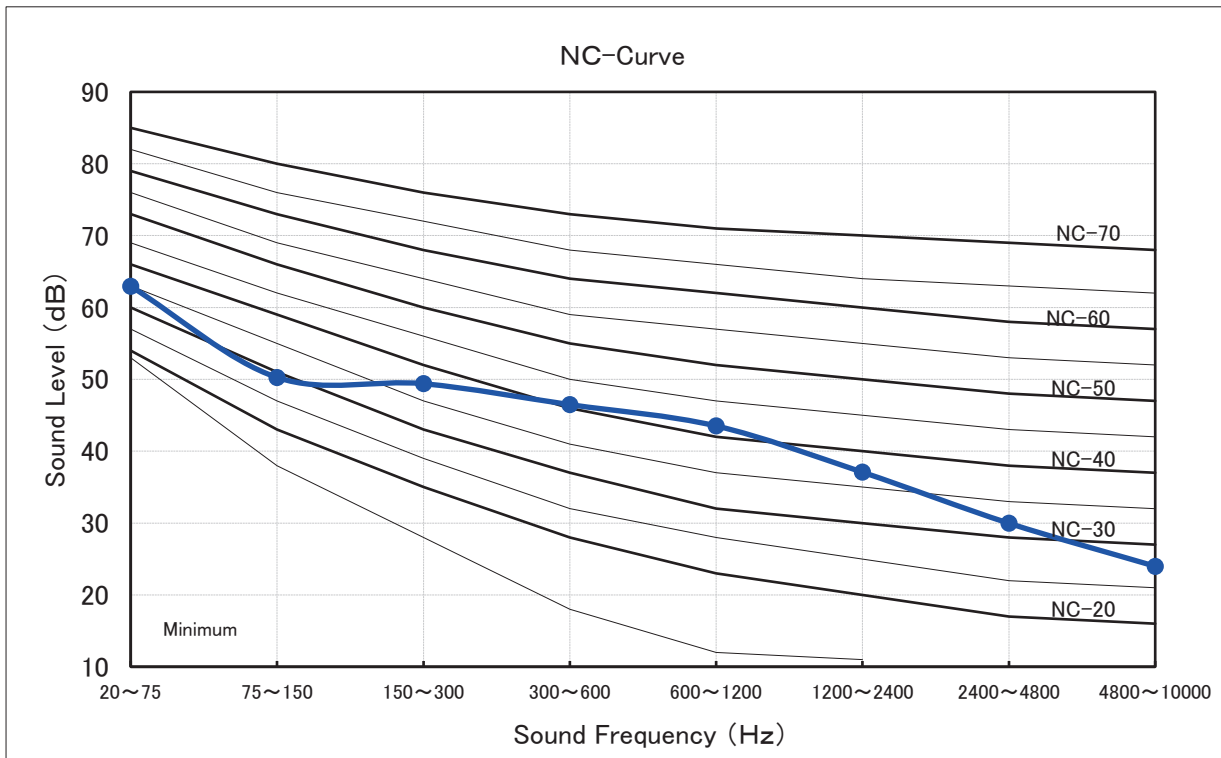
Heating



**RAS-35J2AVSG-ND1**

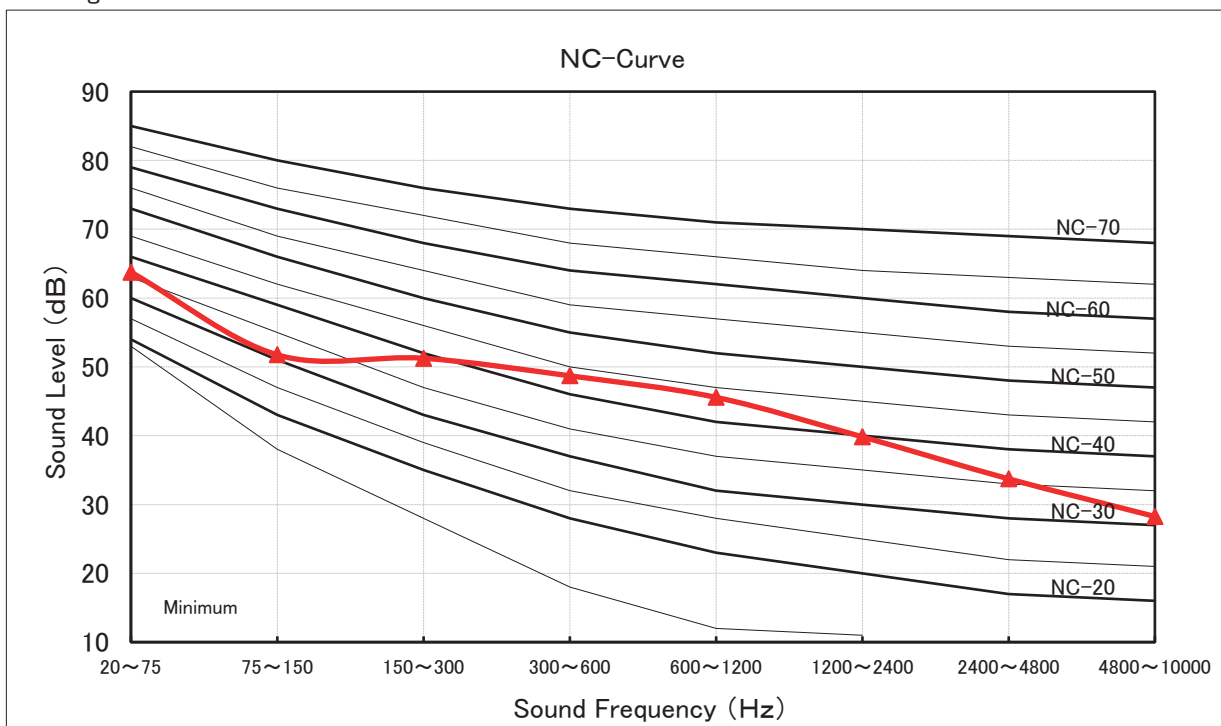
Measured point	Specification
	Cooling
Horizontal 1.0 m	48

Cooling



Measured point	Specification
	Heating
Horizontal 1.0 m	49

Heating



## 8. Capacity table

Product models : RAS-25G3FVG-ND : RAS-25J2AVSG-ND1

Specification of product at standard condition

Standard Condition	Indoor	27°C (DB) / 19°C (WB)	Total Cooling Capacity (TC)	2.50 kW
	Outdoor	35°C (DB) / 24°C (WB)	Sensible Heat Capacity (SHC)	2.00 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	2.45	2.11	2.70	2.25	2.90	2.39	2.98	2.39	3.07	2.38	3.25	2.36	3.40	2.32
21	2.42	2.09	2.68	2.22	2.86	2.36	2.95	2.36	3.03	2.36	3.21	2.34	3.36	2.29
22	2.40	2.06	2.65	2.20	2.83	2.34	2.92	2.33	3.00	2.33	3.18	2.31	3.32	2.27
23	2.37	2.04	2.62	2.17	2.80	2.31	2.89	2.31	2.97	2.31	3.14	2.29	3.29	2.24
24	2.34	2.02	2.59	2.15	2.77	2.29	2.85	2.28	2.93	2.28	3.11	2.26	3.25	2.22
25	2.32	1.99	2.56	2.13	2.74	2.26	2.82	2.26	2.90	2.26	3.07	2.23	3.21	2.19
26	2.29	1.97	2.53	2.10	2.71	2.23	2.79	2.23	2.87	2.23	3.04	2.21	3.18	2.17
27	2.26	1.95	2.50	2.08	2.68	2.21	2.76	2.21	2.84	2.20	3.00	2.18	3.14	2.14
28	2.24	1.93	2.47	2.05	2.65	2.18	2.72	2.18	2.80	2.18	2.97	2.16	3.10	2.12
29	2.21	1.90	2.44	2.03	2.62	2.16	2.69	2.15	2.77	2.15	2.93	2.13	3.07	2.09
30	2.19	1.88	2.41	2.01	2.58	2.13	2.66	2.13	2.74	2.13	2.90	2.11	3.03	2.07
31	2.16	1.86	2.38	1.98	2.55	2.11	2.63	2.10	2.70	2.10	2.86	2.08	2.99	2.04
32	2.13	1.84	2.36	1.96	2.52	2.08	2.60	2.08	2.67	2.08	2.83	2.06	2.96	2.02
33	2.11	1.81	2.33	1.93	2.49	2.05	2.56	2.05	2.64	2.05	2.79	2.03	2.92	1.99
34	2.08	1.79	2.30	1.91	2.46	2.03	2.53	2.03	2.60	2.02	2.76	2.01	2.88	1.97
35	2.05	1.77	2.27	1.88	2.43	2.00	2.50	2.00	2.57	2.00	2.72	1.98	2.85	1.94
36	2.03	1.74	2.24	1.86	2.40	1.98	2.47	1.97	2.54	1.97	2.69	1.95	2.81	1.92
37	2.00	1.72	2.21	1.84	2.37	1.95	2.44	1.95	2.51	1.95	2.65	1.93	2.78	1.89
38	1.97	1.70	2.18	1.81	2.34	1.93	2.40	1.92	2.47	1.92	2.62	1.90	2.74	1.87
39	1.95	1.68	2.15	1.79	2.30	1.90	2.37	1.90	2.44	1.90	2.58	1.88	2.70	1.84
40	1.92	1.65	2.12	1.76	2.27	1.87	2.34	1.87	2.41	1.87	2.55	1.85	2.67	1.82
41	1.90	1.63	2.09	1.74	2.24	1.85	2.31	1.85	2.37	1.84	2.51	1.83	2.63	1.79
42	1.87	1.61	2.06	1.72	2.21	1.82	2.28	1.82	2.34	1.82	2.48	1.80	2.59	1.77
43	1.84	1.59	2.03	1.69	2.18	1.80	2.24	1.79	2.31	1.79	2.44	1.78	2.56	1.74
44	1.82	1.56	2.01	1.67	2.15	1.77	2.21	1.77	2.27	1.77	2.41	1.75	2.52	1.72
45	1.79	1.54	1.98	1.64	2.12	1.75	2.18	1.74	2.24	1.74	2.37	1.73	2.48	1.69
46	1.76	1.52	1.95	1.62	2.09	1.72	2.15	1.72	2.21	1.72	2.34	1.70	2.45	1.67

Product models : RAS-35G3FVG-ND : RAS-35J2AVSG-ND1

Specification of product at standard condition

Standard Condition	Indoor	27°C (DB) / 19°C (WB)	Total Cooling Capacity (TC)	3.50 kW
	Outdoor	35°C (DB) / 24°C (WB)	Sensible Heat Capacity (SHC)	2.70 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	3.43	2.85	3.79	3.04	4.05	3.23	4.17	3.22	4.29	3.21	4.55	3.18	4.76	3.11
21	3.39	2.82	3.75	3.01	4.01	3.19	4.13	3.19	4.25	3.18	4.50	3.14	4.70	3.07
22	3.35	2.79	3.70	2.97	3.97	3.16	4.08	3.15	4.20	3.15	4.45	3.11	4.65	3.04
23	3.32	2.76	3.66	2.94	3.92	3.12	4.04	3.12	4.15	3.11	4.40	3.07	4.60	3.01
24	3.28	2.73	3.62	2.91	3.88	3.09	3.99	3.08	4.11	3.08	4.35	3.04	4.55	2.97
25	3.24	2.70	3.58	2.87	3.84	3.06	3.95	3.05	4.06	3.04	4.30	3.01	4.50	2.94
26	3.21	2.67	3.54	2.84	3.79	3.02	3.90	3.01	4.02	3.01	4.25	2.97	4.45	2.91
27	3.17	2.64	3.50	2.81	3.75	2.99	3.86	2.98	3.97	2.97	4.20	2.94	4.40	2.87
28	3.13	2.61	3.46	2.78	3.71	2.95	3.81	2.94	3.92	2.94	4.16	2.90	4.35	2.84
29	3.10	2.58	3.42	2.74	3.66	2.92	3.77	2.91	3.88	2.90	4.11	2.87	4.29	2.81
30	3.06	2.55	3.38	2.71	3.62	2.88	3.72	2.87	3.83	2.87	4.06	2.83	4.24	2.77
31	3.02	2.52	3.34	2.68	3.57	2.85	3.68	2.84	3.78	2.83	4.01	2.80	4.19	2.74
32	2.99	2.48	3.30	2.65	3.53	2.81	3.63	2.80	3.74	2.80	3.96	2.77	4.14	2.71
33	2.95	2.45	3.26	2.61	3.49	2.78	3.59	2.77	3.69	2.76	3.91	2.73	4.09	2.67
34	2.91	2.42	3.22	2.58	3.44	2.74	3.54	2.73	3.65	2.73	3.86	2.70	4.04	2.64
35	2.87	2.39	3.17	2.55	3.40	2.71	3.50	2.70	3.60	2.70	3.81	2.66	3.99	2.61
36	2.84	2.36	3.13	2.51	3.36	2.67	3.46	2.67	3.55	2.66	3.76	2.63	3.94	2.57
37	2.80	2.33	3.09	2.48	3.31	2.64	3.41	2.63	3.51	2.63	3.71	2.60	3.89	2.54
38	2.76	2.30	3.05	2.45	3.27	2.60	3.37	2.60	3.46	2.59	3.67	2.56	3.83	2.50
39	2.73	2.27	3.01	2.42	3.23	2.57	3.32	2.56	3.42	2.56	3.62	2.53	3.78	2.47
40	2.69	2.24	2.97	2.38	3.18	2.53	3.28	2.53	3.37	2.52	3.57	2.49	3.73	2.44
41	2.65	2.21	2.93	2.35	3.14	2.50	3.23	2.49	3.32	2.49	3.52	2.46	3.68	2.40
42	2.62	2.18	2.89	2.32	3.09	2.46	3.19	2.46	3.28	2.45	3.47	2.42	3.63	2.37
43	2.58	2.15	2.85	2.29	3.05	2.43	3.14	2.42	3.23	2.42	3.42	2.39	3.58	2.34
44	2.54	2.12	2.81	2.25	3.01	2.40	3.10	2.39	3.18	2.38	3.37	2.36	3.53	2.30
45	2.51	2.09	2.77	2.22	2.96	2.36	3.05	2.35	3.14	2.35	3.32	2.32	3.48	2.27
46	2.47	2.05	2.73	2.19	2.92	2.33	3.01	2.32	3.09	2.31	3.27	2.29	3.42	2.24

# 9. Part Load Performance

Indoor : RAS-25G3FVG-ND

Outdoor : RAS-25J2AVSG-ND1

Operation range	Cooling	
	Q	P
MINIMUM	W 850	200
RATING	W 2500	550
MAXIMUM	W 3400	800

## Cooling

Outdoor Temperature DB (°C)	Parts Load (%)																			
	100 (Max)		90		80		73(Rated)		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	4055	628	3649	565	3244	502	2981	432	2433	347	2027	291	1622	234	1216	185	1014	157	1014	157
21	4011	639	3610	576	3209	512	2949	440	2407	354	2005	296	1604	238	1203	189	1003	160	1003	160
22	3967	651	3571	586	3174	521	2917	448	2380	360	1984	301	1587	243	1190	192	992	163	992	163
23	3924	662	3531	596	3139	530	2885	455	2354	366	1962	307	1569	247	1177	195	981	166	981	166
24	3880	674	3492	606	3104	539	2853	463	2328	373	1940	312	1552	251	1164	199	970	168	970	168
25	3836	685	3453	617	3069	548	2821	471	2302	379	1918	317	1535	256	1151	202	959	171	959	171
26	3793	697	3413	627	3034	557	2789	479	2276	385	1896	323	1517	260	1138	206	948	174	948	174
27	3749	708	3374	637	2999	567	2757	487	2249	392	1875	328	1500	264	1125	209	937	177	937	177
28	3705	720	3335	648	2964	576	2725	495	2223	398	1853	333	1482	268	1112	212	926	180	926	180
29	3662	731	3296	658	2929	585	2693	503	2197	405	1831	339	1465	273	1099	216	915	183	915	183
30	3618	743	3256	668	2895	594	2660	511	2171	411	1809	344	1447	277	1085	219	905	186	905	186
31	3575	754	3217	679	2860	603	2628	518	2145	417	1787	349	1430	281	1072	223	894	189	894	189
32	3531	766	3178	689	2825	612	2596	526	2119	424	1765	355	1412	286	1059	226	883	191	883	191
33	3487	777	3139	699	2790	622	2564	534	2092	430	1744	360	1395	290	1046	229	872	194	872	194
34	3444	789	3099	710	2755	631	2532	542	2066	436	1722	365	1377	294	1033	233	861	197	861	197
35	3400	800	3060	720	2720	640	2500	550	2040	443	1700	370	1360	298	1020	236	850	200	850	200
36	3356	811	3021	730	2685	649	2468	558	2014	449	1678	376	1343	303	1007	239	839	203	839	203
37	3313	823	2981	741	2650	658	2436	566	1988	455	1656	381	1325	307	994	243	828	206	828	206
38	3269	834	2942	751	2615	668	2404	574	1961	462	1635	386	1308	311	981	246	817	209	817	209
39	3225	846	2903	761	2580	677	2372	582	1935	468	1613	392	1290	315	968	250	806	211	806	211
40	3182	857	2864	772	2545	686	2340	589	1909	474	1591	397	1273	320	955	253	795	214	795	214
41	3138	869	2824	782	2511	695	2308	597	1883	481	1569	402	1255	324	941	256	785	217	785	217
42	3095	880	2785	792	2476	704	2275	605	1857	487	1547	408	1238	328	928	260	774	220	774	220
43	3051	892	2746	803	2441	713	2243	613	1831	493	1525	413	1220	333	915	263	763	223	763	223
44	3007	903	2707	813	2406	723	2211	621	1804	500	1504	418	1203	337	902	267	752	226	752	226
45	2964	915	2667	823	2371	732	2179	629	1778	506	1482	424	1185	341	889	270	741	229	741	229
46	2920	926	2628	834	2336	741	2147	637	1752	512	1460	429	1168	345	876	273	730	232	730	232





Indoor : RAS-35G3FVG-ND

Outdoor : RAS-35J2AVSG-ND1

Operation range	Cooling	
	Q	P
MINIMUM	W 900	230
RATING	W 3500	940
MAXIMUM	W 3700	1050

**Cooling**

Outdoor Temperature DB (°C)	Parts Load (%)																			
	100 (Max)		95(Rated)		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	4412	824	4174	738	3530	622	3089	543	2647	464	2206	384	1765	305	1324	226	1073	181	1073	181
21	4365	839	4129	751	3492	634	3055	553	2619	472	2182	391	1746	310	1309	230	1062	184	1062	184
22	4317	854	4084	765	3454	645	3022	563	2590	480	2159	398	1727	316	1295	234	1050	187	1050	187
23	4270	869	4039	778	3416	656	2989	573	2562	489	2135	405	1708	322	1281	238	1039	190	1039	190
24	4222	884	3994	792	3378	668	2956	582	2533	497	2111	412	1689	327	1267	242	1027	194	1027	194
25	4175	900	3949	805	3340	679	2922	592	2505	506	2087	419	1670	333	1252	246	1016	197	1016	197
26	4127	915	3904	819	3302	690	2889	602	2476	514	2064	426	1651	338	1238	250	1004	200	1004	200
27	4080	930	3859	832	3264	702	2856	612	2448	523	2040	433	1632	344	1224	254	992	204	992	204
28	4032	945	3814	846	3226	713	2823	622	2419	531	2016	440	1613	349	1210	259	981	207	981	207
29	3985	960	3770	859	3188	724	2789	632	2391	540	1992	447	1594	355	1195	263	969	210	969	210
30	3937	975	3725	873	3150	736	2756	642	2362	548	1969	454	1575	361	1181	267	958	214	958	214
31	3890	990	3680	886	3112	747	2723	652	2334	557	1945	461	1556	366	1167	271	946	217	946	217
32	3842	1005	3635	900	3074	758	2690	662	2305	565	1921	468	1537	372	1153	275	935	220	935	220
33	3795	1020	3590	913	3036	770	2656	672	2277	574	1897	475	1518	377	1138	279	923	223	923	223
34	3747	1035	3545	927	2998	781	2623	682	2248	582	1874	482	1499	383	1124	283	912	227	912	227
35	<b>3700</b>	<b>1050</b>	<b>3500</b>	<b>940</b>	<b>2960</b>	<b>793</b>	<b>2590</b>	<b>692</b>	<b>2220</b>	<b>590</b>	<b>1850</b>	<b>489</b>	<b>1480</b>	<b>388</b>	<b>1110</b>	<b>287</b>	<b>900</b>	<b>230</b>	<b>900</b>	<b>230</b>
36	3653	1065	3455	953	2922	804	2557	701	2192	599	1826	496	1461	394	1096	291	888	233	888	233
37	3605	1080	3410	967	2884	815	2524	711	2163	607	1803	503	1442	400	1082	296	877	237	877	237
38	3558	1095	3365	980	2846	827	2490	721	2135	616	1779	510	1423	405	1067	300	865	240	865	240
39	3510	1110	3320	994	2808	838	2457	731	2106	624	1755	517	1404	411	1053	304	854	243	854	243
40	3463	1125	3275	1007	2770	849	2424	741	2078	633	1731	524	1385	416	1039	308	842	246	842	246
41	3415	1140	3231	1021	2732	861	2391	751	2049	641	1708	532	1366	422	1025	312	831	250	831	250
42	3368	1155	3186	1034	2694	872	2357	761	2021	650	1684	539	1347	427	1010	316	819	253	819	253
43	3320	1170	3141	1048	2656	883	2324	771	1992	658	1660	546	1328	433	996	320	808	256	808	256
44	3273	1185	3096	1061	2618	895	2291	781	1964	667	1636	553	1309	438	982	324	796	260	796	260
45	3225	1201	3051	1075	2580	906	2258	791	1935	675	1613	560	1290	444	968	329	785	263	785	263
46	3178	1216	3006	1088	2542	917	2224	801	1907	684	1589	567	1271	450	953	333	773	266	773	266



# 10. Performance Characteristic

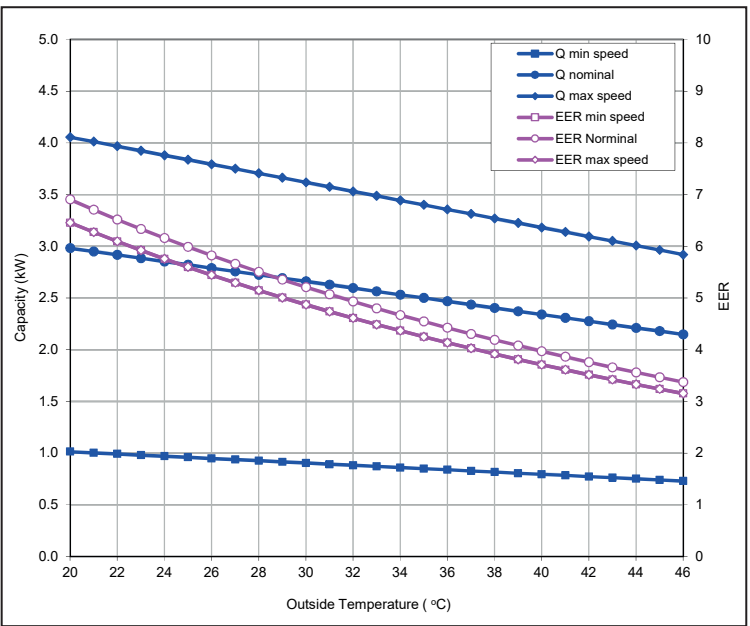
## RAS-25G3FVG-ND : RAS-25J2AVSG-ND1

Product specification :

Condition		Capacity (kW)	Power (kW)	EER/COI
Cooling JIS In: 27 °C DB/19 °C WB Out: 35 °C DB/24 °C WB	Min	0.85	0.20	4.25
	Rated	2.50	0.55	4.55
	Max	3.40	0.80	4.25
Heating JIS In: 20 °C DB/15 °C WB Out: 7 °C DB/6 °C WB	Min	0.88	0.18	4.89
	Rated	3.40	0.89	3.82
	Max	5.20	1.70	3.06
Heating Low Temp. In: 20 °C DB/15 °C WB Out: 2 °C DB/1 °C WB	Max	3.80	1.60	2.38
Heating Low Temp. In: 20 °C DB/15 °C WB Out: -10 °C DB	Max	3.50	1.64	2.13
Heating Low Temp. In: 20 °C DB/15 °C WB Out: -15 °C DB	Max	2.80	1.40	2.00
Heating Low Temp. In: 20 °C DB/15 °C WB Out: -20 °C DB	Max	2.60	1.45	1.80
Heating Low Temp. In: 20 °C DB/15 °C WB Out: -25 °C DB	Max	2.10	1.24	1.70

Cooling performance characteristic :

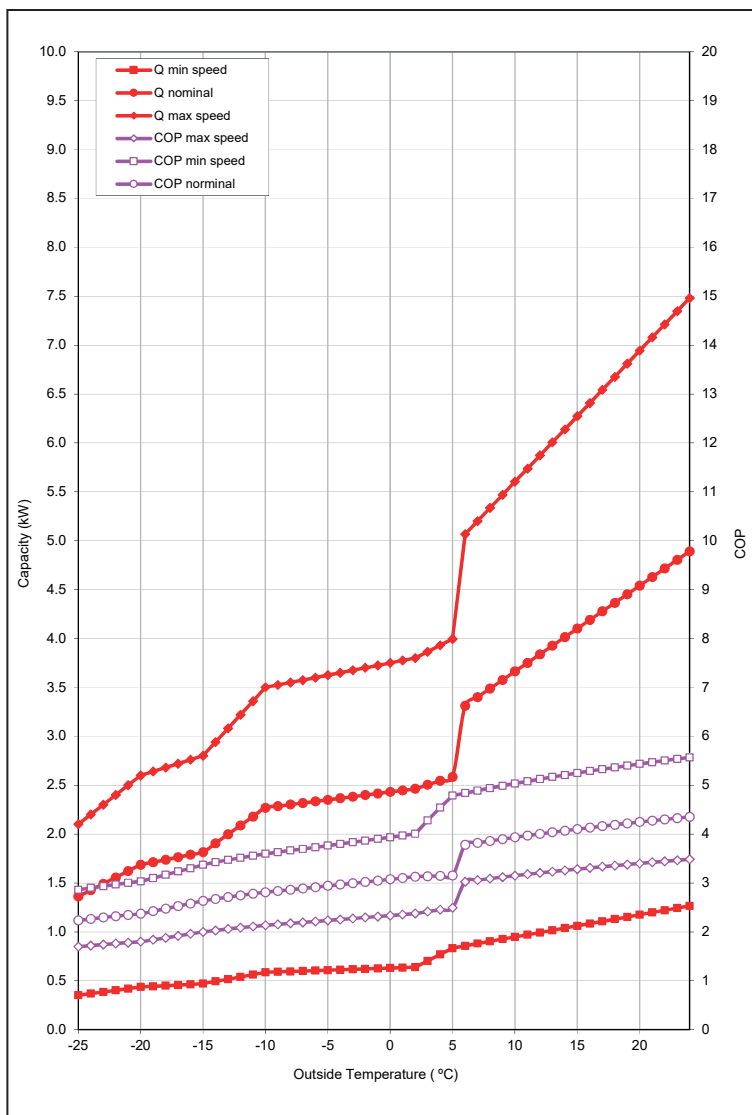
Outside Temp ( °C )	Min capacity			Nominal capacity			Max capacity		
	Capacity (kW)	Power (kW)	EER (-)	Capacity (kW)	Power (kW)	EER (-)	Capacity (kW)	Power (kW)	EER (-)
20	1.01	0.16	6.46	2.98	0.43	6.91	4.05	0.63	6.46
21	1.00	0.16	6.27	2.95	0.44	6.71	4.01	0.64	6.27
22	0.99	0.16	6.09	2.92	0.45	6.52	3.97	0.65	6.09
23	0.98	0.17	5.92	2.89	0.46	6.34	3.92	0.66	5.92
24	0.97	0.17	5.76	2.85	0.46	6.16	3.88	0.67	5.76
25	0.96	0.17	5.60	2.82	0.47	5.99	3.84	0.69	5.60
26	0.95	0.17	5.44	2.79	0.48	5.82	3.79	0.70	5.44
27	0.94	0.18	5.29	2.76	0.49	5.66	3.75	0.71	5.29
28	0.93	0.18	5.15	2.72	0.49	5.51	3.71	0.72	5.15
29	0.92	0.18	5.01	2.69	0.50	5.36	3.66	0.73	5.01
30	0.90	0.19	4.87	2.66	0.51	5.21	3.62	0.74	4.87
31	0.89	0.19	4.74	2.63	0.52	5.07	3.57	0.75	4.74
32	0.88	0.19	4.61	2.60	0.53	4.93	3.53	0.77	4.61
33	0.87	0.19	4.49	2.56	0.53	4.80	3.49	0.78	4.49
34	0.86	0.20	4.37	2.53	0.54	4.67	3.44	0.79	4.37
35	0.85	0.20	4.25	2.50	0.55	4.55	3.40	0.80	4.25
36	0.84	0.20	4.14	2.47	0.56	4.42	3.36	0.81	4.14
37	0.83	0.21	4.03	2.44	0.57	4.31	3.31	0.82	4.03
38	0.82	0.21	3.92	2.40	0.57	4.19	3.27	0.83	3.92
39	0.81	0.21	3.81	2.37	0.58	4.08	3.23	0.85	3.81
40	0.80	0.21	3.71	2.34	0.59	3.97	3.18	0.86	3.71
41	0.78	0.22	3.61	2.31	0.60	3.86	3.14	0.87	3.61
42	0.77	0.22	3.52	2.28	0.61	3.76	3.09	0.88	3.52
43	0.76	0.22	3.42	2.24	0.61	3.66	3.05	0.89	3.42
44	0.75	0.23	3.33	2.21	0.62	3.56	3.01	0.90	3.33
45	0.74	0.23	3.24	2.18	0.63	3.47	2.96	0.91	3.24
46	0.73	0.23	3.15	2.15	0.64	3.37	2.92	0.93	3.15



## RAS-25G3FVG-ND : RAS-25J2AVSG-ND1

Heating performance characteristic :

Outside Temp (°C)	Min capacity			Nominal capacity			Max capacity		
	Capacity (kW)	Power (kW)	EER (-)	Capacity (kW)	Power (kW)	EER (-)	Capacity (kW)	Power (kW)	EER (-)
-25	0.35	0.12	2.86	1.36	0.61	2.23	2.10	1.24	1.70
-24	0.37	0.13	2.90	1.43	0.63	2.26	2.20	1.28	1.72
-23	0.39	0.13	2.94	1.49	0.65	2.29	2.30	1.32	1.74
-22	0.40	0.14	2.97	1.56	0.67	2.32	2.40	1.36	1.76
-21	0.42	0.14	3.00	1.62	0.69	2.35	2.50	1.40	1.78
-20	0.44	0.14	3.03	1.69	0.71	2.37	2.60	1.45	1.80
-19	0.44	0.14	3.10	1.71	0.71	2.42	2.64	1.44	1.84
-18	0.45	0.14	3.17	1.74	0.70	2.47	2.68	1.43	1.88
-17	0.46	0.14	3.23	1.76	0.70	2.53	2.72	1.42	1.92
-16	0.46	0.14	3.30	1.79	0.69	2.58	2.76	1.41	1.96
-15	0.47	0.14	3.37	1.82	0.69	2.63	2.80	1.40	2.00
-14	0.49	0.14	3.42	1.91	0.71	2.67	2.94	1.45	2.03
-13	0.52	0.15	3.47	2.00	0.74	2.71	3.08	1.50	2.06
-12	0.54	0.15	3.52	2.09	0.76	2.75	3.22	1.54	2.09
-11	0.56	0.16	3.56	2.18	0.78	2.78	3.36	1.59	2.11
-10	0.59	0.16	3.60	2.27	0.81	2.81	3.50	1.64	2.13
-9	0.59	0.16	3.63	2.29	0.81	2.84	3.53	1.64	2.15
-8	0.60	0.16	3.66	2.30	0.80	2.86	3.55	1.63	2.17
-7	0.60	0.16	3.70	2.32	0.80	2.89	3.58	1.63	2.19
-6	0.60	0.16	3.73	2.33	0.80	2.91	3.60	1.63	2.21
-5	0.61	0.16	3.76	2.35	0.80	2.94	3.63	1.62	2.23
-4	0.61	0.16	3.80	2.37	0.80	2.97	3.65	1.62	2.25
-3	0.62	0.16	3.83	2.38	0.80	2.99	3.68	1.62	2.27
-2	0.62	0.16	3.87	2.40	0.79	3.02	3.70	1.61	2.29
-1	0.63	0.16	3.90	2.42	0.79	3.05	3.73	1.61	2.31
0	0.63	0.16	3.93	2.43	0.79	3.07	3.75	1.61	2.33
1	0.63	0.16	3.97	2.45	0.79	3.10	3.78	1.60	2.35
2	0.64	0.16	4.00	2.46	0.79	3.13	3.80	1.60	2.38
3	0.70	0.16	4.28	2.50	0.80	3.14	3.86	1.60	2.41
4	0.77	0.17	4.54	2.54	0.81	3.15	3.93	1.60	2.45
5	0.83	0.17	4.78	2.58	0.82	3.15	3.99	1.60	2.49
6	0.86	0.18	4.84	3.31	0.88	3.78	5.07	1.67	3.03
7	0.88	0.18	4.89	3.40	0.89	3.82	5.20	1.70	3.06
8	0.90	0.18	4.94	3.49	0.90	3.86	5.33	1.73	3.09
9	0.93	0.19	4.99	3.58	0.92	3.90	5.47	1.75	3.12
10	0.95	0.19	5.03	3.66	0.93	3.93	5.60	1.78	3.15
11	0.97	0.19	5.08	3.75	0.95	3.97	5.74	1.81	3.18
12	0.99	0.19	5.12	3.84	0.96	4.00	5.87	1.83	3.21
13	1.02	0.20	5.17	3.93	0.97	4.04	6.01	1.86	3.23
14	1.04	0.20	5.21	4.01	0.99	4.07	6.14	1.88	3.26
15	1.06	0.20	5.25	4.10	1.00	4.10	6.27	1.91	3.28
16	1.08	0.21	5.29	4.19	1.01	4.13	6.41	1.94	3.31
17	1.11	0.21	5.33	4.28	1.03	4.16	6.54	1.96	3.33
18	1.13	0.21	5.36	4.37	1.04	4.19	6.68	1.99	3.36
19	1.15	0.21	5.40	4.45	1.06	4.22	6.81	2.02	3.38
20	1.18	0.22	5.44	4.54	1.07	4.25	6.94	2.04	3.40
21	1.20	0.22	5.47	4.63	1.08	4.27	7.08	2.07	3.42
22	1.22	0.22	5.50	4.72	1.10	4.30	7.21	2.09	3.44
23	1.24	0.22	5.54	4.80	1.11	4.33	7.35	2.12	3.46
24	1.27	0.23	5.57	4.89	1.12	4.35	7.48	2.15	3.48



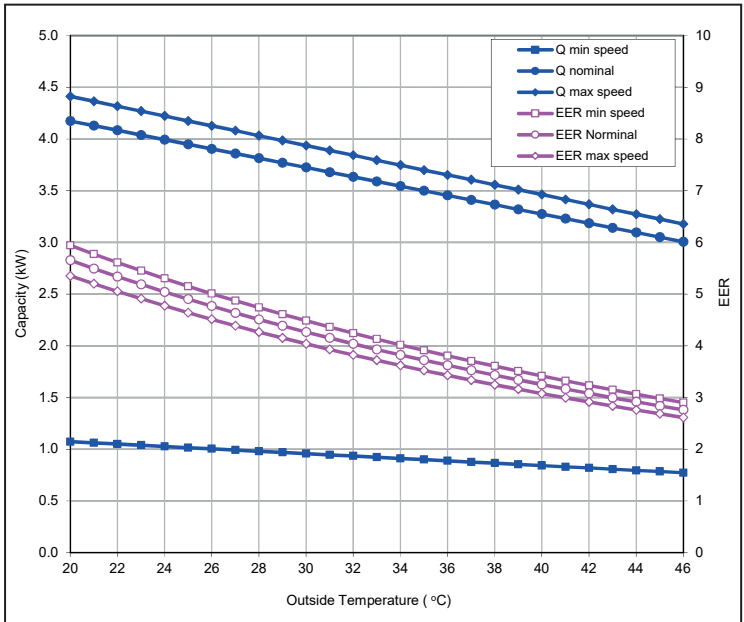
RAS-35G3FVG-ND : RAS-35J2AVSG-ND1

Product specification :

Condition		Capacity (kW)	Power (kW)	EER/COI
Cooling JIS In: 27 °C DB/19 °C WB Out: 35 °C DB/24 °C WB	Min	0.90	0.23	3.91
	Rated	3.50	0.94	3.72
	Max	3.70	1.05	3.52
Heating JIS In: 20 °C DB/15 °C WB Out: 7 °C DB/6 °C WB	Min	1.00	0.21	4.76
	Rated	4.30	1.14	3.77
	Max	5.60	1.80	3.11
Heating Low Temp. In: 20 °C DB/15 °C WB Out: 2 °C DB/1 °C WB	Max	4.30	2.00	2.15
Heating Low Temp. In: 20 °C DB/15 °C WB Out: -10 °C DB	Max	3.60	1.80	2.00
Heating Low Temp. In: 20 °C DB/15 °C WB Out: -15 °C DB	Max	2.90	1.61	1.80
Heating Low Temp. In: 20 °C DB/15 °C WB Out: -20 °C DB	Max	2.70	1.69	1.60
Heating Low Temp. In: 20 °C DB/15 °C WB Out: -25 °C DB	Max	2.20	1.47	1.50

Cooling performance characteristic :

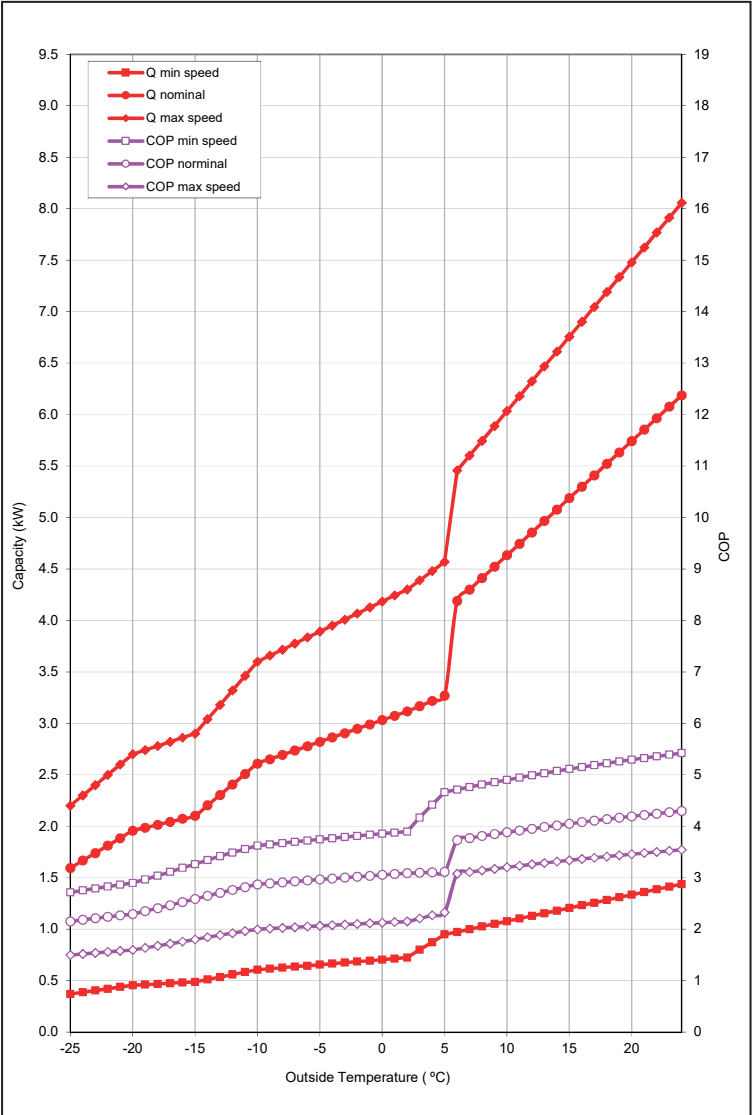
Outside Temp (°C)	Min capacity			Nominal capacity			Max capacity		
	Capacity (kW)	Power (kW)	EER (-)	Capacity (kW)	Power (kW)	EER (-)	Capacity (kW)	Power (kW)	EER (-)
20	1.07	0.18	5.94	4.17	0.74	5.66	4.41	0.82	5.35
21	1.06	0.18	5.77	4.13	0.75	5.50	4.36	0.84	5.20
22	1.05	0.19	5.61	4.08	0.76	5.34	4.32	0.85	5.05
23	1.04	0.19	5.45	4.04	0.78	5.19	4.27	0.87	4.91
24	1.03	0.19	5.30	3.99	0.79	5.04	4.22	0.88	4.77
25	1.02	0.20	5.15	3.95	0.81	4.90	4.17	0.90	4.64
26	1.00	0.20	5.01	3.90	0.82	4.77	4.13	0.91	4.51
27	0.99	0.20	4.87	3.86	0.83	4.64	4.08	0.93	4.39
28	0.98	0.21	4.74	3.81	0.85	4.51	4.03	0.94	4.27
29	0.97	0.21	4.61	3.77	0.86	4.39	3.98	0.96	4.15
30	0.96	0.21	4.49	3.72	0.87	4.27	3.94	0.97	4.04
31	0.95	0.22	4.36	3.68	0.89	4.15	3.89	0.99	3.93
32	0.93	0.22	4.25	3.63	0.90	4.04	3.84	1.00	3.82
33	0.92	0.22	4.13	3.59	0.91	3.93	3.79	1.02	3.72
34	0.91	0.23	4.02	3.54	0.93	3.83	3.75	1.03	3.62
35	0.90	0.23	3.91	3.50	0.94	3.72	3.70	1.05	3.52
36	0.89	0.23	3.81	3.46	0.95	3.62	3.65	1.07	3.43
37	0.88	0.24	3.71	3.41	0.97	3.53	3.61	1.08	3.34
38	0.87	0.24	3.61	3.37	0.98	3.43	3.56	1.10	3.25
39	0.85	0.24	3.51	3.32	0.99	3.34	3.51	1.11	3.16
40	0.84	0.25	3.42	3.28	1.01	3.25	3.46	1.13	3.08
41	0.83	0.25	3.33	3.23	1.02	3.16	3.42	1.14	2.99
42	0.82	0.25	3.24	3.19	1.03	3.08	3.37	1.16	2.91
43	0.81	0.26	3.15	3.14	1.05	3.00	3.32	1.17	2.84
44	0.80	0.26	3.07	3.10	1.06	2.92	3.27	1.19	2.76
45	0.78	0.26	2.98	3.05	1.07	2.84	3.23	1.20	2.69
46	0.77	0.27	2.90	3.01	1.09	2.76	3.18	1.22	2.61



RAS-35G3FVG-ND : RAS-35J2AVSG-ND1

Heating performance characteristic :

Outside Temp (°C)	Min capacity			Nominal capacity			Max capacity		
	Capacity (kW)	Power (kW)	EER (-)	Capacity (kW)	Power (kW)	EER (-)	Capacity (kW)	Power (kW)	EER (-)
-25	0.37	0.14	2.71	1.59	0.74	2.15	2.20	1.47	1.50
-24	0.39	0.14	2.76	1.67	0.76	2.18	2.30	1.51	1.52
-23	0.40	0.14	2.79	1.74	0.79	2.21	2.40	1.56	1.54
-22	0.42	0.15	2.83	1.81	0.81	2.24	2.50	1.60	1.56
-21	0.44	0.15	2.86	1.88	0.83	2.27	2.60	1.65	1.58
-20	0.46	0.16	2.90	1.96	0.85	2.30	2.70	1.69	1.60
-19	0.46	0.16	2.97	1.99	0.84	2.35	2.74	1.67	1.64
-18	0.47	0.15	3.04	2.01	0.84	2.41	2.78	1.66	1.68
-17	0.48	0.15	3.11	2.04	0.83	2.47	2.82	1.64	1.72
-16	0.48	0.15	3.19	2.07	0.82	2.53	2.86	1.63	1.76
-15	0.49	0.15	3.27	2.10	0.81	2.59	2.90	1.61	1.80
-14	0.51	0.15	3.34	2.20	0.83	2.65	3.04	1.65	1.84
-13	0.54	0.16	3.42	2.30	0.85	2.71	3.18	1.69	1.89
-12	0.56	0.16	3.49	2.41	0.87	2.76	3.32	1.73	1.92
-11	0.58	0.16	3.56	2.51	0.89	2.82	3.46	1.76	1.96
-10	0.61	0.17	3.62	2.61	0.91	2.87	3.60	1.80	2.00
-9	0.62	0.17	3.65	2.65	0.92	2.89	3.66	1.82	2.01
-8	0.63	0.17	3.67	2.69	0.93	2.91	3.72	1.84	2.03
-7	0.64	0.17	3.70	2.74	0.93	2.93	3.78	1.85	2.04
-6	0.65	0.17	3.72	2.78	0.94	2.95	3.83	1.87	2.05
-5	0.66	0.18	3.75	2.82	0.95	2.97	3.89	1.88	2.07
-4	0.67	0.18	3.77	2.86	0.96	2.98	3.95	1.90	2.08
-3	0.68	0.18	3.79	2.90	0.97	3.00	4.01	1.92	2.09
-2	0.69	0.18	3.81	2.95	0.98	3.02	4.07	1.93	2.10
-1	0.70	0.18	3.84	2.99	0.98	3.04	4.13	1.95	2.11
0	0.70	0.18	3.86	3.03	0.99	3.06	4.18	1.97	2.13
1	0.71	0.18	3.88	3.07	1.00	3.07	4.24	1.98	2.14
2	0.72	0.19	3.90	3.12	1.01	3.09	4.30	2.00	2.15
3	0.80	0.19	4.17	3.17	1.02	3.10	4.39	1.99	2.21
4	0.87	0.20	4.42	3.22	1.04	3.11	4.48	1.98	2.27
5	0.95	0.20	4.66	3.27	1.05	3.11	4.57	1.96	2.33
6	0.97	0.21	4.71	4.19	1.12	3.73	5.46	1.77	3.08
7	1.00	0.21	4.76	4.30	1.14	3.77	5.60	1.80	3.11
8	1.03	0.21	4.81	4.41	1.16	3.81	5.74	1.83	3.14
9	1.05	0.22	4.86	4.52	1.18	3.85	5.89	1.86	3.17
10	1.08	0.22	4.90	4.63	1.19	3.88	6.03	1.88	3.20
11	1.10	0.22	4.95	4.74	1.21	3.92	6.18	1.91	3.23
12	1.13	0.23	4.99	4.85	1.23	3.95	6.32	1.94	3.26
13	1.15	0.23	5.03	4.97	1.25	3.99	6.47	1.97	3.29
14	1.18	0.23	5.07	5.08	1.26	4.02	6.61	2.00	3.31
15	1.21	0.24	5.11	5.19	1.28	4.05	6.76	2.02	3.34
16	1.23	0.24	5.15	5.30	1.30	4.08	6.90	2.05	3.36
17	1.26	0.24	5.19	5.41	1.32	4.11	7.05	2.08	3.39
18	1.28	0.25	5.22	5.52	1.33	4.14	7.19	2.11	3.41
19	1.31	0.25	5.26	5.63	1.35	4.17	7.33	2.13	3.44
20	1.34	0.25	5.29	5.74	1.37	4.19	7.48	2.16	3.46
21	1.36	0.26	5.33	5.85	1.39	4.22	7.62	2.19	3.48
22	1.39	0.26	5.36	5.96	1.40	4.25	7.77	2.22	3.50
23	1.41	0.26	5.39	6.08	1.42	4.27	7.91	2.25	3.52
24	1.44	0.27	5.42	6.19	1.44	4.30	8.06	2.27	3.54



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