

TOSHIBA

AIR CONDITIONING

Inventor of the Inverter



Flexible Technology
RESIDENTIAL MULTI INVERTER SYSTEM

MULTI

Residential

A step beyond well-being

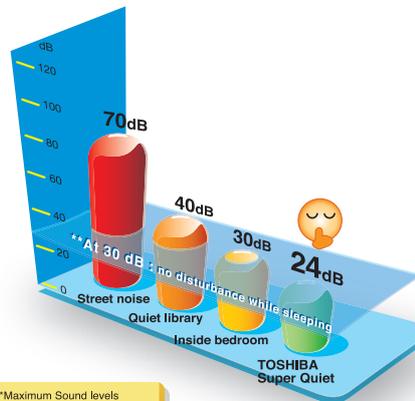


Innovative technologies,
ingenious characteristics
Toshiba raises the standard!

This is represented strongly in Toshiba's residential systems, where attention to the individual is paramount and Toshiba recognises and respects the desire for improved well-being.

Thanks to Toshiba's continuous dedication, research and development, modern technologies are applied to its systems.

Toshiba's objective is continuous innovation, constantly reaching out to reduce the impact on the world around us and increase our personal comfort and well-being.



**Maximum Sound levels recommended by The World Health Organization(WHO).
*Model RAS-M10G

DC Hybrid Inverter Technology

It's true: Toshiba was the first air conditioning manufacturer to utilise inverter technology within air conditioning systems in 1981. Being first to develop and utilise innovative technology is a passion for Toshiba.

Inverter technology immediately demonstrated its advantages: precisely matching the cooling or heating requirement, energy efficiency, and accurate temperature control.

The development of the new DC Hybrid Inverter has again confirmed this innovative capability and leadership position in technology in a fast and growing air conditioning market.

DC Twin Rotary Compressor

- High reliability
- High efficiency
- Low noise

The mission? Improved Indoor Air Quality

Comfort in the home means much more than just controlling the temperature. Because of this, Toshiba is an excellent investment for the enhanced well-being of the family environment.

One of Toshiba's research objectives is the continuous introduction of new ways to eliminate air pollutants in the residential air conditioning sector.

Care for users

The benefits of Toshiba's refined designs include flexibility in application, low operating sound levels, improved indoor air quality and all-around comfort. This comfort is a result of precise temperature control thanks to inverter technology. The inverter ensures that the required temperature of the occupant is reached quickly and is maintained – eliminating temperature fluctuations often experienced with non-inverter systems.

DC Hybrid Inverter

- High energy saving control
- High power factor control

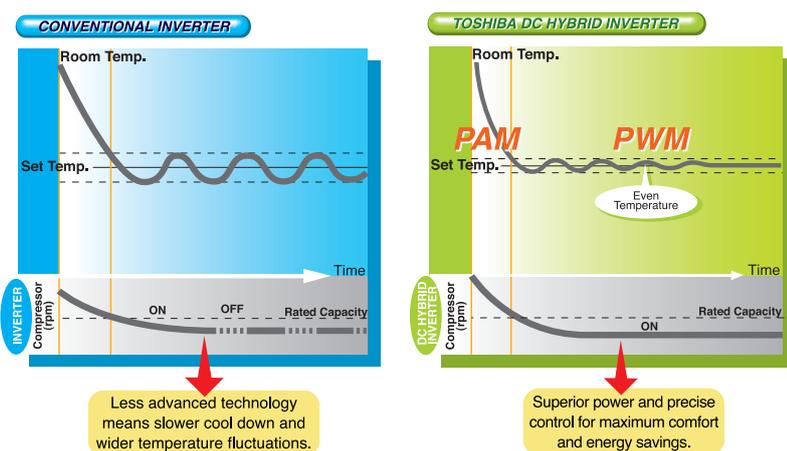


DC Hybrid Inverter



Toshiba: the inverter company

The efficiency of an inverter air conditioner is determined by the efficiency of each component: the control electronics, the motor, and the compressor. Toshiba has focused its attention on all of these components.



Control electronics

Toshiba's deep understanding of the functional characteristics of inverters has allowed it to refine the idea of energy savings along with continuous improvements in key areas, such as the power factor.

Power Factor

The power factor of an electrical load, such as a motor, is its power output compared to the energy it consumes, both measured in watts. Ideally, the electrical current and voltage are "in phase", and the power factor is 100%.

Actual operating conditions cause an inverter system to deviate from this ideal.

Toshiba has combined two technologies, creating the "DC Hybrid Inverter", that automatically

chooses the better of the two control methods based on the actual conditions at the time.

This solution provides high capacity when it is necessary. On very cold winter days, or hot summer days the Toshiba DC Inverter uses the PAM method, and for very low energy consumption, when conditions are less severe uses the PWM method.

Given that maximum capacity is not often required, and that high efficiency is always desirable, the result is a greatly reduced annual energy consumption.

The driver of technology

The motor that drives the revolutions of the air conditioner is a concentration of mechanical technology and electromagnetic engineering.

The most advanced methods of modelling were used to determine the best configuration of the permanent magnets in the DC motor.

A perfect choice of the shape and materials for the permanent magnets allows for the best synchronisation with the frequency of the voltage applied by the control circuit.

The rpm is therefore precisely selected to match the ambient conditions.

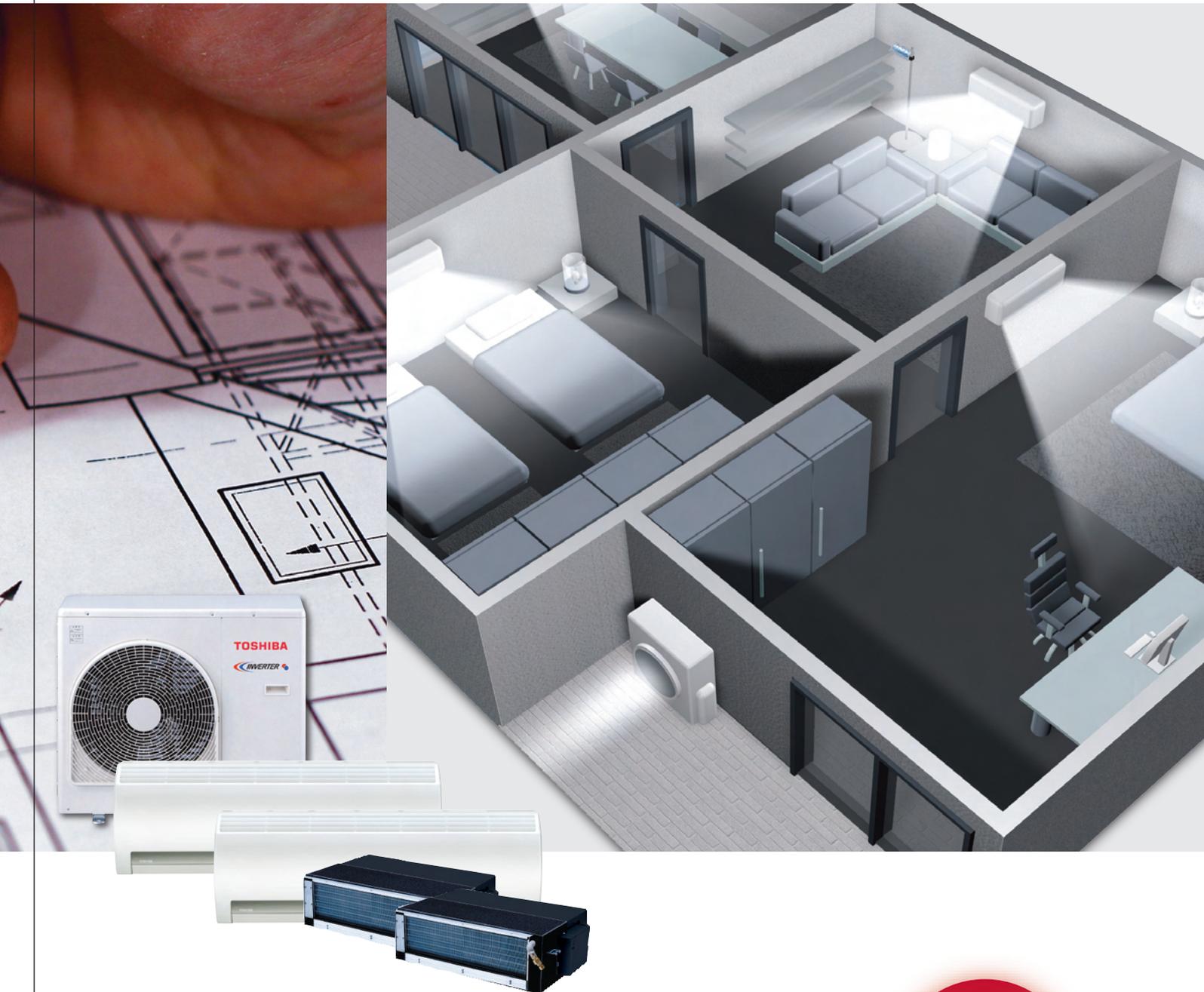
The twin rotary compressor

The compressor is the third extra-thermodynamic element which Toshiba has continuously improved, finally arriving at the solution called the "DC Twin Rotary Compressor". It is a double cam rotary compressor which has several features that increase its performance and reliability. The opposed, double blade design yields mechanical stability and less vibration that could cause stress on other components. In fact, being able to reduce the rpm without causing instability enables improved temperature control when less capacity is required.

An added benefit offered by the DC Twin Rotary Compressor is its low noise level compared to normal rotary compressors, and with refrigerant R410A, it is more efficient than scroll compressors.

Technology

Multi-split systems



When it is necessary to air condition more than just one room, the line-up of Toshiba's multi-split systems can be a perfect solution.

One outdoor unit is capable of operating 2, 3 or 4 indoor units of your choice, indoor styles are designed to compliment the interior of many homes.

The multi-split systems have several capacity steps and electronic capacity

control that provides user comfort and ease of control.

Toshiba Multi-split systems offer a wide range of possibilities to create a comfort and style desired by many.

The full range of internal units including ducted ceiling units and hi-wall models that incorporate advanced filtration and air cleaning characteristics to improve indoor air quality.



+Warranty

Toshiba have a reputation for product quality, and one way to demonstrate our confidence in Toshiba Air Conditioning is our 5 year parts and labour warranty from date of installation for products used in residential applications. For comprehensive warranty information, please contact our service department.

Toshiba Remote Controls



- **One-touch preset**

The one-touch Preset memory allows the user to store their preferred comfort settings, and restore all of them at the simple touch of a button.

- **One-touch auto mode**

Press the auto button to set the system into fully automatic mode. Your air conditioner will automatically choose the best settings to quickly achieve and maintain your desired temperature.

- **Five selectable fan speeds plus Auto**

Choose your desired airflow from the five fan speeds or select the Auto Fan Speed mode and let the air-conditioner select it for you.

- **Operating Modes**

Select the Operating Mode: Cooling, Dry Mode (Dehumidification), Fan only, Heating (only for heat pump model) or Auto Change over.

- **Quiet Mode**

By pressing the “Quiet” button on the remote control, the indoor unit will only operate at super low fan speed, reducing the sound of the indoor unit by 3db.

- **Auto swing or fixed louver position**

Select your preferred airflow distribution: “Fix” to choose any one of the 12 louver positions that you prefer or “Swing”, to move smoothly between all positions for a comfortable air flow.

- **Real Time - On/Off Timer - Repeat Timer**

The real time On/Off timer provides easy-to-set on and off operating times. The repeat timer allows for automatic repetition of the timer settings every 24 hours.

- **Auto Diagnosis**

The unit is equipped with a 36 Code Auto Diagnosis system that constantly monitors all main functions and components of the system to enable maintenance scheduling.

- **Eco-logic**

The Eco-logic mode achieves energy savings of up to 25% compared to the standard operation mode, whilst improving your comfort by automatically increasing the temperature setting.

- **Hi-Power**

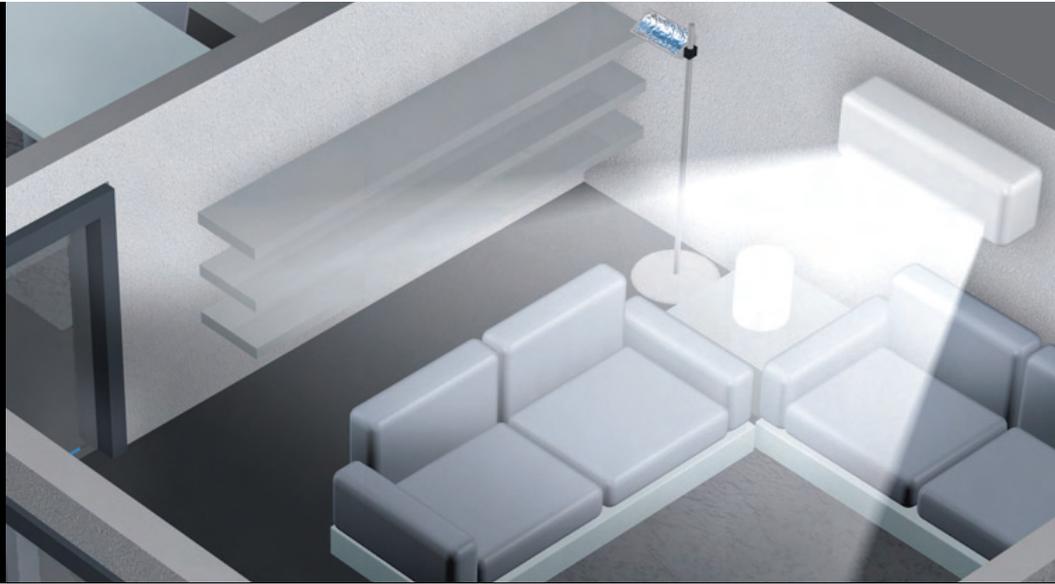
Select “Hi-Power” for extra airflow, to cool you faster than standard operation.

- **Comfort Sleep**

The temperature during the night is normally cooler than during the day. By pressing the “Comfort Sleep” button (in cooling mode) the room temperature will be allowed to rise by one degree per hour for two or three hours, providing you with improved comfort whilst asleep.

└ R410A

└ DC HYBRID INVERTER



- └ Zeolite + Sasa filters
- └ Byo-Enzyme + Gingko filters
- └ Vitamin C
- └ One touch pre-set memory
- └ Hi-power
- └ Washable Front Panel
- └ 12 Step Louvre Positions
- └ One Touch Auto
- └ Quiet Mode
- └ Comfort Sleep
- └ Sleep Timer
- └ Eco Mode
- └ Real Time
- └ Auto Diagnostics



Residential Multi-split Hi-wall Inverter

Features

Innovative technology, ingenious features and attractive design - Toshiba's GKV raises the standard of air conditioning yet again with a new level of comfort.

Comfort comes with the whisper-quiet operation and optimum airflow management system, whilst the new filtration system allows you to breathe cleaner air.

The units are available also as single split systems, with the multi-split system offering the increased flexibility of one outdoor unit serving up to four indoor units.

Key features

New enhanced aesthetic and slimline design.

New enhanced filtration system: Zeolite Plus + Sasa filter to deodorise, Bio-Enzyme filter + Gingko filter to purify and new anti-oxidant Vitamin C filter*.

Latest Digital hybrid inverter technology for increased energy efficiency, optimised comfort and superior reliability.

One touch pre-set memory: to recall your favourite settings.

Low noise level: operation at 24dB(A) in cooling only mode (size 10) ducted for comfortable nights.

Hi-power: lowers/raises temperature and increases fan speed to get to the desired temperature faster.

Indoor Unit

Technical specifications

Indoor Unit - Cool Only Model			RAS-10GKCV-E2	RAS-13GKCV-E2	RAS-16GKCV-E2
Indoor Unit - Reverse Cycle Model			RAS-10GKV-E2	RAS-13GKV-E	RAS-16GKV-E
Cooling Capacity	kW	CO	2.70	3.70	4.50
Heating Capacity		RC	4.00	5.00	5.50
Dimension (H x W X D)	mm		275 x 790 x 218	275 x 790 x 218	275 x 790 x 218
Weight	kg		9	9	9
Airflow	L/s	CO	158	164	180
		RC	169	172	183
Sound Pressure (h/l)	dB(A)	CO	36/28	40/28	42/33
		RC	36/28	39/28	42/33
Liquid pipe size	mm	CO/RC	6.35	6.35	6.35
Gas pipe size		CO/RC	9.52	9.52	12.70

Outdoor Unit

Technical specifications

Outdoor Unit - Cool Only Model			RAS-M18GACV-E	RAS-3M23GACV-E	RAS-3M26GAV-E	RAS-4M27GACV-E
- Reverse Cycle Model			RAS-M18GAV-E	(Cool Only Model)	(Reverse Cycle Model)	RAS-4M27GAV-E
Number of Indoor Units			2 Rooms	3 Rooms	3 Rooms	4 Rooms
Cooling Capacity - Rated (Min~Max)	kW	CO	5.20 (1.40 ~ 6.20)	6.70 (2.20 ~ 7.00)	7.50 (1.40 ~ 8.90)	8.00 (1.40 ~ 9.20)
Heating Capacity - Rated (Min~Max)		RC	6.70 (0.90 ~ 8.50)	-	9.00 (0.80 ~ 10.80)	9.00 (0.80 ~ 11.00)
Dimension (H x W X D)	mm	CO RC	550 x 780 x 290	695 x 900 x 320 -	795 x 900 x 320	795 x 900 x 320
Weight	kg	CO RC	40	48 -	64	65
COP	Rated	CO	3.02	3.12	3.53	3.20
		RC	3.62	-		4.00
Max Pipe Length	m	CO RC	30	40 -	50	70
Max Pipe Per Unit	m	CO RC	20	20 -	25	25
Chargeless Length	m	CO RC	20	40 -	50	70 -
Max Height Difference	m	CO RC	10	10 -	15	15
Sound Pressure	dB(A)	CO	48 *	48 **	48 **	48 ***
		RC	50 *	-		
Refrigerant			R-410A	R-410A	R-410A	R-410A
Compressor Type Inverter			DC Twin Rotary	DC Twin Rotary	DC Twin Rotary	DC Twin Rotary
Operating Range	°C	CO	-10 ~ 24	-10 ~ 24	-10 ~ 24	-10 ~ 24
		RC	5 ~ 43	-	5 ~ 43	5 ~ 43
Power Supply	V/ph/Hz		240 / 1 / 50	240 / 1 / 50	240 / 1 / 50	240 / 1 / 50

Note: The capacity per indoor unit will vary in cases where the continuous and simultaneous operation of multiple indoor units is required. Care should be taken when sizing in these applications. Please consult your Toshiba specialist dealer for more detailed information.

Note:-

CO = Cooling Only Model

RC = Reverse (Heating and Cooling) Cycle Model

(*) Sound based on 2 Indoor units operating

(**) Sound based on 3 Indoor units operating

(***) Sound based on 4 Indoor units operating

R410A

DC HYBRID INVERTER



- └ Only 230mm high
- └ Flexible air return
- └ IR Remote Control or Wired Control
- └ Cooling Only
- └ Reverse Cycle
- └ Low Noise



*Only available on ducted range

Residential ducted inverter

Features

The ducted indoor unit allows discrete air conditioning where you want to get the benefit of a pleasing cooling and heating effect without the presence of visible indoor units.

Its slim design makes it suitable for easy installation into false ceiling spaces.

One outdoor unit can serve up to 4 indoor units and can be mixed and matched with the popular Hi-wall unit.

Key features

Easy-to-use infrared remote control or wired remote control as an option.

Low noise level: at the low fan speed mode, the unit operates at only 24dB(A).

Very slim design: only 230 mm in height, for easier and more flexible installation.

Flexible air inlet: rear or below the unit.

Drain pump kit available as an option.

Up to 63.7 Pa static pressure.

Technical specifications

Indoor Unit - Cool Only Model			RAS-10GDCV-E	RAS-13GDCV-E	RAS-16GDCV-E
Indoor Unit - Reverse Cycle Model			RAS-10GDV-E	RAS-13GDV-E	RAS-16GDV-E
Cooling Capacity	kw	CO	2.70	3.70	4.50
Heating Capacity		RC	4.00	5.00	5.50
Dimension (H x W x D)	mm		230 x 750 x 440	230 x 750 x 440	230 x 750 x 440
Weight	kg		19	19	19
Airflow *	L/s	CO	200	217	217
		RC			
Sound Pressure * (h/l)	dB(A)	CO	31/23	32/24	33/25
		RC	32/24	33/25	34/26
Liquid pipe size	mm	CO/RC	6.35	6.35	6.35
Gas pipe size			9.52	9.52	12.70

Refer to page 7 for outdoor unit

Note: The capacity per indoor unit will vary in cases where the continuous and simultaneous operation of multiple indoor units is required. Care should be taken when sizing in these applications. Please consult your Toshiba specialist dealer for more detailed information.

Airflow * measured at standard static pressure
Sound Pressure * levels at standard static pressure by JIS B 8616 standard measurement
Note: - CO = Cooling Only Model
RC = Reverse (Heating and Cooling) Cycle Model

TOSHIBA

AIR CONDITIONING
Inventor of the Inverter

Notice: 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 subject to change without prior notice.
Note: All images provided in this brochure are used for illustration purposes only.
Part number 60509 Date: December 2006
Equipment rated in accordance with MEPS AS 3823.3 - 2006 E&OE

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TOSHIBA

AIR CONDITIONING



U l t i m a t e C o m f o r t

M U L T I S Y S T E M

Greater flexibility brings greater comfort



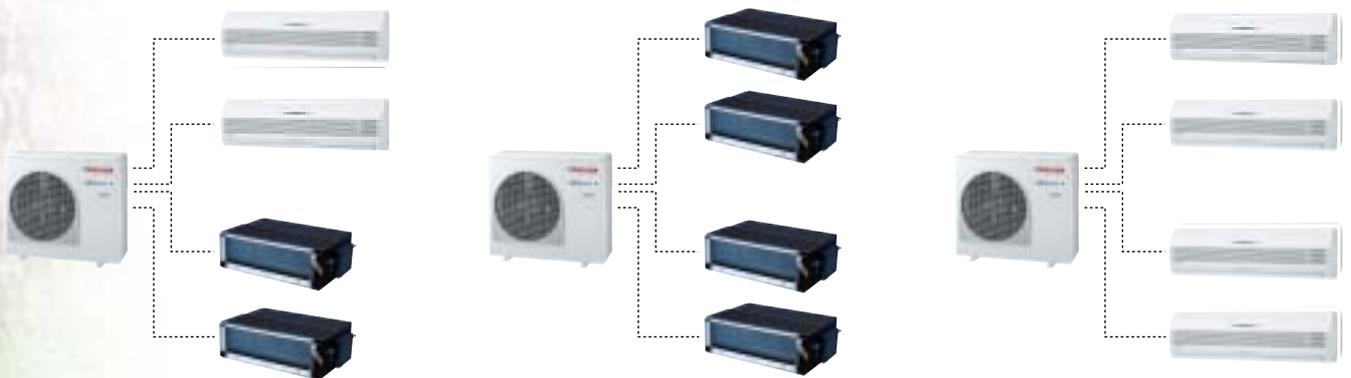
Wider Selection

Toshiba's Multi System, featuring our exclusive DC Digital Hybrid Inverter, gives you a full range of choices to create just the natural comfort you desire. The introduction of our ceiling mounted ducted type models, along with our improved Hi-Wall lineup, offers a greater selection of products. You will enjoy the highest degree of comfort and reliability while decreasing energy consumption. Mix and Match indoor units to suit your requirements.

The Ultimate in Performance

Toshiba's inverter multi system allows you to cool down and warm up as many as 4 rooms. The outdoor capacity can be as high as 11kW while the indoor units range from 2.7 to 4.5kW. Additionally, you will achieve the desired temperature quicker and maintain it with small fluctuations due to the smooth modulating output of our DC Digital Hybrid Inverter.

2



Inverter Technology in Touch with You

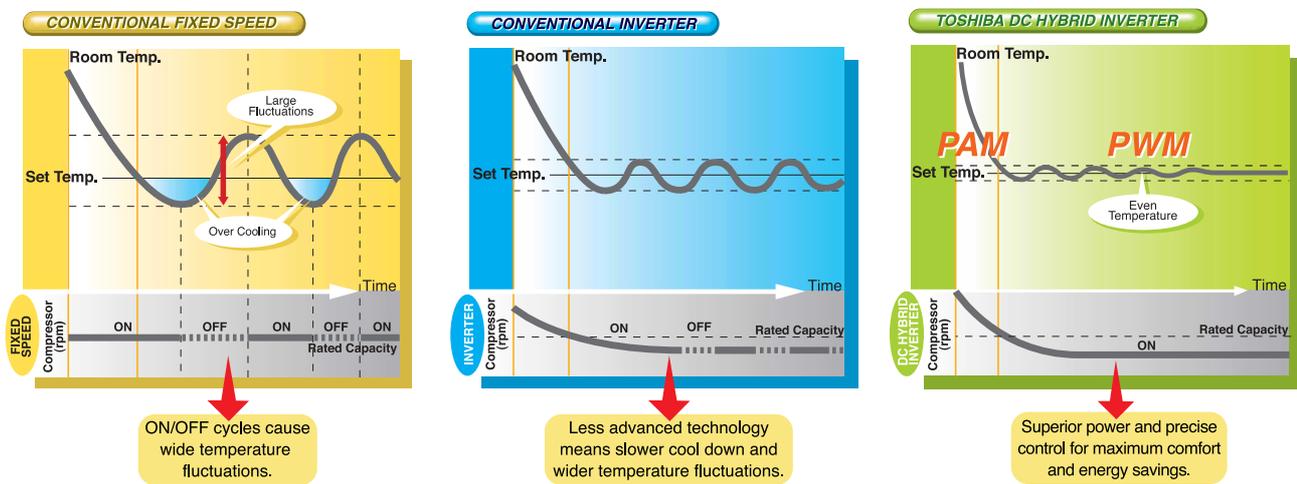
Constant, natural comfort

Toshiba's latest technological breakthrough, the Digital Hybrid Inverter, integrates two distinct control modules to generate constant, natural comfort and maximum energy efficiency.

At start up, the Pulse Amplitude Modulation (PAM) module sets the compressor at maximum power, providing fast cooling or heating to achieve the desired room temperature. The Pulse Width Modulation (PWM) module engages automatically to ensure the desired room temperature is maintained

by smoothly modulating the compressor capacity to match exact room load requirements. This results in savings in power consumption which means energy cost savings for you!

The Digital Hybrid Inverter control utilises the new Toshiba DC (Direct Current) Inverter compressors. Delivering more energy compared to any traditional AC (Alternate Current) inverter compressor. By adopting this technology Toshiba Digital Inverter's offer remarkable energy control, efficient economical operation and excellent comfort.



3

Powerful yet precise, Toshiba DC Digital Hybrid Inverter technology ensures:

Unmatched comfort, by quickly achieving and evenly maintaining desired room temperature.

Higher energy savings, thanks to its accurate digital power control and its efficient and adaptable DC compressors.

Superior reliability and quieter operation, due to the elimination of the compressor ON/OFF cycle.



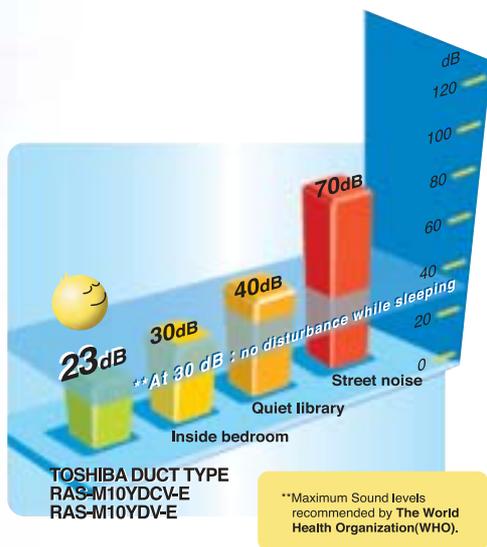
Environmentally friendly.

Advanced environmental technologies are used to meet the strictest environmental safety standards. A wide choice of units specifically designed to operate on the R-410A HFC refrigerant.

R-410A is an ozone safe, non-flammable, non-toxic, and highly energy efficient refrigerant. Its zero ozone depletion coefficient meets the strictest requirements on environmental protection, set by the Montreal Protocol and already introduced in many countries around the world.

Not a Sound to Disturb You

Toshiba's Inverter Multi System offers you a new sound experience; low fan-speed mode, the smallest unit (RAS-M10YDCV-E, RAS-M10YDV-E) can operate at 23dB, quieter than the background noise normally found in a bedroom, while the largest capacity unit (RAS-M16YDCV-E, RAS-M16YDV-E) also operates at a very quiet 25dB. Start your new air-conditioner, and enjoy your favourite music as never before.



A Breeze to Install

Toshiba's duct type models have made it even simpler to integrate the air conditioning with your interior design. These duct type models are only 23cm in height and need only 25cm of height for installation. As an added convenience, an optional 15cm lift condensation drain pump can be easily installed.



Ideal Airflow Management

Toshiba air conditioners are designed to provide the most naturally comfortable room climates. With the choice of 5 Fan speeds, you can adjust the strength of the airflow to just how you like it. Furthermore, the Hi-Wall features airflow volume as powerful as 178L/s and includes hidden horizontal louvres to regulate air distribution throughout the room. The remote control also allows you to set vertical louvres to direct airflow as you like. At the same time, Toshiba's duct type air-conditioners, with airflow up to 217L/s, have been engineered for the most flexible airflow and temperature control.

Toshiba's 4 room inverter multi system outdoor unit weighs just 63kg and is just 79.5cm high, it takes up little space on a balcony or in a yard. Furthermore by providing piping lengths between interior and exterior units of up to 70 metres, thus allowing general flexibility for positioning of Indoor Units.

Climate control in the palm of your hand

5-selectable fan speeds plus Auto

 Choose your desired airflow among the five fan speeds offered. Select the Auto fan-speed mode and let the air conditioner choose for you.

One-touch Auto mode

 The Auto button automatically chooses the best settings to quickly achieve and evenly maintain your desired room temperature.

Sleep-timer with ECO-logic

 The Eco-logic mode achieves energy savings of up to 25% compared to the standard operation mode.

Fix and Swing louvre

 Select your preferred airflow distribution; 5 Fixed louvre positions, Swing louvre mode or Auto louvre positioning.

Filter warning LED

 The air conditioner is equipped with a Filter warning LED to inform when the filters require cleaning.



Large display

The remote control offers an extra-large display for improved readability.

One-touch Preset memory

 Set your preferences then press the Memo button to store them. Once memorised, simply push the Preset button and all your preferred settings will be restored at once.

Hi-power

 For extra airflow intensity to cool down or heat your room faster than ever!

Operating mode

Cooling, dehumidification, fan only, heating (only for heat-pump models) or Auto changeover.

Real time ON/OFF timer Repeat timer

 Real time ON/OFF timer provides easily set on and off operating times. The Repeat timer allows for automatic repetition of timer settings every 24 hours.

Auto Diagnosis

 Equipped with a 36 code Auto Diagnosis system which constantly monitors all the main functions and components of the unit.

5

Additional features:

 Automatic changeover (Cool/Dry)

 Dry (Dehumidifying Function)

 ECO Mode

 Zeolite-plus filter

 Automatic 3 mins Delay Safety Control

 Washable front panel

 Backspace Saving Outdoor

 Automatic changeover (Cool/Heat)

 Sleep Timer

 Repeat timer

 Passive Electrostatic Filter

 IR Selectable Remote Control

 Auto restart

 Add-Chargeless

Add-Chargeless



* Optional wired remote control only applicable to ducted system

OUTDOOR UNIT

2 Rooms **RAS-M18YACV-E**
1.1-6.2 kW (Cooling)

3 Rooms **RAS-3M23YACV-E**
1.4-7.0 kW (Cooling)

4 Rooms **RAV-4M27YACV-E**
1.4-9.2 kW (Cooling)

MIX & MATCH

INDOOR UNIT

Hi-Wall

RAS-M10UKCV-E
RAS-M13UKCV-E
RAS-M16UKCV-E

Ducted Type

RAS-M10YDCV-E
RAS-M13YDCV-E
RAS-M16YDCV-E

*Optional

Outdoor units are specific to the number of rooms applicable, however indoor units can be mixed and matched based on personal preference.

Indoor Unit: Hi-Wall

System		RAS-M10UKCV-E	RAS-M13UKCV-E	RAS-M16UKCV-E
Model (Indoor Unit)		RAS-M10UKCV-E	RAS-M13UKCV-E	RAS-M16UKCV-E
Power Supply	(V/ph/Hz)	240/1/50	240/1/50	240/1/50
Cooling Capacity (Nominal)	(kW)	2.7	3.7	4.5
Dimension (H x W x D)	(mm)	275 x 790 x 208	275 x 790 x 208	275 x 790 x 208
Net Weight	(kg)	10	10	12
Airflow Volume (H/L)	(L/S)	150/95	164/95	186/125
Operating Noise (H/L) (Sound Pressure)	(dB)	36/28	39/28	42/33
Liquid Pipe Size	(mm/inch)	6.35(1/4")	6.35(1/4")	6.35(1/4")
Gas Pipe Size	(mm/inch)	9.52(3/8")	9.52(3/8")	12.7(1/2")

Indoor Unit: Ducted

System		RAS-M10YDCV-E	RAS-M13YDCV-E	RAS-M16YDCV-E
Model (Indoor Unit)		RAS-M10YDCV-E	RAS-M13YDCV-E	RAS-M16YDCV-E
Power Supply	(V/ph/Hz)	240/1/50	240/1/50	240/1/10
Cooling Capacity (Nominal)	(kW)	2.7	3.7	4.5
Dimension (H x W x D)	(mm)	230 x 750 x 440	230 x 750 x 440	230 x 750 x 440
Net Weight	(kg)	19	19	19
Airflow Volume (H/L) (*1)	(L/S)	200/111	216/119	216/125
Operating Noise (H/L) (Sound Pressure) (*2)	(dB)	31/23	33/24	33/25
Static Pressure (Upper / Standard)	(Pa)	54.0/35.3	63.7/41.2	63.7/41.2
Liquid Pipe Size	(mm/inch)	6.35(1/4")	6.35(1/4")	6.35(1/4")
Gas Pipe Size	(mm/inch)	9.52(3/8")	12.7(1/2")	12.7(1/2")
Length of Signal receiver code	(mm)	2000	2000	2000

*1. Airflow volume at standard static pressure. *2. Operating noise at standard static by JIS B 8616 standard measurement.

Outdoor Unit

	2 Rooms Multi	3 Rooms Multi	4 Rooms Multi
Number of indoor units	2	3	4
Outdoor Unit	RAS-M18YACV-E	RAS-3M23YACV-E	RAS-4M27YACV-E
COP (Rated)	3.02	3.12	3.20
Capacity (Cooling)	1.1-6.2	1.4-7.0	1.4-9.2
Dimension (H x W x D)	550 x 780 x 270	605 x 780 x 270	795 x 900 x 320
Net Weight	42	48	63
Max. Piping Length (per unit/total)	20/30	20/40	25/70
Chargeless Length (per unit)	30	40	70
Max. Elevation	10	10	15
Operating Noise (Sound Pressure)	46	48	48
Refrigerant	R-410A	R-410A	R-410A
Usable Outdoor Temp	(Cooling, °C) 21-43	10-43	10-43

System	Outdoor Unit	Indoor Unit						Capacity		
		Hi-Wall			Ducted			Connectable Range	Rated	Max
		RAS-M10UKCV-E	RAS-M13UKCV-E	RAS-M16UKCV-E	RAS-M10YDCV-E	RAS-M13YDCV-E	RAS-M16YDCV-E			
Cooling Capacity (kW)										
2 Rooms	RAS-M18YACV-E	2.7	3.7	-	2.7	3.7	-	2.7	6.4	6.2
3 Rooms	RAS-3M23YACV-E	2.7	3.7	4.5	2.7	3.7	4.5	2.7	9.9	7.0
4 Rooms	RAS-4M27YACV-E	2.7	3.7	4.5	2.7	3.7	4.5	2.7	16.2	9.2

*Note: For more detailed performance values and connectable combinations please contact your local Toshiba Air Conditioning Dealer.

Condition (Cool): Indoor Air Temperature 27°C DB, 19°C WB, Outdoor Air Temperature 35°C DB, 24°C WB
Condition (Heat): Indoor Air Temperature 20°C DB, 15°C WB, Outdoor Air Temperature 7°C DB, 6°C WB

OUTDOOR UNIT	2 Rooms		RAS-M18YAV-E 1.1-6.2 kW (Cooling) 0.7-8.7 kW (Heating)	MIX & MATCH INDOOR UNIT	Hi-Wall		RAS-M10UKV-E RAS-M13UKV-E RAS-M16UKV-E
	3 Rooms		RAS-3M26YAV-E 1.4-8.9 kW (Cooling) 0.8-10.8 kW (Heating)		Ducted Type		RAS-M10YDV-E RAS-M13YDV-E RAS-M16YDV-E
	4 Rooms		RAS-4M27YAV-E 1.4-9.2 kW (Cooling) 0.8-11.0 kW (Heating)			<small>*Optional</small>	

Outdoor units are specific to the number of rooms applicable, however indoor units can be mixed and matched based on personal preference.

Indoor Unit: Hi-Wall

System		RAS-M10UKV-E	RAS-M13UKV-E	RAS-M16UKV-E
Model (Indoor Unit)		RAS-M10UKV-E	RAS-M13UKV-E	RAS-M16UKV-E
Power Supply	(V/phHz)	240/1/50	240/1/50	240/1/50
Capacity (Cooling) (Nominal)	(kW)	2.7	3.7	4.5
Capacity (Heating) (Nominal)	(kW)	4.0	5.0	5.5
Dimension (H x W x D)	(mm)	275 x 790 x 208	275 x 790 x 208	275 x 790 x 208
Net Weight	(kg)	10	10	10
Airflow Volume (Cooling/Heating)	(L/S)	150/169	164/178	167/167
Operating Noise (H/L) (Sound Pressure)	(dB)	39/28	40/28	42/33
Liquid Size	(mm/inch)	6.35(1/4")	6.35(1/4")	6.35(1/4")
Gas Size	(mm/inch)	9.52(3/8")	9.52(3/8")	12.7(1/2")



Indoor Unit: Ducted

System		RAS-M10YDV-E	RAS-M13YDV-E	RAS-M16YDV-E
Model (Indoor Unit)		RAS-M10YDV-E	RAS-M13YDV-E	RAS-M16YDV-E
Power Supply	(V/phHz)	240/1/50	240/1/50	240/1/50
Capacity (Cooling) (Nominal)	(kW)	2.7	3.7	4.5
Capacity (Heating) (Nominal)	(kW)	4.0	5.0	5.5
Dimension (H x W x D)	(mm)	230 x 750 x 440	230 x 750 x 440	230 x 750 x 440
Net Weight	(kg)	19	19	19
Airflow Volume (H/L) (*1)	(L/S)	200/111	217/120	217/125
Operating Noise (H/L) (Sound Pressure) (*2)	(dB)	31/23	32/24	33/25
Static Pressure (Upper / Standard)	(Pa)	54.9/35.3	63.7/41.2	63.7/41.2
Liquid Pipe Size	(mm/inch)	6.35(1/4")	6.35(1/4")	6.35(1/4")
Gas Pipe Size	(mm/inch)	9.52(3/8")	9.52(3/8")	12.7(1/2")
Length of Signal Receiver Code	(mm)	2000	2000	2000

*1 airflow volume at standard static pressure *2 Sound levels at standard static pressure by JIS B 8616 standard measurement.

Outdoor Unit

	2 Rooms Multi	3 Rooms Multi	4 Rooms Multi
Outdoor Unit	RAS-M18YAV-E	RAS-3M26YAV-E	RAS-4M27YAV-E
Capacity (Cooling)	1.1-6.2	1.4-8.9	1.4-9.2
Capacity (Heating)	0.7-8.7	0.8-10.8	0.8-11.0
COP (Cooling/Heating)	3.02/3.62	3.33/3.53	3.20/4.00
Dimension (H x W x D)	550 x 780 x 270	795 x 900 x 320	795 x 900 x 320
Net Weight	44	64	65
Max. Piping Length (Per unit/Total)	20/30	25/50	25/70
Chargeless Length	30	50	70
Max. Elevation	10	15	15
Operating Noise (Sound Pressure)	46	48	48
Refrigerant	R-410A	R-410A	R-410A
Usable Outdoor Temp (Cooling, °C)/(Heating, °C)	21-43/-5-21	10-43/-10-21	10-43/-10-21

System	Outdoor Unit	Indoor Unit					Capacity			
		Hi-Wall		Ducted			Connectable Range	Rated	Max	
		RAS-M10UKV-E	RAS-M13UKV-E	RAS-M16UKV-E	RAS-M10YDV-E	RAS-M13YDV-E				RAS-M16YDV-E
Cooling Capacity (kW)										
2 Rooms	RAS-M18YAV-E	2.7	3.7	-	2.7	3.7	-	2.7	6.4	6.2
3 Rooms	RAS-3M26YAV-E	2.7	3.7	4.5	2.7	3.7	4.5	2.7	12.7	8.9
4 Rooms	RAS-4M27YAV-E	2.7	3.7	4.5	2.7	3.7	4.5	2.7	14.8	9.2

*Note: For more detailed performance values and connectable combinations please contact your local Toshiba Air Conditioning Dealer.

Condition (Cool): Indoor Air Temperature 27°C DB, 19°C WB, Outdoor Air Temperature 35°C DB, 24°C WB
Condition (Heat): Indoor Air Temperature 20°C DB, 15°C WB, Outdoor Air Temperature 7°C DB, 6°C WB

Distributed by:

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Notice: 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 subject to change without prior notice. Part number 60510 Date OCT 2003