

INVERTER DUCTED SYSTEMS

What you'll find inside:

- DC Twin-Rotary Compressor
- Inverter Ducted Advantages
- Zone Controller
- Product Specifications

+ Energy Efficient

+ Powerful Operation

+ Flexible Application

TOSHIBA

AIR CONDITIONING



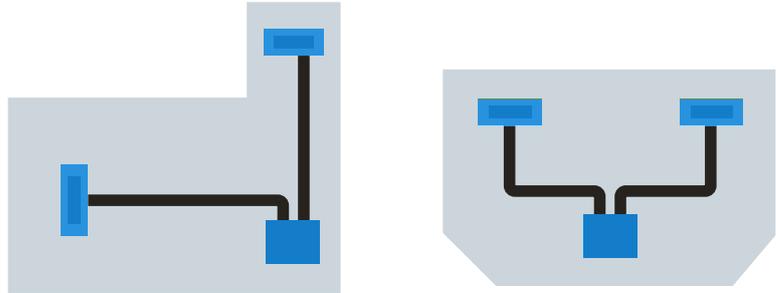
About Toshiba's Inverter Ducted Systems

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.

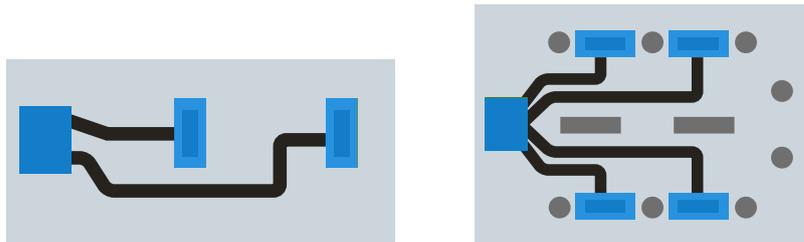
The indoor unit is installed in a confined space and ducts run through the ceiling leading to air outlets in your room. Air is allowed into the room through vents on the ceiling or on the wall.

A wide range of applications

The use of ducts enables air outlets to be installed anywhere in 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 thanks to Toshiba's Inverter technology. Plus, all units are high performing as well as energy efficient.

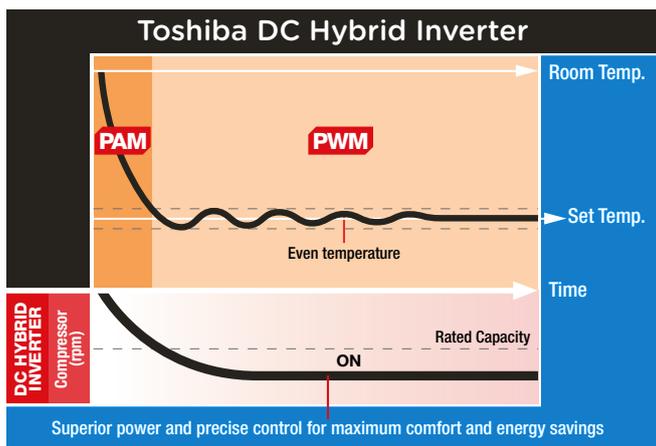
Who is Toshiba Air Conditioning?

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 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 and 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 consumption.

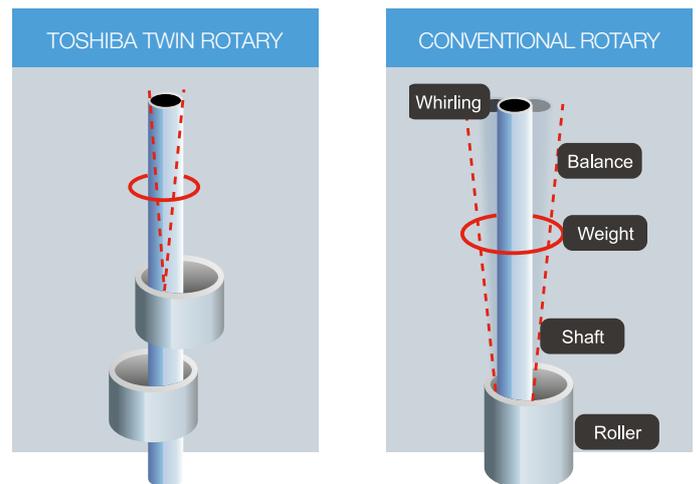
The Toshiba Air Conditioning DC Twin-Rotary Compressor

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 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.



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



RBC-AMS55E-ES

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.
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.

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

T-Zone Air

T-zone air

What is zoning

For times when you only want to air condition certain rooms in your home, zoned air conditioning can be the answer. Whether you install a new ducted air conditioner or have your existing system retrofitted, zoning can save energy, reduce wear and tear on the mechanical parts and electronic components of the system.

Introducing Toshiba's T-Zone Air



How does it work?

A zone is considered one room, a number of rooms, or an area. Each zone has an assigned number, and the capacity of the system will dictate how many zones it can effectively air condition.

With the wifi option, you can control your air conditioning system via your smart phone, tablet, or from the T-Zone Air wall controller. T-Zone Air gives you greater control from anywhere. Now the whole family can come home to the perfect temperature.



Features

Complete system control

T-Zone Air provides cooling or heating when and where you need it. You can control up to 14 zones. You can also create up to '9 favourite' scenarios to suit your lifestyle. You can even schedule different rooms to come on at different times and temperatures or alternatively, start and stop your air conditioner from anywhere.



T-Zone Air allows you to time schedule your air conditioner so you can switch your Toshiba Ducted system on or off, at any time of the day or night. You can even schedule favourites to activate zones at pre-determined times. Wake up to a warm home in winter or come home to a cool home in summer.

The fresh air* feature allows the T-Zone Air to interface the Economy Cycle. This uses the cooler night air to keep you comfortable instead of running the air conditioning compressor, plus it can provide cost savings.

* Requires accessory part supplied and installed separately

		SINGLE PHASE	
INDOOR		RAV-SM1103DT-A	RAV-SM1403DT-A
OUTDOOR		RAV-SP1104AT-A1	RAV-SP1404AT-A1
Refrigerant Type		R410A	R410A
Power Supply		Volts-Phase-Hz	220-240V -/1/50Hz
COOLING			
Capacity - Rated	kW	10.4	12.5
Capacity - Range (min ~ max)	kW	3.3~12.1	3.3~14.1
Efficiency (rated)	EER	3.30	3.42
Power Input (min ~ rated ~ max)	kW	0.90~3.15~3.99	0.90~3.66~4.98
Operating Current (maximum)	A	22.8	22.8
HEATING			
Capacity - Rated	kW	11.3	14.0
Capacity - Range (min ~ max)	kW	4.2~17.0	4.2~18.0
Efficiency (rated)	COP	4.38	4.14
Power Input (min ~ rated ~ max)	kW	0.80~2.58~4.84	0.80~3.38~4.91
Operating Current (maximum)	A	22.8	22.8
INDOOR UNIT			
Dimension (HxWxD)	mm	380 x 1050 x 600	380 x 1050 x 600
Net Weight	kg	57	57
Cooling Airflow Volume	L/s	693.3	916.9
Heating Airflow Volume	L/s	693.5	916.9
Fan Motor Output	W	600	600
Sound Pressure(H) at 1m distance	dB(A)	49	49
Sound Power(H)	dB(A)	64	64
External Static Pressure (default setting)	(Pa)	100	100
External Static Pressure Range	(Pa)	40-225	50-250
OUTDOOR UNIT			
Dimension (HxWxD)	mm	1340 x 900 x 320	1340 x 900 x 320
Net Weight	kg	93	93
Compressor Type	-	DC Twin Rotary	DC Twin Rotary
Fan Motor Output	W	100+100	100+100
Cooling Operating Noise (Sound Pressure) (H) at 1m	dB(A) (@spl)	49	51
Cooling Operating Noise (Sound Power) (H)	dB(A) (@swl)	66	68
Heating Operating Noise (Sound Pressure) (H) at 1m	dB(A) (@spl)	50	52
Heating Operating Noise (Sound Power) (H)	dB(A) (@swl)	67	69
Cooling Usable Temperature Range	DB°C	-15/43	-15/43
Heating Usable Temperature Range	WB°C	-20/15	-20/15
PIPE SIZE			
Liquid Line Ø	mm	9.5	9.5
Gas Line Ø	mm	15.9	15.9
Coupler Style	-	Flaring	Flaring
Drain (Inside Diameter) Ø	mm	VP25	VP25
Maximum Length	m	75	75
Chargeless Length	m	30	30
Maximum Height Difference	m	30	30

Rated conditions

Cooling: Indoor air temperature 27°C DB/19°C WB, outdoor air temperature 35°C DB

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



		THREE PHASE			
RAV-SM1603DT-A		RAV-SM1603DT-A	RAV-SM2244DTP-E	RAV-SM2804DTP-E	
RAV-SM1603AT-A1		RAV-SP1604AT8-A1	RAV-SM2244AT8-A1	RAV-SM2804AT8-A1	
R410A		R410A	R410A	R410A	
220-240V -/1/50Hz		FCU 220V-240V-/1/50Hz CDU 380-415V/3/50Hz	FCU 220V-240V-/1/50Hz CDU 380-415V/3/50Hz	FCU 220V-240V-/1/50Hz CDU 380-415V/3/50Hz	
13.5		13.6	16.8	20.0	
3.6~16.0		3.3~16.0	9.8~23.3	9.8~27.0	
3.29		3.30	3.33	3.28	
1.30~4.10~6.01		0.90~4.12~6.23	2.63~5.05~7.60	2.68~6.10~12.20	
32		16.4	18	20	
16.0		16.0	22.4	27.0	
4.6~18.0		4.2~19.0	9.8~25.1	9.8~31.5	
3.50		3.61	3.79	3.75	
1.26~4.57~7.08		0.80~4.43~6.71	2.32~5.91~7.02	2.55~7.20~9.32	
32		16.4	18	20	
380 x 1050 x 600		380 x 1050 x 600	448 x 1400 x 900	448 x 1400 x 900	
57		57	97	97	
966.9		967	1056	1333	
966.9		967	1056	1333	
600		600	1000	1000	
50		50	44/40/36 (H/M/L)	46/42/38(H/M/L)	
65		65	79/75/71 (H/M/L)	81/77/73(H/M/L)	
100		100	150	150	
50-250		50-250	50-250	50-250	
1340 x 900 x 320		1340 x 900 x 320	1540 x 900 x 320	1540 x 900 x 320	
99		95	134	134	
DC Twin Rotary		DC Twin Rotary	Twin Rotary	Twin Rotary	
100+100		100+100	100+100	100+100	
51		51	56	72	
68		68	57	74	
53		53	57	74	
70		70	58	75	
-15/43		-15/46	-15/46	-15/46	
-20/15		-20/15	-20/15	-20/15	
9.5		9.5	12.7	12.7	
15.9		15.9	28.6	28.6	
Flaring		Flaring	Flaring	Flaring	
VP25		VP25	VP25	VP25	
50		75	70	70	
30		30	30	30	
30		30	30	30	



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

Product specifications in this brochure are only indicative and are subject to change. These are not intended to be used in place of the engineering or installation book

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

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

Cooling and heating capacities mentioned for the products are nominal capacities at standard operation conditions.

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