Toshiba offers a solution for all applications: residential, light commercial and larger commercial buildings. Residential indoor units are designed to blend perfectly with all interiors and incorporate advanced filtration systems to deliver optimum indoor air quality.

For small commercial premises, products are designed to deliver top performance combined with energy efficiency.

For larger applications, VRF systems combine flexibility, energy efficiency and respect for the environment, with a wide choice of stylish indoor units.

Toshiba’s commitment to excellence drives a company-wide focus on attention to the details through every stage of the development process, from design to user field tests. Installations using our products and systems therefore feature a high standard of indoor air quality, sound level, energy savings and environmental awareness.
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ABOUT TOSHIBA’S SMMS-e

At Toshiba, we believe that innovation should be the path to a better, more efficient future. The expectations of an air conditioning system have evolved in the last few years. In today’s world, advanced comfort has to go hand in hand with reduced energy and maintenance cost, combined with maximised simplicity and operations flexibility.

With Toshiba’s SMMS-e, our commercial HVAC system for all building applications is the right answer to all these requirements. It encompasses all of the innovations, experience and knowledge of the past and utilises new technologies to create a system that achieves maximum comfort and convenience like never before. The SMMS-e has been designed and developed upon the pillars of excellence, expansion and experience.

INNOVATIVE COMPRESSOR TECHNOLOGY

GREATER EFFICIENCY
PERFORMANCE

Toshiba’s infinitely variable, inverter driven control can continually adjust in real time, the operating speed of the compressors. This ensures that the capacity output precisely matches that of the demand form the end user. The advantages of this control are optimised further by incorporating Toshiba’s in-housed designed all inverter twin rotary compressors. The twin rotary design is one of the key technologies that has been continually developed by Toshiba to ensure maximum performance and efficiency. This enables the SMMS-e system to achieve class leading EER and COP efficiency values, whilst maintaining Toshiba’s reputation of reliability.

INCREASEd COMPRESSOR DISPLACEMENT

The increase in compressor displacement extends the compressor’s capacity output. One single unit with two compressors can now achieve a capacity output of up to 61.5kW (22 HP). With an increase in operation range and more precise control, this means more efficiency, reduced running costs and lighter units.
EXPANDED INSTALLATION FLEXIBILITY

The compact design of the outdoor units give increased performance that defies their compact module size. This delivers greater freedom in layout design and minimises weight-related restrictions and allows for quicker installation.

- Very compact design with reduced footprint.
- Capacity up to 56kW (20HP) can be covered with a single module, reducing pipe work and overall installation time.
- Expanding the maximum combination up to 157kW (56HP) in one system, with up to 64 connectable indoor units.
- Maximum piping length of 1000 metres, farthest equivalent length 235 metres.
- Maximum vertical distance between indoor units, which reaches up to 40 metres, equal to an entire 11-story building.
The SMMS-e Wave Tool allows the user to read and write data directly from the outdoor unit using only their smart phone. Therefore mitigating the need to connect a PC or gaining access to the control board of the outdoor unit.

This tool, will allow the service and commissioning engineer to instruct and obtain key system information. This will not only simplify the commissioning of the system and the amount of time spent on-site, but also allows the servicing engineer the ability to quickly and easily send key system data via e-mail back to the office for analysis.

- Safe and quick configuration of the system via an Android or iOS compatible device.

- No requirement to connect directly to the system.

- Using Near Field Technology allows quick and wireless data transfer between two compatible devices.

- Obtain product data fault history, system data and test operation results via the unique monitoring function.
The duty cycle rotational control in SMMS-e is designed to improve system reliability by controlling the operation of each compressor to work equally under variable conditions.

How does it work?
The SMMS-e system incorporates a control algorithm based on continually monitoring the status of the outdoor coil. Once the control senses that the outdoor coil is beginning to frost, the hot gas by-pass operation will start, melting any frost, while also allowing the indoor units to continue to provide heating to the occupant.

HEAT EXCHANGER

Toshiba’s 3-row heat exchanger design, with reduced pipe size from 8mm to 7mm and increased total number of passes, improves both system performance and efficiency.

While the 3-row heat exchanger design allows the outdoor unit to automatically select the most suitable heat exchanger size and precisely matching the indoor capacity load, its 4-sided design ensures maximum possible flow rate across the entire coil, improving system efficiency.

OPTIMISED HEATING OPERATION

The SMMS-e range has the ability to extend and in many cases eliminate the requirement for a full outdoor defrost operation. This feature is based on a hot gas by-pass control, which when activated allows the compressors to provide the outdoor coil with an uninterrupted supply of high temperature refrigerant, whilst also extending the operation running time of the indoor units.

An additional benefit of this feature is that the detection accuracy of when and for how long an outdoor defrost should occur is greatly increased. This ensures that the operation of the system is optimised so that the heating output to the indoor rooms is maintained at a comfortable and continuous level.
### SMMS-e OUTDOOR MODULES (2 PIPE)

<table>
<thead>
<tr>
<th>Model (MMY)</th>
<th>MAP0806HT8P-A</th>
<th>MAP1006HT8P-A</th>
<th>MAP1206HT8P-A</th>
<th>MAP1406HT8P-A</th>
<th>MAP1606HT8P-A</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP</td>
<td>8</td>
<td>10</td>
<td>12</td>
<td>14</td>
<td>16</td>
</tr>
<tr>
<td>Capacity kW (cooling/heating)</td>
<td>22.4</td>
<td>28.0</td>
<td>33.5</td>
<td>40.0</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>25.0</td>
<td>31.5</td>
<td>37.5</td>
<td>45.0</td>
<td>50.0</td>
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<table>
<thead>
<tr>
<th>Model (MMY)</th>
<th>MAP1806HT8P-A</th>
<th>MAP2006HT8P-A</th>
<th>MAP2206HT8P-A</th>
<th>MAP2416HT8P-A</th>
<th>MAP2616HT8P-A</th>
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<tbody>
<tr>
<td>HP</td>
<td>18</td>
<td>20</td>
<td>22</td>
<td>24 = 12 + 12</td>
<td>26 = 14 + 12</td>
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<tr>
<td>Capacity kW (cooling/heating)</td>
<td>50.4</td>
<td>56.0</td>
<td>61.5</td>
<td>67.0</td>
<td>73.5</td>
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<tr>
<td></td>
<td>56.0</td>
<td>63.0</td>
<td>64.0</td>
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<table>
<thead>
<tr>
<th>Model (MMY)</th>
<th>MAP2816HT8P-A</th>
<th>MAP3016HT8P-A</th>
<th>MAP3216HT8P-A</th>
<th>MAP3416HT8P-A</th>
<th>MAP3616HT8P-A</th>
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<tbody>
<tr>
<td>HP</td>
<td>28 = 16 + 12</td>
<td>30 = 16 + 14</td>
<td>32 = 16 + 16</td>
<td>34 = 18 + 16</td>
<td>36 = 20 + 16</td>
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<tr>
<td>Capacity kW (cooling/heating)</td>
<td>78.5</td>
<td>85.0</td>
<td>90.0</td>
<td>95.4</td>
<td>101.0</td>
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<td></td>
<td>87.5</td>
<td>95.0</td>
<td>100.0</td>
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<td>113.0</td>
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<table>
<thead>
<tr>
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<th>MAP3816HT8P-A</th>
<th>MAP4016HT8P-A</th>
<th>MAP4216HT8P-A</th>
<th>MAP4416HT8P-A</th>
<th>MAP4616HT8P-A</th>
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<tbody>
<tr>
<td>HP</td>
<td>38 = 22 + 16</td>
<td>40 = 20 + 20</td>
<td>42 = 22 + 20</td>
<td>44 = 22 + 22</td>
<td>46 = 16 + 16 + 14</td>
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<tr>
<td>Capacity kW (cooling/heating)</td>
<td>106.4</td>
<td>112.0</td>
<td>118.5</td>
<td>123.5</td>
<td>130.0</td>
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<td></td>
<td>119.0</td>
<td>126.0</td>
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<table>
<thead>
<tr>
<th>Model (MMY)</th>
<th>MAP4816HT8P-A</th>
<th>MAP5016HT8P-A</th>
<th>MAP5216HT8P-A</th>
<th>MAP5416HT8P-A</th>
<th>MAP5616HT8P-A</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP</td>
<td>48 = 16 + 16 + 16</td>
<td>50 = 18 + 16 + 16</td>
<td>52 = 20 + 16 + 16</td>
<td>54 = 22 + 16 + 16</td>
<td>56 = 20 + 20 + 16</td>
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<tr>
<td>Capacity kW (cooling/heating)</td>
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<td>140.4</td>
<td>146.0</td>
<td>152.0</td>
<td>157.0</td>
</tr>
<tr>
<td></td>
<td>150.0</td>
<td>156.0</td>
<td>163.0</td>
<td>171.0</td>
<td>176.0</td>
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# SMMS-e OUTDOOR UNIT SPECIFICATIONS

## 2 Pipe

### 3 Phase 8 - 12HP Model

<table>
<thead>
<tr>
<th>Equivalent HP</th>
<th>UNIT</th>
<th>TECHNICAL SPECIFICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Name</td>
<td>50Hz</td>
<td>MMY-MAP806HT8P-A</td>
</tr>
<tr>
<td><strong>Cooling Capacity</strong> *¹</td>
<td>kW</td>
<td>22.4</td>
</tr>
<tr>
<td><strong>Heating Capacity</strong> *¹</td>
<td>kW</td>
<td>25.0</td>
</tr>
<tr>
<td><strong>Running Current</strong></td>
<td>Amp</td>
<td>8.8</td>
</tr>
<tr>
<td><strong>Power Supply</strong></td>
<td>ph-Hz-V</td>
<td>3-phase 50Hz 380-415V</td>
</tr>
<tr>
<td><strong>Air flow</strong></td>
<td>l/s</td>
<td>2694</td>
</tr>
<tr>
<td><strong>External Static Pressure Available</strong></td>
<td>Pa</td>
<td>60</td>
</tr>
<tr>
<td><strong>Efficiency</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cooling</strong></td>
<td>EER</td>
<td>4.04</td>
</tr>
<tr>
<td><strong>Heating</strong></td>
<td>COP</td>
<td>4.52</td>
</tr>
<tr>
<td><strong>External Dimensions H/W/D (Weight)</strong></td>
<td>mm (kg)</td>
<td>1830 x 990 x 780 (242kg)</td>
</tr>
<tr>
<td><strong>Refrigerant Piping Specifications</strong></td>
<td>Connecting Port Diameter</td>
<td>Gas Side (OD)</td>
</tr>
<tr>
<td><strong>Connecting Port Diameter</strong></td>
<td>in</td>
<td>3/4&quot;</td>
</tr>
<tr>
<td><strong>Liquid Side (OD)</strong></td>
<td>Flare - 1/2&quot;</td>
<td></td>
</tr>
<tr>
<td><strong>Max. no. of connected indoor units</strong></td>
<td></td>
<td>18</td>
</tr>
<tr>
<td><strong>Sound pressure level (cooling/heating)</strong></td>
<td>dbA</td>
<td>55/56</td>
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</tbody>
</table>

*¹) Rated conditions - Cooling: indoor air temperature 27°C DB/19°C WB, outdoor air temperature 35°C DB. Heating: indoor air temperature 20°C DB, outdoor air temperature 7°C DB/6°C WB.
### 3 Phase 14-16HP MODEL

<table>
<thead>
<tr>
<th>Equivalent HP</th>
<th>UNIT</th>
<th>TECHNICAL SPECIFICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Name</td>
<td>50Hz</td>
<td>MMY-MAP1406HT8P-A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MMY-MAP1606HT8P-A</td>
</tr>
<tr>
<td>Cooling Capacity *¹</td>
<td>kW</td>
<td>40.0</td>
</tr>
<tr>
<td>Heating Capacity *¹</td>
<td>kW</td>
<td>45.0</td>
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<tr>
<td>Running Current</td>
<td>Amp</td>
<td>19.5</td>
</tr>
<tr>
<td>Power Supply</td>
<td>ph-Hz-V</td>
<td>3-phase 50Hz 380-415V</td>
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<tr>
<td>Air flow</td>
<td>l/s</td>
<td>3389</td>
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<tr>
<td>External Static Pressure Available</td>
<td>Pa</td>
<td>50</td>
</tr>
<tr>
<td>Efficiency</td>
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<td></td>
</tr>
<tr>
<td>Cooling</td>
<td>EER</td>
<td>3.25</td>
</tr>
<tr>
<td>Heating</td>
<td>COP</td>
<td>3.15</td>
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<tr>
<td>External Dimensions H/W/D (Weight)</td>
<td>mm (kg)</td>
<td>1830 x 1210 x 780 (300kg)</td>
</tr>
<tr>
<td>Refrigerant Piping Specifications</td>
<td>Connecting Port Diameter</td>
<td>Gas Side (OD) in</td>
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<tr>
<td>Max. no. of connected indoor units</td>
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<td>31</td>
</tr>
<tr>
<td>Sound pressure level (cooling/heating)</td>
<td>dbA</td>
<td>60/62</td>
</tr>
</tbody>
</table>

*¹ Rated conditions - Cooling: indoor air temperature 27°C DB/19°C WB, outdoor air temperature 35°C DB. Heating: indoor air temperature 20°C DB, outdoor air temperature 7°C DB/6°C WB.
### SMMS-e OUTDOOR UNIT SPECIFICATIONS

#### 2 PIPE

<table>
<thead>
<tr>
<th>3 Phase 18-22HP MODEL</th>
<th>UNIT</th>
<th>TECHNICAL SPECIFICATIONS</th>
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<td>Equivalent HP</td>
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<td></td>
</tr>
<tr>
<td>Model Name</td>
<td>50Hz</td>
<td>MMY-MAP1806HT8P-A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MMY-MAP2006HT8P-A</td>
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<td></td>
<td></td>
<td>MMY-MAP2206HT8P-A</td>
</tr>
<tr>
<td>Cooling Capacity *¹</td>
<td>kW</td>
<td>50.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>56.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>61.5</td>
</tr>
<tr>
<td>Heating Capacity *¹</td>
<td>kW</td>
<td>56.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>63.0</td>
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<tr>
<td>Running Current</td>
<td>Amp</td>
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<td>26.8</td>
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<td>40</td>
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<tr>
<td>Efficiency</td>
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<td>Cooling EER</td>
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<td>3.24</td>
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<td>Heating COP</td>
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<td>3.71</td>
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<td>3.74</td>
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<tr>
<td>External Dimensions H/W/D (Weight)</td>
<td>mm (kg)</td>
<td>1830 x 1600x 780 (371kg)</td>
</tr>
<tr>
<td>Refrigerant Piping</td>
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<td></td>
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<tr>
<td>Specifications</td>
<td></td>
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<tr>
<td>Connecting Port Diameter</td>
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<tr>
<td>Liquid Side(OD)</td>
<td>in</td>
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<td></td>
<td>Flare - 5/8&quot;</td>
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<td></td>
<td></td>
<td>Flare - 3/4&quot;</td>
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<td>Max. no. of connected indoor units</td>
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<td>45</td>
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<td></td>
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<td>49</td>
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<tr>
<td>Sound pressure level (cooling/heating)</td>
<td>dbA</td>
<td>60/61</td>
</tr>
<tr>
<td></td>
<td></td>
<td>61/62</td>
</tr>
</tbody>
</table>

*¹) Rated conditions - Cooling: indoor air temperature 27°C DB/19°C WB, outdoor air temperature 35°C DB.
Heating: indoor air temperature 20°C DB, outdoor air temperature 7°C DB/6°C WB.
ABOUT TOSHIBA’S SHRM-e

Toshiba’s SHRM-e VRF system delivers world-class energy efficiency performance and puts the emphasis on evolution driving excellence in energy savings, expansion in capacity line-up and enhancement in applications. Together, they offer professionals and users faster design, installation and commissioning, outstanding seasonal efficiency at lower operating cost, and superior air comfort with enhanced quality and reliability.

HIGH EFFICIENCY AND LOW OPERATING COSTS

INNOVATIVE COMPRESSOR TECHNOLOGY

Toshiba’s infinitely variable inverter-driven control can continually adjust the operating speed of the compressors in real time. This ensures that the capacity output precisely matches end user demand. The advantages of this control are further optimised by incorporating Toshiba’s twin-rotary compressors. These enable the SHRM-e system to achieve maximum performance and class-leading SEER values.

MAXIMUM PART LOAD AND FULL LOAD EFFICIENCIES

Thanks to Toshiba’s unique twin-rotary compressor, redesigned heat exchanger and "intelligent flow" technology, the new SHRM-e achieves an SEER of 8.17, the highest seasonal efficiency in the market. Maximum efficiency is obtained under 50% part load conditions, under which VRF systems operate predominantly. The expert use and evolution of Toshiba’s core technologies have allowed the new SHRM-e system to achieve the highest part load COP and EER in the industry.

General office accommodation

Cooling part load conditions: 35°C - 100%, 30°C - 75%, 25°C - 50% and 20°C - 25%

Utilising the new highly efficient core technologies has resulted in greater energy efficiency and performance.
FLEXIBLE DESIGN AND QUICK INSTALLATION

PIPING DESIGN FLEXIBILITY

Toshiba’s piping technology makes Toshiba one of the industry’s leaders in system flexibility and ease of installation and with the SHRM-e system, the level of flexibility has increased further, giving more options to the contractor and installer alike.

1 Total piping length
- Applied with Toshiba’s unique and greatly improved technology, SHRM-e can reach up to 1,000 meters maximum piping length.
- Total piping length: 1,000m*

2 Furthest equivalent length
- The maximum equivalent distance between the outdoor unit and the farthest indoor unit tops at 200 metres, a best-in class for the industry.
- Farthest equivalent length: 200m

3 Height between outdoor unit and indoor unit
- Another industry best-in-class feature is the maximum vertical distance between the outdoor and indoor units, which can extend up to 90 metres. SHRM-e’s enhanced piping capabilities results in more benefits for system design and installation flexibility, as well as lower installation costs.
- Maximum vertical distance: 90m**

4 Piping design flexibility "FS unit-FSU"
- As the SHRM-e multi-flow selector and indoor unit can be as far as 50 metres apart, the refrigerant piping can be lengthened, offering more flexibility in design to make every space both more comfortable and attractive.
- Farthest pipe from FS unit-Indoor unit: 50m***

NEAR FIELD TECHNOLOGY AND WAVE TOOL, ALL YOUR DATA WITHIN REACH

With Near Field Communication (NFC), the SHRM-e is the first in the industry to allow remote monitoring of CDU operations. Using NFC technology, Read and Write data is exchanged wirelessly between the unit and a smartphone (Android, OS, 5.0) for remote commissioning and operations data checking.
SINGLE- AND MULTI-PORT FLOW SELECTOR FOR INCREASED FLEXIBILITY

The latest generation single-port flow selector unit increases the design flexibility of the system, offering longer distances of up to 50m between flow selector box and indoor units, for example where noise level is of paramount importance, and connection of up to 8 indoor units onto one individual flow selector box.

The use of multi-flow selector units increases the design flexibility of the system, offering the same overall capacity and allows much faster and simpler installation, while layout design is more flexible, thanks to simplified branch and branch connections. Reducing the length of the branches also allows increased capacity. This configuration is available with either group of individual remote controllers.

SUPERIOR AIR COMFORT

COOL COMFORT WITH SOFT COOLING MODE

The development of the soft cooling mode provides a new level for cool comfort. You will have the freedom to personalise the air flow intensity, angle and direction directly from the remote control and enjoy the indoor environment at the right temperature without being directly exposed to the cold draught.

OPTIMISED HEATING OPERATIONS

The SHRM-e allows continuous heating, even during external defrost operations, thanks to the new hot gas bypass control. Indoor units will now operate continually, with only a minimal reduction in capacity output. This results in an uninterrupted flow of warm air, ensuring maximum comfort to the end user.
DUAL SET POINT FOR MORE PRECISION

The Dual Set Point increases the system's energy efficiency and reduces overall running costs, with longer periods of time in thermal off mode. Heating and cooling temperatures at which the indoor unit will begin to operate can now be individually selected giving maximum flexibility to the user.

SMART AUTOMATIC TEMPERATURE CONTROL SYSTEM

The SHRM-e's Automatic Temperature Control (ATC) system has been designed to enhance user comfort and reduce energy consumption. Each user can easily set minimum and maximum temperatures with the ATC, which automatically maintains the air at the desired temperature. Once the maximum temperature has been reached, the intelligent Dual Set Point function will tell the system to shut down and change mode to adjust the temperature to the minimum required, or vice versa. This enhances efficiency and reduces running costs, by extending the thermal off periods, when the unit stops between changes in heating and cooling mode.

INNOVATIVE INDIVIDUAL ON/OFF AND TEMPERATURE CONTROL

The innovative multi-flow selector allows smart temperature control in each space via individual remote controls. This meets users' different temperature requirements for maximum comfort, and if rooms are empty, the unit can be switched off. This solution helps reduce energy waste, improve efficiency and save on overall costs.
# SHRM-e OUTDOOR MODULES (3 PIPE)

<table>
<thead>
<tr>
<th>Model (MMY)</th>
<th>MAP0806FT8P-A</th>
<th>MAP1006FT8P-A</th>
<th>MAP1206FT8P-A</th>
<th>MAP1406FT8P-A</th>
<th>MAP1606FT8P-A</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP</td>
<td>8</td>
<td>10</td>
<td>12</td>
<td>14</td>
<td>16</td>
</tr>
<tr>
<td>Capacity kW (cooling/heating)</td>
<td>22.4</td>
<td>28.0</td>
<td>33.5</td>
<td>40.0</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>25.0</td>
<td>31.5</td>
<td>37.5</td>
<td>45.0</td>
<td>50.0</td>
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<table>
<thead>
<tr>
<th>Model (MMY)</th>
<th>MAP1806FT8P-A</th>
<th>MAP2006FT8P-A</th>
<th>MAP2216FT8P-A</th>
<th>MAP2416FT8P-A</th>
<th>MAP2616FT8P-A</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP</td>
<td>18</td>
<td>20</td>
<td>22 = 12 + 10</td>
<td>24 = 14 + 10</td>
<td>26 = 14 + 12</td>
</tr>
<tr>
<td>Capacity kW (cooling/heating)</td>
<td>50.4</td>
<td>56.0</td>
<td>61.5</td>
<td>68.0</td>
<td>73.5</td>
</tr>
<tr>
<td></td>
<td>56.0</td>
<td>58.0</td>
<td>69.0</td>
<td>6.5</td>
<td>82.5</td>
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<table>
<thead>
<tr>
<th>Model (MMY)</th>
<th>MAP2816FT8P-A</th>
<th>MAP3016FT8P-A</th>
<th>MAP3216FT8P-A</th>
<th>MAP3416FT8P-A</th>
<th>MAP3616FT8P-A</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP</td>
<td>28 = 14 + 14</td>
<td>30 = 16 + 14</td>
<td>32 = 18 + 14</td>
<td>34 = 18 + 16</td>
<td>36 = 18 + 18</td>
</tr>
<tr>
<td>Capacity kW (cooling/heating)</td>
<td>80.0</td>
<td>85.0</td>
<td>90.4</td>
<td>95.4</td>
<td>101.8</td>
</tr>
<tr>
<td></td>
<td>90.0</td>
<td>95.0</td>
<td>101.5</td>
<td>106.5</td>
<td>113.0</td>
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</table>

<table>
<thead>
<tr>
<th>Model (MMY)</th>
<th>MAP3816FT8P-A</th>
<th>MAP4016FT8P-A</th>
<th>MAP4216FT8P-A</th>
<th>MAP4416FT8P-A</th>
<th>MAP4616FT8P-A</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP</td>
<td>38 = 20 + 18</td>
<td>40 = 20 + 20</td>
<td>42 = 14 + 14</td>
<td>44 = 16 + 14</td>
<td>46 = 18 + 14</td>
</tr>
<tr>
<td>Capacity kW (cooling/heating)</td>
<td>106.4</td>
<td>112.0</td>
<td>120.0</td>
<td>125.0</td>
<td>130.0</td>
</tr>
<tr>
<td></td>
<td>114.5</td>
<td>116.0</td>
<td>135.0</td>
<td>140.0</td>
<td>146.5</td>
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</table>

<table>
<thead>
<tr>
<th>Model (MMY)</th>
<th>MAP4816FT8P-A</th>
<th>MAP5016FT8P-A</th>
<th>MAP5216FT8P-A</th>
<th>MAP5416FT8P-A</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP</td>
<td>48 = 18 + 16</td>
<td>50 = 18 + 18</td>
<td>52 = 18 + 18</td>
<td>54 = 18 + 18</td>
</tr>
<tr>
<td>Capacity kW (cooling/heating)</td>
<td>135.4</td>
<td>140.8</td>
<td>145.8</td>
<td>151.2</td>
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<td></td>
<td>151.5</td>
<td>158.0</td>
<td>163.0</td>
<td>169.5</td>
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</tbody>
</table>
# SHRM-e OUTDOOR UNIT SPECIFICATIONS

## 3 PIPE

### 3 Phase 8-10HP MODEL

<table>
<thead>
<tr>
<th>Equivalent HP</th>
<th>UNIT</th>
<th>TECHNICAL SPECIFICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model Name</strong></td>
<td><strong>50Hz</strong></td>
<td>MMY-MAP0806FT8P-A</td>
</tr>
<tr>
<td>Cooling Capacity*¹</td>
<td>kW</td>
<td>22.4</td>
</tr>
<tr>
<td>Heating Capacity*¹</td>
<td>kW</td>
<td>25.0</td>
</tr>
<tr>
<td>Running Current</td>
<td>Amp</td>
<td>9.44</td>
</tr>
<tr>
<td>Power Supply</td>
<td>ph-Hz-V</td>
<td>3-phase 50Hz 380-415V</td>
</tr>
<tr>
<td>Air flow</td>
<td>l/s</td>
<td>2694</td>
</tr>
<tr>
<td>External Static Pressure Available</td>
<td>Pa</td>
<td>60</td>
</tr>
<tr>
<td><strong>Efficiency</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooling</td>
<td>EER</td>
<td>3.76</td>
</tr>
<tr>
<td>Heating</td>
<td>COP</td>
<td>4.14</td>
</tr>
<tr>
<td><strong>External Dimensions H/W/D (Weight)</strong></td>
<td>mm (kg)</td>
<td>1830 x 990 x 780 (263kg)</td>
</tr>
<tr>
<td>Refrigerant Piping Specifications</td>
<td>Connecting Port Diameter</td>
<td>Gas Side (OD)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Liquid Side (OD)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Balance Pipe</td>
</tr>
<tr>
<td>Max. no. of connected indoor units</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sound pressure level (cooling/heating)</td>
<td>dbA</td>
<td>59/61</td>
</tr>
</tbody>
</table>

*1) Rated conditions - Cooling: indoor air temperature 27°C DB/19°C WB, outdoor air temperature 35°C DB. Heating: indoor air temperature 20°C DB, outdoor air temperature 7°C DB/6°C WB.
### 3 Phase 12-14HP MODEL

<table>
<thead>
<tr>
<th>Equivalent HP</th>
<th>UNIT</th>
<th>TECHNICAL SPECIFICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Name</td>
<td>50Hz</td>
<td>MMY-MAP1206FT8P-A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MMY-MAP1406FT8P-A</td>
</tr>
<tr>
<td>Cooling Capacity*¹</td>
<td>kW</td>
<td>33.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>40.0</td>
</tr>
<tr>
<td>Heating Capacity*¹</td>
<td>kW</td>
<td>37.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>45.0</td>
</tr>
<tr>
<td>Running Current</td>
<td>Amp</td>
<td>15.46</td>
</tr>
<tr>
<td></td>
<td></td>
<td>19.92</td>
</tr>
<tr>
<td>Power Supply</td>
<td>ph-Hz-V</td>
<td>3-phase 50Hz 380-415V</td>
</tr>
<tr>
<td>Air flow</td>
<td>l/s</td>
<td>3389</td>
</tr>
<tr>
<td>External Static Pressure Available</td>
<td>Pa</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>Efficiency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooling</td>
<td>EER</td>
<td>3.43</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.14</td>
</tr>
<tr>
<td>Heating</td>
<td>COP</td>
<td>3.85</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.80</td>
</tr>
<tr>
<td>External Dimensions H/W/D (Weight)</td>
<td>mm (kg)</td>
<td>1830 x 1210 x 780 (316kg)</td>
</tr>
</tbody>
</table>

| Refrigerant Piping Specifications | Connecting Port Diameter | Gas Side (OD) | in | 1 1/8” |
|                                    |                           | Liquid Side(OD) | in | 3/4”   |
|                                    |                           | Balance Pipe   | in | 7/8”   |
|                                    |                           |                |    | 3/8”   |
| Max. no. of connected indoor units |                           | 20             |    | 23     |
| Sound pressure level (cooling/heating) | dbA | 60/62                      |
|                                        |     | 62/64                      |

*¹ Rated conditions - Cooling: indoor air temperature 27°C DB/19°C WB, outdoor air temperature 35°C DB.
Heating: indoor air temperature 20°C DB, outdoor air temperature 7°C DB/6°C WB.
### SHRM-e OUTDOOR UNIT SPECIFICATIONS

#### 3 PIPE

<table>
<thead>
<tr>
<th>3 Phase 16 - 20HP MODEL</th>
<th>UNIT</th>
<th>TECHNICAL SPECIFICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equivalent HP</td>
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<td>16HP</td>
</tr>
<tr>
<td>Model Name</td>
<td>50Hz</td>
<td>MMY-MAP1606FT8P-A</td>
</tr>
<tr>
<td>Cooling Capacity*¹</td>
<td>kW</td>
<td>45.0</td>
</tr>
<tr>
<td>Heating Capacity*¹</td>
<td>kW</td>
<td>50.0</td>
</tr>
<tr>
<td>Running Current</td>
<td>Amp</td>
<td>21.81</td>
</tr>
<tr>
<td>Power Supply</td>
<td>ph-Hz-V</td>
<td>3-phase 50Hz 380-415V</td>
</tr>
<tr>
<td>Air flow</td>
<td>l/s</td>
<td>4806</td>
</tr>
<tr>
<td>External Static Pressure Available</td>
<td>Pa</td>
<td>40</td>
</tr>
<tr>
<td>Efficiency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooling EER</td>
<td></td>
<td>3.23</td>
</tr>
<tr>
<td>Heating COP</td>
<td></td>
<td>3.68</td>
</tr>
<tr>
<td>External Dimensions H/W/D (Weight)</td>
<td>mm (kg)</td>
<td>1830 x 1600 x 780 (377kg)</td>
</tr>
<tr>
<td>Refrigerant Piping</td>
<td>Connecting Port Diameter</td>
<td>Gas Side (OD)</td>
</tr>
<tr>
<td>Specifications</td>
<td></td>
<td>Liquid Side (OD)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Balance Pipe</td>
</tr>
<tr>
<td>Max. no. of connected indoor units</td>
<td></td>
<td>27</td>
</tr>
<tr>
<td>Sound pressure level</td>
<td>dbA</td>
<td>61/62</td>
</tr>
</tbody>
</table>

*¹ Rated conditions - Cooling: indoor air temperature 27°C DB/19°C WB, outdoor air temperature 35°C DB. Heating: indoor air temperature 20°C DB, outdoor air temperature 7°C DB/6°C WB.
# INDOOR UNITS

<table>
<thead>
<tr>
<th>Cooling Capacity (HP equivalent)</th>
<th>Compact 4-Way Cassette (620 x 620)</th>
<th>Concealed Duct</th>
<th>Concealed Slim Duct High Static Pressure</th>
<th>High-Wall 3 Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>007 type 2.2kW (0.8HP)</td>
<td>MMU-AP0077MH-E</td>
<td>MMD-AP0076BHP1-E</td>
<td>MMD-AP0074SPH1-E</td>
<td>MMK-AP0073H1</td>
</tr>
<tr>
<td>009 type 2.8kW (1HP)</td>
<td>MMU-AP0097MH-E</td>
<td>MMD-AP0096BHP1-E</td>
<td>MMD-AP0094SPH1-E</td>
<td>MMK-AP0093H1</td>
</tr>
<tr>
<td>012 type 3.6kW (1.25HP)</td>
<td>MMU-AP0127MH-E</td>
<td>MMD-AP0126BHP1-E</td>
<td>MMD-AP0124SPH1-E</td>
<td>MMK-AP0123H1</td>
</tr>
<tr>
<td>015 type 4.5kW (1.7HP)</td>
<td>MMU-AP0157MH-E</td>
<td>MMD-AP0156BHP1-E</td>
<td>MMD-AP0154SPH1-E</td>
<td>MMK-AP0153H1</td>
</tr>
<tr>
<td>018 type 5.6kW (2HP)</td>
<td>MMU-AP0187MH-E</td>
<td>MMD-AP0186BHP1-E</td>
<td>MMD-AP0184SPH1-E</td>
<td>MMK-AP0183H1</td>
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<tr>
<td>024 type 7.1kW (2.5HP)</td>
<td>MMU-AP0246MH-E</td>
<td>MMD-AP0245BHP1-E</td>
<td>MMD-AP0244SPH1-E</td>
<td>MMK-AP0243H1</td>
</tr>
<tr>
<td>027 type 8.0kW (3HP)</td>
<td>MMU-AP0276MH-E</td>
<td>MMD-AP0275BHP1-E</td>
<td>MMD-AP0274SPH1-E</td>
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</tr>
<tr>
<td>030 type 9.0kW (3.2HP)</td>
<td>MMU-AP0306MH-E</td>
<td>MMD-AP0305BHP1-E</td>
<td>MMD-AP0304SPH1-E</td>
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</tr>
<tr>
<td>036 type 11.2kW (4HP)</td>
<td>MMU-AP0366MH-E</td>
<td>MMD-AP0365BHP1-E</td>
<td>MMD-AP0364SPH1-E</td>
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</tr>
<tr>
<td>048 type 14.0kW (5HP)</td>
<td>MMU-AP0486MH-E</td>
<td>MMD-AP0485BHP1-E</td>
<td>MMD-AP0484SPH1-E</td>
<td></td>
</tr>
<tr>
<td>056 type 16.0kW (6HP)</td>
<td>MMU-AP0566MH-E</td>
<td>MMD-AP0565BHP1-E</td>
<td>MMD-AP0564SPH1-E</td>
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</table>

<table>
<thead>
<tr>
<th>Cooling Capacity (HP equivalent)</th>
<th>Console</th>
<th>Floor Standing Cabinet</th>
<th>Floor Standing Concealed</th>
<th>PMV Kit (Optional)* Compatible with:</th>
</tr>
</thead>
<tbody>
<tr>
<td>007 type 2.2kW (0.8HP)</td>
<td>MML-AP0074NH1-E</td>
<td>MML-AP0074H1-E</td>
<td>MML-AP0074BH1-E</td>
<td>• Compact 4-Way Cassette (620x620)</td>
</tr>
<tr>
<td>009 type 2.8kW (1HP)</td>
<td>MML-AP0094NH1-E</td>
<td>MML-AP0094H1-E</td>
<td>MML-AP0094BH1-E</td>
<td>• 1-Way Air Discharge Cassette</td>
</tr>
<tr>
<td>012 type 3.6kW (1.25HP)</td>
<td>MML-AP0124NH1-E</td>
<td>MML-AP0124H1-E</td>
<td>MML-AP0124BH1-E</td>
<td>• Concealed Duct High Static Pressure</td>
</tr>
<tr>
<td>015 type 4.5kW (1.7HP)</td>
<td>MML-AP0154NH1-E</td>
<td>MML-AP0154H1-E</td>
<td>MML-AP0154BH1-E</td>
<td>• High-Wall Series 3 &amp; 7</td>
</tr>
<tr>
<td>018 type 5.6kW (2HP)</td>
<td>MML-AP0184NH1-E</td>
<td>MML-AP0184H1-E</td>
<td>MML-AP0184BH1-E</td>
<td>• Console</td>
</tr>
<tr>
<td>024 type 7.1kW (2.5HP)</td>
<td>MML-AP0244NH1-E</td>
<td>MML-AP0244H1-E</td>
<td>MML-AP0244BH1-E</td>
<td>• Floor Standing Cabinet</td>
</tr>
<tr>
<td>027 type 8.0kW (3HP)</td>
<td>MML-AP0284NH1-E</td>
<td>MML-AP0284H1-E</td>
<td>MML-AP0284BH1-E</td>
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</tr>
<tr>
<td>030 type 9.0kW (3.2HP)</td>
<td>MML-AP0304NH1-E</td>
<td>MML-AP0304H1-E</td>
<td>MML-AP0304BH1-E</td>
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<tr>
<td>036 type 11.2kW (4HP)</td>
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<td>MML-AP0364H1-E</td>
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</tr>
<tr>
<td>048 type 14.0kW (5HP)</td>
<td>MML-AP0484NH1-E</td>
<td>MML-AP0484H1-E</td>
<td>MML-AP0484BH1-E</td>
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</tr>
</tbody>
</table>

*PMV Kit* - Can be located away from indoor unit to further reduce the sound made by refrigerant flow in applications such as bedrooms, hotel rooms and other locations where noise may be a factor (2m to 10m from indoor unit).
**INDOOR UNITS**

<table>
<thead>
<tr>
<th>Cooling Capacity (HP equivalent)</th>
<th>4-Way Air Discharge Cassette</th>
<th>2-Way Air Discharge Cassette</th>
<th>1-Way Air Discharge Cassette</th>
<th>Concealed Duct High Static Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>007 type 2.2kW (0.8HP)</td>
<td>MMU-AP0072WH1</td>
<td>MMU-AP0074YH1-E</td>
<td>MMU-AP0074YH1-E</td>
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</tr>
<tr>
<td>009 type 2.8kW (1HP)</td>
<td>MMU-AP0094HP1-E</td>
<td>MMU-AP0092WH1</td>
<td>MMU-AP0094WH1</td>
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</tr>
<tr>
<td>012 type 3.6kW (1.25HP)</td>
<td>MMU-AP0124HP1-E</td>
<td>MMU-AP0122WH1</td>
<td>MMU-AP0124YH1-E</td>
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</tr>
<tr>
<td>015 type 4.5kW (1.7HP)</td>
<td>MMU-AP0154HP1-E</td>
<td>MMU-AP0152WH1</td>
<td>MMU-AP0154SH1-E</td>
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</tr>
<tr>
<td>018 type 5.6kW (2HP)</td>
<td>MMU-AP0184HP1-E</td>
<td>MMU-AP0182WH1</td>
<td>MMU-AP0184SH1-E</td>
<td></td>
</tr>
<tr>
<td>024 type 7.1kW (2.5HP)</td>
<td>MMU-AP0244HP1-E</td>
<td>MMU-AP0242WH1</td>
<td>MMU-AP0244SH1-E</td>
<td></td>
</tr>
<tr>
<td>027 type 8.0kW (3HP)</td>
<td>MMU-AP0274HP1-E</td>
<td>MMU-AP0272WH1</td>
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<tr>
<td>030 type 9.0kW (3.2HP)</td>
<td>MMU-AP0304HP1-E</td>
<td>MMU-AP0302WH1</td>
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<td>036 type 11.2kW (4HP)</td>
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<td>MMU-AP0362WH1</td>
<td>MMU-AP0362WH1</td>
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</tr>
<tr>
<td>048 type 14.0kW (5HP)</td>
<td>MMU-AP0484HP1-E</td>
<td>MMU-AP0482WH1</td>
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</tr>
<tr>
<td>056 type 14.0kW (6HP)</td>
<td>MMU-AP0564HP1-E</td>
<td>MMU-AP0562WH1</td>
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</table>

<table>
<thead>
<tr>
<th>Cooling Capacity (HP equivalent)</th>
<th>Under Ceiling</th>
<th>Floor Standing</th>
<th>High-Wall 7 Series</th>
<th>Air to Air Heat Exchanger with DX Coil</th>
</tr>
</thead>
<tbody>
<tr>
<td>005 type 1.7kW (0.6HP)</td>
<td>MMC-AP0057HP-E1</td>
<td>MMK-AP0057HP-E1</td>
<td>MMK-AP0057HP-E1</td>
<td>MMK-AP0057HP-E1</td>
</tr>
<tr>
<td>007 type 2.2kW (0.8HP)</td>
<td>MMC-AP0077HP-E1</td>
<td>MMK-AP0077HP-E1</td>
<td>MMK-AP0077HP-E1</td>
<td>MMK-AP0077HP-E1</td>
</tr>
<tr>
<td>009 type 2.8kW (1HP)</td>
<td>MMC-AP0097HP-E1</td>
<td>MMK-AP0097HP-E1</td>
<td>MMK-AP0097HP-E1</td>
<td>MMK-AP0097HP-E1</td>
</tr>
<tr>
<td>012 type 3.6kW (1.25HP)</td>
<td>MMC-AP0127HP-E1</td>
<td>MMK-AP0127HP-E1</td>
<td>MMK-AP0127HP-E1</td>
<td>MMK-AP0127HP-E1</td>
</tr>
<tr>
<td>015 type 4.5kW (1.7HP)</td>
<td>MMC-AP0157HP-E1</td>
<td>MMK-AP0157HP-E1</td>
<td>MMK-AP0157HP-E1</td>
<td>MMK-AP0157HP-E1</td>
</tr>
<tr>
<td>018 type 5.6kW (2HP)</td>
<td>MMC-AP0187HP-E1</td>
<td>MMK-AP0187HP-E1</td>
<td>MMK-AP0187HP-E1</td>
<td>MMK-AP0187HP-E1</td>
</tr>
<tr>
<td>024 type 7.1kW (2.5HP)</td>
<td>MMC-AP0247HP-E1</td>
<td>MMK-AP0247HP-E1</td>
<td>MMK-AP0247HP-E1</td>
<td>MMK-AP0247HP-E1</td>
</tr>
<tr>
<td>027 type 8.0kW (3HP)</td>
<td>MMC-AP0277HP-E1</td>
<td>MMK-AP0277HP-E1</td>
<td>MMK-AP0277HP-E1</td>
<td>MMK-AP0277HP-E1</td>
</tr>
<tr>
<td>030 type 9.0kW (3.2HP)</td>
<td>MMC-AP0367HP-E1</td>
<td>MMK-AP0367HP-E1</td>
<td>MMK-AP0367HP-E1</td>
<td>MMK-AP0367HP-E1</td>
</tr>
<tr>
<td>036 type 11.2kW (4HP)</td>
<td>MMC-AP0367HP-E1</td>
<td>MMK-AP0367HP-E1</td>
<td>MMK-AP0367HP-E1</td>
<td>MMK-AP0367HP-E1</td>
</tr>
<tr>
<td>048 type 14.0kW (5HP)</td>
<td>MMC-AP0487HP-E1</td>
<td>MMK-AP0487HP-E1</td>
<td>MMK-AP0487HP-E1</td>
<td>MMK-AP0487HP-E1</td>
</tr>
<tr>
<td>056 type 14.0kW (6HP)</td>
<td>MMC-AP0567HP-E1</td>
<td>MMK-AP0567HP-E1</td>
<td>MMK-AP0567HP-E1</td>
<td>MMK-AP0567HP-E1</td>
</tr>
</tbody>
</table>
### 4-WAY CASSETTE

#### Individual Louvre Control

The angles of each of the four louvres can be set individually enabling the airflow to be adapted to user preferences.

1. Standard swing
2. Diagonally opposite swing
3. Turn-around swing

#### Model Numbers

<table>
<thead>
<tr>
<th>Model Number</th>
<th>MMU-</th>
<th>AP0094HP1-E</th>
<th>AP0124HP1-E</th>
<th>AP0154HP1-E</th>
<th>AP0184HP1-E</th>
<th>AP0244HP1-E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooling Capacity</td>
<td>kW</td>
<td>2.8</td>
<td>3.6</td>
<td>4.5</td>
<td>5.6</td>
<td>7.1</td>
</tr>
<tr>
<td>Heating Capacity</td>
<td>kW</td>
<td>3.2</td>
<td>4.0</td>
<td>5.0</td>
<td>6.3</td>
<td>8.0</td>
</tr>
<tr>
<td>Electrical Characteristics</td>
<td>Power Requirements</td>
<td>1-phase 50Hz 230V (220-240V)/1-phase 60Hz 220V (Separate power supply for indoor units required)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Power Consumption</td>
<td>kW</td>
<td>0.021</td>
<td>0.023</td>
<td>0.026</td>
<td>0.036</td>
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<td>Ceiling Panel Model</td>
<td>RBC-U31PGP(W)-E</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>External Dimensions: Main Unit (Ceiling Panel)</td>
<td>Height</td>
<td>mm</td>
<td>256 (30)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>mm</td>
<td>840 (950)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>mm</td>
<td>840 (950)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Weight: Main Unit (Ceiling Panel)</td>
<td>kg</td>
<td>18 (4)</td>
<td>20 (4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fan Unit</td>
<td>Standard Air Flow (H/M/L) m³/h</td>
<td>800/730/680</td>
<td>930/830/790</td>
<td>1050/920/800</td>
<td>1290/920/800</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Motor Output</td>
<td>W</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Connecting Pipe</td>
<td>Gas Side</td>
<td>in</td>
<td>3/8</td>
<td>1/2</td>
<td>5/8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Liquid Side</td>
<td>in</td>
<td>1/4</td>
<td>1/4</td>
<td>3/8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Drain Port (nominal dia.)</td>
<td>25 (Polyvinyl chloride tube)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sound Pressure Level (H/M/L)*</td>
<td>dbA</td>
<td>30/29/27</td>
<td>31/29/27</td>
<td>32/29/27</td>
<td>35/31/28</td>
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#### Model Numbers

<table>
<thead>
<tr>
<th>Model Number</th>
<th>MMU-</th>
<th>AP0274HP1-E</th>
<th>AP0304HP1-E</th>
<th>AP0364HP1-E</th>
<th>AP0484HP1-E</th>
<th>AP0564HP1-E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooling Capacity</td>
<td>kW</td>
<td>8.0</td>
<td>9.0</td>
<td>11.2</td>
<td>14.0</td>
<td>16.0</td>
</tr>
<tr>
<td>Heating Capacity</td>
<td>kW</td>
<td>9.0</td>
<td>10.0</td>
<td>12.5</td>
<td>16.0</td>
<td>18.0</td>
</tr>
<tr>
<td>Electrical Characteristics</td>
<td>Power Requirements</td>
<td>1-phase 50Hz 230V (220-240V)/1-phase 60Hz 220V (Separate power supply for indoor units required)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Power Consumption</td>
<td>kW</td>
<td>0.036</td>
<td>0.043</td>
<td>0.088</td>
<td>0.112</td>
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<tr>
<td>Ceiling Panel Model</td>
<td>RBC-U31PGP(W)-E</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External Dimensions: Main Unit (Ceiling Panel)</td>
<td>Height</td>
<td>mm</td>
<td>256 (30)</td>
<td>319 (30)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Width</td>
<td>mm</td>
<td>840 (950)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>mm</td>
<td>840 (950)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Weight: Main Unit (Ceiling Panel)</td>
<td>kg</td>
<td>20 (4)</td>
<td>25 (4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fan Unit</td>
<td>Standard Air Flow (H/M/L) m³/h</td>
<td>1290/920/800</td>
<td>1320/1110/850</td>
<td>1970/1400/1070</td>
<td>2130/1430/1130</td>
<td>2130/1520/1230</td>
</tr>
<tr>
<td></td>
<td>Motor Output</td>
<td>W</td>
<td>20</td>
<td>68</td>
<td>72</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Connecting Pipe</td>
<td>Gas Side</td>
<td>in</td>
<td>5/8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Liquid Side</td>
<td>in</td>
<td>3/8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Drain Port (nominal dia.)</td>
<td>25 (Polyvinyl chloride tube)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sound Pressure Level (H/M/L)*</td>
<td>dbA</td>
<td>35/31/28</td>
<td>38/33/30</td>
<td>43/38/32</td>
<td>46/38/33</td>
<td>46/40/33</td>
</tr>
</tbody>
</table>
4-WAY COMPACT CASSETTE

Perfect for Grid System Ceilings

This compact unit (575 x 575 mm) fits perfectly into ceilings and matches standard architectural modules without the need to cut ceiling tiles.

The flaps fold tightly when operation stops, making its appearance smooth against the ceiling.

Designed for Simple & Easy Installation and Maintenance

The slim design is only 256mm in height even when an electrical box is located inside the unit.

Easy installation is also possible using the panel adjust pocket. Use the ‘adjust pocket’ function for fine adjustments after installation.

Available for ceilings up to 3.5m in height.

The drain-checking hole makes it possible to check the drain pan through the side case.

---

**Model Number**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>MMU-AP0077MH-E</th>
<th>AP0097MH-E</th>
<th>AP0127MH-E</th>
<th>AP0157MH-E</th>
<th>AP0187MH-E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooling Capacity kW</td>
<td>2.2</td>
<td>2.8</td>
<td>3.6</td>
<td>4.5</td>
<td>5.6</td>
</tr>
<tr>
<td>Heating Capacity kW</td>
<td>2.5</td>
<td>3.2</td>
<td>4.0</td>
<td>5.0</td>
<td>6.3</td>
</tr>
</tbody>
</table>

**Electrical Characteristics**

<table>
<thead>
<tr>
<th>Power Requirements</th>
<th>1-phase 50Hz 230V (220-240V)/1-phase 60Hz 220V (Separate power supply for indoor units required)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Consumption kW</td>
<td>0.016</td>
</tr>
</tbody>
</table>

**Ceiling Panel Model**

RBC-UM21(PG)W-E

**External Dimensions: Main Unit (Ceiling Panel)**

| Height mm | 256 (12) |
| Width mm | 575 (620) |
| Depth mm | 575 (620) |

**Total Weight: Main Unit (Ceiling Panel) kg**

15 (2.5)

**Fan Unit**

<table>
<thead>
<tr>
<th>Standard Air Flow (H/M/L) m³/h</th>
<th>552/462/378</th>
<th>570/468/378</th>
<th>594/504/402</th>
<th>660/552/468</th>
<th>840/642/522</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor Output W</td>
<td>60</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Connecting Pipe**

| Gas Side in | 3/8 |
| Liquid Side in | 1/4 |
| Drain Port (nominal dia.) VP20 (Polyvinyl chloride tube) |

**Sound Pressure Level (H/M/L)***

| dbA | 37/33/29 | 38/33/29 | 38/34/30 | 40/35/31 | 47/39/34 |

---

**Perfect for Grid System Ceilings**

This compact unit (575 x 575 mm) fits perfectly into ceilings and matches standard architectural modules without the need to cut ceiling tiles.

The flaps fold tightly when operation stops, making its appearance smooth against the ceiling.

**Designed for Simple & Easy Installation and Maintenance**

The slim design is only 256mm in height even when an electrical box is located inside the unit.

Easy installation is also possible using the panel adjust pocket. Use the ‘adjust pocket’ function for fine adjustments after installation.

Available for ceilings up to 3.5m in height.

The drain-checking hole makes it possible to check the drain pan through the side case.
### 2-WAY CASSETTE

**Slim and Compact Unit**

All ceiling panels share the same 680mm depth making installation easy.

Condensate drain pump included.

Available for ceilings up to 3.8m in height (0.8 to 3.2HP models).

Easy installation and fine adjustment using the ‘adjust-cover’ function.

---

#### Model Number

<table>
<thead>
<tr>
<th>Model Number</th>
<th>MMU-</th>
<th>AP0072WH1</th>
<th>AP0092WH1</th>
<th>AP0122WH1</th>
<th>AP0152WH1</th>
<th>AP0182WH1</th>
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<tbody>
<tr>
<td>Cooling Capacity</td>
<td>kW</td>
<td>2.2</td>
<td>2.8</td>
<td>3.6</td>
<td>4.5</td>
<td>5.6</td>
</tr>
<tr>
<td>Heating Capacity</td>
<td>kW</td>
<td>2.5</td>
<td>3.2</td>
<td>4.0</td>
<td>5.0</td>
<td>6.3</td>
</tr>
</tbody>
</table>

#### Electrical Characteristics

<table>
<thead>
<tr>
<th>Power Requirements</th>
<th>1-phase 50Hz 230V (220-240V)/1-phase 60Hz 220V (Separate power supply for indoor units required)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Consumption</td>
<td>kW</td>
</tr>
<tr>
<td></td>
<td>0.029</td>
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<tr>
<td></td>
<td>0.030</td>
</tr>
<tr>
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<td>0.044</td>
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</table>

#### Ceiling Panel Model

<table>
<thead>
<tr>
<th>RBC-UW823PG(W)-E</th>
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</table>

#### External Dimensions:

<table>
<thead>
<tr>
<th>Main Unit (Ceiling Panel)</th>
<th>Height mm</th>
<th>Width mm</th>
<th>Depth mm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>295 (20)</td>
<td>815 (1050)</td>
<td>570 (680)</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Total Weight: Main Unit (Ceiling Panel) kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 (10)</td>
</tr>
<tr>
<td>26 (14)</td>
</tr>
</tbody>
</table>

#### Fan Unit

<table>
<thead>
<tr>
<th>Standard Air Flow (H/M/L) m³/h</th>
<th>554/498/450</th>
<th>600/534/450</th>
<th>900/750/618</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor Output W</td>
<td>20</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

#### Connecting Pipe

<table>
<thead>
<tr>
<th>Gas Side in</th>
<th>3/8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid Side in</td>
<td>1/4</td>
</tr>
<tr>
<td>Drain Port (nominal dia.)</td>
<td>25 (Polyvinyl chloride tube)</td>
</tr>
</tbody>
</table>

#### Sound Pressure Level (H/M/L) dbA

| 34/32/30 | 35/33/30 |

---

#### Model Number

<table>
<thead>
<tr>
<th>Model Number</th>
<th>MMU-</th>
<th>AP0242WH1</th>
<th>AP0272WH1</th>
<th>AP0302WH1</th>
<th>AP0362WH1</th>
<th>AP0482WH1</th>
<th>AP0562WH1</th>
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<tbody>
<tr>
<td>Cooling Capacity</td>
<td>kW</td>
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<td>9.0</td>
<td>11.2</td>
<td>14.0</td>
<td>16.0</td>
</tr>
<tr>
<td>Heating Capacity</td>
<td>kW</td>
<td>8.0</td>
<td>9.0</td>
<td>10.0</td>
<td>12.5</td>
<td>16.0</td>
<td>18.0</td>
</tr>
</tbody>
</table>

#### Electrical Characteristics

<table>
<thead>
<tr>
<th>Power Requirements</th>
<th>1-phase 50Hz 230V (220-240V)/1-phase 60Hz 220V (Separate power supply for indoor units required)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Consumption</td>
<td>kW</td>
</tr>
<tr>
<td></td>
<td>0.054</td>
</tr>
<tr>
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<td>0.064</td>
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<td>0.076</td>
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<tr>
<td></td>
<td>0.088</td>
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<tr>
<td></td>
<td>0.117</td>
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#### Ceiling Panel Model

<table>
<thead>
<tr>
<th>RBC-UW803PG(W)-E</th>
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#### External Dimensions:

<table>
<thead>
<tr>
<th>Main Unit (Ceiling Panel)</th>
<th>Height mm</th>
<th>Width mm</th>
<th>Depth mm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>345 (20)</td>
<td>1180 (1415)</td>
<td>570 (680)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Weight: Main Unit (Ceiling Panel) kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>26 (14)</td>
</tr>
<tr>
<td>36 (14)</td>
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</table>

#### Fan Unit

<table>
<thead>
<tr>
<th>Standard Air Flow (H/M/L) m³/h</th>
<th>1050/840/738</th>
<th>1260/900/780</th>
<th>1740/1434/1182</th>
<th>1800/1482/1230</th>
<th>2040/1578/1320</th>
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<tbody>
<tr>
<td>Motor Output W</td>
<td>40</td>
<td>50</td>
<td>70</td>
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</tr>
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</table>

#### Connecting Pipe

<table>
<thead>
<tr>
<th>Gas Side in</th>
<th>5/8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid Side in</td>
<td>3/8</td>
</tr>
</tbody>
</table>

#### Sound Pressure Level (H/M/L) dbA

| 38/35/33 | 40/37/34 | 42/39/36 | 43/40/37 | 46/42/39 |
1-WAY CASSETTE

**Slim and Compact Unit**

Designed for quiet operation.

Ideal for smaller rooms where one-way air distribution is required.

Able to blow air straight out.

Condensate drain pump included.

Long-life filters fitted as standard.

**Fresh Air Intake is Possible**

Preparation/connection is possible with a circle duct flange.

<table>
<thead>
<tr>
<th>Model Number</th>
<th>MMU- AP0074YH1</th>
<th>AP0094YH1</th>
<th>AP0124YH1</th>
<th>AP0154SH1</th>
<th>AP0184SH1</th>
<th>AP0244SH1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooling Capacity kW</td>
<td>2.2</td>
<td>2.8</td>
<td>3.6</td>
<td>4.5</td>
<td>5.6</td>
<td>7.1</td>
</tr>
<tr>
<td>Heating Capacity kW</td>
<td>2.5</td>
<td>3.2</td>
<td>4.0</td>
<td>5.0</td>
<td>6.3</td>
<td>8.0</td>
</tr>
</tbody>
</table>

**Electrical Characteristics**

<table>
<thead>
<tr>
<th>Power Requirements</th>
<th>1-phase 50Hz 230V (220-240V)/1-phase 60Hz 220V (Separate power supply for indoor units required)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Consumption kW</td>
<td>0.053 0.042 0.046 0.075</td>
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**Ceiling Panel Model**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>RBC-U135PG</th>
<th>RBC-US21PGE</th>
</tr>
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</table>

**External Dimensions: Main Unit (Ceiling Panel)**

<table>
<thead>
<tr>
<th>Height (mm)</th>
<th>235 (18)</th>
<th>200 (20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width (mm)</td>
<td>850 (1050)</td>
<td>1000 (1230)</td>
</tr>
<tr>
<td>Depth (mm)</td>
<td>400 (470)</td>
<td>710 (800)</td>
</tr>
</tbody>
</table>

**Total Weight: Main Unit (Ceiling Panel) kg**

<table>
<thead>
<tr>
<th>kg</th>
<th>22 (3.5)</th>
<th>21 (5.5)</th>
<th>22 (5.5)</th>
</tr>
</thead>
</table>

**Fan Unit**

| Standard Air Flow (H/M/L) m³/h | 540/480/420 | 750/690/630 | 780/720/660 | 1140/960/810 |
| Motor Output (W) | 22 | 30 | 30 | 30 |

**Connecting Pipe**

| Gas Side in | 3/8 | 1/2 | 5/8 |
| Liquid Side in | 1/4 | 3/8 |

**Drain Port (nominal dia.)**

| 25 (Polyvinyl chloride tube) |

**Sound Pressure Level (H/M/L) dbA**

| dbA | 42/39/34 | 37/35/32 | 38/36/34 | 45/41/37 |
**SUPER SLIM DUCT**

Super Slim

Only 210mm in height, this super slim unit makes it easy to install in narrow spaces.

Drain Pump

Comes with built-in drain pump.

Zone Control

Compatible with AirTouch© Zone controller.

<table>
<thead>
<tr>
<th>Model Number</th>
<th>MMD-</th>
<th>AP0076MPHY</th>
<th>AP0086MPHY</th>
<th>AP0096MPHY</th>
<th>AP0106MPHY</th>
<th>AP0126MPHY</th>
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<tr>
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<td>kW</td>
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<td>2.5</td>
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<td>3.2</td>
<td>3.6</td>
<td>4.0</td>
</tr>
<tr>
<td>Heating Capacity</td>
<td>kW</td>
<td>2.5</td>
<td>2.8</td>
<td>3.2</td>
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**Electrical Characteristics**

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<th>AP0186MPHY</th>
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<th>AP0246MPHY</th>
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<tbody>
<tr>
<td>Cooling Capacity</td>
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<td>4.5</td>
<td>5.0</td>
<td>5.6</td>
<td>6.3</td>
<td>7.1</td>
<td>8.0</td>
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<tr>
<td>Heating Capacity</td>
<td>kW</td>
<td>5.0</td>
<td>5.6</td>
<td>6.3</td>
<td>7.1</td>
<td>8.0</td>
<td>9.0</td>
</tr>
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</table>

**External Dimensions:**

- Height mm: 210
- Width mm: 700
- Depth mm: 450
- Total Weight: kg 16
- Fan Unit: Standard Air Flow (H/M/L) m³/h 570/475/380, 610/500/385
- Motor Output W 95
- External Static Pressure Pa 10-20-35-45 (4 steps)

**Connecting Pipe:**

- Gas Side in: 3/8
- Liquid Side in: 1/4
- Drain Port (nominal dia.) 25 (Polyvinyl chloride tube)
- Sound Pressure Level (H/M/L) dbA 33/29/25

---

**Model Number**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>MMD-</th>
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<th>AP0176MPHY</th>
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<th>AP0206MPHY</th>
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<th>AP0276MPHY</th>
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</thead>
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<tr>
<td>Cooling Capacity</td>
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<td>6.3</td>
<td>7.1</td>
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<tr>
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<td>kW</td>
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**Electrical Characteristics**

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<th>AP0186MPHY</th>
<th>AP0206MPHY</th>
<th>AP0246MPHY</th>
<th>AP0276MPHY</th>
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<tbody>
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<td>7.1</td>
<td>8.0</td>
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<tr>
<td>Heating Capacity</td>
<td>kW</td>
<td>5.0</td>
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<td>6.3</td>
<td>7.1</td>
<td>8.0</td>
<td>9.0</td>
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</table>

**External Dimensions:**

- Height mm: 210
- Width mm: 900, 1100
- Depth mm: 450
- Total Weight: kg 19, 22
- Fan Unit: Standard Air Flow (H/M/L) m³/h 780/580/420, 1000/870/470, 1060/910/760
- Motor Output W 95
- External Static Pressure Pa 10-20-35-45 (4 steps)

**Connecting Pipe:**

- Gas Side in: 1/2, 5/8
- Liquid Side in: 1/4, 3/8
- Drain Port (nominal dia.) 25 (Polyvinyl chloride tube)
- Sound Pressure Level (H/M/L) dbA 33/27/22, 37/33/30, 38/34/31
### CONCEALED DUCT

#### High Static Pressure

External static pressure can be raised as high as 120Pa, so that all areas of the room can be reached for even temperature distribution, no matter how complex the layout.

#### High-lift Drain Pump

The drain piping can be raised up to 27cm for the drain port.

#### Zone Control

Compatible with AirTouch© Zone controller.

### Model Numbers

<table>
<thead>
<tr>
<th>Model Number</th>
<th>MMD- AP0076BHP1</th>
<th>AP0096BHP1</th>
<th>AP0126BHP1</th>
<th>AP0156BHP1</th>
<th>AP0186BHP1</th>
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<tbody>
<tr>
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<td>5.6</td>
</tr>
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<td>3.2</td>
<td>4.0</td>
<td>5.0</td>
<td>6.3</td>
</tr>
<tr>
<td>Electrical Characteristics</td>
<td>Power Requirements 1-phase 50Hz 230V (220-240V)/1-phase 60Hz 220V (Separate power supply for indoor units required)</td>
<td>Power Consumption kW</td>
<td>0.038</td>
<td>0.043</td>
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<td>External Dimensions</td>
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<tr>
<td></td>
<td>Depth mm</td>
<td>750</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Total Weight kg</td>
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<tr>
<td>Fan Unit</td>
<td>Standard Air Flow (H/M/L) m³/h</td>
<td>540/450/360</td>
<td>570/480/390</td>
<td>800/660/540</td>
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<td>Motor Output W</td>
<td>150</td>
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<tr>
<td></td>
<td>External Static Pressure (Factory Setting) Pa</td>
<td>30</td>
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<tr>
<td></td>
<td>External Static Pressure Pa</td>
<td>30-40-50-65-80-100-120 (7 Steps)</td>
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<tr>
<td>Connecting Pipe</td>
<td>Gas Side in</td>
<td>3/8</td>
<td>1/2</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Liquid Side in</td>
<td>1/4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Drain Port (nominal dia.)</td>
<td>25 (Polyvinyl chloride tube)</td>
<td></td>
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</tr>
<tr>
<td>Sound Pressure Level (H/M/L) dbA</td>
<td>29/26/23</td>
<td>30/26/23</td>
<td>33/29/25</td>
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<table>
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<th>AP0306BHP1</th>
<th>AP0366BHP1</th>
<th>AP0486BHP1</th>
<th>AP0566BHP1</th>
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</thead>
<tbody>
<tr>
<td>Cooling Capacity kW</td>
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<td>8.0</td>
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<td>11.2</td>
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<td>Heating Capacity kW</td>
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<td>9.0</td>
<td>10.0</td>
<td>12.5</td>
<td>16.0</td>
<td>18.0</td>
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<tr>
<td>Electrical Characteristics</td>
<td>Power Requirements 1-phase 50Hz 230V (220-240V)/1-phase 60Hz 220V (Separate power supply for indoor units required)</td>
<td>Power Consumption kW</td>
<td>0.077</td>
<td>0.094</td>
<td>0.172</td>
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<td>External Dimensions</td>
<td>Height mm</td>
<td>275</td>
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<td></td>
<td>Width mm</td>
<td>1000</td>
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</tr>
<tr>
<td></td>
<td>Depth mm</td>
<td>750</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Total Weight kg</td>
<td>30</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Fan Unit</td>
<td>Standard Air Flow (H/M/L) m³/h</td>
<td>1200/990/870</td>
<td>1260/1110/930</td>
<td>1920/1620/1380</td>
<td>2100/1740/1500</td>
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<tr>
<td></td>
<td>Motor Output W</td>
<td>150</td>
<td></td>
<td></td>
<td>250</td>
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<td></td>
<td>External Static Pressure (Factory Setting) Pa</td>
<td>40</td>
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<td>50</td>
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<tr>
<td></td>
<td>External Static Pressure Pa</td>
<td>30-40-50-65-80-100-120 (7 Steps)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connecting Pipe</td>
<td>Gas Side in</td>
<td>5/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liquid Side in</td>
<td>3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Drain Port (nominal dia.)</td>
<td>25 (Polyvinyl chloride tube)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sound Pressure Level (H/M/L) dbA</td>
<td>36/31/27</td>
<td>40/36/33</td>
<td></td>
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</tr>
</tbody>
</table>
CONCEALED DUCT - HI STATIC

Design Flexibility

Satisfies all your design needs.

Compatible with external static pressures up to 200 Pa.

Can be equipped with the following options:
- high-efficiency filter (65, 90)
- drain pump kit

Construction Characteristics

Seven stage switchable static pressure.

Easy service and installation.

Inspection hole enables easy access and maintenance.

Zone Control

Compatible with AirTouch© Zone controller.

<table>
<thead>
<tr>
<th>Model Number</th>
<th>MMD-AP0186HP1</th>
<th>AP0246HP1</th>
<th>AP0276HP1</th>
<th>AP0366HP1</th>
<th>AP0486HP1</th>
<th>AP0566HP1</th>
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</thead>
<tbody>
<tr>
<td>Cooling Capacity kW</td>
<td>5.6</td>
<td>7.1</td>
<td>8.0</td>
<td>11.2</td>
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<td>16.0</td>
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<tr>
<td>Heating Capacity kW</td>
<td>6.3</td>
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<td>9.0</td>
<td>12.5</td>
<td>16.0</td>
<td>18.0</td>
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</table>

Electrical Characteristics

<table>
<thead>
<tr>
<th>Power Requirements</th>
<th>1-phase 50Hz 230V (220-240V)/1-phase 60Hz 220V (Separate power supply for indoor units required)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Consumption kW</td>
<td>0.085</td>
</tr>
</tbody>
</table>

External Dimensions

| Height mm | 298 |
| Width mm | 1000 | 1400 |
| Depth mm | 750 |

Total Weight kg

| kg | 34 | 43 |

Fan Unit

| Standard Air Flow (H/M/L) m³/h | 800/660/550 | 1200/970/800 | 1920/1560/1340 | 2100/1740/1420 | 2400/2040/1660 |
| Motor Output W | 250 | 350 |
| External Static Pressure (Factory Setting) Pa | 100 |

Connecting Pipe

| Gas Side | 1/2 | 5/8 |
| Liquid Side | 1/4 | 3/8 |
| Drain Port (nominal dia.) | 25 (Polyvinyl chloride tube) |

Sound Pressure Level (H/M/L) dbA

| 37/32/30 | 38/34/31 | 41/37/34 | 42/40/35 | 45/42/37 |
**CONCEALED DUCT - SLIM HI STATIC**

**Functional Design**
Slim 210mm in height for greater application flexibility. 4 step static pressure setup. Concealed installation within a ceiling void. Fresh air intake available.

**Slim & Quiet**
Pleasant comfort throughout the room. Can be used with any style of air diffuser. Quiet yet powerful operation.

**Built-in Condensate Pump**
850mm lift from base of unit.

**Zone Control**
Compatible with AirTouch® Zone controller.

---

### Model Number

<table>
<thead>
<tr>
<th>Model Number</th>
<th>MMD-</th>
<th>AP0074SPH1</th>
<th>AP0094SPH1</th>
<th>AP0124SPH1</th>
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<td>kW</td>
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<tr>
<td>Electrical Characteristics</td>
<td>Power Requirements</td>
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<td>kW</td>
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<td>Fan Unit</td>
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<td>540/470/400</td>
<td>600/520/450</td>
<td>690/600/520</td>
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<td>Motor Output</td>
<td>W</td>
<td>60</td>
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<td>External Static Pressure</td>
<td>Pa</td>
<td>6-16-31-46 (4 Steps)</td>
<td>5-15-30-45 (4 Steps)</td>
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<td>in</td>
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<td></td>
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<tr>
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<td>Liquid Side</td>
<td>in</td>
<td>1/4</td>
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</tr>
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<td>Drain Port (nominal dia.)</td>
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<td>25 (Polyvinyl chloride tube)</td>
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<tr>
<td>Sound Pressure Level (H/M/L)</td>
<td>Under Air Inlet</td>
<td>dB(A)</td>
<td>36/33/30</td>
<td>35/35/32</td>
<td>39/36/33</td>
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<td></td>
<td>Back Air Inlet</td>
<td>dB(A)</td>
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<td>29/27/25</td>
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### Model Number

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<td>Power Consumption</td>
<td>kW</td>
</tr>
<tr>
<td>External Dimensions</td>
<td>Height</td>
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</tr>
<tr>
<td></td>
<td>Width</td>
<td>mm</td>
<td>845</td>
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<td>Fan Unit</td>
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<td>1080/1000/900</td>
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<td>Motor Output</td>
<td>W</td>
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<td>120</td>
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<td></td>
<td>External Static Pressure</td>
<td>Pa</td>
<td>4-14-29-44 (4 Steps)</td>
<td>2-12-22-42 (4 Steps)</td>
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<td>Connecting Pipe</td>
<td>Gas Side</td>
<td>in</td>
<td>1/2</td>
<td>5/8</td>
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<td>Liquid Side</td>
<td>in</td>
<td>1/4</td>
<td>3/8</td>
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<td>Drain Port (nominal dia.)</td>
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<td>25 (Polyvinyl chloride tube)</td>
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<tr>
<td>Sound Pressure Level (H/M/L)</td>
<td>Under Air Inlet</td>
<td>dB(A)</td>
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<td>49/47/44</td>
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<td>Back Air Inlet</td>
<td>dB(A)</td>
<td>33/31/29</td>
<td>38/36/33</td>
</tr>
</tbody>
</table>
**UNDER CEILING**

**Comfortable Ambience**

Quiet Operation - new design reduces noise level to half that of conventional units.

Flap Control - The airflow angle is automatically set to the most suitable setting according to your cooling or heating needs, and an automatic swing mode enables airflow to reach all areas of the room to create a comfortable ambience.

<table>
<thead>
<tr>
<th>Model Number</th>
<th>MMC-</th>
<th>AP0158HP1</th>
<th>AP0188HP1</th>
<th>AP0248HP1</th>
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</thead>
<tbody>
<tr>
<td>Cooling Capacity</td>
<td>kW</td>
<td>4.5</td>
<td>5.6</td>
<td>7.1</td>
</tr>
<tr>
<td>Heating Capacity</td>
<td>kW</td>
<td>5.0</td>
<td>6.3</td>
<td>8.0</td>
</tr>
<tr>
<td><strong>Electrical Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Power Requirements</td>
<td>1-phase 50Hz 230V (220-240V)/1-phase 60Hz 220V (Separate power supply for indoor units required)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Consumption</td>
<td>kW</td>
<td>0.033</td>
<td>0.034</td>
<td>0.067</td>
</tr>
<tr>
<td><strong>External Dimensions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Height</td>
<td>mm</td>
<td>235</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Width</td>
<td>mm</td>
<td>950</td>
<td>1270</td>
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</tr>
<tr>
<td>Depth</td>
<td>mm</td>
<td></td>
<td>690</td>
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</tr>
<tr>
<td><strong>Total Weight</strong></td>
<td>kg</td>
<td>23</td>
<td></td>
<td>29</td>
</tr>
<tr>
<td><strong>Fan Unit</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Standard Air Flow (H/M/L)</td>
<td>m³/h</td>
<td>840/690/540</td>
<td>960/720/540</td>
<td>1440/1020/750</td>
</tr>
<tr>
<td>Motor Output</td>
<td>W</td>
<td>94</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Connecting Pipe</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas Side</td>
<td>in</td>
<td>1/2</td>
<td></td>
<td>5/8</td>
</tr>
<tr>
<td>Liquid Side</td>
<td>in</td>
<td>1/4</td>
<td></td>
<td>3/8</td>
</tr>
<tr>
<td>Drain Port (nominal dia.)</td>
<td>mm</td>
<td></td>
<td>20 (Polyvinyl chloride tube)</td>
<td></td>
</tr>
<tr>
<td>Sound Pressure Level (H/M/L)</td>
<td>dbA</td>
<td>36/34/28</td>
<td>37/35/28</td>
<td>41/36/29</td>
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<table>
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<tr>
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<th>MMC-</th>
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<th>AP0368HP1</th>
<th>AP0488HP1</th>
<th>AP0568HP1</th>
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<td>11.2</td>
<td>14.0</td>
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<td>Heating Capacity</td>
<td>kW</td>
<td>9.0</td>
<td>12.5</td>
<td>16.0</td>
<td>18.0</td>
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<td><strong>Electrical Characteristics</strong></td>
<td></td>
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<tr>
<td>Power Requirements</td>
<td>1-phase 50Hz 230V (220-240V)/1-phase 60Hz 220V (Separate power supply for indoor units required)</td>
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<td>Power Consumption</td>
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<td><strong>External Dimensions</strong></td>
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<td>Height</td>
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<td>Depth</td>
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</tr>
<tr>
<td><strong>Total Weight</strong></td>
<td>kg</td>
<td>29</td>
<td></td>
<td>35</td>
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</tr>
<tr>
<td><strong>Fan Unit</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard Air Flow (H/M/L)</td>
<td>m³/h</td>
<td>1440/1020/750</td>
<td>1860/1350/1020</td>
<td>1860/1530/1200</td>
<td>2040/1650/1260</td>
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<tr>
<td>Motor Output</td>
<td>W</td>
<td>94</td>
<td></td>
<td>139</td>
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<tr>
<td><strong>Connecting Pipe</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas Side</td>
<td>in</td>
<td></td>
<td>5/8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquid Side</td>
<td>in</td>
<td></td>
<td>3/8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drain Port (nominal dia.)</td>
<td>mm</td>
<td></td>
<td>20 (Polyvinyl chloride tube)</td>
<td></td>
<td></td>
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<tr>
<td>Sound Pressure Level (H/M/L)</td>
<td>dbA</td>
<td>41/36/29</td>
<td>44/38/32</td>
<td>44/41/35</td>
<td>46/42/36</td>
</tr>
</tbody>
</table>
HIGH WALL SERIES 3 & 7

**Elegant and Slim**

This classic high wall is elegant and slim; it can easily blend in with any room interior.

Total comfort is granted, thanks to the 70° directional auto-swing louvre that provides uniform air distribution.

Refrigerant piping can be installed from three different directions.

Wireless remote control included.

---

### Model Number (Series 3) High Airflow

<table>
<thead>
<tr>
<th>Model Number</th>
<th>MMK-</th>
<th>AP0073H1</th>
<th>AP0093H1</th>
<th>AP0123H1</th>
<th>AP0153H1</th>
<th>AP0183H1</th>
<th>AP0243H1</th>
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</thead>
<tbody>
<tr>
<td>Cooling Capacity</td>
<td>kW</td>
<td>2.2</td>
<td>2.8</td>
<td>3.6</td>
<td>4.5</td>
<td>5.6</td>
<td>7.1</td>
</tr>
<tr>
<td>Heating Capacity</td>
<td>kW</td>
<td>2.5</td>
<td>3.2</td>
<td>4.0</td>
<td>5.0</td>
<td>6.3</td>
<td>8.0</td>
</tr>
<tr>
<td>Electrical Characteristics</td>
<td>Power Requirements 1-phase 50Hz 230V (220-240V)/1-phase 60Hz 220V (Separate power supply for indoor units required)</td>
<td>kW</td>
<td>0.018</td>
<td>0.021</td>
<td>0.043</td>
<td>0.050</td>
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</tr>
<tr>
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<tr>
<td>Fan Unit</td>
<td>Standard Air Flow (H/M/L) m³/h</td>
<td>570/450/390</td>
<td>600/480/390</td>
<td>840/660/540</td>
<td>1020/750/570</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Motor Output</td>
<td>W</td>
<td>30</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Connecting Pipe</td>
<td>Gas Side</td>
<td>in</td>
<td>3/8</td>
<td>1/2</td>
<td>5/8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liquid Side</td>
<td>in</td>
<td>1/4</td>
<td>3/8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Drain Port (nominal dia.)</td>
<td>16 (Polyvinyl chloride tube)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sound Pressure Level (H/M/L)</td>
<td>dbA</td>
<td>35/31/28</td>
<td>37/32/28</td>
<td>41/36/33</td>
<td>46/39/34</td>
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### Model Number (Series 7)

<table>
<thead>
<tr>
<th>Model Number</th>
<th>MMK-</th>
<th>AP0057HP-E1</th>
<th>AP0077HP-E1</th>
<th>AP0097HP-E1</th>
<th>AP0127HP-E1</th>
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<tbody>
<tr>
<td>Cooling Capacity</td>
<td>kW</td>
<td>1.7</td>
<td>2.2</td>
<td>2.8</td>
<td>3.6</td>
</tr>
<tr>
<td>Heating Capacity</td>
<td>kW</td>
<td>1.9</td>
<td>2.5</td>
<td>3.2</td>
<td>4.0</td>
</tr>
<tr>
<td>Electrical Characteristics</td>
<td>Power Requirements 1-phase 50Hz 230V (220-240V) (Separate power supply for indoor units required)</td>
<td>kW</td>
<td>0.013</td>
<td>0.015</td>
<td>0.016</td>
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<td>External Dimensions:</td>
<td>Height</td>
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<td>293</td>
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<td></td>
<td>Width</td>
<td>mm</td>
<td>798</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Depth</td>
<td>mm</td>
<td>230</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Weight:</td>
<td>kg</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Fan Unit</td>
<td>Standard Air Flow (H-L) m³/h</td>
<td>455 - 270</td>
<td>480 - 270</td>
<td>510 - 270</td>
<td>540 - 270</td>
</tr>
<tr>
<td>Connecting Pipe</td>
<td>Gas Side</td>
<td>in</td>
<td>3/8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liquid Side</td>
<td>in</td>
<td>1/4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Drain Port (nominal dia.)</td>
<td>16 (Polyvinyl chloride tube)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sound Pressure Level (H - L)</td>
<td>dbA</td>
<td>33 - 25</td>
<td>35 - 25</td>
<td>36 - 25</td>
<td>37 - 25</td>
</tr>
</tbody>
</table>
Features

Elegant & simple in design makes this unit a perfect fit for shops, office buildings and luxury apartments.

Bottom flow functionality ensures comfort for an advantage in heating and floor warming.

Refrigerant piping can be installed from three different directions.

<table>
<thead>
<tr>
<th>Model Number</th>
<th>MML-</th>
<th>AP0074NH1</th>
<th>AP0094NH1</th>
<th>AP0124NH1</th>
<th>AP0154NH1</th>
<th>AP0184NH1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooling Capacity</td>
<td>kW</td>
<td>2.2</td>
<td>2.8</td>
<td>3.6</td>
<td>4.5</td>
<td>5.6</td>
</tr>
<tr>
<td>Heating Capacity</td>
<td>kW</td>
<td>2.5</td>
<td>3.2</td>
<td>4.0</td>
<td>5.0</td>
<td>6.3</td>
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**Electrical Characteristics**

<table>
<thead>
<tr>
<th>Power Requirements</th>
<th>Power Consumption kW</th>
<th>1-phase 50Hz 230V (220-240V)/1-phase 60Hz 220V (Separate power supply for indoor units required)</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>0.02021</td>
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**External Dimensions**

<table>
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<th>600</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>mm</td>
<td>700</td>
</tr>
<tr>
<td>Depth</td>
<td>mm</td>
<td>220</td>
</tr>
</tbody>
</table>

**Total Weight**

| kg | 17 |

**Fan Unit**

<table>
<thead>
<tr>
<th>Standard Air Flow (H/M/L) m³/h</th>
<th>510/366/282</th>
<th>552/408/324</th>
<th>624/468/384</th>
<th>726/528/426</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor Output W</td>
<td>41</td>
<td></td>
<td></td>
<td></td>
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**Connecting Pipe**

<table>
<thead>
<tr>
<th>Gas Side</th>
<th>in</th>
<th>3/8</th>
<th>1/2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid Side</td>
<td>in</td>
<td>1/4</td>
<td></td>
</tr>
<tr>
<td>Drain Port (nominal dia.)</td>
<td></td>
<td>16 (Polyvinyl chloride tube)</td>
<td></td>
</tr>
</tbody>
</table>

**Sound Pressure Level (H/M/L) dbA**

| 38/32/26 | 40/34/29 | 43/37/31 | 47/40/34 |
**FLOOR STANDING CABINET**

**Simple & Compact Design**
Under-window mounting does not block lighting.
Indoor unit size of 2.2 to 7.1kW models are the same.

**Air Exits from Front or Top**
Distribution can be reversed to suit occupant preference.

<table>
<thead>
<tr>
<th>Model Number</th>
<th>MML-AP0074H1</th>
<th>MML-AP0094H1</th>
<th>MML-AP0124H1</th>
<th>MML-AP0154H1</th>
<th>MML-AP0184H1</th>
<th>MML-AP0244H1</th>
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</thead>
<tbody>
<tr>
<td>Cooling Capacity</td>
<td>kW</td>
<td>2.2</td>
<td>2.8</td>
<td>3.6</td>
<td>4.5</td>
<td>5.6</td>
</tr>
<tr>
<td>Heating Capacity</td>
<td>kW</td>
<td>2.5</td>
<td>3.2</td>
<td>4.0</td>
<td>5.0</td>
<td>6.3</td>
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**Electrical Characteristics**

<table>
<thead>
<tr>
<th>Power Requirements</th>
<th>1-phase 50Hz 230V (220-240V)/1-phase 60Hz 220V (Separate power supply for indoor units required)</th>
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</thead>
<tbody>
<tr>
<td>Power Consumption</td>
<td>kW</td>
</tr>
</tbody>
</table>

**External Dimensions**

<table>
<thead>
<tr>
<th>Height</th>
<th>mm</th>
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<tbody>
<tr>
<td>Width</td>
<td>mm</td>
<td>950</td>
</tr>
<tr>
<td>Depth</td>
<td>mm</td>
<td>230</td>
</tr>
</tbody>
</table>

**Total Weight**

| kg | 37 | 40 |

**Fan Unit**

<table>
<thead>
<tr>
<th>Standard Air Flow (H/M/L)</th>
<th>m³/h</th>
<th>480/420/360</th>
<th>900/780/650</th>
<th>1080/930/780</th>
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</thead>
<tbody>
<tr>
<td>Motor Output W</td>
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<td>45</td>
<td>70</td>
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</table>

**Connecting Pipe**

<table>
<thead>
<tr>
<th>Gas Side</th>
<th>in</th>
<th>3/8</th>
<th>1/2</th>
<th>5/8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid Side</td>
<td>in</td>
<td>1/4</td>
<td>3/8</td>
<td></td>
</tr>
<tr>
<td>Drain Port (nominal dia.)</td>
<td></td>
<td></td>
<td>20 (Polyvinyl chloride tube)</td>
<td></td>
</tr>
</tbody>
</table>

**Sound Pressure Level (H/M/L)**

| dbA | 39/37/35 | 45/41/38 | 49/44/39 |
FLOOR STANDING CONCEALED

Cool Air Makes for a Pleasant Indoor Environment

Install it under a window and air-condition any room effectively.

Easy Maintenance

Simplified design of fan and drainage pipe eases maintenance.

<table>
<thead>
<tr>
<th>Model Number</th>
<th>MML-</th>
<th>AP0074BH1</th>
<th>AP0094BH1</th>
<th>AP0124BH1</th>
<th>AP0154BH1</th>
<th>AP0184BH1</th>
<th>AP0244BH1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooling Capacity kW</td>
<td>2.2</td>
<td>2.8</td>
<td>3.6</td>
<td>4.5</td>
<td>5.6</td>
<td>7.1</td>
<td></td>
</tr>
<tr>
<td>Heating Capacity kW</td>
<td>2.5</td>
<td>3.2</td>
<td>4.0</td>
<td>5.0</td>
<td>6.3</td>
<td>8.0</td>
<td></td>
</tr>
<tr>
<td>Electrical Characteristics</td>
<td>Power Requirements</td>
<td>1-phase 50Hz 230V (220-240V)/1-phase 60Hz 220V (Separate power supply for indoor units required)</td>
<td>Power Consumption kW</td>
<td>0.056</td>
<td>0.090</td>
<td>0.095</td>
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<tr>
<td>External Dimensions</td>
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<td>Width mm</td>
<td>745</td>
<td>1045</td>
<td>Depth mm</td>
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<td>29</td>
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</tr>
<tr>
<td>Fan Unit</td>
<td>Standard Air Flow (H/M/L) m³/h</td>
<td>460/400/300</td>
<td>740/600/490</td>
<td>950/790/640</td>
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</tr>
<tr>
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<td>Gas Side in</td>
<td>3/8</td>
<td>1/2</td>
<td>5/8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquid Side in</td>
<td>1/4</td>
<td>3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drain Port (nominal dia.)</td>
<td>20 (Polyvinyl chloride tube)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sound Pressure Level (H/M/L) dbA</td>
<td>36/34/32</td>
<td>42/37/33</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**FLOOR STANDING**

**Thin Profile Suits Interior Design**

Slender, space-saving (1.7 - 8.0HP)

**Wide Outlet**

Corner location is also possible with right and left auto swing.

Set the vertical angle manually.

The unit offers high air flow rates and superior air throw values.

---

### Model Number

<table>
<thead>
<tr>
<th>Model Number</th>
<th>MMF-</th>
<th>AP0156H1</th>
<th>AP0186H1</th>
<th>AP0246H1</th>
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</thead>
<tbody>
<tr>
<td>Cooling Capacity kW</td>
<td>4.5</td>
<td>5.6</td>
<td>7.1</td>
<td></td>
</tr>
<tr>
<td>Heating Capacity kW</td>
<td>5.0</td>
<td>6.3</td>
<td>8.0</td>
<td></td>
</tr>
</tbody>
</table>

### Electrical Characteristics

#### Power Requirements

1-phase 50Hz 230V (220-240V)/1-phase 60Hz 220V (Separate power supply for indoor units required)

<table>
<thead>
<tr>
<th>Power Consumption kW</th>
<th>0.055</th>
<th>0.089</th>
</tr>
</thead>
</table>

### External Dimensions

| Height mm | 1750 |
| Width mm | 600 |
| Depth mm | 210 |

### Total Weight kg

| 46 | 47 |

### Fan Unit

#### Standard Air Flow (H/M/L) m³/h

| 900/780/660 | 1200/990/840 |

#### Motor Output W

| 62 |

### Connecting Pipe

| Gas Side in | 1/2 | 5/8 |
| Liquid Side in | 1/4 | 3/8 |
| Drain Port (nominal dia.) | 20 (One Side of Male Screw) |

### Sound Pressure Level (H/M/L) dbA

| 46/42/37 | 49/45/39 |

---

### Model Number

<table>
<thead>
<tr>
<th>Model Number</th>
<th>MMF-</th>
<th>AP0276H1</th>
<th>AP0366H1</th>
<th>AP0486H1</th>
<th>AP0566H1</th>
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</thead>
<tbody>
<tr>
<td>Cooling Capacity kW</td>
<td>8.0</td>
<td>11.2</td>
<td>14.0</td>
<td>16.0</td>
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<tr>
<td>Heating Capacity kW</td>
<td>9.0</td>
<td>12.5</td>
<td>16.0</td>
<td>18.0</td>
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</tr>
</tbody>
</table>

### Electrical Characteristics

#### Power Requirements

1-phase 50Hz 230V (220-240V)/1-phase 60Hz 220V (Separate power supply for indoor units required)

<table>
<thead>
<tr>
<th>Power Consumption kW</th>
<th>0.089</th>
<th>0.135</th>
<th>0.160</th>
</tr>
</thead>
</table>

### External Dimensions

| Height mm | 1750 |
| Width mm | 600 |
| Depth mm | 210 |
| Total Weight kg | 47 | 62 |

### Fan Unit

#### Standard Air Flow (H/M/L) m³/h

| 1200/990/840 | 1920/1620/1380 | 2160/1730/1560 |

#### Motor Output W

| 62 | 109 |

### Connecting Pipe

| Gas Side in | 5/8 |
| Liquid Side in | 3/8 |
| Drain Port (nominal dia.) | 20 (One Side of Male Screw) |

### Sound Pressure Level (H/M/L) dbA

| 49/45/39 | 51/46/41 | 54/49/44 |
### HEAT EXCHANGER WITH DX COIL

**Greater Comfort and Reduce Load**

Functionality built into the cooling system reduces load on cooling beyond that of the heat exchanger itself. This improves air quality and ensures maximum comfort throughout the room being cooled.

**Flexible Control**

Supply and exhaust fan speed ratios can be changed for improved air volume control that best matches the needs of the environment and location.

**Free Cooling at Night**

When the outdoor air is cooler at night, the system expels warm air from the room. This reduces the air conditioning load the next day for improved energy efficiency.

### STANDARD HEAT EXCHANGER

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity</th>
<th>Dimensions H x W x D (mm)</th>
<th>Weight (KG)</th>
<th>Airflow (L/S)</th>
<th>Duct Spigot (mm)</th>
<th>Efficiency %</th>
<th>Cooling (kW)</th>
<th>Heating (kW)</th>
<th>Pipe Size (in)</th>
<th>Drain (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VN-M150HE</td>
<td>1HP</td>
<td>350 x 1140 x 1690</td>
<td>84</td>
<td>500</td>
<td>200</td>
<td>70.5</td>
<td>4.10 (1.3)</td>
<td>5.53 (2.33)</td>
<td>3/8”-1/4”</td>
<td>25</td>
</tr>
<tr>
<td>VN-M250HE</td>
<td>1.7HP</td>
<td>350 x 1189 x 1739</td>
<td>100</td>
<td>800</td>
<td>250</td>
<td>70.0</td>
<td>6.56 (2.06)</td>
<td>8.61 (3.61)</td>
<td>1/2”-1/4”</td>
<td>25</td>
</tr>
<tr>
<td>VN-M350HE</td>
<td>2HP</td>
<td>350 x 1189 x 1739</td>
<td>101</td>
<td>950</td>
<td>250</td>
<td>65.5</td>
<td>8.25 (2.32)</td>
<td>10.92 (4.32)</td>
<td>1/2”-1/4”</td>
<td>25</td>
</tr>
<tr>
<td>VN-M500HE</td>
<td>3HP</td>
<td>400 x 1189 x 1739</td>
<td>101</td>
<td>1500</td>
<td>250</td>
<td>65.5</td>
<td>8.25 (2.32)</td>
<td>10.92 (4.32)</td>
<td>1/2”-1/4”</td>
<td>25</td>
</tr>
<tr>
<td>VN-M650HE</td>
<td>3.5HP</td>
<td>400 x 1189 x 1739</td>
<td>101</td>
<td>1500</td>
<td>250</td>
<td>65.5</td>
<td>8.25 (2.32)</td>
<td>10.92 (4.32)</td>
<td>1/2”-1/4”</td>
<td>25</td>
</tr>
<tr>
<td>VN-M800HE</td>
<td>5HP</td>
<td>400 x 1189 x 1739</td>
<td>101</td>
<td>2000</td>
<td>250</td>
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<td>8.25 (2.32)</td>
<td>10.92 (4.32)</td>
<td>1/2”-1/4”</td>
<td>25</td>
</tr>
<tr>
<td>VN-M1000HE</td>
<td>5.5HP</td>
<td>400 x 1189 x 1739</td>
<td>101</td>
<td>2000</td>
<td>250</td>
<td>65.5</td>
<td>8.25 (2.32)</td>
<td>10.92 (4.32)</td>
<td>1/2”-1/4”</td>
<td>25</td>
</tr>
<tr>
<td>VN-M1500HE</td>
<td>8.5HP</td>
<td>400 x 1189 x 1739</td>
<td>101</td>
<td>3000</td>
<td>250</td>
<td>65.5</td>
<td>8.25 (2.32)</td>
<td>10.92 (4.32)</td>
<td>1/2”-1/4”</td>
<td>25</td>
</tr>
<tr>
<td>VN-M2000HE</td>
<td>10HP</td>
<td>400 x 1189 x 1739</td>
<td>101</td>
<td>4000</td>
<td>250</td>
<td>65.5</td>
<td>8.25 (2.32)</td>
<td>10.92 (4.32)</td>
<td>1/2”-1/4”</td>
<td>25</td>
</tr>
</tbody>
</table>

**Remote Controller**

NRC-01HE
CONTROLS

**Wired Controller**
RBC-AMS55E-ES
Backlight, weekly schedule, soft cooling, dual setpoint, occupancy sensor
*Note:* Some features are indoor dependent.

**Basic Controller**
NRC-01HE
- Dedicated HEX
- Can control linked AC

**Intesis WiFi Controller**
TO-RC-WIFI-1

**Remote Sensor**
TCB-TC21LE2

**Wireless remote controller kit & sensor unit (receiver unit)**
The wireless remote cannot be connected to concealed duct high static pressure type or fresh air intake indoor unit type.

**Integral Receiver**
RBC-AX32U(W)-E
For 4-way air discharge cassette.

**Wireless Kit/Receiver**
RBC-AX32UM(W)-E
For 4-way air discharge cassette, compact 4-way cassette (600x600), 2-way air discharge cassette, ceiling, concealed duct standard, slim duct, floor standing cabinet, floor standing, 1-way discharge cassette.

**Integral Receiver**
RBC-AX32CE2
For ceiling, 1-way air discharge cassette.

**Integral Receiver**
RBC-AX23UW(W)-E
For 2-way air discharge cassette.

**Occupancy Sensor**
TCB-SIR41UM-E
For 7 series 4-way air discharge compact cassette.
CONTROLS

Smart Manager (with data analyser)
BMS-SM1281ETLE
BMS-SM1280HTLE
(without data analyser)

BACnet® Interface
BMS-IFBN640TLE
Control of up to 64 units.
NB: TCB-PCNT30TLE needed for RAV units except KRT/P.

Energy Monitoring Relay
BMS-IFWH5E
Interface for smart manager, touch screen and BACnet®.

Touch Screen Controller
BMS-CT5121E
Connect up to 512 indoor units.
Builds on Smart Manager functions.
NB: BMS-IFLSV4E also required.

WiFi Controller
BMS-IWF0320E
Control of up to 32 indoor units.

Schedule Timer
TCB-EXS21TLE
For use with smart manager.

General Purpose Interface
TCB-IFCG1TLE

Remote On/Off & Alarm Status
TCB-IFCB-4E2

Simple Wired Controller
RBC-AS41E
**WARRANTY**

SMMS-e and SHRM-e systems have 1 year warranty against both parts and labour. Warranty is conditional upon the design, installation and use of the SMMS-e and SHRM-e systems complying with the conditions set out in the applicable design and installation manuals.
Notice: Toshiba is committed to continuously improving its product to ensure the highest quality and reliability standards, and to meet local regulations and market requirements. All features and specifications subject to change without prior notice.
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