

# TECHNICAL MANUAL

**Split Unit Air Conditioner  
Wall Mounted J & F Series**

**FT-J, FT-F, FTY-J, FTY-F series**

**— Cooling only & Heatpump [50Hz] —**





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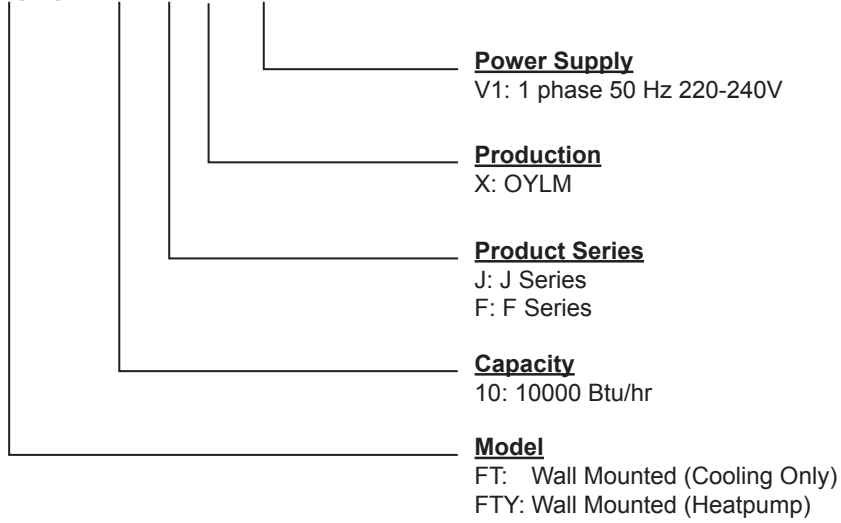
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# Nomenclature

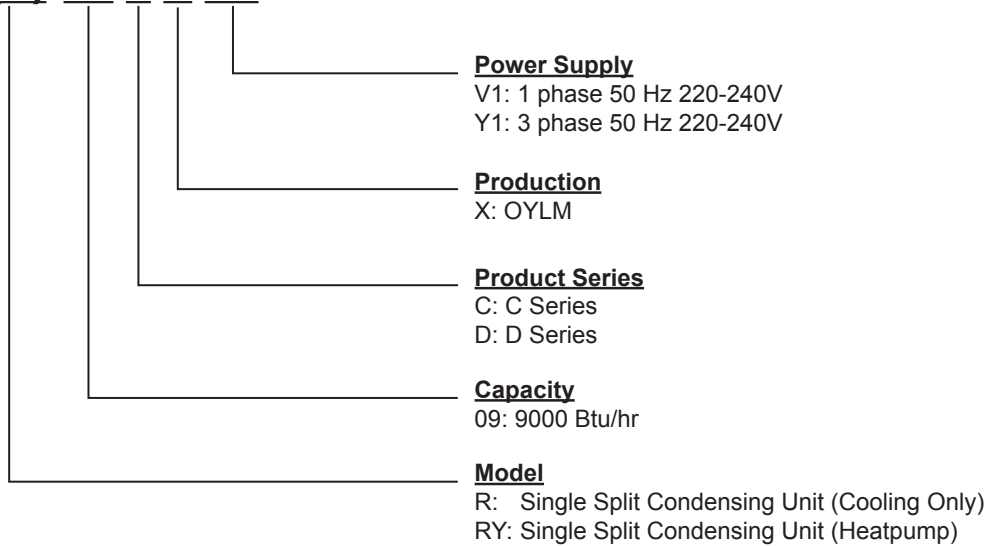
## Indoor

**FT(Y) 10 J X V1**



## Outdoor

**R(Y) 09 C X V1**



## Product Line-Up

Indoor Unit  
FT(Y)

| Nomenclature |           | Classification |          |     |      |                    |                  |                  |                     |             |
|--------------|-----------|----------------|----------|-----|------|--------------------|------------------|------------------|---------------------|-------------|
|              |           | Handset        |          | PCB |      | Fin                | Air Purification |                  | Others              |             |
|              |           | BRC52A62       | BRC52A61 | L2  | LGSN | Hydrophilic (Blue) | Saranet Filter   | Negative Ionizer | Auto Random Restart | Orifice Kit |
| COOLING      | FT10JXV1  | X              |          |     | X    | X                  | X                |                  | X                   |             |
|              | FT15JXV1  | X              |          |     | X    | X                  | X                |                  | X                   |             |
|              | FT20JXV1  | X              |          |     | X    | X                  | X                |                  | X                   |             |
|              | FT25JXV1  | X              |          |     | X    | X                  | X                |                  | X                   |             |
|              | FT30FXV1  | X              |          | X   |      | X                  |                  | X                |                     | X           |
| HEATPUMP     | FTY09JXV1 |                | X        |     | X    | X                  | X                |                  | X                   |             |
|              | FTY15JXV1 |                | X        |     | X    | X                  | X                |                  | X                   |             |
|              | FTY20JXV1 |                | X        |     | X    | X                  | X                |                  | X                   |             |
|              | FTY25JXV1 |                | X        |     | X    | X                  | X                |                  | X                   |             |
|              | FTY30FXV1 |                | X        | X   |      | X                  |                  | X                |                     |             |

Outdoor Unit  
R(Y)

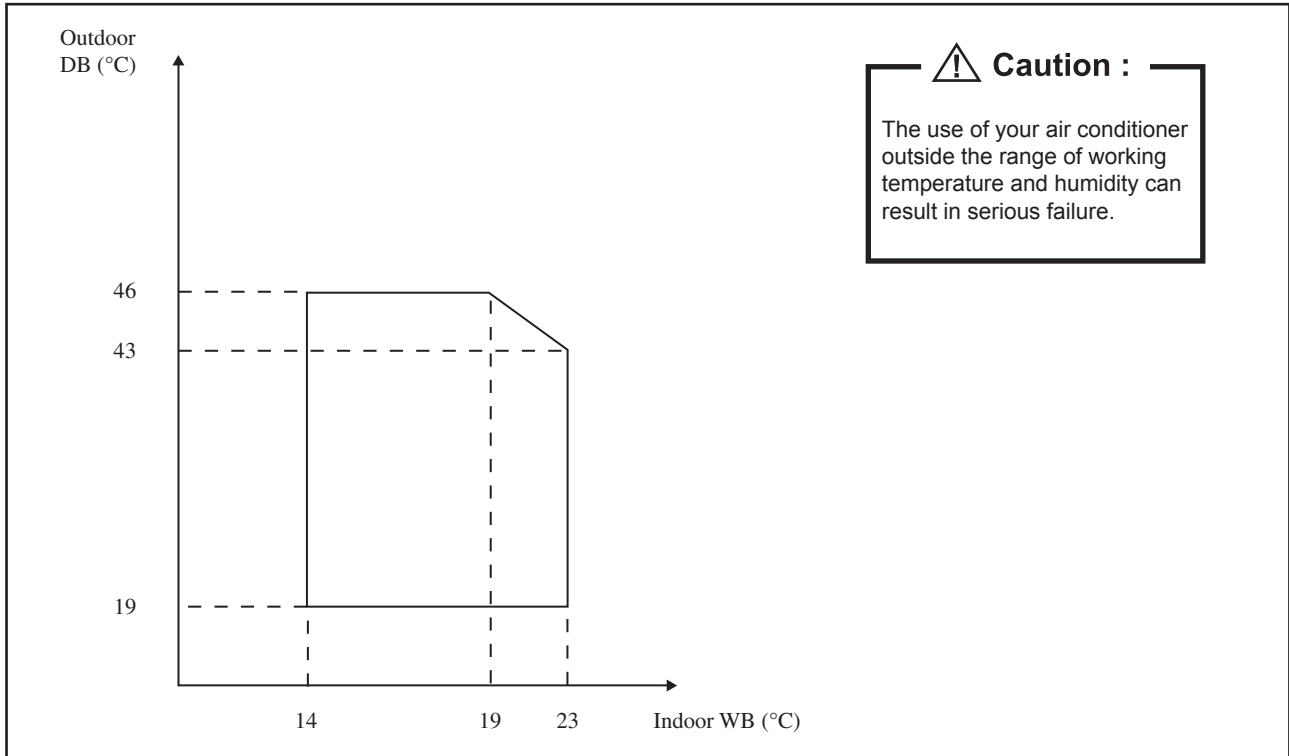
| Nomenclature |           | Classification      |     |                    |                    |                |                |                      |                     |            |        |             |
|--------------|-----------|---------------------|-----|--------------------|--------------------|----------------|----------------|----------------------|---------------------|------------|--------|-------------|
|              |           | Refrigerant Control |     | Fin                |                    |                | Safety Devices |                      |                     | Compressor |        | Others      |
|              |           | Cap Tube            | TXV | Hydrophilic (Blue) | Hydrophilic (Gold) | Bare Aluminium | Contact        | High Pressure Switch | Low Pressure Switch | Rotary     | Scroll | Drain Elbow |
| COOLING      | R09CXV1   | X                   |     |                    |                    | X              |                |                      |                     | X          |        |             |
|              | R09CGXV1  | X                   |     |                    | X                  |                |                |                      |                     | X          |        |             |
|              | R15CXV1   | X                   |     |                    |                    | X              |                |                      |                     | X          |        |             |
|              | R15CGXV1  | X                   |     |                    | X                  |                |                |                      |                     | X          |        |             |
|              | R18CXV1   | X                   |     |                    |                    | X              |                |                      |                     | X          |        |             |
|              | R18CGXV1  | X                   |     |                    | X                  |                |                |                      |                     | X          |        |             |
|              | R25CXV1   | X                   |     |                    |                    | X              |                |                      |                     | X          |        |             |
|              | R25CGXV1  | X                   |     |                    | X                  |                |                |                      |                     | X          |        |             |
|              | R28CXV1   |                     |     |                    |                    | X              | X              |                      |                     | X          |        |             |
|              | R28CGXV1  |                     |     |                    | X                  |                | X              |                      |                     | X          |        |             |
|              | R30DXV1   |                     |     |                    |                    | X              | X              | X                    | X                   |            | X      |             |
|              | R30DGXV1  |                     |     |                    | X                  |                | X              | X                    | X                   |            | X      |             |
|              | R30DXY1   |                     |     |                    |                    | X              | X              | X                    | X                   |            | X      |             |
|              | R30DGXY1  |                     |     |                    | X                  |                | X              | X                    | X                   |            | X      |             |
| HEATPUMP     | RY09CXV1  | X                   |     |                    |                    | X              |                |                      |                     | X          |        | X           |
|              | RY09CGXV1 | X                   |     |                    | X                  |                |                |                      |                     | X          |        | X           |
|              | RY15CXV1  | X                   |     | X                  |                    |                |                |                      |                     | X          |        | X           |
|              | RY15CGXV1 | X                   |     |                    | X                  |                |                |                      |                     | X          |        | X           |
|              | RY20CXV1  | X                   |     |                    |                    | X              |                |                      |                     | X          |        | X           |
|              | RY20CGXV1 | X                   |     |                    | X                  |                |                |                      |                     | X          |        | X           |
|              | RY25CXV1  | X                   |     |                    |                    | X              |                |                      |                     | X          |        | X           |
|              | RY25CGXV1 | X                   |     |                    | X                  |                |                |                      |                     | X          |        | X           |
|              | RY28CXV1  | X                   |     |                    |                    | X              |                |                      |                     | X          |        | X           |
|              | RY28CGXV1 | X                   |     |                    | X                  |                |                |                      |                     | X          |        | X           |
|              | RY30DXV1  | X                   | X   |                    |                    | X              | X              |                      |                     |            | X      | X           |
|              | RY30DGXV1 | X                   | X   |                    | X                  |                | X              | X                    |                     |            | X      | X           |

# Application Information

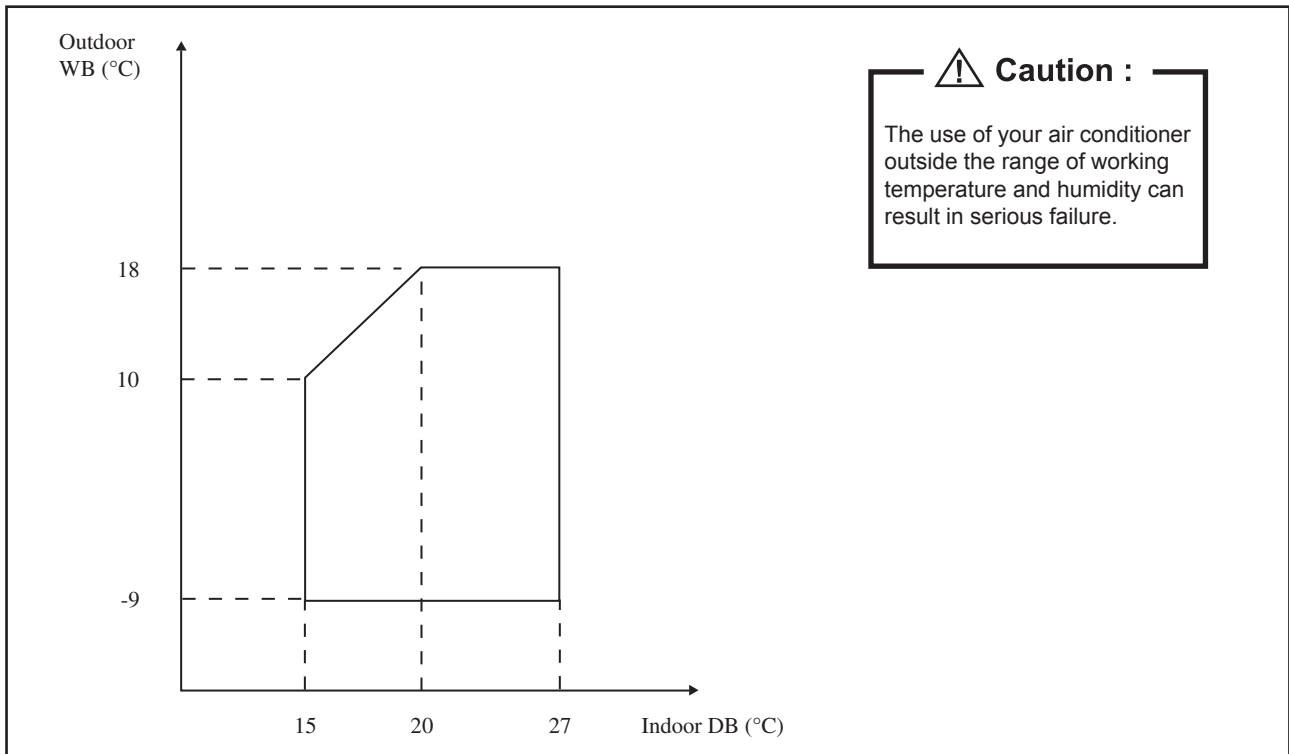
## Operating Range

Ensure the operating temperature is in allowable range.

### Cooling

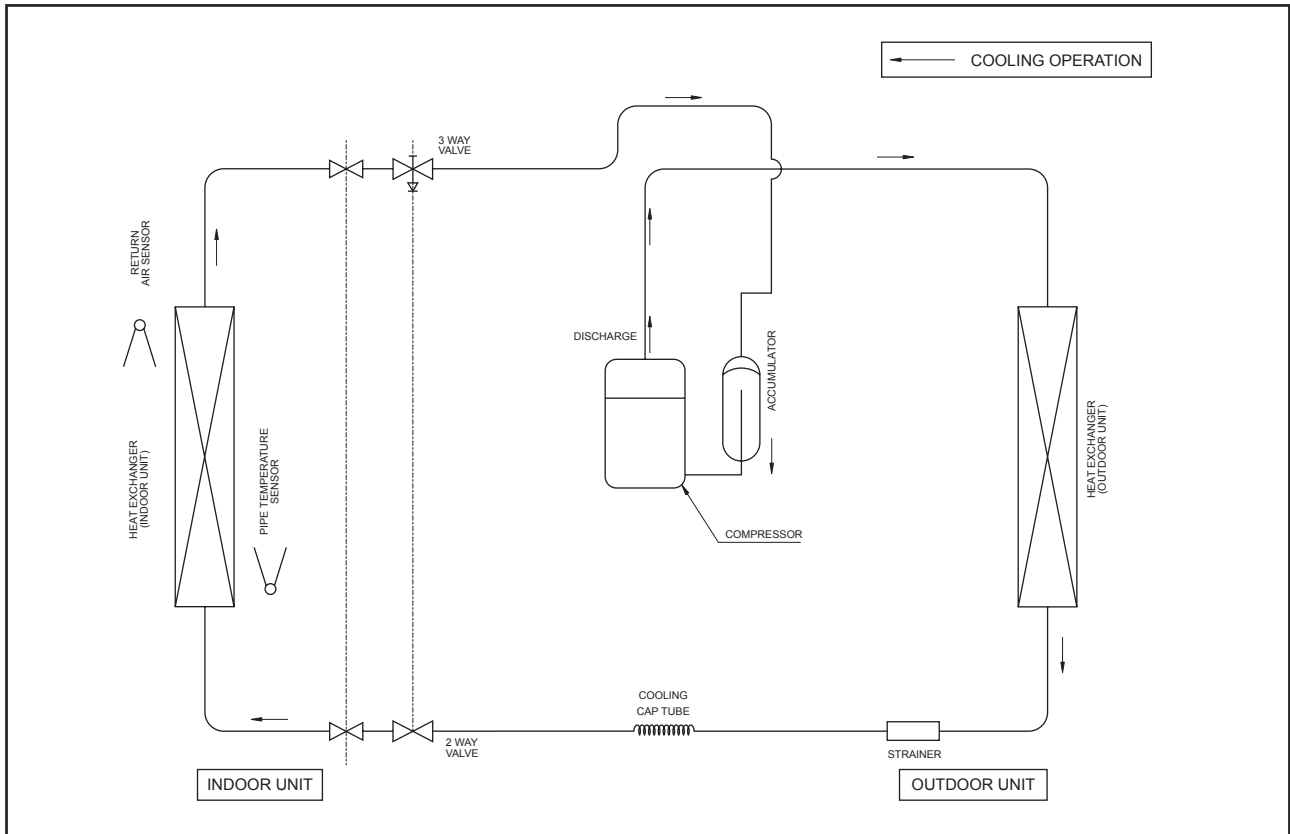


### Heating

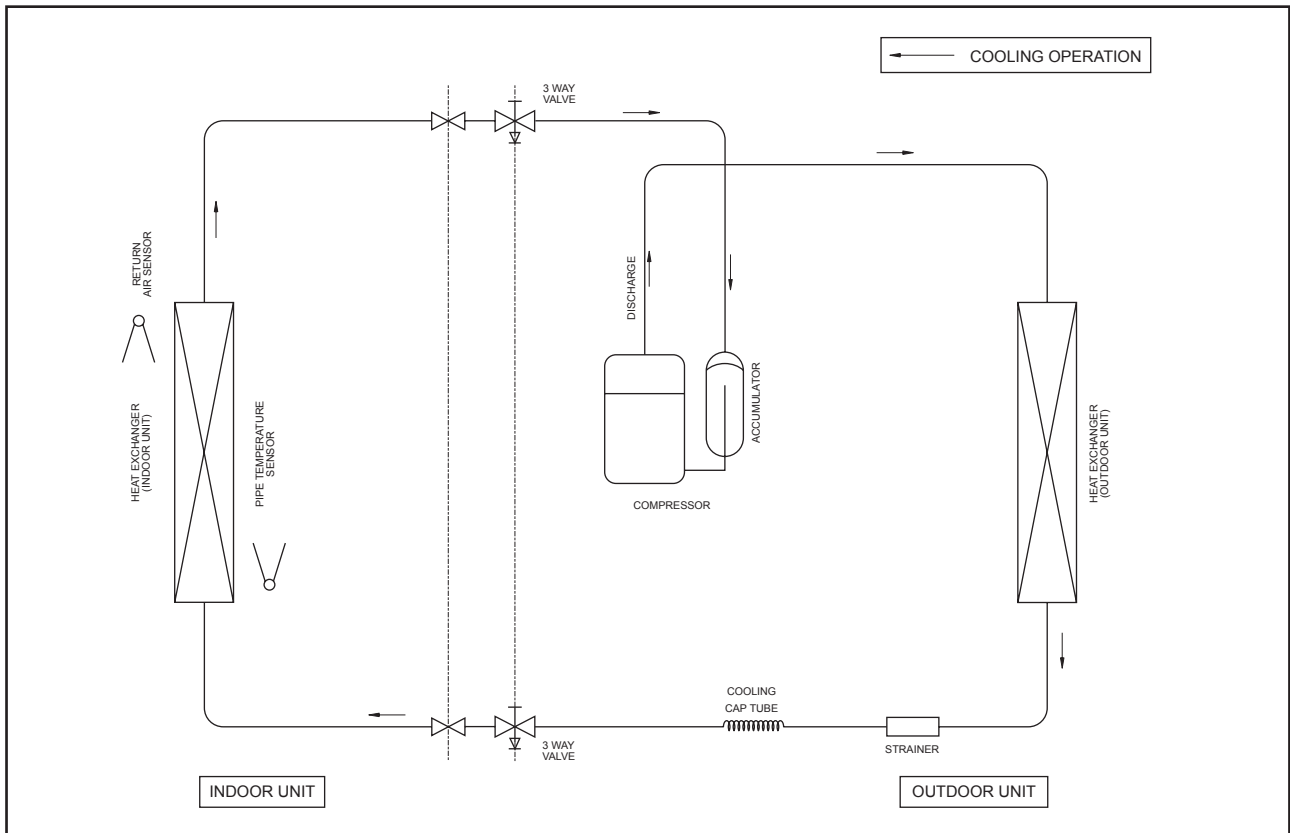


## Refrigerant Circuit Diagrams

Model: FT10JXV1 – R09CXV1 / FT15JXV1 – R15CXV1 / FT20JXV1 – R18CXV1

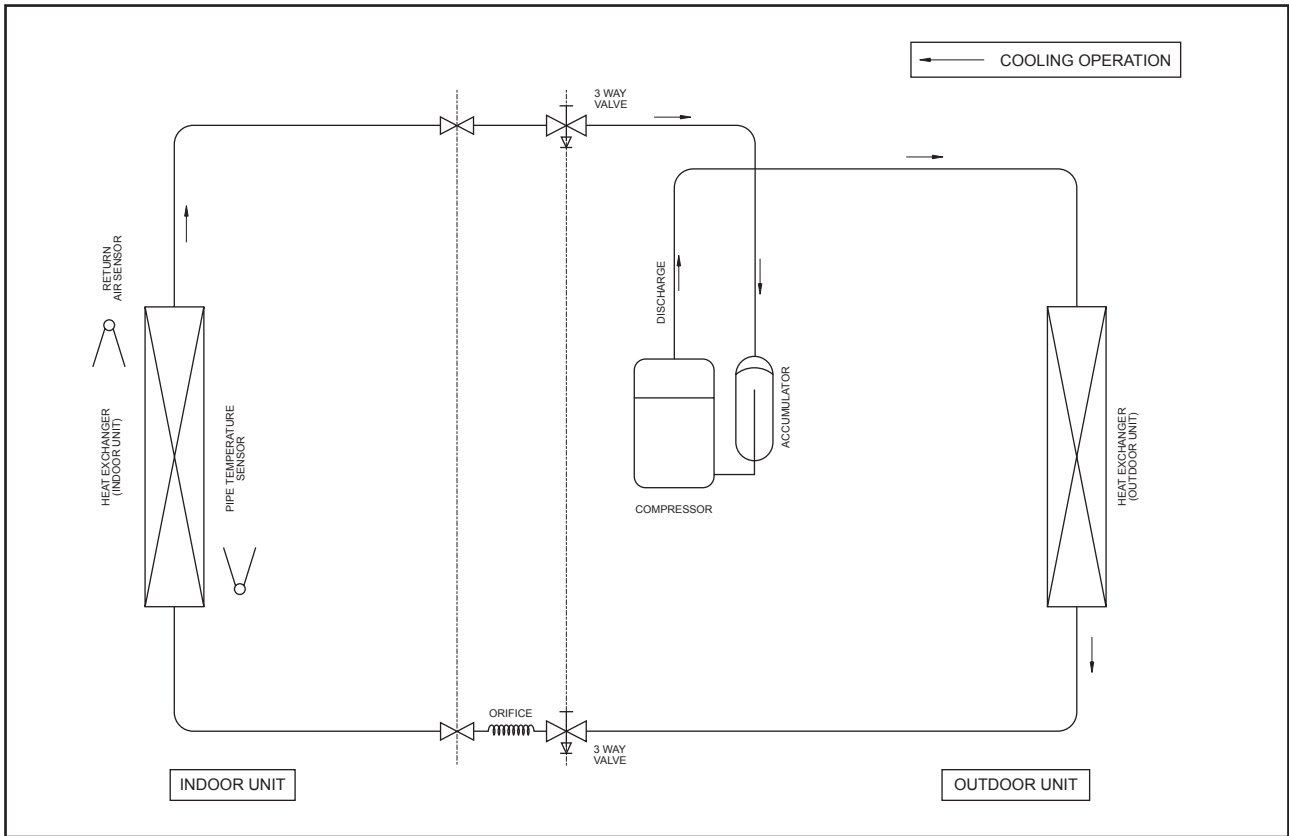


Model: FT25JXV1 – R25CXV1

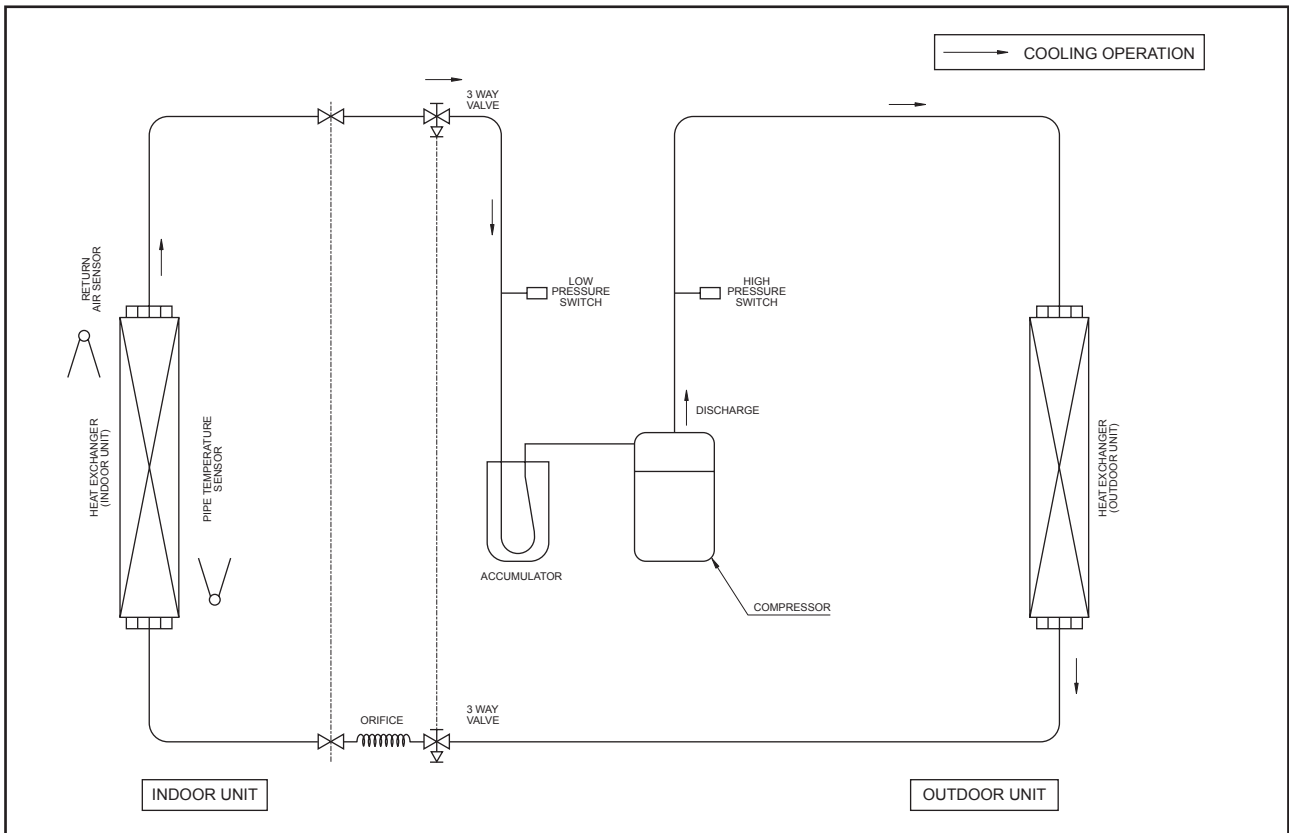




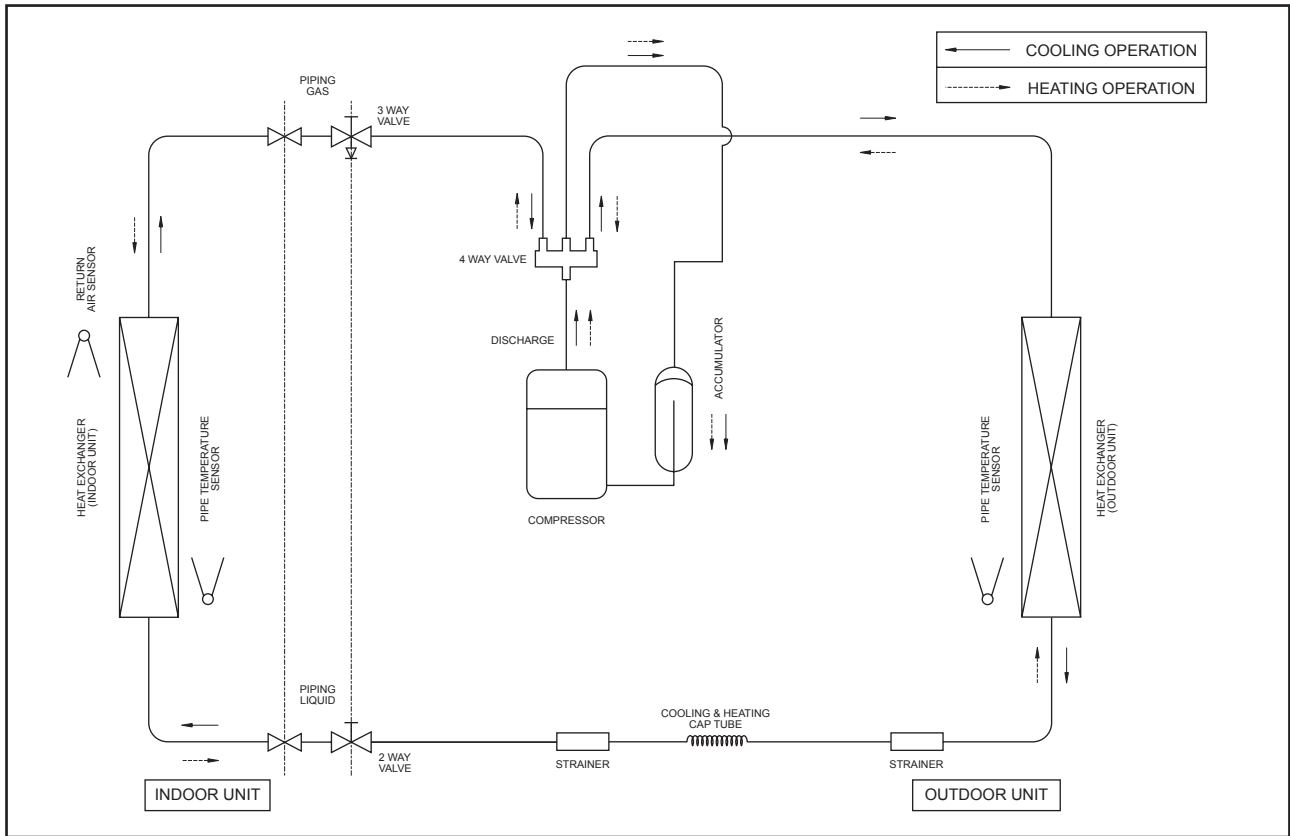
Model: FT30FXV1 – R28CXV1



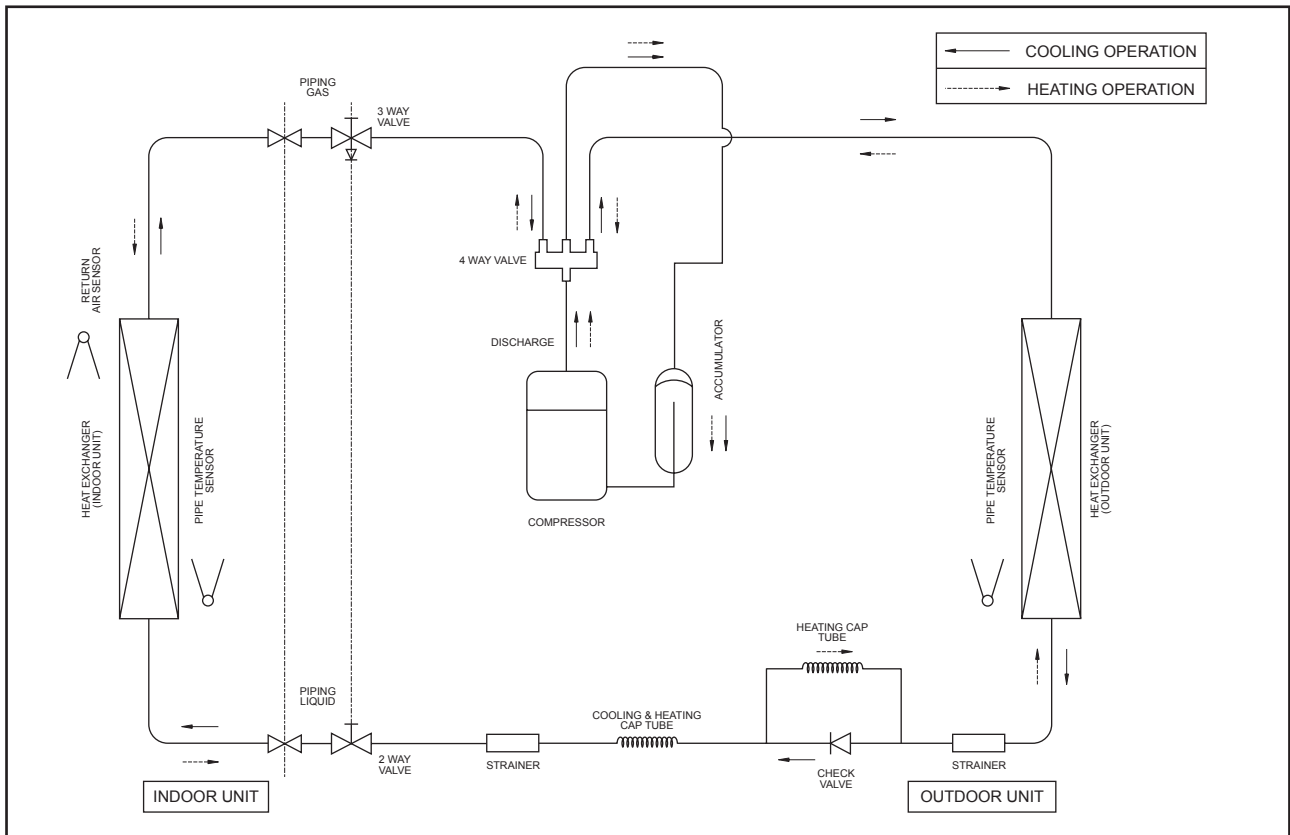
Model: FT30FXV1 – R30DXV1 / FT30FXV1 – R30DXY1



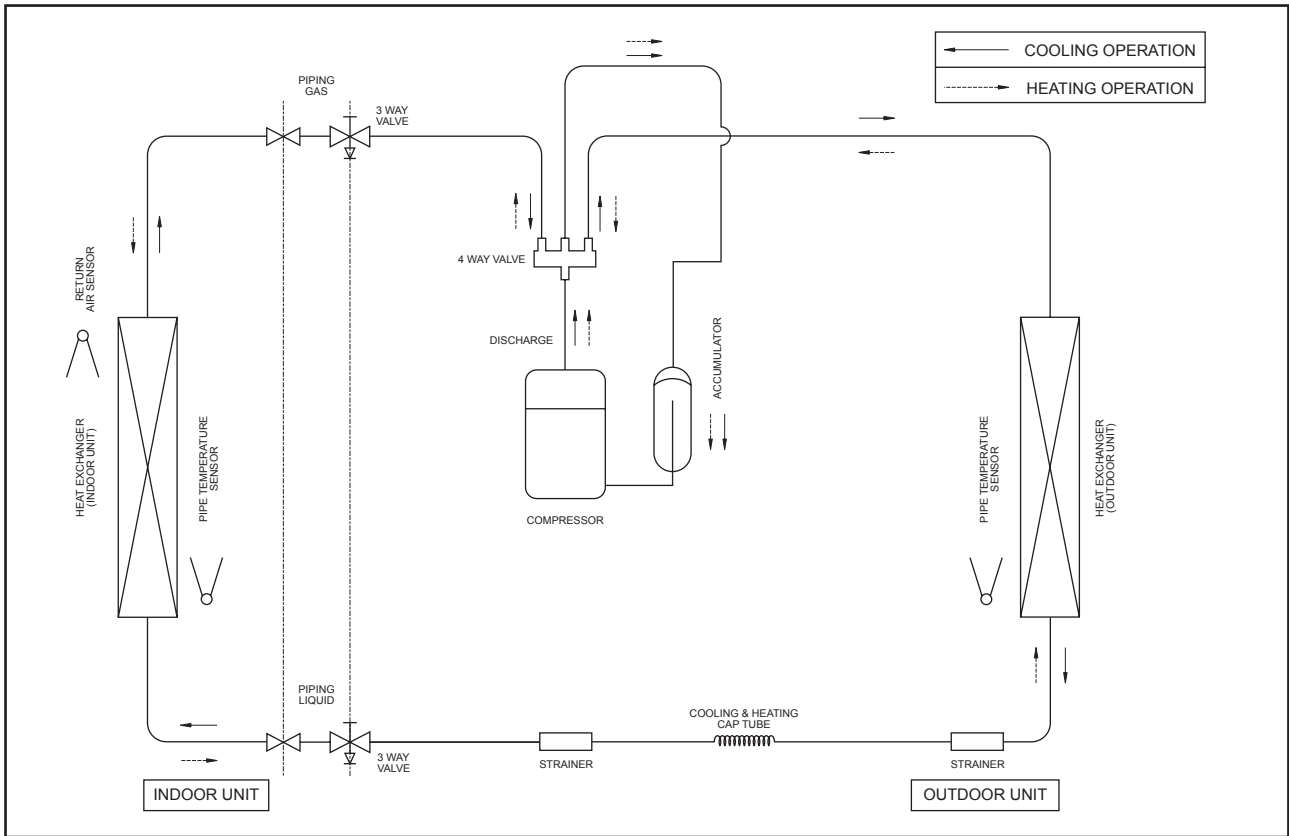
Model: FTY09JXV1 – RY09CXV1



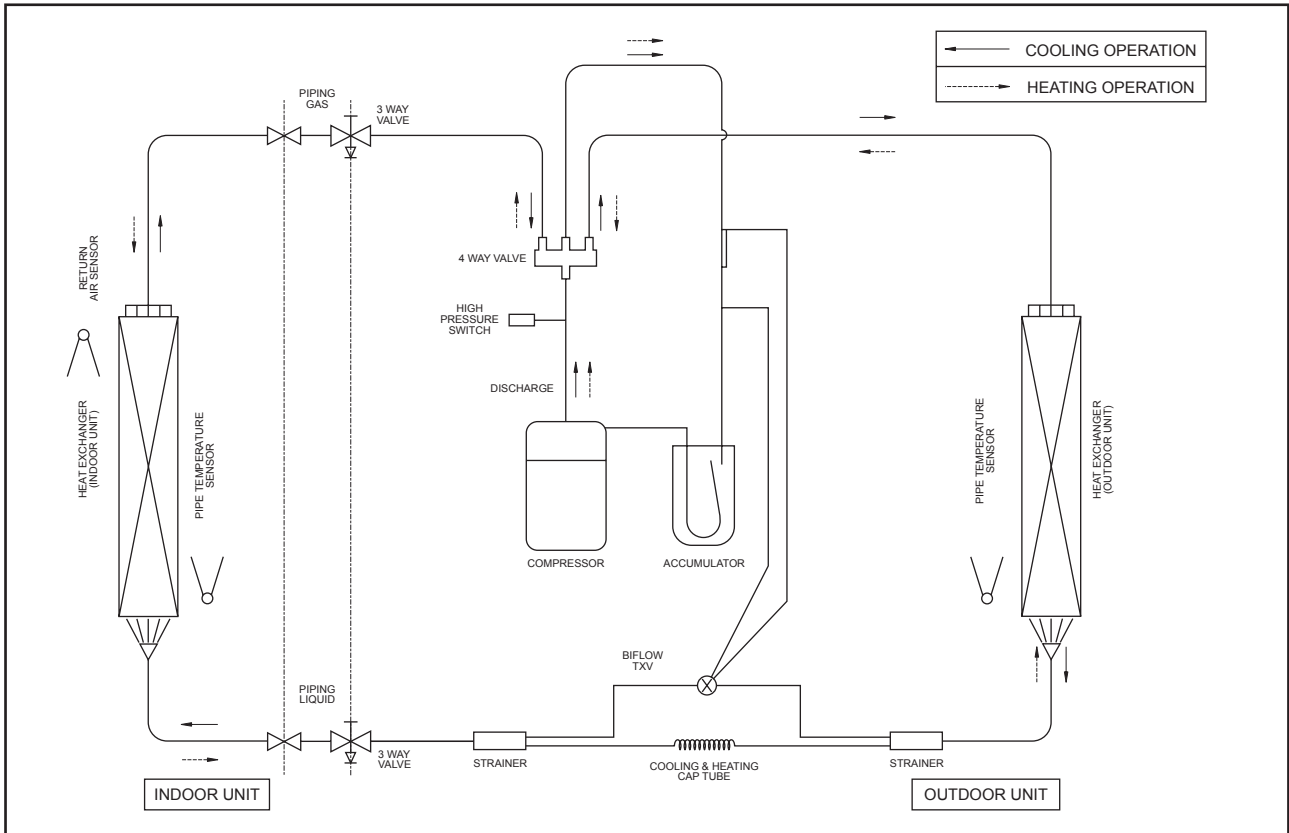
Model: FTY15JXV1 – RY15CXV1 / FTY20JXV1 – RY20CXV1



Model: FTY25JXV1 – RY25CXV1 / FTY30FXV1 – RY28CXV1



Model: FTY30FXV1 – RY30DXV1

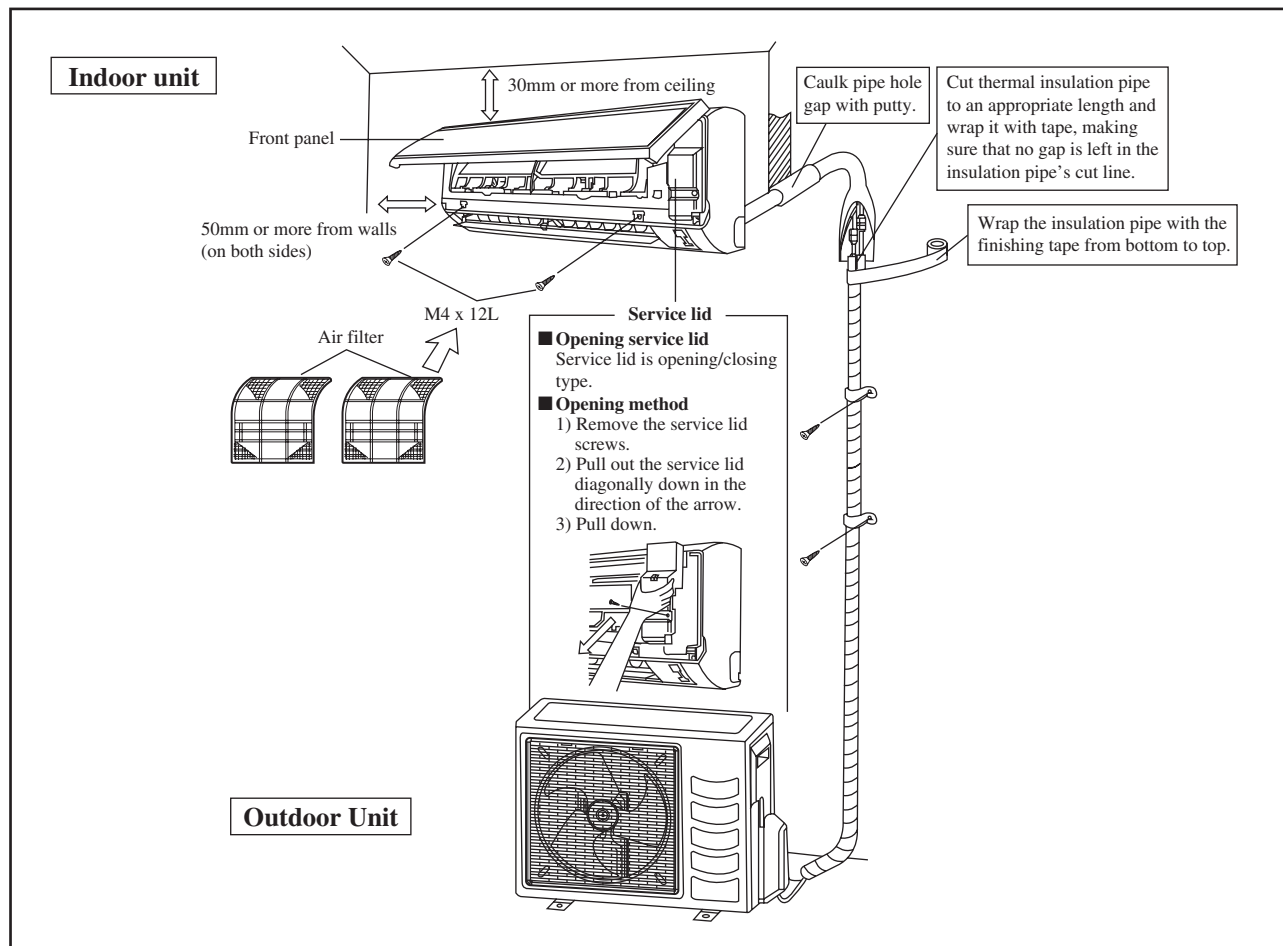


## Installation Guideline

**Caution**

Sharp edges and coil surfaces are potential injury hazard. Avoid from contact with them.

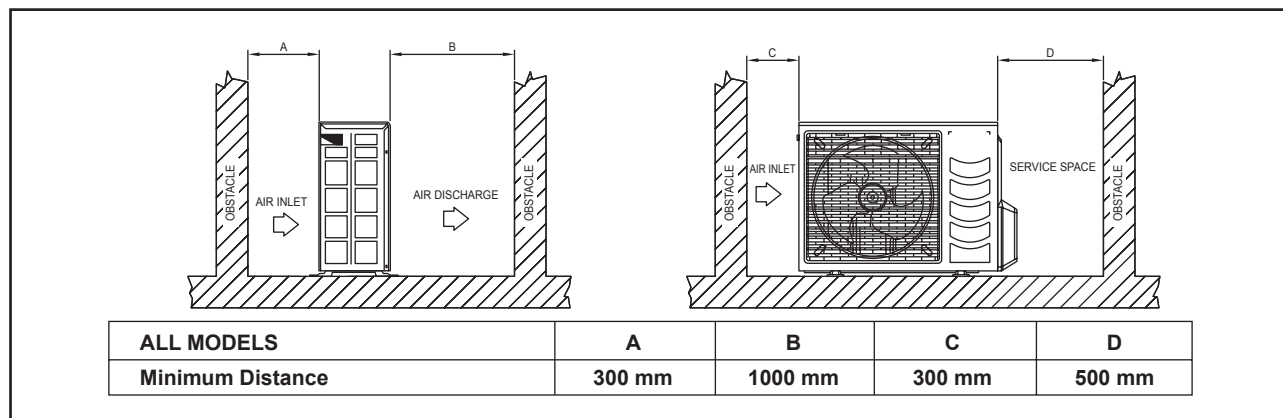
## Installation Diagram



## Outdoor Clearance

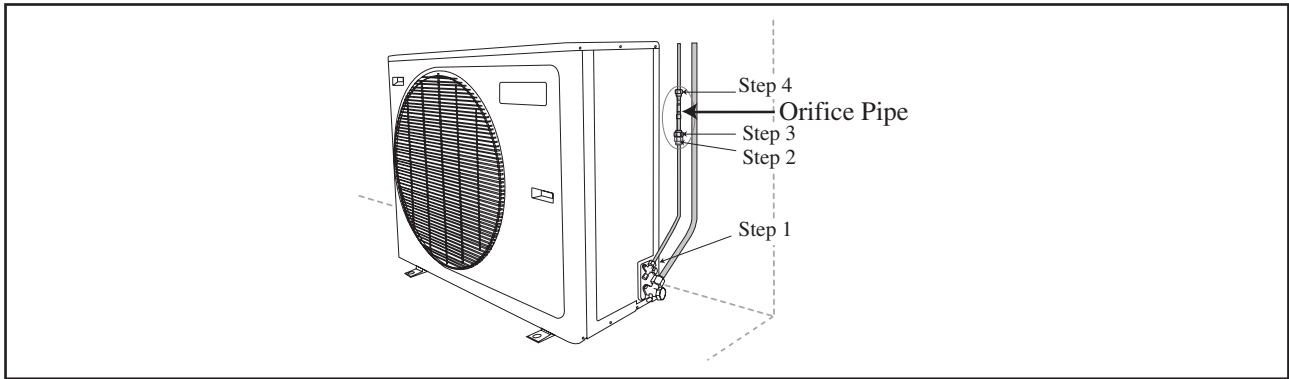
**Caution**

If the condensing unit is operated in an atmosphere containing oils (including machine oils), salt (coastal area), sulphide gas (near hot spring, oil refinery plant), such as substances may lead to failure of the unit.





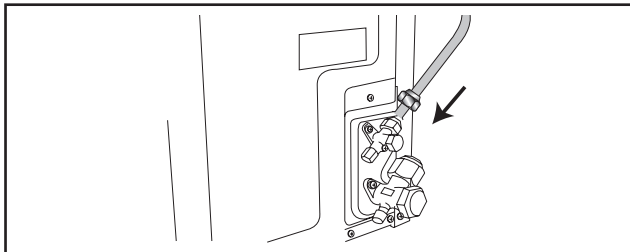
## B. Outdoor unit orifice pipe installation (where installation space is limited)



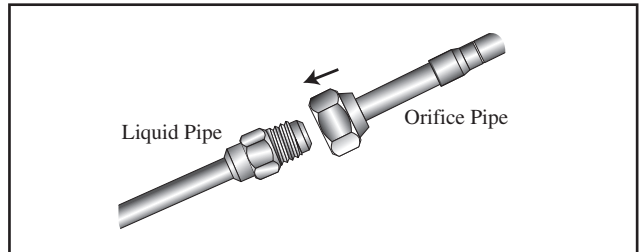
If the orifice pipe cannot be connected directly to the liquid valve due to space constraint, it can be connected in between of the liquid pipe.

### Steps:

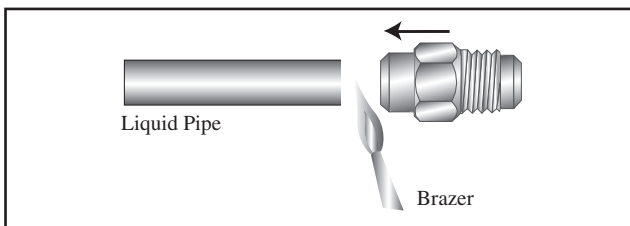
1. Flare the liquid pipe and connect it to the liquid valve.



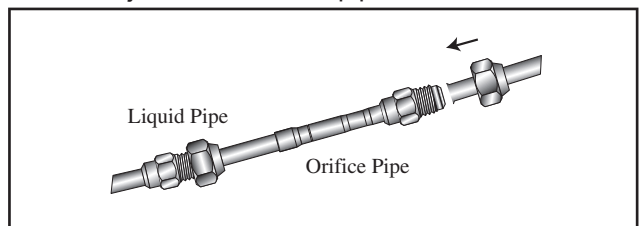
3. Connect the "Female" nut of the Orifice pipe to the "Male" joint.



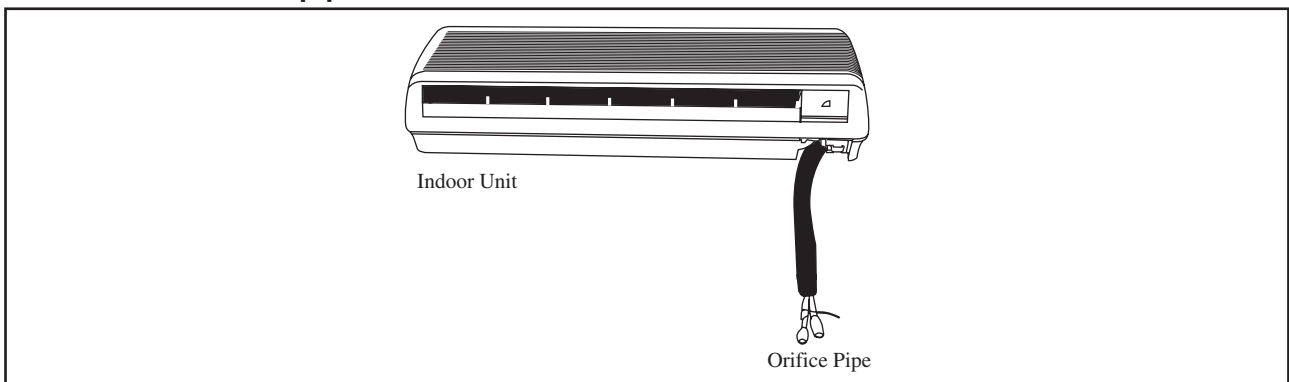
2. Braze an additional "Male" joint to the liquid pipe.



4. Flare another liquid pipe and connect it to the "Male" joint of the orifice pipe.

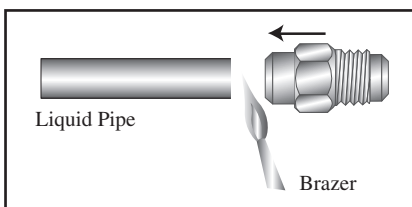


## C. Indoor unit orifice pipe installation

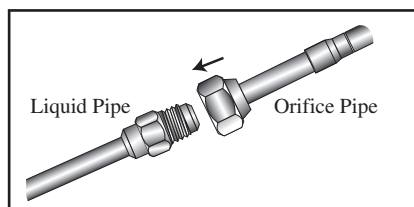


### Steps:

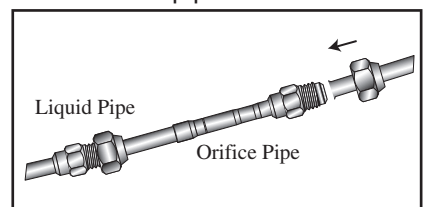
1. Braze an additional "Male" joint to the liquid pipe.



2. Connect the "Female" nut of the Orifice pipe to the "Male" joint.



3. Flare another liquid pipe and connect it to the "Male" joint of the orifice pipe.



## Cable Size

| Model                      | Unit            | FT10JXV1 | FT15JXV1 | FT20JXV1 | FT25JXV1 |
|----------------------------|-----------------|----------|----------|----------|----------|
|                            |                 | R09CXV1  | R15CXV1  | R18CXV1  | R25CXV1  |
| Power supply cable size    | mm <sup>2</sup> | 1.5      | 1.5      | 2.5      | 2.5      |
| Number of wire             |                 | 3        | 3        | 3        | 3        |
| Interconnection cable size | mm <sup>2</sup> | 1.5      | 1.5      | 2.5      | 2.5      |
| Number of wire             |                 | 3        | 3        | 3        | 3        |
| Recommended fuse           | A               | 15       | 15       | 20       | 20       |

| Model                      | Unit            | FT30FXV1 |         |         |
|----------------------------|-----------------|----------|---------|---------|
|                            |                 | R28CXV1  | R30DXV1 | R30DXY1 |
| Power supply cable size    | mm <sup>2</sup> | 2.5      | 2.5     | 1.5     |
| Number of wire             |                 | 3        | 3       | 5       |
| Interconnection cable size | mm <sup>2</sup> | 2.5      | 2.5     | 1.5     |
| Number of wire             |                 | 3        | 4       | 4       |
| Recommended fuse           | A               | 20       | 20      | 15      |

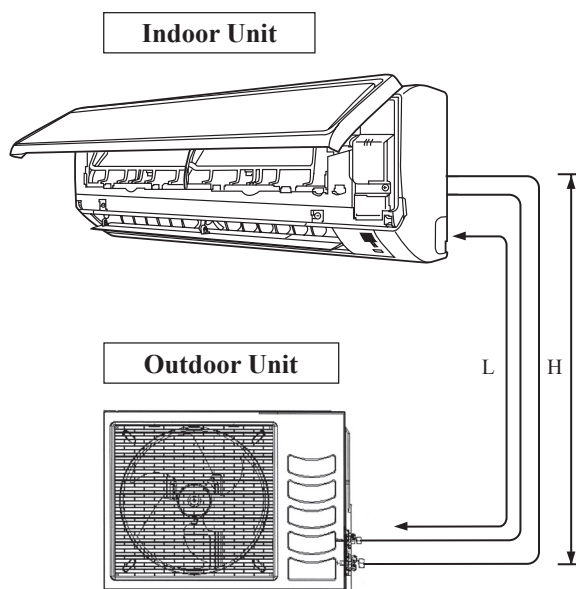
| Model                      | Unit            | FTY09JXV1 | FTY15JXV1 | FTY20JXV1 | FTY25JXV1 |
|----------------------------|-----------------|-----------|-----------|-----------|-----------|
|                            |                 | RY09CXV1  | RY15CXV1  | RY20CXV1  | RY25CXV1  |
| Power supply cable size    | mm <sup>2</sup> | 1.5       | 1.5       | 2.5       | 2.5       |
| Number of wire             |                 | 3         | 3         | 3         | 3         |
| Interconnection cable size | mm <sup>2</sup> | 1.5       | 1.5       | 2.5       | 2.5       |
| Number of wire             |                 | 5         | 5         | 5         | 5         |
| Recommended fuse           | A               | 15        | 15        | 20        | 20        |

| Model                      | Unit            | FTY30FXV1 | FTY30FXV1 |
|----------------------------|-----------------|-----------|-----------|
|                            |                 | RY28CXV1  | RY30DXV1  |
| Power supply cable size    | mm <sup>2</sup> | 2.5       | 4         |
| Number of wire             |                 | 3         | 3         |
| Interconnection cable size | mm <sup>2</sup> | 2.5       | 2.5       |
| Number of wire             |                 | 5         | 6         |
| Recommended fuse           | A               | 20        | 25        |

## Refrigerant Piping

### Piping Length and Elevation

When the pipe length becomes too long, both the capacity and reliability drop. As the number of bends increases, system piping resistance to the refrigerant flow increases, thus lowering the cooling capacity, and as the result the compressor may become defective. Always choose the shortest path and follow the recommendation as tabulated below:



### Cooling Only Model

| Model                           | Indoor        | FT10JXV1       | FT15JXV1       | FT20JXV1       | FT25JXV1       | FT30FXV1       |         |         |
|---------------------------------|---------------|----------------|----------------|----------------|----------------|----------------|---------|---------|
|                                 | Outdoor       | R09CXV1        | R15CXV1        | R18CXV1        | R25CXV1        | R28CXV1        | R30DXV1 | R30DXV1 |
| Min. Allowable Length (L), m    | 3             |                |                |                |                |                |         |         |
| Max. Allowable Length (L), m    | 12            | 12             | 25             | 35             | 15             | 45             |         |         |
| Max. Allowable Elevation (E), m | 5             | 5              | 15             | 20             | 8              | 15             |         |         |
| Gas Pipe Size, mm/(in)          | 9.52 / (3/8") | 12.70 / (1/2") | 15.88 / (5/8") | 15.88 / (5/8") | 15.88 / (5/8") | 15.88 / (5/8") |         |         |
| Liquid Pipe Size, mm/(in)       | 6.35 / (1/4") | 6.35 / (1/4")  | 6.35 / (1/4")  | 9.52 / (3/8")  | 9.52 / (3/8")  | 9.52 / (3/8")  |         |         |

### Heatpump Model

| Model                           | Indoor        | FTY09JXV1      | FTY15JXV1      | FTY20JXV1      | FTY25JXV1      | FTY30FXV1      |                |
|---------------------------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                                 | Outdoor       | RY09CXV1       | RY15CXV1       | RY20CXV1       | RY25CXV1       | RY28CXV1       | R30DXV1        |
| Min. Allowable Length (L), m    | 3             |                |                |                |                |                |                |
| Max. Allowable Length (L), m    | 12            | 12             | 15             | 15             | 15             | 15             | 45             |
| Max. Allowable Elevation (E), m | 5             | 5              | 8              | 8              | 8              | 8              | 15             |
| Gas Pipe Size, mm/(in)          | 9.52 / (3/8") | 12.70 / (1/2") | 15.88 / (5/8") | 15.88 / (5/8") | 15.88 / (5/8") | 15.88 / (5/8") | 15.88 / (5/8") |
| Liquid Pipe Size, mm/(in)       | 6.35 / (1/4") | 6.35 / (1/4")  | 6.35 / (1/4")  | 9.52 / (3/8")  | 9.52 / (3/8")  | 9.52 / (3/8")  | 9.52 / (3/8")  |

### Additional Charge

- The refrigerant gas is charged in the outdoor unit and, if the piping length is 7.6m, additional charge of the refrigerant after vacuuming is not necessary.
- When the piping length is more than 7.6m, additional refrigerant charge (g) per additional 1m length as tabulated:

#### R22 – Cooling Only

| Indoor           | FT10JXV1 | FT15JXV1 | FT20JXV1 | FT25JXV1 | FT30FXV1 |         |         |
|------------------|----------|----------|----------|----------|----------|---------|---------|
| Outdoor          | R09CXV1  | R15CXV1  | R18CXV1  | R25CXV1  | R28CXV1  | R30DXV1 | R30DXV1 |
| Add. Charge, g/m | 20       | 20       | 19       | 39       | 55       | 55      | 55      |

#### R22 – Heatpump

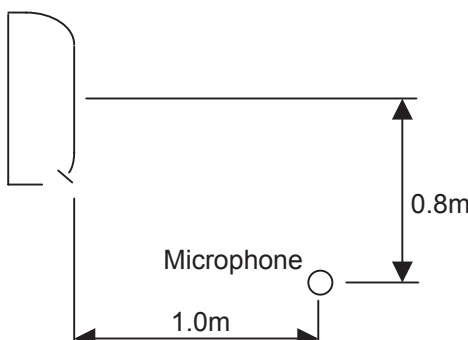
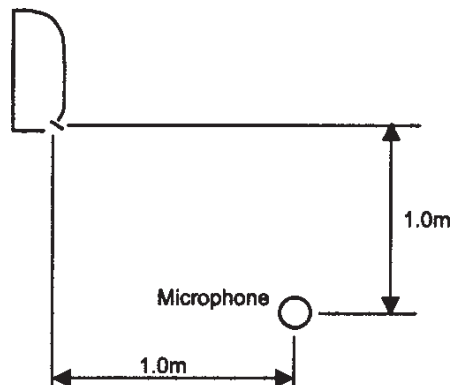
| Indoor           | FTY09JXV1 | FTY15JXV1 | FTY20JXV1 | FTY25JXV1 | FTY30FXV1 |          |
|------------------|-----------|-----------|-----------|-----------|-----------|----------|
| Outdoor          | RY09CXV1  | RY15CXV1  | RY20CXV1  | RY25CXV1  | RY28CXV1  | RY30DXV1 |
| Add. Charge, g/m | 20        | 20        | 20        | 55        | 58        | 55       |



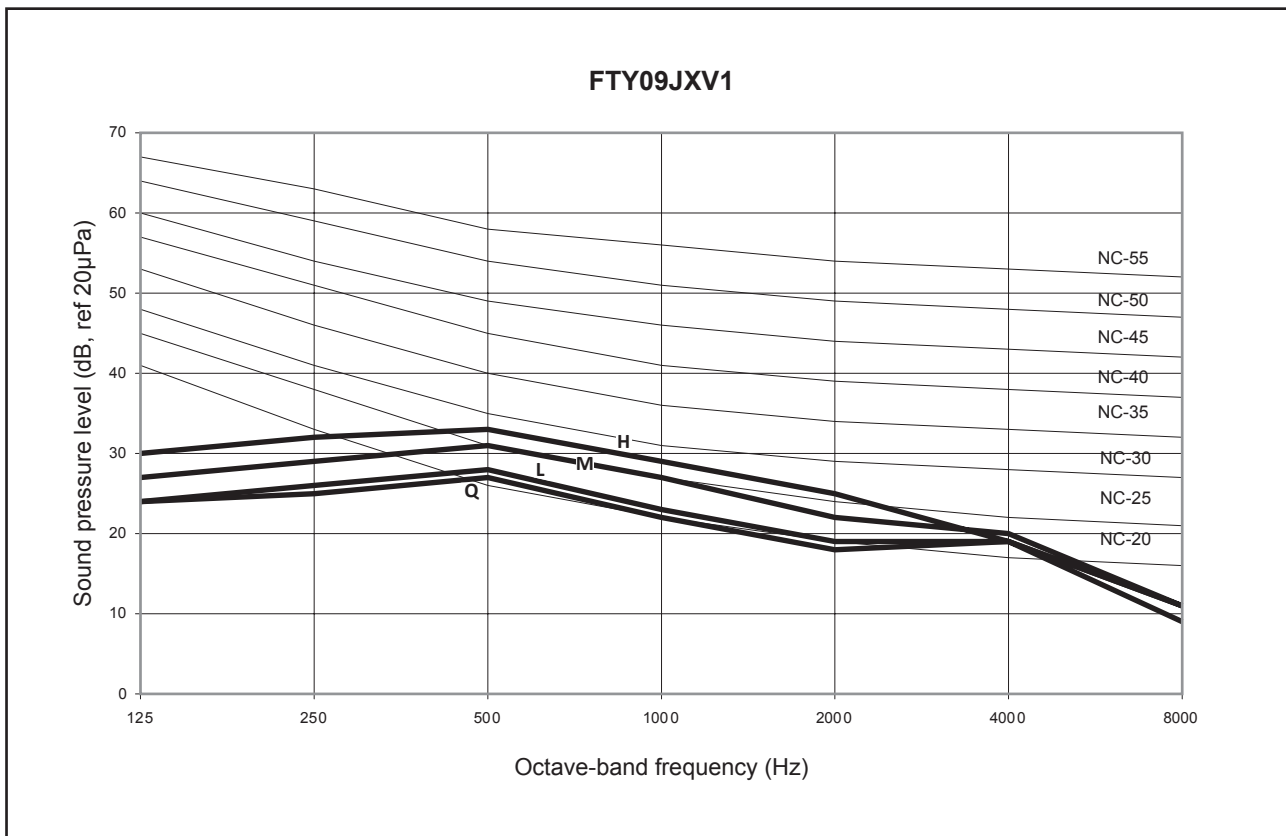
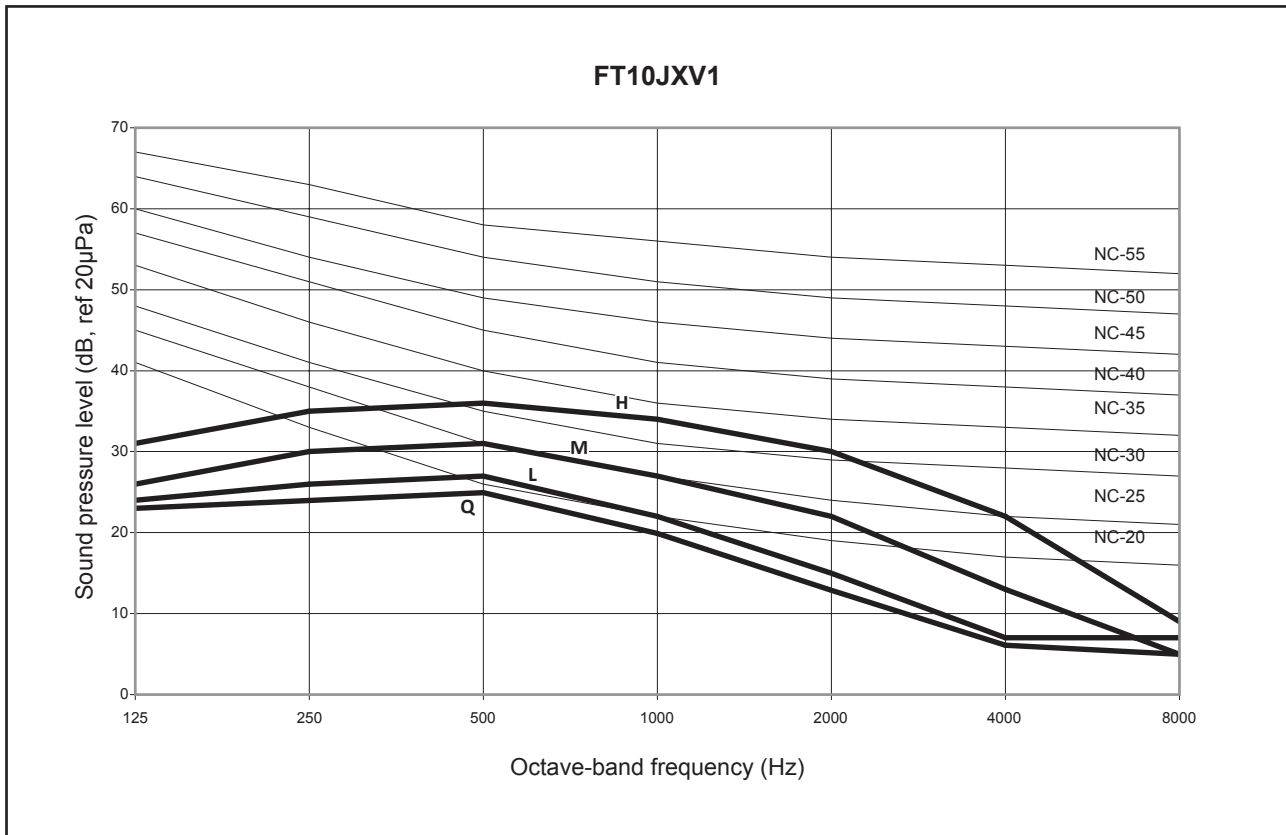
# Sound Data

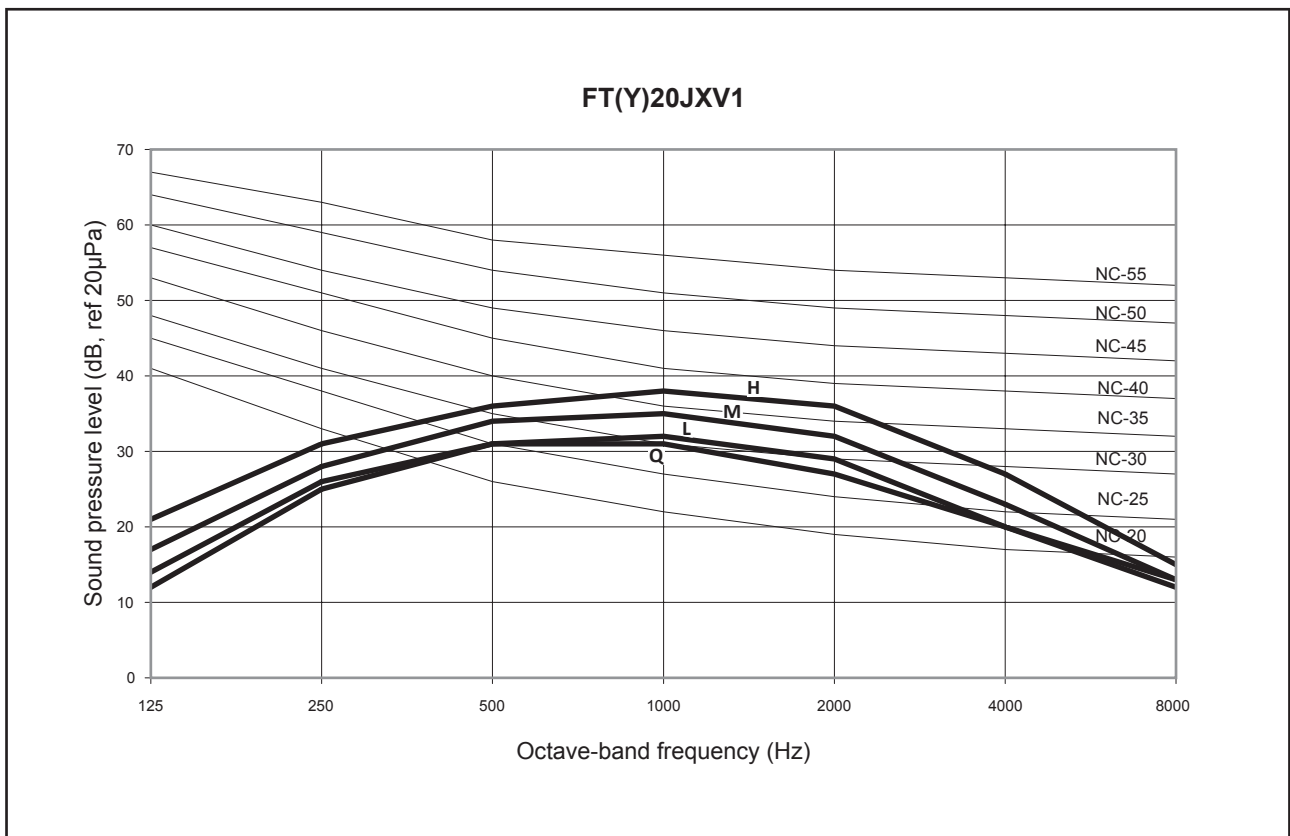
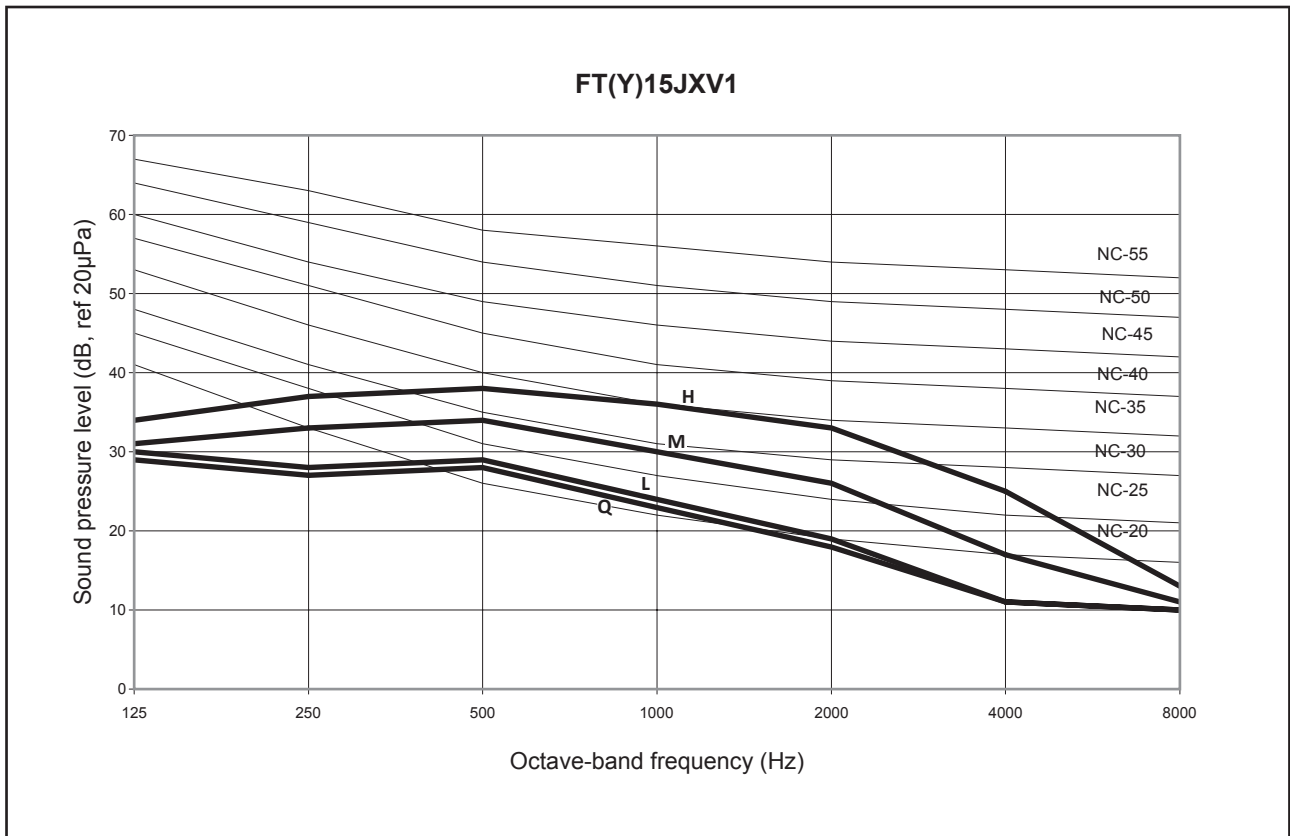
## Sound Pressure Level

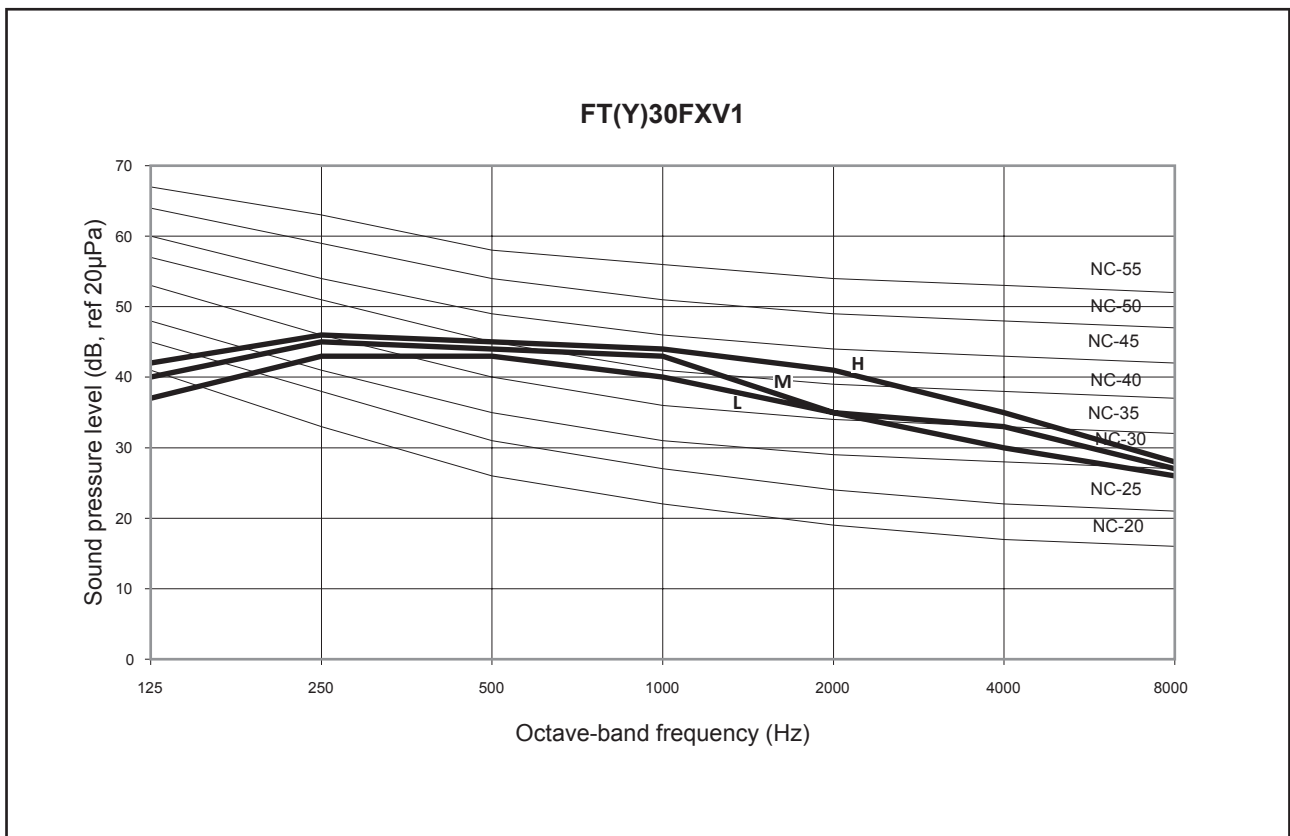
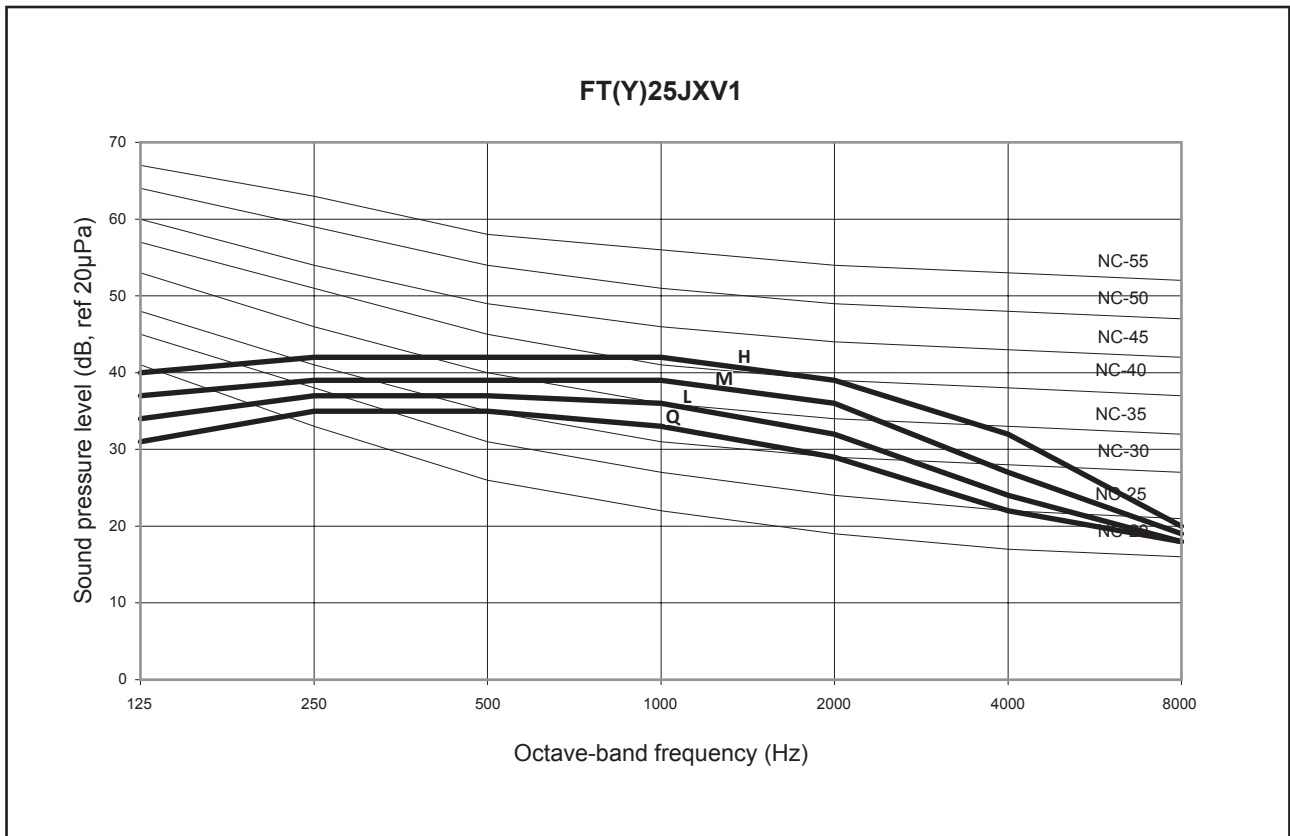
| Model       | Speed | 1/1 Octave Sound Pressure (dB, ref 20 $\mu$ Pa) |       |       |      |      |      |      | Overall (dBA) | Noise Criteria |
|-------------|-------|---|-------|-------|------|------|------|------|---------------|----------------|
|             |       | 125Hz   | 250Hz | 500Hz | 1kHz | 2kHz | 4kHz | 8kHz |               |                |
| FT10JXV1    | High  | 31  | 35    | 36    | 34   | 30   | 22   | 9    | 38            | 33             |
|             | Med   | 26  | 30    | 31    | 27   | 22   | 13   | 5    | 32            | 25             |
|             | Low   | 24  | 26    | 27    | 22   | 15   | 7    | 7    | 27            | 21             |
|             | Quiet | 23  | 24    | 25    | 20   | 13   | 6    | 5    | 25            | -              |
| FTY09JXV1   | High  | 30  | 32    | 33    | 29   | 25   | 19   | 9    | 34            | 28             |
|             | Med   | 27  | 29    | 31    | 27   | 22   | 20   | 11   | 32            | 25             |
|             | Low   | 24  | 26    | 28    | 23   | 19   | 19   | 11   | 29            | 22             |
|             | Quiet | 24  | 25    | 27    | 22   | 18   | 19   | 11   | 28            | 22             |
| FT(Y)15JXV1 | High  | 34  | 37    | 38    | 36   | 33   | 25   | 13   | 40            | 35             |
|             | Med   | 31  | 33    | 34    | 30   | 26   | 17   | 11   | 35            | 29             |
|             | Low   | 30  | 28    | 29    | 24   | 19   | 11   | 10   | 29            | 23             |
|             | Quiet | 29  | 27    | 28    | 23   | 18   | 11   | 10   | 28            | 22             |
| FT(Y)20JXV1 | High  | 21  | 31    | 36    | 38   | 36   | 27   | 15   | 42            | 37             |
|             | Med   | 17  | 28    | 34    | 35   | 32   | 23   | 13   | 39            | 34             |
|             | Low   | 14  | 26    | 31    | 32   | 29   | 20   | 12   | 36            | 32             |
|             | Quiet | 12  | 25    | 31    | 31   | 27   | 20   | 13   | 35            | 30             |
| FT(Y)25JXV1 | High  | 40  | 42    | 42    | 42   | 39   | 32   | 20   | 46            | 43             |
|             | Med   | 37  | 39    | 39    | 39   | 36   | 27   | 19   | 43            | 39             |
|             | Low   | 34  | 37    | 37    | 36   | 32   | 24   | 18   | 40            | 37             |
|             | Quiet | 31  | 35    | 35    | 33   | 29   | 22   | 18   | 37            | 33             |
| FT(Y)30FXV1 | High  | 42  | 46    | 45    | 44   | 41   | 35   | 28   | 49            | 43             |
|             | Med   | 40  | 45    | 44    | 43   | 35   | 33   | 27   | 47            | 42             |
|             | Low   | 37  | 43    | 43    | 40   | 35   | 30   | 26   | 45            | 39             |

| Model   | Measuring Location  |
|---|---|
| FT10/FTY09JXV1<br>FT(Y)15JXV1<br>FT(Y)20JXV1<br>FT(Y)25JXV1 |  <p>Standard : JIS C 9612</p> |
| FT(Y)30FXV1   |  <p>Standard : JIS B 8615</p> |

NC Curve







# Engineering & Physical Data

## Engineering Data - R22 MODEL (Cooling Only)

| MODEL                                  | INDOOR UNIT                      |                          | FT10JXV1                  | FT15JXV1                         | FT20JXV1                   | FT25JXV1                   |                        |       |
|--|----------------------------------|--------------------------|---------------------------|----------------------------------|----------------------------|----------------------------|------------------------|-------|
|  | OUTDOOR UNIT                     |                          | R09CXV1                   | R15CXV1                          | R18CXV1                    | R25CXV1                    |                        |       |
| NOMINAL COOLING CAPACITY               |                                  | Btu/h                    | 10000                     | 11800                            | 18000                      | 24000                      |                        |       |
|  |                                  | W                        | 2930                      | 3458                             | 5280                       | 7030                       |                        |       |
| NOMINAL TOTAL INPUT POWER (COOLING)    |                                  | W                        | 980                       | 1192                             | 1630                       | 2530                       |                        |       |
| NOMINAL RUNNING CURRENT (COOLING)      |                                  | A                        | 4.38                      | 5.45                             | 7.16                       | 11.3                       |                        |       |
| EER                                    |                                  | W/W                      | 2.99                      | 2.90                             | 3.24                       | 2.78                       |                        |       |
| REFRIGERANT CONTROL (EXPANSION DEVICE) |                                  |                          | OUTDOOR CAP TUBE          |                                  |                            |                            |                        |       |
| REFRIGERANT CHARGE                     |                                  | kg                       | 0.60                      | 0.75                             | 0.90                       | 1.50                       |                        |       |
| POWER SOURCE                           |                                  | V/Ph/Hz                  | 220-240 / 1 / 50          |                                  |                            |                            |                        |       |
| REFRIGERANT TYPE                       |                                  |                          | R22                       |                                  |                            |                            |                        |       |
| INDOOR UNIT                            | CONTROL                          | AIR DISCHARGE OPERATION  |                           | AUTOMATIC LOUVER (UP & DOWN)     |                            |                            |                        |       |
|  |                                  |                          |                           | WIRELESS OR WIRED REMOTE CONTROL |                            |                            |                        |       |
|  | AIR FLOW                         | TURBO                    | l/s / CFM                 | 169 / 358                        | 176 / 372                  | 280 / 594                  | 303 / 641              |       |
|  |                                  | HIGH                     | l/s / CFM                 | 161 / 342                        | 168 / 355                  | 251 / 531                  | 290 / 614              |       |
|  |                                  | MEDIUM                   | l/s / CFM                 | 133 / 282                        | 140 / 298                  | 224 / 474                  | 253 / 537              |       |
|  |                                  | LOW                      | l/s / CFM                 | 106 / 225                        | 114 / 242                  | 199 / 422                  | 224 / 474              |       |
|  |                                  | QUIET                    | l/s / CFM                 | 99 / 209                         | 106 / 225                  | 180 / 381                  | 197 / 418              |       |
|  | SOUND PRESSURE LEVEL (T/H/M/L/Q) |                          | dBA                       | 39 / 38 / 32 / 27 / 25           | 41 / 40 / 35 / 29 / 28     | 44 / 42 / 39 / 36 / 35     | 48 / 46 / 43 / 40 / 37 |       |
|  | UNIT DIMENSION                   | HEIGHT X WIDTH X DEPTH   | mm                        | 288 X 800 X 206                  |                            |                            | 310 X 1065 X 224       |       |
|  | PACKING DIMENSION                | HEIGHT X WIDTH X DEPTH   | mm                        | 344 X 874 X 274                  |                            |                            | 386 X 1136 X 314       |       |
|  | UNIT WEIGHT                      |                          | kg                        | 9                                |                            |                            | 14                     |       |
|  | CONDENSATE DRAIN SIZE            |                          | mm                        | 19.05                            |                            |                            |                        |       |
|  | FAN                              | TYPE                     |                           | CROSS FLOW FAN                   |                            |                            |                        |       |
|  |                                  | DRIVE                    |                           | DIRECT                           |                            |                            |                        |       |
|  | FAN MOTOR                        | TYPE                     |                           | INDUCTION                        |                            |                            |                        |       |
| INDEX OF PROTECTION (IP)               |                                  |                          | 20                        | 20                               | 44                         | 44                         |                        |       |
| INSULATION GRADE                       |                                  |                          | CLASS E                   |                                  |                            |                            |                        |       |
| RATED INPUT POWER                      |                                  | W                        | 37                        | 42                               | 61                         | 72                         |                        |       |
| RATED RUNNING CURRENT                  |                                  | A                        | 0.19                      | 0.21                             | 0.30                       | 0.34                       |                        |       |
| MOTOR OUTPUT                           |                                  | W                        | 18                        | 18                               | 26                         | 30                         |                        |       |
| COIL                                   | TUBE                             | MATERIAL                 | COPPER                    |                                  |                            |                            |                        |       |
|  |                                  | DIAMETER                 | mm                        | 7                                |                            |                            |                        |       |
|  | FIN                              | MATERIAL                 | ALUMINIUM                 |                                  |                            |                            |                        |       |
|  |                                  | FACE AREA                | m <sup>2</sup>            | 0.18                             |                            | 0.29                       |                        |       |
| AIR QUALITY                            | FILTER                           | TYPE                     | 2                         |                                  |                            |                            |                        |       |
|  |                                  | QUANTITY                 | pc                        | 2                                |                            |                            |                        |       |
| CASING                                 |                                  | COLOUR                   | WHITE                     |                                  |                            |                            |                        |       |
| OUTDOOR UNIT                           | AIR FLOW                         |                          | l/s / CFM                 | 320 / 680                        | 453 / 960                  | 614 / 1300                 | 755 / 1600             |       |
|  | SOUND PRESSURE LEVEL             |                          | dBA                       | 45                               | 49                         | 52                         | 52                     |       |
|  | UNIT DIMENSION                   | HEIGHT X WIDTH X DEPTH   | mm                        | 494 X 600 X 245                  | 540 X 700 X 250            | 651 X 855 X 328            | 753 X 855 X 328        |       |
|  | PACKING DIMENSION                | HEIGHT X WIDTH X DEPTH   | mm                        | 535 X 721 X 330                  | 596 X 803 X 323            | 693 X 990 X 415            | 793 X 990 X 415        |       |
|  | UNIT WEIGHT                      |                          | kg                        | 25                               | 29                         | 43                         | 57                     |       |
|  | PIPE CONNECTION                  | SIZE                     | TYPE                      | FLARE VALVE                      |                            |                            |                        |       |
|  |                                  |                          | LIQUID                    | mm                               | 6.35                       | 6.35                       | 6.35                   | 9.52  |
|  |                                  |                          | GAS                       | mm                               | 9.52                       | 12.70                      | 15.88                  | 15.88 |
|  | FAN                              | TYPE                     |                           | PROPELLER                        |                            |                            |                        |       |
|  |                                  | DRIVE                    |                           | DIRECT                           |                            |                            |                        |       |
|  | FAN MOTOR                        | TYPE                     |                           | INDUCTION                        |                            |                            |                        |       |
|  |                                  | INDEX OF PROTECTION (IP) |                           | 23                               |                            | 24                         | 23                     |       |
|  |                                  | INSULATION GRADE         |                           | B                                | B                          | B                          | F                      |       |
|  |                                  | RATED INPUT POWER        | W                         | 44                               | 70                         | 77                         | 123                    |       |
|  |                                  | RATED RUNNING CURRENT    | A                         | 0.20                             | 0.31                       | 0.34                       | 0.54                   |       |
| MOTOR OUTPUT                           |                                  | W                        | 18                        | 30                               | 43                         | 60                         |                        |       |
| COMPRESSOR                             | OIL TYPE                         |                          | 6                         |                                  |                            |                            |                        |       |
|  |                                  |                          | ROTARY                    |                                  |                            |                            |                        |       |
|  | OIL AMOUNT                       | cm <sup>3</sup>          | SUNISO - 4GSI / FREOLK56J | ATMOS NM56M / SUNISO 4GDID       | ATMOS NM56M / SUNISO 4GDID | ATMOS NM56M / SUNISO 4GDID |                        |       |
|  | RATED INPUT POWER (COOLING)      | W                        | 330                       | 350                              | 670                        | 700                        |                        |       |
|  | RATED RUNNING CURRENT (COOLING)  | A                        | 899                       | 1080                             | 1492                       | 2335                       |                        |       |
|  | LOCKED ROTOR AMP.                | A                        | 3.99                      | 4.93                             | 6.52                       | 10.4                       |                        |       |
| COIL                                   | TUBE                             | MATERIAL                 | COPPER                    |                                  |                            |                            |                        |       |
|  |                                  | DIAMETER                 | mm                        | 7.00                             | 7.00                       | 7.00                       | 7.00                   |       |
|  | FIN                              | MATERIAL                 | ALUMINIUM                 |                                  |                            |                            |                        |       |
|  |                                  | FACE AREA                | m <sup>2</sup>            | 0.29                             | 0.36                       | 0.52                       | 0.62                   |       |
| CASING                                 |                                  | COLOUR                   | 1                         |                                  |                            |                            |                        |       |
|  |                                  |                          | LIGHT GREY                |                                  |                            |                            |                        |       |

ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151 (NON-DUCTED UNIT) OR ISO 13253 (DUCTED UNIT).

| COOLING                    | HEATING                  |
|----------------------------|--------------------------|
| INDOOR: 27°C DB / 19°C WB  | INDOOR: 20°C DB          |
| OUTDOOR: 35°C DB / 24°C WB | OUTDOOR: 7°C DB / 6°C WB |

### Engineering Data - R22 MODEL (Cooling Only)

| MODEL                                  | INDOOR UNIT                  |                                 | FT30FXV1         |                                  |                        |                        |                   |
|--|------------------------------|---------------------------------|------------------|----------------------------------|------------------------|------------------------|-------------------|
|  | OUTDOOR UNIT                 |                                 | R28CXV1          | R30DXV1                          | R30DYV1                |                        |                   |
| NOMINAL COOLING CAPACITY               | Btu/h                        |                                 | 27000            | 28000                            | 28000                  |                        |                   |
|  | W                            |                                 | 7913             | 8206                             | 8206                   |                        |                   |
| NOMINAL TOTAL INPUT POWER (COOLING)    | W                            |                                 | 2640             | 2570                             | 2565                   |                        |                   |
| NOMINAL RUNNING CURRENT (COOLING)      | A                            |                                 | 11.9             | 12.2                             | 4.74                   |                        |                   |
| EER                                    | W/W                          |                                 | 3.00             | 3.19                             | 3.20                   |                        |                   |
| REFRIGERANT CONTROL (EXPANSION DEVICE) |                              |                                 | EXTERNAL ORIFICE |                                  |                        |                        |                   |
| REFRIGERANT CHARGE                     | kg                           |                                 | 1.75             | 1.60                             | 1.60                   |                        |                   |
| POWER SOURCE                           | V/Ph/Hz                      |                                 | 220-240 / 1 / 50 |                                  | 380-415 / 3 / 50       |                        |                   |
| REFRIGERANT TYPE                       |                              |                                 | R22              |                                  |                        |                        |                   |
| INDOOR UNIT                            | CONTROL                      | AIR DISCHARGE OPERATION         |                  | AUTOMATIC LOUVER (UP & DOWN)     |                        |                        |                   |
|  |                              |                                 |                  | WIRELESS OR WIRED REMOTE CONTROL |                        |                        |                   |
|  | AIR FLOW                     | HIGH                            |                  | l/s / CFM                        |                        | 316 / 670              |                   |
|  |                              | MEDIUM                          |                  | l/s / CFM                        |                        | 297 / 630              |                   |
|  |                              | LOW                             |                  | l/s / CFM                        |                        | 260 / 550              |                   |
|  | SOUND PRESSURE LEVEL (H/M/L) |                                 | dBA              |                                  | 49 / 47 / 45           |                        |                   |
|  | UNIT DIMENSION               | HEIGHT X WIDTH X DEPTH          |                  | mm                               |                        | 360 X 1200 X 200       |                   |
|  | PACKING DIMENSION            | HEIGHT X WIDTH X DEPTH          |                  | mm                               |                        | 430 X 1267 X 271       |                   |
|  | UNIT WEIGHT                  | kg                              |                  |                                  |                        | 17                     |                   |
|  | CONDENSATE DRAIN SIZE        |                                 | mm               |                                  | 20                     |                        |                   |
|  | FAN                          | TYPE                            |                  |                                  |                        | CROSS FLOW FAN         |                   |
|  |                              | DRIVE                           |                  |                                  |                        | DIRECT                 |                   |
|  | FAN MOTOR                    | TYPE                            |                  |                                  |                        | INDUCTION              |                   |
|  |                              | INDEX OF PROTECTION (IP)        |                  |                                  |                        | 20                     |                   |
|  |                              | INSULATION GRADE                |                  |                                  |                        | CLASS E                |                   |
| RATED INPUT POWER                      |                              | W                               |                  |                                  | 66                     |                        |                   |
| RATED RUNNING CURRENT                  |                              | A                               |                  |                                  | 0.29                   |                        |                   |
| MOTOR OUTPUT                           | W                            |                                 |                  | 40                               |                        |                        |                   |
| POLES                                  |                              |                                 |                  |                                  | 4                      |                        |                   |
| COIL                                   | TUBE                         | MATERIAL                        |                  |                                  | COPPER                 |                        |                   |
|  |                              | DIAMETER                        | mm               |                                  |                        | 9.52                   |                   |
|  | FIN                          | MATERIAL                        |                  |                                  | ALUMINIUM              |                        |                   |
|  |                              | FACE AREA                       | m <sup>2</sup>   |                                  |                        | 0.29                   |                   |
| ROW                                    |                              |                                 |                  |                                  | 2                      |                        |                   |
| AIR QUALITY                            | FILTER                       | TYPE                            |                  |                                  | SARANET                |                        |                   |
|  |                              | QUANTITY                        | pc               |                                  |                        | 3 X 3                  |                   |
| CASING                                 | COLOUR                       |                                 |                  |                                  | LIGHT GREY             |                        |                   |
| OUTDOOR UNIT                           | AIR FLOW                     |                                 | l/s / CFM        | 741 / 1570                       | 1605 / 3400            | 1605 / 3400            |                   |
|  | SOUND PRESSURE LEVEL         |                                 | dBA              | 54                               | 58                     | 58                     |                   |
|  | UNIT DIMENSION               | HEIGHT X WIDTH X DEPTH          |                  | mm                               | 753 X 855 X 328        | 852 X 1030 X 400       | 852 X 1030 X 400  |
|  | PACKING DIMENSION            | HEIGHT X WIDTH X DEPTH          |                  | mm                               | 793 X 990 X 415        | 1010 X 1180 X 514      | 1010 X 1180 X 514 |
|  | UNIT WEIGHT                  | kg                              |                  | 57                               | 95                     | 95                     |                   |
|  | PIPE CONNECTION              | SIZE                            | TYPE             |                                  | FLARE VALVE            |                        |                   |
|  |                              |                                 | LIQUID           | mm                               | 9.52                   |                        |                   |
|  |                              |                                 | GAS              | mm                               | 15.88                  |                        |                   |
|  | FAN                          | TYPE                            |                  |                                  |                        | PROPELLER              |                   |
|  |                              | DRIVE                           |                  |                                  |                        | DIRECT                 |                   |
|  | FAN MOTOR                    | TYPE                            |                  |                                  |                        | INDUCTION              |                   |
|  |                              | INDEX OF PROTECTION (IP)        |                  | 23                               | 54                     | 54                     |                   |
|  |                              | INSULATION GRADE                |                  | F                                | B                      | B                      |                   |
|  |                              | RATED INPUT POWER               | W                | 124                              | 257                    | 257                    |                   |
|  |                              | RATED RUNNING CURRENT           | A                | 0.54                             | 1.10                   | 1.10                   |                   |
|  |                              | MOTOR OUTPUT                    | W                | 66                               | 145                    | 145                    |                   |
|  |                              | POLES                           |                  |                                  | 6                      | 8                      | 8                 |
|  | COMPRESSOR                   | TYPE                            |                  | ROTARY                           | SCROLL                 |                        |                   |
|  |                              | OIL TYPE                        |                  | ATMOS NM56M / SUNISO 4GDID       | MINERAL (Sontex 200LT) | MINERAL (Sontex 200LT) |                   |
|  |                              | OIL AMOUNT                      | cm <sup>3</sup>  | 1130                             | 1240                   | 1240                   |                   |
|  |                              | RATED INPUT POWER (COOLING)     | W                | 2450                             | 2247                   | 2242                   |                   |
|  |                              | RATED RUNNING CURRENT (COOLING) | A                | 11.1                             | 10.8                   | 3.35                   |                   |
|  | LOCKED ROTOR AMP.            | A                               | 62               | 82                               | 82                     |                        |                   |
|  | COIL                         | TUBE                            | MATERIAL         |                                  |                        | COPPER                 |                   |
|  |                              |                                 | DIAMETER         | mm                               | 7.00                   | 9.52                   | 9.52              |
| FIN                                    |                              | MATERIAL                        |                  |                                  | ALUMINIUM              |                        |                   |
|  |                              | FACE AREA                       | m <sup>2</sup>   | 0.62                             | 0.87                   | 0.87                   |                   |
| ROW                                    |                              |                                 | 2                | 2                                | 2                      |                        |                   |
| CASING                                 | COLOUR                       |                                 |                  |                                  | LIGHT GREY             |                        |                   |

ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151 (NON-DUCTED UNIT) OR ISO 13253 (DUCTED UNIT).

| COOLING                    |  | HEATING                  |  |
|----------------------------|--|--------------------------|--|
| INDOOR: 27°C DB / 19°C WB  |  | INDOOR: 20°C DB          |  |
| OUTDOOR: 35°C DB / 24°C WB |  | OUTDOOR: 7°C DB / 6°C WB |  |

Engineering Data - R22 MODEL (Heatpump)

| MODEL                                  | INDOOR UNIT                      |                          | FTY09JXV1                        | FTY15JXV1                  | FTY20JXV1                  | FTY25JXV1                  |                        |
|--|----------------------------------|--------------------------|----------------------------------|----------------------------|----------------------------|----------------------------|------------------------|
|  | OUTDOOR UNIT                     |                          | RY09CXV1                         | RY15CXV1                   | RY20CXV1                   | RY25CXV1                   |                        |
| NOMINAL COOLING CAPACITY               | Btu/h                            |                          | 8400                             | 11800                      | 19500                      | 24000                      |                        |
|  | W                                |                          | 2462                             | 3458                       | 5720                       | 7030                       |                        |
| NOMINAL HEATING CAPACITY               | Btu/h                            |                          | 9000                             | 13000                      | 19500                      | 25000                      |                        |
|  | W                                |                          | 2642                             | 3810                       | 5720                       | 7330                       |                        |
| NOMINAL TOTAL INPUT POWER (COOLING)    | W                                |                          | 925                              | 1192                       | 1850                       | 2530                       |                        |
| NOMINAL TOTAL INPUT POWER (HEATING)    | W                                |                          | 750                              | 1064                       | 1750                       | 2465                       |                        |
| NOMINAL RUNNING CURRENT (COOLING)      | A                                |                          | 4.07                             | 5.45                       | 8.21                       | 11.3                       |                        |
| NOMINAL RUNNING CURRENT (HEATING)      | A                                |                          | 3.32                             | 4.90                       | 7.73                       | 11.0                       |                        |
| EER                                    | W/W                              |                          | 2.66                             | 2.90                       | 3.09                       | 2.78                       |                        |
| COP                                    | W/W                              |                          | 3.52                             | 3.58                       | 3.27                       | 2.97                       |                        |
| REFRIGERANT CONTROL (EXPANSION DEVICE) |                                  |                          | OUTDOOR CAP TUBE                 |                            |                            |                            |                        |
| REFRIGERANT CHARGE                     | kg                               |                          | 0.65                             | 0.93                       | 1.35                       | 1.50                       |                        |
| POWER SOURCE                           | V/Ph/Hz                          |                          | 220-240 / 1 / 50                 |                            |                            |                            |                        |
| REFRIGERANT TYPE                       |                                  |                          | R22                              |                            |                            |                            |                        |
| INDOOR UNIT                            | CONTROL                          |                          | AIR DISCHARGE OPERATION          |                            |                            |                            |                        |
|  |                                  |                          | AUTOMATIC LOUVER (UP & DOWN)     |                            |                            |                            |                        |
|  |                                  |                          | WIRELESS OR WIRED REMOTE CONTROL |                            |                            |                            |                        |
|  | AIR FLOW                         | TURBO                    |                                  | l/s / CFM                  | 157 / 332                  | 176 / 372                  | 269 / 570              |
|  |                                  | HIGH                     |                                  | l/s / CFM                  | 149 / 315                  | 168 / 355                  | 253 / 536              |
|  |                                  | MEDIUM                   |                                  | l/s / CFM                  | 127 / 269                  | 140 / 298                  | 226 / 478              |
|  |                                  | LOW                      |                                  | l/s / CFM                  | 106 / 225                  | 114 / 242                  | 200 / 424              |
|  |                                  | QUIET                    |                                  | l/s / CFM                  | 99 / 209                   | 106 / 225                  | 177 / 375              |
|  | SOUND PRESSURE LEVEL (T/H/M/L/Q) |                          | dBA                              | 36 / 34 / 32 / 29 / 28     | 41 / 40 / 35 / 29 / 28     | 44 / 42 / 39 / 36 / 35     | 48 / 46 / 43 / 40 / 37 |
|  | UNIT DIMENSION                   | HEIGHT X WIDTH X DEPTH   | mm                               | 288 X 800 X 206            |                            | 310 X 1065 X 224           | 310 X 1065 X 224       |
|  | PACKING DIMENSION                | HEIGHT X WIDTH X DEPTH   | mm                               | 344 X 874 X 274            |                            | 386 X 1136 X 314           | 386 X 1136 X 314       |
|  | UNIT WEIGHT                      |                          | kg                               | 9                          |                            | 14                         | 14                     |
|  | CONDENSATE DRAIN SIZE            |                          | mm                               | 19.05                      |                            |                            |                        |
|  | FAN                              | TYPE                     |                                  | CROSS FLOW FAN             |                            |                            |                        |
|  |                                  |                          | DRIVE                            | DIRECT                     |                            |                            |                        |
|  |                                  | TYPE                     | INDUCTION                        |                            |                            |                            |                        |
| FAN MOTOR                              |                                  | INDEX OF PROTECTION (IP) | 20                               |                            | 44                         | 44                         |                        |
|  |                                  | INSULATION GRADE         | CLASS E                          |                            |                            |                            |                        |
|  |                                  | RATED INPUT POWER        | W                                | 35                         | 42                         | 61                         |                        |
|  |                                  | RATED RUNNING CURRENT    | A                                | 0.19                       | 0.21                       | 0.30                       |                        |
|  |                                  | MOTOR OUTPUT             | W                                | 18                         | 18                         | 26                         |                        |
|  |                                  | POLES                    | 4                                |                            |                            |                            |                        |
| COIL                                   | TUBE                             | MATERIAL                 | COPPER                           |                            |                            |                            |                        |
|  |                                  | DIAMETER                 | mm                               | 7                          |                            |                            |                        |
|  | FIN                              | MATERIAL                 | ALUMINIUM                        |                            |                            |                            |                        |
|  |                                  | FACE AREA                | m <sup>2</sup>                   | 0.18                       |                            | 0.29                       |                        |
|  |                                  | ROW                      | 2                                |                            |                            |                            |                        |
| AIR QUALITY                            | FILTER                           | TYPE                     | SARANET                          |                            |                            |                            |                        |
|  |                                  | QUANTITY                 | pc                               | 2                          |                            |                            |                        |
| CASING                                 |                                  | COLOUR                   | WHITE                            |                            |                            |                            |                        |
| OUTDOOR UNIT                           | AIR FLOW                         |                          | l/s / CFM                        | 320 / 680                  | 453 / 960                  | 614 / 1300                 | 755 / 1600             |
|  | SOUND PRESSURE LEVEL             |                          | dBA                              | 45                         | 49                         | 49                         | 52                     |
|  | UNIT DIMENSION                   | HEIGHT X WIDTH X DEPTH   | mm                               | 494 X 600 X 245            | 540 x 700 x 250            | 651 X 855 X 328            | 753 X 855 X 328        |
|  | PACKING DIMENSION                | HEIGHT X WIDTH X DEPTH   | mm                               | 535 X 721 X 330            | 596 x 803 x 323            | 693 X 990 X 415            | 793 X 990 X 415        |
|  | UNIT WEIGHT                      |                          | kg                               | 26                         | 30                         | 47                         | 57                     |
|  | PIPE CONNECTION                  | SIZE                     | TYPE                             | FLARE VALVE                |                            |                            |                        |
|  |                                  |                          | LIQUID                           | mm                         | 6.35                       | 6.35                       | 6.35                   |
|  |                                  |                          | GAS                              | mm                         | 9.52                       | 12.70                      | 15.88                  |
|  | FAN                              | TYPE                     |                                  | PROPELLER                  |                            |                            |                        |
|  |                                  |                          | DRIVE                            | DIRECT                     |                            |                            |                        |
|  |                                  |                          | TYPE                             | INDUCTION                  |                            |                            |                        |
|  | FAN MOTOR                        |                          | INDEX OF PROTECTION (IP)         | 23                         | 23                         | 44                         | 44                     |
|  |                                  |                          | INSULATION GRADE                 | B                          | B                          | F                          | F                      |
|  |                                  |                          | RATED INPUT POWER                | W                          | 44                         | 74                         | 80                     |
|  |                                  |                          | RATED RUNNING CURRENT            | A                          | 0.20                       | 0.33                       | 0.36                   |
|  |                                  | MOTOR OUTPUT             | W                                | 18                         | 30                         | 32                         |                        |
|  |                                  | POLES                    | 6                                |                            |                            |                            |                        |
| COMPRESSOR                             | TYPE                             |                          | ROTARY                           |                            |                            |                            |                        |
|  | OIL TYPE                         |                          | SUNISO - 4GSI / FREOLK56         | ATMOS NM56M / SUNISO 4GDID | ATMOS NM56M / SUNISO 4GDID | ATMOS NM56M / SUNISO 4GDID |                        |
|  | OIL AMOUNT                       |                          | cm <sup>3</sup>                  | 330                        | 350                        | 670                        |                        |
|  | RATED INPUT POWER (COOLING)      |                          | W                                | 846                        | 1076                       | 1709                       |                        |
|  | RATED INPUT POWER (HEATING)      |                          | W                                | 671                        | 948                        | 1609                       |                        |
|  | RATED RUNNING CURRENT (COOLING)  |                          | A                                | 3.68                       | 4.91                       | 7.55                       |                        |
|  | RATED RUNNING CURRENT (HEATING)  |                          | A                                | 2.93                       | 4.36                       | 7.07                       |                        |
| LOCKED ROTOR AMP.                      |                                  | A                        | 18                               | 25                         | 34                         |                            |                        |
| COIL                                   | TUBE                             | MATERIAL                 | COPPER                           |                            |                            |                            |                        |
|  |                                  | DIAMETER                 | mm                               | 7                          | 9.52                       | 7                          | 7                      |
|  | FIN                              | MATERIAL                 | ALUMINIUM                        |                            |                            |                            |                        |
|  |                                  | FACE AREA                | m <sup>2</sup>                   | 0.29                       | 0.36                       | 0.50                       | 0.61                   |
|  |                                  | ROW                      | 1                                | 1                          | 2                          | 2                          |                        |
| CASING                                 |                                  | COLOUR                   | LIGHT GREY                       |                            |                            |                            |                        |

ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151 (NON-DUCTED UNIT) OR ISO 13253 (DUCTED UNIT).

| COOLING                    | HEATING                  |
|----------------------------|--------------------------|
| INDOOR: 27°C DB / 19°C WB  | INDOOR: 20°C DB          |
| OUTDOOR: 35°C DB / 24°C WB | OUTDOOR: 7°C DB / 6°C WB |

### Engineering Data - R22 MODEL (Heatpump)

| MODEL                                  | INDOOR UNIT                     |                          | FTY30JXV1                  |                                  |                 |                   |       |
|--|---------------------------------|--------------------------|----------------------------|----------------------------------|-----------------|-------------------|-------|
|  | OUTDOOR UNIT                    |                          | RY28CXV1                   | RY30DXV1                         |                 |                   |       |
| NOMINAL COOLING CAPACITY               | Btu/h                           |                          | 27000                      | 30000                            |                 |                   |       |
|  | W                               |                          | 7913                       | 8790                             |                 |                   |       |
| NOMINAL HEATING CAPACITY               | Btu/h                           |                          | 27000                      | 30000                            |                 |                   |       |
|  | W                               |                          | 7913                       | 8790                             |                 |                   |       |
| NOMINAL TOTAL INPUT POWER (COOLING)    | W                               |                          | 2650                       | 2990                             |                 |                   |       |
| NOMINAL TOTAL INPUT POWER (HEATING)    | W                               |                          | 2600                       | 2863                             |                 |                   |       |
| NOMINAL RUNNING CURRENT (COOLING)      | A                               |                          | 12.2                       | 14.30                            |                 |                   |       |
| NOMINAL RUNNING CURRENT (HEATING)      | A                               |                          | 12.2                       | 13.70                            |                 |                   |       |
| EER                                    | W/W                             |                          | 2.99                       | 2.94                             |                 |                   |       |
| COP                                    | W/W                             |                          | 3.04                       | 3.07                             |                 |                   |       |
| REFRIGERANT CONTROL (EXPANSION DEVICE) | OUTDOOR CAP TUBE                |                          |                            |                                  |                 |                   |       |
| REFRIGERANT CHARGE                     | kg                              |                          | 1.83                       | 2.15                             |                 |                   |       |
| POWER SOURCE                           | V/Ph/Hz                         |                          | 220-240 / 1 / 50           |                                  |                 |                   |       |
| REFRIGERANT TYPE                       | R22                             |                          |                            |                                  |                 |                   |       |
| INDOOR UNIT                            | CONTROL                         | AIR DISCHARGE OPERATION  |                            | AUTOMATIC LOUVER (UP & DOWN)     |                 |                   |       |
|  |                                 |                          |                            | WIRELESS OR WIRED REMOTE CONTROL |                 |                   |       |
|  | AIR FLOW                        | HIGH                     |                            | l/s / CFM                        |                 | 316 / 670         |       |
|  |                                 | MEDIUM                   |                            | l/s / CFM                        |                 | 297 / 630         |       |
|  |                                 | LOW                      |                            | l/s / CFM                        |                 | 236 / 500         |       |
|  | SOUND PRESSURE LEVEL (H/M/L)    |                          | dBA                        |                                  | 49 / 47 / 45    |                   |       |
|  | UNIT DIMENSION                  | HEIGHT X WIDTH X DEPTH   |                            | mm                               |                 | 360 X 1200 X 200  |       |
|  | PACKING DIMENSION               | HEIGHT X WIDTH X DEPTH   |                            | mm                               |                 | 430 X 1267 X 271  |       |
|  | UNIT WEIGHT                     |                          |                            | kg                               |                 | 17                |       |
|  | CONDENSATE DRAIN SIZE           |                          |                            | mm                               |                 | 20                |       |
|  | FAN                             | TYPE                     |                            | CROSS FLOW FAN                   |                 |                   |       |
|  |                                 | DRIVE                    |                            | DIRECT                           |                 |                   |       |
|  | FAN MOTOR                       | TYPE                     |                            | INDUCTION                        |                 |                   |       |
|  |                                 | INDEX OF PROTECTION (IP) |                            | 20                               |                 |                   |       |
|  |                                 | INSULATION GRADE         |                            | CLASS E                          |                 |                   |       |
| RATED INPUT POWER                      |                                 | W                        | 66                         |                                  |                 |                   |       |
| RATED RUNNING CURRENT                  |                                 | A                        | 0.29                       |                                  |                 |                   |       |
| MOTOR OUTPUT                           |                                 | W                        | 40                         |                                  |                 |                   |       |
| POLES                                  |                                 |                          | 4                          |                                  |                 |                   |       |
| COIL                                   | TUBE                            | MATERIAL                 |                            | COPPER                           |                 |                   |       |
|  |                                 | DIAMETER                 |                            | mm                               |                 | 9.52              |       |
|  | FIN                             | MATERIAL                 |                            | ALUMINIUM                        |                 |                   |       |
|  |                                 | FACE AREA                |                            | m <sup>2</sup>                   |                 | 0.29              |       |
| ROW                                    |                                 |                          | 2                          |                                  |                 |                   |       |
| AIR QUALITY                            | FILTER                          | TYPE                     |                            | SARANET                          |                 |                   |       |
|  |                                 | QUANTITY                 |                            | pc                               |                 | 3 X 3             |       |
| CASING                                 | COLOUR                          |                          | LIGHT GREY                 |                                  |                 |                   |       |
| OUTDOOR UNIT                           | AIR FLOW                        | l/s / CFM                |                            | 741 / 1570                       | 1605 / 3400     |                   |       |
|  | SOUND PRESSURE LEVEL            | dBA                      |                            | 54                               | 58              |                   |       |
|  | UNIT DIMENSION                  | HEIGHT X WIDTH X DEPTH   |                            | mm                               | 753 X 855 X 328 | 852 X 1030 X 400  |       |
|  | PACKING DIMENSION               | HEIGHT X WIDTH X DEPTH   |                            | mm                               | 793 X 990 X 415 | 1010 X 1180 X 514 |       |
|  | UNIT WEIGHT                     |                          |                            | kg                               | 57              | 95                |       |
|  | PIPE CONNECTION                 | SIZE                     | TYPE                       |                                  | FLARE VALVE     |                   |       |
|  |                                 |                          | LIQUID                     |                                  | mm              | 9.52              | 9.52  |
|  |                                 |                          | GAS                        |                                  | mm              | 15.88             | 15.88 |
|  | FAN                             | TYPE                     |                            | PROPELLER                        |                 |                   |       |
|  |                                 | DRIVE                    |                            | DIRECT                           |                 |                   |       |
|  | FAN MOTOR                       | TYPE                     |                            | INDUCTION                        |                 |                   |       |
|  |                                 | INDEX OF PROTECTION (IP) |                            | 23                               | 44              |                   |       |
|  |                                 | INSULATION GRADE         |                            | F                                | B               |                   |       |
|  |                                 | RATED INPUT POWER        | W                          | 124                              | 257             |                   |       |
|  |                                 | RATED RUNNING CURRENT    | A                          | 0.54                             | 1.10            |                   |       |
| MOTOR OUTPUT                           |                                 | W                        | 66                         | 145                              |                 |                   |       |
| POLES                                  |                                 |                          |                            | 6                                | 8               |                   |       |
| COMPRESSOR                             | TYPE                            |                          | ROTARY                     | SCROLL                           |                 |                   |       |
|  | OIL TYPE                        |                          | ATMOS NM56M / SUNISO 4GDID | MINERAL (Sontex 200LT)           |                 |                   |       |
|  | OIL AMOUNT                      | cm <sup>3</sup>          | 1130                       | 1240                             |                 |                   |       |
|  | RATED INPUT POWER (COOLING)     | W                        | 2460                       | 2667                             |                 |                   |       |
|  | RATED INPUT POWER (HEATING)     | W                        | 2410                       | 2537                             |                 |                   |       |
|  | RATED RUNNING CURRENT (COOLING) | A                        | 11.4                       | 12.8                             |                 |                   |       |
|  | RATED RUNNING CURRENT (HEATING) | A                        | 11.4                       | 12.3                             |                 |                   |       |
| LOCKED ROTOR AMP.                      | A                               | 62                       | 82                         |                                  |                 |                   |       |
| COIL                                   | TUBE                            | MATERIAL                 |                            | COPPER                           |                 |                   |       |
|  |                                 | DIAMETER                 |                            | mm                               | 7               | 9.52              |       |
|  | FIN                             | MATERIAL                 |                            | ALUMINIUM                        |                 |                   |       |
|  |                                 | FACE AREA                |                            | m <sup>2</sup>                   | 0.62            | 0.87              |       |
| ROW                                    |                                 |                          | 2                          | 2                                |                 |                   |       |
| CASING                                 | COLOUR                          |                          | LIGHT GREY                 |                                  |                 |                   |       |

ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151 (NON-DUCTED UNIT) OR ISO 13253 (DUCTED UNIT).

| COOLING                    | HEATING                  |
|----------------------------|--------------------------|
| INDOOR: 27°C DB / 19°C WB  | INDOOR: 20°C DB          |
| OUTDOOR: 35°C DB / 24°C WB | OUTDOOR: 7°C DB / 6°C WB |



# Performance Data

## Calculation Steps

*Interpolation* method can be used to get the total cooling capacity, **TC** and sensible cooling capacity, **SC** and power input, **PI** at those temperatures which are not stated out in the table. Extrapolation method is not allowed to be used.

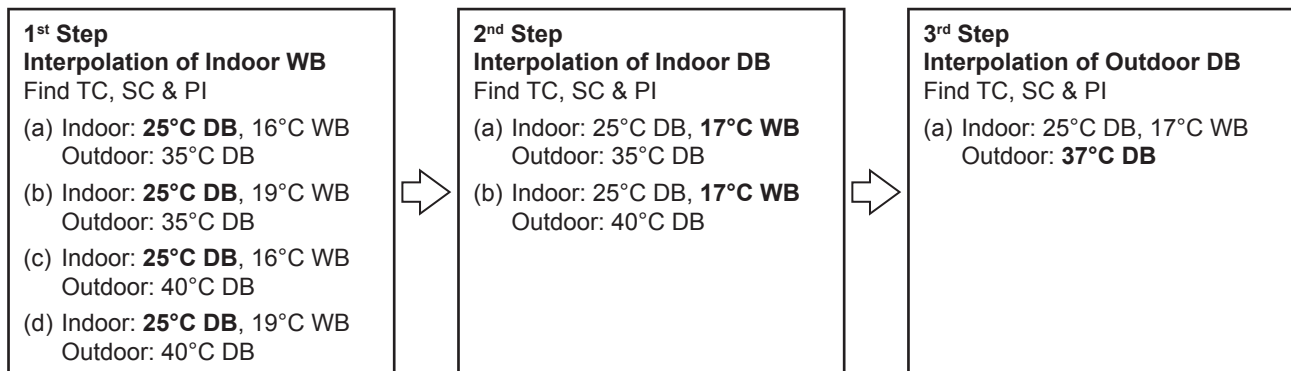
### Example:

**Model:** FT10JXV1 – R09CXV1  
**Indoor Condition:** 25°C DB, 17°C WB  
**Outdoor Condition:** 37°C DB  
**Fan Speed:** High

### Solution:

Based on the Performance Table,

- Refer to the Indoor DB column,
  - **25°C** is located between 24°C & 27°C for 16°C WB.
  - **25°C** is located between 24°C & 27°C for 19°C WB.
  - Thus, Interpolation needs to be applied.
- Refer to the Indoor WB column,
  - **17°C** is located between 16°C & 19°C for 25°C DB.
  - Thus, Interpolation needs to be applied.
- Refer to the Outdoor DB column,
  - **37°C** is located between 35°C & 40°C.
  - Thus, Interpolation needs to be applied.



## Details of Calculation:

### 1<sup>st</sup> Step:

To obtain the TC, SC & PI for

(a) **Indoor Condition:** 25°C DB, 16°C WB  
**Outdoor Condition:** 35°C DB

| EWB | EDB | Outdoor temperature |                |                |
|-----|-----|---------------------|----------------|----------------|
|     |     | 35°C                |                |                |
|     |     | TC                  | SC             | PI             |
|     |     | ⋮                   | ⋮              | ⋮              |
| 16  | 24  | 3.20                | 3.20           | 1.27           |
|     | 25  | x <sub>1</sub>      | y <sub>1</sub> | z <sub>1</sub> |
|     | 27  | 3.30                | 3.30           | 1.27           |

### By Interpolation Method

$$\Rightarrow \frac{25^\circ\text{C} - 24^\circ\text{C}}{27^\circ\text{C} - 24^\circ\text{C}} = \frac{x_1 - 3.20\text{kW}}{3.30\text{kW} - 3.20\text{kW}}$$

$$\Rightarrow x_1 = 3.23\text{kW}$$

Similarly,

$$y_1 = 3.23\text{kW}$$

$$z_1 = 1.27\text{kW}$$

(b) Indoor Condition: 25°C DB, 16°C WB  
Outdoor Condition: 35°C DB

| EWB | EDB | Outdoor temperature |                |                |                |  |
|-----|-----|---------------------|----------------|----------------|----------------|--|
|     |     | 35°C                |                |                |                |  |
|     |     | TC                  | SC             | PI             |                |  |
|     |     |                     | ⋮              | ⋮              | ⋮              |  |
| 19  | 24  |                     | 3.51           | 2.57           | 1.29           |  |
|     | 25  | -----               | x <sub>2</sub> | y <sub>2</sub> | z <sub>2</sub> |  |
|     | 27  |                     | 3.52           | 2.99           | 1.29           |  |

By Interpolation Method

$$\Rightarrow \frac{25^\circ\text{C} - 24^\circ\text{C}}{27^\circ\text{C} - 24^\circ\text{C}} = \frac{x_2 - 3.51\text{kW}}{3.52\text{kW} - 3.51\text{kW}}$$

$$\Rightarrow x_2 = 3.51\text{kW}$$

Similarly,

$$y_2 = 2.71\text{kW}$$

$$z_2 = 1.29\text{kW}$$

Repeat the same process for (c) & (d) in 1<sup>st</sup> Step

(c) x<sub>3</sub> = 2.98 kW; y<sub>3</sub> = 2.98 kW; z<sub>3</sub> = 1.38 kW

(d) x<sub>4</sub> = 3.22 W; y<sub>4</sub> = 2.53 kW; z<sub>4</sub> = 1.40 kW

2<sup>nd</sup> Step:

To obtain the TC, SC & PI for

(a) Indoor Condition: 25°C DB, 17°C WB  
Outdoor Condition: 35°C DB

| EWB | EDB | Outdoor temperature |                |                |                |  |
|-----|-----|---------------------|----------------|----------------|----------------|--|
|     |     | 35°C                |                |                |                |  |
|     |     | TC                  | SC             | PI             |                |  |
|     |     |                     | ⋮              | ⋮              | ⋮              |  |
| 16  | 25  |                     | 3.23           | 3.23           | 1.27           |  |
| 17  |     | -----               | x <sub>5</sub> | y <sub>5</sub> | z <sub>5</sub> |  |
| 19  |     |                     | 3.51           | 2.71           | 1.29           |  |

By Interpolation Method

$$\Rightarrow \frac{17^\circ\text{C} - 16^\circ\text{C}}{19^\circ\text{C} - 16^\circ\text{C}} = \frac{x_5 - 3.23\text{kW}}{3.51\text{kW} - 3.23\text{kW}}$$

$$\Rightarrow x_5 = 3.32\text{kW}$$

Similarly,

$$y_5 = 3.06\text{kW}$$

$$z_5 = 1.28\text{kW}$$

Repeat the same process for (b) in 2<sup>nd</sup> Step

(c) x<sub>6</sub> = 3.06 kW; y<sub>6</sub> = 2.83 kW; z<sub>6</sub> = 1.39 kW

3<sup>rd</sup> Step:

To obtain the TC, SC & PI for

(a) Indoor Condition: 25°C DB, 17°C WB  
Outdoor Condition: 37°C DB

| EWB | EDB | Outdoor temperature |      |      |      |    |    |      |      |      |      |
|-----|-----|---------------------|------|------|------|----|----|------|------|------|------|
|     |     | 35°C                |      |      | 37°C |    |    | 40°C |      |      |      |
|     |     | TC                  | SC   | PI   | TC   | SC | PI | TC   | SC   | PI   |      |
|     |     |                     |      |      | ⋮    | ⋮  | ⋮  |      |      |      |      |
| 25  | 17  | -----               | 3.32 | 3.06 | 1.28 | x  | y  | z    | 3.06 | 2.83 | 1.39 |

By Interpolation Method

$$\Rightarrow \frac{37^\circ\text{C} - 35^\circ\text{C}}{40^\circ\text{C} - 35^\circ\text{C}} = \frac{x - 3.32\text{kW}}{3.06\text{kW} - 3.32\text{kW}}$$

$$\Rightarrow x = 3.22\text{kW}$$

Similarly,

$$y = 2.97\text{kW}$$

$$z = 1.35\text{kW}$$

## Performance Tables

## R22 Cooling Only

Model: FT10JXV1 - R09CXV1

Cooling Mode

| AFR<br>(CFM) | EWB  | EDB  | Outdoor temperature |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------|------|------|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|              |      |      | 19°C                |      |      | 25°C |      |      | 30°C |      |      | 35°C |      |      | 40°C |      |      | 46°C |      |      |
|              |      |      | TC                  | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   |
| 225          | 16°C | 21°C | 2.76                | 2.13 | 0.74 | 2.66 | 2.08 | 0.81 | 2.57 | 2.02 | 0.87 | 2.46 | 1.96 | 0.95 | 2.26 | 1.83 | 1.03 | 2.09 | 1.72 | 1.13 |
|              |      | 24°C | 2.77                | 2.55 | 0.74 | 2.67 | 2.50 | 0.81 | 2.57 | 2.44 | 0.87 | 2.47 | 2.38 | 0.95 | 2.27 | 2.22 | 1.03 | 2.10 | 2.10 | 1.13 |
|              |      | 27°C | 2.79                | 2.79 | 0.75 | 2.69 | 2.69 | 0.81 | 2.60 | 2.60 | 0.87 | 2.50 | 2.50 | 0.95 | 2.31 | 2.31 | 1.03 | 2.15 | 2.15 | 1.14 |
|              |      | 30°C | 2.87                | 2.87 | 0.75 | 2.79 | 2.79 | 0.81 | 2.71 | 2.71 | 0.88 | 2.62 | 2.62 | 0.96 | 2.43 | 2.43 | 1.04 | 2.27 | 2.27 | 1.15 |
|              | 19°C | 24°C | 3.05                | 1.99 | 0.76 | 2.94 | 1.94 | 0.82 | 2.83 | 1.89 | 0.89 | 2.72 | 1.84 | 0.96 | 2.50 | 1.71 | 1.04 | 2.31 | 1.61 | 1.15 |
|              |      | 27°C | 3.05                | 2.28 | 0.76 | 2.94 | 2.23 | 0.82 | 2.83 | 2.18 | 0.89 | 2.72 | 2.12 | 0.96 | 2.50 | 1.99 | 1.04 | 2.31 | 1.88 | 1.15 |
|              |      | 30°C | 3.05                | 2.81 | 0.76 | 2.95 | 2.75 | 0.82 | 2.84 | 2.69 | 0.89 | 2.74 | 2.63 | 0.96 | 2.52 | 2.46 | 1.05 | 2.34 | 2.32 | 1.15 |
|              |      | 33°C | 3.09                | 3.09 | 0.76 | 2.99 | 2.99 | 0.82 | 2.89 | 2.89 | 0.89 | 2.79 | 2.79 | 0.97 | 2.58 | 2.58 | 1.05 | 2.42 | 2.42 | 1.16 |
|              | 22°C | 27°C | 3.35                | 1.95 | 0.77 | 3.24 | 1.90 | 0.83 | 3.12 | 1.85 | 0.90 | 3.00 | 1.80 | 0.98 | 2.75 | 1.68 | 1.06 | 2.55 | 1.58 | 1.17 |
|              |      | 30°C | 3.35                | 2.38 | 0.77 | 3.24 | 2.33 | 0.83 | 3.12 | 2.27 | 0.90 | 3.00 | 2.22 | 0.98 | 2.76 | 2.08 | 1.06 | 2.55 | 1.97 | 1.17 |
|              |      | 33°C | 3.35                | 2.77 | 0.77 | 3.24 | 2.72 | 0.83 | 3.12 | 2.67 | 0.90 | 3.00 | 2.61 | 0.98 | 2.76 | 2.45 | 1.06 | 2.56 | 2.33 | 1.17 |
|              |      | 36°C | 3.37                | 3.15 | 0.77 | 3.25 | 3.08 | 0.84 | 3.14 | 3.02 | 0.91 | 3.03 | 2.95 | 0.98 | 2.79 | 2.77 | 1.07 | 2.60 | 2.60 | 1.18 |
| 282          | 16°C | 21°C | 2.87                | 2.23 | 0.75 | 2.77 | 2.17 | 0.81 | 2.67 | 2.11 | 0.88 | 2.56 | 2.05 | 0.95 | 2.35 | 1.91 | 1.03 | 2.16 | 1.80 | 1.14 |
|              |      | 24°C | 2.88                | 2.70 | 0.75 | 2.78 | 2.64 | 0.81 | 2.68 | 2.58 | 0.88 | 2.57 | 2.51 | 0.95 | 2.36 | 2.34 | 1.04 | 2.18 | 2.18 | 1.14 |
|              |      | 27°C | 2.92                | 2.92 | 0.75 | 2.82 | 2.82 | 0.82 | 2.72 | 2.72 | 0.88 | 2.62 | 2.62 | 0.96 | 2.42 | 2.42 | 1.04 | 2.26 | 2.26 | 1.15 |
|              |      | 30°C | 3.04                | 3.04 | 0.76 | 2.95 | 2.95 | 0.82 | 2.86 | 2.86 | 0.89 | 2.77 | 2.77 | 0.97 | 2.56 | 2.56 | 1.05 | 2.40 | 2.40 | 1.16 |
|              | 19°C | 24°C | 3.17                | 2.11 | 0.76 | 3.05 | 2.05 | 0.83 | 2.94 | 2.00 | 0.90 | 2.82 | 1.94 | 0.97 | 2.59 | 1.81 | 1.05 | 2.39 | 1.71 | 1.16 |
|              |      | 27°C | 3.17                | 2.43 | 0.76 | 3.06 | 2.37 | 0.83 | 2.94 | 2.32 | 0.90 | 2.83 | 2.26 | 0.97 | 2.60 | 2.12 | 1.05 | 2.40 | 2.00 | 1.16 |
|              |      | 30°C | 3.19                | 2.99 | 0.76 | 3.08 | 2.93 | 0.83 | 2.97 | 2.86 | 0.90 | 2.85 | 2.79 | 0.97 | 2.63 | 2.61 | 1.06 | 2.44 | 2.44 | 1.16 |
|              |      | 33°C | 3.24                | 3.24 | 0.77 | 3.14 | 3.14 | 0.83 | 3.04 | 3.04 | 0.90 | 2.94 | 2.94 | 0.98 | 2.72 | 2.72 | 1.06 | 2.55 | 2.55 | 1.17 |
|              | 22°C | 27°C | 3.48                | 2.06 | 0.78 | 3.36 | 2.01 | 0.84 | 3.23 | 1.96 | 0.91 | 3.10 | 1.91 | 0.99 | 2.85 | 1.78 | 1.07 | 2.64 | 1.68 | 1.18 |
|              |      | 30°C | 3.48                | 2.53 | 0.78 | 3.36 | 2.48 | 0.84 | 3.24 | 2.42 | 0.91 | 3.11 | 2.37 | 0.99 | 2.86 | 2.22 | 1.07 | 2.64 | 2.10 | 1.18 |
|              |      | 33°C | 3.49                | 2.96 | 0.78 | 3.37 | 2.91 | 0.84 | 3.24 | 2.85 | 0.91 | 3.12 | 2.79 | 0.99 | 2.87 | 2.62 | 1.08 | 2.66 | 2.48 | 1.19 |
|              |      | 36°C | 3.51                | 3.35 | 0.78 | 3.40 | 3.29 | 0.85 | 3.28 | 3.22 | 0.92 | 3.16 | 3.14 | 0.99 | 2.92 | 2.92 | 1.08 | 2.72 | 2.72 | 1.19 |
| 342          | 16°C | 21°C | 2.98                | 2.32 | 0.76 | 2.87 | 2.26 | 0.82 | 2.76 | 2.20 | 0.89 | 2.65 | 2.14 | 0.96 | 2.43 | 2.00 | 1.04 | 2.24 | 1.88 | 1.15 |
|              |      | 24°C | 3.00                | 2.82 | 0.76 | 2.89 | 2.76 | 0.82 | 2.78 | 2.69 | 0.89 | 2.67 | 2.62 | 0.96 | 2.45 | 2.44 | 1.04 | 2.26 | 2.26 | 1.15 |
|              |      | 27°C | 3.04                | 3.04 | 0.76 | 2.95 | 2.95 | 0.82 | 2.85 | 2.85 | 0.89 | 2.74 | 2.74 | 0.97 | 2.54 | 2.54 | 1.05 | 2.36 | 2.36 | 1.16 |
|              |      | 30°C | 3.20                | 3.20 | 0.77 | 3.10 | 3.10 | 0.83 | 3.01 | 3.01 | 0.90 | 2.91 | 2.91 | 0.98 | 2.69 | 2.69 | 1.06 | 2.52 | 2.52 | 1.17 |
|              | 19°C | 24°C | 3.28                | 2.23 | 0.77 | 3.16 | 2.17 | 0.83 | 3.04 | 2.12 | 0.90 | 2.92 | 2.06 | 0.98 | 2.68 | 1.92 | 1.06 | 2.47 | 1.81 | 1.17 |
|              |      | 27°C | 3.29                | 2.58 | 0.77 | 3.17 | 2.52 | 0.83 | 3.05 | 2.46 | 0.90 | 2.93 | 2.40 | 0.98 | 2.69 | 2.24 | 1.06 | 2.49 | 2.12 | 1.17 |
|              |      | 30°C | 3.32                | 3.17 | 0.77 | 3.20 | 3.10 | 0.84 | 3.09 | 3.03 | 0.91 | 2.97 | 2.96 | 0.98 | 2.73 | 2.73 | 1.07 | 2.54 | 2.54 | 1.18 |
|              |      | 33°C | 3.39                | 3.39 | 0.78 | 3.29 | 3.29 | 0.84 | 3.19 | 3.19 | 0.91 | 3.08 | 3.08 | 0.99 | 2.86 | 2.86 | 1.08 | 2.67 | 2.67 | 1.19 |
|              | 22°C | 27°C | 3.60                | 2.18 | 0.78 | 3.47 | 2.13 | 0.85 | 3.34 | 2.08 | 0.92 | 3.21 | 2.02 | 1.00 | 2.95 | 1.89 | 1.08 | 2.72 | 1.78 | 1.19 |
|              |      | 30°C | 3.61                | 2.69 | 0.78 | 3.48 | 2.64 | 0.85 | 3.35 | 2.58 | 0.92 | 3.21 | 2.52 | 1.00 | 2.95 | 2.36 | 1.08 | 2.73 | 2.24 | 1.19 |
|              |      | 33°C | 3.62                | 3.15 | 0.79 | 3.49 | 3.09 | 0.85 | 3.37 | 3.03 | 0.92 | 3.23 | 2.96 | 1.00 | 2.98 | 2.78 | 1.09 | 2.76 | 2.64 | 1.20 |
|              |      | 36°C | 3.65                | 3.56 | 0.79 | 3.54 | 3.49 | 0.85 | 3.42 | 3.41 | 0.93 | 3.29 | 3.29 | 1.00 | 3.04 | 3.04 | 1.09 | 2.84 | 2.84 | 1.20 |

## Remark:

AFR: Air flow rate (CFM)  
EWB: Entering Wet Bulb Temp. (°C)  
EDB: Entering Dry Bulb Temp. (°C)  
TC: Total Cooling Capacity (kW)  
SC: Sensible Cooling Capacity (kW)  
PI: Power Input (kW)

## Notes:

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB without pressure trip.

Model: FT15JXV1 - R15CXV1

Cooling Mode

| AFR (CFM) | EWB  | EDB  | Outdoor temperature |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------|------|------|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|           |      |      | 19°C                |      |      | 25°C |      |      | 30°C |      |      | 35°C |      |      | 40°C |      |      | 46°C |      |      |
|           |      |      | TC                  | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   |
| 242       | 16°C | 21°C | 3.26                | 2.34 | 0.91 | 3.14 | 2.28 | 0.98 | 3.03 | 2.22 | 1.06 | 2.91 | 2.15 | 1.15 | 2.67 | 2.00 | 1.25 | 2.46 | 1.88 | 1.38 |
|           |      | 24°C | 3.26                | 2.80 | 0.91 | 3.15 | 2.74 | 0.98 | 3.03 | 2.67 | 1.06 | 2.91 | 2.61 | 1.15 | 2.67 | 2.43 | 1.25 | 2.47 | 2.30 | 1.38 |
|           |      | 27°C | 3.29                | 3.17 | 0.91 | 3.18 | 3.10 | 0.98 | 3.07 | 3.03 | 1.06 | 2.95 | 2.95 | 1.15 | 2.72 | 2.72 | 1.25 | 2.54 | 2.54 | 1.38 |
|           |      | 30°C | 3.39                | 3.39 | 0.91 | 3.29 | 3.29 | 0.99 | 3.19 | 3.19 | 1.07 | 3.09 | 3.09 | 1.16 | 2.87 | 2.87 | 1.26 | 2.68 | 2.68 | 1.39 |
|           | 19°C | 24°C | 3.60                | 2.18 | 0.92 | 3.47 | 2.13 | 1.00 | 3.34 | 2.07 | 1.08 | 3.21 | 2.01 | 1.17 | 2.95 | 1.87 | 1.27 | 2.73 | 1.77 | 1.40 |
|           |      | 27°C | 3.60                | 2.50 | 0.92 | 3.47 | 2.44 | 1.00 | 3.34 | 2.39 | 1.08 | 3.21 | 2.33 | 1.17 | 2.95 | 2.18 | 1.27 | 2.73 | 2.06 | 1.40 |
|           |      | 30°C | 3.60                | 3.08 | 0.92 | 3.48 | 3.02 | 1.00 | 3.36 | 2.95 | 1.08 | 3.23 | 2.88 | 1.17 | 2.97 | 2.69 | 1.27 | 2.76 | 2.55 | 1.40 |
|           |      | 33°C | 3.65                | 3.65 | 0.92 | 3.53 | 3.53 | 1.00 | 3.41 | 3.41 | 1.08 | 3.30 | 3.30 | 1.18 | 3.05 | 3.05 | 1.28 | 2.85 | 2.85 | 1.41 |
|           | 22°C | 27°C | 3.96                | 2.14 | 0.94 | 3.82 | 2.09 | 1.01 | 3.68 | 2.03 | 1.10 | 3.54 | 1.98 | 1.19 | 3.25 | 1.84 | 1.29 | 3.01 | 1.74 | 1.43 |
|           |      | 30°C | 3.96                | 2.60 | 0.94 | 3.82 | 2.55 | 1.01 | 3.68 | 2.49 | 1.10 | 3.54 | 2.43 | 1.19 | 3.25 | 2.28 | 1.29 | 3.01 | 2.16 | 1.43 |
|           |      | 33°C | 3.96                | 3.04 | 0.94 | 3.82 | 2.98 | 1.01 | 3.68 | 2.92 | 1.10 | 3.54 | 2.86 | 1.19 | 3.26 | 2.69 | 1.29 | 3.02 | 2.55 | 1.43 |
|           |      | 36°C | 3.97                | 3.45 | 0.94 | 3.84 | 3.38 | 1.02 | 3.71 | 3.31 | 1.10 | 3.57 | 3.24 | 1.20 | 3.29 | 3.03 | 1.30 | 3.06 | 2.88 | 1.43 |
| 298       | 16°C | 21°C | 3.39                | 2.44 | 0.91 | 3.27 | 2.38 | 0.99 | 3.15 | 2.31 | 1.07 | 3.02 | 2.25 | 1.16 | 2.77 | 2.09 | 1.26 | 2.55 | 1.97 | 1.39 |
|           |      | 24°C | 3.40                | 2.96 | 0.91 | 3.28 | 2.89 | 0.99 | 3.16 | 2.82 | 1.07 | 3.03 | 2.75 | 1.16 | 2.78 | 2.57 | 1.26 | 2.57 | 2.42 | 1.39 |
|           |      | 27°C | 3.44                | 3.36 | 0.92 | 3.33 | 3.28 | 0.99 | 3.21 | 3.20 | 1.07 | 3.10 | 3.10 | 1.17 | 2.86 | 2.86 | 1.27 | 2.66 | 2.66 | 1.40 |
|           |      | 30°C | 3.59                | 3.59 | 0.92 | 3.48 | 3.48 | 1.00 | 3.38 | 3.38 | 1.08 | 3.27 | 3.27 | 1.18 | 3.03 | 3.03 | 1.28 | 2.83 | 2.83 | 1.41 |
|           | 19°C | 24°C | 3.74                | 2.31 | 0.93 | 3.60 | 2.25 | 1.01 | 3.47 | 2.19 | 1.09 | 3.33 | 2.13 | 1.18 | 3.06 | 1.99 | 1.28 | 2.82 | 1.87 | 1.41 |
|           |      | 27°C | 3.74                | 2.66 | 0.93 | 3.61 | 2.60 | 1.01 | 3.48 | 2.54 | 1.09 | 3.34 | 2.48 | 1.18 | 3.06 | 2.32 | 1.28 | 2.83 | 2.20 | 1.41 |
|           |      | 30°C | 3.76                | 3.28 | 0.93 | 3.63 | 3.21 | 1.01 | 3.50 | 3.14 | 1.09 | 3.37 | 3.06 | 1.18 | 3.10 | 2.86 | 1.28 | 2.88 | 2.70 | 1.42 |
|           |      | 33°C | 3.82                | 3.82 | 0.93 | 3.71 | 3.71 | 1.01 | 3.59 | 3.59 | 1.10 | 3.47 | 3.47 | 1.19 | 3.21 | 3.21 | 1.29 | 3.01 | 3.01 | 1.43 |
|           | 22°C | 27°C | 4.11                | 2.26 | 0.95 | 3.96 | 2.21 | 1.02 | 3.81 | 2.15 | 1.11 | 3.66 | 2.09 | 1.20 | 3.37 | 1.95 | 1.31 | 3.11 | 1.84 | 1.44 |
|           |      | 30°C | 4.11                | 2.77 | 0.95 | 3.97 | 2.72 | 1.02 | 3.82 | 2.65 | 1.11 | 3.67 | 2.59 | 1.20 | 3.37 | 2.43 | 1.31 | 3.12 | 2.30 | 1.44 |
|           |      | 33°C | 4.12                | 3.25 | 0.95 | 3.98 | 3.19 | 1.03 | 3.83 | 3.12 | 1.11 | 3.68 | 3.06 | 1.21 | 3.38 | 2.87 | 1.31 | 3.14 | 2.72 | 1.44 |
|           |      | 36°C | 4.14                | 3.67 | 0.95 | 4.01 | 3.60 | 1.03 | 3.87 | 3.53 | 1.11 | 3.73 | 3.45 | 1.21 | 3.44 | 3.23 | 1.31 | 3.21 | 3.04 | 1.45 |
| 355       | 16°C | 21°C | 3.52                | 2.55 | 0.92 | 3.39 | 2.48 | 1.00 | 3.26 | 2.42 | 1.08 | 3.12 | 2.35 | 1.17 | 2.87 | 2.19 | 1.27 | 2.64 | 2.06 | 1.40 |
|           |      | 24°C | 3.54                | 3.09 | 0.92 | 3.41 | 3.02 | 1.00 | 3.28 | 2.95 | 1.08 | 3.15 | 2.87 | 1.17 | 2.89 | 2.68 | 1.27 | 2.67 | 2.52 | 1.40 |
|           |      | 27°C | 3.59                | 3.55 | 0.93 | 3.48 | 3.45 | 1.00 | 3.36 | 3.36 | 1.09 | 3.24 | 3.24 | 1.18 | 2.99 | 2.99 | 1.28 | 2.79 | 2.79 | 1.41 |
|           |      | 30°C | 3.77                | 3.77 | 0.93 | 3.66 | 3.66 | 1.01 | 3.55 | 3.55 | 1.10 | 3.43 | 3.43 | 1.19 | 3.18 | 3.18 | 1.29 | 2.97 | 2.97 | 1.43 |
|           | 19°C | 24°C | 3.87                | 2.44 | 0.94 | 3.73 | 2.38 | 1.01 | 3.59 | 2.32 | 1.10 | 3.44 | 2.26 | 1.19 | 3.16 | 2.10 | 1.29 | 2.92 | 1.99 | 1.42 |
|           |      | 27°C | 3.88                | 2.83 | 0.94 | 3.74 | 2.76 | 1.01 | 3.60 | 2.70 | 1.10 | 3.46 | 2.63 | 1.19 | 3.18 | 2.46 | 1.29 | 2.93 | 2.33 | 1.42 |
|           |      | 30°C | 3.92                | 3.48 | 0.94 | 3.78 | 3.40 | 1.02 | 3.64 | 3.32 | 1.10 | 3.50 | 3.24 | 1.19 | 3.22 | 3.03 | 1.30 | 2.99 | 2.85 | 1.43 |
|           |      | 33°C | 4.00                | 4.00 | 0.94 | 3.88 | 3.88 | 1.02 | 3.76 | 3.76 | 1.11 | 3.64 | 3.64 | 1.20 | 3.37 | 3.37 | 1.31 | 3.15 | 3.15 | 1.44 |
|           | 22°C | 27°C | 4.25                | 2.39 | 0.95 | 4.10 | 2.34 | 1.03 | 3.94 | 2.28 | 1.12 | 3.79 | 2.22 | 1.21 | 3.48 | 2.07 | 1.32 | 3.21 | 1.95 | 1.45 |
|           |      | 30°C | 4.26                | 2.94 | 0.95 | 4.11 | 2.89 | 1.03 | 3.95 | 2.83 | 1.12 | 3.79 | 2.76 | 1.22 | 3.48 | 2.59 | 1.32 | 3.22 | 2.45 | 1.45 |
|           |      | 33°C | 4.27                | 3.45 | 0.96 | 4.12 | 3.39 | 1.04 | 3.97 | 3.32 | 1.12 | 3.82 | 3.25 | 1.22 | 3.51 | 3.04 | 1.32 | 3.25 | 2.89 | 1.45 |
|           |      | 36°C | 4.31                | 3.90 | 0.96 | 4.18 | 3.83 | 1.04 | 4.03 | 3.74 | 1.13 | 3.89 | 3.65 | 1.22 | 3.59 | 3.40 | 1.33 | 3.35 | 3.20 | 1.46 |

Remark:

- AFR: Air flow rate (CFM)
- EWB: Entering Wet Bulb Temp. (°C)
- EDB: Entering Dry Bulb Temp. (°C)
- TC: Total Cooling Capacity (kW)
- SC: Sensible Cooling Capacity (kW)
- PI: Power Input (kW)

Notes:

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB without pressure trip.

## Model: FT20JXV1- R18CXV1

## Cooling Mode

| AFR (CFM) | EWB  | EDB  | Outdoor temperature |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------|------|------|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|           |      |      | 19°C                |      |      | 25°C |      |      | 30°C |      |      | 35°C |      |      | 40°C |      |      | 46°C |      |      |
|           |      |      | TC                  | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   |
| 422       | 16°C | 21°C | 4.98                | 3.43 | 1.24 | 4.80 | 3.34 | 1.34 | 4.62 | 3.25 | 1.45 | 4.44 | 3.15 | 1.57 | 4.08 | 2.93 | 1.71 | 3.76 | 2.76 | 1.88 |
|           |      | 24°C | 4.99                | 4.10 | 1.24 | 4.81 | 4.01 | 1.34 | 4.63 | 3.91 | 1.45 | 4.45 | 3.82 | 1.57 | 4.08 | 3.57 | 1.71 | 3.78 | 3.36 | 1.88 |
|           |      | 27°C | 5.02                | 4.65 | 1.24 | 4.86 | 4.54 | 1.34 | 4.69 | 4.44 | 1.45 | 4.51 | 4.32 | 1.58 | 4.16 | 4.02 | 1.71 | 3.87 | 3.78 | 1.89 |
|           |      | 30°C | 5.18                | 5.18 | 1.25 | 5.03 | 5.03 | 1.35 | 4.88 | 4.88 | 1.46 | 4.72 | 4.72 | 1.59 | 4.38 | 4.38 | 1.73 | 4.09 | 4.09 | 1.91 |
|           | 19°C | 24°C | 5.49                | 3.20 | 1.26 | 5.30 | 3.12 | 1.36 | 5.10 | 3.03 | 1.48 | 4.90 | 2.95 | 1.60 | 4.51 | 2.75 | 1.74 | 4.17 | 2.59 | 1.91 |
|           |      | 27°C | 5.50                | 3.66 | 1.26 | 5.30 | 3.58 | 1.36 | 5.11 | 3.49 | 1.48 | 4.91 | 3.41 | 1.60 | 4.51 | 3.19 | 1.74 | 4.17 | 3.02 | 1.91 |
|           |      | 30°C | 5.50                | 4.52 | 1.26 | 5.31 | 4.42 | 1.36 | 5.13 | 4.32 | 1.48 | 4.93 | 4.22 | 1.60 | 4.54 | 3.94 | 1.74 | 4.21 | 3.73 | 1.92 |
|           |      | 33°C | 5.57                | 5.57 | 1.26 | 5.39 | 5.39 | 1.37 | 5.21 | 5.21 | 1.48 | 5.04 | 5.04 | 1.61 | 4.66 | 4.66 | 1.75 | 4.36 | 4.36 | 1.93 |
|           | 22°C | 27°C | 6.04                | 3.13 | 1.28 | 5.83 | 3.05 | 1.39 | 5.62 | 2.98 | 1.50 | 5.40 | 2.90 | 1.63 | 4.97 | 2.70 | 1.77 | 4.60 | 2.54 | 1.95 |
|           |      | 30°C | 6.04                | 3.81 | 1.28 | 5.84 | 3.73 | 1.39 | 5.62 | 3.65 | 1.50 | 5.40 | 3.56 | 1.63 | 4.97 | 3.33 | 1.77 | 4.60 | 3.16 | 1.95 |
|           |      | 33°C | 6.05                | 4.45 | 1.28 | 5.84 | 4.37 | 1.39 | 5.63 | 4.28 | 1.50 | 5.41 | 4.19 | 1.63 | 4.97 | 3.94 | 1.77 | 4.61 | 3.74 | 1.95 |
|           |      | 36°C | 6.07                | 5.05 | 1.28 | 5.87 | 4.95 | 1.39 | 5.66 | 4.85 | 1.51 | 5.46 | 4.74 | 1.64 | 5.03 | 4.44 | 1.77 | 4.68 | 4.22 | 1.96 |
| 474       | 16°C | 21°C | 5.18                | 3.57 | 1.25 | 4.99 | 3.48 | 1.35 | 4.80 | 3.39 | 1.46 | 4.61 | 3.29 | 1.59 | 4.23 | 3.07 | 1.72 | 3.90 | 2.88 | 1.90 |
|           |      | 24°C | 5.20                | 4.34 | 1.25 | 5.01 | 4.23 | 1.35 | 4.82 | 4.13 | 1.46 | 4.63 | 4.03 | 1.59 | 4.25 | 3.76 | 1.72 | 3.93 | 3.55 | 1.90 |
|           |      | 27°C | 5.26                | 4.92 | 1.25 | 5.08 | 4.81 | 1.36 | 4.91 | 4.69 | 1.47 | 4.73 | 4.55 | 1.59 | 4.37 | 4.22 | 1.73 | 4.07 | 3.95 | 1.91 |
|           |      | 30°C | 5.48                | 5.48 | 1.26 | 5.32 | 5.32 | 1.37 | 5.16 | 5.16 | 1.48 | 4.99 | 4.99 | 1.61 | 4.62 | 4.62 | 1.75 | 4.32 | 4.32 | 1.93 |
|           | 19°C | 24°C | 5.71                | 3.38 | 1.27 | 5.50 | 3.29 | 1.37 | 5.30 | 3.21 | 1.49 | 5.08 | 3.12 | 1.61 | 4.67 | 2.91 | 1.75 | 4.31 | 2.74 | 1.93 |
|           |      | 27°C | 5.72                | 3.89 | 1.27 | 5.51 | 3.81 | 1.37 | 5.31 | 3.72 | 1.49 | 5.09 | 3.63 | 1.62 | 4.68 | 3.40 | 1.75 | 4.33 | 3.21 | 1.93 |
|           |      | 30°C | 5.74                | 4.80 | 1.27 | 5.54 | 4.70 | 1.38 | 5.35 | 4.59 | 1.49 | 5.14 | 4.48 | 1.62 | 4.73 | 4.19 | 1.76 | 4.39 | 3.96 | 1.94 |
|           |      | 33°C | 5.84                | 5.84 | 1.28 | 5.66 | 5.66 | 1.38 | 5.48 | 5.48 | 1.50 | 5.30 | 5.30 | 1.63 | 4.91 | 4.91 | 1.77 | 4.59 | 4.59 | 1.95 |
|           | 22°C | 27°C | 6.27                | 3.31 | 1.29 | 6.05 | 3.23 | 1.40 | 5.82 | 3.15 | 1.52 | 5.59 | 3.06 | 1.65 | 5.14 | 2.86 | 1.79 | 4.75 | 2.70 | 1.97 |
|           |      | 30°C | 6.28                | 4.06 | 1.29 | 6.06 | 3.98 | 1.40 | 5.83 | 3.89 | 1.52 | 5.60 | 3.80 | 1.65 | 5.15 | 3.56 | 1.79 | 4.76 | 3.37 | 1.97 |
|           |      | 33°C | 6.29                | 4.76 | 1.29 | 6.07 | 4.67 | 1.40 | 5.85 | 4.57 | 1.52 | 5.62 | 4.47 | 1.65 | 5.17 | 4.20 | 1.79 | 4.79 | 3.98 | 1.97 |
|           |      | 36°C | 6.33                | 5.38 | 1.30 | 6.12 | 5.28 | 1.41 | 5.91 | 5.17 | 1.52 | 5.69 | 5.05 | 1.65 | 5.25 | 4.72 | 1.79 | 4.90 | 4.45 | 1.98 |
| 531       | 16°C | 21°C | 5.37                | 3.73 | 1.26 | 5.17 | 3.63 | 1.36 | 4.98 | 3.54 | 1.47 | 4.77 | 3.44 | 1.60 | 4.37 | 3.20 | 1.73 | 4.03 | 3.01 | 1.91 |
|           |      | 24°C | 5.40                | 4.53 | 1.26 | 5.20 | 4.42 | 1.36 | 5.01 | 4.31 | 1.48 | 4.81 | 4.20 | 1.60 | 4.41 | 3.92 | 1.74 | 4.08 | 3.70 | 1.91 |
|           |      | 27°C | 5.49                | 5.19 | 1.26 | 5.31 | 5.06 | 1.37 | 5.13 | 4.91 | 1.48 | 4.94 | 4.76 | 1.61 | 4.57 | 4.41 | 1.75 | 4.26 | 4.12 | 1.93 |
|           |      | 30°C | 5.76                | 5.76 | 1.28 | 5.59 | 5.59 | 1.38 | 5.42 | 5.42 | 1.50 | 5.24 | 5.24 | 1.63 | 4.85 | 4.85 | 1.77 | 4.53 | 4.53 | 1.95 |
|           | 19°C | 24°C | 5.91                | 3.57 | 1.28 | 5.70 | 3.49 | 1.39 | 5.48 | 3.40 | 1.50 | 5.26 | 3.30 | 1.63 | 4.83 | 3.08 | 1.77 | 4.46 | 2.91 | 1.94 |
|           |      | 27°C | 5.93                | 4.14 | 1.28 | 5.72 | 4.04 | 1.39 | 5.50 | 3.95 | 1.50 | 5.28 | 3.85 | 1.63 | 4.85 | 3.60 | 1.77 | 4.48 | 3.41 | 1.95 |
|           |      | 30°C | 5.98                | 5.09 | 1.28 | 5.77 | 4.98 | 1.39 | 5.56 | 4.86 | 1.51 | 5.35 | 4.74 | 1.63 | 4.92 | 4.43 | 1.77 | 4.57 | 4.18 | 1.95 |
|           |      | 33°C | 6.11                | 6.11 | 1.29 | 5.93 | 5.93 | 1.40 | 5.75 | 5.75 | 1.52 | 5.56 | 5.56 | 1.65 | 5.15 | 5.15 | 1.79 | 4.81 | 4.81 | 1.98 |
|           | 22°C | 27°C | 6.49                | 3.50 | 1.30 | 6.26 | 3.42 | 1.41 | 6.02 | 3.33 | 1.53 | 5.78 | 3.25 | 1.66 | 5.31 | 3.03 | 1.80 | 4.91 | 2.86 | 1.98 |
|           |      | 30°C | 6.50                | 4.31 | 1.31 | 6.27 | 4.23 | 1.41 | 6.03 | 4.14 | 1.53 | 5.79 | 4.04 | 1.66 | 5.32 | 3.79 | 1.80 | 4.92 | 3.59 | 1.98 |
|           |      | 33°C | 6.52                | 5.05 | 1.31 | 6.30 | 4.96 | 1.42 | 6.07 | 4.86 | 1.53 | 5.83 | 4.75 | 1.66 | 5.36 | 4.45 | 1.81 | 4.97 | 4.23 | 1.99 |
|           |      | 36°C | 6.58                | 5.70 | 1.31 | 6.38 | 5.60 | 1.42 | 6.16 | 5.48 | 1.54 | 5.93 | 5.34 | 1.67 | 5.48 | 4.98 | 1.81 | 5.11 | 4.69 | 2.00 |

## Remark:

AFR: Air flow rate (CFM)  
EWB: Entering Wet Bulb Temp. (°C)  
EDB: Entering Dry Bulb Temp. (°C)  
TC: Total Cooling Capacity (kW)  
SC: Sensible Cooling Capacity (kW)  
PI: Power Input (kW)

## Notes:

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB without pressure trip.

Model: FT25JXV1 - R25CXV1

Cooling Mode

| AFR (CFM) | EWB  | EDB  | Outdoor temperature |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------|------|------|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|           |      |      | 19°C                |      |      | 25°C |      |      | 30°C |      |      | 35°C |      |      | 40°C |      |      | 46°C |      |      |
|           |      |      | TC                  | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   |
| 474       | 16°C | 21°C | 6.63                | 4.69 | 1.92 | 6.39 | 4.57 | 2.08 | 6.16 | 4.44 | 2.25 | 5.91 | 4.32 | 2.44 | 5.43 | 4.02 | 2.65 | 5.01 | 3.78 | 2.92 |
|           |      | 24°C | 6.64                | 5.61 | 1.92 | 6.40 | 5.49 | 2.08 | 6.16 | 5.36 | 2.25 | 5.92 | 5.22 | 2.44 | 5.44 | 4.88 | 2.65 | 5.03 | 4.60 | 2.92 |
|           |      | 27°C | 6.69                | 6.36 | 1.92 | 6.47 | 6.22 | 2.08 | 6.24 | 6.07 | 2.26 | 6.00 | 5.92 | 2.45 | 5.54 | 5.51 | 2.66 | 5.16 | 5.16 | 2.93 |
|           |      | 30°C | 6.90                | 6.90 | 1.93 | 6.70 | 6.70 | 2.09 | 6.49 | 6.49 | 2.27 | 6.29 | 6.29 | 2.47 | 5.83 | 5.83 | 2.68 | 5.45 | 5.45 | 2.96 |
|           | 19°C | 24°C | 7.31                | 4.38 | 1.95 | 7.06 | 4.27 | 2.11 | 6.80 | 4.15 | 2.29 | 6.53 | 4.04 | 2.48 | 6.00 | 3.76 | 2.69 | 5.55 | 3.54 | 2.97 |
|           |      | 27°C | 7.32                | 5.01 | 1.95 | 7.06 | 4.90 | 2.11 | 6.80 | 4.78 | 2.29 | 6.53 | 4.67 | 2.48 | 6.00 | 4.37 | 2.69 | 5.55 | 4.14 | 2.97 |
|           |      | 30°C | 7.33                | 6.18 | 1.95 | 7.07 | 6.05 | 2.11 | 6.82 | 5.91 | 2.29 | 6.57 | 5.77 | 2.49 | 6.05 | 5.40 | 2.70 | 5.61 | 5.11 | 2.97 |
|           |      | 33°C | 7.41                | 7.41 | 1.96 | 7.17 | 7.17 | 2.12 | 6.94 | 6.94 | 2.30 | 6.70 | 6.70 | 2.50 | 6.20 | 6.20 | 2.71 | 5.80 | 5.80 | 2.99 |
|           | 22°C | 27°C | 8.04                | 4.28 | 1.99 | 7.77 | 4.18 | 2.15 | 7.48 | 4.08 | 2.33 | 7.19 | 3.96 | 2.53 | 6.61 | 3.69 | 2.75 | 6.12 | 3.48 | 3.03 |
|           |      | 30°C | 8.05                | 5.22 | 1.99 | 7.77 | 5.11 | 2.15 | 7.48 | 4.99 | 2.33 | 7.19 | 4.87 | 2.53 | 6.61 | 4.56 | 2.75 | 6.12 | 4.33 | 3.03 |
|           |      | 33°C | 8.05                | 6.10 | 1.99 | 7.77 | 5.98 | 2.15 | 7.49 | 5.86 | 2.33 | 7.20 | 5.74 | 2.53 | 6.62 | 5.39 | 2.75 | 6.14 | 5.12 | 3.03 |
|           |      | 36°C | 8.08                | 6.91 | 1.99 | 7.81 | 6.78 | 2.16 | 7.54 | 6.63 | 2.34 | 7.26 | 6.49 | 2.54 | 6.70 | 6.08 | 2.75 | 6.23 | 5.77 | 3.04 |
| 537       | 16°C | 21°C | 6.90                | 4.89 | 1.94 | 6.65 | 4.76 | 2.10 | 6.40 | 4.64 | 2.27 | 6.13 | 4.51 | 2.46 | 5.63 | 4.20 | 2.67 | 5.19 | 3.95 | 2.94 |
|           |      | 24°C | 6.92                | 5.93 | 1.94 | 6.67 | 5.79 | 2.10 | 6.42 | 5.66 | 2.27 | 6.16 | 5.51 | 2.46 | 5.66 | 5.14 | 2.67 | 5.23 | 4.86 | 2.95 |
|           |      | 27°C | 7.00                | 6.74 | 1.94 | 6.77 | 6.58 | 2.10 | 6.53 | 6.41 | 2.28 | 6.30 | 6.22 | 2.47 | 5.81 | 5.78 | 2.68 | 5.42 | 5.41 | 2.96 |
|           |      | 30°C | 7.29                | 7.29 | 1.96 | 7.08 | 7.08 | 2.12 | 6.87 | 6.87 | 2.30 | 6.64 | 6.64 | 2.50 | 6.15 | 6.15 | 2.71 | 5.75 | 5.75 | 3.00 |
|           | 19°C | 24°C | 7.60                | 4.63 | 1.97 | 7.33 | 4.51 | 2.13 | 7.05 | 4.39 | 2.31 | 6.77 | 4.27 | 2.51 | 6.22 | 3.98 | 2.72 | 5.74 | 3.75 | 2.99 |
|           |      | 27°C | 7.61                | 5.33 | 1.97 | 7.34 | 5.21 | 2.13 | 7.07 | 5.09 | 2.31 | 6.78 | 4.97 | 2.51 | 6.23 | 4.65 | 2.72 | 5.76 | 4.40 | 3.00 |
|           |      | 30°C | 7.65                | 6.57 | 1.97 | 7.38 | 6.43 | 2.14 | 7.12 | 6.29 | 2.32 | 6.85 | 6.13 | 2.51 | 6.30 | 5.73 | 2.72 | 5.85 | 5.42 | 3.00 |
|           |      | 33°C | 7.78                | 7.78 | 1.98 | 7.54 | 7.54 | 2.15 | 7.30 | 7.30 | 2.33 | 7.06 | 7.06 | 2.53 | 6.54 | 6.54 | 2.75 | 6.11 | 6.11 | 3.03 |
|           | 22°C | 27°C | 8.35                | 4.53 | 2.01 | 8.05 | 4.42 | 2.17 | 7.76 | 4.31 | 2.36 | 7.45 | 4.19 | 2.56 | 6.84 | 3.91 | 2.77 | 6.33 | 3.69 | 3.05 |
|           |      | 30°C | 8.36                | 5.56 | 2.01 | 8.06 | 5.44 | 2.17 | 7.76 | 5.32 | 2.36 | 7.46 | 5.20 | 2.56 | 6.85 | 4.87 | 2.77 | 6.34 | 4.62 | 3.05 |
|           |      | 33°C | 8.37                | 6.51 | 2.01 | 8.08 | 6.39 | 2.18 | 7.79 | 6.26 | 2.36 | 7.48 | 6.12 | 2.56 | 6.88 | 5.74 | 2.78 | 6.38 | 5.45 | 3.06 |
|           |      | 36°C | 8.43                | 7.36 | 2.01 | 8.15 | 7.22 | 2.18 | 7.87 | 7.07 | 2.36 | 7.58 | 6.91 | 2.57 | 7.00 | 6.46 | 2.78 | 6.52 | 6.10 | 3.07 |
| 614       | 16°C | 21°C | 7.15                | 5.10 | 1.95 | 6.89 | 4.97 | 2.11 | 6.63 | 4.84 | 2.29 | 6.35 | 4.71 | 2.48 | 5.82 | 4.38 | 2.69 | 5.37 | 4.12 | 2.97 |
|           |      | 24°C | 7.19                | 6.20 | 1.96 | 6.93 | 6.05 | 2.12 | 6.67 | 5.90 | 2.29 | 6.40 | 5.75 | 2.49 | 5.88 | 5.36 | 2.70 | 5.43 | 5.06 | 2.97 |
|           |      | 27°C | 7.31                | 7.10 | 1.96 | 7.07 | 6.92 | 2.12 | 6.83 | 6.73 | 2.30 | 6.58 | 6.52 | 2.50 | 6.08 | 6.04 | 2.71 | 5.67 | 5.64 | 2.99 |
|           |      | 30°C | 7.67                | 7.67 | 1.98 | 7.45 | 7.45 | 2.14 | 7.22 | 7.22 | 2.33 | 6.98 | 6.98 | 2.53 | 6.46 | 6.46 | 2.74 | 6.04 | 6.04 | 3.03 |
|           | 19°C | 24°C | 7.87                | 4.89 | 1.99 | 7.59 | 4.77 | 2.15 | 7.30 | 4.65 | 2.33 | 7.00 | 4.52 | 2.53 | 6.43 | 4.22 | 2.74 | 5.93 | 3.98 | 3.02 |
|           |      | 27°C | 7.90                | 5.66 | 1.99 | 7.61 | 5.53 | 2.15 | 7.33 | 5.40 | 2.33 | 7.03 | 5.27 | 2.53 | 6.45 | 4.93 | 2.74 | 5.97 | 4.66 | 3.02 |
|           |      | 30°C | 7.96                | 6.97 | 1.99 | 7.68 | 6.81 | 2.16 | 7.40 | 6.66 | 2.34 | 7.12 | 6.49 | 2.54 | 6.56 | 6.06 | 2.75 | 6.09 | 5.72 | 3.03 |
|           |      | 33°C | 8.13                | 8.13 | 2.00 | 7.89 | 7.89 | 2.17 | 7.65 | 7.65 | 2.35 | 7.40 | 7.40 | 2.56 | 6.85 | 6.85 | 2.78 | 6.41 | 6.41 | 3.07 |
|           | 22°C | 27°C | 8.64                | 4.79 | 2.02 | 8.33 | 4.68 | 2.19 | 8.02 | 4.56 | 2.38 | 7.70 | 4.44 | 2.58 | 7.07 | 4.15 | 2.79 | 6.53 | 3.92 | 3.08 |
|           |      | 30°C | 8.66                | 5.90 | 2.03 | 8.35 | 5.79 | 2.19 | 8.03 | 5.66 | 2.38 | 7.71 | 5.53 | 2.58 | 7.08 | 5.18 | 2.80 | 6.55 | 4.91 | 3.08 |
|           |      | 33°C | 8.69                | 6.92 | 2.03 | 8.39 | 6.79 | 2.20 | 8.08 | 6.65 | 2.38 | 7.76 | 6.51 | 2.58 | 7.14 | 6.10 | 2.80 | 6.61 | 5.79 | 3.09 |
|           |      | 36°C | 8.76                | 7.81 | 2.03 | 8.49 | 7.67 | 2.20 | 8.20 | 7.50 | 2.39 | 7.90 | 7.31 | 2.59 | 7.30 | 6.82 | 2.82 | 6.81 | 6.42 | 3.11 |

Remark:

- AFR: Air flow rate (CFM)
- EWB: Entering Wet Bulb Temp. (°C)
- EDB: Entering Dry Bulb Temp. (°C)
- TC: Total Cooling Capacity (kW)
- SC: Sensible Cooling Capacity (kW)
- PI: Power Input (kW)

Notes:

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB without pressure trip.

## Model: FT30FXV1 - R28CXV1

## Cooling Mode

| AFR (CFM) | EWB  | EDB  | Outdoor temperature |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------|------|------|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|           |      |      | 19°C                |      |      | 25°C |      |      | 30°C |      |      | 35°C |      |      | 40°C |      |      | 46°C |      |      |
|           |      |      | TC                  | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   |
| 550       | 16°C | 21°C | 7.46                | 4.93 | 2.00 | 7.20 | 4.80 | 2.17 | 6.93 | 4.67 | 2.35 | 6.65 | 4.54 | 2.55 | 6.11 | 4.22 | 2.76 | 5.64 | 3.97 | 3.04 |
|           |      | 24°C | 7.47                | 5.90 | 2.00 | 7.21 | 5.77 | 2.17 | 6.94 | 5.63 | 2.35 | 6.66 | 5.49 | 2.55 | 6.12 | 5.13 | 2.76 | 5.66 | 4.84 | 3.05 |
|           |      | 27°C | 7.53                | 6.69 | 2.01 | 7.28 | 6.54 | 2.17 | 7.03 | 6.39 | 2.35 | 6.76 | 6.22 | 2.55 | 6.24 | 5.79 | 2.77 | 5.80 | 5.44 | 3.06 |
|           |      | 30°C | 7.76                | 7.76 | 2.02 | 7.54 | 7.54 | 2.18 | 7.31 | 7.31 | 2.37 | 7.08 | 7.08 | 2.57 | 6.56 | 6.56 | 2.79 | 6.14 | 6.14 | 3.09 |
|           | 19°C | 24°C | 8.23                | 4.60 | 2.04 | 7.94 | 4.49 | 2.20 | 7.65 | 4.37 | 2.39 | 7.35 | 4.24 | 2.59 | 6.75 | 3.95 | 2.81 | 6.24 | 3.72 | 3.10 |
|           |      | 27°C | 8.24                | 5.27 | 2.04 | 7.95 | 5.15 | 2.20 | 7.66 | 5.03 | 2.39 | 7.35 | 4.91 | 2.59 | 6.76 | 4.59 | 2.81 | 6.25 | 4.35 | 3.10 |
|           |      | 30°C | 8.25                | 6.50 | 2.04 | 7.96 | 6.36 | 2.21 | 7.68 | 6.22 | 2.39 | 7.39 | 6.07 | 2.59 | 6.81 | 5.68 | 2.81 | 6.31 | 5.37 | 3.10 |
|           |      | 33°C | 8.35                | 8.35 | 2.04 | 8.08 | 8.08 | 2.21 | 7.81 | 7.81 | 2.40 | 7.55 | 7.55 | 2.60 | 6.98 | 6.98 | 2.83 | 6.53 | 6.53 | 3.12 |
|           | 22°C | 27°C | 9.06                | 4.50 | 2.07 | 8.74 | 4.40 | 2.25 | 8.42 | 4.29 | 2.43 | 8.09 | 4.17 | 2.64 | 7.44 | 3.88 | 2.86 | 6.89 | 3.66 | 3.16 |
|           |      | 30°C | 9.06                | 5.49 | 2.07 | 8.75 | 5.37 | 2.25 | 8.42 | 5.25 | 2.43 | 8.10 | 5.13 | 2.64 | 7.45 | 4.80 | 2.86 | 6.89 | 4.55 | 3.16 |
|           |      | 33°C | 9.06                | 6.41 | 2.07 | 8.75 | 6.29 | 2.25 | 8.43 | 6.16 | 2.44 | 8.10 | 6.04 | 2.64 | 7.46 | 5.67 | 2.87 | 6.91 | 5.38 | 3.16 |
|           |      | 36°C | 9.09                | 7.27 | 2.07 | 8.79 | 7.13 | 2.25 | 8.49 | 6.98 | 2.44 | 8.18 | 6.82 | 2.65 | 7.54 | 6.40 | 2.87 | 7.01 | 6.07 | 3.17 |
| 630       | 16°C | 21°C | 7.76                | 5.14 | 2.02 | 7.48 | 5.01 | 2.19 | 7.20 | 4.87 | 2.37 | 6.91 | 4.74 | 2.57 | 6.34 | 4.41 | 2.78 | 5.85 | 4.15 | 3.07 |
|           |      | 24°C | 7.79                | 6.24 | 2.02 | 7.51 | 6.09 | 2.19 | 7.23 | 5.95 | 2.37 | 6.93 | 5.80 | 2.57 | 6.37 | 5.41 | 2.79 | 5.89 | 5.11 | 3.07 |
|           |      | 27°C | 7.88                | 7.09 | 2.03 | 7.62 | 6.92 | 2.19 | 7.35 | 6.74 | 2.38 | 7.09 | 6.54 | 2.58 | 6.54 | 6.08 | 2.80 | 6.10 | 5.68 | 3.09 |
|           |      | 30°C | 8.21                | 8.21 | 2.04 | 7.97 | 7.97 | 2.21 | 7.73 | 7.73 | 2.40 | 7.48 | 7.48 | 2.60 | 6.93 | 6.93 | 2.83 | 6.48 | 6.48 | 3.12 |
|           | 19°C | 24°C | 8.55                | 4.86 | 2.06 | 8.25 | 4.74 | 2.22 | 7.94 | 4.62 | 2.41 | 7.62 | 4.49 | 2.61 | 7.00 | 4.18 | 2.83 | 6.46 | 3.94 | 3.12 |
|           |      | 27°C | 8.57                | 5.60 | 2.06 | 8.26 | 5.48 | 2.23 | 7.95 | 5.35 | 2.41 | 7.63 | 5.23 | 2.61 | 7.01 | 4.89 | 2.84 | 6.48 | 4.63 | 3.13 |
|           |      | 30°C | 8.61                | 6.91 | 2.06 | 8.31 | 6.76 | 2.23 | 8.01 | 6.61 | 2.41 | 7.71 | 6.45 | 2.62 | 7.09 | 6.03 | 2.84 | 6.58 | 5.70 | 3.13 |
|           |      | 33°C | 8.75                | 8.75 | 2.06 | 8.49 | 8.49 | 2.24 | 8.22 | 8.22 | 2.43 | 7.94 | 7.94 | 2.64 | 7.36 | 7.36 | 2.86 | 6.88 | 6.88 | 3.16 |
|           | 22°C | 27°C | 9.40                | 4.76 | 2.09 | 9.07 | 4.65 | 2.27 | 8.73 | 4.53 | 2.46 | 8.38 | 4.41 | 2.67 | 7.70 | 4.11 | 2.89 | 7.13 | 3.88 | 3.18 |
|           |      | 30°C | 9.41                | 5.84 | 2.09 | 9.08 | 5.72 | 2.27 | 8.74 | 5.59 | 2.46 | 8.39 | 5.46 | 2.67 | 7.71 | 5.12 | 2.89 | 7.14 | 4.86 | 3.19 |
|           |      | 33°C | 9.43                | 6.85 | 2.09 | 9.10 | 6.72 | 2.27 | 8.76 | 6.58 | 2.46 | 8.42 | 6.44 | 2.67 | 7.75 | 6.04 | 2.89 | 7.18 | 5.73 | 3.19 |
|           |      | 36°C | 9.48                | 7.74 | 2.10 | 9.18 | 7.59 | 2.27 | 8.86 | 7.43 | 2.47 | 8.54 | 7.26 | 2.68 | 7.87 | 6.80 | 2.90 | 7.34 | 6.41 | 3.20 |
| 670       | 16°C | 21°C | 8.05                | 5.36 | 2.04 | 7.76 | 5.23 | 2.20 | 7.46 | 5.09 | 2.39 | 7.15 | 4.95 | 2.59 | 6.56 | 4.61 | 2.81 | 6.04 | 4.34 | 3.09 |
|           |      | 24°C | 8.09                | 6.52 | 2.04 | 7.80 | 6.36 | 2.21 | 7.51 | 6.21 | 2.39 | 7.20 | 6.04 | 2.59 | 6.61 | 5.64 | 2.81 | 6.11 | 5.32 | 3.10 |
|           |      | 27°C | 8.22                | 7.47 | 2.05 | 7.95 | 7.27 | 2.22 | 7.69 | 7.07 | 2.40 | 7.41 | 6.85 | 2.61 | 6.85 | 6.35 | 2.83 | 6.38 | 5.93 | 3.12 |
|           |      | 30°C | 8.63                | 8.63 | 2.06 | 8.38 | 8.38 | 2.24 | 8.12 | 8.12 | 2.43 | 7.86 | 7.86 | 2.63 | 7.27 | 7.27 | 2.86 | 6.79 | 6.79 | 3.16 |
|           | 19°C | 24°C | 8.86                | 5.14 | 2.07 | 8.54 | 5.02 | 2.24 | 8.22 | 4.89 | 2.43 | 7.88 | 4.76 | 2.63 | 7.23 | 4.43 | 2.86 | 6.68 | 4.18 | 3.15 |
|           |      | 27°C | 8.89                | 5.95 | 2.07 | 8.57 | 5.82 | 2.24 | 8.25 | 5.68 | 2.43 | 7.91 | 5.54 | 2.64 | 7.27 | 5.18 | 2.86 | 6.71 | 4.90 | 3.15 |
|           |      | 30°C | 8.96                | 7.32 | 2.08 | 8.64 | 7.16 | 2.25 | 8.33 | 7.00 | 2.44 | 8.01 | 6.82 | 2.64 | 7.38 | 6.37 | 2.87 | 6.85 | 6.01 | 3.16 |
|           |      | 33°C | 9.15                | 9.15 | 2.09 | 8.89 | 8.89 | 2.26 | 8.61 | 8.61 | 2.46 | 8.33 | 8.33 | 2.67 | 7.72 | 7.72 | 2.90 | 7.22 | 7.22 | 3.20 |
|           | 22°C | 27°C | 9.72                | 5.03 | 2.11 | 9.38 | 4.92 | 2.29 | 9.02 | 4.80 | 2.48 | 8.66 | 4.67 | 2.69 | 7.96 | 4.36 | 2.91 | 7.35 | 4.12 | 3.21 |
|           |      | 30°C | 9.74                | 6.20 | 2.11 | 9.40 | 6.09 | 2.29 | 9.04 | 5.95 | 2.48 | 8.68 | 5.82 | 2.69 | 7.97 | 5.45 | 2.92 | 7.38 | 5.16 | 3.21 |
|           |      | 33°C | 9.78                | 7.27 | 2.11 | 9.44 | 7.14 | 2.29 | 9.09 | 6.99 | 2.48 | 8.73 | 6.84 | 2.69 | 8.04 | 6.41 | 2.92 | 7.44 | 6.08 | 3.22 |
|           |      | 36°C | 9.86                | 8.21 | 2.12 | 9.55 | 8.06 | 2.30 | 9.22 | 7.88 | 2.49 | 8.89 | 7.69 | 2.70 | 8.22 | 7.17 | 2.94 | 7.66 | 6.75 | 3.24 |

## Remark:

AFR: Air flow rate (CFM)  
EWB: Entering Wet Bulb Temp. (°C)  
EDB: Entering Dry Bulb Temp. (°C)  
TC: Total Cooling Capacity (kW)  
SC: Sensible Cooling Capacity (kW)  
PI: Power Input (kW)

## Notes:

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB without pressure trip.



Model: FT30FXV1 - R30DXV1

Cooling Mode

| AFR (CFM) | EWB  | EDB  | Outdoor temperature |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------|------|------|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|           |      |      | 19°C                |      |      | 25°C |      |      | 30°C |      |      | 35°C |      |      | 40°C |      |      | 46°C |      |      |
|           |      |      | TC                  | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   |
| 550       | 16°C | 21°C | 7.74                | 5.11 | 1.95 | 7.47 | 4.97 | 2.11 | 7.19 | 4.84 | 2.29 | 6.90 | 4.70 | 2.48 | 6.34 | 4.38 | 2.69 | 5.85 | 4.12 | 2.97 |
|           |      | 24°C | 7.75                | 6.12 | 1.96 | 7.47 | 5.98 | 2.11 | 7.20 | 5.84 | 2.29 | 6.91 | 5.69 | 2.48 | 6.35 | 5.32 | 2.69 | 5.87 | 5.02 | 2.97 |
|           |      | 27°C | 7.81                | 6.93 | 1.96 | 7.55 | 6.78 | 2.12 | 7.29 | 6.62 | 2.29 | 7.01 | 6.45 | 2.49 | 6.47 | 6.00 | 2.70 | 6.02 | 5.64 | 2.98 |
|           |      | 30°C | 8.05                | 8.05 | 1.97 | 7.82 | 7.82 | 2.13 | 7.58 | 7.58 | 2.31 | 7.34 | 7.34 | 2.51 | 6.80 | 6.80 | 2.73 | 6.36 | 6.36 | 3.01 |
|           | 19°C | 24°C | 8.54                | 4.77 | 1.99 | 8.24 | 4.65 | 2.15 | 7.93 | 4.52 | 2.33 | 7.62 | 4.40 | 2.53 | 7.00 | 4.09 | 2.74 | 6.47 | 3.86 | 3.02 |
|           |      | 27°C | 8.54                | 5.46 | 1.99 | 8.24 | 5.33 | 2.15 | 7.94 | 5.21 | 2.33 | 7.63 | 5.08 | 2.53 | 7.01 | 4.76 | 2.74 | 6.48 | 4.51 | 3.02 |
|           |      | 30°C | 8.56                | 6.73 | 1.99 | 8.26 | 6.59 | 2.15 | 7.97 | 6.44 | 2.33 | 7.67 | 6.29 | 2.53 | 7.06 | 5.88 | 2.74 | 6.55 | 5.57 | 3.03 |
|           |      | 33°C | 8.66                | 8.66 | 1.99 | 8.37 | 8.37 | 2.16 | 8.10 | 8.10 | 2.34 | 7.83 | 7.83 | 2.54 | 7.24 | 7.24 | 2.76 | 6.77 | 6.77 | 3.04 |
|           | 22°C | 27°C | 9.39                | 4.67 | 2.02 | 9.07 | 4.55 | 2.19 | 8.74 | 4.44 | 2.37 | 8.39 | 4.32 | 2.58 | 7.72 | 4.02 | 2.79 | 7.15 | 3.79 | 3.08 |
|           |      | 30°C | 9.39                | 5.69 | 2.02 | 9.07 | 5.57 | 2.19 | 8.74 | 5.44 | 2.37 | 8.40 | 5.31 | 2.58 | 7.72 | 4.97 | 2.79 | 7.15 | 4.71 | 3.08 |
|           |      | 33°C | 9.40                | 6.64 | 2.02 | 9.07 | 6.52 | 2.19 | 8.74 | 6.39 | 2.37 | 8.40 | 6.26 | 2.58 | 7.73 | 5.87 | 2.79 | 7.17 | 5.58 | 3.08 |
|           |      | 36°C | 9.43                | 7.53 | 2.02 | 9.12 | 7.38 | 2.19 | 8.80 | 7.23 | 2.38 | 8.48 | 7.07 | 2.58 | 7.82 | 6.63 | 2.80 | 7.27 | 6.29 | 3.09 |
| 630       | 16°C | 21°C | 8.05                | 5.33 | 1.97 | 7.76 | 5.19 | 2.13 | 7.47 | 5.05 | 2.31 | 7.16 | 4.91 | 2.50 | 6.57 | 4.57 | 2.72 | 6.06 | 4.30 | 2.99 |
|           |      | 24°C | 8.08                | 6.46 | 1.97 | 7.79 | 6.31 | 2.13 | 7.49 | 6.16 | 2.31 | 7.19 | 6.01 | 2.51 | 6.61 | 5.60 | 2.72 | 6.11 | 5.29 | 3.00 |
|           |      | 27°C | 8.17                | 7.34 | 1.98 | 7.90 | 7.17 | 2.14 | 7.63 | 6.99 | 2.32 | 7.35 | 6.78 | 2.52 | 6.79 | 6.30 | 2.73 | 6.32 | 5.89 | 3.01 |
|           |      | 30°C | 8.51                | 8.51 | 1.99 | 8.27 | 8.27 | 2.16 | 8.02 | 8.02 | 2.34 | 7.75 | 7.75 | 2.54 | 7.19 | 7.19 | 2.76 | 6.72 | 6.72 | 3.05 |
|           | 19°C | 24°C | 8.87                | 5.04 | 2.00 | 8.55 | 4.91 | 2.17 | 8.23 | 4.78 | 2.35 | 7.90 | 4.65 | 2.55 | 7.26 | 4.34 | 2.76 | 6.70 | 4.09 | 3.05 |
|           |      | 27°C | 8.89                | 5.80 | 2.00 | 8.57 | 5.68 | 2.17 | 8.25 | 5.55 | 2.35 | 7.92 | 5.42 | 2.55 | 7.27 | 5.06 | 2.77 | 6.72 | 4.79 | 3.05 |
|           |      | 30°C | 8.93                | 7.16 | 2.01 | 8.62 | 7.00 | 2.17 | 8.31 | 6.85 | 2.36 | 7.99 | 6.68 | 2.55 | 7.36 | 6.25 | 2.77 | 6.83 | 5.90 | 3.06 |
|           |      | 33°C | 9.08                | 9.08 | 2.01 | 8.80 | 8.80 | 2.18 | 8.52 | 8.52 | 2.37 | 8.24 | 8.24 | 2.57 | 7.63 | 7.63 | 2.79 | 7.13 | 7.13 | 3.08 |
|           | 22°C | 27°C | 9.75                | 4.93 | 2.04 | 9.40 | 4.82 | 2.21 | 9.05 | 4.70 | 2.40 | 8.69 | 4.57 | 2.60 | 7.99 | 4.26 | 2.82 | 7.39 | 4.02 | 3.10 |
|           |      | 30°C | 9.76                | 6.05 | 2.04 | 9.41 | 5.93 | 2.21 | 9.06 | 5.80 | 2.40 | 8.70 | 5.66 | 2.60 | 8.00 | 5.30 | 2.82 | 7.40 | 5.03 | 3.11 |
|           |      | 33°C | 9.78                | 7.09 | 2.04 | 9.44 | 6.96 | 2.21 | 9.09 | 6.82 | 2.40 | 8.73 | 6.67 | 2.60 | 8.03 | 6.26 | 2.82 | 7.45 | 5.94 | 3.11 |
|           |      | 36°C | 9.84                | 8.02 | 2.05 | 9.52 | 7.87 | 2.22 | 9.19 | 7.70 | 2.41 | 8.85 | 7.52 | 2.61 | 8.17 | 7.04 | 2.83 | 7.61 | 6.64 | 3.13 |
| 670       | 16°C | 21°C | 8.35                | 5.56 | 1.99 | 8.04 | 5.42 | 2.15 | 7.73 | 5.27 | 2.33 | 7.41 | 5.12 | 2.52 | 6.80 | 4.77 | 2.74 | 6.27 | 4.49 | 3.02 |
|           |      | 24°C | 8.39                | 6.75 | 1.99 | 8.09 | 6.59 | 2.15 | 7.78 | 6.43 | 2.33 | 7.47 | 6.26 | 2.53 | 6.86 | 5.84 | 2.74 | 6.34 | 5.51 | 3.02 |
|           |      | 27°C | 8.53                | 7.74 | 2.00 | 8.25 | 7.54 | 2.16 | 7.97 | 7.33 | 2.34 | 7.68 | 7.10 | 2.54 | 7.10 | 6.58 | 2.76 | 6.62 | 6.14 | 3.04 |
|           |      | 30°C | 8.95                | 8.95 | 2.01 | 8.69 | 8.69 | 2.18 | 8.42 | 8.42 | 2.37 | 8.15 | 8.15 | 2.57 | 7.54 | 7.54 | 2.79 | 7.05 | 7.05 | 3.08 |
|           | 19°C | 24°C | 9.19                | 5.33 | 2.02 | 8.86 | 5.20 | 2.19 | 8.52 | 5.06 | 2.37 | 8.17 | 4.93 | 2.57 | 7.50 | 4.59 | 2.79 | 6.92 | 4.33 | 3.07 |
|           |      | 27°C | 9.22                | 6.17 | 2.02 | 8.88 | 6.03 | 2.19 | 8.55 | 5.88 | 2.37 | 8.21 | 5.74 | 2.57 | 7.53 | 5.37 | 2.79 | 6.96 | 5.08 | 3.07 |
|           |      | 30°C | 9.29                | 7.59 | 2.03 | 8.96 | 7.42 | 2.19 | 8.64 | 7.25 | 2.38 | 8.31 | 7.07 | 2.58 | 7.65 | 6.60 | 2.80 | 7.10 | 6.23 | 3.09 |
|           |      | 33°C | 9.49                | 9.49 | 2.04 | 9.22 | 9.22 | 2.21 | 8.93 | 8.93 | 2.39 | 8.64 | 8.64 | 2.60 | 8.00 | 8.00 | 2.82 | 7.48 | 7.48 | 3.12 |
|           | 22°C | 27°C | 10.08               | 5.21 | 2.06 | 9.72 | 5.10 | 2.23 | 9.36 | 4.97 | 2.42 | 8.98 | 4.84 | 2.62 | 8.25 | 4.52 | 2.84 | 7.63 | 4.27 | 3.13 |
|           |      | 30°C | 10.10               | 6.43 | 2.06 | 9.74 | 6.31 | 2.23 | 9.38 | 6.17 | 2.42 | 9.00 | 6.03 | 2.62 | 8.27 | 5.64 | 2.84 | 7.65 | 5.35 | 3.13 |
|           |      | 33°C | 10.14               | 7.53 | 2.06 | 9.79 | 7.40 | 2.23 | 9.43 | 7.25 | 2.42 | 9.06 | 7.09 | 2.63 | 8.33 | 6.64 | 2.85 | 7.72 | 6.30 | 3.14 |
|           |      | 36°C | 10.23               | 8.51 | 2.07 | 9.91 | 8.35 | 2.24 | 9.57 | 8.17 | 2.43 | 9.22 | 7.96 | 2.64 | 8.52 | 7.43 | 2.86 | 7.95 | 6.99 | 3.16 |

Remark:

- AFR: Air flow rate (CFM)
- EWB: Entering Wet Bulb Temp. (°C)
- EDB: Entering Dry Bulb Temp. (°C)
- TC: Total Cooling Capacity (kW)
- SC: Sensible Cooling Capacity (kW)
- PI: Power Input (kW)

Notes:

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB without pressure trip.



## Model: FT30FXV1 - R30DXY1

## Cooling Mode

| AFR (CFM) | EWB  | EDB  | Outdoor temperature |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------|------|------|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|           |      |      | 19°C                |      |      | 25°C |      |      | 30°C |      |      | 35°C |      |      | 40°C |      |      | 46°C |      |      |
|           |      |      | TC                  | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   |
| 550       | 16°C | 21°C | 7.74                | 5.11 | 1.95 | 7.47 | 4.97 | 2.11 | 7.19 | 4.84 | 2.28 | 6.90 | 4.70 | 2.47 | 6.34 | 4.38 | 2.68 | 5.85 | 4.12 | 2.96 |
|           |      | 24°C | 7.75                | 6.12 | 1.95 | 7.47 | 5.98 | 2.11 | 7.20 | 5.84 | 2.28 | 6.91 | 5.69 | 2.48 | 6.35 | 5.32 | 2.69 | 5.87 | 5.02 | 2.96 |
|           |      | 27°C | 7.81                | 6.93 | 1.95 | 7.55 | 6.78 | 2.11 | 7.29 | 6.62 | 2.29 | 7.01 | 6.45 | 2.48 | 6.47 | 6.00 | 2.69 | 6.02 | 5.64 | 2.97 |
|           |      | 30°C | 8.05                | 8.05 | 1.96 | 7.82 | 7.82 | 2.12 | 7.58 | 7.58 | 2.30 | 7.34 | 7.34 | 2.50 | 6.80 | 6.80 | 2.72 | 6.36 | 6.36 | 3.00 |
|           | 19°C | 24°C | 8.54                | 4.77 | 1.98 | 8.24 | 4.65 | 2.14 | 7.93 | 4.52 | 2.32 | 7.62 | 4.40 | 2.52 | 7.00 | 4.09 | 2.73 | 6.47 | 3.86 | 3.01 |
|           |      | 27°C | 8.54                | 5.46 | 1.98 | 8.24 | 5.33 | 2.14 | 7.94 | 5.21 | 2.32 | 7.63 | 5.08 | 2.52 | 7.01 | 4.76 | 2.73 | 6.48 | 4.51 | 3.01 |
|           |      | 30°C | 8.56                | 6.73 | 1.98 | 8.26 | 6.59 | 2.14 | 7.97 | 6.44 | 2.32 | 7.67 | 6.29 | 2.52 | 7.06 | 5.88 | 2.74 | 6.55 | 5.57 | 3.02 |
|           |      | 33°C | 8.66                | 8.66 | 1.98 | 8.37 | 8.37 | 2.15 | 8.10 | 8.10 | 2.33 | 7.83 | 7.83 | 2.53 | 7.24 | 7.24 | 2.75 | 6.77 | 6.77 | 3.03 |
|           | 22°C | 27°C | 9.39                | 4.67 | 2.02 | 9.07 | 4.55 | 2.18 | 8.74 | 4.44 | 2.37 | 8.39 | 4.32 | 2.57 | 7.72 | 4.02 | 2.78 | 7.15 | 3.79 | 3.07 |
|           |      | 30°C | 9.39                | 5.69 | 2.02 | 9.07 | 5.57 | 2.18 | 8.74 | 5.44 | 2.37 | 8.40 | 5.31 | 2.57 | 7.72 | 4.97 | 2.78 | 7.15 | 4.71 | 3.07 |
|           |      | 33°C | 9.40                | 6.64 | 2.02 | 9.07 | 6.52 | 2.18 | 8.74 | 6.39 | 2.37 | 8.40 | 6.26 | 2.57 | 7.73 | 5.87 | 2.79 | 7.17 | 5.58 | 3.07 |
|           |      | 36°C | 9.43                | 7.53 | 2.02 | 9.12 | 7.38 | 2.19 | 8.80 | 7.23 | 2.37 | 8.48 | 7.07 | 2.57 | 7.82 | 6.63 | 2.79 | 7.27 | 6.29 | 3.08 |
| 630       | 16°C | 21°C | 8.05                | 5.33 | 1.97 | 7.76 | 5.19 | 2.13 | 7.47 | 5.05 | 2.30 | 7.16 | 4.91 | 2.50 | 6.57 | 4.57 | 2.71 | 6.06 | 4.30 | 2.98 |
|           |      | 24°C | 8.08                | 6.46 | 1.97 | 7.79 | 6.31 | 2.13 | 7.49 | 6.16 | 2.30 | 7.19 | 6.01 | 2.50 | 6.61 | 5.60 | 2.71 | 6.11 | 5.29 | 2.99 |
|           |      | 27°C | 8.17                | 7.34 | 1.97 | 7.90 | 7.17 | 2.13 | 7.63 | 6.99 | 2.31 | 7.35 | 6.78 | 2.51 | 6.79 | 6.30 | 2.72 | 6.32 | 5.89 | 3.00 |
|           |      | 30°C | 8.51                | 8.51 | 1.98 | 8.27 | 8.27 | 2.15 | 8.02 | 8.02 | 2.33 | 7.75 | 7.75 | 2.53 | 7.19 | 7.19 | 2.75 | 6.72 | 6.72 | 3.04 |
|           | 19°C | 24°C | 8.87                | 5.04 | 2.00 | 8.55 | 4.91 | 2.16 | 8.23 | 4.78 | 2.34 | 7.90 | 4.65 | 2.54 | 7.26 | 4.34 | 2.76 | 6.70 | 4.09 | 3.04 |
|           |      | 27°C | 8.89                | 5.80 | 2.00 | 8.57 | 5.68 | 2.16 | 8.25 | 5.55 | 2.34 | 7.92 | 5.42 | 2.54 | 7.27 | 5.06 | 2.76 | 6.72 | 4.79 | 3.04 |
|           |      | 30°C | 8.93                | 7.16 | 2.00 | 8.62 | 7.00 | 2.17 | 8.31 | 6.85 | 2.35 | 7.99 | 6.68 | 2.55 | 7.36 | 6.25 | 2.76 | 6.83 | 5.90 | 3.05 |
|           |      | 33°C | 9.08                | 9.08 | 2.01 | 8.80 | 8.80 | 2.18 | 8.52 | 8.52 | 2.36 | 8.24 | 8.24 | 2.56 | 7.63 | 7.63 | 2.78 | 7.13 | 7.13 | 3.07 |
|           | 22°C | 27°C | 9.75                | 4.93 | 2.03 | 9.40 | 4.82 | 2.20 | 9.05 | 4.70 | 2.39 | 8.69 | 4.57 | 2.59 | 7.99 | 4.26 | 2.81 | 7.39 | 4.02 | 3.09 |
|           |      | 30°C | 9.76                | 6.05 | 2.04 | 9.41 | 5.93 | 2.20 | 9.06 | 5.80 | 2.39 | 8.70 | 5.66 | 2.59 | 8.00 | 5.30 | 2.81 | 7.40 | 5.03 | 3.10 |
|           |      | 33°C | 9.78                | 7.09 | 2.04 | 9.44 | 6.96 | 2.21 | 9.09 | 6.82 | 2.39 | 8.73 | 6.67 | 2.59 | 8.03 | 6.26 | 2.81 | 7.45 | 5.94 | 3.10 |
|           |      | 36°C | 9.84                | 8.02 | 2.04 | 9.52 | 7.87 | 2.21 | 9.19 | 7.70 | 2.40 | 8.85 | 7.52 | 2.60 | 8.17 | 7.04 | 2.82 | 7.61 | 6.64 | 3.12 |
| 670       | 16°C | 21°C | 8.35                | 5.56 | 1.98 | 8.04 | 5.42 | 2.14 | 7.73 | 5.27 | 2.32 | 7.41 | 5.12 | 2.52 | 6.80 | 4.77 | 2.73 | 6.27 | 4.49 | 3.01 |
|           |      | 24°C | 8.39                | 6.75 | 1.98 | 8.09 | 6.59 | 2.15 | 7.78 | 6.43 | 2.32 | 7.47 | 6.26 | 2.52 | 6.86 | 5.84 | 2.73 | 6.34 | 5.51 | 3.01 |
|           |      | 27°C | 8.53                | 7.74 | 1.99 | 8.25 | 7.54 | 2.15 | 7.97 | 7.33 | 2.33 | 7.68 | 7.10 | 2.53 | 7.10 | 6.58 | 2.75 | 6.62 | 6.14 | 3.03 |
|           |      | 30°C | 8.95                | 8.95 | 2.01 | 8.69 | 8.69 | 2.17 | 8.42 | 8.42 | 2.36 | 8.15 | 8.15 | 2.56 | 7.54 | 7.54 | 2.78 | 7.05 | 7.05 | 3.07 |
|           | 19°C | 24°C | 9.19                | 5.33 | 2.01 | 8.86 | 5.20 | 2.18 | 8.52 | 5.06 | 2.36 | 8.17 | 4.93 | 2.56 | 7.50 | 4.59 | 2.78 | 6.92 | 4.33 | 3.06 |
|           |      | 27°C | 9.22                | 6.17 | 2.02 | 8.88 | 6.03 | 2.18 | 8.55 | 5.88 | 2.36 | 8.21 | 5.74 | 2.56 | 7.53 | 5.37 | 2.78 | 6.96 | 5.08 | 3.06 |
|           |      | 30°C | 9.29                | 7.59 | 2.02 | 8.96 | 7.42 | 2.19 | 8.64 | 7.25 | 2.37 | 8.31 | 7.07 | 2.57 | 7.65 | 6.60 | 2.79 | 7.10 | 6.23 | 3.07 |
|           |      | 33°C | 9.49                | 9.49 | 2.03 | 9.22 | 9.22 | 2.20 | 8.93 | 8.93 | 2.39 | 8.64 | 8.64 | 2.59 | 8.00 | 8.00 | 2.82 | 7.48 | 7.48 | 3.11 |
|           | 22°C | 27°C | 10.08               | 5.21 | 2.05 | 9.72 | 5.10 | 2.22 | 9.36 | 4.97 | 2.41 | 8.98 | 4.84 | 2.61 | 8.25 | 4.52 | 2.83 | 7.63 | 4.27 | 3.12 |
|           |      | 30°C | 10.10               | 6.43 | 2.05 | 9.74 | 6.31 | 2.22 | 9.38 | 6.17 | 2.41 | 9.00 | 6.03 | 2.61 | 8.27 | 5.64 | 2.84 | 7.65 | 5.35 | 3.12 |
|           |      | 33°C | 10.14               | 7.53 | 2.06 | 9.79 | 7.40 | 2.23 | 9.43 | 7.25 | 2.41 | 9.06 | 7.09 | 2.62 | 8.33 | 6.64 | 2.84 | 7.72 | 6.30 | 3.13 |
|           |      | 36°C | 10.23               | 8.51 | 2.06 | 9.91 | 8.35 | 2.23 | 9.57 | 8.17 | 2.42 | 9.22 | 7.96 | 2.63 | 8.52 | 7.43 | 2.85 | 7.95 | 6.99 | 3.15 |

## Remark:

AFR: Air flow rate (CFM)  
EWB: Entering Wet Bulb Temp. (°C)  
EDB: Entering Dry Bulb Temp. (°C)  
TC: Total Cooling Capacity (kW)  
SC: Sensible Cooling Capacity (kW)  
PI: Power Input (kW)

## Notes:

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB without pressure trip.

## R22 Heatpump

Model: FTY09JXV1 - RY09CXV1

Cooling Mode

| AFR (CFM) | EWB  | EDB  | Outdoor temperature |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------|------|------|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|           |      |      | 19°C                |      |      | 25°C |      |      | 30°C |      |      | 35°C |      |      | 40°C |      |      | 46°C |      |      |
|           |      |      | TC                  | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   |
| 225       | 16°C | 21°C | 2.32                | 1.80 | 0.70 | 2.24 | 1.75 | 0.76 | 2.16 | 1.70 | 0.82 | 2.07 | 1.65 | 0.89 | 1.90 | 1.54 | 0.97 | 1.75 | 1.45 | 1.07 |
|           |      | 24°C | 2.32                | 2.15 | 0.70 | 2.24 | 2.10 | 0.76 | 2.16 | 2.05 | 0.82 | 2.07 | 2.00 | 0.89 | 1.90 | 1.87 | 0.97 | 1.76 | 1.76 | 1.07 |
|           |      | 27°C | 2.34                | 2.34 | 0.70 | 2.26 | 2.26 | 0.76 | 2.18 | 2.18 | 0.83 | 2.10 | 2.10 | 0.90 | 1.94 | 1.94 | 0.97 | 1.81 | 1.81 | 1.07 |
|           |      | 30°C | 2.41                | 2.41 | 0.71 | 2.35 | 2.35 | 0.77 | 2.27 | 2.27 | 0.83 | 2.20 | 2.20 | 0.90 | 2.04 | 2.04 | 0.98 | 1.91 | 1.91 | 1.08 |
|           | 19°C | 24°C | 2.56                | 1.68 | 0.71 | 2.47 | 1.63 | 0.77 | 2.38 | 1.59 | 0.84 | 2.29 | 1.55 | 0.91 | 2.10 | 1.44 | 0.99 | 1.94 | 1.36 | 1.09 |
|           |      | 27°C | 2.56                | 1.92 | 0.71 | 2.47 | 1.88 | 0.77 | 2.38 | 1.83 | 0.84 | 2.29 | 1.79 | 0.91 | 2.10 | 1.67 | 0.99 | 1.94 | 1.58 | 1.09 |
|           |      | 30°C | 2.57                | 2.37 | 0.71 | 2.48 | 2.32 | 0.77 | 2.39 | 2.27 | 0.84 | 2.30 | 2.21 | 0.91 | 2.12 | 2.07 | 0.99 | 1.96 | 1.96 | 1.09 |
|           |      | 33°C | 2.60                | 2.60 | 0.72 | 2.51 | 2.51 | 0.78 | 2.43 | 2.43 | 0.84 | 2.35 | 2.35 | 0.91 | 2.17 | 2.17 | 0.99 | 2.03 | 2.03 | 1.10 |
|           | 22°C | 27°C | 2.82                | 1.64 | 0.73 | 2.72 | 1.60 | 0.79 | 2.62 | 1.56 | 0.85 | 2.52 | 1.52 | 0.93 | 2.32 | 1.42 | 1.01 | 2.14 | 1.33 | 1.11 |
|           |      | 30°C | 2.82                | 2.00 | 0.73 | 2.72 | 1.96 | 0.79 | 2.62 | 1.91 | 0.85 | 2.52 | 1.87 | 0.93 | 2.32 | 1.75 | 1.01 | 2.14 | 1.66 | 1.11 |
|           |      | 33°C | 2.82                | 2.34 | 0.73 | 2.72 | 2.29 | 0.79 | 2.62 | 2.25 | 0.85 | 2.52 | 2.20 | 0.93 | 2.32 | 2.07 | 1.01 | 2.15 | 1.96 | 1.11 |
|           |      | 36°C | 2.83                | 2.65 | 0.73 | 2.73 | 2.60 | 0.79 | 2.64 | 2.54 | 0.86 | 2.54 | 2.49 | 0.93 | 2.35 | 2.33 | 1.01 | 2.18 | 2.18 | 1.11 |
| 269       | 16°C | 21°C | 2.42                | 1.87 | 0.71 | 2.33 | 1.83 | 0.77 | 2.24 | 1.78 | 0.83 | 2.15 | 1.73 | 0.90 | 1.97 | 1.61 | 0.98 | 1.82 | 1.51 | 1.08 |
|           |      | 24°C | 2.42                | 2.27 | 0.71 | 2.34 | 2.22 | 0.77 | 2.25 | 2.17 | 0.83 | 2.16 | 2.11 | 0.90 | 1.98 | 1.97 | 0.98 | 1.83 | 1.83 | 1.08 |
|           |      | 27°C | 2.45                | 2.45 | 0.71 | 2.37 | 2.37 | 0.77 | 2.29 | 2.29 | 0.83 | 2.21 | 2.21 | 0.91 | 2.04 | 2.04 | 0.98 | 1.90 | 1.90 | 1.08 |
|           |      | 30°C | 2.55                | 2.55 | 0.72 | 2.48 | 2.48 | 0.78 | 2.40 | 2.40 | 0.84 | 2.33 | 2.33 | 0.91 | 2.16 | 2.16 | 0.99 | 2.01 | 2.01 | 1.10 |
|           | 19°C | 24°C | 2.66                | 1.77 | 0.72 | 2.57 | 1.73 | 0.78 | 2.47 | 1.68 | 0.85 | 2.37 | 1.64 | 0.92 | 2.18 | 1.53 | 0.99 | 2.01 | 1.44 | 1.10 |
|           |      | 27°C | 2.67                | 2.04 | 0.72 | 2.57 | 2.00 | 0.78 | 2.47 | 1.95 | 0.85 | 2.38 | 1.91 | 0.92 | 2.18 | 1.78 | 1.00 | 2.02 | 1.69 | 1.10 |
|           |      | 30°C | 2.68                | 2.52 | 0.72 | 2.59 | 2.46 | 0.78 | 2.49 | 2.41 | 0.85 | 2.40 | 2.35 | 0.92 | 2.21 | 2.20 | 1.00 | 2.05 | 2.05 | 1.10 |
|           |      | 33°C | 2.72                | 2.72 | 0.72 | 2.64 | 2.64 | 0.79 | 2.56 | 2.56 | 0.85 | 2.47 | 2.47 | 0.92 | 2.29 | 2.29 | 1.00 | 2.14 | 2.14 | 1.11 |
|           | 22°C | 27°C | 2.92                | 1.74 | 0.73 | 2.82 | 1.69 | 0.80 | 2.72 | 1.65 | 0.86 | 2.61 | 1.61 | 0.94 | 2.40 | 1.50 | 1.01 | 2.22 | 1.41 | 1.12 |
|           |      | 30°C | 2.93                | 2.13 | 0.73 | 2.82 | 2.09 | 0.80 | 2.72 | 2.04 | 0.86 | 2.61 | 1.99 | 0.94 | 2.40 | 1.87 | 1.01 | 2.22 | 1.77 | 1.12 |
|           |      | 33°C | 2.93                | 2.50 | 0.73 | 2.83 | 2.45 | 0.80 | 2.73 | 2.40 | 0.86 | 2.62 | 2.35 | 0.94 | 2.41 | 2.20 | 1.02 | 2.23 | 2.09 | 1.12 |
|           |      | 36°C | 2.95                | 2.82 | 0.74 | 2.86 | 2.77 | 0.80 | 2.76 | 2.71 | 0.87 | 2.66 | 2.65 | 0.94 | 2.45 | 2.45 | 1.02 | 2.28 | 2.28 | 1.12 |
| 315       | 16°C | 21°C | 2.50                | 1.96 | 0.72 | 2.41 | 1.91 | 0.77 | 2.32 | 1.86 | 0.84 | 2.22 | 1.80 | 0.91 | 2.04 | 1.68 | 0.98 | 1.88 | 1.58 | 1.09 |
|           |      | 24°C | 2.52                | 2.38 | 0.72 | 2.43 | 2.32 | 0.77 | 2.34 | 2.26 | 0.84 | 2.24 | 2.20 | 0.91 | 2.06 | 2.06 | 0.99 | 1.90 | 1.90 | 1.09 |
|           |      | 27°C | 2.56                | 2.56 | 0.72 | 2.47 | 2.47 | 0.78 | 2.39 | 2.39 | 0.84 | 2.31 | 2.31 | 0.91 | 2.13 | 2.13 | 0.99 | 1.99 | 1.99 | 1.10 |
|           |      | 30°C | 2.69                | 2.69 | 0.72 | 2.61 | 2.61 | 0.78 | 2.53 | 2.53 | 0.85 | 2.44 | 2.44 | 0.92 | 2.26 | 2.26 | 1.00 | 2.11 | 2.11 | 1.11 |
|           | 19°C | 24°C | 2.76                | 1.88 | 0.73 | 2.66 | 1.83 | 0.79 | 2.56 | 1.78 | 0.85 | 2.45 | 1.73 | 0.92 | 2.25 | 1.62 | 1.00 | 2.08 | 1.52 | 1.10 |
|           |      | 27°C | 2.76                | 2.17 | 0.73 | 2.67 | 2.12 | 0.79 | 2.57 | 2.07 | 0.85 | 2.46 | 2.02 | 0.93 | 2.26 | 1.89 | 1.00 | 2.09 | 1.79 | 1.11 |
|           |      | 30°C | 2.79                | 2.67 | 0.73 | 2.69 | 2.61 | 0.79 | 2.59 | 2.55 | 0.86 | 2.49 | 2.49 | 0.93 | 2.30 | 2.30 | 1.01 | 2.13 | 2.13 | 1.11 |
|           |      | 33°C | 2.85                | 2.85 | 0.73 | 2.76 | 2.76 | 0.79 | 2.68 | 2.68 | 0.86 | 2.59 | 2.59 | 0.94 | 2.40 | 2.40 | 1.02 | 2.25 | 2.25 | 1.12 |
|           | 22°C | 27°C | 3.03                | 1.83 | 0.74 | 2.92 | 1.79 | 0.80 | 2.81 | 1.75 | 0.87 | 2.69 | 1.70 | 0.94 | 2.48 | 1.59 | 1.02 | 2.29 | 1.50 | 1.13 |
|           |      | 30°C | 3.03                | 2.26 | 0.74 | 2.92 | 2.22 | 0.80 | 2.81 | 2.17 | 0.87 | 2.70 | 2.12 | 0.94 | 2.48 | 1.99 | 1.02 | 2.29 | 1.88 | 1.13 |
|           |      | 33°C | 3.04                | 2.65 | 0.74 | 2.94 | 2.60 | 0.80 | 2.83 | 2.55 | 0.87 | 2.72 | 2.49 | 0.95 | 2.50 | 2.34 | 1.03 | 2.32 | 2.22 | 1.13 |
|           |      | 36°C | 3.07                | 2.99 | 0.74 | 2.97 | 2.94 | 0.81 | 2.87 | 2.87 | 0.87 | 2.77 | 2.77 | 0.95 | 2.56 | 2.56 | 1.03 | 2.38 | 2.38 | 1.14 |

Model: FTY09JXV1 - RY09CXV1

Heating Mode

| ID DB        | Outdoor WB |         |         |         |         |         |         |         |         |         |         |         |         |         |
|--------------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|              | -9°C       |         | -6°C    |         | -5°C    |         | 6°C     |         | 12°C    |         | 15°C    |         | 18°C    |         |
|              | TC (kW)    | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) |
| 15°C         | 1.595      | 1.595   | 1.805   | 1.805   | 1.875   | 1.875   | 2.646   | 2.646   | 3.066   | 3.066   | 3.276   | 3.276   | 3.486   | 3.486   |
| 17°C         | 1.553      | 1.553   | 1.775   | 1.775   | 1.828   | 1.828   | 2.642   | 2.642   | 2.996   | 2.996   | 3.202   | 3.202   | 3.409   | 3.409   |
| 19°C         | 1.511      | 1.511   | 1.744   | 1.744   | 1.781   | 1.781   | 2.639   | 2.639   | 2.926   | 2.926   | 3.128   | 3.128   | 3.331   | 3.331   |
| 21°C         | 1.469      | 1.469   | 1.701   | 1.701   | 1.733   | 1.733   | 2.586   | 2.586   | 2.856   | 2.856   | 3.054   | 3.054   | 3.253   | 3.253   |
| 23°C         | 1.427      | 1.427   | 1.644   | 1.644   | 1.686   | 1.686   | 2.482   | 2.482   | 2.786   | 2.786   | 2.981   | 2.981   | 3.175   | 3.175   |
| 25°C         | 1.386      | 1.386   | 1.587   | 1.587   | 1.639   | 1.639   | 2.378   | 2.378   | 2.716   | 2.716   | 2.907   | 2.907   | 3.097   | 3.097   |
| 27°C         | 1.344      | 1.344   | 1.530   | 1.530   | 1.592   | 1.592   | 2.274   | 2.274   | 2.647   | 2.647   | 2.833   | 2.833   | 3.019   | 3.019   |
| Frost Region |            |         |         |         |         |         |         |         |         |         |         |         |         |         |

**Remark:**

- AFR: Air flow rate (CFM)
- EWB: Entering Wet Bulb Temp. (°C)
- EDB: Entering Dry Bulb Temp. (°C)
- TC: Total Cooling / Heating Capacity (kW)
- SC: Sensible Cooling / Heating Capacity (kW)
- PI: Power Input (kW)

**Notes:**

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB (cooling) / -9°C to 18°C WB (heating) without pressure trip.

**Model: FTY15JXV1 - RY15CXV1**  
**Cooling Mode**

| AFR (CFM) | EWB  | EDB  | Outdoor temperature |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------|------|------|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|           |      |      | 19°C                |      |      | 25°C |      |      | 30°C |      |      | 35°C |      |      | 40°C |      |      | 46°C |      |      |
|           |      |      | TC                  | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   |
| 242       | 16°C | 21°C | 3.26                | 2.34 | 0.91 | 3.14 | 2.28 | 0.98 | 3.03 | 2.22 | 1.06 | 2.91 | 2.15 | 1.15 | 2.67 | 2.00 | 1.25 | 2.46 | 1.88 | 1.38 |
|           |      | 24°C | 3.26                | 2.80 | 0.91 | 3.15 | 2.74 | 0.98 | 3.03 | 2.67 | 1.06 | 2.91 | 2.61 | 1.15 | 2.67 | 2.43 | 1.25 | 2.47 | 2.30 | 1.38 |
|           |      | 27°C | 3.29                | 3.17 | 0.91 | 3.18 | 3.10 | 0.98 | 3.07 | 3.03 | 1.06 | 2.95 | 2.95 | 1.15 | 2.72 | 2.72 | 1.25 | 2.54 | 2.54 | 1.38 |
|           |      | 30°C | 3.39                | 3.39 | 0.91 | 3.29 | 3.29 | 0.99 | 3.19 | 3.19 | 1.07 | 3.09 | 3.09 | 1.16 | 2.87 | 2.87 | 1.26 | 2.68 | 2.68 | 1.39 |
|           | 19°C | 24°C | 3.60                | 2.18 | 0.92 | 3.47 | 2.13 | 1.00 | 3.34 | 2.07 | 1.08 | 3.21 | 2.01 | 1.17 | 2.95 | 1.87 | 1.27 | 2.73 | 1.77 | 1.40 |
|           |      | 27°C | 3.60                | 2.50 | 0.92 | 3.47 | 2.44 | 1.00 | 3.34 | 2.39 | 1.08 | 3.21 | 2.33 | 1.17 | 2.95 | 2.18 | 1.27 | 2.73 | 2.06 | 1.40 |
|           |      | 30°C | 3.60                | 3.08 | 0.92 | 3.48 | 3.02 | 1.00 | 3.36 | 2.95 | 1.08 | 3.23 | 2.88 | 1.17 | 2.97 | 2.69 | 1.27 | 2.76 | 2.55 | 1.40 |
|           |      | 33°C | 3.65                | 3.65 | 0.92 | 3.53 | 3.53 | 1.00 | 3.41 | 3.41 | 1.08 | 3.30 | 3.30 | 1.18 | 3.05 | 3.05 | 1.28 | 2.85 | 2.85 | 1.41 |
|           | 22°C | 27°C | 3.96                | 2.14 | 0.94 | 3.82 | 2.09 | 1.02 | 3.68 | 2.03 | 1.10 | 3.54 | 1.98 | 1.19 | 3.25 | 1.84 | 1.29 | 3.01 | 1.74 | 1.43 |
|           |      | 30°C | 3.96                | 2.60 | 0.94 | 3.82 | 2.55 | 1.02 | 3.68 | 2.49 | 1.10 | 3.54 | 2.43 | 1.19 | 3.25 | 2.28 | 1.29 | 3.01 | 2.16 | 1.43 |
|           |      | 33°C | 3.96                | 3.04 | 0.94 | 3.82 | 2.98 | 1.02 | 3.68 | 2.92 | 1.10 | 3.54 | 2.86 | 1.19 | 3.26 | 2.69 | 1.30 | 3.02 | 2.55 | 1.43 |
|           |      | 36°C | 3.97                | 3.45 | 0.94 | 3.84 | 3.38 | 1.02 | 3.71 | 3.31 | 1.10 | 3.57 | 3.24 | 1.20 | 3.29 | 3.03 | 1.30 | 3.06 | 2.88 | 1.43 |
| 298       | 16°C | 21°C | 3.39                | 2.44 | 0.91 | 3.27 | 2.38 | 0.99 | 3.15 | 2.31 | 1.07 | 3.02 | 2.25 | 1.16 | 2.77 | 2.09 | 1.26 | 2.55 | 1.97 | 1.39 |
|           |      | 24°C | 3.40                | 2.96 | 0.91 | 3.28 | 2.89 | 0.99 | 3.16 | 2.82 | 1.07 | 3.03 | 2.75 | 1.16 | 2.78 | 2.57 | 1.26 | 2.57 | 2.42 | 1.39 |
|           |      | 27°C | 3.44                | 3.36 | 0.92 | 3.33 | 3.28 | 0.99 | 3.21 | 3.20 | 1.07 | 3.10 | 3.10 | 1.17 | 2.86 | 2.86 | 1.27 | 2.66 | 2.66 | 1.40 |
|           |      | 30°C | 3.59                | 3.59 | 0.92 | 3.48 | 3.48 | 1.00 | 3.38 | 3.38 | 1.08 | 3.27 | 3.27 | 1.18 | 3.03 | 3.03 | 1.28 | 2.83 | 2.83 | 1.41 |
|           | 19°C | 24°C | 3.74                | 2.31 | 0.93 | 3.60 | 2.25 | 1.01 | 3.47 | 2.19 | 1.09 | 3.33 | 2.13 | 1.18 | 3.06 | 1.99 | 1.28 | 2.82 | 1.87 | 1.41 |
|           |      | 27°C | 3.74                | 2.66 | 0.93 | 3.61 | 2.60 | 1.01 | 3.48 | 2.54 | 1.09 | 3.34 | 2.48 | 1.18 | 3.06 | 2.32 | 1.28 | 2.83 | 2.20 | 1.41 |
|           |      | 30°C | 3.76                | 3.28 | 0.93 | 3.63 | 3.21 | 1.01 | 3.50 | 3.14 | 1.09 | 3.37 | 3.06 | 1.18 | 3.10 | 2.86 | 1.28 | 2.88 | 2.70 | 1.42 |
|           |      | 33°C | 3.82                | 3.82 | 0.93 | 3.71 | 3.71 | 1.01 | 3.59 | 3.59 | 1.10 | 3.47 | 3.47 | 1.19 | 3.21 | 3.21 | 1.29 | 3.01 | 3.01 | 1.43 |
|           | 22°C | 27°C | 4.11                | 2.26 | 0.95 | 3.96 | 2.21 | 1.03 | 3.81 | 2.15 | 1.11 | 3.66 | 2.09 | 1.20 | 3.37 | 1.95 | 1.31 | 3.11 | 1.84 | 1.44 |
|           |      | 30°C | 4.11                | 2.77 | 0.95 | 3.97 | 2.72 | 1.03 | 3.82 | 2.65 | 1.11 | 3.67 | 2.59 | 1.21 | 3.37 | 2.43 | 1.31 | 3.12 | 2.30 | 1.44 |
|           |      | 33°C | 4.12                | 3.25 | 0.95 | 3.98 | 3.19 | 1.03 | 3.83 | 3.12 | 1.11 | 3.68 | 3.06 | 1.21 | 3.38 | 2.87 | 1.31 | 3.14 | 2.72 | 1.44 |
|           |      | 36°C | 4.14                | 3.67 | 0.95 | 4.01 | 3.60 | 1.03 | 3.87 | 3.53 | 1.11 | 3.73 | 3.45 | 1.21 | 3.44 | 3.23 | 1.31 | 3.21 | 3.04 | 1.45 |
| 355       | 16°C | 21°C | 3.52                | 2.55 | 0.92 | 3.39 | 2.48 | 1.00 | 3.26 | 2.42 | 1.08 | 3.12 | 2.35 | 1.17 | 2.87 | 2.19 | 1.27 | 2.64 | 2.06 | 1.40 |
|           |      | 24°C | 3.54                | 3.09 | 0.92 | 3.41 | 3.02 | 1.00 | 3.28 | 2.95 | 1.08 | 3.15 | 2.87 | 1.17 | 2.89 | 2.68 | 1.27 | 2.67 | 2.52 | 1.40 |
|           |      | 27°C | 3.59                | 3.55 | 0.93 | 3.48 | 3.45 | 1.00 | 3.36 | 3.36 | 1.09 | 3.24 | 3.24 | 1.18 | 2.99 | 2.99 | 1.28 | 2.79 | 2.79 | 1.41 |
|           |      | 30°C | 3.77                | 3.77 | 0.93 | 3.66 | 3.66 | 1.01 | 3.55 | 3.55 | 1.10 | 3.43 | 3.43 | 1.19 | 3.18 | 3.18 | 1.29 | 2.97 | 2.97 | 1.43 |
|           | 19°C | 24°C | 3.87                | 2.44 | 0.94 | 3.73 | 2.38 | 1.01 | 3.59 | 2.32 | 1.10 | 3.44 | 2.26 | 1.19 | 3.16 | 2.10 | 1.29 | 2.92 | 1.99 | 1.42 |
|           |      | 27°C | 3.88                | 2.83 | 0.94 | 3.74 | 2.76 | 1.01 | 3.60 | 2.70 | 1.10 | 3.46 | 2.63 | 1.19 | 3.18 | 2.46 | 1.29 | 2.93 | 2.33 | 1.42 |
|           |      | 30°C | 3.92                | 3.48 | 0.94 | 3.78 | 3.40 | 1.02 | 3.64 | 3.32 | 1.10 | 3.50 | 3.24 | 1.20 | 3.22 | 3.03 | 1.30 | 2.99 | 2.85 | 1.43 |
|           |      | 33°C | 4.00                | 4.00 | 0.94 | 3.88 | 3.88 | 1.02 | 3.76 | 3.76 | 1.11 | 3.64 | 3.64 | 1.21 | 3.37 | 3.37 | 1.31 | 3.15 | 3.15 | 1.45 |
|           | 22°C | 27°C | 4.25                | 2.39 | 0.95 | 4.10 | 2.34 | 1.03 | 3.94 | 2.28 | 1.12 | 3.79 | 2.22 | 1.22 | 3.48 | 2.07 | 1.32 | 3.21 | 1.95 | 1.45 |
|           |      | 30°C | 4.26                | 2.94 | 0.95 | 4.11 | 2.89 | 1.03 | 3.95 | 2.83 | 1.12 | 3.79 | 2.76 | 1.22 | 3.48 | 2.59 | 1.32 | 3.22 | 2.45 | 1.45 |
|           |      | 33°C | 4.27                | 3.45 | 0.96 | 4.12 | 3.39 | 1.04 | 3.97 | 3.32 | 1.12 | 3.82 | 3.25 | 1.22 | 3.51 | 3.04 | 1.32 | 3.25 | 2.89 | 1.46 |
|           |      | 36°C | 4.31                | 3.90 | 0.96 | 4.18 | 3.83 | 1.04 | 4.03 | 3.74 | 1.13 | 3.89 | 3.65 | 1.22 | 3.59 | 3.40 | 1.33 | 3.35 | 3.20 | 1.46 |

**Model: FTY15JXV1 - RY15CXV1**  
**Heating Mode**

| ID DB        | Outdoor WB |         |         |         |         |         |         |         |         |         |         |         |         |         |
|--------------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|              | -9°C       |         | -6°C    |         | -5°C    |         | 6°C     |         | 12°C    |         | 15°C    |         | 18°C    |         |
|              | TC (kW)    | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) |
| 15°C         | 2.303      | 2.303   | 2.607   | 2.607   | 2.708   | 2.708   | 3.821   | 3.821   | 4.429   | 4.429   | 4.732   | 4.732   | 5.036   | 5.036   |
| 17°C         | 2.243      | 2.243   | 2.514   | 2.514   | 2.632   | 2.632   | 3.817   | 3.817   | 4.283   | 4.283   | 4.574   | 4.574   | 4.866   | 4.866   |
| 19°C         | 2.183      | 2.183   | 2.421   | 2.421   | 2.555   | 2.555   | 3.812   | 3.812   | 4.137   | 4.137   | 4.417   | 4.417   | 4.696   | 4.696   |
| 21°C         | 2.122      | 2.122   | 2.345   | 2.345   | 2.478   | 2.478   | 3.708   | 3.708   | 3.992   | 3.992   | 4.259   | 4.259   | 4.526   | 4.526   |
| 23°C         | 2.062      | 2.062   | 2.287   | 2.287   | 2.402   | 2.402   | 3.503   | 3.503   | 3.846   | 3.846   | 4.101   | 4.101   | 4.356   | 4.356   |
| 25°C         | 2.001      | 2.001   | 2.229   | 2.229   | 2.325   | 2.325   | 3.298   | 3.298   | 3.700   | 3.700   | 3.943   | 3.943   | 4.185   | 4.185   |
| 27°C         | 1.941      | 1.941   | 2.171   | 2.171   | 2.248   | 2.248   | 3.093   | 3.093   | 3.554   | 3.554   | 3.785   | 3.785   | 4.015   | 4.015   |
| Frost Region |            |         |         |         |         |         |         |         |         |         |         |         |         |         |

**Remark:**

- AFR: Air flow rate (CFM)
- EWB: Entering Wet Bulb Temp. (°C)
- EDB: Entering Dry Bulb Temp. (°C)
- TC: Total Cooling / Heating Capacity (kW)
- SC: Sensible Cooling / Heating Capacity (kW)
- PI: Power Input (kW)

**Notes:**

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB (cooling) / -9°C to 18°C WB (heating) without pressure trip.

Performance Data

Model: FTY20JXV1 - RY20CXV1  
Cooling Mode

| AFR (CFM) | EWB  | EDB  | Outdoor temperature |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------|------|------|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|           |      |      | 19°C                |      |      | 25°C |      |      | 30°C |      |      | 35°C |      |      | 40°C |      |      | 46°C |      |      |
|           |      |      | TC                  | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   |
| 424       | 16°C | 21°C | 5.39                | 3.71 | 1.41 | 5.20 | 3.61 | 1.52 | 5.01 | 3.52 | 1.65 | 4.81 | 3.42 | 1.79 | 4.42 | 3.18 | 1.94 | 4.08 | 2.99 | 2.14 |
|           |      | 24°C | 5.40                | 4.44 | 1.41 | 5.21 | 4.34 | 1.52 | 5.02 | 4.24 | 1.65 | 4.82 | 4.13 | 1.79 | 4.42 | 3.86 | 1.94 | 4.09 | 3.64 | 2.14 |
|           |      | 27°C | 5.44                | 5.04 | 1.41 | 5.26 | 4.92 | 1.52 | 5.08 | 4.81 | 1.65 | 4.89 | 4.68 | 1.79 | 4.51 | 4.36 | 1.94 | 4.19 | 4.09 | 2.15 |
|           |      | 30°C | 5.61                | 5.61 | 1.42 | 5.45 | 5.45 | 1.53 | 5.28 | 5.28 | 1.66 | 5.11 | 5.11 | 1.81 | 4.74 | 4.74 | 1.96 | 4.44 | 4.44 | 2.17 |
|           | 19°C | 24°C | 5.95                | 3.46 | 1.43 | 5.74 | 3.38 | 1.55 | 5.53 | 3.29 | 1.68 | 5.31 | 3.19 | 1.82 | 4.88 | 2.97 | 1.97 | 4.51 | 2.80 | 2.17 |
|           |      | 27°C | 5.95                | 3.96 | 1.43 | 5.74 | 3.87 | 1.55 | 5.53 | 3.79 | 1.68 | 5.32 | 3.69 | 1.82 | 4.89 | 3.45 | 1.97 | 4.52 | 3.27 | 2.17 |
|           |      | 30°C | 5.96                | 4.89 | 1.43 | 5.76 | 4.79 | 1.55 | 5.55 | 4.68 | 1.68 | 5.34 | 4.57 | 1.82 | 4.92 | 4.27 | 1.97 | 4.56 | 4.04 | 2.18 |
|           |      | 33°C | 6.03                | 6.03 | 1.43 | 5.84 | 5.84 | 1.55 | 5.65 | 5.65 | 1.68 | 5.46 | 5.46 | 1.83 | 5.05 | 5.05 | 1.98 | 4.72 | 4.72 | 2.19 |
|           | 22°C | 27°C | 6.55                | 3.39 | 1.45 | 6.32 | 3.31 | 1.58 | 6.09 | 3.23 | 1.71 | 5.85 | 3.14 | 1.85 | 5.38 | 2.92 | 2.01 | 4.98 | 2.76 | 2.21 |
|           |      | 30°C | 6.55                | 4.13 | 1.45 | 6.32 | 4.04 | 1.58 | 6.09 | 3.95 | 1.71 | 5.85 | 3.86 | 1.85 | 5.38 | 3.61 | 2.01 | 4.98 | 3.42 | 2.22 |
|           |      | 33°C | 6.55                | 4.83 | 1.45 | 6.32 | 4.73 | 1.58 | 6.09 | 4.64 | 1.71 | 5.86 | 4.54 | 1.85 | 5.39 | 4.27 | 2.01 | 4.99 | 4.05 | 2.22 |
|           |      | 36°C | 6.57                | 5.47 | 1.46 | 6.36 | 5.36 | 1.58 | 6.13 | 5.25 | 1.71 | 5.91 | 5.13 | 1.86 | 5.45 | 4.81 | 2.02 | 5.07 | 4.57 | 2.22 |
| 478       | 16°C | 21°C | 5.61                | 3.87 | 1.42 | 5.41 | 3.77 | 1.53 | 5.20 | 3.67 | 1.66 | 4.99 | 3.57 | 1.80 | 4.58 | 3.32 | 1.95 | 4.23 | 3.12 | 2.15 |
|           |      | 24°C | 5.63                | 4.70 | 1.42 | 5.43 | 4.59 | 1.54 | 5.22 | 4.48 | 1.66 | 5.01 | 4.36 | 1.80 | 4.60 | 4.07 | 1.96 | 4.26 | 3.84 | 2.16 |
|           |      | 27°C | 5.70                | 5.33 | 1.42 | 5.51 | 5.21 | 1.54 | 5.32 | 5.08 | 1.67 | 5.12 | 4.92 | 1.81 | 4.73 | 4.57 | 1.97 | 4.41 | 4.28 | 2.17 |
|           |      | 30°C | 5.93                | 5.93 | 1.43 | 5.76 | 5.76 | 1.55 | 5.59 | 5.59 | 1.68 | 5.41 | 5.41 | 1.83 | 5.01 | 5.01 | 1.99 | 4.68 | 4.68 | 2.19 |
|           | 19°C | 24°C | 6.18                | 3.66 | 1.44 | 5.96 | 3.57 | 1.56 | 5.74 | 3.47 | 1.69 | 5.51 | 3.38 | 1.83 | 5.06 | 3.15 | 1.99 | 4.67 | 2.97 | 2.19 |
|           |      | 27°C | 6.19                | 4.22 | 1.44 | 5.97 | 4.12 | 1.56 | 5.75 | 4.03 | 1.69 | 5.52 | 3.93 | 1.83 | 5.07 | 3.68 | 1.99 | 4.69 | 3.48 | 2.19 |
|           |      | 30°C | 6.22                | 5.20 | 1.44 | 6.01 | 5.09 | 1.56 | 5.79 | 4.97 | 1.69 | 5.57 | 4.85 | 1.84 | 5.13 | 4.54 | 1.99 | 4.76 | 4.29 | 2.20 |
|           |      | 33°C | 6.33                | 6.33 | 1.45 | 6.13 | 6.13 | 1.57 | 5.94 | 5.94 | 1.70 | 5.74 | 5.74 | 1.85 | 5.32 | 5.32 | 2.01 | 4.97 | 4.97 | 2.22 |
|           | 22°C | 27°C | 6.79                | 3.58 | 1.47 | 6.55 | 3.50 | 1.59 | 6.31 | 3.41 | 1.72 | 6.06 | 3.32 | 1.87 | 5.57 | 3.10 | 2.03 | 5.15 | 2.92 | 2.23 |
|           |      | 30°C | 6.80                | 4.40 | 1.47 | 6.56 | 4.31 | 1.59 | 6.32 | 4.21 | 1.73 | 6.07 | 4.11 | 1.87 | 5.58 | 3.85 | 2.03 | 5.16 | 3.65 | 2.24 |
|           |      | 33°C | 6.81                | 5.15 | 1.47 | 6.58 | 5.05 | 1.59 | 6.34 | 4.95 | 1.73 | 6.09 | 4.85 | 1.87 | 5.60 | 4.55 | 2.03 | 5.19 | 4.32 | 2.24 |
|           |      | 36°C | 6.86                | 5.82 | 1.47 | 6.63 | 5.71 | 1.60 | 6.40 | 5.60 | 1.73 | 6.17 | 5.47 | 1.88 | 5.69 | 5.11 | 2.04 | 5.31 | 4.82 | 2.25 |
| 536       | 16°C | 21°C | 5.82                | 4.04 | 1.43 | 5.61 | 3.93 | 1.55 | 5.39 | 3.83 | 1.68 | 5.17 | 3.72 | 1.82 | 4.74 | 3.47 | 1.97 | 4.37 | 3.26 | 2.17 |
|           |      | 24°C | 5.85                | 4.90 | 1.43 | 5.64 | 4.79 | 1.55 | 5.43 | 4.67 | 1.68 | 5.21 | 4.55 | 1.82 | 4.78 | 4.24 | 1.97 | 4.42 | 4.00 | 2.17 |
|           |      | 27°C | 5.94                | 5.62 | 1.44 | 5.75 | 5.48 | 1.55 | 5.56 | 5.32 | 1.68 | 5.36 | 5.16 | 1.83 | 4.95 | 4.78 | 1.99 | 4.61 | 4.46 | 2.19 |
|           |      | 30°C | 6.24                | 6.24 | 1.45 | 6.06 | 6.06 | 1.57 | 5.87 | 5.87 | 1.70 | 5.68 | 5.68 | 1.85 | 5.26 | 5.26 | 2.01 | 4.91 | 4.91 | 2.22 |
|           | 19°C | 24°C | 6.41                | 3.87 | 1.45 | 6.17 | 3.78 | 1.57 | 5.94 | 3.68 | 1.71 | 5.70 | 3.58 | 1.85 | 5.23 | 3.34 | 2.01 | 4.83 | 3.15 | 2.21 |
|           |      | 27°C | 6.42                | 4.48 | 1.46 | 6.19 | 4.38 | 1.58 | 5.96 | 4.27 | 1.71 | 5.72 | 4.17 | 1.85 | 5.25 | 3.90 | 2.01 | 4.85 | 3.69 | 2.21 |
|           |      | 30°C | 6.48                | 5.51 | 1.46 | 6.25 | 5.39 | 1.58 | 6.02 | 5.27 | 1.71 | 5.79 | 5.14 | 1.86 | 5.33 | 4.80 | 2.01 | 4.95 | 4.52 | 2.22 |
|           |      | 33°C | 6.62                | 6.62 | 1.46 | 6.42 | 6.42 | 1.59 | 6.23 | 6.23 | 1.72 | 6.02 | 6.02 | 1.87 | 5.58 | 5.58 | 2.03 | 5.22 | 5.22 | 2.24 |
|           | 22°C | 27°C | 7.03                | 3.79 | 1.48 | 6.78 | 3.70 | 1.61 | 6.52 | 3.61 | 1.74 | 6.26 | 3.52 | 1.89 | 5.75 | 3.28 | 2.05 | 5.32 | 3.10 | 2.25 |
|           |      | 30°C | 7.04                | 4.67 | 1.48 | 6.79 | 4.58 | 1.61 | 6.54 | 4.48 | 1.74 | 6.27 | 4.38 | 1.89 | 5.76 | 4.10 | 2.05 | 5.33 | 3.89 | 2.25 |
|           |      | 33°C | 7.07                | 5.47 | 1.48 | 6.82 | 5.38 | 1.61 | 6.57 | 5.26 | 1.74 | 6.31 | 5.15 | 1.89 | 5.81 | 4.82 | 2.05 | 5.38 | 4.58 | 2.26 |
|           |      | 36°C | 7.13                | 6.18 | 1.49 | 6.91 | 6.07 | 1.61 | 6.67 | 5.93 | 1.75 | 6.43 | 5.79 | 1.90 | 5.94 | 5.40 | 2.06 | 5.54 | 5.08 | 2.27 |

Model: FTY20JXV1 - RY20CXV1  
Heating Mode

| ID DB        | Outdoor WB |         |         |         |         |         |         |         |         |         |         |         |         |         |
|--------------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|              | -9°C       |         | -6°C    |         | -5°C    |         | 6°C     |         | 12°C    |         | 15°C    |         | 18°C    |         |
|              | TC (kW)    | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) |
| 15°C         | 3.544      | 3.544   | 4.011   | 4.011   | 4.166   | 4.166   | 5.879   | 5.879   | 6.813   | 6.813   | 7.281   | 7.281   | 7.748   | 7.748   |
| 17°C         | 3.451      | 3.451   | 3.825   | 3.825   | 4.065   | 4.065   | 5.872   | 5.872   | 6.678   | 6.678   | 7.138   | 7.138   | 7.599   | 7.599   |
| 19°C         | 3.358      | 3.358   | 3.639   | 3.639   | 3.964   | 3.964   | 5.865   | 5.865   | 6.542   | 6.542   | 6.996   | 6.996   | 7.451   | 7.451   |
| 21°C         | 3.265      | 3.265   | 3.528   | 3.528   | 3.863   | 3.863   | 5.758   | 5.758   | 6.406   | 6.406   | 6.854   | 6.854   | 7.303   | 7.303   |
| 23°C         | 3.172      | 3.172   | 3.491   | 3.491   | 3.762   | 3.762   | 5.551   | 5.551   | 6.270   | 6.270   | 6.712   | 6.712   | 7.155   | 7.155   |
| 25°C         | 3.079      | 3.079   | 3.454   | 3.454   | 3.661   | 3.661   | 5.344   | 5.344   | 6.134   | 6.134   | 6.570   | 6.570   | 7.006   | 7.006   |
| 27°C         | 2.986      | 2.986   | 3.416   | 3.416   | 3.560   | 3.560   | 5.137   | 5.137   | 5.998   | 5.998   | 6.428   | 6.428   | 6.858   | 6.858   |
| Frost Region |            |         |         |         |         |         |         |         |         |         |         |         |         |         |

Remark:

- AFR: Air flow rate (CFM)
- EWB: Entering Wet Bulb Temp. (°C)
- EDB: Entering Dry Bulb Temp. (°C)
- TC: Total Cooling / Heating Capacity (kW)
- SC: Sensible Cooling / Heating Capacity (kW)
- PI: Power Input (kW)

Notes:

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB (cooling) / -9°C to 18°C WB (heating) without pressure trip.

**Model: FTY25JXV1 - RY25CXV1**  
**Cooling Mode**

| AFR (CFM) | EWB  | EDB  | Outdoor temperature |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------|------|------|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|           |      |      | 19°C                |      |      | 25°C |      |      | 30°C |      |      | 35°C |      |      | 40°C |      |      | 46°C |      |      |
|           |      |      | TC                  | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   |
| 474       | 16°C | 21°C | 6.63                | 4.69 | 1.92 | 6.39 | 4.57 | 2.08 | 6.16 | 4.44 | 2.25 | 5.91 | 4.32 | 2.44 | 5.43 | 4.02 | 2.65 | 5.01 | 3.78 | 2.92 |
|           |      | 24°C | 6.64                | 5.61 | 1.92 | 6.40 | 5.49 | 2.08 | 6.16 | 5.36 | 2.25 | 5.92 | 5.22 | 2.44 | 5.44 | 4.88 | 2.65 | 5.03 | 4.60 | 2.92 |
|           |      | 27°C | 6.69                | 6.36 | 1.92 | 6.47 | 6.22 | 2.08 | 6.24 | 6.07 | 2.26 | 6.00 | 5.92 | 2.45 | 5.54 | 5.51 | 2.66 | 5.16 | 5.16 | 2.93 |
|           |      | 30°C | 6.90                | 6.90 | 1.93 | 6.70 | 6.70 | 2.09 | 6.49 | 6.49 | 2.27 | 6.29 | 6.29 | 2.47 | 5.83 | 5.83 | 2.68 | 5.45 | 5.45 | 2.96 |
|           | 19°C | 24°C | 7.31                | 4.38 | 1.95 | 7.06 | 4.27 | 2.11 | 6.80 | 4.15 | 2.29 | 6.53 | 4.04 | 2.48 | 6.00 | 3.76 | 2.69 | 5.55 | 3.54 | 2.97 |
|           |      | 27°C | 7.32                | 5.01 | 1.95 | 7.06 | 4.90 | 2.11 | 6.80 | 4.78 | 2.29 | 6.53 | 4.67 | 2.48 | 6.00 | 4.37 | 2.69 | 5.55 | 4.14 | 2.97 |
|           |      | 30°C | 7.33                | 6.18 | 1.95 | 7.07 | 6.05 | 2.11 | 6.82 | 5.91 | 2.29 | 6.57 | 5.77 | 2.49 | 6.05 | 5.40 | 2.70 | 5.61 | 5.11 | 2.97 |
|           |      | 33°C | 7.41                | 7.41 | 1.96 | 7.17 | 7.17 | 2.12 | 6.94 | 6.94 | 2.30 | 6.70 | 6.70 | 2.50 | 6.20 | 6.20 | 2.71 | 5.80 | 5.80 | 2.99 |
|           | 22°C | 27°C | 8.04                | 4.28 | 1.99 | 7.77 | 4.18 | 2.15 | 7.48 | 4.08 | 2.33 | 7.19 | 3.96 | 2.53 | 6.61 | 3.69 | 2.75 | 6.12 | 3.48 | 3.03 |
|           |      | 30°C | 8.05                | 5.22 | 1.99 | 7.77 | 5.11 | 2.15 | 7.48 | 4.99 | 2.33 | 7.19 | 4.87 | 2.53 | 6.61 | 4.56 | 2.75 | 6.12 | 4.33 | 3.03 |
|           |      | 33°C | 8.05                | 6.10 | 1.99 | 7.77 | 5.98 | 2.15 | 7.49 | 5.86 | 2.33 | 7.20 | 5.74 | 2.53 | 6.62 | 5.39 | 2.75 | 6.14 | 5.12 | 3.03 |
|           |      | 36°C | 8.08                | 6.91 | 1.99 | 7.81 | 6.78 | 2.16 | 7.54 | 6.63 | 2.34 | 7.26 | 6.49 | 2.54 | 6.70 | 6.08 | 2.75 | 6.23 | 5.77 | 3.04 |
| 537       | 16°C | 21°C | 6.90                | 4.89 | 1.94 | 6.65 | 4.76 | 2.10 | 6.40 | 4.64 | 2.27 | 6.13 | 4.51 | 2.46 | 5.63 | 4.20 | 2.67 | 5.19 | 3.95 | 2.94 |
|           |      | 24°C | 6.92                | 5.93 | 1.94 | 6.67 | 5.79 | 2.10 | 6.42 | 5.66 | 2.27 | 6.16 | 5.51 | 2.46 | 5.66 | 5.14 | 2.67 | 5.23 | 4.86 | 2.95 |
|           |      | 27°C | 7.00                | 6.74 | 1.94 | 6.77 | 6.58 | 2.10 | 6.53 | 6.41 | 2.28 | 6.30 | 6.22 | 2.47 | 5.81 | 5.78 | 2.68 | 5.42 | 5.41 | 2.96 |
|           |      | 30°C | 7.29                | 7.29 | 1.96 | 7.08 | 7.08 | 2.12 | 6.87 | 6.87 | 2.30 | 6.64 | 6.64 | 2.50 | 6.15 | 6.15 | 2.71 | 5.75 | 5.75 | 3.00 |
|           | 19°C | 24°C | 7.60                | 4.63 | 1.97 | 7.33 | 4.51 | 2.13 | 7.05 | 4.39 | 2.31 | 6.77 | 4.27 | 2.51 | 6.22 | 3.98 | 2.72 | 5.74 | 3.75 | 2.99 |
|           |      | 27°C | 7.61                | 5.33 | 1.97 | 7.34 | 5.21 | 2.13 | 7.07 | 5.09 | 2.31 | 6.78 | 4.97 | 2.51 | 6.23 | 4.65 | 2.72 | 5.76 | 4.40 | 3.00 |
|           |      | 30°C | 7.65                | 6.57 | 1.97 | 7.38 | 6.43 | 2.14 | 7.12 | 6.29 | 2.32 | 6.85 | 6.13 | 2.51 | 6.30 | 5.73 | 2.72 | 5.85 | 5.42 | 3.00 |
|           |      | 33°C | 7.78                | 7.78 | 1.98 | 7.54 | 7.54 | 2.15 | 7.30 | 7.30 | 2.33 | 7.06 | 7.06 | 2.53 | 6.54 | 6.54 | 2.75 | 6.11 | 6.11 | 3.03 |
|           | 22°C | 27°C | 8.35                | 4.53 | 2.01 | 8.05 | 4.42 | 2.17 | 7.76 | 4.31 | 2.36 | 7.45 | 4.19 | 2.56 | 6.84 | 3.91 | 2.77 | 6.33 | 3.69 | 3.05 |
|           |      | 30°C | 8.36                | 5.56 | 2.01 | 8.06 | 5.44 | 2.17 | 7.76 | 5.32 | 2.36 | 7.46 | 5.20 | 2.56 | 6.85 | 4.87 | 2.77 | 6.34 | 4.62 | 3.05 |
|           |      | 33°C | 8.37                | 6.51 | 2.01 | 8.08 | 6.39 | 2.18 | 7.79 | 6.26 | 2.36 | 7.48 | 6.12 | 2.56 | 6.88 | 5.74 | 2.78 | 6.38 | 5.45 | 3.06 |
|           |      | 36°C | 8.43                | 7.36 | 2.01 | 8.15 | 7.22 | 2.18 | 7.87 | 7.07 | 2.36 | 7.58 | 6.91 | 2.57 | 7.00 | 6.46 | 2.78 | 6.52 | 6.10 | 3.07 |
| 614       | 16°C | 21°C | 7.15                | 5.10 | 1.95 | 6.89 | 4.97 | 2.11 | 6.63 | 4.84 | 2.29 | 6.35 | 4.71 | 2.48 | 5.82 | 4.38 | 2.69 | 5.37 | 4.12 | 2.97 |
|           |      | 24°C | 7.19                | 6.20 | 1.96 | 6.93 | 6.05 | 2.12 | 6.67 | 5.90 | 2.29 | 6.40 | 5.75 | 2.49 | 5.88 | 5.36 | 2.70 | 5.43 | 5.06 | 2.97 |
|           |      | 27°C | 7.31                | 7.10 | 1.96 | 7.07 | 6.92 | 2.12 | 6.83 | 6.73 | 2.30 | 6.58 | 6.52 | 2.50 | 6.08 | 6.04 | 2.71 | 5.67 | 5.64 | 2.99 |
|           |      | 30°C | 7.67                | 7.67 | 1.98 | 7.45 | 7.45 | 2.14 | 7.22 | 7.22 | 2.33 | 6.98 | 6.98 | 2.53 | 6.46 | 6.46 | 2.74 | 6.04 | 6.04 | 3.03 |
|           | 19°C | 24°C | 7.87                | 4.89 | 1.99 | 7.59 | 4.77 | 2.15 | 7.30 | 4.65 | 2.33 | 7.00 | 4.52 | 2.53 | 6.43 | 4.22 | 2.74 | 5.93 | 3.98 | 3.02 |
|           |      | 27°C | 7.90                | 5.66 | 1.99 | 7.61 | 5.53 | 2.15 | 7.33 | 5.40 | 2.33 | 7.03 | 5.27 | 2.53 | 6.45 | 4.93 | 2.74 | 5.97 | 4.66 | 3.02 |
|           |      | 30°C | 7.96                | 6.97 | 1.99 | 7.68 | 6.81 | 2.16 | 7.40 | 6.66 | 2.34 | 7.12 | 6.49 | 2.54 | 6.56 | 6.06 | 2.75 | 6.09 | 5.72 | 3.03 |
|           |      | 33°C | 8.13                | 8.13 | 2.00 | 7.89 | 7.89 | 2.17 | 7.65 | 7.65 | 2.35 | 7.40 | 7.40 | 2.56 | 6.85 | 6.85 | 2.78 | 6.41 | 6.41 | 3.07 |
|           | 22°C | 27°C | 8.64                | 4.79 | 2.02 | 8.33 | 4.68 | 2.19 | 8.02 | 4.56 | 2.38 | 7.70 | 4.44 | 2.58 | 7.07 | 4.15 | 2.79 | 6.53 | 3.92 | 3.08 |
|           |      | 30°C | 8.66                | 5.90 | 2.03 | 8.35 | 5.79 | 2.19 | 8.03 | 5.66 | 2.38 | 7.71 | 5.53 | 2.58 | 7.08 | 5.18 | 2.80 | 6.55 | 4.91 | 3.08 |
|           |      | 33°C | 8.69                | 6.92 | 2.03 | 8.39 | 6.79 | 2.20 | 8.08 | 6.65 | 2.38 | 7.76 | 6.51 | 2.58 | 7.14 | 6.10 | 2.80 | 6.61 | 5.79 | 3.09 |
|           |      | 36°C | 8.76                | 7.81 | 2.03 | 8.49 | 7.67 | 2.20 | 8.20 | 7.50 | 2.39 | 7.90 | 7.31 | 2.59 | 7.30 | 6.82 | 2.82 | 6.81 | 6.42 | 3.11 |

**Model: FTY25JXV1 - RY25CXV1**  
**Heating Mode**

| ID DB        | Outdoor WB |         |         |         |         |         |         |         |         |         |         |         |         |         |
|--------------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|              | -9°C       |         | -6°C    |         | -5°C    |         | 6°C     |         | 12°C    |         | 15°C    |         | 18°C    |         |
|              | TC (kW)    | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) |
| 15°C         | 4.252      | 4.252   | 4.813   | 4.813   | 5.000   | 5.000   | 7.055   | 7.055   | 8.176   | 8.176   | 8.737   | 8.737   | 9.297   | 9.297   |
| 17°C         | 4.141      | 4.141   | 4.974   | 4.974   | 4.894   | 4.894   | 7.047   | 7.047   | 8.094   | 8.094   | 8.658   | 8.658   | 9.223   | 9.223   |
| 19°C         | 4.029      | 4.029   | 5.136   | 5.136   | 4.788   | 4.788   | 7.038   | 7.038   | 8.011   | 8.011   | 8.580   | 8.580   | 9.149   | 9.149   |
| 21°C         | 3.918      | 3.918   | 5.067   | 5.067   | 4.682   | 4.682   | 6.959   | 6.959   | 7.928   | 7.928   | 8.501   | 8.501   | 9.074   | 9.074   |
| 23°C         | 3.806      | 3.806   | 4.768   | 4.768   | 4.576   | 4.576   | 6.809   | 6.809   | 7.846   | 7.846   | 8.423   | 8.423   | 9.000   | 9.000   |
| 25°C         | 3.695      | 3.695   | 4.468   | 4.468   | 4.470   | 4.470   | 6.660   | 6.660   | 7.763   | 7.763   | 8.344   | 8.344   | 8.925   | 8.925   |
| 27°C         | 3.583      | 3.583   | 4.169   | 4.169   | 4.364   | 4.364   | 6.510   | 6.510   | 7.681   | 7.681   | 8.266   | 8.266   | 8.851   | 8.851   |
| Frost Region |            |         |         |         |         |         |         |         |         |         |         |         |         |         |

**Remark:**

- AFR: Air flow rate (CFM)
- EWB: Entering Wet Bulb Temp. (°C)
- EDB: Entering Dry Bulb Temp. (°C)
- TC: Total Cooling / Heating Capacity (kW)
- SC: Sensible Cooling / Heating Capacity (kW)
- PI: Power Input (kW)

**Notes:**

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB (cooling) / -9°C to 18°C WB (heating) without pressure trip.



**Model: FTY30FXV1 - RY28CXV1**  
**Cooling Mode**

| AFR (CFM) | EWB  | EDB  | Outdoor temperature |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------|------|------|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|           |      |      | 19°C                |      |      | 25°C |      |      | 30°C |      |      | 35°C |      |      | 40°C |      |      | 46°C |      |      |
|           |      |      | TC                  | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   |
| 500       | 16°C | 21°C | 7.46                | 4.93 | 2.01 | 7.20 | 4.80 | 2.17 | 6.93 | 4.67 | 2.36 | 6.65 | 4.54 | 2.55 | 6.11 | 4.22 | 2.77 | 5.64 | 3.97 | 3.05 |
|           |      | 24°C | 7.47                | 5.90 | 2.01 | 7.21 | 5.77 | 2.18 | 6.94 | 5.63 | 2.36 | 6.66 | 5.49 | 2.55 | 6.12 | 5.13 | 2.77 | 5.66 | 4.84 | 3.06 |
|           |      | 27°C | 7.53                | 6.69 | 2.01 | 7.28 | 6.54 | 2.18 | 7.02 | 6.38 | 2.36 | 6.76 | 6.22 | 2.56 | 6.24 | 5.79 | 2.78 | 5.80 | 5.44 | 3.07 |
|           |      | 30°C | 7.76                | 7.76 | 2.02 | 7.54 | 7.54 | 2.19 | 7.31 | 7.31 | 2.38 | 7.08 | 7.08 | 2.58 | 6.56 | 6.56 | 2.80 | 6.14 | 6.14 | 3.10 |
|           | 19°C | 24°C | 8.23                | 4.60 | 2.04 | 7.94 | 4.48 | 2.21 | 7.65 | 4.36 | 2.40 | 7.35 | 4.24 | 2.60 | 6.75 | 3.95 | 2.82 | 6.24 | 3.72 | 3.11 |
|           |      | 27°C | 8.24                | 5.26 | 2.04 | 7.95 | 5.15 | 2.21 | 7.65 | 5.03 | 2.40 | 7.35 | 4.91 | 2.60 | 6.76 | 4.59 | 2.82 | 6.25 | 4.35 | 3.11 |
|           |      | 30°C | 8.25                | 6.50 | 2.04 | 7.96 | 6.36 | 2.21 | 7.68 | 6.22 | 2.40 | 7.39 | 6.07 | 2.60 | 6.80 | 5.67 | 2.82 | 6.31 | 5.37 | 3.11 |
|           |      | 33°C | 8.35                | 8.35 | 2.05 | 8.07 | 8.07 | 2.22 | 7.81 | 7.81 | 2.41 | 7.55 | 7.55 | 2.61 | 6.98 | 6.98 | 2.84 | 6.53 | 6.53 | 3.13 |
|           | 22°C | 27°C | 9.05                | 4.50 | 2.08 | 8.74 | 4.39 | 2.25 | 8.42 | 4.28 | 2.44 | 8.09 | 4.17 | 2.65 | 7.44 | 3.88 | 2.87 | 6.89 | 3.66 | 3.17 |
|           |      | 30°C | 9.06                | 5.49 | 2.08 | 8.74 | 5.37 | 2.25 | 8.42 | 5.25 | 2.44 | 8.09 | 5.12 | 2.65 | 7.44 | 4.80 | 2.87 | 6.89 | 4.55 | 3.17 |
|           |      | 33°C | 9.06                | 6.41 | 2.08 | 8.75 | 6.29 | 2.25 | 8.43 | 6.16 | 2.44 | 8.10 | 6.04 | 2.65 | 7.45 | 5.67 | 2.88 | 6.91 | 5.38 | 3.17 |
|           |      | 36°C | 9.09                | 7.27 | 2.08 | 8.79 | 7.12 | 2.26 | 8.49 | 6.97 | 2.45 | 8.18 | 6.82 | 2.66 | 7.54 | 6.39 | 2.88 | 7.01 | 6.07 | 3.18 |
| 630       | 16°C | 21°C | 7.76                | 5.14 | 2.03 | 7.48 | 5.01 | 2.19 | 7.20 | 4.87 | 2.38 | 6.91 | 4.74 | 2.58 | 6.34 | 4.41 | 2.79 | 5.85 | 4.15 | 3.08 |
|           |      | 24°C | 7.79                | 6.24 | 2.03 | 7.51 | 6.09 | 2.20 | 7.23 | 5.95 | 2.38 | 6.93 | 5.80 | 2.58 | 6.37 | 5.41 | 2.80 | 5.89 | 5.11 | 3.08 |
|           |      | 27°C | 7.88                | 7.09 | 2.03 | 7.62 | 6.92 | 2.20 | 7.35 | 6.74 | 2.39 | 7.09 | 6.54 | 2.59 | 6.55 | 6.08 | 2.81 | 6.10 | 5.68 | 3.10 |
|           |      | 30°C | 8.21                | 8.21 | 2.05 | 7.97 | 7.97 | 2.22 | 7.73 | 7.73 | 2.41 | 7.48 | 7.48 | 2.61 | 6.93 | 6.93 | 2.84 | 6.48 | 6.48 | 3.13 |
|           | 19°C | 24°C | 8.55                | 4.86 | 2.06 | 8.25 | 4.74 | 2.23 | 7.94 | 4.62 | 2.42 | 7.62 | 4.49 | 2.62 | 7.00 | 4.18 | 2.84 | 6.46 | 3.94 | 3.13 |
|           |      | 27°C | 8.57                | 5.60 | 2.06 | 8.26 | 5.48 | 2.23 | 7.95 | 5.35 | 2.42 | 7.63 | 5.23 | 2.62 | 7.01 | 4.89 | 2.85 | 6.48 | 4.63 | 3.14 |
|           |      | 30°C | 8.61                | 6.91 | 2.07 | 8.31 | 6.76 | 2.24 | 8.01 | 6.61 | 2.42 | 7.71 | 6.45 | 2.63 | 7.10 | 6.03 | 2.85 | 6.58 | 5.70 | 3.14 |
|           |      | 33°C | 8.75                | 8.75 | 2.07 | 8.49 | 8.49 | 2.25 | 8.22 | 8.22 | 2.44 | 7.94 | 7.94 | 2.64 | 7.36 | 7.36 | 2.87 | 6.88 | 6.88 | 3.17 |
|           | 22°C | 27°C | 9.40                | 4.76 | 2.10 | 9.07 | 4.65 | 2.28 | 8.73 | 4.53 | 2.47 | 8.38 | 4.41 | 2.67 | 7.70 | 4.11 | 2.90 | 7.13 | 3.88 | 3.19 |
|           |      | 30°C | 9.41                | 5.84 | 2.10 | 9.08 | 5.72 | 2.28 | 8.74 | 5.59 | 2.47 | 8.39 | 5.46 | 2.68 | 7.71 | 5.12 | 2.90 | 7.14 | 4.86 | 3.20 |
|           |      | 33°C | 9.43                | 6.85 | 2.10 | 9.10 | 6.72 | 2.28 | 8.77 | 6.58 | 2.47 | 8.42 | 6.44 | 2.68 | 7.75 | 6.04 | 2.90 | 7.18 | 5.73 | 3.20 |
|           |      | 36°C | 9.48                | 7.74 | 2.11 | 9.18 | 7.59 | 2.28 | 8.86 | 7.44 | 2.47 | 8.54 | 7.26 | 2.69 | 7.88 | 6.80 | 2.91 | 7.34 | 6.41 | 3.22 |
| 660       | 16°C | 21°C | 8.05                | 5.36 | 2.05 | 7.76 | 5.23 | 2.21 | 7.46 | 5.09 | 2.40 | 7.15 | 4.95 | 2.60 | 6.56 | 4.61 | 2.82 | 6.04 | 4.34 | 3.10 |
|           |      | 24°C | 8.09                | 6.52 | 2.05 | 7.80 | 6.36 | 2.21 | 7.51 | 6.21 | 2.40 | 7.20 | 6.04 | 2.60 | 6.61 | 5.64 | 2.82 | 6.11 | 5.32 | 3.11 |
|           |      | 27°C | 8.22                | 7.47 | 2.05 | 7.95 | 7.27 | 2.22 | 7.69 | 7.07 | 2.41 | 7.41 | 6.85 | 2.61 | 6.85 | 6.35 | 2.84 | 6.38 | 5.93 | 3.13 |
|           |      | 30°C | 8.63                | 8.63 | 2.07 | 8.38 | 8.38 | 2.24 | 8.12 | 8.12 | 2.43 | 7.86 | 7.86 | 2.64 | 7.27 | 7.27 | 2.87 | 6.79 | 6.79 | 3.17 |
|           | 19°C | 24°C | 8.86                | 5.14 | 2.08 | 8.54 | 5.02 | 2.25 | 8.22 | 4.89 | 2.44 | 7.88 | 4.76 | 2.64 | 7.23 | 4.43 | 2.87 | 6.68 | 4.18 | 3.16 |
|           |      | 27°C | 8.89                | 5.95 | 2.08 | 8.57 | 5.82 | 2.25 | 8.25 | 5.68 | 2.44 | 7.91 | 5.54 | 2.65 | 7.27 | 5.18 | 2.87 | 6.71 | 4.90 | 3.16 |
|           |      | 30°C | 8.96                | 7.32 | 2.08 | 8.64 | 7.16 | 2.26 | 8.33 | 7.00 | 2.45 | 8.01 | 6.82 | 2.65 | 7.38 | 6.37 | 2.88 | 6.85 | 6.01 | 3.17 |
|           |      | 33°C | 9.15                | 9.15 | 2.09 | 8.89 | 8.89 | 2.27 | 8.61 | 8.61 | 2.46 | 8.33 | 8.33 | 2.67 | 7.72 | 7.72 | 2.91 | 7.22 | 7.22 | 3.21 |
|           | 22°C | 27°C | 9.72                | 5.03 | 2.12 | 9.38 | 4.92 | 2.29 | 9.02 | 4.80 | 2.49 | 8.66 | 4.67 | 2.70 | 7.96 | 4.36 | 2.92 | 7.35 | 4.12 | 3.22 |
|           |      | 30°C | 9.74                | 6.20 | 2.12 | 9.40 | 6.09 | 2.30 | 9.04 | 5.95 | 2.49 | 8.68 | 5.82 | 2.70 | 7.97 | 5.45 | 2.93 | 7.38 | 5.16 | 3.22 |
|           |      | 33°C | 9.78                | 7.27 | 2.12 | 9.44 | 7.14 | 2.30 | 9.09 | 6.99 | 2.49 | 8.73 | 6.84 | 2.70 | 8.04 | 6.41 | 2.93 | 7.44 | 6.08 | 3.23 |
|           |      | 36°C | 9.86                | 8.21 | 2.13 | 9.55 | 8.06 | 2.31 | 9.22 | 7.88 | 2.50 | 8.89 | 7.69 | 2.71 | 8.22 | 7.17 | 2.95 | 7.66 | 6.75 | 3.25 |

**Model: FTY30FXV1 - RY28CXV1**  
**Heating Mode**

| ID DB               | Outdoor WB |         |         |         |         |         |         |         |         |         |         |         |         |         |
|---------------------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                     | -9°C       |         | -6°C    |         | -5°C    |         | 6°C     |         | 12°C    |         | 15°C    |         | 18°C    |         |
|                     | TC (kW)    | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) |
| 15°C                | 3.527      | 3.527   | 4.422   | 4.422   | 4.720   | 4.720   | 8.000   | 8.000   | 9.790   | 9.790   | 10.684  | 10.684  | 11.579  | 11.579  |
| 17°C                | 3.437      | 3.437   | 4.332   | 4.332   | 4.630   | 4.630   | 7.939   | 7.939   | 9.523   | 9.523   | 10.386  | 10.386  | 11.250  | 11.250  |
| 19°C                | 3.347      | 3.347   | 4.241   | 4.241   | 4.540   | 4.540   | 7.877   | 7.877   | 9.256   | 9.256   | 10.088  | 10.088  | 10.920  | 10.920  |
| 21°C                | 3.256      | 3.256   | 4.151   | 4.151   | 4.449   | 4.449   | 7.816   | 7.816   | 8.989   | 8.989   | 9.790   | 9.790   | 10.591  | 10.591  |
| 23°C                | 3.252      | 3.252   | 4.082   | 4.082   | 4.359   | 4.359   | 7.461   | 7.461   | 8.722   | 8.722   | 9.492   | 9.492   | 10.262  | 10.262  |
| 25°C                | 3.247      | 3.247   | 7.014   | 7.014   | 4.269   | 4.269   | 7.105   | 7.105   | 8.455   | 8.455   | 9.194   | 9.194   | 9.932   | 9.932   |
| 27°C                | 3.242      | 3.242   | 3.945   | 3.945   | 4.179   | 4.179   | 6.750   | 6.750   | 8.188   | 8.188   | 8.896   | 8.896   | 9.603   | 9.603   |
| <b>Frost Region</b> |            |         |         |         |         |         |         |         |         |         |         |         |         |         |

**Remark:**

- AFR: Air flow rate (CFM)
- EWB: Entering Wet Bulb Temp. (°C)
- EDB: Entering Dry Bulb Temp. (°C)
- TC: Total Cooling / Heating Capacity (kW)
- SC: Sensible Cooling / Heating Capacity (kW)
- PI: Power Input (kW)

**Notes:**

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB (cooling) / -9°C to 18°C WB (heating) without pressure trip.

**Model: FTY30FXV1 - RY30DXV1**  
**Cooling Mode**

| AFR (CFM) | EWB  | EDB  | Outdoor temperature |       |      |       |      |      |       |      |      |      |      |      |      |      |      |      |      |      |
|-----------|------|------|---------------------|-------|------|-------|------|------|-------|------|------|------|------|------|------|------|------|------|------|------|
|           |      |      | 19°C                |       |      | 25°C  |      |      | 30°C  |      |      | 35°C |      |      | 40°C |      |      | 46°C |      |      |
|           |      |      | TC                  | SC    | PI   | TC    | SC   | PI   | TC    | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   | TC   | SC   | PI   |
| 500       | 16°C | 21°C | 8.29                | 5.47  | 2.27 | 7.99  | 5.33 | 2.46 | 7.70  | 5.18 | 2.66 | 7.39 | 5.04 | 2.89 | 6.78 | 4.69 | 3.13 | 6.26 | 4.41 | 3.45 |
|           |      | 24°C | 8.30                | 6.55  | 2.27 | 8.00  | 6.40 | 2.46 | 7.71  | 6.25 | 2.66 | 7.40 | 6.10 | 2.89 | 6.80 | 5.69 | 3.13 | 6.29 | 5.37 | 3.45 |
|           |      | 27°C | 8.36                | 7.43  | 2.28 | 8.09  | 7.26 | 2.46 | 7.80  | 7.09 | 2.67 | 7.51 | 6.91 | 2.89 | 6.93 | 6.43 | 3.14 | 6.45 | 6.04 | 3.47 |
|           |      | 30°C | 8.62                | 8.62  | 2.29 | 8.37  | 8.37 | 2.48 | 8.12  | 8.12 | 2.68 | 7.86 | 7.86 | 2.92 | 7.28 | 7.28 | 3.17 | 6.82 | 6.82 | 3.50 |
|           | 19°C | 24°C | 9.14                | 5.11  | 2.31 | 8.82  | 4.98 | 2.50 | 8.50  | 4.85 | 2.71 | 8.16 | 4.71 | 2.94 | 7.50 | 4.39 | 3.18 | 6.93 | 4.13 | 3.51 |
|           |      | 27°C | 9.15                | 5.84  | 2.31 | 8.83  | 5.71 | 2.50 | 8.50  | 5.58 | 2.71 | 8.17 | 5.45 | 2.94 | 7.51 | 5.09 | 3.19 | 6.94 | 4.83 | 3.51 |
|           |      | 30°C | 9.16                | 7.21  | 2.31 | 8.85  | 7.06 | 2.50 | 8.53  | 6.90 | 2.71 | 8.21 | 6.73 | 2.94 | 7.56 | 6.30 | 3.19 | 7.01 | 5.96 | 3.52 |
|           |      | 33°C | 9.27                | 9.27  | 2.31 | 8.97  | 8.97 | 2.51 | 8.68  | 8.68 | 2.72 | 8.38 | 8.38 | 2.95 | 7.76 | 7.76 | 3.20 | 7.25 | 7.25 | 3.54 |
|           | 22°C | 27°C | 10.06               | 5.00  | 2.35 | 9.71  | 4.88 | 2.55 | 9.36  | 4.76 | 2.76 | 8.99 | 4.63 | 2.99 | 8.27 | 4.31 | 3.25 | 7.65 | 4.06 | 3.58 |
|           |      | 30°C | 10.06               | 6.09  | 2.35 | 9.71  | 5.96 | 2.55 | 9.36  | 5.83 | 2.76 | 8.99 | 5.69 | 2.99 | 8.27 | 5.32 | 3.25 | 7.66 | 5.05 | 3.58 |
|           |      | 33°C | 10.07               | 7.11  | 2.35 | 9.72  | 6.98 | 2.55 | 9.36  | 6.84 | 2.76 | 9.00 | 6.70 | 2.99 | 8.28 | 6.29 | 3.25 | 7.67 | 5.97 | 3.58 |
|           |      | 36°C | 10.10               | 8.07  | 2.35 | 9.77  | 7.91 | 2.55 | 9.43  | 7.74 | 2.76 | 9.08 | 7.57 | 3.00 | 8.38 | 7.10 | 3.26 | 7.79 | 6.73 | 3.59 |
| 630       | 16°C | 21°C | 8.62                | 5.71  | 2.29 | 8.31  | 5.56 | 2.48 | 8.00  | 5.41 | 2.68 | 7.67 | 5.26 | 2.91 | 7.04 | 4.90 | 3.16 | 6.49 | 4.61 | 3.48 |
|           |      | 24°C | 8.65                | 6.93  | 2.29 | 8.34  | 6.76 | 2.48 | 8.03  | 6.60 | 2.69 | 7.70 | 6.44 | 2.91 | 7.08 | 6.01 | 3.16 | 6.54 | 5.67 | 3.48 |
|           |      | 27°C | 8.75                | 7.87  | 2.30 | 8.46  | 7.68 | 2.49 | 8.17  | 7.49 | 2.69 | 7.88 | 7.26 | 2.92 | 7.27 | 6.75 | 3.17 | 6.77 | 6.31 | 3.50 |
|           |      | 30°C | 9.12                | 9.12  | 2.31 | 8.86  | 8.86 | 2.51 | 8.59  | 8.59 | 2.72 | 8.31 | 8.31 | 2.95 | 7.70 | 7.70 | 3.21 | 7.19 | 7.19 | 3.54 |
|           | 19°C | 24°C | 9.50                | 5.40  | 2.33 | 9.16  | 5.26 | 2.52 | 8.82  | 5.13 | 2.73 | 8.46 | 4.98 | 2.96 | 7.77 | 4.65 | 3.21 | 7.18 | 4.38 | 3.54 |
|           |      | 27°C | 9.52                | 6.22  | 2.33 | 9.18  | 6.08 | 2.52 | 8.84  | 5.94 | 2.73 | 8.48 | 5.80 | 2.96 | 7.79 | 5.42 | 3.21 | 7.20 | 5.14 | 3.54 |
|           |      | 30°C | 9.56                | 7.67  | 2.33 | 9.23  | 7.50 | 2.53 | 8.90  | 7.34 | 2.74 | 8.56 | 7.16 | 2.97 | 7.88 | 6.69 | 3.22 | 7.31 | 6.32 | 3.55 |
|           |      | 33°C | 9.72                | 9.72  | 2.34 | 9.43  | 9.43 | 2.54 | 9.13  | 9.13 | 2.75 | 8.82 | 8.82 | 2.99 | 8.17 | 8.17 | 3.25 | 7.64 | 7.64 | 3.58 |
|           | 22°C | 27°C | 10.44               | 5.29  | 2.37 | 10.07 | 5.16 | 2.57 | 9.70  | 5.03 | 2.79 | 9.31 | 4.90 | 3.02 | 8.56 | 4.57 | 3.28 | 7.92 | 4.31 | 3.61 |
|           |      | 30°C | 10.45               | 6.49  | 2.37 | 10.08 | 6.35 | 2.57 | 9.71  | 6.21 | 2.79 | 9.32 | 6.07 | 3.02 | 8.57 | 5.68 | 3.28 | 7.93 | 5.39 | 3.61 |
|           |      | 33°C | 10.47               | 7.60  | 2.37 | 10.11 | 7.46 | 2.57 | 9.74  | 7.30 | 2.79 | 9.35 | 7.15 | 3.03 | 8.60 | 6.70 | 3.28 | 7.98 | 6.37 | 3.62 |
|           |      | 36°C | 10.54               | 8.59  | 2.38 | 10.20 | 8.43 | 2.58 | 9.84  | 8.25 | 2.80 | 9.48 | 8.06 | 3.03 | 8.75 | 7.54 | 3.29 | 8.16 | 7.12 | 3.63 |
| 660       | 16°C | 21°C | 8.94                | 5.95  | 2.31 | 8.61  | 5.80 | 2.50 | 8.28  | 5.65 | 2.71 | 7.94 | 5.49 | 2.93 | 7.28 | 5.11 | 3.18 | 6.71 | 4.81 | 3.51 |
|           |      | 24°C | 8.99                | 7.23  | 2.31 | 8.66  | 7.06 | 2.50 | 8.34  | 6.89 | 2.71 | 8.00 | 6.71 | 2.94 | 7.35 | 6.26 | 3.19 | 6.79 | 5.90 | 3.51 |
|           |      | 27°C | 9.13                | 8.29  | 2.32 | 8.84  | 8.08 | 2.51 | 8.54  | 7.85 | 2.72 | 8.23 | 7.61 | 2.95 | 7.61 | 7.05 | 3.21 | 7.09 | 6.58 | 3.54 |
|           |      | 30°C | 9.59                | 9.59  | 2.34 | 9.31  | 9.31 | 2.54 | 9.02  | 9.02 | 2.75 | 8.73 | 8.73 | 2.99 | 8.08 | 8.08 | 3.24 | 7.55 | 7.55 | 3.58 |
|           | 19°C | 24°C | 9.84                | 5.71  | 2.35 | 9.49  | 5.57 | 2.54 | 9.13  | 5.43 | 2.75 | 8.75 | 5.28 | 2.99 | 8.03 | 4.92 | 3.24 | 7.42 | 4.64 | 3.57 |
|           |      | 27°C | 9.87                | 6.61  | 2.35 | 9.52  | 6.46 | 2.54 | 9.16  | 6.30 | 2.76 | 8.79 | 6.15 | 2.99 | 8.07 | 5.75 | 3.24 | 7.46 | 5.44 | 3.57 |
|           |      | 30°C | 9.95                | 8.13  | 2.36 | 9.60  | 7.95 | 2.55 | 9.26  | 7.77 | 2.76 | 8.90 | 7.58 | 3.00 | 8.20 | 7.08 | 3.25 | 7.61 | 6.67 | 3.59 |
|           |      | 33°C | 10.17               | 10.17 | 2.37 | 9.87  | 9.87 | 2.56 | 9.57  | 9.57 | 2.78 | 9.25 | 9.25 | 3.02 | 8.57 | 8.57 | 3.28 | 8.02 | 8.02 | 3.62 |
|           | 22°C | 27°C | 10.80               | 5.59  | 2.39 | 10.42 | 5.46 | 2.59 | 10.03 | 5.33 | 2.81 | 9.62 | 5.19 | 3.05 | 8.84 | 4.84 | 3.30 | 8.17 | 4.57 | 3.64 |
|           |      | 30°C | 10.82               | 6.89  | 2.39 | 10.44 | 6.76 | 2.59 | 10.04 | 6.61 | 2.81 | 9.64 | 6.46 | 3.05 | 8.86 | 6.05 | 3.31 | 8.19 | 5.73 | 3.64 |
|           |      | 33°C | 10.86               | 8.07  | 2.40 | 10.48 | 7.93 | 2.60 | 10.10 | 7.76 | 2.82 | 9.70 | 7.59 | 3.05 | 8.93 | 7.12 | 3.31 | 8.27 | 6.75 | 3.65 |
|           |      | 36°C | 10.96               | 9.11  | 2.40 | 10.61 | 8.95 | 2.60 | 10.25 | 8.75 | 2.82 | 9.88 | 8.53 | 3.07 | 9.13 | 7.96 | 3.33 | 8.51 | 7.49 | 3.67 |

**Model: FTY30FXV1 - RY30DXV1**  
**Heating Mode**

| ID DB               | Outdoor WB |         |         |         |         |         |         |         |         |         |         |         |         |         |
|---------------------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                     | -9°C       |         | -6°C    |         | -5°C    |         | 6°C     |         | 12°C    |         | 15°C    |         | 18°C    |         |
|                     | TC (kW)    | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) | TC (kW) | SC (kW) |
| 15°C                | 5.37       | 5.37    | 6.20    | 6.20    | 6.47    | 6.47    | 9.50    | 9.50    | 11.15   | 11.15   | 11.98   | 11.98   | 12.80   | 12.80   |
| 17°C                | 5.37       | 5.37    | 6.11    | 6.11    | 6.36    | 6.36    | 9.26    | 9.26    | 10.85   | 10.85   | 11.65   | 11.65   | 12.44   | 12.44   |
| 19°C                | 5.36       | 5.36    | 6.03    | 6.03    | 6.25    | 6.25    | 9.03    | 9.03    | 10.56   | 10.56   | 11.32   | 11.32   | 12.08   | 12.08   |
| 21°C                | 5.36       | 5.36    | 5.94    | 5.94    | 6.14    | 6.14    | 8.79    | 8.79    | 10.26   | 10.26   | 10.99   | 10.99   | 11.71   | 11.71   |
| 23°C                | 5.22       | 5.22    | 5.82    | 5.82    | 6.03    | 6.03    | 8.56    | 8.56    | 9.96    | 9.96    | 10.65   | 10.65   | 11.35   | 11.35   |
| 25°C                | 5.09       | 5.09    | 5.71    | 5.71    | 5.91    | 5.91    | 8.34    | 8.34    | 9.66    | 9.66    | 10.32   | 10.32   | 10.98   | 10.98   |
| 27°C                | 4.95       | 4.95    | 5.59    | 5.59    | 5.80    | 5.80    | 8.11    | 8.11    | 9.36    | 9.36    | 9.99    | 9.99    | 10.62   | 10.62   |
| <b>Frost Region</b> |            |         |         |         |         |         |         |         |         |         |         |         |         |         |

**Remark:**

- AFR: Air flow rate (CFM)
- EWB: Entering Wet Bulb Temp. (°C)
- EDB: Entering Dry Bulb Temp. (°C)
- TC: Total Cooling / Heating Capacity (kW)
- SC: Sensible Cooling / Heating Capacity (kW)
- PI: Power Input (kW)

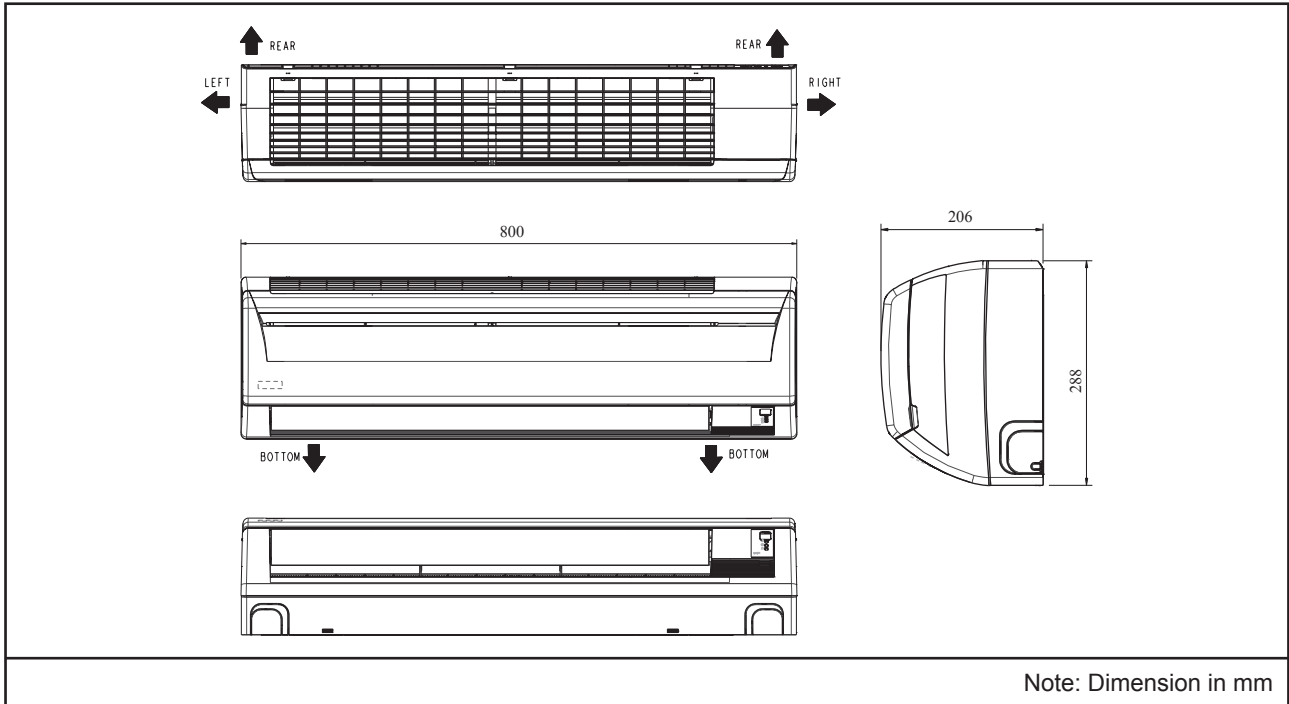
**Notes:**

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB (cooling) / -9°C to 18°C WB (heating) without pressure trip.

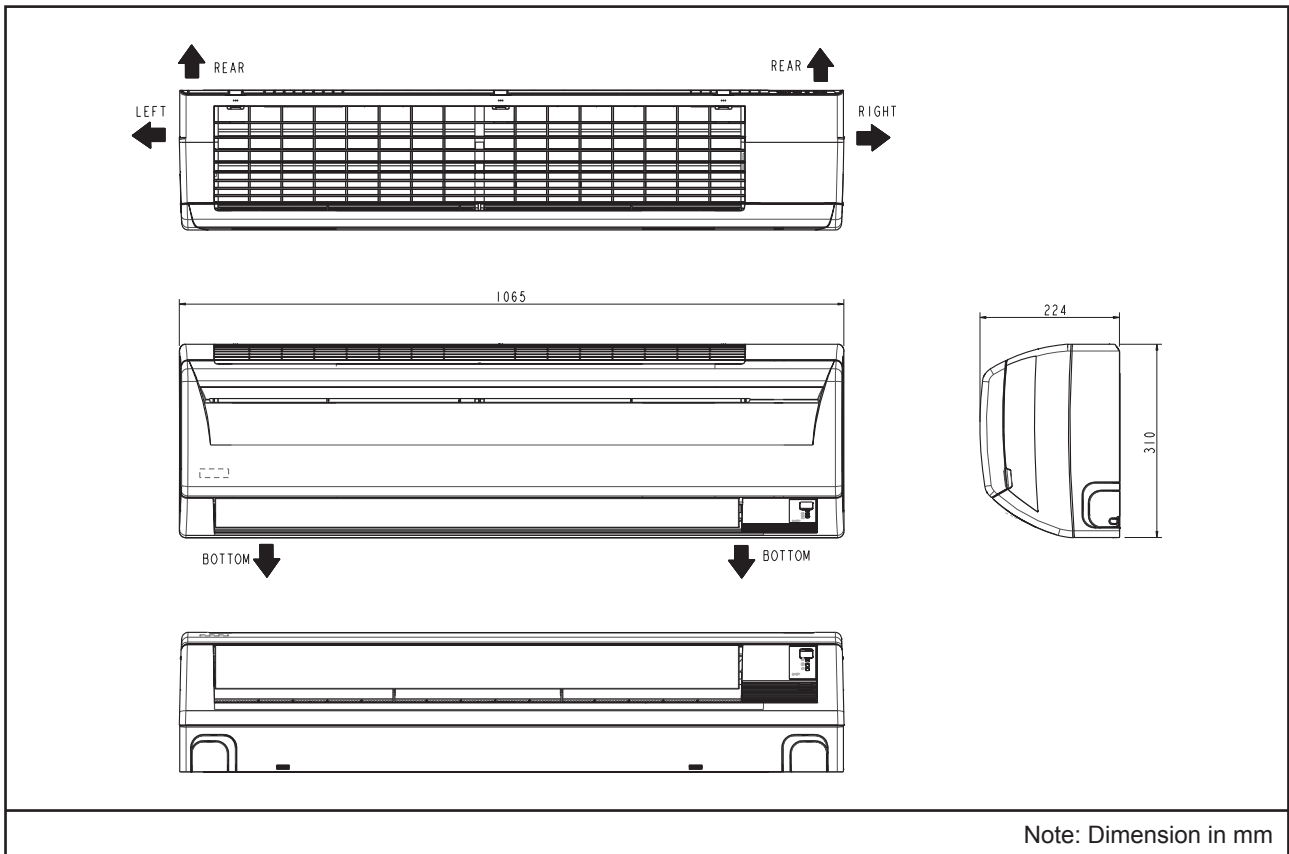
# Outline & Dimension

## Indoor Unit

Model: FT10/15JXV1 / FTY09/15JXV1

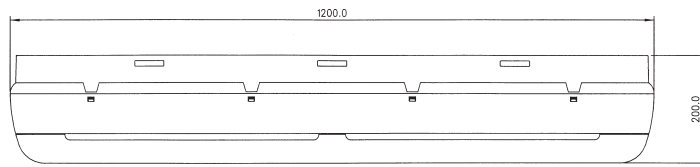


Model: FT(Y)20/25JXV1

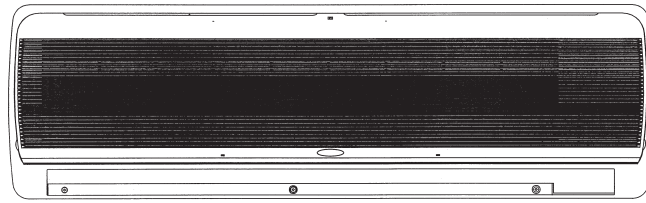




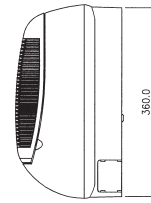
Model: FT(Y)30FXV1



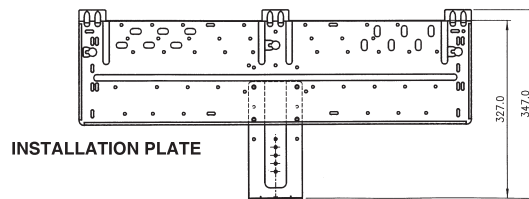
TOP VIEW



FRONT VIEW



SIDE VIEW

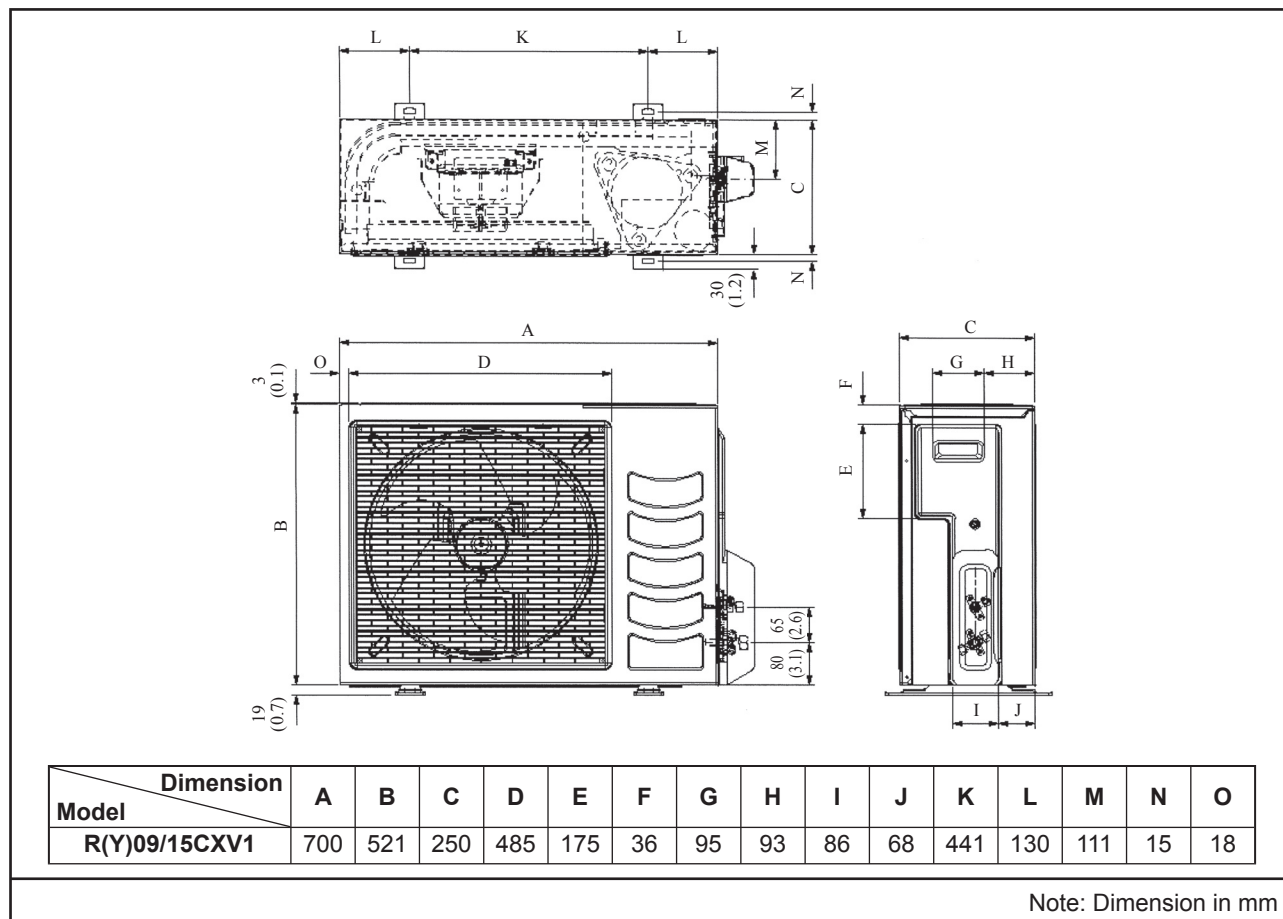


INSTALLATION PLATE

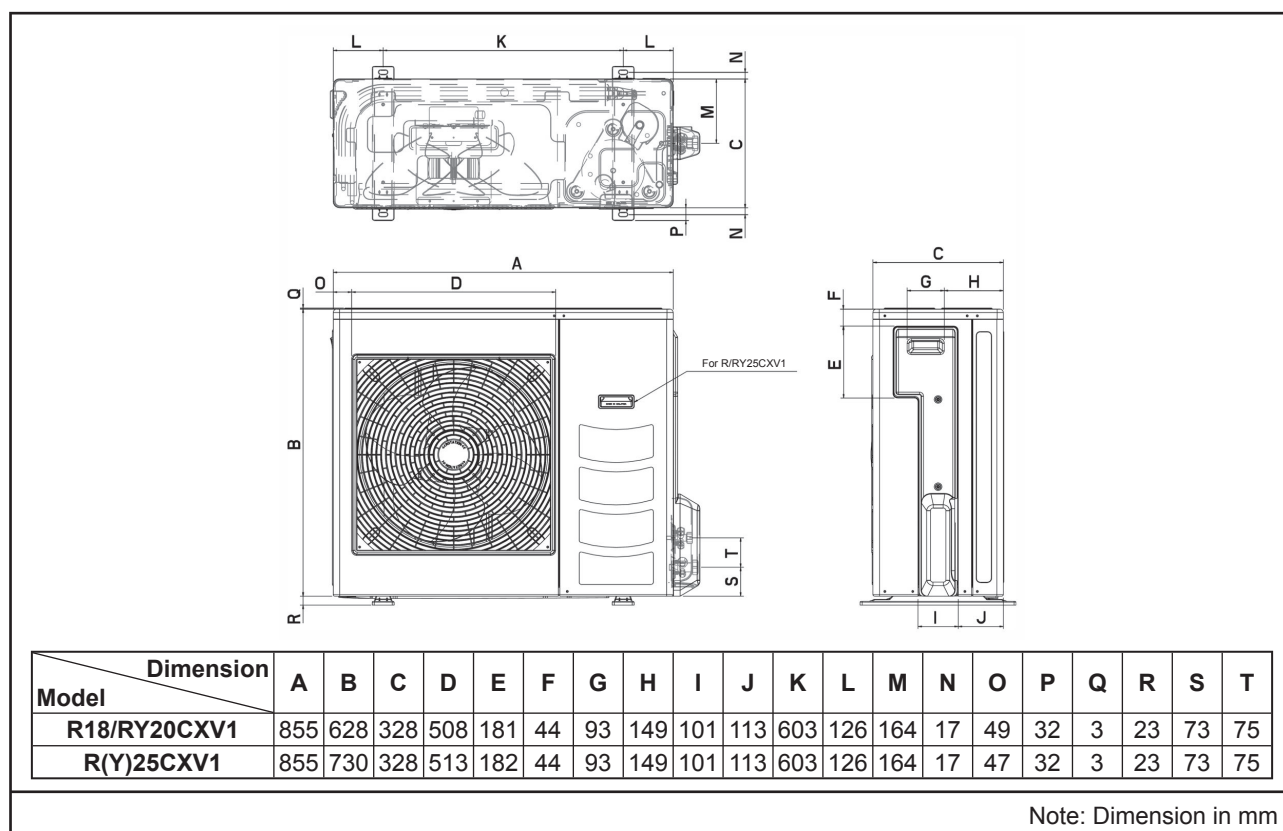
Note: Dimension in mm

## Outdoor Unit

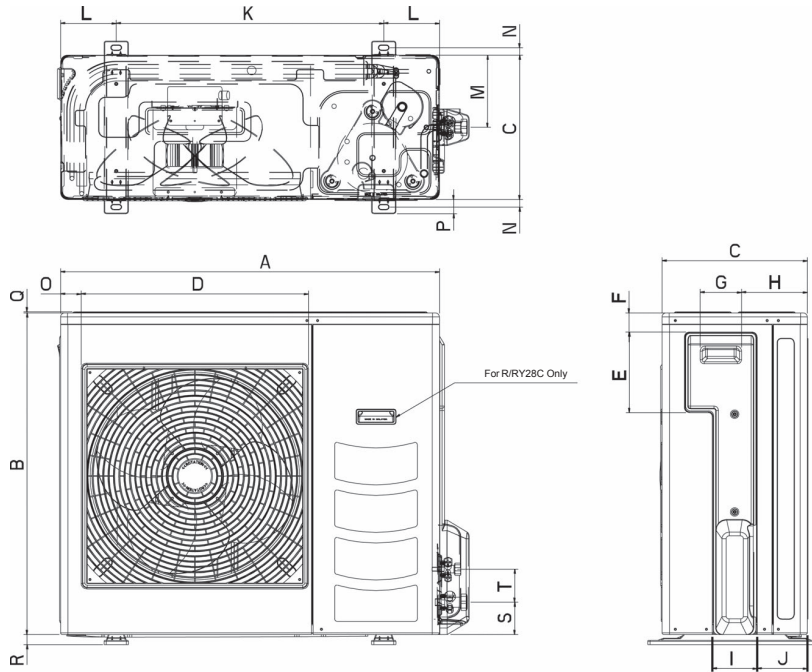
Model: R(Y)09/15CXV1



Model: R18/25CXV1 / RY20/25CXV1



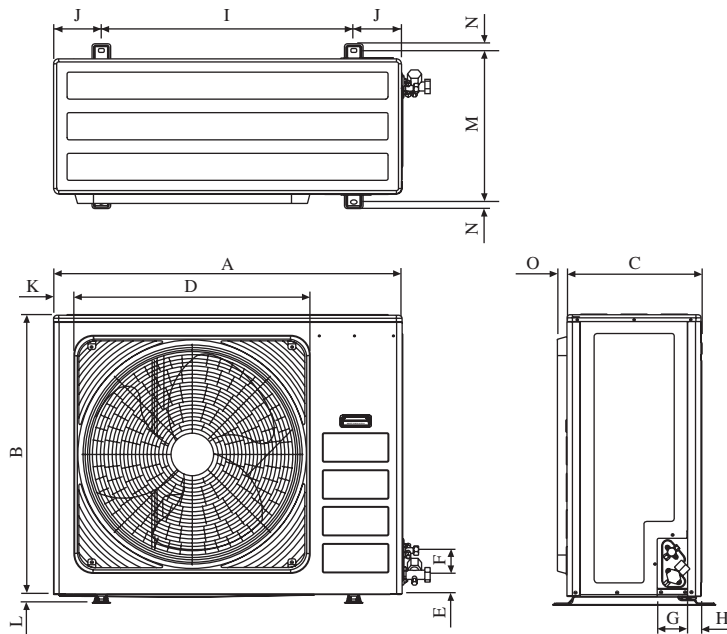
Model: R(Y)28CXY1



| Dimension        | A   | B   | C   | D   | E   | F  | G  | H   | I   | J   | K   | L   | M   | N  | O  | P  | Q | R  | S  | T  |
|------------------|-----|-----|-----|-----|-----|----|----|-----|-----|-----|-----|-----|-----|----|----|----|---|----|----|----|
| Model R(Y)28CXY1 | 855 | 730 | 328 | 513 | 182 | 44 | 93 | 149 | 101 | 113 | 603 | 126 | 164 | 17 | 47 | 32 | 3 | 23 | 73 | 75 |

Note: Dimension in mm

Model: R(Y)30DXV1 / R30DXY1



| Dimension                  | A    | B   | C   | D   | E  | F  | G  | H  | I   | J   | K  | L  | M   | N  | O  |
|----------------------------|------|-----|-----|-----|----|----|----|----|-----|-----|----|----|-----|----|----|
| Model R(Y)30DXV1 / R30DXY1 | 1030 | 826 | 400 | 410 | 57 | 72 | 90 | 40 | 746 | 142 | 60 | 26 | 448 | 22 | 28 |

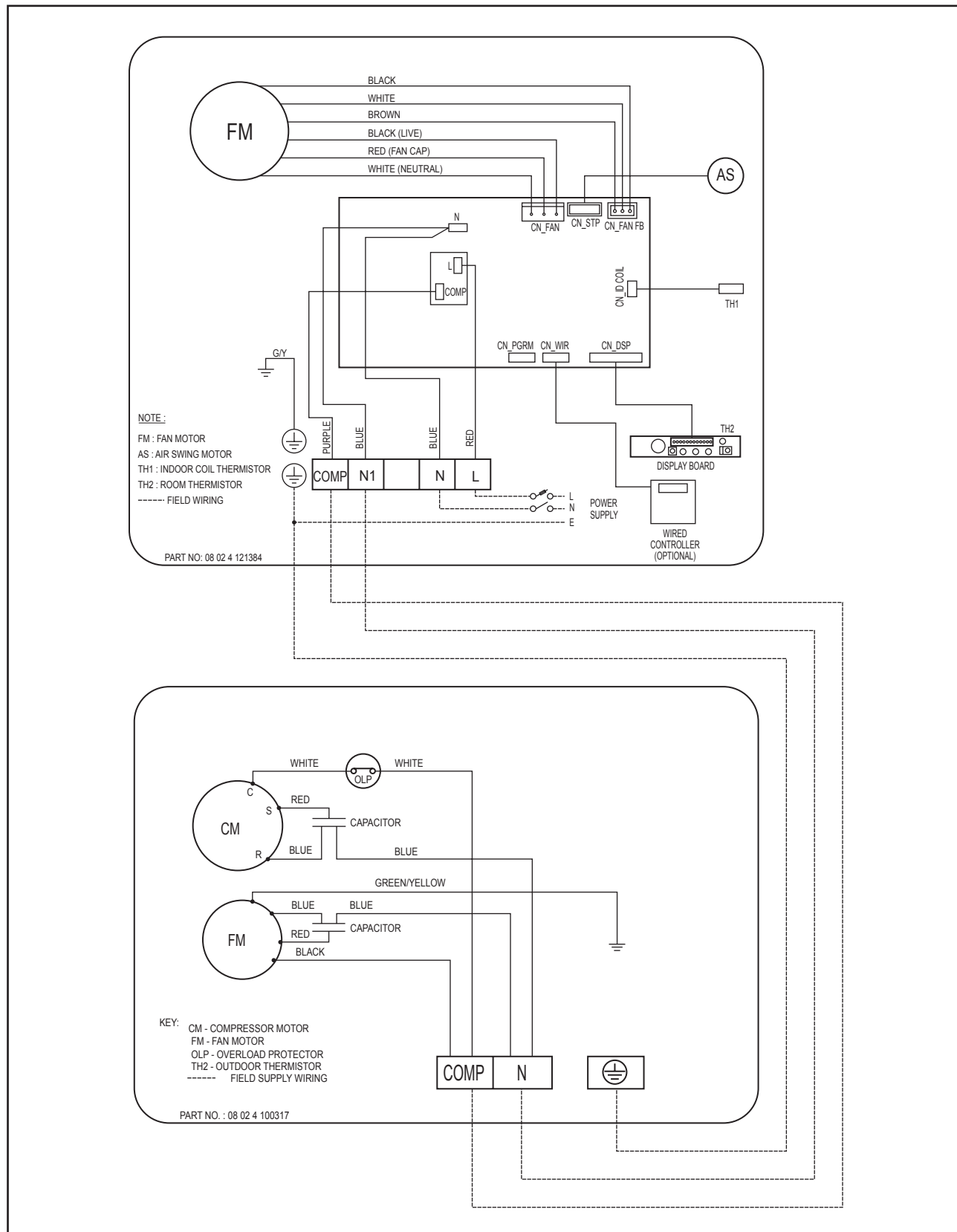
Note: Dimension in mm

# Wiring Diagram

## Cooling Only

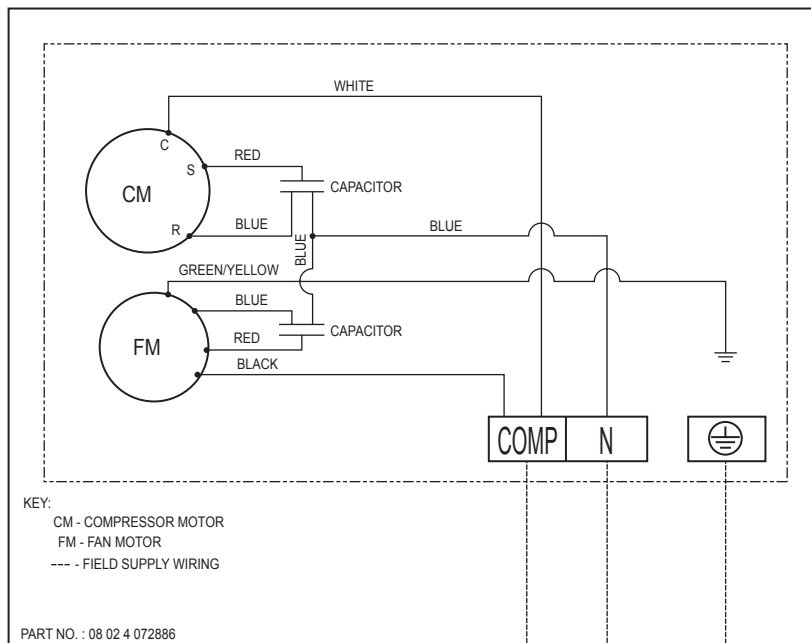
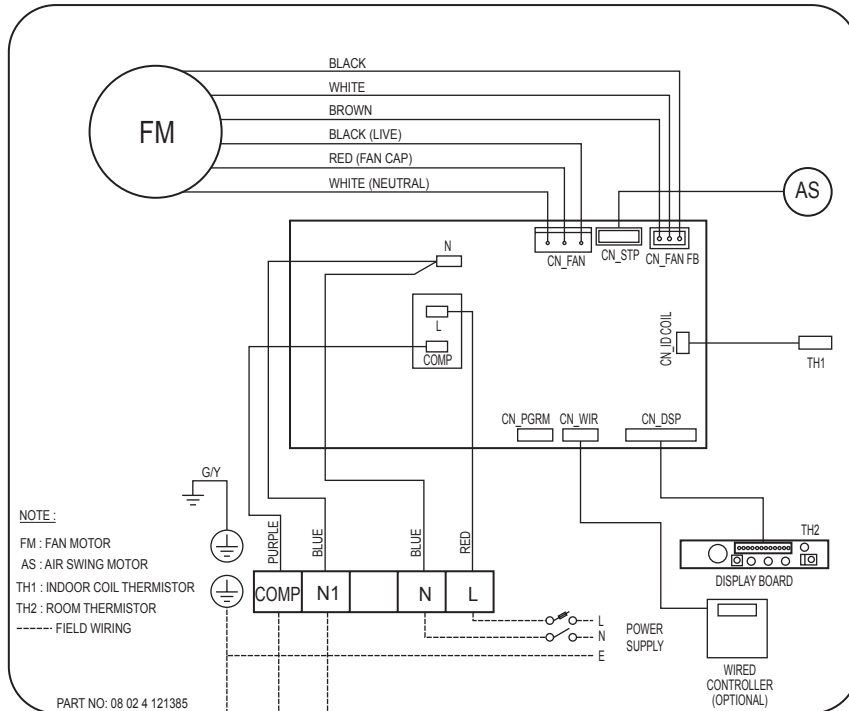
Indoor Unit  
Model: FT10/15JXV1

Outdoor Unit  
Model: R09/15CXV1



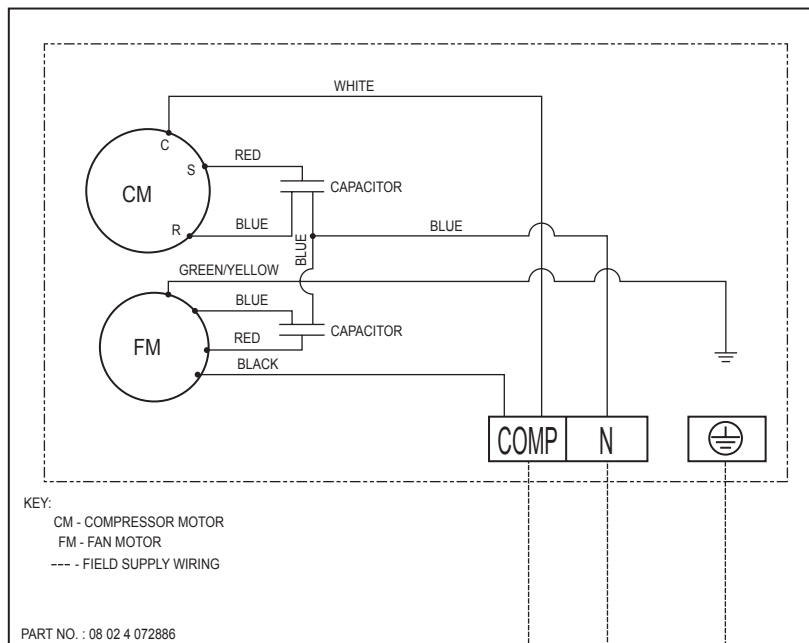
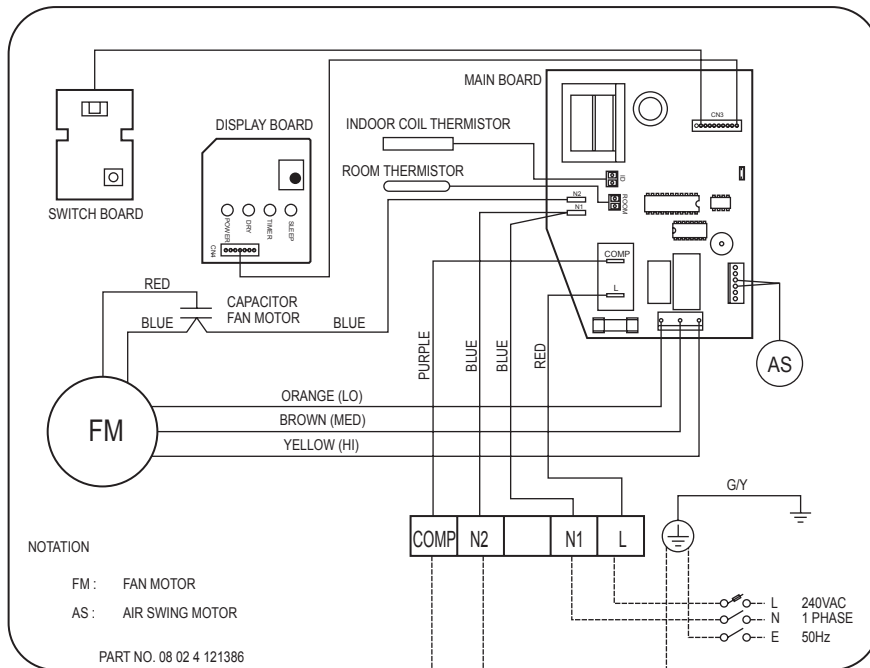
**Indoor Unit**  
**Model: FT20/25JXV1**

**Outdoor Unit**  
**Model: R18/25CXV1**



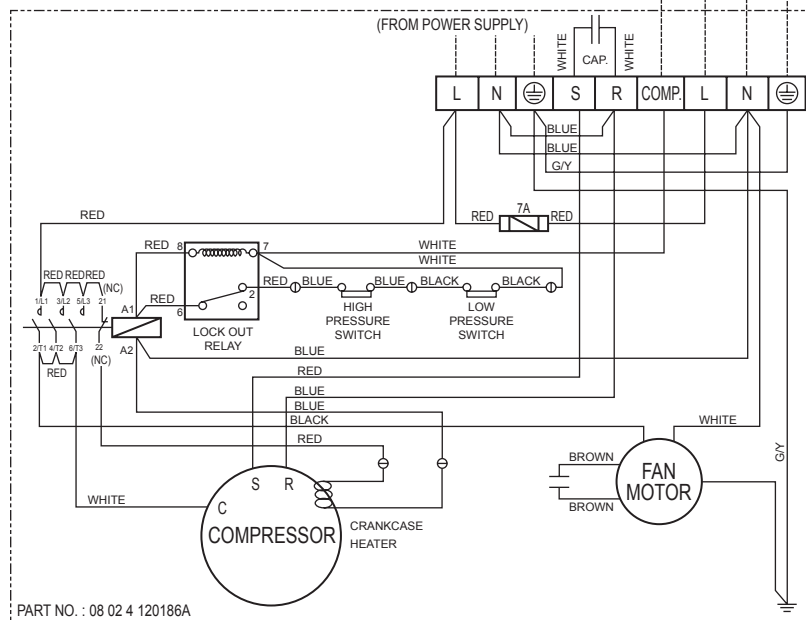
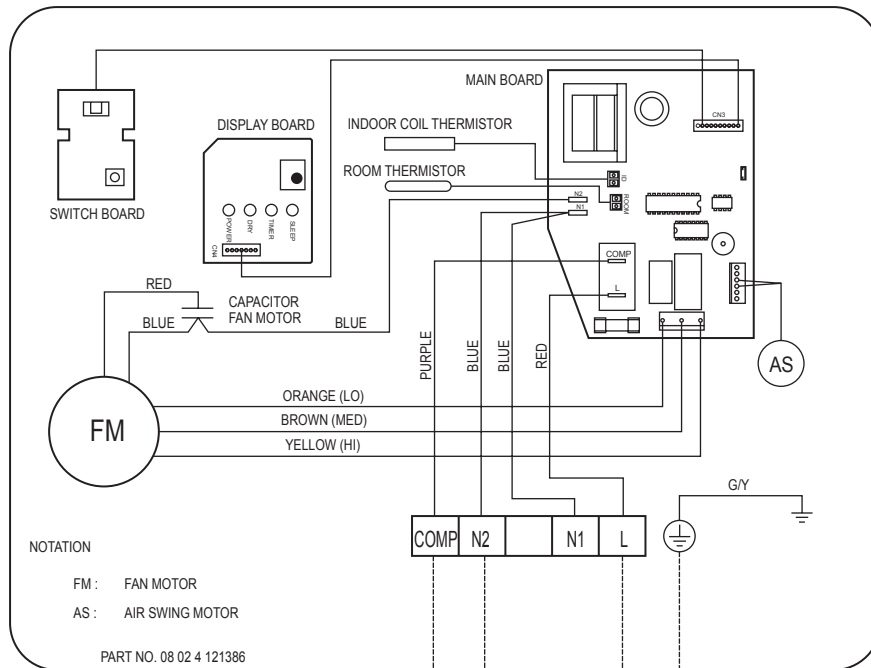
**Indoor Unit**  
Model: FT30FXV1

**Outdoor Unit**  
Model: R28CXV1



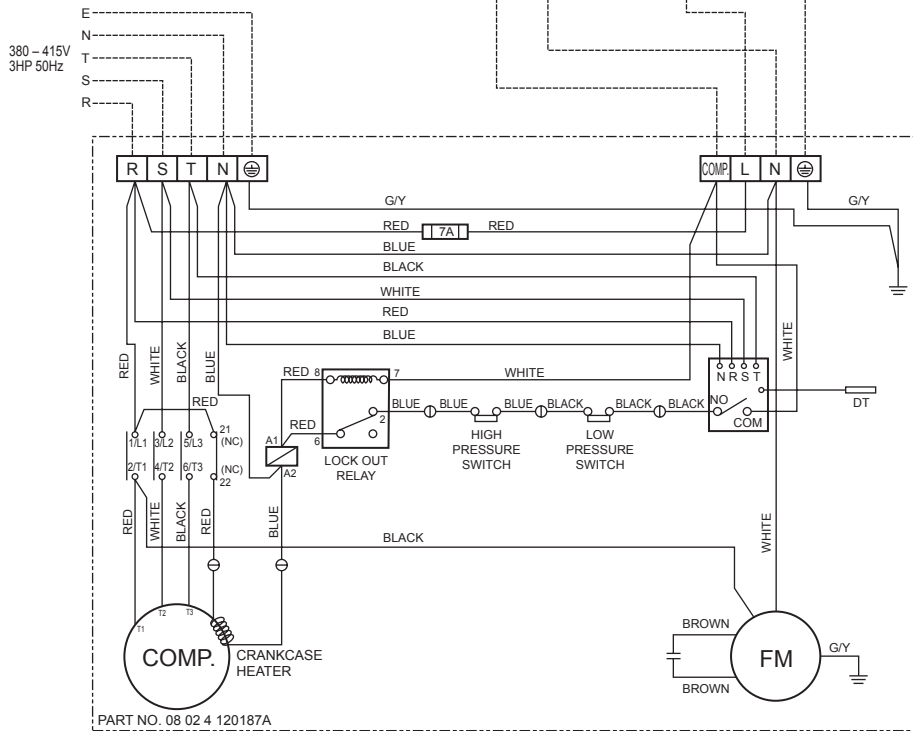
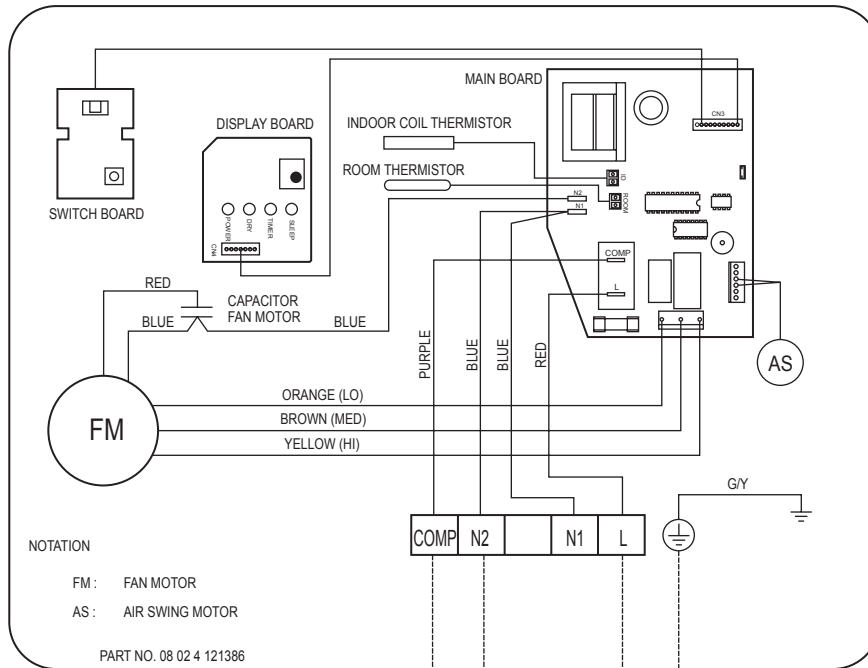
**Indoor Unit**  
Model: FT30FXV1

**Outdoor Unit**  
Model: R30DXV1



Indoor Unit  
Model: FT30FXV1

Outdoor Unit  
Model: R30DXY1

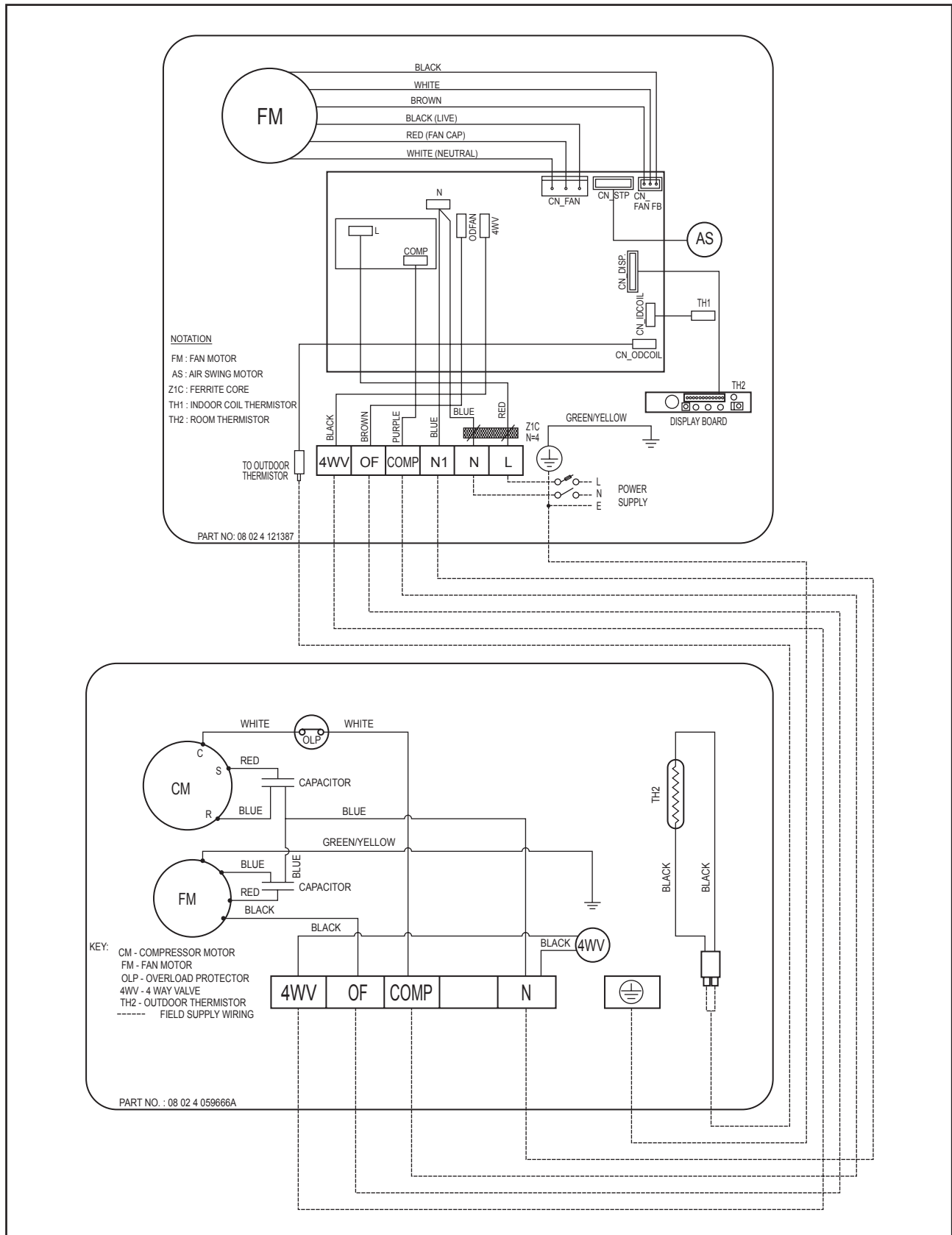




# Heatpump

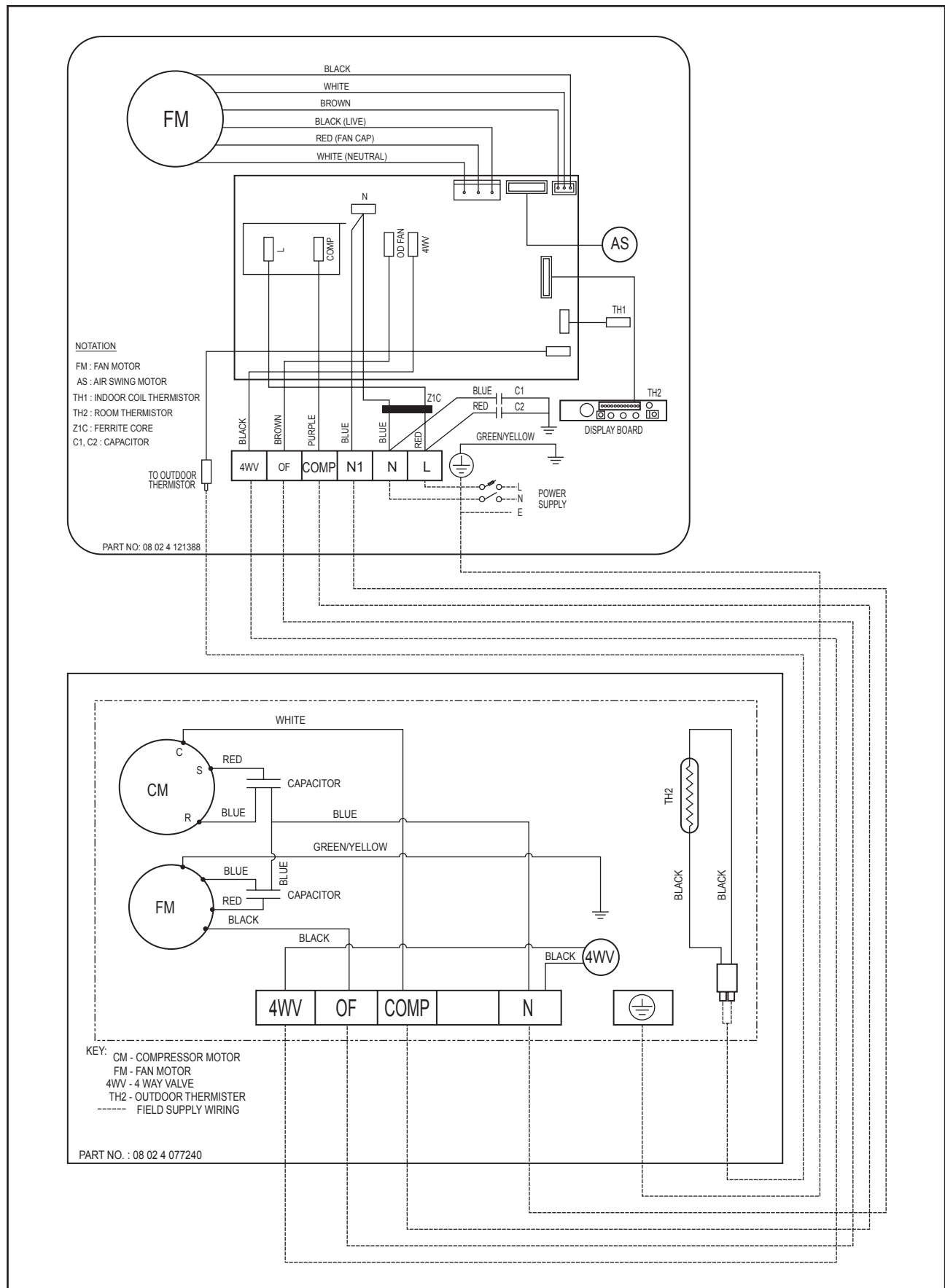
**Indoor Unit**  
**Model: FTY09/15JXV1**

**Outdoor Unit**  
**Model: RY09/15CXV1**



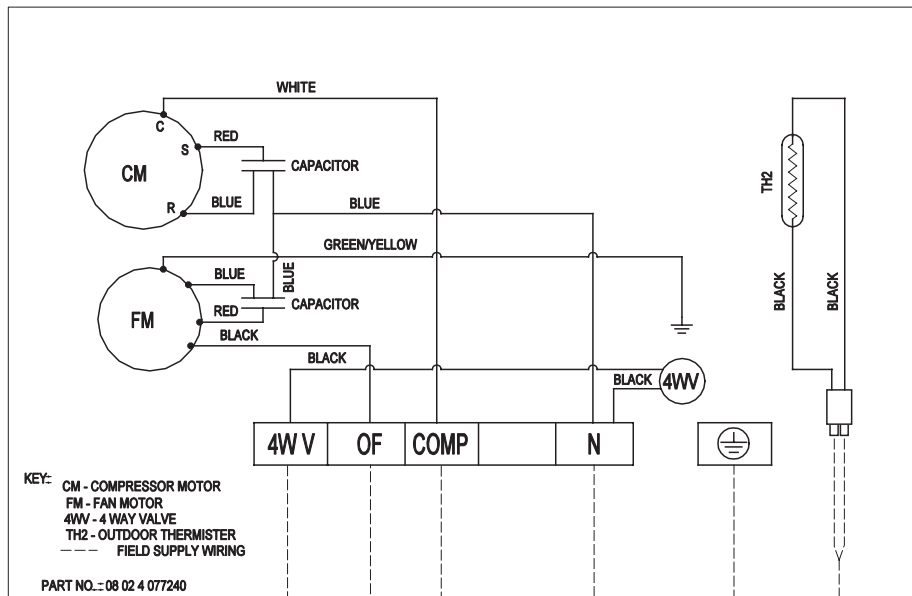
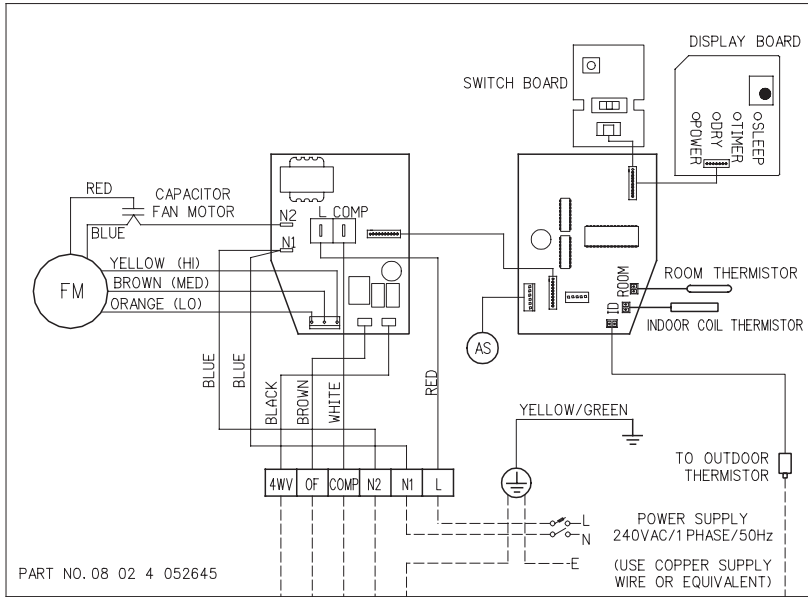
**Indoor Unit**  
**Model: FTY20/25JXV1**

**Outdoor Unit**  
**Model: RY20/25CXV1**



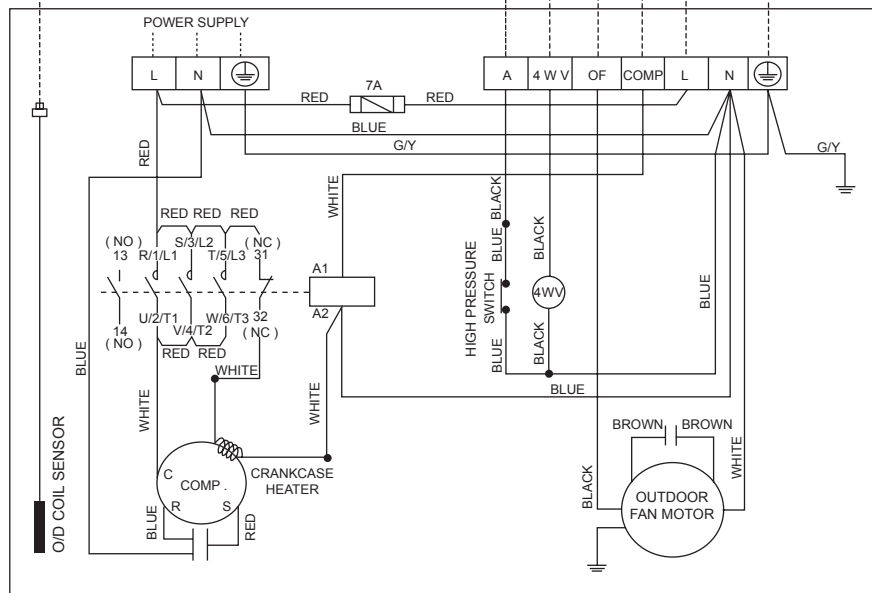
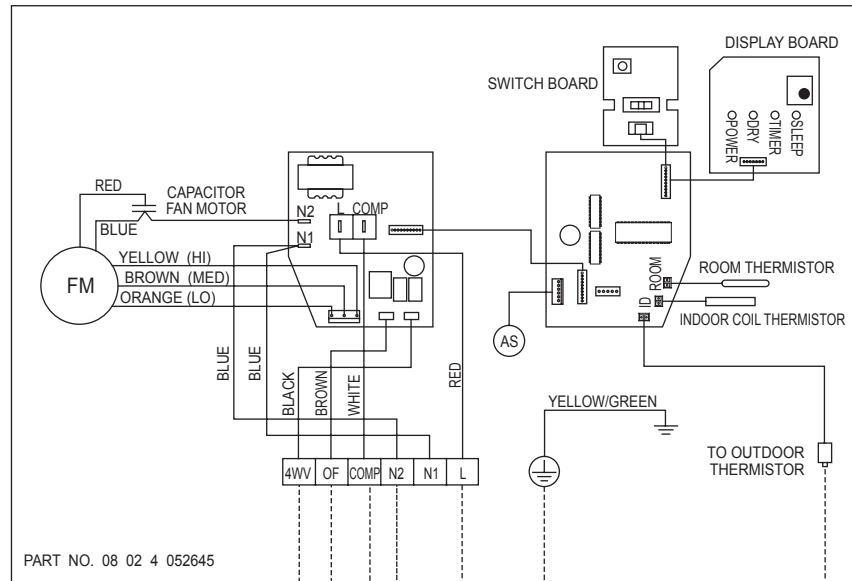
**Indoor Unit**  
Model: FTY30FXV1

**Outdoor Unit**  
Model: RY28CXV1



**Indoor Unit**  
Model: FTY30FXV1

**Outdoor Unit**  
Model: RY30DXV1



# Service & Maintenance

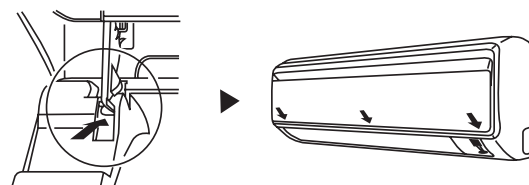
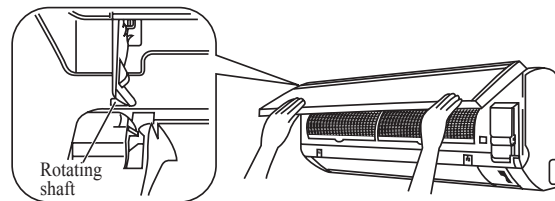
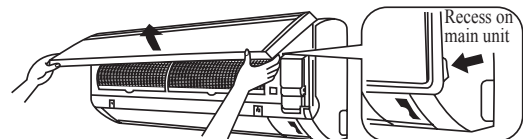
## Warning

- Disconnect from main supply before servicing the air conditioner.
- The unit is designed to give long life operation with minimum maintenance required. However, it should be regularly checked and the following items should be given due attention.

| Components                  | Maintenance Procedures  | Period  |
|-----------------------------|---|---|
| Air Filter<br>(Indoor Unit) | <ol style="list-style-type: none"> <li>1. Remove any dust adhering to the filter by using a vacuum cleaner or wash in lukewarm water (below 40°C) with a neutral cleaning detergent.</li> <li>2. Rinse the filter well and dry before placing it back onto the unit.</li> <li>3. Note: Never use gasoline, volatile substances or chemicals to clean the filter.</li> </ol> | At least once every 2 weeks.<br>More frequently if necessary. |
| Indoor Unit                 | <ol style="list-style-type: none"> <li>1. Clean any dirt or dust on the grille or panel by wiping it with a soft cloth soaked in lukewarm water (below 40°C) and a neutral detergent solution.</li> <li>2. Note: Never use gasoline, volatile substances or chemicals to clean the indoor unit.</li> </ol>  | At least once every 2 weeks.<br>More frequently if necessary. |
| Condense Drain Pan & Pipe   | <ol style="list-style-type: none"> <li>1. Check the cleanliness and clean it if necessary.</li> <li>2. Check the condensate water flow.</li> </ol>  | Every 3 months.   |
| Indoor Fan                  | Check if there is any abnormal noise.   | If necessary.   |
| Indoor / Outdoor Coil       | <ol style="list-style-type: none"> <li>1. Check and remove the dirt between the fins.</li> <li>2. Check and remove any obstacles which hinder air flow through the indoor or outdoor.</li> </ol>  | Every month.  |
| Power Supply                | <ol style="list-style-type: none"> <li>1. Check the running current and voltage for indoor and outdoor unit.</li> <li>2. Check the electrical wiring and tighten the wire onto the terminal block if necessary.</li> </ol>  | Every 2 months.<br>Every year.                                |
| Compressor                  | No maintenance needed if refrigerant circuit remains sealed. However, check for refrigerant leak at joint and fitting.  | Every 6 months.   |

### Indoor Models

1. Open the front panel
  - Hold the panel at the recesses on the main unit (2 recesses on right and left sides) and lift it until it stops.
2. Remove the front panel
  - While lifting the front panel further, slide it to the right and pull it to the front side. The left rotating shaft is detached. Slide the right rotating shaft to the left and pull it to the front side to remove it.
3. Attach the front panel
  - Align the right and left rotating shafts of the front panel with the grooves and push them all the way in.
  - Gently close the front panel. (Push both ends and the center on the front panel.)



## Caution

- Don't touch the metal parts of the indoor unit. It may cause an injury.
- When removing or attaching the front panel, use a robust and stable stool and watch your steps carefully.
- When removing or attaching the front panel, support the panel securely with hand to prevent from it falling.
- For cleansing, do not use hot water above 40°C, benzene, gasoline, thinner, nor other volatile oils, polishing compound, scrubbing brushes, nor other hand stuff.
- After cleaning, make sure that the front panel is securely fixed.

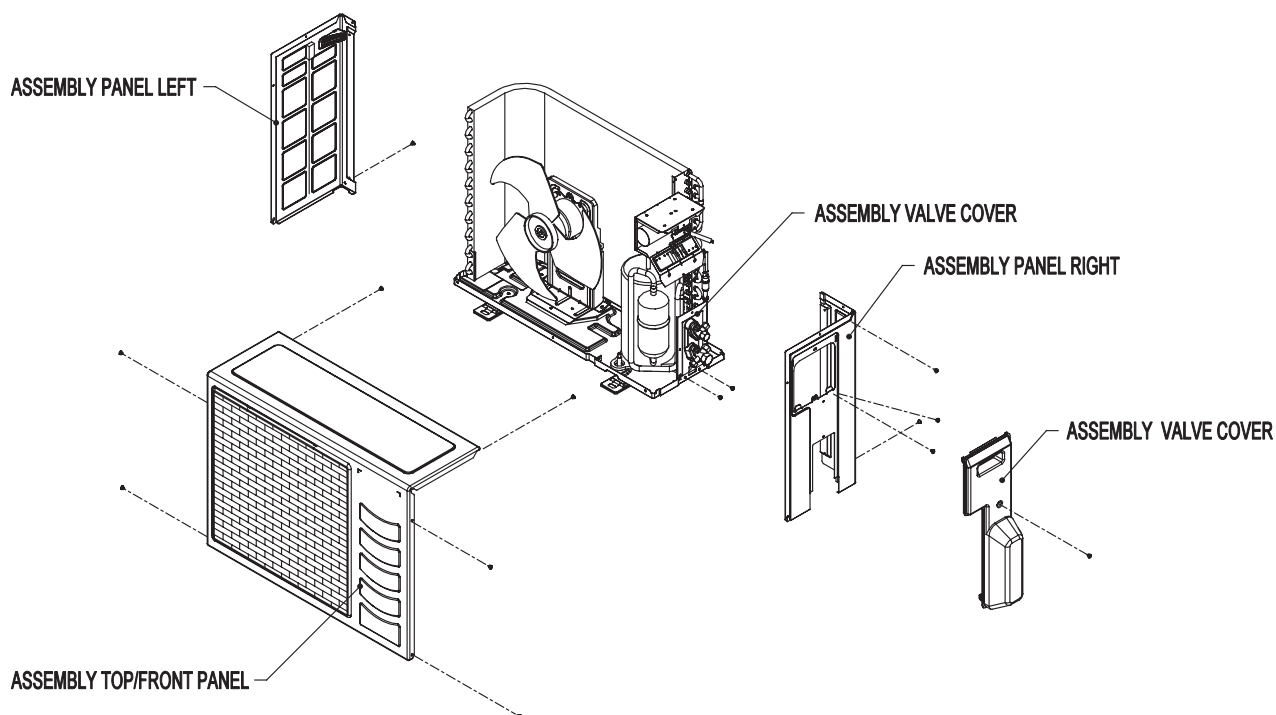
## Pre Start Up Maintenance

(After Extended Shutdown)

- Inspect thoroughly and clean indoor and outdoor units.
- Clean or replace air filters.
- Clean condensates drain line.
- Clean clogged indoor and outdoor coils.
- Check fan imbalance before operation.
- Tighten all wiring connections and panels.
- Check for refrigerant leakage.

## Outdoor Models

The design of the R/RV-C outdoor series allows servicing to be carried out easily. The removal of the top, front and side panels makes almost every part accessible.



Under normal circumstances, these outdoor units only require a check and cleaning of air intake coil surface once every 3 months. However, if a unit is installed in areas subjected to much oil mist and dust, the coils must be regularly cleaned by qualified Air Conditioner Service Technicians to ensure sufficient heat exchange and proper operation. Otherwise, the systems life span may be shortened.



### Caution

- Do not charge **OXYGEN, ACETYLENE OR OTHER FLAMMABLE** and poisonous gases into the unit when performing a leakage test or an airtight test. These gases could cause severe explosion and damage if exposed to high temperature and pressure.
- It is recommended that only nitrogen or refrigerant be charged when performing the leakage or airtight test.

# Troubleshooting

## Indicator Lights

### IR Signal Receiver

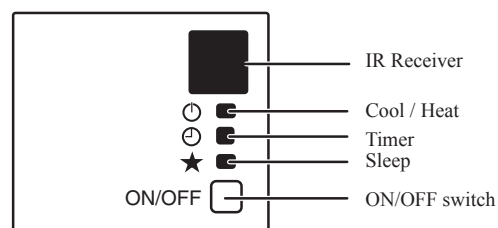
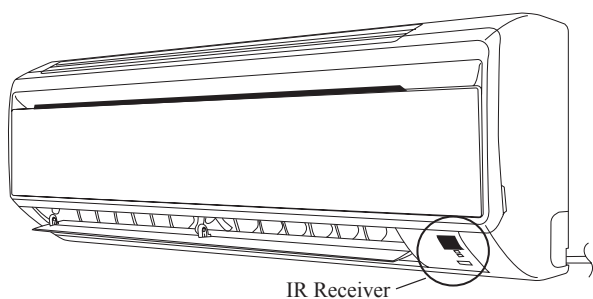
When an infra red remote control operating signal has been transmitted, the signal receiver on the indoor unit will respond as below to confirm acceptance of the signal transmission.

|                                      |              |
|--------------------------------------|--------------|
| ON to OFF                            | 1 Long Beep  |
| OFF to ON<br>Pump down/Cool force on | 2 Short Beep |
| Others                               | 1 Short Beep |





























## Cooling Unit / Heatpump Unit




The table below shows the LED indicator lights for the air conditioner unit under normal operation and fault conditions. The LED lights are located at the middle of the air conditioner unit.

The heatpump units are equipped with an “auto” mode sensor whereby it will provide reasonable room temperature by switching automatically to either “cool” or “heat” mode according to the temperature set by the user.



**LED Indoor Lights: Normal Operation and Fault Conditions for Cooling / Heatpump Unit**

|                    | <br>COOL/HEAT<br>(GREEN/RED) |               | Error Code | Normal Operation / Fault Indication  | Action           |
|---|---|--|------------|--|------------------|
|                    | <br>Green                    |  | -          | Cool mode  | -                |
|                    | <br>Red                      |  | -          | Heat mode  | -                |
|                    | <br>Red                      |  | -          | Auto mode in Heating operation   | -                |
|                    | <br>Green                    |  | -          | Auto mode in Cooling operation   | -                |
|   |                              |               | -          | Time on  | -                |
|                    |                              |  | -          | Sleep mode on  | -                |
|   |                              |  | -          | Fan mode on  | -                |
|   |                              |  | -          | Dry mode on  | -                |
|   | <br>1 time                   |  | Blink E1   | Room air sensor contact loose / short                                      | Call your dealer |
|   | <br>3 times                  |  | Blink E3   | Outdoor coil sensor open   | Call your dealer |
| <br>continuously | <br>2 times                |  | Blink E2   | Indoor coil sensor open  | Call your dealer |
|   |   | <br>1 time  | Blink E4   | Compressor overload / indoor coil sensor short / outdoor coil sensor short | Call your dealer |
|   | <br>Red                    |  | -          | Defrost operation  | -                |
|   |   | <br>3 times | Blink E5   | Gas leak   | Call your dealer |
|   |   | <br>6 times | Blink E8   | Hardware error (tact switch pin short)                                     | Call your dealer |
| <br>continuously | <br>4 times                |  | Blink E9   | No feedback from indoor fan  | Call your dealer |
|   | <br>5 times                |  | Blink EE   | EEPROM error   | Call your dealer |

 ON       ON or OFF       Blinking

Note:  
The unit will not detect sensor missing when the compressor is ON.



## Phase Sequencer

The unit with Scroll Compressor only can rotate in one direction. For this reason, a protective device (phase sequencer) is fitted to prevent incorrect wiring of the electrical phases. When the three phases are not connected correctly, the phase sequencer operates, and the unit will not start.

This device is located in the control box of the outdoor unit.

The following table shows the LED indicator light for phase sequencer under normal operation and fault conditions.

| LED<br>Description   | PW<br>(Red) | P_R<br>(Yellow) | P_S<br>(Yellow) | P_T<br>(Yellow) | Actions  |
|----------------------|-------------|-----------------|-----------------|-----------------|--|
| Normal Operation     | ○           | ●               | ●               | ●               | -  |
| Reverse Phase        | ◐           | ◐               | ◐               | ◐               | Switch off the unit. Check the 3 phase wiring.           |
| T Phase Missing      | ◐           | ●               | ●               | ◐               | Switch off the unit. Check the 3 phase wiring.           |
| S Phase Missing      | ◐           | ●               | ◐               | ●               | Switch off the unit. Check the 3 phase wiring.           |
| R Phase Missing      | ●           | ●               | ●               | ●               | Switch off the unit. Check the 3 phase wiring.           |
| S & T Phase Missing* | ◐           | ●               | ◐               | ◐               | Switch off the unit. Check the 3 phase wiring.           |
| Overload*            | ◐           | ●               | ●               | ●               | High discharge temperature.<br>Check refrigerant system. |
| Sensor Missing*      | ◐           | ○               | ○               | ○               | Switch off the unit. Plug in sensor.                     |

○ ON      ● OFF      ◐ BLINK

**Note:**

1. "\*" indicates additional function for PP01 phase sequencer.
2. When R phase missing, no LED or buzzer will indicate the error, but relay 71 (COMMON) and 81 (NO) will cut off.
3. The unit will check discharge sensor availability only during power up.
4. All errors can only recover through manually reset.

### Error Code / Fault Condition

When a malfunction of the air conditioner unit is detected, immediately switch off the main power supply before proceeding with the following troubleshooting procedures.

The following are common fault conditions and simple troubleshooting tips. If any other fault conditions which are not listed occur, contact your nearest local dealer. DO NOT attempt to troubleshoot the unit by yourself.

| No | Fault conditions  | Possible causes / corrective actions   |
|----|---|--|
| 1  | The air conditioner unit will not resume after power failure.                             | <ul style="list-style-type: none"> <li>The auto restart function is not functioning. Please turn on the unit with the wireless / wired controller.</li> </ul>  |
| 2  | The compressor does not operate 3 minutes after the air conditioner unit is started.      | <ul style="list-style-type: none"> <li>Protection against frequent starting.</li> <li>Wait for 3 or 4 minutes for the compressor to start operating by itself.</li> </ul>  |
| 3  | The airflow is too slow or room cannot be cooled sufficiently.                            | <ul style="list-style-type: none"> <li>The air filter is dirty.</li> <li>The doors and windows are opened.</li> <li>The air suction and discharge of both indoor and outdoor units are clogged or blocked.</li> <li>The regulated temperature or temperature setting is not low enough.</li> </ul> |
| 4  | Discharge airflow has bad odor.   | <ul style="list-style-type: none"> <li>Cigarettes, smoke particles, perfume and others, which might have adhered onto the coil, may cause odor.</li> <li>Contact your nearest dealer.</li> </ul>   |
| 5  | Condensation on the front air grille of the indoor unit.                                  | <ul style="list-style-type: none"> <li>This is caused by air humidity after an extended period of operation.</li> <li>The set temperature is too low. Increase the temperature setting and operate the unit at high fan speed.</li> </ul>  |
| 6  | Water flowing out from the air conditioner.   | <ul style="list-style-type: none"> <li>Switch off the unit and contact your nearest dealer. This might be due to tilted installation.</li> </ul>   |
| 7  | Hissing airflow sound from the air conditioner unit during operation.                     | <ul style="list-style-type: none"> <li>Liquid refrigerant flowing into the evaporator coil.</li> </ul>   |
| 8  | The wireless controller display is dim.   | <ul style="list-style-type: none"> <li>The batteries are discharged.</li> <li>The batteries are not correctly inserted.</li> <li>The assembly is not good.</li> </ul>  |
| 9  | Compressor operates continuously.   | <ul style="list-style-type: none"> <li>Dirty air filter. Clean the air filter.</li> <li>Temperature setting too low (cooling). Use higher temperature setting.</li> <li>Temperature setting too high (heating). Use lower temperature setting.</li> </ul>  |
| 10 | No cool air comes out during cooling cycle, or no hot air comes out during heating cycle. | <ul style="list-style-type: none"> <li>Temperature setting too high (cooling). Use lower temperature setting.</li> <li>Temperature setting too low (heating). Use higher temperature setting.</li> </ul>   |
| 11 | On heating cycle, warm air does not come out.   | <ul style="list-style-type: none"> <li>Unit is in defrost mode. Heating operation will resume after defrost cycle ends.</li> </ul>   |

## Diagnostic Guidelines

By means of pressure readings:

| Circuit               | Data | Pressure |              |        |               |  | Probable cause   |
|-----------------------|------|----------|--------------|--------|---------------|--|--|
|                       |      | Too low  | A little low | Normal | A little high | Too high   |  |
| High side<br>Low side |      |          |              |        |               | <ul style="list-style-type: none"> <li>•</li> <li>•</li> </ul> | <ol style="list-style-type: none"> <li>1. Overcharged with refrigerant.</li> <li>2. Non-condensable gases in refrigerant circuit (e.g. air).</li> <li>3. Obstructed air-intake / discharge.</li> <li>4. Hot air short circuiting in outdoor unit.</li> </ol>   |
| High side<br>Low side | •    |          |              |        |               | •  | <ol style="list-style-type: none"> <li>1. Poor compression /no compression (compressor defective)</li> <li>2. Reversing valve leaking.</li> </ol>  |
| High side<br>Low side | •    |          | •            |        |               |  | <ol style="list-style-type: none"> <li>1. Undercharged with refrigerant.</li> <li>2. Refrigerant leakage.</li> <li>3. Air filter clogged / dirty (indoor unit).</li> <li>4. Indoor fan locked / seized.</li> <li>5. Defective defrost control, outdoor coil freeze up (heating).</li> <li>6. Outdoor fan locked / seized (heating).</li> </ol> |
| High side<br>Low side |      |          |              |        | •             | •  | <ol style="list-style-type: none"> <li>1. Outdoor fan blocked (cooling).</li> <li>2. Outdoor coil dirty (cooling).</li> <li>3. Indoor fan locked / seized (heating).</li> <li>4. Indoor air filter clogged / dirty (heating).</li> <li>5. Non-condensable gases in refrigerant circuit (e.g. air).</li> </ol>                                  |
| High side<br>Low side |      |          |              |        | •             | •  | <ol style="list-style-type: none"> <li>1. Air intake temperature of indoor unit too high.</li> </ol>   |

