

TOSHIBA

Leading Innovation >>>



Engineering Databook

RAS-10N3KV2-A / RAS-10N3AV2-A
 RAS-13N3KV2-A / RAS-13N3AV2-A
 RAS-16N3KV2-A / RAS-16N3AV2-A
 RAS-18N3KV2-A / RAS-18N3AV2-A
 RAS-22N3KV2-A / RAS-22N3AV2-A
 RAS-24N3KV2-A / RAS-24N3AV2-A

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Specifications

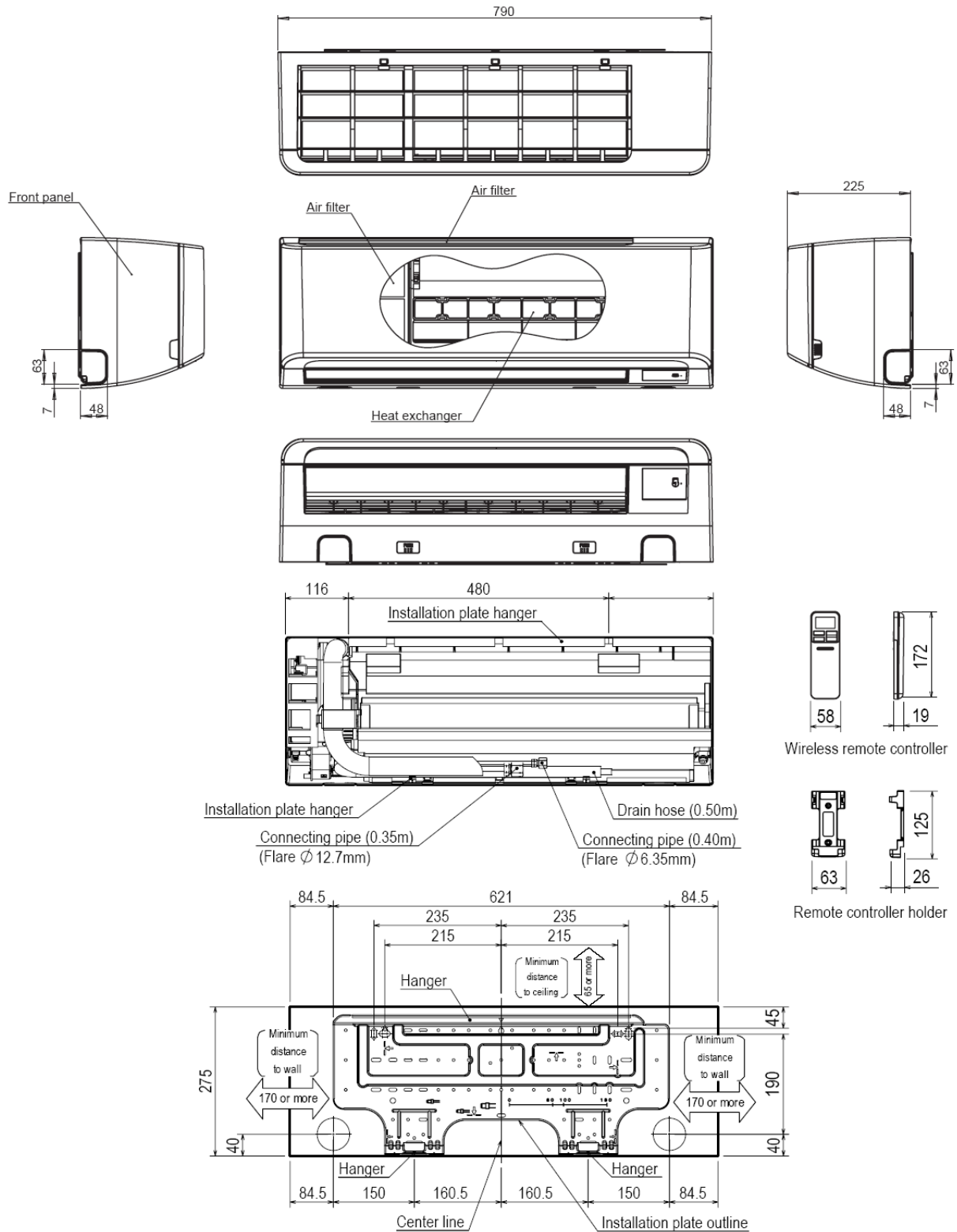
Type			Heat Pump					
Indoor Unit			RAS-10N3KV2-A	RAS-13N3KV2-A	RAS-16N3KV2-A	RAS-18N3KV2-A	RAS-22N3KV2-A	RAS-24N3KV2-A
Outdoor Unit			RAS-10N3AV2-A	RAS-13N3AV2-A	RAS-16N3AV2-A	RAS-18N3AV2-A	RAS-22N3AV2-A	RAS-24N3AV2-A
Cooling Capacity	- Rated	CO (kW)	2.50	3.40	4.40	5.00	6.00	7.10
Cooling Capacity	- Range	CO (kW)	1.10-3.10	2.00-4.10	0.80-5.00	1.10-6.00	1.20-6.70	1.50-7.70
Power Consumption	(min-rated-max)	CO (kW)	0.25-0.598-0.82	0.49-0.92-1.30	0.15-1.34-1.72	0.18-1.42-2.00	0.20-1.83-2.65	0.30-2.25-2.90
Operating Current	(min-rated-max)	CO (A)	1.36-2.89-3.75	2.80-4.20-6.31	0.88-6.06-7.62	1.06-6.41-8.90	1.61-8.19-11.78	1.78-10.30-12.85
EER	(min-rated-max)	CO	3.78-4.18-4.40	3.15-3.70-4.08	2.91-3.28-5.33	3.00-3.52-6.11	2.53-3.28-6.00	2.66-3.16-5.00
AEEER		CO	4.06	3.62	3.23	3.48	3.23	3.12
Star Rating			3.0	2.5	1.5	2.0	1.5	1.5
Heating Capacity	- Rated	RC (kW)	3.20	4.20	5.30	5.80	7.00	8.10
Heating Capacity	- Range	RC (kW)	0.90-4.80	1.80-5.60	0.90-6.30	0.80-6.30	1.00-7.50	1.60-9.00
Power Consumption	(min-rated-max)	RC (kW)	0.17-0.75-1.40	0.38-1.12-1.69	0.15-1.50-1.98	0.14-1.56-1.70	0.18-1.98-2.21	0.30-2.45-3.30
Operating Current	(min-rated-max)	RC (A)	0.92-3.51-6.21	2.11-5.01-7.55	0.89-6.71-8.77	0.84-6.97-7.58	1.06-8.87-9.79	1.81-11.20-14.62
COP		RC	3.43-4.27-5.29	3.31-3.75-4.74	3.18-3.53-6.00	3.71-3.72-5.71	3.39-3.54-5.56	2.73-3.31-5.33
ACOP	(min-rated-max)	RC	4.17	3.69	3.48	3.67	3.49	3.28
Star Rating			3.0	2.5	2.0	2.5	2.0	1.5
Indoor Unit			RAS-10N3KV2-A	RAS-13N3KV2-A	RAS-16N3KV2-A	RAS-18N3KV2-A	RAS-22N3KV2-A	RAS-24N3KV2-A
Airflow Volume	(h)	CO (m³/h - l/s)	516-143	570-158	684-190	954-265	1098-305	1008-280
Moisture removal		(l/h)	1.5	2	2.5	2.8	3.5	3.8
Sound Pressure	(h-l)	CO dB(A)	39-26	45-30	47-32	44-32	47-35	45-36
Dimension	(HxWxD)	(mm)	275x790x225	275x790x225	275x790x225	320x1050x243	320x1050x243	320x1050x243
Net weight		(kg)	10	10	10	13	13	13
Sound Power	(h)	CO dB(A)	54	60	62	59	62	58
Fan Motor Output		(W)	20	20	30	30	30	30
Outdoor Unit			RAS-10N3AV2-A	RAS-13N3AV2-A	RAS-16N3AV2-A	RAS-18N3AV2-A	RAS-22N3AV2-A	RAS-24N3AV2-A
Dimension	(HxWxD)	(mm)	550x780x290	550x780x290	550x780x290	550x780x290	630x800x300	890x900x320
Net weight		(kg)	33	37	38	41	43	65
Refrigerant type			R410a	R410a	R410a	R410a	R410a	R410a
Sound Pressure	(h)	CO dB(A)	46	49	51	49	53	52
Sound Power	(h)	CO dB(A)	61	64	66	64	68	65
Operating Range		CO °C	-10~46	-10~46	-10~46	-10~46	-10~46	-10~46
Sound Pressure	(h)	RC dB(A)	47	50	52	50	52	52
Sound Power	(h)	RC dB(A)	62	65	67	65	67	65
Operating Range		RC °C	-15~24	-15~24	-15~24	-15~24	-15~24	-15~24
Pipe Size								
Liquid side		(mm/inch)	6.35(1/4")	6.35(1/4")	6.35(1/4")	6.35(1/4")	6.35(1/4")	9.52(3/8")
Gas side		(mm/inch)	9.52(3/8")	9.52(3/8")	12.70(1/2")	12.70(1/2")	12.70(1/2")	15.88(5/8")
Maximum Piping Length		(m)	20(extra charge 20g/m)	20(extra charge 20g/m)	20(extra charge 20g/m)	20(extra charge 20g/m)	20(extra charge 20g/m)	30(extra charge 30g/m)
Maximum Piping Height difference		(m)	10	10	10	10	10	20
Chargeless Length		(m)	15	15	15	15	15	20
Compressor type			DC Rotary	DC Rotary	DC Tw in Rotary	DC Tw in Rotary	DC Tw in Rotary	DC Tw in Rotary
Power Supply		(Ph/Hz/V)	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50

CO = cooling mode

RC = heating mode

Dimensions of Indoor & outdoor units

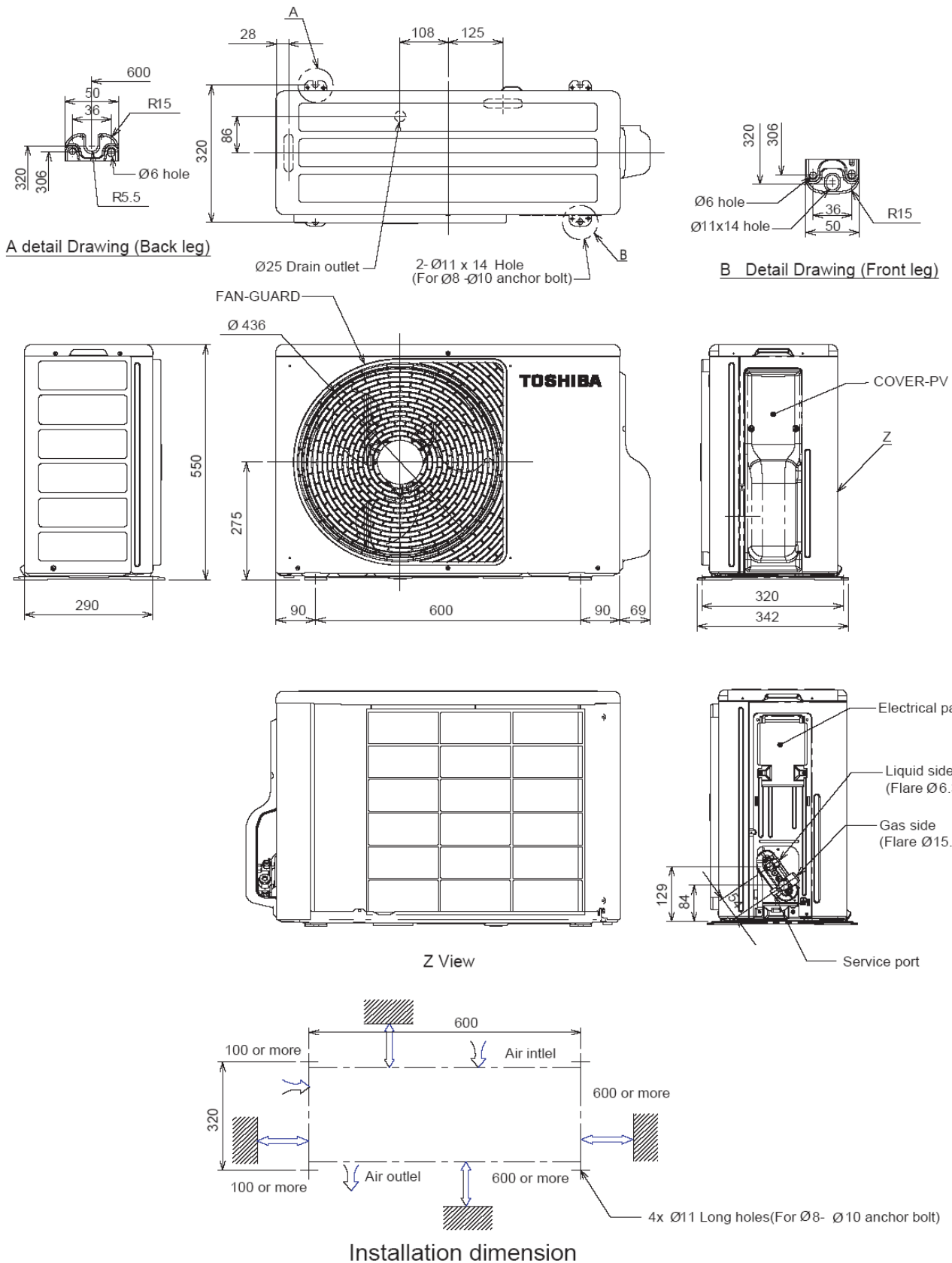
RAS-10N3KV2-A, RAS-13N3KV2-A, RAS-16N3KV2-A



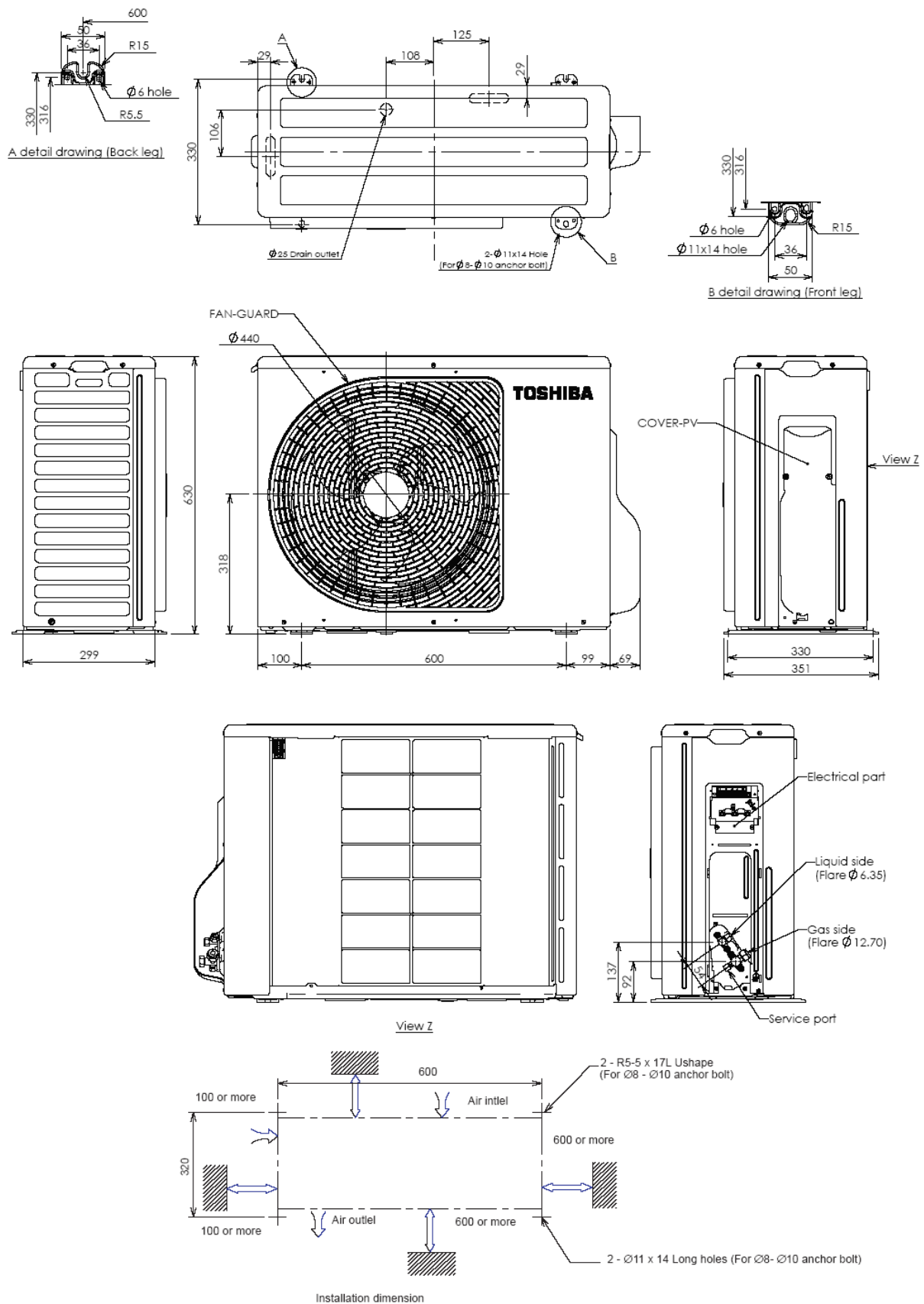
Technical drawings of the indoor unit showing various views and dimensions:

- Top View:** Shows the overall dimensions of the unit, including the heat exchanger, air inlet, air filter, and air outlet. The width is 1050 mm.
- Side View (Left):** Shows the unit's profile with a height of 73.5 mm and a depth of 50 mm. It includes a "Knock out system" label.
- Side View (Right):** Shows the unit's profile with a height of 243 mm and a depth of 50 mm. It includes a "Knock out system" label.
- Front View:** Shows the unit's front panel with dimensions: 278 mm (left), 200 mm (center), 222 mm (center), 200 mm (center), and 150 mm (right). The total width is 1050 mm. The height is 50 mm.
- Bottom View:** Shows the unit's base with dimensions: 132 mm (left), 200 mm (center), 222 mm (center), 200 mm (center), and 150 mm (right). The total width is 1050 mm. The height is 50 mm. It includes labels for "Drain hose (0.5)", "Hanger", "Connecting pipe (0.39m) (Flare ϕ 15.88)", and "Connecting pipe (0.39m) (Flare ϕ 6.35)".
- Wireless remote controller:** Shows the dimensions of the remote controller: 172 mm (height) and 57 mm (width).
- Remote controller holder:** Shows the dimensions of the holder: 149 mm (height) and 63 mm (width).
- Installation plate outline:** Shows the dimensions of the installation plate: 786 mm (width), 320 mm (height), and 23 mm (depth). It includes labels for "Hanger", "Center line", "Outline of indoor unit", and "Installation plate outline".

RAS-10N3AV2-A, RAS-13N3AV2-A RAS-16N3AV2-A, RAS-18N3AV2-A

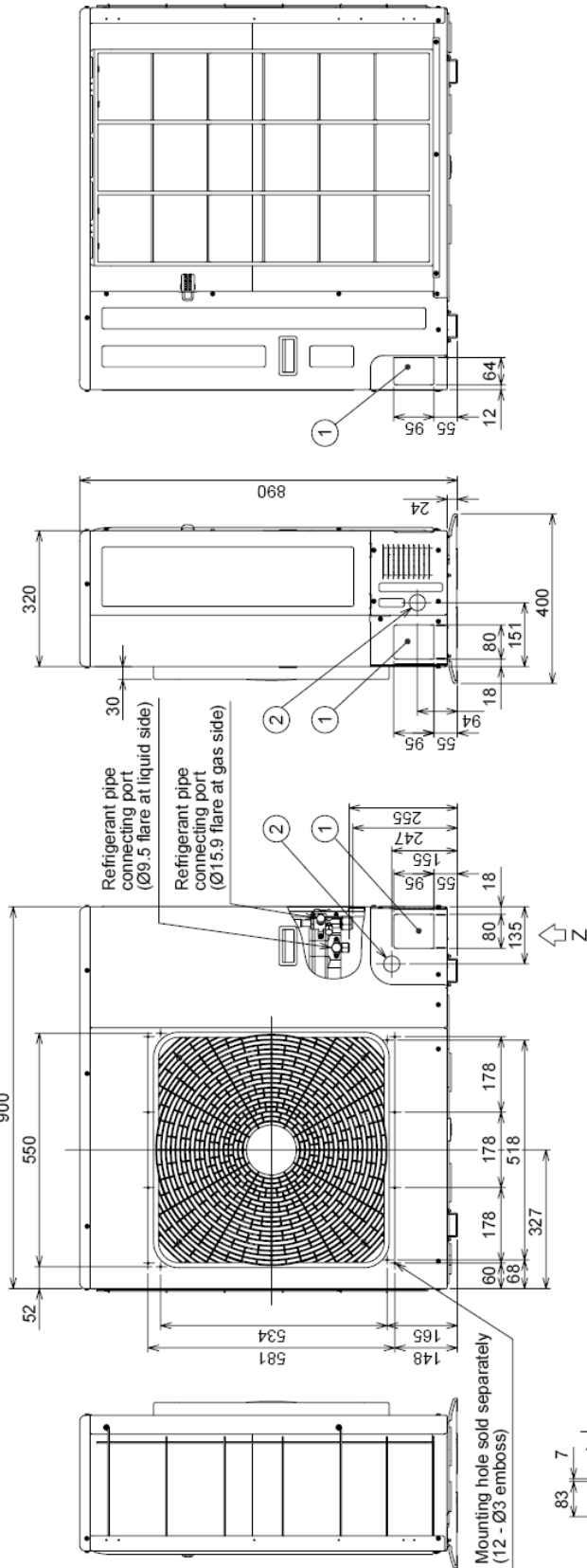
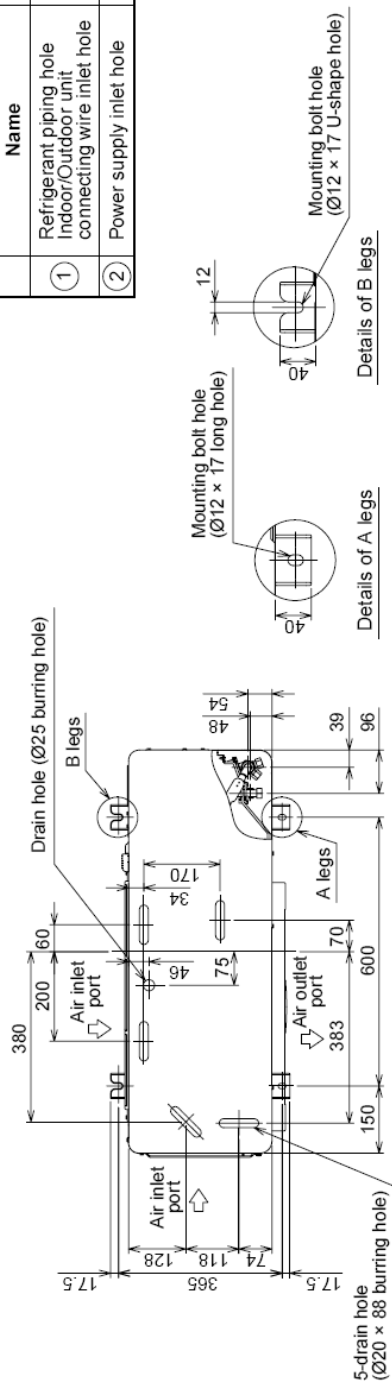


RAS-22N3AV2-A



RAS-24N3AV2-A

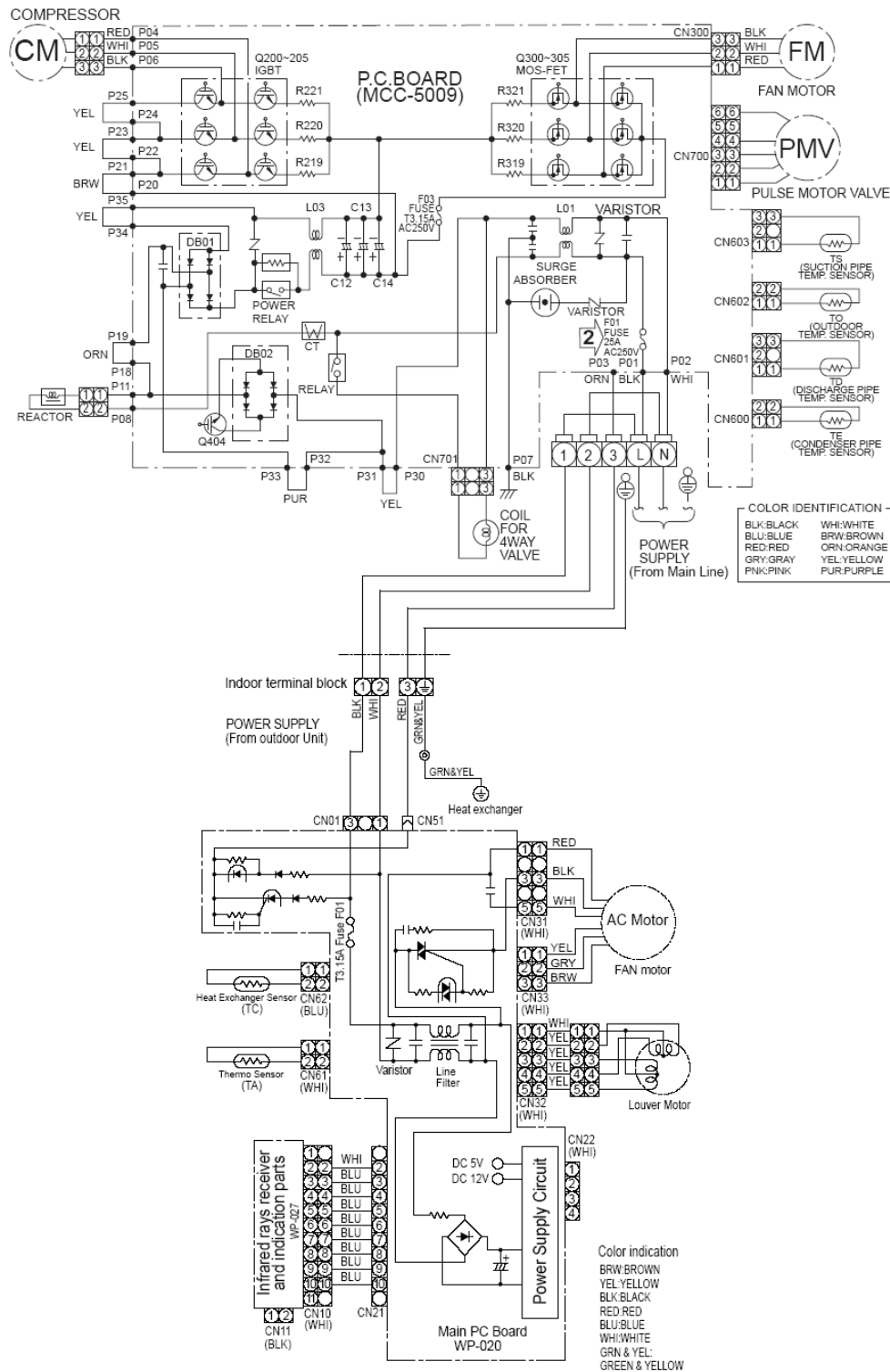
	Name	Note
①	Refrigerant piping hole Indoor/Outdoor unit connecting wire inlet hole	—
②	Power supply inlet hole	Ø38 Knockout hole



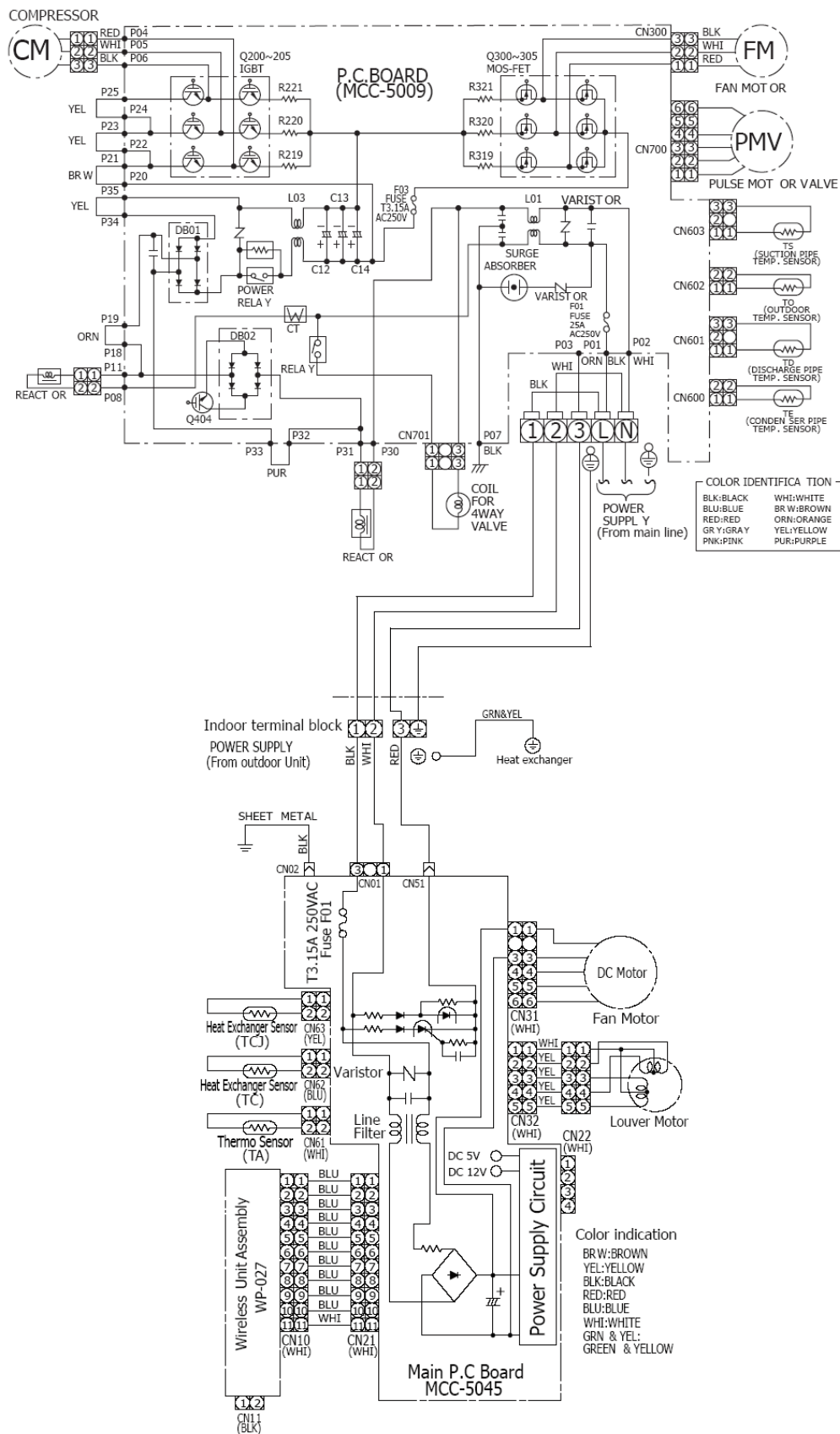
Unit : mm

Wiring Diagram

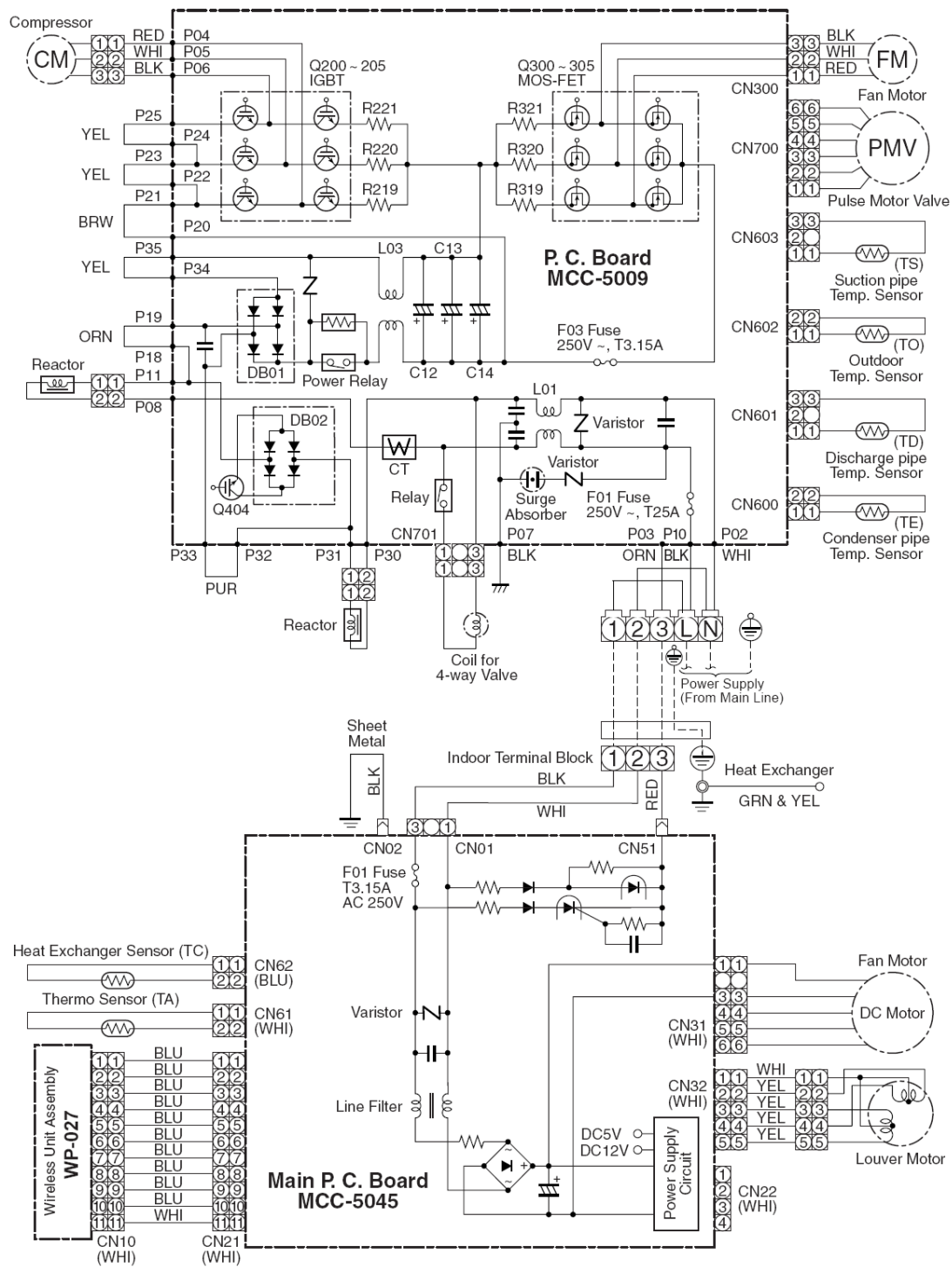
RAS-10N3KV2-A / RAS-10N3AV2-A
RAS-13N3KV2-A / RAS-13N3AV2-A



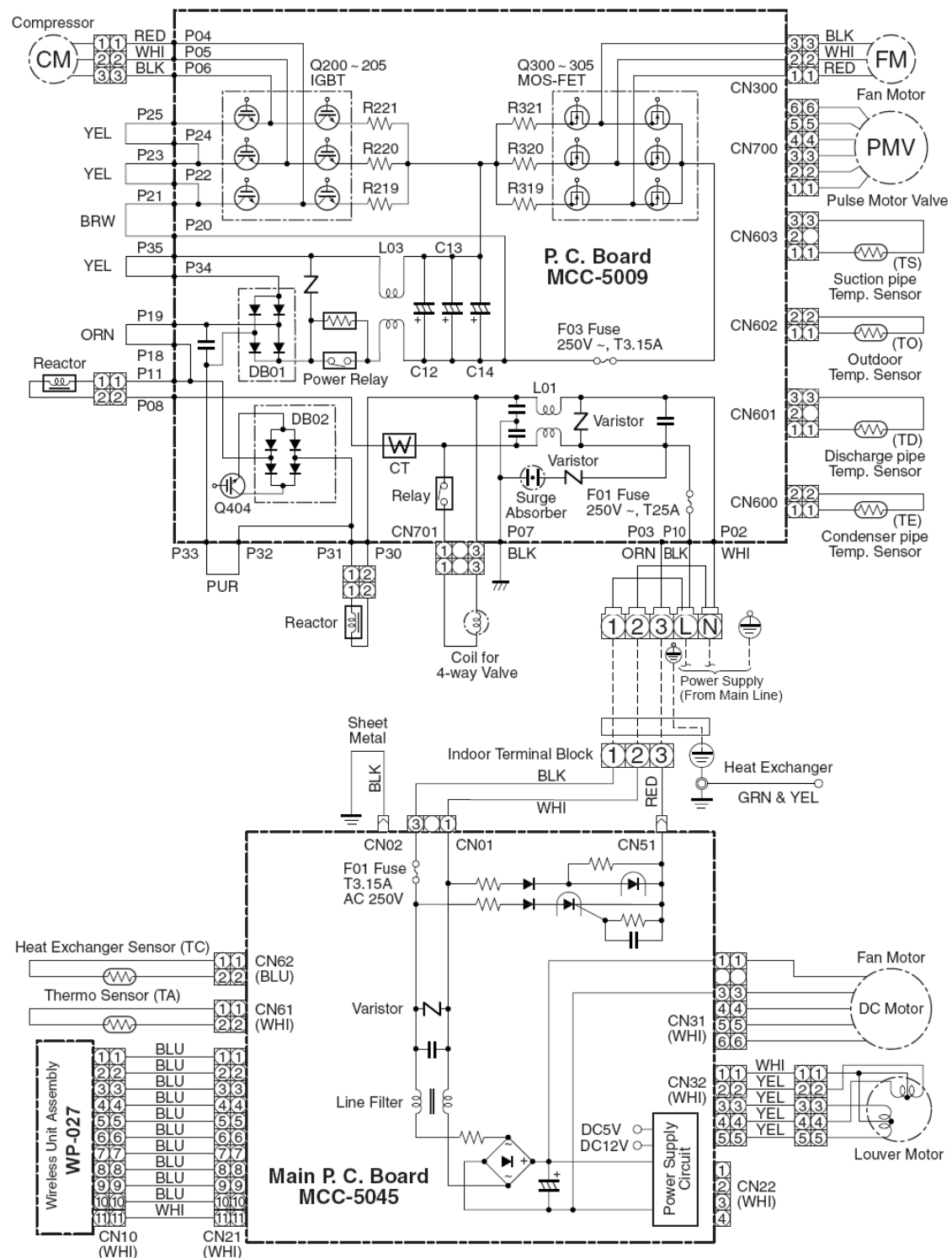
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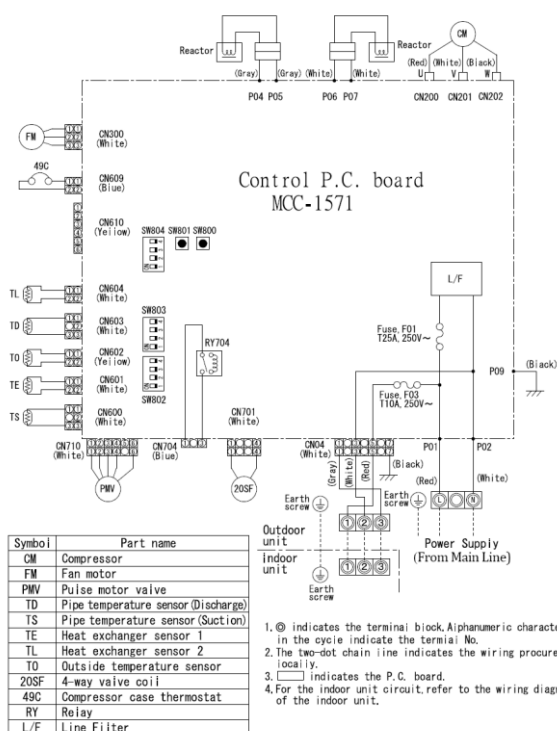


RAS-18N3KV2-A / RAS-18N3AV2-A



RAS-22N3KV2-A / RAS-22N3AV2-A





Sensible Capacity Table

Trend of Total & Sensible Heat Capacity / Indoor Air & Outdoor Air Temperature.

Product models: RAS-10N3KV2-A / RAS-10N3AV2-A

Specification of product at standard condition.

Standard Condition

Indoor	27°CDB / 19°CWB
Outdoor	35°CDB / 24°CWB

Total Cooling Capacity (TC)	2.50 kW
Sensible Heat Capacity (SHC)	2.00 kW

Outdoor air temp. CDB	Indoor air temp.													
	14.0°CWB 20.0°CDB		16.0°CWB 23.0°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
21.0	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
23.0	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
25.0	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
27.0	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
29.0	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
31.0	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
33.0	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
35.0	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
37.0	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
39.0	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
41.0	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
43.0	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
45.0	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
46.0	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

Trend of Total & Sensible Heat Capacity / Indoor Air & Outdoor Air Temperature.

Product models: RAS-13N3KV2-A / RAS-13N3AV2-A

Specification of product at standard condition.

Standard Condition

Indoor	27°CDB / 19°CWB
Outdoor	35°CDB / 24°CWB

Total Cooling Capacity (TC)	3.40 kW
Sensible Heat Capacity (SHC)	2.70 kW

Outdoor air temp. CDB	Indoor air temp.													
	14.0°CWB 20.0°CDB		16.0°CWB 23.0°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
21.0	3.07	2.62	3.39	2.79	3.63	2.97	3.73	2.96	3.84	2.96	4.07	2.93	4.25	2.88
23.0	3.04	2.60	3.35	2.77	3.59	2.94	3.70	2.93	3.80	2.93	4.03	2.90	4.21	2.85
25.0	3.00	2.57	3.32	2.74	3.55	2.91	3.66	2.90	3.76	2.90	3.98	2.87	4.16	2.82
27.0	2.97	2.54	3.28	2.70	3.51	2.87	3.61	2.87	3.71	2.87	3.93	2.84	4.11	2.78
29.0	2.93	2.50	3.23	2.67	3.46	2.84	3.56	2.83	3.67	2.83	3.88	2.80	4.06	2.74
31.0	2.88	2.47	3.19	2.63	3.41	2.79	3.51	2.79	3.61	2.79	3.83	2.76	4.00	2.71
33.0	2.84	2.43	3.14	2.59	3.36	2.75	3.46	2.75	3.56	2.74	3.77	2.72	3.94	2.66
35.0	2.79	2.39	3.08	2.54	3.30	2.71	3.40	2.70	3.50	2.70	3.70	2.67	3.87	2.62
37.0	2.74	2.34	3.03	2.50	3.24	2.65	3.34	2.65	3.43	2.65	3.63	2.62	3.80	2.57
39.0	2.68	2.29	2.96	2.45	3.17	2.60	3.27	2.59	3.36	2.59	3.56	2.57	3.72	2.52
41.0	2.64	2.25	2.91	2.40	3.12	2.55	3.21	2.55	3.30	2.55	3.50	2.52	3.66	2.47
43.0	2.58	2.21	2.85	2.35	3.05	2.50	3.14	2.49	3.23	2.49	3.42	2.47	3.58	2.42
45.0	2.52	2.15	2.78	2.29	2.98	2.44	3.06	2.43	3.15	2.43	3.34	2.41	3.49	2.36
46.0	2.49	2.13	2.75	2.27	2.95	2.41	3.03	2.41	3.12	2.41	3.30	2.38	3.46	2.34

Trend of Total & Sensible Heat Capacity / Indoor Air & Outdoor Air Temperature.

Product models: RAS-16N3KV2-A / RAS-16N3AV2-A

Specification of product at standard condition.

Standard Condition

Indoor	27°CDB / 19°CWB
Outdoor	35°CDB / 24°CWB

Total Cooling Capacity (TC)	4.40 kW
Sensible Heat Capacity (SHC)	3.30 kW

Outdoor air temp. CDB	Indoor air temp.													
	14.0°CWB 20.0°CDB		16.0°CWB 23.0°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
21.0	3.97	3.22	4.38	3.42	4.69	3.64	4.83	3.62	4.97	3.61	5.26	3.56	5.50	3.48
23.0	3.93	3.19	4.34	3.39	4.65	3.60	4.78	3.59	4.92	3.58	5.21	3.53	5.45	3.44
25.0	3.89	3.15	4.29	3.35	4.59	3.56	4.73	3.55	4.87	3.54	5.15	3.49	5.39	3.41
27.0	3.84	3.11	4.24	3.31	4.54	3.52	4.67	3.50	4.81	3.50	5.09	3.45	5.32	3.36
29.0	3.79	3.07	4.18	3.27	4.48	3.47	4.61	3.46	4.74	3.45	5.02	3.40	5.25	3.32
31.0	3.73	3.03	4.12	3.22	4.42	3.42	4.55	3.41	4.68	3.40	4.95	3.35	5.18	3.27
33.0	3.68	2.98	4.06	3.17	4.35	3.37	4.47	3.36	4.60	3.35	4.87	3.30	5.10	3.22
35.0	3.61	2.93	3.99	3.12	4.27	3.31	4.40	3.30	4.53	3.29	4.79	3.25	5.01	3.17
37.0	3.55	2.87	3.92	3.06	4.19	3.25	4.32	3.24	4.44	3.23	4.70	3.18	4.92	3.11
39.0	3.47	2.82	3.84	3.00	4.11	3.18	4.23	3.17	4.35	3.16	4.61	3.12	4.82	3.04
41.0	3.41	2.77	3.77	2.94	4.03	3.13	4.15	3.12	4.27	3.11	4.52	3.06	4.73	2.99
43.0	3.34	2.71	3.69	2.88	3.95	3.06	4.07	3.05	4.18	3.04	4.43	3.00	4.63	2.93
45.0	3.26	2.64	3.60	2.81	3.85	2.98	3.96	2.97	4.08	2.97	4.32	2.92	4.52	2.85
46.0	3.22	2.61	3.56	2.78	3.81	2.95	3.92	2.94	4.04	2.94	4.28	2.90	4.47	2.83

Trend of Total & Sensible Heat Capacity / Indoor Air & Outdoor Air Temperature.

Product models: RAS-18N3KV2-A / RAS-18N3AV2-A

Specification of product at standard condition.

Standard Condition

Indoor	27°CDB / 19°CWB
Outdoor	35°CDB / 24°CWB

Total Cooling Capacity (TC)	5.00 kW
Sensible Heat Capacity (SHC)	3.60 kW

Outdoor air temp. CDB	Indoor air temp.													
	14.0°CWB 20.0°CDB		16.0°CWB 23.0°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
21.0	4.51	3.52	4.98	3.74	5.33	3.97	5.49	3.95	5.65	3.94	5.98	3.87	6.25	3.76
23.0	4.46	3.49	4.93	3.70	5.28	3.93	5.44	3.91	5.59	3.90	5.92	3.83	6.19	3.73
25.0	4.42	3.45	4.88	3.66	5.22	3.89	5.38	3.87	5.53	3.86	5.85	3.79	6.12	3.69
27.0	4.36	3.41	4.82	3.62	5.16	3.84	5.31	3.82	5.46	3.81	5.78	3.74	6.05	3.64
29.0	4.30	3.36	4.75	3.57	5.09	3.79	5.24	3.77	5.39	3.76	5.71	3.69	5.97	3.59
31.0	4.24	3.31	4.69	3.52	5.02	3.74	5.17	3.72	5.31	3.70	5.63	3.64	5.88	3.54
33.0	4.18	3.26	4.61	3.46	4.94	3.68	5.09	3.66	5.23	3.65	5.54	3.58	5.79	3.49
35.0	4.11	3.21	4.54	3.41	4.86	3.62	5.00	3.60	5.14	3.59	5.45	3.52	5.70	3.43
37.0	4.03	3.15	4.45	3.34	4.76	3.55	4.91	3.53	5.05	3.52	5.34	3.46	5.59	3.36
39.0	3.95	3.08	4.36	3.27	4.67	3.48	4.81	3.46	4.94	3.45	5.23	3.39	5.47	3.30
41.0	3.88	3.03	4.28	3.22	4.59	3.42	4.72	3.40	4.85	3.39	5.14	3.33	5.38	3.24
43.0	3.79	2.96	4.19	3.15	4.49	3.34	4.62	3.33	4.75	3.31	5.03	3.26	5.26	3.17
45.0	3.70	2.89	4.09	3.07	4.38	3.26	4.51	3.24	4.63	3.23	4.91	3.18	5.13	3.09
46.0	3.66	2.86	4.05	3.04	4.33	3.23	4.46	3.21	4.59	3.20	4.86	3.14	5.08	3.06

Trend of Total & Sensible Heat Capacity / Indoor Air & Outdoor Air Temperature.

Product models: RAS-22N3KV2-A / RAS-22N3AV2-A

Specification of product at standard condition.

Standard Condition

Indoor	27°CDB / 19°CWB
Outdoor	35°CDB / 24°CWB

Total Cooling Capacity (TC)	6.00 kW
Sensible Heat Capacity (SHC)	4.30 kW

Outdoor air temp. CDB	Indoor air temp.													
	14.0°CWB 20.0°CDB		16.0°CWB 23.0°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
21.0	5.41	4.21	5.98	4.47	6.40	4.75	6.59	4.72	6.78	4.70	7.18	4.62	7.51	4.49
23.0	5.36	4.17	5.92	4.42	6.34	4.70	6.52	4.67	6.71	4.66	7.10	4.57	7.43	4.45
25.0	5.30	4.12	5.85	4.37	6.27	4.65	6.45	4.62	6.63	4.60	7.03	4.52	7.35	4.40
27.0	5.23	4.07	5.78	4.32	6.19	4.59	6.37	4.57	6.55	4.55	6.94	4.47	7.26	4.35
29.0	5.16	4.02	5.70	4.26	6.11	4.53	6.29	4.51	6.47	4.49	6.85	4.41	7.16	4.29
31.0	5.09	3.96	5.62	4.20	6.02	4.47	6.20	4.44	6.38	4.42	6.75	4.35	7.06	4.23
33.0	5.01	3.90	5.54	4.14	5.93	4.40	6.10	4.37	6.28	4.36	6.65	4.28	6.95	4.16
35.0	4.93	3.83	5.44	4.07	5.83	4.32	6.00	4.30	6.17	4.28	6.54	4.21	6.84	4.09
37.0	4.83	3.76	5.34	3.99	5.72	4.24	5.89	4.22	6.05	4.20	6.41	4.13	6.71	4.01
39.0	4.74	3.68	5.23	3.91	5.60	4.15	5.77	4.13	5.93	4.12	6.28	4.04	6.57	3.93
41.0	4.65	3.62	5.14	3.84	5.50	4.08	5.66	4.06	5.83	4.04	6.17	3.97	6.45	3.86
43.0	4.55	3.54	5.03	3.76	5.39	3.99	5.54	3.97	5.70	3.96	6.04	3.89	6.32	3.78
45.0	4.44	3.45	4.90	3.67	5.25	3.89	5.41	3.87	5.56	3.86	5.89	3.79	6.16	3.69
46.0	4.40	3.42	4.85	3.63	5.20	3.86	5.35	3.84	5.51	3.82	5.83	3.75	6.10	3.65

Trend of Total & Sensible Heat Capacity / Indoor Air & Outdoor Air Temperature.

Product models: RAS-24N3KV2-A / RAS-24N3AV2-A

Specification of product at standard condition.

Standard Condition

Indoor	27°CDB / 19°CWB
Outdoor	35°CDB / 24°CWB

Total Cooling Capacity (TC)	7.10 kW
Sensible Heat Capacity (SHC)	5.42 kW

Outdoor air temp. CDB	Indoor air temp.													
	14.0°CWB 20.0°CDB		16.0°CWB 23.0°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
21.0	6.88	5.67	7.60	6.04	8.14	6.41	8.38	6.39	8.62	6.38	9.12	6.30	9.54	6.16
23.0	6.73	5.55	7.43	5.90	7.96	6.27	8.19	6.25	8.43	6.24	8.93	6.16	9.33	6.02
25.0	6.58	5.42	7.27	5.77	7.78	6.14	8.01	6.12	8.24	6.10	8.73	6.03	9.13	5.89
27.0	6.43	5.30	7.10	5.64	7.61	6.00	7.83	5.98	8.05	5.96	8.53	5.89	8.92	5.76
29.0	6.28	5.18	6.94	5.51	7.43	5.86	7.65	5.84	7.87	5.83	8.33	5.75	8.71	5.62
31.0	6.13	5.05	6.77	5.38	7.25	5.72	7.46	5.70	7.68	5.69	8.13	5.62	8.50	5.49
33.0	5.98	4.93	6.61	5.25	7.07	5.58	7.28	5.56	7.49	5.55	7.93	5.48	8.30	5.35
35.0	5.83	4.81	6.44	5.12	6.90	5.44	7.10	5.42	7.30	5.41	7.73	5.34	8.09	5.22
37.0	5.68	4.68	6.28	4.98	6.72	5.30	6.92	5.28	7.12	5.27	7.54	5.20	7.88	5.09
39.0	5.53	4.56	6.11	4.85	6.54	5.16	6.74	5.14	6.93	5.13	7.34	5.07	7.67	4.95
41.0	5.38	4.44	5.94	4.72	6.37	5.02	6.55	5.00	6.74	4.99	7.14	4.93	7.47	4.82
43.0	5.23	4.31	5.78	4.59	6.19	4.88	6.37	4.86	6.55	4.85	6.94	4.79	7.26	4.68
45.0	4.95	4.08	5.46	4.34	5.85	4.61	6.02	4.60	6.20	4.59	6.56	4.53	6.86	4.43
46.0	4.85	4.00	5.35	4.25	5.73	4.52	5.90	4.51	6.07	4.50	6.43	4.44	6.73	4.34

Part Load Performance

Single Split Type

Indoor: RAS-10N3KV2-A

Outdoor: RAS-10N3AV2-A

	Cooling		Heating	
	Q	W	Q	W
Minimum	1100	250	900	170
Rating	2500	598	3200	750
Maximum	3100	820	4800	1400

Cooling

OD temp.		Load (%)									
		100	90	80	70	60	50	40	30	20	10
46	Q	2147	1932	1718	1503	1288	1074	945	945	945	945
	W	692	620	548	476	405	333	289	289	289	289
43	Q	2243	2019	1795	1570	1346	1122	987	987	987	987
	W	667	597	528	459	389	320	279	279	279	279
40	Q	2340	2106	1872	1638	1404	1170	1029	1029	1029	1029
	W	641	574	508	441	374	308	268	268	268	268
35	Q	2500	2250	2000	1750	1500	1250	1100	1100	1100	1100
	W	598	536	474	412	349	287	250	250	250	250
30	Q	2660	2394	2128	1862	1596	1330	1171	1171	1171	1171
	W	555	497	440	382	324	267	232	232	232	232
25	Q	2821	2539	2257	1975	1693	1410	1241	1241	1241	1241
	W	512	459	406	353	299	246	214	214	214	214
20	Q	2981	2683	2385	2087	1789	1491	1312	1312	1312	1312
	W	469	421	372	323	274	226	196	196	196	196

Heating

OD temp.		Load (%)									
		100	90	80	70	60	50	40	30	20	10
20	Q	4272	3846	3419	2991	2564	2137	1709	1282	1202	1202
	W	901	804	707	610	513	416	319	222	204	204
15	Q	3861	3475	3089	2702	2316	1930	1544	1158	1086	1086
	W	843	752	662	571	480	389	299	208	191	191
10	Q	3448	3103	2758	2413	2069	1724	1379	1034	970	970
	W	785	700	616	532	447	363	278	194	178	178
7	Q	3200	2880	2560	2240	1920	1600	1280	960	900	900
	W	750	669	589	508	427	347	266	185	170	170
5	Q	2433	2190	1946	1703	1460	1216	973	730	684	684
	W	690	616	542	468	393	319	245	170	157	157
2	Q	2319	2087	1855	1623	1391	1159	928	696	652	652
	W	664	592	521	449	378	307	235	164	150	150
0	Q	2243	2019	1794	1570	1346	1121	897	673	631	631
	W	646	576	507	437	368	298	229	159	146	146
-5	Q	2053	1848	1642	1437	1232	1026	821	616	577	577
	W	601	537	472	407	342	278	213	148	136	136
-7	Q	1977	1779	1582	1384	1186	988	791	593	556	556
	W	583	521	458	395	332	270	207	144	132	132
-10	Q	1796	1617	1437	1257	1078	898	718	539	505	505
	W	553	493	434	374	315	255	196	136	125	125
-15	Q	1383	1245	1107	968	830	692	553	415	389	389
	W	495	441	388	335	282	228	175	122	112	112

Part Load Performance

Single Split Type

Indoor: RAS-13N3KV2-A

Outdoor: RAS-13N3AV2-A

	Cooling		Heating	
	Q	W	Q	W
Minimum	2000	490	1800	380
Rating	3400	920	4200	1120
Maximum	4100	1300	5600	1690

Cooling

OD temp.		Load (%)									
		100	90	80	70	60	50	40	30	20	10
46	Q	2919	2627	2335	2043	1751	1717	1717	1717	1717	1717
	W	1058	938	818	698	578	564	564	564	564	564
43	Q	3046	2741	2437	2132	1827	1792	1792	1792	1792	1792
	W	1027	910	794	677	561	547	547	547	547	547
40	Q	3188	2869	2551	2232	1913	1875	1875	1875	1875	1875
	W	982	870	759	647	536	523	523	523	523	523
35	Q	3400	3060	2720	2380	2040	2000	2000	2000	2000	2000
	W	920	816	711	607	502	490	490	490	490	490
30	Q	3613	3252	2890	2529	2168	2125	2125	2125	2125	2125
	W	858	761	663	566	469	457	457	457	457	457
25	Q	3839	3455	3071	2607	2303	2258	2258	2258	2258	2258
	W	782	693	604	516	427	417	417	417	417	417
20	Q	4031	3628	3225	2821	2418	2371	2371	2371	2371	2371
	W	722	640	558	476	394	385	385	385	385	385

Heating

OD temp.		Load (%)									
		100	90	80	70	60	50	40	30	20	10
20	Q	5607	5046	4486	3925	3364	2804	2403	2403	2403	2403
	W	1345	1190	1034	879	723	567	456	456	456	456
15	Q	5065	4559	4052	3546	3039	2533	2171	2171	2171	2171
	W	1259	1113	968	822	677	531	427	427	427	427
10	Q	4528	4075	3622	3169	2717	2264	1940	1940	1940	1940
	W	1165	1030	895	761	626	491	395	395	395	395
7	Q	4200	3780	3360	2940	2520	2100	1800	1800	1800	1800
	W	1120	991	861	732	602	473	380	380	380	380
5	Q	3189	2870	2551	2232	1913	1595	1367	1367	1367	1367
	W	1030	911	792	673	554	435	350	350	350	350
2	Q	3045	2741	2436	2132	1827	1523	1305	1305	1305	1305
	W	986	872	758	644	530	416	334	334	334	334
0	Q	2940	2646	2352	2058	1764	1470	1260	1260	1260	1260
	W	970	858	746	633	521	409	329	329	329	329
-5	Q	2690	2421	2152	1883	1614	1345	1153	1153	1153	1153
	W	896	792	689	585	482	378	304	304	304	304
-7	Q	2598	2338	2078	1819	1559	1299	1113	1113	1113	1113
	W	866	766	666	565	465	365	294	294	294	294
-10	Q	2363	2126	1890	1654	1418	1181	1013	1013	1013	1013
	W	821	726	631	536	441	346	279	279	279	279
-15	Q	1811	1630	1449	1268	1087	906	776	776	776	776
	W	731	647	562	478	393	309	248	248	248	248
-20	Q	1273	1145	1018	891	764	636	545	545	545	545
	W	652	576	501	426	350	275	221	221	221	221

Part Load Performance

Single Split Type

Indoor: RAS-16N3KV2-A

Outdoor: RAS-16N3AV2-A

	Cooling		Heating	
	Q	W	Q	W
Minimum	800	150	900	150
Rating	4400	1340	5300	1500
Maximum	5000	1720	6300	1980

Cooling

OD temp.		Load (%)									
		100	90	80	70	60	50	40	30	20	10
46	Q	3777	3400	3022	2644	2266	1889	1511	1133	755	687
	W	1541	1374	1206	1039	872	705	537	370	203	173
43	Q	3942	3547	3153	2759	2365	1971	1577	1182	788	717
	W	1495	1333	1171	1008	846	684	522	359	197	167
40	Q	4126	3713	3301	2888	2476	2063	1650	1238	825	750
	W	1430	1275	1119	964	809	654	499	343	188	160
35	Q	4400	3960	3520	3080	2640	2200	1760	1320	880	800
	W	1340	1195	1049	904	758	613	467	322	176	150
30	Q	4675	4208	3740	3273	2805	2338	1870	1403	935	850
	W	1250	1115	979	843	707	572	436	300	165	140
25	Q	4968	4471	3974	3477	2981	2484	1987	1490	994	903
	W	1139	1015	892	768	644	521	397	274	150	128
20	Q	5216	4695	4173	3651	3130	2608	2086	1565	1043	948
	W	1052	938	824	709	595	481	367	253	139	118

Heating

OD temp.		Load (%)									
		100	90	80	70	60	50	40	30	20	10
20	Q	7076	6368	5660	4953	4245	3538	2830	2123	1415	1202
	W	1802	1606	1411	1216	1020	825	630	434	239	180
15	Q	6392	5753	5113	4474	3835	3196	2557	1918	1278	1085
	W	1686	1503	1320	1138	955	772	589	407	224	169
10	Q	5713	5142	4571	3999	3428	2857	2285	1714	1143	970
	W	1560	1391	1222	1053	884	714	545	376	207	156
7	Q	5300	4770	4240	3710	3180	2650	2120	1590	1060	900
	W	1500	1337	1175	1012	850	687	524	362	199	150
5	Q	4024	3622	3219	2817	2415	2012	1610	1207	805	683
	W	1380	1230	1081	931	782	632	482	333	183	138
2	Q	3843	3458	3074	2690	2306	1921	1537	1153	769	653
	W	1320	1177	1034	891	748	605	461	318	175	132
0	Q	3710	3339	2968	2597	2226	1855	1484	1113	742	630
	W	1299	1158	1017	877	736	595	454	313	172	130
-5	Q	3395	3055	2716	2376	2037	1697	1358	1018	679	576
	W	1200	1070	940	810	680	550	419	289	159	120
-7	Q	3279	2951	2623	2295	1967	1639	1311	984	656	557
	W	1160	1034	908	782	657	531	405	280	154	116
-10	Q	2981	2683	2385	2087	1789	1491	1193	894	596	506
	W	1100	980	861	742	623	504	384	265	146	110
-15	Q	2286	2057	1829	1600	1372	1143	914	686	457	388
	W	980	873	767	661	555	449	342	236	130	98
-20	Q	1606	1445	1285	1124	964	803	642	482	321	273
	W	873	778	684	589	494	400	305	211	116	87

Part Load Performance

Single Split Type

Indoor: RAS-18N3KV2-A

Outdoor: RAS-18N3AV2-A

	Cooling		Heating	
	Q	W	Q	W
Minimum	1100	180	800	140
Rating	5000	1420	5800	1560
Maximum	6000	2000	6300	1700

Cooling

OD temp.		Load (%)									
		100	90	80	70	60	50	40	30	20	10
46	Q	4293	3863	3434	3005	2576	2146	1717	1288	944	944
	W	1633	1450	1267	1085	902	719	536	353	207	207
43	Q	4479	4031	3583	3135	2687	2240	1792	1344	985	985
	W	1585	1407	1230	1052	875	698	520	343	201	201
40	Q	4689	4220	3751	3282	2813	2344	1875	1407	1031	1031
	W	1515	1346	1176	1006	837	667	497	328	192	192
35	Q	5000	4500	4000	3500	3000	2500	2000	1500	1100	1100
	W	1420	1261	1102	943	784	625	466	307	180	180
30	Q	5313	4782	4250	3719	3188	2657	2125	1594	1169	1169
	W	1325	1177	1028	880	732	583	435	287	168	168
25	Q	5645	5081	4516	3952	3387	2823	2258	1694	1242	1242
	W	1207	1072	937	802	666	531	396	261	153	153
20	Q	5928	5335	4742	4149	3557	2964	2371	1778	1304	1304
	W	1115	990	865	740	616	491	366	241	141	141

Heating

OD temp.		Load (%)									
		100	90	80	70	60	50	40	30	20	10
20	Q	7743	6969	6194	5420	4646	3872	3097	2323	1549	1068
	W	1874	1676	1478	1280	1082	884	687	489	291	168
15	Q	6995	6295	5596	4896	4197	3497	2798	2098	1399	965
	W	1753	1568	1383	1198	1013	828	643	457	272	157
10	Q	6252	5627	5002	4377	3751	3126	2501	1876	1250	862
	W	1622	1451	1280	1108	937	766	595	423	252	146
7	Q	5800	5220	4640	4060	3480	2900	2320	1740	1160	800
	W	1560	1395	1231	1066	901	736	572	407	242	140
5	Q	4404	3964	3523	3083	2642	2202	1762	1321	881	607
	W	1435	1284	1132	981	829	677	526	374	223	129
2	Q	4205	3785	3364	2944	2523	2103	1682	1262	841	580
	W	1373	1228	1083	938	793	648	503	358	213	123
0	Q	4060	3654	3248	2842	2436	2030	1624	1218	812	560
	W	1351	1208	1066	923	780	638	495	352	210	121
-5	Q	3715	3343	2972	2600	2229	1857	1486	1114	743	512
	W	1248	1116	984	853	721	589	457	326	194	112
-7	Q	3588	3229	2870	2512	2153	1794	1435	1076	718	495
	W	1206	1079	951	824	697	569	442	315	187	108
-10	Q	3263	2936	2610	2284	1958	1631	1305	979	653	450
	W	1143	1023	902	781	661	540	419	298	178	103
-15	Q	2502	2251	2001	1751	1501	1251	1001	750	500	345
	W	1019	911	804	696	588	481	373	266	158	91
-20	Q	1757	1582	1406	1230	1054	879	703	527	351	242
	W	908	812	716	620	524	429	333	237	141	81

Part Load Performance

Single Split Type

Indoor: RAS-22N3KV2-A

Outdoor: RAS-22N3AV2-A

	Cooling		Heating	
	Q	W	Q	W
Minimum	1200	200	1000	180
Rating	6000	1830	7000	1980
Maximum	6700	1650	7500	2210

Cooling

OD temp.		Load (%)									
		100	90	80	70	60	50	40	30	20	10
46	Q	5151	4636	4121	3606	3091	2576	2060	1545	1030	1030
	W	2105	1870	1636	1402	1167	933	699	464	230	230
43	Q	5375	4837	4300	3762	3225	2687	2150	1612	1075	1075
	W	2042	1815	1588	1360	1133	905	678	451	223	223
40	Q	5626	5064	4501	3938	3376	2813	2250	1688	1125	1125
	W	1953	1735	1518	1300	1083	866	648	431	213	213
35	Q	6000	5400	4800	4200	3600	3000	2400	1800	1200	1200
	W	1830	1626	1423	1219	1015	811	608	404	200	200
30	Q	6376	5738	5100	4463	3825	3188	2550	1913	1275	1275
	W	1707	1517	1327	1137	947	757	567	377	187	187
25	Q	6774	6097	5419	4742	4065	3387	2710	2032	1355	1355
	W	1556	1382	1209	1036	863	690	516	343	170	170
20	Q	7113	6402	5690	4979	4268	3557	2845	2134	1423	1423
	W	1437	1277	1117	957	797	637	477	317	157	157

Heating

OD temp.		Load (%)									
		100	90	80	70	60	50	40	30	20	10
20	Q	9345	8411	7476	6542	5607	4673	3738	2804	1869	1335
	W	2378	2126	1874	1621	1369	1117	865	613	360	216
15	Q	8442	7598	6754	5909	5065	4221	3377	2533	1688	1206
	W	2226	1989	1753	1517	1281	1045	809	573	337	202
10	Q	7546	6791	6037	5282	4528	3773	3018	2264	1509	1078
	W	2059	1841	1622	1404	1186	967	749	530	312	187
7	Q	7000	6300	5600	4900	4200	3500	2800	2100	1400	1000
	W	1980	1770	1560	1350	1140	930	720	510	300	180
5	Q	5315	4784	4252	3721	3189	2658	2126	1595	1063	759
	W	1822	1628	1435	1242	1049	856	662	469	276	166
2	Q	5075	4568	4060	3553	3045	2538	2030	1523	1015	725
	W	1742	1558	1373	1188	1003	818	634	449	264	158
0	Q	4900	4410	3920	3430	2940	2450	1960	1470	980	700
	W	1715	1533	1351	1169	987	805	624	442	260	156
-5	Q	4484	4035	3587	3138	2690	2242	1793	1345	897	641
	W	1584	1416	1248	1080	912	744	576	408	240	144
-7	Q	4330	3897	3464	3031	2598	2165	1732	1299	866	619
	W	1531	1368	1206	1044	881	719	557	394	232	139
-10	Q	3938	3544	3150	2756	2363	1969	1575	1181	788	563
	W	1451	1297	1143	990	836	682	528	374	220	132
-15	Q	3019	2717	2415	2113	1811	1510	1208	906	604	431
	W	1293	1156	1019	882	744	607	470	333	196	118
-20	Q	2121	1909	1697	1485	1273	1061	848	636	424	303
	W	1152	1030	908	786	663	541	419	297	175	105

Part Load Performance

Single Split Type

Indoor: RAS-24N3KV2-A

Outdoor: RAS-24N3AV2-A

	Cooling		Heating	
	Q	W	Q	W
Minimum	1500	300	1600	300
Rating	7100	2250	8100	2450
Maximum	7700	2900	9000	3300

Cooling

OD temp.		Load (%)									
		100	90	80	70	60	50	40	30	20	10
46	Q	5903	5313	4723	4132	3542	2952	2361	1771	1247	1247
	W	2394	2131	1868	1605	1342	1079	816	553	319	319
43	Q	6371	5734	5097	4460	3823	3186	2548	1911	1346	1346
	W	2508	2232	1957	1681	1406	1130	855	579	334	334
40	Q	6644	5980	5316	4651	3987	3322	2658	1993	1404	1404
	W	2411	2146	1881	1616	1351	1086	822	557	322	322
35	Q	7100	6390	5680	4970	4260	3550	2840	2130	1500	1500
	W	2250	2003	1756	1508	1261	1014	767	519	300	300
30	Q	7556	6800	6044	5289	4533	3778	3022	2267	1596	1596
	W	2089	1859	1630	1400	1171	941	712	482	279	279
25	Q	8011	7210	6409	5608	4807	4006	3204	2403	1693	1693
	W	1928	1716	1504	1292	1080	869	657	445	257	257
20	Q	8467	7620	6773	5927	5080	4233	3387	2540	1789	1789
	W	1766	1572	1378	1184	990	796	602	408	236	236

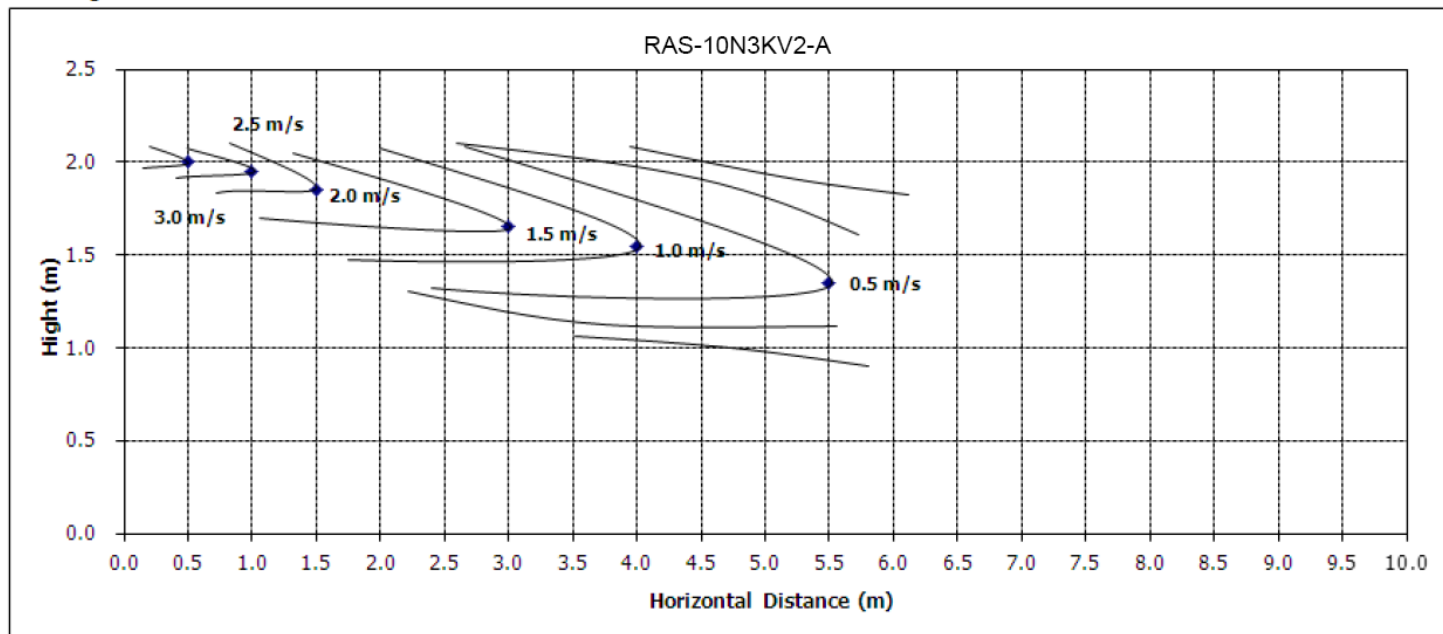
Heating

OD temp.		Load (%)									
		100	90	80	70	60	50	40	30	20	10
20	Q	10817	9736	8654	7572	6490	5409	4327	3245	2163	2137
	W	2943	2621	2299	1978	1656	1334	1012	690	368	360
15	Q	9772	8795	7818	6841	5863	4886	3909	2932	1954	1930
	W	2753	2452	2151	1850	1549	1248	947	646	345	337
10	Q	8727	7854	6982	6109	5236	4364	3491	2618	1745	1724
	W	2564	2283	2003	1723	1442	1162	882	601	321	314
7	Q	8100	7290	6480	5670	4860	4050	3240	2430	1620	1600
	W	2450	2182	1914	1646	1378	1110	842	575	307	300
5	Q	6158	5542	4926	4311	3695	3079	2463	1847	1232	1216
	W	2256	2009	1762	1516	1269	1022	776	529	282	276
2	Q	5870	5283	4695	4109	3522	2935	2348	1761	1174	1159
	W	2168	1931	1694	1457	1220	983	746	508	271	265
0	Q	5677	5110	4542	3974	3406	2839	2271	1703	1135	1121
	W	2110	1879	1648	1418	1187	956	725	495	264	258
-5	Q	5197	4677	4157	3638	3118	2598	2079	1559	1039	1026
	W	1964	1749	1534	1320	1105	890	675	461	246	240
-7	Q	5004	4504	4003	3503	3003	2502	2002	1501	1001	988
	W	1906	1697	1489	1281	1072	864	655	447	239	233
-10	Q	4546	4092	3637	3183	2728	2273	1819	1364	909	898
	W	1805	1608	1410	1213	1016	818	621	423	226	221
-15	Q	3501	3151	2801	2451	2101	1751	1401	1050	700	692
	W	1615	1439	1262	1085	909	732	555	379	202	198

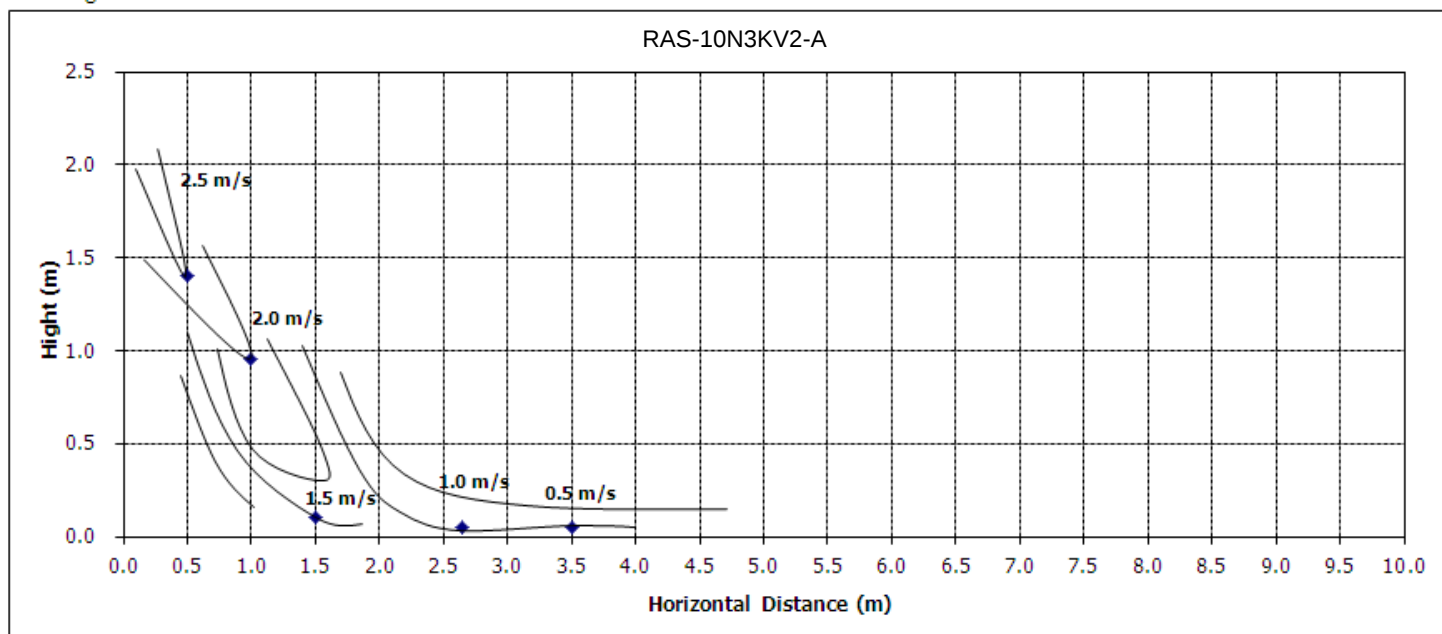
Air Speed Distribution

RAS-10N3KV2-A / RAS-10N3AV2-A

Cooling

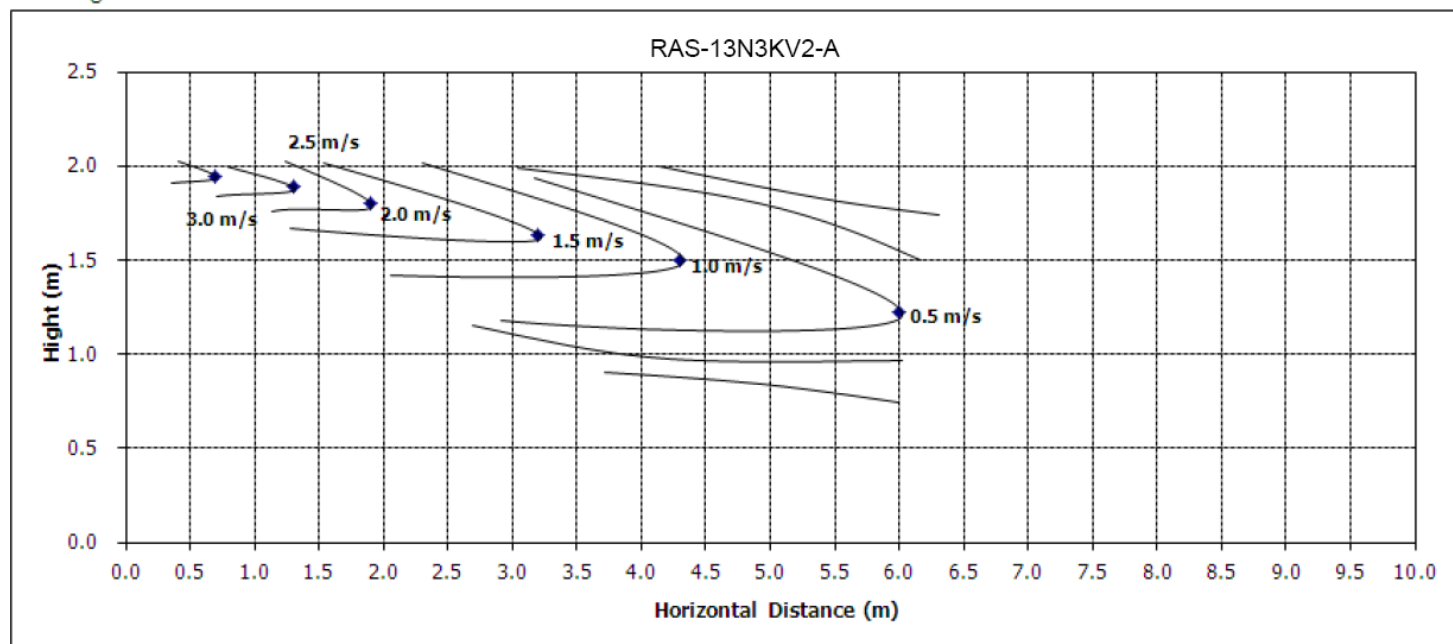


Heating

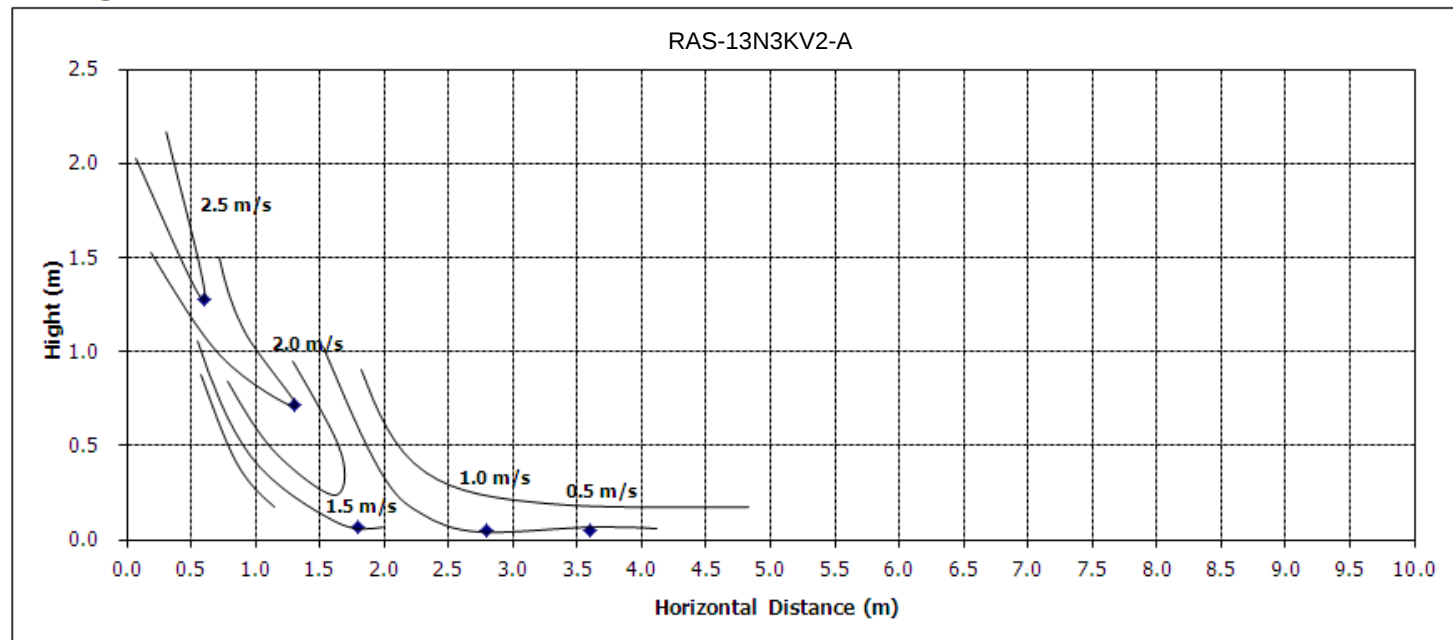


RAS-13N3KV2-A / RAS-13N3AV2-A

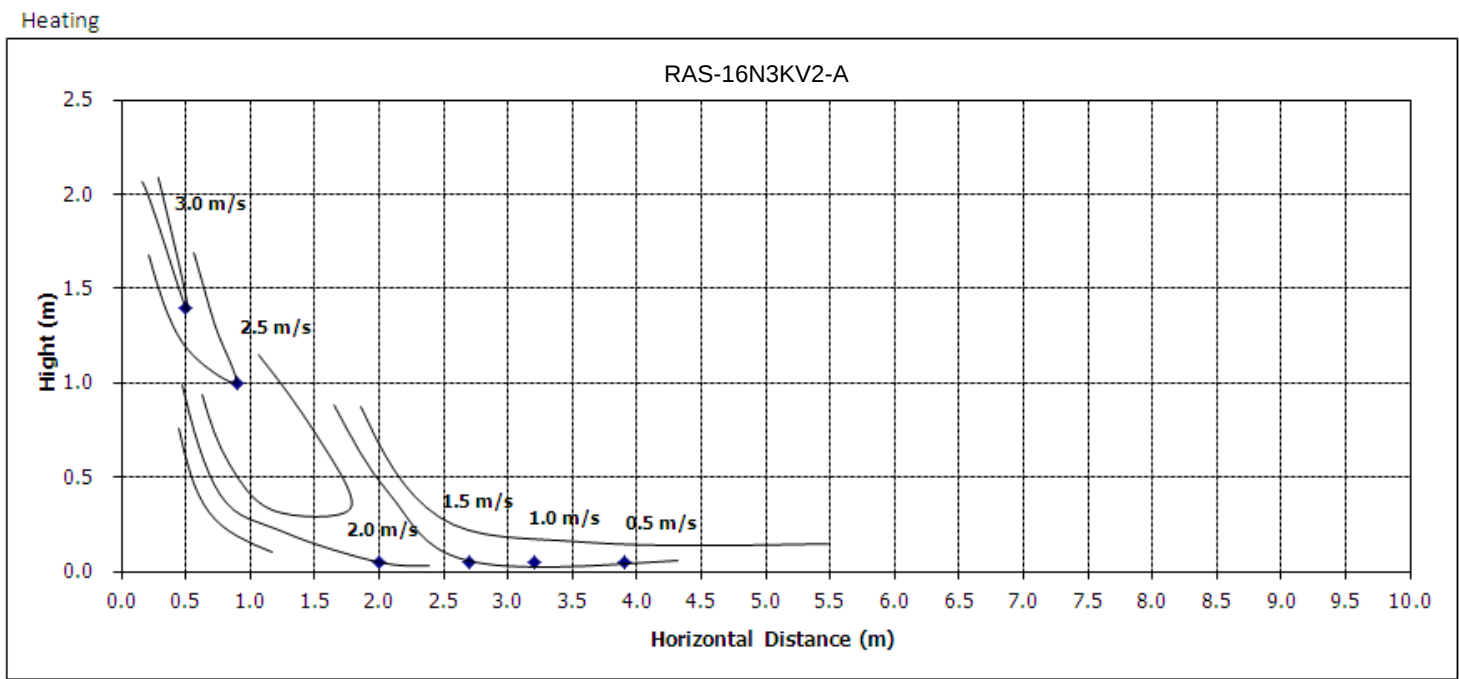
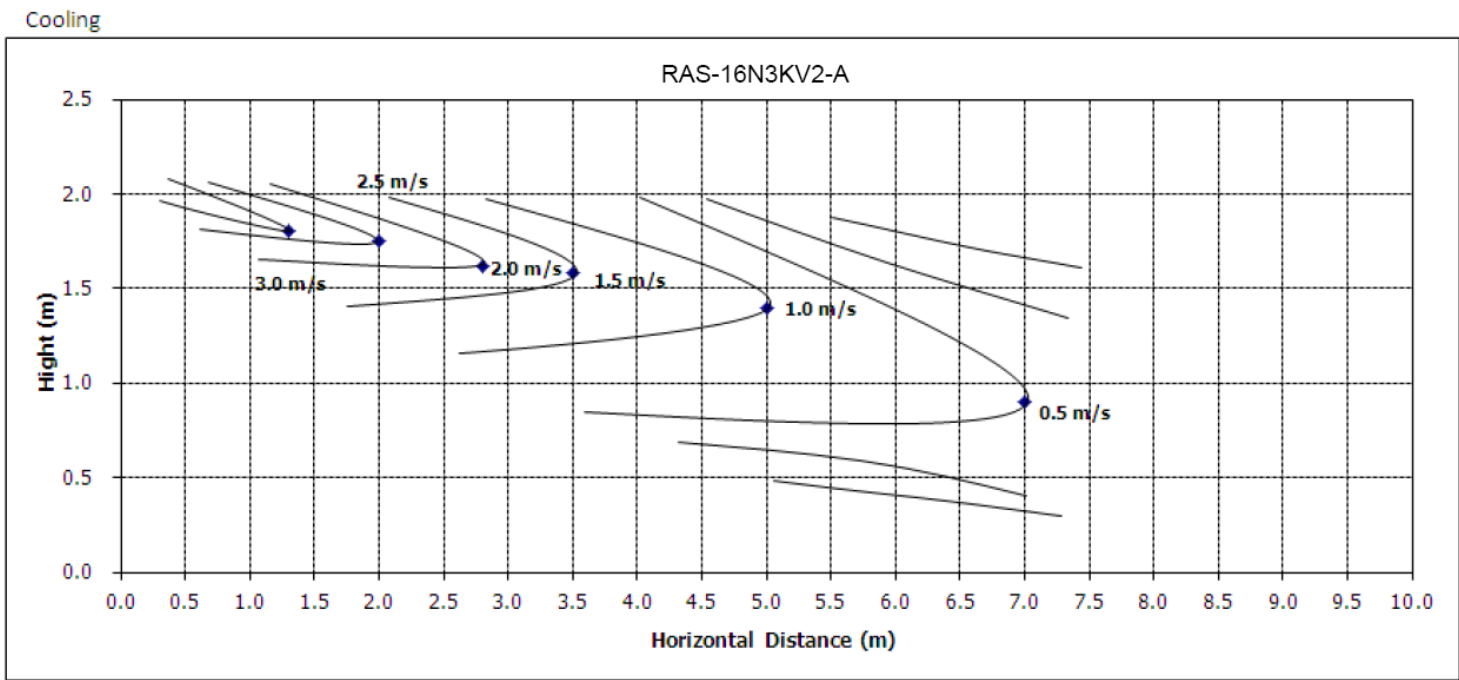
Cooling



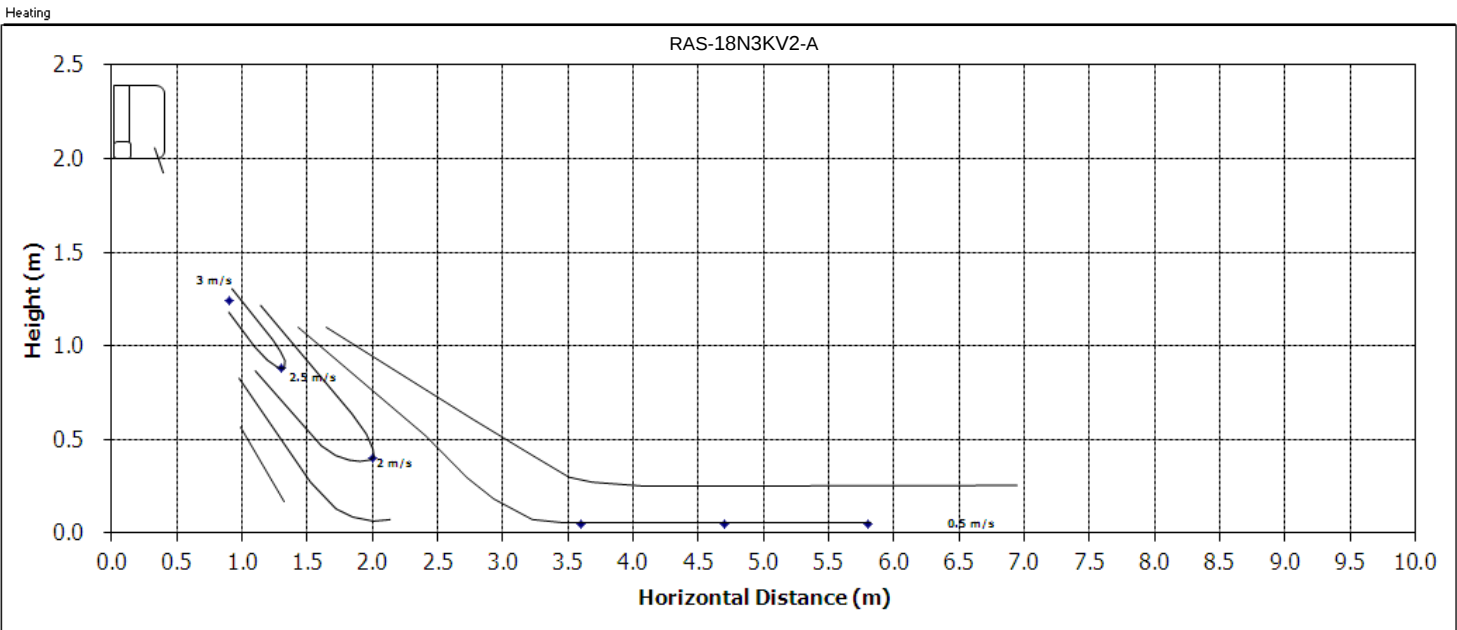
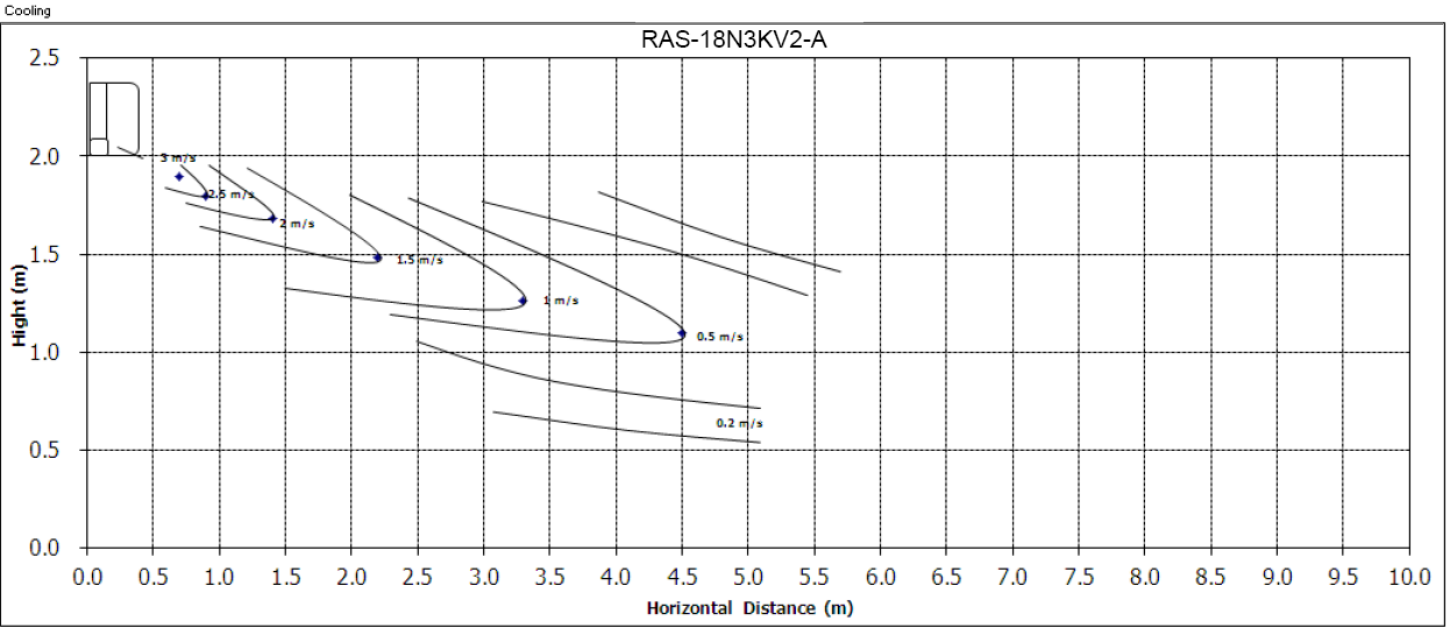
Heating



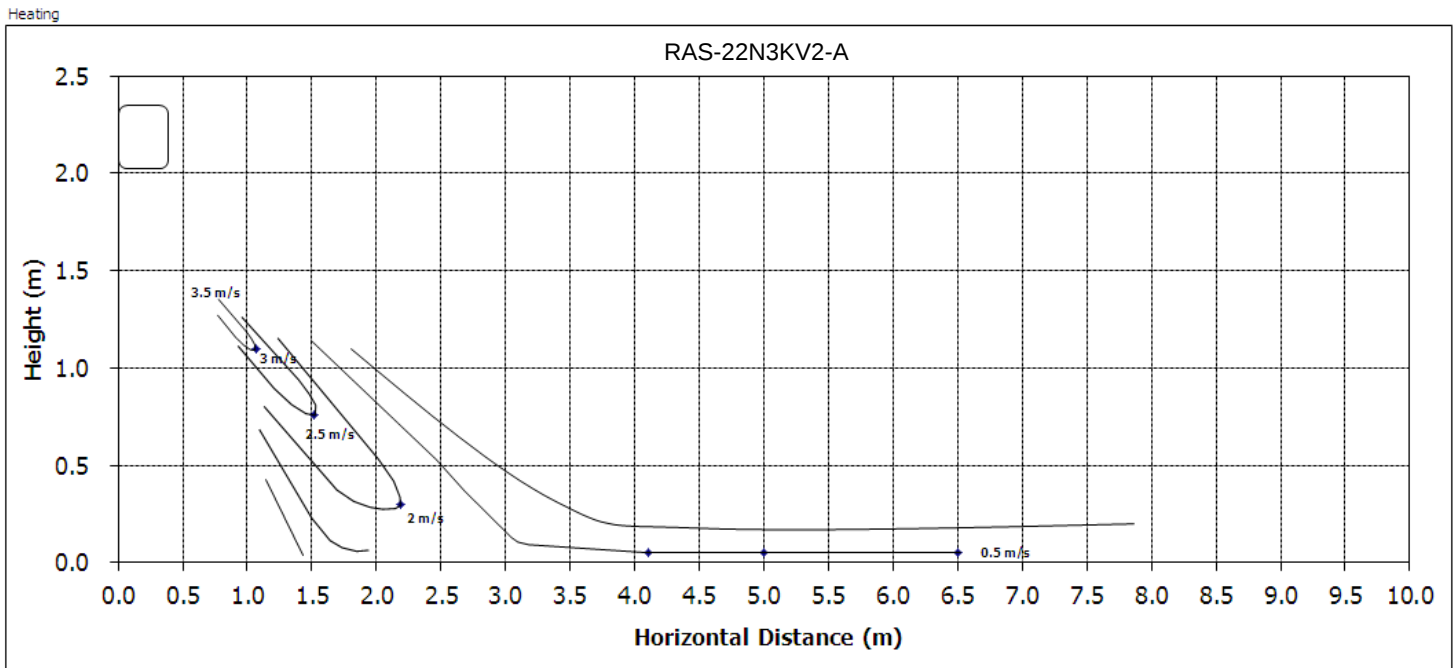
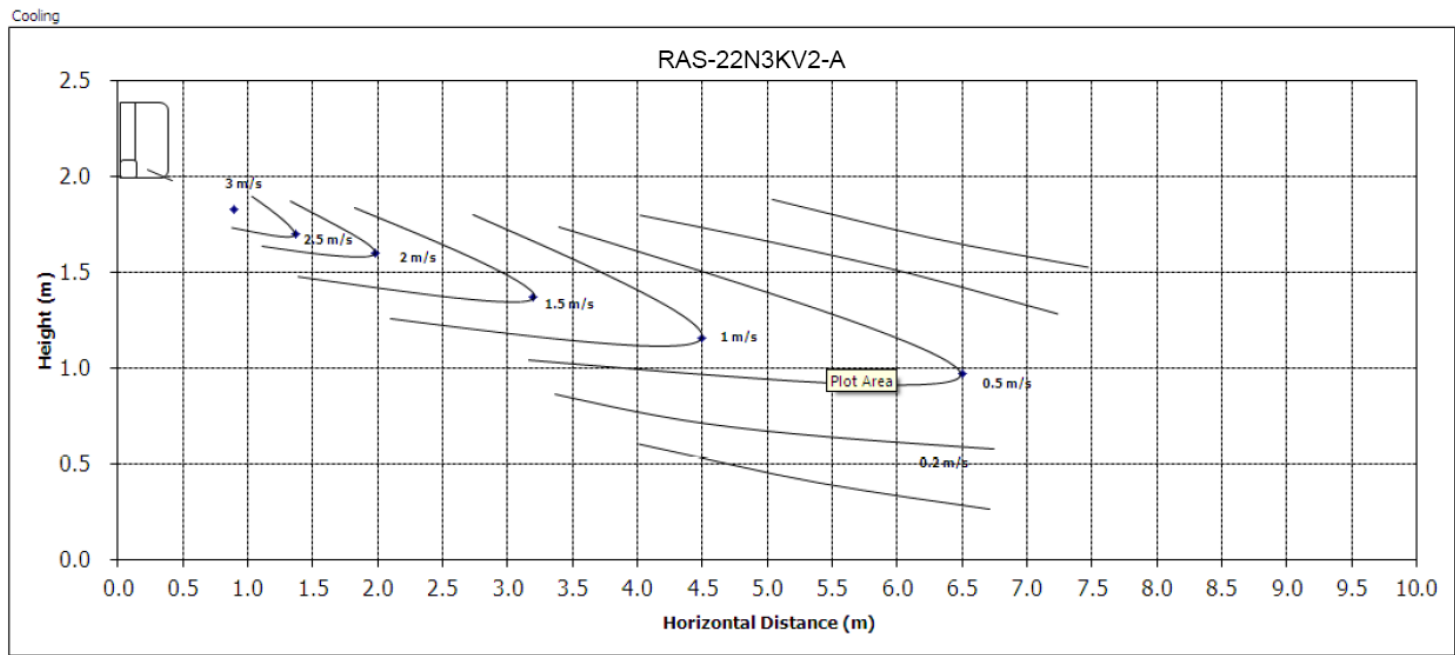
RAS-16N3KV2-A / RAS-16N3AV2-A



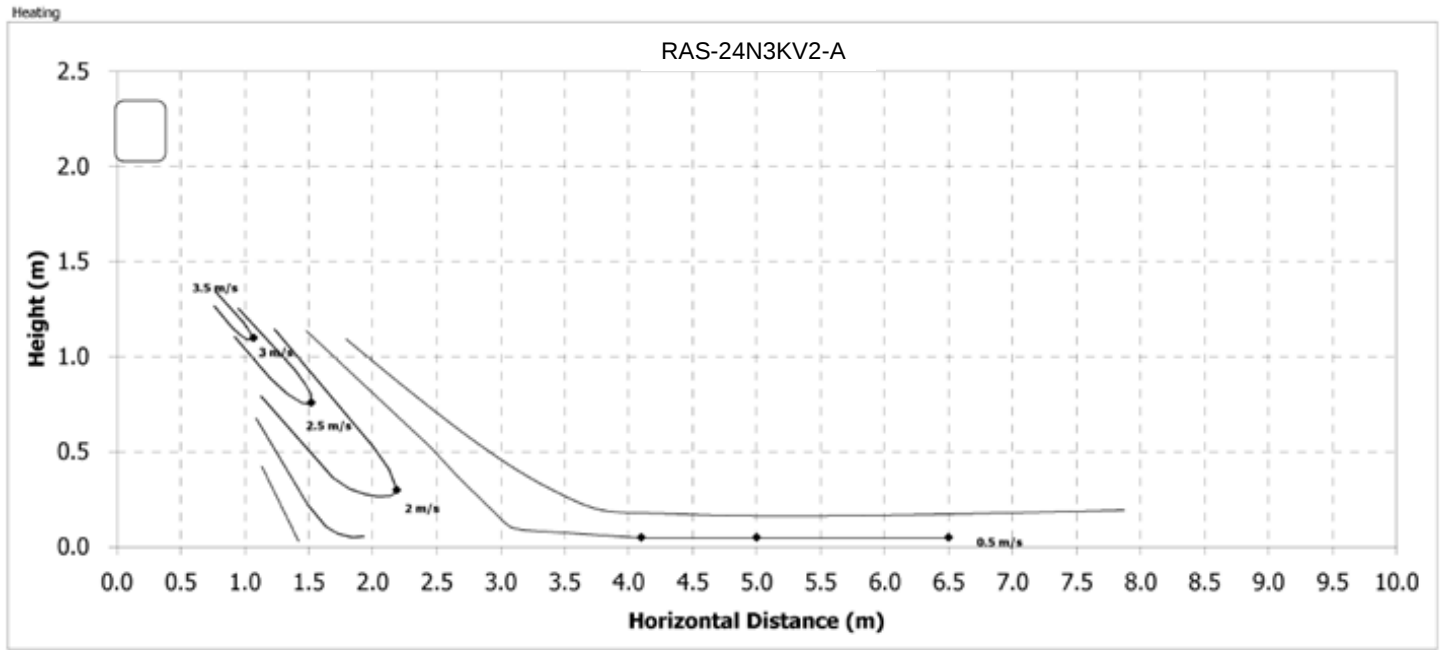
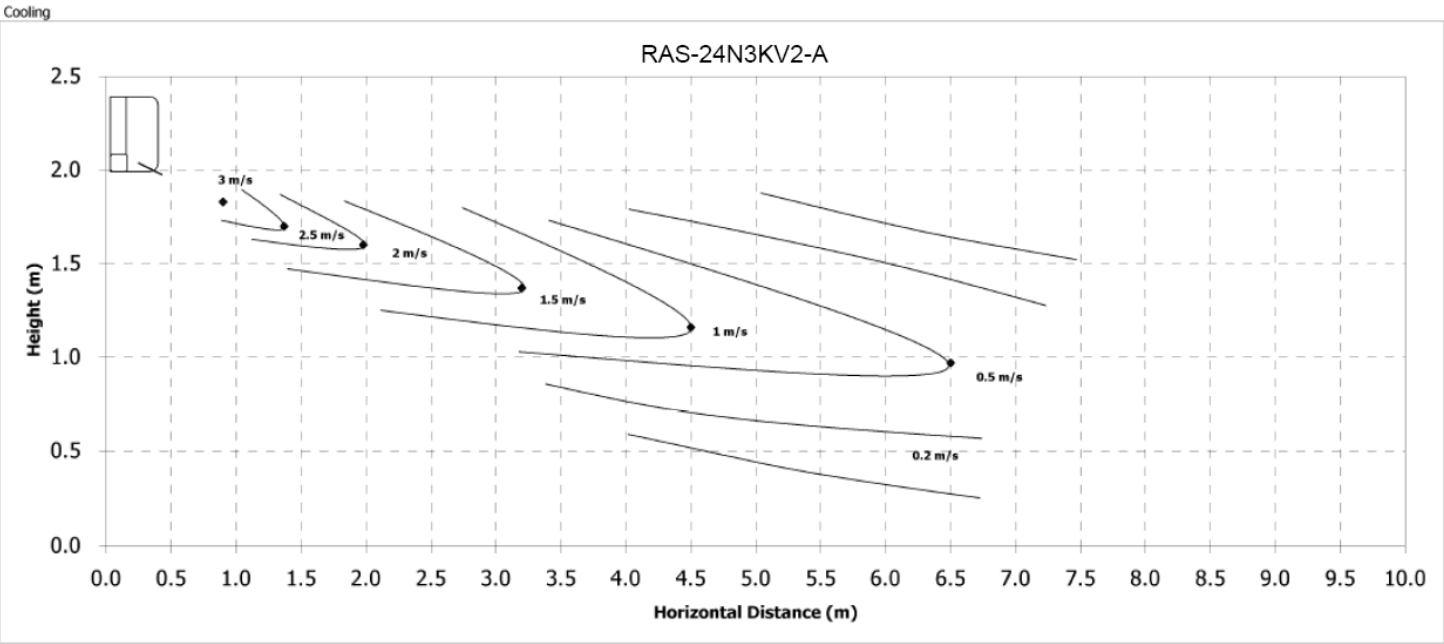
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RAS-22N3KV2-A / RAS-22N3AV2-A



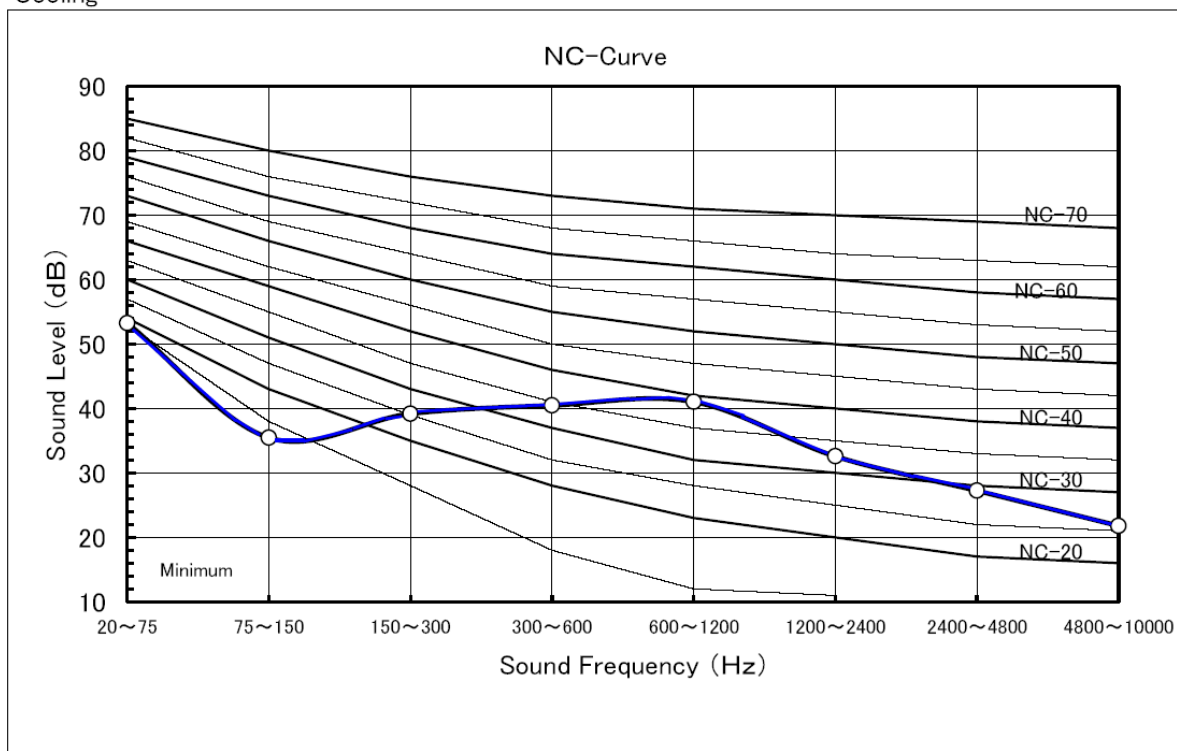
RAS-24N3KV2-A / RAS-24N3AV2-A



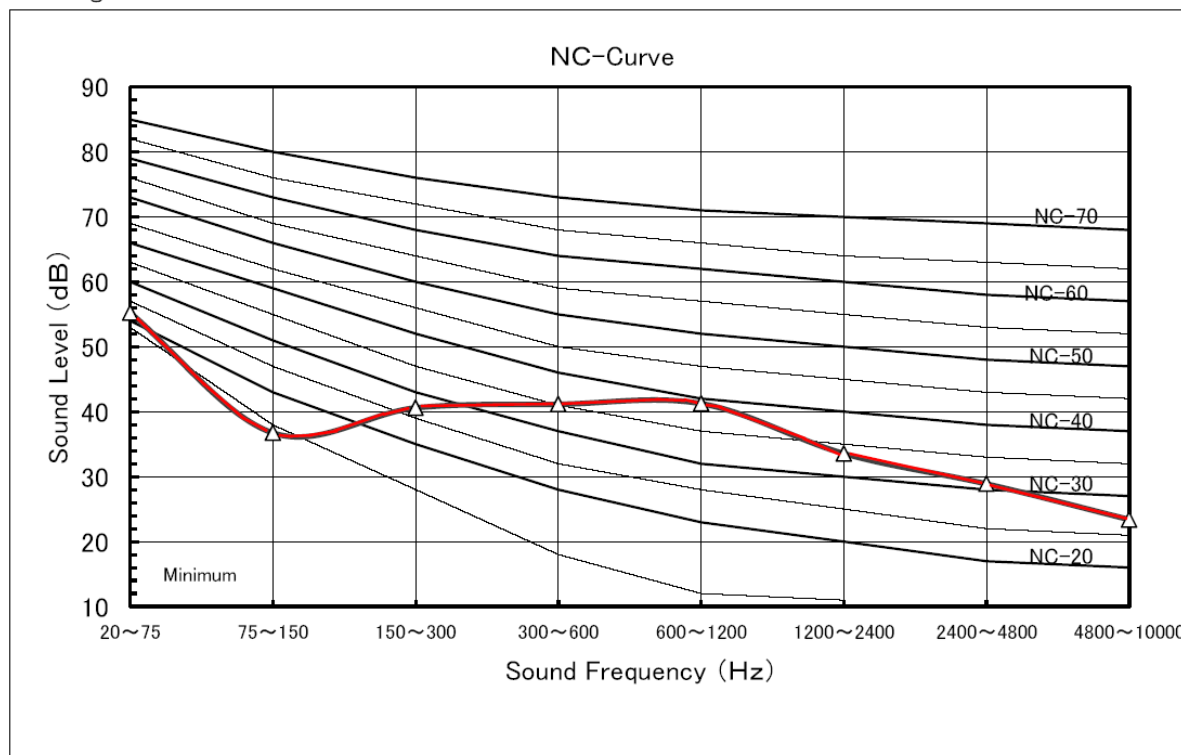
Sound Characteristics (NC Curve)

RAS-10N3KV2-A / RAS-10N3AV2-A

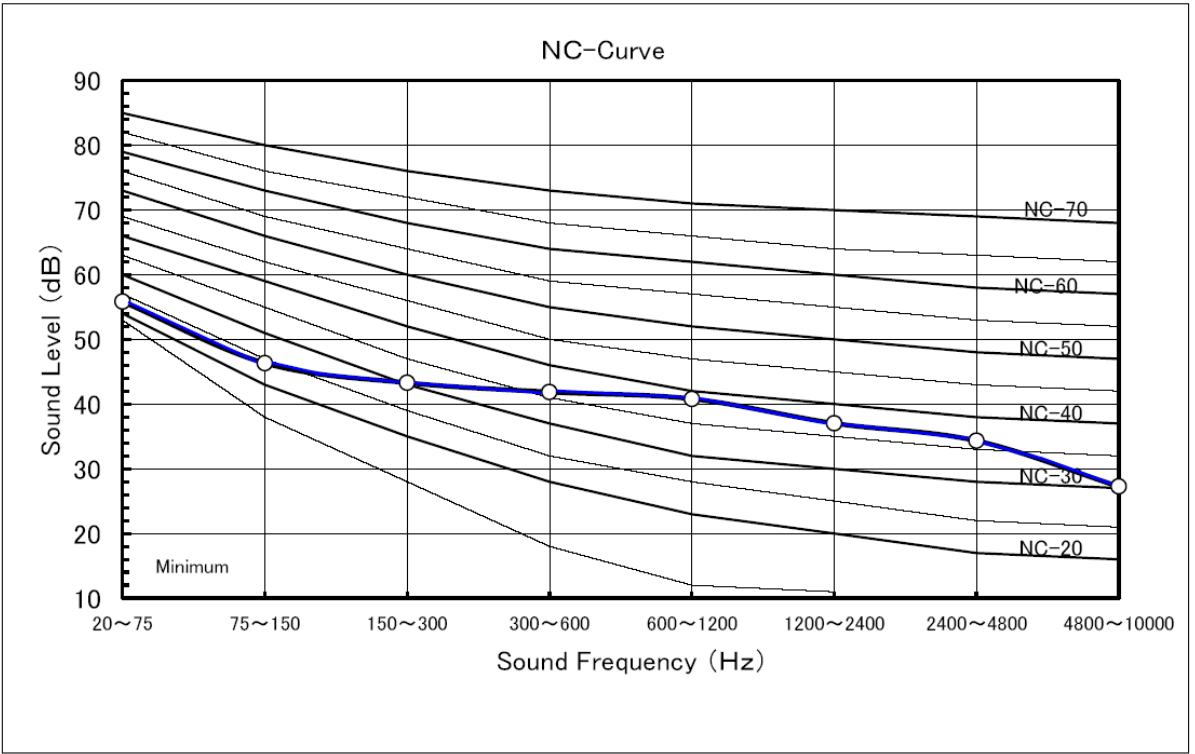
Cooling



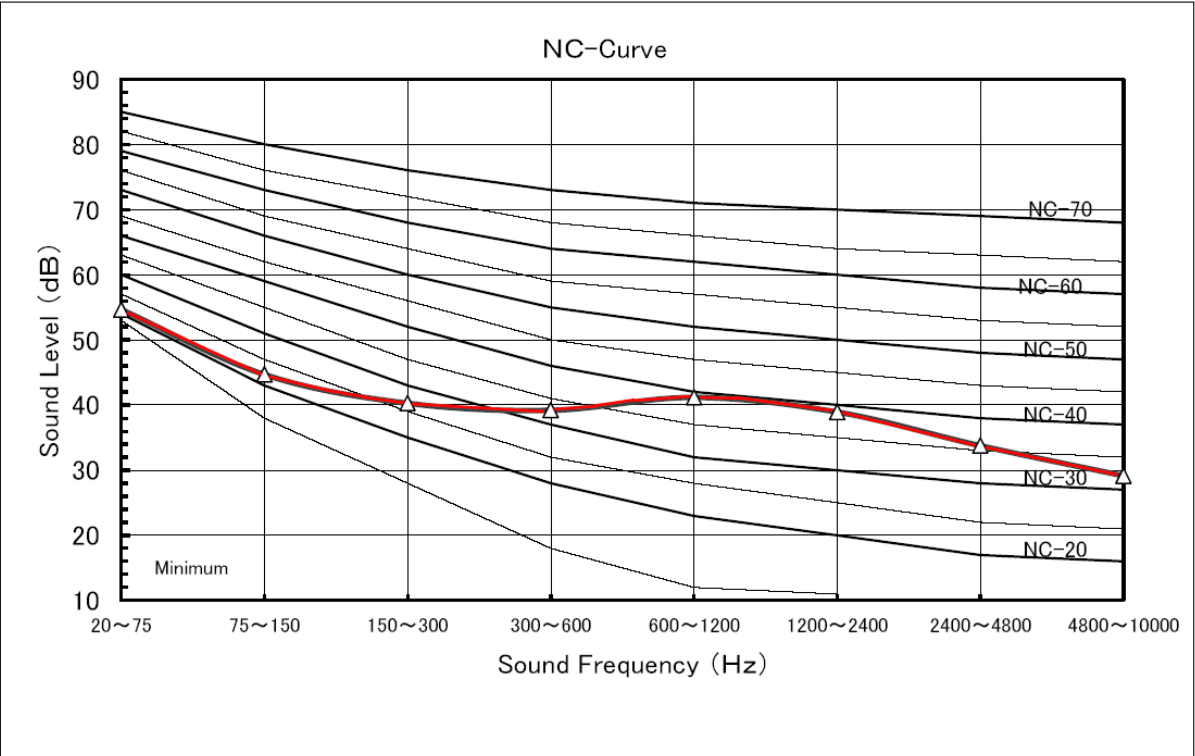
Heating



RAS-13N3KV2-A / RAS-13N3AV2-A

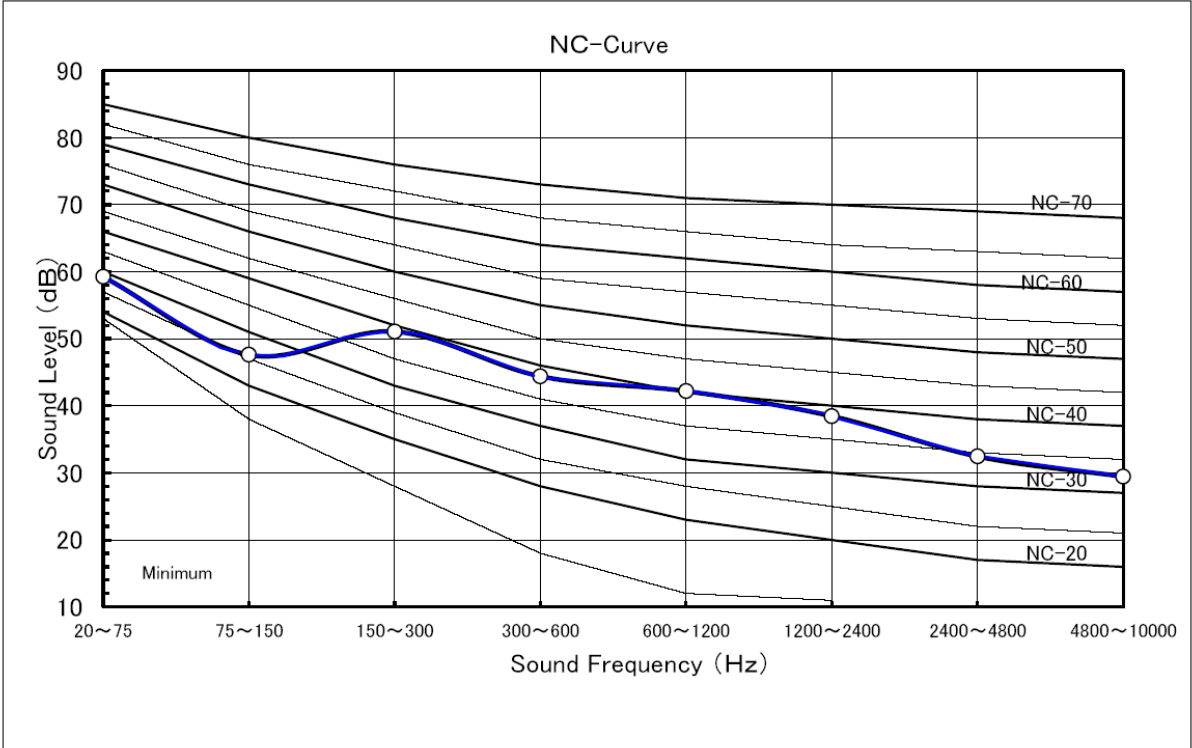


Heating

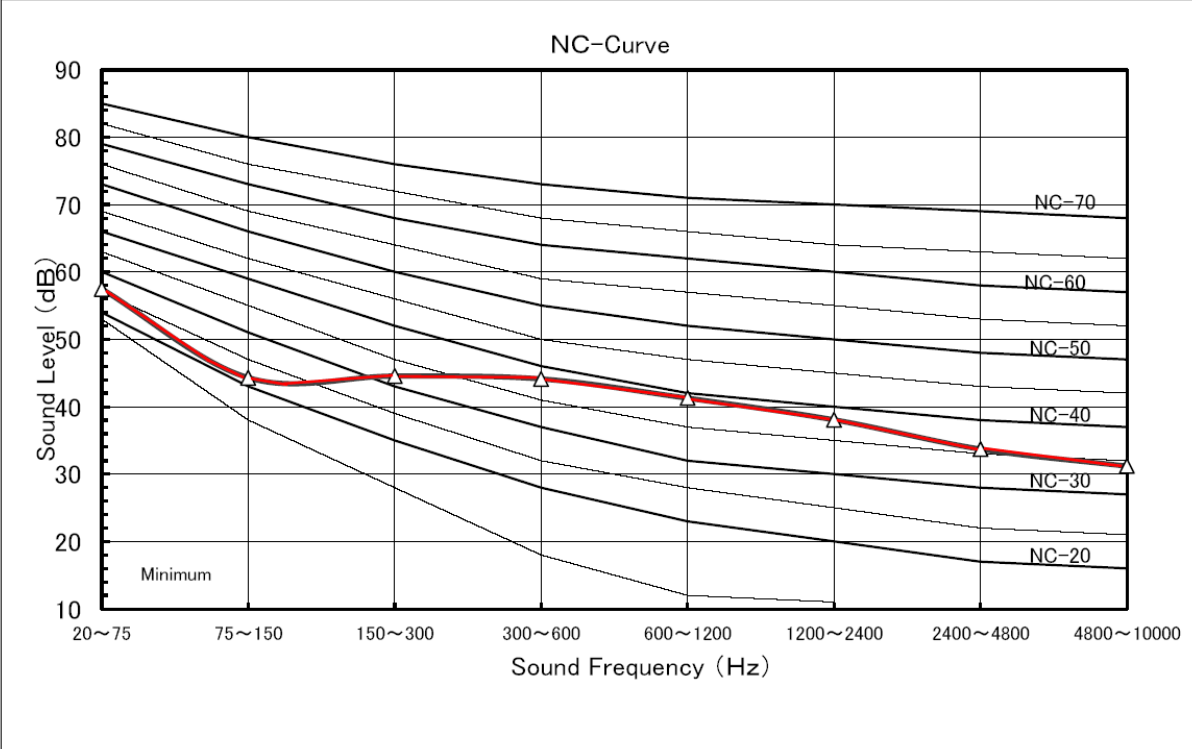


RAS-16N3KV2-A / RAS-16N3AV2-A

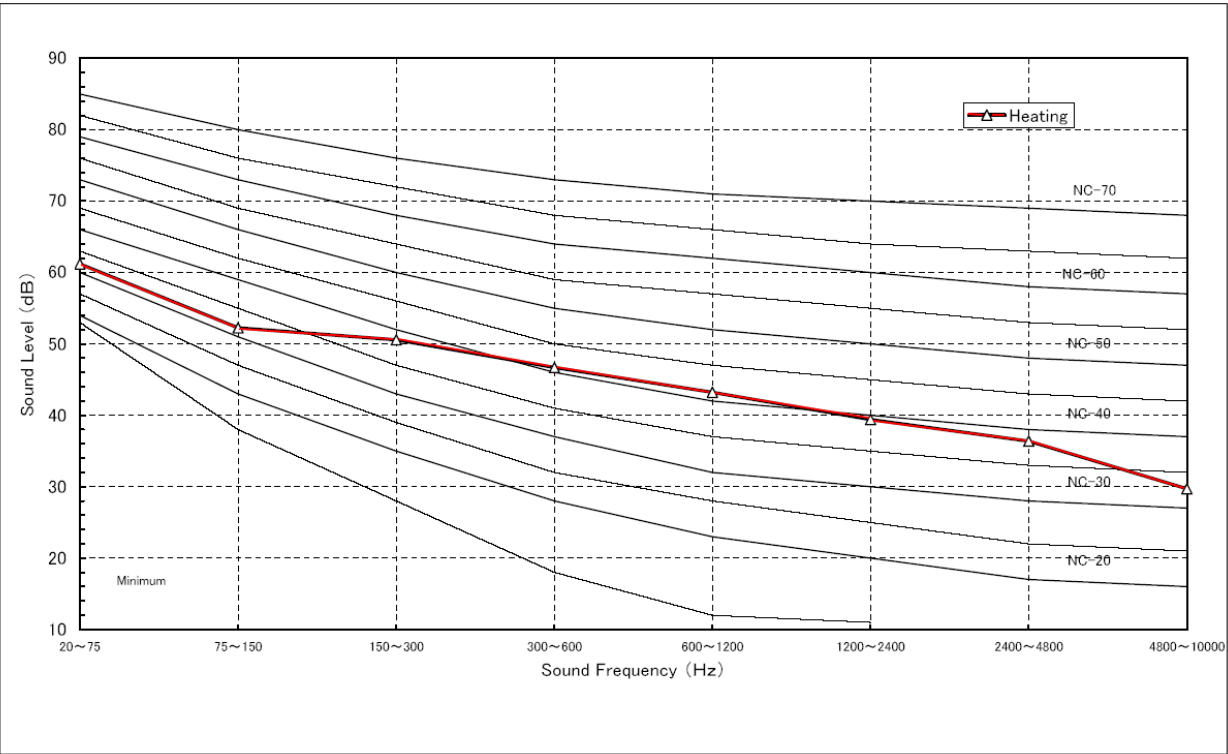
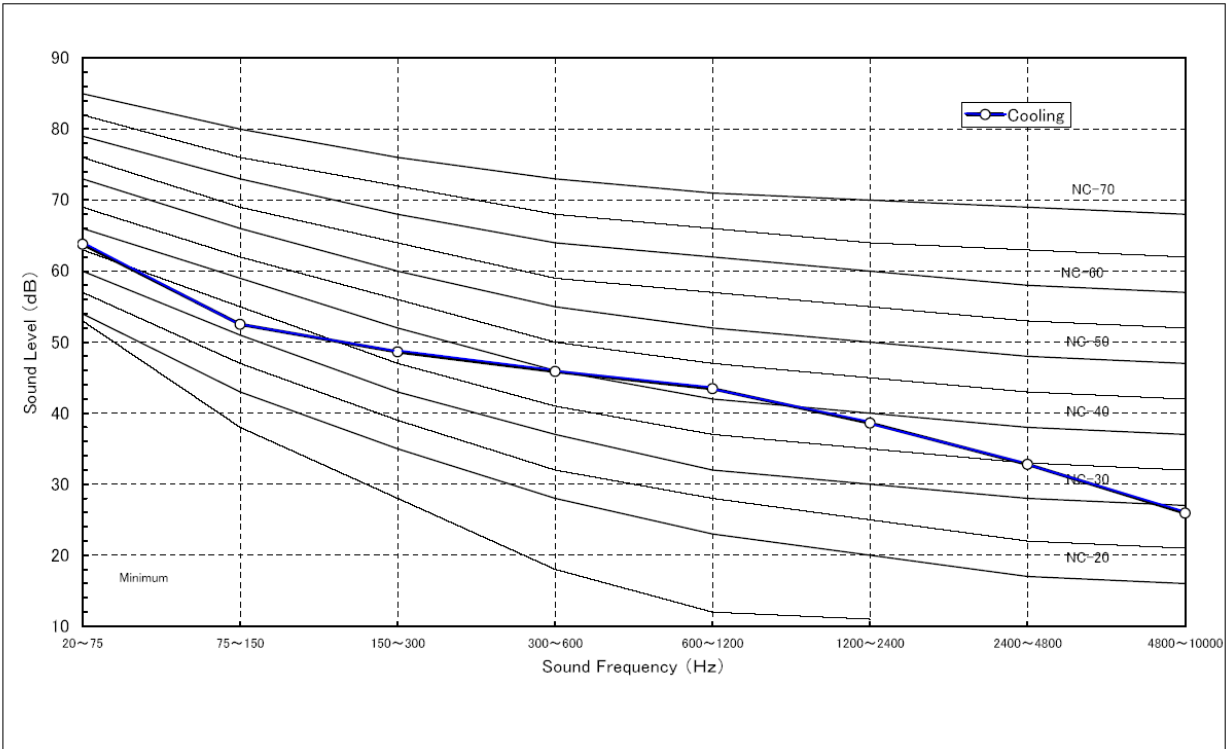
Cooling



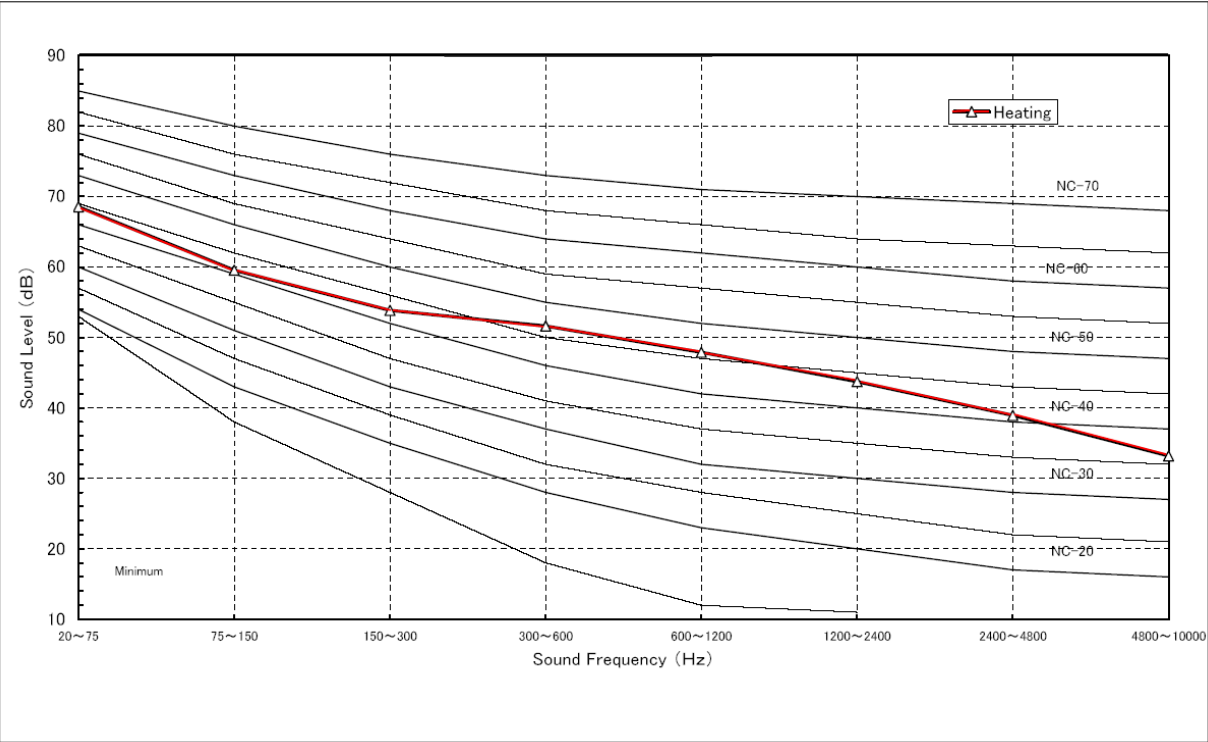
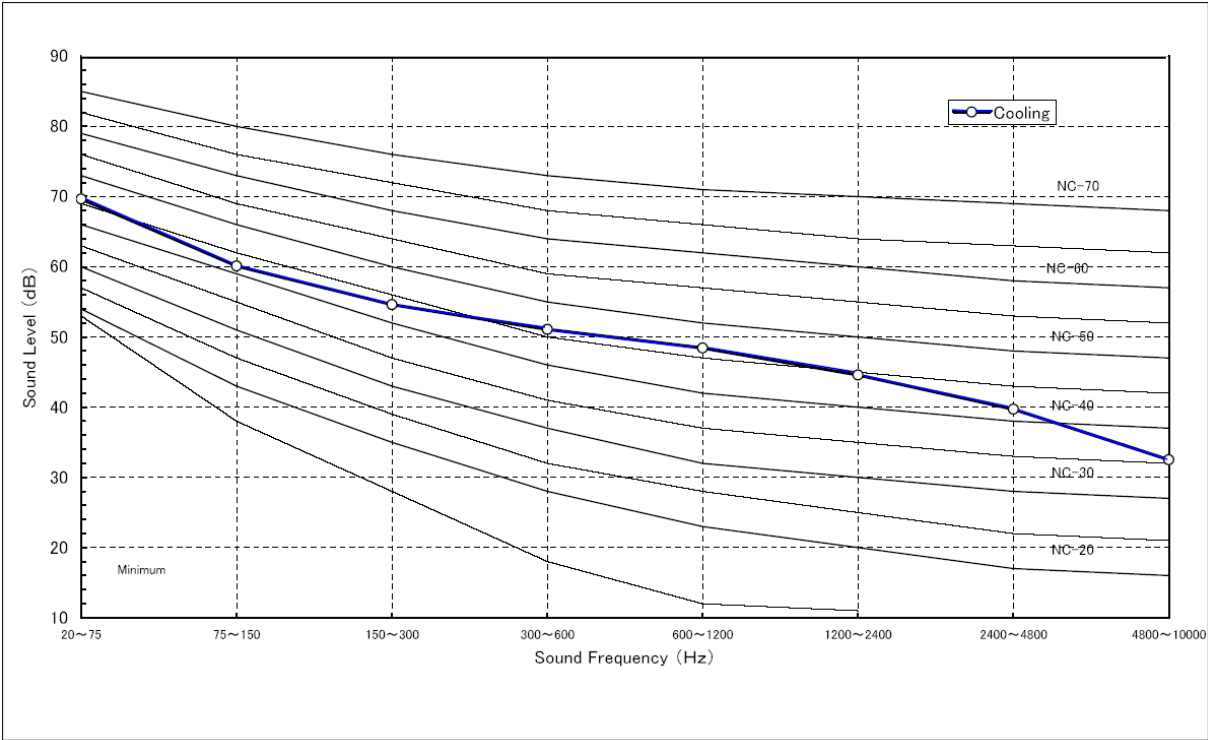
Heating



RAS-18N3KV2-A / RAS-18N3AV2-A

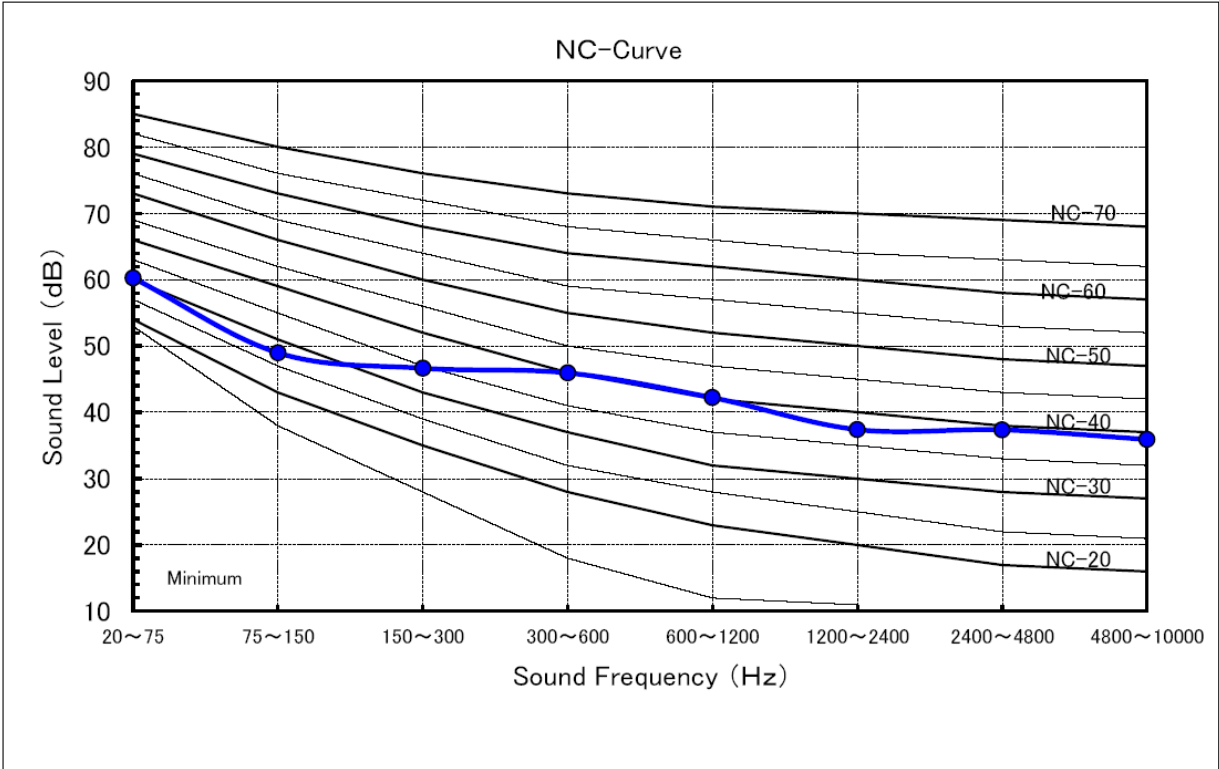


RAS-22N3KV2-A / RAS-22N3AV2-A

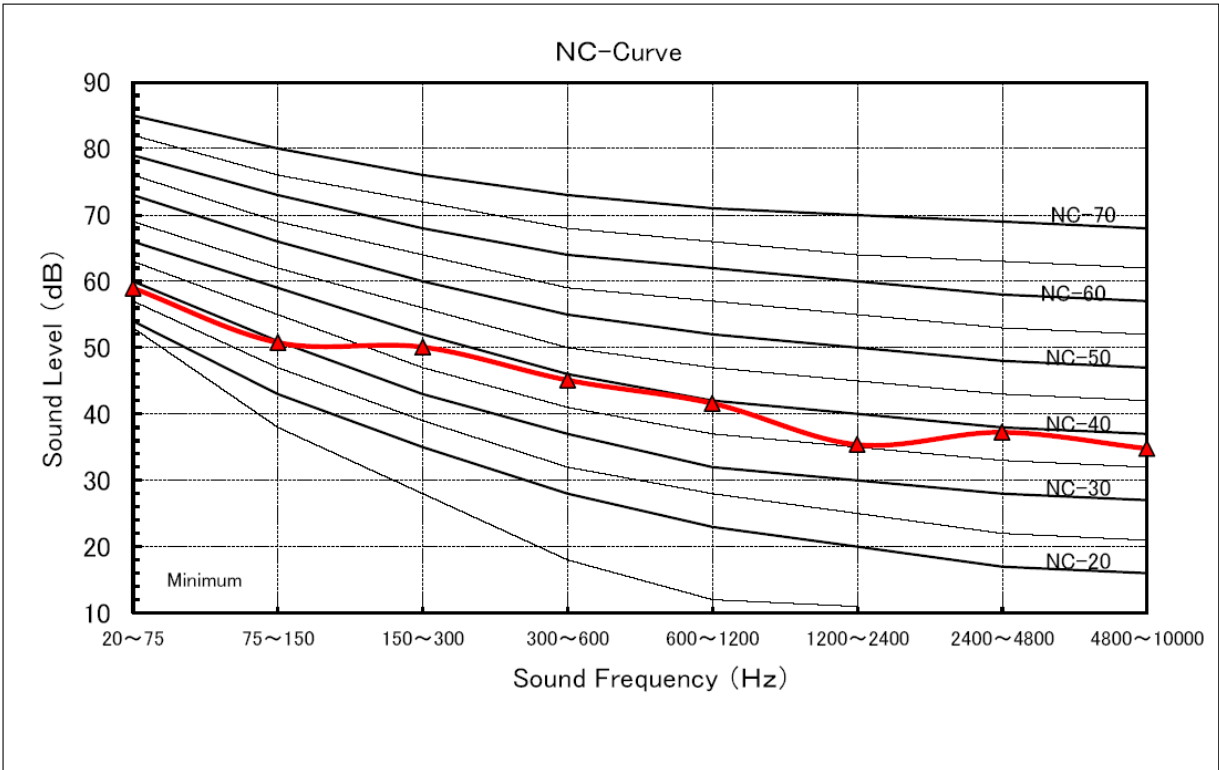


RAS-24N3KV2-A / RAS-24N3AV2-A

Cooling



Heating



Performance Characteristic

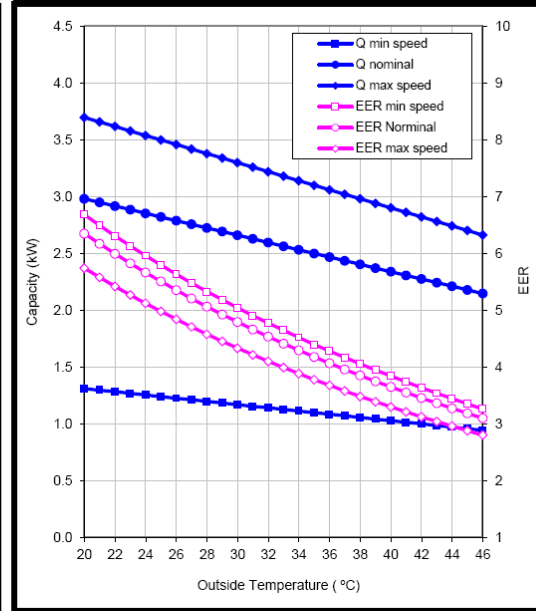
Model : RAS-10N3KV2-A / RAS-10N3AV2-A

Product specification :

Condition		Capacity (kW)	Power (kW)	EER or COP
Cooling JIS In: 27°C DB/19°C WB Out: 35°C DB/24°C WB	Min	1.10	0.250	4.40
	Nominal	2.50	0.598	4.18
	Max	3.10	0.820	3.78
Heating JIS In: 20°C DB/15°C WB Out: 7°C DB/6°C WB	Min	0.90	0.170	5.29
	Nominal	3.20	0.750	4.27
	Max	4.80	1.400	3.43
Heating Low Temp. In: 20°C DB/15°C WB Out: 2°C DB/1°C WB		3.50	1.240	2.82

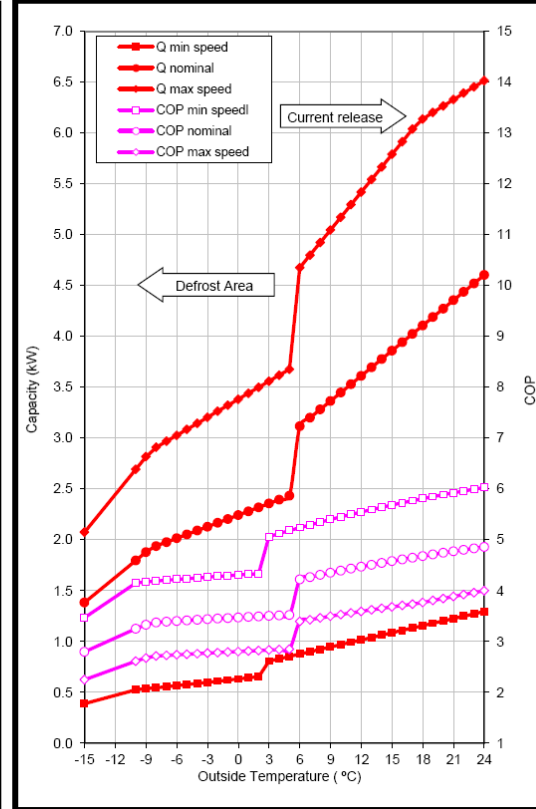
Cooling performance characteristic :

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	1.31	0.20	6.68	2.98	0.47	6.35	3.70	0.64	5.74
21	1.30	0.20	6.49	2.95	0.48	6.17	3.66	0.66	5.58
22	1.28	0.20	6.31	2.92	0.49	6.00	3.62	0.67	5.42
23	1.27	0.21	6.13	2.89	0.50	5.83	3.58	0.68	5.27
24	1.26	0.21	5.96	2.85	0.50	5.66	3.54	0.69	5.12
25	1.24	0.21	5.80	2.82	0.51	5.51	3.50	0.70	4.98
26	1.23	0.22	5.64	2.79	0.52	5.35	3.46	0.71	4.84
27	1.21	0.22	5.48	2.76	0.53	5.21	3.42	0.73	4.71
28	1.20	0.22	5.33	2.72	0.54	5.06	3.38	0.74	4.58
29	1.18	0.23	5.18	2.69	0.55	4.93	3.34	0.75	4.45
30	1.17	0.23	5.04	2.66	0.56	4.79	3.30	0.76	4.33
31	1.16	0.24	4.91	2.63	0.56	4.66	3.26	0.77	4.22
32	1.14	0.24	4.77	2.60	0.57	4.54	3.22	0.78	4.10
33	1.13	0.24	4.65	2.56	0.58	4.41	3.18	0.80	3.99
34	1.11	0.25	4.52	2.53	0.59	4.30	3.14	0.81	3.88
35	1.10	0.25	4.40	2.50	0.60	4.18	3.10	0.82	3.78
36	1.09	0.25	4.28	2.47	0.61	4.07	3.06	0.83	3.68
37	1.07	0.26	4.17	2.44	0.62	3.96	3.02	0.84	3.58
38	1.06	0.26	4.06	2.40	0.62	3.85	2.98	0.86	3.49
39	1.04	0.26	3.95	2.37	0.63	3.75	2.94	0.87	3.39
40	1.03	0.27	3.84	2.34	0.64	3.65	2.90	0.88	3.30
41	1.02	0.27	3.74	2.31	0.65	3.55	2.86	0.89	3.21
42	1.00	0.28	3.64	2.28	0.66	3.46	2.82	0.90	3.13
43	0.99	0.28	3.54	2.24	0.67	3.37	2.78	0.91	3.04
44	0.97	0.28	3.45	2.21	0.68	3.28	2.74	0.93	2.96
45	0.96	0.29	3.35	2.18	0.68	3.19	2.70	0.94	2.88
46	0.94	0.29	3.26	2.15	0.69	3.10	2.66	0.95	2.80



Heating performance characteristic :

Outside Temp (°C)	Min capacity			Nominal capacity			Max capacity		
	Capacity (kW)	Power (kW)	COP (-)	Capacity (kW)	Power (kW)	COP (-)	Capacity (kW)	Power (kW)	COP (-)
-15	0.39	0.11	3.47	1.38	0.49	2.80	2.07	0.92	2.25
-10	0.52	0.13	4.15	1.80	0.55	3.25	2.69	1.03	2.61
-9	0.53	0.13	4.17	1.88	0.56	3.33	2.82	1.05	2.68
-8	0.55	0.13	4.19	1.94	0.57	3.38	2.91	1.07	2.71
-7	0.56	0.13	4.20	1.98	0.58	3.39	2.97	1.09	2.73
-6	0.57	0.13	4.22	2.01	0.59	3.40	3.03	1.11	2.74
-5	0.58	0.14	4.24	2.05	0.60	3.41	3.09	1.12	2.75
-4	0.59	0.14	4.25	2.09	0.61	3.43	3.15	1.14	2.76
-3	0.60	0.14	4.27	2.13	0.62	3.44	3.20	1.16	2.77
-2	0.61	0.14	4.28	2.17	0.63	3.45	3.26	1.17	2.78
-1	0.62	0.14	4.30	2.20	0.64	3.46	3.32	1.19	2.79
0	0.63	0.15	4.31	2.24	0.65	3.47	3.38	1.21	2.80
1	0.64	0.15	4.32	2.28	0.65	3.48	3.44	1.22	2.81
2	0.65	0.15	4.34	2.32	0.66	3.49	3.50	1.24	2.82
3	0.81	0.16	5.06	2.36	0.67	3.50	3.56	1.26	2.83
4	0.83	0.16	5.12	2.39	0.68	3.51	3.62	1.27	2.84
5	0.85	0.16	5.18	2.43	0.69	3.52	3.68	1.29	2.85
6	0.88	0.17	5.24	3.12	0.74	4.22	4.68	1.38	3.39
7	0.90	0.17	5.29	3.20	0.75	4.27	4.80	1.40	3.43
8	0.92	0.17	5.35	3.28	0.76	4.31	4.92	1.42	3.46
9	0.95	0.18	5.40	3.37	0.77	4.35	5.05	1.44	3.50
10	0.97	0.18	5.45	3.45	0.78	4.39	5.17	1.47	3.53
11	0.99	0.18	5.50	3.53	0.80	4.43	5.30	1.49	3.56
12	1.02	0.18	5.55	3.61	0.81	4.47	5.42	1.51	3.59
13	1.04	0.19	5.59	3.70	0.82	4.51	5.54	1.53	3.62
14	1.06	0.19	5.64	3.78	0.83	4.54	5.67	1.55	3.65
15	1.09	0.19	5.68	3.86	0.84	4.58	5.79	1.57	3.68
16	1.11	0.19	5.73	3.94	0.85	4.61	5.91	1.60	3.71
17	1.13	0.20	5.77	4.03	0.87	4.65	6.04	1.62	3.74
18	1.16	0.20	5.81	4.11	0.88	4.68	6.14	1.63	3.77
19	1.18	0.20	5.85	4.19	0.89	4.71	6.20	1.63	3.81
20	1.20	0.20	5.89	4.27	0.90	4.74	6.27	1.63	3.85
21	1.23	0.21	5.92	4.36	0.91	4.77	6.33	1.63	3.89
22	1.25	0.21	5.96	4.44	0.92	4.80	6.39	1.63	3.92
23	1.27	0.21	5.99	4.52	0.94	4.83	6.45	1.63	3.96
24	1.29	0.21	6.03	4.60	0.95	4.86	6.52	1.63	4.00

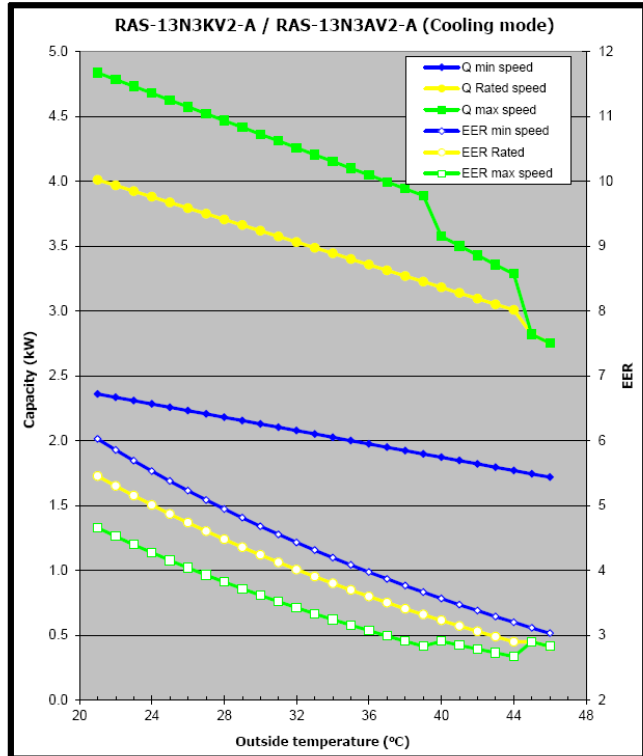


Model : RAS-13N3KV2-A / RAS-13N3AV2-A**Product specification :**

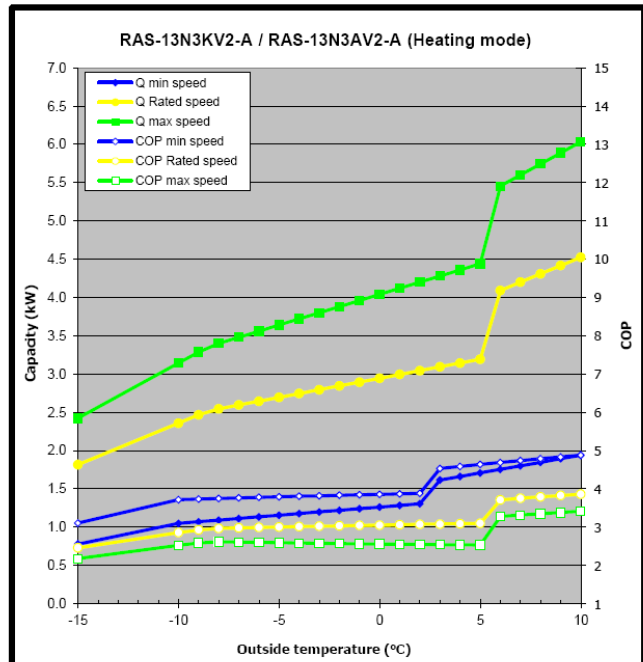
Condition		Capacity (kW)	Power (kW)	EER or COP	
Cooling JIS In : 27°CDB/19°CWb Out : 35°CDB/24°CWb	Min	2.00	0.49	4.08	
	Nominal	3.40	0.92	3.70	
	Max	4.10	1.30	3.15	
Heating JIS In : 20°CDB/ 15°CWb Out : 7°CDB/6°CWb	Min	1.80	0.38	4.74	
	Nominal	4.20	1.12	3.75	
	Max	5.60	1.69	3.31	
Heating Low Temp. In : 20°CDB/ 15°CWb Out : 2°CDB/1°CWb		Max	4.20	1.65	2.55

Cooling performance characteristic :

Outside Temp (°C)	Min capacity			Rated capacity			Max capacity		
	Capacity (kW)	Power (kW)	EER (-)	Capacity (kW)	Power (kW)	EER (-)	Capacity (kW)	Power (kW)	EER (-)
21	2.36	0.39	6.02	4.01	0.74	5.45	4.84	1.04	4.65
22	2.33	0.40	5.85	3.97	0.75	5.30	4.78	1.06	4.52
23	2.31	0.41	5.69	3.92	0.76	5.15	4.73	1.08	4.40
24	2.28	0.41	5.53	3.88	0.77	5.01	4.68	1.10	4.27
25	2.26	0.42	5.38	3.84	0.79	4.87	4.63	1.11	4.15
26	2.23	0.43	5.23	3.79	0.80	4.73	4.57	1.13	4.04
27	2.21	0.43	5.08	3.75	0.81	4.60	4.52	1.15	3.93
28	2.18	0.44	4.94	3.71	0.83	4.48	4.47	1.17	3.82
29	2.15	0.45	4.81	3.66	0.84	4.35	4.42	1.19	3.72
30	2.13	0.45	4.68	3.62	0.85	4.24	4.36	1.21	3.62
31	2.10	0.46	4.55	3.57	0.87	4.12	4.31	1.23	3.52
32	2.08	0.47	4.43	3.53	0.88	4.01	4.26	1.24	3.42
33	2.05	0.48	4.31	3.49	0.89	3.90	4.21	1.26	3.33
34	2.03	0.48	4.19	3.44	0.91	3.80	4.15	1.28	3.24
35	2.00	0.49	4.08	3.40	0.92	3.70	4.10	1.30	3.15
36	1.97	0.50	3.97	3.36	0.93	3.60	4.05	1.32	3.07
37	1.95	0.50	3.87	3.31	0.95	3.50	3.99	1.34	2.99
38	1.92	0.51	3.76	3.27	0.96	3.41	3.94	1.36	2.91
39	1.90	0.52	3.66	3.23	0.97	3.32	3.89	1.37	2.83
40	1.87	0.53	3.56	3.18	0.99	3.23	3.84	1.39	2.75
41	1.85	0.53	3.47	3.14	1.00	3.14	3.80	1.41	2.67
42	1.82	0.54	3.38	3.09	1.01	3.06	3.76	1.43	2.59
43	1.79	0.55	3.29	3.05	1.03	2.98	3.72	1.45	2.51
44	1.77	0.55	3.20	3.01	1.04	2.90	3.68	1.47	2.43
45	1.74	0.56	3.11	2.97	1.06	2.82	3.64	1.49	2.35
46	1.72	0.57	3.03	2.93	1.07	2.75	3.60	1.51	2.27

**Heating performance characteristic :**

Outside Temp (°C)	Min capacity			Nominal capacity			Max capacity		
	Capacity (kW)	Power (kW)	COP (-)	Capacity (kW)	Power (kW)	COP (-)	Capacity (kW)	Power (kW)	COP (-)
-15	0.78	0.25	3.11	1.82	0.74	2.46	2.42	1.11	2.17
-10	1.05	0.28	3.72	2.36	0.83	2.86	3.14	1.25	2.52
-9	1.07	0.29	3.73	2.47	0.84	2.93	3.29	1.27	2.59
-8	1.09	0.29	3.75	2.54	0.86	2.97	3.40	1.30	2.61
-7	1.11	0.30	3.76	2.59	0.87	2.98	3.48	1.34	2.60
-6	1.13	0.30	3.78	2.64	0.88	2.99	3.56	1.37	2.60
-5	1.15	0.30	3.79	2.69	0.90	3.00	3.64	1.41	2.59
-4	1.18	0.31	3.80	2.74	0.91	3.01	3.72	1.44	2.58
-3	1.20	0.31	3.82	2.79	0.92	3.02	3.80	1.48	2.57
-2	1.22	0.32	3.83	2.84	0.94	3.03	3.88	1.51	2.57
-1	1.24	0.32	3.84	2.89	0.95	3.04	3.96	1.55	2.56
0	1.26	0.33	3.86	2.94	0.96	3.05	4.04	1.58	2.56
1	1.28	0.33	3.87	2.99	0.98	3.06	4.12	1.62	2.55
2	1.30	0.34	3.88	3.04	0.99	3.07	4.20	1.65	2.55
3	1.61	0.36	4.53	3.09	1.00	3.08	4.28	1.68	2.54
4	1.66	0.36	4.58	3.14	1.02	3.09	4.36	1.72	2.54
5	1.71	0.37	4.64	3.19	1.03	3.10	4.44	1.75	2.53
6	1.75	0.37	4.69	4.09	1.10	3.71	5.46	1.66	3.28
7	1.80	0.38	4.74	4.20	1.12	3.75	5.60	1.69	3.31
8	1.85	0.39	4.78	4.31	1.14	3.79	5.74	1.72	3.35
9	1.89	0.39	4.83	4.42	1.15	3.83	5.89	1.74	3.38
10	1.94	0.40	4.88	4.53	1.17	3.86	6.03	1.77	3.41

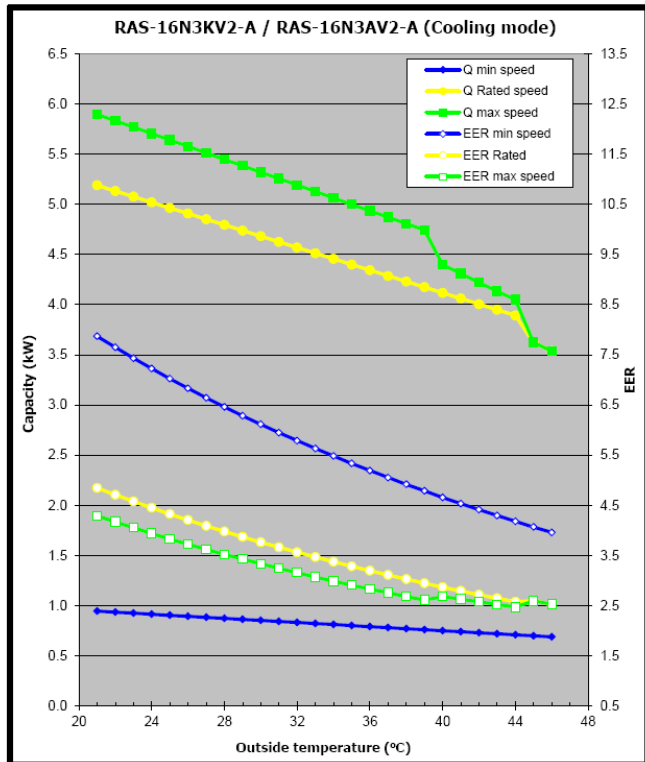


Model : RAS-16N3KV2-A / RAS-16N3AV2-A**Product specification :**

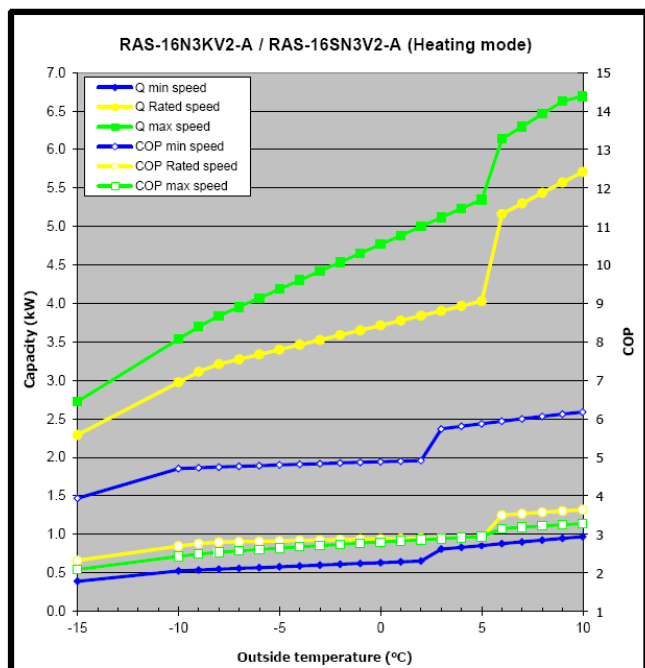
Condition		Capacity (kW)	Power (kW)	EER or COP
Cooling JIS In : 27°CDB/19°CWB Out : 35°CDB/24°CWB	Min	0.80	0.15	5.33
	Nominal	4.40	1.34	3.28
	Max	5.00	1.72	2.91
Heating JIS In : 20°CDB/ 15°CWB Out : 7°CDB/6°CWB	Min	0.90	0.15	6.00
	Nominal	5.30	1.50	3.53
	Max	6.30	1.98	3.18
Heating Low Temp. In : 20°CDB/ 15°CWB Out : 2°CDB/1°CWB	Max	5.00	1.75	2.86

Cooling performance characteristic :

Outside Temp (°C)	Min capacity			Rated capacity			Max capacity		
	Capacity (kW)	Power (kW)	EER (-)	Capacity (kW)	Power (kW)	EER (-)	Capacity (kW)	Power (kW)	EER (-)
21	0.94	0.12	7.87	5.19	1.07	4.85	5.90	1.37	4.29
22	0.93	0.12	7.65	5.13	1.09	4.71	5.83	1.40	4.17
23	0.92	0.12	7.43	5.08	1.11	4.58	5.77	1.42	4.05
24	0.91	0.13	7.23	5.02	1.13	4.45	5.71	1.45	3.94
25	0.90	0.13	7.02	4.96	1.15	4.32	5.64	1.47	3.83
26	0.89	0.13	6.83	4.91	1.17	4.21	5.58	1.50	3.72
27	0.88	0.13	6.64	4.85	1.19	4.09	5.51	1.52	3.62
28	0.87	0.13	6.46	4.80	1.21	3.98	5.45	1.55	3.52
29	0.86	0.14	6.28	4.74	1.22	3.87	5.39	1.57	3.43
30	0.85	0.14	6.11	4.68	1.24	3.76	5.32	1.60	3.33
31	0.84	0.14	5.95	4.63	1.26	3.66	5.26	1.62	3.24
32	0.83	0.14	5.79	4.57	1.28	3.56	5.19	1.65	3.15
33	0.82	0.15	5.63	4.51	1.30	3.47	5.13	1.67	3.07
34	0.81	0.15	5.48	4.46	1.32	3.37	5.06	1.70	2.99
35	0.80	0.15	5.33	4.40	1.34	3.28	5.00	1.72	2.91
36	0.79	0.15	5.19	4.34	1.36	3.20	4.94	1.74	2.83
37	0.78	0.15	5.05	4.29	1.38	3.11	4.87	1.77	2.75
38	0.77	0.16	4.92	4.23	1.40	3.03	4.81	1.79	2.68
39	0.76	0.16	4.79	4.17	1.42	2.95	4.74	1.82	2.61
40	0.75	0.16	4.66	4.12	1.44	2.87	4.40	1.64	2.68
41	0.74	0.16	4.53	4.06	1.46	2.79	4.31	1.64	2.63
42	0.73	0.17	4.41	4.00	1.47	2.72	4.22	1.64	2.57
43	0.72	0.17	4.29	3.95	1.49	2.64	4.13	1.64	2.52
44	0.71	0.17	4.18	3.89	1.51	2.57	4.05	1.64	2.47
45	0.70	0.17	4.07	3.82	1.40	2.59	3.62	1.40	2.59
46	0.69	0.17	3.96	3.54	1.40	2.53	3.54	1.40	2.53

**Heating performance characteristic :**

Outside Temp (°C)	Min capacity			Nominal capacity			Max capacity		
	Capacity (kW)	Power (kW)	COP (-)	Capacity (kW)	Power (kW)	COP (-)	Capacity (kW)	Power (kW)	COP (-)
-15	0.39	0.10	3.93	2.29	0.99	2.32	2.72	1.31	2.09
-10	0.52	0.11	4.71	2.97	1.11	2.69	3.54	1.46	2.42
-9	0.53	0.11	4.73	3.11	1.13	2.76	3.70	1.49	2.48
-8	0.55	0.11	4.75	3.21	1.15	2.80	3.84	1.52	2.53
-7	0.56	0.12	4.77	3.27	1.17	2.81	3.95	1.54	2.57
-6	0.57	0.12	4.78	3.34	1.18	2.82	4.07	1.56	2.60
-5	0.58	0.12	4.80	3.40	1.20	2.83	4.19	1.59	2.64
-4	0.59	0.12	4.82	3.46	1.22	2.84	4.30	1.61	2.67
-3	0.60	0.12	4.84	3.53	1.24	2.85	4.42	1.63	2.71
-2	0.61	0.13	4.85	3.59	1.26	2.86	4.54	1.66	2.74
-1	0.62	0.13	4.87	3.65	1.27	2.87	4.65	1.68	2.77
0	0.63	0.13	4.88	3.71	1.29	2.88	4.77	1.70	2.80
1	0.64	0.13	4.90	3.78	1.31	2.88	4.88	1.73	2.83
2	0.65	0.13	4.91	3.84	1.33	2.89	5.00	1.75	2.86
3	0.81	0.14	5.74	3.90	1.35	2.90	5.12	1.77	2.89
4	0.83	0.14	5.81	3.97	1.36	2.91	5.23	1.80	2.91
5	0.85	0.15	5.87	4.03	1.38	2.92	5.35	1.82	2.94
6	0.88	0.15	5.94	5.16	1.48	3.50	6.14	1.95	3.15
7	0.90	0.15	6.00	5.30	1.50	3.53	6.30	1.98	3.18
8	0.92	0.15	6.06	5.44	1.52	3.57	6.46	2.01	3.21
9	0.95	0.15	6.12	5.57	1.55	3.60	6.63	2.04	3.25
10	0.97	0.16	6.18	5.71	1.57	3.64	6.69	2.04	3.28

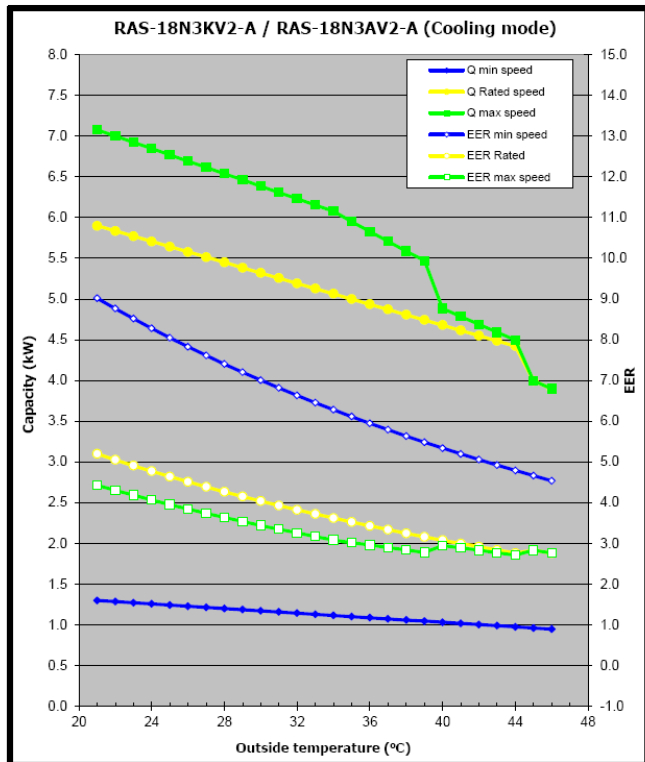


Model : RAS-18N3KV2-A / RAS-18N3AV2-A**Product specification :**

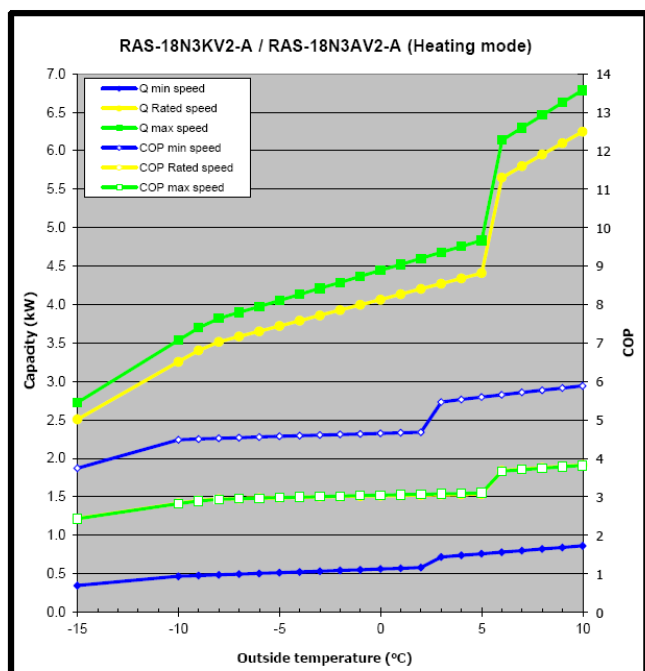
Condition		Capacity (kW)	Power (kW)	EER or COP	
Cooling JIS In : 27°CDB/19°CWb Out : 35°CDB/24°CWb	Min	1.10	0.18	6.11	
	Nominal	5.00	1.42	3.52	
	Max	6.00	2.00	3.00	
Heating JIS In : 20°CDB/ 15°CWb Out : 7°CDB/6°CWb	Min	0.80	0.14	5.71	
	Nominal	5.80	1.56	3.72	
	Max	6.30	1.70	3.71	
Heating Low Temp. In : 20°CDB/ 15°CWb Out : 2°CDB/1°CWb		Max	4.60	1.50	3.07

Cooling performance characteristic :

Outside Temp (°C)	Min capacity			Rated capacity			Max capacity		
	Capacity (kW)	Power (kW)	EER (-)	Capacity (kW)	Power (kW)	EER (-)	Capacity (kW)	Power (kW)	EER (-)
21	1.30	0.14	9.02	5.90	1.14	5.20	7.08	1.60	4.43
22	1.28	0.15	8.76	5.83	1.16	5.05	7.00	1.63	4.30
23	1.27	0.15	8.52	5.77	1.18	4.91	6.92	1.66	4.18
24	1.26	0.15	8.28	5.71	1.20	4.77	6.85	1.68	4.06
25	1.24	0.15	8.05	5.64	1.22	4.64	6.77	1.71	3.95
26	1.23	0.16	7.83	5.58	1.24	4.51	6.69	1.74	3.84
27	1.21	0.16	7.61	5.51	1.26	4.39	6.62	1.77	3.74
28	1.20	0.16	7.40	5.45	1.28	4.27	6.54	1.80	3.63
29	1.18	0.16	7.20	5.39	1.30	4.15	6.46	1.83	3.54
30	1.17	0.17	7.01	5.32	1.32	4.04	6.39	1.86	3.44
31	1.16	0.17	6.82	5.26	1.34	3.93	6.31	1.89	3.35
32	1.14	0.17	6.63	5.19	1.36	3.82	6.23	1.91	3.26
33	1.13	0.17	6.45	5.13	1.38	3.72	6.15	1.94	3.17
34	1.11	0.18	6.28	5.06	1.40	3.62	6.08	1.97	3.08
35	1.10	0.18	6.11	5.00	1.42	3.52	5.95	1.97	3.02
36	1.09	0.18	5.95	4.94	1.44	3.43	5.83	1.97	2.96
37	1.07	0.19	5.79	4.87	1.46	3.34	5.71	1.97	2.89
38	1.06	0.19	5.63	4.81	1.48	3.25	5.59	1.97	2.83
39	1.04	0.19	5.48	4.74	1.50	3.16	5.47	1.97	2.77
40	1.03	0.19	5.34	4.68	1.52	3.07	4.88	1.66	2.95
41	1.02	0.20	5.19	4.62	1.54	2.99	4.78	1.66	2.89
42	1.00	0.20	5.05	4.55	1.56	2.91	4.69	1.66	2.83
43	0.99	0.20	4.92	4.49	1.58	2.83	4.59	1.66	2.77
44	0.97	0.20	4.79	4.42	1.60	2.76	4.50	1.66	2.71
45	0.96	0.21	4.66	4.00	1.41	2.83	4.00	1.41	2.83
46	0.94	0.21	4.53	3.90	1.41	2.76	3.90	1.41	2.76

**Heating performance characteristic :**

Outside Temp (°C)	Min capacity			Nominal capacity			Max capacity		
	Capacity (kW)	Power (kW)	COP (-)	Capacity (kW)	Power (kW)	COP (-)	Capacity (kW)	Power (kW)	COP (-)
-15	0.35	0.09	3.75	2.51	1.03	2.44	2.72	1.12	2.43
-10	0.47	0.10	4.48	3.26	1.15	2.83	3.54	1.25	2.82
-9	0.48	0.11	4.50	3.41	1.17	2.90	3.70	1.28	2.89
-8	0.48	0.11	4.52	3.51	1.19	2.94	3.82	1.30	2.93
-7	0.49	0.11	4.54	3.58	1.21	2.95	3.90	1.32	2.95
-6	0.50	0.11	4.56	3.65	1.23	2.96	3.98	1.34	2.96
-5	0.51	0.11	4.57	3.72	1.25	2.98	4.05	1.36	2.98
-4	0.52	0.11	4.59	3.79	1.27	2.99	4.13	1.38	2.99
-3	0.53	0.12	4.61	3.86	1.29	3.00	4.21	1.40	3.00
-2	0.54	0.12	4.62	3.93	1.31	3.01	4.29	1.42	3.02
-1	0.55	0.12	4.64	4.00	1.32	3.02	4.37	1.44	3.03
0	0.56	0.12	4.65	4.07	1.34	3.03	4.44	1.46	3.04
1	0.57	0.12	4.67	4.13	1.36	3.04	4.52	1.48	3.05
2	0.58	0.12	4.68	4.20	1.38	3.04	4.60	1.50	3.07
3	0.72	0.13	5.46	4.27	1.40	3.05	4.68	1.52	3.08
4	0.74	0.13	5.53	4.34	1.42	3.06	4.76	1.54	3.09
5	0.76	0.14	5.59	4.41	1.44	3.07	4.83	1.56	3.10
6	0.78	0.14	5.65	5.65	1.54	3.68	6.14	1.67	3.67
7	0.80	0.14	5.71	5.80	1.56	3.72	6.30	1.70	3.71
8	0.82	0.14	5.77	5.95	1.58	3.76	6.46	1.73	3.74
9	0.84	0.14	5.83	6.10	1.61	3.79	6.63	1.75	3.78
10	0.86	0.15	5.88	6.25	1.63	3.83	6.79	1.78	3.82

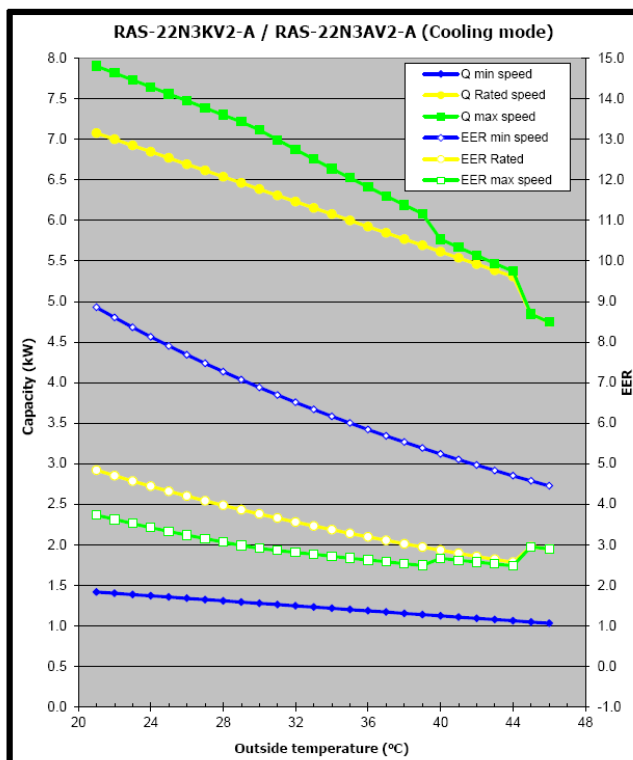


Model : RAS-22N3KV2-A / RAS-22N3AV2-A**Product specification :**

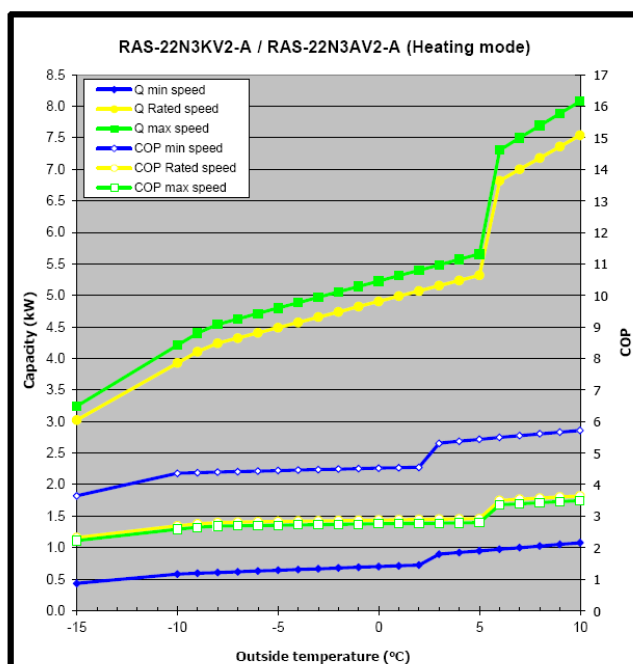
Condition		Capacity (kW)	Power (kW)	EER or COP
Cooling JIS In : 27°CDB/19°CWB Out : 35°CDB/24°CWB	Min	1.20	0.20	6.00
	Nominal	6.00	1.83	3.28
	Max	6.70	2.65	2.53
Heating JIS In : 20°CDB/ 15°CWB Out : 7°CDB/6°CWB	Min	1.00	0.18	5.56
	Nominal	7.00	1.98	3.54
	Max	7.50	2.21	3.39
Heating Low Temp. In : 20°CDB/ 15°CWB Out : 2°CDB/1°CWB	Max	5.40	1.95	2.77

Cooling performance characteristic :

Outside Temp (°C)	Min capacity			Rated capacity			Max capacity		
	Capacity (kW)	Power (kW)	EER (-)	Capacity (kW)	Power (kW)	EER (-)	Capacity (kW)	Power (kW)	EER (-)
21	1.42	0.16	8.85	7.08	1.46	4.84	7.90	2.12	3.73
22	1.40	0.16	8.60	7.00	1.49	4.70	7.82	2.16	3.63
23	1.38	0.17	8.36	6.92	1.52	4.57	7.73	2.19	3.52
24	1.37	0.17	8.13	6.85	1.54	4.44	7.65	2.23	3.43
25	1.35	0.17	7.90	6.77	1.57	4.32	7.56	2.27	3.33
26	1.34	0.17	7.68	6.69	1.59	4.20	7.47	2.31	3.24
27	1.32	0.18	7.47	6.62	1.62	4.08	7.39	2.35	3.15
28	1.31	0.18	7.27	6.54	1.65	3.97	7.30	2.38	3.06
29	1.29	0.18	7.07	6.46	1.67	3.86	7.22	2.42	2.98
30	1.28	0.19	6.88	6.39	1.70	3.76	7.11	2.44	2.91
31	1.26	0.19	6.69	6.31	1.73	3.66	6.99	2.44	2.86
32	1.25	0.19	6.51	6.23	1.75	3.56	6.87	2.44	2.81
33	1.23	0.19	6.34	6.15	1.78	3.46	6.76	2.44	2.76
34	1.22	0.20	6.17	6.08	1.80	3.37	6.64	2.44	2.72
35	1.20	0.20	6.00	6.00	1.83	3.28	6.52	2.44	2.67
36	1.18	0.20	5.84	5.92	1.86	3.19	6.41	2.44	2.62
37	1.17	0.21	5.68	5.85	1.88	3.11	6.30	2.44	2.58
38	1.15	0.21	5.53	5.77	1.91	3.02	6.19	2.44	2.53
39	1.14	0.21	5.38	5.69	1.93	2.94	6.08	2.44	2.49
40	1.12	0.21	5.24	5.62	1.96	2.86	5.97	2.17	2.66
41	1.11	0.22	5.10	5.54	1.99	2.79	5.67	2.17	2.62
42	1.09	0.22	4.96	5.46	2.01	2.71	5.57	2.17	2.57
43	1.08	0.22	4.83	5.38	2.04	2.64	5.47	2.17	2.53
44	1.06	0.23	4.70	5.31	2.07	2.57	5.37	2.17	2.48
45	1.05	0.23	4.57	4.84	1.64	2.95	4.84	1.64	2.95
46	1.03	0.23	4.45	4.75	1.64	2.89	4.75	1.64	2.89

**Heating performance characteristic :**

Outside Temp (°C)	Min capacity			Nominal capacity			Max capacity		
	Capacity (kW)	Power (kW)	COP (-)	Capacity (kW)	Power (kW)	COP (-)	Capacity (kW)	Power (kW)	COP (-)
-15	0.43	0.12	3.64	3.03	1.31	2.32	3.24	1.46	2.22
-10	0.58	0.13	4.36	3.93	1.46	2.69	4.21	1.63	2.59
-9	0.59	0.14	4.38	4.11	1.49	2.76	4.40	1.66	2.65
-8	0.61	0.14	4.39	4.24	1.52	2.80	4.54	1.69	2.68
-7	0.62	0.14	4.41	4.32	1.54	2.81	4.63	1.72	2.69
-6	0.63	0.14	4.43	4.41	1.56	2.82	4.71	1.74	2.70
-5	0.64	0.14	4.45	4.49	1.59	2.83	4.80	1.77	2.71
-4	0.65	0.15	4.46	4.57	1.61	2.84	4.89	1.80	2.72
-3	0.67	0.15	4.48	4.66	1.63	2.85	4.97	1.82	2.73
-2	0.68	0.15	4.49	4.74	1.66	2.86	5.06	1.85	2.74
-1	0.69	0.15	4.51	4.82	1.68	2.87	5.14	1.87	2.75
0	0.70	0.16	4.52	4.91	1.71	2.88	5.23	1.90	2.75
1	0.71	0.16	4.54	4.99	1.73	2.89	5.31	1.92	2.76
2	0.72	0.16	4.55	5.07	1.75	2.89	5.40	1.95	2.77
3	0.90	0.17	5.31	5.16	1.78	2.90	5.49	1.98	2.78
4	0.92	0.17	5.38	5.24	1.80	2.91	5.57	2.00	2.78
5	0.95	0.17	5.44	5.32	1.82	2.92	5.66	2.03	2.79
6	0.97	0.18	5.50	5.40	1.85	2.93	5.74	2.06	2.80
7	1.00	0.18	5.56	5.48	1.88	2.94	5.82	2.09	2.81
8	1.03	0.18	5.61	5.56	1.91	2.95	5.90	2.12	2.82
9	1.05	0.19	5.67	5.64	1.94	2.96	5.98	2.15	2.83
10	1.08	0.19	5.72	5.72	1.97	2.97	6.06	2.18	2.84

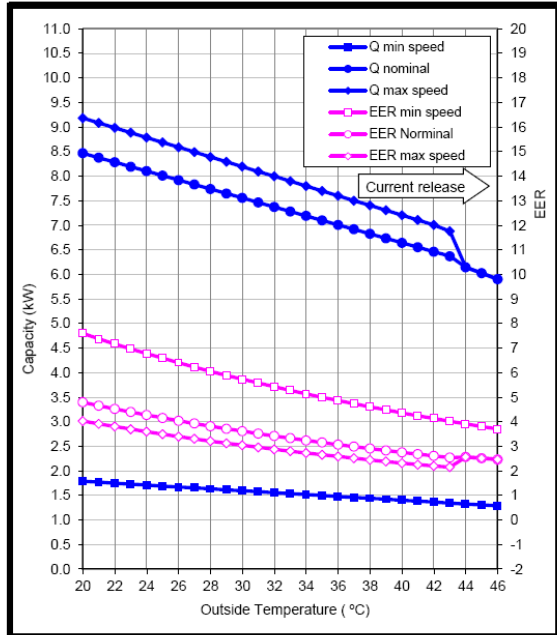


Model : RAS-24N3KV2-A / RAS-24N3AV2-A**Product specification :**

Condition		Capacity (kW)	Power (kW)	EER or COP	
Cooling JIS In: 27°C DB/19°C WB Out: 35°C DB/24°C WB	Min	1.50	0.30	5.00	
	Nominal	7.10	2.25	3.16	
	Max	7.70	2.90	2.66	
Heating JIS In: 20°C DB/15°C WB Out: 7°C DB/6°C WB	Min	1.60	0.30	5.33	
	Nominal	8.10	2.45	3.31	
	Max	9.00	3.30	2.73	
Heating Low Temp. In: 20°C DB/15°C WB Out: 2°C DB/1°C WB		Max	6.50	2.92	2.23

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	1.79	0.24	7.60	8.47	1.77	4.79	9.18	2.28	4.03
21	1.77	0.24	7.38	8.38	1.80	4.66	9.08	2.32	3.92
22	1.75	0.24	7.17	8.28	1.83	4.53	8.98	2.36	3.81
23	1.73	0.25	6.97	8.19	1.86	4.40	8.89	2.40	3.70
24	1.71	0.25	6.77	8.10	1.90	4.28	8.79	2.44	3.60
25	1.69	0.26	6.59	8.01	1.93	4.16	8.69	2.48	3.50
26	1.67	0.26	6.40	7.92	1.96	4.04	8.59	2.53	3.40
27	1.65	0.27	6.23	7.83	1.99	3.93	8.49	2.57	3.31
28	1.63	0.27	6.06	7.74	2.02	3.82	8.39	2.61	3.22
29	1.62	0.27	5.89	7.65	2.06	3.72	8.29	2.65	3.13
30	1.60	0.28	5.73	7.56	2.09	3.62	8.19	2.69	3.04
31	1.58	0.28	5.58	7.46	2.12	3.52	8.10	2.73	2.96
32	1.56	0.29	5.43	7.37	2.15	3.42	8.00	2.78	2.88
33	1.54	0.29	5.28	7.28	2.19	3.33	7.90	2.82	2.80
34	1.52	0.30	5.14	7.19	2.22	3.24	7.80	2.86	2.73
35	1.50	0.30	5.00	7.10	2.25	3.16	7.70	2.90	2.66
36	1.48	0.30	4.87	7.01	2.28	3.07	7.60	2.94	2.58
37	1.46	0.31	4.74	6.92	2.31	2.99	7.50	2.98	2.51
38	1.44	0.31	4.61	6.83	2.35	2.91	7.40	3.02	2.45
39	1.42	0.32	4.49	6.74	2.38	2.83	7.30	3.07	2.38
40	1.40	0.32	4.37	6.64	2.41	2.76	7.21	3.11	2.32
41	1.38	0.33	4.25	6.55	2.44	2.68	7.11	3.15	2.26
42	1.37	0.33	4.14	6.46	2.48	2.61	7.01	3.19	2.20
43	1.35	0.33	4.03	6.37	2.51	2.54	6.88	3.19	2.16
44	1.33	0.34	3.92	6.14	2.39	2.57	6.14	2.39	2.57
45	1.31	0.34	3.81	6.02	2.39	2.52	6.02	2.39	2.52
46	1.29	0.35	3.71	5.90	2.39	2.47	5.90	2.39	2.47

**Heating performance characteristic :**

Outside Temp (°C)	Min capacity			Nominal capacity			Max capacity		
	Capacity (kW)	Power (kW)	COP (-)	Capacity (kW)	Power (kW)	COP (-)	Capacity (kW)	Power (kW)	COP (-)
-15	0.69	0.20	3.50	3.50	1.62	2.17	3.89	2.18	1.79
-10	0.93	0.22	4.18	4.55	1.81	2.52	5.05	2.43	2.08
-9	0.95	0.23	4.20	4.76	1.84	2.58	5.28	2.48	2.13
-8	0.97	0.23	4.22	4.91	1.88	2.62	5.45	2.53	2.16
-7	0.99	0.23	4.24	5.00	1.91	2.63	5.56	2.57	2.17
-6	1.01	0.24	4.25	5.10	1.93	2.64	5.66	2.61	2.17
-5	1.03	0.24	4.27	5.20	1.96	2.65	5.77	2.64	2.18
-4	1.05	0.24	4.28	5.29	1.99	2.66	5.87	2.68	2.19
-3	1.06	0.25	4.30	5.39	2.02	2.66	5.98	2.72	2.19
-2	1.08	0.25	4.31	5.48	2.05	2.67	6.08	2.76	2.20
-1	1.10	0.25	4.33	5.58	2.08	2.68	6.19	2.80	2.21
0	1.12	0.26	4.34	5.68	2.11	2.69	6.29	2.84	2.22
1	1.14	0.26	4.35	5.77	2.14	2.70	6.40	2.88	2.22
2	1.16	0.27	4.37	5.87	2.17	2.71	6.50	2.92	2.23
3	1.43	0.28	5.10	5.97	2.20	2.72	6.60	2.96	2.23
4	1.48	0.29	5.16	6.06	2.23	2.72	6.71	3.00	2.24
5	1.52	0.29	5.22	6.16	2.26	2.73	6.81	3.03	2.25
6	1.56	0.30	5.28	6.26	2.29	2.73	6.91	3.07	2.26
7	1.60	0.30	5.33	6.36	2.32	2.73	7.01	3.11	2.26
8	1.64	0.30	5.39	6.46	2.35	2.73	7.11	3.15	2.26
9	1.68	0.31	5.44	6.56	2.38	2.73	7.21	3.19	2.26
10	1.72	0.31	5.49	6.66	2.41	2.73	7.31	3.23	2.26
11	1.77	0.32	5.54	6.76	2.44	2.73	7.41	3.27	2.26
12	1.81	0.32	5.59	6.86	2.47	2.73	7.51	3.31	2.26
13	1.85	0.33	5.64	6.96	2.50	2.73	7.61	3.35	2.26
14	1.89	0.33	5.68	7.06	2.53	2.73	7.71	3.39	2.26
15	1.93	0.34	5.73	7.16	2.56	2.73	7.81	3.43	2.26
16	1.97	0.34	5.77	7.26	2.59	2.73	7.91	3.47	2.26
17	2.01	0.35	5.81	7.36	2.62	2.73	8.01	3.51	2.26
18	2.05	0.35	5.85	7.46	2.65	2.73	8.11	3.55	2.26
19	2.10	0.36	5.89	7.56	2.68	2.73	8.21	3.59	2.26
20	2.14	0.36	5.93	7.66	2.71	2.73	8.31	3.63	2.26
21	2.18	0.37	5.97	7.76	2.74	2.73	8.41	3.67	2.26
22	2.22	0.37	6.00	7.86	2.77	2.73	8.51	3.71	2.26
23	2.26	0.37	6.04	7.96	2.80	2.73	8.61	3.75	2.26
24	2.30	0.38	6.07	8.06	2.83	2.73	8.71	3.79	2.26

