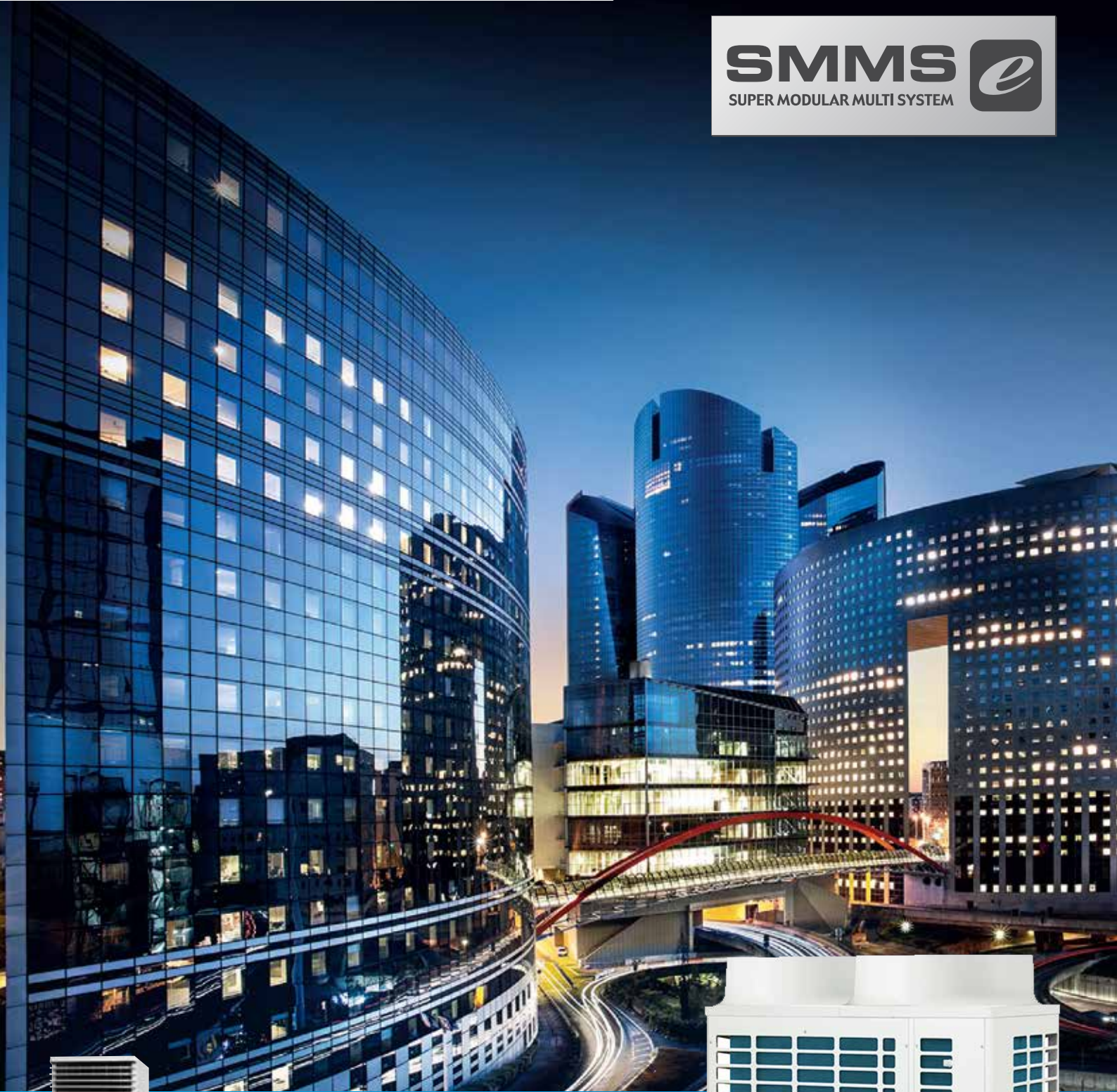


# TOSHIBA

## High Ambient Application

**SMMS**   
SUPER MODULAR MULTI SYSTEM





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# EXPERIENCE

# THE FUTURE

## > Toshiba Airconditioning Absolute comfort

Toshiba's commitment to world-class efficiency, versatile scalability and trusted quality results in cutting-edge technology that gives our customers industry leading solutions for their needs. Toshiba Air Conditioning is a global provider of a comprehensive range of innovative air conditioning solutions with trusted, world class reliability. With several "World's Firsts" to its credit, Toshiba Air Conditioning has been the reliable source of next generation, energy efficient products and solutions for over 30 years.

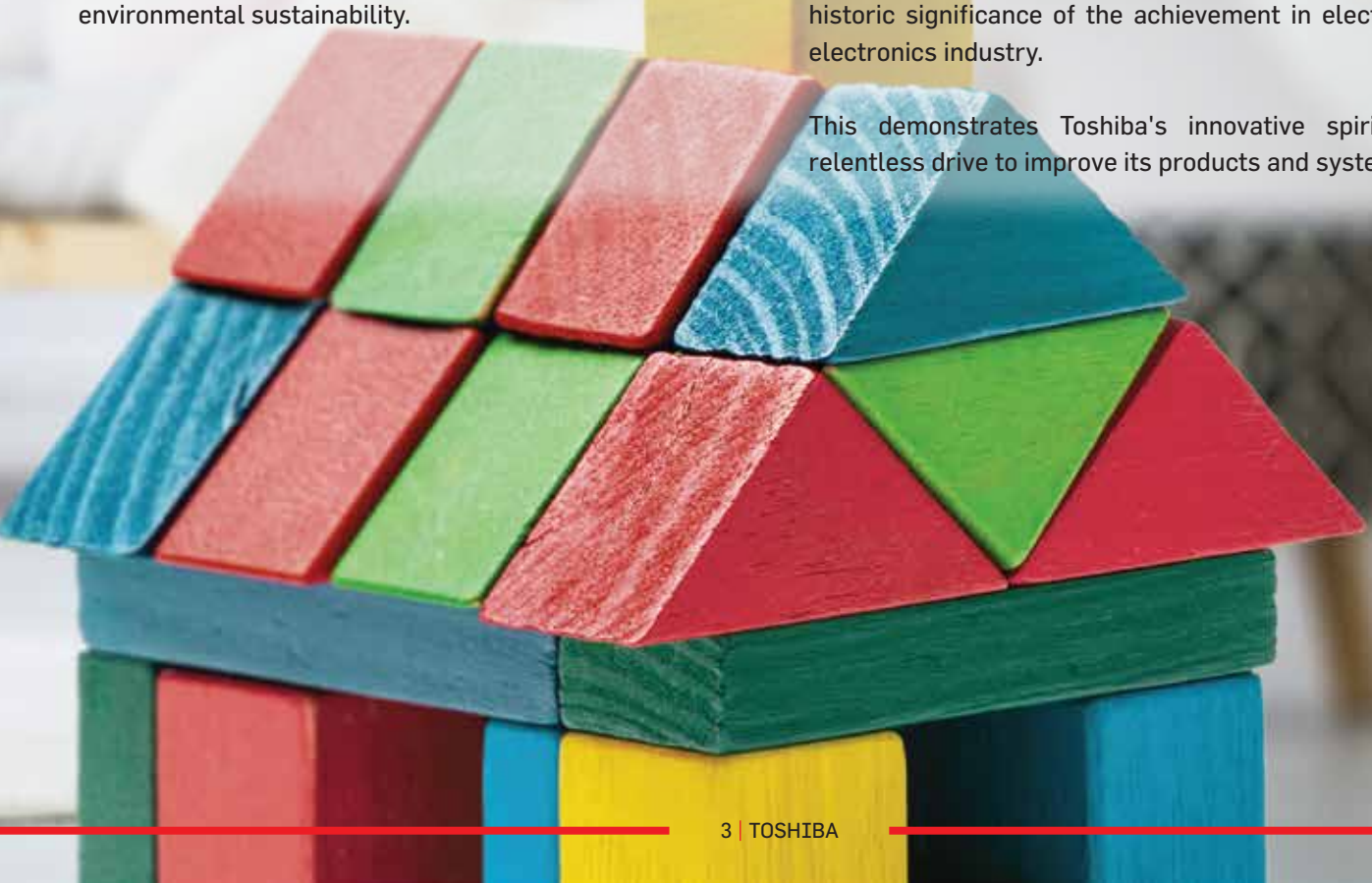
Toshiba's commitment to people drives attention to detail at every stage of the development process, from design to user field tests. As a result, Toshiba products and systems feature higher standard of indoor air quality, low sound levels, energy savings and unrivaled comfort along with environmental sustainability.

## > A Global Innovation Network

Toshiba Air Conditioning has research and development centers across Japan, Europe, Thailand and China. Its global research activities are managed and integrated to ensure all research sites collaborate to provide innovative solutions to customers across the world. The Toshiba brand holds more than 1200 patents in Japan and abroad, an outstanding number for any company.

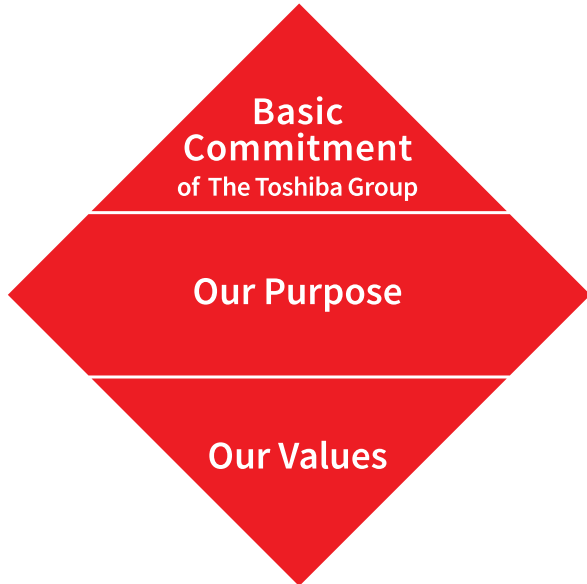
Each year since 1994, Toshiba Air Conditioning has received prestigious awards for its significant achievements in air conditioning and in November 2020 the world's-first inverter split air conditioner that Toshiba developed and mass produced for commercial and residential applications in 1980 and 1981, respectively, was recognized by the Institute of Electrical and Electronics Engineers (IEEE) as an IEEE milestone for the historic significance of the achievement in electrical and electronics industry.

This demonstrates Toshiba's innovative spirit and a relentless drive to improve its products and systems.



# THE ESSENCE OF TOSHIBA












## > Basic Commitment of the Toshiba Group



Committed to People,  
Committed to the Future.

At Toshiba, we commit to raising the quality of life for people around the world, ensuring progress that is in harmony with our planet.

## > ALWAYS ONE STEP AHEAD

<p>First inverter-based air conditioner</p>  <p><b>1ST</b> WORLD</p>	<p>First Toshiba VRF (MMS), modular system up to 40 HP</p>  <p><b>TOP CLASS</b> EFFICIENCY</p>	<p>Super Power Eco using DC inverter rotary compressor &amp; R410A</p>  <p><b>1ST</b> WORLD</p>	<p>First digital inverter control</p> 	<p>Toshiba's first mini VRF (MiNi SMMS)</p>  <p><b>TOP CLASS</b> EFFICIENCY</p>				
1981	1986	1993	2000	2001	2003	2006	2010	2015
<p>Super Multi, multi air conditioner for buildings</p>  <p><b>1ST</b> WORLD</p>	<p>Digital twin rotary air conditioner</p>  <p><b>TOP CLASS</b> EFFICIENCY</p>	<p>DC hybrid inverter</p> 	<p>VRF (SMMS), Super Modular Multi System R410A</p>  <p><b>1ST</b> WORLD</p>	<p>VRF (SMMS-i)</p> 	<p>VRF (SMMS-e) with NFC service tool</p>  <p><b>1ST</b> WORLD</p>			



## > Our Purpose

We are Toshiba. We have an unwavering drive to make and do things that lead to a better world.

A planet that's safer and cleaner. A society that's both sustainable and dynamic. A life as comfortable as it is exciting. That's the future we believe in. We see its possibilities, and work every day to deliver answers that will bring a brilliant new day, every day.

By combining the power of invention with our expertise and desire for a better world, we imagine things that have never been – and make them a reality.

That is our potential. Working together, we inspire a belief in each other and in our customers, that no challenge is too great, and there's no promise we can't fulfill.

We turn on the promise of a new day.

## > Our Values

Do the right thing

Look for a better way

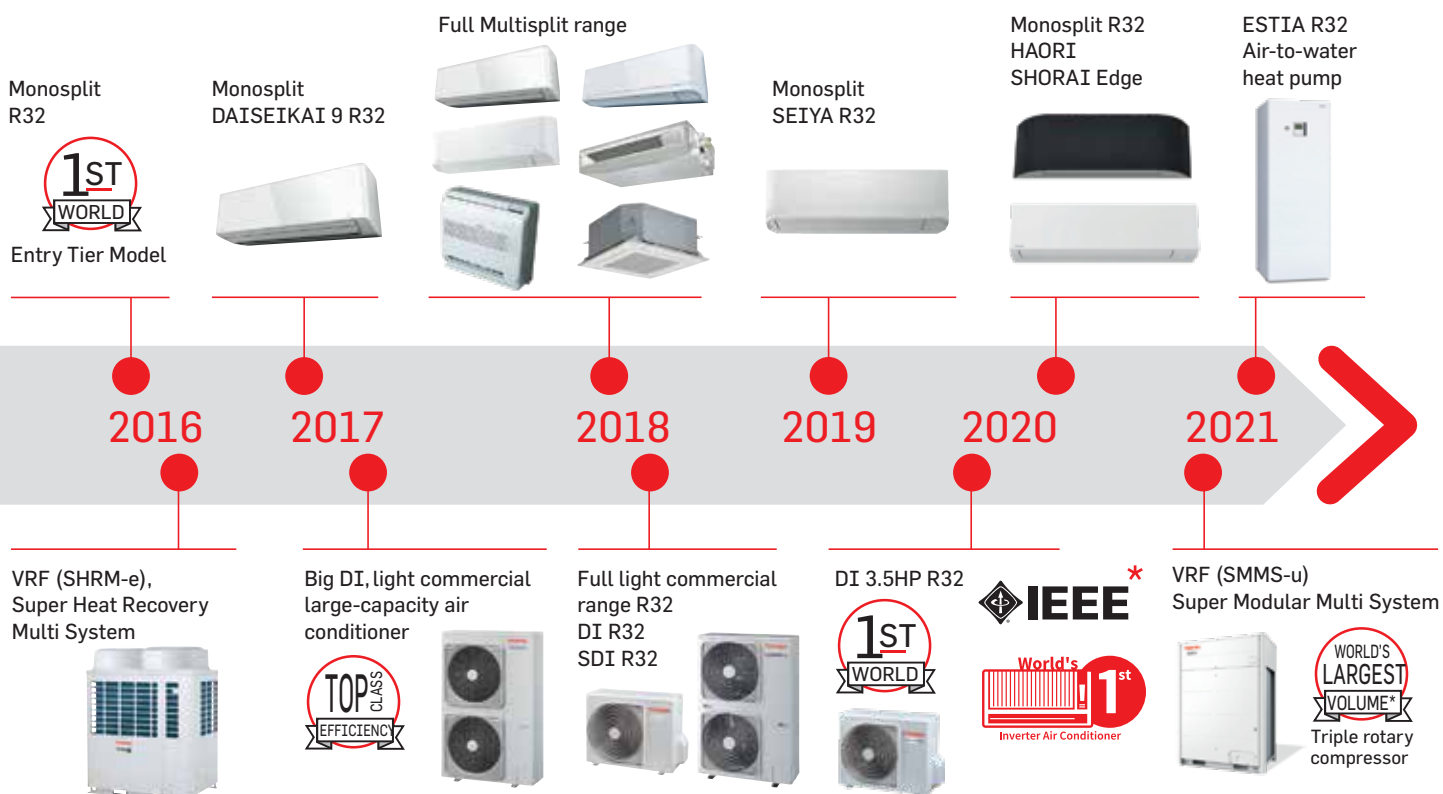
We act with integrity, honesty and openness, doing what's right - not what's easy. We continually strive to find new and better ways, embracing change as a means of progress.

Always consider the impact

We think about how what we do will change the world for the better, both today and for generations to come.

Create together

We collaborate with each other and our customers, so that we can grow together.



\* In 2020, the Institute of Electrical and Electronics Engineers awarded Toshiba for the invention of the Inverter Air Conditioner and the significant contribution made by the Toshiba Inverter to the advancement of society and industry.



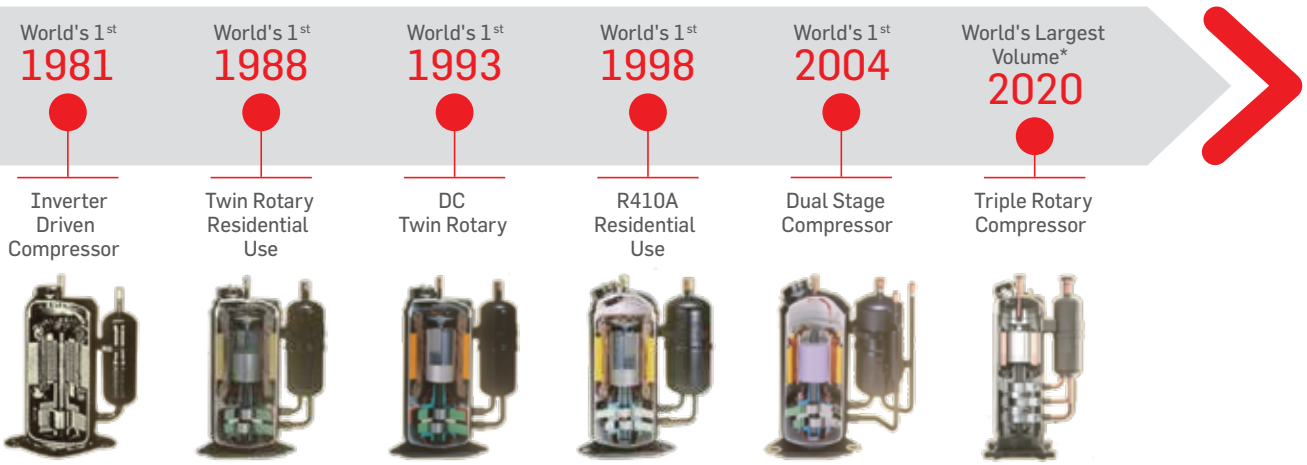
# TOSHIBA AIR CONDITIONING - VISION

## > CHOOSE THE EXPERT OF INSPIRED TECHNOLOGIES

Toshiba Air Conditioning's philosophy is based on profound respect for our global environment and the desire to improve our customers' quality of life worldwide.

In 1981, Toshiba developed inverter technology for residential air conditioners which after 30 years is now employed by most leading air conditioning brands..

Inverter enables the unit to continuously regulate its cooling and heating capacity by altering the speed of the compressor using a variable-frequency drive to control the speed of the motor. This innovation ensures outstanding comfort and efficiency levels.



\* (as of Dec. 2020)





Our commitment to world-class efficiency, versatile scalability and leading quality means we create cutting-edge technologies to find the most forward-thinking solutions possible for your world. Toshiba Air Conditioning is an innovative provider of comprehensive air conditioning solutions with world-class reliability.

### > Top-class energy efficiency

- The world's largest Triple Rotary compressor <sup>(1)</sup>
- Twin rotary compressors
- All temperatures from -30°C (Daiseikai 9) to 54°C (MiNi SMMS-e Middle East range)
- Environmentally-friendly refrigerants
- Optimal temperature control solutions for increased precision

### > Entirely scalable solutions

Toshiba Air Conditioning develops cutting-edge technologies and advances that benefit people everywhere by offering the ideal combination of comfort and ecologically-superior products for residential, light commercial and large building applications.

### > Superior manufacturing quality

Toshiba Air Conditioning's innovations ensure comprehensive building air conditioning solutions which as subjected to strict evaluation testing to guarantee world-class reliability.

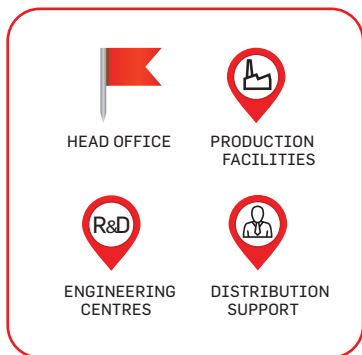
The quality, safety and performance of our solutions is further guaranteed by third party certifications including (TÜV, Eurovent, WEEE, RoHS, REACH, Intertek and Keymark among others).



(1) Source: Toshiba Carrier Corporation  
(as of December 21, 2020)

# TAILORED TO MEET CHALLENGES

Toshiba Air Conditioning, with heat pump technology at its core, aims to be an environmentally creative company which contributes to society and to the global environment. A commitment to growth on a global scale by offering products of the highest quality and services based on heat pump application solutions which respond to all of our customers' needs.



**PLYMOUTH, UNITED KINGDOM**



TCEU - DISTRIBUTION SUPPORT  
and  
TCEU - ENGINEERING CENTRE

**MONTLUEL, FRANCE**



TCEU - ENGINEERING CENTRE  
and  
TOSHIBA EMEA

**GNIEZNO, POLAND**



TCAE - PRODUCTION FACILITIES



▶ TSUYAMA-CITY, JAPAN



TCC - PRODUCTION FACILITIES

▶ FUJI-CITY, JAPAN



TCC - PRODUCTION FACILITIES  
and TCC - ENGINEERING CENTRE

▶ KAWASAKI-CITY, JAPAN



TCC - HEAD OFFICE



▶ HARYANA, INDIA



TCAI - PRODUCTION FACILITIES

▶ PATHUMTHANI, THAILAND



TCTC - ENGINEERING CENTRE

▶ HANGZHOU, CHINA



TCAC - PRODUCTION FACILITIES

## LEADING THE WAY TO EXCELLENCE

Toshiba Air Conditioning's strengths centre on in-house research, development of advanced technologies and core components. These marketing leading technologies, industry leading research and

high quality components are then used to offer best in class products to our customers that ensure optimum comfort at reduced operating costs.

### > A global innovation network

Toshiba Air Conditioning has Research and Development (R&D) centres in Japan, Europe, Thailand and China. Its global research activities are managed and integrated to ensure all research sites collaborate to provide innovative solutions to customers across the world. The Toshiba brand proudly holds more than 1200 patents in Japan and

abroad, an outstanding number for any company. Each year since 1994, Toshiba Air Conditioning has received a prestigious award for its significant achievements in air conditioning. This demonstrates Toshiba's innovative spirit with a relentless drive to improve its products and systems.

### > Products designed to perform, engineered to perfection

In 1981 Toshiba Air Conditioning was the first company to incorporate inverter technology into air conditioning systems and has maintained its technological advantage over its competitors ever since. The development of the new and exclusive DC hybrid inverter system has reaffirmed this ability to innovate and maintain technological leadership in a fast-growing market. But for Toshiba Air Conditioning, innovation also means strong commitment to international institutions that carefully evaluate the impact of new technologies on the environment.

Toshiba Air Conditioning combines technological development with consideration for future generations resulting in a range of extremely energy-efficient air conditioners, reducing greenhouse gas emissions at their source. Its continuous research into the development of inverter technology has provided remarkable results, both with regards to meeting the required comfort levels and continually reducing the system's energy consumption.



Quality production



Outdoor units production



Indoor units production



## > Committed to the Future

Going further than just products and beyond their basic functions, to create reliable and safe solutions that can interact with each other and with users.

Incorporating Toshiba's technical building management systems, the world is made simpler, clearer and more effective.



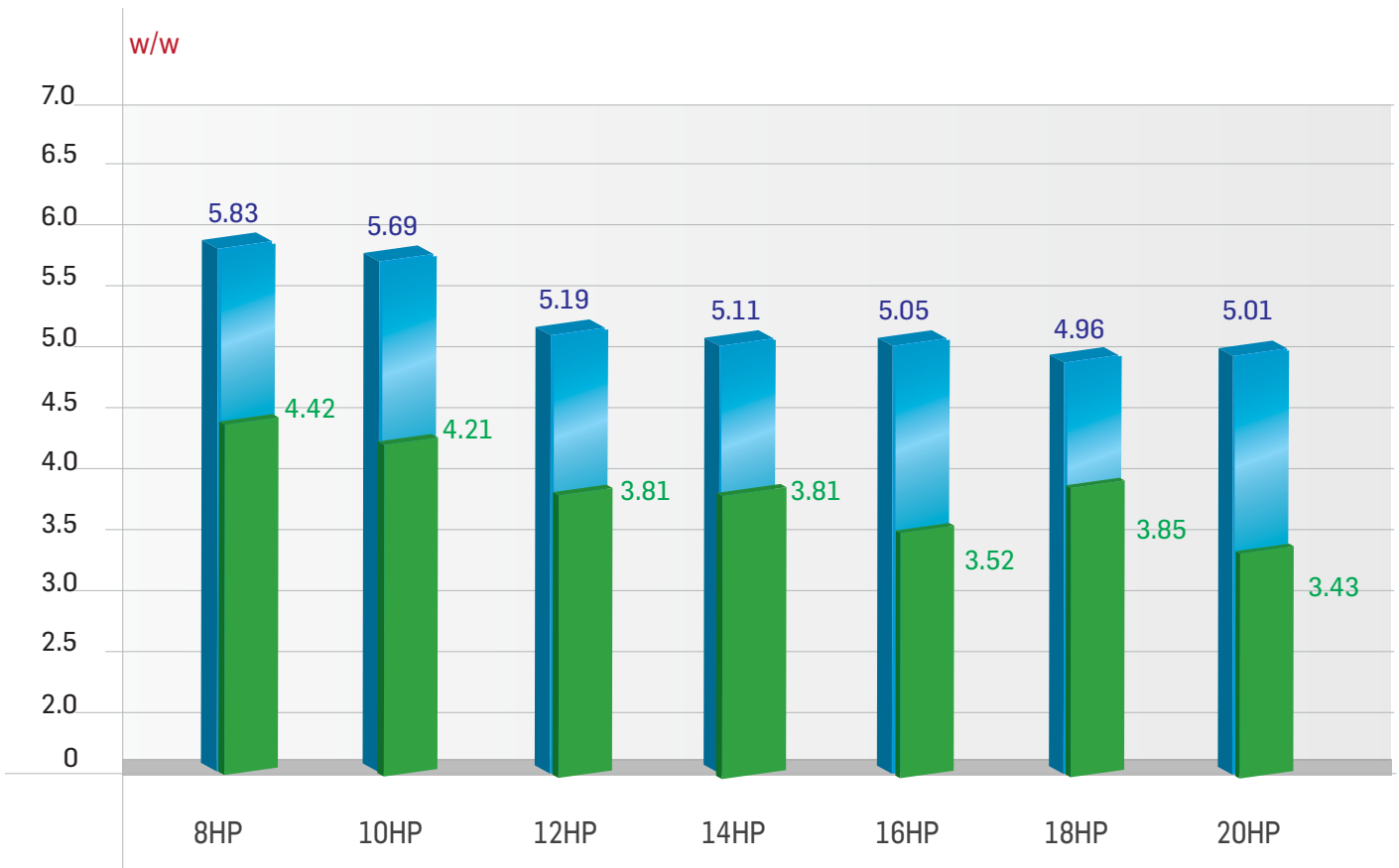
## Energy saving

High efficiency performance

Cooling mode

EER

- Rated \*
- 50% load



Note:

The source voltage must not flucture more than 10%.

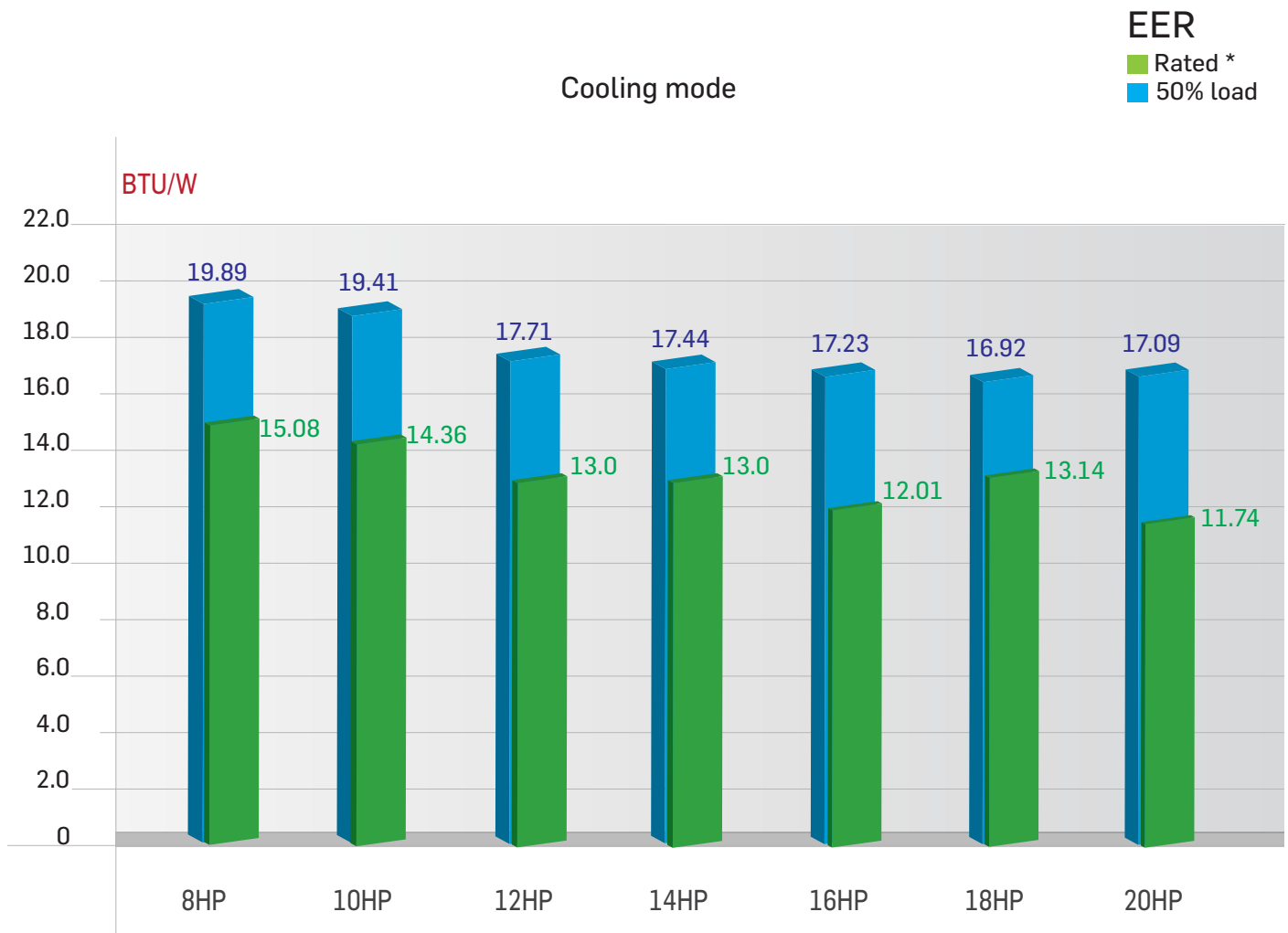
\* Indoor temperature: 26.7°C DB/19.4°CWB, outdoor temperature: 35°C DB (AHRI 1230 standard), power input of indoor units included.





**Energy saving**

The overall capacity range and the highest EER of 4.42 (15.08)  
The SMMS-e has truly excellence as the industry's top class in energy saving.



Note:

The source voltage must not fluctuate more than 10%.  
\* Indoor temperature: 26.7°C DB/19.4°CWB, outdoor temperature: 35°C DB (AHRI 1230 standard), power input of indoor units included.



## Capacity range

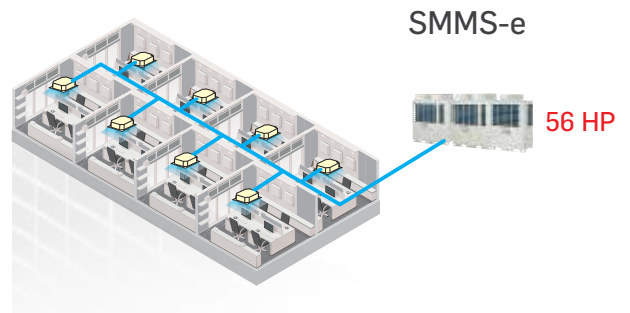
### Single unit capacity expanded

SMMS-e comes with 3 new larger capacity units, producing up to 20HP on a single module platform.



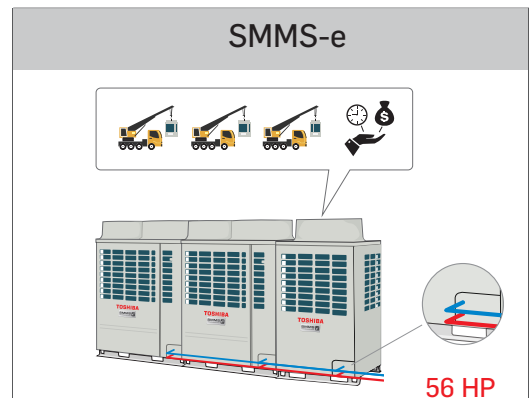
### System capacity expanded

With the SMMS-e, it is now possible to connect up to 56HP in one system.



### Installation flexibility

While expanding the maximum combination from 48 to 56HP in one system. This helps save more time and expense on additional unit system required in the previous model. The new compact unit design also increases more flexibility on installation with less foot print.



SMMS-e is capable of covering up to 20HP with a single module. Reducing pipe work and overall installation time.





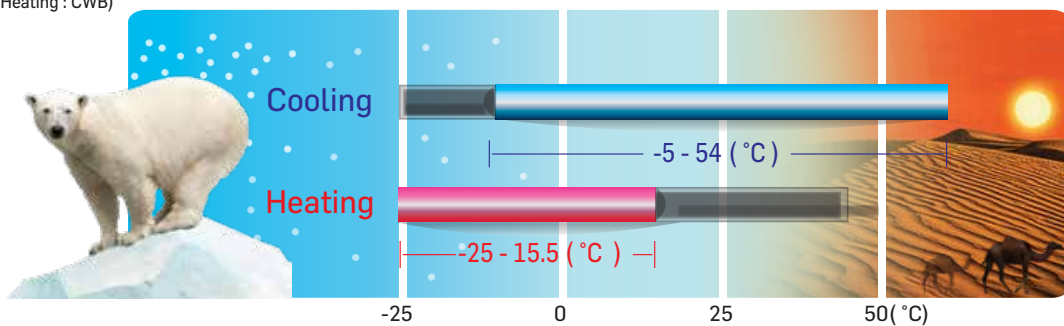
## Operating temperature range

### Outdoor temperature range

Utilizing the newly designed compressor, SMMS-e can operate under the wider range of outdoor ambience with the expansion of cooling and heating temperature from  $-25^{\circ}\text{C}$  to  $54^{\circ}\text{C}$ .

Operation ambient temperature expansion

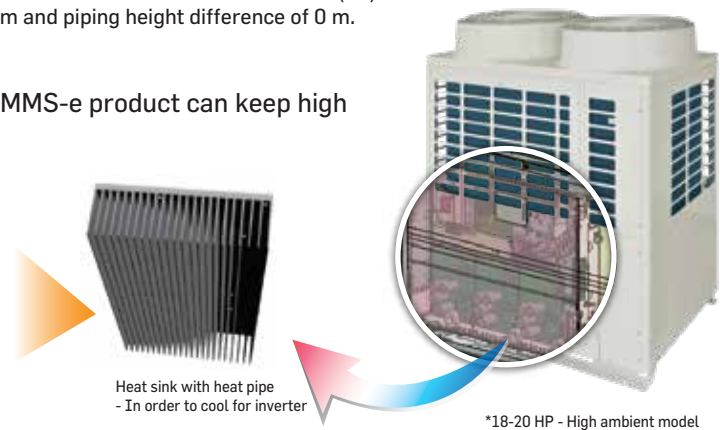
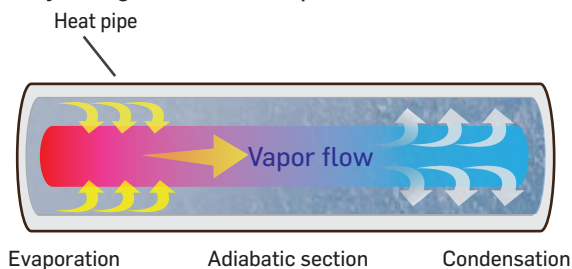
(Cooling : \*CDB, Heating : \*CWB)



Note : Based on equivalent piping length of 7.5 m and piping height difference of 0 m.

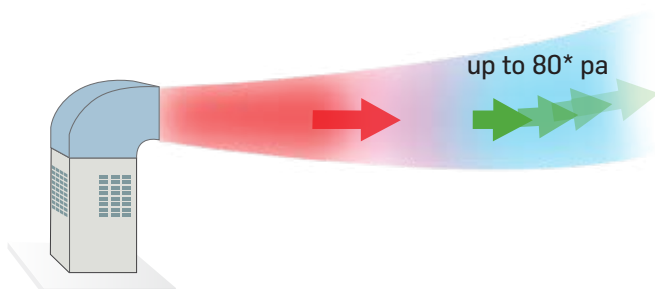
### Heat pipe technology\*

Thank to excellent heat sink with heat pipe technology, SMMS-e product can keep high reliability at high ambient temperature.



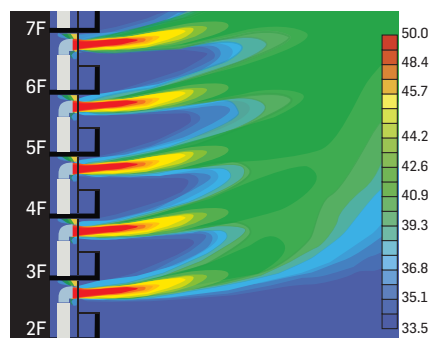
### The external static pressure

The SMMS-e units are suitable for challenging installations where high external static pressure performance



Note: For ESP consult to local sales person.

Air flow simulation diagram



Note : This result is analytical simulation, that does not guarantee actual temperatures.



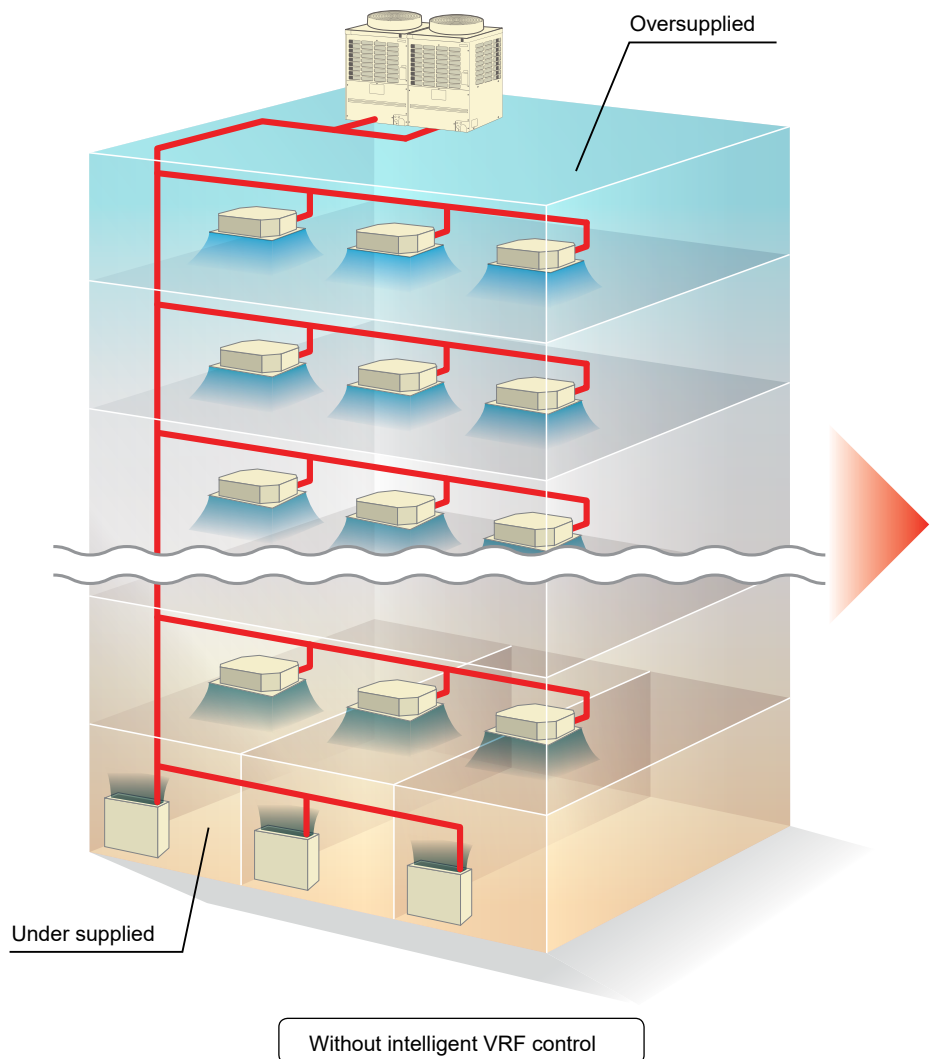
## Enhanced Comfort

### New intelligent VRF control

Toshiba systems with intelligent VRF control provide levels of comfort other systems simply cannot match. That's because differing pipe lengths in commercial buildings result in inconsistent levels of performance, especially when several indoor units are connected to a system. This imbalance is caused by pressure loss and thermal leaks that inhibit the optimum refrigerant flow to each indoor unit.

For example, without intelligent control, upper floor indoor units within VRF systems place loads on the refrigerant supply. This causes a delay before enough refrigerant reaches the lower floors to deliver efficient levels of operation.

Without intelligent VRF control, refrigerant flows unevenly throughout the structure, typically oversupplying areas closer to the outdoor unit and undersupplying areas that are farther away.







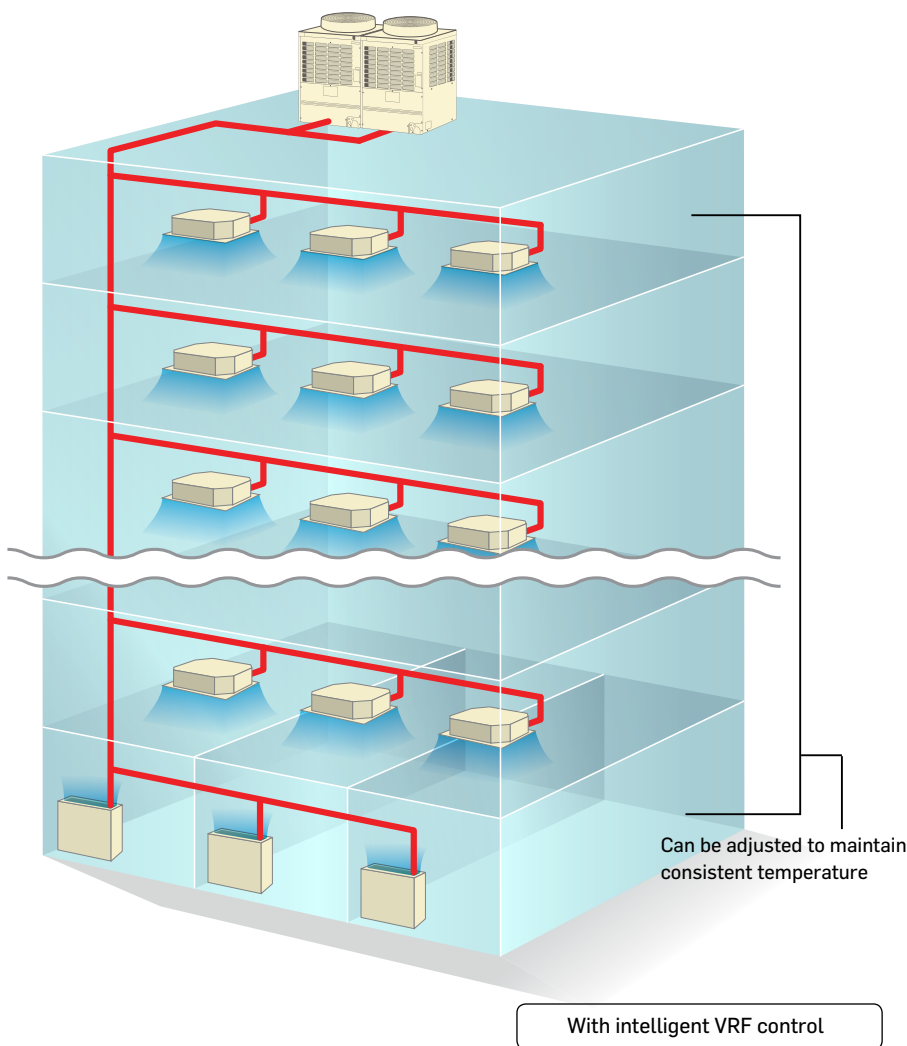
**Total system control**

**Total system control and consistent room-to-room temperature**

The Toshiba intelligent VRF control overcomes these issues by providing precise control of indoor units with just electrical wiring and copper refrigerant tubing. It's intelligent because it sends more refrigerant to areas that need it, and supplies less refrigerant to areas that don't. Comfort is distributed evenly regardless of line length. As a result, occupants enjoy greater overall comfort whether they are closest to the outdoor unit or farthest away.

Additionally, Toshiba SMMS-e systems monitor the flow of refrigerant to each indoor unit while tracking the model number of each indoor unit, pipe length between each indoor unit and the outdoor unit, as well as data on operating conditions. The system computes the amount of refrigerant required by each indoor unit and controls the unit's pulse motor valve to ensure optimal supply across the system with height difference between outdoor unit and indoor unit of up to 90 meter.

With intelligent VRF control, Toshiba delivers consistent, room to room comfort across several floors of a commercial structure.



Can be adjusted to maintain consistent temperature

With intelligent VRF control





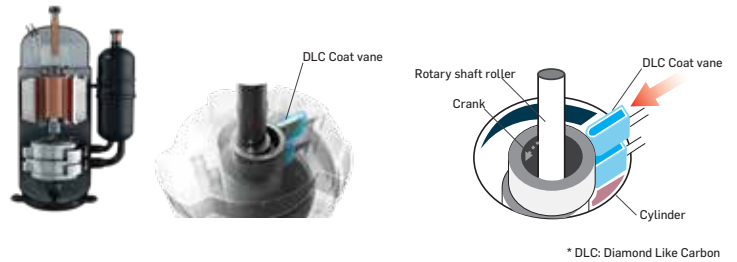
## DC twin rotary compressor

### Wide range compressor

More powerful and efficient with the cutting-edge technology of compressor – DC Twin-Rotary operates in wider range of rotation speed.

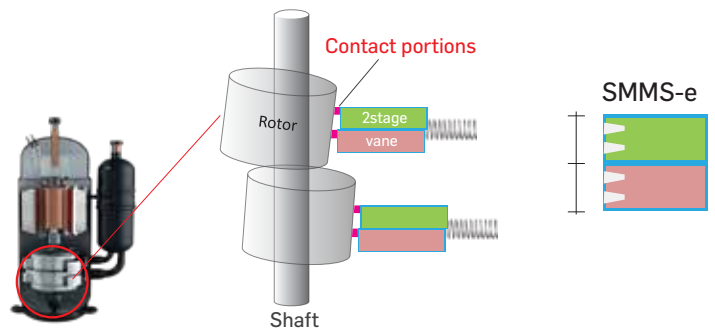
### DLC coated vane

Increased hardness of the DLC coated vane reduces friction and increase both reliability and performance.



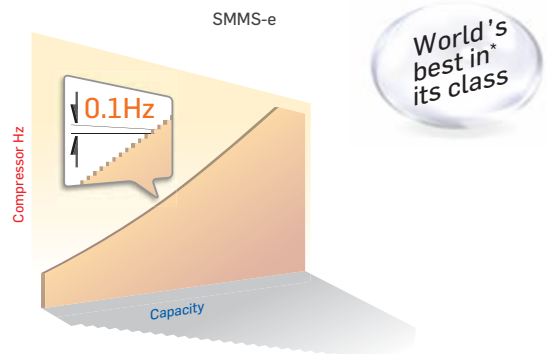
### 2-stage vane

With 2-stage vane innovatively designed to reduce friction while increasing hardness and enhancing performance at its best.



### Infinity variable control

Infinity variable control adjusts compressor rotation speed in near-seamless 0.1 Hz steps. Responding precisely to the capacity needs of the moment, this fine control minimizes energy loss when changing frequencies, and also creates a comfortable environment subject to minimal temperature variations.



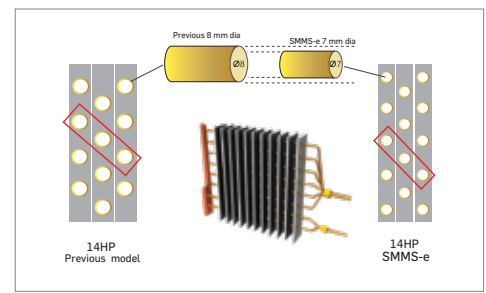
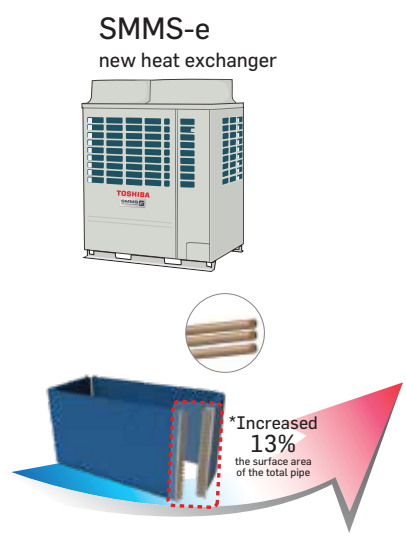
Ultra-precise 0.1 Hz control over compressor rotation speed



**Heat exchanger**

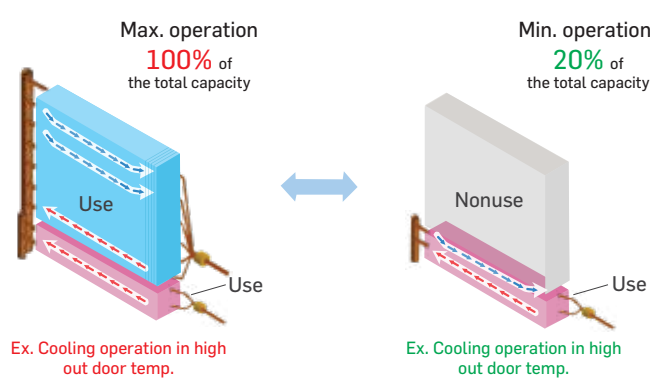
**New heat exchanger**

New heat exchanger of SMMS-e increases from 2 to 3 rows, providing even more surface area of the total pipe up to 13%.



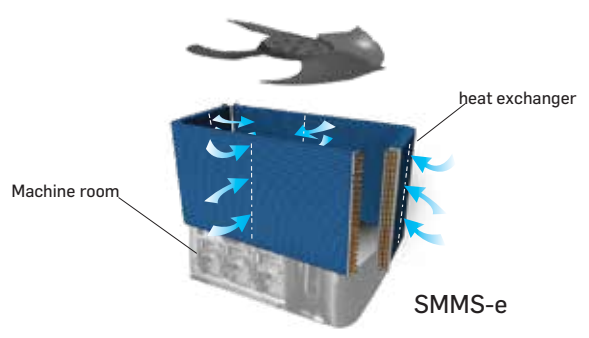
**Variable heat exchanger**

New system controls allows the outdoor unit to select the most efficient heat exchanger size, which matches the capacity load in order to provide higher energy savings.



**4-way heat exchanger can realize balanced airflow**

Heat exchangers are located on all four sides of the outdoor unit, ensuring air flow is equal in all directions.

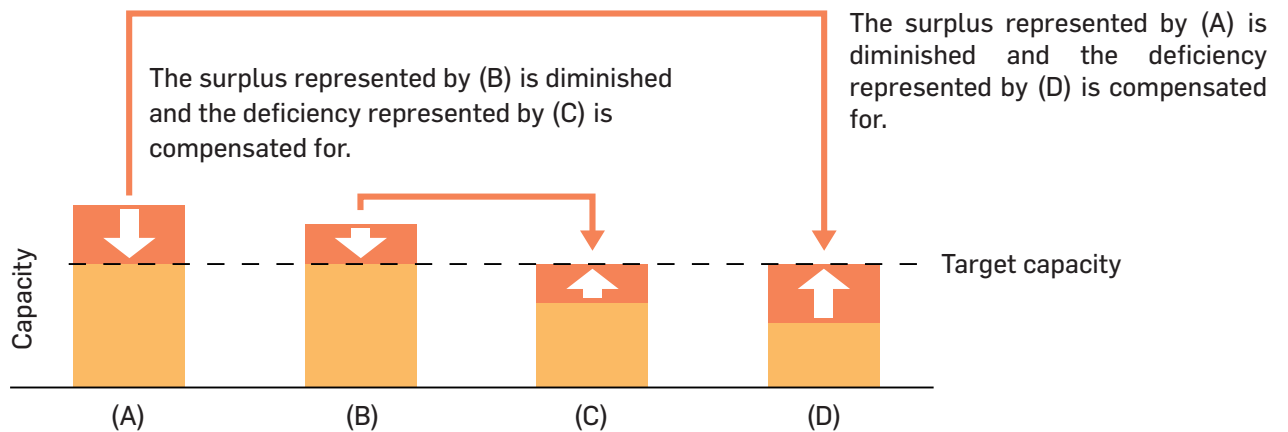
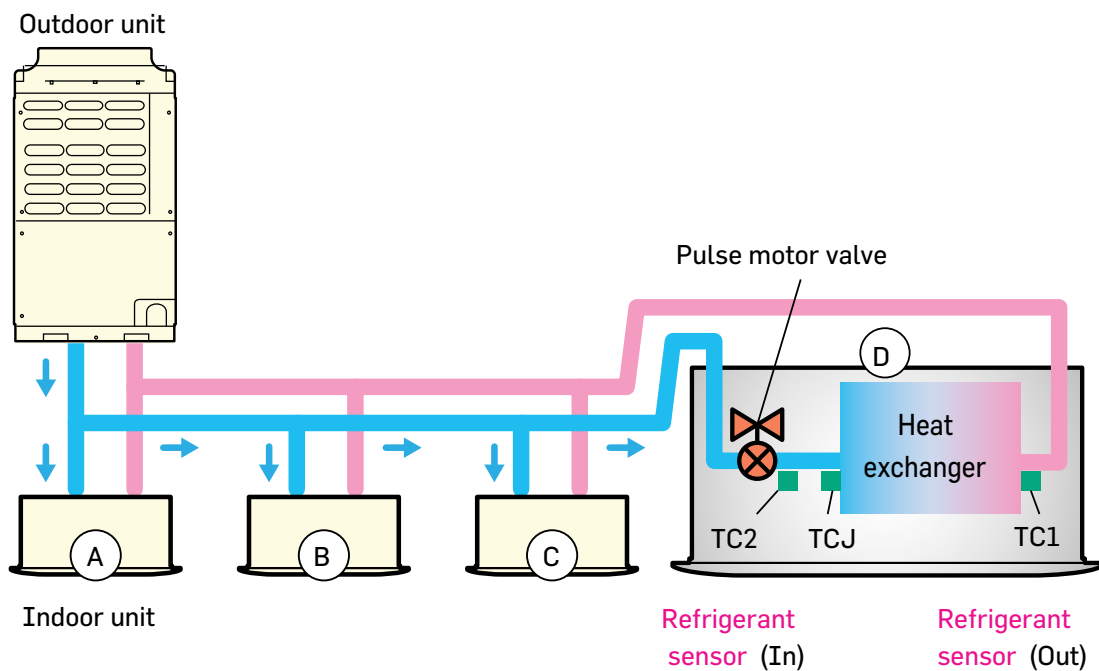


\* For higher capacity model.



## Precise refrigerant flow

One of the keys to delivering precision refrigerant flow and enhanced comfort is the Toshiba pulse motor valve (PMV) control. The PMV control prevents refrigerant from flowing to indoor units that are not operating. The system reduces bypass loss and achieves tighter control over the compressor capacity of the outdoor unit.



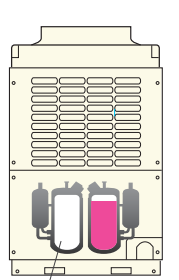


## Reliability

### Backup operation

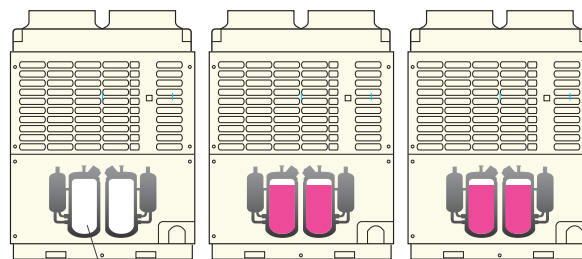
In case of a compressor failure, SMMS-e can keep working with the backup operation under All Inverter Control to compensate a failed compressor or header unit. This backup operation is available in both a single system or as a module.

Single outdoor unit backup



Failed compressor

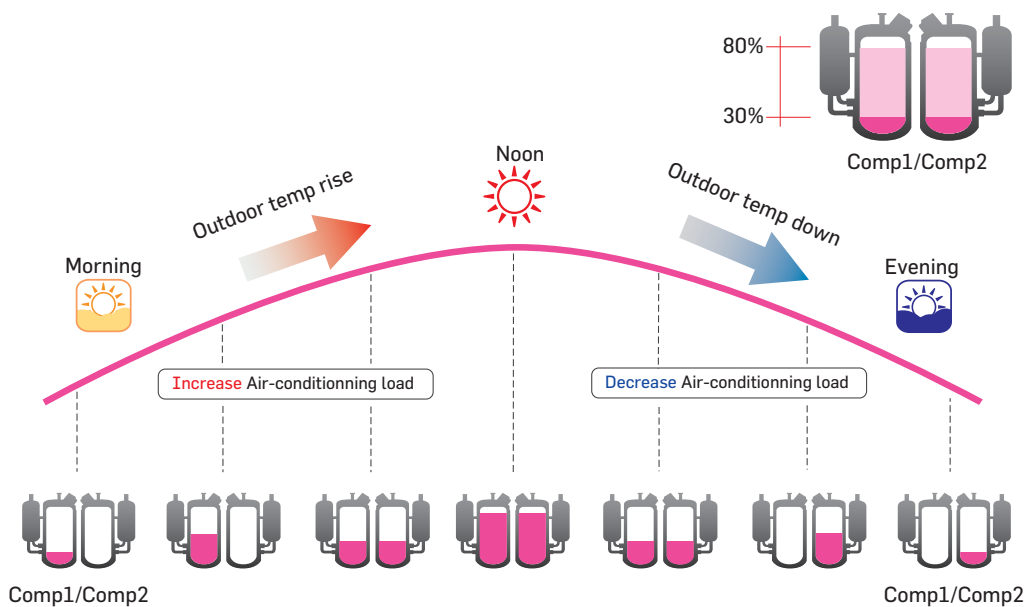
Module outdoor unit backup



Failed outdoor unit

### Reliability rotational control

The rotational control in SMMS-e is designed to improve system reliability by controlling the operation of each compressor to work equally under variable conditions.

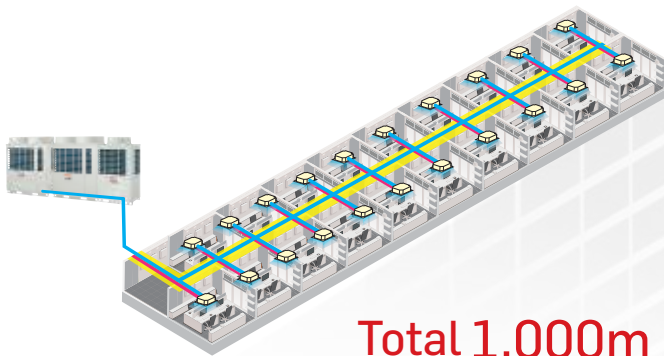




## Piping design flexibility

### Total piping length

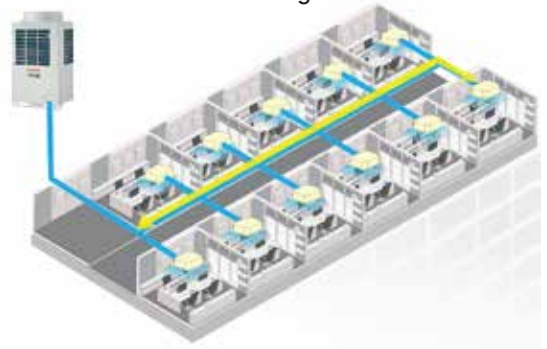
Applied with Toshiba's unique and greatly improved technology, SMMS-e can reach up to 1,000 meters maximum piping length.



**Total 1,000m**  
piping length SMMS-e Max. total length

### Farthest pipe from 1st branch

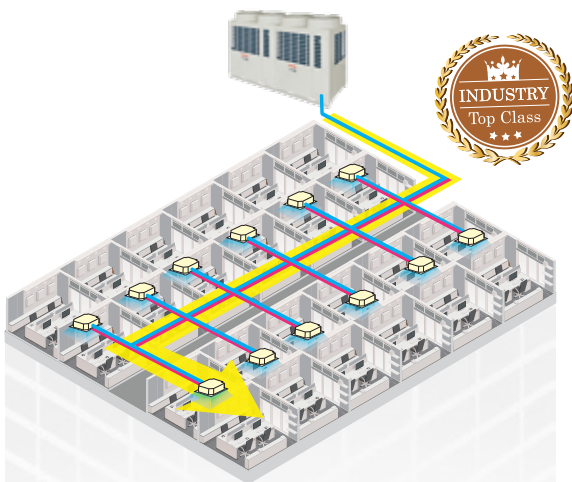
Even more convenient with the piping distance from the first branch to the furthest indoor unit at 90 meters, increasing the flexibility of the installation within the hotel or office building.



**Farthest pipe 90m**  
from 1st branch

### Farthest equivalent length

The maximum equivalent distance between outdoor unit and farthest indoor unit tops at 235 meters, which tops the industry class.



**Farthest 235m**  
equivalent length

### Height between indoor units

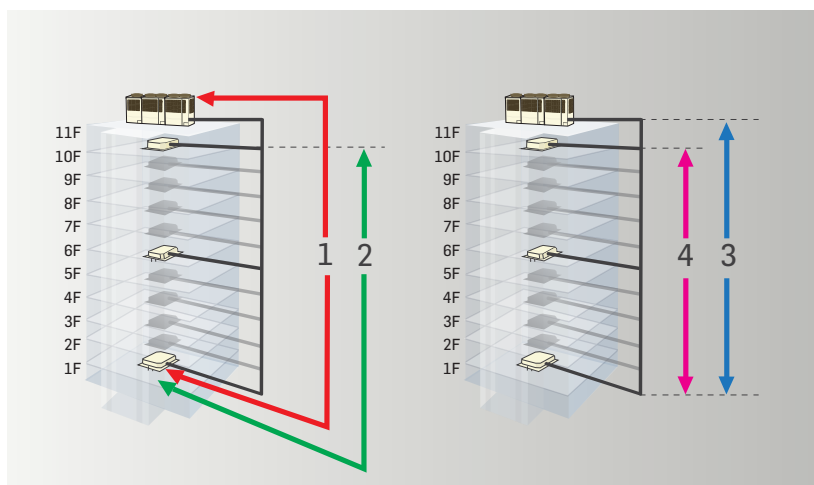
Another industry's top class is a maximum vertical distance between indoor units which reaches up to 40 meters, equal to an entire 11-storied building. SMMS-e's enhanced piping capabilities result in more benefits for the system design, installation flexibility, as well as the less installation cost.



**40m** Height between indoor unit

## Piping capabilities summary

Piping capability can provide more benefits for the system design, the installation flexibility, and the installation cost.



Total length	1,000m*
1. Farthest equivalent length	235m
2. Farthest pipe from 1st branch	90m**
3. Height between outdoor unit - indoor unit (outdoor unit above/below)	90m***/40m
4. Height between indoor unit - indoor unit	40m

\* : 34HP combination or more

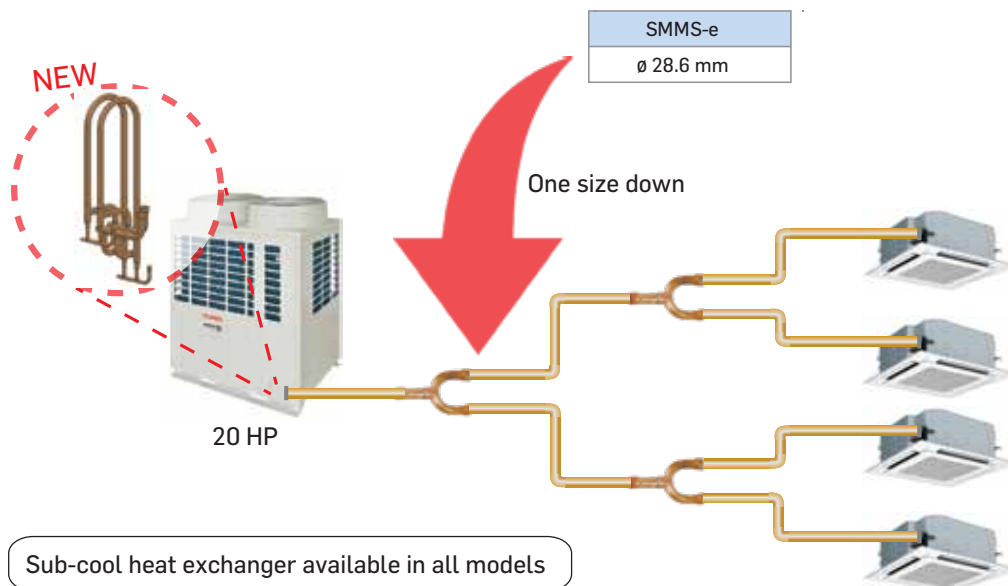
\*\* : 65m if the height piping length between outdoor unit and indoor unit is more than 3m

\*\*\* : Be sure to refer to local sales person for details of these conditions and requirements.

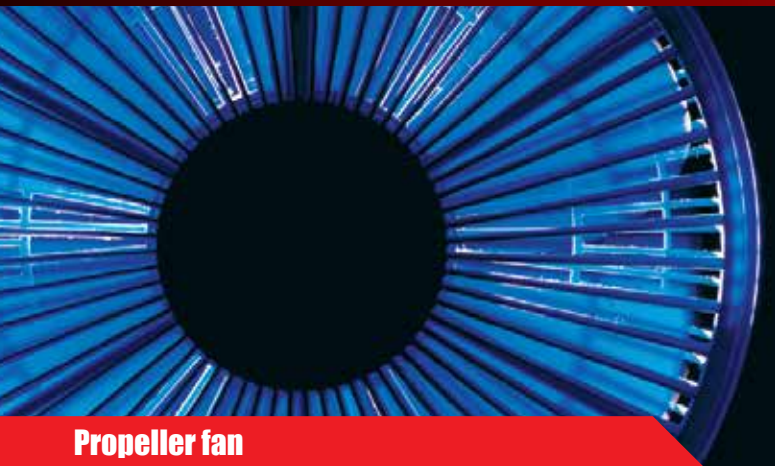
## Slimmer pipe size

### Piping saving costs

With the sub-cool heat exchanger less refrigerant is needed therefore now it is possible to use smaller pipes and save in installation costs.









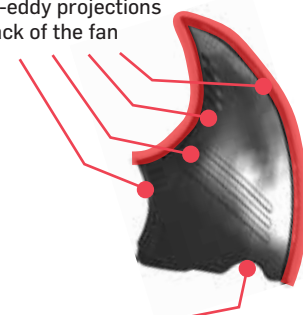


**Propeller fan**

## New advanced blade shapes for a better air flow management

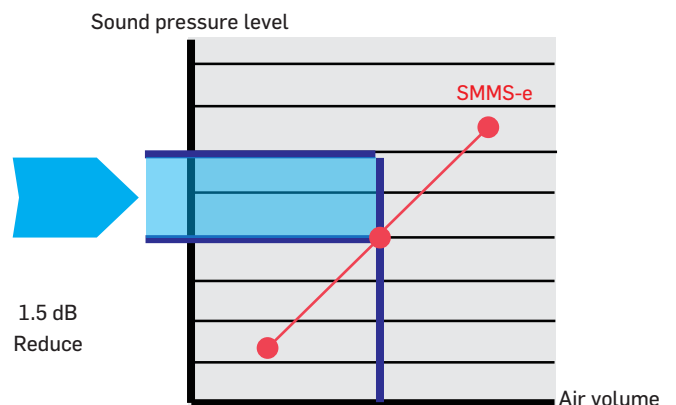
Every single blade is designed with a unique profile, a solution that guarantees a smoother air flow without turbulences. The new propeller deliver the same amount of air with less sound pressure level.



Each blade has a unique profile	Design improvements
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>A</p>  </div> <div style="text-align: center;"> <p>B</p>  </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <p>C</p>  </div> <div style="text-align: center;"> <p>D</p>  </div> </div>	<p>New anti-eddy projections on the back of the fan</p>  <p>New profiles of the reverse-arc shaped wings</p>

## More quiet in comparison with the previous fan

In the same working condition the new design of the propeller ensure a reduction of 1.5 dB compared to the previous models.





**Connectable no. of indoor unit**

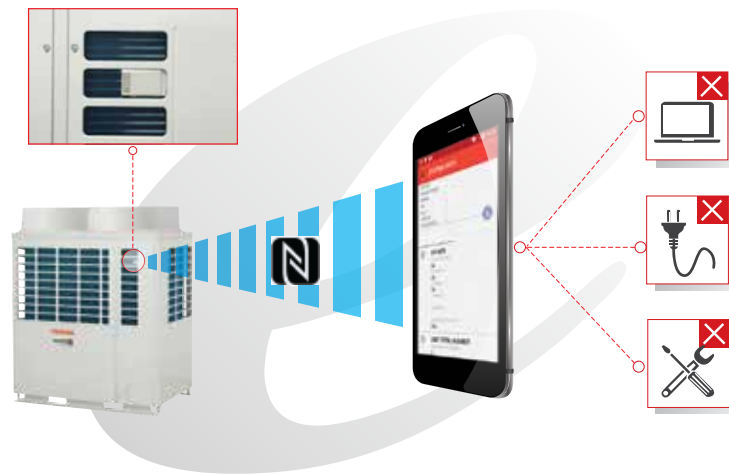
**Indoor line-up**

Type	kW HP	Cooling capacity																
		1.7 0.6	2.2 0.8	2.8 1.0	3.6 1.25	4.5 1.7	5.6 2.0	7.1 2.5	8.0 3.0	9.0 3.2	11.2 4.0	14.0 5.0	16.0 6.0	22.4 8.0	28.0 10.0	33.5 12.0	40.0 14.3	
4-way cassette type																		
Compact 4-way cassette type 620 x 620																		
2-way cassette type																		
1-way cassette type																		
Standard duct type																		
High static pressure type																		
Slim duct type																		
Ceiling type																		
Hi wall type - upto 10kw																		
Floor standing type																		
Fresh air intake indoor unit type																		
Console type																		
Floor standing cabinet type																		
Floor standing concealed console type																		



## SMMSe wave tool

With SMMSe wave Tool, you can read and write data from outdoor unit directly on your smart phone without the needs of connecting PC or opening cabinet.



By the new smart phone application, the testing and commissioning can be done without opening the cabinet.



\*For smartphone's specification refer technical manual.

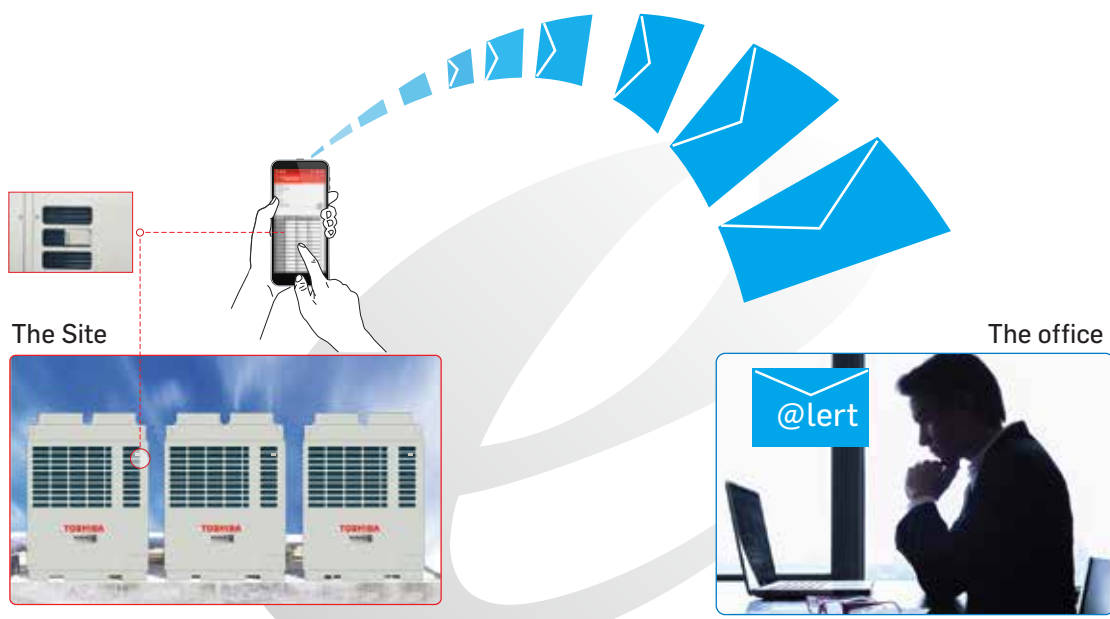
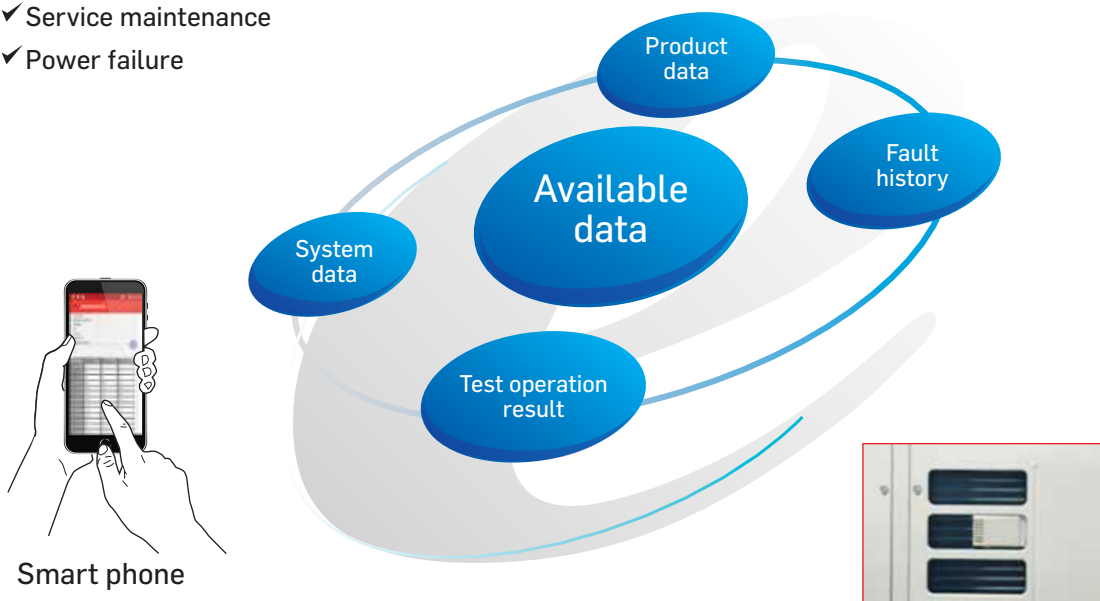


## Available data

Whether the product data, system data, fault history or testing and commissioning, all can be obtained easily even in case of under service maintenance or power failure. The data can be easily sent to the distant office via email. Possible to receive system data by e-mail without moving from your office and the operation conditions can be checked in the office.




In case of below situation





- ✓ Installation
- ✓ Service maintenance
- ✓ Power failure







## Outdoor units

### Standard model

								
Capacity		8HP	10HP	12HP	14HP	16HP	18HP	20HP
Model Name (MMY-)	50 Hz	MAP0806HT8P-ME	MAP1006HT8P-ME	MAP1206HT8P-ME	MAP1406HT8P-ME	MAP1606HT8P-ME	MAP1806HT8P-ME	MAP2006HT8P-ME
Cooling capacity*	(kW)	22.4	28.0	33.5	40.0	45.0	50.4	56.0
Cooling capacity*	(kW)	20.3	25.2	26.8	32.5	36.0	42.8	44.8
Heating capacity	(kW)	25.0	31.5	37.5	45.0	50.0	56.0	63.0
No's of connectable Indoor units		13	16	20	23	27	30	33

									
Capacity		22HP	24HP	26HP	28HP	30HP	32HP	34HP	
Model Name (MMY-)	50 Hz	AP2216HT8P-ME	AP2416HT8P-ME	AP2616HT8P-ME	AP2816HT8P-ME	AP3016HT8P-ME	AP3216HT8P-ME	AP3416HT8P-ME	
Units in combination (MMY-MAP)		1206HT8P-ME 1006HT8P-ME	1206HT8P-ME 1206HT8P-ME	1406HT8P-ME 1206HT8P-ME	1406HT8P-ME 1406HT8P-ME	1606HT8P-ME 1406HT8P-ME	1606HT8P-ME 1606HT8P-ME	1806HT8P-ME 1606HT8P-ME	
Cooling capacity*	(kW)	61.5	67.0	73.5	80.0	85.0	90.0	95.4	
Cooling capacity*	(kW)	52.0	53.6	59.3	65.0	68.5	72.0	78.8	
Heating capacity	(kW)	69.0	75.0	82.5	90.0	95.0	100.0	106.0	
No's of connectable Indoor units		37	40	43	47	50	54	57	

									
Capacity		36HP	38HP	40HP	42HP	44HP	46HP	48HP	
Model Name (MMY-)	50 Hz	AP3616HT8P-ME	AP3816HT8P-ME	AP4016HT8P-ME	AP4216HT8P-ME	AP4416HT8P-ME	AP4616HT8P-ME	AP4816HT8P-ME	
Units in combination (MMY-MAP)		1806HT8P-ME 1806HT8P-ME	2006HT8P-ME 1806HT8P-ME	2006HT8P-ME 2006HT8P-ME	1406HT8P-ME 1406HT8P-ME 1406HT8P-ME	1606HT8P-ME 1406HT8P-ME 1406HT8P-ME	1606HT8P-ME 1606HT8P-ME 1406HT8P-ME	1606HT8P-ME 1606HT8P-ME 1606HT8P-ME	
Cooling capacity*	(kW)	100.8	106.4	112.0	120.0	125.0	130.0	135.0	
Cooling capacity*	(kW)	85.6	87.6	89.6	97.5	101.0	104.5	108.0	
Heating capacity	(kW)	112.0	119.0	126.0	135.0	140.0	145.0	150.0	
No's of connectable Indoor units		60	64	64	64	64	64	64	

					
Capacity		50HP	52HP	54HP	56HP
Model Name (MMY-)	50 Hz	AP5016HT8P-ME	AP5216HT8P-ME	AP5416HT8P-ME	AP5616HT8P-ME
Units in combination (MMY-MAP)		1806HT8P-ME 1606HT8P-ME 1606HT8P-ME	1806HT8P-ME 1806HT8P-ME 1606HT8P-ME	2006HT8P-ME 2006HT8P-ME 1406HT8P-ME	2006HT8P-ME 2006HT8P-ME 1606HT8P-ME
Cooling capacity*	(kW)	140.4	145.8	152.0	157.0
Cooling capacity*	(kW)	114.8	121.6	122.1	125.6
Heating capacity	(kW)	156.0	162.0	171.0	176.0
No's of connectable Indoor units		64	64	64	64

\* Power: 3-phase 50 Hz 400V (380 - 415V)

\* The source voltage must not fluctuate more than 10%.

\* Rated conditions

\* Cooling: Indoor air temperature 26.7°C DB/19.4°C WB, outdoor air temperature 35°C DB (AHRI 1230 standard)

\* Cooling: Indoor air temperature 29°C DB/19°C WB, outdoor air temperature 46°C DB (ISO 15042 standard)

Heating: Indoor air temperature 20°C DB, outdoor air temperature 7°C DB/6°C WB

## High efficiency model

Capacity	16HP	18HP	20HP	30HP
Model Name (MMY-) 50 Hz	AP1626HT8P-ME	AP1826HT8P-ME	AP2026HT8P-ME	AP3026HT8P-ME
Units in combination (MMY-)	MAP0806HT8P-ME MAP0806HT8P-ME	MAP1006HT8P-ME MAP0806HT8P-ME	MAP1006HT8P-ME MAP1006HT8P-ME	MAP1006HT8P-ME MAP1006HT8P-ME MAP1006HT8P-ME
Cooling capacity* (kW)	44.8	50.4	56.0	84.0
Cooling capacity* (kW)	40.6	45.5	50.4	75.6
Heating capacity (kW)	50.0	56.5	63.0	94.5
No's of connectable Indoor units	27	30	33	50

Capacity	32HP	34HP	38HP	40HP
Model Name (MMY-) 50 Hz	AP3226HT8P-ME	AP3426HT8P-ME	AP3826HT8P-ME	AP4026HT8P-ME
Units in combination (MMY-)	MAP1206HT8P-ME MAP1006HT8P-ME MAP1006HT8P-ME	MAP1206HT8P-ME MAP1206HT8P-ME MAP1006HT8P-ME	MAP1406HT8P-ME MAP1206HT8P-ME MAP1206HT8P-ME	MAP1406HT8P-ME MAP1406HT8P-ME MAP1206HT8P-ME
Cooling capacity* (kW)	89.5	95.0	107.0	113.5
Cooling capacity* (kW)	77.2	78.8	86.1	91.8
Heating capacity (kW)	100.5	106.5	120.0	127.5
No's of connectable Indoor units	54	57	64	64

	Y-shape branching joint				Branch headers				Outdoor unit connection piping kit	
Appearance										
Model name	RBM - BY55E	RBM - BY105E	RBM - BY205E	RBM - BY305E	RBM - HY1043E	RBM - HY2043E	RBM - HY1083E	RBM - HY2083E	RBM-BT14E	RBM-BT24E
Usage (Classification according to indoor unit capacity code)	Total below 6.4	Total 6.4 or more and below 14.2	Total 14.2 or more and below 25.2	Total 25.2 or more	Max.4 branches		Max.8 branches		Total below 26.0	Total 26.0 or more
					Total below 14.2	Total 14.2 or more and below 25.2	Total below 14.2	Total 14.2 or more and below 25.2		

\* Power: 3-phase 50 Hz 400V (380 - 415V)

\* The source voltage must not fluctuate more than 10%.

\* Rated conditions

\* Cooling: Indoor air temperature 26.7°C DB/19.4°C WB, outdoor air temperature 35°C DB (AHRI 1230 standard)

\* Cooling: Indoor air temperature 29°C DB/19°C WB, outdoor air temperature 46°C DB (ISO 15042 standard)

Heating: Indoor air temperature 20°C DB, outdoor air temperature 7°C DB/6°C WB



## Outdoor unit specifications

### Standard model (Single unit)

### Technical specifications

Equivalent HP				8HP	10HP	12HP
Model name	Heat Pump	50Hz	(MMY-)	MAP0806HT8P-ME	MAP1006HT8P-ME	MAP1206HT8P-ME
Outdoor unit type				Inverter		
Power supply (*1)				3phase 4wires 50Hz 400V (380-415V)		
Cooling (*)	Capacity 100%		(kW)	22.4	28.0	33.5
	Power consumption		(kW)	4.84	6.28	8.24
	EER (Energy efficiency ratio)			4.63	4.46	4.07
Cooling (**)	Capacity 100%		(kW)	20.3	25.2	26.8
	Power consumption		(kW)	6.54	8.75	8.98
	EER (Energy efficiency ratio)			3.10	2.88	2.98
Heating (*2)	Capacity 100%		(kW)	25.0	31.5	37.5
	Power consumption		(kW)	5.38	7.08	9.24
	COP (Coefficient of performance)			4.65	4.45	4.06
Starting Current				Soft Start		
External dimensions (Height / Width / Depth)				(mm) 1,800 / 990 / 780		
Total weight	Heat Pump		(kg)	242	242	242
Compressor	Quantity		(nos)	2	2	2
Fan unit	Air volume		(m / h)	9,700	9,700	12,200
Refrigerant R410A (Charged refrigerant amount)				(kg) 11.5		
Refrigerant piping	Main pipe diameter	Gas side	(mm)	Φ19.1	Φ22.2	Φ28.6
		Liquid side	(mm)	Φ12.7	Φ12.7	Φ12.7
		Balance pipe	(mm)	Φ9.5	Φ9.5	Φ9.5
Sound pressure level (Cooling/Heating)				(dB(A)) 55 / 56		
Sound power level (Cooling/Heating)				(dB(A)) 74 / 74		
Connectable indoor units				(nos) 13		

### Standard model (Single unit)

### Technical specifications

Equivalent HP				14HP	16HP	18HP	20HP
Model name	Heat Pump	50Hz	(MMY-)	MAP1406HT8P-ME	MAP1606HT8P-ME	MAP1806HT8P-ME	MAP2006HT8P-ME
Outdoor unit type				Inverter			
Power supply (*1)				3phase 4wires 50Hz 400V (380-415V)			
Cooling (*)	Capacity 100%		(kW)	40.0	45.0	50.4	56.0
	Power consumption		(kW)	9.9	12.1	12.3	15.5
	EER (Energy efficiency ratio)			4.04	3.72	4.1	3.61
Cooling (**)	Capacity 100%		(kW)	32.5	36.0	42.8	44.8
	Power consumption		(kW)	11.6	12.5	14.2	14.9
	EER (Energy efficiency ratio)			2.8	2.88	3.01	3.01
Heating (*2)	Capacity 100%		(kW)	45.0	50.0	56.0	63.0
	Power consumption		(kW)	10.6	12.50	13.6	16.5
	COP (Coefficient of performance)			4.25	4.00	4.12	3.82
Starting Current				Soft Start			
External dimensions (Height / Width / Depth)				(mm) 1,800 / 1,210 / 780			
Total weight	Heat Pump		(kg)	299	299	370	370
Compressor	Quantity		(nos)	2	2	2	2
Fan unit	Air volume		(m / h)	12,200	12,600	17,300	17,900
Refrigerant R410A (Charged refrigerant amount)				(kg) 11.5			
Refrigerant piping	Main pipe diameter	Gas side	(mm)	Φ28.6	Φ28.6	Φ28.6	Φ28.6
		Liquid side	(mm)	Φ15.9	Φ15.9	Φ15.9	Φ15.9
		Balance pipe	(mm)	Φ9.5	Φ9.5	Φ9.5	Φ9.5
Sound pressure level (Cooling/Heating)				(dB(A)) 60 / 62			
Sound power level (Cooling/Heating)				(dB(A)) 80 / 82			
Connectable indoor units				(nos) 23			

Protective devices: Discharge temp. sensor / Suction temp. sensor / High-pressure sensor Low-pressure sensor / High-pressure switch / PC board fuse

\*1 The source voltage must not fluctuate more than 10%.

\* Indoor temperature: 26.7°C DB/19.4°CWB, outdoor temperature: 35°C DB (AHRI 1230 standard).

\*\* Indoor temperature: 29°C DB/19°CWB, outdoor temperature: 46°C DB (ISO 15042 standard).

\*2 Heating : Indoor air temperature 20°C DB, Outdoor air temperature 7°C DB/6°C WB

## Outdoor unit specifications

Standard model (Combination)				Technical specifications						
Equivalent HP				22HP		24HP		26HP		
Model name	Heat Pump	50Hz	(MMY-)	AP2216HT8P-ME		MAP2416HT8P-ME		MAP2616HT8P-ME		
Outdoor unit type				Inverter						
Power supply (*1)				3phase 4wires 50Hz 400V (380-415V)						
Outdoor unit model	Heat Pump	50Hz	(MMY-)	MAP1206HT8P-ME	MAP1006HT8P-ME	MAP1206HT8P-ME	MAP1206HT8P-ME	MAP1406HT8P-ME	MAP1206HT8P-ME	
Cooling (*)	Capacity 100%		(kW)	61.5		67.0		73.5		
	Power consumption		(kW)	14.52		16.48		18.14		
	EER (Energy efficiency ratio)			4.27		4.07		4.06		
Cooling (**)	Capacity 100%		(kW)	52.0		53.6		59.3		
	Power consumption		(kW)	17.73		17.96		20.58		
	EER (Energy efficiency ratio)			2.93		2.98		2.89		
Heating (*2)	Capacity 100%		(kW)	69.0		75.0		82.5		
	Power consumption		(kW)	16.3		18.5		19.8		
	COP (Coefficient of performance)			4.23		4.06		4.16		
Starting current				(A) Soft start						
Total weight	Heat Pump		(kg)	242	242	242	242	299	242	
Compressor	Quantity		(nos)	2	2	2	2	2	2	
Fan unit	Air volume		(m /h)	12,200	9,700	12,200	12,200	12,200	12,200	
Refrigerant R410A (Charged refrigerant amount)				(kg)	11.5	11.5	11.5	11.5	11.5	
Refrigerant piping	Main pipe diameter	Gas side	(mm)	Φ28.6		Φ34.9		Φ34.9		
		Liquid side	(mm)	Φ19.1		Φ19.1		Φ19.1		
		Balance pipe	(mm)	Φ9.5		Φ9.5		Φ9.5		
Sound pressure level (Cooling/Heating)				(dB(A))	61.5/63		62/64		62.5/64.5	
Sound power level (Cooling/Heating)				(dB(A))	81/83		83/85		83/85	
Connectable indoor units				(nos)	37		40		43	

Standard model (Combination)				Technical specifications						
Equivalent HP				28HP		30HP		32HP		
Model name	Heat Pump	50Hz	(MMY-)	AP2816HT8P-ME		AP3016HT8P-ME		AP3216HT8P-ME		
Outdoor unit type				Inverter						
Power supply (*1)				3phase 4wires 50Hz 400V (380-415V)						
Outdoor unit model	Heat Pump	50Hz	(MMY-)	MAP1406HT8P-ME	MAP1406HT8P-ME	MAP1606HT8P-ME	MAP1406HT8P-ME	MAP1606HT8P-ME	MAP1606HT8P-ME	
Cooling (*)	Capacity 100%		(kW)	80.0		85.0		90.0		
	Power consumption		(kW)	19.8		22.0		24.2		
	EER (Energy efficiency ratio)			4.04		3.88		3.72		
Cooling (**)	Capacity 100%		(kW)	65.0		68.50		72.0		
	Power consumption		(kW)	23.2		24.1		25.0		
	EER (Energy efficiency ratio)			2.8		2.84		2.88		
Heating (*2)	Capacity 100%		(kW)	90.0		95.0		100.0		
	Power consumption		(kW)	21.2		23.1		25.0		
	COP (Coefficient of performance)			4.25		4.11		4.00		
Starting current				(A) Soft start						
Total weight	Heat Pump		(kg)	299	299	299	299	299	299	
Compressor	Quantity		(nos)	2	2	2	2	2	2	
Fan unit	Air volume		(m /h)	12,200	12,200	12,600	12,200	12,600	12,600	
Refrigerant R410A (Charged refrigerant amount)				(kg)	11.5	11.5	11.5	11.5	11.5	
Refrigerant piping	Main pipe diameter	Gas side	(mm)	Φ34.9		Φ34.9		Φ34.9		
		Liquid side	(mm)	Φ19.1		Φ19.1		Φ19.1		
		Balance pipe	(mm)	Φ9.5		Φ9.5		Φ9.5		
Sound pressure level (Cooling/Heating)				(dB(A))	63/65		64.5/66.5		65/67	
Sound power level (Cooling/Heating)				(dB(A))	83/85		83.5/85.5		84/86	
Connectable indoor units				(nos)	47		50		54	

Protective devices: Discharge temp. sensor / Suction temp. sensor / High-pressure sensor Low-pressure sensor / High-pressure switch / PC board fuse

\*1 The source voltage must not flucture more than 10%.

\* Indoor temperature: 26.7°C DB/19.4°CWB, outdoor temperature: 35°C DB (AHRI 1230 standard).

\*\* Indoor temperature: 29°C DB/19°CWB, outdoor temperature: 46°C DB (ISO 15042 standard).

\*2 Heating : Indoor air temperature 20°C DB, Outdoor air temperature 7°C DB/6°C WB

## Outdoor unit specifications

Standard model (Combination)				Technical specifications						
Equivalent HP				34HP		36HP		38HP		
Model name	Heat Pump	50Hz	(MMY-)	AP3416HT8P-ME		AP3616HT8P-ME		AP3816HT8P-ME		
Outdoor unit type				Inverter						
Power supply (*1)				3phase 4wires 50Hz 400V (380-415V)						
Outdoor unit model	Heat Pump	50Hz	(MMY-)	MAP1806HT8P-ME	MAP1606HT8P-ME	MAP1806HT8P-ME	MAP1806HT8P-ME	MAP2006HT8P-ME	MAP1806HT8P-ME	
Cooling (*)	Capacity 100%		(kW)	95.4		100.8		106.4		
	Power consumption		(kW)	24.4		24.6		27.8		
	EER (Energy efficiency ratio)			3.91		4.1		3.86		
Cooling (**)	Capacity 100%		(kW)	78.8		85.6		87.6		
	Power consumption		(kW)	26.7		28.4		29.1		
	EER (Energy efficiency ratio)			2.95		3.01		3.01		
Heating (*2)	Capacity 100%		(kW)	106.0		112.0		119.0		
	Power consumption		(kW)	26.1		27.2		30.1		
	COP (Coefficient of performance)			4.06		4.12		3.95		
Starting current				(A) Soft start						
Total weight	Heat Pump		(kg)	370	299	370	370	370	370	
Compressor	Quantity		(nos)	2	2	2	2	2	2	
Fan unit	Air volume		(m /h)	17,300	12,600	17,300	17,300	17,900	17,300	
Refrigerant R410A (Charged refrigerant amount)				(kg)	11.5	11.5	11.5	11.5	11.5	11.5
Refrigerant piping	Main pipe diameter	Gas side	(mm)	Φ34.9		Φ41.3		Φ41.3		
		Liquid side	(mm)	Φ19.1		Φ22.2		Φ22.2		
		Balance pipe	(mm)	Φ9.5		Φ9.5		Φ9.5		
Sound pressure level (Cooling/Heating)				(dB(A))	64.5/66		63/64		63.5/64.5	
Sound power level (Cooling/Heating)				(dB(A))	84/86		84/86		84.5/86.5	
Connectable indoor units				(nos)	57		60		64	

Standard model (Combination)				Technical specifications						
Equivalent HP				40HP		42HP		44HP		
Model name	Heat Pump	50Hz	(MMY-)	AP4016HT8P-ME		AP4216HT8P-ME		AP4416HT8P-ME		
Outdoor unit type				Inverter						
Power supply (*1)				3phase 4wires 50Hz 400V (380-415V)						
Outdoor unit model	Heat Pump	50Hz	(MMY-)	MAP2006HT8P-ME	MAP2006HT8P-ME	MAP1406HT8P-ME	MAP1406HT8P-ME	MAP1406HT8P-ME	MAP1406HT8P-ME	
Cooling (*)	Capacity 100%		(kW)	112.0		120.0		125.0		
	Power consumption		(kW)	31.0		29.7		31.9		
	EER (Energy efficiency ratio)			3.61		4.04		3.93		
Cooling (**)	Capacity 100%		(kW)	89.6		97.5		101.0		
	Power consumption		(kW)	29.8		34.8		35.7		
	EER (Energy efficiency ratio)			3.01		2.8		2.83		
Heating (*2)	Capacity 100%		(kW)	126.0		135.0		140.0		
	Power consumption		(kW)	33.0		31.8		33.7		
	COP (Coefficient of performance)			3.82		4.25		4.15		
Starting current				(A) Soft start						
Total weight	Heat Pump		(kg)	370	370	299	299	299	299	
Compressor	Quantity		(nos)	2	2	2	2	2	2	
Fan unit	Air volume		(m /h)	17,900	17,900	12,200	12,200	12,200	12,200	
Refrigerant R410A (Charged refrigerant amount)				(kg)	11.5	11.5	11.5	11.5	11.5	11.5
Refrigerant piping	Main pipe diameter	Gas side	(mm)	Φ41.3		Φ41.3		Φ41.3		
		Liquid side	(mm)	Φ22.2		Φ22.2		Φ22.2		
		Balance pipe	(mm)	Φ9.5		Φ9.5		Φ9.5		
Sound pressure level (Cooling/Heating)				(dB(A))	64.0/65.0		65/67		66.5/67.5	
Sound power level (Cooling/Heating)				(dB(A))	85/87		85/87		85.5/87.5	
Connectable indoor units				(nos)	64		64		64	

Protective devices: Discharge temp. sensor / Suction temp. sensor / High-pressure sensor Low-pressure sensor / High-pressure switch / PC board fuse

\*1 The source voltage must not flucture more than 10%.

\* Indoor temperature: 26.7°C DB/19.4°CWB, outdoor temperature: 35°C DB (AHRI 1230 standard).

\*\* Indoor temperature: 29°C DB/19°CWB, outdoor temperature: 46°C DB (ISO 15042 standard).

\*2 Heating : Indoor air temperature 20°C DB, Outdoor air temperature 7°C DB/6°C WB



## Outdoor unit specifications

Standard model (Combination)				Technical specifications								
Equivalent HP				46HP			48HP			50HP		
Model name	Heat Pump	50Hz	(MMY-)	AP4616HT8P-ME			AP4816HT8P-ME			AP5016HT8P-ME		
Outdoor unit type				Inverter								
Power supply (*1)				3phase 4wires 50Hz 400V (380-415V)								
Outdoor unit model	Heat Pump	50Hz	(MMY-)	MAP1606HT8P-ME	MAP1606HT8P-ME	MAP1406HT8P-ME	MAP1606HT8P-ME	MAP1606HT8P-ME	MAP1606HT8P-ME	MAP1806HT8P-ME	MAP1606HT8P-ME	MAP1606HT8P-ME
Cooling (*)	Capacity 100%		(kW)	130.0			135.0			140.4		
	Power consumption		(kW)	34.1			36.3			36.5		
	EER (Energy efficiency ratio)			3.83			3.72			3.85		
Cooling (**)	Capacity 100%		(kW)	104.5			108.0			114.8		
	Power consumption		(kW)	36.6			37.5			39.2		
	EER (Energy efficiency ratio)			2.85			2.88			2.92		
Heating (*2)	Capacity 100%		(kW)	145.0			150.0			156.0		
	Power consumption		(kW)	35.6			37.5			38.6		
	COP (Coefficient of performance)			4.07			4.00			4.04		
Starting current			(A)	Soft start								
Total weight	Heat Pump		(kg)	299	299	299	299	299	299	370	299	299
Compressor	Quantity		(nos)	2	2	2	2	2	2	2	2	2
Fan unit	Air volume		(m /h)	12,600	12,600	12,200	12,600	12,600	12,200	17,300	12,600	12,600
Refrigerant R410A (Charged refrigerant amount)			(kg)	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
Refrigerant piping	Main pipe diameter	Gas side	(mm)	Φ41.3			Φ41.3			Φ41.3		
		Liquid side	(mm)	Φ22.2			Φ22.2			Φ22.2		
		Balance pipe	(mm)	Φ9.5			Φ9.5			Φ9.5		
Sound pressure level (Cooling/Heating)			(dB(A))	66.5/68.5			67/69			66.5/68		
Sound power level (Cooling/Heating)			(dB(A))	85.5/87.5			86/88			86/88		
Connectable indoor units			(nos)	64			64			64		

Standard model (Combination)				Technical specifications								
Equivalent HP				52HP			54HP			56HP		
Model name	Heat Pump	50Hz	(MMY-)	AP5216HT8P-ME			AP5416HT8P-ME			AP5616HT8P-ME		
Outdoor unit type				Inverter								
Power supply (*1)				3phase 4wires 50Hz 400V (380-415V)								
Outdoor unit model	Heat Pump	50Hz	(MMY-)	MAP1806HT8P-ME	MAP186HT8P-ME	MAP1606HT8P-ME	MAP2006HT8P-ME	MAP2006HT8P-ME	MAP1406HT8P-ME	MAP2006HT8P-ME	MAP2006HT8P-ME	MAP1606HT8P-ME
Cooling (*)	Capacity 100%		(kW)	145.8			152.0			157.0		
	Power consumption		(kW)	36.7			40.9			43.1		
	EER (Energy efficiency ratio)			3.22			3.75			3.65		
Cooling (**)	Capacity 100%		(kW)	121.6			122.1			125.6		
	Power consumption		(kW)	40.9			41.4			42.3		
	EER (Energy efficiency ratio)			2.4			2.94			2.97		
Heating (*2)	Capacity 100%		(kW)	162.0			171.0			176.0		
	Power consumption		(kW)	39.7			43.6			45.5		
	COP (Coefficient of performance)			4.08			3.92			3.87		
Starting current			(A)	Soft start								
Total weight	Heat Pump		(kg)	370	370	299	370	370	299	370	370	299
Compressor	Quantity		(nos)	2	2	2	2	2	2	2	2	2
Fan unit	Air volume		(m /h)	17,300	17,300	12,600	17,900	17,900	12,200	17,900	17,900	12,600
Refrigerant R410A (Charged refrigerant amount)			(kg)	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
Refrigerant piping	Main pipe diameter	Gas side	(mm)	Φ41.3			Φ41.3			Φ41.3		
		Liquid side	(mm)	Φ22.2			Φ22.2			Φ22.2		
		Balance pipe	(mm)	Φ9.5			Φ9.5			Φ9.5		
Sound pressure level (Cooling/Heating)			(dB(A))	65.5/67			65.5/67			66.5/67.5		
Sound power level (Cooling/Heating)			(dB(A))	86/88			86.5/88.5			86.5/88.5		
Connectable indoor units			(nos)	64			64			64		

Protective devices: Discharge temp. sensor / Suction temp. sensor / High-pressure sensor Low-pressure sensor / High-pressure switch / PC board fuse

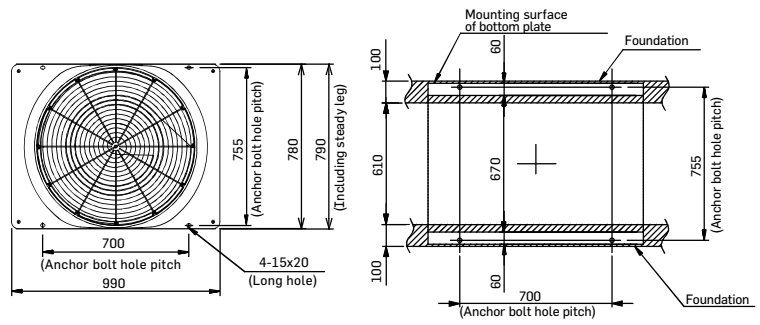
\*1 The source voltage must not flucture more than 10%.

\* Indoor temperature: 26.7°C DB/19.4°CWB, outdoor temperature: 35°C DB (AHRI 1230 standard).

\*\* Indoor temperature: 29°C DB/19°CWB, outdoor temperature: 46°C DB (ISO 15042 standard).

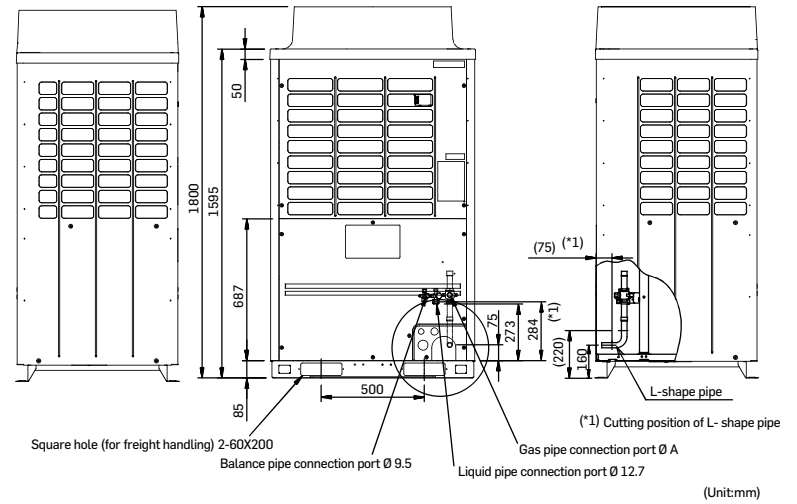
\*2 Heating : Indoor air temperature 20°C DB, Outdoor air temperature 7°C DB/6°C WB

Model: MMY-MAP0806HT8P-ME  
 MMY-MAP1006HT8P-ME  
 MMY-MAP1206HT8P-ME



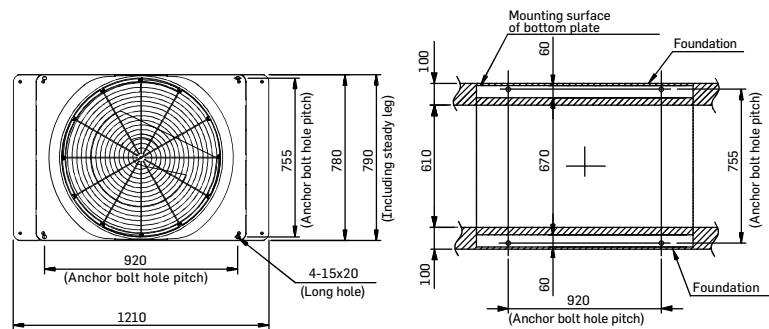
**Note:**

1. If there is an obstacle at the upper side of the outdoor unit, set the top end of the outdoor unit 2000mm apart from the obstacle.
2. Limit the height of the obstacle surrounding the outdoor unit to 800mm or less from the bottom end of the outdoor unit.
3. Draw out the pipe procured locally to the front of the outdoor unit horizontally and keep 500mm or more between the outdoor unit and traversing pipe if placing pipe transversely.
4. Dimensional drawing of corrosion heavy protection model is the same as that of standard model.



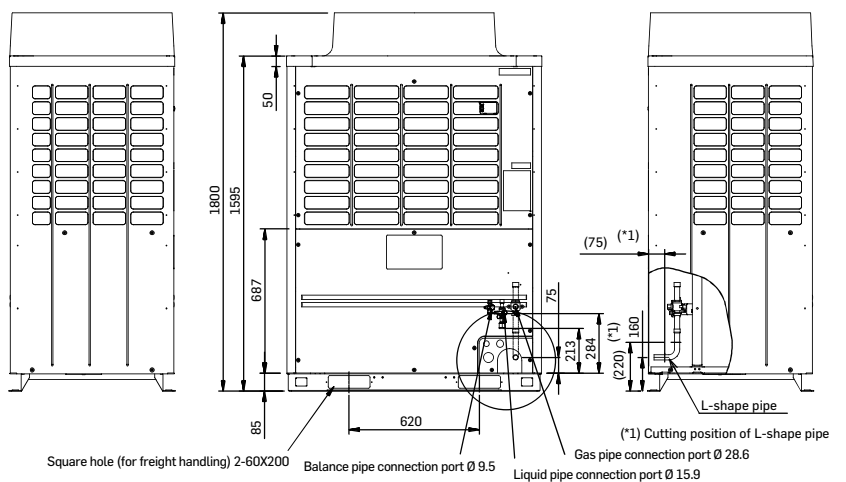
(Unit:mm)

Model: MMY-MAP1406HT8P-ME  
 MMY-MAP1606HT8P-ME



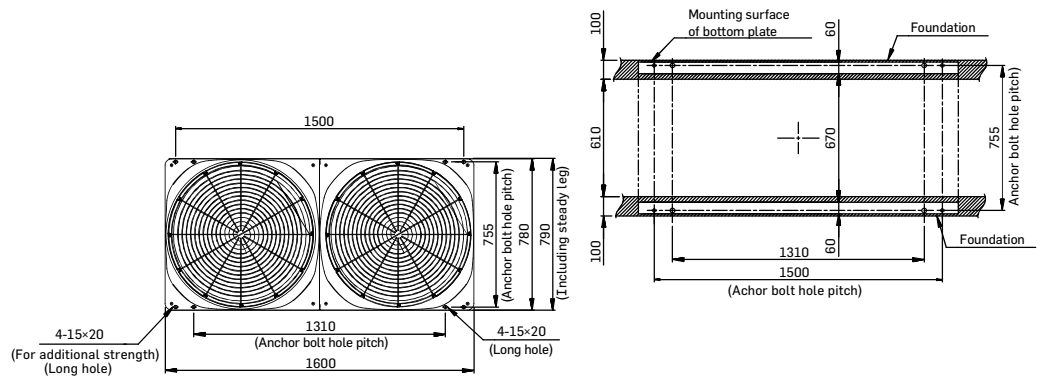
**Note:**

1. If there is an obstacle at the upper side of the outdoor unit, set the top end of the outdoor unit 2000mm apart from the obstacle.
2. Limit the height of the obstacle surrounding the outdoor unit to 800mm or less from the bottom end of the outdoor unit.
3. Draw out the pipe procured locally to the front of the outdoor unit horizontally and keep 500mm or more between the outdoor unit and traversing pipe if placing pipe transversely.
4. Dimensional drawing of corrosion heavy protection model is the same as that of standard model.



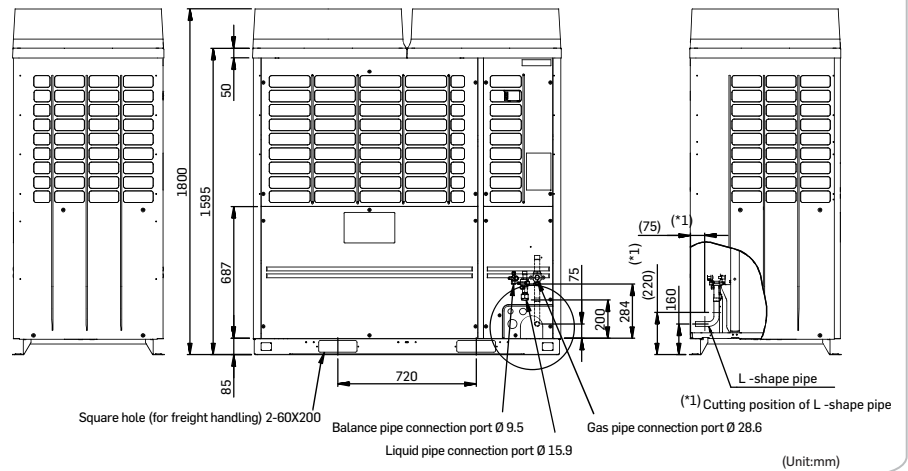
(Unit:mm)

Model: MMY-MAP1806HT8P-ME  
MMY-MAP2006HT8P-ME



**Note:**

1. If there is an obstacle at the upper side of the outdoor unit, set the top end of the outdoor unit 2000mm apart from the obstacle.
2. Limit the height of the obstacle surrounding the outdoor unit to 800mm or less from the bottom end of the outdoor unit.
3. Draw out the pipe procured locally to the front of the outdoor unit horizontally and keep 500mm or more between the outdoor unit and traversing pipe if placing pipe transversely.
4. Dimensional drawing of corrosion heavy protection model is the same as that of standard model.



(Unit:mm)





## Indoor units line-up



Cooling capacity (HP equivalent)	4-way cassette type	Compact 4-way cassette (620 x 620) type	2-way cassette type	1-way cassette type	Standard duct type
005 type 1.7 kW (0.6HP)					
007 type 2.2 kW (0.8HP)		MMU-UP0071MH-E	MMU-UP0071WH-E	MMU-UP0071YHP-E	MMD-UP0071BHP-E
009 type 2.8 kW (1.0HP)	MMU-UP0091HP-E	MMU-UP0091MH-E	MMU-UP0091WH-E	MMU-UP0091YHP-E	MMD-UP0091BHP-E
012 type 3.6 kW (1.25HP)	MMU-UP0121HP-E	MMU-UP0121MH-E	MMU-UP0121WH-E	MMU-UP0121YHP-E	MMD-UP0121BHP-E
015 type 4.5 kW (1.7HP)	MMU-UP0151HP-E	MMU-UP0151MH-E	MMU-UP0151WH-E	MMU-UP0151YHP-E	MMD-UP0151BHP-E
018 type 5.6 kW (2.0HP)	MMU-UP0181HP-E	MMU-UP0181MH-E	MMU-UP0181WH-E	MMU-UP0181YHP-E	MMD-UP0181BHP-E
024 type 7.1 kW (2.5HP)	MMU-UP0241HP-E		MMU-UP0241WH-E	MMU-UP0241YHP-E	MMD-UP0241BHP-E
027 type 8.0 kW (3.0HP)	MMU-UP0271HP-E		MMU-UP0271WH-E	MMU-UP0271YHP-E	MMD-UP0271BHP-E
030 type 9.0 kW (3.2HP)	MMU-UP0301HP-E		MMU-UP0301WH-E		MMD-UP0301BHP-E
036 type 11.2 kW (4.0HP)	MMU-UP0361HP-E		MMU-UP0361WH-E		MMD-UP0361BHP-E
048 type 14.0 kW (5.0HP)	MMU-UP0481HP-E		MMU-UP0481WH-E		MMD-UP0481BHP-E
056 type 16.0 kW (6.0HP)	MMU-UP0561HP-E		MMU-UP0561WH-E		MMD-UP0561BHP-E
072 type 22.4 kW (8.0HP)					
096 type 28.0 kW (10HP)					



Cooling capacity (HP equivalent)	High static pressure type	Slim duct type	Ceiling type	High wall type (upto 10kw)	Floor standing type
005 type 1.7 kW (0.6HP)					
007 type 2.2 kW (0.8HP)		MMD-UP0071SPHY-E		MMK-UP0071HP-E	
009 type 2.8 kW (1.0HP)		MMD-UP0091SPHY-E		MMK-UP0091HP-E	
012 type 3.6 kW (1.25HP)		MMD-UP0121SPHY-E		MMK-UP0121HP-E	
015 type 4.5 kW (1.7HP)		MMD-UP0151SPHY-E	MMC-UP0151HP-E	MMK-UP0151HP-E	MMF-UP0151H-E
018 type 5.6 kW (2.0HP)	MMD-UP0181HP-E	MMD-UP0181SPHY-E	MMC-UP0181HP-E	MMK-UP0181HP-E	MMF-UP0181H-E
024 type 7.1 kW (2.5HP)	MMD-UP0241HP-E	MMD-UP0241SPHY-E	MMC-UP0241HP-E	MMK-UP0241HP-E	MMF-UP0241H-E
027 type 8.0 kW (3.0HP)	MMD-UP0271HP-E	MMD-UP0271SPHY-E	MMC-UP0271HP-E	MMK-UP0271HP-E	MMF-UP0271H-E
030 type 9.0 kW (3.2HP)				MMK-UP0301HP-E	
036 type 11.2 kW (4.0HP)	MMD-UP0361HP-E		MMC-UP0361HP-E	MMK-UP0361HP-E (10 kw)	MMF-UP0361H-E
048 type 14.0 kW (5.0HP)	MMD-UP0481HP-E		MMC-UP0481HP-E		MMF-UP0481H-E
056 type 16.0 kW (6.0HP)	MMD-UP0561HP-E		MMC-UP0561HP-E		MMF-UP0561H-E
072 type 22.4 kW (8.0HP)	MMD-UP0721HP-E1				
096 type 28.0 kW (10HP)	MMD-UP0961HP-E1				

## Indoor units line-up

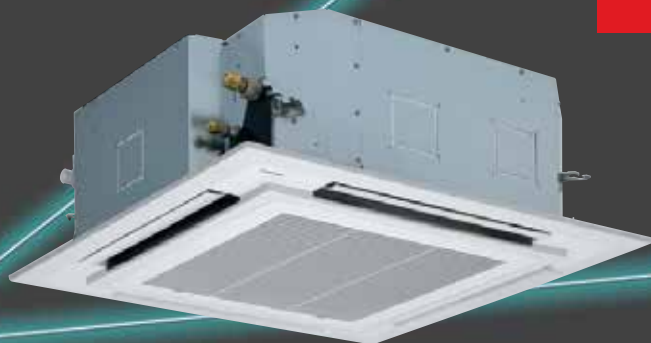


Cooling capacity (HP equivalent)	Fresh air intake indoor unit type	Console	Floor standing cabinet type	Floor standing concealed console type
005 type 1.7 kW (0.6HP)				
007 type 2.2 kW (0.8HP)		MML-UP0071NHP-E	MML-UP0071H-E	MML-UP0071BH-E
009 type 2.8 kW (1.0HP)		MML-UP0091NHP-E	MML-UP0091H-E	MML-UP0091BH-E
012 type 3.6 kW (1.25HP)		MML-UP0121NHP-E	MML-UP0121H-E	MML-UP0121BH-E
015 type 4.5 kW (1.7HP)		MML-UP0151NHP-E	MML-UP0151H-E	MML-UP0151BH-E
018 type 5.6 kW (2.0HP)		MML-UP0181NHP-E	MML-UP0181H-E	MML-UP0181BH-E
024 type 7.1 kW (2.5HP)			MML-UP0241H-E	MML-UP0241BH-E
027 type 8.0 kW (3.0HP)				
030 type 9.0 kW (3.2HP)				
036 type 11.2 kW (4.0HP)				
048 type 14.0 kW (5.0HP)	MMD-UP0481HFP-E			
056 type 16.0 kW (6.0HP)				
072 type 22.4 kW (8.0HP)	MMD-UP0721HFP-E1			
096 type 28.0 kW (10HP)	MMD-UP0961HFP-E1			
112 type 33.5 kW (12HP)				
128 type 40.0 kW (14.3HP)				



## 4-way cassette type

MMU-UP\*\*\*1HP-E



### Compact

- The 4-way cassette is designed to provide uniform air distribution and total user comfort making this unit the ideal solution for small commercial applications.

### Reliability

- Self-cleaning function and Ag-ion tip for anti-mould in drain cap.
- Built-in high-lift drain pump.

### Optional Parts

New Option Parts	Model Name
Wireless Remote controller Kit	RBC-AXU31UP-E
Occupancy Sensor Kit	TCB-SIR33UP-E
Air Purifier Kit (Includes wireless RC)	TCB-EAPC1UHP-E
PM 2.5 Filter (Before Pre-Filter type)	TCB-PLFC1UPE-120
PM 2.5 Filter (After Pre-Filter type)	TCB-PLFC2UPE-80

### Easy to install

- Compact chassis with only 256mm height (Up to size 30). Lightweight unit, for easy and quick installation.

### Comfort

- Two louver shape option: straight flow louver and wide flow louver for optimum air distribution.
- Possibility to set three different swing modes providing individual control to maximise end user comfort.
- Wide air flow in all directions.
- Optimal air diffusion up to 4.6m ceiling height!

Remote controller



RBC-AXU31UM-E



RBC-ASC11-E  
RBC-ASC11U-E



RBC-AMS55E-EN/ES  
RBC-AMSU51-EN/ES

## Technical specifications

### Performances

Indoor unit	MMU-	UP0091HP-E	UP0121HP-E	UP0151HP-E	UP0181HP-E	UP0241HP-E	UP0271HP-E	UP0301HP-E	UP0361HP-E	UP0481HP-E	UP0561HP-E
Cooling capacity	kW	2.8	3.6	4.5	5.6	7.1	8.0	9.0	11.2	14.0	16.0
Heating capacity	kW	3.2	4.0	5.0	6.3	8.0	9.0	10.0	12.5	16.0	18.0
Power consumption	kW	0.021	0.021	0.023	0.026	0.036	0.036	0.043	0.088	0.112	0.112
Running current	A	0.23	0.23	0.27	0.29	0.38	0.38	0.43	0.78	0.88	0.88
Starting current	A	0.30	0.30	0.33	0.36	0.42	0.42	0.59	0.87	1.23	1.26

### Physical Data

Indoor unit	MMU-	UP0091HP-E	UP0121HP-E	UP0151HP-E	UP0181HP-E	UP0241HP-E	UP0271HP-E	UP0301HP-E	UP0361HP-E	UP0481HP-E	UP0561HP-E
Air Flow (h/m/l)	m <sup>3</sup> /h	800/730/680	800/730/680	930/830/790	1050/920/800	1290/920/800	1290/920/800	1320/1100/850	1970/1430/1070	2130/1430/1130	2130/1520/1230
Air Flow (h/m/l)	l/s	222/203/189	222/203/189	258/231/219	292/256/222	358/256/222	358/256/222	367/306/236	547/397/297	592/397/314	592/422/342
Sound pressure level (h/m/l/l)	dB(A)	30/29/27	30/29/27	31/29/27	32/29/27	35/31/28	35/31/28	38/33/30	43/38/32	46/38/33	46/40/33
Dimensions (HxWxD)	mm	256x840x840	256x840x840	256x840x840	256x840x840	256x840x840	256x840x840	256x840x840	319x840x840	319x840x840	319x840x840
Weight	kg	18	18	20	20	20	20	25	25	25	25
Panel dimensions (HxWxD)	mm	30x950x950	30x950x950	30x950x950	30x950x950	30x950x950	30x950x950	30x950x950	30x950x950	30x950x950	30x950x950
Panel weight	kg	4	4	4	4	4	4	4	4	4	4
Connecting pipe, gas	inch/mm	3/8" φ9.52	3/8" φ9.52	1/2" φ12.7	1/2" φ12.7	5/8" φ15.9	5/8" φ15.9	5/8" φ15.9	5/8" φ15.9	5/8" φ15.9	5/8" φ15.9
Connecting pipe, liquid	inch/mm	1/4" φ6.35	1/4" φ6.35	1/4" φ6.35	1/4" φ6.35	3/8" φ9.52	3/8" φ9.52	3/8" φ9.52	3/8" φ9.52	3/8" φ9.52	3/8" φ9.52
Drain port diameter	mm	25	25	25	25	25	25	25	25	25	25
Power supply		1-phase 50Hz 230V (220-240V) / 1-phase 60Hz 220V (Separate power supply for indoor units required.)									

Note 1 : The capacities are measured under the conditions specified by JIS B 8615 based on the reference piping.

Note 2 : The sound level are measured in an anechoic chamber in accordance with JIS B 8616.

Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

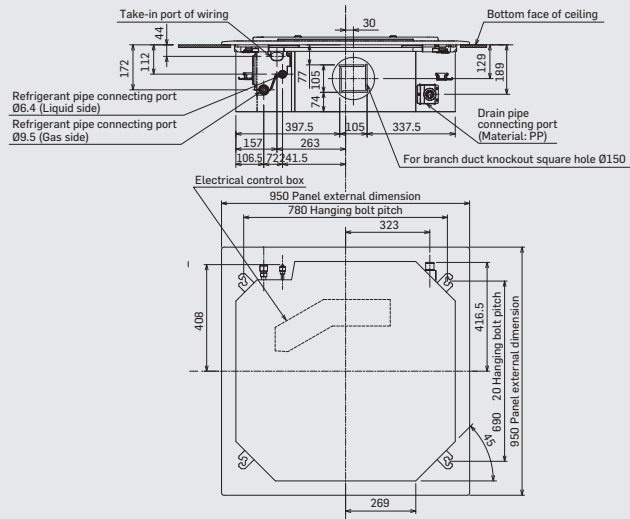
Note : Rated conditions Cooling : Indoor air temperature 27°C DB/19°C WB, Outdoor air temperature 35°C DB

Heating : Indoor air temperature 20°C DB, Outdoor air temperature 7°C DB/6°C WB

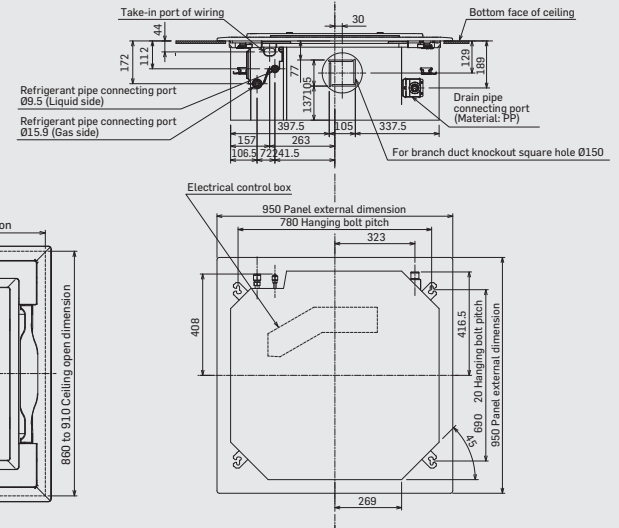


## MMU-UP0091HP-E to MMU-UP0561HP-E

MMU-UP0091HP-E to MMU-UP0301HP-E



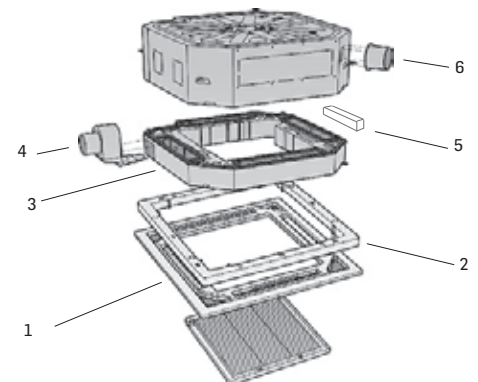
MMU-UP0361HP-E to MMU-UP0561HP-E



(Unit: mm)

## Accessories

No	Type	Model name	Qty/unit	Note
1	Ceiling Panel (Wide-flow louver)	RBC-U32PGP-E	1	White (Munsell: 2.5GY9.0/0.5)
2	Spacer for height adjustment	TCB-SP1602UE	1	50 mm
3	Fresh air chamber	TCB-GFC1602UE	1	Use with TCB-GB1602U
4	Fresh air intake box	TCB-GB1602UE	1	Connection=Dia.100 mm fresh air intake ratio: Up to 20%
5	Air discharge direction kit	TCB-BC1602UE	1	6-direction patterns
6	Auxiliary fresh air flange	TCB-FF101URE2	1	Connection=Dia.100 mm fresh air intake ratio: Up to 5%



## Compact 4-way cassette (620 × 620) type

MMU-UP\*\*\*1MH-E



### Compact

- The compact 4-way cassette has been especially designed for business office applications, where a compact and efficient solution is required.

### Design

- Smart flat-panel design with clean lines that will complement any decorative style.
- Fit within the T-bar of grid ceiling: 620mm X 620mm.

### Easy to install

- Only 256mm height, this compact chassis is perfectly suited to confined spaces.
- Built-in high-lift drain pump.
- Lightweight unit, for easy and quick installation.

### Comfort

- A user programmable 5-step flow with individual louvre swing control, plus a new “cycle-swing” harmonised louvre setting.
- The occupancy motion sensor can be configured to switch the unit into standby mode or completely switched off, when no movement is detected, minimising the energy usage of the system.

Remote controller



RBC-AXU31UM-E



RBC-ASC11-E  
RBC-ASC11U-E



RBC-AMS55E-EN/ES  
RBC-AMSU51-EN/ES

## Technical specifications

Performances							
Indoor unit	MMU-	UP0071MH-E	UP0091MH-E	UP0121MH-E	UP0151MH-E	UP0181MH-E	
Cooling capacity	kW	2.2	2.8	3.6	4.5	5.6	
Heating capacity	kW	2.5	3.2	4.0	5.0	6.3	
Power consumption	kW	0.023	0.025	0.027	0.030	0.052	
Running current	A	0.23	0.24	0.25	0.28	0.46	
Starting current	A	0.41	0.43	0.44	0.50	0.80	

Physical Data							
Indoor unit	MMU-	UP0071MH-E	UP0091MH-E	UP0121MH-E	UP0151MH-E	UP0181MH-E	
Air Flow (h/m/l)	m <sup>3</sup> /h	552/500/462/395/378	570/520/468/395/378	594/550/504/420/402	660/600/552/480/468	840/740/642/540/522	
Air Flow (h/m/l)	l/s	153/139/128/110/105	158/144/130/110/105	165/153/140/117/112	183/167/153/133/130	233/206/178/150/145	
Sound pressure level (h/m/l)	dB(A)	37/34/33/30/29	38/35/33/30/29	38/36/34/31/30	40/37/35/32/31	47/43/39/36/34	
Dimensions (HxWxD)	mm	256x575x575	256x575x575	256x575x575	256x575x575	256x575x575	
Weight	kg	15	15	15	15	15	
Panel dimensions (HxWxD)	mm	12x620x620	12x620x620	12x620x620	12x620x620	12x620x620	
Panel weight	kg	2.5	2.5	2.5	2.5	2.5	
Connecting pipe, gas	inch/mm	3/8" φ9.5	3/8" φ9.5	3/8" φ9.5	1/2" φ12.7	1/2" φ12.7	
Connecting pipe, liquid	inch/mm	1/4" φ6.4	1/4" φ6.4	1/4" φ6.4	1/4" φ6.4	1/4" φ6.4	
Drain port diameter	mm	VP20	VP20	VP20	VP20	VP20	
Power supply		1-phase 50Hz 230V (220-240V) / 1-phase 60Hz 220V (Separate power supply for indoor units required.)					

Note 1 : The capacities are measured under the conditions specified by JIS B 8615 based on the reference piping.

Note 2 : The sound level are measured in an anechoic chamber in accordance with JIS B 8616.

Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

Note : 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





## 2-way cassette type

MMU-UP\*\*\*1WH-E



### Slim and compact unit

- Slim, compact and lightweight, the 2-way cassette has been designed to fit easily and discretely into any room interior.

### Comfort

- Unique air flow control, provides a balanced flow of air in two opposite directions, maximising air flow distribution. This feature when combined with the units fresh air intake ability helps to provide a perfect solution all year round.
- Enhanced indoor air quality with standard long-life filters with a wide bended surface to effectively collect dust particles.

### Design

- The elegant white decoration panel allows the unit to be installed seamlessly into any room.

### Easy to install

- Minimal weight (19kg) for units up to 4.5kw.
- Compact dimensions (height 295mm).
- Built-in drain pump.

#### Remote controller



RBC-AXU31UW-E  
RBC-AXU31-E



RBC-ASC11-E  
RBC-ASC11U-E



RBC-AMS55E-EN/ES  
RBC-AMSU51-EN/ES

## Technical specifications

Performances												
Indoor unit	MMU-	UP0071WH-E	UP0091WH-E	UP0121WH-E	UP0151WH-E	UP0181WH-E	UP0241WH-E	UP0271WH-E	UP0301WH-E	UP0361WH-E	UP0481WH-E	UP0561WH-E
Cooling capacity	kW	2.2	2.8	3.6	4.5	5.6	7.1	8.0	9.0	11.2	14.0	16.0
Heating capacity	kW	2.5	3.2	4.0	5.0	6.3	8.0	9.0	10.0	12.5	16.0	18.0
Power consumption	kW	0.024/0.024	0.024/0.024	0.024/0.024	0.026/0.026	0.034/0.034	0.045/0.045	0.045/0.045	0.055/0.055	0.081/0.081	0.091/0.091	0.131/0.131
Running current	A	0.21/0.22	0.21/0.22	0.21/0.22	0.21/0.22	0.28/0.29	0.37/0.39	0.37/0.39	0.43/0.46	0.50/0.53	0.57/0.59	0.77/0.81
Starting current	A	0.31/0.32	0.31/0.32	0.31/0.32	0.33/0.35	0.42/0.44	0.57/0.60	0.57/0.60	0.65/0.68	0.76/0.79	0.85/0.89	1.17/1.22

Physical Data												
Indoor unit	MMU-	UP0071WH-E	UP0091WH-E	UP0121WH-E	UP0151WH-E	UP0181WH-E	UP0241WH-E	UP0271WH-E	UP0301WH-E	UP0361WH-E	UP0481WH-E	UP0561WH-E
Air Flow (h/m <sup>3</sup> /l)	m <sup>3</sup> /h	558/498/450	558/498/450	558/498/450	600/534/450	900/750/618	1050/840/738	1050/840/738	1260/900/780	1740/1434/1182	1800/1482/1230	2040/1578/1320
Air Flow (h/m <sup>3</sup> /l)	l/s	155/138/125	155/138/125	155/138/125	167/148/125	250/208/172	291/233/205	291/233/205	350/250/217	483/398/328	500/412/342	567/438/367
Sound pressure level (h/m <sup>3</sup> /l)	dB(A)	34/32/30	34/32/30	34/32/30	35/33/30	35/33/30	38/35/33	38/35/33	40/37/34	42/39/36	43/40/37	46/42/39
Dimensions (HxWxD)	mm	295x815x570	295x815x570	295x815x570	295x815x570	345x1180x570	345x1180x570	345x1180x570	345x1180x570	345x1600x570	345x1600x570	345x1600x570
Weight	kg	18	18	18	18	26	26	26	26	36	36	36
Panel dimensions (HxWxD)	mm	20x1050x680	20x1050x680	20x1050x680	20x1050x680	20x1415x680	20x1415x680	20x1415x680	20x1415x680	20x1835x680	20x1835x680	20x1835x680
Panel weight	kg	10	10	10	10	14	14	14	14	14	14	14
Connecting pipe, gas	inch/mm	3/8" φ9.5	3/8" φ9.5	3/8" φ9.5	1/2" φ12.7	1/2" φ12.7	5/8" φ15.9	5/8" φ15.9	5/8" φ15.9	5/8" φ15.9	5/8" φ15.9	5/8" φ15.9
Connecting pipe, liquid	inch/mm	1/4" φ6.4	1/4" φ6.4	1/4" φ6.4	1/4" φ6.4	1/4" φ6.4	3/8" φ9.5	3/8" φ9.5	3/8" φ9.5	3/8" φ9.5	3/8" φ9.5	3/8" φ9.5
Drain port diameter	mm	25	25	25	25	25	25	25	25	25	25	25
Power supply	1-phase 50Hz 230V (220-240V) / 1-phase 60Hz 220V (Separate power supply for indoor units required.)											

Note 1 : The capacities are measured under the conditions specified by JIS B 8615 based on the reference piping.

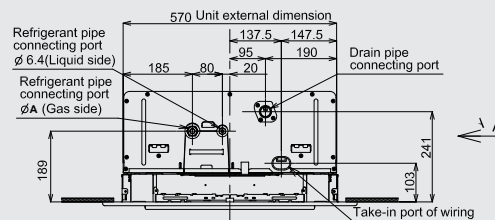
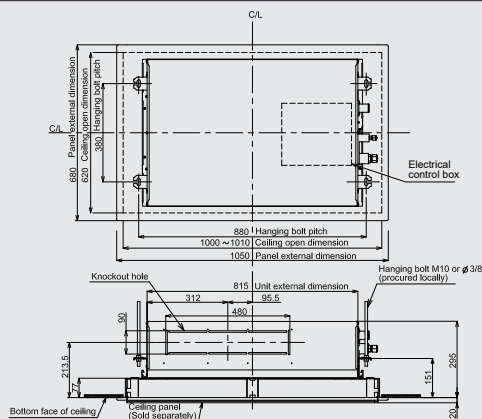
Note 2 : The sound level are measured in an anechoic chamber in accordance with JIS B 8616.

Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

Note : Rated conditions Cooling : Indoor air temperature 27°C DB/19°C WB, Outdoor air temperature 35°C DB

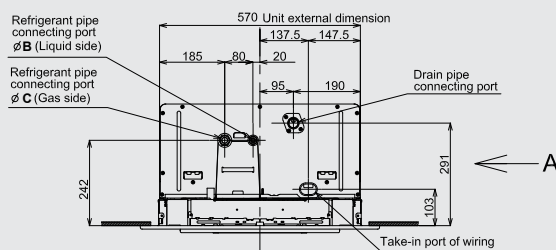
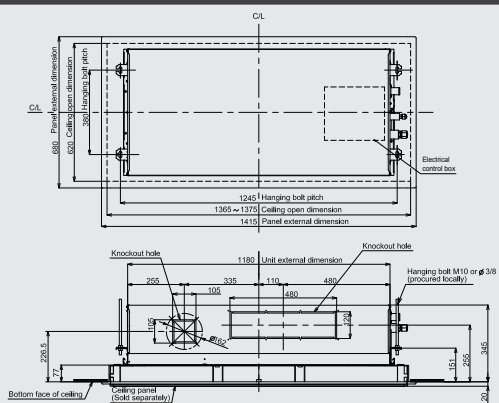
Heating : Indoor air temperature 20°C DB, Outdoor air temperature 7°C DB/6°C WB

## MMU-UP0071WH-E to MMU-UP0151WH-E



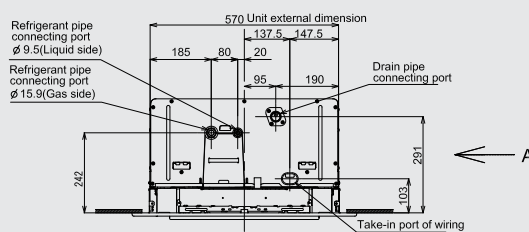
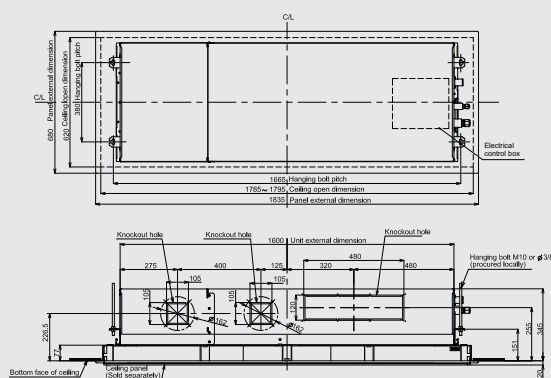
(Unit: mm)

## MMU-UP0181WH-E to MMU-UP0301WH-E



(Unit: mm)

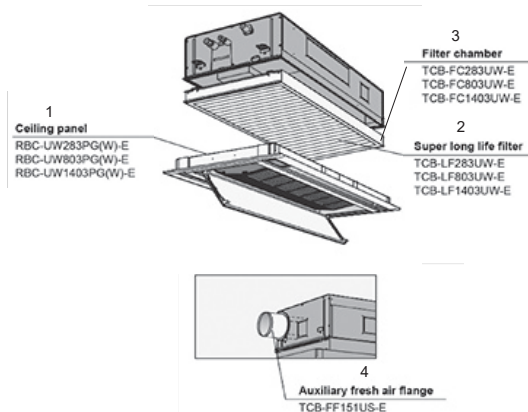
## MMU-UP0361WH-E to MMU-UP0561WH-E



(Unit: mm)

## Accessories

No	Part name	Model name	Applied model	Notes	Remarks
1	Ceiling panel	RBC-UW283PG(W)-E	MMU-UP0071 to 0151WH	Required accessory	
		RBC-UW803PG(W)-E	MMU-UP0181 to 0301WH		
		RBC-UW1403PG(W)-E	MMU-UP0361 to 0561WH		
2	Super long life filter	TBC-LF283UW-E	MMU-UP0071 to 0151WH	Dust collecting effect: 50% (Weight method)	Use with TBC-FC283UW-E
		TBC-LF803UW-E	MMU-UP0181 to 0301WH		Use with TBC-FC803UW-E
		TBC-LF1403UW-E	MMU-UP0361 to 0561WH		Use with TBC-FC1403UW-E
3	Filter chamber	TBC-FC283UW-E	MMU-UP0071 to 0151WH	For super long life filter	
		TBC-FC803UW-E	MMU-UP0181 to 0301WH		
		TBC-FC1403UW-E	MMU-UP0361 to 0561WH		
4	Auxiliary fresh air flange	TBC-FF151US-E	MMU-UP0071 to 0561WH	For fresh air intake by using the knockout hole of indoor unit.	



## 1-way cassette type

MMU-UP\*\*\*YHP-E



### The perfect choice

- Toshiba's innovative slim-line 1-way cassette is simple to install and suitable for small areas, such as hotels, offices and reception rooms.

### Design

- New white elegant panel design to match all types of interiors.

### Flexibility

- 150mm chassis height adapted to low suspended ceilings conditions (YHP only).

### Comfort

- Low noise level down to 25 dB(A) for quiet operation.
- 5-speed fan operation for perfect air flow (YHP only).
- Air purifier available as an option to keep a fresh and clean environment (YHP only).

#### Remote controller



RBC-AX33UYE-E (YHP)  
RBC-AXU31C-E (SH)



RBC-ASC11-E  
RBC-ASC11U-E



RBC-AMS55E-EN/ES  
RBC-AMSU51-EN/ES

## Technical specifications

Performances								
Indoor unit	MMU-	UP0071YHP-E	UP0091YHP-E	UP0121YHP-E	UP0151YHP-E	UP0181YHP-E	UP0241YHP-E	UP0271YHP-E
Cooling capacity	kW	2.2	2.8	3.6	4.5	5.6	7.1	8.0
Heating capacity	kW	2.5	3.2	4.0	5.0	6.3	8.0	9.0
Power consumption	kW	0.017	0.018	0.018	0.025	0.027	0.042	0.05
Running current	A	0.18	0.19	0.20	0.24	0.26	0.34	0.41
Starting current	A	0.22	0.23	0.24	0.28	0.30	0.38	0.45

Physical Data								
Indoor unit	MMU-	UP0071YHP-E	UP0091YHP-E	UP0121YHP-E	UP0151YHP-E	UP0181YHP-E	UP0241YHP-E	UP0271YHP-E
Air Flow (h/l)	m <sup>3</sup> /h	500/390/270	520/410/290	540/420/290	750/630/500	800/650/500	940/760/600	1000/860/720
Air Flow (h/l)	l/s	139/108/75	144/114/81	150/117/81	208/175/139	222/181/139	261/211/167	278/239/200
Sound pressure level (h/m/l)	dB(A)	38/34/25	39/35/26	40/36/26	39/36/33	40/37/33	46/42/37	47/44/41
Dimensions (HxWxD)	mm	150x990x450	150x990x450	150x990x450	150x1180x450	150x1180x450	150x1180x450	150x1180x450
Weight	kg	14	14	14	15		16	
Panel dimensions (HxWxD)	mm	30x1220x530	30x1220x530	30x1220x530	30x1410x530	30x1410x530	30x1410x530	30x1410x530
Panel weight	kg	4	4	4	5	5	5	5
Connecting pipe, gas	inch/mm	3/8" φ9.5	3/8" φ9.5	3/8" φ9.5	1/2" φ12.7	1/2" φ12.7	5/8" φ15.9	5/8" φ15.9
Connecting pipe, liquid	inch/mm	1/4" φ6.4	1/4" φ6.4	1/4" φ6.4	1/4" φ6.4	1/4" φ6.4	3/8" φ9.5	3/8" φ9.5
Drain port diameter	mm	25	25	25	25	25	25	25
Power supply	1-phase 50Hz 230V (220–240V) / 1-phase 60Hz 220V (Separate power supply for indoor units required.)							

Note 1 : The capacities are measured under the conditions specified by JIS B 8615 based on the reference piping.

Note 2 : The sound level are measured in an anechoic chamber in accordance with JIS B 8616.

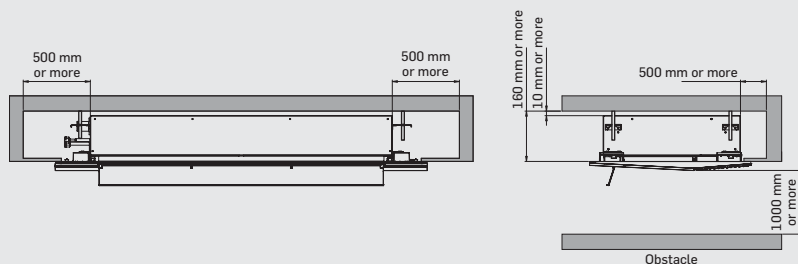
Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

Note : Rated conditions Cooling : Indoor air temperature 27°C DB/19°C WB, Outdoor air temperature 35°C DB

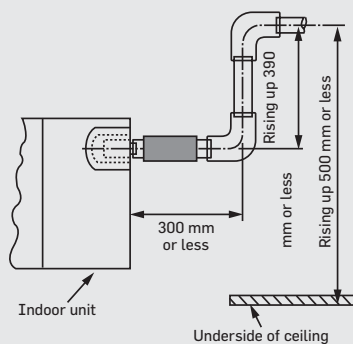
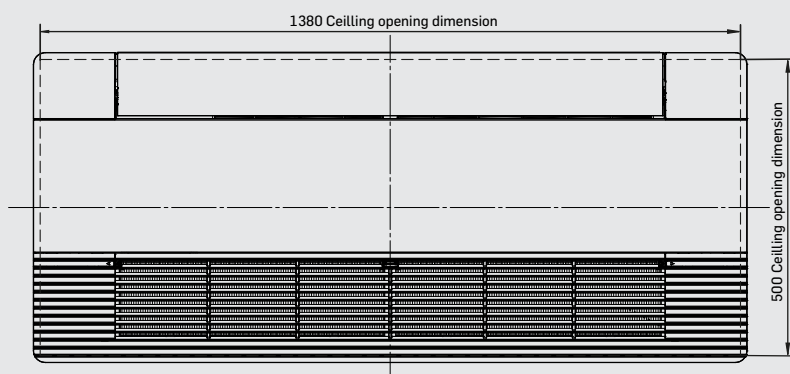
Heating : Indoor air temperature 20°C DB, Outdoor air temperature 7°C DB/6°C WB



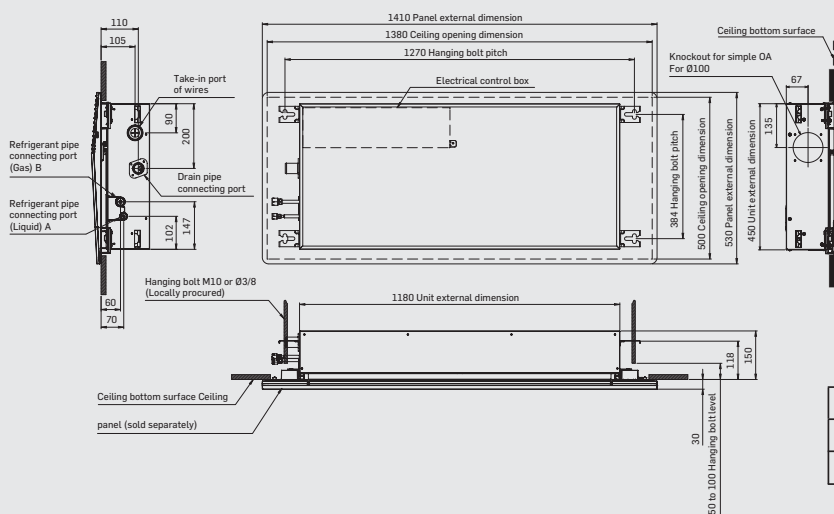
## MMU-UP0071YHP-E to UP0271YHP-E



The space that is necessary for equipping and service



Drain upstanding size

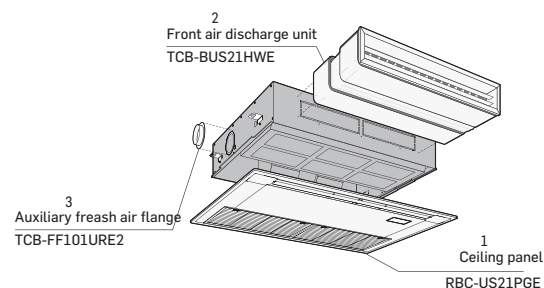


Model MMU-	A	B
UP0151, UP0181	Ø6.35	Ø12.7
UP0241, UP0271	Ø9.52	Ø15.88

(Unit : mm)

## Accessories

No	Part name	Model name	Applied model	Note	Remarks
1	Panel	RBC-UY32P-E	MMU-UP_1YHP-E	1-Way cassette panel without receiver	Required accessory
		RBC-US21PGE			Required accessory
2	Front air discharge unit	TCB-BUS21HWE	MMU-UP_1SH-E		
3	Auxiliary fresh air flange	TCB-FF101URE2			
-	Air purifier kit	TCB-EAPC1UYHP-E	MMU-UP-1YHP-E	Set of Plasma Air Purifier, Dust sensor, Air quality indicator and Wireless receiver	
-	Occupancy sensor	TCB-SIR41UYHP-E	MMU-UP-1YHP-E	Occupancy sensor	Cannot match with Wireless receiver Kit
-	Wireless receiver kit	RBC-AX33UYHP-E	MMU-UP-1YHP-E	Wireless RC kit	Cannot match with Occupancy sensor



MMU-UP0151SH-E/TR, UP0181SH-E/TR, UP0241SH-

## Standard duct type

MMD-UP\*\*\*1BHP-E



Whatever the shape of the room, this flexible model ensures a uniform temperature and air distribution for optimal end user comfort.

### Customizable

- External static pressure can be raised up to 150 Pa for extensive ducting.
- Possible to connect a fresh air inlet duct to the unit, to maximise air quality and room air quality.
- Flexible design, allows the inlet air configuration to be configured between the standard rear inlet design or, from the underside of the unit.
- Built-in high-lift drain pump.
- Air discharge spigot available as an option.

### Hidden

- Slimline design, with a depth of just 275mm helps to simply the installation, even when space is limited.
- Superior low noise operation. Noise output at low fan equates to just 23 dB(A).

Remote controller



TCB-AX32E2  
RBC-AXU31-E



RBC-ASC11-E  
RBC-ASC11U-E



RBC-AMS55E-EN/ES  
RBC-AMSU51-EN/ES

## Technical specifications

Performances												
Indoor unit	MMD-	UP0071BHP-E	UP0091BHP-E	UP0121BHP-E	UP0151BHP-E	UP0181BHP-E	UP0241BHP-E	UP0271BHP-E	UP0301BHP-E	UP0361BHP-E	UP0481BHP-E	UP0561BHP-E
Cooling capacity	kW	2.2	2.8	3.6	4.5	5.6	7.1	8.0	9.0	11.2	14.0	16.0
Heating capacity	kW	2.5	3.2	4.0	5.0	6.3	8.0	9.0	10.0	12.5	16.0	18.0
Power consumption	kW	0.055	0.060	0.060	0.110	0.110	0.135	0.135	0.160	0.220	0.290	0.290
Running current	A	0.35	0.38	0.38	0.70	0.70	0.80	0.80	0.95	1.29	1.70	1.70
Starting current	A	0.55	0.58	0.58	1.10	1.10	1.20	1.20	1.35	2.09	2.50	2.50

Physical Data												
Indoor unit	MMD-	UP0071BHP-E	UP0091BHP-E	UP0121BHP-E	UP0151BHP-E	UP0181BHP-E	UP0241BHP-E	UP0271BHP-E	UP0301BHP-E	UP0361BHP-E	UP0481BHP-E	UP0561BHP-E
Air Flow (h/l)	m <sup>3</sup> /h	540/450/360	570/480/390	570/480/390	920/660/540	920/660/540	1320/1090/870	1320/1090/870	1450/1200/960	1920/1620/1380	2350/1920/1500	2350/1920/1500
Air Flow (h/l)	l/s	150/125/100	158/133/108	158/133/108	256/183/150	256/183/150	367/303/242	367/303/242	403/333/267	533/450/383	653/533/417	653/533/417
Sound pressure level (h/m/l)	dB(A)	29/26/23	30/26/23	30/26/23	33/29/25	33/29/25	33/30/27	33/30/27	36/31/27	36/34/31	40/36/33	40/36/33
Dimensions (HxWxD)	mm	275x700x750	275x700x750	275x700x750	275x700x750	275x700x750	275x1000x750	275x1000x750	275x1000x750	275x1400x750	275x1400x750	275x1400x750
Weight	kg	23	23	23	23	23	30	30	30	40	40	40
External static pressure	Pa	30	30	30	30	30	40	40	40	50	50	50
Max external static pressure	Pa	150	150	150	150	150	150	150	150	150	150	150
Connecting pipe, gas	inch/mm	3/8"φ9.5	3/8"φ9.5	3/8"φ9.5	1/2"φ12.7	1/2"φ12.7	5/8"φ15.9	5/8"φ15.9	5/8"φ15.9	5/8"φ15.9	5/8"φ15.9	5/8"φ15.9
Connecting pipe, liquid	inch/mm	1/4"φ6.35	1/4"φ6.35	1/4"φ6.35	1/4"φ6.35	1/4"φ6.35	3/8"φ9.5	3/8"φ9.5	3/8"φ9.5	3/8"φ9.5	3/8"φ9.5	3/8"φ9.5
Drain port diameter	mm	25	25	25	25	25	25	25	25	25	25	25
Power supply	1-phase 50Hz 230V (220-240V) / 1-phase 60Hz 220V (Separate power supply for indoor units required.)											

Note 1 : The capacities are measured under the conditions specified by JIS B 8615 based on the reference piping.

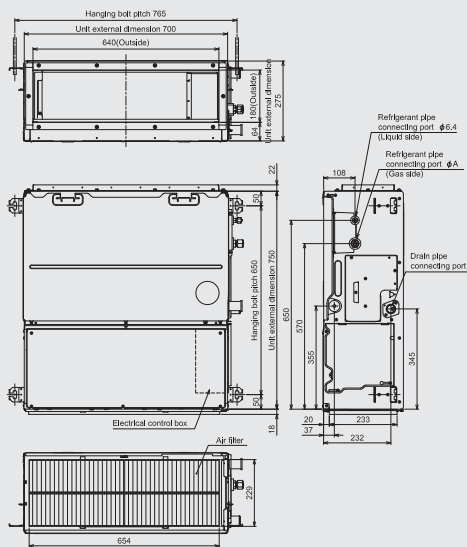
Note 2 : The sound level are measured in an anechoic chamber in accordance with JIS B 8616.

Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

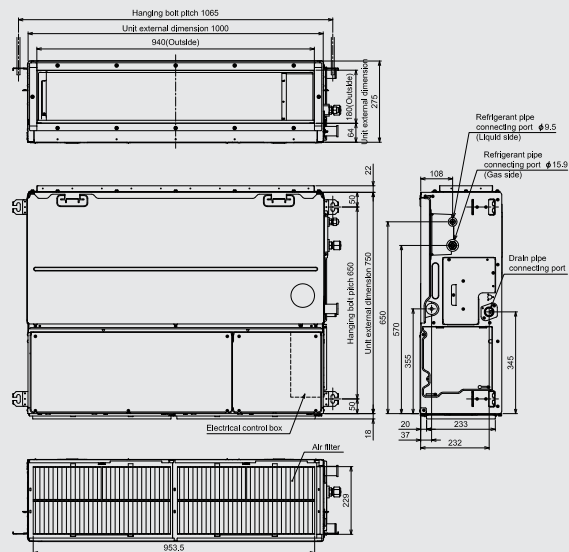
Note : Rated conditions Cooling : Indoor air temperature 27°C DB/19°C WB, Outdoor air temperature 35°C DB

Heating : Indoor air temperature 20°C DB, Outdoor air temperature 7°C DB/6°C WB

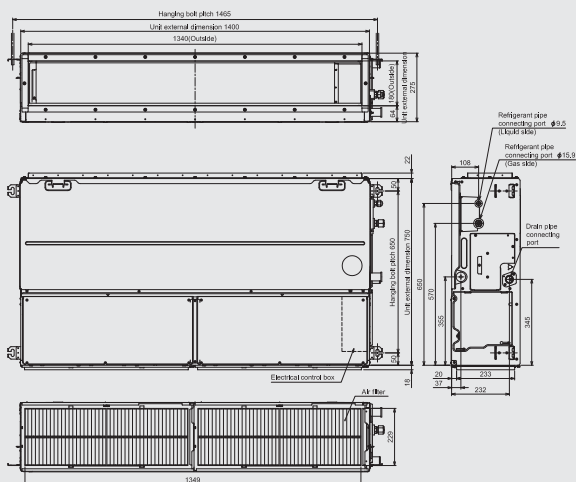
### MMD-UP0071BHP-E to UP0181BHP-E



### MMD-UP0241BHP-E to UP0301BHP-E



### MMD-UP0361BHP-E to UP0561BHP-E

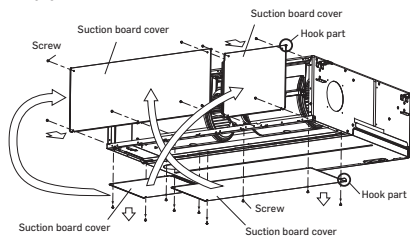


(Unit:mm)

## Accessories

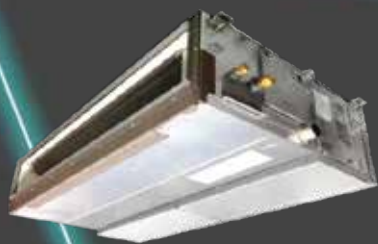
Type	Model name	Applied model	Appearance	Remarks
Spigot shaped flange	TCB-SF56C6BE	MMD-UP0071/0091/0121/0151/0181BHP-E		263x694x175mm / Spigot diameter 200mm
	TCB-SF80C6BE	MMD-UP0241/0271/0301BHP-E		263x994x175mm / Spigot diameter 200mm
	TCB-SF160C6BE	MMD-UP0361/0481/0561BHP-E		263x1394x175mm / Spigot diameter 200mm

Changing from back air intake to under air intake





## High static pressure type



MMD-UP0181-0561HP-E



MMD-UP0721-0961HP-E1

This is Toshiba's most powerful ducted unit delivering air flows up to 4800m<sup>3</sup>/h with an external static pressure up to 250 Pa.

### Comfort

- This ultra-flexible, invisible and silent unit creates a pleasant and comfortable environment for a wide range of applications, such as hotels, offices and shops.
- Diffuser design flexibility to select the right layout for the room shape and end user requirements.

### Adaptability

- Unobtrusive, flexible and compact (298\*mm depth), can be installed easily and discretely into any interior, making it the ideal solution for both new and refurbishing projects.
- Static pressure can be set to 7 levels from 50 to 250Pa.

\* Size 18 to 56

### Healthy

- Renewal of indoor ambient air with the constant fresh air supply via the field installed fresh air intake connection.
- Long-life filter and air discharge spigot available as an option.
- Built-in high-lift drain pump (sizes 18 to 56).

#### Remote controller



TCB-AX32E2  
RBC-AXU31-E



RBC-ASC11-E  
RBC-ASC11U-E



RBC-AMS55E-EN/ES  
RBC-AMSU51-EN/ES

## Technical specifications

Performances									
Indoor unit	MMD-	UP0181HP-E	UP0241HP-E	UP0271HP-E	UP0361HP-E	UP0481HP-E	UP0561HP-E	UP0721HP-E1	UP0961HP-E1
Cooling capacity	kW	5.6	7.1	8.0	11.2	14.0	16.0	22.4	28.0
Heating capacity	kW	6.3	8.0	9.0	12.5	16.0	18.0	25.0	31.5
Power consumption	kW	0.125	0.140	0.190	0.230	0.300	0.400	0.540	0.790
Running current	A	0.82	0.92	1.16	1.39	1.81	2.48	2.83	3.77
Starting current	A	1.12	1.22	1.46	1.89	2.41	3.08	7.80	7.80
Physical Data									
Indoor unit	MMD-	UP0181HP-E	UP0241HP-E	UP0271HP-E	UP0361HP-E	UP0481HP-E	UP0561HP-E	UP0721HP-E1	UP0961HP-E1
Air Flow (h)	m <sup>3</sup> /h	1100/990/900	1200/1050/960	1500/1350/1200	1920/1560/1340	2340/1980/1695	2760/2340/1920	3800/3200/2500	4800/4200/3500
Air Flow (h)	l/s	306/275/250	333/292/267	417/375/333	533/433/372	650/550/471	767/650/533	1056/889/694	1333/1167/972
Sound pressure level	dB(A)	37/33/31	38/34/31	43/41/38	41/37/34	44/41/38	46/44/41	44/40/36	46/42/38
Dimensions (HxWxD)	mm	298x1000x750	298x1000x750	298x1000x750	298x1400x750	298x1400x750	298x1400x750	448x1400x900	448x1400x900
Weight	kg	34	34	34	43	43	43	97	97
External static pressure	Pa	100	100	100	100	100	100	150	150
Max external static pressure	Pa	200	200	200	200	200	200	250	250
Connecting pipe, gas	inch/mm	1/2" φ12.7	5/8" φ15.88	5/8" φ15.88	5/8" φ15.88	5/8" φ15.88	5/8" φ15.88	7/8" φ15.88	7/8" φ22.23
Connecting pipe, liquid	inch/mm	1/4" φ6.35	3/8" φ9.52	3/8" φ9.52	3/8" φ9.52	3/8" φ9.52	3/8" φ9.52	3/8" φ9.52	φ12.7
Drain port diameter	mm	25	25	25	25	25	25	25	25
Power supply	1-phase 50Hz 230V (220~240V) / 1-phase 60Hz 220V (Separate power supply for indoor units required.)								

Note 1 : The cooling capacities and electrical characteristics are measured under the conditions specified by JIS B 8615 based on the reference piping.

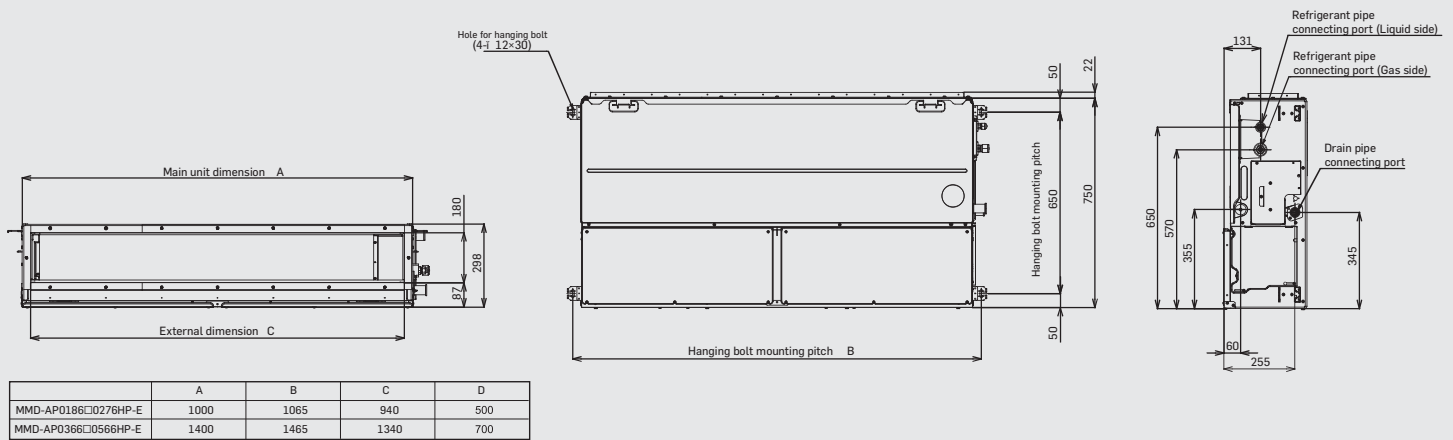
Note 2 : The sound level are measured in an anechoic chamber in accordance with JIS B 8616.

Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

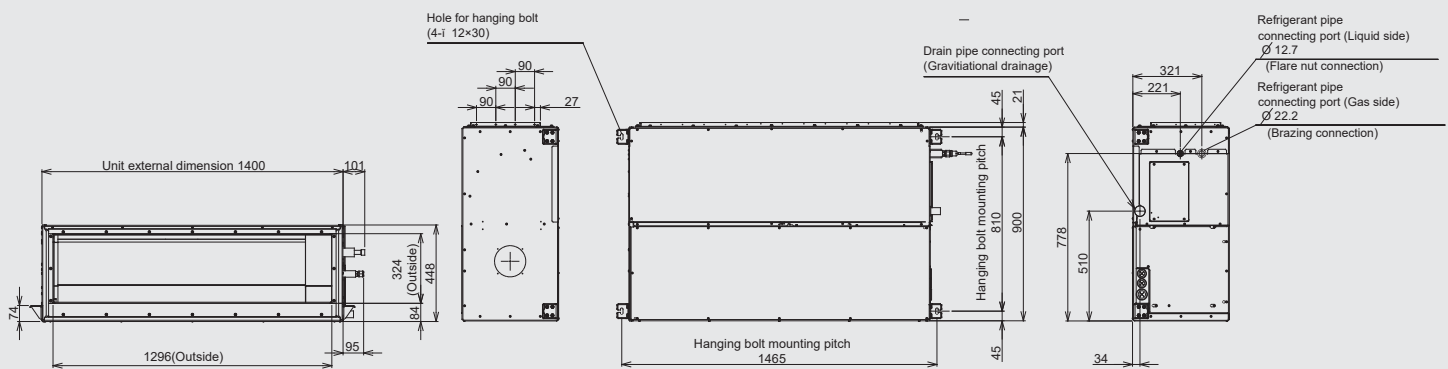
Note : Rated conditions Cooling : Indoor air temperature 27°C DB/19°C WB, Outdoor air temperature 35°C DB

Heating : Indoor air temperature 20°C DB, Outdoor air temperature 7°C DB/6°C WB

## MMD-UP0181HP-E to UP0561HP-E



## MMD-UP0721HP-E 1 to MMD-UP0961HP-E1



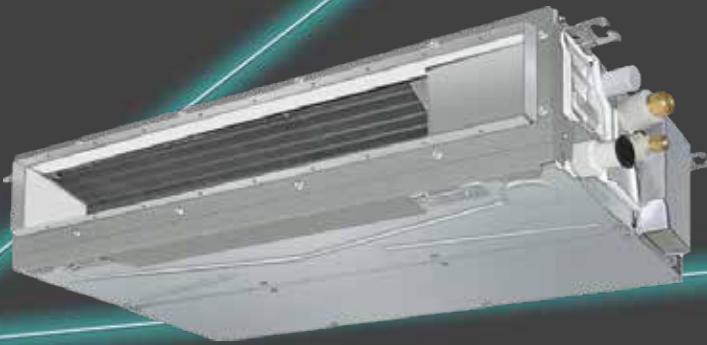
(Unit : mm)

## Accessories

Type	Model name	Applied model	Appearance	Remarks
Spigot shaped flange	TCB-SF80C6BE	MMD-UP0181/0241/0271HP-E		263x994x175mm / Spigot diameter 200mm
	TCB-SF160C6BE	MMD-UP0361/0481/0561HP-E		263x1394x175mm / Spigot diameter 200mm
Long life filter kit	TCB-LK801D-E	MMD-UP0181/0241/0271HP-E		Flange shaped Mount chassis directly Upside down mounting possible Left and right removable
	TCB-LK1401D-E	MMD-UP0361/0481/0581HP-E		
	TCB-LK2801DP-E	MMD-UP0721/0961HP-E		
Auxiliary fresh air flange	TCB-FF151US-E	UP0181/0241/0271/0361/0481/0581HP-E		
Drain pump kit	TCB-DP40DPE	MMD-AP0721/0961HP-E		

**Slim duct type**

**MMD-UP\*\*\*1SPHY-E**



Whatever installed in a ceiling void or suspended ceiling, Toshiba slim duct offers the best compromise between sound level, air flow and chassis dimensions.

### Flexibility

- Compact chassis with 210mm height and 450mm depth whatever the capacity, for integration in most projects.
- Static pressure up to 50Pa set directly on the duct or by using a wired remote controller.

### Comfort

- Quiet operation with a noise level down to 26 dB(A) perfect for bedrooms.
- 5-speed fan operation for perfect air flow adaptation.

### Easy installation

- Built-in drain pump.
- Air suction from rear or bottom.

Remote controller



TCB-AX32E2  
RBC-AXU31-E



RBC-ASC11U-E



RBC-AMS55E-EN/ES  
RBC-AMSU51-EN/ES

## Technical specifications

Performances	MMD-	UP0071SPHY-E	UP0091SPHY-E	UP0121SPHY-E	UP0151SPHY-E	UP0181SPHY-E	UP0241SPHY-E	UP0271SPHY-E
Indoor unit								
Cooling capacity	kW	2.2	2.8	3.6	4.5	5.6	7.1	8.0
Heating capacity	kW	2.5	3.2	4.0	5.0	6.3	8.0	9.0
Power consumption	kW	0.026 / 0.026	0.029 / 0.029	0.031 / 0.031	0.035 / 0.035	0.044 / 0.044	0.067 / 0.067	0.072 / 0.072
Running current	A	0.40 / 0.42	0.42 / 0.44	0.44 / 0.46	0.47 / 0.49	0.53 / 0.56	0.69 / 0.73	0.74 / 0.78
Starting current	A	0.69 / 0.73	0.73 / 0.77	0.77 / 0.81	0.82 / 0.86	0.92 / 0.97	1.21 / 1.27	1.30 / 1.36

Physical Data	MMD-	UP0071SPHY-E	UP0091SPHY-E	UP0121SPHY-E	UP0151SPHY-E	UP0181SPHY-E	UP0241SPHY-E	UP0271SPHY-E
Indoor unit								
Air Flow (H/M+/M/L+/L)	m <sup>3</sup> /h	540/500/460/430/400	570/530/500/450/420	600/550/520/470/440	690/660/640/590/550	780/760/730/690/650	1080/1010/950/900/860	1140/1060/980/940/910
Air Flow (H/M+/M/L+/L)	l/s	150/139/128/119/111	158/147/139/125/117	167/153/144/131/122	192/183/178/164/153	217/211/203/192/181	300/281/264/250/239	317/294/272/261/253
Sound pressure level*, rear suction (H/M+/M/L+/L)	dB(A)	31/30/29/28/26	32/31/29/28/26	33/32/30/29/27	33/31/30/29/28	34/33/32/31/29	36/35/33/32/30	37/36/34/33/32
Sound pressure level*, bottom suction (H/M+/M/L+/L)	dB(A)	41/40/39/38/35	42/41/40/38/36	44/42/40/39/37	42/40/39/38/37	44/43/42/41/39	47/46/44/43/41	48/47/45/44/43
Sound power level* (H/M+/M/L+/L)		52/51/49/47/45	54/52/50/48/46	54/51/50/48/46	52/51/50/49/46	56/55/54/52/51	60/58/56/55/53	61/59/58/56/55
Dimensions (HxWxD)	mm	210x700x450			210x900x450		210x1110x450	
Weight	kg	16			19		22	
External static pressure	Pa	10	10	10	10	10	10	10
Max external static pressure	Pa	50	50	50	50	50	50	50
Connecting pipe, gas	inch/mm	3/8" φ9.5	3/8" φ9.5	3/8" φ9.5	1/2" φ12.7	1/2" φ12.7	5/8" φ15.9	5/8" φ15.9
Connecting pipe, liquid	inch/mm	1/4" φ6.4	1/4" φ6.4	1/4" φ6.4	1/4" φ6.4	1/4" φ6.4	3/8" φ9.5	3/8" φ9.5
Drain port diameter	mm	25	25	25	25	25	25	25
Power supply		1-phase 50Hz 230V (220~240V) / 1-phase 60Hz 220V (Separate power supply for indoor units required.)						

Note 1 : The capacities are measured under the conditions specified by JIS B 8615 based on the reference piping.

Note 2 : The sound level are measured in an anechoic chamber in accordance with JIS B 8616.

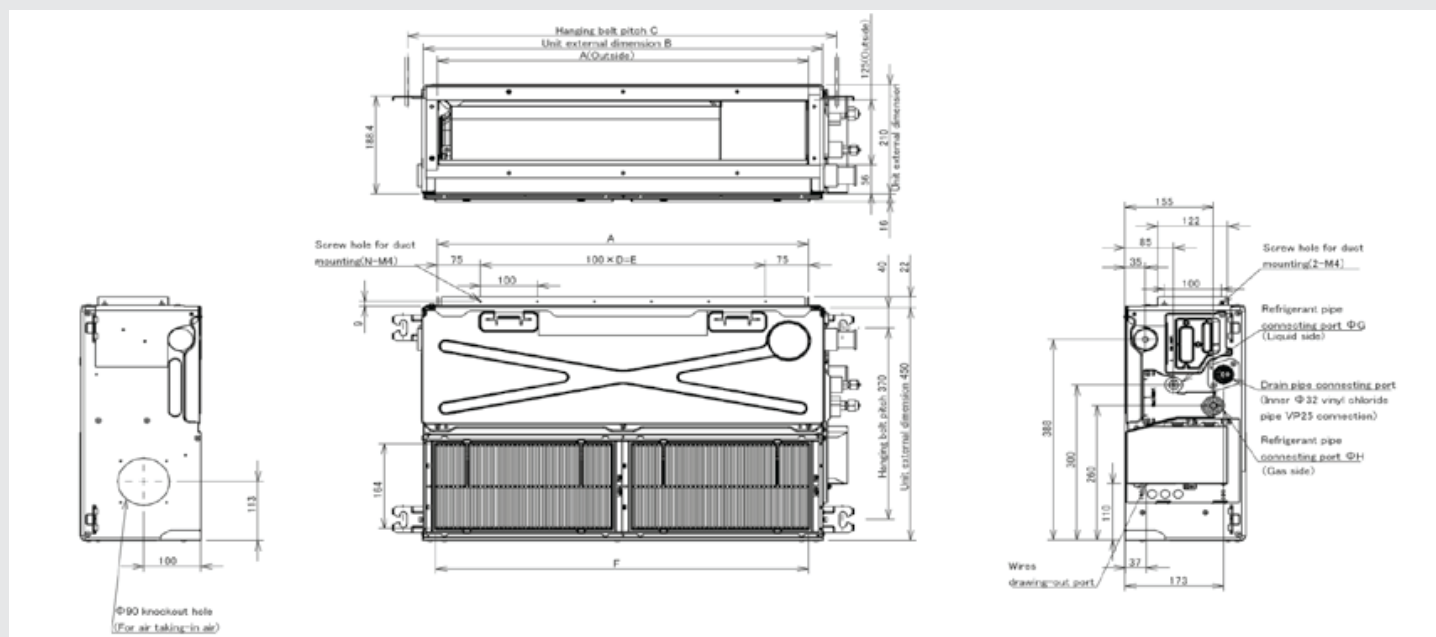
Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

Note : 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



MMD-UP0071SPHY-E to UP0271SPHY-E



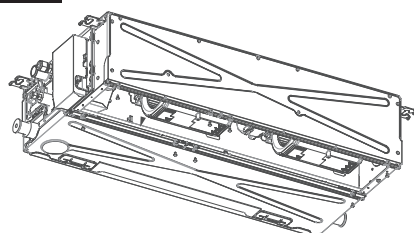
MMD-UP***1SPHY-E	007~012	015~018	024~027
A	650	850	1050
B	700	900	1100
C	770	970	1170
D	5	7	9
E	500	700	900
F	655	855	1055
G	6.4		9.5
H	9.5	12.7	15.9

(Unit: mm)

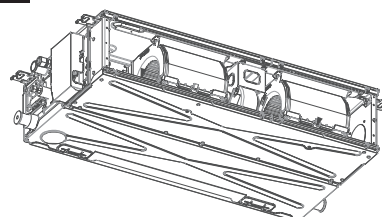
Accessories

No	Part name	Model name	Applied model	Remarks
1	Auxiliary fresh air flange	TCB-FF101URE2	MMD-UP__1SPHY-E	For fresh air intake by using the knockout hole of indoor unit (dia.=100 mm)

Under air intake



Back air intake



## Ceiling Type

### MMC-UP\*\*\*1HP-E



The simple, yet elegant design helps to create a pleasant and relaxing environment, quickly conditioning the room air to the desired temperature.

### Comfort

- Optimum louver control: air flow angle is automatically set to the most suitable setting according to your cooling or heating needs, and an automatic swing mode enables air flow to reach all areas in the room.
- High air flow distance up to 8m.
- Low noise levels, thanks to high diameter fan and DC motor.

### New Designed Wide Flap

- Self-cleaning function, enables the air flow to remain constant and fresh and reduces the frequency of service visits.
- Drain pump available as an option.

### Adaptability

- This design, represents the best possible solution, where there is a lack of space or absence of a ceiling void.
- The simplicity of the design and the installations of the unit, makes it suited for a wide range of applications, but particularly refurbishment projects.

Remote controller



RBC-AX33CE



RBC-ASC11-E  
RBC-ASC11U-E



RBC-AMS55E-EN/ES  
RBC-AMSU51-EN/ES

## Technical specifications

Performances								
Indoor unit	MMC-	UP0151HP-E	UP0181HP-E	UP0241HP-E	UP0271HP-E	UP0361HP-E	UP0481HP-E	UP0561HP-E
Cooling capacity	kW	4.5	5.6	7.1	8.0	11.2	14.0	16.0
Heating capacity	kW	5.0	6.3	8.0	9.0	12.5	16.0	18.0
Power consumption	kW	0.033	0.034	0.067	0.067	0.083	0.083	0.111
Running current	A	0.38	0.39	0.68	0.68	0.80	0.80	1.03
Starting current	A	0.54	0.55	0.97	0.97	1.16	1.16	1.49

Physical Data								
Indoor unit	MMC-	UP0151HP-E	UP0181HP-E	UP0241HP-E	UP0271HP-E	UP0361HP-E	UP0481HP-E	UP0561HP-E
Air Flow (h/l)	m <sup>3</sup> /h	840/690/540	960/720/540	1440/1020/750	1440/1020/750	1860/1350/1020	1860/1530/1200	2040/1650/1260
Air Flow (h/l)	l/s	233/192/150	267/200/150	400/283/208	400/283/208	517/375/283	517/425/333	567/458/350
Sound pressure level (h/l)	dB(A)	36/34/28	37/35/28	41/36/29	41/36/29	44/38/32	44/41/35	46/42/36
Dimensions (HxWxD)	mm	235x952x690	235x952x690	235x1270x690	235x1270x690	235x1586x690	235x1586x690	235x1586x690
Weight	kg	24	24	30	30	39	39	39
Connecting pipe, gas	inch/mm	1/2" φ12.7	1/2" φ12.7	5/8" φ15.88	5/8" φ15.88	5/8" φ15.88	5/8" φ15.88	5/8" φ15.88
Connecting pipe, liquid	inch/mm	1/4" φ6.35	1/4" φ6.35	3/8" φ9.52	3/8" φ9.52	3/8" φ9.52	3/8" φ9.52	3/8" φ9.52
Drain port diameter	mm	20	20	20	20	20	20	20
Power supply	1-phase 50Hz 230V (220–240V) / 1-phase 60Hz 220V (Separate power supply for indoor units required.)							

Note 1 : The capacities are measured under the conditions specified by JIS B 8615 based on the reference piping.

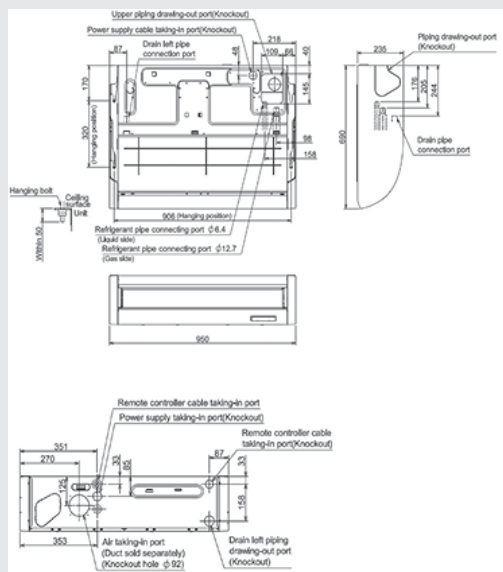
Note 2 : The sound level are measured in an anechoic chamber in accordance with JIS B 8616.

Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

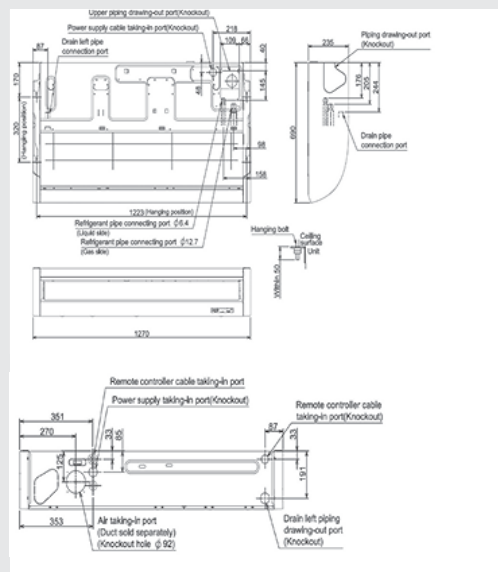
Note : Rated conditions Cooling : Indoor air temperature 27°C DB/19°C WB, Outdoor air temperature 35°C DB

Heating : Indoor air temperature 20°C DB, Outdoor air temperature 7°C DB/6°C WB

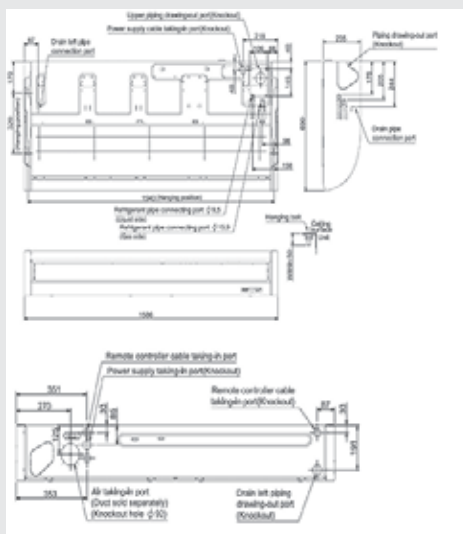
### MMC-UP0151HP-E to MMC-UP0181HP-E



### MMC-UP0241HP-E to MMC-UP0271HP-E



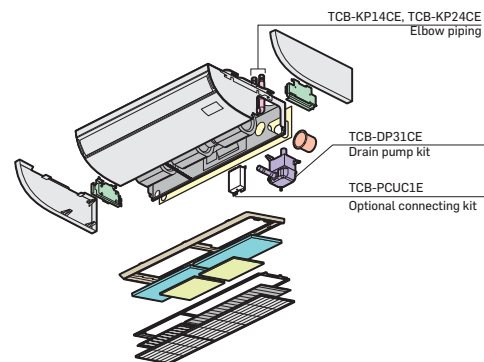
### MMC-UP0361HP-E to MMC-UP0561HP-E

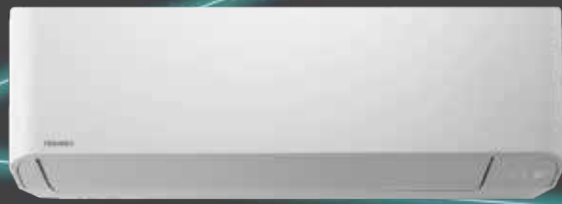


(Unit: mm)

## Accessories

No	Part name	Model name	Applied model	Feature	Remark
1	Wireless Remote Controller kit	RBC-AXU31C-E	MMC-UP0151 to 0561HP-E	-	
2	Drain pump kit	TCB-DP31CE	MMC-UP0151 to 0561HP-E	Antibacterial glass is built into drain pump kit	
3	Elbow piping kit	TCB-KP14CPE	MMC-UP0151 to 0181HP-E	It is necessary for installation of drain pump kit	Use with TCB-DP31CE
		TCB-KP24CPE	MMC-UP0241 to 0561HP-E		
4	Option connecting kit	TCB-PCUC2E	MMC-UP0151 to 0561HP-E	For external I/O signal without local relay preparation	





### Elegant and slim

- Particularly compact, this high-wall is perfect for limited spaces, such as offices or small shops.

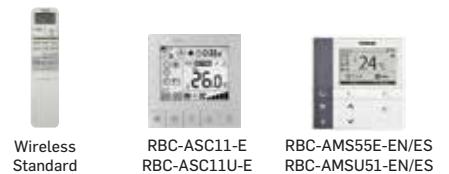
### Compact and design

- The unit is compact and lightweight, it is perfect for installation above the doors or in narrow corridors.
- New appearance, simple, elegant with nice led display.

### Healthy

- Special fin coating for Healthy & Fresh air.

#### Remote controller



Wireless Standard

RBC-ASC11-E  
RBC-ASC11U-E

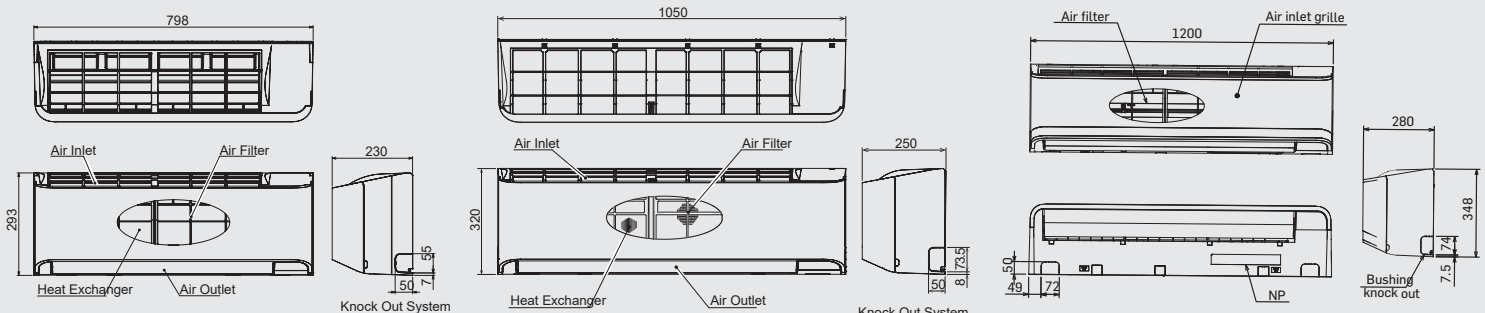
RBC-AMS55E-EN/ES  
RBC-AMSU51-EN/ES

## MMK-UP0071HP-E to UP0361HP-E

#### MMK-UP0071HP-E to MMK-UP0121HP-E

#### MMK-UP0151HP-E to MMK-UP0241HP-E

#### MMK-UP0271HP-E to MMK-UP0361HP-E



(Unit: mm)

## Technical specifications

Performances										
Indoor unit	MMK-	UP0071HP-E	UP0091HP-E	UP0121HP-E	UP0151HP-E	UP0181HP-E	UP0241HP-E	UP0271HP-E	UP0301HP-E	UP0361HP-E
Cooling capacity	kW	2.2	2.8	3.6	4.5	5.6	7.1	8.0	9	11.2
Heating capacity	kW	2.5	3.2	4.0	5.0	6.3	8.0	9.0	10	12.5
Power consumption	kW	0.015	0.016	0.017	0.028	0.032	0.050	0.034	0.054	0.066
Running current	A	0.16	0.17	0.18	0.26	0.29	0.40	0.3	0.5	0.06
Starting current	A	0.20	0.21	0.22	0.35	0.38	0.50	0.34	0.5	0.6

Physical Data										
Indoor unit	MMK-	UP0071HP-E	UP0091HP-E	UP0121HP-E	UP0151HP-E	UP0181HP-E	UP0241HP-E	UP0271HP-E	UP0301HP-E	UP0361HP-E
Air Flow (h/l)	m <sup>3</sup> /h	480/385/270	510/395/270	540/410/270	840/690/550	900/720/550	1200/900/600	1200/1000/800	1500/1300/1100	1650/1350/1250
Air Flow (h/l)	l/s	133/107/75	141/110/75	150/114/75	233/192/153	250/200/153	333/250/167	333/277/222	403/361/305	458/375/347
Sound pressure level (h/l)	dB(A)	35/33/30/28/25	36/34/31/28/25	37/35/32/28/25	40/38/36/34/32	41/39/37/35/32	45/42/39/36/33	43/41/39	48/44/41	50/45/43
Dimensions (HxWxD)	mm	293x798x230	293x798x230	293x798x230	320x1050x250	320x1050x250	320x1050x250	348x1200x280	348x1200x280	348x1200x280
Weight	kg	11	11	11	16	16	16	21	21	21
Connecting pipe, gas	inch/mm	3/8" φ9.52	3/8" φ9.52	3/8" φ9.52	1/2" φ12.7	1/2" φ12.7	5/8" φ15.88	5/8" φ15.88	5/8" φ15.88	5/8" φ15.88
Connecting pipe, liquid	inch/mm	1/4" φ6.35	1/4" φ6.35	1/4" φ6.35	1/4" φ6.35	1/4" φ6.35	3/8" φ9.53	3/8" φ9.53	3/8" φ9.53	3/8" φ9.53
Drain port diameter	mm	16	16	16	16	16	16	16	16	16
Power supply	1-phase 50Hz 230V (220-240V) / 1-phase 60Hz 220V (Separate power supply for indoor units required.)									

Note 1: The capacities are measured under the conditions specified by JIS B 8615 based on the reference piping.

Note 2: The sound level are measured in an anechoic chamber in accordance with JIS B 8616.

Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

Note: 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





## Floor Standing Type

**MMF-UP\*\*\*1H-E**

- This system is particularly suitable to air condition large rooms like shops or showrooms or with low ceilings like restaurants or lofts.

### Optimized air flow

- The unit has been designed to have particularly high air flow rates, which correspond into superior air throw values.
- The wide and automatic vertical and horizontal air distribution angles, allow the air flow distribution to reach all areas, even when installed into large rooms.
- High air flows: from 180 l/s to 600 l/s (660 m<sup>3</sup>/h to 2160 m<sup>3</sup>/h).
- Wide air distribution angle: up to 150°.

### Wide range

- Large capacity range: cooling capacities from 4.5 kW to 16 kW and heating capacities from 5 kW to 18 kW.

### Installation everywhere

- The unit can be installed in the corner of the room, in this case the automatic swing angle can be fixed to deliver the air only where it is needed.
- Very small footprint: 0.128 m<sup>2</sup> up to 8 kW and 0.243 m<sup>2</sup> up to 16 kW.

Remote controller



RBC-AXU31-E

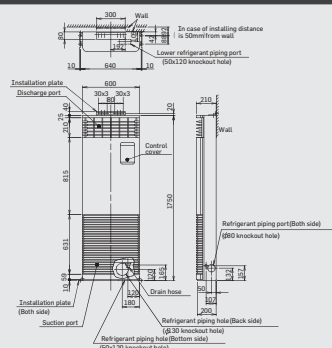


RBC-ASC11-E  
RBC-ASC11U-E



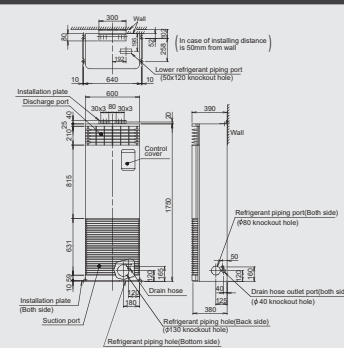
RBC-AMS55E-EN/ES  
RBC-AMSU51-EN/ES

### MMF-UP0151H-E to MMF-UP0271H-E



(Unit: mm)

### MMF-UP0361H-E to MMF-UP0561H-E



(Unit: mm)

## Technical specifications

### Performances

Indoor unit	MMF-	UP0151H-E	UP0181H-E	UP0241H-E	UP0271H-E	UP0361H-E	UP0481H-E	UP0561H-E
Cooling capacity	kW	4.5	5.6	7.1	8.0	11.2	14.0	16.0
Heating capacity	kW	5.0	6.3	8.0	9.0	12.5	16.0	18.0
Power consumption	kW	0.053/0.053	0.053/0.053	0.087/0.087	0.087/0.087	0.133 / 0.133	0.158 / 0.158	0.158 / 0.158
Running current	A	0.37 / 0.38	0.37 / 0.38	0.55 / 0.58	0.55 / 0.58	0.82 / 0.86	0.97 / 1.02	0.97 / 1.02
Starting current	A	0.48 / 0.50	0.48 / 0.50	0.71 / 0.75	0.71 / 0.75	1.06 / 1.11	1.27 / 1.33	1.27 / 1.33

### Physical Data

Indoor unit	MMF-	UP0151H-E	UP0181H-E	UP0241H-E	UP0271H-E	UP0361H-E	UP0481H-E	UP0561H-E
Air Flow (h/l)	m <sup>3</sup> /h	820/700/600	820/700/600	930/770/640	930/770/640	1660/1420/1170	1760/1480/1350	1760/1480/1350
Air Flow (h/l)	l/s	228/194/167	228/194/167	258/214/178	258/214/178	461/394/325	489/411/375	489/411/375
Sound pressure level (h/l)	dB(A)	46/42/38	46/42/38	50/45/41	50/45/41	51/46/41	53/48/45	53/48/45
Dimensions (HxWxD)	mm	1750x600x210	1750x600x210	1750x600x210	1750x600x210	1750x600x390	1750x600x390	1750x600x390
Weight	kg	46	46	47	47	61	61	61
Connecting pipe, gas	inch/mm	1/2" φ12.7	1/2" φ12.7	1/2" φ15.9	1/2" φ15.9	1/2" φ15.9	1/2" φ15.9	1/2" φ15.9
Connecting pipe, liquid	inch/mm	1/4" φ6.4	1/4" φ6.4	3/8" φ9.5	3/8" φ9.5	3/8" φ9.5	3/8" φ9.5	3/8" φ9.5
Drain port diameter	mm	20	20	20	20	20	20	20
Power supply	1-phase 50Hz 230V (220–240V) / 1-phase 60Hz 220V (Separate power supply for indoor units required.)							

Note 1 : The capacities are measured under the conditions specified by JIS B 8615 based on the reference piping.

Note 2 : The sound level are measured in an anechoic chamber in accordance with JIS B 8616.

Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

Note : 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

## Fresh air intake indoor unit type

MMD-UP\*\*\*HFP-E



### Air controller for fresh-air intake

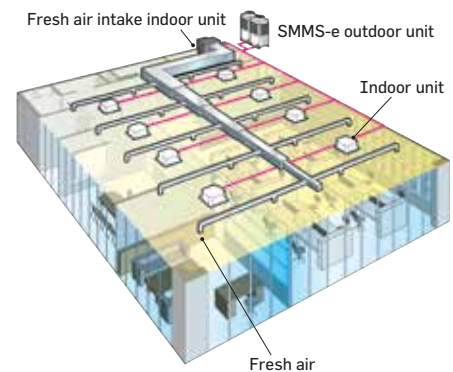
• This indoor unit manages and treats the fresh air intake before it will be distributed into the building.

### AHU alternative

- Ideal solution for all buildings that require fresh air ventilation.
- Air flow up to 2,100 m<sup>3</sup>/h.
- Up to 200Pa available pressure.

### Features

- Compact and lighter chasis.
- Wide air flow range with 5 fan speed.
- Increase in external static pressure settings (7 levels) by DN code.
- High efficiency filters are available (Optional).



Remote controller



RBC-ASC11-E  
RBC-ASC11U-E



RBC-AMS55E-EN/ES  
RBC-AMSU51-EN/ES

## Technical specifications

Performances			MMD-	UP0481HFP-E	UP0721HFP-E1	UP0961HFP-E1
Indoor unit						
Cooling capacity			kW	14.0	22.4	28.0
Heating capacity			kW	8.9	13.9	17.4
Power consumption			kW	0.110	0.160	0.200
Running current			A	0.77	0.86	1.07
Starting current			A	2.01	7.80	7.80

Physical Data			MMD-	UP0481HFP-E	UP0721HFP-E1	UP0961HFP-E1
Indoor unit						
Air Flow (h)			m <sup>3</sup> /h	1080/990/930/840/760	1680/1560/1440/1320/1200	2100/1950/1800/1620/1470
Air Flow (h)			l/s	300/275/258/233/211	467/433/400/367/333	583/542/500/450/408
Sound pressure level			dB(A)	38/37/35/32/31	38/37/36/35/33	39/38/36/35/33
Dimensions (HxWxD)			mm	327x1430x750	477x1430x900	477x1430x900
Weight			kg	44	99	99
External static pressure			Pa	50 - 75 - 100 - 125 - 150 - 175 - 200	50 - 75 - 100 - 125 - 150 - 175 - 200	50 - 75 - 100 - 125 - 150 - 175 - 200
External static pressure - factory setting			Pa	100	100	100
Connecting pipe, gas			inch/mm	5/8" φ15.9	7/8" φ22.2	7/8" φ22.2
Connecting pipe, liquid			inch/mm	3/8" φ9.5	1/2" φ12.7	1/2" φ12.7
Drain port diameter			mm	25	25	25
Power supply				1-phase 50Hz 230V (220-240V) / 1-phase 60Hz 220V (Separate power supply for indoor units required.)		
Operation range for SMMSu	Cooling (*2)		°C	+5/+46 (Note 4)		
	Heating (*3)		°C	-10/46		
Operation range dor SMMS-e	Cooling (*2)		°C	5/46 (Note 5)		
	Heating (*3)		°C	-5/46		

\* The setting temperature is 13 - 25°C (standard FCU.. 18 - 30 °C).

\* Height difference between Fresh Air Intake Indoor units must be within 5 m.

Note 1 : Rated conditions

Cooling : Outdoor air temperature 33°C DB/28°C WB setting 18°C

Heating : Outdoor air temperature 0°C DB/-2.9°C WB setting temperature 25°C

Note 2 : When supply air temperature is "setting temperature + 3°C" or less, Fresh Air Intake unit operates as FAN mode

Note 3 : When supply air temperature is "setting temperature -3°C" or over, Fresh Air Intake unit operates as FAN mode

Note 4 : 46-52°C is also available but temporary operable

Note 5 : In case of connecting with SMMS-u for all Fresh Air Intake unit, it can use up to 46°C.





**Console type**

**MML-UP\*\*\*1NHP-E**

Innovative and compact unit to be installed on the floor and in low wall applications, fits perfectly under the window sills or in a low ceiling attic.

Remote controller



Wireless Standard

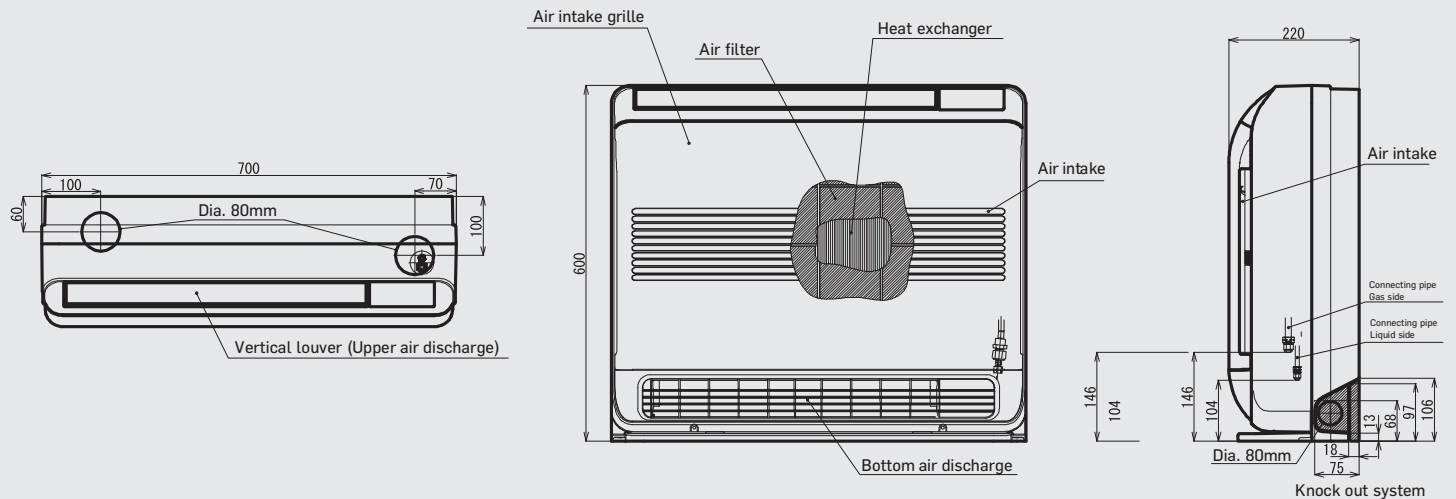


RBC-ASC11-E  
RBC-ASC11U-E



RBC-AMS55E-EN/ES  
RBC-AMSU51-EN/ES

**MML-UP0071NHP-E to UP0181NHP-E**



(Unit: mm)

## Technical specifications

### Performances

Indoor unit	MML-	UP0071NHP-E	UP0091NHP-E	UP0121NHP-E	UP0151NHP-E	UP0181NHP-E
Cooling capacity	kW	2.2	2.8	3.6	4.5	5.6
Heating capacity	kW	2.5	3.2	4.0	5.0	6.3
Power consumption	kW	0.021	0.021	0.025	0.034	0.052
Running current	A	0.17	0.17	0.19	0.25	0.36
Starting current	A	0.26	0.26	0.30	0.38	0.56

### Physical Data

Indoor unit	MML-	UP0071NHP-E	UP0091NHP-E	UP0121NHP-E	UP0151NHP-E	UP0181NHP-E
Air Flow (h/l)	m <sup>3</sup> /h	510/366/282	510/366/282	552/408/324	624/468/384	726/528/426
Air Flow (h/l)	l/s	142/102/78	142/102/78	153/113/90	173/130/107	202/147/118
Sound pressure level (h/l)	dB(A)	38/32/26	38/32/26	40/34/29	43/37/31	47/40/34
Sound power level (h/l)	dB(A)	53/47/41	53/47/41	55/49/44	58/52/46	62/55/49
Dimensions (HxWxD)	mm	600x700x220	600x700x220	600x700x220	600x700x220	600x700x220
Weight	kg	17	17	17	17	17
Connecting pipe, gas	inch/mm	3/8" φ9.52	3/8" φ9.52	3/8" φ9.52	1/2"	1/2"
Connecting pipe, liquid	inch/mm	1/4" φ6.35	1/4" φ6.35	1/4" φ6.35	1/4" φ6.35	1/4" φ6.35
Drain port diameter	mm	16	16	16	16	16
Power supply		1-phase 50Hz 230V (220-240V) / 1-phase 60Hz 220V (Separate power supply for indoor units required.)				

Note 1 : The capacities are measured under the conditions specified by JIS B 8615 based on the reference piping.

Note 2 : The sound level are measured in an anechoic chamber in accordance with JIS B 8616.

Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

Note : 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





## Floor standing cabinet type

MML-UP\*\*\*1H-E

### Simple design

- The simple design of this unit represents the perfect choice, for refurbishment projects, where the available space is limited, or where neither the walls nor ceiling are able to house the unit.

### Comfort

- The units have as standard the ability to flow air in a horizontal direction, however with a simple change during the installation process, the unit can be configured, so that the air flow goes in the upward direction, maximising the flexibility of the design.

### Adaptability

- With just one single cabinet size, for all capacity models, allows a single model range to be installed within a building, giving the installation a uniform and clean look.
- Minimum space required for installation and servicing.
- Refrigerant and drain piping with four installation possibilities: top, rear, left or right hand of the unit.

Remote controller



RBC-AXU31-E

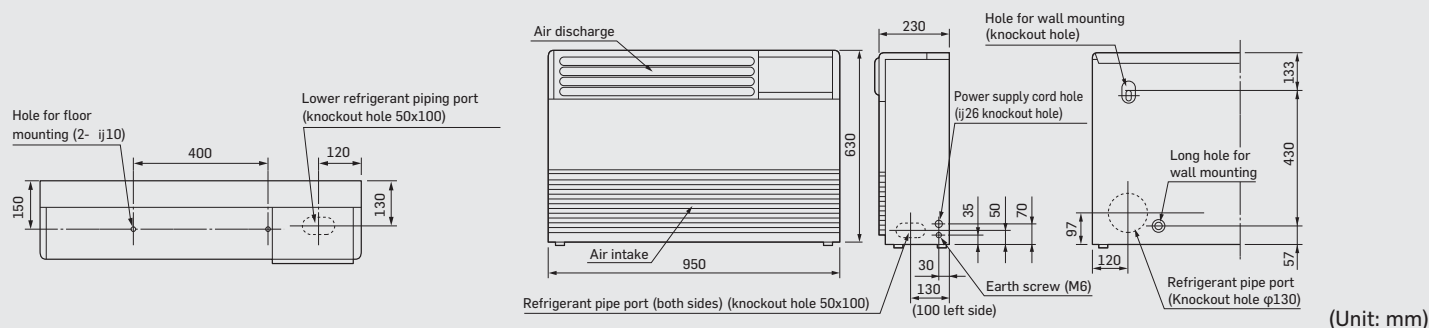


RBC-ASC11-E  
RBC-ASC11U-E



RBC-AMS55E-EN/ES  
RBC-AMSU51-EN/ES

## MML-UP0071H-E to UP0241H-E



## Technical specifications

Performances							
Indoor unit	MML-	UP0071H-E	UP0091H-E	UP0121H-E	UP0151H-E	UP0181H-E	UP0241H-E
Cooling capacity	kW	2.2	2.8	3.6	4.5	5.6	7.1
Heating capacity	kW	2.5	3.2	4.0	5.0	6.3	8.0
Power consumption	kW	0.056 / 0.053	0.056 / 0.053	0.092 / 0.092	0.092 / 0.092	0.102 / 0.113	0.102 / 0.113
Running current	A	0.26 / 0.25	0.26 / 0.25	0.43 / 0.44	0.43 / 0.44	0.47 / 0.53	0.47 / 0.53
Starting current	A	0.6 / 0.6	0.6 / 0.6	0.8 / 0.8	0.80	1.10	1.10
Physical Data							
Indoor unit	MML-	UP0071H-E	UP0091H-E	UP0121H-E	UP0151H-E	UP0181H-E	UP0241H-E
Air Flow (h/l)	m <sup>3</sup> /h	480/420/360	480/420/360	900/780/650	900/780/650	1080/930/780	1080/930/780
Air Flow (h/l)	l/s	133/117/100	133/117/100	250/217/181	250/217/181	300/258/217	300/258/217
Sound pressure level (h/l)	dB(A)	39/37/35	39/37/35	45/41/38	45/41/38	49/44/39	49/44/39
Dimensions (HxWxD)	mm	630x950x230	630x950x230	630x950x230	630x950x230	630x950x230	630x950x230
Weight	kg	35	35	35	35	38	38
Connecting pipe, gas	inch/mm	3/8" φ9.5	3/8" φ9.5	3/8" φ9.5	1/2" φ12.7	1/2" φ12.7	5/8" φ15.8
Connecting pipe, liquid	inch/mm	1/4" φ6.4	1/4" φ6.4	1/4" φ6.4	1/4" φ6.4	1/4" φ6.4	3/8" φ9.5
Drain port diameter	mm	20	20	20	20	20	20
Power supply	1-phase 50Hz 230V (220~240V) / 1-phase 60Hz 220V (Separate power supply for indoor units required.)						

Note 1 : The capacities are measured under the conditions specified by JIS B 8615 based on the reference piping.

Note 2 : The sound level are measured in an anechoic chamber in accordance with JIS B 8616.

Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

Note : 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

## Floor standing concealed console type

MML-UP\*\*\*1BH-E



### Compact

- This unit has been designed to be fitted easily into a compact space behind a decorative panel, allowing the unit to blend into any room interior. This chassis is compact and slim, it is very easy to install and to conceal behind a decorative panel to blend with any room interior.

### Specialized

- Not only is this unit ideal for office and other commercial buildings, it fits perfectly for specialist applications such as a library or hospital building.

### Accessibility

- Removable split front panel with immediate access to the main components.

### Easy to hidden

- Very compact design, which can be installed under a window sill, that is only 600mm in height.
- With its limited depth of only 220mm, the unit can be installed along the wall ensuring maximum space saving.

Remote controller



RBC-AXU31-E

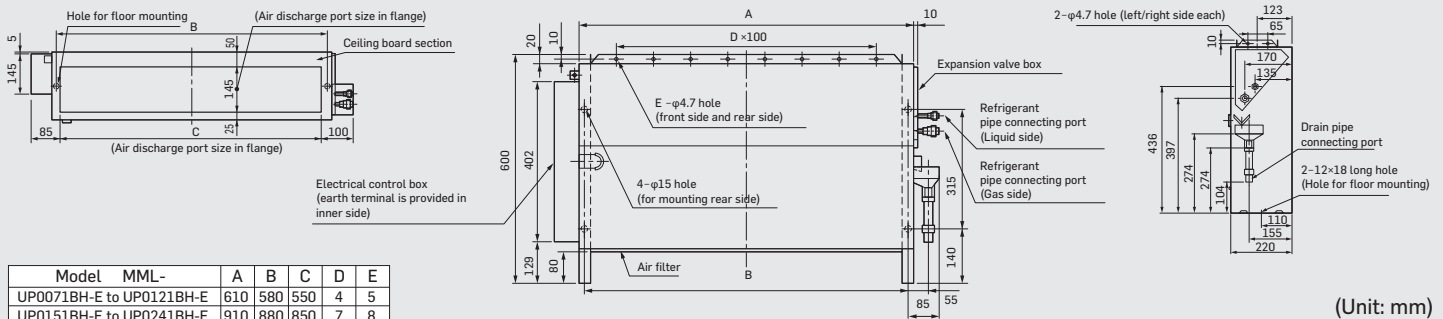


RBC-ASC11-E  
RBC-ASC11U-E



RBC-AMS55E-EN/ES  
RBC-AMS51-EN/ES

## MML-UP0071BH-E to UP0241BH-E



(Unit: mm)

Model	MML-	A	B	C	D	E
UP0071BH-E to UP0121BH-E	610	580	550	4	5	
UP0151BH-E to UP0241BH-E	910	880	850	7	8	

## Technical specifications

### Performances

Indoor unit	MML-	UP0071BH-E	UP0091BH-E	UP0121BH-E	UP0151BH-E	UP0181BH-E	UP0241BH-E
Cooling capacity	kW	2.2	2.8	3.6	4.5	5.6	7.1
Heating capacity	kW	2.5	3.2	4.0	5.0	6.3	8.0
Power consumption	kW	0.056 / 0.058	0.056 / 0.058	0.056 / 0.058	0.090 / 0.096	0.090 / 0.096	0.095 / 0.110
Running current	A	0.25 / 0.27	0.25 / 0.27	0.25 / 0.27	0.45 / 0.46	0.45 / 0.46	0.46 / 0.51
Starting current	A	0.6 / 0.6	0.6 / 0.6	0.6 / 0.6	0.8 / 0.8	0.8 / 0.8	1.00 / 1.00

### Physical Data

Indoor unit	MML-	UP0071BH-E	UP0091BH-E	UP0121BH-E	UP0151BH-E	UP0181BH-E	UP0241BH-E
Air Flow (h/l)	m <sup>3</sup> /h	460/400/300	460/400/300	460/400/300	740/600/490	740/600/490	950/790/640
Air Flow (h/l)	l/s	128/111/83	128/111/83	128/111/83	206/167/136	206/167/136	264/219/178
Sound pressure level (h/l)	dB(A)	36/34/32	36/34/32	36/34/32	36/34/32	36/34/32	42/37/33
Dimensions (HxWxD)	mm	600x745x220	600x745x220	600x745x220	600x1045x220	600x1045x220	600x1045x220
Weight	kg	21	21	21	28	28	28
Connecting pipe, gas	inch/mm	3/8" φ9.5	3/8" φ9.5	3/8" φ9.5	1/2" φ12.7	1/2" φ12.7	5/8" φ15.9
Connecting pipe, liquid	inch/mm	1/4" φ6.4	1/4"	1/4"	1/4"	1/4"	3/8" φ9.5
Drain port diameter	mm	20	20	20	20	20	20
Power supply		1-phase 50Hz 230V (220-240V) / 1-phase 60Hz 220V (Separate power supply for indoor units required.)					

Note 1: The capacities are measured under the conditions specified by JIS B 8615 based on the reference piping.

Note 2: The sound level are measured in an anechoic chamber in accordance with JIS B 8616.

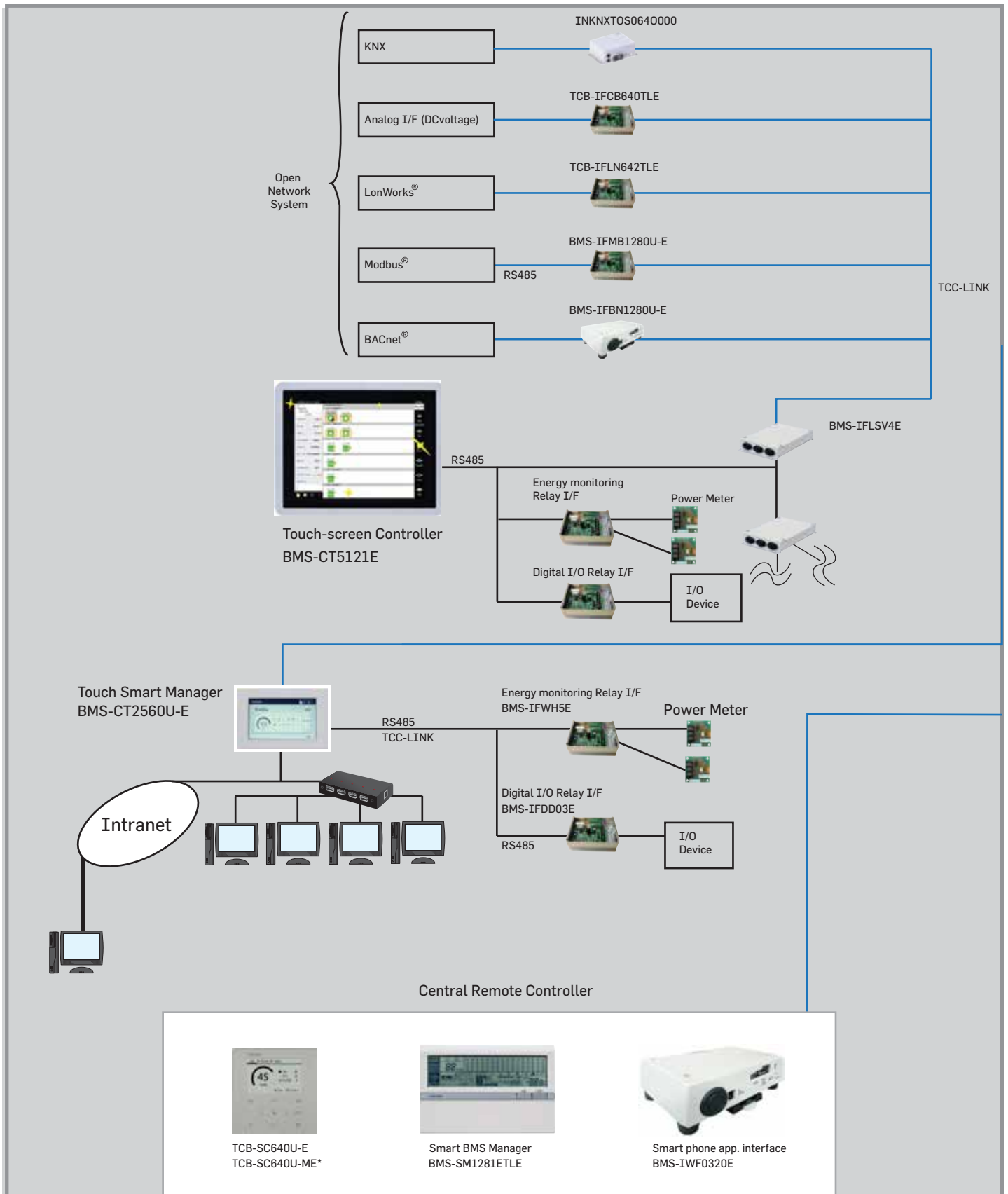
Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

Note: 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



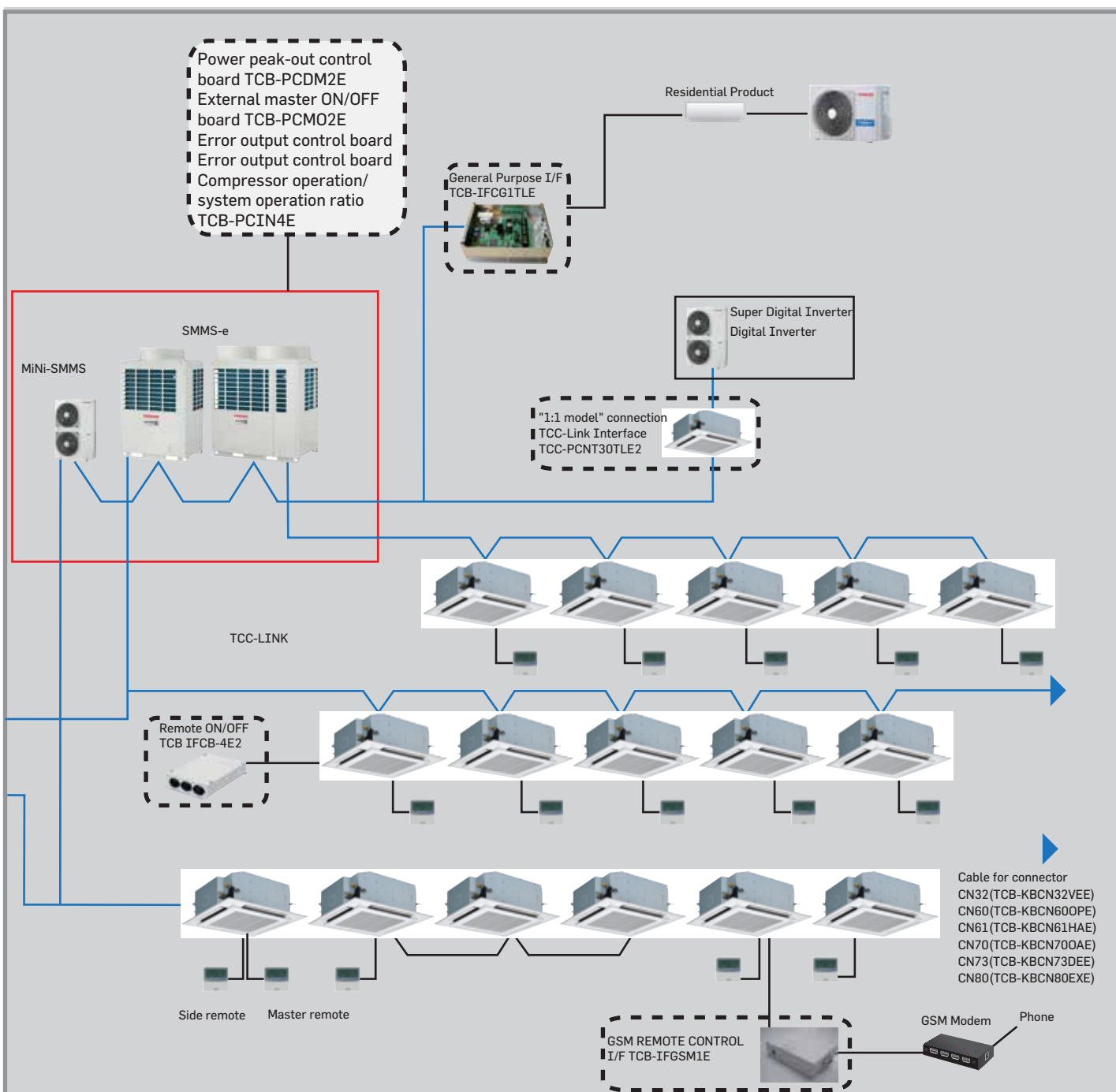
## Air-conditioning management system on site



1. LonWorks® : Registered trademark by Echelon corporation.
2. BACnet® : ANSI/ASHRAE 135-1995, A data Communication Protocol for Building Automation and Control Network.
3. Modbus® : Registered trademark by Schneider E.
4. KNX® : Registered trademark by knx.org

\*ESMA (UAE) Compliance





**Wire remote controller/wireless remote controller**



\*ESMA (UAE) Compliance

## Wired remote controller



Compact Remote controller  
RBC-ASC11-E/RBC-ASC11U-E  
The new RBC-ASC11\*-E local compact remote controller with LCD backlight display features simpler control keys for easier use.

Key Features:

- Simple keys; Menu, Timer; Up & Down, On/Off
- Large LCD display
- Mode
- Fan Speed
- Louvre Direction
- Timer setting
- Fault diagnosis
- DN code setting
- Room temperature display always available
- Remote TA sensor available in controller.



Remote controller with weekly timer (7-day timer function)  
RBC-AMS41E  
RBC-AMS41E-ME\*

Key Features:

- Clock display
- Schedule timer: Possible to program schedule timer (7-day timer) function Possible to program 8 functions for each day of the week.

\* The following items can be set in program: operation time, operation start/stop, operation mode, temperature setting, restriction on button operation.

\*ESMA (UAE) Compliance



Lite-Vision plus Remote Controller  
RBC-AMS55E-EN/ES  
RBC-AMS51E-EN/ES

Wired remote controller with a built in 7-day timer-featuring a new multi-language, LCD display with backlight, energy saving options and a return back function.

- Possibility to set and display the room name to easily set-up and monitor the working parameter.
- New modern and desirable controller design with menu driven display.
- Save mode by schedule timer to optimise energy consumption.
- Room temperature display always available.
- Two "Hot Keys" (F1, F2) for easy operation of air conditioner functions.
- Easy to read layout including display of indoor unit model name and serial number.
- Built-in backup power. Settings are kept in memory up to 72 hours in case of power failure.
- Remote TA sensor available in controller.
- Can be connected to a single indoor unit or a group of up to 8 indoor units.

## Wireless remote controller



Wireless remote controller kit & receiver unit

- Start/Stop
- Changing mode
- Temperature setting
- Airflow changing
- Timer function

Either "ON" time or "OFF" time or "CYCLIC" can be set how many 30 min. later ON or OFF is operated.

• Control by 2 remote controllers is available. Two wireless remote controllers can operate one indoor unit. The indoor unit can then be operated separately from the two different locations.

- Check code display

\* The wireless remote control cannot be connected to concealed duct high static pressure type



RBC-AXU31C-E  
Integral receiver  
(For ceiling)



RBC-AXU31U-E  
Integral receiver (For 4-way air discharge cassette)



RBC-AXU31-E  
Stand alone receiver (For 4-way air discharge cassette, compact 4-way cassette (600 x 600), 2-way air discharge cassette, ceiling, concealed duct standard, slim duct, floor standing cabinet, floor standing, 1-way discharge cassette).



RBC-AXU31UW-E  
Integral receiver (For 2-way air discharge cassette)

## Central remote controller



Central remote controller  
TCB-SC640U-E  
TCB-SC640U-ME\*

The TCB-SC640U-E 64-way central controller is TOSHIBA's standard central control solution and can be connected to up to 64 indoor units via the TCC-Link central control network. Indoor units can be controlled in terms of: individual indoor unit/group, all units in a zone (1 to 10), and all units connected. Additional features include 4-levels of remote controller permit/prohibit functions.

\*ME - Applicable for UAE only



Advance central controller - Smart Manager  
BMS-SM1281ETLE

The Smart Manager has the same hardware Control Function as the BMS-CM1280TLE Controller, but also has the ability of control from a Local Area Network and, with the use of an additional Interface, is capable of Energy Monitoring and Report Creation Functions. This controller is ideal where advanced control, Energy Monitoring, advanced scheduling or access to individual Air Conditioners is required from networked computer systems.

### Web Browser Control Software Features:

- List View available - Displays all Indoor Units from one screen
- Set View available - Shows Basic Indoor Unit settings on main screen
- Advanced Operation and Master schedule functions available
- Up to 4 Concurrent users can be connected
- Up to 32 User accounts can be programmed with different levels of access (at least 1 must be administrator level)



## Smart Phone Application Interface



BMS-IWF0320E

The BMS-IWF0320E is a versatile interface for Toshiba air conditioning units that enables monitoring and controlling air conditioners (up to 32) using smart phone application.

You can change the details of the settings, turn the air conditioners on and off, and monitor the operation status, settings status, and error incident status of the air conditioners.

Air conditioners are divided into hierarchies based on floors and can be positioned and registered for each floor. Controls for the air conditioners can be set per air conditioner unit.

### Scheduling operations:

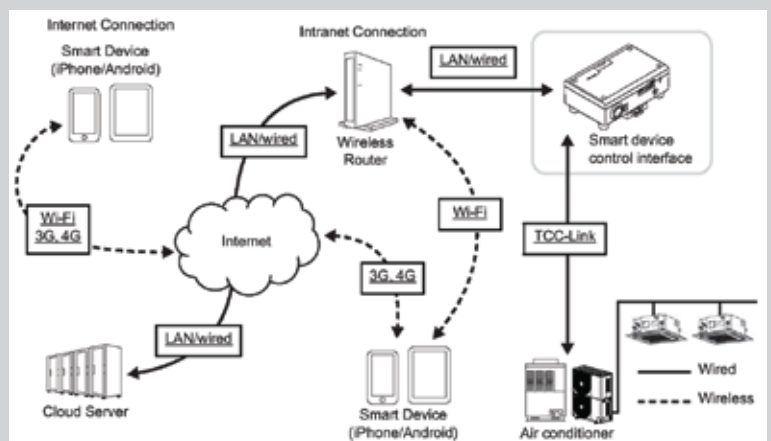
You can control the schedule for the air conditioners' operation in weekly units.

The items that you can set are almost the same as normal setting details, including starting and stopping operation, operation modes, operation temperature settings, air speed, and air direction. You can also display and check the schedule you set as a graph.



### Administrator functions and user privilege functions:

You can set either administrator privileges or user privileges for each user ID. Users with administrator privileges can use all functions. Users with user privileges cannot use some functions.



This application is confirmed to operate with the following manufacturer's models:

- Apple iPhone 7, iPhone 7 Plus, iPad - Operating System (iOS) Version 9.x, 10.x
- Sony Xperia XZ, Xperia XA1 Ultra - Operating System (Android) 5.x, 6.x, 7.x
- Samsung Galaxy S7, Galaxy S8, Galaxy Tab A10.1, Galaxy Tab S3 9.7, Galaxy Tab A7.0 - Operating System (Android) 5.x, 6.x, 7.x

## Advance control systems

### Touch Smart Manager



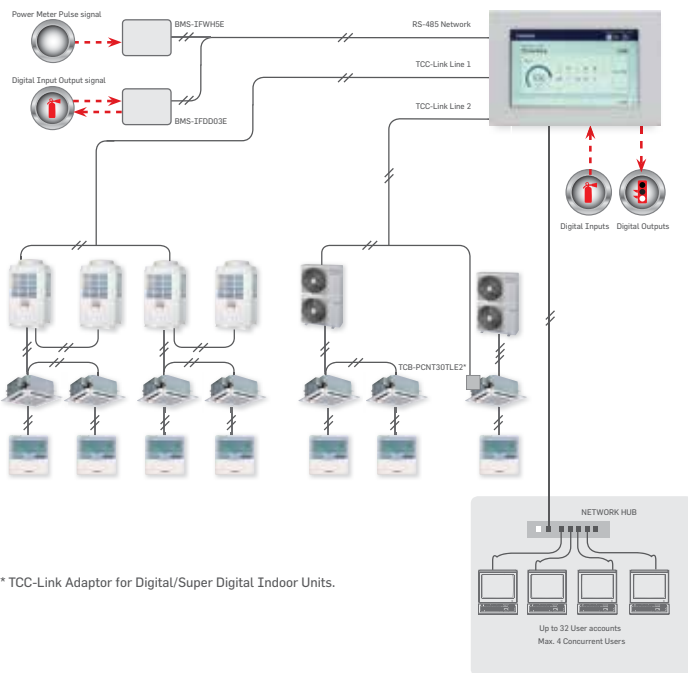
Advance central controller - Touch Smart Manager  
BMS-CT2560U-E

The Touch Screen Controller offers energy monitoring, schedule programming and full function control of all connected indoor units. This controller is ideally suited to any small or large installation where energy monitoring functions is required. It enables control for each individual indoor unit and is capable of providing information from the indoor unit settings and malfunction check codes. The Touch Screen is connected to the air conditioning control network directly by relay interfaces.

#### Features

- Compact size & white design for perfect integration in every interiors.
- Outstanding control experience with 7" capacitive touch screen.
- Developed for every kind of system up to 128 indoor units.
- Easy installation with direct connection to TCC link Toshiba protocol.
- Interlocking with external device
  - 8 Inputs ( Built-in)
    - No-voltage contact (A Pulse or static) for Power Meter Pulse input.
    - No-voltage contacts (Interlock)
  - 4 Outputs ( Built-in)
    - External device control
- Expansion Module are available for addition I/O requirement.
  - BMS-IFWH5E – Energy Monitoring Interface
  - BMS-IFDD03E -Digital Input/Out Interface.
- Monitoring of data trending through the smart manager Touch screen

#### Control Wiring



\* TCC-Link Adaptor for Digital/Super Digital Indoor Units.



Display the total electric power on a daily/monthly basis on a graph.



Display operating time and sensor information.

#### Equipment List

Device	Number of pieces	Description
BMS-CT2560U-E	1	Up to 128 indoor unit can be connected to Touch Smart Manager
BMS-IFDD03E	Up to 4 Boards	Interface for Digital Input & Outputs. Can connect up to 8 Power Meters per Board (Optional)
BMS-IFWH5E	Up to 4 Boards	Interface for Power Meter (Energy Monitoring Option only)

#### Locally Procured Item

Device	Number of pieces	Description
Digital Energy Meter with Pulse Output		( Energy Monitoring Option only)
Power Meter		For Operation Monitoring
PC Network Hub		For LAN Connection.



Energy consumption history (days)



Energy consumption comparison



Alarm list



Energy consumption history (Hours)



## Advance control systems

### Touch-screen controller



Touch-screen Controller  
BMS-CT5121E

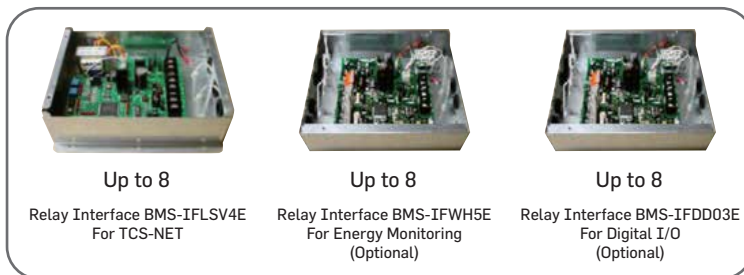


Touch-screen controller

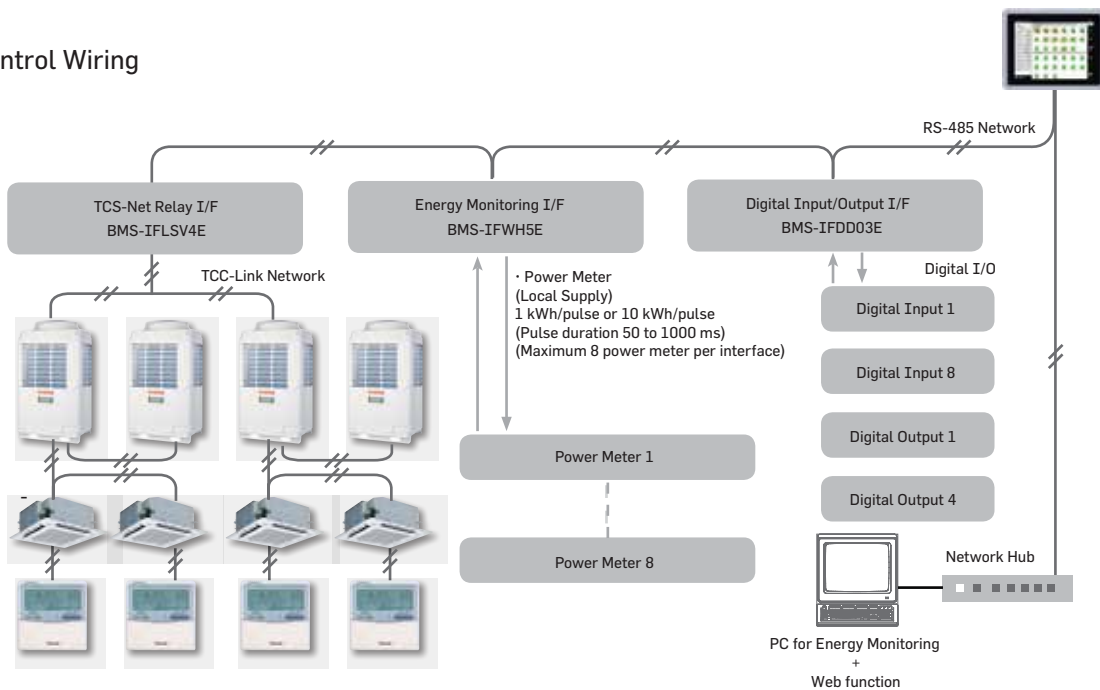
Using the touch-screen controller provides a clear display and enables easy operation. A maximum of 512 units are controllable using the one-touch controller.

Function

- Operation monitoring
- Operation control
- Operation Schedule
- Error Code
- Alarm List
- Energy monitoring/Billing
- Digital I/O Signal Control
- Web function
- Email alert
- Graphical report
- Building layout



### Control Wiring

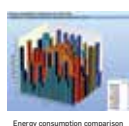


### Equipment List

Device	Number of pieces	Description
BMS-CT5121E	1	Up to 512 indoor units can be connected to Touch controller
BMS-IFLSV4E	Up to 8 Boards	Relay Interface for up to 64 indoor units
BMS-IFDD03E	Up to 8 Boards	Interface for Digital Input & Outputs. Can connect up to 8 Power Meters per Board (Optional)
BMS-IFWH5E	Up to 8 Boards	Interface for Power Meter (Energy Monitoring Option only)

### Locally Procured Item

Device	Number of pieces	Description
Power Meter		Digital Energy Meter with Pulse Output (Energy Monitoring Option only)
PC		For Operation Monitoring
Network Hub		For LAN Connection.



## Open network systems

### BACnet®

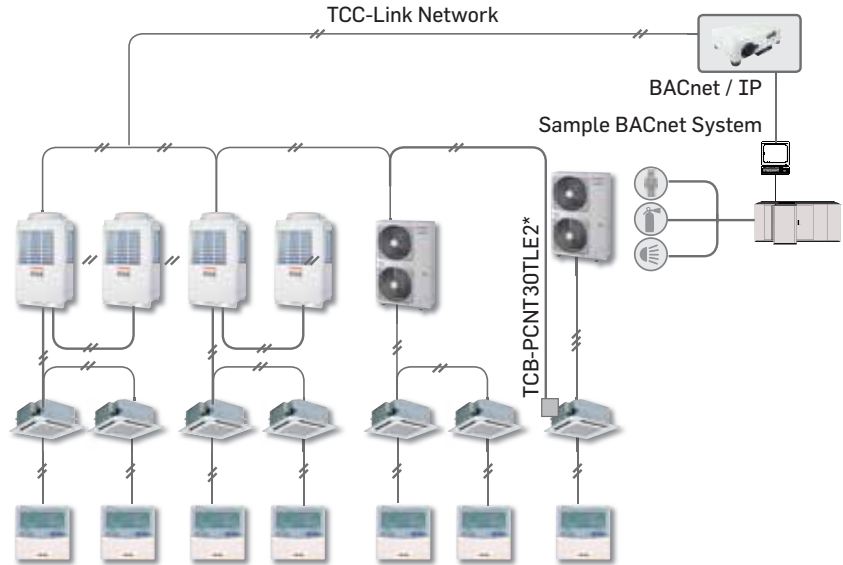


BAC net/IP Interface  
BMS-IFBN1280U-E

#### BACnet Interface

The Toshiba BMS-IFBN1280U-E BACnet Interface can be connect to the TCC-Link Central Control Network to enable control of the attached Air Conditioner product from a BACnet Building Management System.

- Maximum 64 Indoor Units/Groups and 16 Outdoor Systems can be connected to a single Interface.
- TCB-PCNT30TLE2 Network adaptor required for connection of DI/SDI to BACnet System.



\* TCC-Link Adaptor for Digital/Super Digital Indoor Units.

### KNX®



KNX/TP Interface  
INKNXTOS0160000  
INKNXTOS0640000

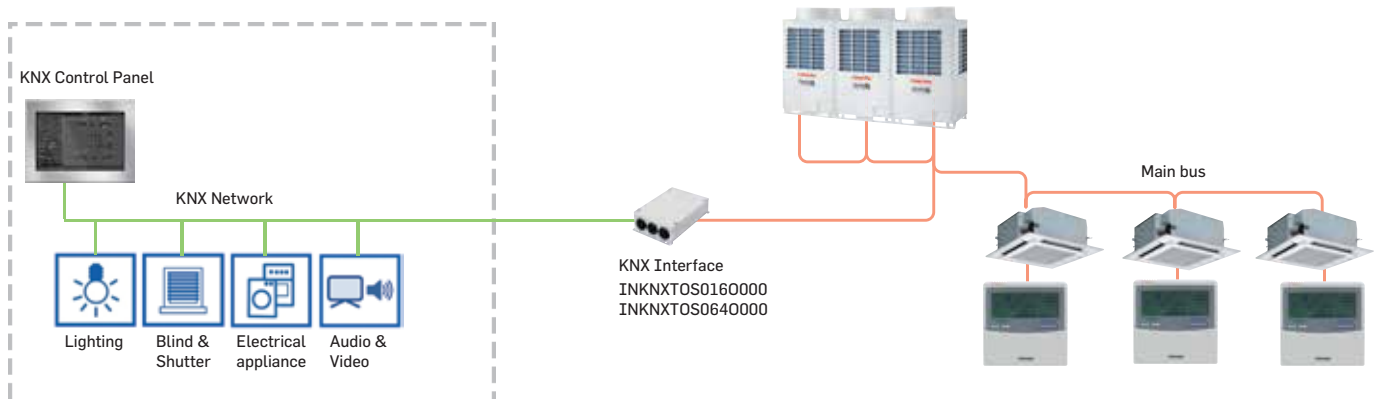
#### KNX Interface

The KNX interface manages the Toshiba VRF System air conditioning system as a KNX® device to communicate with the customer s Home automation.

Accessible to 64 units per one ,

Signals and provides the following functions:

- ON/OFF
- Mode: cool/heat/fan
- Air flow and fan speed
- Temperature setting
- Filter reset



## Open network systems

### LonWorks®



LonWorks Interface  
TCB-IFLN642TLE

#### LonWorks Interface

The LonWorks interface manages the SMMS-i air conditioning system as a Lon device to communicate with the customer's Building Management System and to monitor operational status.

A maximum of 64 units are controllable per interface.

#### SNVT signal

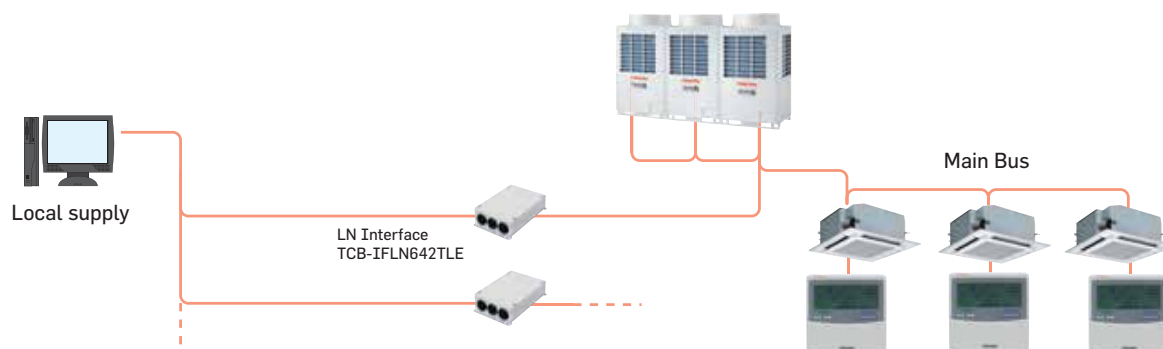
Signals and provides the following functions:

Object signals command

- ON/OFF
- Mode: cool/heat/fan
- Temperature setting
- Central/local

#### Monitoring

- ON/OFF
- Mode
- Cool/heat/fan/failure
- Temperature setting
- Room temperature
- Central/local, etc.



### Modbus®



Modbus Interface  
BMS-IFMB1280U-E

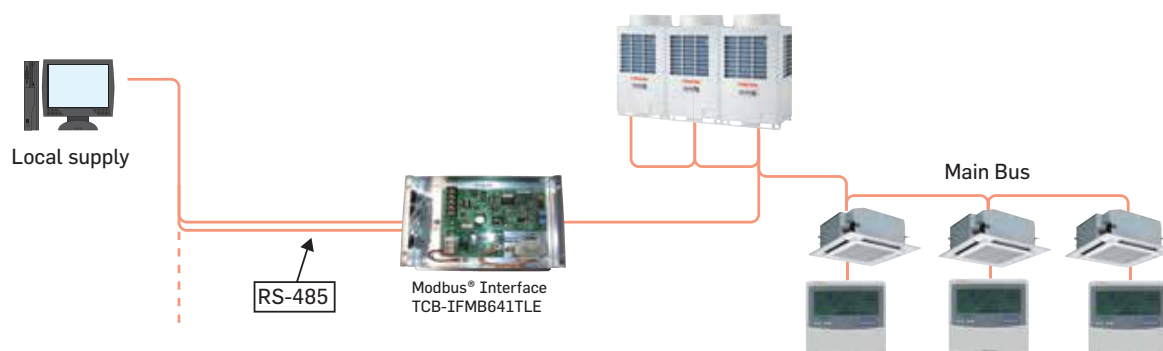
#### Modbus Interface

The Modbus® interface manages the Toshiba VRF System air conditioning system as a Modbus® device to communicate with the customer's Building Management System.

Accessible to 64 units per one BMS-IFMB1280U-E, 15 BMS-IFMB1280U-E on one Modbus® Master (prepared by user).

Signals and provides the following functions:

- ON/OFF
- Mode: cool/heat/fan
- Air flow/Louver setting
- Temperature setting
- Filter reset
- Accumulated operation time, etc.



1. LonWorks®: Registered trademark Echelon corporation

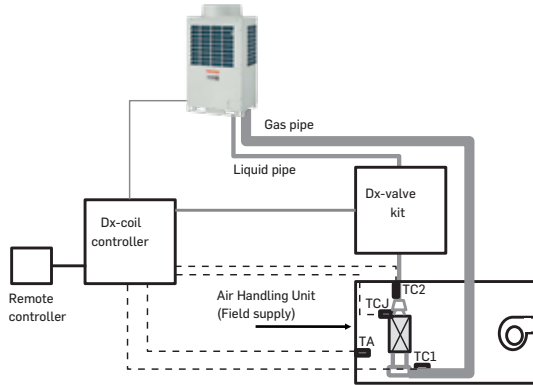
2. BACnet®: ANSI/ASHRAE 135-1995, A data Communication Protocol for Building Automation and Control Networks.

3. Modbus® is a registered trademark of Schneider E.

## VRF DX coil interface

### VRF DX coil interface - AHU application

VRF DX-coil interface is suitable for AHU with the DX Coil combined with TOSHIBA VRF outdoor unit . VRF Outdoors's capacity control using DX Kit PCB based on the return air temperature sensor.



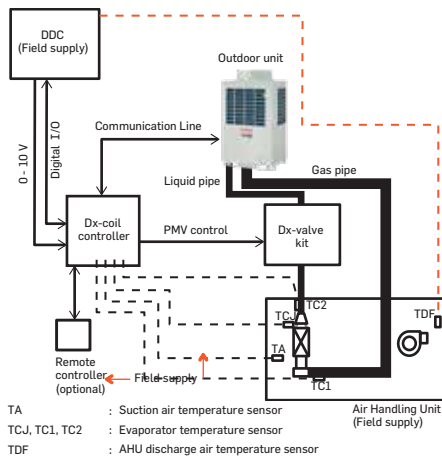
U - Series	
MM-DXC010	VRF DX COIL CONTROLLER (Individual / Header)
MM-DXC012	VRF DX COIL CONTROLLER (Follower)
MM-DXV080	VRF DX COIL VALVE KIT (5.6kW, 7.1kW, 8.0kW)
MM-DXV140	VRF DX COIL VALVE KIT (11.2kW, 14.0kW, 16.0kW)
MM-DXV280	VRF DX COIL VALVE KIT (22.4kW, 28.0kW)
J - Series	
TCB-IFDTA201E	VRF DX COIL CONTROLLER
RBM-A101VAE	VRF DX COIL VALVE KIT (22.4kW,28kW)
RBM-A201VAE	VRF DX COIL VALVE KIT (44.8kW,50.4kW,56kW)

**Notes:**

- AHU & AHU's Stater panel (Field supply)
- Wired remote control (optional for J-series).

### VRF DX coil interface - FAHU application

VRF DX-coil interface (DDC type) is suitable for FAHU with the DX Coil combined with TOSHIBA VRF outdoor unit . VRF Outdoors's capacity control using DDC (Field Supply) using 0-10V signal based on the supply air temperature sensor (Field Supply) .



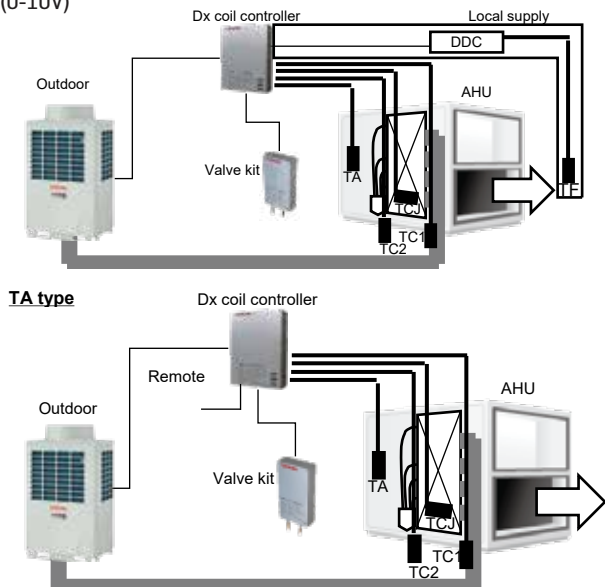
U - Series	
RBC-DXC031	VRF DX COIL CONTROLLER (0-10V AHU)
MM-DXV141	VRF DX COIL VALVE KIT (16.0kW)
MM-DXV281	VRF DX COIL VALVE KIT (22.4kW, 28.0kW)
J - Series	
TCB-IFDCC201E	VRF DX COIL CONTROLLER (0-10V AHU)
RBM-A101VAE	VRF DX COIL VALVE KIT (22.4kW,28kW)
RBM-A201VAE	VRF DX COIL VALVE KIT (44.8kW,50.4kW,56kW)

**Notes:**

- AHU & AHU's Stater panel (Field supply)
- DDC control panel (Field supply) is mandatory for operation.

### VRF DX coil interface - AHU / FAHU application

DDC type : Direct capacity control of Toshiba Carrier VRF outdoor unit by analogue input (0-10V)



Model name	Model number	Note
Dx-coil controller*	TCB-IFDMX01UP-E	All terminal without relay
Dx-coil controller*	TCB-IFDMR01UP-E	6 D/O terminal with relay
Dx-valve kit	RBM-A101UPVA-E	For 8/10/12 HP
Dx-valve kit	RBM-A201UPVA-E	For 14/16/18/20 HP
Optional sensor	TCB-IFDES1001P-E	10m lead wire

\*Dx-coil controller contains each TA/TC1/TC2/TCJ/TF sensor with 7.5m lead wire.

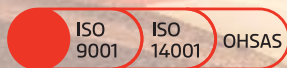


## Control Devices

Model Number	Reference	Description	Used with
RBC-ASC11E RBC-ASC11U-E	Compact remote	Wired remote	VRF and VRF Air-to-air heat exchangers with (DX coil) indoor units
RBC-AMS41E RBC-AMS41E-ME*	Remote controller with schedule timer	Enables to control indoor unit operation with schedule timer (7-days) allowing to program 8 functions/day + clock display	VRF and VRF Air-to-air heat exchangers with (DX coil) indoor units
RBC-AMS55E-EN/ES RBC-AMS51E-EN/ES	Lite-Vision plus Remote Controller	Local Controller with Multi-Language LCD display, a built-in 7-Day timer, Energy Saving options and return back function. EN =English, Italian, Polish, Greek, Russian, Turkish. ES = English, Spanish, Portuguese, French, Dutch, German	VRF and VRF Air-to-air heat exchangers with (DX coil) indoor units
RBC-AXU31C-E	Infra-red Remote Kit	Wireless remote controller	All ceiling units and one-way cassettes (SH series)
TCB-AXU31-E	Infra-red Remote Kit	Wireless remote controller	All other units (including compact 4-way cassette)
RBC-AX32UW(W)-E	Wireless remote unit kit	Wireless remote unit kit for 2-way cassette	2-way-cassette MMU-AP***2WH
RBC-AXU31U-E	Wireless remote unit kit	Wireless remote unit kit for 4-way cassette	4-way cassette indoors.
RBC-AX31UM-E	Wireless remote unit kit	Wireless remote unit kit for compact 4-way cassette	Compact 4-way cassette indoors.
TCB-SIR41UM-E	PIR sensor	Occupancy sensor	With RBC-UM21PG(W)E panels for compact 4-way cassette indoors.
TCB-TC41U-E	Remote temperature sensor	Remote temperature sensor for cassette & duct	All VRF
TCB-IFCB5-PE	Remote location On / Off Control Box	Enables remote location On / Off control	All VRF indoor units.
BMS-IWF0320E	Smart phone application interface.	Enables full control of up to 32 indoor units	All VRF indoor units.
TCB-SC640U-E TCB-SC640U-ME*	64 way control	Enables full control of up to 64 indoor units	All VRF indoor units.
BMS-SM1281ETLE	Smart Manager with Data analyser	Enables full control of up to 128 indoor units with Energy Monitoring and Advanced Control Options	All VRF indoor units.
BMS-CT256U-E	Touch Smart Manager	Enables full control of up to 128 indoor units	All VRF indoor units.
BMS-CT5121E	Touch Screen Controller	Enables full control of up to 512 indoor units, ML	All VRF indoor units.
BMS-IFLSV4E	TCS-Net Relay Interface	Relay for integration to TCS-Net	Bacnet gateway, Touch-screens & Web based controller
BMS-IFDD03E	Digital I/O interface	Enable digital input/output interlock signal	Applicable for Touch screen controller and Smart Manager
BMS-IFWH5E	Energy monitoring relay interface	Energy monitoring relay interface	Touch screen controller, Compliant manager, Web based controller, Smart Manager
BMS-IFBN1280U-E	BACnet/IP	BACnet interface	Up to 64 indoor unit. All VRF indoor unit.
TCB-IFLN642TLE	Lonworks® Gateway	Allows control of 64 indoor units from a Lonworks based BMS	All VRF indoor units
BMS-IFMB1280-E	Modbus Interface	Allows control of 64 indoor units from a Modbus based BMS	All VRF indoor units
INKNXTOS0640000	KNX Interface	Allows control of 64 indoor units from a KNX based BMS/Home Automation.	All VRF indoor units
TCB-IFCG1TLE	General purpose interface	Enables control of A/C by the DI/DO and AI/AO	All VRF indoor units
TCB-PX30MUE	Terminal box	Steel Terminal box to connect to	TCB-PCNT30TLE2, TCB-IFCB5-PE
TCB-PX100PE	Terminal box	Plastic Terminal box to connect to	TCB-PCNT30TLE2, TCB-IFCB5-PE
TCB-IFCB-4E2	Application Control PC Board	Remote On/Off Control	All VRF indoor units.
TCB-IFCB5-PE	Application Control PC Board	Window Switch Remote On/Off control	All VRF indoor units.
TCB-PCDM4E	Application Control PC Board	Power Peak Cut Control	All VRF outdoor units.
TCB-PCM04E	Application Control PC Board	External Master ON/OFF Control Board	All VRF outdoor units.
TCB-PCUC2E	Application Control PC Board	Input / Output Control Board	Ceiling, Floor standing and high static duct.
TCB-PCIN4E	Connectors	Error/Individual compressor Operation Output Control Board	All VRF outdoor units.
TCB-KBCN32VEE	Application Control PC Board	For CN32	All VRF indoor units.
TCB-KBCN600PE		For CN60	All VRF indoor units.
TCB-KBCN61HAE		For CN61	All VRF indoor units.
TCB-KBCN700AE		For CN70	All VRF indoor units.
TCB-KBCN73DEE		For CN73	All VRF indoor units.
TCB-KBCN80EXE		For CN80	All VRF indoor units.

\*ESMA (UAE) Compliance

# TOSHIBA



**Notice:**

Product listed in this catalogue use HFC refrigerant R410A with a GWP of 2,088\*. Toshiba is committed to continuously improving its products to ensure the highest quality and reliability standards and to meet local regulations and market requirements. All features and specifications are subject to change without prior notice.

\* The GWP value is calculated based on information provided in the EU F-gas Regulation and IPCC Fourth Assessment Report.