



Technology that works fast

TOSHIBA
AIR CONDITIONING

**Hi-Wall
Split Systems**



Toshiba Air Conditioning, we care about better air.



Our products comply with RoHS regulations, which ensures the exclusion of restricted substances (ie. lead, cadmium, mercury, others) in the materials of every single component.



By using plastic that can be recycled, we aim to minimise the impact of waste electrical goods on the environment.



Increased cost savings have been made by using digital technology. This can provide superior control and cost efficiency by utilising a DC inverter compressor as opposed to a AC fixed speed compressor. This environmentally sustainable DC compressor results in a power saving of up to 50%* with the added benefit of super-accurate rotation and quieter operation.

*13k Inverter vs. fixed-speed class A product



Our philosophy.

Toshiba's origins go back to 1875 where the Tanaka Engineering Works was established as Japan's first manufacturer of telegraphic equipment. For the last 30 years Toshiba has studied, designed and innovated for the air conditioning market.

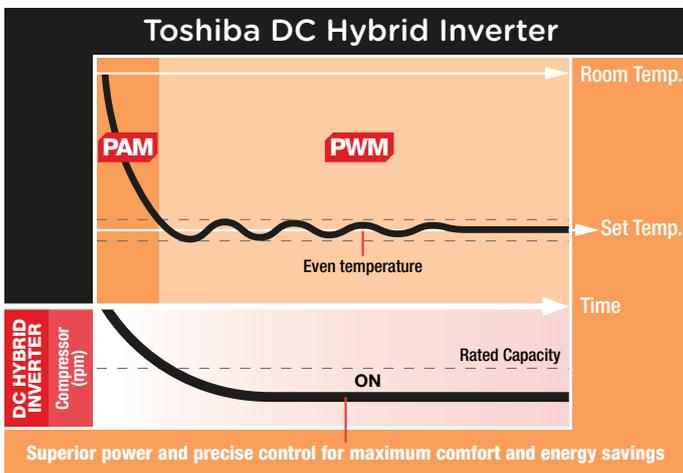
For Toshiba quality is a priority. Today and even tomorrow, this will be the real difference between us and many other air conditioning manufacturers. This is a philosophy that forms the basis of every air conditioner that leaves our production lines. No compromise – only quality.



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.

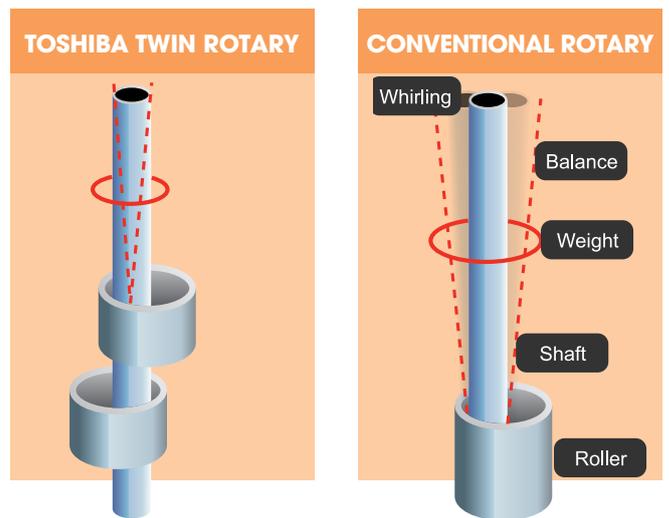
The Toshiba Air Conditioning DC Twin-Rotary Compressor.

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.



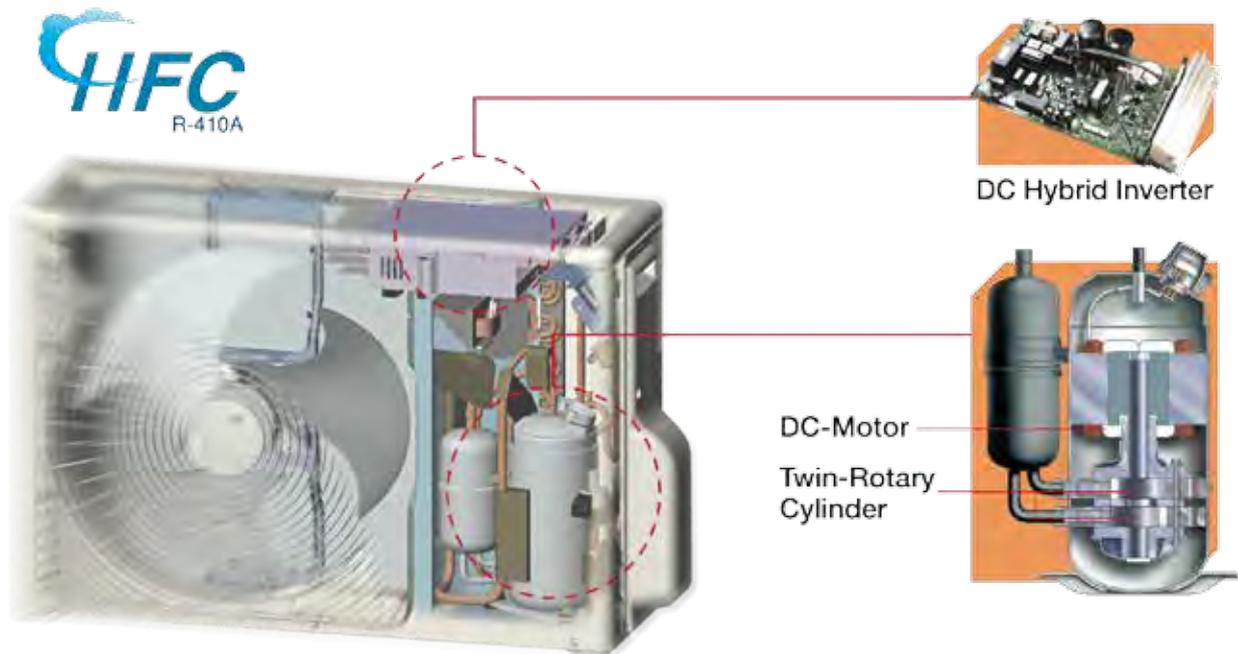
When technology meets comfort.

Toshiba was the first company to incorporate inverter technology into air conditioning systems in 1981 and since then we have always maintained a technological advantage.

The development of the exclusive DC Hybrid Inverter system has reaffirmed this ability to innovate and maintain technological leadership in a fast-growing market.

For Toshiba, innovation also means a strong commitment to international institutions that carefully evaluate the impact of new technologies on our environment.

Toshiba combines technological development with care for future generations – the result is a range of energy-efficient air conditioners reducing greenhouse gas emission at the source.



Digital Inverter range.



Innovative technology, ingenious features and attractive design – Toshiba's N3 series raises the standard of air conditioning with a new level of comfort. Comfort that comes with a whisper-quiet operation and optimum airflow management system, whilst the advanced filtration system allows you to breathe cleaner air.

- Quiet operation
- Rapid heat and cool function which increases power temporarily to achieve desired temperature before returning to normal power
- 5 year warranty for consumer confidence
- Low maintenance
- Wired or wireless control options
- Reverse cycle (heating and cooling)
- Powerful operation
- Easy to install
- DC inverter system, designed to use electricity efficiently and effectively
- Easy to use controller

Daiseikai Inverter range.



The Daiseikai Inverter range gives you more than just air conditioning. It air conditions as well as helping to make your home free from dirt and discomfort by using 10x active purification technology to trap bacteria, viruses and particles. The Daiseikai Inverter range uses negative ions to provide a fresh and healthy indoor environment that will refresh and relax you.



Benefits of the Toshiba DC Hybrid Inverter system.



Energy saving.

Digital technology provides superior control and cost efficiency with the DC Inverter compressor when compared to AC Fixed Speed compressors. Super-accurate rotation of an environmentally sustainable compressor results in power savings of up to 50%* and quieter operation.

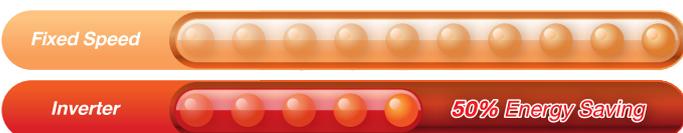
Comfort.

Toshiba's DC Hybrid Inverter uses a Twin Rotary compressor**, which ensures a steadier rotation therefore reducing the unwanted vibration sound.

High power.

PAM drives high power to ensure the fast achievement of the set temperature.

Comparison of energy consumption



Testing Condition

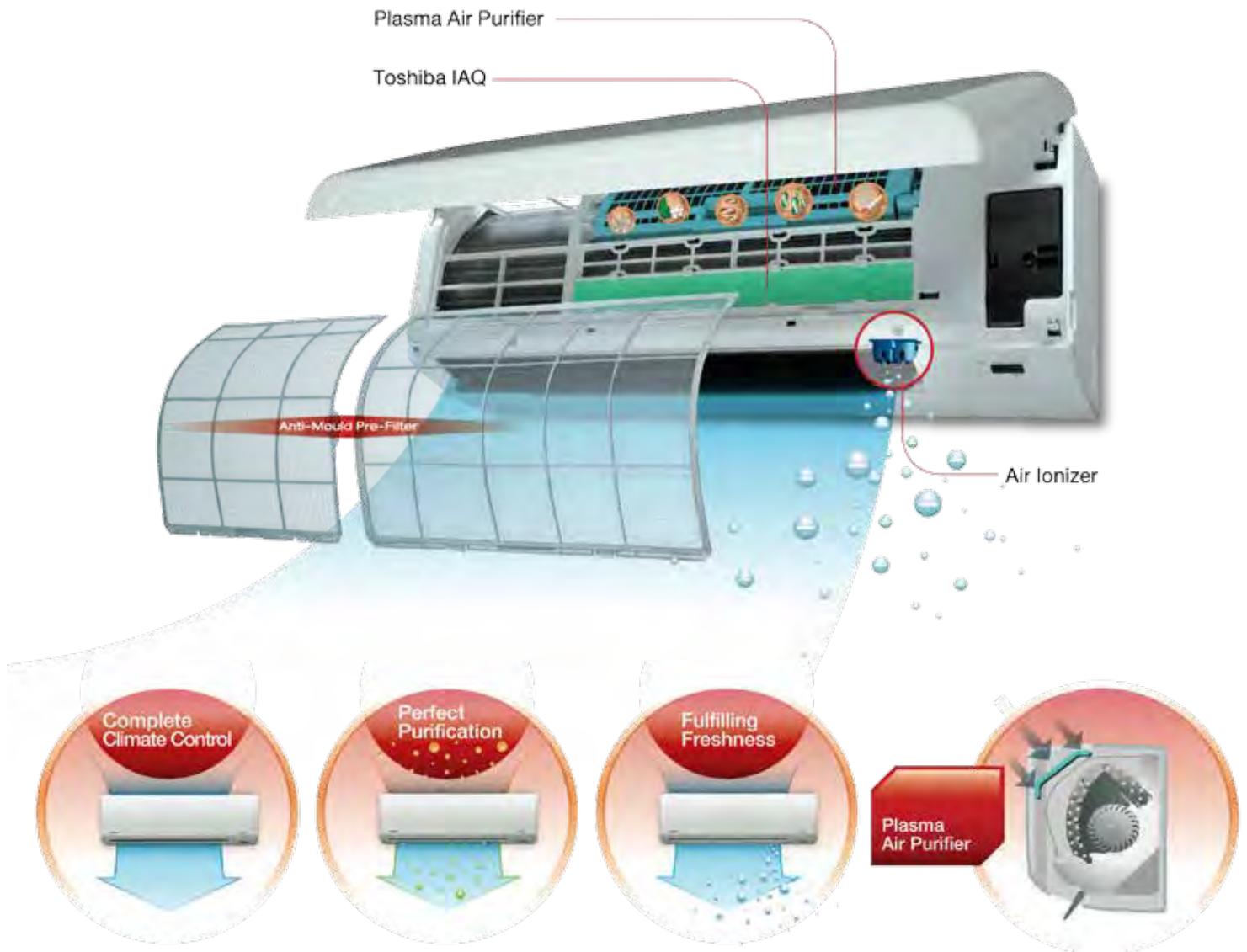
Indoor temperature	:	Starting from 35°C until it reaches a set-point temperature 25°C.
Ambient temperature	:	Vary between 28 and 30°C by every 2 hours period.
Testing period	:	More than 8 hours.

*13k Inverter vs. Fixed-Speed class A product

**16-24SAV series



Daiseikai. More than an air conditioner.

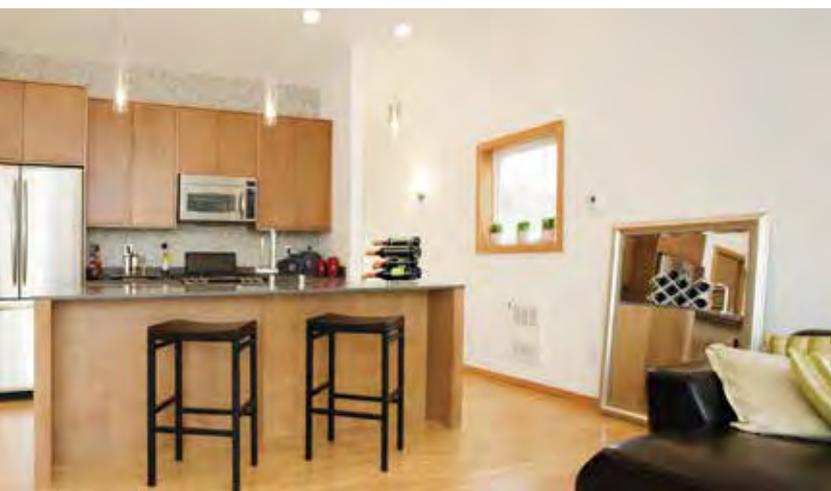


Perfect purification.

Make your home a hideaway from dirt and discomfort. The innovative Toshiba Plasma Air Purifier uses 10% Active Purification technology to trap bacteria, viruses and particles.

Double freshness.

Negative ions create a fresh and healthy environment to refresh and relax you, while the Toshiba IAQ filter makes unpleasant odours a thing of the past and removes harmful oxidants that can damage healthy cells.



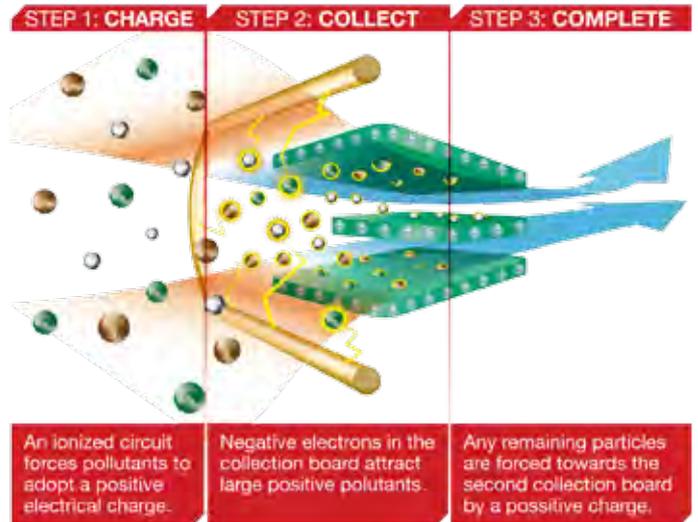
Plasma air purifier.



Smoke disappears almost immediately.



- The chamber is filled with smoke.



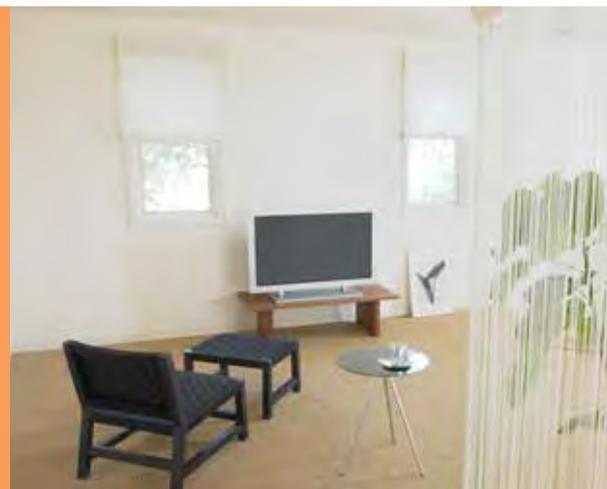
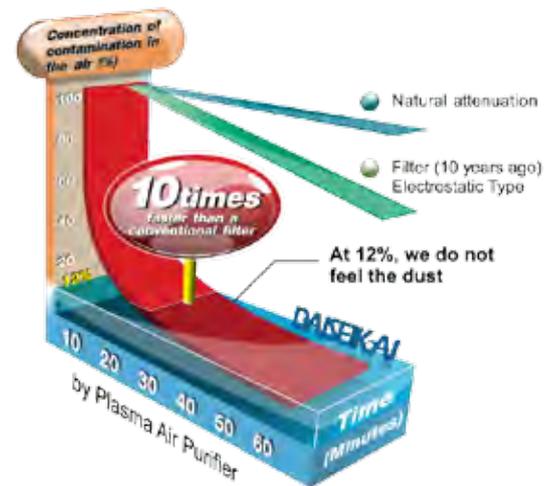
*Cannot remove harmful substances in tobacco, eg. Carbon Monoxide, etc.



- The smoke is completely eliminated in a few seconds.

Fast and effective.

The Daiseikai Plasma Air Purifier rapidly clears smoke as demonstrated above.



Air Ionizer.



Make your home a health spa.

Around forests, waterfalls, lakes and streams, negative ions make the air fabulously fresh, clean and relaxing. This invigorating atmosphere is emulated in spas and health clubs. Now you can enjoy this healthy ambience in your own home.

The power of the Daiseikai Ionizer.

By generating more than 1 million negative ions for every square centimetre of air, the Daiseikai Ioniser will invite the freshness of nature into your personal place. In the middle of a room, up to 35,000* negative ions can be registered – more than you would find around a waterfall.

* Start with a room temperature of 24°C and humidity of 80%. On dry mode, 35,000 negative air ions can be measured in 17m² of space, 1m up from the floor over 2 hours (temperature 24°C, humidity 50%).

Technology for health.

Toshiba IAQ filter.

Toshiba IAQ's technology is able to seriously inhibit the reproductive ability of harmful bacterial and viruses such as H5N1 Avian Influenza. With Toshiba IAQ your family can breath easy and your house will look like it has been spring cleaned.



Anti-mould pre-filter with high performance filter.



Toshiba's high performance filter blocks out dust, thus you can ensure your room is kept fresh and clean.

Anti-bacteria and anti-virus.



- **Anti-bacteria:** Destroys up to 99.9% of bacteria ¹
- **Deodorising power:** Absorbs and decomposes smoke, ammonia, volatile organics, food smells and bad odours.
- **Prevent mould formation:** Inhibits the formation of mould and fungi.



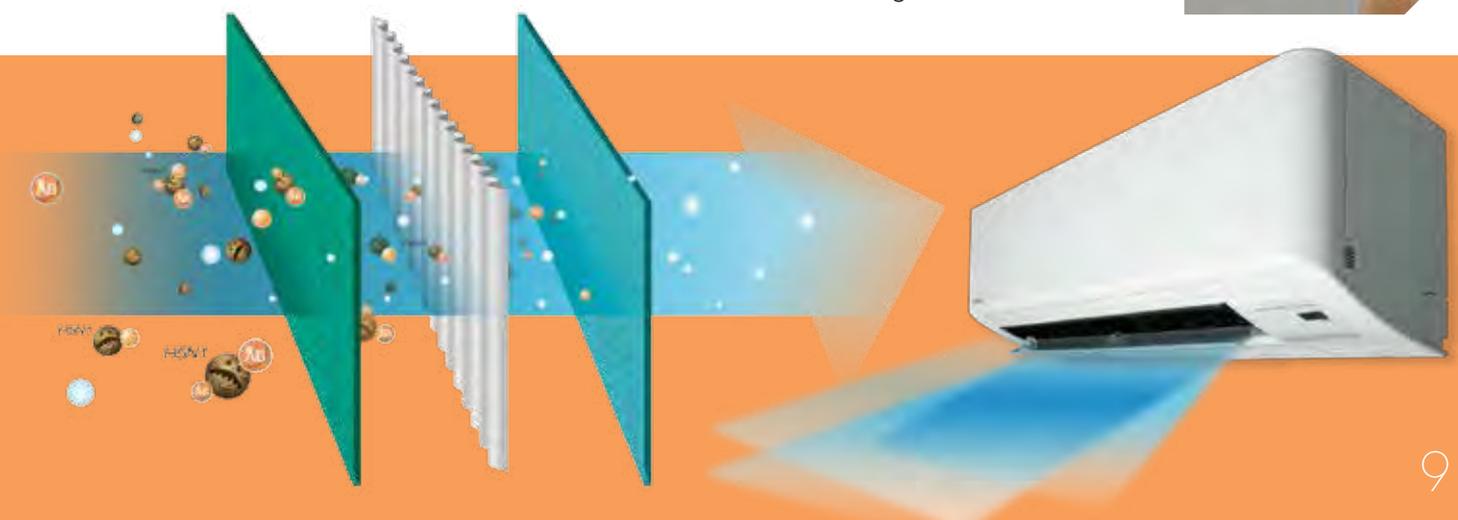
- **Anti-virus:** Avian influenza virus (H5N1) ²

¹ Improve air hygiene by reducing the amount of bacteria and viruses. However, does not guarantee a sterilised room or protection against infection after using the filter. Korea Apparel Testing & Research Institute, BS05-00001771.

² Betagro Science Centre Co., Ltd., 900017366.

Easy cleaning.

To clean the filter and keep your air clean and fresh, simply wash with running water.



Self cleaning function.



This function is designed to reduce the humidity that causes mould to form inside an air-conditioning unit.

Simply refreshing, in a natural way.

When you turn off your air conditioner, an internal fan automatically activates to dry out the coil. This removes the moisture which causes mould to form.

Airflow.



Toshiba Air Conditioners are efficiently designed with 12 louver positions to give you more flexibility with smooth, seamless airflow. With 12 louver settings, Toshiba Air Conditioners allow you to adjust the airflow precisely to the position that gives you the greatest comfort. Alternatively, use the swing feature to distribute air evenly throughout the room.



Controls.

One touch my comfort.



Toshiba has assessed user preferences in your region of the world to ensure that your needs can be fully catered for. The One Touch My Comfort features customised temperature and airflow settings, which will deliver you comfort with one simple push of the button.



Preset.



Store your desired settings and activate them at the touch of a button.

Comfort sleep.



Awake in the middle of the night because you felt the room is too cold? Do you feel too cold sleeping at night?

With Toshiba's convenience feature, when you activate the Comfort Sleep button, your air conditioning system will compensate for naturally lower night air temperatures so you can sleep in comfort.



Real time on-off.



With the Real Time On-Off feature, you can set on and off times or program a setting to repeat every 24 hours.



Quiet.



Silence is bliss. The Quiet button on your Toshiba remote control sets the indoor unit to operate at an extremely low 23* decibels. The outside unit also operates quieter, keeping your neighbours happy was well.

* Applicable for RAS-(B)10N3KVP and RAS-B10UFV.



Fan speed (powerful & precise).



Toshiba air conditioners have 6 fan speed settings, including Auto Fan and Hi-Power modes. Choose from a gentle airflow, right up to the full cooling or heating of Hi-Power mode.



Hi-Power.



Hi-Power mode makes your room cool faster, yet is still quiet while operating.

When you come home on a hot day, just press the Hi-Power button and Toshiba's extra airflow will rapidly deliver extra cooling throughout the room without making any extra undesired noise.



Eco-logic.



Achieve energy-savings of up to 25% compared with standard setting without sacrificing comfort.

COOLING

The temperature is raised by 1°C after 1 hour and another degree after 2 hours, which will be maintained until switching off.

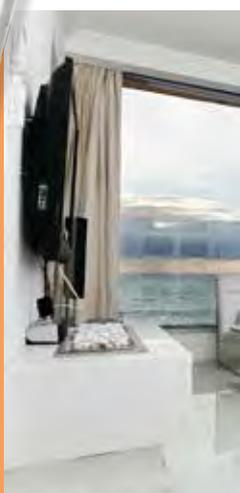
HEATING

The temperature is lowered by 1°C after 1 hour and another degree after 2 hours, which will be maintained until switching off.

Large screen and easy to use symbols.



For simple and easy operation.





Indoor unit

Optional control wire

Remote controller

Optional wired or wireless controller.

- Basic functionality of the wired remote is the same as the wireless remote.
- Wires can be hidden behind wall.
- Wired remote secured to the wall – never lose the controller again.
- Wired controller is ideal in cases where wireless controller may cause radio frequency interference.
- Ideal for use in both residential and commercial applications such as aged care, hospitals, hotels, schools and office buildings.



Specifications.

		UNITS	(R-410A) N3KV2		
INDOOR			RAS-10N3KV2-A	RAS-13N3KV2-A	RAS-16N3KV2-A
OUTDOOR			RAS-10N3AV2-A	RAS-13N3AV2-A	RAS-16N3AV2-A
Cooling Capacity - Rated	kW		2.5	3.4	4.4
Cooling Capacity - Range	kW		1.1-3.1	2.0-4.1	0.8-5.0
Power input - Cooling (min ~ rated ~ max)	kW		0.25-0.598-0.82	0.49-0.92-1.30	0.15-1.34-1.72
Operating current - Cooling (min ~ rated ~ max)	A		1.36-2.89-3.75	2.80-4.20-6.31	0.88-6.06-7.62
EER - Cooling (min ~ rated ~ max)			3.78-4.18-4.40	3.15-3.70-4.08	2.91-3.28-5.33
AEER - Cooling			4.06	3.62	3.23
Heating Capacity - Rated	kW		3.2	4.2	5.3
Heating Capacity - Range	kW		0.9-4.8	1.8-5.6	0.9-6.3
Power input - Heating (min ~ rated ~ max)	kW		0.17-0.75-1.40	0.38-1.12-1.69	0.15-1.50-1.98
Operating current - Heating (min ~ rated ~ max)	A		0.92-3.51-6.21	2.11-5.01-7.55	0.89-6.71-8.77
COP - Heating (min ~ rated ~ max)			3.43-4.27-5.29	3.31-3.75-4.74	3.18-3.53-6.00
ACOP - Heating			4.17	3.69	3.48
Demand Response Capable (DRC) – from serial numbers			424xxxxx	424xxxxx	424xxxxx
INDOOR UNIT	Airflow Volume - Cooling (h-l)	l/s	143-83	158-82	190-103
	Mositure removal	l/hr	1.5	2.0	2.5
	Sound Pressure - Cooling (h-l)	dB(A)	39-26	45-30	47-32
	Dimension (HxWxD)	mm	275x790x225	275x790x225	275x790x225
	Net Weight	kg	10	10	10
	Sound Power - Cooling (h)	dB(A)	54	60	62
	Fan Motor Output	W	20	20	30
OUTDOOR UNIT	Dimension (HxWxD)	mm	550x780x290	550x780x290	550x780x290
	Net Weight	kg	33	37	38
	Sound Pressure - Cooling (h)	dB(A)	46	49	51
	Sound Power - Cooling (h)	dB(A)	62	64	66
	Operating range - Cooling	C	-10~46	-10~46	-10~46
	Sound Pressure - Heating (h)	dB(A)	47	50	52
	Operating range - Heating	C	-15~24	-15~24	-15~24
PIPE SIZE	Liquid Side	(mm/inch)	6.35(1/4")	6.35(1/4")	6.35(1/4")
	Gas Side	(mm/inch)	9.52(3/8")	9.52(3/8")	12.70(1/2")
	Maximum Piping Length	(m)	20	20	20
	Maximum Piping Height difference	(m)	10	10	10
	Chargeless Length	(m)	15	15	15
	Compressor type		DC Rotary	DC Rotary	DC Twin Rotary
	Power Supply	V/ph/Hz	220-240/1/50	220-240/1/50	220-240/1/50



INVERTER MODELS			(R-410A) N3KVP SERIES INVERTER MODELS		
RAS-18N3KV2-A	RAS-22N3KV2-A	RAS-24N3KV2-A	RAS-10N3KVP-A	RAS-13N3KVP-A	RAS-16N3KVP-A
RAS-18N3AV2-A	RAS-22N3AV2-A	RAS-24N3AV2-A	RAS-10N3AVP-A	RAS-13N3AVP-A	RAS-16N3AVP-A
5.0	6.0	7.1	2.51	3.52	4.53
1.1-6.0	1.2-6.7	1.5-7.7	0.50-3.50	0.60-4.50	0.80-5.00
0.18-1.42-2.0	0.20-1.83-2.65	0.30-2.25-2.90	0.10-0.49-0.87	0.11-0.84-1.37	0.15-1.34-1.82
1.06-6.41-8.90	1.16-8.19-11.78	1.78-10.30-12.85	0.60-2.45-3.98	0.65-3.84-6.20	0.89-6.06-8.15
3.00-3.52-6.11	2.53-3.28-6.00	2.66-3.16-5.00	4.02-5.12-5.00	3.28-4.19-5.45	2.75-3.38-5.33
3.48	3.23	3.12	5.00	4.10	3.30
5.8	7.0	8.1	3.21	4.22	5.53
0.8-6.3	1.0-7.5	1.6-9.0	0.50-6.50	0.50-7.70	0.70-8.00
0.14-1.56-1.70	0.18-1.98-2.21	0.30-2.45-3.30	0.09-0.63-1.82	0.10-0.95-2.33	0.15-1.47-2.51
0.84-6.97-7.58	1.06-8.87-9.79	1.81-11.20-14.62	0.53-3.04-8.07	0.60-4.35-10.33	0.89-6.58-11.12
3.71-3.72-5.71	3.39-3.54-5.56	2.73-3.31-5.33	3.57-5.10-5.56	3.30-4.44-5.00	3.19-3.76-4.67
3.67	3.49	3.28	4.97	4.32	3.66
424xxxx	424xxxx	424xxxx	-	-	-
265-163	305-183	280-183	175-78	183-88	192-97
2.8	3.5	3.8	1.5	2.0	2.5
44-32	47-35	45-36	42-23	43-24	45-25
320x1050x243	320x1050x243	320x1050x243	275x790x225	275x790x225	275x790x225
13	13	13	10	10	10.0
59	62	58	55	56	58
30	30	30	30	30	30
550x780x290	630x800x300	890x900x320	630x800x300	630x800x300	630x800x300
41	43	65	41	41	41
49	53	52	46	48	49
64	68	65	59	61	62
-10~46	-10~46	-10~46	-10~46	-10~46	-10~46
50	52	52	47	50	50
-15~24	-15~24	-15~24	-15~24	-15~24	-15~24
6.35(1/4")	6.35(1/4")	9.52(3/8")	6.35(1/4")	6.35(1/4")	6.35(1/4")
12.70(1/2")	12.70(1/2")	15.88(5/8")	9.52(3/8")	9.52(3/8")	12.70(1/2")
20	20	30	25	25	25
10	10	20	10	10	10
15	15	20	15	15	15
DC Twin Rotary	DC Twin Rotary	DC Twin Rotary	DC Twin Rotary	DC Twin Rotary	DC Twin Rotary
220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50



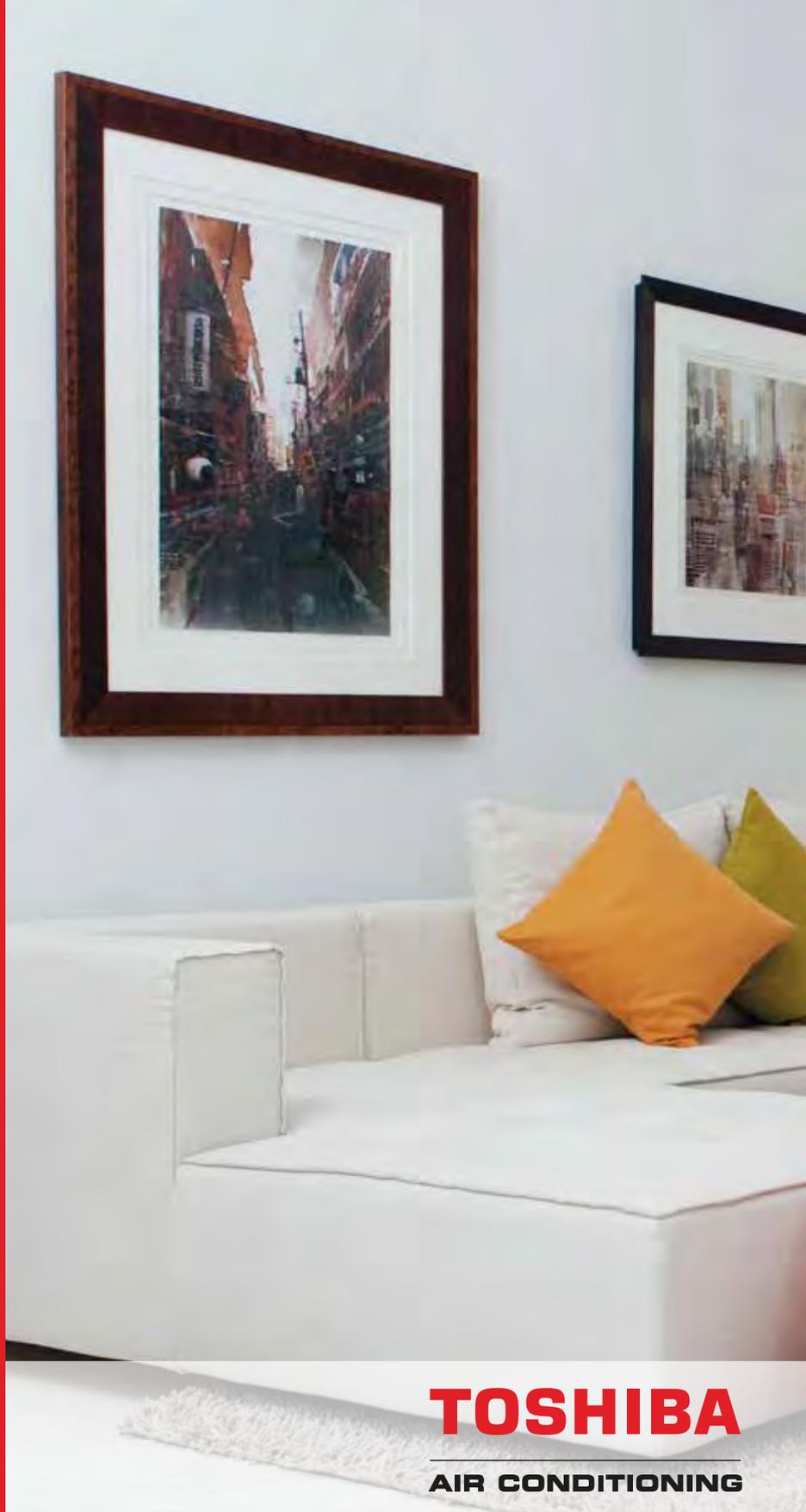
Notice: Toshiba is committed to continuously improving its product to ensure the highest quality and reliability standards, and to meet local regulations and market requirements.

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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