



Technology that works fast

**TOSHIBA**  
AIR CONDITIONING

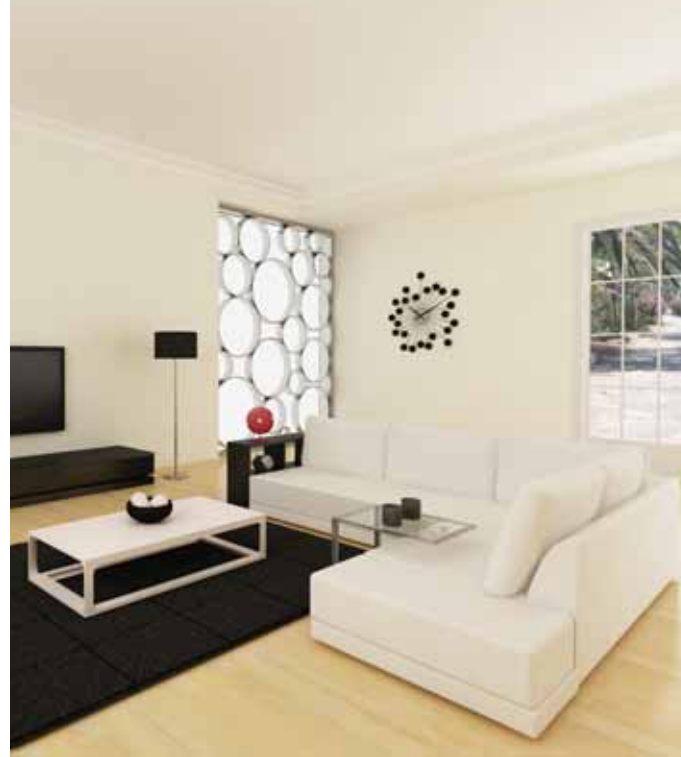
**Inverter Ducted  
Systems**



## About Toshiba's Inverter Ducted systems.

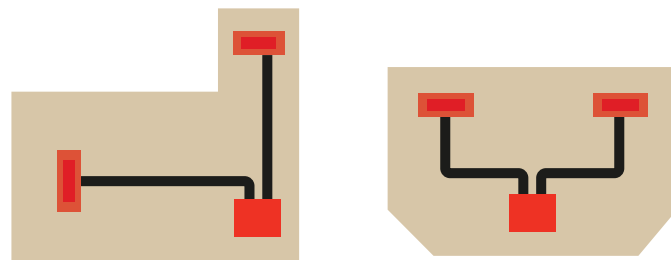
Toshiba's Inverter Ducted systems allows you to air condition your home without having to install the indoor units on your wall, making your home look neat and tidy.

The indoor unit is installed in a confined space and ducts run through the ceiling leading to air outlets in your room. Air is allowed into the room through vents on the ceiling or on the wall.

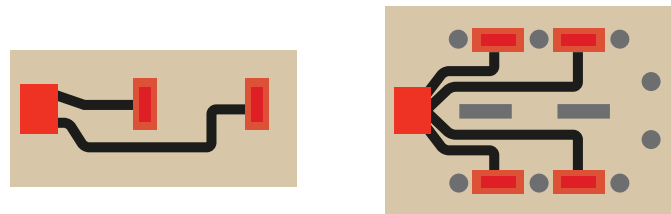


## A wide range of applications.

The use of ducts enables air outlets to be installed anywhere on the ceiling. Applications include a wide array of layouts from narrow spaces to polygon rooms.



Polygonal rooms



Narrow rooms

Rooms with fixtures and obstacles

## The benefits.

The benefits of Toshiba's refined design include flexibility in application, low operating sound level, improved air quality and all round comfort. This is as a result of the precise temperature control of Toshiba's Inverter technology. Plus, all units are high performing as well as energy efficient.

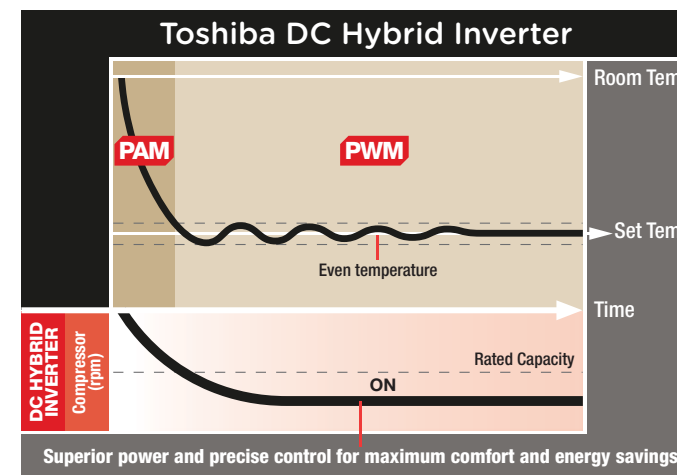
## Who is Toshiba Air Conditioning?

Toshiba is committed to delivering the highest standard of quality and innovation across our product range and services. For more than 40 years Toshiba Air Conditioning has led the world in creating better air conditioning and setting new standards in comfort, ease of use, energy efficiency and climate control.

## Combining high power with high efficiency.

### The Toshiba Air Conditioning DC Hybrid Inverter.

The hybrid inverter integrates two distinct compressor control modules to ensure constant natural comfort which is achieved with maximum energy efficiency. PAM (Pulse Amplitude Modulation) provides the highest levels of power for when you need to get cool (or warm) fast, while PWM (Pulse Width Modulation) ensures the desired room temperature is maintained with optimum energy efficiency. The Toshiba Inverter system features the best of both.



### PAM High power

PAM works like a **turbo engine** in a car. It will set a compressor at the maximum power, providing fast cooling in order to achieve the desired room temperature when the air conditioner is switched on.

### PWM High efficiency

PWM helps to balance the compressor speed revolution, either high speed when providing fast cooling, or slow speed when maintaining room temperature. So, like **cruise control** in a car, it results in significantly less power consumption.

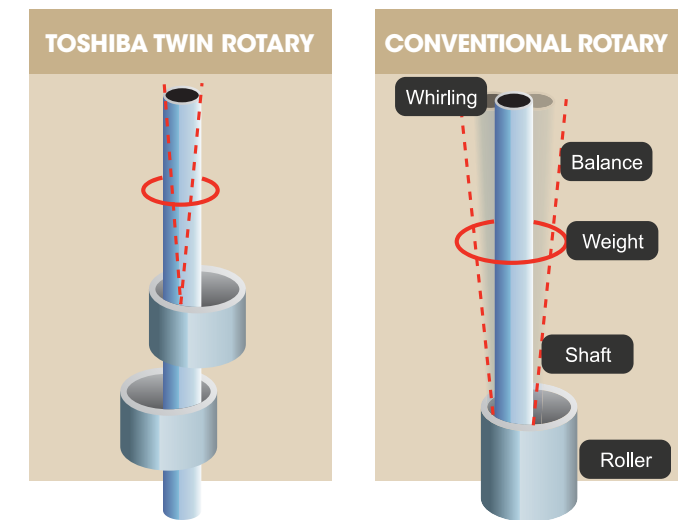
### The Toshiba Air Conditioning DC Twin-Rotary Compressor.

#### High efficiency

This compressor enables the adoption of a high-pressure refrigerant. High efficiency is evident in low speed operation ranges. It can reduce energy consumption when operated in long stable conditions.

Rotating with two rollers at the same time makes accurate compressor rotation possible with less energy loss.

As a result, it offers a great reduction in energy consumption with very powerful operation.



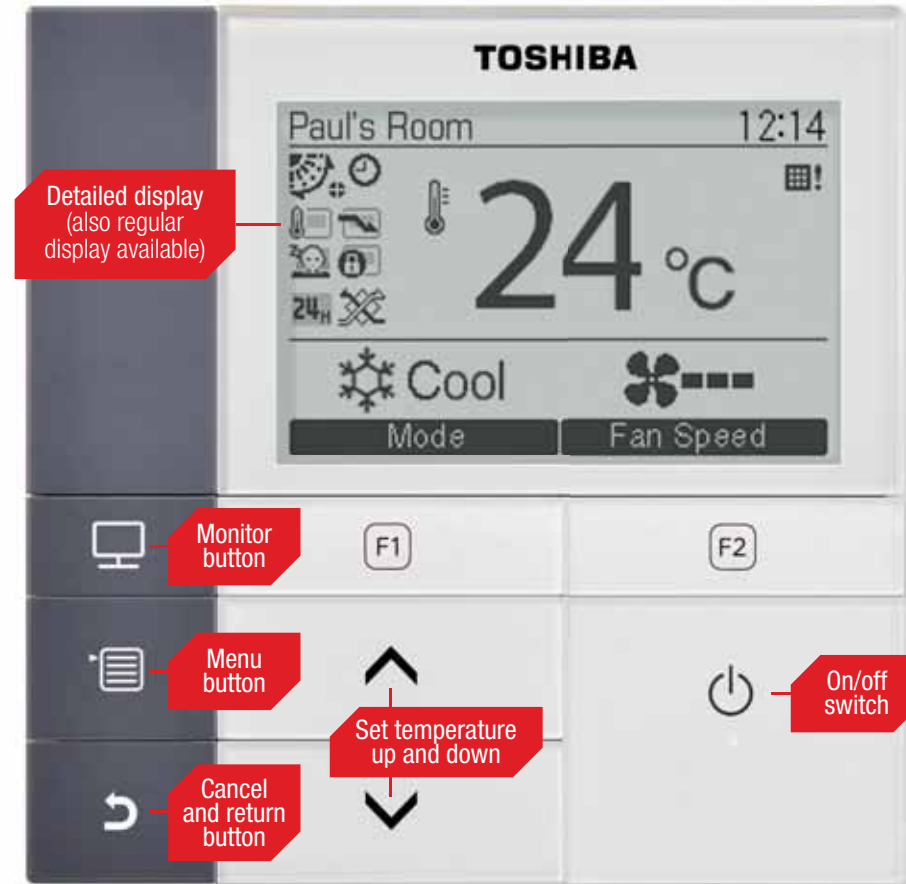
#### High reliability and low noise

The enhanced DC Twin-Rotary Compressor delivers stable performance with minimum friction. It's ideal for noise-sensitive applications as the sound of the outdoor unit is almost imperceptible.





## Controllers. Designed for real people.



RBC-AMS51E-EN

Feature	Benefit
Wired controller	Controller is secured to the wall and can never be displaced.
Backlit	For ease of use during the day and night.
Energy saving function	The controller can be set into power saving mode which is anywhere between 50-100% of full operating mode. The lower the value is set, the more power will be saved.
Quiet operation	The indoor unit can operate at a lower noise level. This occurs as the fan speed can shift lower, thereby reducing the sound of the indoor unit.
Set temperature range	Set the minimum and maximum limit for each type of operation including heat, cool, dry and auto to cover for all variances in weather.
Off reminder function	A timer can be set for the indoor unit to switch off each day. Once set, the indoor unit can never accidentally be left on when no-one is home.
Key lock	Locks the controller so the temperature is stable and unable to be changed, resulting in a constant temperature with no variations.
Large buttons	For simple and easy operation.
Night operation	Reduces the operating noise of the outdoor unit when quieter operation is required at night.
Weekly schedule timer	Convenient for setting schedules on weekends and weekday.
Several language operation	Multi functional with 11 language options including English, French, Italian, German, Spanish, Portuguese, Dutch, Russian, Greek, Turkish and Polish.

## Advantages of Toshiba Air Conditioning's Inverter Ducted system.

Quiet operation	Reverse cycle (heating and cooling)
Rapid heat and cool function which increases power temporarily to achieve desired temperature before returning to normal power	Powerful operation
5 year warranty for consumer confidence	R410A non ozone depleting refrigerant
Low maintenance	Easy to install
Compact unit concealed in ceiling	DC inverter system, designed to use electricity efficiently and effectively
Dual controllers with the ability to adjust from either controller	Easy to use controller



Other control options available. Please enquire with your Toshiba Air Conditioning authorised dealer.



# Technical specifications

		SINGLE PHASE			THREE PHASE			
INDOOR		RAV-SM1103DT-A	RAV-SM1403DT-A	RAV-SM1603DT-A	RAV-SM1603DT-A	RAV-SM2242DT-E	RAV-SM2802DT-E	
OUTDOOR		RAV-SP1104AT-A	RAV-SP1404AT-A	RAV-SM1603AT-A	RAV-SP1604AT8-A	RAV-SM2244AT8-A	RAV-SM2804AT8-A	
Refrigerant Type		R410A	R410A	R410A	R410A	R410A	R410A	
Power Supply		Volts-Phase-Hz	220-240V -/1/50Hz	220-240V -/1/50Hz	220-240V -/1/50Hz	380-415V /3 /50Hz	220-240V /1/50Hz 380-415V/3/50Hz	
COOLING	Capacity - Rated	kW	10.4	12.5	13.5	13.6	16.7	
	Capacity - Range (min ~ max)	kW	3.3~12.1	3.3~14.1	3.6~16.0	3.3 - 16.0	9.8~22.4	9.8~27.0
	Efficiency (rated )	EER	3.30	3.42	3.29	3.30	3.27	3.23
	Power Input (min ~ rated ~ max)	kW	0.90~3.15~3.99	0.90~3.66~4.98	1.30~4.10~6.01	0.90-4.12-6.23	3.26~5.10~9.09	3.36~6.20~12.76
	Operating Current (rated)	A	14.8	17.2	19.62	7.03	6.08	7.6
HEATING	Capacity - Rated	kW	11.3	14.0	16.0	16.0	22.4	27.0
	Capacity - Range (min ~ max)	kW	4.2~ 17.0	4.2~ 18.0	4.6~ 18.0	4.2 - 19.0	9.8 ~ 25.0	9.8 ~ 31.5
	Efficiency (rated)	COP	4.38	4.14	3.50	3.61	3.45	3.31
	Power Input (min ~ rated ~ max)	kW	0.80~2.58~4.84	0.80~3.38~4.91	1.26~4.57~7.08	0.80-4.43-6.71	2.57~6.49~7.45	2.57~8.15~11.01
	Operating Current (rated)	A	12.1	15.8	21.87	7.71	7.95	10.4
INDOOR UNIT	Dimension (HxWxD)	mm	380x1050x600	380x1050x600	380x1050x600	380x1050x600	470x1380x1250	470x1380x1250
	Net Weight	kg	57	57	57	57	160	160
	Airflow Volume	L/s	693.3	916.9	966.9	967	1000	1167
	Heating Airflow Volume	L/s	693.5	916.9	966.9	967	1000	1167
	Fan Motor Output	W	600	600	600	600	370 x 3	370 x 3
	Sound Pressure(H) at 1m distance	dBA	49	49	50	50	54	55
	Sound Power(H)	dBA	64	64	65	65	74	75
	Cooling Usable Temperature Range	°C	-15~43	-15~43	-15~43	-15~46	21~32DB	21~32DB
	Heating Usable Temperature Range	°C	-20~15	-20~15	-15~15	-20~15	15~30DB	15~30DB
	OUTDOOR UNIT	Dimension (HxWxD)	mm	1340x900x320	1340x900x320	1340x900x320	1340x900x320	1540x900x320
Net Weight		kg	93	93	99	95	134	134
Compressor Type		-	DC Twin Rotary	DC Twin Rotary	DC Twin Rotary	DC Twin Rotary	DC Twin Rotary	DC Twin Rotary
Fan Motor Output		W	100+100	100+100	100+100	100+100	100+100	100+100
Cooling Operating Noise (Sound Pressure) (H) at 1m		dBA (@spl)	49	51	51	51	56	57
Cooling Operating Noise (Sound Power) (H)		dBA (@swl)	66	68	68	68	72	74
Heating Operating Noise (Sound Pressure) (H) at 1m		dBA (@spl)	50	52	53	53	57	58
Heating Operating Noise (Sound Power) (H)		dBA (@swl)	67	69	70	70	74	75
Cooling Usable Temperature Range		DB°C	-15/43	-15/43	-15/43	-15/+46	-15~46DB	-15~46DB
Heating Usable Temperature Range		WB°C	-20/15	-20/15	-15/15	-20/+15	-20~15WB	-20~15WB
PIPE SIZE	Liquid Line Ø	mm	9.5	9.5	9.5	9.5	12.7/0.5	12.7/0.5
	Gas Line Ø	mm	15.9	15.9	15.9	15.9	28.6/1.126	28.6/1.126
	Coupler Style	mm	Flaring	Flaring	Flaring	Flaring	Brazing / Flaring	Brazing / Flaring
	Drain (Inside Diameter) Ø	mm	VP25	VP25	VP25	VP25	VP25	VP25
	Maximum Length	m	75	75	50	75	70	70
	Chargeless Length	m	30	30	30	30	30	30
	Maximum Height Difference	m	30	30	30	30	30	30



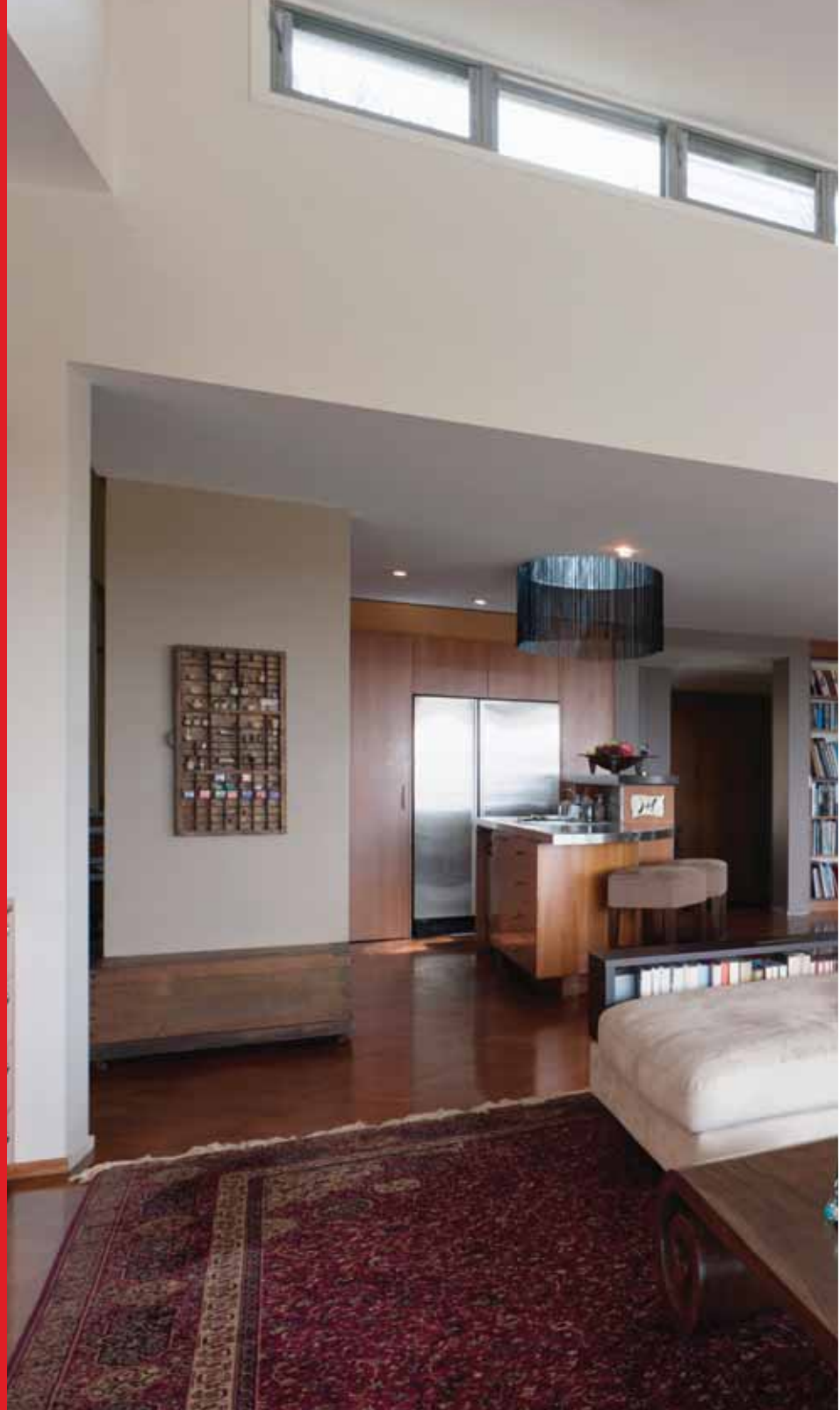
**Notice:** Toshiba is committed to continuously improving its product to ensure the highest quality and reliability standards, and to meet local regulations and market requirements.

All features and specifications are subject to change without prior notice.

**Note:** All images provided in this catalogue are used for illustration purposes only.

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Equipment rates in accordance with MEPS 3823.2-2011 E&OE



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AIR CONDITIONING

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