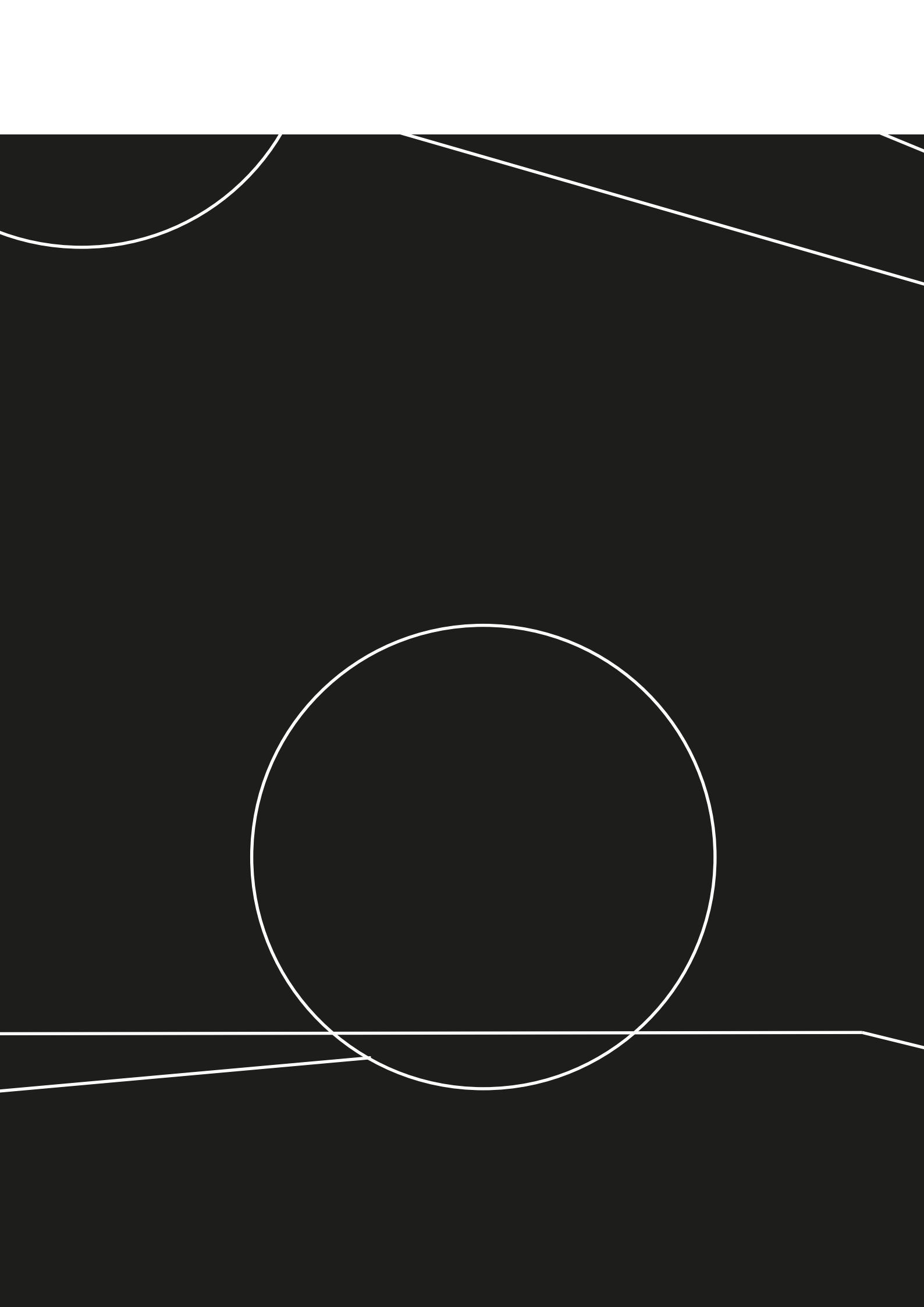




**YOUR  
BUSINESS,  
YOUR  
COMFORT**





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# TOSHIBA

It all began in Japan in 1875. Two Japanese innovators, Hisashige Tanaka, a mechanical engineering genius, and Ichisuke Fujioka, an expert of electricity, decided to join their forces in order to create a world of progress **focusing on humanity and the improvement of daily life: Toshiba.**



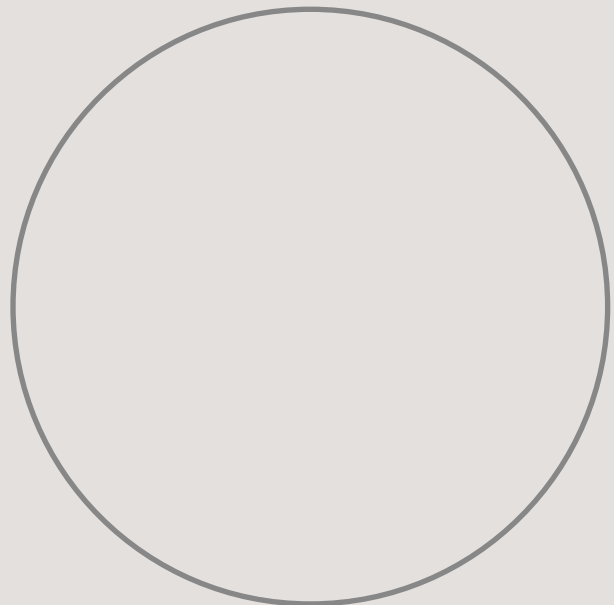
# WELCOME TO A WORLD OF INNOVATION



Today, **140 years later**, all of us in Toshiba are still inspired by their example. We continue to **work, research and break new ground** to offer you highly evolved and up to date solutions on air conditioning and heating, always caring for the environment. We stand by our founders' initial vision by providing a **better quality of life for everyone through elegant and secure products**, and advanced technological machinery.

Our products, trusted by millions of people all over the world, are based upon the unique Japanese Research & Development. Their characteristic design makes them unique and **they stand out globally**, as they are known to create a beautiful interior environment, no matter how harsh the conditions outside.

We are certain that even now, that Toshiba **is undoubtedly a world leader in the global air conditioning market**, we remain loyal to our founders' initial vision: to create a better quality of life for everyone, no matter what their space of living is, no matter which country they inhabit, so as to make them feel comfortable and happy in a room of ideal conditions, in short - in the perfect climate!







## For every demand

Always driven by our standards for the creation of innovative high-end technological products, we offer you reliable and secure solutions that cover every possible demand. Now your world is getting simpler, clearer, and more effective thanks to the technical building usage systems of Toshiba. Whatever your situation, our groundbreaking solutions are here for you.

**Whatever  
you ask for**

## For every space

Home, store, office or hotel; each building has its own unique demands and special features. Toshiba creates a perfect environment of comfort and encourages productivity. Whatever you use your space for, Toshiba is here to help you create the best possible conditions of comfort.

**Whatever  
you do**



# INNOVATIVE SOLUTIONS FOR A CONFIDENT LIVING



## For every need

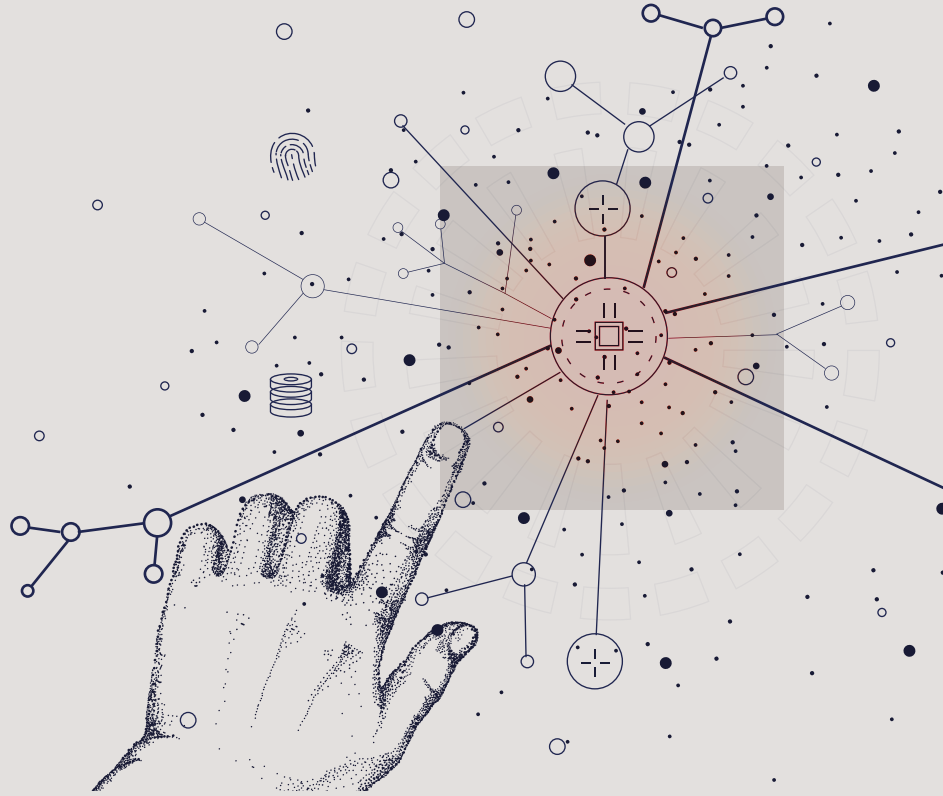
In a world of infinite choices and unmeasurable possibilities, Toshiba satisfies every need. The solutions offered for heating and air conditioning match your needs perfectly, down to the smallest detail and always with the best outcome.

**Whatever  
you need**



## Everyday technology and innovation

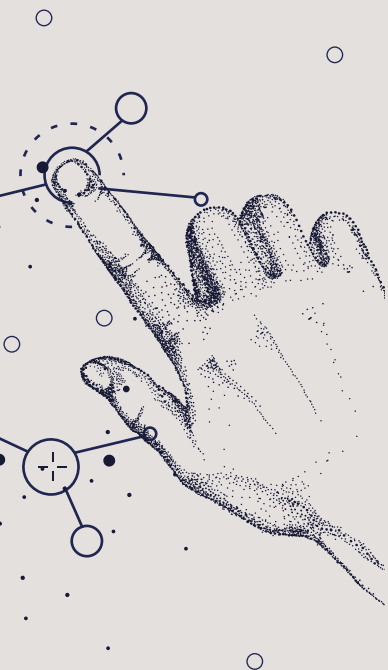
We stand out for the high standard Japanese technology of our products, for our unparalleled innovation and our subtle design. Our aim is to offer through our products a most safe, comfortable and productive life to our trusting clients.



We combine our spirit for innovation with our passion for a better future. Protecting the environment is our guiding commitment, since it is our common heritage throughout the planet. We cultivate close relations based upon mutual trust and respect. What drives us is our strong bonds with our clients, our business associates and communities all around the world.



# COMMITTED TO A BETTER WORLD FOR A FACT



## Eurovent programme

Eurovent is an independent European organization with the strictest requirements globally, which verifies that the technical features and performance of air conditioning products follow all European guidelines.

All Toshiba residential products are certified by Eurovent programme. This is a guarantee for customers and users that our products will operate in accordance with the design specifications and that their published technical characteristics, performance and Energy Ratings are true.

## European standards

To improve its environmental responsibility, Toshiba Air Conditioning offers products that meet the following European standards:

### EN 14511

This directive determines the requirements and performance measurements of air conditioners and heat pumps.

### EN 14825

This directive determines the methodology for the calculation of seasonal performance for space heating and cooling of air conditioners and heat pumps, with electrical driven compressors.

### EN 16147

This directive involves heat pumps with electrical driven compressors and determines the requirements for marking domestic hot water units.

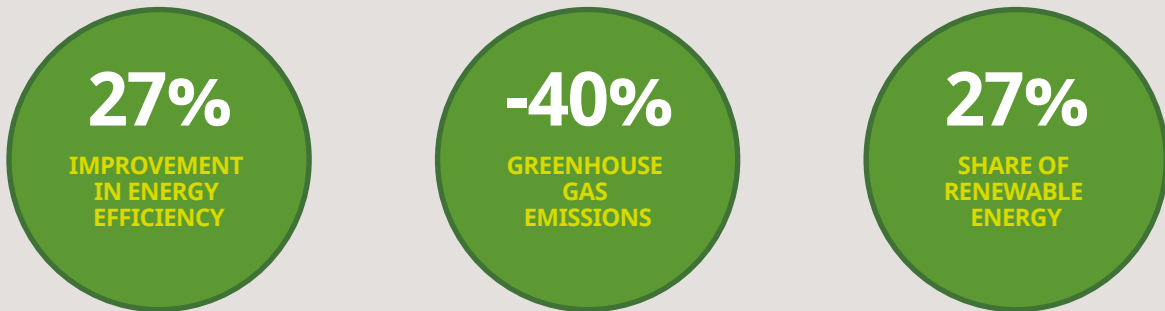
### 517/2014 F-gas

The Regulation aims to progressively abolish the use of hydrocarbons in future heating and cooling systems.



## The planet is our home

It is imperative for us to play an active role in protecting our planet; it is something we defend daily. At Toshiba Air Conditioning, we believe we can make a difference. We are committed to advancing research and developing super-energy-efficient technologies. This commitment is in line with the European Union's climate and energy objectives for 2030.



Toshiba Air Conditioning also assesses the impact of its business activities, products and services on the environment and sets targets aiming to reduce environmental impact and prevent pollution.



Concurrently Toshiba Group is also conducting group-wide environmental activities based on the recognition of the importance of maintaining and expanding environments for conserving biodiversity.



# OUR COMMITMENT TO THE FUTURE, STARTING FROM TODAY

## Environmental action plan

In order to realize an ideal state of the Earth in 2050, Toshiba Group formulates Environmental Action Plan for medium-term goals and manages specific environmental activities and their targets. Under the ongoing Sixth Environmental Action Plan for the period from FY2017 to FY2020, we set goals for 15 items in two areas: or namely activities to reduce environmental impacts in the lifecycles of products and services (Business), and basic activities to support such activities (Management).

### Developing Strategies in Two Areas: Business and Management

#### Environmental Vision 2050

##### Business

##### Promoting initiatives to reduce environmental impacts in product/service lifecycles

###### Reducing environmental impacts in manufacturing

Reduction of GHG emissions

Reduction of waste and water received

Reduction of chemicals discharged

Pursuing high-efficiency manufacturing that simultaneously reduces environmental impacts and costs

###### Improving environmental performance of products and services

Further reduction of CO<sub>2</sub> emissions

More resources conserved or recycled

Reduction of specified chemical substances contained in products

Development of energy technologies and energy-saving products and services to help realize a low-carbon society

##### Management

##### Promoting basic activities that support business initiatives

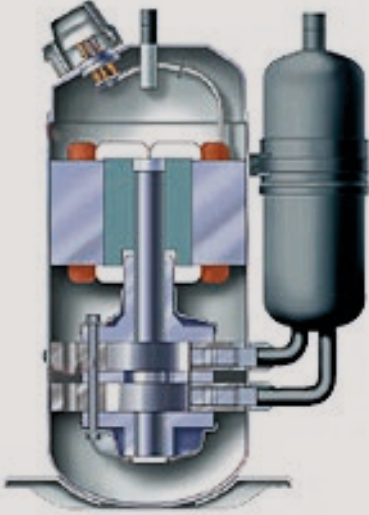
Ensuring of environmental risk compliance

Environmental communication

Conservation of biodiversity

Creating a system that supports strict compliance and enhancing basic activities to meet public expectations

Helping resolve global environmental issues



## Products designed to perform, engineered to perfection

### Digital DC Twin Rotary Inverter Compressor

Ensures a steady rotation speed and reduces any unwanted vibration. The results are unique:



#### Increased efficiency

The compressor has a particularly high efficiency at low rotational speeds and during long-running steady conditions.



#### Energy saving

Thanks to the anti-asymmetric twin-cylinder rotation, the compressor offers great energy savings and very powerful and reliable operation.



#### High reliability & low noise level

Stable performance with minimal friction loss. The ideal solution for noise-sensitive applications. The noise of the outdoor unit during operation is almost negligible, and at the same time it ensures double lifespan for the compressor.





# ONLY EXCELLENCE CAN BE NAMED TOSHIBA

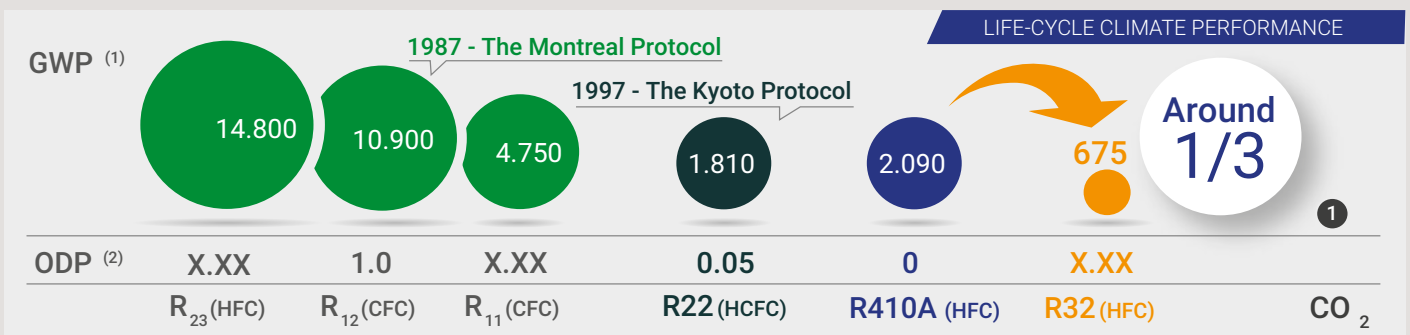
## Easy to install

- ▶ Working pressures for R410A and R32 refrigerant are similar
- ▶ R32 refrigerant can be easily charged in both liquid or gas state
- ▶ Safety commissioning instructions are similar to those for R410A
- ▶ R32 and R410A equipments are the same, except the refrigerant recovery pump and the reclaim cylinder
- ▶ Toshiba flare joints are ISO14903 certified, in anticipation of the new IEC60335-2-40 edition 5 regulation, which will allow flare connection inside the room.



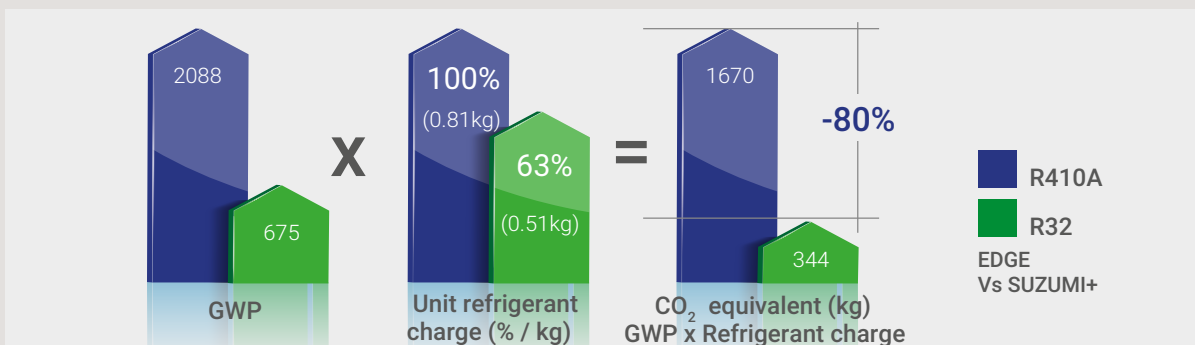
## Environmental friendly

Toshiba units perfectly keep the balance between environment safety and comfort, along with the increased energy efficiency for greater savings.



## Reducing the CO<sub>2</sub> emissions

R32 low GWP, combined with Toshiba's units 30% reduction of refrigerant charge, allows to reduce the total equivalent CO<sub>2</sub> by 80% of the system, in comparison with equivalent capacities of Toshiba R410A legacy units.



(1) Global Warming Potential  
(2) Ozone Depletion Potential

## Inverter becomes Digital

The Digital Inverter control module technology ensures optimised reproduction of the sine wave supply at the desired frequency, in order to reduce inefficient harmonics that inverters normally emit.

With this innovative control method, the Toshiba Digital Inverter **brings state-of-the-art inverter technology** to the commercial sector, offering great advantages in terms of capacity, energy savings and optimised comfort.



## High performance and minimised consumption

The Toshiba Digital and Super Digital Inverter systems are powerful and extremely efficient. They provide air conditioning with great energy savings.

The Super Digital Inverter provides **the best performance in the industry** on part load conditions, both in cooling and heating mode. In most applications, these systems can reduce the Seasonal Energy Consumption.

The variable capacity management of the compressor allows the Digital and Super Digital Inverter to maintain the control of the room temperature and to ensure minimum energy wastage.

## Unparalleled flexibility

For the professionals seeking **high performance, compact units and optimum comfort**, Toshiba has the ideal product.

Toshiba never ceases improving the inverter control system: the vector control for its DC hybrid inverter enhances system efficiency and reduces noise levels. High-tech elements include improved coils, high precision components and higher refrigerant compression, thanks to redesigned compression channels.

Super Digital and Digital Inverter systems are able to satisfy applications that require cooling up to +52°C (+46°C for DI) and heating down to -27°C (-20°C for DI).

DC twin-rotary compressor delivers stable performance with extremely low rotor friction, making it ideal for noise-sensitive applications, as well as for efficient operations in partial load conditions.

## RAV Super Digital Inverter

Toshiba Super Digital Inverter series perfectly combine economy and ecology in a compact body. They feature state-of-the-art technology, flexible control, and easy installation, for great comfort and convenience to any business environment. SDI outdoor units are compatible with a complete range of indoor units: Cassette, Ducted, Ceiling and High-Wall units.

### Maximum efficiency

Very efficient energy consumption, **keeps down operating costs**: SEER of 9,40 and SCOP of 5,51 achieved by Toshiba's unrivalled Super Digital Inverter technologies and newly developed components.

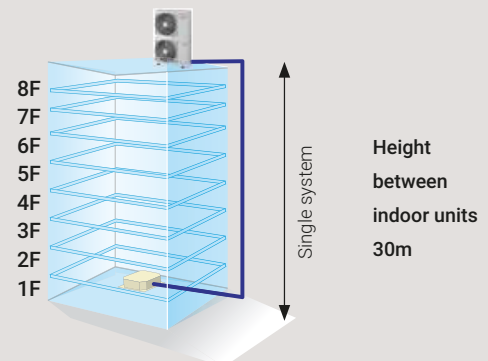
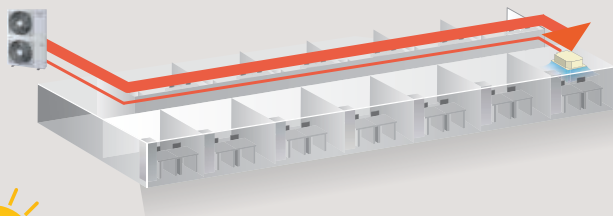


### DC Twin rotary compressor and vector-controlled Inverter

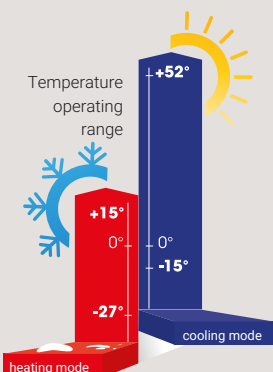
The advantages of inverter technology are further optimised when combined with Toshiba twin-rotary compressors, giving exceptional speed control in the capacity range from 20 to **100% capacity**: a unique Toshiba benefit!

### Piping flexibility

Super Digital Inverter, leader in the industry, efficiently supports the height differences, of up to 30 meters, on a single system. Enough height to cover an 8-storey building! Consequently, the outdoor unit can be installed out of sight, increasing installation flexibility (only 4 & 5HP).



Height between indoor units 30m



### Operating temperature range

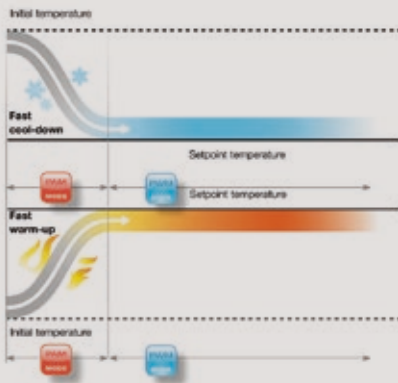
Heater operation starts from an outdoor temperature of -27°C, creating a comfortable space even during cold winters, while cooling operation is possible up to 52°C outdoor temperature. **This enables wider applications** and use of the system in colder regions.

## RAV Digital Inverter

Toshiba continues to improve its range of split systems dedicated to commercial applications. Digital Inverter (DI) has been totally redesigned, becoming more compact and more effective. The performance of these systems provide significant energy savings for a rapid return on investment. Comfort, ease of installation and simplicity are the strengths of Toshiba systems.

### Small and light chassis

Less than 900mm up to 5HP, the Digital Inverter is extremely compact and can be installed in very small spaces. In addition, chassis under 5HP are less than 70kg.



### Smart Inverter

Hybrid inverter control combines two intelligent control mechanisms to reach the set point temperature as quickly as possible with maximum efficiency:

- The PAM mode, quickly achieves high capacity and desired comfort.
- The PWM mode minimizes power input to maximize efficiency.

**The result: high efficiency level.**

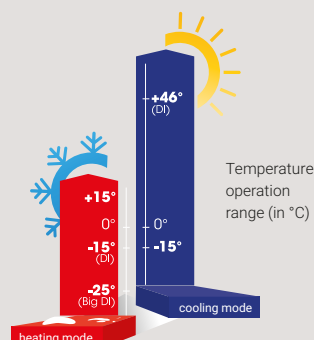
### Wide capacity range

- 9 sizes from 1HP to 10HP with 1Ph or 3Ph electrical
- Connection to cover every type of projects, from the 15m<sup>2</sup> room to the 200m<sup>2</sup> shop, in new construction and refurbishment as well

		1HP	1.5HP	2HP	3HP	4HP	5HP	6HP	8HP	10HP
TOSHIBA R32	1Ph	✓	✓	✓	✓	✓	✓	✓		
	3Ph				✓	✓	✓	✓	✓	✓

### Operating temperature range

Operation is possible starting from an outdoor temperature of -15°C (-25°C for Big DI), while cooling operation is possible at -15°C and up to 46°C outdoor temperature. This enables wider applications and use of the system everywhere.







## Professional solutions for professional needs

Toshiba Digital and Super Digital Inverter systems are extremely compact units with exceptional operating savings. State-of-the-art technologies, flexible controls and improved installation go along with comfort and convenience, for all kind of business installations.

Ceiling, cassette, ducted, suspended and high-wall: a complete range of indoor units ready to suit all commercial applications. All Toshiba systems, expanded with maximum cooling capacities of up to 27kW, benefit additional commercial applications with larger volumes.





# LIGHT COMMERCIAL SOLUTIONS



The Toshiba Super Digital Inverter series is leading energy efficiency, operating range and piping length, offering the best solution for the majority of commercial projects and large residential applications.

#### SCOP MAX



5,51

#### CAPACITY



5kW-14kW

#### OPERATION



-27°C/+52°C

Power consumption analysis embedded when SDI series is combined with the RBC-AMSU51-EN.

#### POWER CONSUMPTION (WEEK)



#### TOP CLASS EFFICIENCY

- ▶ High efficiency SCOP of up to 5,51, thanks to Toshiba inverter technology

#### WIDE ADAPTABILITY

- ▶ Operating temperature limits from -27°C (Heating) to +52°C (Cooling) allow the system to operate across a wide temperature range
- ▶ Quiet operation

#### FLEXIBLE

- ▶ Can be utilised for single, twin or triple indoor applications

#### EASY MAINTENANCE

- ▶ Removable corner panels for easy access
- ▶ Self-diagnosis function





# GP\_AT SUPER DIGITAL INVERTER

## Physical data outdoor - Single phase

Outdoor unit			RAV-GP561ATP-E 2 HP	RAV-GP801AT-E 3 HP	RAV-GP1101AT-E 4 HP	RAV-GP1401AT-E 5 HP
Air Flow	m <sup>3</sup> /h - l/s		2.250-625	3.180-883	6.960-1.933	6.960-1.933
Sound pressure level	dB(A)	C	46	46	49	50
Sound power level	dB(A)	C	63	63	66	67
Operating range	°C	C	-15 / 52	-15 / 52	-15 / 52	-15 / 52
Sound pressure level	dB(A)	H	48	48	50	51
Sound power level	dB(A)	H	65	65	67	68
Operating range	°C	H	-27 / 15	-27 / 15	-27 / 15	-27 / 15
Dimensions (HxWxD)	mm		630x799x299	1.050x1.010x370	1.550x1.010x370	1.550x1.010x370
Weight	kg		45	74	104	104
Compressor type			DC Twin Rotary	DC Twin Rotary	DC Twin Rotary	DC Twin Rotary
Flare connections						
Gas	in		1/2	5/8	5/8	5/8
Liquid	in		1/4	3/8	3/8	3/8
Minimum pipe length	m		3	3	3	3
Maximum pipe length	m		50	50	75	75
Maximum height difference	m		30	30	30	30
Chargeless pipe length	m		20	30	30	30
Refrigerant	Type/kg		R32 / 1,35	R32 / 1,9	R32 / 3,1	R32 / 3,1
Power supply	V-ph-Hz		220/240-1-50	220/240-1-50	220/240-1-50	220/240-1-50

C = cooling mode

H = heating mode

## Physical data outdoor - Three phase

Outdoor unit			RAV-GP1101AT8-E 4 HP	RAV-GP1401AT8-E 5 HP	RAV-GP1601AT8-E 6 HP
Air Flow	m <sup>3</sup> /h - l/s		6.060 - 1.683	6.180 - 1.717	6.180 - 1.717
Sound pressure level	dB(A)	C	49	51	51
Sound power level	dB(A)	C	66	68	68
Operating range	°C	C	-15 / 46	-15 / 46	-15 / 46
Sound pressure level	dB(A)	H	50	52	53
Sound power level	dB(A)	H	67	69	70
Operating range	°C	H	-20 / 15	-20 / 15	-20 / 15
Dimensions (HxWxD)	mm		1340x900x320	1340x900x320	1340x900x320
Weight	kg		95	95	95
Compressor type			DC Twin Rotary	DC Twin Rotary	DC Twin Rotary
Flare connections					
Gas	in		5/8	5/8	5/8
Liquid	in		3/8	3/8	3/8
Minimum pipe length	m		3	3	3
Maximum pipe length	m		75	75	75
Maximum height difference	m		30	30	30
Chargeless pipe length	m		30	30	30
Refrigerant	Type/kg		R32 / 2.6	R32 / 2.6	R32 / 2.6
Power supply	V-ph-Hz		380/415-3N-50	380/415-3N-50	380/415-3N-50

C = cooling mode

H = heating mode

Big DI has been designed to provide a high capacity output from a very small foot print.

#### SCOP MAX



3,51

#### CAPACITY



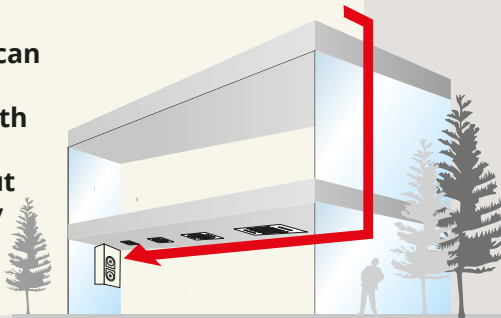
19kW-27kW

#### OPERATION



-27°C/+46°C

The installation can reach up to 60m total piping length and 30m in elevation without additional safety measures.



#### HIGH EFFICIENCY & ENERGY SAVINGS

- ▶ Best EER and COP in its class incorporating Toshiba's exclusive Inverter twin-rotary compressor made in Japan
- ▶ Compliant with ERP directive lot 21
- ▶ Top class part load efficiency

#### WIDE ADAPTABILITY

- ▶ Allows connection of four indoor units (same type and capacity) to one outdoor unit
- ▶ Compatible with a wide choice of indoor units: 4-way cassette, 4-way compact cassette, slim duct, standard duct, high-wall and ceiling

#### SAFETY & RELIABILITY

- ▶ Built-in leak detection system
- ▶ Compliant with the child finger entrapment regulation



# GM\_AT8 BIG DIGITAL INVERTER

## Physical data outdoor - Three phase

Outdoor unit			RAV-GM2241AT8-E 8 HP	RAV-GM2801AT8-E 10 HP
Air Flow	m <sup>3</sup> /h - l/s		9.150 - 2.541	10.890 - 3.025
Sound pressure level	dB(A)	C	58	61
Sound power level	dB(A)	C	76	78
Operating range	°C	C	-15 / 46	-15 / 46
Sound pressure level	dB(A)	H	60	63
Sound power level	dB(A)	H	76	80
Operating range	°C	H	-27 / 15	-27 / 15
Dimensions (HxWxD)	mm		1.550x1.010x370	1.550x1.010x370
Weight	kg		142	142
Compressor type			DC Twin Rotary	DC Twin Rotary
Flare connections				
Gas	in		1 1/8	1 1/8
Liquid	in		1/2	1/2
Minimum pipe length	m		5	5
Maximum pipe length	m		60	60
Maximum height difference	m		30	30
Chargeless pipe length	m		30	30
Refrigerant	Type/kg		R32 / 5.0	R32 / 5.0
Power supply	V-ph-Hz		380/415-3N-50	380/415-3N-50

C = cooling mode

H = heating mode

## SCOP MAX



4,51

## CAPACITY



2kW-16kW

## OPERATION



-15°C/+46°C

Toshiba state-of-the-art compressor features a powerful magnetic rotor with great surface area to increase efficiency and reduce the operation noise.

- Efficiency
- Reliability
- 100% Toshiba



Toshiba Digital Inverter brings state-of-the-art inverter technology to the commercial sector, offering considerable advantages in terms of capacity, energy savings, optimised control, lower refrigerant charge. In addition, it has the smallest physical dimensions and lightest range of outdoor units in the industry.



### LIGHT & COMPACT

- ▶ Up to 14kW in only 890mm height and 69kg

### WIDE ADAPTABILITY

- ▶ Compatible with a wide choice of indoor units: 4 way cassette, 4-way compact cassette, slim duct, standard duct, high wall and ceiling
- ▶ Night operation mode to minimize the outdoor unit sound as low as 33dB(A)

### EFFICIENCY & ENERGY SAVINGS

- ▶ The Vector Intelligent Drive Unit (IPDU) technology ensures power limitation by 1% step between 50% and 100% load for optimal capacity control

### EASY MAINTENANCE

- ▶ Removable corner panels for easy access
- ▶ Auto diagnostic function





# GM\_ATP(8) DIGITAL INVERTER

## Physical data outdoor - Single phase

Outdoor unit		RAV-GM301ATP-E 1 HP	RAV-GM401ATP-E 1.5 HP	RAV-GM561ATP-E 2 HP	RAV-GM801ATP-E 3 HP	RAV-GM901ATP-E 3.5 HP	RAV-GM1101ATP-E 4 HP	RAV-GM1401ATP-E 5 HP	RAV-GM1601ATP-E 6 HP
Air Flow	m <sup>3</sup> /h - l/s	1.800 - 500	2.200 - 611	2.400 - 667	2.700 - 750	2.900 - 806	4.080 - 1.133	4.200 - 1.167	6.900 - 1.917
Sound pressure level	dB(A) C	46	49	46	48	51	54	55	53
Sound power level	dB(A) C	61	64	63	65	68	70	70	70
Operating range	°C C	-15 / 46	-15 / 46	-15 / 46	-15 / 46	-15 / 46	-15 / 46	-15 / 46	-15 / 46
Sound pressure level	dB(A) H	47	50	48	52	55	57	57	55
Sound power level	dB(A) H	62	65	65	69	72	74	74	72
Operating range	°C H	-15 / 15	-15 / 15	-15 / 15	-15 / 15	-15 / 15	-15 / 15	-15 / 15	-15 / 15
Dimensions (HxWxD)	mm	550x780x290	550x780x290	550x780x290	550x780x290	630x800x300	890x900x320	890x900x320	1.340x900x320
Weight	kg	33	39	40	44	47	68	68	95
Compressor type		DC Rotary	DC Twin Rotary	DC Twin Rotary	DC Twin Rotary	DC Twin Rotary	DC Twin Rotary	DC Twin Rotary	DC Twin Rotary
Flare connections									
Gas	in	3/8	1/2	1/2	5/8	5/8	5/8	5/8	5/8
Liquid	in	1/4	1/4	1/4	3/8	3/8	3/8	3/8	3/8
Minimum pipe length	m	2	2	5	5	5	5	5	5
Maximum pipe length	m	20	20	30	30	50	50	50	50
Maximum height difference	m	10	10	30	30	30	30	30	30
Chargeless pipe length	m	15	15	20	20	20	30	30	30
Refrigerant	Type/kg	R32 / 0.6	R32 / 0.9	R32 / 0.9	R32 / 1.3	R32 / 2.0	R32 / 2.1	R32 / 2.1	R32 / 2.4
Power supply	V-ph-Hz	220/240-1-50, 220-1-60	220/240-1-50, 220-1-60	220/240-1-50, 220-1-60	220/240-1-50, 220-1-60a	220/240-1-50, 220-1-60	220/240-1-50, 220-1-60	220/240-1-50, 220-1-60	220/240-1-50, 220-1-60

C = cooling mode H = heating mode

## Physical data outdoor - Three phase

Outdoor unit		RAV-GM1101AT8P-E 4 HP	RAV-GM1401AT8P-E 5 HP	RAV-GM1601AT8P-E 6 HP
Air Flow	m <sup>3</sup> /h - l/s	4.080 - 1.133	4.200 - 1.167	6.900 - 1.917
Sound pressure level	dB(A) C	54	55	53
Sound power level	dB(A) C	70	70	70
Operating range	°C C	-15 / 46	-15 / 46	-15 / 46
Sound pressure level	dB(A) H	57	57	55
Sound power level	dB(A) H	74	74	72
Operating range	°C H	-15 / 15	-15 / 15	-15 / 15
Dimensions (HxWxD)	mm	890x900x320	890x900x320	1.340x900x320
Weight	kg	69	69	94
Compressor type		DC Twin Rotary	DC Twin Rotary	DC Twin Rotary
Flare connections				
Gas	in	5/8	5/8	5/8
Liquid	in	3/8	3/8	3/8
Minimum pipe length	m	5	5	5
Maximum pipe length	m	50	50	50
Maximum height difference	m	30	30	30
Chargeless pipe length	m	30	30	30
Refrigerant	Type/kg	R32 / 2.1	R32 / 2.1	R32 / 2.4
Power supply	V-ph-Hz	380/415-3-50, 380-3-60	380/415-3-50, 380-3-60	380/415-3-50, 380-3-60

C = cooling mode H = heating mode

Dedicated for commercial application, the Toshiba smart cassette is the perfect mix between comfort, elegance and efficiency.

#### SCOP MAX



5,51

#### CAPACITY



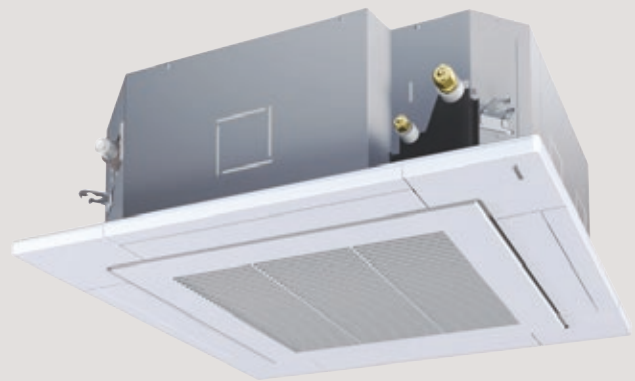
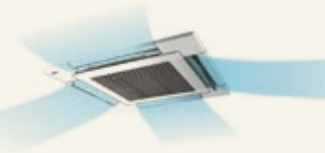
5kW-14kW

#### OPERATION



-27°C/+52°C

Louver position automatically adjusts to prevent cold draught being felt by users.



#### EFFICIENCY

- ▶ Top class SEER and SCOP, thanks to long slit heat exchanger with magic coil treatment, high efficiency fan motor and large opening air conditioning ventilation
- ▶ Energy saving with the occupancy sensor which will automatically switch off the unit if nobody is in the room

#### COMFORT

- ▶ Unique flap design for optimal air distribution
- ▶ Individual setting of louver position: 3 different swing modes: standard, diagonally, opposite or turn around
- ▶ 5 fan steps to precisely control the air flow

#### DESIGN

- ▶ Simple & elegant design fits various rooms



# GM\_UT 4-WAY SMART CASSETTE

## Performance data with Super Digital Inverter

Outdoor unit Indoor unit (Cassette)		RAV-GP561ATP-E RAV-GM561UT-E	RAV-GP801AT-E RAV-GM801UT-E	RAV-GP1101AT-E RAV-GM1101UT-E	RAV-GP1401AT-E RAV-GM1401UT-E
<b>Cooling capacity</b>	kW	5,0	7,1	10,0	12,5
Cooling range (min. - max.)	kW	1,2-5,6	1,9 - 8,0	3,1 - 12,0	3,1 - 14,0
Power input (min. - rated - max.)	kW C	0,19-1,20-2,03	0,26-1,37-2,94	0,56-1,90-2,80	0,56-2,91-3,40
EER		4,17	5,18	5,26	4,30
SEER		8,07	9,40	8,80	8,30
Energy efficiency class	C	A++	A+++	A+++	TBD
Seasonal electricity consumption	kWh/a C	217	264	398	903
<b>Heating capacity</b>	kW	5,6	8,0	11,2	14,0
Heating range (min. - max.)	kW	0,9 - 8,1	1,3 - 11,3	2,6 - 13,0	2,6 - 16,5
Power input (min. - rated - max.)	kW H	0,16-1,29-2,75	0,20-1,45-3,15	0,41-2,18-2,98	0,41-3,04-4,18
COP	W/W	4,34	5,52	5,14	4,61
SCOP (Average zone)		5,01	5,51	5,00	4,97
Energy efficiency class (Average zone)	H	A++	A+++	A++	TBD
Seasonal electricity consumption	kWh/a H	1.061	1.294	2.573	2.702

C = cooling mode      H = heating mode

## Physical data indoor

Indoor unit		RAV-GM561UT-E	RAV-GM801UT-E	RAV-GM1101UT-E	RAV-GM1401UT-E
Air Flow (H/L)	m <sup>3</sup> /h - l/s	1.050/750 - 291/208	1.920/810 - 533/225	2.250/1050 - 625/291	2.250/1170 - 625/325
Sound pressure level (H-M-L)	dB(A)	32-29-26	42-35-27	48-40-31	48-41-33
Sound power level (H-M-L)	dB(A)	48-45-43	56-49-43	61-54-46	61-55-48
Dimensions (HxWxD)	mm	256x840x840	319x840x840	319x840x840	319x840x840
Weight	kg	20	25	25	25
Panel dimensions (HxWxD)	mm	30x950x950	30x950x950	30x950x950	30x950x950
Panel weight	kg	5	5	5	5

C = cooling mode      H = heating mode

H-M-L = High - Medium - Low speed

4-way cassette is designed to provide uniform air distribution and total comfort. It is the ideal solution for small commercial application.

### SCOP MAX



5,22

### CAPACITY



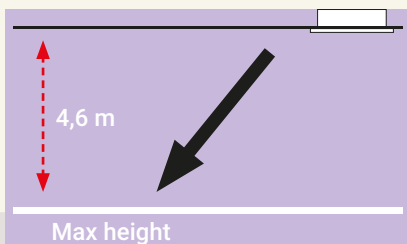
5kW-16kW

### OPERATION



-27°C/+52°C

Optimal air diffusion up to 4,6m ceiling height!



### COMFORT

- ▶ Two louvers shape option: straight flow louver and wide flow louver; optimum air distribution
- ▶ Individual setting of louver position: 3 different swing mode: standard, diagonally, opposite, turn around
- ▶ Wide air flow in all directions

### RELIABILITY

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

### EASY INSTALLATION

- ▶ Compact chassis with only 256mm height (sizes 5 and 8)
- ▶ Light-weight unit, for easy and quick installation





# RM\_UT 4-WAY CASSETTE

## Performance data with Super Digital Inverter

Outdoor unit		RAV-GP561ATP-E	RAV-GP801AT-E	RAV-GP1101AT-E	RAV-GP1101AT8-E	RAV-GP1401AT-E	RAV-GP1401AT8-E	RAV-GP1601AT8-E
Indoor unit (Cassette)		RAV-RM561UTP-E	RAV-RM801UTP-E	RAV-RM1101UTP-E	RAV-RM1101UTP-E	RAV-RM1401UTP-E	RAV-RM1401UTP-E	RAV-RM1601UTP-E
<b>Cooling capacity</b>	kW	5,0	7,1	10,0	10,0	12,5	12,5	14,0
Cooling range (min. - max.)	kW	1,2-5,6	1,9 - 8,0	3,1 - 12,0	2,6 - 12,0	3,1 - 14,0	2,6 - 14,0	2,6 - 16,0
Power input (min. - rated - max.)	kW C	0,19-1,22-1,97	0,26 - 1,58 - 3,15	0,53 - 2,13 - 3,05	0,66-2,32-3,60	0,53 - 3,16 - 3,55	0,66 - 3,42 - 4,40	0,66 - 4,34 - 5,70
EER		4,10	4,49	4,69	4,31	3,96	3,65	3,23
SEER		7,61	8,80	8,65	7,1	8,15	7,01	6,72
Energy efficiency class	C	A++	A+++	A+++	A++	TBD	TBD	TBD
Seasonal electricity consumption	kWh/a C	230	282	405	492	920	1.069	1.249
<b>Heating capacity</b>	kW	5,6	8,0	11,2	11,2	14,0	14,0	16,0
Heating range (min. - max.)	kW	0,9-8,1	1,3 - 11,3	2,6 - 13,0	2,4 - 15,6	2,6 - 16,5	2,4 - 18,0	2,4 - 19,0
Power input (min. - rated - max.)	kW H	0,16-1,30-2,76	0,20 - 1,77 - 3,47	0,40 - 2,34 - 3,08	0,53-2,41-4,30	0,40 - 3,21 - 4,38	0,53-3,41-5,50	0,53-4,28-6,51
COP	W/W	4,31	4,52	4,79	4,65	4,36	4,11	3,74
SCOP (Average zone)		4,96	5,22	4,73	4,36	4,72	4,36	4,36
Energy efficiency class (Average zone)	H	A++	A+++	A++	A+	TBD	TBD	TBD
Seasonal electricity consumption	kWh/a H	1.071	1.367	2.719	3.047	2.844	3.049	3.049

## Performance data with Digital Inverter

Outdoor unit		RAV-GM561ATP-E	RAV-GM801ATP-E	RAV-GM901ATP-E	RAV-GM1101ATP-E	RAV-GM1101AT8P-E	RAV-GM1401ATP-E	RAV-GM1401AT8P-E	RAV-GM1601ATP-E	RAV-GM1601AT8P-E
Indoor unit (4-way Cassette)		RAV-RM561UTP-E	RAV-RM801UTP-E	RAV-RM901UTP-E	RAV-RM1101UTP-E	RAV-RM1101UTP-E	RAV-RM1401UTP-E	RAV-RM1401UTP-E	RAV-RM1601UTP-E	RAV-RM1601UTP-E
<b>Cooling capacity</b>	kW	12,0	6,7	8,0	9,5	9,5	12	12	14,0	14,0
Cooling range (min. - max.)	kW	1,5-5,6	1,5-8,0	1,9-8,8	3,0-11,2	3,0-11,2	3,0-13,2	3,0-13,2	3,0-16,0	3,0-16,0
Power input (min. - rated - max.)	kW C	0,26-1,56-1,86	0,26-2,22-2,60	2,42	0,60-2,87-4,10	0,60-2,87-4,10	0,60-4,29-4,71	0,60-4,29-4,71	4,49	4,49
EER		3,21	3,02	3,30	3,31	3,31	2,8	2,8	3,12	3,12
SEER		6,34	5,81	7,00	6,15	6,15	5,71	5,71	6,3	6,3
Energy efficiency class	C	A++	A+	A++	A++	A++	A+	A+	TBD	TBD
Seasonal electricity consumption	kWh/a C	276	403	389	540	540	736	736	1.033	1.033
<b>Heating capacity</b>	kW	5,3	7,7	9,0	11,2	11,2	13,0	13,0	16,0	16,0
Heating range (min. - max.)	kW	1,5-6,3	1,5-9,0	1,6-9,9	3,0-13,0	3,0-13,0	3,0-16,0	3,0-16,0	3,0-18,0	3,0-18,0
Power input (min. - rated - max.)	kW H	0,26-1,36-2,08	0,26-2,13-3,03	2,65	0,60-2,93-4,30	0,60-2,93-4,30	0,60-3,46-4,50	0,60-3,46-4,50	4,43	4,43
COP	W/W	3,90	3,62	3,72	3,82	3,82	3,76	3,76	3,61	3,61
SCOP (Average zone)		4,60	4,42	4,60	4,28	4,28	4,29	4,29	4,35	4,35
Energy efficiency class (Average zone)	H	A++	A+	A++	A+	A+	A+	A+	TBD	TBD
Seasonal electricity consumption	kWh/a H	852	1.615	1.917	2.615	2.615	2.611	2.611	2.575	2.575

## Physical data indoor

Indoor unit		RAV-RM561UTP-E	RAV-RM801UTP-E	RAV-GM901UTP-E	RAV-RM1101UTP-E	RAV-RM1401UTP-E	RAV-RM1601UTP-E
Air Flow (H/L)	m <sup>3</sup> /h - l/s	1.050/780 - 291/217	1.230/810 - 341/225	1.600/900 - 444/250	2.010/1170 - 558/325	2.100/1230 - 583/341	2.130/1260 - 592/350
Sound pressure level (H-M-L)	dB(A)	32-29-28	35-31-28	40-36-33	43-38-33	44-38-34	45-40-36
Sound power level (H-M-L)	dB(A)	47-44-43	50-46-43	55-51-48	58-53-48	59-53-49	60-55-51
Dimensions (HxWxD)	mm	256x840x840	256x840x840	319x840x840	319x840x840	319x840x840	319x840x840
Weight	kg	20	20	24	24	24	24
Panel dimensions (HxWxD)	mm	30x950x950	30x950x950	30x950x950	30x950x950	30x950x950	30x950x950
Panel weight	kg	4,2	4,2	4,2	4,2	4,2	4,2

C = cooling mode H = heating mode

H-M-L = High - Medium - Low speed

The compact 4 way cassette is ideal for small commercial application where a compact efficient unit is needed.

#### SCOP MAX



4,7

#### CAPACITY



2,5kW-5,6kW

#### OPERATION



-27°C/+52°C

Occupancy sensor switches off automatically the unit if nobody is in the room to save energy.\*



\*optional



#### DESIGN

- ▶ Elegant and flat appearance
- ▶ Fit within the T-bar of grid ceiling: 620mmX620mm

#### COMFORT

- ▶ Individual setting of louver position: 3 different swing modes: standard, diagonally, opposite, turn around
- ▶ 5 steps air flow

#### EASY INSTALLATION

- ▶ Compact and thin chassis with only 256mm height
- ▶ Built-in high-lift drain pump
- ▶ Light-weight unit, for easy and quick installation



# RM\_MUT COMPACT 4-WAY CASSETTE

## Performance data with Super Digital Inverter

Outdoor unit		RAV-GP561ATP-E
Indoor unit (600X600 Cassette)		RAV-RM561MUT-E
<b>Cooling capacity</b>	kW	5,0
Cooling range (min. - max.)	kW	1,2-5,6
Power input (min. - rated - max.)	kW C	0,19 - 1,56 - 1,97
EER		3,21
SEER		6,02
Energy efficiency class	C	A+
Seasonal electricity consumption	kWh/a C	291
<b>Heating capacity</b>	kW	5,6
Heating range (min. - max.)	kW	0,9-7,0
Power input (min. - rated - max.)	kW H	0,16 - 1,60 - 2,36
COP	W/W	3,50
SCOP (Average zone)		4,30
Energy efficiency class (Average zone)	H	A+
Seasonal electricity consumption	kWh/a H	1.237

## Performance data with Digital Inverter

Outdoor unit		RAV-GM301ATP-E	RAV-GM401ATP-E	RAV-GM561ATP-E
Indoor unit (600X600 Cassette)		RAV- RM301MUT-E	RAV- RM401MUT-E	RAV- RM561MUT-E
<b>Cooling capacity</b>	kW	2,5	3,6	5,0
Cooling range (min. - max.)	kW	0,9 - 3,0	0,9 - 4,0	1,5 - 5,6
Power input (min. - rated - max.)	kW C	0,25 - 0,59 - 0,82	0,18 - 0,90 - 2,00	0,30 - 1,64 - 1,86
EER		4,24	4,00	3,05
SEER		5,94	5,76	5,69
Energy efficiency class	C	A+	A+	A+
Seasonal electricity consumption	kWh/a C	147	219	307
<b>Heating capacity</b>	kW	3,4	4,0	5,3
Heating range (min. - max.)	kW	0,8 - 4,5	0,8 - 5,0	1,5 - 6,3
Power input (min. - rated - max.)	kW H	0,17 - 0,76 - 1,40	0,14 - 0,95 - 1,70	0,30 - 1,47 - 2,40
COP	W/W	4,47	4,21	3,61
SCOP (Average zone)		4,70	4,44	4,37
Energy efficiency class (Average zone)	H	A++	A+	A+
Seasonal electricity consumption	kWh/a H	685	851	897

## Physical data indoor

Indoor unit		RAV- RM301MUT-E	RAV- RM401MUT-E	RAV- RM561MUT-E
Air Flow (H/L)	m <sup>3</sup> /h - l/s	640/440 - 177/122	660/468 - 183/130	798/546 - 221/152
Sound pressure level (H-M-L)	dB(A)	38 - 36 - 30	41 - 36 - 32	44 - 39 - 35
Sound power level (H-M-L)	dB(A)	53 - 51 - 45	56 - 51 - 47	59 - 54 - 50
Dimensions (HxWxD)	mm	256x575x575	256x575x575	256x575x575
Weight	kg	15	15	15
Panel dimensions (HxWxD)	mm	12x620x620	12x620x620	12x620x620
Panel weight	kg	2,5	2,5	2,5

C = cooling mode H = heating mode

H-M-L = High - Medium - Low speed

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

#### SCOP MAX



4,81

#### CAPACITY



5kW-16kW

#### OPERATION



-27°C/+52°C

**Airzone compatibility: multiple individual controlled rooms with only one indoor unit.**

COMPATIBLE WITH

## AIRZONE



#### ADAPTABILITY

- ▶ Up to 120Pa available pressure, thanks to DC fan motor
- ▶ Flexible design allows the inlet air to be configured between the standard rear inlet design or as an alternative, from the underside of the unit. There is also a provision for a fresh air intake supply via a pre-punched knockout hole
- ▶ Compact and thin chassis, measuring just 275mm in height

#### EASY INSTALLATION

- ▶ Built-in high-lift drain pump
- ▶ PC board panel easily accessible from the side of the unit
- ▶ Optional air discharge spigot





# RM\_BTP STANDARD DUCT

## Performance data with Super Digital Inverter

Outdoor unit Indoor unit (Standard Duct)		RAV-GP561ATP-E RAV-RM561BTP-E	RAV-GP801AT-E RAV-RM801BTP-E	RAV-GP1101AT-E RAV-RM1101BTP-E	RAV-GP1101AT8-E RAV-RM1101BTP-E	RAV-GP1401AT-E RAV-RM1401BTP-E	RAV-GP1401AT8-E RAV-RM1401BTP-E	RAV-GP1601AT8-E RAV-RM1601BTP-E
<b>Cooling capacity</b>	kW	5,0	7,1	10,0	10,0	12,5	12,5	14,0
Cooling range (min. - max.)	kW	1,2-5,6	1,9 - 8,0	3,1 - 12,0	2,6 - 12,0	3,1 - 14,0	2,6 - 14,0	2,6 - 16,0
Power input (min. - rated - max.)	kW C	0,19 - 1,52 - 1,99	0,26 - 1,63 - 3,20	0,65 - 2,40 - 3,63	0,66 - 2,58 - 4,01	0,65 - 3,57 - 3,97	0,66 - 3,81 - 4,89	0,66 - 4,49 - 6,50
EER		3,29	4,36	4,17	3,88	3,50	3,28	3,12
SEER		5,60	7,50	6,60	5,70	6,06	5,48	5,36
Energy efficiency class	C	A+	A++	A++	A+	TBD	TBD	TBD
Seasonal electricity consumption	kWh/a C	312	331	530	613	1.237	1.366	1.566
<b>Heating capacity</b>	kW	5,6	8,0	11,2	11,2	14,0	14,0	16
Heating range (min. - max.)	kW	0,9-7,4	1,3 - 11,3	2,6 - 13,0	2,40 - 15,6	2,6 - 16,5	2,40 - 18,0	2,4 - 19,0
Power input (min. - rated - max.)	kW H	0,16 - 1,61 - 2,76	0,20 - 1,85 - 3,55	0,47 - 2,73 - 3,38	0,53 - 2,76 - 4,42	0,47 - 3,63 - 4,43	0,53 - 3,66 - 5,71	0,53 - 4,57 - 6,96
COP	W/W	3,48	4,32	4,10	4,06	3,86	3,83	3,50
SCOP (Average zone)		4,24	4,81	4,24	4,14	4,24	3,95	3,93
Energy efficiency class (Average zone)	H	A+	A++	A+	A+	TBD	TBD	TBD
Seasonal electricity consumption	kWh/a H	1.254	1.484	3.032	3.644	3.168	4.176	4.271

## Performance data with Digital Inverter

Outdoor unit Indoor unit (Standard Duct)		RAV-GM561ATP-E RAV-RM561BTP-E	RAV-GM801ATP-E RAV-RM801BTP-E	RAV-GM901ATP-E RAV-RM901BTP-E	RAV-GM1101ATP-E RAV-RM1101BTP-E	RAV-GM1101AT8P-E RAV-RM1101BTP-E	RAV-GM1401ATP-E RAV-RM1401BTP-E	RAV-GM1401AT8P-E RAV-RM1401BTP-E	RAV-GM1601ATP-E RAV-RM1601BTP-E	RAV-GM1601AT8P-E RAV-RM1601BTP-E
<b>Cooling capacity</b>	kW	5,0	6,7	8,0	9,5	9,5	12,1	12,1	14,0	14,0
Cooling range (min. - max.)	kW	1,5-5,6	1,5-7,4	1,9-8,8	3,0-11,2	3,0-11,2	3,0-13,2	3,0-13,2	3,0-16,0	3,0-16,0
Power input (min. - rated - max.)	kW C	0,31-1,83-2,05	0,31-2,38-2,76	2,67	0,60-2,99-4,50	0,60-2,99-4,50	0,60-4,42-4,71	0,60-4,42-4,71	5,13	5,13
EER		2,73	2,82	3,00	3,18	3,18	2,74	2,74	2,73	2,73
SEER		5,28	5,20	6,10	5,28	5,28	5,36	5,36	5,3	5,3
Energy efficiency class	C	A	A	A++	A	A	TBD	TBD	TBD	TBD
Seasonal electricity consumption	kWh/a C	332	451	459	629	629	TBD	TBD	1.584	1.584
<b>Heating capacity</b>	kW	5,3	7,7	9,0	11,2	11,2	13,0	13,0	16,0	16,0
Heating range (min. - max.)	kW	1,5-6,3	1,5-9,0	1,6-9,9	3,0-13,0	3,0-13,0	3,0-16,0	3,0-16,0	3,0-18,0	3,0-18,0
Power input (min. - rated - max.)	kW H	0,31-1,62-2,47	0,31-2,32-3,18	2,65	0,60-2,99-4,00	0,60-2,99-4,00	0,60-3,60-4,55	0,60-3,60-4,55	4,69	4,69
COP	W/W	3,27	3,32	3,40	3,75	3,75	3,61	3,61	3,41	3,41
SCOP (Average zone)		4,08	4,13	4,60	4,19	4,19	4,19	4,19	3,9	3,9
Energy efficiency class (Average zone)	H	A+	A+	A++	A+	A+	TBD	TBD	TBD	TBD
Seasonal electricity consumption	kWh/a H	960	1.728	1.917	2.537	2.537	TBD	TBD	2.872	2.872

## Physical data indoor

Indoor unit		RAV-RM561BTP-E	RAV-RM801BTP-E	RAV-GM901BTP-E	RAV-RM1101BTP-E	RAV-RM1401BTP-E	RAV-RM1601BTP-E
Air Flow (H/L)	m³/h - l/s	800/480 - 222/133	1.200/720 - 333/200	1.700/1.000 - 472/278	2.100/1.260 - 583/350	2.100/1.260 - 583/350	2.100/1.260 - 583/350
Sound pressure level (H-M-L)*	dB(A)	33-29-25	34-30-26	37-33-30	40-36-33	40-36-33	40-36-33
Sound power level (H-M-L)*	dB(A)	48-44-40	49-45-41	52-48-45	55-51-48	55-51-48	55-51-48
Dimensions (HxWxD)	mm	275x700x750	275x1.000x750	275x1.400x750	275x1.400x750	275x1.400x750	275x1.400x750
Weight	kg	23	30	40	40	40	40
External static pressure (stand/upper limit)	Pa	30/120	30/120	50/120	50/120	50/120	50/120

C = cooling mode H = heating mode

H-M-L = High - Medium - Low speed

\* bottom air inlet

Whether installed in a ceiling void or in a false ceiling, Toshiba's slim duct offers the ultimate technology, with exceptional energy savings, high performance and easy installation.

### SCOP MAX



4,6

### CAPACITY



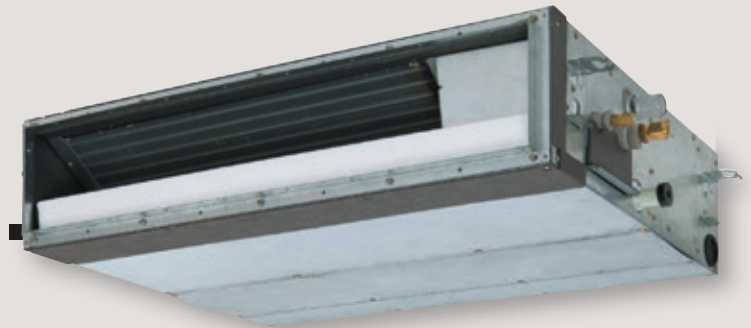
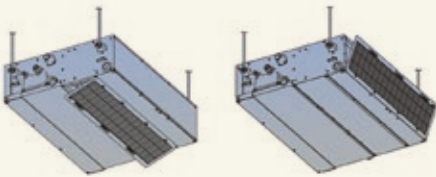
2,5kW-5,6kW

### OPERATION



-27°C/+52°C

Cleaned prefilter included compatible with rear or underside air suction.



### ADAPTABILITY

- ▶ Up to 50Pa available pressure with four steps set up
- ▶ Easy to combine with different types of air diffusers
- ▶ Flexible design, allows the inlet air to be configured between the standard rear inlet design or as an alternative, from the underside of the unit
- ▶ There is also a provision for a fresh air intake supply via a pre-punched knockout hole

### EASY INSTALLATION

- ▶ Slimline design, with a height of just 21cm and a weight of 22kg, gives increased flexibility when designing and installing the system
- ▶ Natural drain discharge or built-in drain pump to manage condensates



# RM\_SDT SLIM DUCT

## Performance data with Super Digital Inverter

Outdoor unit Indoor unit (Slim duct)		RAV-GP561ATP-E RAV-RM561SDT-E
<b>Cooling capacity</b>	kW	5,0
Cooling range (min. - max.)	kW	1,2-5,6
Power input (min. - rated - max.)	kW C	0,19 - 1,56 - 1,98
EER		3,21
SEER		5,77
Energy efficiency class	C	A+
Seasonal electricity consumption	kWh/a C	303
<b>Heating capacity</b>	kW	5,6
Heating range (min. - max.)	kW	0,9-7,0
Power input (min. - rated - max.)	kW H	0,16 - 1,58 - 2,66
COP	W/W	3,54
SCOP (Average zone)		4,20
Energy efficiency class (Average zone)	H	A+
Seasonal electricity consumption	kWh/a H	1.266

## Performance data with Digital Inverter

Outdoor unit Indoor unit (Slim duct)		RAV-GM301ATP-E RAV-RM301SDT-E	RAV-GM401ATP-E RAV-RM401SDT-E	RAV-GM561ATP-E RAV-RM561SDT-E
<b>Cooling capacity</b>	kW	2,5	3,6	5,0
Cooling range (min. - max.)	kW	0,9 - 3,0	0,9 - 4,0	1,5 - 5,6
Power input (min. - rated - max.)	kW C	0,25 - 0,56 - 0,82	0,18 - 0,93 - 2,00	0,32 - 1,91 - 2,75
EER		4,46	3,87	2,62
SEER		6,29	5,86	5,14
Energy efficiency class	C	A++	A+	A+
Seasonal electricity consumption	kWh/a C	143	227	346
<b>Heating capacity</b>	kW	3,4	4,0	5,3
Heating range (min. - max.)	kW	0,8 - 4,5	0,8 - 5,0	1,5 - 6,3
Power input (min. - rated - max.)	kW H	0,17 - 0,86 - 1,40	0,14 - 0,97 - 1,70	0,32 - 1,50 - 2,40
COP	W/W	3,95	4,12	3,53
SCOP (Average zone)		4,6	4,01	4,16
Energy efficiency class (Average zone)	H	A++	A+	A+
Seasonal electricity consumption	kWh/a H	907	1.337	1.517

## Physical data indoor

Indoor unit		RAV-RM301SDT-E	RAV-RM401SDT-E	RAV-RM561SDT-E
Air Flow (H/L)	m <sup>3</sup> /h - l/s	660/480 - 183/133	690/522 - 191/145	780/582 - 216/161
Sound pressure level (H-M-L)*	dB(A)	39-36-33	39-36-33	45-40-36
Sound power level (H-M-L)	dB(A)	51-48-44	52-48-44	55-53-48
Dimensions (HxWxD)	mm	210x845x645	210x845x645	210x845x645
Weight	kg	22	22	22
External static pressure standard (Upper-Lower)	Pa	30(45-5)	30(45-5)	29(44-4)

C = cooling mode H = heating mode

H-M-L = High - Medium - Low speed

\* bottom air inlet

Toshiba's high static pressure ducts are specifically designed for large open spaces, due to their impressive air flow characteristics.

#### SCOP MAX



3,51

#### CAPACITY



20kW-27kW-

#### OPERATION



-27°C/+46°C

The DTP high static duct is compatible with textile duct diffusion system to blow the air smoothly all over the treated room.



#### COMFORT

- ▶ 3-speed DC fan motor provides the correct air flow, whilst maximizing energy savings
- ▶ Compatible with metal or textile duct

#### ADAPTABILITY

- ▶ Designed to be lightweight, making the installation process quick and easy
- ▶ With 7 step settings the static pressure of the system can range from 50 to 250Pa
- ▶ Up to 5.600m<sup>3</sup>/h air flow to blow the air into large rooms

#### EASY INSTALLATION

- ▶ Electronic components accessible from outside the unit
- ▶ Air filter and drain pump available as an option





# RM\_DTP HIGH STATIC DUCT

## Performance data with Big DI Inverter

Outdoor unit Indoor unit (High Static duct)		RAV-GM2241AT8-E RAV-RM2241DTP-E1	RAV-GM2801AT8-E RAV-RM2801DTP-E1
<b>Cooling capacity</b>	kW	19,0	22,5
Cooling range (min. - max.)	kW	4,6 - 22,4	4,6 - 27,0
Power input (min. - rated - max.)	kW C	1,27 - 5,86 - 9,05	1,27 - 7,98 - 11,87
EER	W/W	3,24	2,82
SEER		5,82	5,49
Energy efficiency class	C	TBD	TBD
Seasonal electricity consumption	kWh/a C	2.468	2.928
<b>Heating capacity</b>	kW	22,4	27,0
Heating range (min. - max.)	kW	4,6 - 25,0	4,6 - 31,5
Power input (min. - rated - max.)	kW H	1,27 - 5,71 - 10,15	1,27 - 7,52 - 13,83
COP	W/W	3,92	3,59
SCOP (Average zone)		3,78	3,69
Energy efficiency class (Average zone)	H	TBD	TBD
Seasonal electricity consumption	kWh/a H	7.174	8.136

## Physical data indoor

Indoor unit		RAV-RM2241DTP-E1	RAV-RM2801DTP-E1
Air Flow	m <sup>3</sup> /h - l/s	3.800 - 1.055	4.800 - 1.333
Sound pressure level (back)	dB(A)	44	46
Sound power level (back)	dB(A)	79	81
Dimensions (HxWxD)	mm	448x1400x900	448x1400x900
Weight	kg	97	97
Upper limit/middle/standard	Pa	250/150/50,0	250/150/50,0

C = cooling mode      H = heating mode

Toshiba floor standing unit combines important air flow, wide air diffusion and simplified installation to cool and heat large rooms.



#### SCOP MAX



4,41

#### CAPACITY



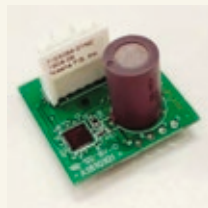
5kW-16kW

#### OPERATION



-27°C/+52°C

**Embedded leak detector linked to safety ventilation to facilitate the integration of the product in every kind of projects.**



#### WIDE ADAPTABILITY

- ▶ Broad capacity lineup from 2 to 6HP
- ▶ Connectable in monosplit or twin mode

#### COMFORT

- ▶ Wide air flow to cool and heat large areas
- ▶ Horizontal and vertical louvers for optimum air distribution

#### EASY INSTALLATION

- ▶ Directly positioned on the floor to simplify installation
- ▶ Plug and play product with embedded controller



# RM\_FT FLOOR STANDING

## Performance data with Super Digital Inverter

Outdoor unit Indoor unit (Standard Duct)		RAV-GP561ATP-E RAV-RM561FT-EN	RAV-GP801AT-E RAV-RM801FT-EN	RAV-GP1101AT-E RAV-RM1101FT-EN	RAV-GP1101AT8-E RAV-RM1101FT-EN	RAV-GP1401AT-E RAV-RM1401FT-EN	RAV-GP1401AT8-E RAV-RM1401FT-EN	RAV-GP1601AT8-E RAV-RM1601FT-EN
<b>Cooling capacity</b>	kW	5,0	7,1	10,0	10,0	12,5	12,5	14,0
Cooling range (min. - max.)	kW	1,2-5,6	1,9 - 8,0	3,1 - 12,0	2,6 - 12,0	3,1 - 14,0	2,6 - 14,0	2,6 - 16,0
Power input (min. - rated - max.)	kW C	0,19-1,42-2,0	0,26-2,04-3,32	0,6-2,39-3,65	0,66-2,46-4,1	0,6-3,52-4,07	0,66-3,61-4,91	0,66-4,39-6,5
EER		3,51	3,48	4,18	4,07	3,55	3,46	3,19
SEER		5,75	6,24	6,67	5,86	6,1	5,65	5,55
Energy efficiency class	C	A+	A++	A++	A+	TBD	TBD	TBD
Seasonal electricity consumption	kWh/a C	304	398	524	597	1.229	1.326	1.513
<b>Heating capacity</b>	kW	5,6	8,0	11,2	11,2	14,0	14,0	16
Heating range (min. - max.)	kW	0,9-7,0	1,3 - 11,3	2,6 - 13,0	2,4 - 14,0	2,6 - 16,5	2,40 - 18,0	2,4 - 19,0
Power input (min. - rated - max.)	kW H	0,16-1,65-2,80	0,2-2,37-3,75	0,42-2,76-3,85	0,53-2,77-4,8	0,42-3,97-4,61	0,53-3,81-5,95	0,53-4,83-6,96
COP	W/W	3,39	3,38	4,06	4,04	3,53	3,67	3,31
SCOP (Average zone)		4,20	4,41	4,37	4,00	4,35	4,00	3,96
Energy efficiency class (Average zone)	H	A+	A+	A+	A+	TBD	TBD	TBD
Seasonal electricity consumption	kWh/a H	1.266	1.618	2.942	3.774	3.086	4.130	4.238

## Performance data with Digital Inverter

Outdoor unit Indoor unit (Standard Duct)		RAV-GM561ATP-E RAV-RM561FT-EN	RAV-GM801ATP-E RAV-RM801FT-EN	RAV-GM1101ATP-E RAV-RM1101FT-EN	RAV-GM1101AT8P-E RAV-RM1101FT-EN	RAV-GM1401ATP-E RAV-RM1401FT-EN	RAV-GM1401AT8P-E RAV-RM1401FT-EN
<b>Cooling capacity</b>	kW	5,0	6,7	9,5	9,5	12,1	12,1
Cooling range (min. - max.)	kW	1,5 - 5,6	1,5 - 7,4	3,0 - 11,2	3,0 - 11,2	3,0 - 13,2	3,0 - 13,2
Power input (min. - rated - max.)	kW C	0,30-1,79-2,34	0,31-3,18-3,31	0,60-3,06-4,30	0,60-3,06-4,30	0,60-4,71-4,83	0,60-4,71-4,83
EER		2,79	2,11	3,1	3,1	2,57	2,57
SEER		5,15	4,89	5,16	5,16	4,86	4,86
Energy efficiency class	C	A	B	A	A	TBD	TBD
Seasonal electricity consumption	kWh/a C	340	479	644	644	1.492	1.492
<b>Heating capacity</b>	kW	5,3	7,7	11,2	11,2	13	13
Heating range (min. - max.)	kW	1,5 - 6,3	1,5 - 9,0	3,0 - 13,0	3,0 - 13,0	3,0 - 16,0	3,0 - 16,0
Power input (min. - rated - max.)	kW H	0,30-1,72-2,47	0,31-3,20-3,45	0,60-3,19-4,50	0,60-3,19-4,50	0,60-4,01-4,80	0,60-4,01-4,80
COP	W/W	3,08	2,41	3,51	3,51	3,24	3,24
SCOP (Average zone)		4,00	3,81	3,92	3,92	3,9	3,9
Energy efficiency class (Average zone)	H	A+	A	A	A	TBD	TBD
Seasonal electricity consumption	kWh/a H	980	1.727	2.711	2.711	2.727	2.727

## Physical data indoor

Indoor unit		RAV-RM561FT-EN	RAV-RM801FT-EN	RAV-RM1101FT-EN	RAV-RM1401FT-EN	RAV-RM1601FT-EN
Air Flow (H/L)	m³/h - l/s	820/600 - 228/167	930/640 - 258/178	1.660/1.190 - 461/331	1.760/1.350 - 489/375	1.760/1.350 - 489/375
Sound pressure level (H-M-L)*	dB(A)	46-42-38	50-45-41	51-46-41	53-48-45	53-48-45
Sound power level (H-M-L)*	dB(A)	60-56-52	64-60-54	65-61-55	67-62-59	67-62-59
Dimensions (HxWxD)	mm	1.750x600x210	1.750x600x210	1.750x600x390	1.750x600x390	1.750x600x390
Weight	kg	44	45	59	59	59

C = cooling mode H = heating mode

H-M-L = High - Medium - Low speed

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

### SCOP MAX



5,05

### CAPACITY



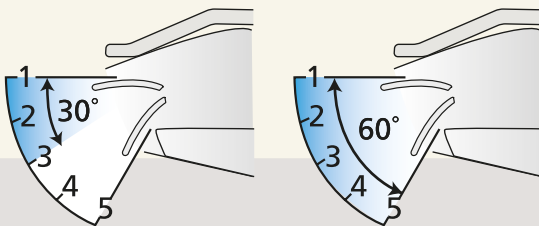
3,6kW-16kW

### OPERATION



-27°C/+46°C

The airflow angle is automatically set to the most suitable setting according to the cooling or heating needs.



### COMFORT

- ▶ Automatic louver control for all year-round comfort and efficiency
- ▶ Low noise levels, thanks to high diameter fan and DC motor

### RELIABILITY

- ▶ Self-cleaning function enables the air flow to remain constant and fresh and reduces the frequency of service visits

### EASY TO INSTALL & TO MAINTAIN

- ▶ This design represents the best possible solution, where there is a lack of space or absence of a ceiling void

### ADAPTABILITY

- ▶ Anti-bacterial drain points available as an option
- ▶ Connecting kit available as an option for external I/O without local relay preparation





# RM\_CTP CEILING

## Performance data with Super Digital Inverter

Outdoor unit Indoor unit (Ceiling)		RAV-GP561ATP-E RAV-RM561CTP-E	RAV-GP801AT-E RAV-RM801CTP-E	RAV-GP1101AT-E RAV-RM1101CTP-E	RAV-GP1101AT8-E RAV-RM1101CTP-E	RAV-GP1401AT-E RAV-RM1401CTP-E	RAV-GP1401AT8-E RAV-RM1401CTP-E	RAV-GP1601AT8-E RAV-RM1601CTP-E
<b>Cooling capacity</b>	kW	5,0	7,1	10,0	10,0	12,5	12,5	14,0
Cooling range (min. - max.)	kW	1,2-5,6	1,9 - 8,0	3,1 - 12,0	2,6 - 12,0	3,1 - 14,0	2,6 - 14,0	2,6 - 16,0
Power input (min. - rated - max.)	kW C	0,19-1,37-1,98	0,26-1,60-3,17	0,55-2,23-3,45	0,66 - 2,56 - 3,81	0,55-3,58-3,97	0,66 - 3,68 - 4,85	0,66 - 4,60 - 6,33
EER		3,65	4,44	4,48	3,91	3,49	3,40	3,04
SEER		6,76	7,95	8,23	6,61	7,58	6,30	6,00
Energy efficiency class	C	A++	A++	A++	A++	TBD	TBD	TBD
Seasonal electricity consumption	kWh/a C	259	312	425	529	989	1190	1400
<b>Heating capacity</b>	kW	5,6	8,0	11,2	11,2	14,0	14,0	16
Heating range (min. - max.)	kW	0,9-7,4	1,3 - 11,3	2,6 - 13,0	2,4 - 14,0	2,6 - 16,5	2,40 - 18,0	2,4 - 19,0
Power input (min. - rated - max.)	kW H	0,16-1,39-2,67	0,20-1,80-3,50	0,41-2,38-3,09	0,53 - 2,51 - 4,26	0,41-3,59-4,40	0,53 - 3,48 - 5,95	0,53 - 4,30 - 6,96
COP	W/W	4,03	4,44	4,71	4,46	3,90	4,02	3,72
SCOP (Average zone)		4,70	5,05	4,72	4,21	4,71	3,94	3,93
Energy efficiency class (Average zone)	H	A++	A++	A++	A+	TBD	TBD	TBD
Seasonal electricity consumption	kWh/a H	1.130	1.412	2.726	3.854	2.852	3.931	4.003

## Performance data with Digital Inverter

Outdoor unit Indoor unit (Ceiling)		RAV-GM401ATP-E RAV-RM401CTP-E	RAV-GM561ATP-E RAV-RM561CTP-E	RAV-GM801ATP-E RAV-RM801CTP-E	RAV-GM901ATP-E RAV-GM901CTP-E	RAV-GM1101ATP-E RAV-RM1101CTP-E	RAV-GM1101AT8P-E RAV-RM1101CTP-E	RAV-GM1401ATP-E RAV-RM1401CTP-E	RAV-GM1401AT8P-E RAV-RM1401CTP-E	RAV-GM1601ATP-E RAV-RM1601CTP-E	RAV-GM1601AT8P-E RAV-RM1601CTP-E
<b>Cooling capacity</b>	kW	3,6	5,0	6,9	8,0	9,5	9,5	12,1	12,1	14,0	14,0
Cooling range (min. - max.)	kW	0,9 - 4,0	1,5 - 5,6	1,5 - 7,4	1,9 - 8,8	3,0 - 11,2	3,0 - 11,2	3,0 - 13,2	3,0 - 13,2	3,0 - 16,0	3,0 - 16,0
Power input (min. - rated - max.)	kW C	0,18 - 0,83 - 2,00	0,29-1,61-1,95	0,29-2,38-2,76	2,58	0,60-2,95-4,10	0,60-2,95-4,10	0,60-4,42-4,71	0,60-4,42-4,71	4,65	4,65
EER		4,34	3,11	2,90	3,10	3,22	3,22	2,74	2,74	3,01	3,01
SEER		6,34	5,5	5,62	6,10	5,86	5,86	5,36	5,36	5,9	5,9
Energy efficiency class	C	A++	A	A+	A++	A+	A+	TBD	TBD	TBD	TBD
Seasonal electricity consumption	kWh/a C	199	318	429	459	567	604	TBD	TBD	1.423	1.423
<b>Heating capacity</b>	kW	4,0	5,3	7,7	9,0	11,2	11,2	13,0	13,0	16,0	16,0
Heating range (min. - max.)	kW	0,8 - 5,0	1,5 - 6,3	1,5 - 9,0	1,6 - 9,9	3,0 - 12,5	3,0 - 12,5	3,0 - 16,0	3,0 - 16,0	3,0 - 18,0	3,0 - 18,0
Power input (min. - rated - max.)	kW H	0,14 - 0,78 - 1,70	0,29-1,36-2,40	0,29-2,13-3,20	2,65	0,60-2,94-4,10	0,60-2,94-4,10	0,60-3,48-4,60	0,60-3,48-4,60	4,69	4,69
COP	W/W	5,13	3,90	3,62	3,40	3,81	3,81	3,73	3,73	3,9	3,9
SCOP (Average zone)		5,1	4,32	4,11	4,60	4,27	4,27	4,19	4,19	4,35	4,35
Energy efficiency class (Average zone)	H	A+++	A+	A+	A++	A+	A+	TBD	TBD	TBD	TBD
Seasonal electricity consumption	kWh/a H	741	908	1.697	1.917	2.490	2.490	TBD	TBD	2.732	2.732

## Physical data indoor

Indoor unit		RAV-RM401CTP-E	RAV-RM561CTP-E	RAV-RM801CTP-E	RAV-GM901CTP-E	RAV-RM1101CTP-E	RAV-RM1401CTP-E	RAV-RM1601CTP-E
Air Flow (H/L)	m³/h - l/s	900/540 - 250/150	900/540 - 250/150	1.410/750 - 392/208	1.600/900 - 444/250	1.860/1.020 - 517/283	2.040/1.200 - 567/333	2.100/1.260 - 583/350
Sound pressure level (H-M-L)	dB(A)	37-35-28	37-35-28	41-36-29	42-38-30	44-38-32	46-41-35	40-36-33
Sound power level (H)	dB(A)	52-50-43	52-50-43	56-51-44	57-53-45	59-53-47	61-56-50	55-51-48
Dimensions (HxWxD)	mm	235x950x690	235x950x690	235x1.270x690	235x1.586x690	235x1.586x690	235x1.586x690	275x1.400x750
Weight	kg	23	23	29	37	37	37	37

C = cooling mode H = heating mode

H-M-L = High - Medium - Low speed

Compact, quiet with an attractive design, this high wall is suitable for every kind of project in new construction or refurbishment.

#### SCOP MAX



4,41

#### CAPACITY



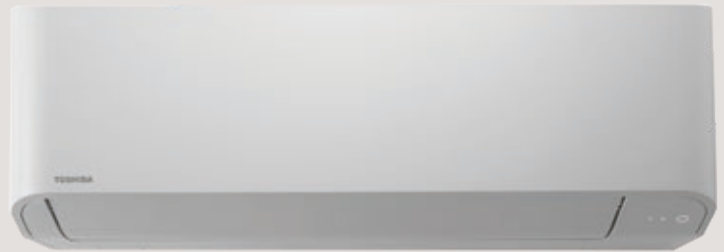
0,9-12kW

#### OPERATION



-20°C/+46°C

**Comfort sleep function adjusts automatically the room temperature and the fan speed.**



#### COMFORT

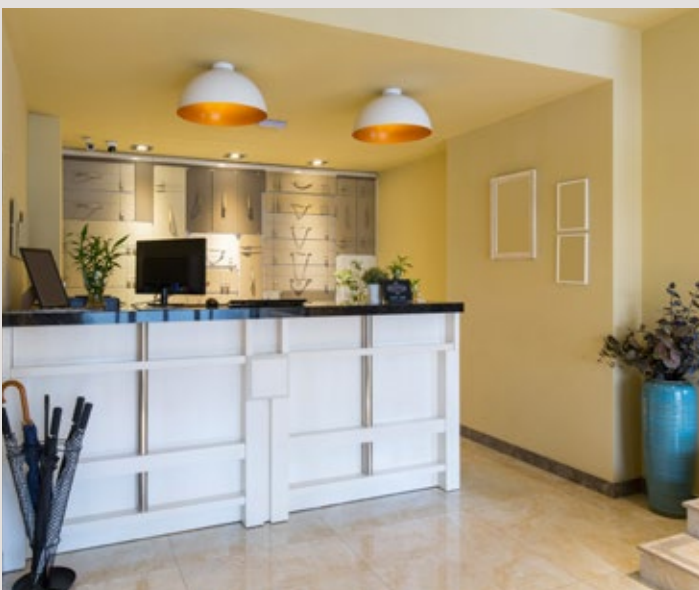
► Auto louver mode allows optimum and uniform air distribution

#### CONTROL

► Wireless remote control with pre-set functions accessible with dedicated buttons: hi-power mode, quiet mode, comfort sleep, eco-mode

#### HEALTHY

► Self-cleaning feature to prevent mould formation on the heat exchanger coils



# RM\_KRTP HIGH-WALL

## Performance data with Super Digital Inverter

Outdoor unit Indoor unit (High-Wall)		RAV-GP561ATP-E RAV-RM561KRTP-E	RAV-GP801ATP-E RAV-RM801KRTP-E	RAV-GP1101AT-E RAV-GM1101KRTP-E	RAV-GP1101AT8-E RAV-GM1101KRTP-E
<b>Cooling capacity</b>	kW	5,0	7,1	10,0	10,0
Cooling range (min. - max.)	kW	1,2 - 5,6	1,9 - 8,0	3,1 - 12,0	2,6 - 12,0
Power input (min. - rated - max.)	kW C	0,19 - 1,43 - 1,98	0,26 - 2,06 - 3,17	0,55-2,77-3,90	2,86
EER		3,50	3,45	3,61	3,50
SEER		7,59	7,34	7,2	6,35
Energy efficiency class	C	A++	A++	A++	A++
Seasonal electricity consumption	kWh/a C	230	338	486	551
<b>Heating capacity</b>	kW	5,6	8,0	11,2	11,2
Heating range (min. - max.)	kW	0,9 - 7,3	1,3 - 11,3	2,6 - 13,0	2,4 - 13,0
Power input (min. - rated - max.)	kW H	0,16 - 1,39 - 2,67	0,20 - 2,25 - 3,50	0,52-3,13-4,40	3,25
COP	W/W	4,03	3,56	3,58	3,45
SCOP (Average zone)		4,17	4,13	4,41	4,21
Energy efficiency class (Average zone)	H	A+	A+	A+	A+
Seasonal electricity consumption	kWh/a H	1.274	1.725	2.920	3.591

## Performance data with Digital Inverter

Outdoor unit Indoor unit (High-Wall)		RAV-GM301ATP-E RAV-RM301KRTP-E	RAV-GM401ATP-E RAV-RM401KRTP-E	RAV-GM561ATP-E RAV-RM561KRTP-E	RAV-GM801ATP-E RAV-RM801KRTP-E	RAV-GM901ATP-E RAV-GM901KRTP-E	RAV-GM1101ATP-E RAV-GM1101KRTP-E	RAV-GM1101AT8P-E RAV-GM1101KRTP-E
<b>Cooling capacity</b>	kW	2,5	3,6	5,0	6,7	8,0	9,5	9,5
Cooling range (min. - max.)	kW	0,9 - 3,0	0,9 - 4,0	1,5 - 5,6	1,5 - 8,0	1,9 - 8,8	3,0 - 11,2	3,0 - 11,2
Power input (min. - rated - max.)	kW C	0,25 - 0,61 - 0,82	0,18 - 1,13 - 2,00	0,30 - 1,66 - 1,86	0,31 - 2,44 - 2,85	2,67	0,60 - 2,97 - 4,30	0,60 - 2,97 - 4,30
EER		4,10	3,19	3,01	2,75	3,00	3,20	3,20
SEER		6,36	6,12	6,19	5,73	6,10	6,10	6,10
Energy efficiency class	C	A++	A++	A++	A+	A++	A++	A++
Seasonal electricity consumption	kWh/a C	138	206	383	409	459	545	545
<b>Heating capacity</b>	kW	3,4	4,0	5,3	7,7	9,0	11,2	11,2
Heating range (min. - max.)	kW	0,8 - 4,5	0,8 - 5,0	1,5 - 6,3	1,5 - 9,0	1,6 - 9,9	3,0 - 13,0	3,0 - 13,0
Power input (min. - rated - max.)	kW H	0,17 - 0,85 - 1,40	0,14 - 1,12 - 1,70	0,30 - 1,55 - 2,40	0,31 - 2,61 - 3,30	2,9	0,60 - 3,47 - 4,70	0,60 - 3,47 - 4,70
COP	W/W	4,00	3,57	3,42	2,95	3,10	3,23	3,23
SCOP (Average zone)		4,10	4,22	4,00	4,01	4,10	4,20	4,20
Energy efficiency class (Average zone)	H	A+	A+	A+	A+	A+	A+	A+
Seasonal electricity consumption	kWh/a H	887	895	980	1.780	2.151	2.665	2.664

## Physical data indoor

Indoor unit		RAV-RM301KRTP-E	RAV-RM401KRTP-E	RAV-RM561KRTP-E	RAV-RM801KRTP-E	RAV-GM901KRTP-E	RAV-GM1101KRTP-E
Air Flow (H/L)	m <sup>3</sup> /h - l/s C	670/450 - 186/125	700/450 - 229/125	960/680 - 266/189	1.040/680 - 289/189	1.180/ 680 - 328/189	1.610/1.180 - 447/328
Sound pressure level (H-M-L)	dB(A) C	40-34-29	41-36-30	42-39-35	45-41-35	47-41-35	49-45-41
Sound power level (H-M-L)	dB(A) C	55-49-44	56-51-45	57-54-50	60-56-50	62-56-50	64-60-56
Dimensions (HxWxD)	mm	293x798x230	293x798x230	320x1.050x250	320x1.050x250	320x1.050x250	348x1.200x280
Weight	kg	10	10	14	14	14	19

C = cooling mode H = heating mode

H-M-L = High - Medium - Low speed

Connect 2 indoor units on the same system to satisfy the cooling and heating requirements of larger area.

#### SCOP MAX



5,05

#### CAPACITY



9,5kW-14kW

#### OPERATION



-27°C/+46°C

Toshiba RAV simplistic piping design allows multiple indoor units to be connected via a simple branching methodology.



#### COMFORT

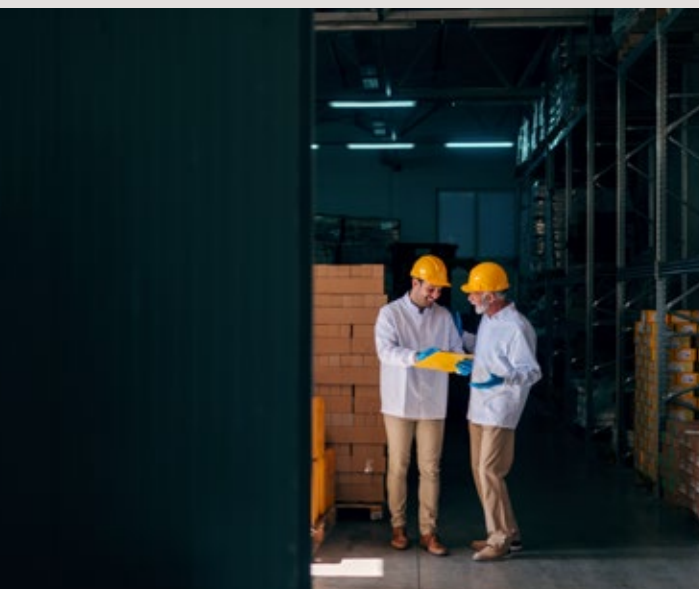
► Precise air flow control, accurately controls the distribution of the air regardless of the room size

#### ADAPTABILITY

► Twin configuration with up to 50m piping length  
► Compatible with every type of LC indoor units: 4-way cassette, duct, high-wall and ceiling

#### CONTROL

► One user-friendly controller for all the indoor units to simplify the control





# SDI-DI TWIN

## Twin split DI - Cooling

Indoor unit model	Outdoor unit RAV-	Indoor unit RAV-	HP	capacity		Power input kW	EER	SEER	Energy class
				nominal-kW	min-max-kW				
4-way cassette	GM1101ATP-E	RM561UTP-E	4	9,5	3,0 - 11,2	2,87	3,31	5,94	A+
	GM1101AT8P-E	RM561UTP-E	4	9,5	3,0 - 11,2	2,87	3,31	5,94	A+
	GM1401ATP-E	RM801UTP-E	5	12,0	3,0 - 13,2	4,29	2,80	5,71	A+
	GM1401AT8P-E	RM801UTP-E	5	12,0	3,0 - 13,2	4,29	2,80	5,71	A+
	GM1601ATP-E	RM801UTP-E	6	14,0	3,0 - 16,0	4,49	3,12	6,3	TBD
	GM1601AT8P-E	RM801UTP-E	6	14,0	3,0 - 16,0	4,49	3,12	6,3	TBD
Compact 4-way cassette	GM1101ATP-E	RM561MUT-E	4	9,5	3,0 - 11,2	3,00	3,17	5,5	A
	GM1101AT8P-E	RM561MUT-E	4	9,5	3,0 - 11,2	3,00	3,17	5,5	A
Ducted	GM1101ATP-E	RM561BTP-E	4	9,5	3,0 - 11,2	2,99	3,18	5,28	A
	GM1101AT8P-E	RM561BTP-E	4	9,5	3,0 - 11,2	2,99	3,18	5,28	A
	GM1401ATP-E	RM801BTP-E	5	12,1	3,0 - 13,2	4,42	2,74	5,36	TBD
	GM1401AT8P-E	RM801BTP-E	5	12,1	3,0 - 13,2	4,42	2,74	5,36	TBD
	GM1601ATP-E	RM801BTP-E	6	14,0	3,0 - 16,0	5,13	2,73	5,30	TBD
	GM1601AT8P-E	RM801BTP-E	6	14,0	3,0 - 16,0	5,13	2,73	5,30	TBD
Slim duct	GM1101ATP-E	RM561SDT-E	4	9,5	3,0 - 11,2	3,03	3,14	5,32	A
	GM1101AT8P-E	RM561SDT-E	4	9,5	3,0 - 11,2	3,03	3,14	5,32	A
Ceiling	GM1101ATP-E	RM561CTP-E	4	9,5	3,0 - 11,2	2,95	3,22	5,86	A+
	GM1101AT8P-E	RM561CTP-E	4	9,5	3,0 - 11,2	2,95	3,22	5,86	A+
	GM1401ATP-E	RM801CTP-E	5	12,1	3,0 - 13,2	4,42	2,74	5,36	TBD
	GM1401AT8P-E	RM801CTP-E	5	12,1	3,0 - 13,2	4,42	2,74	5,36	TBD
	GM1601ATP-E	RM801CTP-E	6	14,0	3,0 - 16,0	4,65	3,01	5,90	TBD
	GM1601AT8P-E	RM801CTP-E	6	14,0	3,0 - 16,0	4,65	3,01	5,90	TBD
High-wall	GM1101ATP-E	RM561KRTP-E	4	9,5	3,0 - 11,2	2,98	3,19	5,32	A
	GM1101AT8P-E	RM561KRTP-E	4	9,5	3,0 - 11,2	2,98	3,19	5,32	A
	GM1401ATP-E	RM801KRTP-E	5	12,1	3,0 - 13,2	4,71	2,57	5,24	TBD
	GM1401AT8P-E	RM801KRTP-E	5	12,1	3,0 - 13,2	4,71	2,57	5,24	TBD
	GM1601ATP-E	RM801KRTP-E	6	14,0	3,0 - 16,0	5,09	2,75	5,1	TBD
	GM1601AT8P-E	RM801KRTP-E	6	14,0	3,0 - 16,0	5,09	2,75	5,1	TBD
Floor standing	GM1101ATP-E	RM561FT-EN	4	9,5	3,0 - 11,2	3,06	3,10	5,16	A
	GM1101AT8P-E	RM561FT-EN	4	9,5	3,0 - 11,2	3,06	3,10	5,16	A
	GM1401ATP-E	RM801FT-EN	5	12,1	3,0 - 13,2	4,71	2,57	4,86	TBD
	GM1401AT8P-E	RM801FT-EN	5	12,1	3,0 - 13,2	4,71	2,57	4,86	TBD
	GM1601ATP-E	RM801FT-EN	6						
	GM1601AT8P-E	RM801FT-EN	6						

## Twin split DI - Heating

Indoor unit model	Outdoor unit RAV-	Indoor unit RAV-	HP	capacity		Power input kW	COP	SCOP	Energy class
				nominal-kW	min-max-kW				
4-way cassette	GM1101ATP-E	RM561UTP-E	4	11,2	3,0 - 13,0	2,93	3,82	4,28	A+
	GM1101AT8P-E	RM561UTP-E	4	11,2	3,0 - 13,0	2,93	3,82	4,28	A+
	GM1401ATP-E	RM801UTP-E	5	13,0	3,0 - 16,0	3,46	3,76	4,29	A+
	GM1401AT8P-E	RM801UTP-E	5	13,0	3,0 - 16,0	3,46	3,76	4,29	A+
	GM1601ATP-E	RM801UTP-E	6	16,0	3,0 - 18,0	4,43	3,61	4,35	TBD
	GM1601AT8P-E	RM801UTP-E	6	16,0	3,0 - 18,0	4,43	3,61	4,35	TBD
Compact 4-way cassette	GM1101ATP-E	RM561MUT-E	4	11,2	3,0 - 13,0	3,26	3,44	4,02	A+
	GM1101AT8P-E	RM561MUT-E	4	11,2	3,0 - 13,0	3,26	3,44	4,02	A+
Ducted	GM1101ATP-E	RM561BTP-E	4	11,2	3,0 - 13,0	2,99	3,75	4,22	A+
	GM1101AT8P-E	RM561BTP-E	4	11,2	3,0 - 13,0	2,99	3,75	4,22	A+
	GM1401ATP-E	RM801BTP-E	5	13,0	3,0 - 16,0	3,60	3,61	4,21	TBD
	GM1401AT8P-E	RM801BTP-E	5	13,0	3,0 - 16,0	3,60	3,61	4,21	TBD
	GM1601ATP-E	RM801BTP-E	6	16,0	3,0 - 18,0	4,69	3,41	3,47	TBD
	GM1601AT8P-E	RM801BTP-E	6	16,0	3,0 - 18,0	4,69	3,41	3,47	TBD
Slim duct	GM1101ATP-E	RM561SDT-E	4	11,2	3,0 - 13,0	2,99	3,75	4,19	A+
	GM1101AT8P-E	RM561SDT-E	4	11,2	3,0 - 13,0	2,99	3,75	4,19	A+
Ceiling	GM1101ATP-E	RM561CTP-E	4	11,2	3,0 - 13,0	2,94	3,81	4,28	A+
	GM1101AT8P-E	RM561CTP-E	4	11,2	3,0 - 13,0	2,94	3,81	4,28	A+
	GM1401ATP-E	RM801CTP-E	5	13,0	3,0 - 16,0	3,48	3,74	4,19	TBD
	GM1401AT8P-E	RM801CTP-E	5	13,0	3,0 - 16,0	3,48	3,74	4,19	TBD
	GM1601ATP-E	RM801CTP-E	6	16,0	3,0 - 18,0	4,61	3,47	4,10	TBD
	GM1601AT8P-E	RM801CTP-E	6	16,0	3,0 - 18,0	4,61	3,47	4,10	TBD
High-wall	GM1101ATP-E	RM561KRTP-E	4	11,2	3,0 - 13,0	2,99	3,75	4,19	A+
	GM1101AT8P-E	RM561KRTP-E	4	11,2	3,0 - 13,0	2,99	3,75	4,19	A+
	GM1401ATP-E	RM801KRTP-E	5	13,0	3,0 - 16,0	3,86	3,37	4,19	TBD
	GM1401AT8P-E	RM801KRTP-E	5	13,0	3,0 - 16,0	3,86	3,37	4,19	TBD
	GM1601ATP-E	RM801KRTP-E	6	16,0	3,0 - 18,0	4,98	3,21	4	TBD
	GM1601AT8P-E	RM801KRTP-E	6	16,0	3,0 - 18,0	4,98	3,21	4	TBD
Floor standing	GM1101ATP-E	RM561FT-EN	4	11,2	3,0 - 13,0	3,19	3,51	3,92	A+
	GM1101AT8P-E	RM561FT-EN	4	11,2	3,0 - 13,0	3,19	3,51	3,92	A
	GM1401ATP-E	RM801FT-EN	5	13,0	3,0 - 16,0	4,01	3,24	3,90	TBD
	GM1401AT8P-E	RM801FT-EN	5	13,0	3,0 - 16,0	4,01	3,24	3,9	TBD
	GM1601ATP-E	RM801FT-EN	6						
	GM1601AT8P-E	RM801FT-EN	6						

## Triple split SDI - Cooling

Indoor unit model	Outdoor unit RAV-	Indoor unit RAV-	HP	capacity		Power input kW	EER	SEER	Energy class
				nominal-kW	min-max-kW				
4-way cassette	GM1601ATP-E	RM561UTP-E	6	14	3,0 - 16,0	4,49	3,12	6,3	TBD
Compact 4-way cassette	GM1601ATP-E	RM561MUT-E	6	14	3,0 - 16,0	4,96	2,82	5,1	TBD
Ducted	GM1601ATP-E	RM561BTP-E	6	14	3,0 - 16,0	5,13	2,73	5,3	TBD
Slim duct	GM1601ATP-E	RM561SDT-E	6	14	3,0 - 16,0	4,98	2,81	5,1	TBD
Ceiling	GM1601ATP-E	RM561CTP-E	6	14	3,0 - 16,0	4,65	3,01	5,9	TBD
Floor standing	GM1601ATP-E	RM561FT-EN	6						
High-wall	GM1601ATP-E	RM561KRTP-E	6	14	3,0 - 16,0	5,09	2,75	5,1	TBD
4-way cassette	GM1601AT8P-E	RM561UTP-E	6	14	3,0 - 16,0	4,49	3,12	6,3	TBD
Compact 4-way cassette	GM1601AT8P-E	RM561MUT-E	6	14	3,0 - 16,0	4,96	2,82	5,1	TBD
Ducted	GM1601AT8P-E	RM561BTP-E	6	14	3,0 - 16,0	5,13	2,73	5,3	TBD
Slim duct	GM1601AT8P-E	RM561SDT-E	6	14	3,0 - 16,0	4,98	2,81	5,1	TBD
Ceiling	GM1601AT8P-E	RM561CTP-E	6	14	3,0 - 16,0	4,65	3,01	5,9	TBD
Floor standing	GM1601AT8P-E	RM561FT-EN	6						
High-wall	GM1601AT8P-E	RM561KRTP-E	6	14	3,0 - 16,0	5,09	2,75	5,1	TBD

## Triple split SDI - Heating

Indoor unit model	Outdoor unit RAV-	Indoor unit RAV-	HP	capacity		Power input kW	COP	SCOP	Energy class
				nominal-kW	min-max-kW				
4-way cassette	GM1601ATP-E	RM561UTP-E	6	16	3,0 - 18,0	4,43	3,61	4,35	TBD
Compact 4-way cassette	GM1601ATP-E	RM561MUT-E	6	16	3,0 - 18,0	4,69	3,41	4	TBD
Ducted	GM1601ATP-E	RM561BTP-E	6	16	3,0 - 18,0	4,69	3,41	3,9	TBD
Slim duct	GM1601ATP-E	RM561SDT-E	6	16	3,0 - 18,0	4,69	3,41	4	TBD
Ceiling	GM1601ATP-E	RM561CTP-E	6	16	3,0 - 18,0	4,61	3,47	4,1	TBD
Floor standing	GM1601ATP-E	RM561FT-EN	6						
High-wall	GM1601ATP-E	RM561KRTP-E	6	16	3,0 - 18,0	4,98	3,21	4	TBD
4-way cassette	GM1601AT8P-E	RM561UTP-E	6	16	3,0 - 18,0	4,43	3,61	4,35	TBD
Compact 4-way cassette	GM1601AT8P-E	RM561MUT-E	6	16	3,0 - 18,0	4,69	3,41	4	TBD
Ducted	GM1601AT8P-E	RM561BTP-E	6	16	3,0 - 18,0	4,69	3,41	3,9	TBD
Slim duct	GM1601AT8P-E	RM561SDT-E	6	16	3,0 - 18,0	4,69	3,41	4	TBD
Ceiling	GM1601AT8P-E	RM561CTP-E	6	16	3,0 - 18,0	4,61	3,47	4,1	TBD
Floor standing	GM1601AT8P-E	RM561FT-EN	6						
High-wall	GM1601AT8P-E	RM561KRTP-E	6	16	3,0 - 18,0	4,8	3,21	4	TBD

# SDI-DI TWIN

## Twin split SDI - Cooling

Indoor unit model	Outdoor unit RAV-	Indoor unit RAV-	HP	capacity		Power input kW	EER	SEER	Energy class
				nominal-kW	min-max-kW				
Smart	GP1101AT-E	GM561UT-E	4	10,0	3,1-12,0	1,9	5,26	8,64	A++
4-way cassette	GP1401AT-E	GM801UT-E	5	12,5	3,1-14,0	2,91	4,3	8,19	TBD
	GP1101AT-E	RM561UTP-E	4	10,0	3,1-12,0	2,13	4,69	8,57	A++
4-way cassette	GP1401AT-E	RM801UTP-E	5	12,5	3,1-14,0	3,16	3,96	8,14	TBD
	GP1101AT8-E	RM561UTP-E	4	10,0	2,6 - 12,0	2,32	4,31	7,06	A++
	GP1401AT8-E	RM801UTP-E	5	12,5	2,6 - 14,0	3,42	3,65	7,06	TBD
	GP1601AT8-E	RM801UTP-E	6	14,0	2,6 - 16,0	4,34	3,23	6,76	TBD
Compact 4-way cassette	GP801AT-E	RM401MUT-E	3	7,1	1,9-8,0	1,73	4,10	7,80	A++
	GP1101AT-E	RM561MUT-E	4	10,0	3,1-12,0	2,39	4,18	7,70	A++
	GP1101AT8-E	RM561MUT-E	4	10,0	2,6 - 12,0	2,60	3,85	6,16	A++
Ducted	GP1101AT-E	RM561BTP-E	4	10,0	3,1-12,0	2,40	4,17	6,74	A++
	GP1401AT-E	RM801BTP-E	5	12,5	3,1-14,0	3,57	3,50	6,27	TBD
	GP1101AT8-E	RM561BTP-E	4	10,0	2,6 - 12,0	2,58	3,88	5,81	A+
	GP1401AT8-E	RM801BTP-E	5	12,5	2,6 - 14,0	3,81	3,28	5,64	TBD
	GP1601AT8-E	RM801BTP-E	6	14,0	2,6 - 16,0	4,49	3,12	5,50	TBD
Slim duct	GP801AT-E	RM401SDT-E	3	7,1	1,9-8,0	1,87	3,80	6,50	A++
	GP1101AT-E	RM561SDT-E	4	10,0	3,1-12,0	2,56	3,91	6,65	A++
	GP1101AT8-E	RM561SDT-E	4	10,0	2,6 - 12,0	2,78	3,60	5,60	A+
Ceiling	GP801AT-E	RM401CTP-E	3	7,1	1,9-8,0	1,60	4,44	7,82	A++
	GP1101AT-E	RM561CTP-E	4	10,0	3,1-12,0	2,23	4,48	7,97	A++
	GP1401AT-E	RM801CTP-E	5	12,5	3,1-14,0	3,58	3,49	7,34	TBD
	GP1101AT8-E	RM561CTP-E	4	10,0	2,6 - 12,0	2,56	3,91	6,54	A++
	GP1401AT8-E	RM801CTP-E	5	12,5	2,6 - 14,0	3,68	3,40	6,17	TBD
Floor standing	GP1601AT8-E	RM801CTP-E	6	14,0	2,6 - 16,0	4,60	3,04	5,89	TBD
	GP1101AT-E	RM561FT-E	4	10,0	3,1-12,0	2,39	4,18	6,67	A++
	GP1401AT-E	RM801FT-E	5	12,5	3,1 - 14,0	3,52	3,55	6,07	TBD
	GP1101AT8-E	RM561FT-E	4	10,0	2,6 - 12,0	2,46	4,07	5,88	A+
	GP1401AT8-E	RM801FT-E	5	12,5	2,6 - 14,0	3,61	3,46	5,65	TBD
High-wall	GP1601AT8-E	RM801FT-E	6	14,0	2,6 - 16,0	4,39	3,19	5,55	TBD
	GP1101AT-E	RM561KRTP-E	4	10,0	3,1-12,0	2,44	4,1	8,15	A++
	GP1401AT-E	RM801KRTP-E	5	12,5	3,1-14,0	3,55	3,45	6,69	TBD
	GP1101AT8-E	RM561KRTP-E	4	10,0	2,6 - 12,0	2,61	3,83	6,35	A++
	GP1401AT8-E	RM801KRTP-E	5	12,3	2,6 - 13,5	3,73	3,30	6,10	TBD
GP1601AT8-E	RM801KRTP-E	6	14,0	2,6 - 16,0	4,65	3,01	5,88	TBD	

## Twin split SDI - Heating

Indoor unit model	Outdoor unit RAV-	Indoor unit RAV-	HP	capacity		Power input kW	COP	SCOP	Energy class
				nominal-kW	min-max-kW				
Smart	GP1101AT-E	GM561UT-E	4	11,2	2,6-13,0	2,18	5,14	5,00	A++
4-way cassette	GP1401AT-E	GM801UT-E	5	14,0	2,6-16,5	3,04	4,61	4,97	TBD
	GP1101AT-E	RM561UTP-E	4	11,2	2,6-13,0	2,34	4,79	4,73	A++
4-way cassette	GP1401AT-E	RM801UTP-E	5	14,0	2,6-16,5	3,21	4,36	4,72	TBD
	GP1101AT8-E	RM561UTP-E	4	11,2	2,4 - 15,6	2,41	4,65	4,36	A+
	GP1401AT8-E	RM801UTP-E	5	14,0	2,4 - 18,0	3,41	4,11	4,36	TBD
	GP1601AT8-E	RM801UTP-E	6	16,0	2,4 - 19,0	4,28	3,74	4,36	TBD
Compact 4-way cassette	GP801AT-E	RM401MUT-E	3	8,0	1,3-11,3	1,82	4,40	4,86	A++
	GP1101AT-E	RM561MUT-E	4	11,2	2,6-13,0	2,67	4,19	4,40	A+
	GP1101AT8-E	RM561MUT-E	4	11,2	2,4 - 14,0	2,99	3,74	3,93	A
Ducted	GP1101AT-E	RM561BTP-E	4	11,2	2,6-13,0	2,73	4,10	4,26	A+
	GP1401AT-E	RM801BTP-E	5	14,0	2,6-16,5	3,63	3,86	4,25	TBD
	GP1101AT8-E	RM561BTP-E	4	11,2	2,4 - 15,6	2,76	4,06	4,16	A
	GP1401AT8-E	RM801BTP-E	5	14,0	2,4 - 18,0	3,66	3,83	3,96	TBD
	GP1601AT8-E	RM801BTP-E	6	16,0	2,4 - 19,0	4,57	3,50	3,94	TBD
Slim duct	GP801AT-E	RM401SDT-E	3	8,0	1,3-11,3	1,82	4,40	4,51	A+
	GP1101AT-E	RM561SDT-E	4	11,2	2,6-13,0	2,67	4,19	4,00	A+
	GP1101AT8-E	RM561SDT-E	4	11,2	2,4 - 14,0	2,66	4,21	3,84	A
Ceiling	GP801AT-E	RM401CTP-E	3	8,0	1,3-11,3	1,80	4,44	5,05	A++
	GP1101AT-E	RM561CTP-E	4	11,2	2,6-13,0	2,38	4,71	4,71	A++
	GP1401AT-E	RM801CTP-E	5	14,0	2,6-16,5	3,59	3,90	4,70	TBD
	GP1101AT8-E	RM561CTP-E	4	11,2	2,4 - 14,0	2,51	4,46	4,21	A+
	GP1401AT8-E	RM801CTP-E	5	14,0	2,4 - 18,0	3,48	4,02	4,19	TBD
Floor standing	GP1601AT8-E	RM801CTP-E	6	16,0	2,4 - 19,0	4,30	3,72	4,19	TBD
	GP1101AT-E	RM561FT-E	4	11,2	2,6 - 13,0	2,76	4,06	4,38	A+
	GP1401AT-E	RM801FT-E	5	14,0	2,6 - 16,5	3,97	3,53	4,35	TBD
	GP1101AT8-E	RM561FT-E	4	11,2	2,4 - 14,0	2,77	4,04	4,01	A+
	GP1401AT8-E	RM801FT-E	5	14,0	2,4 - 18,0	3,81	3,67	4,00	TBD
High-wall	GP1601AT8-E	RM801FT-E	6	16,0	2,4 - 19,0	4,83	3,31	3,96	TBD
	GP1101AT-E	RM561KRTP-E	4	11,2	2,6-13,0	2,73	4,10	4,05	A+
	GP1401AT-E	RM801KRTP-E	5	14,0	2,6-16,5	3,66	3,66	4,37	TBD
	GP1101AT8-E	RM561KRTP-E	4	11,2	2,4 - 14,0	2,66	4,21	4,14	A+
	GP1401AT8-E	RM801KRTP-E	5	14,0	2,4 - 18,0	3,78	3,70	4,11	TBD
GP1601AT8-E	RM801KRTP-E	6	16,0	2,4 - 19,0	4,87	3,29	4,08	TBD	

## Triple split SDI - Cooling

Indoor unit model	Outdoor unit RAV-	Indoor unit RAV-	HP	capacity		Power input kW	EER	SEER	Energy class
				nominal-kW	min-max-kW				
4-way cassette	GP1601AT8-E	RM561UTP-E	6	14	2,6 - 16,0	4,34	3,23	6,71	-
Compact 4-way cassette	GP1601AT8-E	RM561MUT-E	6	14	2,6 - 16,0	4,24	3,30	6,09	-
Ducted	GP1601AT8-E	RM561BTP-E	6	14	2,6 - 16,0	4,49	3,12	5,42	-
Slim duct	GP1601AT8-E	RM561SDT-E	6	14	2,6 - 16,0	4,30	3,26	5,98	-
Ceiling	GP1601AT8-E	RM561CTP-E	6	14	2,6 - 16,0	4,60	3,04	5,95	-
Floor standing	GP1601AT8-E	RM561FT-EN	6	14	2,6 - 16,0	4,39	3,19	5,55	-
High-wall	GP1601AT8-E	RM561KRTP-E	6	14	2,6 - 16,0	4,65	3,01	5,82	-

## Triple split SDI - Heating

Indoor unit model	Outdoor unit RAV-	Indoor unit RAV-	HP	capacity		Power input kW	COP	SCOP	Energy class
				nominal-kW	min-max-kW				
4-way cassette	GP1601AT8-E	RM561UTP-E	6	16	2,4 - 19,0	4,28	3,74	4,36	-
Compact 4-way cassette	GP1601AT8-E	RM561MUT-E	6	16	2,4 - 19,0	4,56	3,51	4,13	-
Ducted	GP1601AT8-E	RM561BTP-E	6	16	2,4 - 19,0	4,57	3,50	3,94	-
Slim duct	GP1601AT8-E	RM561SDT-E	6	16	2,4 - 19,0	4,57	3,50	4,07	-
Ceiling	GP1601AT8-E	RM561CTP-E	6	16	2,4 - 19,0	4,30	3,72	4,19	-
Floor standing	GP1601AT8-E	RM561FT-EN	6	16	2,4 - 19,0	4,83	3,31	3,96	-
High-wall	GP1601AT8-E	RM561KRTP-E	6	16	2,4 - 19,0	4,87	3,29	4,08	-

## Twin split Big-DI - Cooling

Indoor unit model	Outdoor unit RAV-	Indoor unit RAV-	HP	capacity		Power input kW	EER	SEER
				nominal-kW	min-max-kW			
4-way cassette	GM2241AT8-E	RM1101UTP-E	8	20,0	4,6 - 22,4	5,56	3,60	6,53
	GM2801AT8-E	RM1401UTP-E	10	23,5	4,6 - 27,0	7,83	3,00	6,21
Ducted	GM2241AT8-E	RM1101BTP-E	8	20,0	4,6 - 22,4	6,17	3,24	5,03
	GM2801AT8-E	RM1401BTP-E	10	23,5	4,6 - 27,0	8,87	2,65	4,92
Floor standing	GM2241AT8-E	RM1101FT-EN	8	20,0	4,6 - 22,4	6,17	3,24	5,08
	GM2801AT8-E	RM1401FT-EN	10	23,5	4,6 - 27,0	8,87	2,65	4,87
Ceiling	GM2241AT8-E	RM1101CTP-E	8	20,0	4,6 - 22,4	6,17	3,24	5,67
	GM2801AT8-E	RM1401CTP-E	10	23,5	4,6 - 27,0	8,97	2,62	5,16

## Twin split Big-DI - Heating

Indoor unit model	Outdoor unit RAV-	Indoor unit RAV-	HP	capacity		Power input kW	COP	SCOP
				nominal-kW	min-max-kW			
4-way cassette	GM2241AT8-E	RM1101UTP-E	8	22,4	4,6 - 25,0	5,30	4,23	4,05
	GM2801AT8-E	RM1401UTP-E	10	27,0	4,6 - 31,5	7,10	3,80	3,90
Ducted	GM2241AT8-E	RM1101BTP-E	8	22,4	4,6 - 25,0	5,57	4,02	3,72
	GM2801AT8-E	RM1401BTP-E	10	27,0	4,6 - 31,5	7,46	3,62	3,64
Floor standing	GM2241AT8-E	RM1101FT-EN	8	22,4	4,6 - 25,0	5,63	3,98	3,60
	GM2801AT8-E	RM1401FT-EN	10	27,0	4,6 - 31,5	8,21	3,29	3,57
Ceiling	GM2241AT8-E	RM1101CTP-E	8	22,4	4,6 - 25,0	5,71	3,92	3,79
	GM2801AT8-E	RM1401CTP-E	10	27,0	4,6 - 31,5	7,56	3,57	3,65



## Triple split Big-DI - Cooling

Indoor unit model	Outdoor unit RAV-	Indoor unit RAV-	HP	capacity		Power input kW	EER	SEER
				nominal-kW	min-max-kW			
4-way cassette	GM2241AT8-E	RM801UTP-E	8	20,0	4,6 - 22,4	5,56	3,60	6,57
	GM2801AT8-E	RM801UTP-E	10	23,5	4,6 - 27,0	7,83	3,00	6,24
Ducted	GM2241AT8-E	RM801BTP-E	8	20,0	4,6 - 22,4	6,17	3,24	5,22
	GM2801AT8-E	RM801BTP-E	10	23,5	4,6 - 27,0	8,87	2,65	5,09
Ceiling	GM2241AT8-E	RM801CTP-E	8	20,0	4,6 - 22,4	6,17	3,24	5,59
	GM2801AT8-E	RM801CTP-E	10	23,5	4,6 - 27,0	8,87	2,65	5,16
Floor standing	GM2241AT8-E	RM801FT-EN	8	20,0	4,6 - 22,4	6,17	3,24	5,09
	GM2801AT8-E	RM801FT-EN	10	23,5	4,6 - 27,0	8,87	2,65	4,94
High-wall	GM2241AT8-E	RM-801KRTP-E	8	20,0	4,6 - 22,4	6,67	3,00	5,58
	GM2801AT8-E	RM-801KRTP-E	10	23,5	4,6 - 27,0	9,22	2,55	5,30

## Triple split Big-DI - Heating

Indoor unit model	Outdoor unit RAV-	Indoor unit RAV-	HP	capacity		Power input kW	COP	SCOP
				nominal-kW	min-max-kW			
4-way cassette	GM2241AT8-E	RM801UTP-E	8	22,4	4,6 - 25,0	5,30	4,23	4,05
	GM2801AT8-E	RM801UTP-E	10	27,0	4,6 - 31,5	7,10	3,80	3,91
Ducted	GM2241AT8-E	RM801BTP-E	8	22,4	4,6 - 25,0	5,57	4,02	3,74
	GM2801AT8-E	RM801BTP-E	10	27,0	4,6 - 31,5	7,46	3,62	3,65
Ceiling	GM2241AT8-E	RM801CTP-E	8	22,4	4,6 - 25,0	5,71	3,92	3,79
	GM2801AT8-E	RM801CTP-E	10	27,0	4,6 - 31,5	7,56	3,57	3,65
Floor standing	GM2241AT8-E	RM801FT-EN	8	22,4	4,6 - 25,0	5,63	3,98	3,60
	GM2801AT8-E	RM801FT-EN	10	27,0	4,6 - 31,5	8,21	3,29	3,58
High-wall	GM2241AT8-E	RM-801KRTP-E	8	22,4	4,6 - 25,0	6,12	3,66	3,76
	GM2801AT8-E	RM-801KRTP-E	10	27,0	4,6 - 31,5	7,65	3,53	3,63

The **DX kit** enables connection of a third-party party air handling unit (with DX coil) to Toshiba LC outdoor units.

### MAX AIR FLOW



Up to 5.000m<sup>3</sup>/h

### CAPACITY



4,1kW-27kW

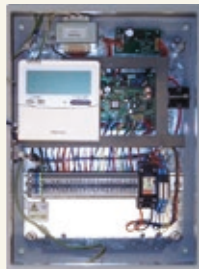
### OPERATION



-27°C/+52°C

### Input/output signal available:

- Operation output
- AC fan motor output
- Alarm output
- External On/Off input
- Safety-cut output



### FLEXIBILITY

- ▶ Compatible with the majority of air handling units with a DX coil fitted inside (capacity ranges from 4,6 to 27kW)
- ▶ Can operate in both heating and cooling modes, depending on end user requirements

### CONTROL

- ▶ Control achieved using a standard Toshiba remote controller
- ▶ Algorithm based on air suction temperature

### EASY TO INSTALL & MAINTAIN

- ▶ Capacity set by DN code adjustment during installation
- ▶ Extended 5 meters sensor leads pre-fitted to improve installation time and flexibility
- ▶ Relay isolated inputs to prevent accidental wiring errors, damaging the PCB



R410A with TOSHIBA CE

# RAV-DXC STANDARD DX KIT

## DX Kit Performances

DX Controller unit Outdoor Unit	RAV-	DXC010 2 HP	DXC010 3 HP	DXC010 4 HP	DXC010 5 HP	DXC010 6 HP	DXC010 8 HP	DXC010 10 HP
Cooling Capacity RANGE	DI SDI	RAV-SM564ATP-E RAV-SP564ATP-E	RAV-SM804ATP-E RAV-SP804ATP-E	RAV-SM1104ATP-E RAV-SP1104AT(8)-E1	RAV-SM1404ATP-E RAV-SP1404AT(8)-E1	RAV-SM1603AT-E RAV-SP1604AT8-E1	RAV-SM2244AT8-E	RAV-SM2804AT8-E
Cooling capacity (min-rated*-max) DI	kW	4,1 - 5,3 - 5,6	5,4 - 7,1 - 7,4	7,2 - 10,0 - 11,2	10,1 - 12,5 - 13,2	12,6 - 14,0 - 16,0	14,1 - 20,0 - 22,4	20,1 - 23,0 - 27,0
Cooling capacity (min-rated*-max) SDI	kW	4,1 - 5,3 - 5,6	5,4 - 7,1 - 8,0	7,2 - 10,0 - 12,0	10,1 - 12,5 - 14,0			
Heating capacity (min-rated*-max) DI	kW	4,6 - 5,6 - 6,3	7,5 - 8,0 - 9,0	8,1 - 11,2 - 12,5	11,3 - 14,0 - 16,0	14,1 - 16,0 - 19,0	16,1 - 22,4 - 25,0	22,5 - 27,0 - 31,5
Heating capacity (min-rated*-max) SDI	kW	4,6 - 5,6 - 7,4	7,5 - 8,0 - 10,6	8,1 - 11,2 - 13,0	11,3 - 14,0 - 16,5			
AHU Air Volume (min-rated*-max)	m <sup>3</sup> /h	720-900-1.080	1.060-1.320-1.580	1.280-1.600-1.920	1.680-2.100-2.520	1.850-2.800-3.740	2.880-3.600-4.320	3.360-4.200-5.040
Coil Internal Volume (min-max)	dm <sup>3</sup>	0,8 - 1,1	1,0 - 1,4	1,5 - 2,1	1,7 - 2,7	1,7 - 3,2	3,0 - 4,2	3,0 - 5,4

## Physical data

DX Controller unit	RAV-	DXC010
Dimensions (HxWxD)	mm	400x300x150
Weight	kg	10
Operating range - Cooling coil "Air on" temp	°C	15°CWB÷24°CWB
Operating range - Heating coil "Air on" temp	°C	15°CDB÷28°CDB
Power supply	V-ph-Hz	220/240-1-50

Cooling & Heating output figures are based on calculations and "general" test data. All figures are to be taken as approximations. The properties of the third party DX Coil will have an affect on the performance of the outdoor units.

All capacity data shown is based on the following Rated Conditions:

- Cooling (Rated): Indoor air temperature 27°C db / 19°C wb. Outdoor air temperature 35°C db
- Heating (Rated): Indoor air temperature 20°C db. Outdoor air temperature 7°C db / 6°C wb.

### Notes:

**Cooling Mode Coil "Air On" Temp: Minimum 15°CWB (18°CDB) / Maximum 24°CWB (32°CDB)**

Air temperatures flowing across the coil below this level, can in some circumstances, cause icing and freezing issues with the coil and eventually forcing the system to shut down and also be detrimental to the outdoor unit itself.

**Heating Mode Coil "Air On" Temp: Minimum 15°CDB / Maximum 28°CDB**

In the reserve cycle mode when the outdoor unit is producing hot gas, the coil in the AHU is effectively the condenser. Air temperatures flowing across the coil below this level, can cause over condensing of the refrigerant.

This can result in liquid being returned to the compressor which will cause a mechanical failure of the outdoor unit.

Low air temperatures will also cause the unit to use it's defrost mode more often.

### Fresh Air Intake

If you wish to use Fresh Air which in outside of these Coil "Air On" limits it has to either be pre-conditioned by other equipment, or mixed with return air (or a combination of both) so that it remains inside these limits, in order to ensure reliable operation.

### Automatic Mode

Please be aware that frequent mode changes could occur when using Automatic mode.

### TA sensor

The TA sensor should be positioned in the return air duct. In case, it's not representative enough of the occupants area temperature, remote temperature sensor TCB-TC21LE2 should be used in the room.

The **DX kit** enables connection and control of Toshiba LC outdoor units to a third-party air handling unit (with DX coil).

#### MAX AIR FLOW



Up to 4.200m<sup>3</sup>/h

#### CAPACITY



2,5kW-27kW

#### OPERATION



-27°C/+52°C

Compatible with both LC and VRF systems.  
(made possible via simple switch change on PCB).



#### FLEXIBILITY

- ▶ Compatible with the majority of air handling units with a DX coil fitted inside (capacity ranges from 4,6 to 27kW)
- ▶ Air flow rate from 480 to 5.040m<sup>3</sup>/h

#### CONTROL

- ▶ Capacity control and selection mode of the Toshiba outdoor unit directly from the AHU controller through a 0-10V signal

#### EASY TO INSTALL & MAINTAIN

- ▶ Capacity set by DN code during installation
- ▶ Extended 5 meters sensor leads pre-fitted to improve installation time and flexibility
- ▶ Relay isolated inputs to prevent accidental wiring errors, damaging the PCB



R410A  
with TOSHIBA



# RBC-DXC 0-10V DX KIT

## Capacity table

LC / VRF DX Coil Controller Unit DX PMV valve unit	RBC-	DXC031	DXC031	DXC031	DXC031	DXC031	DXC031	DXC031	DXC031	DXC031
<b>Cooling capacity</b>	KW	2,5	3,6	5,0	6,7 SM (7,1 SP)	10,0	12,1 SM (12,5 SP)	14,0	20,0	23,0
<b>Heating capacity</b>	KW	3,4	4,0	5,3 SM (5,6 SP)	7,7 SM (8,0 SP)	11,2	12,8 SM (14,0 SP)	16,0	22,4	27,0
Power code	HP	1,0	1,5	2,0	3,0	4,0	5,0	6,0	8,0	10,0

## Physical Data

LC / VRF DX Coil Controller Unit	RBC-	DXC031	DXC031	DXC031	DXC031	DXC031	DXC031	DXC031	DXC031	DXC031
Minimum Air Flow rate	m <sup>3</sup> /h	480	522	720	1.060	1.280	1.680	2.080	2.880	3.360
Maximum Air Flow rate	m <sup>3</sup> /h	660	690	1.080	1.580	1.920	2.520	3.360	4.320	5.040
Dimensions (HxWxD)	mm	400x300x150	400x300x150	400x300x150	400x300x150	400x300x150	400x300x150	400x300x150	400x300x150	400x300x150
Weight	kg	8	8	8	8	8	8	8	8	8
Cable Max Length (Analogue Input) (Screened cable: 0.5 ~ 1.0 mm <sup>2</sup> )	m	200	200	200	200	200	200	200	200	200
Cable Max Length (Digital Input) (Non screened cable: 1.5 ~ 2.5 mm <sup>2</sup> )	m	100	100	100	100	100	100	100	100	100
Cable Max Length (Digital Output) (Non screened cable: 1.5 ~ 2.5 mm <sup>2</sup> )	m	500	500	500	500	500	500	500	500	500
Cable Max Length (TCC Link) (Non screened cable: 0.5 mm <sup>2</sup> )	m	500	500	500	500	500	500	500	500	500
Standard Rating	IP	65	65	65	65	65	65	65	65	65
Operating temperature/humidity	°C / RH	5-40 / 10-90	5-40 / 10-90	5-40 / 10-90	5-40 / 10-90	5-40 / 10-90	5-40 / 10-90	5-40 / 10-90	5-40 / 10-90	5-40 / 10-90
Operating range - Cooling coil "Air on" temp	°C	15°CWB=24°CWB	15°CWB=24°CWB	15°CWB=24°CWB	15°CWB=24°CWB	15°CWB=24°CWB	15°CWB=24°CWB	15°CWB=24°CWB	15°CWB=24°CWB	15°CWB=24°CWB
Operating range - Heating coil "Air on" temp	°C	5°CDB=28°CDB	5°CDB=28°CDB	5°CDB=28°CDB	5°CDB=28°CDB	5°CDB=28°CDB	5°CDB=28°CDB	5°CDB=28°CDB	5°CDB=28°CDB	5°CDB=28°CDB
Outdoor Unit		RAV-SM304ATP-E	RAV-SM404ATP-E	RAV-SM564ATP-E	RAV-SM804ATP-E	RAV-SM1104ATP-E	RAV-SM1104ATP-E	RAV-SM1603AT-E	RAV-SM2224AT8-E	RAV-SM2804AT8-E
			RAV-SP404TP-E	RAV-SP564ATP-E	RAV-SP804ATP-E	RAV-SP1104AT-E	RAV-SP1104AT-E	RAV-SP1604AT8-E		
						RAV-SP1104AT8-E	RAV-SP1104AT8-E			
Power supply		Supplied from Outdoor unit								

### Technical Limitations:

- Cooling & Heating output figures are based on calculations and "general" test data. All figures are to be taken as approximations.
- The properties of the 3rd Party DX Coil will have an effect on the performance of the Outdoor units.
- The DX Coil must be suitable for R410A.
- The design should allow operation as both an Evaporator and a Condenser (Features: Multiple circuits / Liquid Capillary Distributor / Gas Header).
- The standard Air volume flow rate is a guideline. The required capacity should determine DX-Interface size selection.
- The counter flow principle must be observed for the DX coil design.
- A Drain Pan must be fitted (even if only used in Heat mode) due to defrost cycles.
- It is recommended to fit droplet eliminator plates in the discharge air stream if used in Cool mode.
- 1:1 Connection: The DX Interface (0-10V) must be connected 1:1 with Toshiba outdoor units.
- Only Heating and Cooling Modes are available on the RBC-DXC031 (No Automatic or Fan Only).



Air curtains are designed to be positioned above an entrance, providing a thermal curtain, which separates the outdoor and indoor environments. This historically has been produced by electrical heaters, however it is now possible to use a Toshiba heat pump system, with the added benefit of improved energy savings.

## CAPACITY



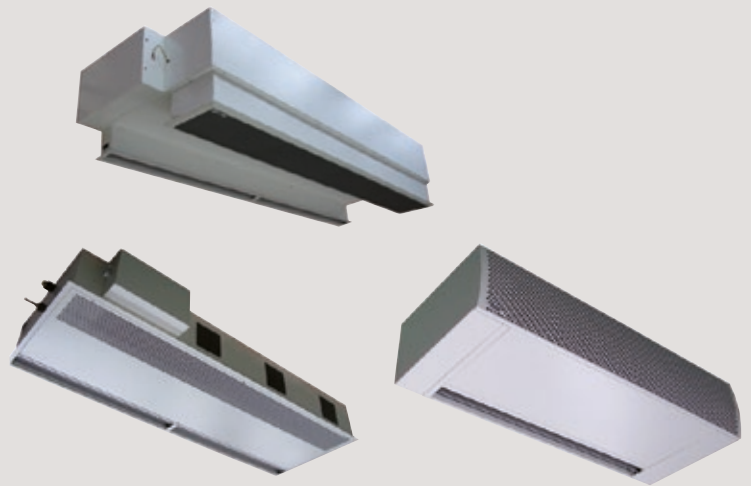
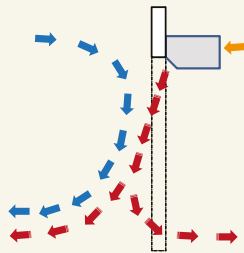
8kW-16kW

## OPERATION



-20°C/+46°C

The air is accelerated and forced through a narrow discharge along the length of the air curtain creating a laminar air flow.



## ENERGY SAVINGS

- ▶ Stop drafts and reduces infiltration of outdoor air into the heated or air-conditioned area
- ▶ EC motors compliant with ERP lot 11

## COMFORT

- ▶ By preventing the conditioned air to leave the building, or be affected by incoming air from the outside, the comfort levels inside the building are maintained, making it a more pleasant area for staff members and customers alike

## FUNCTIONALITY

- ▶ Provides a pleasant entrance to customers, whilst ensuring undesirable smells, contaminants and small insects are kept outside of the conditioned space

## ADAPTABILITY

- ▶ Suitable for installation in the ceiling space above the door, only the inlet grille and discharge outlet will be visible
- ▶ Available in door widths from 1m to 2,5m



R410A   
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# RAV-CT AIR CURTAINS

## Air Curtain Free-Hanging unit (CH)

Model Code	Outdoor Sizing hp	Heating Capacity kW	Air flow rate m <sup>3</sup> /h	Power Input Fan only kW	Door Width mm	Max Door Height m	Unit Weight kg	Sound Pressure dBA
RAV-CT101CH-M	3,0	8,0	1.600	0,35	1.000	3,0	48	54
RAV-CT101CH-L	3,0	8,0	2.210	0,53	1.000	3,2	51	55
RAV-CT151CH-M	4,0	11,2	2.400	0,53	1.500	3,0	77	55
RAV-CT151CH-L	4,0	11,2	2.950	0,70	1.500	3,2	80	56
RAV-CT201CH-M	5,0	14,0	3.200	0,70	2.000	3,0	101	56
RAV-CT201CH-L	5,0	14,0	4.420	1,05	2.000	3,2	107	57
RAV-CT251CH-M	6,0	16,0	4.000	0,88	2.500	3,0	132	57
RAV-CT251CH-L	6,0	16,0	5.160	1,23	2.500	3,2	138	58

## Air Curtain Cassette unit (UH)

Model Code	Outdoor Sizing hp	Heating Capacity kW	Air flow rate m <sup>3</sup> /h	Power Input Fan only kW	Door Width mm	Max Door Height m	Unit Weight kg	Sound Pressure dBA
RAV-CT101UH-M	3,0	8,0	1.600	0,35	1.000	3,0	40	54
RAV-CT101UH-L	3,0	8,0	2.210	0,53	1.000	3,2	43	55
RAV-CT151UH-M	4,0	11,2	2.400	0,53	1.500	3,0	95	55
RAV-CT151UH-L	4,0	11,2	2.950	0,70	1.500	3,2	98	56
RAV-CT201UH-M	5,0	14,0	3.200	0,70	2.000	3,0	99	56
RAV-CT201UH-L	5,0	14,0	4.420	1,05	2.000	3,2	105	57
RAV-CT251UH-M	6,0	16,0	4.000	0,88	2.500	3,0	120	57
RAV-CT251UH-L	6,0	16,0	5.160	1,23	2.500	3,2	126	58

## Air Curtain Built-in unit (BH)

Model Code	Outdoor Sizing hp	Heating Capacity kW	Air flow rate m <sup>3</sup> /h	Power Input Fan only kW	Door Width mm	Max Door Height m	Unit Weight kg	Sound Pressure dBA
RAV-CT101BH-M	3,0	8,0	1.600	0,35	1.000	3,0	71	54
RAV-CT101BH-L	3,0	8,0	2.210	0,53	1.000	3,2	74	55
RAV-CT151BH-M	4,0	11,2	2.400	0,53	1.500	3,0	105	55
RAV-CT151BH-L	4,0	11,2	2.950	0,70	1.500	3,2	108	56
RAV-CT201BH-M	5,0	14,0	3.200	0,70	2.000	3,0	129	56
RAV-CT201BH-L	5,0	14,0	4.420	1,05	2.000	3,2	135	57
RAV-CT251BH-M	6,0	16,0	4.000	0,88	2.500	3,0	170	57
RAV-CT251BH-L	6,0	16,0	5.160	1,23	2.500	3,2	176	58

## Outdoor units combination

Model Code (CH / UH / BH)	Door Width (mm)	Max Door Height (m)	DI3 - Single phase	SDI- Single phase	DI4 - Single phase	SDI - Three phases
RAV-CT101**-L	1.000	3,2	-	RAV-SP804AT-E	RAV-SM804ATP-E	-
RAV-CT101**-M	1.000	3,0	-	RAV-SP804AT-E	RAV-SM804ATP-E	-
RAV-CT151**-L	1.500	3,2	-	RAV-SP1104AT-E	RAV-SM1104ATP-E	RAV-SP1104AT8-E1
RAV-CT151**-M	1.500	3,0	-	RAV-SP1104AT-E	RAV-SM1104ATP-E	RAV-SP1104AT8-E1
RAV-CT201**-L	2.000	3,2	-	RAV-SP1404AT-E	RAV-SM1404ATP-E	RAV-SP1404AT8-E1
RAV-CT201**-M	2.000	3,0	-	RAV-SP1404AT-E	RAV-SM1404ATP-E	RAV-SP1404AT8-E1
RAV-CT251**-L	2.500	3,2	RAV-SM1603AT-E1	RAV-SP1604AT-E	-	RAV-SP1604AT8-E1
RAV-CT251**-M	2.500	3,0	RAV-SM1603AT-E1	RAV-SP1604AT-E	-	RAV-SP1604AT8-E1

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**AHI CARRIER SOUTH EASTERN EUROPE AIR CONDITIONING SINGLE MEMBER S.A.**

**HEADQUARTERS**

18, Kifissou Ave. 104 42 - Athens, Tel.: +30 210 6796300, Fax: +30 210 6796390, [www.toshiba-aircon.gr](http://www.toshiba-aircon.gr)

**THESSALONIKI BRANCH**

5, Ag. Georgiou Str., Cosmos Offices, 570 01 - Patriarhiko Pileas, Thessaloniki, Tel.: +30 231 3080430, Fax: +30 231 3080435

**AHI CARRIER HVAC BULGARIA EOOD**

Trade Center Europe, Building 6, floor 3, office 6, 7 Iskarsko Shose Blvd. Sofia, 1520 - BULGARIA, Tel.: +35 929483960 Fax: +35 929483990, [www.toshiba-aircon.bg](http://www.toshiba-aircon.bg)

**AHI CARRIER ROMANIA SRL**

270d Turnu Magurele Str., Sector 4, Cavar center, Bucharest - ROMANIA, Tel.: +40 214 050751, Fax: + 40 214 050753, [www.toshiba-hvac.ro](http://www.toshiba-hvac.ro)