

### ***Residential Inverter R32 Heat Pump SEIYA Series***

#### **Indoor Units**

**RAS-25J2KVG-ND**

**RAS-35J2KVG-ND**

#### **Outdoor Units**

**RAS-25J2AVG-ND**

**RAS-35J2AVG-ND**

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## 1. Line up

| Outdoor Unit                                                                      | Indoor Unit                                                                       | Model Name     |                | Capacity Rank |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------|----------------|---------------|
|                                                                                   |                                                                                   | CDU            | FCU            |               |
|  |  | RAS-25J2KVG-ND | RAS-25J2AVG-ND | 10k           |
|                                                                                   |                                                                                   | RAS-35J2KVG-ND | RAS-35J2AVG-ND | 13k           |

## Accessories

| Appearance                                                                          | Model Name         | Remark                                                              |
|-------------------------------------------------------------------------------------|--------------------|---------------------------------------------------------------------|
|  | WH-UC01NE          | Standard remote controller                                          |
|  | RB-RXS30-E         | Accessory remote controller for weekly timer program                |
|  | RB-N102S-G for BF1 | Accessory wireless adapter<br>Application : Toshiba Home AC Control |

## 2. Specifications

|                          |                            |                                               |                     |                                                          |             |                |                        |                |               |           |           |  |           |  |
|--------------------------|----------------------------|-----------------------------------------------|---------------------|----------------------------------------------------------|-------------|----------------|------------------------|----------------|---------------|-----------|-----------|--|-----------|--|
| Unit model               | Indoor                     |                                               |                     | RAS-25J2KVG-ND                                           |             | RAS-35J2KVG-ND |                        |                |               |           |           |  |           |  |
|                          | Outdoor                    |                                               |                     | RAS-25J2AVG-ND                                           |             | RAS-35J2AVG-ND |                        |                |               |           |           |  |           |  |
| Cooling capacity         |                            |                                               |                     | (kW)                                                     |             | 2.50           |                        | 3.50           |               |           |           |  |           |  |
| Cooling capacity range   |                            |                                               |                     | (kW)                                                     |             | 1.20-3.20      |                        | 1.40-4.50      |               |           |           |  |           |  |
| Heating capacity         |                            |                                               |                     | (kW)                                                     |             | 3.20           |                        | 4.20           |               |           |           |  |           |  |
| Heating capacity range   |                            |                                               |                     | (kW)                                                     |             | 1.10-5.00      |                        | 1.20-5.60      |               |           |           |  |           |  |
| Power supply             |                            |                                               |                     | 1Ph/50Hz/220-240V                                        |             |                |                        |                |               |           |           |  |           |  |
| Electric characteristic  | Indoor                     | Operation mode                                |                     |                                                          | Cooling     |                | Heating                |                | Cooling       |           | Heating   |  |           |  |
|                          |                            | Running current                               |                     |                                                          | (A)         |                | 0.25-0.23              |                | 0.25-0.23     |           | 0.28-0.26 |  | 0.28-0.26 |  |
|                          |                            | Power consumption                             |                     |                                                          | (W)         |                | 35                     |                | 35            |           | 40        |  | 40        |  |
|                          |                            | Power factor                                  |                     |                                                          | (%)         |                | 64                     |                | 64            |           | 65        |  | 65        |  |
|                          | Outdoor                    | Operation mode                                |                     |                                                          | Cooling     |                | Heating                |                | Cooling       |           | Heating   |  |           |  |
|                          |                            | Running current                               |                     |                                                          | (A)         |                | 2.90-2.62              |                | 3.60-3.32     |           | 4.92-4.49 |  | 5.07-4.54 |  |
|                          |                            | Power consumption                             |                     |                                                          | (W)         |                | 565                    |                | 715           |           | 1010      |  | 1040      |  |
|                          |                            | Power factor                                  |                     |                                                          | (%)         |                | 89                     |                | 90            |           | 94        |  | 94        |  |
|                          |                            | Starting current                              |                     |                                                          | (A)         |                | 3.15                   |                | 3.85          |           | 5.20      |  | 5.35      |  |
|                          |                            |                                               |                     |                                                          |             |                |                        |                |               |           |           |  |           |  |
| COP (Cooling / Heating)  |                            |                                               |                     |                                                          |             |                |                        | 4.17/4.27      |               | 3.33/3.89 |           |  |           |  |
| SCOP (Cooling / Heating) |                            |                                               |                     |                                                          |             |                |                        | 6.50/4.60      |               | 6.50/4.50 |           |  |           |  |
| Operating noise          | Indoor                     | High                                          | (Cooling / Heating) |                                                          |             | (dB-A)         |                        | 41/42          |               | 43/44     |           |  |           |  |
|                          |                            | Medium                                        | (Cooling / Heating) |                                                          |             | (dB-A)         |                        | 33/35          |               | 35/36     |           |  |           |  |
|                          |                            | Low                                           | (Cooling / Heating) |                                                          |             | (dB-A)         |                        | 23/23          |               | 24/24     |           |  |           |  |
|                          | Outdoor                    |                                               |                     | (Cooling / Heating)                                      |             |                | (dB-A)                 |                | 48/49         |           | 49/50     |  |           |  |
| Indoor unit              | Unit model                 |                                               |                     | RAS-25J2KVG-ND                                           |             |                |                        | RAS-35J2KVG-ND |               |           |           |  |           |  |
|                          | Dimension                  | Height                                        | (mm)                |                                                          |             | 293            |                        | 293            |               |           |           |  |           |  |
|                          |                            | Width                                         | (mm)                |                                                          |             | 798            |                        | 798            |               |           |           |  |           |  |
|                          |                            | Depth                                         | (mm)                |                                                          |             | 230            |                        | 230            |               |           |           |  |           |  |
|                          | Net weight                 |                                               |                     | (kg)                                                     |             |                | 10                     |                | 10            |           |           |  |           |  |
|                          | Fan motor output           |                                               |                     | (W)                                                      |             |                | 30                     |                | 30            |           |           |  |           |  |
|                          | Air flow rate              |                                               |                     | (Cooling / Heating)                                      |             |                | (m <sup>3</sup> / min) |                | 11.6/12.1     |           | 12.2/12.8 |  |           |  |
| Outdoor unit             | Unit model                 |                                               |                     | RAS-25J2AVG-ND                                           |             |                |                        | RAS-35J2AVG-ND |               |           |           |  |           |  |
|                          | Dimension                  | Height                                        | (mm)                |                                                          |             | 550            |                        | 550            |               |           |           |  |           |  |
|                          |                            | Width                                         | (mm)                |                                                          |             | 780            |                        | 780            |               |           |           |  |           |  |
|                          |                            | Depth                                         | (mm)                |                                                          |             | 290            |                        | 290            |               |           |           |  |           |  |
|                          | Net weight                 |                                               |                     | (kg)                                                     |             |                | 30                     |                | 34            |           |           |  |           |  |
|                          | Compressor                 | Motor output                                  |                     | (W)                                                      |             |                | 900                    |                | 900           |           |           |  |           |  |
|                          |                            | Type                                          |                     | Twin rotary type with DC-inverter variable speed control |             |                |                        |                |               |           |           |  |           |  |
|                          |                            | Model                                         |                     | KSK89D53UFZ                                              |             |                |                        | KSN108D22UFZ   |               |           |           |  |           |  |
|                          | Fan motor output           |                                               |                     | (W)                                                      |             |                | 43                     |                |               |           |           |  |           |  |
|                          | Air flow rate              |                                               |                     | (Cooling / Heating)                                      |             |                | (m <sup>3</sup> / min) |                | 32/32         |           | 33/34     |  |           |  |
| Piping connection        | Type                       |                                               |                     | Flare connection                                         |             |                |                        |                |               |           |           |  |           |  |
|                          | Indoor unit                | Liquid side                                   | (mm)                |                                                          |             | Ø 6.35         |                        | Ø 6.35         |               |           |           |  |           |  |
|                          |                            | Gas side                                      | (mm)                |                                                          |             | Ø 9.52         |                        | Ø 9.52         |               |           |           |  |           |  |
|                          | Outdoor unit               | Liquid side                                   | (mm)                |                                                          |             | Ø 6.35         |                        | Ø 6.35         |               |           |           |  |           |  |
|                          |                            | Gas side                                      | (mm)                |                                                          |             | Ø 9.52         |                        | Ø 9.52         |               |           |           |  |           |  |
|                          | Maximum length             |                                               |                     | (m)                                                      |             |                | 20                     |                | 20            |           |           |  |           |  |
|                          | Maximum charge-less length |                                               |                     | (m)                                                      |             |                | 15                     |                | 15            |           |           |  |           |  |
|                          | Maximum height difference  |                                               |                     | (m)                                                      |             |                | 10                     |                | 10            |           |           |  |           |  |
| Refrigerant              | Name of refrigerant        |                                               |                     | R32                                                      |             |                |                        | R32            |               |           |           |  |           |  |
| Weight                   |                            |                                               |                     | (kg)                                                     |             |                | 0.67                   |                | 0.80          |           |           |  |           |  |
| Wiring connection        |                            | Power supply                                  |                     | 3 Wires: Includes earth (Outdoor)                        |             |                |                        |                |               |           |           |  |           |  |
|                          |                            | Interconnection                               |                     | 4 Wires: Includes earth                                  |             |                |                        |                |               |           |           |  |           |  |
| Usable temperature range |                            | Indoor                                        | (Cooling / Heating) |                                                          | (°C)        |                | 21-32/0-28             |                | 21-32/0-28    |           |           |  |           |  |
|                          |                            | Outdoor                                       | (Cooling / Heating) |                                                          | (°C)        |                | -15,46/-20,24          |                | -15,46/-20,24 |           |           |  |           |  |
| Accessory                | Indoor unit                | Installation plate                            |                     |                                                          | 1           |                |                        |                |               |           |           |  |           |  |
|                          |                            | Wireless remote controller                    |                     |                                                          | 1           |                |                        |                |               |           |           |  |           |  |
|                          |                            | Batteries                                     |                     |                                                          | 2           |                |                        |                |               |           |           |  |           |  |
|                          |                            | Remote controller holder                      |                     |                                                          | 1           |                |                        |                |               |           |           |  |           |  |
|                          |                            | Toshiba IAQ filter                            |                     |                                                          | 1           |                |                        |                |               |           |           |  |           |  |
|                          |                            | Mounting screw                                |                     |                                                          | 6(Ø4x25L)   |                |                        |                |               |           |           |  |           |  |
|                          |                            | Remote controller holder Flat head wood screw |                     |                                                          | 2(Ø3.1x16L) |                |                        |                |               |           |           |  |           |  |
|                          |                            | Installation manual                           |                     |                                                          | 1           |                |                        |                |               |           |           |  |           |  |
|                          |                            | Owner's manual                                |                     |                                                          | 1           |                |                        |                |               |           |           |  |           |  |

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

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

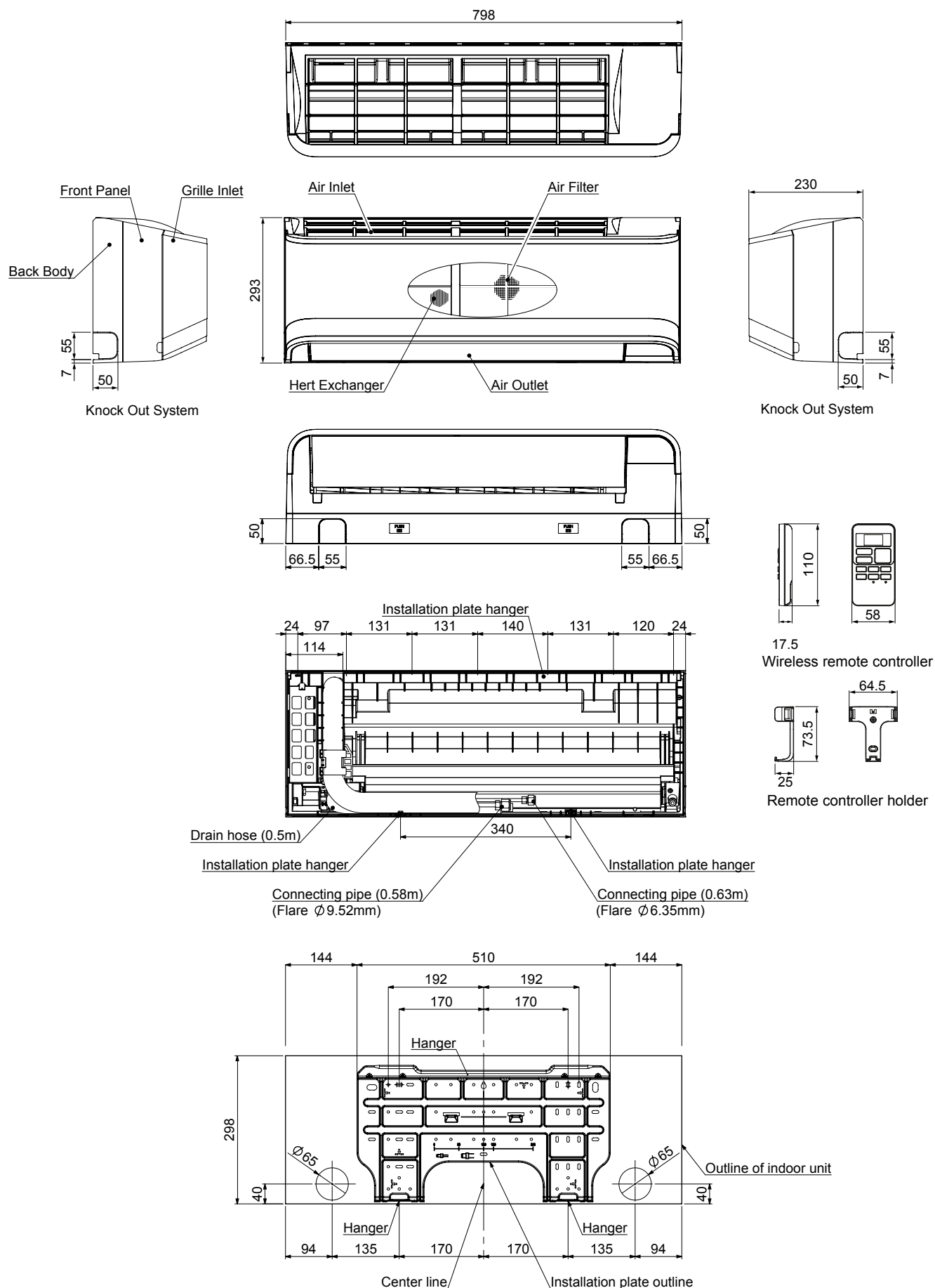
Cooling : Capacity test condition, inside : 27 °C (Db) / 19 °C (Wb), outside : 35 °C (Db) / 24 °C (Wb)

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

### 3. Dimension

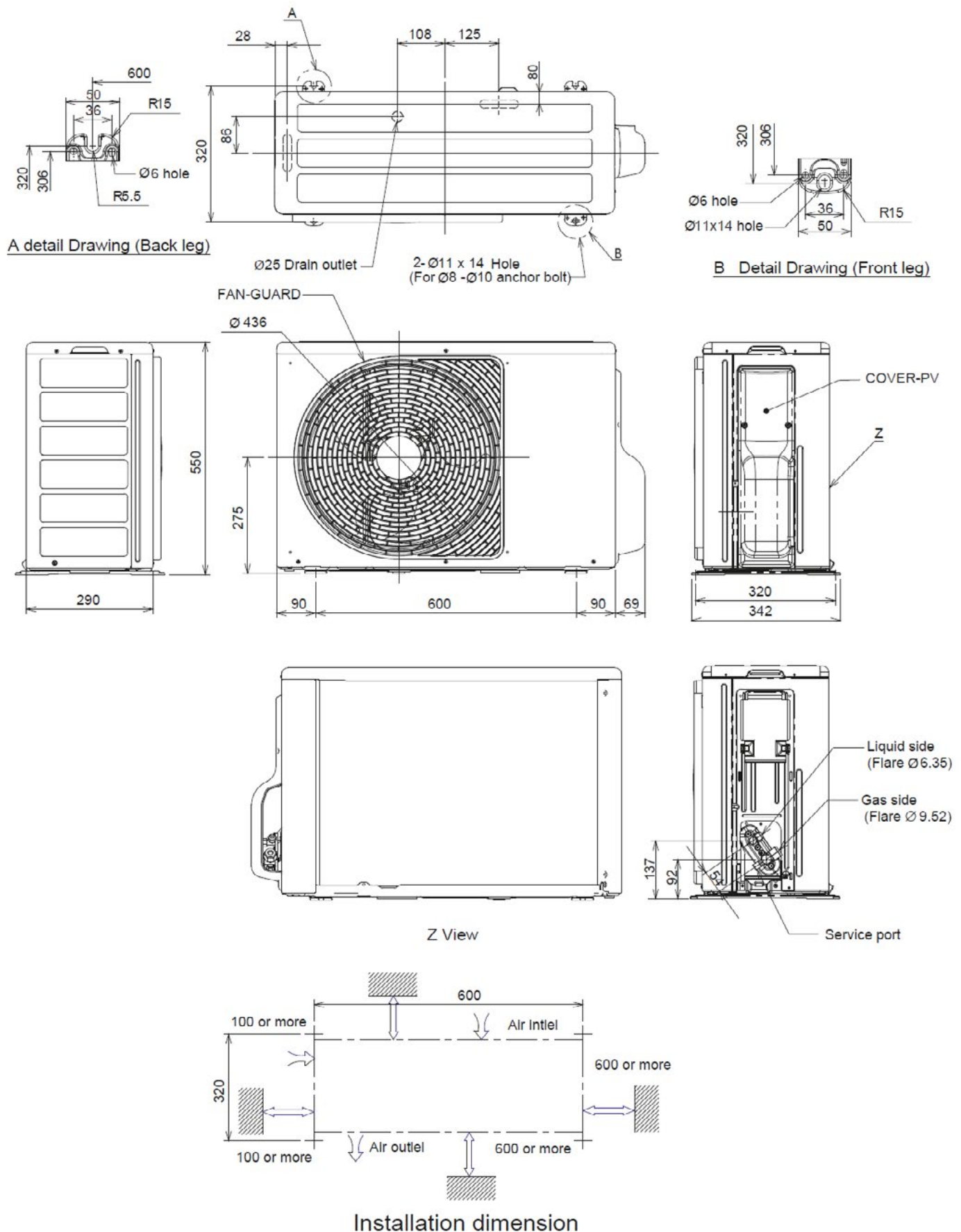
Indoor Unit : RAS-25J2KVG-ND, RAS-35J2KVG-ND

(Unit : mm)



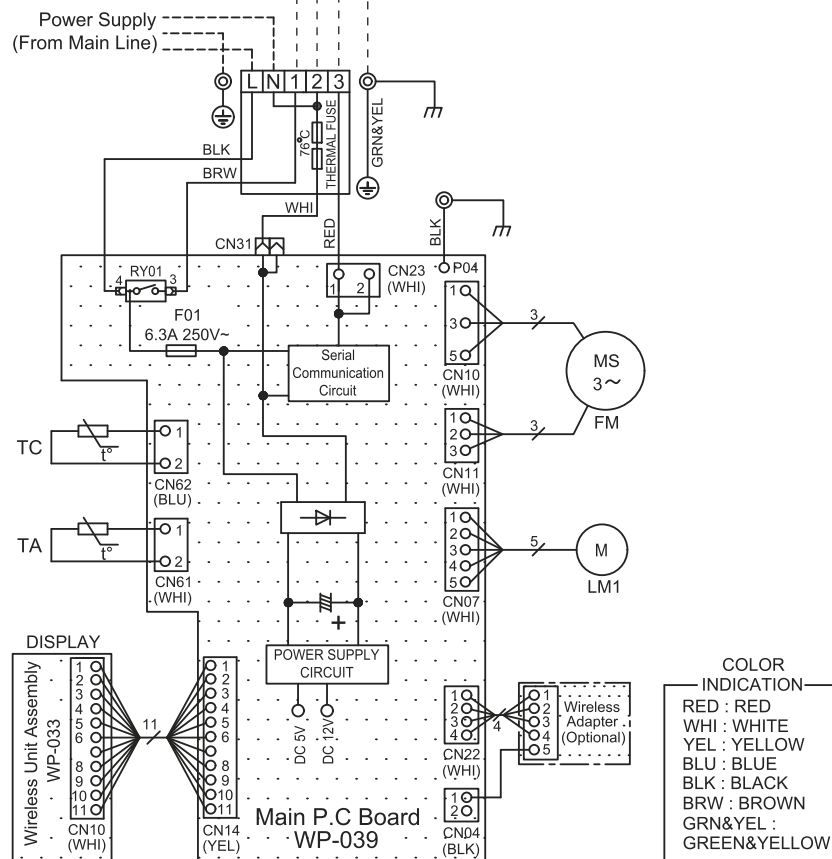
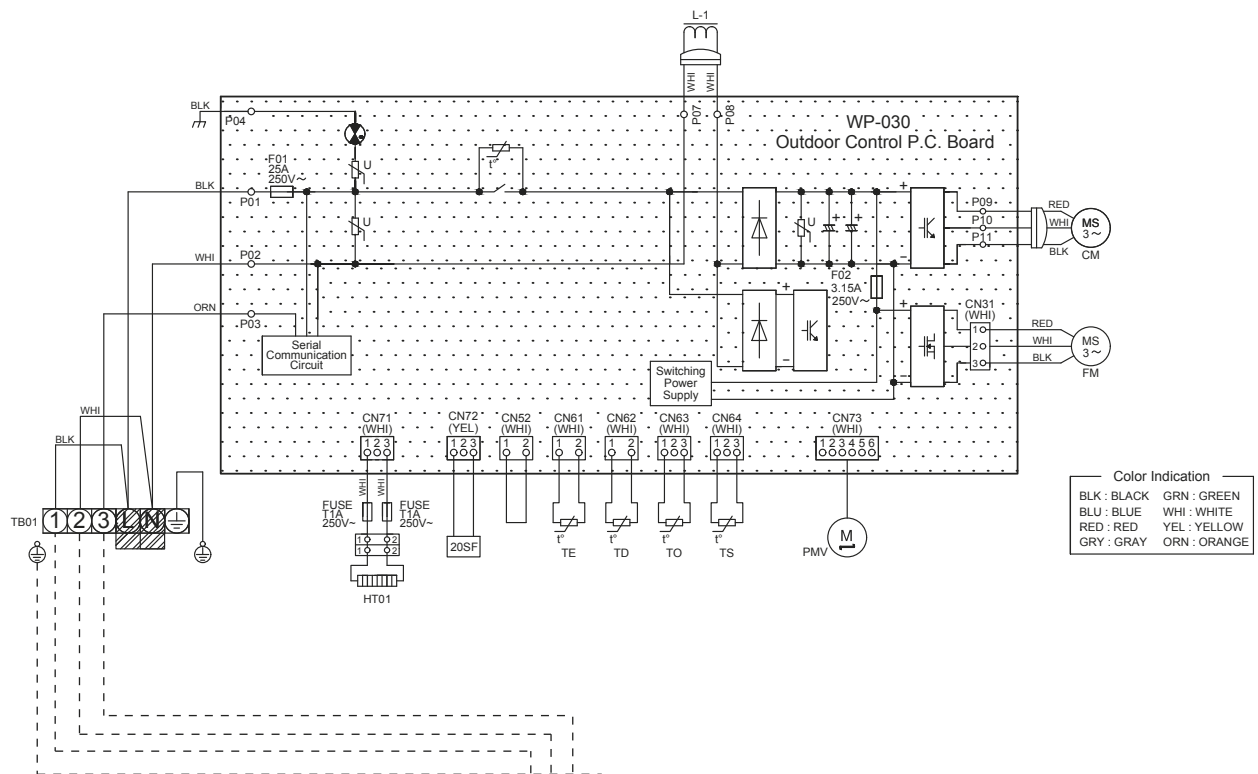
Outdoor Unit : RAS-25J2AVG-ND, RAS-35J2AVG-ND

(Unit : mm)



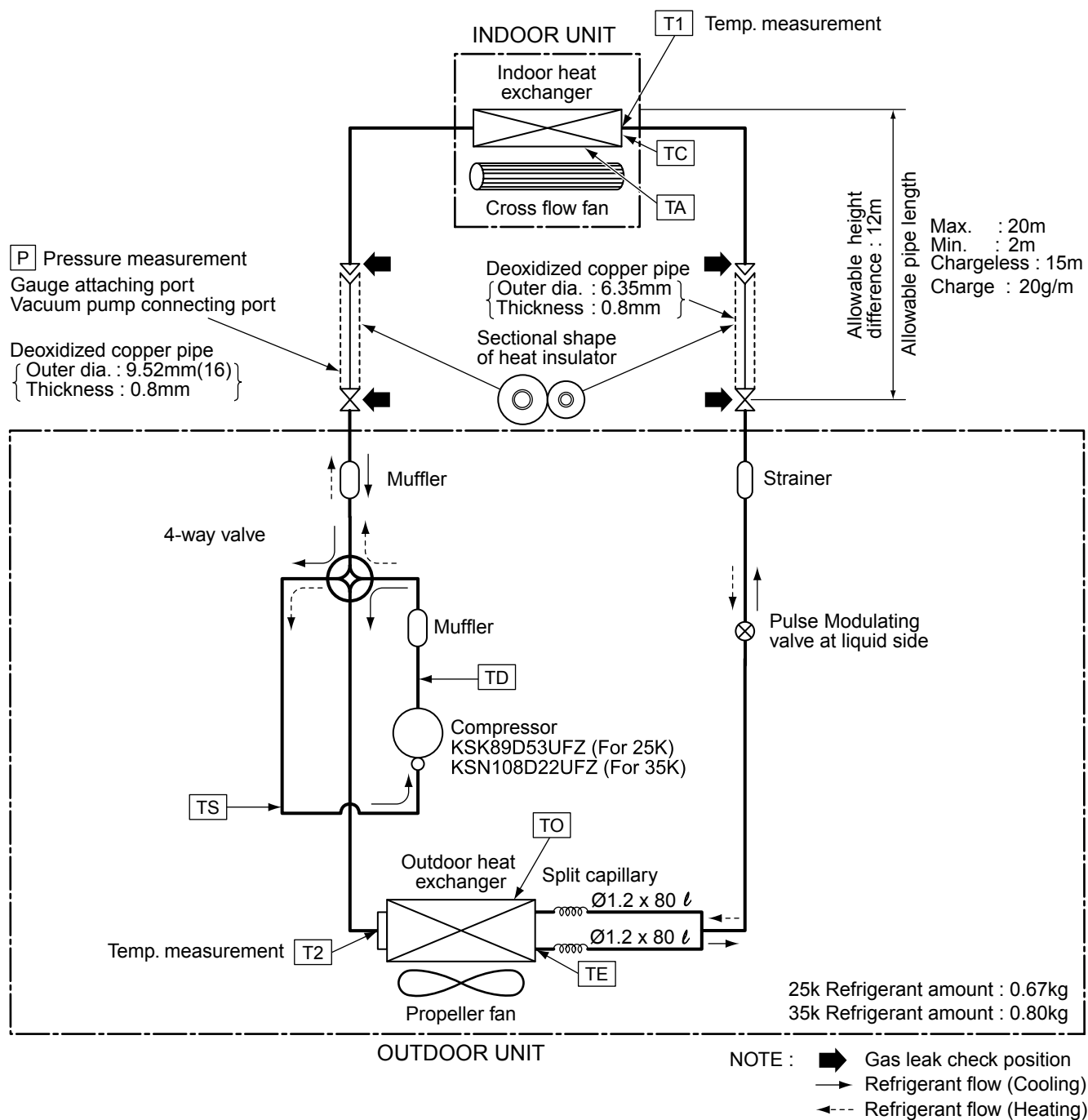
## 4. Wiring diagrams

RAS-25J2KVG-ND / RAS-25J2AVG-ND, RAS-35J2KVG-ND / RAS-35J2AVG-ND



## 5. Refrigerant Cycle Diagram

RAS-25J2KVG-ND / RAS-25J2AVG-ND, RAS-35J2KVG-ND / RAS-35J2AVG-ND



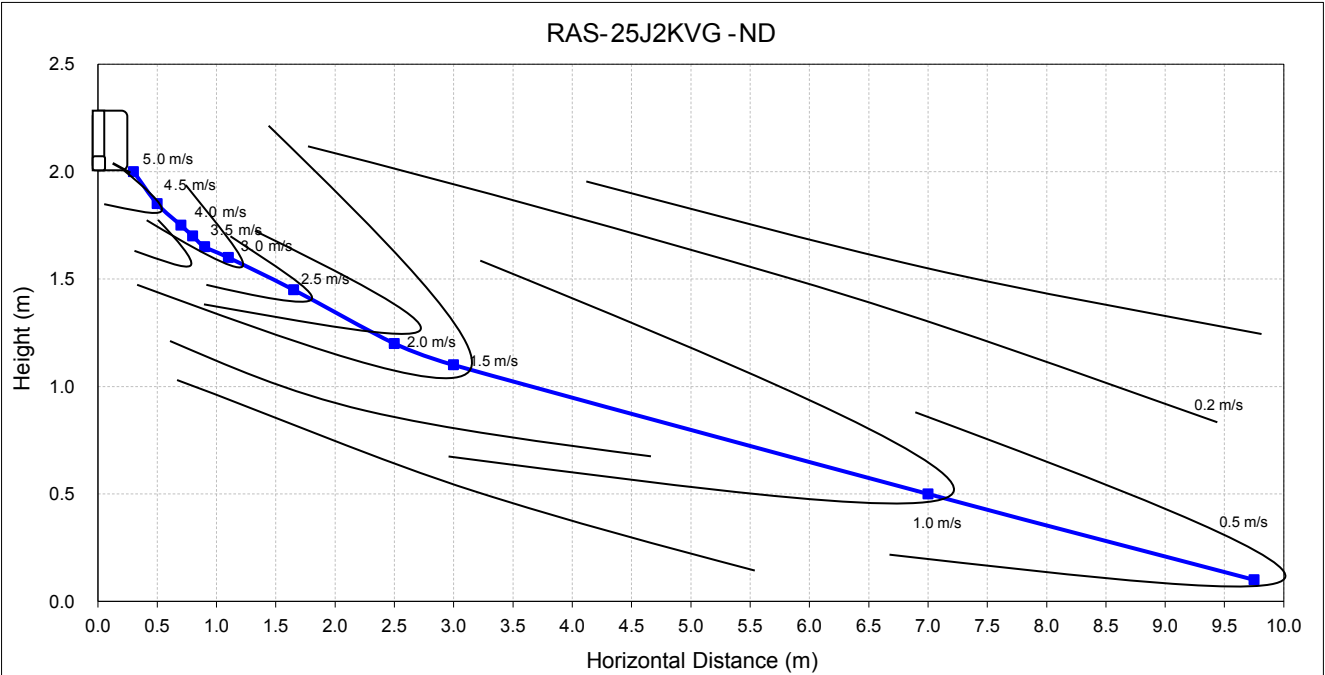
### NOTE :

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

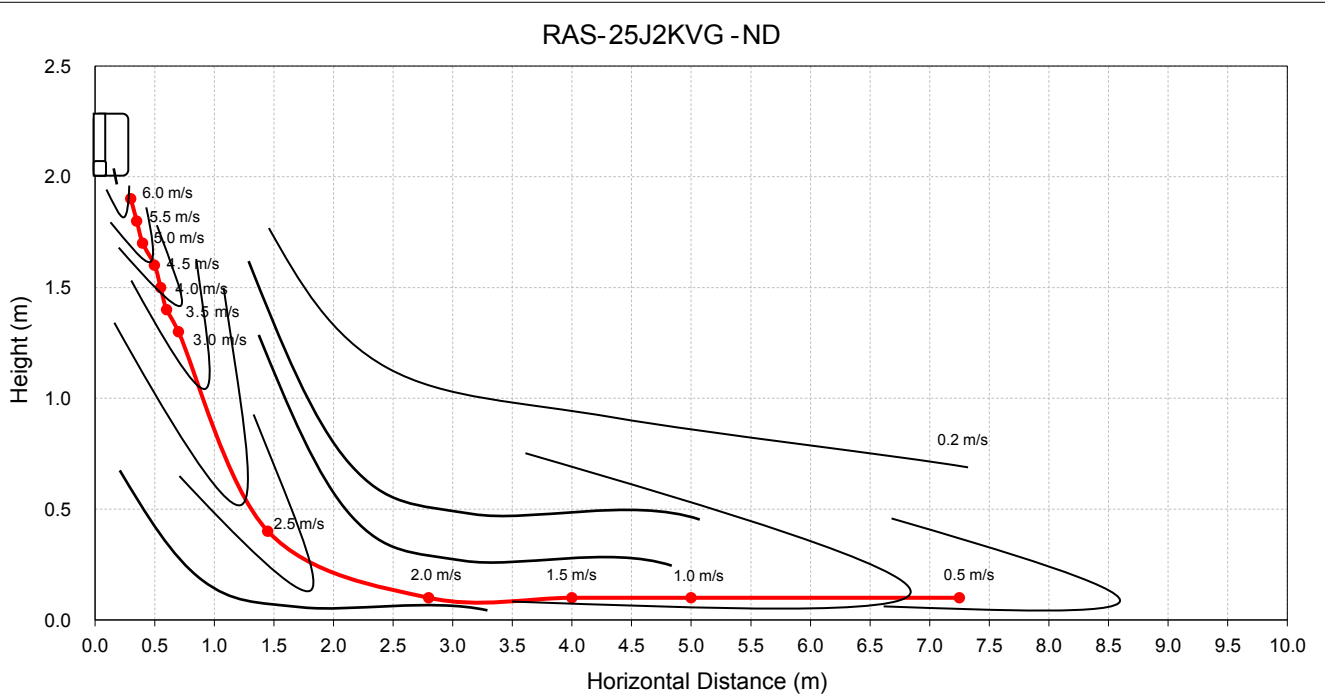
6. Air Speed Distribution

Indoor Unit : RAS-25J2KVG-ND

Cooling

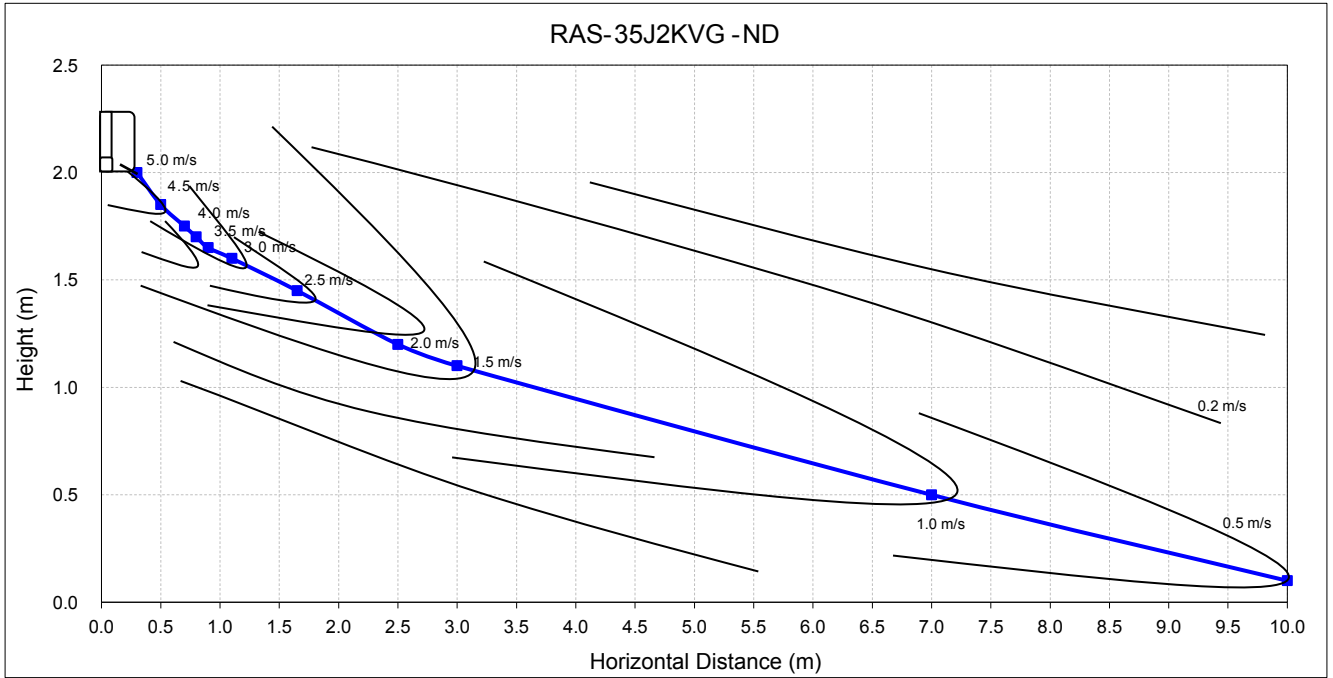


Heating

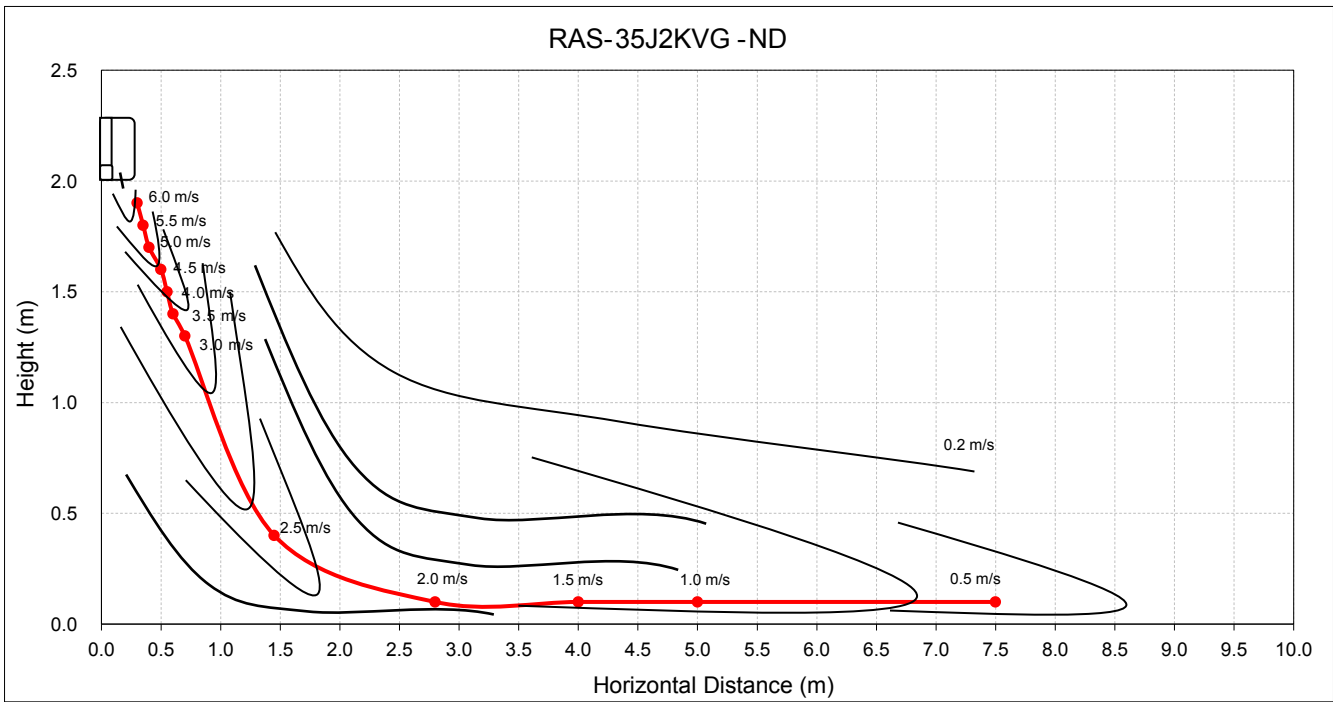


Indoor Unit : RAS-35J2KVG-ND

Cooling



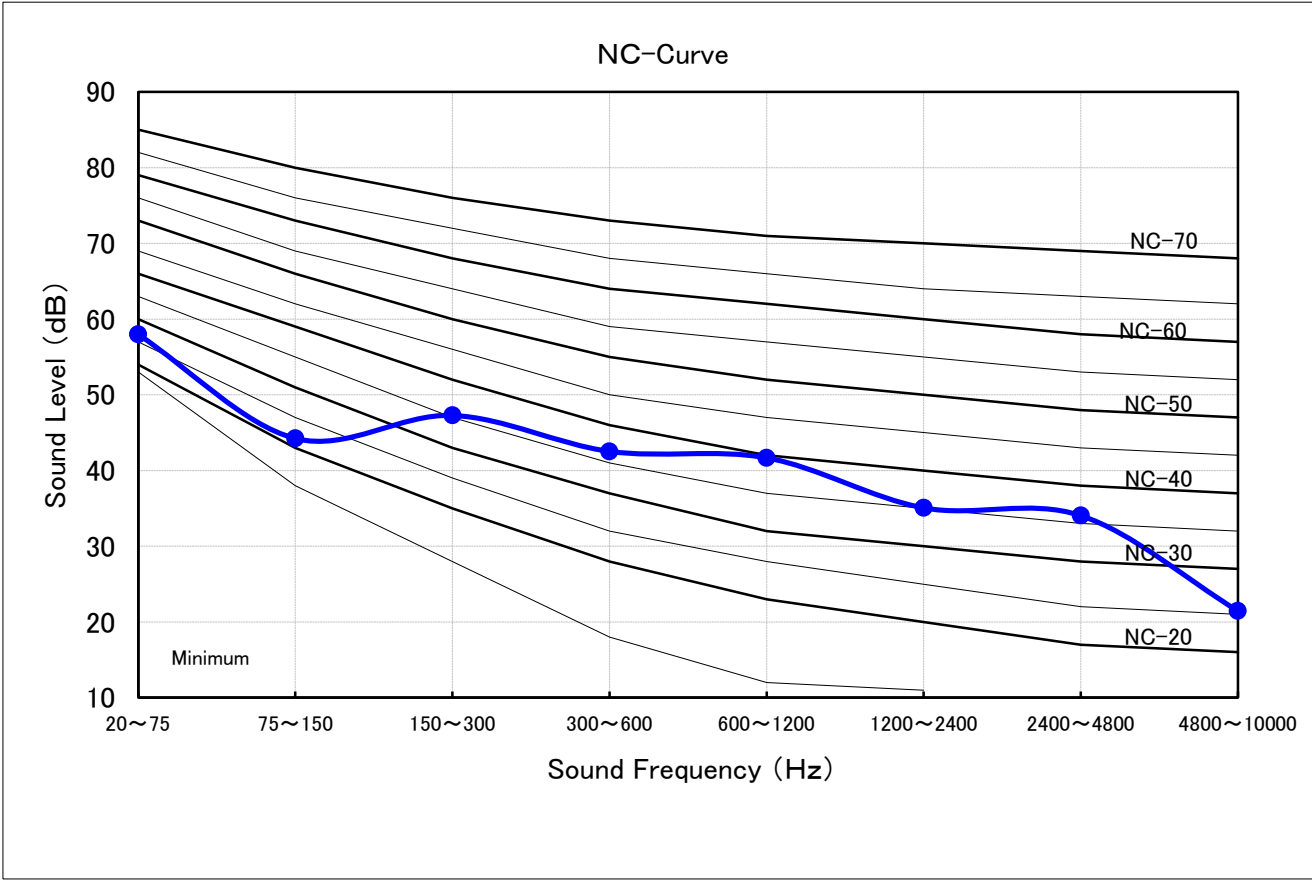
Heating



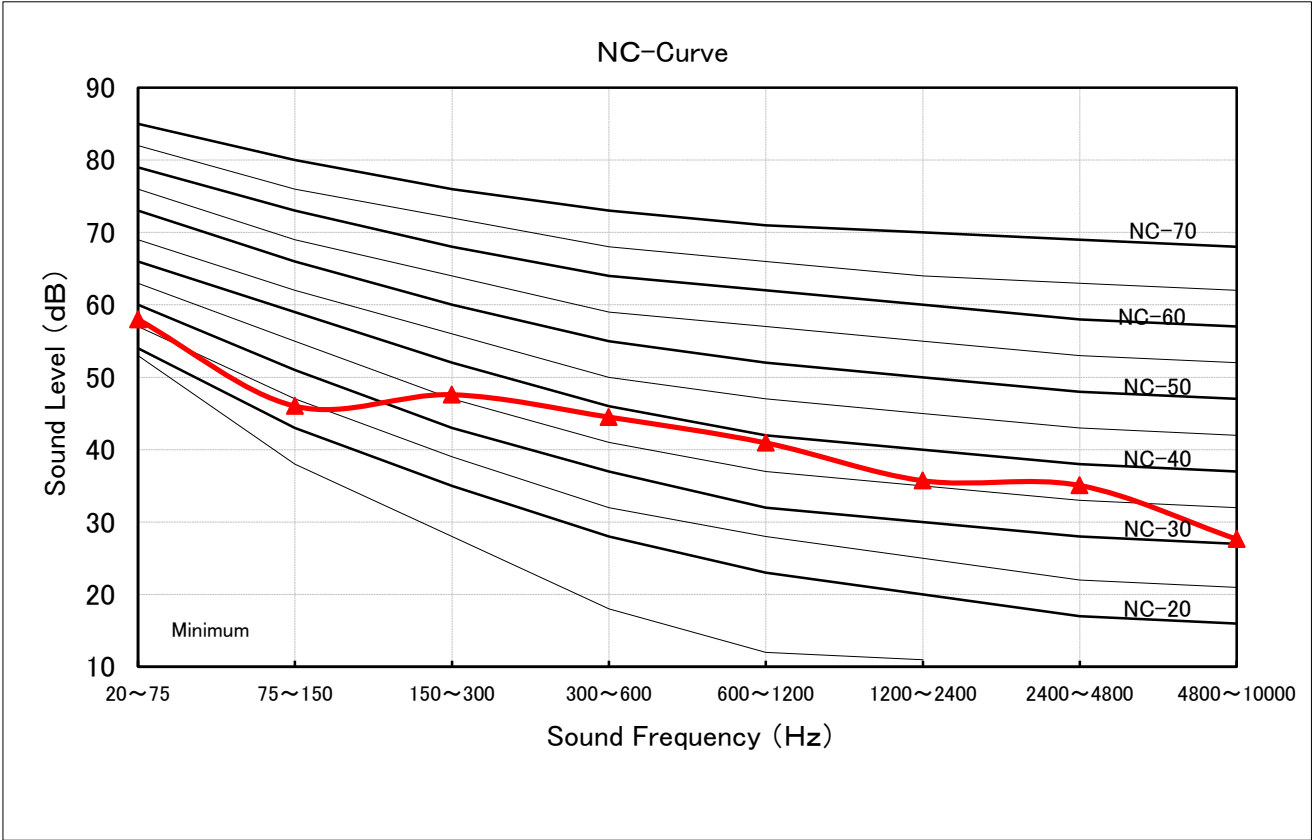
7. Sound Characteristics (NC Curve)

RAS-25J2AVG-ND (Rate Hz)

Cooling

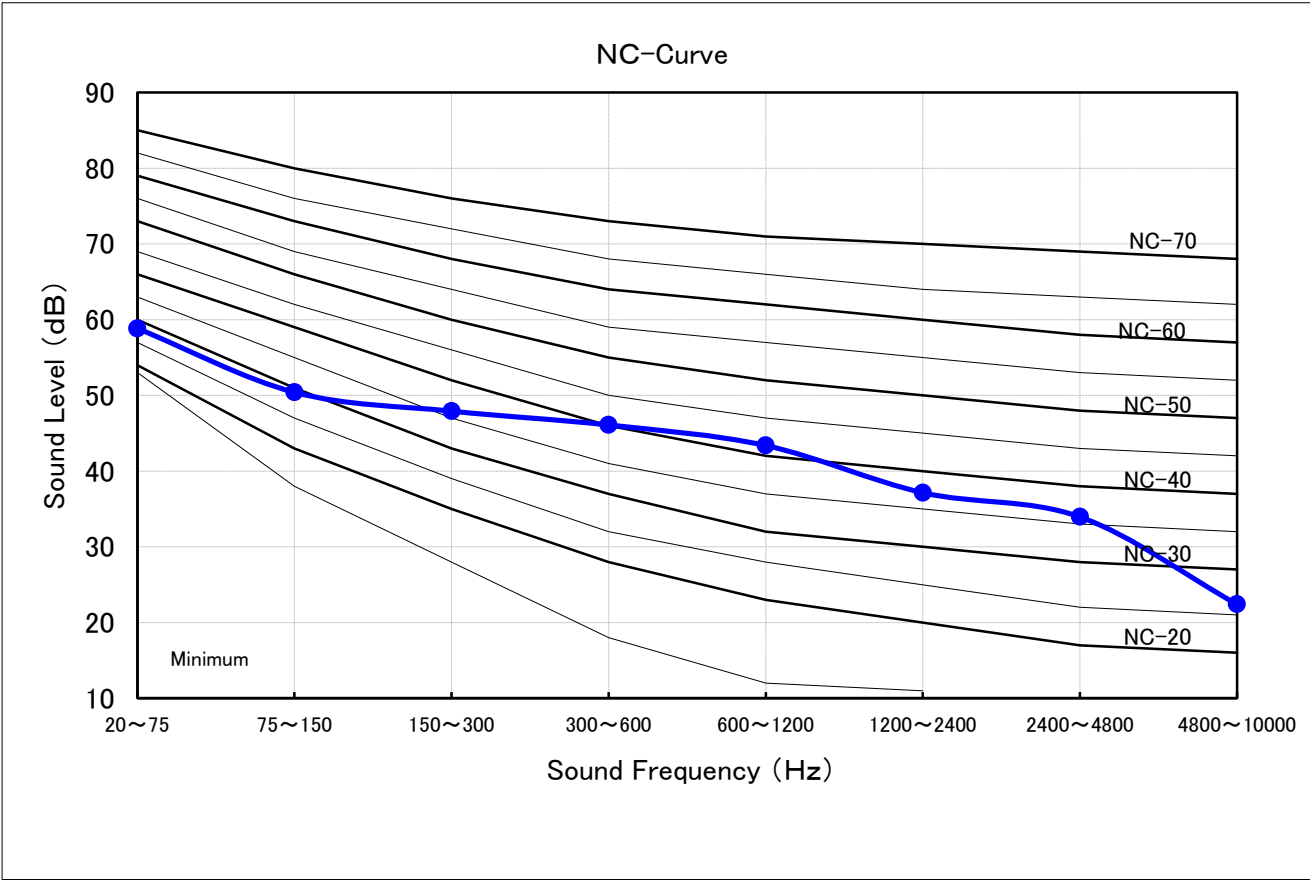


Heating

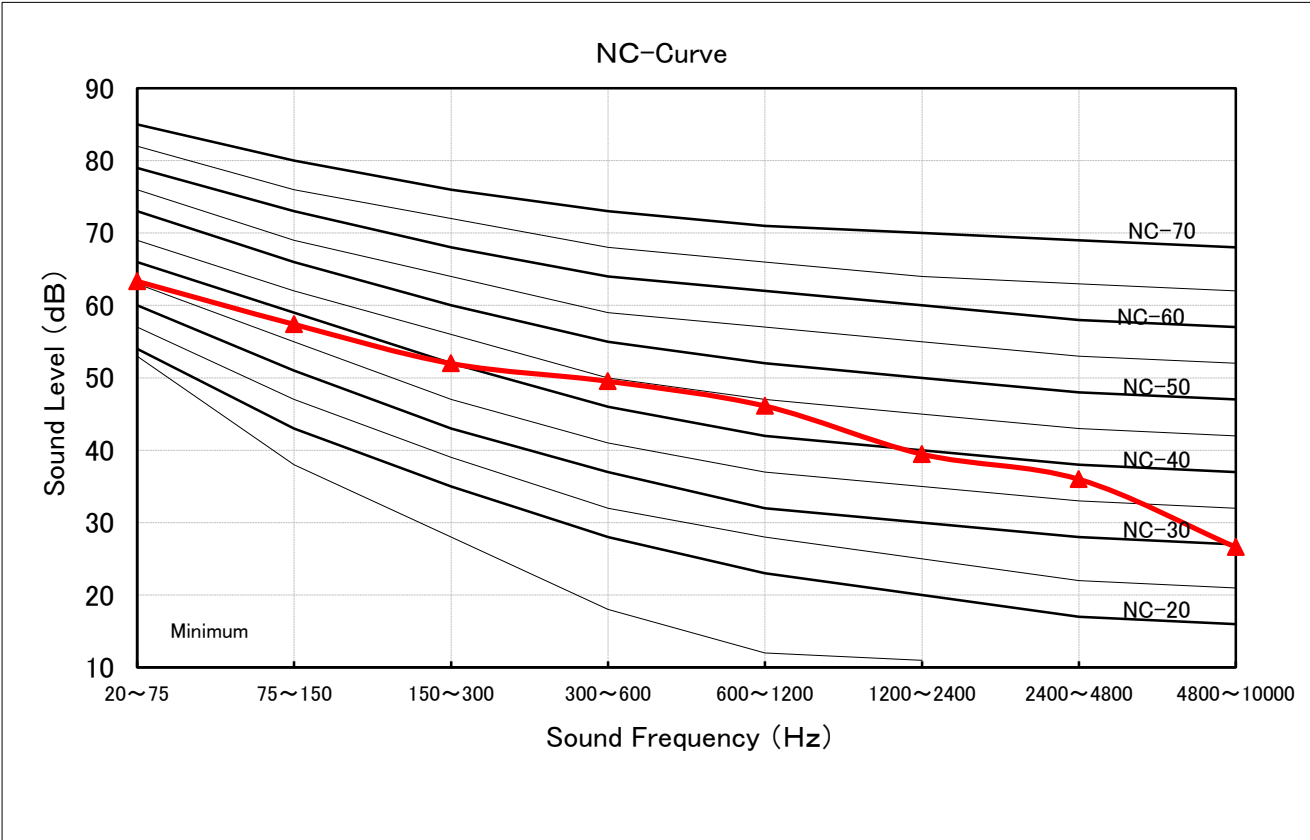


RAS-35J2AVG-ND (Rate Hz)

Cooling



Heating



## 8. Capacity Table

Product models : RAS-25J2KVG-ND / RAS-25J2AVG-ND

Specification of product at standard condition

|                    |         |                       |                              |         |
|--------------------|---------|-----------------------|------------------------------|---------|
| Standard Condition | Indoor  | 27°C (DB) / 19°C (WB) | Total Cooling Capacity (TC)  | 2.50 kW |
|                    | Outdoor | 35°C (DB) / 24°C (WB) | Sensible Heat Capacity (SHC) | 2.00 kW |

| Outdoor air<br>temperature<br><br>DB (°C) | Indoor air temperature     |      |                            |      |                            |      |                            |      |                            |      |                            |      |                            |      |
|-------------------------------------------|----------------------------|------|----------------------------|------|----------------------------|------|----------------------------|------|----------------------------|------|----------------------------|------|----------------------------|------|
|                                           | 20.0°C (DB)<br>14.0°C (WB) |      | 23.0°C (DB)<br>16.0°C (WB) |      | 26.0°C (DB)<br>18.0°C (WB) |      | 27.0°C (DB)<br>19.0°C (WB) |      | 28.0°C (DB)<br>20.0°C (WB) |      | 30.0°C (DB)<br>22.0°C (WB) |      | 32.0°C (DB)<br>24.0°C (WB) |      |
|                                           | TC                         | SHC  | TC                         | SHC  | TC                         | SHC  | TC                         | SHC  | TC                         | SHC  | TC                         | SHC  | TC                         | SHC  |
| 20                                        | 2.45                       | 2.11 | 2.70                       | 2.25 | 2.90                       | 2.39 | 2.98                       | 2.39 | 3.07                       | 2.38 | 3.25                       | 2.36 | 3.40                       | 2.32 |
| 21                                        | 2.42                       | 2.09 | 2.68                       | 2.22 | 2.86                       | 2.36 | 2.95                       | 2.36 | 3.03                       | 2.36 | 3.21                       | 2.34 | 3.36                       | 2.29 |
| 22                                        | 2.40                       | 2.06 | 2.65                       | 2.20 | 2.83                       | 2.34 | 2.92                       | 2.33 | 3.00                       | 2.33 | 3.18                       | 2.31 | 3.32                       | 2.27 |
| 23                                        | 2.37                       | 2.04 | 2.62                       | 2.17 | 2.80                       | 2.31 | 2.89                       | 2.31 | 2.97                       | 2.31 | 3.14                       | 2.29 | 3.29                       | 2.24 |
| 24                                        | 2.34                       | 2.02 | 2.59                       | 2.15 | 2.77                       | 2.29 | 2.85                       | 2.28 | 2.93                       | 2.28 | 3.11                       | 2.26 | 3.25                       | 2.22 |
| 25                                        | 2.32                       | 1.99 | 2.56                       | 2.13 | 2.74                       | 2.26 | 2.82                       | 2.26 | 2.90                       | 2.26 | 3.07                       | 2.23 | 3.21                       | 2.19 |
| 26                                        | 2.29                       | 1.97 | 2.53                       | 2.10 | 2.71                       | 2.23 | 2.79                       | 2.23 | 2.87                       | 2.23 | 3.04                       | 2.21 | 3.18                       | 2.17 |
| 27                                        | 2.26                       | 1.95 | 2.50                       | 2.08 | 2.68                       | 2.21 | 2.76                       | 2.21 | 2.84                       | 2.20 | 3.00                       | 2.18 | 3.14                       | 2.14 |
| 28                                        | 2.24                       | 1.93 | 2.47                       | 2.05 | 2.65                       | 2.18 | 2.72                       | 2.18 | 2.80                       | 2.18 | 2.97                       | 2.16 | 3.10                       | 2.12 |
| 29                                        | 2.21                       | 1.90 | 2.44                       | 2.03 | 2.62                       | 2.16 | 2.69                       | 2.15 | 2.77                       | 2.15 | 2.93                       | 2.13 | 3.07                       | 2.09 |
| 30                                        | 2.19                       | 1.88 | 2.41                       | 2.01 | 2.58                       | 2.13 | 2.66                       | 2.13 | 2.74                       | 2.13 | 2.90                       | 2.11 | 3.03                       | 2.07 |
| 31                                        | 2.16                       | 1.86 | 2.38                       | 1.98 | 2.55                       | 2.11 | 2.63                       | 2.10 | 2.70                       | 2.10 | 2.86                       | 2.08 | 2.99                       | 2.04 |
| 32                                        | 2.13                       | 1.84 | 2.36                       | 1.96 | 2.52                       | 2.08 | 2.60                       | 2.08 | 2.67                       | 2.08 | 2.83                       | 2.06 | 2.96                       | 2.02 |
| 33                                        | 2.11                       | 1.81 | 2.33                       | 1.93 | 2.49                       | 2.05 | 2.56                       | 2.05 | 2.64                       | 2.05 | 2.79                       | 2.03 | 2.92                       | 1.99 |
| 34                                        | 2.08                       | 1.79 | 2.30                       | 1.91 | 2.46                       | 2.03 | 2.53                       | 2.03 | 2.60                       | 2.02 | 2.76                       | 2.01 | 2.88                       | 1.97 |
| 35                                        | 2.05                       | 1.77 | 2.27                       | 1.88 | 2.43                       | 2.00 | 2.50                       | 2.00 | 2.57                       | 2.00 | 2.72                       | 1.98 | 2.85                       | 1.94 |
| 36                                        | 2.03                       | 1.74 | 2.24                       | 1.86 | 2.40                       | 1.98 | 2.47                       | 1.97 | 2.54                       | 1.97 | 2.69                       | 1.95 | 2.81                       | 1.92 |
| 37                                        | 2.00                       | 1.72 | 2.21                       | 1.84 | 2.37                       | 1.95 | 2.44                       | 1.95 | 2.51                       | 1.95 | 2.65                       | 1.93 | 2.78                       | 1.89 |
| 38                                        | 1.97                       | 1.70 | 2.18                       | 1.81 | 2.34                       | 1.93 | 2.40                       | 1.92 | 2.47                       | 1.92 | 2.62                       | 1.90 | 2.74                       | 1.87 |
| 39                                        | 1.95                       | 1.68 | 2.15                       | 1.79 | 2.30                       | 1.90 | 2.37                       | 1.90 | 2.44                       | 1.90 | 2.58                       | 1.88 | 2.70                       | 1.84 |
| 40                                        | 1.92                       | 1.65 | 2.12                       | 1.76 | 2.27                       | 1.87 | 2.34                       | 1.87 | 2.41                       | 1.87 | 2.55                       | 1.85 | 2.67                       | 1.82 |
| 41                                        | 1.90                       | 1.63 | 2.09                       | 1.74 | 2.24                       | 1.85 | 2.31                       | 1.85 | 2.37                       | 1.84 | 2.51                       | 1.83 | 2.63                       | 1.79 |
| 42                                        | 1.87                       | 1.61 | 2.06                       | 1.72 | 2.21                       | 1.82 | 2.28                       | 1.82 | 2.34                       | 1.82 | 2.48                       | 1.80 | 2.59                       | 1.77 |
| 43                                        | 1.84                       | 1.59 | 2.03                       | 1.69 | 2.18                       | 1.80 | 2.24                       | 1.79 | 2.31                       | 1.79 | 2.44                       | 1.78 | 2.56                       | 1.74 |
| 44                                        | 1.82                       | 1.56 | 2.01                       | 1.67 | 2.15                       | 1.77 | 2.21                       | 1.77 | 2.27                       | 1.77 | 2.41                       | 1.75 | 2.52                       | 1.72 |
| 45                                        | 1.79                       | 1.54 | 1.98                       | 1.64 | 2.12                       | 1.75 | 2.18                       | 1.74 | 2.24                       | 1.74 | 2.37                       | 1.73 | 2.48                       | 1.69 |
| 46                                        | 1.76                       | 1.52 | 1.95                       | 1.62 | 2.09                       | 1.72 | 2.15                       | 1.72 | 2.21                       | 1.72 | 2.34                       | 1.70 | 2.45                       | 1.67 |

Product models : RAS-35J2KVG-ND / RAS-35J2AVG-ND

Specification of product at standard condition

|                    |         |                       |                              |         |
|--------------------|---------|-----------------------|------------------------------|---------|
| Standard Condition | Indoor  | 27°C (DB) / 19°C (WB) | Total Cooling Capacity (TC)  | 3.50 kW |
|                    | Outdoor | 35°C (DB) / 24°C (WB) | Sensible Heat Capacity (SHC) | 2.80 kW |

| Outdoor air temperature<br>DB (°C) | Indoor air temperature     |      |                            |      |                            |      |                            |      |                            |      |                            |      |                            |      |
|------------------------------------|----------------------------|------|----------------------------|------|----------------------------|------|----------------------------|------|----------------------------|------|----------------------------|------|----------------------------|------|
|                                    | 20.0°C (DB)<br>14.0°C (WB) |      | 23.0°C (DB)<br>16.0°C (WB) |      | 26.0°C (DB)<br>18.0°C (WB) |      | 27.0°C (DB)<br>19.0°C (WB) |      | 28.0°C (DB)<br>20.0°C (WB) |      | 30.0°C (DB)<br>22.0°C (WB) |      | 32.0°C (DB)<br>24.0°C (WB) |      |
|                                    | TC                         | SHC  | TC                         | SHC  | TC                         | SHC  | TC                         | SHC  | TC                         | SHC  | TC                         | SHC  | TC                         | SHC  |
| 20                                 | 3.43                       | 2.95 | 3.79                       | 3.15 | 4.05                       | 3.34 | 4.17                       | 3.34 | 4.29                       | 3.34 | 4.55                       | 3.31 | 4.76                       | 3.24 |
| 21                                 | 3.39                       | 2.92 | 3.75                       | 3.11 | 4.01                       | 3.31 | 4.13                       | 3.30 | 4.25                       | 3.30 | 4.50                       | 3.27 | 4.70                       | 3.21 |
| 22                                 | 3.35                       | 2.89 | 3.70                       | 3.08 | 3.97                       | 3.27 | 4.08                       | 3.27 | 4.20                       | 3.27 | 4.45                       | 3.24 | 4.65                       | 3.17 |
| 23                                 | 3.32                       | 2.86 | 3.66                       | 3.04 | 3.92                       | 3.24 | 4.04                       | 3.23 | 4.15                       | 3.23 | 4.40                       | 3.20 | 4.60                       | 3.14 |
| 24                                 | 3.28                       | 2.82 | 3.62                       | 3.01 | 3.88                       | 3.20 | 3.99                       | 3.20 | 4.11                       | 3.19 | 4.35                       | 3.16 | 4.55                       | 3.10 |
| 25                                 | 3.24                       | 2.79 | 3.58                       | 2.98 | 3.84                       | 3.16 | 3.95                       | 3.16 | 4.06                       | 3.16 | 4.30                       | 3.13 | 4.50                       | 3.07 |
| 26                                 | 3.21                       | 2.76 | 3.54                       | 2.94 | 3.79                       | 3.13 | 3.90                       | 3.12 | 4.02                       | 3.12 | 4.25                       | 3.09 | 4.45                       | 3.03 |
| 27                                 | 3.17                       | 2.73 | 3.50                       | 2.91 | 3.75                       | 3.09 | 3.86                       | 3.09 | 3.97                       | 3.09 | 4.20                       | 3.06 | 4.40                       | 3.00 |
| 28                                 | 3.13                       | 2.70 | 3.46                       | 2.88 | 3.71                       | 3.06 | 3.81                       | 3.05 | 3.92                       | 3.05 | 4.16                       | 3.02 | 4.35                       | 2.96 |
| 29                                 | 3.10                       | 2.67 | 3.42                       | 2.84 | 3.66                       | 3.02 | 3.77                       | 3.02 | 3.88                       | 3.01 | 4.11                       | 2.99 | 4.29                       | 2.93 |
| 30                                 | 3.06                       | 2.63 | 3.38                       | 2.81 | 3.62                       | 2.98 | 3.72                       | 2.98 | 3.83                       | 2.98 | 4.06                       | 2.95 | 4.24                       | 2.89 |
| 31                                 | 3.02                       | 2.60 | 3.34                       | 2.77 | 3.57                       | 2.95 | 3.68                       | 2.94 | 3.78                       | 2.94 | 4.01                       | 2.91 | 4.19                       | 2.86 |
| 32                                 | 2.99                       | 2.57 | 3.30                       | 2.74 | 3.53                       | 2.91 | 3.63                       | 2.91 | 3.74                       | 2.91 | 3.96                       | 2.88 | 4.14                       | 2.82 |
| 33                                 | 2.95                       | 2.54 | 3.26                       | 2.71 | 3.49                       | 2.88 | 3.59                       | 2.87 | 3.69                       | 2.87 | 3.91                       | 2.84 | 4.09                       | 2.79 |
| 34                                 | 2.91                       | 2.51 | 3.22                       | 2.67 | 3.44                       | 2.84 | 3.54                       | 2.84 | 3.65                       | 2.83 | 3.86                       | 2.81 | 4.04                       | 2.75 |
| 35                                 | 2.87                       | 2.47 | 3.17                       | 2.64 | 3.40                       | 2.80 | 3.50                       | 2.80 | 3.60                       | 2.80 | 3.81                       | 2.77 | 3.99                       | 2.72 |
| 36                                 | 2.84                       | 2.44 | 3.13                       | 2.60 | 3.36                       | 2.77 | 3.46                       | 2.76 | 3.55                       | 2.76 | 3.76                       | 2.74 | 3.94                       | 2.68 |
| 37                                 | 2.80                       | 2.41 | 3.09                       | 2.57 | 3.31                       | 2.73 | 3.41                       | 2.73 | 3.51                       | 2.73 | 3.71                       | 2.70 | 3.89                       | 2.65 |
| 38                                 | 2.76                       | 2.38 | 3.05                       | 2.54 | 3.27                       | 2.70 | 3.37                       | 2.69 | 3.46                       | 2.69 | 3.67                       | 2.67 | 3.83                       | 2.61 |
| 39                                 | 2.73                       | 2.35 | 3.01                       | 2.50 | 3.23                       | 2.66 | 3.32                       | 2.66 | 3.42                       | 2.65 | 3.62                       | 2.63 | 3.78                       | 2.58 |
| 40                                 | 2.69                       | 2.32 | 2.97                       | 2.47 | 3.18                       | 2.62 | 3.28                       | 2.62 | 3.37                       | 2.62 | 3.57                       | 2.59 | 3.73                       | 2.54 |
| 41                                 | 2.65                       | 2.28 | 2.93                       | 2.44 | 3.14                       | 2.59 | 3.23                       | 2.58 | 3.32                       | 2.58 | 3.52                       | 2.56 | 3.68                       | 2.51 |
| 42                                 | 2.62                       | 2.25 | 2.89                       | 2.40 | 3.09                       | 2.55 | 3.19                       | 2.55 | 3.28                       | 2.55 | 3.47                       | 2.52 | 3.63                       | 2.47 |
| 43                                 | 2.58                       | 2.22 | 2.85                       | 2.37 | 3.05                       | 2.52 | 3.14                       | 2.51 | 3.23                       | 2.51 | 3.42                       | 2.49 | 3.58                       | 2.44 |
| 44                                 | 2.54                       | 2.19 | 2.81                       | 2.33 | 3.01                       | 2.48 | 3.10                       | 2.48 | 3.18                       | 2.48 | 3.37                       | 2.45 | 3.53                       | 2.41 |
| 45                                 | 2.51                       | 2.16 | 2.77                       | 2.30 | 2.96                       | 2.44 | 3.05                       | 2.44 | 3.14                       | 2.44 | 3.32                       | 2.42 | 3.48                       | 2.37 |
| 46                                 | 2.47                       | 2.13 | 2.73                       | 2.27 | 2.92                       | 2.41 | 3.01                       | 2.40 | 3.09                       | 2.40 | 3.27                       | 2.38 | 3.42                       | 2.34 |

## 9. Part Load Performance

Indoor: RAS-25J2KVG-ND

Outdoor: RAS-25J2AVG-ND

| Operation range | Cooling |     |
|-----------------|---------|-----|
|                 | Q       | P   |
| MINIMUM         | W 1200  | 270 |
| RATING          | W 2500  | 600 |
| MAXIMUM         | W 3200  | 820 |

### Cooling

| Outdoor Temperature DB (°C) | Parts Load (%) |     |      |     |      |     |      |     |      |     |      |     |      |     |      |     |      |     |      |     |
|-----------------------------|----------------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|
|                             | 100            |     | 90   |     | 80   |     | 70   |     | 60   |     | 50   |     | 40   |     | 30   |     | 20   |     | 10   |     |
|                             | Q              | P   | Q    | P   | Q    | P   | Q    | P   | Q    | P   | Q    | P   | Q    | P   | Q    | P   | Q    | P   | Q    | P   |
| 20                          | 2981           | 471 | 2683 | 421 | 2385 | 371 | 2087 | 322 | 1789 | 272 | 1491 | 222 | 1431 | 212 | 1431 | 212 | 1431 | 212 | 1431 | 212 |
| 21                          | 2949           | 480 | 2654 | 429 | 2359 | 378 | 2064 | 327 | 1770 | 277 | 1475 | 226 | 1416 | 216 | 1416 | 216 | 1416 | 216 | 1416 | 216 |
| 22                          | 2917           | 488 | 2625 | 437 | 2334 | 385 | 2042 | 333 | 1750 | 282 | 1459 | 230 | 1400 | 220 | 1400 | 220 | 1400 | 220 | 1400 | 220 |
| 23                          | 2885           | 497 | 2597 | 444 | 2308 | 392 | 2020 | 339 | 1731 | 287 | 1443 | 234 | 1385 | 224 | 1385 | 224 | 1385 | 224 | 1385 | 224 |
| 24                          | 2853           | 505 | 2568 | 452 | 2282 | 398 | 1997 | 345 | 1712 | 292 | 1426 | 238 | 1369 | 227 | 1369 | 227 | 1369 | 227 | 1369 | 227 |
| 25                          | 2821           | 514 | 2539 | 460 | 2257 | 405 | 1975 | 351 | 1693 | 297 | 1410 | 242 | 1354 | 231 | 1354 | 231 | 1354 | 231 | 1354 | 231 |
| 26                          | 2789           | 523 | 2510 | 467 | 2231 | 412 | 1952 | 357 | 1673 | 302 | 1394 | 246 | 1339 | 235 | 1339 | 235 | 1339 | 235 | 1339 | 235 |
| 27                          | 2757           | 531 | 2481 | 475 | 2205 | 419 | 1930 | 363 | 1654 | 306 | 1378 | 250 | 1323 | 239 | 1323 | 239 | 1323 | 239 | 1323 | 239 |
| 28                          | 2725           | 540 | 2452 | 483 | 2180 | 426 | 1907 | 369 | 1635 | 311 | 1362 | 254 | 1308 | 243 | 1308 | 243 | 1308 | 243 | 1308 | 243 |
| 29                          | 2693           | 548 | 2423 | 490 | 2154 | 432 | 1885 | 374 | 1616 | 316 | 1346 | 258 | 1292 | 247 | 1292 | 247 | 1292 | 247 | 1292 | 247 |
| 30                          | 2660           | 557 | 2394 | 498 | 2128 | 439 | 1862 | 380 | 1596 | 321 | 1330 | 262 | 1277 | 251 | 1277 | 251 | 1277 | 251 | 1277 | 251 |
| 31                          | 2628           | 566 | 2366 | 506 | 2103 | 446 | 1840 | 386 | 1577 | 326 | 1314 | 266 | 1262 | 255 | 1262 | 255 | 1262 | 255 | 1262 | 255 |
| 32                          | 2596           | 574 | 2337 | 513 | 2077 | 453 | 1817 | 392 | 1558 | 331 | 1298 | 271 | 1246 | 258 | 1246 | 258 | 1246 | 258 | 1246 | 258 |
| 33                          | 2564           | 583 | 2308 | 521 | 2051 | 460 | 1795 | 398 | 1539 | 336 | 1282 | 275 | 1231 | 262 | 1231 | 262 | 1231 | 262 | 1231 | 262 |
| 34                          | 2532           | 591 | 2279 | 529 | 2026 | 466 | 1772 | 404 | 1519 | 341 | 1266 | 279 | 1215 | 266 | 1215 | 266 | 1215 | 266 | 1215 | 266 |
| 35                          | 2500           | 600 | 2250 | 537 | 2000 | 473 | 1750 | 410 | 1500 | 346 | 1250 | 283 | 1200 | 270 | 1200 | 270 | 1200 | 270 | 1200 | 270 |
| 36                          | 2468           | 609 | 2221 | 544 | 1974 | 480 | 1728 | 415 | 1481 | 351 | 1234 | 287 | 1185 | 274 | 1185 | 274 | 1185 | 274 | 1185 | 274 |
| 37                          | 2436           | 617 | 2192 | 552 | 1949 | 487 | 1705 | 421 | 1462 | 356 | 1218 | 291 | 1169 | 278 | 1169 | 278 | 1169 | 278 | 1169 | 278 |
| 38                          | 2404           | 626 | 2163 | 560 | 1923 | 493 | 1683 | 427 | 1442 | 361 | 1202 | 295 | 1154 | 282 | 1154 | 282 | 1154 | 282 | 1154 | 282 |
| 39                          | 2372           | 634 | 2135 | 567 | 1897 | 500 | 1660 | 433 | 1423 | 366 | 1186 | 299 | 1138 | 285 | 1138 | 285 | 1138 | 285 | 1138 | 285 |
| 40                          | 2340           | 643 | 2106 | 575 | 1872 | 507 | 1638 | 439 | 1404 | 371 | 1170 | 303 | 1123 | 289 | 1123 | 289 | 1123 | 289 | 1123 | 289 |
| 41                          | 2308           | 652 | 2077 | 583 | 1846 | 514 | 1615 | 445 | 1385 | 376 | 1154 | 307 | 1108 | 293 | 1108 | 293 | 1108 | 293 | 1108 | 293 |
| 42                          | 2275           | 660 | 2048 | 590 | 1820 | 521 | 1593 | 451 | 1365 | 381 | 1138 | 311 | 1092 | 297 | 1092 | 297 | 1092 | 297 | 1092 | 297 |
| 43                          | 2243           | 669 | 2019 | 598 | 1795 | 527 | 1570 | 457 | 1346 | 386 | 1122 | 315 | 1077 | 301 | 1077 | 301 | 1077 | 301 | 1077 | 301 |
| 44                          | 2211           | 677 | 1990 | 606 | 1769 | 534 | 1548 | 462 | 1327 | 391 | 1106 | 319 | 1061 | 305 | 1061 | 305 | 1061 | 305 | 1061 | 305 |
| 45                          | 2179           | 686 | 1961 | 613 | 1743 | 541 | 1525 | 468 | 1308 | 396 | 1090 | 323 | 1046 | 309 | 1046 | 309 | 1046 | 309 | 1046 | 309 |
| 46                          | 2147           | 695 | 1932 | 621 | 1718 | 548 | 1503 | 474 | 1288 | 401 | 1074 | 327 | 1031 | 313 | 1031 | 313 | 1031 | 313 | 1031 | 313 |

Indoor: RAS-25J2KVG-ND

Outdoor: RAS-25J2AVG-ND

| Operation range |   | Heating |      |
|-----------------|---|---------|------|
|                 |   | Q       | P    |
| MINIMUM         | W | 1100    | 210  |
| RATING          | W | 3200    | 750  |
| MAXIMUM         | W | 5000    | 1400 |

## Heating

| Outdoor Temperature<br>DB (°C) | Parts Load (%) |     |      |     |      |     |      |     |      |     |      |     |      |     |      |     |      |     |      |     |
|--------------------------------|----------------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|
|                                | 100            |     | 90   |     | 80   |     | 70   |     | 60   |     | 50   |     | 40   |     | 30   |     | 20   |     | 10   |     |
|                                | Q              | P   | Q    | P   | Q    | P   | Q    | P   | Q    | P   | Q    | P   | Q    | P   | Q    | P   | Q    | P   | Q    | P   |
| -15                            | 1441           | 553 | 1297 | 492 | 1153 | 432 | 1009 | 371 | 865  | 310 | 721  | 250 | 577  | 189 | 495  | 155 | 495  | 155 | 495  | 155 |
| -14                            | 1488           | 560 | 1340 | 499 | 1191 | 437 | 1042 | 376 | 893  | 314 | 744  | 253 | 595  | 191 | 512  | 157 | 512  | 157 | 512  | 157 |
| -13                            | 1535           | 567 | 1382 | 505 | 1228 | 443 | 1075 | 380 | 921  | 318 | 768  | 256 | 614  | 194 | 528  | 159 | 528  | 159 | 528  | 159 |
| -12                            | 1582           | 574 | 1424 | 511 | 1266 | 448 | 1108 | 385 | 949  | 322 | 791  | 259 | 633  | 196 | 544  | 161 | 544  | 161 | 544  | 161 |
| -11                            | 1629           | 581 | 1467 | 517 | 1304 | 453 | 1141 | 390 | 978  | 326 | 815  | 262 | 652  | 198 | 560  | 163 | 560  | 163 | 560  | 163 |
| -10                            | 1676           | 588 | 1509 | 523 | 1341 | 459 | 1174 | 394 | 1006 | 330 | 838  | 265 | 671  | 201 | 576  | 165 | 576  | 165 | 576  | 165 |
| -9                             | 1723           | 595 | 1551 | 529 | 1379 | 464 | 1206 | 399 | 1034 | 334 | 862  | 268 | 689  | 203 | 592  | 166 | 592  | 166 | 592  | 166 |
| -8                             | 1770           | 601 | 1593 | 536 | 1416 | 470 | 1239 | 404 | 1062 | 338 | 885  | 272 | 708  | 206 | 609  | 168 | 609  | 168 | 609  | 168 |
| -7                             | 1817           | 608 | 1636 | 542 | 1454 | 475 | 1272 | 408 | 1090 | 341 | 909  | 275 | 727  | 208 | 625  | 170 | 625  | 170 | 625  | 170 |
| -6                             | 1873           | 615 | 1686 | 547 | 1499 | 480 | 1311 | 412 | 1124 | 345 | 937  | 277 | 749  | 210 | 644  | 172 | 644  | 172 | 644  | 172 |
| -5                             | 1929           | 621 | 1736 | 553 | 1543 | 484 | 1350 | 416 | 1157 | 348 | 964  | 280 | 772  | 212 | 663  | 174 | 663  | 174 | 663  | 174 |
| -4                             | 1985           | 627 | 1786 | 558 | 1588 | 489 | 1389 | 421 | 1191 | 352 | 992  | 283 | 794  | 214 | 682  | 176 | 682  | 176 | 682  | 176 |
| -3                             | 2040           | 633 | 1836 | 564 | 1632 | 494 | 1428 | 425 | 1224 | 355 | 1020 | 286 | 816  | 216 | 701  | 177 | 701  | 177 | 701  | 177 |
| -2                             | 2096           | 639 | 1886 | 569 | 1677 | 499 | 1467 | 429 | 1258 | 359 | 1048 | 289 | 838  | 218 | 721  | 179 | 721  | 179 | 721  | 179 |
| -1                             | 2152           | 645 | 1937 | 574 | 1721 | 504 | 1506 | 433 | 1291 | 362 | 1076 | 291 | 861  | 221 | 740  | 181 | 740  | 181 | 740  | 181 |
| 0                              | 2207           | 651 | 1987 | 580 | 1766 | 508 | 1545 | 437 | 1324 | 366 | 1104 | 294 | 883  | 223 | 759  | 182 | 759  | 182 | 759  | 182 |
| 1                              | 2263           | 658 | 2037 | 585 | 1811 | 513 | 1584 | 441 | 1358 | 369 | 1132 | 297 | 905  | 225 | 778  | 184 | 778  | 184 | 778  | 184 |
| 2                              | 2319           | 664 | 2087 | 591 | 1855 | 518 | 1623 | 445 | 1391 | 372 | 1159 | 300 | 928  | 227 | 797  | 186 | 797  | 186 | 797  | 186 |
| 3                              | 2357           | 673 | 2121 | 599 | 1885 | 525 | 1650 | 451 | 1414 | 377 | 1178 | 304 | 943  | 230 | 810  | 188 | 810  | 188 | 810  | 188 |
| 4                              | 2395           | 682 | 2155 | 607 | 1916 | 532 | 1676 | 457 | 1437 | 382 | 1197 | 308 | 958  | 233 | 823  | 191 | 823  | 191 | 823  | 191 |
| 5                              | 2433           | 690 | 2190 | 615 | 1946 | 539 | 1703 | 463 | 1460 | 387 | 1216 | 312 | 973  | 236 | 836  | 193 | 836  | 193 | 836  | 193 |
| 6                              | 3117           | 738 | 2806 | 657 | 2494 | 576 | 2182 | 495 | 1870 | 414 | 1559 | 333 | 1247 | 252 | 1072 | 207 | 1072 | 207 | 1072 | 207 |
| 7                              | 3200           | 750 | 2880 | 668 | 2560 | 585 | 2240 | 503 | 1920 | 421 | 1600 | 339 | 1280 | 256 | 1100 | 210 | 1100 | 210 | 1100 | 210 |
| 8                              | 3283           | 762 | 2954 | 678 | 2626 | 594 | 2298 | 511 | 1970 | 427 | 1641 | 344 | 1313 | 260 | 1128 | 213 | 1128 | 213 | 1128 | 213 |
| 9                              | 3365           | 773 | 3029 | 688 | 2692 | 604 | 2356 | 519 | 2019 | 434 | 1683 | 349 | 1346 | 264 | 1157 | 217 | 1157 | 217 | 1157 | 217 |
| 10                             | 3448           | 785 | 3103 | 699 | 2758 | 613 | 2413 | 527 | 2069 | 440 | 1724 | 354 | 1379 | 268 | 1185 | 220 | 1185 | 220 | 1185 | 220 |
| 11                             | 3530           | 796 | 3177 | 709 | 2824 | 622 | 2471 | 534 | 2118 | 447 | 1765 | 360 | 1412 | 272 | 1214 | 223 | 1214 | 223 | 1214 | 223 |
| 12                             | 3613           | 808 | 3252 | 719 | 2890 | 631 | 2529 | 542 | 2168 | 453 | 1806 | 365 | 1445 | 276 | 1242 | 226 | 1242 | 226 | 1242 | 226 |
| 13                             | 3695           | 820 | 3326 | 730 | 2956 | 640 | 2587 | 550 | 2217 | 460 | 1848 | 370 | 1478 | 280 | 1270 | 230 | 1270 | 230 | 1270 | 230 |
| 14                             | 3778           | 831 | 3400 | 740 | 3022 | 649 | 2645 | 558 | 2267 | 466 | 1889 | 375 | 1511 | 284 | 1299 | 233 | 1299 | 233 | 1299 | 233 |
| 15                             | 3861           | 843 | 3475 | 750 | 3089 | 658 | 2702 | 565 | 2316 | 473 | 1930 | 381 | 1544 | 288 | 1327 | 236 | 1327 | 236 | 1327 | 236 |
| 16                             | 3943           | 855 | 3549 | 761 | 3155 | 667 | 2760 | 573 | 2366 | 480 | 1972 | 386 | 1577 | 292 | 1355 | 239 | 1355 | 239 | 1355 | 239 |
| 17                             | 4026           | 866 | 3623 | 771 | 3221 | 676 | 2818 | 581 | 2415 | 486 | 2013 | 391 | 1610 | 296 | 1384 | 243 | 1384 | 243 | 1384 | 243 |
| 18                             | 4108           | 878 | 3698 | 781 | 3287 | 685 | 2876 | 589 | 2465 | 493 | 2054 | 396 | 1643 | 300 | 1412 | 246 | 1412 | 246 | 1412 | 246 |
| 19                             | 4191           | 889 | 3772 | 792 | 3353 | 694 | 2934 | 597 | 2515 | 499 | 2095 | 401 | 1676 | 304 | 1441 | 249 | 1441 | 249 | 1441 | 249 |
| 20                             | 4274           | 901 | 3846 | 802 | 3419 | 703 | 2991 | 604 | 2564 | 506 | 2137 | 407 | 1709 | 308 | 1469 | 252 | 1469 | 252 | 1469 | 252 |
| 21                             | 4356           | 913 | 3921 | 812 | 3485 | 712 | 3049 | 612 | 2614 | 512 | 2178 | 412 | 1742 | 312 | 1497 | 256 | 1497 | 256 | 1497 | 256 |
| 22                             | 4439           | 924 | 3995 | 823 | 3551 | 721 | 3107 | 620 | 2663 | 519 | 2219 | 417 | 1775 | 316 | 1526 | 259 | 1526 | 259 | 1526 | 259 |
| 23                             | 4521           | 936 | 4069 | 833 | 3617 | 730 | 3165 | 628 | 2713 | 525 | 2261 | 422 | 1809 | 320 | 1554 | 262 | 1554 | 262 | 1554 | 262 |
| 24                             | 4604           | 947 | 4143 | 843 | 3683 | 740 | 3223 | 636 | 2762 | 532 | 2302 | 428 | 1842 | 324 | 1583 | 265 | 1583 | 265 | 1583 | 265 |

Indoor: RAS-35J2KVG-ND

Outdoor: RAS-35J2AVG-ND

| Operation range |   | Cooling |      |
|-----------------|---|---------|------|
|                 |   | Q       | P    |
| MINIMUM         | W | 1400    | 340  |
| RATING          | W | 3500    | 1050 |
| MAXIMUM         | W | 4500    | 1250 |

## Cooling

| Outdoor Temperature<br>DB (°C) | Parts Load (%) |      |      |      |      |     |      |     |      |     |      |     |      |     |      |     |      |     |      |     |
|--------------------------------|----------------|------|------|------|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|
|                                | 100            |      | 90   |      | 80   |     | 70   |     | 60   |     | 50   |     | 40   |     | 30   |     | 20   |     | 10   |     |
|                                | Q              | P    | Q    | P    | Q    | P   | Q    | P   | Q    | P   | Q    | P   | Q    | P   | Q    | P   | Q    | P   | Q    | P   |
| 20                             | 4174           | 824  | 3756 | 731  | 3339 | 638 | 2922 | 546 | 2504 | 453 | 2087 | 360 | 1670 | 267 | 1670 | 267 | 1670 | 267 | 1670 | 267 |
| 21                             | 4129           | 839  | 3716 | 745  | 3303 | 650 | 2890 | 556 | 2477 | 461 | 2064 | 366 | 1652 | 272 | 1652 | 272 | 1652 | 272 | 1652 | 272 |
| 22                             | 4084           | 854  | 3676 | 758  | 3267 | 662 | 2859 | 565 | 2450 | 469 | 2042 | 373 | 1634 | 277 | 1634 | 277 | 1634 | 277 | 1634 | 277 |
| 23                             | 4039           | 869  | 3635 | 771  | 3231 | 673 | 2827 | 575 | 2423 | 477 | 2020 | 380 | 1616 | 282 | 1616 | 282 | 1616 | 282 | 1616 | 282 |
| 24                             | 3994           | 884  | 3595 | 785  | 3195 | 685 | 2796 | 585 | 2396 | 486 | 1997 | 386 | 1598 | 286 | 1598 | 286 | 1598 | 286 | 1598 | 286 |
| 25                             | 3949           | 900  | 3554 | 798  | 3159 | 697 | 2764 | 595 | 2370 | 494 | 1975 | 393 | 1580 | 291 | 1580 | 291 | 1580 | 291 | 1580 | 291 |
| 26                             | 3904           | 915  | 3514 | 811  | 3123 | 708 | 2733 | 605 | 2343 | 502 | 1952 | 399 | 1562 | 296 | 1562 | 296 | 1562 | 296 | 1562 | 296 |
| 27                             | 3859           | 930  | 3473 | 825  | 3087 | 720 | 2702 | 615 | 2316 | 511 | 1930 | 406 | 1544 | 301 | 1544 | 301 | 1544 | 301 | 1544 | 301 |
| 28                             | 3814           | 945  | 3433 | 838  | 3052 | 732 | 2670 | 625 | 2289 | 519 | 1907 | 412 | 1526 | 306 | 1526 | 306 | 1526 | 306 | 1526 | 306 |
| 29                             | 3770           | 960  | 3393 | 852  | 3016 | 743 | 2639 | 635 | 2262 | 527 | 1885 | 419 | 1508 | 311 | 1508 | 311 | 1508 | 311 | 1508 | 311 |
| 30                             | 3725           | 975  | 3352 | 865  | 2980 | 755 | 2607 | 645 | 2235 | 535 | 1862 | 425 | 1490 | 316 | 1490 | 316 | 1490 | 316 | 1490 | 316 |
| 31                             | 3680           | 990  | 3312 | 878  | 2944 | 767 | 2576 | 655 | 2208 | 544 | 1840 | 432 | 1472 | 321 | 1472 | 321 | 1472 | 321 | 1472 | 321 |
| 32                             | 3635           | 1005 | 3271 | 892  | 2908 | 778 | 2544 | 665 | 2181 | 552 | 1817 | 439 | 1454 | 325 | 1454 | 325 | 1454 | 325 | 1454 | 325 |
| 33                             | 3590           | 1020 | 3231 | 905  | 2872 | 790 | 2513 | 675 | 2154 | 560 | 1795 | 445 | 1436 | 330 | 1436 | 330 | 1436 | 330 | 1436 | 330 |
| 34                             | 3545           | 1035 | 3190 | 918  | 2836 | 802 | 2481 | 685 | 2127 | 568 | 1772 | 452 | 1418 | 335 | 1418 | 335 | 1418 | 335 | 1418 | 335 |
| 35                             | 3500           | 1050 | 3150 | 932  | 2800 | 813 | 2450 | 695 | 2100 | 577 | 1750 | 458 | 1400 | 340 | 1400 | 340 | 1400 | 340 | 1400 | 340 |
| 36                             | 3455           | 1065 | 3110 | 945  | 2764 | 825 | 2419 | 705 | 2073 | 585 | 1728 | 465 | 1382 | 345 | 1382 | 345 | 1382 | 345 | 1382 | 345 |
| 37                             | 3410           | 1080 | 3069 | 958  | 2728 | 837 | 2387 | 715 | 2046 | 593 | 1705 | 471 | 1364 | 350 | 1364 | 350 | 1364 | 350 | 1364 | 350 |
| 38                             | 3365           | 1095 | 3029 | 972  | 2692 | 848 | 2356 | 725 | 2019 | 601 | 1683 | 478 | 1346 | 355 | 1346 | 355 | 1346 | 355 | 1346 | 355 |
| 39                             | 3320           | 1110 | 2988 | 985  | 2656 | 860 | 2324 | 735 | 1992 | 610 | 1660 | 485 | 1328 | 359 | 1328 | 359 | 1328 | 359 | 1328 | 359 |
| 40                             | 3275           | 1125 | 2948 | 998  | 2620 | 872 | 2293 | 745 | 1965 | 618 | 1638 | 491 | 1310 | 364 | 1310 | 364 | 1310 | 364 | 1310 | 364 |
| 41                             | 3231           | 1140 | 2907 | 1012 | 2584 | 883 | 2261 | 755 | 1938 | 626 | 1615 | 498 | 1292 | 369 | 1292 | 369 | 1292 | 369 | 1292 | 369 |
| 42                             | 3186           | 1155 | 2867 | 1025 | 2548 | 895 | 2230 | 765 | 1911 | 635 | 1593 | 504 | 1274 | 374 | 1274 | 374 | 1274 | 374 | 1274 | 374 |
| 43                             | 3141           | 1170 | 2827 | 1038 | 2513 | 907 | 2198 | 775 | 1884 | 643 | 1570 | 511 | 1256 | 379 | 1256 | 379 | 1256 | 379 | 1256 | 379 |
| 44                             | 3096           | 1185 | 2786 | 1052 | 2477 | 918 | 2167 | 785 | 1857 | 651 | 1548 | 517 | 1238 | 384 | 1238 | 384 | 1238 | 384 | 1238 | 384 |
| 45                             | 3051           | 1201 | 2746 | 1065 | 2441 | 930 | 2136 | 795 | 1831 | 659 | 1525 | 524 | 1220 | 389 | 1220 | 389 | 1220 | 389 | 1220 | 389 |
| 46                             | 3006           | 1216 | 2705 | 1079 | 2405 | 942 | 2104 | 805 | 1804 | 668 | 1503 | 531 | 1202 | 394 | 1202 | 394 | 1202 | 394 | 1202 | 394 |

Indoor: RAS-35J2KVG-ND

Outdoor: RAS-35J2AVG-ND

| Operation range |   | Heating |      |
|-----------------|---|---------|------|
|                 |   | Q       | P    |
| MINIMUM         | W | 1200    | 270  |
| RATING          | W | 4200    | 1080 |
| MAXIMUM         | W | 5600    | 1800 |

## Heating

| Outdoor Temperature<br>DB (°C) | Parts Load (%) |      |      |      |      |      |      |     |      |     |      |     |      |     |      |     |      |     |      |     |
|--------------------------------|----------------|------|------|------|------|------|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|
|                                | 100            |      | 90   |      | 80   |      | 70   |     | 60   |     | 50   |     | 40   |     | 30   |     | 20   |     | 10   |     |
|                                | Q              | P    | Q    | P    | Q    | P    | Q    | P   | Q    | P   | Q    | P   | Q    | P   | Q    | P   | Q    | P   | Q    | P   |
| -15                            | 2029           | 747  | 1826 | 668  | 1623 | 590  | 1420 | 511 | 1217 | 433 | 1014 | 355 | 812  | 276 | 609  | 198 | 580  | 187 | 580  | 187 |
| -14                            | 2071           | 758  | 1864 | 678  | 1657 | 599  | 1450 | 519 | 1243 | 440 | 1036 | 360 | 829  | 280 | 621  | 201 | 592  | 189 | 592  | 189 |
| -13                            | 2114           | 769  | 1902 | 688  | 1691 | 608  | 1479 | 527 | 1268 | 446 | 1057 | 365 | 845  | 285 | 634  | 204 | 604  | 192 | 604  | 192 |
| -12                            | 2156           | 780  | 1940 | 698  | 1725 | 616  | 1509 | 534 | 1293 | 453 | 1078 | 371 | 862  | 289 | 647  | 207 | 616  | 195 | 616  | 195 |
| -11                            | 2198           | 791  | 1978 | 708  | 1758 | 625  | 1539 | 542 | 1319 | 459 | 1099 | 376 | 879  | 293 | 659  | 210 | 628  | 198 | 628  | 198 |
| -10                            | 2240           | 803  | 2016 | 718  | 1792 | 634  | 1568 | 550 | 1344 | 466 | 1120 | 381 | 896  | 297 | 672  | 213 | 640  | 201 | 640  | 201 |
| -9                             | 2283           | 814  | 2054 | 728  | 1826 | 643  | 1598 | 558 | 1370 | 472 | 1141 | 387 | 913  | 301 | 685  | 216 | 652  | 203 | 652  | 203 |
| -8                             | 2325           | 825  | 2092 | 738  | 1860 | 652  | 1627 | 565 | 1395 | 479 | 1162 | 392 | 930  | 305 | 697  | 219 | 664  | 206 | 664  | 206 |
| -7                             | 2367           | 836  | 2130 | 748  | 1894 | 661  | 1657 | 573 | 1420 | 485 | 1184 | 397 | 947  | 309 | 710  | 222 | 676  | 209 | 676  | 209 |
| -6                             | 2442           | 850  | 2198 | 760  | 1954 | 671  | 1710 | 582 | 1465 | 493 | 1221 | 404 | 977  | 314 | 733  | 225 | 698  | 212 | 698  | 212 |
| -5                             | 2517           | 863  | 2266 | 772  | 2014 | 682  | 1762 | 591 | 1510 | 500 | 1259 | 410 | 1007 | 319 | 755  | 229 | 719  | 216 | 719  | 216 |
| -4                             | 2593           | 876  | 2333 | 784  | 2074 | 692  | 1815 | 600 | 1556 | 508 | 1296 | 416 | 1037 | 324 | 778  | 232 | 741  | 219 | 741  | 219 |
| -3                             | 2668           | 889  | 2401 | 796  | 2134 | 703  | 1867 | 609 | 1601 | 516 | 1334 | 422 | 1067 | 329 | 800  | 236 | 762  | 222 | 762  | 222 |
| -2                             | 2743           | 903  | 2469 | 808  | 2194 | 713  | 1920 | 618 | 1646 | 524 | 1371 | 429 | 1097 | 334 | 823  | 239 | 784  | 226 | 784  | 226 |
| -1                             | 2818           | 916  | 2536 | 820  | 2254 | 724  | 1973 | 627 | 1691 | 531 | 1409 | 435 | 1127 | 339 | 845  | 243 | 805  | 229 | 805  | 229 |
| 0                              | 2893           | 929  | 2604 | 832  | 2315 | 734  | 2025 | 637 | 1736 | 539 | 1447 | 441 | 1157 | 344 | 868  | 246 | 827  | 232 | 827  | 232 |
| 1                              | 2968           | 942  | 2671 | 844  | 2375 | 745  | 2078 | 646 | 1781 | 547 | 1484 | 448 | 1187 | 349 | 890  | 250 | 848  | 236 | 848  | 236 |
| 2                              | 3043           | 956  | 2739 | 855  | 2435 | 755  | 2130 | 655 | 1826 | 554 | 1522 | 454 | 1217 | 354 | 913  | 253 | 870  | 239 | 870  | 239 |
| 3                              | 3093           | 969  | 2784 | 867  | 2475 | 765  | 2165 | 663 | 1856 | 562 | 1547 | 460 | 1237 | 358 | 928  | 257 | 884  | 242 | 884  | 242 |
| 4                              | 3143           | 981  | 2829 | 878  | 2515 | 775  | 2200 | 672 | 1886 | 569 | 1572 | 466 | 1257 | 363 | 943  | 260 | 898  | 245 | 898  | 245 |
| 5                              | 3193           | 994  | 2874 | 890  | 2554 | 786  | 2235 | 681 | 1916 | 577 | 1597 | 472 | 1277 | 368 | 958  | 263 | 912  | 249 | 912  | 249 |
| 6                              | 4092           | 1063 | 3682 | 952  | 3273 | 840  | 2864 | 728 | 2455 | 617 | 2046 | 505 | 1637 | 393 | 1227 | 282 | 1169 | 266 | 1169 | 266 |
| 7                              | 4200           | 1080 | 3780 | 967  | 3360 | 853  | 2940 | 740 | 2520 | 626 | 2100 | 513 | 1680 | 400 | 1260 | 286 | 1200 | 270 | 1200 | 270 |
| 8                              | 4308           | 1097 | 3878 | 982  | 3447 | 866  | 3016 | 751 | 2585 | 636 | 2154 | 521 | 1723 | 406 | 1293 | 291 | 1231 | 274 | 1231 | 274 |
| 9                              | 4417           | 1113 | 3975 | 997  | 3533 | 880  | 3092 | 763 | 2650 | 646 | 2208 | 529 | 1767 | 412 | 1325 | 295 | 1262 | 278 | 1262 | 278 |
| 10                             | 4525           | 1130 | 4073 | 1012 | 3620 | 893  | 3168 | 774 | 2715 | 655 | 2263 | 537 | 1810 | 418 | 1358 | 299 | 1293 | 283 | 1293 | 283 |
| 11                             | 4634           | 1147 | 4170 | 1026 | 3707 | 906  | 3243 | 786 | 2780 | 665 | 2317 | 545 | 1853 | 424 | 1390 | 304 | 1324 | 287 | 1324 | 287 |
| 12                             | 4742           | 1164 | 4268 | 1041 | 3794 | 919  | 3319 | 797 | 2845 | 675 | 2371 | 553 | 1897 | 431 | 1423 | 308 | 1355 | 291 | 1355 | 291 |
| 13                             | 4850           | 1180 | 4365 | 1056 | 3880 | 932  | 3395 | 809 | 2910 | 685 | 2425 | 561 | 1940 | 437 | 1455 | 313 | 1386 | 295 | 1386 | 295 |
| 14                             | 4959           | 1197 | 4463 | 1071 | 3967 | 946  | 3471 | 820 | 2975 | 694 | 2479 | 569 | 1983 | 443 | 1488 | 317 | 1417 | 299 | 1417 | 299 |
| 15                             | 5067           | 1214 | 4560 | 1086 | 4054 | 959  | 3547 | 831 | 3040 | 704 | 2534 | 577 | 2027 | 449 | 1520 | 322 | 1448 | 303 | 1448 | 303 |
| 16                             | 5175           | 1231 | 4658 | 1101 | 4140 | 972  | 3623 | 843 | 3105 | 714 | 2588 | 584 | 2070 | 455 | 1553 | 326 | 1479 | 308 | 1479 | 308 |
| 17                             | 5284           | 1247 | 4755 | 1116 | 4227 | 985  | 3699 | 854 | 3170 | 723 | 2642 | 592 | 2114 | 461 | 1585 | 331 | 1510 | 312 | 1510 | 312 |
| 18                             | 5392           | 1264 | 4853 | 1131 | 4314 | 999  | 3775 | 866 | 3235 | 733 | 2696 | 600 | 2157 | 468 | 1618 | 335 | 1541 | 316 | 1541 | 316 |
| 19                             | 5501           | 1281 | 4951 | 1146 | 4401 | 1012 | 3850 | 877 | 3300 | 743 | 2750 | 608 | 2200 | 474 | 1650 | 339 | 1572 | 320 | 1572 | 320 |
| 20                             | 5609           | 1297 | 5048 | 1161 | 4487 | 1025 | 3926 | 889 | 3365 | 752 | 2805 | 616 | 2244 | 480 | 1683 | 344 | 1603 | 324 | 1603 | 324 |
| 21                             | 5717           | 1314 | 5146 | 1176 | 4574 | 1038 | 4002 | 900 | 3430 | 762 | 2859 | 624 | 2287 | 486 | 1715 | 348 | 1634 | 329 | 1634 | 329 |
| 22                             | 5826           | 1331 | 5243 | 1191 | 4661 | 1051 | 4078 | 912 | 3495 | 772 | 2913 | 632 | 2330 | 492 | 1748 | 353 | 1665 | 333 | 1665 | 333 |
| 23                             | 5934           | 1348 | 5341 | 1206 | 4747 | 1065 | 4154 | 923 | 3561 | 782 | 2967 | 640 | 2374 | 499 | 1780 | 357 | 1695 | 337 | 1695 | 337 |
| 24                             | 6043           | 1364 | 5438 | 1221 | 4834 | 1078 | 4230 | 935 | 3626 | 791 | 3021 | 648 | 2417 | 505 | 1813 | 362 | 1726 | 341 | 1726 | 341 |

## 10. Performance Characteristic

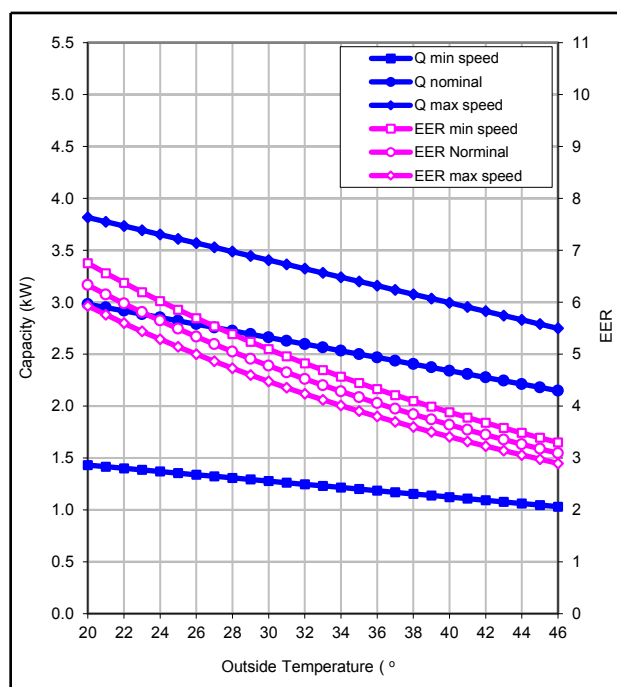
Model : RAS-25J2KVG-ND/RAS-25J2AVG-ND

Product specification :

| Condition                                                        |       | Capacity (kW) | Power (kW) | EER/COP |
|------------------------------------------------------------------|-------|---------------|------------|---------|
| Cooling JIS<br>In: 27°C DB/19°C WB<br>Out: 35°C DB/24°C WB       | Min   | 1.20          | 0.27       | 4.44    |
|                                                                  | Rated | 2.50          | 0.60       | 4.17    |
|                                                                  | Max   | 3.20          | 0.82       | 3.90    |
| Heating JIS<br>In: 20°C DB/15°C WB<br>Out: 7°C DB/6°C WB         | Min   | 1.10          | 0.21       | 5.24    |
|                                                                  | Rated | 3.20          | 0.75       | 4.27    |
|                                                                  | Max   | 5.00          | 1.40       | 3.57    |
| Heating Low Temp.<br>In: 20°C DB/15°C WB<br>Out: 2°C DB/1°C WB   | Max   | 3.70          | 1.20       | 3.08    |
| Heating Low Temp.<br>In: 20°C DB/15°C WB<br>Out: -7°C DB/-6°C WB | Max   | 2.90          | 1.100      | 2.64    |
| Heating Low Temp.<br>In: 20°C DB/15°C WB<br>Out: -15°C DB        | Max   | 2.30          | 1.000      | 2.30    |

Cooling performance characteristic :

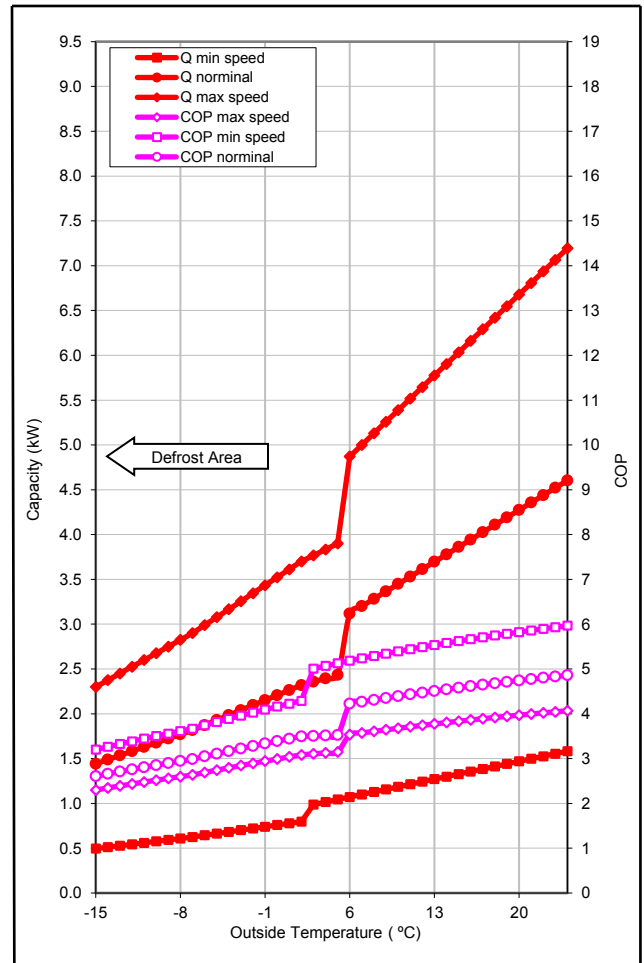
| Outside Temp<br>(°C) | Min capacity  |            |         | Nominal capacity |            |         | Max capacity  |            |         |
|----------------------|---------------|------------|---------|------------------|------------|---------|---------------|------------|---------|
|                      | Capacity (kW) | Power (kW) | EER (-) | Capacity (kW)    | Power (kW) | EER (-) | Capacity (kW) | Power (kW) | EER (-) |
| 20                   | 1.43          | 0.21       | 6.75    | 2.98             | 0.47       | 6.33    | 3.82          | 0.64       | 5.93    |
| 21                   | 1.42          | 0.22       | 6.56    | 2.95             | 0.48       | 6.15    | 3.77          | 0.66       | 5.76    |
| 22                   | 1.40          | 0.22       | 6.37    | 2.92             | 0.49       | 5.98    | 3.73          | 0.67       | 5.60    |
| 23                   | 1.38          | 0.22       | 6.19    | 2.89             | 0.50       | 5.81    | 3.69          | 0.68       | 5.44    |
| 24                   | 1.37          | 0.23       | 6.02    | 2.85             | 0.51       | 5.64    | 3.65          | 0.69       | 5.29    |
| 25                   | 1.35          | 0.23       | 5.85    | 2.82             | 0.51       | 5.49    | 3.61          | 0.70       | 5.14    |
| 26                   | 1.34          | 0.24       | 5.69    | 2.79             | 0.52       | 5.34    | 3.57          | 0.71       | 5.00    |
| 27                   | 1.32          | 0.24       | 5.54    | 2.76             | 0.53       | 5.19    | 3.53          | 0.73       | 4.86    |
| 28                   | 1.31          | 0.24       | 5.38    | 2.72             | 0.54       | 5.05    | 3.49          | 0.74       | 4.73    |
| 29                   | 1.29          | 0.25       | 5.24    | 2.69             | 0.55       | 4.91    | 3.45          | 0.75       | 4.60    |
| 30                   | 1.28          | 0.25       | 5.09    | 2.66             | 0.56       | 4.78    | 3.41          | 0.76       | 4.47    |
| 31                   | 1.26          | 0.25       | 4.96    | 2.63             | 0.57       | 4.65    | 3.36          | 0.77       | 4.35    |
| 32                   | 1.25          | 0.26       | 4.82    | 2.60             | 0.57       | 4.52    | 3.32          | 0.78       | 4.23    |
| 33                   | 1.23          | 0.26       | 4.69    | 2.56             | 0.58       | 4.40    | 3.28          | 0.80       | 4.12    |
| 34                   | 1.22          | 0.27       | 4.57    | 2.53             | 0.59       | 4.28    | 3.24          | 0.81       | 4.01    |
| 35                   | 1.20          | 0.27       | 4.44    | 2.50             | 0.60       | 4.17    | 3.20          | 0.82       | 3.90    |
| 36                   | 1.18          | 0.27       | 4.33    | 2.47             | 0.61       | 4.06    | 3.16          | 0.83       | 3.80    |
| 37                   | 1.17          | 0.28       | 4.21    | 2.44             | 0.62       | 3.95    | 3.12          | 0.84       | 3.70    |
| 38                   | 1.15          | 0.28       | 4.10    | 2.40             | 0.63       | 3.84    | 3.08          | 0.86       | 3.60    |
| 39                   | 1.14          | 0.29       | 3.99    | 2.37             | 0.63       | 3.74    | 3.04          | 0.87       | 3.50    |
| 40                   | 1.12          | 0.29       | 3.88    | 2.34             | 0.64       | 3.64    | 2.99          | 0.88       | 3.41    |
| 41                   | 1.11          | 0.29       | 3.78    | 2.31             | 0.65       | 3.54    | 2.95          | 0.89       | 3.32    |
| 42                   | 1.09          | 0.30       | 3.68    | 2.28             | 0.66       | 3.45    | 2.91          | 0.90       | 3.23    |
| 43                   | 1.08          | 0.30       | 3.58    | 2.24             | 0.67       | 3.35    | 2.87          | 0.91       | 3.14    |
| 44                   | 1.06          | 0.30       | 3.48    | 2.21             | 0.68       | 3.26    | 2.83          | 0.93       | 3.06    |
| 45                   | 1.05          | 0.31       | 3.39    | 2.18             | 0.69       | 3.18    | 2.79          | 0.94       | 2.98    |
| 46                   | 1.03          | 0.31       | 3.30    | 2.15             | 0.69       | 3.09    | 2.75          | 0.95       | 2.90    |



Model : RAS-25J2KVG-ND/RAS-25J2AVG-ND

Heating performance characteristic :

| Outside Temp<br>(°C) | Min capacity     |               |            | Nominal capacity |               |            | Max capacity     |               |            |
|----------------------|------------------|---------------|------------|------------------|---------------|------------|------------------|---------------|------------|
|                      | Capacity<br>(kW) | Power<br>(kW) | COP<br>(-) | Capacity<br>(kW) | Power<br>(kW) | COP<br>(-) | Capacity<br>(kW) | Power<br>(kW) | COP<br>(-) |
| -15                  | 0.50             | 0.15          | 3.20       | 1.44             | 0.55          | 2.61       | 2.30             | 1.00          | 2.30       |
| -14                  | 0.51             | 0.16          | 3.26       | 1.49             | 0.56          | 2.66       | 2.38             | 1.01          | 2.35       |
| -13                  | 0.53             | 0.16          | 3.33       | 1.54             | 0.57          | 2.71       | 2.45             | 1.03          | 2.39       |
| -12                  | 0.54             | 0.16          | 3.39       | 1.58             | 0.57          | 2.76       | 2.53             | 1.04          | 2.43       |
| -11                  | 0.56             | 0.16          | 3.44       | 1.63             | 0.58          | 2.81       | 2.60             | 1.05          | 2.48       |
| -10                  | 0.58             | 0.16          | 3.50       | 1.68             | 0.59          | 2.85       | 2.68             | 1.06          | 2.52       |
| -9                   | 0.59             | 0.17          | 3.56       | 1.72             | 0.59          | 2.90       | 2.75             | 1.08          | 2.56       |
| -8                   | 0.61             | 0.17          | 3.61       | 1.77             | 0.60          | 2.94       | 2.83             | 1.09          | 2.60       |
| -7                   | 0.62             | 0.17          | 3.67       | 1.82             | 0.61          | 2.99       | 2.90             | 1.10          | 2.64       |
| -6                   | 0.64             | 0.17          | 3.74       | 1.87             | 0.61          | 3.05       | 2.99             | 1.11          | 2.69       |
| -5                   | 0.66             | 0.17          | 3.82       | 1.93             | 0.62          | 3.11       | 3.08             | 1.12          | 2.74       |
| -4                   | 0.68             | 0.18          | 3.89       | 1.98             | 0.63          | 3.17       | 3.17             | 1.13          | 2.79       |
| -3                   | 0.70             | 0.18          | 3.96       | 2.04             | 0.63          | 3.22       | 3.26             | 1.14          | 2.84       |
| -2                   | 0.72             | 0.18          | 4.03       | 2.10             | 0.64          | 3.28       | 3.34             | 1.16          | 2.89       |
| -1                   | 0.74             | 0.18          | 4.09       | 2.15             | 0.65          | 3.33       | 3.43             | 1.17          | 2.94       |
| 0                    | 0.76             | 0.18          | 4.16       | 2.21             | 0.65          | 3.39       | 3.52             | 1.18          | 2.99       |
| 1                    | 0.78             | 0.18          | 4.23       | 2.26             | 0.66          | 3.44       | 3.61             | 1.19          | 3.04       |
| 2                    | 0.80             | 0.19          | 4.29       | 2.32             | 0.66          | 3.49       | 3.70             | 1.20          | 3.08       |
| 3                    | 0.99             | 0.20          | 5.01       | 2.36             | 0.67          | 3.50       | 3.77             | 1.21          | 3.11       |
| 4                    | 1.01             | 0.20          | 5.07       | 2.39             | 0.68          | 3.51       | 3.83             | 1.23          | 3.13       |
| 5                    | 1.04             | 0.20          | 5.13       | 2.43             | 0.69          | 3.52       | 3.90             | 1.24          | 3.15       |
| 6                    | 1.07             | 0.21          | 5.18       | 3.12             | 0.74          | 4.22       | 4.87             | 1.38          | 3.53       |
| 7                    | 1.10             | 0.21          | 5.24       | 3.20             | 0.75          | 4.27       | 5.00             | 1.40          | 3.57       |
| 8                    | 1.13             | 0.21          | 5.29       | 3.28             | 0.76          | 4.31       | 5.13             | 1.42          | 3.61       |
| 9                    | 1.16             | 0.22          | 5.34       | 3.37             | 0.77          | 4.35       | 5.26             | 1.44          | 3.64       |
| 10                   | 1.19             | 0.22          | 5.39       | 3.45             | 0.78          | 4.39       | 5.39             | 1.47          | 3.68       |
| 11                   | 1.21             | 0.22          | 5.44       | 3.53             | 0.80          | 4.43       | 5.52             | 1.49          | 3.71       |
| 12                   | 1.24             | 0.23          | 5.49       | 3.61             | 0.81          | 4.47       | 5.65             | 1.51          | 3.74       |
| 13                   | 1.27             | 0.23          | 5.53       | 3.70             | 0.82          | 4.51       | 5.77             | 1.53          | 3.77       |
| 14                   | 1.30             | 0.23          | 5.58       | 3.78             | 0.83          | 4.54       | 5.90             | 1.55          | 3.80       |
| 15                   | 1.33             | 0.24          | 5.62       | 3.86             | 0.84          | 4.58       | 6.03             | 1.57          | 3.83       |
| 16                   | 1.36             | 0.24          | 5.67       | 3.94             | 0.85          | 4.61       | 6.16             | 1.60          | 3.86       |
| 17                   | 1.38             | 0.24          | 5.71       | 4.03             | 0.87          | 4.65       | 6.29             | 1.62          | 3.89       |
| 18                   | 1.41             | 0.25          | 5.75       | 4.11             | 0.88          | 4.68       | 6.42             | 1.64          | 3.92       |
| 19                   | 1.44             | 0.25          | 5.79       | 4.19             | 0.89          | 4.71       | 6.55             | 1.66          | 3.94       |
| 20                   | 1.47             | 0.25          | 5.82       | 4.27             | 0.90          | 4.74       | 6.68             | 1.68          | 3.97       |
| 21                   | 1.50             | 0.26          | 5.86       | 4.36             | 0.91          | 4.77       | 6.81             | 1.70          | 4.00       |
| 22                   | 1.53             | 0.26          | 5.90       | 4.44             | 0.92          | 4.80       | 6.94             | 1.73          | 4.02       |
| 23                   | 1.55             | 0.26          | 5.93       | 4.52             | 0.94          | 4.83       | 7.06             | 1.75          | 4.04       |
| 24                   | 1.58             | 0.27          | 5.97       | 4.60             | 0.95          | 4.86       | 7.19             | 1.77          | 4.07       |



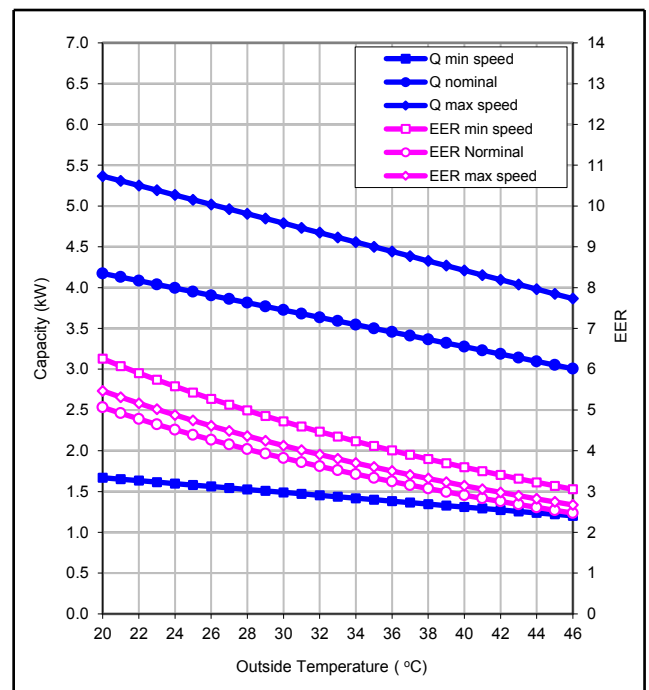
Model : RAS-35J2KVG-ND/RAS-35J2AVG-ND

Product specification :

| Condition                                                        |       | Capacity (kW) | Power (kW) | EER/COP |
|------------------------------------------------------------------|-------|---------------|------------|---------|
| Cooling JIS<br>In: 27°C DB/19°C WB<br>Out: 35°C DB/24°C WB       | Min   | 1.40          | 0.34       | 4.12    |
|                                                                  | Rated | 3.50          | 1.05       | 3.33    |
|                                                                  | Max   | 4.50          | 1.25       | 3.60    |
| Heating JIS<br>In: 20°C DB/15°C WB<br>Out: 7°C DB/6°C WB         | Min   | 1.20          | 0.27       | 4.44    |
|                                                                  | Rated | 4.20          | 1.08       | 3.89    |
|                                                                  | Max   | 5.60          | 1.80       | 3.11    |
| Heating Low Temp.<br>In: 20°C DB/15°C WB<br>Out: 2°C DB/1°C WB   | Max   | 4.50          | 1.60       | 2.81    |
|                                                                  | Max   | 3.50          | 1.40       | 2.50    |
| Heating Low Temp.<br>In: 20°C DB/15°C WB<br>Out: -7°C DB/-6°C WB | Max   | 3.00          | 1.25       | 2.40    |
|                                                                  | Max   | 3.00          | 1.25       | 2.40    |

Cooling performance characteristic :

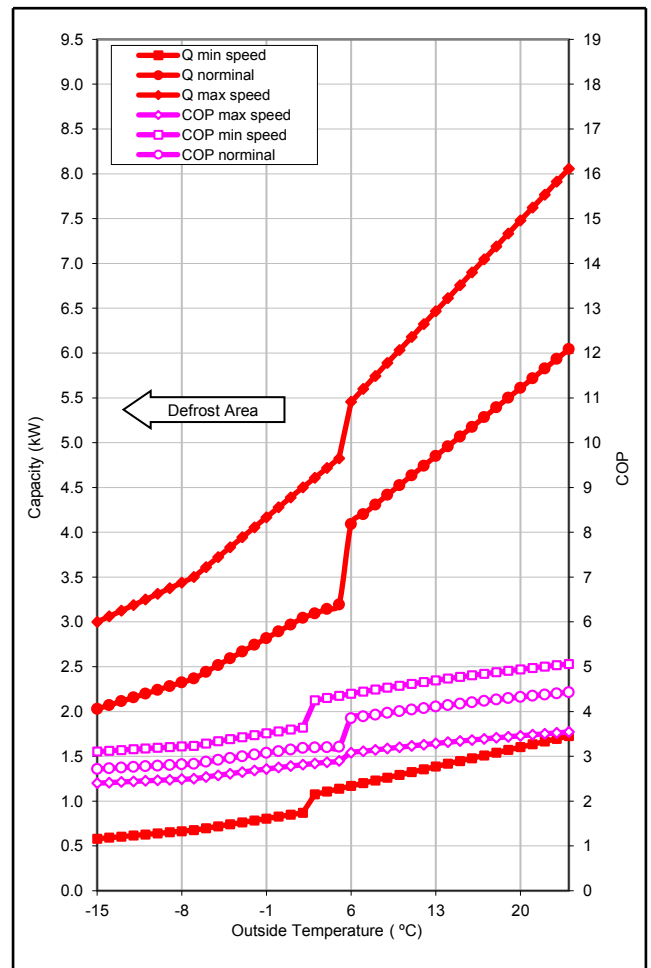
| Outside Temp (°C) | Min capacity  |            |         | Nominal capacity |            |         | Max capacity  |            |         |
|-------------------|---------------|------------|---------|------------------|------------|---------|---------------|------------|---------|
|                   | Capacity (kW) | Power (kW) | EER (-) | Capacity (kW)    | Power (kW) | EER (-) | Capacity (kW) | Power (kW) | EER (-) |
| 20                | 1.67          | 0.27       | 6.26    | 4.17             | 0.82       | 5.06    | 5.37          | 0.98       | 5.47    |
| 21                | 1.65          | 0.27       | 6.08    | 4.13             | 0.84       | 4.92    | 5.31          | 1.00       | 5.31    |
| 22                | 1.63          | 0.28       | 5.90    | 4.08             | 0.85       | 4.78    | 5.25          | 1.02       | 5.16    |
| 23                | 1.62          | 0.28       | 5.74    | 4.04             | 0.87       | 4.65    | 5.19          | 1.04       | 5.02    |
| 24                | 1.60          | 0.29       | 5.58    | 3.99             | 0.88       | 4.52    | 5.14          | 1.05       | 4.88    |
| 25                | 1.58          | 0.29       | 5.42    | 3.95             | 0.90       | 4.39    | 5.08          | 1.07       | 4.74    |
| 26                | 1.56          | 0.30       | 5.27    | 3.90             | 0.91       | 4.27    | 5.02          | 1.09       | 4.61    |
| 27                | 1.54          | 0.30       | 5.13    | 3.86             | 0.93       | 4.15    | 4.96          | 1.11       | 4.48    |
| 28                | 1.53          | 0.31       | 4.99    | 3.81             | 0.94       | 4.04    | 4.90          | 1.12       | 4.36    |
| 29                | 1.51          | 0.31       | 4.85    | 3.77             | 0.96       | 3.93    | 4.85          | 1.14       | 4.24    |
| 30                | 1.49          | 0.32       | 4.72    | 3.72             | 0.97       | 3.82    | 4.79          | 1.16       | 4.13    |
| 31                | 1.47          | 0.32       | 4.59    | 3.68             | 0.99       | 3.72    | 4.73          | 1.18       | 4.01    |
| 32                | 1.45          | 0.33       | 4.47    | 3.63             | 1.00       | 3.62    | 4.67          | 1.20       | 3.91    |
| 33                | 1.44          | 0.33       | 4.35    | 3.59             | 1.02       | 3.52    | 4.62          | 1.21       | 3.80    |
| 34                | 1.42          | 0.34       | 4.23    | 3.54             | 1.03       | 3.43    | 4.56          | 1.23       | 3.70    |
| 35                | 1.40          | 0.34       | 4.12    | 3.50             | 1.05       | 3.33    | 4.50          | 1.25       | 3.60    |
| 36                | 1.38          | 0.34       | 4.01    | 3.46             | 1.07       | 3.24    | 4.44          | 1.27       | 3.50    |
| 37                | 1.36          | 0.35       | 3.90    | 3.41             | 1.08       | 3.16    | 4.38          | 1.29       | 3.41    |
| 38                | 1.35          | 0.35       | 3.80    | 3.37             | 1.10       | 3.07    | 4.33          | 1.30       | 3.32    |
| 39                | 1.33          | 0.36       | 3.69    | 3.32             | 1.11       | 2.99    | 4.27          | 1.32       | 3.23    |
| 40                | 1.31          | 0.36       | 3.60    | 3.28             | 1.13       | 2.91    | 4.21          | 1.34       | 3.14    |
| 41                | 1.29          | 0.37       | 3.50    | 3.23             | 1.14       | 2.83    | 4.15          | 1.36       | 3.06    |
| 42                | 1.27          | 0.37       | 3.41    | 3.19             | 1.16       | 2.76    | 4.10          | 1.38       | 2.98    |
| 43                | 1.26          | 0.38       | 3.31    | 3.14             | 1.17       | 2.68    | 4.04          | 1.39       | 2.90    |
| 44                | 1.24          | 0.38       | 3.23    | 3.10             | 1.19       | 2.61    | 3.98          | 1.41       | 2.82    |
| 45                | 1.22          | 0.39       | 3.14    | 3.05             | 1.20       | 2.54    | 3.92          | 1.43       | 2.74    |
| 46                | 1.20          | 0.39       | 3.05    | 3.01             | 1.22       | 2.47    | 3.86          | 1.45       | 2.67    |



Model : RAS-35J2KVG-ND/RAS-35J2AVG-ND

Heating performance characteristic :

| Outside<br>Temp<br>(°C) | Min capacity     |               |            | Nominal capacity |               |            | Max capacity     |               |            |
|-------------------------|------------------|---------------|------------|------------------|---------------|------------|------------------|---------------|------------|
|                         | Capacity<br>(kW) | Power<br>(kW) | COP<br>(-) | Capacity<br>(kW) | Power<br>(kW) | COP<br>(-) | Capacity<br>(kW) | Power<br>(kW) | COP<br>(-) |
| -15                     | 0.58             | 0.19          | 3.11       | 2.03             | 0.75          | 2.72       | 3.00             | 1.25          | 2.40       |
| -14                     | 0.59             | 0.19          | 3.12       | 2.07             | 0.76          | 2.73       | 3.06             | 1.27          | 2.41       |
| -13                     | 0.60             | 0.19          | 3.14       | 2.11             | 0.77          | 2.75       | 3.13             | 1.29          | 2.43       |
| -12                     | 0.62             | 0.20          | 3.16       | 2.16             | 0.78          | 2.76       | 3.19             | 1.31          | 2.44       |
| -11                     | 0.63             | 0.20          | 3.17       | 2.20             | 0.79          | 2.78       | 3.25             | 1.33          | 2.45       |
| -10                     | 0.64             | 0.20          | 3.19       | 2.24             | 0.80          | 2.79       | 3.31             | 1.34          | 2.47       |
| -9                      | 0.65             | 0.20          | 3.21       | 2.28             | 0.81          | 2.80       | 3.38             | 1.36          | 2.48       |
| -8                      | 0.66             | 0.21          | 3.22       | 2.32             | 0.83          | 2.82       | 3.44             | 1.38          | 2.49       |
| -7                      | 0.68             | 0.21          | 3.23       | 2.37             | 0.84          | 2.83       | 3.50             | 1.40          | 2.50       |
| -6                      | 0.70             | 0.21          | 3.29       | 2.44             | 0.85          | 2.87       | 3.61             | 1.42          | 2.54       |
| -5                      | 0.72             | 0.22          | 3.33       | 2.52             | 0.86          | 2.92       | 3.72             | 1.44          | 2.58       |
| -4                      | 0.74             | 0.22          | 3.38       | 2.59             | 0.88          | 2.96       | 3.83             | 1.47          | 2.61       |
| -3                      | 0.76             | 0.22          | 3.43       | 2.67             | 0.89          | 3.00       | 3.94             | 1.49          | 2.65       |
| -2                      | 0.78             | 0.23          | 3.47       | 2.74             | 0.90          | 3.04       | 4.06             | 1.51          | 2.68       |
| -1                      | 0.81             | 0.23          | 3.52       | 2.82             | 0.92          | 3.08       | 4.17             | 1.53          | 2.72       |
| 0                       | 0.83             | 0.23          | 3.56       | 2.89             | 0.93          | 3.11       | 4.28             | 1.56          | 2.75       |
| 1                       | 0.85             | 0.24          | 3.60       | 2.97             | 0.94          | 3.15       | 4.39             | 1.58          | 2.78       |
| 2                       | 0.87             | 0.24          | 3.64       | 3.04             | 0.96          | 3.18       | 4.50             | 1.60          | 2.81       |
| 3                       | 1.08             | 0.25          | 4.25       | 3.09             | 0.97          | 3.19       | 4.61             | 1.62          | 2.84       |
| 4                       | 1.11             | 0.26          | 4.30       | 3.14             | 0.98          | 3.20       | 4.72             | 1.64          | 2.87       |
| 5                       | 1.14             | 0.26          | 4.35       | 3.19             | 0.99          | 3.21       | 4.83             | 1.67          | 2.90       |
| 6                       | 1.17             | 0.27          | 4.40       | 4.09             | 1.06          | 3.85       | 5.46             | 1.77          | 3.08       |
| 7                       | 1.20             | 0.27          | 4.44       | 4.20             | 1.08          | 3.89       | 5.60             | 1.80          | 3.11       |
| 8                       | 1.23             | 0.27          | 4.49       | 4.31             | 1.10          | 3.93       | 5.74             | 1.83          | 3.14       |
| 9                       | 1.26             | 0.28          | 4.53       | 4.42             | 1.11          | 3.97       | 5.89             | 1.86          | 3.17       |
| 10                      | 1.29             | 0.28          | 4.58       | 4.53             | 1.13          | 4.00       | 6.03             | 1.88          | 3.20       |
| 11                      | 1.32             | 0.29          | 4.62       | 4.63             | 1.15          | 4.04       | 6.18             | 1.91          | 3.23       |
| 12                      | 1.35             | 0.29          | 4.66       | 4.74             | 1.16          | 4.08       | 6.32             | 1.94          | 3.26       |
| 13                      | 1.39             | 0.30          | 4.70       | 4.85             | 1.18          | 4.11       | 6.47             | 1.97          | 3.29       |
| 14                      | 1.42             | 0.30          | 4.73       | 4.96             | 1.20          | 4.14       | 6.61             | 2.00          | 3.31       |
| 15                      | 1.45             | 0.30          | 4.77       | 5.07             | 1.21          | 4.17       | 6.76             | 2.02          | 3.34       |
| 16                      | 1.48             | 0.31          | 4.81       | 5.18             | 1.23          | 4.21       | 6.90             | 2.05          | 3.36       |
| 17                      | 1.51             | 0.31          | 4.84       | 5.28             | 1.25          | 4.24       | 7.05             | 2.08          | 3.39       |
| 18                      | 1.54             | 0.32          | 4.88       | 5.39             | 1.26          | 4.27       | 7.19             | 2.11          | 3.41       |
| 19                      | 1.57             | 0.32          | 4.91       | 5.50             | 1.28          | 4.30       | 7.33             | 2.13          | 3.44       |
| 20                      | 1.60             | 0.32          | 4.94       | 5.61             | 1.30          | 4.32       | 7.48             | 2.16          | 3.46       |
| 21                      | 1.63             | 0.33          | 4.97       | 5.72             | 1.31          | 4.35       | 7.62             | 2.19          | 3.48       |
| 22                      | 1.66             | 0.33          | 5.00       | 5.83             | 1.33          | 4.38       | 7.77             | 2.22          | 3.50       |
| 23                      | 1.70             | 0.34          | 5.03       | 5.93             | 1.35          | 4.40       | 7.91             | 2.25          | 3.52       |
| 24                      | 1.73             | 0.34          | 5.06       | 6.04             | 1.36          | 4.43       | 8.06             | 2.27          | 3.54       |



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