

# HI-WALL SPLIT SYSTEMS

What you'll find inside:

- Technology
- Digital Inverter range
- Controllers
- Product specifications

# TOSHIBA

## AIR CONDITIONING



+  
Effective  
air filtration

+  
Energy  
efficient

+  
Heating &  
cooling



## Toshiba Air Conditioning. We care about better air

Toshiba was the first company to incorporate inverter technology into air conditioning systems in 1981 and since then it has maintained a technological advantage over its competitors.

The development of the exclusive DC Hybrid Twin-Rotary Inverter Compressor system has reaffirmed this ability to innovate and maintain technological leadership in a very crowded market. But 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 emissions at the source.

## Our philosophy

Toshiba Air Conditioning 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.

The Toshiba Air Conditioning product range encompasses a comprehensive Inverter range to suit residential and light commercial applications.

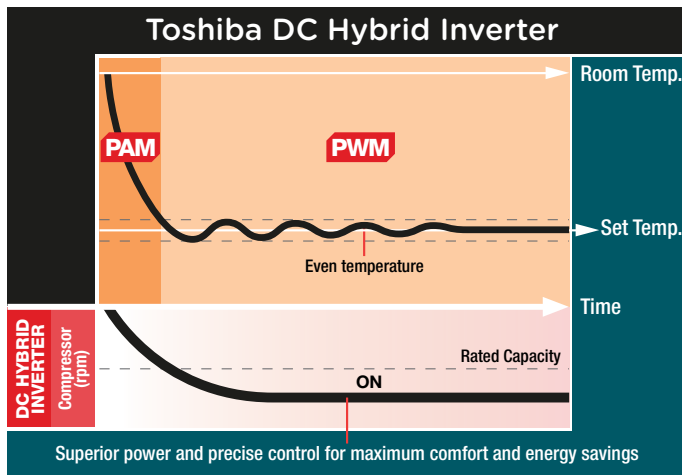
Toshiba Inverter systems provide excellent energy efficiency, are reliable and run on R410A non-ozone depleting refrigerant.



# 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.

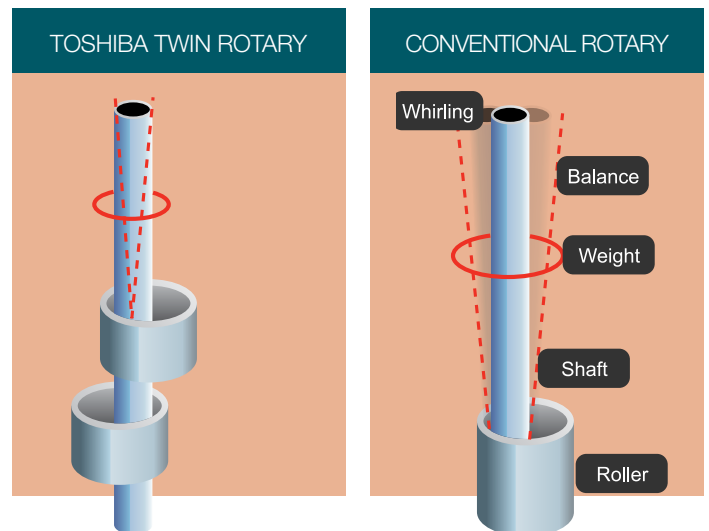
## The Toshiba Air Conditioning DC Twin-Rotary Compressor

### 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

### 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.



RAPID HEAT & 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

DC INVERTER SYSTEM DESIGNED TO USE ELECTRICITY EFFICIENTLY & EFFECTIVELY

REVERSE CYCLE HEATING & COOLING

EASY TO INSTALL

EASY TO USE CONTROLLER

QUIET & POWERFUL OPERATION

R410A NON OZONE DEPLETING REFRIGERANT

# Benefits of the Toshiba DC Hybrid Inverter System

## Energy saving

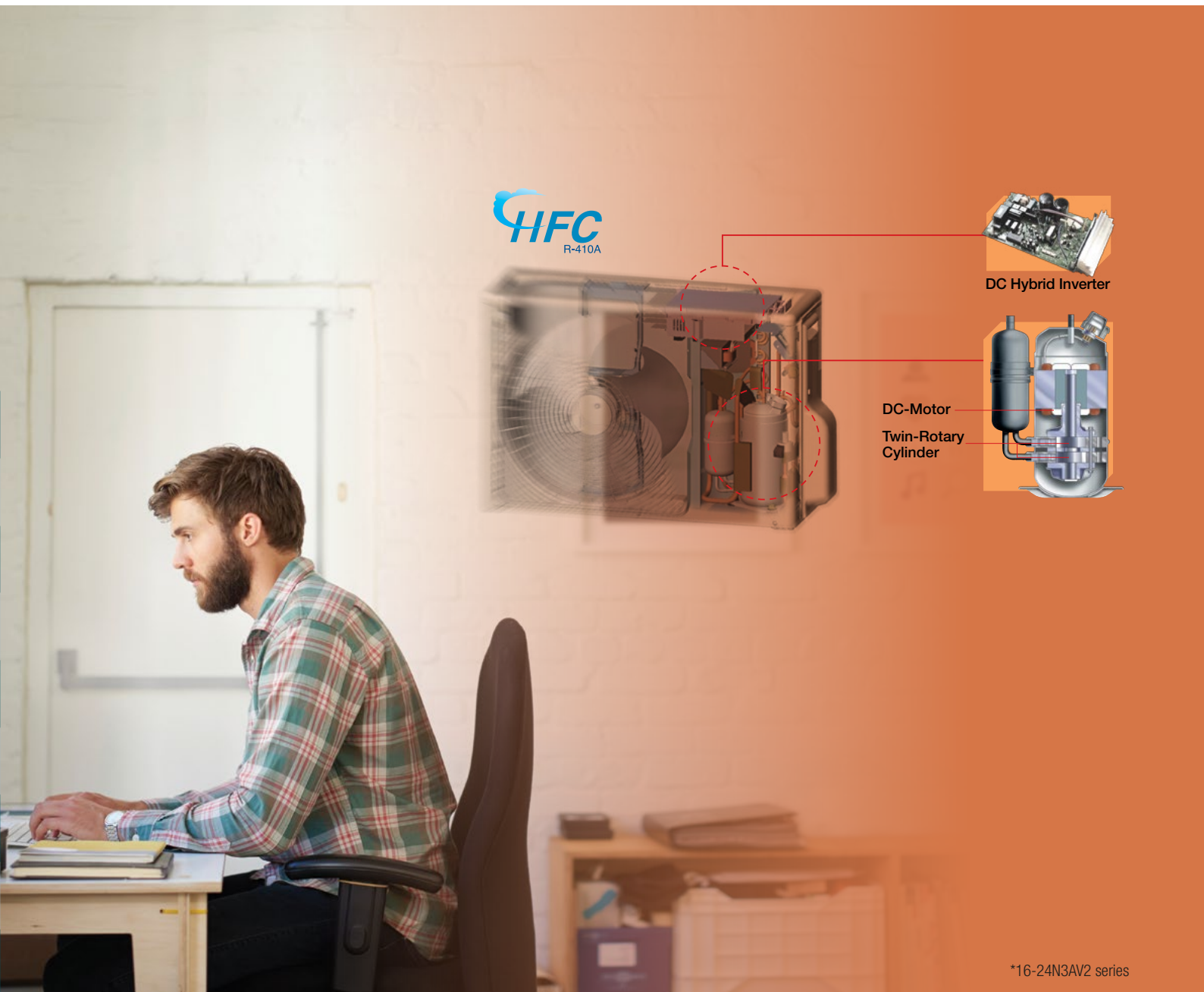
Digital technologies provide superior control and cost efficiency with the DC Inverter compressor. Super-accurate rotation of an environmentally sustainable compressor results in efficient use of power.

## Comfort

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

## High power

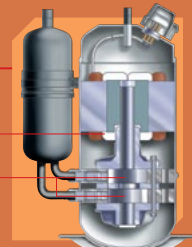
PAM drives high power to ensure the fast achievement of the set temperature.



**HFC**  
R-410A



DC Hybrid Inverter



DC-Motor  
Twin-Rotary  
Cylinder

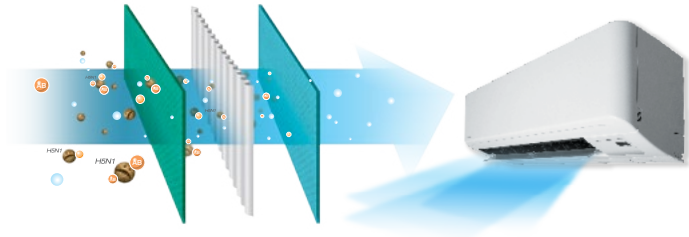
\*16-24N3AV2 series

## Technology for health

### Toshiba IAQ Filter

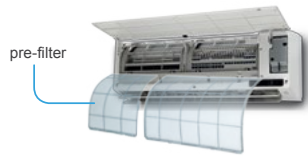


Toshiba IAQ technology is able to seriously inhibit the reproductive ability of harmful bacteria and viruses such as H5N1 Avian influenza. With Toshiba IAQ, your family can breathe easier and your house will feel like it has been spring cleaned.



### 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.



### Easy Cleaning

All you need to do is simply wash the dirt out with running water to clean the filter. Always keep your air clean and fresh through simple & easy care.

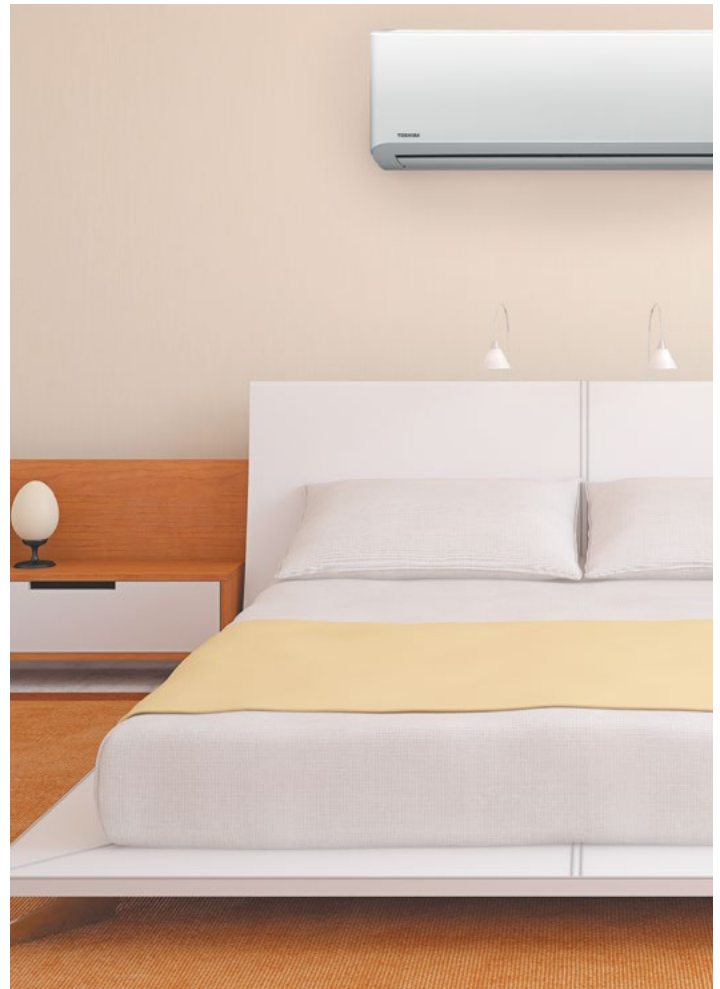


## Self Cleaning Function

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 can cause mould to form.



AB

**Anti-bacteria:** Destroys up to 99.9% of bacteria <sup>1</sup>

**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) <sup>2</sup>

Leuconostoc enzyme

<sup>1</sup> 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.

<sup>2</sup> Betagro Science Centre Co., Ltd., 900017366.

# Controls

## Remote Controller

Optional wired or wireless controller. Settings comprise on/off times, temperature control, operation mode and fan speed.



## One touch my comfort

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 convenient 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 a reduced decibel. The outside unit also operates quieter, keeping your neighbours happy as well.

# Controls



## 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.



## Comfort smart airflow

Toshiba air conditioner is efficiently designed with 12\* louver positions to give you more flexibility with smooth, seamless airflow. 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.

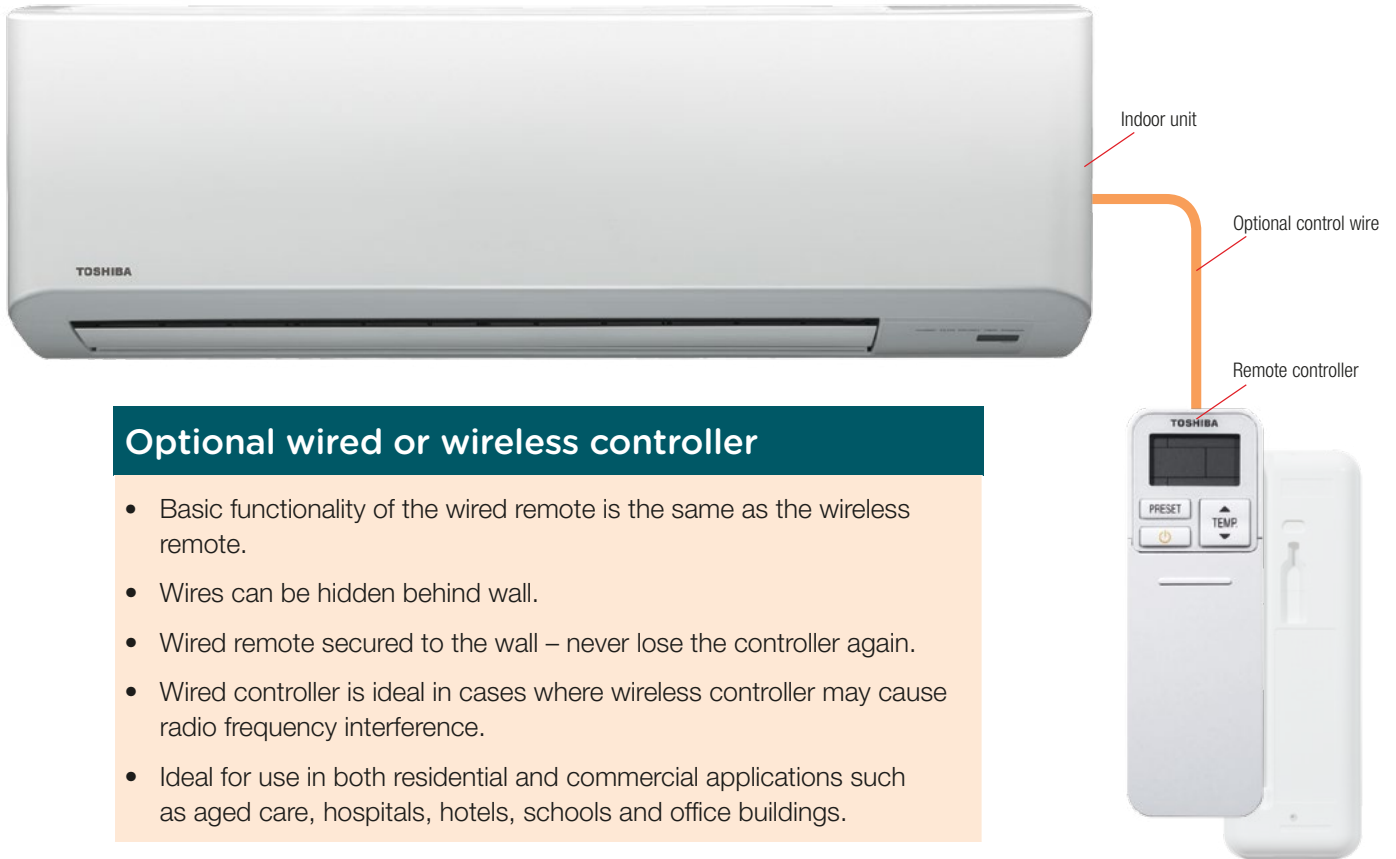
## Power select

Energy saving optimised at three levels: 100%, 75% and 50%. The Power Select feature allows you to freely control the power consumption of the air conditioning unit from the remote controller. When choosing to operate the power consumption at 75% and 50%, energy efficiency gets higher. As a result, Toshiba air conditioner is considered power saving technology.





# Controls



## Optional wired or wireless controller

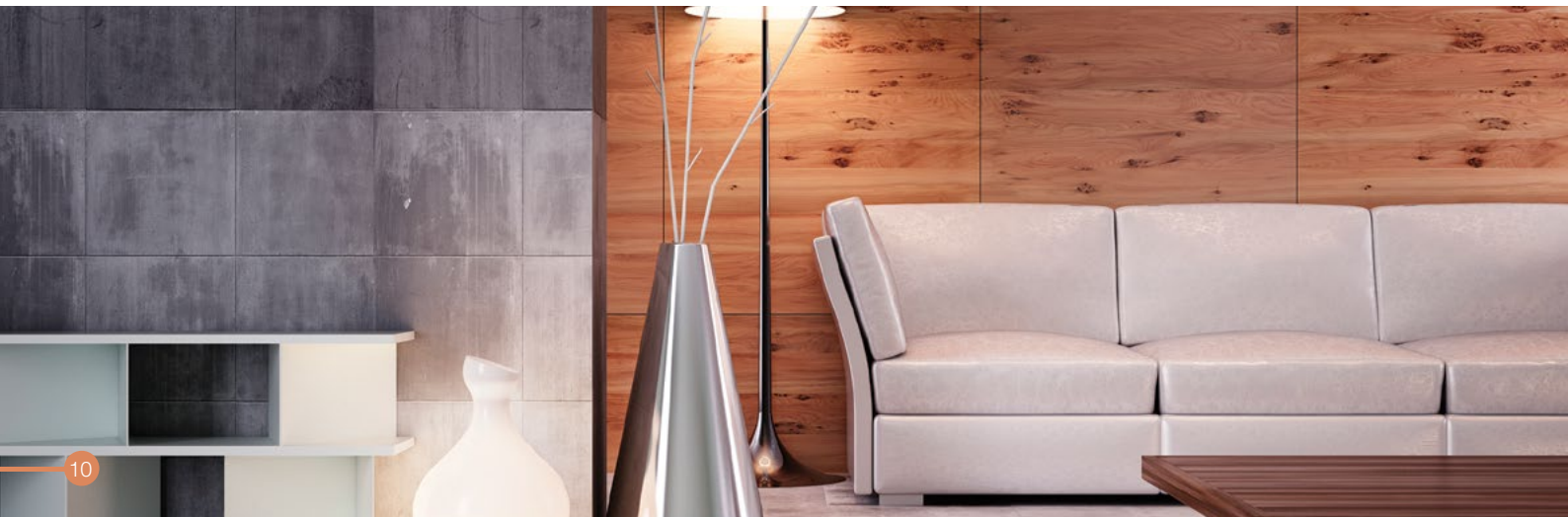
- Basic functionality of the wired remote is the same as the wireless remote.
- Wires can be hidden behind wall.
- Wired remote secured to the wall – never lose the controller again.
- Wired controller is ideal in cases where wireless controller may cause radio frequency interference.
- Ideal for use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



		UNITS		
INDOOR		RAS-07BKV-A1	RAS-10N3KV2-A	
OUTDOOR		RAS-07BAV-A1	RAS-10N3AV2-A	
Cooling Capacity - Rated	kW	2.0	2.5	
Cooling Capacity - Maximum ~ minimum	kW	*2.8-0.8	*3.1-1.1	
Power input - Cooling (min ~ rated ~ max)	kW	0.19-0.49-0.98	0.25-0.598-0.82	
Operating current - Cooling (min ~ rated ~ max)	A	1.05-2.50-4.80	1.36-2.89-3.75	
EER - Cooling (min ~ rated ~ max)		2.86-4.08-4.21	3.78-4.18-4.40	
AEER - Cooling		4.05	4.06	
Heating Capacity - Rated	kW	2.5	3.2	
Heating Capacity - Maximum ~ minimum	kW	*4.0-0.7	*4.8-0.9	
Power input - Heating (min ~ rated ~ max)	kW	0.15-0.55-1.16	0.17-0.75-1.40	
Operating current - Heating (min ~ rated ~ max)	A	0.78-2.80-5.60	0.92-3.51-6.21	
COP - Heating (min ~ rated ~ max)		3.45-4.55-4.67	3.43-4.27-5.29	
ACOP - Heating		4.51	4.17	
Demand Response Capable (DRC) – from serial numbers		Not DRC capable	424xxxx	
INDOOR UNIT	Airflow Volume - Cooling (h-l)	l/s	166-73	143-83
	Moisture removal	l/hr	1.0	1.5
	Sound Pressure - Cooling (h-l)	dB(A)	41-24	39-26
	Dimension (HxWxD)	mm	293x798x230	275x790x225
	Net Weight	kg	9	10
	Sound Power - Cooling (h)	dB(A)	56	54
	Fan Motor Output	W	20	20
OUTDOOR UNIT	Dimension (HxWxD)	mm	530x660x240	550x780x290
	Net Weight	kg	22	33
	Sound Pressure - Cooling (h)	dB(A)	48	46
	Sound Power - Cooling (h)	dB(A)	63	62
	Operating range - Cooling	°C	-15~46	-10~46
	Sound Pressure - Heating (h)	dB(A)	50	47
Operating range - Heating	°C	-15~24	-15~24	
PIPE SIZE	Liquid Side	(mm/inch)	6.35(1/4")	6.35(1/4")
	Gas Side	(mm/inch)	9.52(3/8")	9.52(3/8")
	Maximum Piping Length	(m)	15	20
	Maximum Piping Height difference	(m)	12	10
	Chargeless Length	(m)	15	15
	Compressor type		Single Rotary	DC Rotary
	Power Supply	V/ph/Hz	220-240/1/50	220-240/1/50

\*Whilst meeting or exceeding this standard, all Toshiba units will run indefinitely at maximum capacity above the rated conditions as shown, whilst the external ambient conditions allow. Nonetheless, equipment application, performance, suitability and selection should be based on the rated capacity and remains at the discretion of the dealer.

\*\* Please note fascia will differ from images show for this model only.



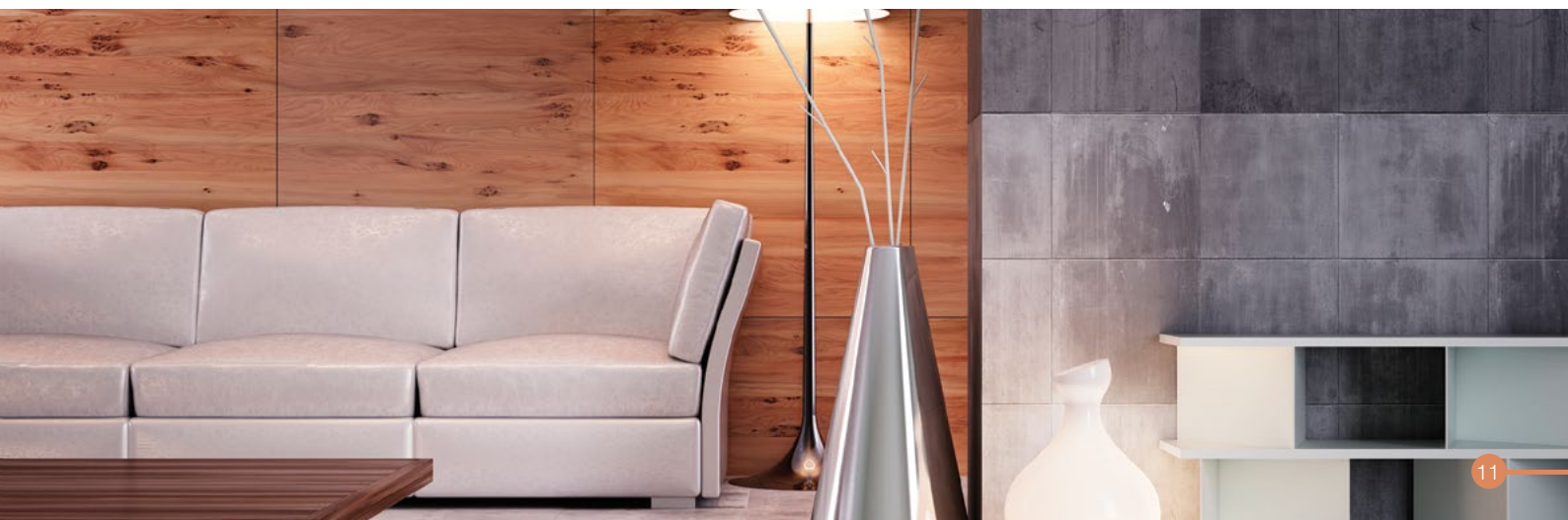
(R-410A) N3KV2 INVERTER MODELS

RAS-13N3KV2-A	RAS-16N3KV2-A	RAS-18N3KV2-A	RAS-22N3KV2-A	RAS-24N3KV2-A
RAS-13N3AV2-A	RAS-16N3AV2-A	RAS-18N3AV2-A	RAS-22N3AV2-A	RAS-24N3AV2-A
3.4	4.4	5.0	6.0	7.1
*4.1-2.0	*5.0-0.8	*6.0-1.1	*6.7-1.2	*7.7-1.5
0.49-0.92-1.30	0.15-1.34-1.72	0.18-1.42-2.0	0.20-1.83-2.65	0.30-2.25-2.90
2.80-4.20-6.31	0.88-6.06-7.62	1.06-6.41-8.90	1.16-8.19-11.78	1.78-10.30-12.85
3.15-3.70-4.08	2.91-3.28-5.33	3.00-3.52-6.11	2.53-3.28-6.00	2.66-3.16-5.00
3.62	3.23	3.48	3.23	3.12
4.2	5.3	5.8	7.0	8.1
*5.6-1.8	*6.3-0.9	*6.3-0.8	*7.5-1.0	*9.0-1.6
0.38-1.12-1.69	0.15-1.50-1.98	0.14-1.56-1.70	0.18-1.98-2.21	0.30-2.45-3.30
2.11-5.01-7.55	0.89-6.71-8.77	0.84-6.97-7.58	1.06-8.87-9.79	1.81-11.20-14.62
3.31-3.75-4.74	3.18-3.53-6.00	3.71-3.72-5.71	3.39-3.54-5.56	2.73-3.31-5.33
3.69	3.48	3.67	3.49	3.28
424xxxx	424xxxx	424xxxx	424xxxx	424xxxx
158-82	190-103	265-163	305-183	280-183
2.0	2.5	2.8	3.5	3.8
45-30	47-32	44-32	47-35	45-36
275x790x225	275x790x225	320x1050x243	320x1050x243	320x1050x243
10	10	13	13	13
60	62	59	62	58
20	30	30	30	30
550x780x290	550x780x290	550x780x290	630x800x300	890x900x320
37	38	41	43	65
49	51	49	53	52
64	66	64	68	65
-10~46	-10~46	-10~46	-10~46	-10~46
50	52	50	52	52
-15~24	-15~24	-15~24	-15~24	-15~24
6.35(1/4")	6.35(1/4")	6.35(1/4")	6.35(1/4")	9.52(3/8")
9.52(3/8")	12.70(1/2")	12.70(1/2")	12.70(1/2")	15.88(5/8")
20	20	20	20	30
10	10	10	10	20
15	15	15	15	20
DC 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

**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



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 data books.

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.

Part number: 1014-082017  
Date: August 2017

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

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**TOSHIBA**  
**AIR CONDITIONING**