

# TOSHIBA

Leading Innovation >>>

E10-311

*Multi split Outdoor unit 4rooms (UAV)*

## ENGINEERING DATABOOK

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### Outdoor Unit

Model name: \_\_\_\_\_

**RAS-4M27UAV-E**

# Contents

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<b>1. Specifications</b> .....	<b>2</b>
1-1. Outdoor unit .....	2
1-2. Combination .....	4
<b>2. Pipe Capacity Correction</b> .....	<b>16</b>
<b>3. Dimension</b> .....	<b>17</b>
<b>4. Wiring</b> .....	<b>18</b>
<b>5. Sound Characteristics (NC Curve)</b> .....	<b>19</b>
<b>6. Part Load Performance</b> .....	<b>20</b>
4-room multi split : 1-unit operation (07 type) .....	20
4-room multi split : 1-unit operation (10 type) .....	21
4-room multi split : 1-unit operation (13 type) .....	22
4-room multi split : 1-unit operation (16 type) .....	23
4-room multi split : 1-unit operation (18 type) .....	24
4-room multi split : 1-unit operation (22 type) .....	25
4-room multi split : 1-unit operation (24 type) .....	26
4-room multi split : 2-units operation (07 type + 07 type) .....	27
4-room multi split : 3-units operation (07 type + 07 type + 07 type) .....	28
4-room multi split : 4-units operation (07 type + 07 type + 07 type + 07 type) .....	29

# 1. Specifications

## 1-1. Outdoor unit

Outdoor unit : RAS-4M27UAV-E1

Indoor unit : RAS-M07SKV-E, RAS-M10SKV-E, RAS-M10PKVP-E, RAS-M10PKVP-ND, RAS-B10UFV-E, RAS-M10GDV-E, RAS-M10SMUV-E, RAS-M13SKV-E, RAS-M13PKVP-E, RAS-M13PKVP-ND, RAS-B13UFV-E, RAS-M13GDV-E, RAS-M13SMUV-E, RAS-M16PKVP-E, RAS-M16PKVP-ND, RAS-M16SKV-E, RAS-M16GDV-E, RAS-M16SMUV-E, RAS-M18PKVP-E, RAS-M18PKVP-ND, RAS-B18UFV-E, RAS-M22SKV-E, RAS-M24SKV-E

Technical specifications Heat Pump

Model	(Outdoor Unit)	RAS-4M27UAV-E1
Cooling capacity		8.0
Cooling capacity range		4.2 - 9.3
Heating capacity		9.0
Heating capacity range		3.0 - 11.7
Power Supply	(V / ph / Hz)	220-240 / 1 / 50, 220 / 1 / 60
<b>Electrical characteristics</b>		<b>Indoor unit (4 indoor unit Operating (13+13+13+13))</b>
Cooling running current (220 V / 230 V / 240 V)	(A)	10.94 / 10.46 / 10.03
Cooling power consumption	(W)	2286
Cooling power factor	(%)	95
EER		3.50
Heating running current (220 V / 230 V / 240 V)	(A)	9.22 / 8.82 / 8.45
Heating power consumption	(W)	1927
Heating power factor	(%)	95
COP		4.67
<b>Outdoor unit</b>		
Dimension (H x W x D)	(mm)	890 x 900 x 320
Net weight	(kg)	75
Heat exchanger		finned tube
Fan Motor Output	(W)	60
Air volume	(m <sup>3</sup> / h)	2507
Compressor Output	(W)	2000
Sound pressure level (Cooling ; H)	(dB(A))	48
Sound pressure level (Heating ; H)	(dB(A))	49
Sound power level (Cooling ; H)	(dB(A))	66
Sound power level (Heating ; H)	(dB(A))	69
Refrigerant R410A (Charged refrigerant amount)	(kg)	2.40
<b>Piping connection</b>		
A unit liquid size / Gas size	(mm)	6.35 / 12.7
B unit liquid size / Gas size	(mm)	6.35 / 9.52
C unit liquid size / Gas size	(mm)	6.35 / 9.52
D unit liquid size / Gas size	(mm)	6.35 / 9.52
Max. Piping Length (per unit)	(m)	25
Min. Piping Length (per unit)	(m)	3
Max. Piping Length (total)	(m)	70
Max. charge less Length	(m)	40
Max. Piping Height Difference	(m)	15
<b>Usable temperature range</b>		
Outdoor (cooling / heating)		10 to 43 deg C / -15 to 22 deg C

This specification refer to JIS C9612

**Measured condition :**

- 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

## 1-2. Combination

### 1-2-1. CDU:RAS-4M27UAV-E 230 V (No.1)

<Cooling / 230 V>

Power Voltage (V)	Operating Status	Combination (kBTU)				Unit capacity (kW)				Cooling capacity (kW)	Power input (W)	Running Current (A)	Rated EER	CDU Sound Pressure Level (dB)	CDU Sound Power Level (dB)
		A	B	C	D	A	B	C	D						
230	1 unit Operation	07	-	-	-	2.0	-	-	-	2.0 (1.4 - 2.5)	650 (640 - 700)	3.67 (3.66 - 3.58)	3.08	48	63
		10	-	-	-	2.7	-	-	-	2.7 (1.4 - 3.2)	750 (640 - 950)	4.23 (3.66 - 4.44)	3.60	48	63
		13	-	-	-	3.7	-	-	-	3.7 (1.4 - 4.4)	1200 (640 - 1520)	5.93 (3.52 - 6.88)	3.08	48	63
		16	-	-	-	4.5	-	-	-	4.5 (1.4 - 5.0)	1650 (640 - 2000)	7.63 (3.52 - 8.87)	2.73	48	63
		18	-	-	-	5.0	-	-	-	5.0 (1.4 - 5.2)	1950 (640 - 2100)	8.92 (3.52 - 9.32)	2.56	48	63
		22	-	-	-	6.0	-	-	-	6.0 (2.4 - 6.8)	2020 (640 - 2500)	9.15 (3.52 - 11.09)	2.97	48	63
		24	-	-	-	7.1	-	-	-	7.1 (2.4 - 7.2)	2390 (660 - 2960)	10.82 (3.63 - 13.13)	2.97	48	63
	2 units Operation	07	07	-	-	2.00	2.00	-	-	4.0 (2.5 - 5)	1520 (640 - 1770)	6.96 (3.48 - 7.85)	2.63	48	63
		10	07	-	-	2.70	2.00	-	-	4.7 (2.5 - 5.7)	1530 (640 - 1910)	7.00 (3.48 - 8.47)	3.07	48	63
		13	07	-	-	3.70	2.00	-	-	5.7 (2.6 - 6.5)	1810 (660 - 2130)	8.28 (3.59 - 9.45)	3.15	48	63
		16	07	-	-	4.08	1.82	-	-	5.9 (2.7 - 6.6)	1810 (660 - 2220)	8.28 (3.59 - 9.85)	3.26	48	63
		18	07	-	-	4.50	1.80	-	-	6.3 (2.9 - 6.9)	2040 (670 - 2400)	9.34 (3.64 - 10.65)	3.09	48	63
		22	07	-	-	4.73	1.58	-	-	6.3 (2.9 - 6.9)	2040 (670 - 2400)	9.34 (3.64 - 10.65)	3.09	48	63
		24	07	-	-	5.31	1.49	-	-	6.8 (3.0 - 7.2)	2320 (690 - 2570)	10.62 (3.75 - 11.40)	2.93	48	63
		10	10	-	-	2.70	2.70	-	-	5.4 (2.5 - 6.3)	1530 (640 - 2040)	7.00 (3.48 - 9.05)	3.53	48	63
		13	10	-	-	3.41	2.49	-	-	5.9 (2.7 - 6.6)	1810 (660 - 2220)	8.28 (3.59 - 9.85)	3.26	48	63
		16	10	-	-	3.94	2.36	-	-	6.3 (2.9 - 6.9)	2040 (670 - 2400)	9.34 (3.64 - 10.65)	3.09	48	63
		18	10	-	-	4.09	2.21	-	-	6.3 (2.9 - 6.9)	2040 (670 - 2400)	9.34 (3.64 - 10.65)	3.09	48	63
		22	10	-	-	4.69	2.11	-	-	6.8 (3.0 - 7.2)	2320 (690 - 2570)	10.62 (3.75 - 11.40)	2.93	48	63
		24	10	-	-	5.22	1.98	-	-	7.2 (3.2 - 7.5)	2550 (700 - 2750)	11.67 (3.80 - 12.20)	2.82	48	63
		13	13	-	-	3.15	3.15	-	-	6.3 (2.9 - 6.9)	2040 (670 - 2400)	9.34 (3.64 - 10.65)	3.09	48	63
		16	13	-	-	3.73	3.07	-	-	6.8 (3.0 - 7.2)	2320 (690 - 2570)	10.62 (3.75 - 11.40)	2.93	48	63
		18	13	-	-	3.91	2.89	-	-	6.8 (3.0 - 7.2)	2320 (690 - 2570)	10.62 (3.75 - 11.40)	2.93	48	63
		22	13	-	-	4.45	2.75	-	-	7.2 (3.2 - 7.5)	2550 (700 - 2750)	11.67 (3.80 - 12.20)	2.82	48	63
		24	13	-	-	4.73	2.47	-	-	7.2 (3.2 - 7.5)	2550 (700 - 2750)	11.67 (3.80 - 12.20)	2.82	48	63
		16	16	-	-	3.60	3.60	-	-	7.2 (3.2 - 7.5)	2550 (700 - 2750)	11.67 (3.80 - 12.20)	2.82	48	63
		18	16	-	-	3.79	3.41	-	-	7.2 (3.2 - 7.5)	2550 (700 - 2750)	11.67 (3.80 - 12.20)	2.82	48	63
		22	16	-	-	4.17	3.13	-	-	7.3 (3.2 - 7.5)	2550 (700 - 2750)	11.67 (3.80 - 12.20)	2.86	48	63
24	16	-	-	4.47	2.83	-	-	7.3 (3.2 - 7.5)	2550 (700 - 2750)	11.67 (3.80 - 12.20)	2.86	48	63		
18	18	-	-	3.60	3.60	-	-	7.2 (3.2 - 7.5)	2550 (700 - 2750)	11.67 (3.80 - 12.20)	2.82	48	63		

Power Voltage (V)	Operating Status	Combination (kBTU)				Unit capacity (kW)				Cooling capacity (kW)	Power input (W)	Running Current (A)	Rated EER	CDU Sound Pressure Level (dB)	CDU Sound Power Level (dB)
		A	B	C	D	A	B	C	D						
		22	18	-	-	4.04	3.36	-	-	7.4 (3.2 - 7.5)	2550 (700 - 2750)	11.67 (3.80 - 12.20)	2.90	48	63
		24	18	-	-	4.34	3.06	-	-	7.4 (3.2 - 7.5)	2550 (700 - 2750)	11.67 (3.80 - 12.20)	2.90	48	63

## 1-2-2. CDU:RAS-4M27UAV-E 230 V (No.2)

&lt;Cooling / 230 V&gt;

Power Voltage (V)	Operating Status	Combination (kBTU)				Unit capacity (kW)				Cooling capacity (kW)	Power input (W)	Running Current (A)	Rated EER	CDU Sound Pressure Level (dB)	CDU Sound Power Level (dB)
		A	B	C	D	A	B	C	D						
230	3 units Operation	07	07	07	-	2.00	2.00	2.00	-	6.0 (3.8 - 7.5)	2400 (950 - 2720)	10.98 (4.59 - 12.07)	2.50	48	63
		10	07	07	-	2.70	2.00	2.00	-	6.7 (3.8 - 8.2)	2400 (950 - 2720)	10.98 (4.59 - 12.07)	2.79	48	63
		13	07	07	-	3.65	1.97	1.97	-	7.6 (3.9 - 8.3)	2410 (960 - 2740)	11.03 (4.64 - 12.16)	3.15	48	63
		16	07	07	-	4.08	1.81	1.81	-	7.7 (4.0 - 8.5)	2410 (960 - 2790)	11.03 (4.64 - 12.38)	3.20	48	63
		18	07	07	-	4.28	1.71	1.71	-	7.7 (4.0 - 8.5)	2410 (960 - 2790)	11.03 (4.64 - 12.38)	3.20	48	63
		22	07	07	-	4.68	1.56	1.56	-	7.8 (4.1 - 8.6)	2430 (970 - 2810)	11.12 (4.69 - 12.47)	3.21	48	63
		24	07	07	-	4.99	1.41	1.41	-	7.8 (4.1 - 8.6)	2430 (970 - 2810)	11.12 (4.69 - 12.47)	3.21	48	63
		10	10	07	-	2.70	2.70	2.00	-	7.4 (3.8 - 8.2)	2400 (950 - 2720)	10.98 (4.59 - 12.07)	3.08	48	63
		13	10	07	-	3.39	2.48	1.83	-	7.7 (3.9 - 8.3)	2410 (960 - 2740)	11.03 (4.64 - 12.16)	3.20	48	63
		16	10	07	-	3.77	2.26	1.67	-	7.7 (4.0 - 8.5)	2410 (960 - 2790)	11.03 (4.64 - 12.38)	3.20	48	63
		18	10	07	-	3.97	2.14	1.59	-	7.7 (4.0 - 8.5)	2410 (960 - 2790)	11.03 (4.64 - 12.38)	3.20	48	63
		22	10	07	-	4.37	1.97	1.46	-	7.8 (4.1 - 8.6)	2430 (970 - 2810)	11.12 (4.69 - 12.47)	3.21	48	63
		24	10	07	-	4.69	1.78	1.32	-	7.8 (4.1 - 8.6)	2430 (970 - 2810)	11.12 (4.69 - 12.47)	3.21	48	63
		13	13	07	-	3.03	3.03	1.64	-	7.7 (4.0 - 8.5)	2410 (960 - 2790)	11.03 (4.64 - 12.38)	3.20	48	63
		16	13	07	-	3.44	2.83	1.53	-	7.8 (4.1 - 8.6)	2430 (970 - 2810)	11.12 (4.69 - 12.47)	3.21	48	63
		18	13	07	-	3.64	2.70	1.46	-	7.8 (4.1 - 8.6)	2430 (970 - 2810)	11.12 (4.69 - 12.47)	3.21	48	63
		22	13	07	-	4.00	2.47	1.33	-	7.8 (4.1 - 8.6)	2430 (970 - 2810)	11.12 (4.69 - 12.47)	3.21	48	63
		24	13	07	-	4.38	2.28	1.23	-	7.9 (4.1 - 8.7)	2440 (970 - 2830)	11.17 (4.69 - 12.56)	3.24	48	63
		16	16	07	-	3.19	3.19	1.42	-	7.8 (4.1 - 8.6)	2430 (970 - 2810)	11.12 (4.69 - 12.47)	3.21	48	63
		18	16	07	-	3.39	3.05	1.36	-	7.8 (4.1 - 8.6)	2430 (970 - 2810)	11.12 (4.69 - 12.47)	3.21	48	63
		22	16	07	-	3.79	2.84	1.26	-	7.9 (4.1 - 8.7)	2440 (970 - 2830)	11.17 (4.69 - 12.56)	3.24	48	63
		24	16	07	-	4.12	2.61	1.16	-	7.9 (4.1 - 8.7)	2440 (970 - 2830)	11.17 (4.69 - 12.56)	3.24	48	63
		18	18	07	-	3.29	3.29	1.32	-	7.9 (4.1 - 8.7)	2440 (970 - 2830)	11.17 (4.69 - 12.56)	3.24	48	63
		22	18	07	-	3.65	3.04	1.22	-	7.9 (4.1 - 8.7)	2440 (970 - 2830)	11.17 (4.69 - 12.56)	3.24	48	63
24	18	07	-	3.98	2.80	1.12	-	7.9 (4.1 - 8.7)	2440 (970 - 2830)	11.17 (4.69 - 12.56)	3.24	48	63		
10	10	10	-	2.53	2.53	2.53	-	7.6 (3.8 - 8.2)	2400 (950 - 2720)	10.98 (4.59 - 12.07)	3.17	48	63		
13	10	10	-	3.13	2.28	2.28	-	7.7 (3.9 - 8.3)	2410 (960 - 2740)	11.03 (4.64 - 12.16)	3.20	48	63		
16	10	10	-	3.50	2.10	2.10	-	7.7 (4.0 - 8.5)	2410 (960 - 2790)	11.03 (4.64 - 12.38)	3.20	48	63		
18	10	10	-	3.70	2.00	2.00	-	7.7 (4.0 - 8.5)	2410 (960 - 2790)	11.03 (4.64 - 12.38)	3.20	48	63		
22	10	10	-	4.16	1.87	1.87	-	7.9 (4.1 - 8.7)	2440 (970 - 2830)	11.17 (4.69 - 12.56)	3.24	48	63		
24	10	10	-	4.49	1.71	1.71	-	7.9 (4.1 - 8.7)	2440 (970 - 2830)	11.17 (4.69 - 12.56)	3.24	48	63		

Power Voltage (V)	Operating Status	Combination (kBTU)				Unit capacity (kW)				Cooling capacity (kW)	Power input (W)	Running Current (A)	Rated EER	CDU Sound Pressure Level (dB)	CDU Sound Power Level (dB)
		A	B	C	D	A	B	C	D						
		13	13	10	-	2.82	2.82	2.06	-	7.7 (4.0 - 8.5)	2410 (960 - 2790)	11.03 (4.64 - 12.38)	3.20	48	63
		16	13	10	-	3.22	2.65	1.93	-	7.8 (4.1 - 8.6)	2430 (970 - 2810)	11.12 (4.69 - 12.47)	3.21	48	63
		18	13	10	-	3.42	2.53	1.85	-	7.8 (4.1 - 8.6)	2430 (970 - 2810)	11.12 (4.69 - 12.47)	3.21	48	63
		22	13	10	-	3.82	2.36	1.72	-	7.9 (4.1 - 8.7)	2440 (970 - 2830)	11.17 (4.69 - 12.56)	3.24	48	63
		24	13	10	-	4.15	2.17	1.58	-	7.9 (4.1 - 8.7)	2440 (970 - 2830)	11.17 (4.69 - 12.56)	3.24	48	63
		16	16	10	-	3.04	3.04	1.82	-	7.9 (4.1 - 8.7)	2440 (970 - 2830)	11.17 (4.69 - 12.56)	3.24	48	63
		18	16	10	-	3.20	2.88	1.73	-	7.8 (4.1 - 8.6)	2430 (970 - 2810)	11.12 (4.69 - 12.47)	3.21	48	63
		22	16	10	-	3.64	2.73	1.64	-	8.0 (4.3 - 9.0)	2450 (980 - 2900)	11.21 (4.73 - 12.87)	3.27	48	63
		24	16	10	-	3.97	2.52	1.51	-	8.0 (4.3 - 9.0)	2450 (980 - 2900)	11.21 (4.73 - 12.87)	3.27	48	63
		18	18	10	-	3.11	3.11	1.68	-	7.9 (4.1 - 8.7)	2440 (970 - 2830)	11.17 (4.69 - 12.56)	3.24	48	63
		22	18	10	-	3.50	2.92	1.58	-	8.0 (4.3 - 9.0)	2450 (980 - 2900)	11.21 (4.73 - 12.87)	3.27	48	63
		24	18	10	-	3.84	2.70	1.46	-	8.0 (4.3 - 9.0)	2450 (980 - 2900)	11.21 (4.73 - 12.87)	3.27	48	63
		13	13	13	-	2.60	2.60	2.60	-	7.8 (4.1 - 8.6)	2430 (970 - 2810)	11.12 (4.69 - 12.47)	3.21	48	63
		16	13	13	-	2.99	2.46	2.46	-	7.9 (4.1 - 8.7)	2440 (970 - 2830)	11.17 (4.69 - 12.56)	3.24	48	63
		18	13	13	-	3.19	2.36	2.36	-	7.9 (4.1 - 8.7)	2440 (970 - 2830)	11.17 (4.69 - 12.56)	3.24	48	63
		22	13	13	-	3.58	2.21	2.21	-	8.0 (4.3 - 9.0)	2450 (980 - 2900)	11.21 (4.73 - 12.87)	3.27	48	63
		24	13	13	-	3.92	2.04	2.04	-	8.0 (4.3 - 9.0)	2450 (980 - 2900)	11.21 (4.73 - 12.87)	3.27	48	63
		16	16	13	-	2.80	2.80	2.30	-	7.9 (4.1 - 8.7)	2440 (970 - 2830)	11.17 (4.69 - 12.56)	3.24	48	63
		18	16	13	-	2.99	2.69	2.21	-	7.9 (4.1 - 8.7)	2440 (970 - 2830)	11.17 (4.69 - 12.56)	3.24	48	63
		22	16	13	-	3.38	2.54	2.08	-	8.0 (4.3 - 9.0)	2450 (980 - 2900)	11.21 (4.73 - 12.87)	3.27	48	63
		24	16	13	-	3.71	2.35	1.93	-	8.0 (4.3 - 9.0)	2450 (980 - 2900)	11.21 (4.73 - 12.87)	3.27	48	63
		18	18	13	-	2.88	2.88	2.13	-	7.9 (4.1 - 8.7)	2440 (970 - 2830)	11.17 (4.69 - 12.56)	3.24	48	63
		22	18	13	-	3.27	2.72	2.01	-	8.0 (4.3 - 9.0)	2450 (980 - 2900)	11.21 (4.73 - 12.87)	3.27	48	63
		16	16	16	-	2.67	2.67	2.67	-	8.0 (4.3 - 9.0)	2450 (980 - 2900)	11.21 (4.73 - 12.87)	3.27	48	63
		22	16	16	-	3.20	2.40	2.40	-	8.0 (4.3 - 9.0)	2450 (980 - 2900)	11.21 (4.73 - 12.87)	3.27	48	63

## 1-2-3. CDU:RAS-4M27UAV-E 230 V (No.3)

&lt;Cooling / 230 V&gt;

Power Voltage (V)	Operating Status	Combination (kBTU)				Unit capacity (kW)				Cooling capacity (kW)	Power input (W)	Running Current (A)	Rated EER	CDU Sound Pressure Level (dB)	CDU Sound Power Level (dB)
		A	B	C	D	A	B	C	D						
230	4 units Operation	07	07	07	07	1.78	1.78	1.78	1.78	7.1 (4.0 - 8.6)	2029 (850 - 2620)	9.29 (4.11 - 11.62)	3.50	48	63
		10	07	07	07	2.33	1.72	1.72	1.72	7.5 (4.0 - 8.7)	2143 (890 - 2640)	9.81 (4.30 - 11.71)	3.50	48	63
		13	07	07	07	2.90	1.57	1.57	1.57	7.6 (4.1 - 8.9)	2171 (900 - 2700)	9.94 (4.35 - 11.98)	3.50	48	63
		16	07	07	07	3.30	1.47	1.47	1.47	7.7 (4.1 - 9.0)	2200 (930 - 2730)	10.07 (4.49 - 12.11)	3.50	48	63
		18	07	07	07	3.55	1.42	1.42	1.42	7.8 (4.1 - 9.1)	2229 (930 - 2760)	10.20 (4.49 - 12.24)	3.50	48	63
		22	*07	*07	*07	4.00	1.33	1.33	1.33	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		24	*07	*07	*07	4.34	1.22	1.22	1.22	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		10	10	07	07	2.18	2.18	1.62	1.62	7.6 (4.1 - 8.9)	2171 (900 - 2700)	9.94 (4.35 - 11.98)	3.50	48	63
		13	10	07	07	2.74	2.00	1.48	1.48	7.7 (4.1 - 9.0)	2200 (930 - 2730)	10.07 (4.49 - 12.11)	3.50	48	63
		16	10	07	07	3.13	1.88	1.39	1.39	7.8 (4.1 - 9.1)	2229 (930 - 2760)	10.20 (4.49 - 12.24)	3.50	48	63
		18	10	07	07	3.38	1.82	1.35	1.35	7.9 (4.1 - 9.2)	2257 (940 - 2790)	10.33 (4.54 - 12.38)	3.50	48	63
		22	*10	*07	*07	3.78	1.70	1.26	1.26	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		24	*10	*07	*07	4.12	1.57	1.16	1.16	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		13	13	07	07	2.56	2.56	1.39	1.39	7.9 (4.1 - 9.2)	2257 (940 - 2790)	10.33 (4.54 - 12.38)	3.50	48	63
		16	13	07	07	2.95	2.43	1.31	1.31	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		18	13	07	07	3.15	2.33	1.26	1.26	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		22	*13	*07	*07	3.50	2.16	1.17	1.17	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		24	*13	*07	*07	3.84	2.00	1.08	1.08	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		16	16	07	07	2.77	2.77	1.23	1.23	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		18	16	07	07	2.96	2.67	1.19	1.19	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		18	18	07	07	2.86	2.86	1.14	1.14	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		10	10	10	07	2.03	2.03	2.03	1.50	7.6 (4.1 - 8.9)	2171 (900 - 2700)	9.94 (4.35 - 11.98)	3.50	48	63
		13	10	10	07	2.60	1.90	1.90	1.41	7.8 (4.1 - 9.1)	2229 (930 - 2760)	10.20 (4.49 - 12.24)	3.50	48	63
		16	10	10	07	2.99	1.79	1.79	1.33	7.9 (4.1 - 9.2)	2257 (940 - 2790)	10.33 (4.54 - 12.38)	3.50	48	63
		18	10	10	07	3.23	1.74	1.74	1.29	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		22	*10	*10	*07	3.58	1.61	1.61	1.19	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		24	*10	*10	*07	3.92	1.49	1.49	1.10	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		13	13	10	07	2.45	2.45	1.79	1.32	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
16	13	10	07	2.79	2.29	1.67	1.24	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63		
18	13	10	07	2.99	2.21	1.61	1.19	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63		
22	*13	*10	*07	3.33	2.06	1.50	1.11	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63		



Power Voltage (V)	Operating Status	Combination (kBTU)				Unit capacity (kW)				Cooling capacity (kW)	Power input (W)	Running Current (A)	Rated EER	CDU Sound Pressure Level (dB)	CDU Sound Power Level (dB)
		A	B	C	D	A	B	C	D						
		24	*13	*10	*07	3.66	1.91	1.39	1.03	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		16	16	10	07	2.63	2.63	1.58	1.17	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		18	16	10	07	2.82	2.54	1.52	1.13	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		18	18	10	07	2.72	2.72	1.47	1.09	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		13	13	13	07	2.26	2.26	2.26	1.22	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		16	13	13	07	2.59	2.13	2.13	1.15	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		18	13	13	07	2.78	2.06	2.06	1.11	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		16	16	13	07	2.45	2.45	2.01	1.09	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		18	16	13	07	2.63	2.37	1.95	1.05	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		10	10	10	10	1.98	1.98	1.98	1.98	7.9 (4.1 - 9.2)	2257 (940 - 2790)	10.33 (4.54 - 12.38)	3.50	48	63
		13	10	10	10	2.48	1.81	1.81	1.81	7.9 (4.1 - 9.2)	2257 (940 - 2790)	10.33 (4.54 - 12.38)	3.50	48	63
		16	10	10	10	2.86	1.71	1.71	1.71	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		18	10	10	10	3.05	1.65	1.65	1.65	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		22	*10	*10	*10	3.40	1.53	1.53	1.53	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		24	*10	*10	*10	3.74	1.42	1.42	1.42	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		13	13	10	10	2.31	2.31	1.69	1.69	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		16	13	10	10	2.65	2.18	1.59	1.59	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		16	16	10	10	2.50	2.50	1.50	1.50	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		18	13	10	10	2.84	2.10	1.53	1.53	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		18	16	10	10	2.68	2.42	1.45	1.45	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		13	13	13	10	2.14	2.14	2.14	1.57	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		16	13	13	10	2.47	2.03	2.03	1.48	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		18	13	13	10	2.65	1.96	1.96	1.43	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63
		13	13	13	13	2.00	2.00	2.00	2.00	8.0 (4.2 - 9.3)	2286 (950 - 2820)	10.46 (4.59 - 12.51)	3.50	48	63

\* Applicable FCU are only SKV-E

## 1-2-4. CDU:RAS-4M27UAV-E 230 V (No.1)

&lt;Heating / 230 V&gt;

Power Voltage (V)	Operating Status	Combination (kBTU)				Unit capacity (kW)				Heating capacity (kW)	Power input (W)	Running Current (A)	Rated EER	CDU Sound Pressure Level (dB)	CDU Sound Power Level (dB)
		A	B	C	D	A	B	C	D						
230	1 unit Operation	07	-	-	-	2.7	-	-	-	2.7 (0.8 - 4.8)	900 (300 - 1980)	4.50 (1.79 - 8.78)	3.00	49	64
		10	-	-	-	4.0	-	-	-	4.0 (0.8 - 5.2)	1450 (300 - 1980)	6.64 (1.79 - 8.78)	2.76	49	64
		13	-	-	-	5.0	-	-	-	5.0 (0.8 - 6.5)	2050 (310 - 2750)	9.38 (1.85 - 12.20)	2.44	49	64
		16	-	-	-	5.5	-	-	-	5.5 (0.8 - 6.9)	2400 (310 - 3000)	10.98 (1.85 - 13.31)	2.29	49	64
		18	-	-	-	6.0	-	-	-	6.0 (0.8 - 7.1)	2630 (310 - 3200)	12.04 (1.85 - 14.20)	2.28	49	64
		22	-	-	-	7.0	-	-	-	7.0 (1.8 - 8.2)	2700 (330 - 3600)	12.23 (1.97 - 15.97)	2.59	49	64
		24	-	-	-	8.1	-	-	-	8.1 (1.8 - 8.6)	3300 (330 - 3700)	14.95 (1.97 - 16.42)	2.45	49	64
	2 units Operation	07	07	-	-	2.70	2.70	-	-	5.4 (1.5 - 7.4)	2050 (320 - 3200)	9.38 (1.86 - 14.20)	2.63	49	64
		10	07	-	-	4.00	2.70	-	-	6.7 (1.5 - 8.9)	2080 (320 - 3200)	9.52 (1.86 - 14.20)	3.22	49	64
		13	07	-	-	4.81	2.59	-	-	7.4 (1.5 - 10.1)	2320 (320 - 3210)	10.62 (1.86 - 14.24)	3.19	49	64
		16	07	-	-	5.10	2.50	-	-	7.6 (1.5 - 10.1)	2480 (320 - 3230)	11.35 (1.86 - 14.33)	3.06	49	64
		18	07	-	-	5.45	2.45	-	-	7.9 (1.5 - 10.1)	2480 (320 - 3230)	11.35 (1.86 - 14.33)	3.19	49	64
		22	07	-	-	5.70	2.20	-	-	7.9 (1.5 - 10.1)	2480 (320 - 3230)	11.35 (1.86 - 14.33)	3.19	49	64
		24	07	-	-	6.23	2.08	-	-	8.3 (1.5 - 10.2)	2700 (320 - 3240)	12.36 (1.86 - 14.37)	3.07	49	64
		10	10	-	-	3.60	3.60	-	-	7.2 (1.5 - 10)	2100 (320 - 3200)	9.61 (1.86 - 14.20)	3.43	49	64
		13	10	-	-	4.22	3.38	-	-	7.6 (1.5 - 10.1)	2320 (320 - 3210)	10.62 (1.86 - 14.24)	3.28	49	64
		16	10	-	-	4.57	3.33	-	-	7.9 (1.5 - 10.1)	2480 (320 - 3230)	11.35 (1.86 - 14.33)	3.19	49	64
		18	10	-	-	4.74	3.16	-	-	7.9 (1.5 - 10.1)	2480 (320 - 3230)	11.35 (1.86 - 14.33)	3.19	49	64
		22	10	-	-	5.28	3.02	-	-	8.3 (1.5 - 10.2)	2700 (320 - 3240)	12.36 (1.86 - 14.37)	3.07	49	64
		24	10	-	-	5.76	2.84	-	-	8.6 (1.5 - 10.2)	2860 (320 - 3250)	13.09 (1.86 - 14.42)	3.01	49	64
		13	13	-	-	3.95	3.95	-	-	7.9 (1.5 - 10.1)	2480 (320 - 3230)	11.35 (1.86 - 14.33)	3.19	49	64
		16	13	-	-	4.35	3.95	-	-	8.3 (1.5 - 10.2)	2700 (320 - 3240)	12.36 (1.86 - 14.37)	3.07	49	64
		18	13	-	-	4.53	3.77	-	-	8.3 (1.5 - 10.2)	2700 (320 - 3240)	12.36 (1.86 - 14.37)	3.07	49	64
		22	13	-	-	5.02	3.58	-	-	8.6 (1.5 - 10.2)	2860 (320 - 3250)	13.09 (1.86 - 14.42)	3.01	49	64
		24	13	-	-	5.32	3.28	-	-	8.6 (1.5 - 10.2)	2860 (320 - 3250)	13.09 (1.86 - 14.42)	3.01	49	64
		16	16	-	-	4.30	4.30	-	-	8.6 (1.5 - 10.2)	2860 (320 - 3250)	13.09 (1.86 - 14.42)	3.01	49	64
		18	16	-	-	4.49	4.11	-	-	8.6 (1.5 - 10.2)	2860 (320 - 3250)	13.09 (1.86 - 14.42)	3.01	49	64
		22	16	-	-	4.82	3.78	-	-	8.6 (1.5 - 10.2)	2860 (320 - 3250)	13.09 (1.86 - 14.42)	3.01	49	64
24	16	-	-	5.12	3.48	-	-	8.6 (1.5 - 10.2)	2860 (320 - 3250)	13.09 (1.86 - 14.42)	3.01	49	64		
18	18	-	-	4.30	4.30	-	-	8.6 (1.5 - 10.2)	2860 (320 - 3250)	13.09 (1.86 - 14.42)	3.01	49	64		
22	18	-	-	4.63	3.97	-	-	8.6 (1.5 - 10.2)	2860 (320 - 3250)	13.09 (1.86 - 14.42)	3.01	49	64		

Power Voltage (V)	Operating Status	Combination (kBTU)				Unit capacity (kW)				Heating capacity (kW)	Power input (W)	Running Current (A)	Rated EER	CDU Sound Pressure Level (dB)	CDU Sound Power Level (dB)
		A	B	C	D	A	B	C	D						
		24	18	-	-	4.94	3.66	-	-	8.6 (1.5 - 10.2)	2860 (320 - 3250)	13.09 (1.86 - 14.42)	3.01	49	64

## 1-2-5. CDU:RAS-4M27UAV-E 230 V (No.2)

&lt;Heating / 230 V&gt;

Power Voltage (V)	Operating Status	Combination (kBTU)				Unit capacity (kW)				Heating capacity (kW)	Power input (W)	Running Current (A)	Rated EER	CDU Sound Pressure Level (dB)	CDU Sound Power Level (dB)
		A	B	C	D	A	B	C	D						
230	3 units Operation	07	07	07	-	2.70	2.70	2.70	-	8.1 (2.0 - 10.4)	2290 (380 - 2750)	10.48 (2.07 - 12.20)	3.54	49	64
		10	07	07	-	3.53	2.38	2.38	-	8.3 (2.0 - 10.4)	2300 (380 - 2750)	10.53 (2.07 - 12.20)	3.61	49	64
		13	07	07	-	4.13	2.23	2.23	-	8.6 (2.0 - 10.4)	2300 (380 - 2750)	10.53 (2.07 - 12.20)	3.74	49	64
		16	07	07	-	4.39	2.16	2.16	-	8.7 (2.0 - 10.5)	2350 (380 - 2760)	10.76 (2.07 - 12.24)	3.70	49	64
		18	07	07	-	4.58	2.06	2.06	-	8.7 (2.0 - 10.5)	2350 (380 - 2760)	10.76 (2.07 - 12.24)	3.70	49	64
		22	07	07	-	4.91	1.89	1.89	-	8.7 (2.0 - 10.5)	2350 (380 - 2760)	10.76 (2.07 - 12.24)	3.70	49	64
		24	07	07	-	5.22	1.74	1.74	-	8.7 (2.0 - 10.5)	2350 (380 - 2760)	10.76 (2.07 - 12.24)	3.70	49	64
		10	10	07	-	3.18	3.18	2.14	-	8.5 (2.0 - 10.4)	2300 (380 - 2750)	10.53 (2.07 - 12.20)	3.70	49	64
		13	10	07	-	3.72	2.97	2.01	-	8.7 (2.0 - 10.5)	2350 (380 - 2760)	10.76 (2.07 - 12.24)	3.70	49	64
		16	10	07	-	3.92	2.85	1.93	-	8.7 (2.0 - 10.5)	2350 (380 - 2760)	10.76 (2.07 - 12.24)	3.70	49	64
		18	10	07	-	4.11	2.74	1.85	-	8.7 (2.0 - 10.5)	2350 (380 - 2760)	10.76 (2.07 - 12.24)	3.70	49	64
		22	10	07	-	4.50	2.57	1.73	-	8.8 (2.0 - 10.6)	2400 (380 - 2780)	10.98 (2.07 - 12.33)	3.67	49	64
		24	10	07	-	4.82	2.38	1.61	-	8.8 (2.0 - 10.6)	2400 (380 - 2780)	10.98 (2.07 - 12.33)	3.67	49	64
		13	13	07	-	3.43	3.43	1.85	-	8.7 (2.0 - 10.5)	2350 (380 - 2760)	10.76 (2.07 - 12.24)	3.70	49	64
		16	13	07	-	3.67	3.33	1.80	-	8.8 (2.0 - 10.6)	2400 (380 - 2780)	10.98 (2.07 - 12.33)	3.67	49	64
		18	13	07	-	3.85	3.21	1.73	-	8.8 (2.0 - 10.6)	2400 (380 - 2780)	10.98 (2.07 - 12.33)	3.67	49	64
		22	13	07	-	4.24	3.03	1.63	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		24	13	07	-	4.56	2.82	1.52	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		16	16	07	-	3.57	3.57	1.75	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		18	16	07	-	3.76	3.45	1.69	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		22	16	07	-	4.10	3.22	1.58	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		24	16	07	-	4.42	3.00	1.47	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		18	18	07	-	3.63	3.63	1.63	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		22	18	07	-	3.97	3.40	1.53	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
24	18	07	-	4.29	3.18	1.43	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64		
10	10	10	-	2.87	2.87	2.87	-	8.6 (2.0 - 10.4)	2300 (380 - 2750)	10.53 (2.07 - 12.20)	3.74	49	64		
13	10	10	-	3.35	2.68	2.68	-	8.7 (2.0 - 10.5)	2350 (380 - 2760)	10.76 (2.07 - 12.24)	3.70	49	64		
16	10	10	-	3.54	2.58	2.58	-	8.7 (2.0 - 10.5)	2350 (380 - 2760)	10.76 (2.07 - 12.24)	3.70	49	64		
18	10	10	-	3.73	2.49	2.49	-	8.7 (2.0 - 10.5)	2350 (380 - 2760)	10.76 (2.07 - 12.24)	3.70	49	64		
22	10	10	-	4.15	2.37	2.37	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64		
24	10	10	-	4.48	2.21	2.21	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64		

Power Voltage (V)	Operating Status	Combination (kBTU)				Unit capacity (kW)				Heating capacity (kW)	Power input (W)	Running Current (A)	Rated EER	CDU Sound Pressure Level (dB)	CDU Sound Power Level (dB)
		A	B	C	D	A	B	C	D						
		13	13	10	-	3.11	3.11	2.49	-	8.7 (2.0 - 10.5)	2350 (380 - 2760)	10.76 (2.07 - 12.24)	3.70	49	64
		16	13	10	-	3.34	3.03	2.43	-	8.8 (2.0 - 10.6)	2400 (380 - 2780)	10.98 (2.07 - 12.33)	3.67	49	64
		18	13	10	-	3.56	2.97	2.37	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		22	13	10	-	3.89	2.78	2.23	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		24	13	10	-	4.22	2.60	2.08	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		16	16	10	-	3.26	3.26	2.37	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		18	16	10	-	3.45	3.16	2.30	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		22	16	10	-	3.78	2.97	2.16	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		24	16	10	-	4.10	2.78	2.02	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		18	18	10	-	3.34	3.34	2.23	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		22	18	10	-	3.66	3.14	2.09	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		24	18	10	-	3.98	2.95	1.97	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		13	13	13	-	2.93	2.93	2.93	-	8.8 (2.0 - 10.6)	2400 (380 - 2780)	10.98 (2.07 - 12.33)	3.67	49	64
		16	13	13	-	3.16	2.87	2.87	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		18	13	13	-	3.34	2.78	2.78	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		22	13	13	-	3.66	2.62	2.62	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		24	13	13	-	3.98	2.46	2.46	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		16	16	13	-	3.06	3.06	2.78	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		18	16	13	-	3.24	2.97	2.70	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		22	16	13	-	3.56	2.80	2.54	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		24	16	13	-	3.88	2.63	2.39	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		18	18	13	-	3.14	3.14	2.62	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		22	18	13	-	3.46	2.97	2.47	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		16	16	16	-	2.97	2.97	2.97	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64
		22	16	16	-	3.46	2.72	2.72	-	8.9 (2.0 - 10.7)	2450 (380 - 2790)	11.21 (2.07 - 12.38)	3.63	49	64

## 1-2-6. CDU:RAS-4M27UAV-E 230 V (No.3)

&lt;Heating / 230 V&gt;

Power Voltage (V)	Operating Status	Combination (kBTU)				Unit capacity (kW)				Heating capacity (kW)	Power input (W)	Running Current (A)	Rated EER	CDU Sound Pressure Level (dB)	CDU Sound Power Level (dB)
		A	B	C	D	A	B	C	D						
230	4 units Operation	07	07	07	07	2.09	2.09	2.09	2.09	8.4 (3.0 - 11.5)	1792 (470 - 2560)	8.20 (2.27 - 11.36)	4.67	49	64
		10	07	07	07	2.80	1.89	1.89	1.89	8.5 (3.0 - 11.5)	1812 (470 - 2560)	8.29 (2.27 - 11.36)	4.67	49	64
		13	07	07	07	3.30	1.78	1.78	1.78	8.6 (3.0 - 11.6)	1850 (480 - 2580)	8.47 (2.32 - 11.45)	4.67	49	64
		16	07	07	07	3.53	1.73	1.73	1.73	8.7 (3.0 - 11.6)	1869 (490 - 2580)	8.55 (2.37 - 11.45)	4.67	49	64
		18	07	07	07	3.75	1.69	1.69	1.69	8.8 (3.0 - 11.6)	1889 (490 - 2580)	8.65 (2.37 - 11.45)	4.67	49	64
		22	*07	*07	*07	4.17	1.61	1.61	1.61	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		24	*07	*07	*07	4.50	1.50	1.50	1.50	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		10	10	07	07	2.58	2.58	1.74	1.74	8.6 (3.0 - 11.6)	1850 (480 - 2580)	8.47 (2.32 - 11.45)	4.67	49	64
		13	10	07	07	3.03	2.43	1.64	1.64	8.7 (3.0 - 11.6)	1869 (490 - 2580)	8.55 (2.37 - 11.45)	4.67	49	64
		16	10	07	07	3.26	2.37	1.60	1.60	8.8 (3.0 - 11.6)	1889 (490 - 2580)	8.65 (2.37 - 11.45)	4.67	49	64
		18	10	07	07	3.47	2.31	1.56	1.56	8.9 (3.0 - 11.7)	1908 (500 - 2600)	8.73 (2.42 - 11.54)	4.67	49	64
		22	*10	*07	*07	3.84	2.20	1.48	1.48	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		24	*10	*07	*07	4.17	2.06	1.39	1.39	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		13	13	07	07	2.89	2.89	1.56	1.56	8.9 (3.0 - 11.7)	1908 (500 - 2600)	8.73 (2.42 - 11.54)	4.67	49	64
		16	13	07	07	3.11	2.83	1.53	1.53	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		18	13	07	07	3.29	2.74	1.48	1.48	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		22	*13	*07	*07	3.62	2.59	1.40	1.40	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		24	*13	*07	*07	3.94	2.43	1.31	1.31	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		16	16	07	07	3.02	3.02	1.48	1.48	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		18	16	07	07	3.20	2.93	1.44	1.44	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		18	18	07	07	3.10	3.10	1.40	1.40	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		10	10	10	07	2.35	2.35	2.35	1.59	8.6 (3.0 - 11.6)	1850 (480 - 2580)	8.47 (2.32 - 11.45)	4.67	49	64
		13	10	10	07	2.81	2.25	2.25	1.52	8.8 (3.0 - 11.6)	1889 (490 - 2580)	8.65 (2.37 - 11.45)	4.67	49	64
		16	10	10	07	3.03	2.20	2.20	1.49	8.9 (3.0 - 11.7)	1908 (500 - 2600)	8.73 (2.42 - 11.54)	4.67	49	64
		18	10	10	07	3.23	2.16	2.16	1.46	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		22	*10	*10	*07	3.56	2.03	2.03	1.37	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		24	*10	*10	*07	3.88	1.91	1.91	1.29	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		13	13	10	07	2.69	2.69	2.16	1.46	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
16	13	10	07	2.88	2.62	2.09	1.41	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64		
18	13	10	07	3.05	2.54	2.03	1.37	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64		

Power Voltage (V)	Operating Status	Combination (kBtu)				Unit capacity (kW)				Heating capacity (kW)	Power input (W)	Running Current (A)	Rated EER	CDU Sound Pressure Level (dB)	CDU Sound Power Level (dB)
		A	B	C	D	A	B	C	D						
		22	*13	*10	*07	3.37	2.41	1.93	1.30	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		24	*13	*10	*07	3.68	2.27	1.82	1.23	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		16	16	10	07	2.80	2.80	2.03	1.37	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		18	16	10	07	2.97	2.72	1.98	1.34	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		18	18	10	07	2.89	2.89	1.93	1.30	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		13	13	13	07	2.54	2.54	2.54	1.37	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		16	13	13	07	2.72	2.47	2.47	1.34	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		18	13	13	07	2.89	2.41	2.41	1.30	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		16	16	13	07	2.65	2.65	2.41	1.30	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		18	16	13	07	2.81	2.58	2.34	1.27	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		10	10	10	10	2.18	2.18	2.18	2.18	8.7 (3.0 - 11.6)	1869 (490 - 2580)	8.55 (2.37 - 11.45)	4.67	49	64
		13	10	10	10	2.62	2.10	2.10	2.10	8.9 (3.0 - 11.7)	1908 (500 - 2600)	8.73 (2.42 - 11.54)	4.67	49	64
		16	10	10	10	2.83	2.06	2.06	2.06	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		18	10	10	10	3.00	2.00	2.00	2.00	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		22	*10	*10	*10	3.32	1.89	1.89	1.89	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		24	*10	*10	*10	3.63	1.79	1.79	1.79	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		13	13	10	10	2.50	2.50	2.00	2.00	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		16	13	10	10	2.68	2.43	1.95	1.95	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		16	16	10	10	2.61	2.61	1.89	1.89	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		18	13	10	10	2.84	2.37	1.89	1.89	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		18	16	10	10	2.77	2.54	1.85	1.85	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		13	13	13	10	2.37	2.37	2.37	1.89	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		16	13	13	10	2.54	2.31	2.31	1.85	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		18	13	13	10	2.70	2.25	2.25	1.80	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64
		13	13	13	13	2.25	2.25	2.25	2.25	9.0 (3.0 - 11.7)	1927 (500 - 2600)	8.82 (2.42 - 11.54)	4.67	49	64

\* Applicable FCU are only SKV-E

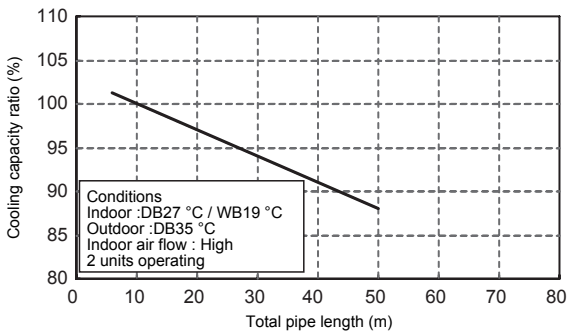
# 2. Pipe Capacity Correction

## ■ Connecting pipe length and lift difference between indoor units vs. capacity correction value

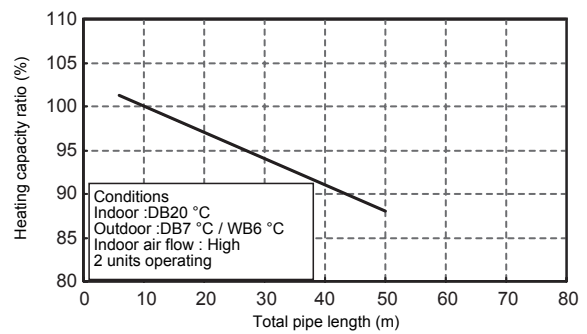
### RAS-4M27UAV-E

#### 2 rooms

##### Cooling

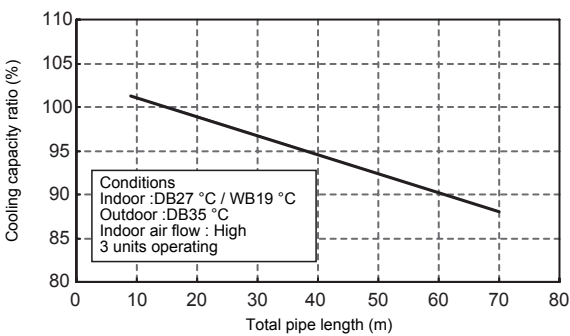


##### Heating

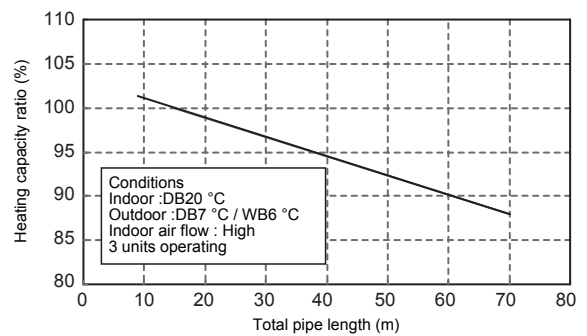


#### 3 rooms

##### Cooling

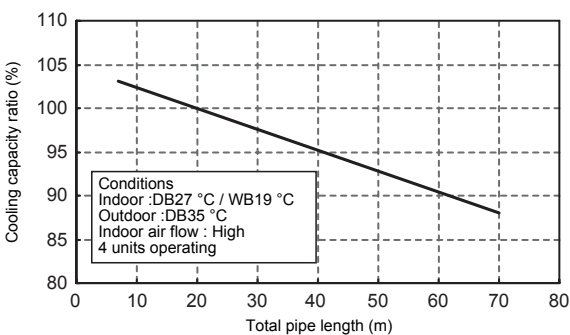


##### Heating

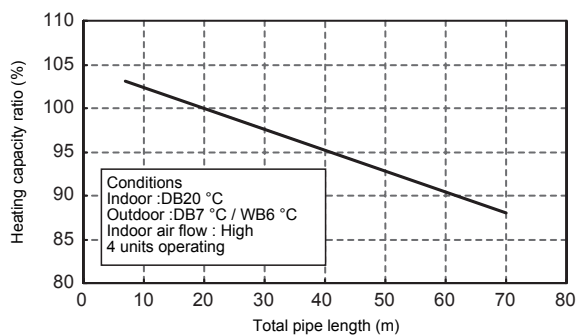


#### 4 rooms

##### Cooling



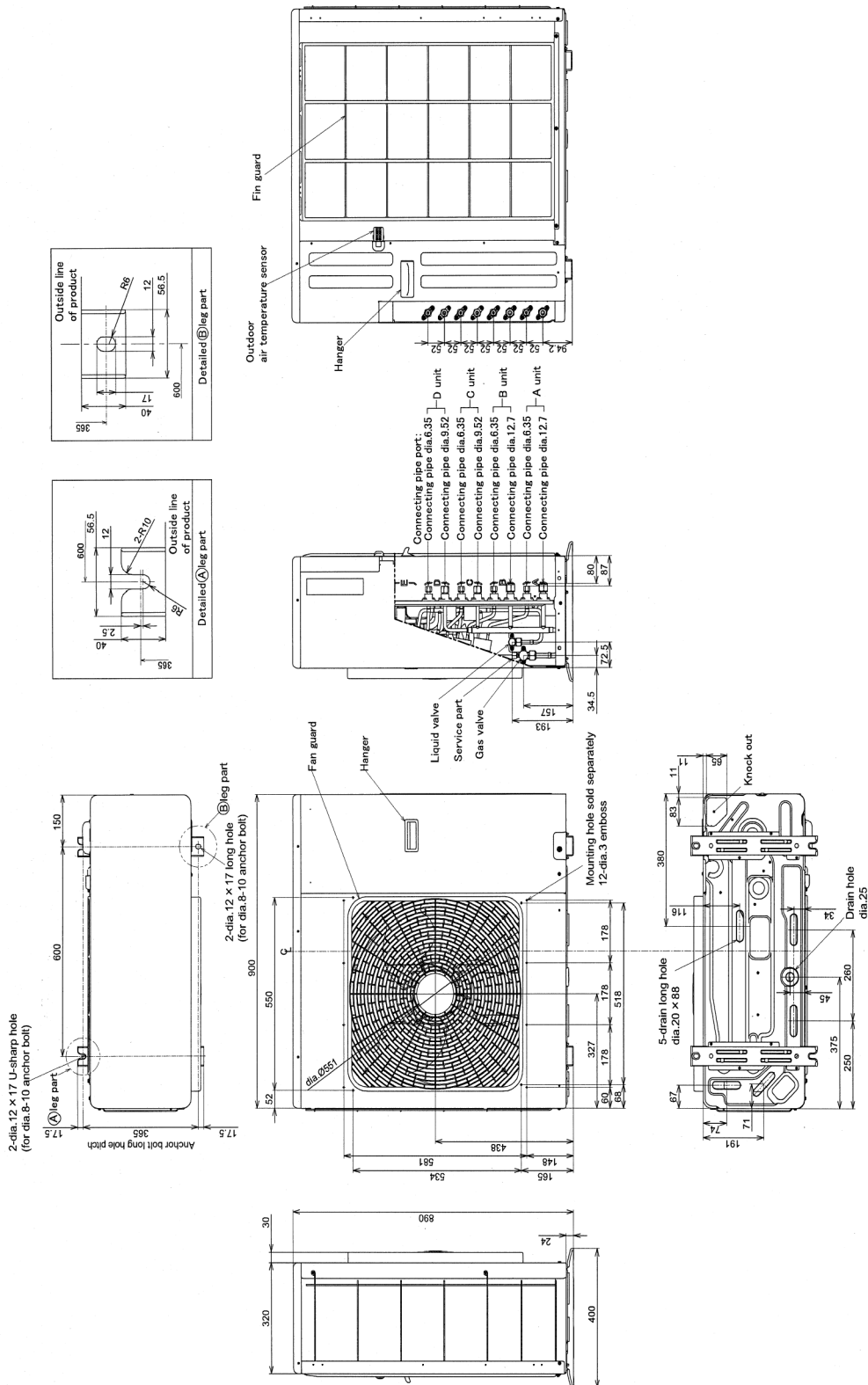
##### Heating





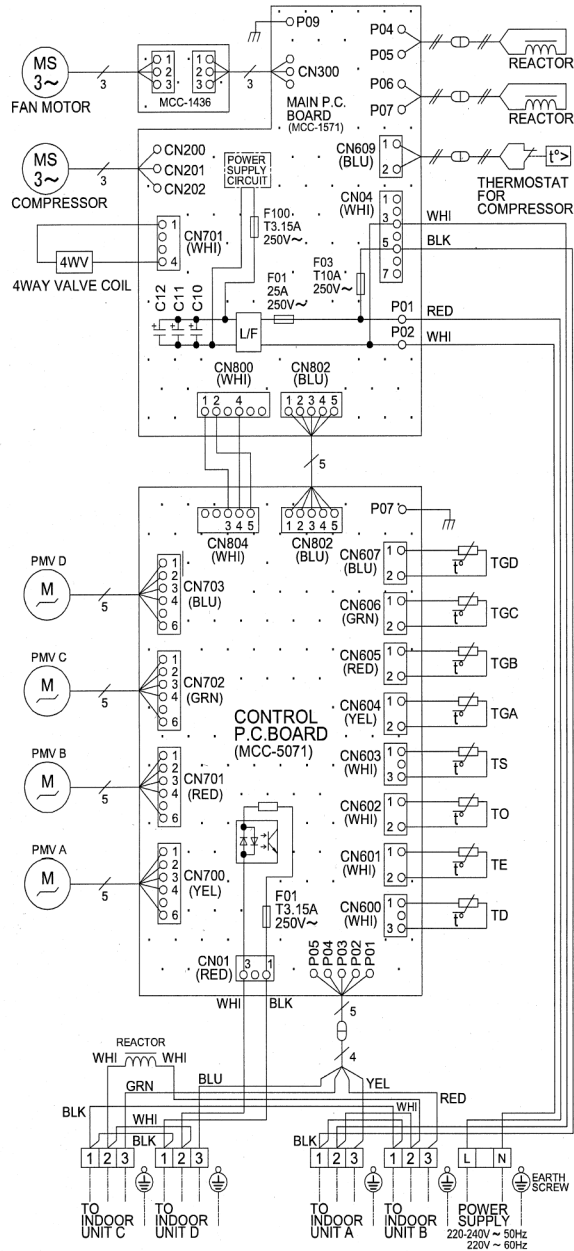
# 3. Dimension

Units: mm



# 4. Wiring

Units: mm



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

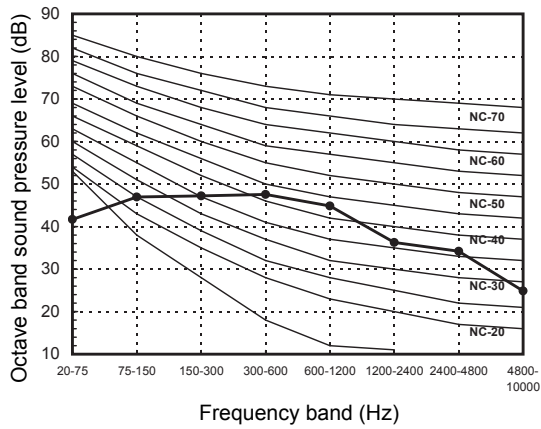
Symbol	Part name
PMV	PULSE MOTOR VALVE
TD	DISCHARGE PIPE TEMP. SENSOR
TE	CONDENSER PIPE TEMP. SENSOR
TO	OUTDOOR TEMP. SENSOR
TS	SUCTION PIPE TEMP. SENSOR
TGA ~ TGD	GAS SIDE PIPE TEMP. SENSOR A ~ D
L / F	LINE FILTER

# 5. Sound Characteristics (NC Curve)

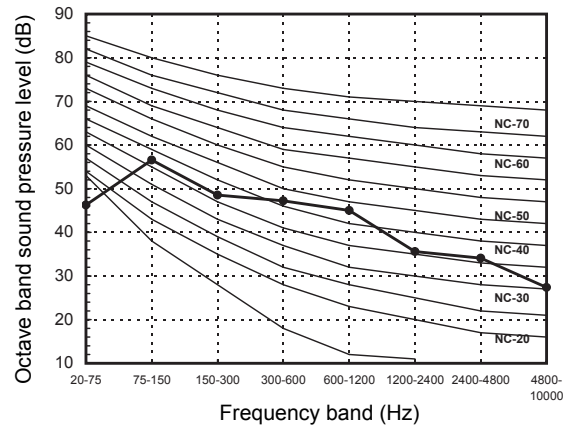
Model name	Measuring location	Sound pressure level (dB)	
		Cooling	Heating
RAS-4M27UAV-E		48	49

Sound level values shown are based on a measurement in a non resound room.

**RAS-4M27UAV-E Cooling**



**RAS-4M27UAV-E Heating**



## 6. Part Load Performance

### 4-room multi split : 1-unit operation (07 type)

Indoor units : RAS-M07SKV-E

Outdoor unit : RAS-4M27UAV-E

	Cooling		Heating	
	Capacity Q (W)	Power consumption W (W)	Capacity Q (W)	Power consumption W (W)
Minimum	1400	640	800	300
Rating	2000	650	2700	900
Maximum	2500	700	4800	1980

### Cooling

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
43	Q	1790	1620	1440	1260	1260	1260	1260	1260	1260	1260
	W	720	720	710	710	710	710	710	710	710	710
40	Q	1870	1680	1500	1310	1310	1310	1310	1310	1310	1310
	W	700	700	690	690	690	690	690	690	690	690
35	Q	2000	1800	1600	1400	1400	1400	1400	1400	1400	1400
	W	650	650	640	640	640	640	640	640	640	640
30	Q	2130	1920	1700	1490	1490	1490	1490	1490	1490	1490
	W	600	600	590	590	590	590	590	590	590	590
25	Q	2260	2030	1810	1580	1580	1580	1580	1580	1580	1580
	W	560	560	550	550	550	550	550	550	550	550
20	Q	2390	2150	1910	1670	1670	1670	1670	1670	1670	1670
	W	510	510	500	500	500	500	500	500	500	500

### Heating

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
20	Q	3390	3050	2720	2380	2040	1700	1360	1020	1010	1010
	W	990	890	800	710	620	520	430	330	330	330
15	Q	3130	2810	2500	2190	1880	1560	1250	940	930	930
	W	960	860	780	680	600	500	410	320	320	320
10	Q	2860	2570	2290	2000	1720	1430	1140	860	850	850
	W	920	830	750	660	570	480	400	310	310	310
7	Q	2700	2430	2160	1890	1620	1350	1080	810	800	800
	W	900	810	730	640	560	470	390	300	300	300
5.5	Q	2300	2070	1840	1610	1380	1150	920	690	680	680
	W	840	760	680	600	520	440	360	280	280	280
5	Q	2160	1950	1730	1510	1300	1080	870	650	640	640
	W	830	750	680	600	520	440	360	280	280	280
2	Q	1960	1760	1570	1370	1180	980	780	590	580	580
	W	800	720	650	570	500	420	340	270	270	270
0	Q	1820	1640	1460	1280	1090	910	730	550	540	540
	W	780	700	630	550	480	410	330	260	260	260
-5	Q	1480	1340	1190	1040	890	740	590	450	440	440
	W	720	650	580	510	450	380	310	240	240	240
-7	Q	1350	1210	1080	940	810	670	540	400	400	400
	W	700	630	560	500	430	360	300	230	230	230
-10	Q	1420	1280	1140	1000	850	710	570	430	420	420
	W	730	650	590	520	450	380	310	240	240	240

**4-room multi split : 1-unit operation (10 type)**

Indoor units : RAS-M10PKVP-E, RAS-M10PKVP-ND, RAS-M10SKV-E, RAS-M10GDV-E,  
RAS-M10SMUV-E, RAS-B10UFV-E

Outdoor unit : RAS-4M27UAV-E

	Cooling		Heating	
	Capacity Q (W)	Power consumption W (W)	Capacity Q (W)	Power consumption W (W)
Minimum	1400	640	800	300
Rating	2700	750	4000	1450
Maximum	3200	950	5200	1980

**Cooling**

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
43	Q	2420	2180	1940	1700	1450	1260	1260	1260	1260	1260
	W	830	810	780	750	730	710	710	710	710	710
40	Q	2530	2270	2020	1770	1520	1310	1310	1310	1310	1310
	W	800	780	750	730	710	690	690	690	690	690
35	Q	2700	2430	2160	1890	1620	1400	1400	1400	1400	1400
	W	750	730	700	680	660	640	640	640	640	640
30	Q	2870	2590	2300	2010	1720	1490	1490	1490	1490	1490
	W	700	680	650	630	610	590	590	590	590	590
25	Q	3050	2740	2440	2130	1830	1580	1580	1580	1580	1580
	W	640	630	600	580	570	550	550	550	550	550
20	Q	3220	2900	2580	2250	1930	1670	1670	1670	1670	1670
	W	590	570	550	530	520	500	500	500	500	500

**Heating**

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
20	Q	5030	4530	4020	3520	3020	2510	2010	1510	1010	1010
	W	1600	1440	1280	1120	970	800	650	480	330	330
15	Q	4630	4170	3710	3240	2780	2320	1850	1390	930	930
	W	1540	1390	1230	1080	940	780	630	470	320	320
10	Q	4240	3810	3390	2970	2540	2120	1690	1270	850	850
	W	1480	1340	1190	1040	900	750	600	450	310	310
7	Q	4000	3600	3200	2800	2400	2000	1600	1200	800	800
	W	1450	1310	1160	1020	880	730	590	440	300	300
5.5	Q	3410	3070	2730	2390	2050	1710	1370	1020	680	680
	W	1350	1220	1080	950	820	680	550	410	280	280
5	Q	3210	2890	2570	2250	1930	1610	1290	960	640	640
	W	1340	1210	1070	940	810	680	550	410	280	280
2	Q	2910	2620	2330	2040	1750	1460	1170	870	580	580
	W	1290	1160	1030	900	780	650	520	390	270	270
0	Q	2700	2430	2170	1900	1630	1360	1090	810	540	540
	W	1250	1130	1000	880	760	630	510	380	260	260
-5	Q	2200	1980	1760	1540	1320	1100	880	660	440	440
	W	1160	1040	930	810	700	580	470	350	240	240
-7	Q	2000	1800	1600	1400	1200	1000	800	600	400	400
	W	1120	1010	900	790	680	560	460	340	230	230
-10	Q	2110	1900	1690	1480	1260	1050	840	630	420	420
	W	1170	1060	930	820	710	590	480	350	240	240

**4-room multi split : 1-unit operation (13 type)**

Indoor units : RAS-M13PKVP-E, RAS-M13PKVP-ND, RAS-M13SKV-E, RAS-M13GDV-E,  
RAS-M13SMUV-E, RAS-B13UFV-E

Outdoor unit : RAS-4M27UAV-E

	Cooling		Heating	
	Capacity Q (W)	Power consumption W (W)	Capacity Q (W)	Power consumption W (W)
Minimum	1400	640	800	310
Rating	3700	1200	5000	2050
Maximum	4400	1520	6500	2750

**Cooling**

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
43	Q	3320	2990	2660	2320	1990	1660	1330	1260	1260	1260
	W	1330	1230	1130	1030	930	830	730	710	710	710
40	Q	3460	3120	2770	2420	2080	1730	1390	1310	1310	1310
	W	1290	1190	1090	1000	900	800	710	690	690	690
35	Q	3700	3330	2960	2590	2220	1850	1480	1400	1400	1400
	W	1200	1110	1020	930	840	750	660	640	640	640
30	Q	3940	3540	3150	2760	2360	1970	1570	1490	1490	1490
	W	1110	1030	950	860	780	700	610	590	590	590
25	Q	4170	3760	3340	2920	2500	2090	1670	1580	1580	1580
	W	1030	950	870	800	720	640	570	550	550	550
20	Q	4410	3970	3530	3090	2650	2210	1760	1670	1670	1670
	W	940	870	800	730	660	590	520	500	500	500

**Heating**

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
20	Q	6280	5660	5030	4400	3770	3140	2510	1890	1260	1010
	W	2260	2030	1810	1580	1340	1110	890	660	430	340
15	Q	5790	5210	4630	4050	3470	2900	2320	1740	1160	930
	W	2180	1960	1740	1520	1300	1070	860	640	410	330
10	Q	5300	4770	4240	3710	3180	2650	2120	1590	1060	850
	W	2100	1880	1680	1460	1250	1030	830	610	400	320
7	Q	5000	4500	4000	3500	3000	2500	2000	1500	1000	800
	W	2050	1840	1640	1430	1220	1010	810	600	390	310
5.5	Q	4270	3840	3410	2990	2560	2130	1710	1280	850	680
	W	1910	1720	1530	1330	1140	940	760	560	360	290
5	Q	4020	3610	3210	2810	2410	2000	1610	1200	800	640
	W	1900	1710	1520	1320	1130	930	750	560	360	290
2	Q	3640	3270	2910	2550	2180	1820	1460	1090	720	580
	W	1820	1640	1460	1270	1090	900	720	530	340	280
0	Q	3390	3050	2700	2370	2030	1690	1360	1020	670	540
	W	1770	1590	1410	1230	1050	870	700	520	330	270
-5	Q	2760	2480	2200	1930	1650	1370	1100	830	550	440
	W	1640	1470	1310	1140	980	810	650	480	310	250
-7	Q	2500	2250	2000	1750	1500	1250	1000	750	500	400
	W	1580	1430	1270	1100	950	780	630	460	300	240
-10	Q	2630	2370	2110	1840	1580	1320	1050	790	530	420
	W	1650	1480	1320	1150	980	810	650	480	310	250

**4-room multi split : 1-unit operation (16 type)**

Indoor units : RAS-M16PKVP-E, RAS-M16PKVP-ND, RAS-M16SKV-E, RAS-M16GDV-E,  
RAS-M16SMUV-E

Outdoor unit : RAS-4M27UAV-E

	Cooling		Heating	
	Capacity Q (W)	Power consumption W (W)	Capacity Q (W)	Power consumption W (W)
Minimum	1400	640	800	310
Rating	4500	1650	5500	2400
Maximum	5000	2000	6900	3000

**Cooling**

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
43	Q	4040	3630	3230	2830	2420	2020	1620	1260	1260	1260
	W	1830	1670	1510	1340	1180	1020	850	710	710	710
40	Q	4210	3790	3370	2950	2530	2110	1680	1310	1310	1310
	W	1770	1610	1460	1300	1140	990	830	690	690	690
35	Q	4500	4050	3600	3150	2700	2250	1800	1400	1400	1400
	W	1650	1500	1360	1210	1060	920	770	640	640	640
30	Q	4790	4310	3830	3350	2870	2390	1920	1490	1490	1490
	W	1530	1390	1260	1120	980	850	710	590	590	590
25	Q	5080	4570	4060	3550	3050	2540	2030	1580	1580	1580
	W	1410	1290	1170	1040	910	790	660	550	550	550
20	Q	5370	4830	4290	3760	3220	2680	2150	1670	1670	1670
	W	1300	1180	1070	950	830	720	600	500	500	500

**Heating**

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
20	Q	6910	6220	5530	4840	4150	3460	2770	2070	1380	1010
	W	2640	2380	2100	1840	1560	1300	1020	760	480	340
15	Q	6370	5730	5100	4460	3820	3180	2550	1910	1270	930
	W	2550	2300	2030	1770	1510	1250	990	730	470	330
10	Q	5830	5240	4660	4080	3500	2910	2330	1750	1170	850
	W	2460	2210	1950	1710	1450	1210	950	710	450	320
7	Q	5500	4950	4400	3850	3300	2750	2200	1650	1100	800
	W	2400	2160	1910	1670	1420	1180	930	690	440	310
5.5	Q	4690	4220	3750	3290	2820	2350	1880	1410	940	680
	W	2240	2010	1780	1560	1320	1100	870	640	410	290
5	Q	4410	3970	3530	3100	2650	2210	1770	1330	880	640
	W	2220	2000	1770	1550	1310	1090	860	640	410	290
2	Q	4000	3600	3200	2800	2400	2000	1600	1200	800	580
	W	2130	1910	1690	1490	1260	1050	830	610	390	280
0	Q	3720	3350	2970	2610	2240	1860	1490	1120	750	540
	W	2070	1860	1650	1440	1220	1020	800	590	380	270
-5	Q	3030	2720	2420	2120	1820	1520	1210	910	610	440
	W	1920	1720	1520	1340	1130	940	750	550	350	250
-7	Q	2750	2470	2200	1930	1650	1380	1100	830	550	400
	W	1860	1670	1480	1290	1090	910	720	530	340	240
-10	Q	2900	2610	2320	2030	1740	1450	1160	870	580	420
	W	1930	1740	1540	1350	1140	950	750	560	350	250

**4-room multi split : 1-unit operation (18 type)**

Indoor units : RAS-M18PKVP-E, RAS-M18PKVP-ND, RAS-B18UFV-E

Outdoor unit : RAS-4M27UAV-E

	Cooling		Heating	
	Capacity Q (W)	Power consumption W (W)	Capacity Q (W)	Power consumption W (W)
Minimum	1400	640	800	310
Rating	5000	1950	6000	2630
Maximum	5200	2100	7100	3200

**Cooling**

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
43	Q	4490	4040	3590	3140	2690	2240	1790	1350	1260	1260
	W	2160	1960	1770	1550	1350	1150	950	750	710	710
40	Q	4680	4210	3740	3280	2810	2340	1870	1400	1310	1310
	W	2090	1900	1700	1500	1310	1110	920	730	690	690
35	Q	5000	4500	4000	3500	3000	2500	2000	1500	1400	1400
	W	1950	1770	1590	1400	1220	1040	860	680	640	640
30	Q	5320	4790	4260	3720	3190	2660	2130	1600	1490	1490
	W	1810	1640	1480	1300	1130	970	800	630	590	590
25	Q	5640	5080	4510	3950	3390	2820	2260	1690	1580	1580
	W	1670	1520	1360	1200	1050	890	740	580	550	550
20	Q	5960	5370	4770	4170	3580	2980	2390	1790	1670	1670
	W	1530	1390	1250	1100	960	820	680	530	500	500

**Heating**

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
20	Q	7540	6790	6030	5280	4530	3770	3020	2260	1510	1010
	W	2900	2600	2300	2020	1720	1420	1120	840	540	340
15	Q	6950	6250	5560	4860	4170	3470	2780	2080	1390	930
	W	2790	2510	2220	1940	1660	1370	1080	810	520	330
10	Q	6360	5720	5080	4450	3810	3180	2540	1910	1270	850
	W	2690	2420	2140	1870	1600	1320	1040	780	500	320
7	Q	6000	5400	4800	4200	3600	3000	2400	1800	1200	800
	W	2630	2360	2090	1830	1560	1290	1020	760	490	310
5.5	Q	5120	4610	4100	3580	3070	2560	2050	1540	1020	680
	W	2450	2200	1950	1710	1450	1200	950	710	460	290
5	Q	4820	4340	3860	3370	2890	2410	1930	1450	960	640
	W	2430	2180	1940	1700	1440	1190	940	710	460	290
2	Q	4360	3930	3490	3050	2620	2180	1750	1310	870	580
	W	2330	2090	1860	1630	1380	1140	900	680	440	280
0	Q	4060	3660	3250	2840	2430	2030	1630	1220	810	540
	W	2270	2030	1800	1580	1340	1110	880	660	430	270
-5	Q	3300	2970	2650	2310	1980	1650	1320	990	660	440
	W	2100	1880	1670	1460	1240	1030	810	610	390	250
-7	Q	3000	2700	2400	2100	1800	1500	1200	900	600	400
	W	2030	1820	1620	1420	1200	1000	790	590	380	240
-10	Q	3160	2850	2530	2210	1900	1580	1260	950	630	420
	W	2120	1900	1680	1470	1260	1040	820	610	390	250



**4-room multi split : 1-unit operation (22 type)**

Indoor units : RAS-M22SKV-E

Outdoor unit : RAS-4M27UAV-E

	Cooling		Heating	
	Capacity Q (W)	Power consumption W (W)	Capacity Q (W)	Power consumption W (W)
Minimum	2400	640	1800	330
Rating	6000	2020	7000	2700
Maximum	6800	2500	8200	3600

**Cooling**

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
43	Q	5380	4850	4310	3770	3230	2690	2150	2150	2150	2150
	W	2240	1990	1730	1480	1220	970	710	710	710	710
40	Q	5620	5050	4490	3930	3370	2810	2250	2250	2250	2250
	W	2160	1920	1670	1430	1180	930	690	690	690	690
35	Q	6000	5400	4800	4200	3600	3000	2400	2400	2400	2400
	W	2020	1790	1560	1330	1100	870	640	640	640	640
30	Q	6390	5750	5110	4470	3830	3190	2550	2550	2550	2550
	W	1880	1660	1450	1230	1020	810	590	590	590	590
25	Q	6770	6090	5420	4740	4060	3390	2710	2710	2710	2710
	W	1730	1530	1340	1140	940	750	550	550	550	550
20	Q	7160	6440	5720	5010	4290	3580	2860	2860	2860	2860
	W	1590	1410	1220	1040	860	680	500	500	500	500

**Heating**

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
20	Q	8800	7920	7040	6160	5280	4400	3520	2640	2260	2260
	W	2970	2620	2270	1920	1560	1210	870	520	360	360
15	Q	8110	7300	6490	5670	4860	4050	3240	2430	2080	2080
	W	2870	2530	2190	1850	1510	1170	840	500	350	350
10	Q	7420	6670	5930	5190	4450	3710	2970	2220	1910	1910
	W	2760	2440	2110	1780	1450	1130	810	480	340	340
7	Q	7000	6300	5600	4900	4200	3500	2800	2100	1800	1800
	W	2700	2380	2060	1740	1420	1100	790	470	330	330
5.5	Q	5970	5380	4780	4180	3580	2990	2390	1790	1540	1540
	W	2520	2220	1920	1620	1320	1030	740	440	310	310
5	Q	5620	5060	4500	3930	3370	2810	2250	1680	1450	1450
	W	2500	2200	1910	1610	1310	1020	730	440	310	310
2	Q	5090	4580	4070	3560	3050	2550	2040	1530	1310	1310
	W	2400	2110	1830	1540	1260	980	700	420	300	300
0	Q	4730	4270	3790	3320	2840	2370	1900	1420	1220	1220
	W	2330	2050	1780	1500	1220	950	680	410	290	290
-5	Q	3850	3470	3080	2700	2310	1930	1540	1160	990	990
	W	2160	1900	1640	1390	1130	880	630	380	270	270
-7	Q	3500	3150	2800	2450	2100	1750	1400	1050	900	900
	W	2090	1840	1590	1340	1090	850	610	360	260	260
-10	Q	3690	3320	2950	2580	2210	1840	1480	1110	950	950
	W	2180	1920	1660	1400	1140	890	640	380	270	270

**4-room multi split : 1-unit operation (24 type)**

Indoor units : RAS-M24SKV-E

Outdoor unit : RAS-4M27UAV-E

	Cooling		Heating	
	Capacity Q (W)	Power consumption W (W)	Capacity Q (W)	Power consumption W (W)
Minimum	2400	660	1800	330
Rating	7100	2390	8100	3300
Maximum	7200	2960	8600	3700

**Cooling**

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
43	Q	6370	5730	5100	4460	3820	3190	2550	2150	2150	2150
	W	2650	2360	2080	1790	1490	1200	910	730	730	730
40	Q	6640	5980	5320	4650	3990	3320	2660	2250	2250	2250
	W	2560	2280	2000	1730	1440	1160	880	710	710	710
35	Q	7100	6390	5680	4970	4260	3550	2840	2400	2400	2400
	W	2390	2130	1870	1610	1340	1080	820	660	660	660
30	Q	7560	6800	6040	5290	4530	3780	3020	2550	2550	2550
	W	2220	1980	1740	1490	1240	1000	760	610	610	610
25	Q	8010	7210	6410	5610	4810	4010	3200	2710	2710	2710
	W	2050	1820	1600	1380	1150	930	700	570	570	570
20	Q	8470	7620	6770	5930	5080	4230	3390	2860	2860	2860
	W	1880	1670	1470	1260	1050	850	640	520	520	520

**Heating**

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
20	Q	10180	9160	8150	7130	6110	5090	4070	3050	2260	2260
	W	3640	3220	2800	2370	1950	1530	1110	690	360	360
15	Q	9380	8440	7500	6570	5630	4690	3750	2810	2080	2080
	W	3510	3100	2700	2280	1880	1480	1070	670	350	350
10	Q	8580	7720	6860	6010	5150	4290	3430	2570	1910	1910
	W	3380	2990	2600	2200	1810	1420	1030	640	340	340
7	Q	8100	7290	6480	5670	4860	4050	3240	2430	1800	1800
	W	3300	2920	2540	2150	1770	1390	1010	630	330	330
5.5	Q	6910	6220	5530	4840	4150	3460	2760	2070	1540	1540
	W	3080	2720	2370	2000	1650	1300	940	590	310	310
5	Q	6500	5850	5200	4550	3900	3260	2600	1950	1450	1450
	W	3060	2700	2350	1990	1640	1290	930	590	310	310
2	Q	5890	5300	4710	4120	3540	2950	2350	1760	1310	1310
	W	2930	2590	2260	1900	1570	1240	900	560	300	300
0	Q	5480	4930	4390	3840	3290	2740	2190	1640	1220	1220
	W	2850	2520	2190	1850	1530	1200	870	550	290	290
-5	Q	4460	4010	3570	3120	2680	2230	1780	1340	990	990
	W	2640	2330	2030	1710	1410	1110	810	510	270	270
-7	Q	4050	3650	3240	2840	2430	2030	1620	1210	900	900
	W	2550	2260	1970	1660	1370	1080	780	490	260	260
-10	Q	4270	3840	3410	2990	2560	2130	1710	1280	950	950
	W	2660	2350	2050	1730	1430	1120	810	510	270	270

**4-room multi split : 2-units operation (07 type + 07 type)**

Indoor units : RAS-M07SKV-E

Outdoor unit : RAS-4M27UAV-E

	Cooling		Heating	
	Capacity Q (W)	Power consumption W (W)	Capacity Q (W)	Power consumption W (W)
Minimum	2500	640	1500	320
Rating	4000	1520	5400	2050
Maximum	5000	1770	7400	3200

**Cooling**

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
43	Q	3590	3230	2870	2510	2240	2240	2240	2240	2240	2240
	W	1690	1430	1170	910	710	710	710	710	710	710
40	Q	3740	3370	2990	2620	2340	2340	2340	2340	2340	2340
	W	1630	1380	1130	880	690	690	690	690	690	690
35	Q	4000	3600	3200	2800	2500	2500	2500	2500	2500	2500
	W	1520	1290	1050	820	640	640	640	640	640	640
30	Q	4260	3830	3410	2980	2660	2660	2660	2660	2660	2660
	W	1410	1200	970	760	590	590	590	590	590	590
25	Q	4510	4060	3610	3160	2820	2820	2820	2820	2820	2820
	W	1300	1110	900	700	550	550	550	550	550	550
20	Q	4770	4290	3820	3340	2980	2980	2980	2980	2980	2980
	W	1190	1010	820	640	500	500	500	500	500	500

**Heating**

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
20	Q	6790	6110	5430	4750	4070	3390	2720	2040	1890	1890
	W	2260	1990	1730	1470	1200	940	670	410	350	350
15	Q	6250	5630	5000	4380	3750	3130	2500	1880	1740	1740
	W	2180	1920	1670	1410	1160	900	650	390	340	340
10	Q	5720	5150	4580	4000	3430	2860	2290	1720	1590	1590
	W	2100	1850	1610	1360	1120	870	620	380	330	330
7	Q	5400	4860	4320	3780	3240	2700	2160	1620	1500	1500
	W	2050	1810	1570	1330	1090	850	610	370	320	320
5.5	Q	4610	4150	3690	3230	2760	2300	1840	1380	1280	1280
	W	1910	1690	1460	1240	1020	790	570	340	300	300
5	Q	4340	3900	3470	3040	2600	2160	1730	1300	1200	1200
	W	1900	1680	1450	1230	1010	780	570	340	300	300
2	Q	3930	3540	3140	2750	2350	1960	1570	1180	1090	1090
	W	1820	1610	1390	1180	970	750	540	320	290	290
0	Q	3660	3290	2930	2560	2190	1820	1460	1090	1020	1020
	W	1770	1560	1350	1150	940	730	530	310	280	280
-5	Q	2970	2680	2380	2080	1780	1480	1190	890	830	830
	W	1640	1450	1250	1060	870	680	490	290	260	260
-7	Q	2700	2430	2160	1890	1620	1350	1080	810	750	750
	W	1580	1400	1210	1030	850	660	470	280	250	250
-10	Q	2850	2560	2280	1990	1710	1420	1140	850	790	790
	W	1650	1460	1260	1070	880	680	490	300	260	260

**4-room multi split : 3-units operation (07 type + 07 type + 07 type)**

Indoor units : RAS-M07SKV-E

Outdoor unit : RAS-4M27UAV-E

	Cooling		Heating	
	Capacity Q (W)	Power consumption W (W)	Capacity Q (W)	Power consumption W (W)
Minimum	3800	950	2000	380
Rating	6000	2400	8100	2290
Maximum	7500	2720	10400	2750

**Cooling**

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
43	Q	5380	4850	4310	3770	3410	3410	3410	3410	3410	3410
	W	2660	2220	1790	1340	1050	1050	1050	1050	1050	1050
40	Q	5620	5050	4490	3930	3560	3560	3560	3560	3560	3560
	W	2570	2140	1730	1300	1020	1020	1020	1020	1020	1020
35	Q	6000	5400	4800	4200	3800	3800	3800	3800	3800	3800
	W	2400	2000	1610	1210	950	950	950	950	950	950
30	Q	6390	5750	5110	4470	4040	4040	4040	4040	4040	4040
	W	2230	1860	1490	1120	880	880	880	880	880	880
25	Q	6770	6090	5420	4740	4290	4290	4290	4290	4290	4290
	W	2060	1710	1380	1040	810	810	810	810	810	810
20	Q	7160	6440	5720	5010	4530	4530	4530	4530	4530	4530
	W	1880	1570	1260	950	750	750	750	750	750	750

**Heating**

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
20	Q	10180	9160	8150	7130	6110	5090	4070	3050	2510	2510
	W	2520	2250	1960	1690	1410	1120	850	560	420	420
15	Q	9380	8440	7500	6570	5630	4690	3750	2810	2320	2320
	W	2430	2170	1890	1630	1360	1080	820	540	400	400
10	Q	8580	7720	6860	6010	5150	4290	3430	2570	2120	2120
	W	2340	2090	1820	1570	1310	1040	790	520	390	390
7	Q	8100	7290	6480	5670	4860	4050	3240	2430	2000	2000
	W	2290	2040	1780	1530	1280	1020	770	510	380	380
5.5	Q	6910	6220	5530	4840	4150	3460	2760	2070	1710	1710
	W	2140	1900	1660	1430	1190	950	720	480	350	350
5	Q	6500	5850	5200	4550	3900	3260	2600	1950	1610	1610
	W	2130	1890	1650	1420	1180	940	720	480	350	350
2	Q	5890	5300	4710	4120	3540	2950	2350	1760	1460	1460
	W	2040	1810	1580	1360	1130	900	690	460	330	330
0	Q	5480	4930	4390	3840	3290	2740	2190	1640	1360	1360
	W	1980	1760	1540	1320	1100	880	670	440	320	320
-5	Q	4460	4010	3570	3120	2680	2230	1780	1340	1100	1100
	W	1830	1630	1420	1220	1020	810	620	410	300	300
-7	Q	4050	3650	3240	2840	2430	2030	1620	1210	1000	1000
	W	1770	1580	1380	1190	990	790	600	400	290	290
-10	Q	4270	3840	3410	2990	2560	2130	1710	1280	1050	1050
	W	1850	1640	1430	1230	1030	820	620	410	310	310

**4-room multi split : 4-units operation (07 type + 07 type + 07 type + 07 type)**

Indoor units : RAS-M07SKV-E

Outdoor unit : RAS-4M27UAV-E

	Cooling		Heating	
	Capacity Q (W)	Power consumption W (W)	Capacity Q (W)	Power consumption W (W)
Minimum	4000	850	3000	470
Rating	7100	2029	8400	1792
Maximum	8600	2620	11500	2560

**Cooling**

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
43	Q	6370	5730	5100	4460	3820	3590	3590	3590	3590	3590
	W	2250	1950	1650	1350	1050	940	940	940	940	940
40	Q	6640	5980	5320	4650	3990	3740	3740	3740	3740	3740
	W	2170	1890	1600	1310	1020	910	910	910	910	910
35	Q	7100	6390	5680	4970	4260	4000	4000	4000	4000	4000
	W	2029	1760	1490	1220	950	850	850	850	850	850
30	Q	7560	6800	6040	5290	4530	4260	4260	4260	4260	4260
	W	1880	1630	1380	1130	880	790	790	790	790	790
25	Q	8010	7210	6410	5610	4810	4510	4510	4510	4510	4510
	W	1740	1510	1280	1050	810	730	730	730	730	730
20	Q	8470	7620	6770	5930	5080	4770	4770	4770	4770	4770
	W	1590	1380	1170	960	750	670	670	670	670	670

**Heating**

Outdoor temperature (°C)		Load (%)									
		100	90	80	70	60	50	40	30	20	10
20	Q	10560	9500	8450	7390	6340	5280	4220	3770	3770	3770
	W	1970	1750	1520	1300	1070	840	620	520	520	520
15	Q	9730	8760	7780	6810	5840	4860	3890	3470	3470	3470
	W	1900	1690	1470	1250	1030	810	600	500	500	500
10	Q	8900	8010	7120	6230	5340	4450	3560	3180	3180	3180
	W	1830	1630	1410	1210	990	780	570	480	480	480
7	Q	8400	7560	6720	5880	5040	4200	3360	3000	3000	3000
	W	1792	1590	1380	1180	970	760	560	470	470	470
5.5	Q	7170	6450	5730	5020	4300	3580	2870	2560	2560	2560
	W	1670	1480	1290	1100	900	710	520	440	440	440
5	Q	6750	6070	5390	4720	4050	3370	2700	2410	2410	2410
	W	1660	1470	1280	1090	890	710	520	440	440	440
2	Q	6110	5500	4880	4280	3660	3050	2450	2180	2180	2180
	W	1590	1410	1230	1050	860	680	500	420	420	420
0	Q	5690	5120	4540	3980	3410	2840	2280	2030	2030	2030
	W	1540	1370	1190	1020	830	660	480	410	410	410
-5	Q	4630	4160	3700	3240	2770	2310	1850	1650	1650	1650
	W	1430	1270	1100	940	770	610	450	380	380	380
-7	Q	4200	3780	3360	2940	2520	2100	1680	1500	1500	1500
	W	1380	1230	1070	910	750	590	430	360	360	360
-10	Q	4430	3980	3540	3100	2660	2210	1770	1580	1580	1580
	W	1440	1280	1110	950	780	610	450	380	380	380

**TOSHIBA CARRIER CORPORATION**

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