



Compact size 14

Hi efficient three pipes VRF Heat recovery model with high COP and EER in partial load mode.

Large capacity units with three compressors and three inverter (12 and 14 HP).

5 outdoor unit model line-up that can be installed in 18 different combination up to a capacity of 42 HP.

Complete range of VRF indoor unit including air to air heat exchangers.

Precise refrigerant control with the Toshiba unique technology of header sub-branches configuration.

Extended piping capabilities up to 500m of total length and 40m of height.\*

Great performances in cold climate; the SHRM-i units operates with an outside temperature down to -10°C in cooling and -20°C in heating.

Wide range of Toshiba controls including the new smart manager with data analyzer.

\*Preliminary



The introduction of this unit will reduce installation space and allow outdoor combinations up to 42HP.

SUPER HEAT RECOVERY SYSTEM

VRF OUTDOOR UNIT

SHRM - i



**OUTDOOR UNITS**

MMY-MAP0804FT8-E    MMY-MAP1204FT8-E  
MMY-MAP1004FT8-E    MMY-MAP1404FT8-E

| MMY-MAP_4FT8        |     | Performance data |                  |                  |                  |                  |
|---------------------|-----|------------------|------------------|------------------|------------------|------------------|
| Outdoor unit        | HP  | MMY-             | MMY-MAP0804FT8-E | MMY-MAP1004FT8-E | MMY-MAP1204FT8-E | MMY-MAP1404FT8-E |
|                     |     |                  | 8 HP             | 10 HP            | 12 HP            | 14 HP            |
| Cooling capacity*   | kW  |                  | 22,4             | 28               | 33,5             | 40               |
| Power input         | kW  | CO               | 5,17             | 7,28             | 8,38             | 11,3             |
| EER                 | W/W |                  | 4,33             | 3,85             | 4                | 3,54             |
| Running current     | A   | CO               | 8,3              | 11,4             | 13,4             | 17,9             |
| Heating capacity**  | kW  |                  | 25               | 31,5             | 37,5             | 45               |
| Power input         | kW  | HP               | 5,68             | 7,5              | 9,05             | 12,7             |
| COP                 | W/W |                  | 4,4              | 4,2              | 4,14             | 3,54             |
| Running current     | A   | HP               | 9,1              | 12               | 14,5             | 19,9             |
| Peak demand current | A   |                  | TBD              | TBD              | TBD              | TBD              |

| MMY-MAP_4FT8                              |                         | Physical data Outdoor units |                  |                  |                  |                  |
|---|-------------------------|-----------------------------|------------------|------------------|------------------|------------------|
| Outdoor unit                              | HP                      | MMY-                        | MMY-MAP0804FT8-E | MMY-MAP1004FT8-E | MMY-MAP1204FT8-E | MMY-MAP1404FT8-E |
| Air Flow                                  | m <sup>3</sup> /h - l/s |                             | 8500 - 2358      | 9100 - 2520      | 11700 - 3240     | 13000 - 3611     |
| Sound pressure level                      | dB(A)                   |                             | TBD              | TBD              | TBD              | TBD              |
| Dimensions (HxWxD)                        | mm                      | HP                          | 1830x990x750     | 1830x990x750     | 1830x1210x750    | 1830x1210x750    |
| Weight                                    | kg                      | HP                          | 256              | 256              | 331              | 331              |
| Compressor type                           |                         | CO                          | Twin Rotary      | Twin Rotary      | Twin Rotary      | Twin Rotary      |
| Refrigerant charge R410A                  | kg                      | CO                          | TBD              | TBD              | TBD              | TBD              |
| Suction line type - diameter              |                         |                             | Brazed - 7/8"    | Brazed - 7/8"    | Brazed - 1-1/8"  | Brazed - 1-1/8"  |
| Liquid line type - diameter               |                         |                             | Flare - 1/2"     | Flare - 1/2"     | Flare - 1/2"     | Flare - 5/8"     |
| Discharge line connection type - diameter |                         | HP                          | Flare - 3/4"     | Flare - 3/4"     | Flare - 3/4"     | Flare - 3/4"     |
| Farthest piping equivalent length         | m                       | CO                          | 190              | 190              | 190              | 190              |
| Farthest piping actual length             | m                       |                             | 165              | 165              | 165              | 165              |
| Maximum total pipe length***              | m                       |                             | 500              | 500              | 500              | 500              |
| Maximum lift (Indoor unit above/below)    | m                       |                             | 30/50            | 30/50            | 30/50            | 30/50            |
| Operating range - db                      | °C                      | CO                          | -10~43           | -10~43           | -10~43           | -10~43           |
| Operating range - wb                      | °C                      | HP                          | -20~-15,5        | -20~-15,5        | -20~-15,5        | -20~-15,5        |
| Power supply                              | V-ph-Hz                 |                             | 380/415-3-50     | 380/415-3-50     | 380/415-3-50     | 380/415-3-50     |

\* Based on an indoor air temperature of 27°C db/19°C wb and an outdoor air temperature of 35°C db  
\*\* Based on an indoor air temperature of 20°C db and an outdoor air temperature of 7°C db/6°C wb  
\*\*\* Less than 34HP or less combination: 300m

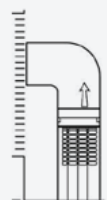
CO = cooling mode HP = heating mode

**Capacity data tables**

| Model Name (MMY-) | Cooling capacity | Heating capacity | Appearance | Model Name (MMY-) | Cooling capacity | Heating capacity | Appearance |
|-------------------|------------------|------------------|------------|-------------------|------------------|------------------|------------|
| 16 HP AP1614FT8-E | 45,0 kW          | 50,0 kW          | 8+8        | 30 HP AP3014FT8-E | 85,0 kW          | 95,0 kW          | 8+10+12    |
| 18 HP AP1814FT8-E | 50,4 kW          | 56,5 kW          | 10+8       | 32 HP AP3214FT8-E | 90,0 kW          | 100,0 kW         | 10+10+12   |
| 20 HP AP2014FT8-E | 56,0 kW          | 63,0 kW          | 10+10      | 34 HP AP3414FT8-E | 96,0 kW          | 108,0 kW         | 10+12+12   |
| 22 HP AP2214FT8-E | 61,5 kW          | 69,0 kW          | 12+10      | 36 HP AP3614FT8-E | 101,0 kW         | 113,0 kW         | 12+12+12   |
| 24 HP AP2414HT8-E | 68,0 kW          | 76,5 kW          | 12+12      | 38 HP AP3814FT8-E | 106,5 kW         | 119,5 kW         | 12+12+14   |
| 26 HP AP2614FT8-E | 73,0 kW          | 81,5 kW          | 14+12      | 40 HP AP4014FT8-E | 112,0 kW         | 127 kW           | 12+14+14   |
| 28 HP AP2814FT8-E | 78,5 kW          | 88,0 kW          | 14+14      | 42 HP AP4214FT8-E | 118,0 kW         | 132,0 kW         | 14+14+14   |



High external static pressure



With the outdoor external static pressure up to 45Pa the unit can be effectively installed in basements or in floor by floor applications.

The three-pipe VRF Super Heat Recovery Multi System (SHRM) delivers simultaneously cooling and heating and has exceptional energy efficiency.

High efficiency heat exchanger with sub-heat exchanger.

Compact flow selector to adjust the temperature either by unit or by area or to simultaneously operate in cooling and heating mode.

Compact size outdoor unit to facilitate the unit transportation and installation (fits in an elevator).

Piping branch installation flexibility with the Toshiba Y shape design. 150m of equivalent length and up to 50m height from outdoor to indoor.

Group control up to 8 single indoor units for a single flow selector.

SUPER HEAT RECOVERY SYSTEM

VRF OUTDOOR UNIT



OUTDOOR UNITS

MMY-MAP0802FT8-E  
MMY-MAP1002FT8-E  
MMY-MAP1202FT8-E

| MMY-MAP_FT8            |       | Performance data |                  |                  |
|------------------------|-------|------------------|------------------|------------------|
| Outdoor unit           |       | MMY-MAP0802FT8-E | MMY-MAP1002FT8-E | MMY-MAP1202FT8-E |
| Cooling capacity*      | kW    | 8 HP<br>22,4     | 10 HP<br>28      | 12 HP<br>33,5    |
| Power input            | kW CO | 6,07             | 8,54             | 12,9             |
| EER                    | W/W   | 3,69             | 3,18             | 2,6              |
| Running current        | A CO  | 9,25             | 13,15            | 19,85            |
| Heating capacity**     | kW    | 25               | 31,5             | 35,5             |
| Power input            | kW HP | 6,29             | 8,73             | 9,65             |
| COP                    | W/W   | 3,97             | 3,61             | 3,68             |
| Running current        | A HP  | 9,55             | 13,4             | 14,85            |
| Peak demand current*** | A     | 30               | 30               | 30               |

\* Based on an indoor air temperature of 27°C db/19°C wb and an outdoor air temperature of 35°C db  
\*\* Based on an indoor air temperature of 20°C db and an outdoor air temperature of 7°C db/6°C wb  
\*\*\* If outdoor units are combined, refer to the installation manual

| MMY-MAP_FT8                               |                         | Physical data Outdoor units |                  |                  |
|---|-------------------------|-----------------------------|------------------|------------------|
| Outdoor unit                              |                         | MMY-MAP0802FT8-E            | MMY-MAP1002FT8-E | MMY-MAP1202FT8-E |
| Air Flow                                  | m <sup>3</sup> /h - l/s | 9900 - 2742                 | 10500 - 2909     | 10500 - 2909     |
| Sound pressure level                      | dB(A)                   | 57                          | 58               | 59               |
| Dimensions (HxWxD)                        | mm                      | 1800x990x750                | 1800x990x750     | 1800x990x750     |
| Weight                                    | kg                      | 263                         | 263              | 263              |
| Compressor type                           |                         | Twin Rotary                 | Twin Rotary      | Twin Rotary      |
| Refrigerant charge R410A                  | kg                      | 11,5                        | 11,5             | 11,5             |
| Suction line type - diameter              |                         | Brazed - 7/8"               | Brazed - 7/8"    | Brazed - 1-1/8"  |
| Liquid line type - diameter               |                         | Flare - 1/2"                | Flare - 1/2"     | Flare - 1/2"     |
| Discharge line connection type - diameter |                         | Brazed - 3/4"               | Brazed - 3/4"    | Brazed - 3/4"    |
| Maximum equivalent length separation      | m                       | 150                         | 150              | 150              |
| Maximum actual piping separation          | m                       | 125                         | 125              | 125              |
| Maximum total pipe length                 | m                       | 300                         | 300              | 300              |
| Maximum lift (Indoor unit above/below)*   | m                       | 30/50                       | 30/50            | 30/50            |
| Operating range - db                      | °C CO                   | -10~43                      | -10~43           | -10~43           |
| Operating range - wb*                     | °C HP                   | -20~16                      | -20~16           | -20~16           |
| Running current                           | A HP                    | 9,55                        | 13,4             | 14,85            |
| Power supply                              | V-ph-Hz                 | 380/415-3-50                | 380/415-3-50     | 380/415-3-50     |

\* The unit can be operated even if outdoor temperature gets down to -20°C; warranty covers only up to -15°C because operation beyond that temperature is out of specification. When outdoor air temperature falls to under -15°C, it may cause shortening the product lifetime.

CO = cooling mode HP = heating mode

| MMY-MAP_FT8 |                  | Indoor units combinations |                  |                              |                        |  |
|-------------|------------------|---------------------------|------------------|------------------------------|------------------------|--|
| Model Name  |                  | Cooling capacity          | Heating capacity | Outdoor units in combination | Number of indoor units | Total cap. of connectable indoor units |
|             |                  |                           |                  |                              | Max                    | Min Max                                |
|             | MMY-MAP0802FT8-E | 8 HP<br>22,4 kW           | 25,0 kW          | 1                            | 13                     | 5,6 HP<br>10,8 HP                      |
|             | MMY-MAP1002FT8-E | 10 HP<br>28,0 kW          | 31,5 kW          | 1                            | 16                     | 7,0 HP<br>13,5 HP                      |
|             | MMY-MAP1202FT8-E | 12 HP<br>33,5 kW          | 35,5 kW          | 1                            | 16                     | 8,4 HP<br>14,4 HP                      |
|             | MMY-AP1602FT8-E  | 16 HP<br>45,0 kW          | 50,0 kW          | 2 (22,4kW+22,4kW)            | 27                     | 11,2 HP<br>21,6 HP                     |
|             | MMY-AP1802FT8-E  | 18 HP<br>50,4 kW          | 56,5 kW          | 2 (22,4kW+28kW)              | 30                     | 12,6 HP<br>24,3 HP                     |
|             | MMY-AP2002FT8-E  | 20 HP<br>56,0 kW          | 63,0 kW          | 2 (28kW+28kW)                | 33                     | 14,0 HP<br>27,0 HP                     |
|             | MMY-AP2402FT8-E  | 24 HP<br>68,0 kW          | 76,5 kW          | 3 (22,4kW+22,4kW+22,4kW)     | 40                     | 16,8 HP<br>32,4 HP                     |
|             | MMY-AP2602FT8-E  | 26 HP<br>73,0 kW          | 81,5 kW          | 3 (22,4kW+22,4kW+28kW)       | 43                     | 18,2 HP<br>35,1 HP                     |
|             | MMY-AP2802FT8-E  | 28 HP<br>78,5 kW          | 88,0 kW          | 3 (22,4kW+28kW+28kW)         | 47                     | 19,6 HP<br>37,8 HP                     |
|             | MMY-AP3002FT8-E  | 30 HP<br>84,0 kW          | 95,0 kW          | 3 (28kW+28kW+28kW)           | 48                     | 21,0 HP<br>40,5 HP                     |