

## High Wall Type

**MMK-UP0071HP-UL**

**MMK-UP0091HP-UL**

**MMK-UP0121HP-UL**

**MMK-UP0151HP-UL**

**MMK-UP0181HP-UL**

**MMK-UP0241HP-UL**

**MMK-UP0301HP-UL**

**MMK-UP0361HP-UL**



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# 1. Specifications

|                                       |                     |                            |                                                              |                 |                 |                 |                 |                 |
|---------------------------------------|---------------------|----------------------------|--------------------------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Model name                            |                     | MMK-                       | UP0071HP-UL                                                  | UP0091HP-UL     | UP0121HP-UL     | UP0151HP-UL     | UP0181HP-UL     | UP0241HP-UL     |
| Power supply                          |                     | 1 ph 60Hz 230V (208V/230V) |                                                              |                 |                 |                 |                 |                 |
| Cooling capacity (*1)                 |                     | kBtu/h                     | 7.5                                                          | 9.5             | 12.0            | 15.4            | 18.0            | 24.0            |
| Sensible cooling capacity             |                     | kBtu/h                     | 5.6                                                          | 7.1             | 9.0             | 11.6            | 13.5            | 18.0            |
| Heating capacity (*1)                 |                     | kBtu/h                     | 8.5                                                          | 10.5            | 13.5            | 17.0            | 20.0            | 27.0            |
| Power consumption                     |                     | (kW)                       | 0.015                                                        | 0.016           | 0.017           | 0.028           | 0.032           | 0.050           |
| FCU dimension                         | Main unit           | Height (in)                | 11.6                                                         | 11.6            | 11.6            | 12.6            | 12.6            | 12.6            |
|                                       |                     | Width (in)                 | 31.5                                                         | 31.5            | 31.5            | 41.4            | 41.4            | 41.4            |
|                                       |                     | Depth (in)                 | 9.1                                                          | 9.1             | 9.1             | 9.9             | 9.9             | 9.9             |
| Total weight                          | Main unit           | (lbs)                      | 27                                                           | 27              | 27              | 36              | 36              | 36              |
| Heat exchanger                        |                     | Finned tube                |                                                              |                 |                 |                 |                 |                 |
| Soundproof / Heat-insulation material |                     | Polyethylene foam          |                                                              |                 |                 |                 |                 |                 |
| Fan                                   |                     | Cross flow fan             |                                                              |                 |                 |                 |                 |                 |
| Air flow volume                       | Indoor unit (H/M/L) | (cfm)                      | 285 / 225 / 160                                              | 300 / 230 / 160 | 320 / 240 / 160 | 495 / 405 / 325 | 530 / 425 / 325 | 700 / 530 / 355 |
| Sound pressure                        | Indoor unit (H/M/L) | dB(A)                      | 35 / 30 / 27                                                 | 36 / 31 / 27    | 37 / 32 / 27    | 40 / 36 / 32    | 41 / 37 / 32    | 45 / 39 / 33    |
| Motor output                          |                     | (W)                        | 30                                                           | 30              | 30              | 30              | 30              | 30              |
| Flare Connections                     | Gas side            | (in)                       | 3/8                                                          | 3/8             | 3/8             | 1/2             | 1/2             | 5/8             |
|                                       | Liquid side         | (in)                       | 1/4                                                          | 1/4             | 1/4             | 1/4             | 1/4             | 3/8             |
|                                       | Drain pipe          | (in)                       | VP16 (Polyvinyl Chloride Tube: Dia. 0.87 Internal Dia. 0.63) |                 |                 |                 |                 |                 |
| Operating Range<br>for SMMS-I, SMMS-e | Cooling             | (°F)                       | 41 ~ 109                                                     |                 |                 |                 |                 |                 |
|                                       | Heating             | (°F)                       | 14 ~ 109                                                     |                 |                 |                 |                 |                 |

(\*1) Rated testing conditions Cooling : Indoor air temperature 80°F Dry Bulb / 67°F Wet Bulb, Outdoor 95°F Dry Bulb

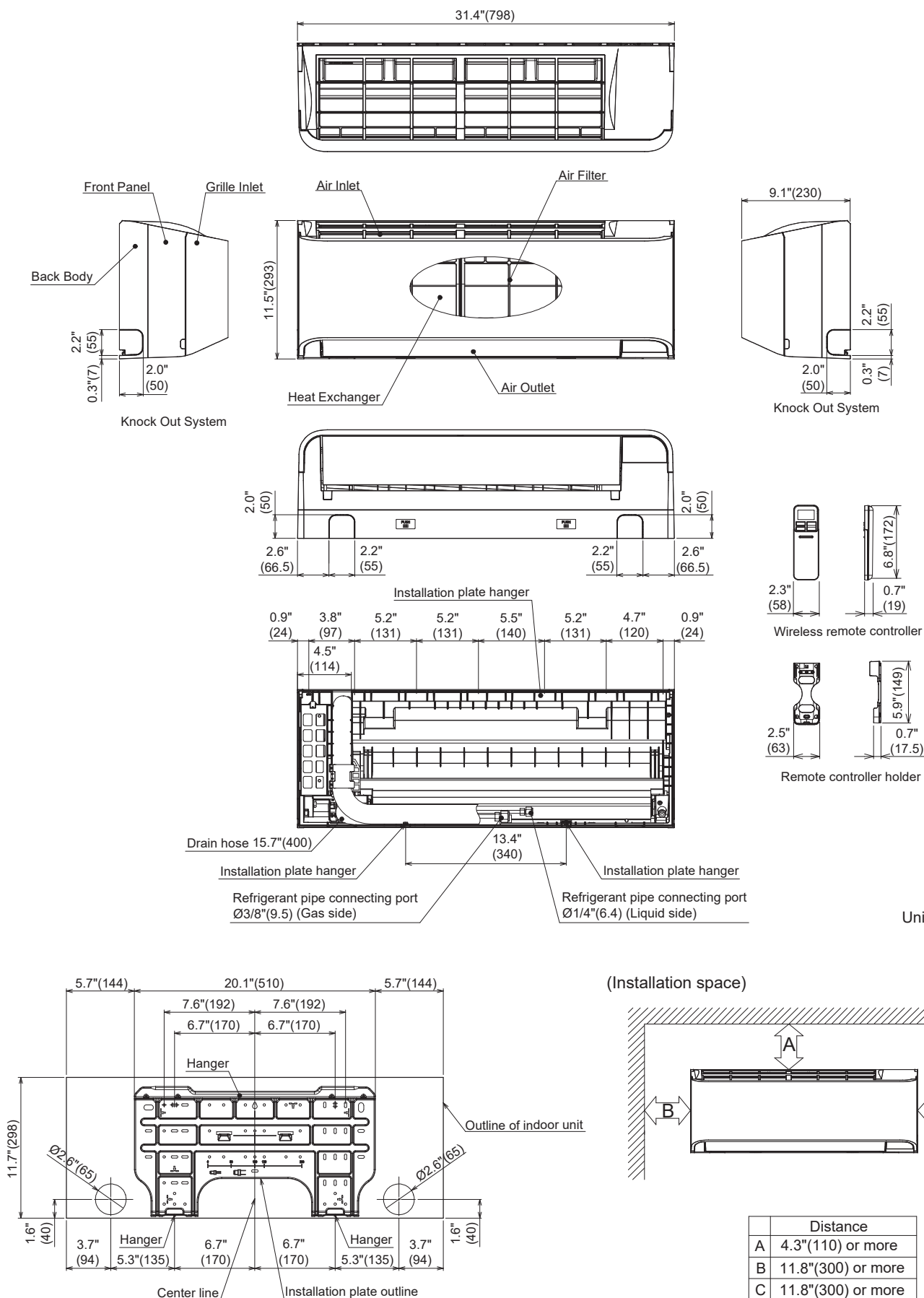
Heating : Indoor air temperature 70°F Dry Bulb, Outdoor 47°F Dry Bulb / 43°F Wet Bulb

|                                       |                     |             |                                                                 |                 |
|---------------------------------------|---------------------|-------------|-----------------------------------------------------------------|-----------------|
| Model name                            |                     | MMK-        | UP0301HP-UL                                                     | UP0361HP-UL     |
| Power supply                          |                     |             | 230V (208/230V) 1-phase 60Hz                                    |                 |
| Cooling capacity (*1)                 |                     | kBtu/h      | 30.0                                                            | 36.0            |
| Sensible cooling capacity             |                     | kBtu/h      | 22.5                                                            | 27.0            |
| Heating capacity (*1)                 |                     | kBtu/h      | 34.0                                                            | 40.0            |
| Power consumption                     |                     | (kW)        | 0.058                                                           | 0.066           |
| FCU dimension                         | Main unit           | Height (in) | 13.7                                                            | 13.7            |
|                                       |                     | Width (in)  | 47.2                                                            | 47.2            |
|                                       |                     | Depth (in)  | 11.0                                                            | 11.0            |
| Total weight                          | Main unit           | (lbs)       | 46.3                                                            | 46.3            |
| Heat exchangere                       |                     |             | Finned tube                                                     |                 |
| Soundproof / Heat-insulation material |                     |             | Polyethylene foam                                               |                 |
| Fan                                   |                     |             | Centrifugal fan (Sirocco fan)                                   |                 |
| Air flow volume                       | Indoor unit (H/M/L) | (cfm)       | 940 / 825 / 705                                                 | 970 / 910 / 735 |
| Sound pressure                        | Indoor unit (H/M/L) | dB(A)       | 48 / 44 / 41                                                    | 50 / 47 / 43    |
| Motor output                          |                     | (W)         | 61                                                              | 61              |
| Flare Connections                     | Gas side            | (in)        | 5/8                                                             | 5/8             |
|                                       | Liquid side         | (in)        | 3/8                                                             | 3/8             |
|                                       | Drain pipe          | (in)        | VP16 (Polyvinyl Chloride Tube: Dia. 0.87<br>Internal Dia. 0.63) |                 |
| Operating Range                       | Cooling             | (°F)        | 41 ~ 109.4                                                      |                 |
| for SMMS-I, SMMS-e                    | Heating             | (°F)        | 14 ~ 109.4                                                      |                 |

(\*1) Rated testing conditions    Cooling : Indoor air tempreature 80 F Dry Bulb/ 67 F Wet Bulb, Outdoor 95 F Dry Bulb  
Heating : Indoor air tempreature 70 F Dry Bulb, Outdoor 47 F Dry Bulb / 43 F Wet Bulb

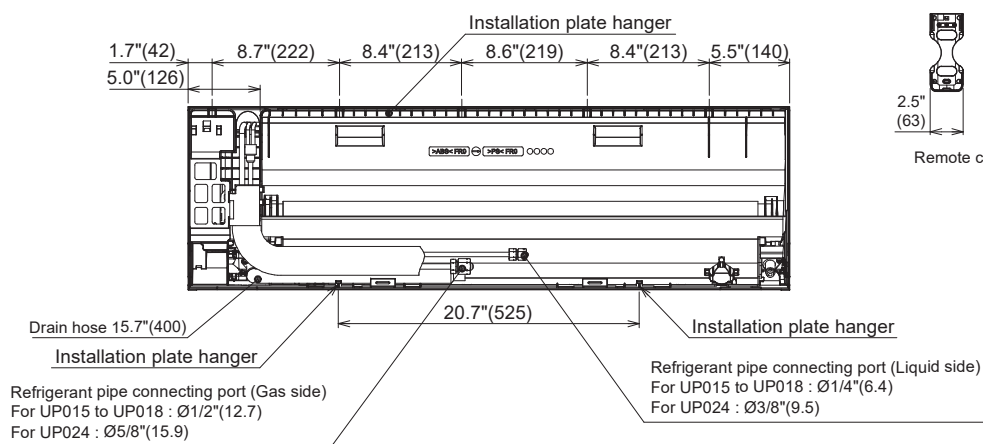
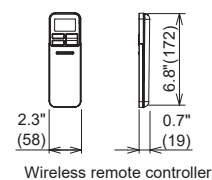
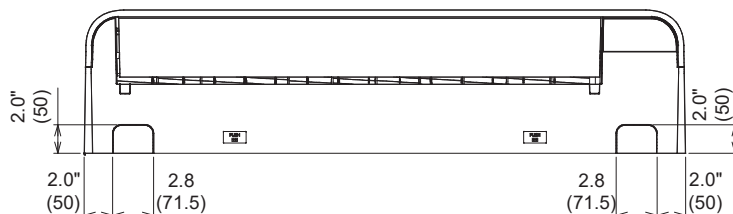
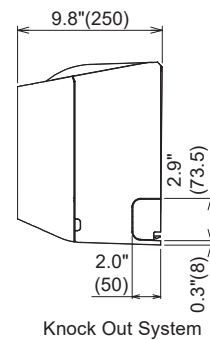
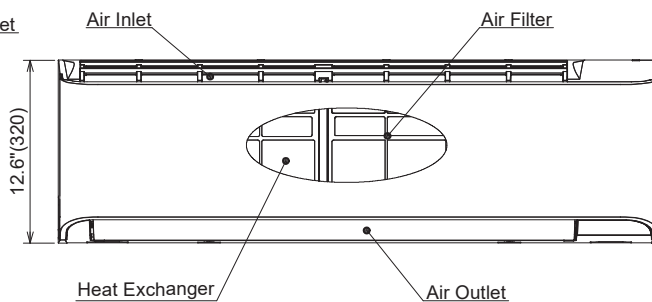
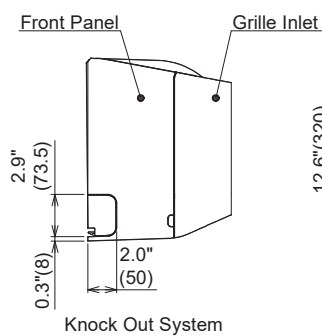
## 2. Dimension

MMK-UP\*\_\_1HP-UL (\*007 / 009 / 012)

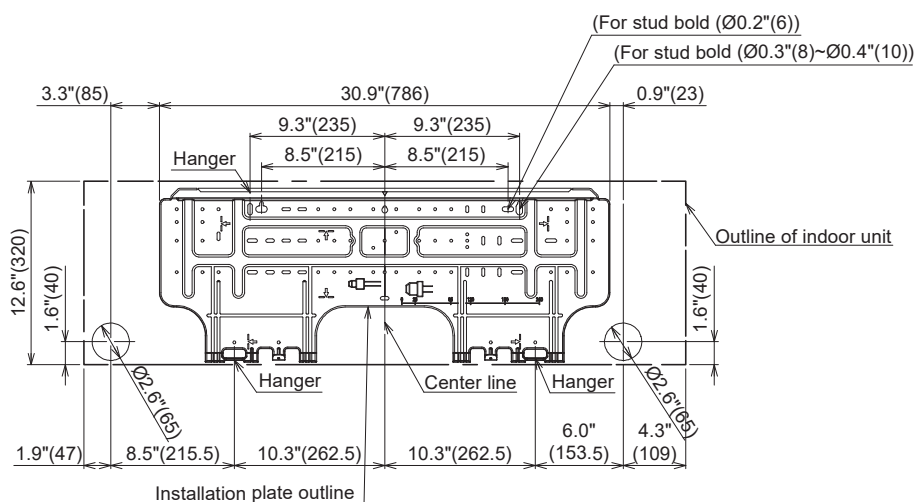


## MMK-UP\*\_1HP-UL (\*015 / 018 / 024)

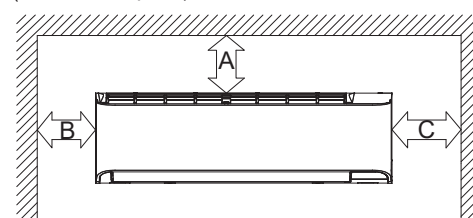
41.3"(1050)



Unit : in(mm)

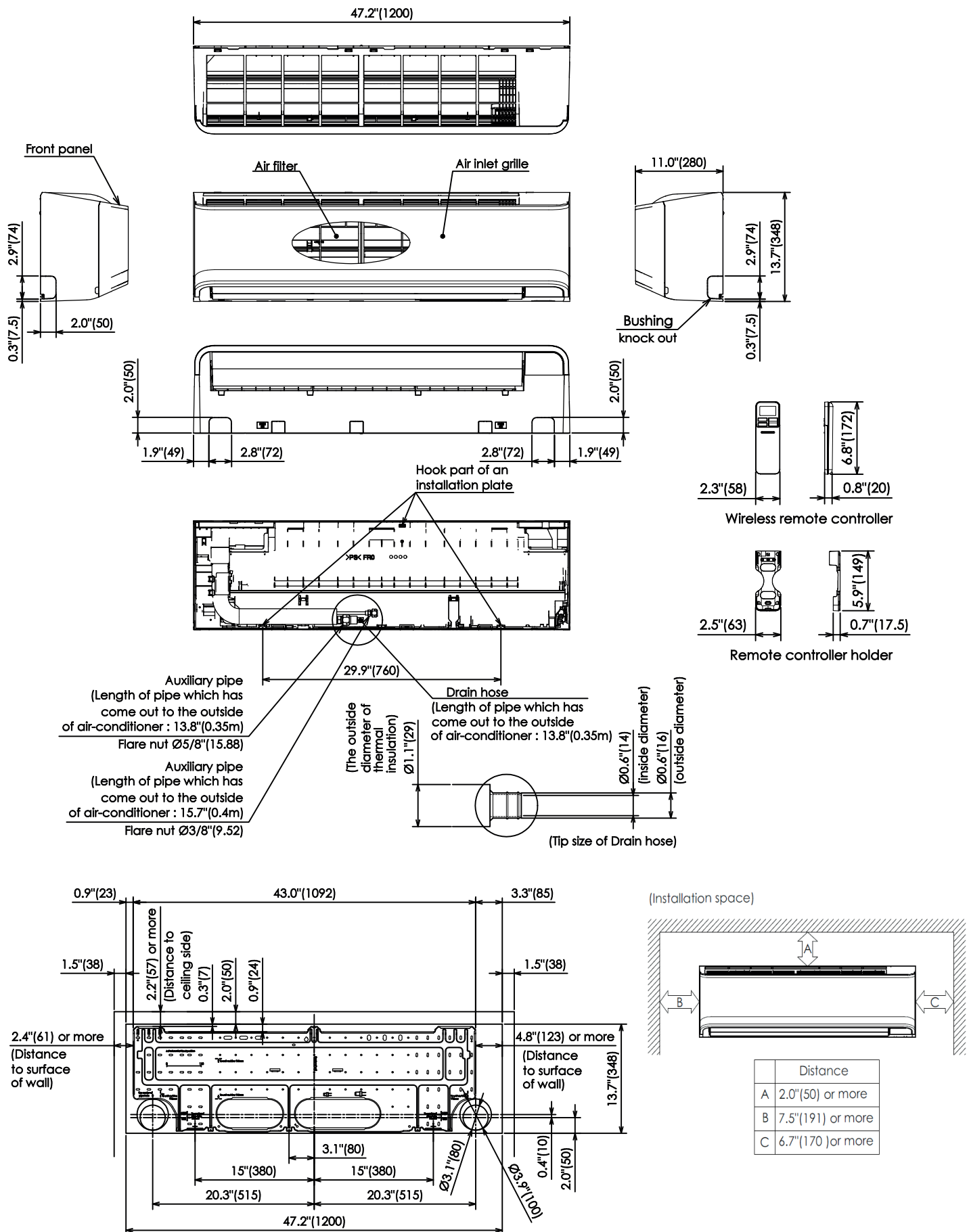


(Installation space)



|   | Distance            |
|---|---------------------|
| A | 2.0" (50) or more   |
| B | 11.8" (300) or more |
| C | 6.7" (170) or more  |

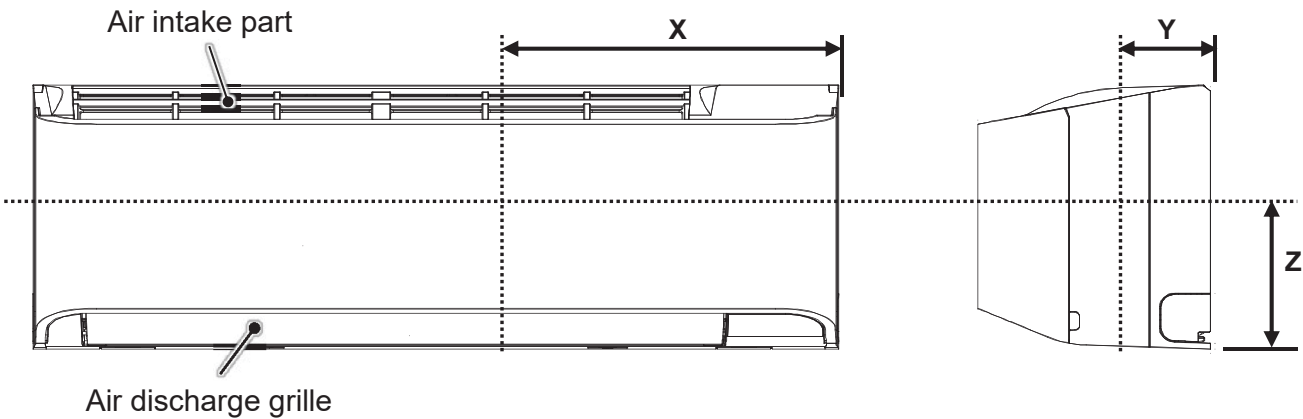
**MMK-UP\*\_\_1HP-UL (\*030 / 036)**



3. Center of gravity

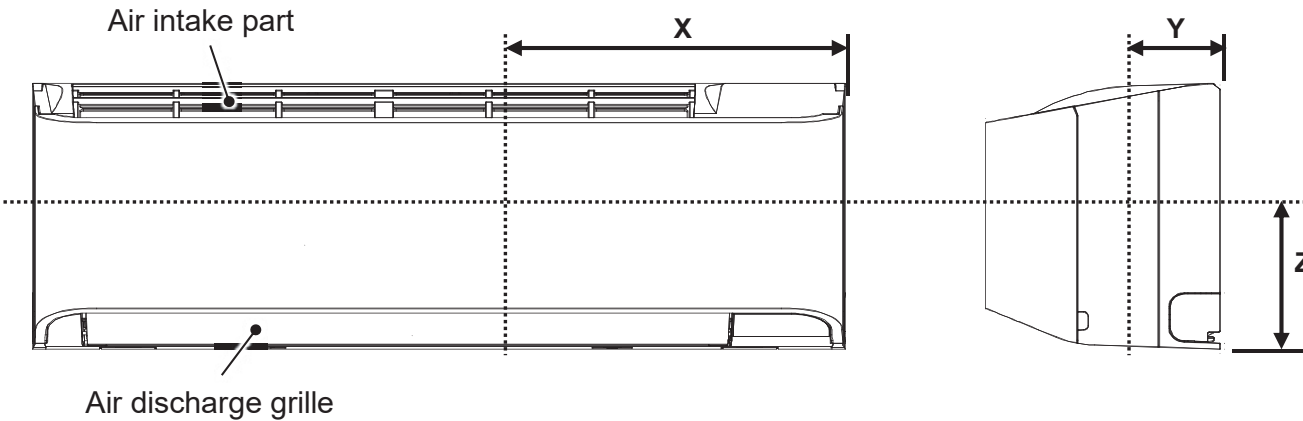
MMK-UP\*\_\_1HP-UL (\*007 / 009 / 012)

| Model name      | X (in) | Y (in) | Z (in) | Total weight (lbs) |
|-----------------|--------|--------|--------|--------------------|
| MMK-UP0071HP-UL | 13.2   | 4.3    | 5.9    | 27                 |
| MMK-UP0091HP-UL |        |        |        |                    |
| MMK-UP0121HP-UL |        |        |        |                    |



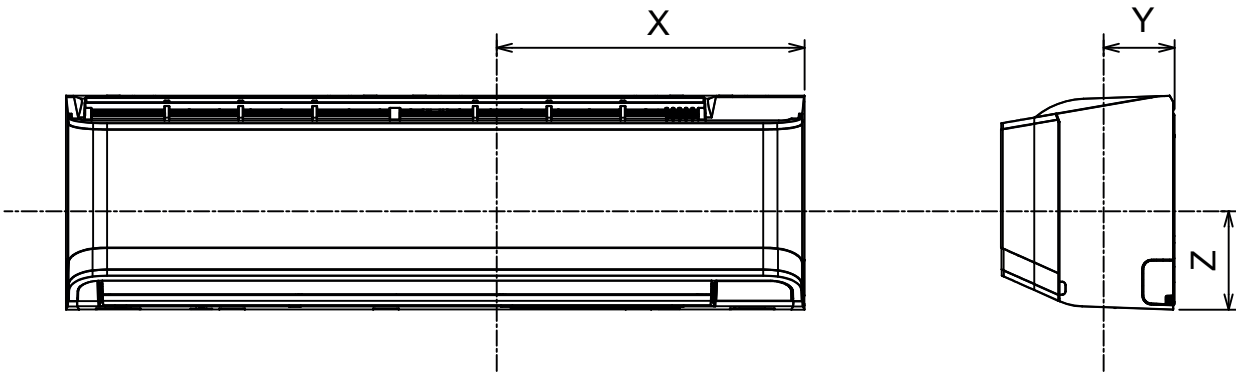
MMK-UP\*\_\_1HP-UL (\*015 / 018 / 024)

| Model name      | X (in) | Y (in) | Z (in) | Total weight (lbs) |
|-----------------|--------|--------|--------|--------------------|
| MMK-UP0151HP-UL | 16.7   | 4.7    | 4.9    | 36                 |
| MMK-UP0181HP-UL |        |        |        |                    |
| MMK-UP0241HP-UL |        |        |        |                    |



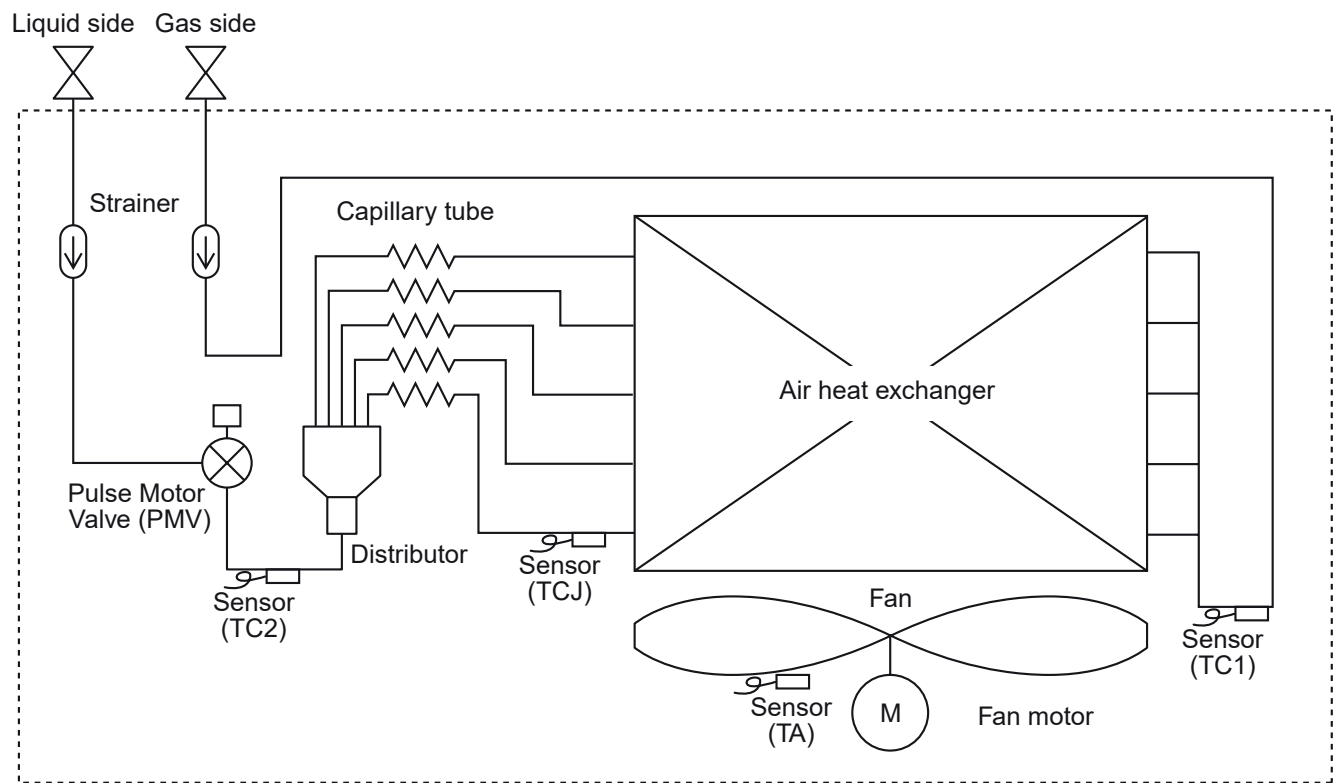
MMK-UP\*\_\_1HP-UL (\*030 / 036)

| Model name      | X (in) | Y (in) | Z (in) | Total weight (lbs) |
|-----------------|--------|--------|--------|--------------------|
| MMK-UP0301HP-UL | 19.7   | 4.52   | 6.3    | 46.3               |
| MMK-UP0361HP-UL |        |        |        |                    |



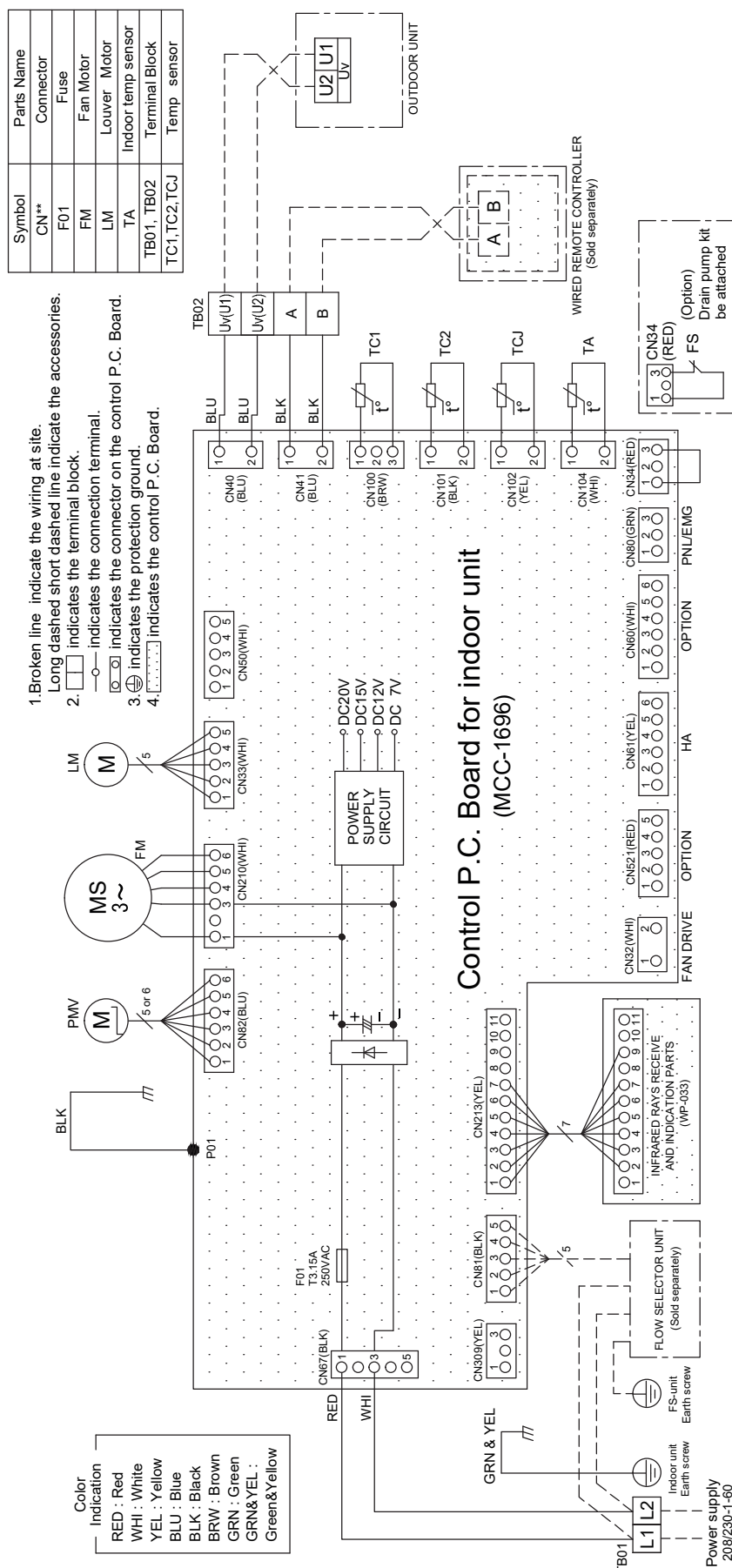
4. Piping diagram

MMK-UP\*\_\_1HP-UL (\*007 / 009 / 012 / 015 / 018 / 024 / 030 / 036)

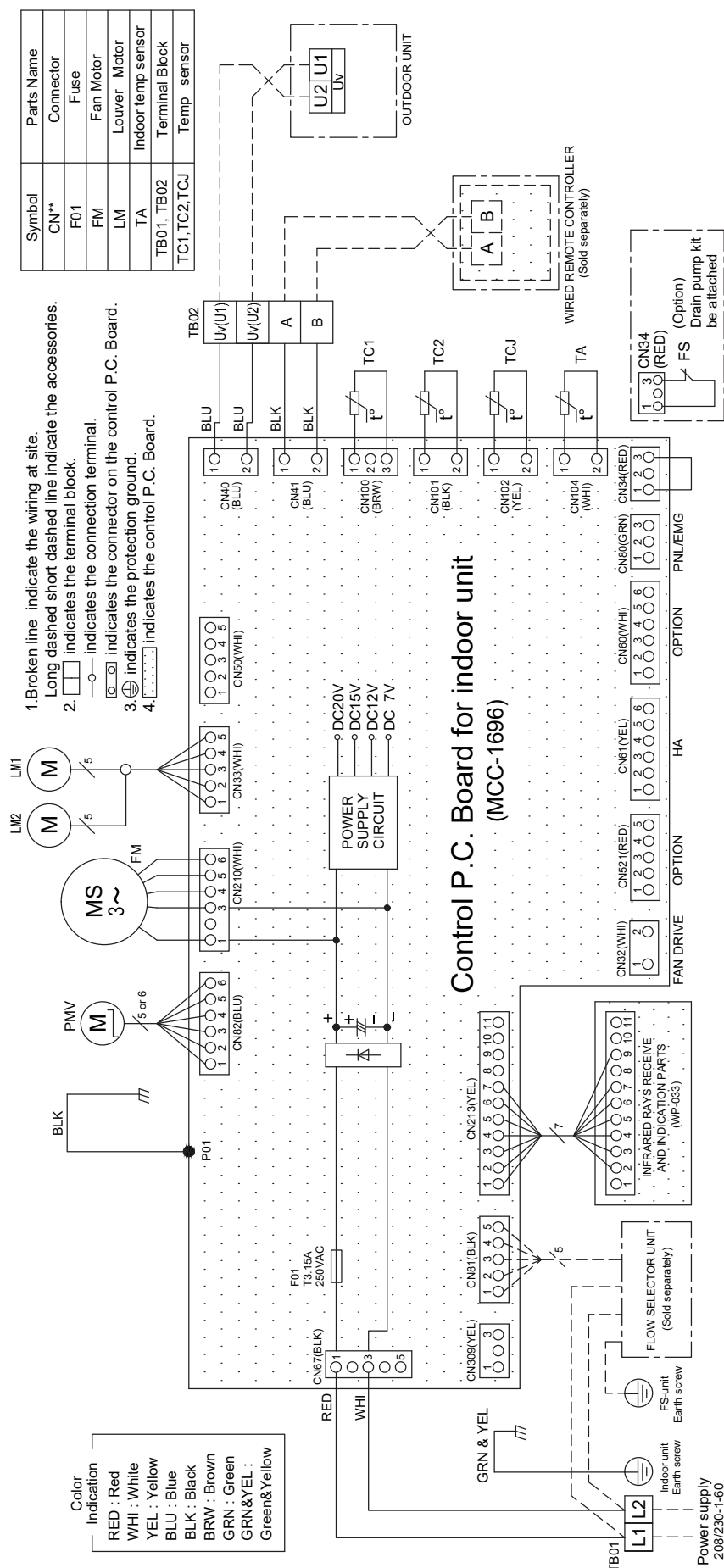


| Functional part name |        | Functional outline                                                                                                                                                                                                                |
|----------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pulse Motor Valve    | PMV    | (Connector CN82 (6P): Blue)<br>1) Controls super heat in cooling operation<br>2) Controls under cool in heating operation<br>3) Recovers refrigerant oil in cooling operation<br>4) Recovers refrigerant oil in heating operation |
| Temp. sensor         | 1. TA  | (Connector CN104 (2P): White)<br>1) Detects indoor suction temperature                                                                                                                                                            |
|                      | 2. TC1 | (Connector CN100 (3P): Brown)<br>1) Controls PMV super heat in cooling operation                                                                                                                                                  |
|                      | 3. TC2 | (Connector CN101 (2P): Blue)<br>1) Controls PMV under cool in heating operation                                                                                                                                                   |
|                      | 4. TCJ | (Connector CN102 (2P): Yellow)<br>1) Controls PMV super heat in cooling operation                                                                                                                                                 |

## 5. Wiring diagram

**MMK-UP\*\_\_1HP-UL (\*007 / 009 / 012 / 015 / 018 / 024)**

**MMK-UP\*\_\_\_1HP-UL (\*030 / 036)**



## 6. Electrical current characteristics

Indoor unit power supply

| Type           | Model name      | Normal Voltage<br>(V-Ph-Hz) | Voltage Range (V) |      | FLA  | MCA  | MOCP |
|----------------|-----------------|-----------------------------|-------------------|------|------|------|------|
|                |                 |                             | Min.              | Max. | A    | A    | A    |
| High Wall Type | MMK-UP0071HP-UL | 208/230-1-60                | 187               | 253  | 0.17 | 0.21 | 15   |
|                | MMK-UP0091HP-UL | 208/230-1-60                | 187               | 253  | 0.18 | 0.23 | 15   |
|                | MMK-AP0121HP-UL | 208/230-1-60                | 187               | 253  | 0.20 | 0.25 | 15   |
|                | MMK-AP0151HP-UL | 208/230-1-60                | 187               | 253  | 0.30 | 0.37 | 15   |
|                | MMK-UP0181HP-UL | 208/230-1-60                | 187               | 253  | 0.33 | 0.42 | 15   |
|                | MMK-UP0241HP-UL | 208/230-1-60                | 187               | 253  | 0.48 | 0.60 | 15   |
|                | MMK-UP0301HP-UL | 208/230-1-60                | 187               | 253  | 0.66 | 0.83 | 15   |
|                | MMK-UP0361HP-UL | 208/230-1-60                | 187               | 253  | 0.66 | 0.83 | 15   |

FLA : Full load (Amps)

MCA : Minimum Circuit (Amps)

MOCP : Maximum Overcurrent Protection (Amps)

7. Sensible Capacity Table

High-wall type (MMK-UP\*\_\_1HP-UL)

| unit<br>size | outdoor<br>air temp.<br>° FDB | Indoor air temp.     |       |                      |       |                      |       |                      |       |                      |       |                      |       |                      |      |
|--------------|-------------------------------|----------------------|-------|----------------------|-------|----------------------|-------|----------------------|-------|----------------------|-------|----------------------|-------|----------------------|------|
|              |                               | 59 ° FWB<br>71 ° FDB |       | 61 ° FWB<br>73 ° FDB |       | 64 ° FWB<br>77 ° FDB |       | 67 ° FWB<br>80 ° FDB |       | 68 ° FWB<br>82 ° FDB |       | 72 ° FWB<br>86 ° FDB |       | 75 ° FWB<br>90 ° FDB |      |
|              |                               | TC                   | SHC   | TC                   | SHC   | TC                   | SHC   | TC                   | SHC   | TC                   | SHC   | TC                   | SHC   | TC                   | SHC  |
| 007          | 41                            | 6380                 | 5070  | 6680                 | 5220  | 7100                 | 5430  | 7500                 | 5600  | 7630                 | 5620  | 8110                 | 5540  | 8450                 | 5340 |
|              | 45                            | 6380                 | 5070  | 6680                 | 5220  | 7100                 | 5430  | 7500                 | 5600  | 7630                 | 5620  | 8110                 | 5540  | 8450                 | 5340 |
|              | 50                            | 6380                 | 5070  | 6680                 | 5220  | 7100                 | 5430  | 7500                 | 5600  | 7630                 | 5620  | 8110                 | 5540  | 8450                 | 5340 |
|              | 54                            | 6380                 | 5070  | 6680                 | 5220  | 7100                 | 5430  | 7500                 | 5600  | 7630                 | 5620  | 8110                 | 5540  | 8450                 | 5340 |
|              | 57                            | 6380                 | 5070  | 6680                 | 5220  | 7100                 | 5430  | 7500                 | 5600  | 7630                 | 5620  | 8110                 | 5540  | 8450                 | 5340 |
|              | 61                            | 6380                 | 5070  | 6680                 | 5220  | 7100                 | 5430  | 7500                 | 5600  | 7630                 | 5620  | 8110                 | 5540  | 8450                 | 5340 |
|              | 64                            | 6380                 | 5070  | 6680                 | 5220  | 7100                 | 5430  | 7500                 | 5600  | 7630                 | 5620  | 8110                 | 5540  | 8450                 | 5340 |
|              | 68                            | 6380                 | 5070  | 6680                 | 5220  | 7100                 | 5430  | 7500                 | 5600  | 7630                 | 5620  | 8110                 | 5540  | 8450                 | 5340 |
|              | 70                            | 6380                 | 5070  | 6680                 | 5220  | 7100                 | 5430  | 7500                 | 5600  | 7630                 | 5620  | 8110                 | 5540  | 8450                 | 5340 |
|              | 73                            | 6380                 | 5070  | 6680                 | 5220  | 7100                 | 5430  | 7500                 | 5600  | 7630                 | 5620  | 8110                 | 5540  | 8450                 | 5340 |
|              | 77                            | 6380                 | 5070  | 6680                 | 5220  | 7100                 | 5430  | 7500                 | 5600  | 7630                 | 5620  | 8110                 | 5540  | 8450                 | 5340 |
|              | 81                            | 6380                 | 5070  | 6680                 | 5220  | 7100                 | 5430  | 7500                 | 5600  | 7630                 | 5620  | 8110                 | 5540  | 8450                 | 5340 |
|              | 84                            | 6380                 | 5070  | 6680                 | 5220  | 7100                 | 5430  | 7500                 | 5600  | 7630                 | 5620  | 8110                 | 5540  | 8450                 | 5340 |
|              | 88                            | 6380                 | 5070  | 6680                 | 5220  | 7100                 | 5430  | 7500                 | 5600  | 7630                 | 5620  | 8110                 | 5540  | 8450                 | 5340 |
|              | 91                            | 6380                 | 5070  | 6680                 | 5220  | 7100                 | 5430  | 7500                 | 5600  | 7630                 | 5620  | 8110                 | 5540  | 8450                 | 5340 |
|              | 95                            | 6380                 | 5070  | 6680                 | 5220  | 7100                 | 5430  | 7500                 | 5600  | 7630                 | 5620  | 8110                 | 5540  | 8450                 | 5340 |
|              | 99                            | 6190                 | 4920  | 6490                 | 5070  | 6890                 | 5270  | 7280                 | 5440  | 7410                 | 5460  | 7870                 | 5380  | 8200                 | 5190 |
| 102          | 6050                          | 4810                 | 6330  | 4950                 | 6730  | 5150                 | 7110  | 5310                 | 7230  | 5330                 | 7690  | 5250                 | 8010  | 5060                 |      |
| 106          | 5880                          | 4670                 | 6160  | 4810                 | 6550  | 5010                 | 6920  | 5160                 | 7030  | 5180                 | 7480  | 5110                 | 7790  | 4920                 |      |
| 109          | 5720                          | 4550                 | 5990  | 4680                 | 6370  | 4870                 | 6730  | 5020                 | 6840  | 5040                 | 7270  | 4970                 | 7580  | 4790                 |      |
| 009          | 41                            | 8090                 | 6440  | 8460                 | 6610  | 9000                 | 6890  | 9500                 | 7100  | 9660                 | 7120  | 10270                | 7030  | 10700                | 6770 |
|              | 45                            | 8090                 | 6440  | 8460                 | 6610  | 9000                 | 6890  | 9500                 | 7100  | 9660                 | 7120  | 10270                | 7030  | 10700                | 6770 |
|              | 50                            | 8090                 | 6440  | 8460                 | 6610  | 9000                 | 6890  | 9500                 | 7100  | 9660                 | 7120  | 10270                | 7030  | 10700                | 6770 |
|              | 54                            | 8090                 | 6440  | 8460                 | 6610  | 9000                 | 6890  | 9500                 | 7100  | 9660                 | 7120  | 10270                | 7030  | 10700                | 6770 |
|              | 57                            | 8090                 | 6440  | 8460                 | 6610  | 9000                 | 6890  | 9500                 | 7100  | 9660                 | 7120  | 10270                | 7030  | 10700                | 6770 |
|              | 61                            | 8090                 | 6440  | 8460                 | 6610  | 9000                 | 6890  | 9500                 | 7100  | 9660                 | 7120  | 10270                | 7030  | 10700                | 6770 |
|              | 64                            | 8090                 | 6440  | 8460                 | 6610  | 9000                 | 6890  | 9500                 | 7100  | 9660                 | 7120  | 10270                | 7030  | 10700                | 6770 |
|              | 68                            | 8090                 | 6440  | 8460                 | 6610  | 9000                 | 6890  | 9500                 | 7100  | 9660                 | 7120  | 10270                | 7030  | 10700                | 6770 |
|              | 70                            | 8090                 | 6440  | 8460                 | 6610  | 9000                 | 6890  | 9500                 | 7100  | 9660                 | 7120  | 10270                | 7030  | 10700                | 6770 |
|              | 73                            | 8090                 | 6440  | 8460                 | 6610  | 9000                 | 6890  | 9500                 | 7100  | 9660                 | 7120  | 10270                | 7030  | 10700                | 6770 |
|              | 77                            | 8090                 | 6440  | 8460                 | 6610  | 9000                 | 6890  | 9500                 | 7100  | 9660                 | 7120  | 10270                | 7030  | 10700                | 6770 |
|              | 81                            | 8090                 | 6440  | 8460                 | 6610  | 9000                 | 6890  | 9500                 | 7100  | 9660                 | 7120  | 10270                | 7030  | 10700                | 6770 |
|              | 84                            | 8090                 | 6440  | 8460                 | 6610  | 9000                 | 6890  | 9500                 | 7100  | 9660                 | 7120  | 10270                | 7030  | 10700                | 6770 |
|              | 88                            | 8090                 | 6440  | 8460                 | 6610  | 9000                 | 6890  | 9500                 | 7100  | 9660                 | 7120  | 10270                | 7030  | 10700                | 6770 |
|              | 91                            | 8090                 | 6440  | 8460                 | 6610  | 9000                 | 6890  | 9500                 | 7100  | 9660                 | 7120  | 10270                | 7030  | 10700                | 6770 |
|              | 95                            | 8090                 | 6440  | 8460                 | 6610  | 9000                 | 6890  | 9500                 | 7100  | 9660                 | 7120  | 10270                | 7030  | 10700                | 6770 |
|              | 99                            | 7860                 | 6250  | 8210                 | 6420  | 8740                 | 6690  | 9220                 | 6890  | 9380                 | 6910  | 9970                 | 6830  | 10390                | 6570 |
| 102          | 7670                          | 6110                 | 8020  | 6270                 | 8530  | 6530                 | 9010  | 6730                 | 9160  | 6750                 | 9740  | 6660                 | 10140 | 6420                 |      |
| 106          | 7460                          | 5940                 | 7800  | 6090                 | 8300  | 6350                 | 8760  | 6550                 | 8910  | 6560                 | 9470  | 6480                 | 9870  | 6240                 |      |
| 109          | 7260                          | 5780                 | 7590  | 5930                 | 8070  | 6180                 | 8520  | 6370                 | 8670  | 6390                 | 9210  | 6310                 | 9600  | 6070                 |      |
| 012          | 41                            | 10210                | 8160  | 10690                | 8390  | 11360                | 8720  | 12000                | 9000  | 12210                | 9030  | 12980                | 8910  | 13510                | 8580 |
|              | 45                            | 10210                | 8160  | 10690                | 8390  | 11360                | 8720  | 12000                | 9000  | 12210                | 9030  | 12980                | 8910  | 13510                | 8580 |
|              | 50                            | 10210                | 8160  | 10690                | 8390  | 11360                | 8720  | 12000                | 9000  | 12210                | 9030  | 12980                | 8910  | 13510                | 8580 |
|              | 54                            | 10210                | 8160  | 10690                | 8390  | 11360                | 8720  | 12000                | 9000  | 12210                | 9030  | 12980                | 8910  | 13510                | 8580 |
|              | 57                            | 10210                | 8160  | 10690                | 8390  | 11360                | 8720  | 12000                | 9000  | 12210                | 9030  | 12980                | 8910  | 13510                | 8580 |
|              | 61                            | 10210                | 8160  | 10690                | 8390  | 11360                | 8720  | 12000                | 9000  | 12210                | 9030  | 12980                | 8910  | 13510                | 8580 |
|              | 64                            | 10210                | 8160  | 10690                | 8390  | 11360                | 8720  | 12000                | 9000  | 12210                | 9030  | 12980                | 8910  | 13510                | 8580 |
|              | 68                            | 10210                | 8160  | 10690                | 8390  | 11360                | 8720  | 12000                | 9000  | 12210                | 9030  | 12980                | 8910  | 13510                | 8580 |
|              | 70                            | 10210                | 8160  | 10690                | 8390  | 11360                | 8720  | 12000                | 9000  | 12210                | 9030  | 12980                | 8910  | 13510                | 8580 |
|              | 73                            | 10210                | 8160  | 10690                | 8390  | 11360                | 8720  | 12000                | 9000  | 12210                | 9030  | 12980                | 8910  | 13510                | 8580 |
|              | 77                            | 10210                | 8160  | 10690                | 8390  | 11360                | 8720  | 12000                | 9000  | 12210                | 9030  | 12980                | 8910  | 13510                | 8580 |
|              | 81                            | 10210                | 8160  | 10690                | 8390  | 11360                | 8720  | 12000                | 9000  | 12210                | 9030  | 12980                | 8910  | 13510                | 8580 |
|              | 84                            | 10210                | 8160  | 10690                | 8390  | 11360                | 8720  | 12000                | 9000  | 12210                | 9030  | 12980                | 8910  | 13510                | 8580 |
|              | 88                            | 10210                | 8160  | 10690                | 8390  | 11360                | 8720  | 12000                | 9000  | 12210                | 9030  | 12980                | 8910  | 13510                | 8580 |
|              | 91                            | 10210                | 8160  | 10690                | 8390  | 11360                | 8720  | 12000                | 9000  | 12210                | 9030  | 12980                | 8910  | 13510                | 8580 |
|              | 95                            | 10210                | 8160  | 10690                | 8390  | 11360                | 8720  | 12000                | 9000  | 12210                | 9030  | 12980                | 8910  | 13510                | 8580 |
|              | 99                            | 9910                 | 7920  | 10380                | 8150  | 11030                | 8470  | 11650                | 8740  | 11860                | 8770  | 12600                | 8650  | 13120                | 8330 |
| 102          | 9680                          | 7740                 | 10130 | 7950                 | 10770 | 8270                 | 11380 | 8530                 | 11580 | 8560                 | 12310 | 8450                 | 12810 | 8130                 |      |
| 106          | 9410                          | 7520                 | 9860  | 7740                 | 10470 | 8040                 | 11060 | 8300                 | 11260 | 8330                 | 11970 | 8220                 | 12460 | 7910                 |      |
| 109          | 9160                          | 7320                 | 9590  | 7530                 | 10190 | 7820                 | 10760 | 8070                 | 10950 | 8100                 | 11640 | 7990                 | 12120 | 7700                 |      |

TC: Total Capacity [Btu/h]  
SHC: Sensible Heat Capacity [Btu/h]

## High-wall type (MMK-UP\*\_\_1HP-UL)

| unit size | outdoor air temp.<br>° FDB | Indoor air temp. |       |          |       |          |       |          |       |          |       |          |       |          |       |
|-----------|----------------------------|------------------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|
|           |                            | 59 ° FWB         |       | 61 ° FWB |       | 64 ° FWB |       | 67 ° FWB |       | 68 ° FWB |       | 72 ° FWB |       | 75 ° FWB |       |
|           |                            | 71 ° FDB         |       | 73 ° FDB |       | 77 ° FDB |       | 80 ° FDB |       | 82 ° FDB |       | 86 ° FDB |       | 90 ° FDB |       |
|           |                            | TC               | SHC   | TC       | SHC   | TC       | SHC   | TC       | SHC   | TC       | SHC   | TC       | SHC   | TC       | SHC   |
| 015       | 41                         | 13110            | 10520 | 13710    | 10800 | 14580    | 11240 | 15400    | 11600 | 15660    | 11630 | 16660    | 11490 | 17340    | 11050 |
|           | 45                         | 13110            | 10520 | 13710    | 10800 | 14580    | 11240 | 15400    | 11600 | 15660    | 11630 | 16660    | 11490 | 17340    | 11050 |
|           | 50                         | 13110            | 10520 | 13710    | 10800 | 14580    | 11240 | 15400    | 11600 | 15660    | 11630 | 16660    | 11490 | 17340    | 11050 |
|           | 54                         | 13110            | 10520 | 13710    | 10800 | 14580    | 11240 | 15400    | 11600 | 15660    | 11630 | 16660    | 11490 | 17340    | 11050 |
|           | 57                         | 13110            | 10520 | 13710    | 10800 | 14580    | 11240 | 15400    | 11600 | 15660    | 11630 | 16660    | 11490 | 17340    | 11050 |
|           | 61                         | 13110            | 10520 | 13710    | 10800 | 14580    | 11240 | 15400    | 11600 | 15660    | 11630 | 16660    | 11490 | 17340    | 11050 |
|           | 64                         | 13110            | 10520 | 13710    | 10800 | 14580    | 11240 | 15400    | 11600 | 15660    | 11630 | 16660    | 11490 | 17340    | 11050 |
|           | 68                         | 13110            | 10520 | 13710    | 10800 | 14580    | 11240 | 15400    | 11600 | 15660    | 11630 | 16660    | 11490 | 17340    | 11050 |
|           | 70                         | 13110            | 10520 | 13710    | 10800 | 14580    | 11240 | 15400    | 11600 | 15660    | 11630 | 16660    | 11490 | 17340    | 11050 |
|           | 73                         | 13110            | 10520 | 13710    | 10800 | 14580    | 11240 | 15400    | 11600 | 15660    | 11630 | 16660    | 11490 | 17340    | 11050 |
|           | 77                         | 13110            | 10520 | 13710    | 10800 | 14580    | 11240 | 15400    | 11600 | 15660    | 11630 | 16660    | 11490 | 17340    | 11050 |
|           | 81                         | 13110            | 10520 | 13710    | 10800 | 14580    | 11240 | 15400    | 11600 | 15660    | 11630 | 16660    | 11490 | 17340    | 11050 |
|           | 84                         | 13110            | 10520 | 13710    | 10800 | 14580    | 11240 | 15400    | 11600 | 15660    | 11630 | 16660    | 11490 | 17340    | 11050 |
|           | 88                         | 13110            | 10520 | 13710    | 10800 | 14580    | 11240 | 15400    | 11600 | 15660    | 11630 | 16660    | 11490 | 17340    | 11050 |
|           | 91                         | 13110            | 10520 | 13710    | 10800 | 14580    | 11240 | 15400    | 11600 | 15660    | 11630 | 16660    | 11490 | 17340    | 11050 |
|           | 95                         | 13110            | 10520 | 13710    | 10800 | 14580    | 11240 | 15400    | 11600 | 15660    | 11630 | 16660    | 11490 | 17340    | 11050 |
|           | 99                         | 12730            | 10210 | 13310    | 10490 | 14160    | 10910 | 14950    | 11260 | 15210    | 11290 | 16180    | 11160 | 16840    | 10730 |
|           | 102                        | 12430            | 9970  | 13000    | 10240 | 13820    | 10660 | 14600    | 11000 | 14850    | 11030 | 15790    | 10890 | 16440    | 10480 |
|           | 106                        | 12090            | 9700  | 12640    | 9960  | 13440    | 10360 | 14200    | 10700 | 14440    | 10720 | 15360    | 10590 | 15990    | 10190 |
|           | 109                        | 11760            | 9440  | 12300    | 9690  | 13080    | 10080 | 13810    | 10410 | 14050    | 10430 | 14940    | 10310 | 15550    | 9910  |
| 018       | 41                         | 15320            | 12240 | 16030    | 12580 | 17040    | 13090 | 18000    | 13500 | 18310    | 13540 | 19470    | 13370 | 20270    | 12870 |
|           | 45                         | 15320            | 12240 | 16030    | 12580 | 17040    | 13090 | 18000    | 13500 | 18310    | 13540 | 19470    | 13370 | 20270    | 12870 |
|           | 50                         | 15320            | 12240 | 16030    | 12580 | 17040    | 13090 | 18000    | 13500 | 18310    | 13540 | 19470    | 13370 | 20270    | 12870 |
|           | 54                         | 15320            | 12240 | 16030    | 12580 | 17040    | 13090 | 18000    | 13500 | 18310    | 13540 | 19470    | 13370 | 20270    | 12870 |
|           | 57                         | 15320            | 12240 | 16030    | 12580 | 17040    | 13090 | 18000    | 13500 | 18310    | 13540 | 19470    | 13370 | 20270    | 12870 |
|           | 61                         | 15320            | 12240 | 16030    | 12580 | 17040    | 13090 | 18000    | 13500 | 18310    | 13540 | 19470    | 13370 | 20270    | 12870 |
|           | 64                         | 15320            | 12240 | 16030    | 12580 | 17040    | 13090 | 18000    | 13500 | 18310    | 13540 | 19470    | 13370 | 20270    | 12870 |
|           | 68                         | 15320            | 12240 | 16030    | 12580 | 17040    | 13090 | 18000    | 13500 | 18310    | 13540 | 19470    | 13370 | 20270    | 12870 |
|           | 70                         | 15320            | 12240 | 16030    | 12580 | 17040    | 13090 | 18000    | 13500 | 18310    | 13540 | 19470    | 13370 | 20270    | 12870 |
|           | 73                         | 15320            | 12240 | 16030    | 12580 | 17040    | 13090 | 18000    | 13500 | 18310    | 13540 | 19470    | 13370 | 20270    | 12870 |
|           | 77                         | 15320            | 12240 | 16030    | 12580 | 17040    | 13090 | 18000    | 13500 | 18310    | 13540 | 19470    | 13370 | 20270    | 12870 |
|           | 81                         | 15320            | 12240 | 16030    | 12580 | 17040    | 13090 | 18000    | 13500 | 18310    | 13540 | 19470    | 13370 | 20270    | 12870 |
|           | 84                         | 15320            | 12240 | 16030    | 12580 | 17040    | 13090 | 18000    | 13500 | 18310    | 13540 | 19470    | 13370 | 20270    | 12870 |
|           | 88                         | 15320            | 12240 | 16030    | 12580 | 17040    | 13090 | 18000    | 13500 | 18310    | 13540 | 19470    | 13370 | 20270    | 12870 |
|           | 91                         | 15320            | 12240 | 16030    | 12580 | 17040    | 13090 | 18000    | 13500 | 18310    | 13540 | 19470    | 13370 | 20270    | 12870 |
|           | 95                         | 15320            | 12240 | 16030    | 12580 | 17040    | 13090 | 18000    | 13500 | 18310    | 13540 | 19470    | 13370 | 20270    | 12870 |
|           | 99                         | 14880            | 11890 | 15570    | 12220 | 16550    | 12710 | 17480    | 13110 | 17780    | 13150 | 18910    | 12980 | 19680    | 12500 |
|           | 102                        | 14520            | 11600 | 15200    | 11930 | 16150    | 12410 | 17060    | 12800 | 17360    | 12840 | 18460    | 12670 | 19220    | 12200 |
|           | 106                        | 14130            | 11290 | 14780    | 11600 | 15710    | 12070 | 16600    | 12450 | 16880    | 12480 | 17950    | 12330 | 18690    | 11870 |
|           | 109                        | 13740            | 10980 | 14380    | 11280 | 15280    | 11740 | 16150    | 12110 | 16420    | 12150 | 17460    | 11990 | 18180    | 11540 |
| 024       | 41                         | 20430            | 16320 | 21370    | 16760 | 22730    | 17450 | 24000    | 18000 | 24410    | 18050 | 25960    | 17820 | 27020    | 17150 |
|           | 45                         | 20430            | 16320 | 21370    | 16760 | 22730    | 17450 | 24000    | 18000 | 24410    | 18050 | 25960    | 17820 | 27020    | 17150 |
|           | 50                         | 20430            | 16320 | 21370    | 16760 | 22730    | 17450 | 24000    | 18000 | 24410    | 18050 | 25960    | 17820 | 27020    | 17150 |
|           | 54                         | 20430            | 16320 | 21370    | 16760 | 22730    | 17450 | 24000    | 18000 | 24410    | 18050 | 25960    | 17820 | 27020    | 17150 |
|           | 57                         | 20430            | 16320 | 21370    | 16760 | 22730    | 17450 | 24000    | 18000 | 24410    | 18050 | 25960    | 17820 | 27020    | 17150 |
|           | 61                         | 20430            | 16320 | 21370    | 16760 | 22730    | 17450 | 24000    | 18000 | 24410    | 18050 | 25960    | 17820 | 27020    | 17150 |
|           | 64                         | 20430            | 16320 | 21370    | 16760 | 22730    | 17450 | 24000    | 18000 | 24410    | 18050 | 25960    | 17820 | 27020    | 17150 |
|           | 68                         | 20430            | 16320 | 21370    | 16760 | 22730    | 17450 | 24000    | 18000 | 24410    | 18050 | 25960    | 17820 | 27020    | 17150 |
|           | 70                         | 20430            | 16320 | 21370    | 16760 | 22730    | 17450 | 24000    | 18000 | 24410    | 18050 | 25960    | 17820 | 27020    | 17150 |
|           | 73                         | 20430            | 16320 | 21370    | 16760 | 22730    | 17450 | 24000    | 18000 | 24410    | 18050 | 25960    | 17820 | 27020    | 17150 |
|           | 77                         | 20430            | 16320 | 21370    | 16760 | 22730    | 17450 | 24000    | 18000 | 24410    | 18050 | 25960    | 17820 | 27020    | 17150 |
|           | 81                         | 20430            | 16320 | 21370    | 16760 | 22730    | 17450 | 24000    | 18000 | 24410    | 18050 | 25960    | 17820 | 27020    | 17150 |
|           | 84                         | 20430            | 16320 | 21370    | 16760 | 22730    | 17450 | 24000    | 18000 | 24410    | 18050 | 25960    | 17820 | 27020    | 17150 |
|           | 88                         | 20430            | 16320 | 21370    | 16760 | 22730    | 17450 | 24000    | 18000 | 24410    | 18050 | 25960    | 17820 | 27020    | 17150 |
|           | 91                         | 20430            | 16320 | 21370    | 16760 | 22730    | 17450 | 24000    | 18000 | 24410    | 18050 | 25960    | 17820 | 27020    | 17150 |
|           | 95                         | 20430            | 16320 | 21370    | 16760 | 22730    | 17450 | 24000    | 18000 | 24410    | 18050 | 25960    | 17820 | 27020    | 17150 |
|           | 99                         | 19840            | 15850 | 20750    | 16270 | 22070    | 16940 | 23300    | 17480 | 23700    | 17530 | 25210    | 17300 | 26240    | 16650 |
|           | 102                        | 19370            | 15470 | 20260    | 15890 | 21550    | 16540 | 22750    | 17060 | 23140    | 17110 | 24610    | 16890 | 25610    | 16260 |
|           | 106                        | 18840            | 15050 | 19700    | 15450 | 20960    | 16090 | 22130    | 16600 | 22510    | 16640 | 23940    | 16430 | 24910    | 15810 |
|           | 109                        | 18330            | 14640 | 19170    | 15030 | 20390    | 15650 | 21530    | 16150 | 21900    | 16190 | 23290    | 15980 | 24240    | 15380 |

TC: Total Capacity [Btu/h]

SHC: Sensible Heat Capacity [Btu/h]

## Heating capacity table

|                 | Indoor air temp. °FDB        |      |      |      |      |      |
|-----------------|------------------------------|------|------|------|------|------|
| Fahrenheit(°F)  | 62                           | 65   | 68   | 70   | 72   | 75   |
| Celsius(°C)     | 16.7                         | 18.3 | 20   | 21.1 | 22.2 | 23.9 |
|                 | Total capacity (TC) (kBtu/h) |      |      |      |      |      |
| MMK-UP0071HP-UL | 8.9                          | 8.8  | 8.6  | 8.5  | 8.4  | 8.2  |
| MMK-UP0091HP-UL | 11.0                         | 10.8 | 10.6 | 10.5 | 10.4 | 10.1 |
| MMK-UP0121HP-UL | 14.1                         | 13.9 | 13.7 | 13.5 | 13.3 | 13.0 |
| MMK-UP0151HP-UL | 17.8                         | 17.5 | 17.2 | 17.0 | 16.8 | 16.4 |
| MMK-UP0181HP-UL | 20.9                         | 20.6 | 20.2 | 20.0 | 19.7 | 19.3 |
| MMK-UP0241HP-UL | 28.2                         | 27.8 | 27.3 | 27.0 | 26.6 | 26.1 |
| MMK-UP0301HP-UL | 31.4                         | 30.9 | 30.3 | 30.0 | 29.6 | 28.9 |
| MMK-UP0361HP-UL | 37.7                         | 37.1 | 36.4 | 36.0 | 35.5 | 34.7 |

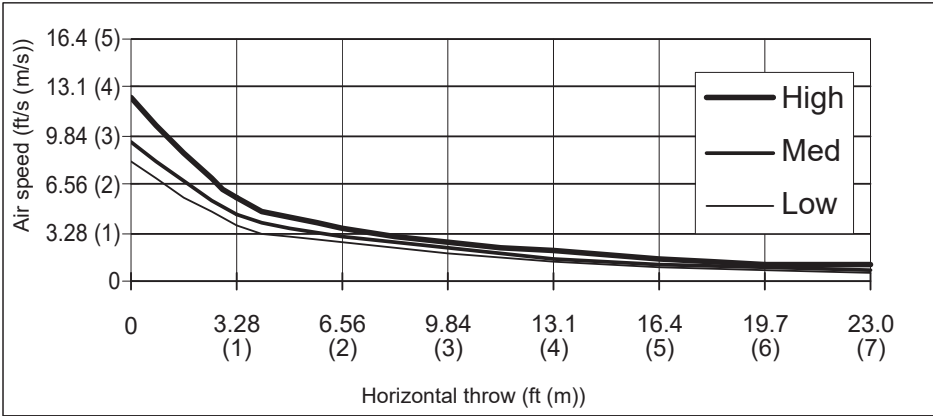
Notes: 1. These capacity tables can be used when selecting a VRF indoor unit. The actual capacity of the VRF system depends on factors such as the selected model of outdoor units, outdoor air temperature and piping length. Please confirm that the corrected capacity of the VRF system satisfies the required heat load.

Notes: 2. This is the capacity table of rated heating test condition of Outdoor 47°F Dry Bulb / 43°F Wet Bulb.

# 8. Air throw distance chart

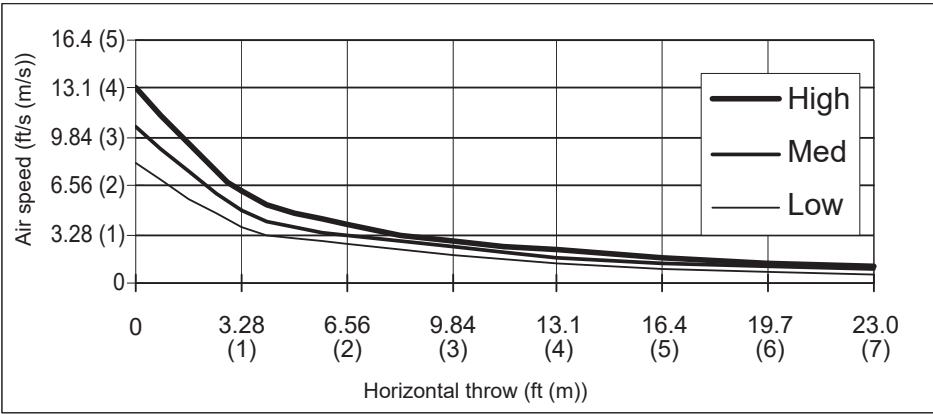
MMK-UP0071HP-UL

High : 12.5 ft/s (3.8 m/s)  
Med : 9.51 ft/s (2.9 m/s)  
Low : 8.20 ft/s (2.5 m/s)



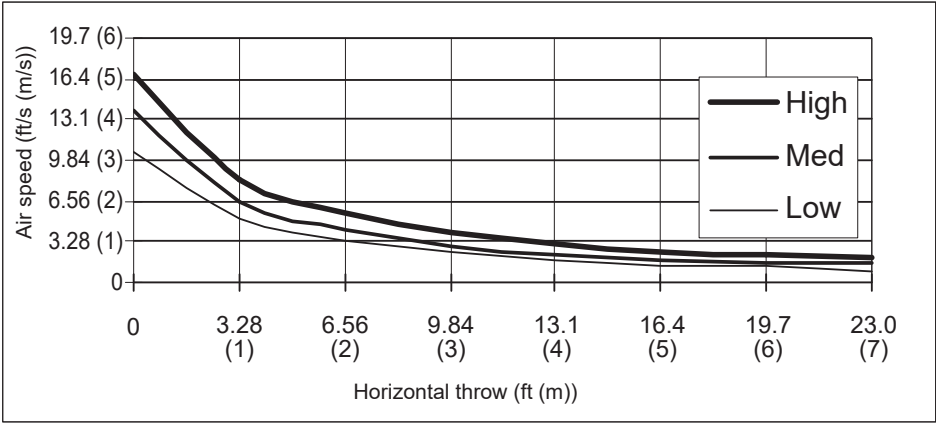
MMK-UP0091HP-UL / UP0121HP-UL

High : 13.1 ft/s (4.0 m/s)  
Med : 10.5 ft/s (3.2 m/s)  
Low : 8.20 ft/s (2.5 m/s)



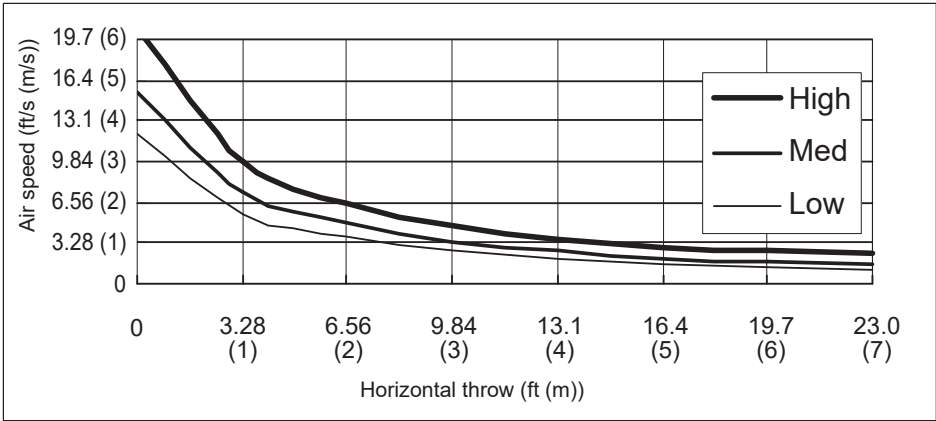
MMK-UP0151HP-UL / AP0181HP-UL

High : 16.7 ft/s (5.1 m/s)  
Med : 13.8 ft/s (4.2 m/s)  
Low : 10.5 ft/s (3.2 m/s)



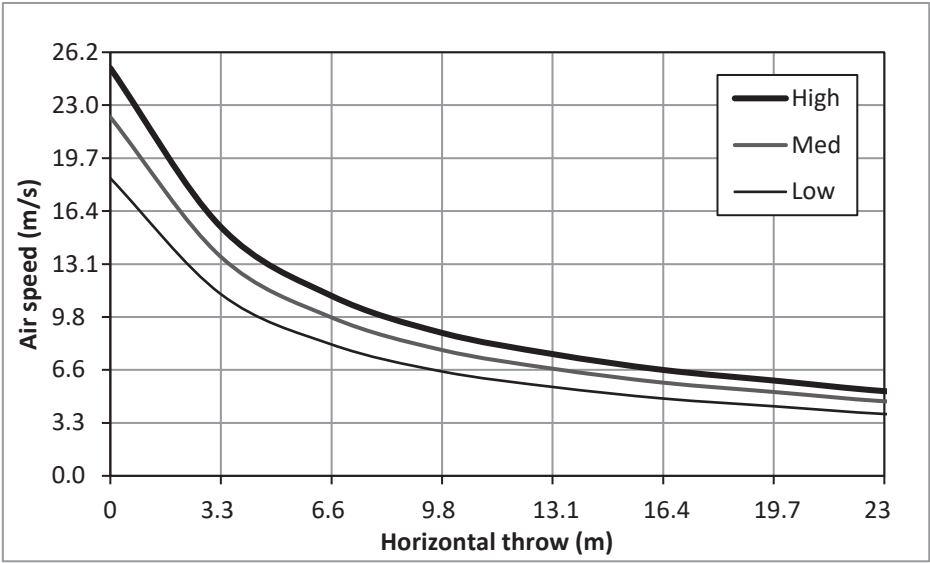
MMK-UP0241HP-UL

High : 20.3 ft/s (6.2 m/s)  
Med : 15.4 ft/s (4.7 m/s)  
Low : 12.1 ft/s (3.7 m/s)



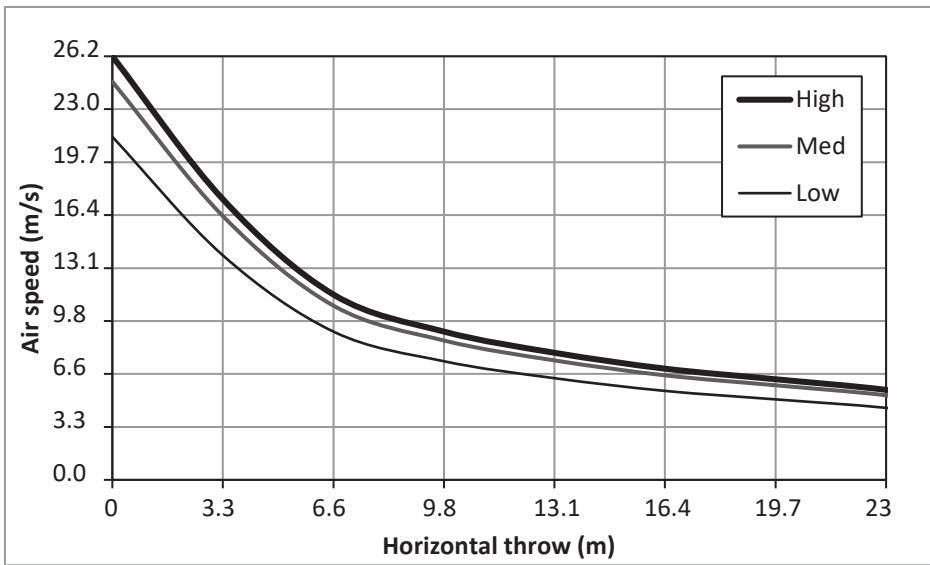
MMK-UP0301HP-UL

High : 25.26 ft/s (7.7 m/s)  
Mid : 22.31 ft/s (6.8 m/s)  
Low : 18.37 ft/s (5.6 m/s)



MMK-UP0361HP-UL

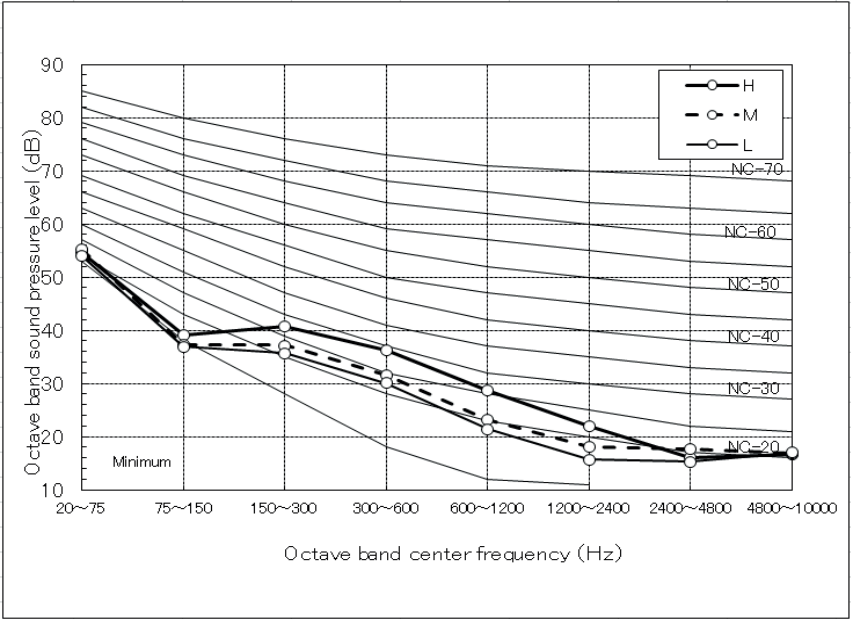
High : 26.24 ft/s (8.0 m/s)  
Mid : 24.6 ft/s (7.5 m/s)  
Low : 21.32 ft/s (6.5 m/s)



9. Sound data

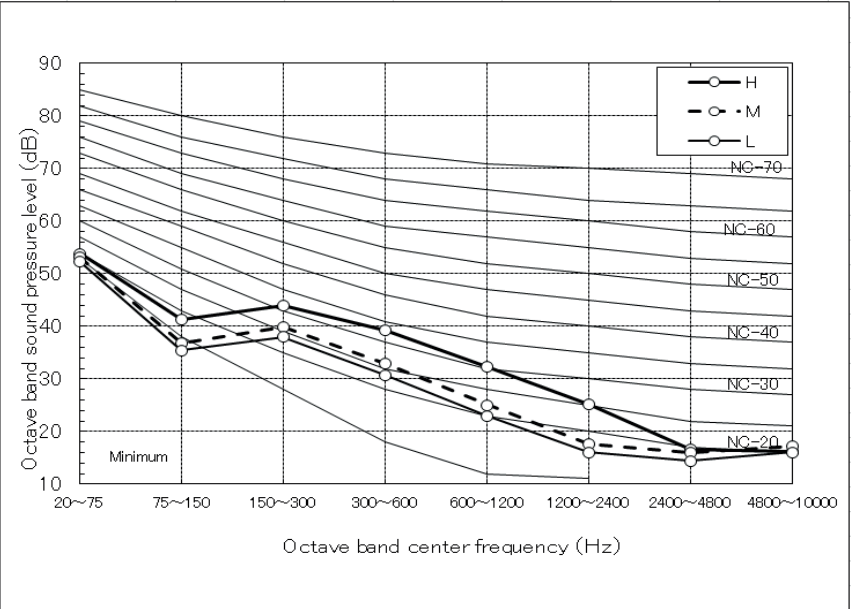
MMK-UP0071HP-UL

| Specification (d B)          |    |    |    |
|------------------------------|----|----|----|
| Fan tap                      | H  | M  | L  |
| Sound pressure level (dB(A)) | 35 | 30 | 27 |

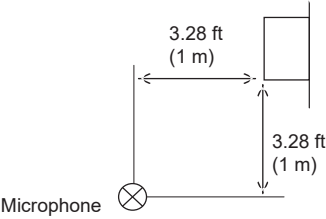


MMK-UP0091HP-UL

| Specification (d B)          |    |    |    |
|------------------------------|----|----|----|
| Fan tap                      | H  | M  | L  |
| Sound pressure level (dB(A)) | 36 | 31 | 27 |

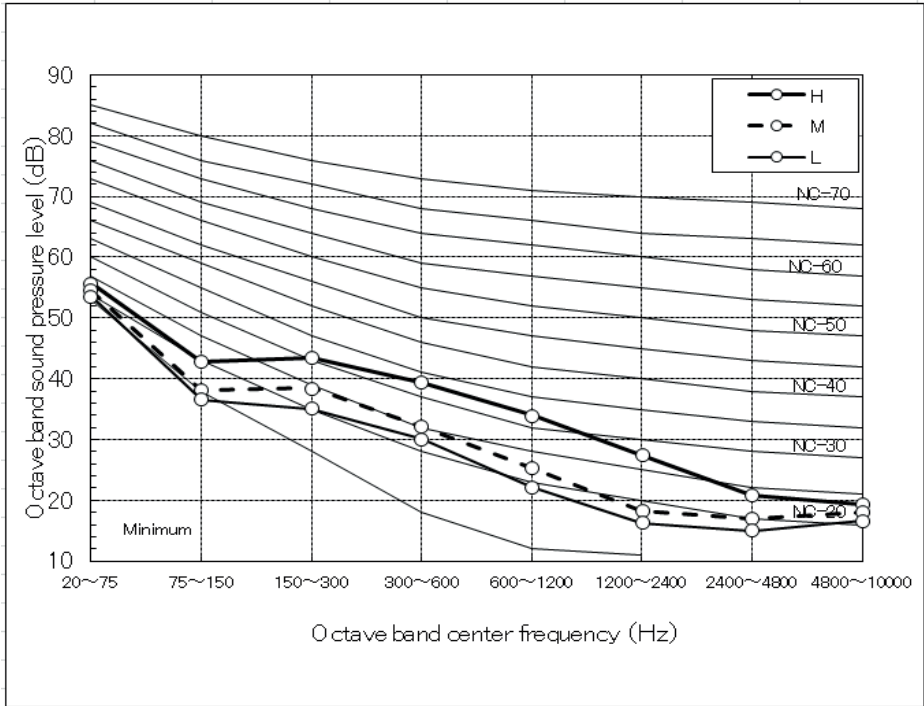


Sound pressure spectrum



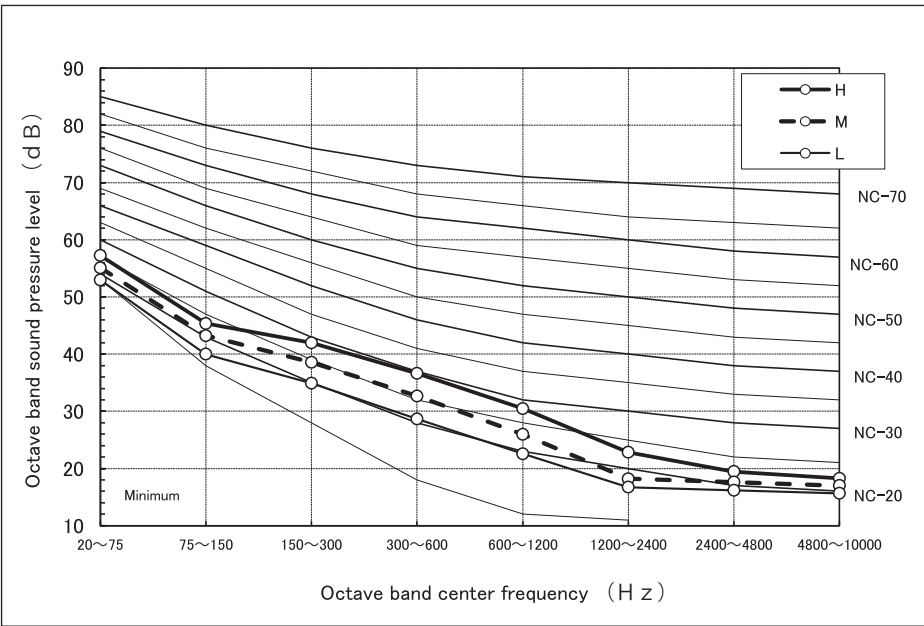
MMK-UP0121HP-UL

| Specification (d B)          |    |    |    |
|------------------------------|----|----|----|
| Fan tap                      | H  | M  | L  |
| Sound pressure level (dB(A)) | 37 | 32 | 27 |



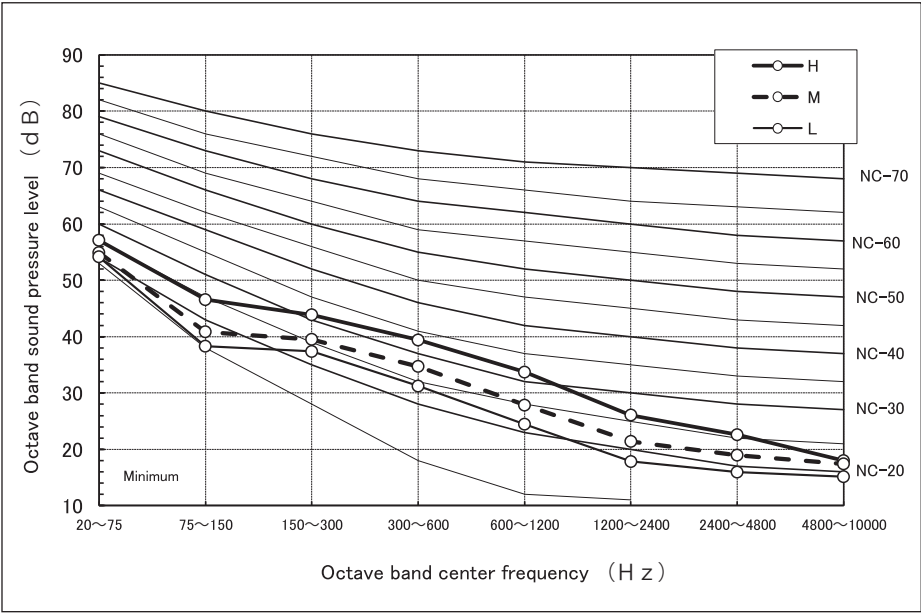
MMK-UP0151HP-UL

| Specification (d B)          |    |    |    |
|------------------------------|----|----|----|
| Fan tap                      | H  | M  | L  |
| Sound pressure level (dB(A)) | 40 | 36 | 32 |



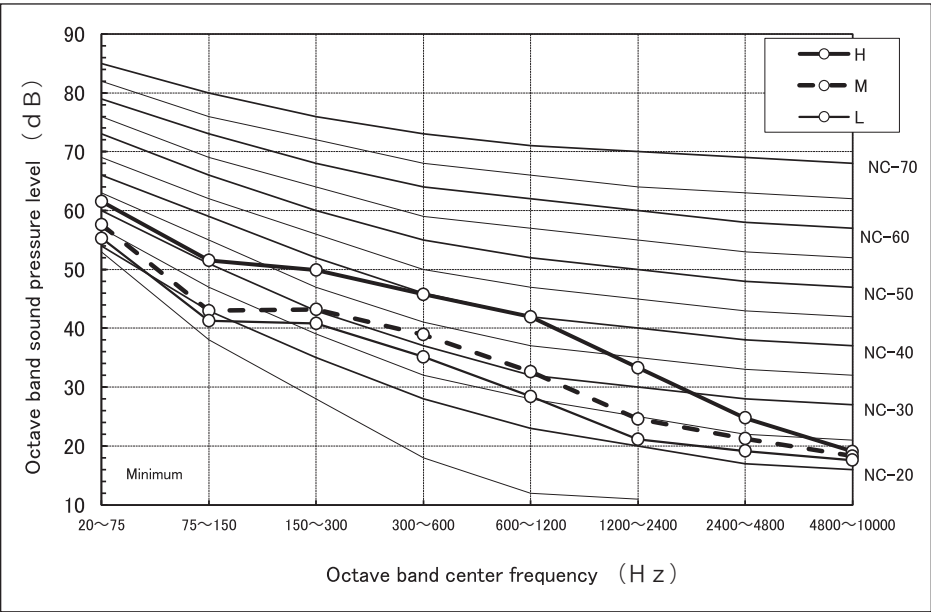
MMK-UP0181HP-UL

| Specification (dB)           |    |    |    |
|------------------------------|----|----|----|
| Fan tap                      | H  | M  | L  |
| Sound pressure level (dB(A)) | 41 | 37 | 32 |



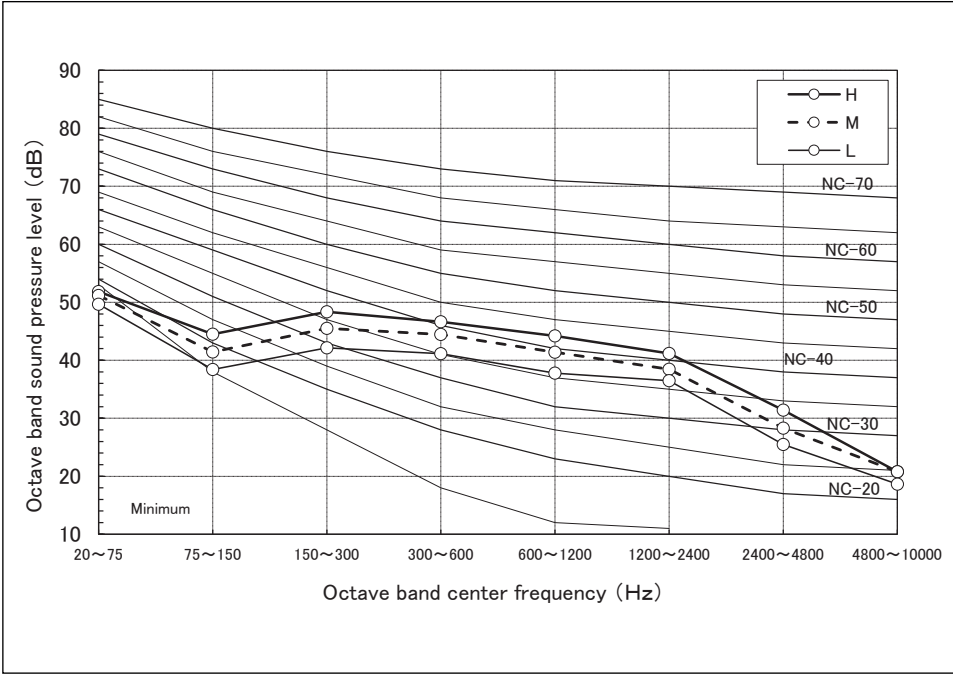
MMK-UP0241HP-UL

| Specification (dB)           |    |    |    |
|------------------------------|----|----|----|
| Fan tap                      | H  | M  | L  |
| Sound pressure level (dB(A)) | 45 | 39 | 33 |



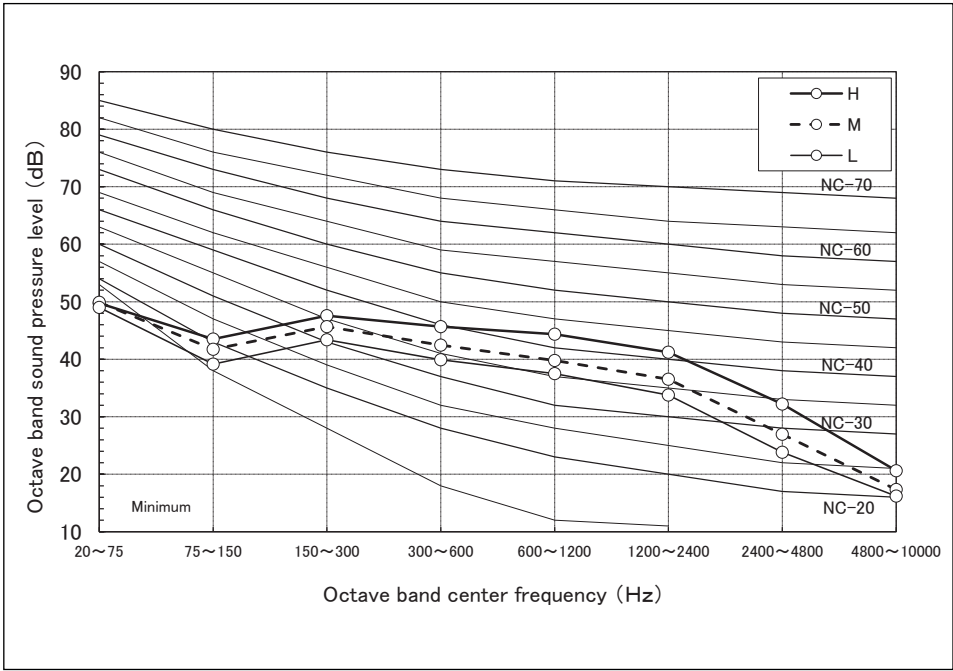
MMK-UP0301HP-UL

| Specification (dB)           |    |    |    |
|------------------------------|----|----|----|
| Fan tap                      | H  | M  | L  |
| Sound pressure level (dB(A)) | 48 | 44 | 41 |



MMK-UP0361HP-UL

| Specification (dB)           |    |    |    |
|------------------------------|----|----|----|
| Fan tap                      | H  | M  | L  |
| Sound pressure level (dB(A)) | 50 | 47 | 43 |



10. Accessories

| Name                    | Appearance                                                                                                               | Application                                                                                  | Function                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wireless remote control | <div></div> <p>Slide down to unhide</p> | <div></div> | <ul style="list-style-type: none"><li>• Start / Stop</li><li>• Changing mode</li><li>• Temperature setting</li><li>• Air flow changing (5 steps)</li><li>• Louver setting</li><li>• Clock</li><li>• Timer function<ul style="list-style-type: none"><li>- ON/OFF timer (10 min. step)</li><li>- Everyday timer</li><li>- Sleep timer</li><li>- COMFORT SLEEP timer</li></ul></li><li>• High power mode</li><li>• QUIET mode</li><li>• One-touch pre-set memory</li><li>• A/B temperature display switching</li></ul> |

Packed with the indoor unit

# **TOSHIBA CARRIER (THAILAND) CO.,LTD.**

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