

# HI-WALL SPLIT SYSTEMS

What you'll find inside:

- Technology
- Digital Inverter range
- Daiseikai Inverter range
- Controllers
- Product specifications

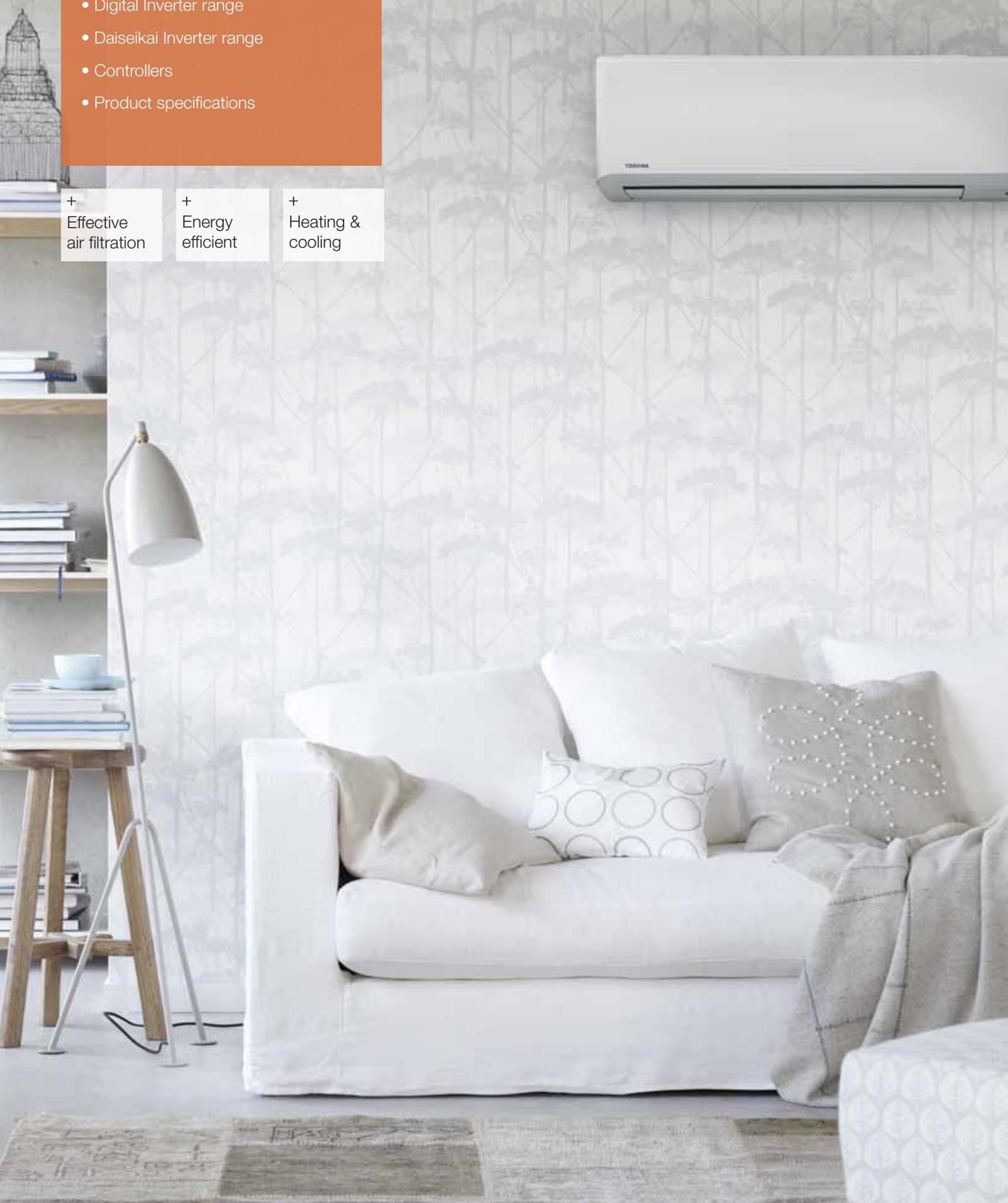
+  
Effective  
air filtration

+  
Energy  
efficient

+  
Heating &  
cooling

# TOSHIBA

## AIR CONDITIONING



## 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.

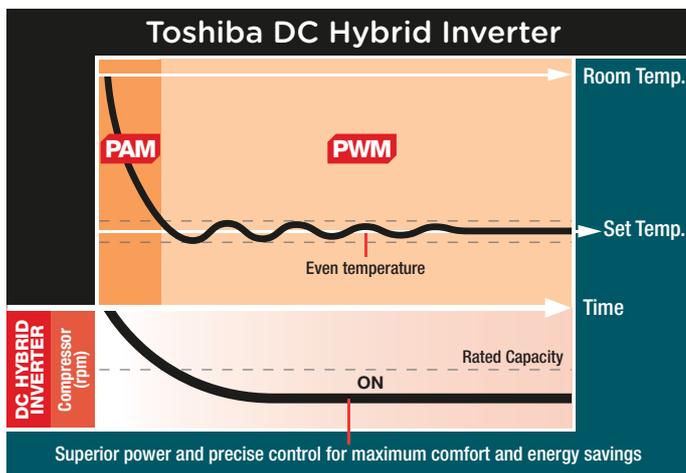
Toshiba Inverter systems provide excellent energy efficiency, are reliable and run on R410A non-ozone depleting refrigerant.



## 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.

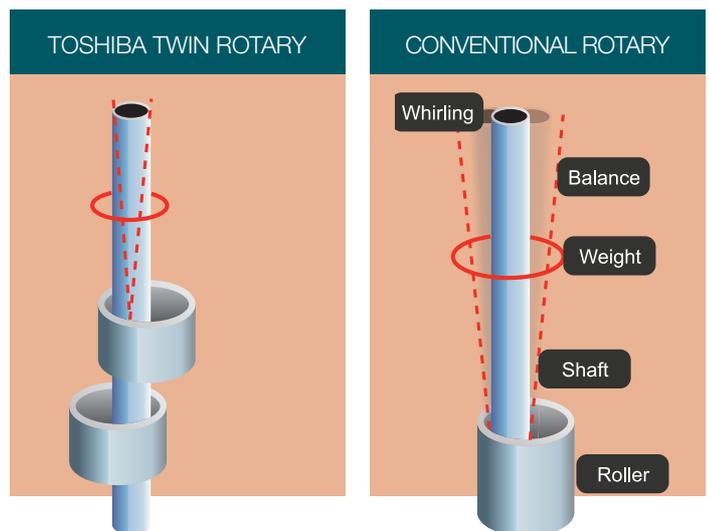
### The Toshiba Air Conditioning DC Twin-Rotary Compressor

#### 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.



### 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.



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

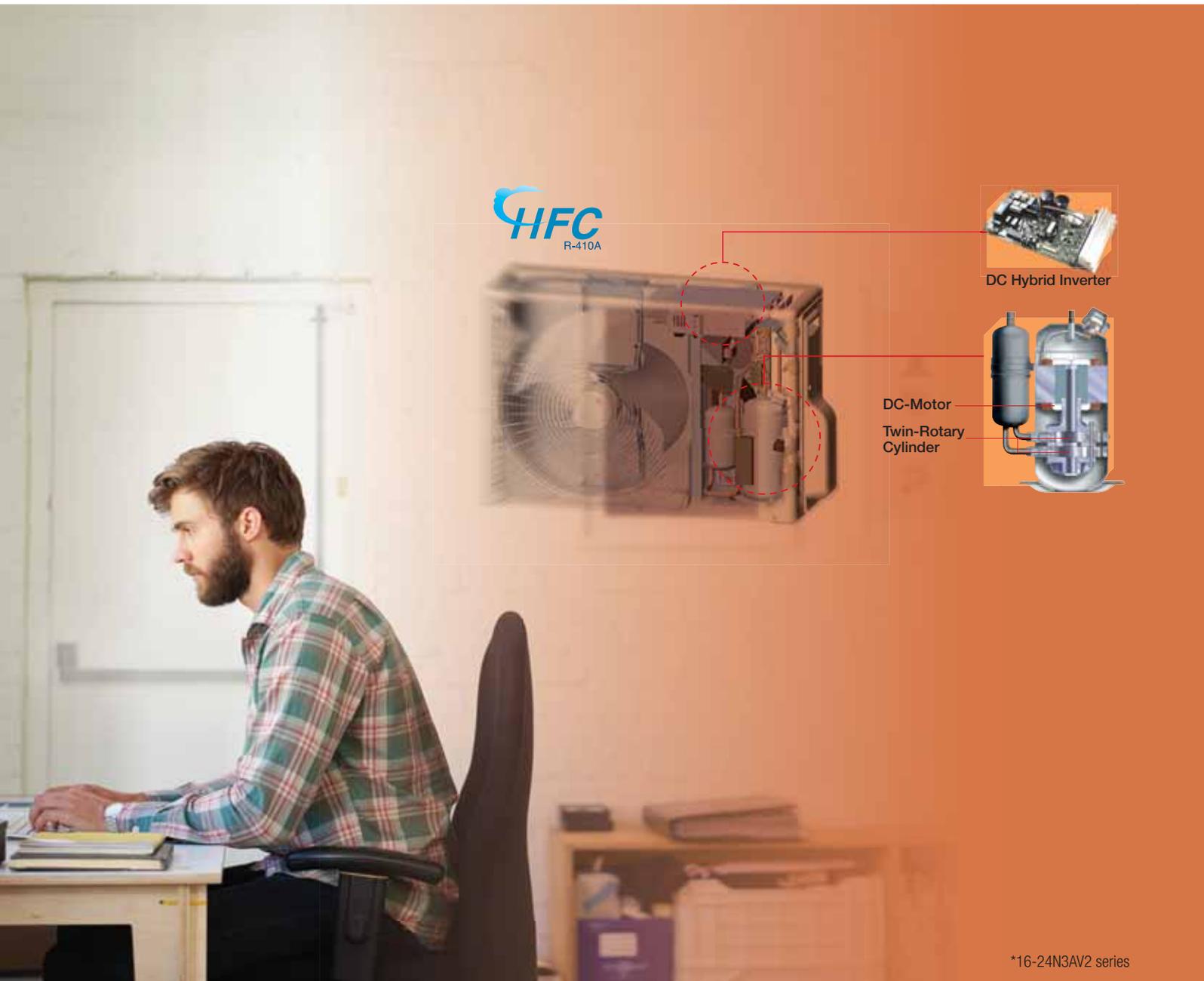
Digital technologies provide superior control and cost efficiency with the DC Inverter compressor. Super-accurate rotation of an environmentally sustainable compressor results in efficient use of power.

## 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.

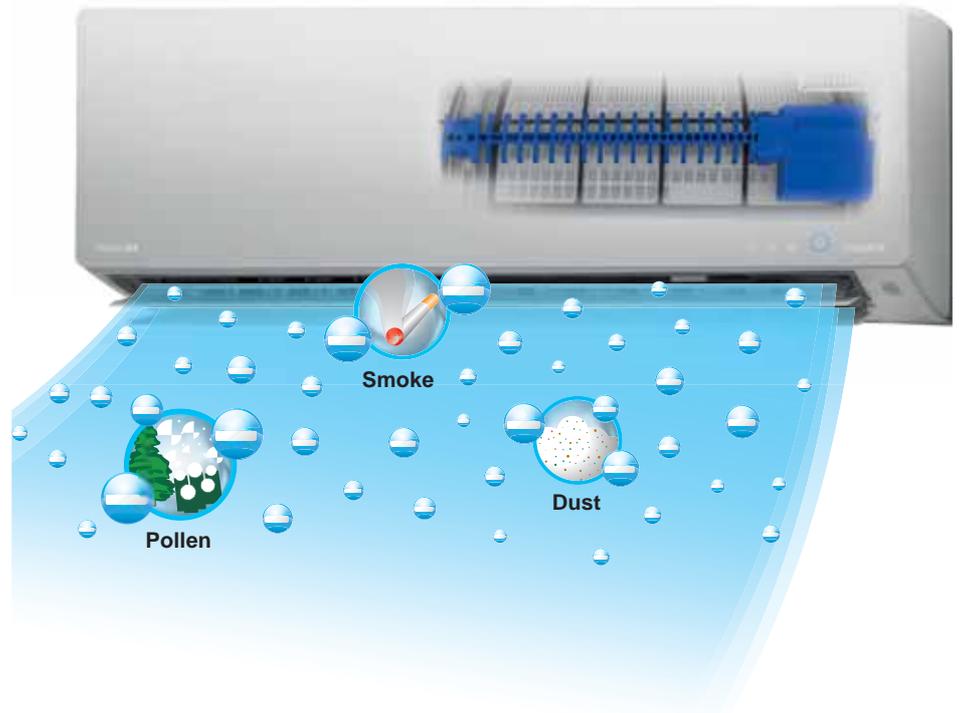


\*16-24N3AV2 series

# Toshiba Air Purifying System

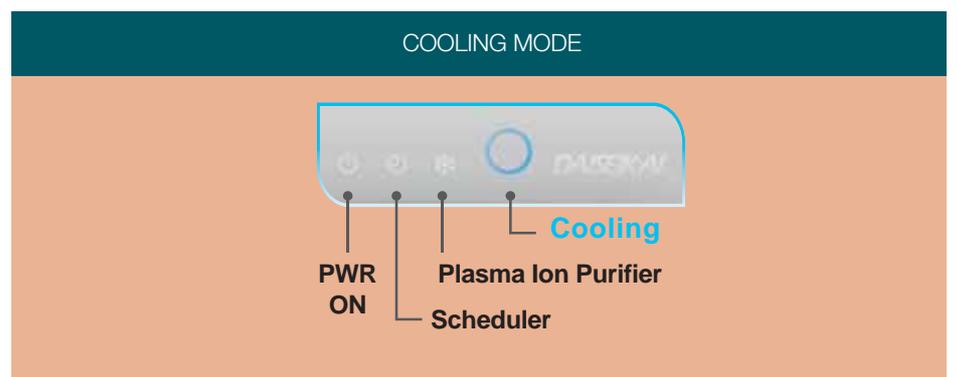
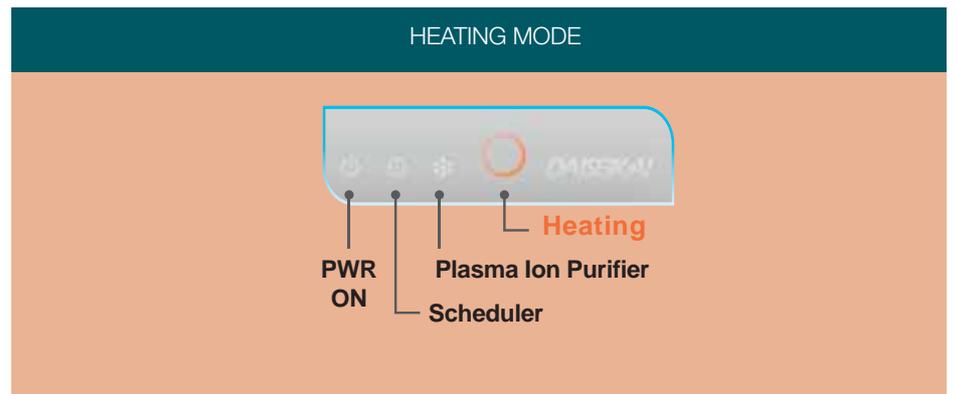
Make your home a hideway from dirt and discomfort. The Daiseikai is equipped with an innovative Plasma Ion Purifier System, which is a complete filtration system to deodorise air and provide a healthier environment. Plasma Ion Charger and New Ionizer System provide pure air and keep your skin moisturised. Negative ions create fresh and healthy environments, absorb and decompose smoke, food smells and many bad odours.

# Daiseikai. More than just an air conditioner



## Intelligent control

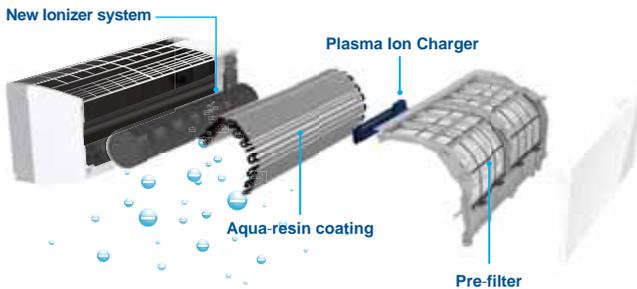
An illuminated light indicates whether the unit is in heating or cooling mode. This feature can be turned off at anytime.



# Technology for health

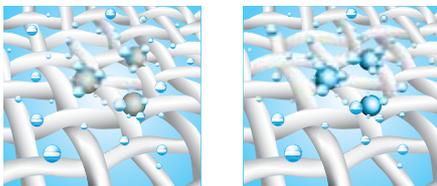
## Ionizer System

The ionizer system provides pure air and keeps your skin moist. Negative ions from the new ionizer system create fresh and healthy environment, absorb and decompose smoke, food smells and any bad odours.



## Ionizer system absorbs bad odour and smoke

Negative ions enclose the particles. Negative ions deactivate the particles.

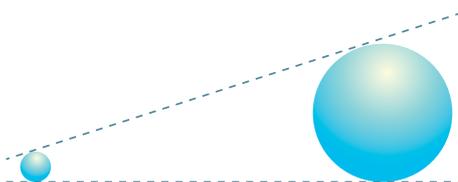


## Ionizer system comforts your skin

Moisture of skin keratin layer increases about 10% and elasticity of skin keratin layer increases about 7%.

## Mechanism of the new Ionizer

New ionizer system generates negative ions\* which are known as a much smaller size than regular ions.



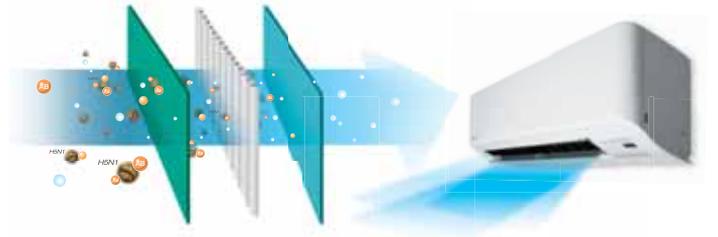
“Pico” is the size of 1/1,000 of “Nano”.  
 One (1) nano metre is 1/1,000,000,000 metre, One (1) pico metre is 1/1,000,000,000,000 metre

\* Generating condition of the ion: Room temperature 18-32°C

## 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.



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.

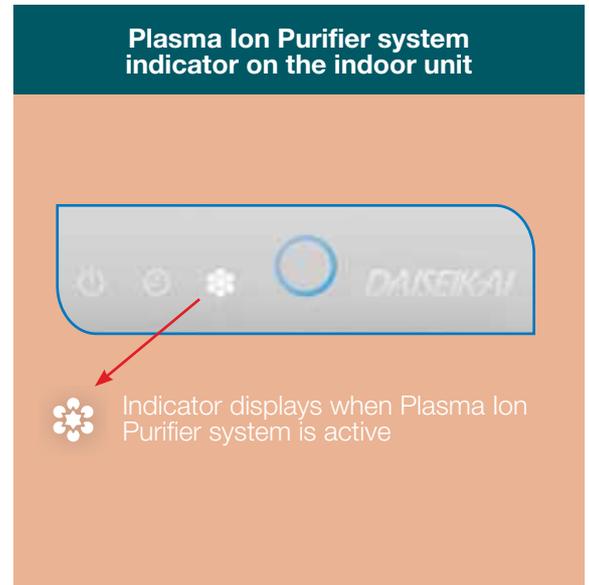
**Anti-virus:** Avian influenza virus (H5N1) <sup>2</sup>

<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.

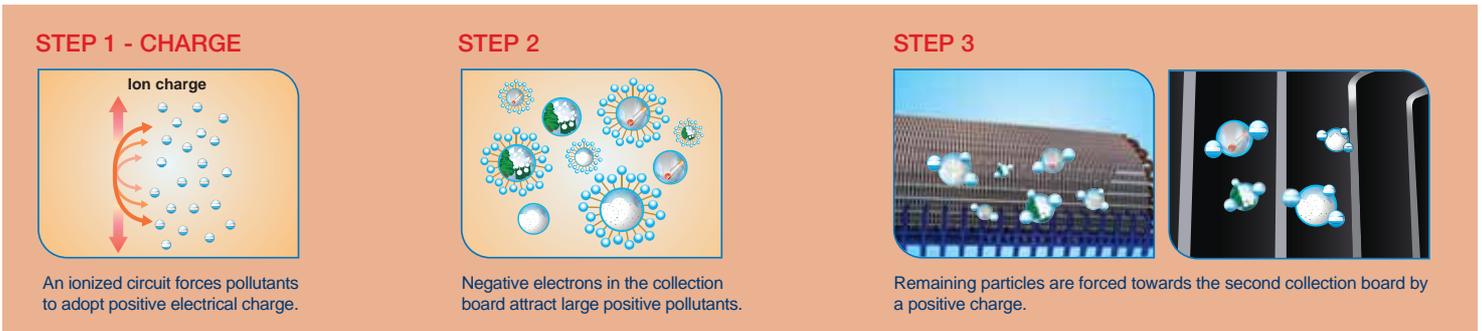
# Plasma Ion Purifier System

The Daiseikai Inverter range has a complete filtration system that deodorises air and provides a healthier environment. Plasma Ion Purifier System is a combination of Plasma Ion Charger and Ionizer System.

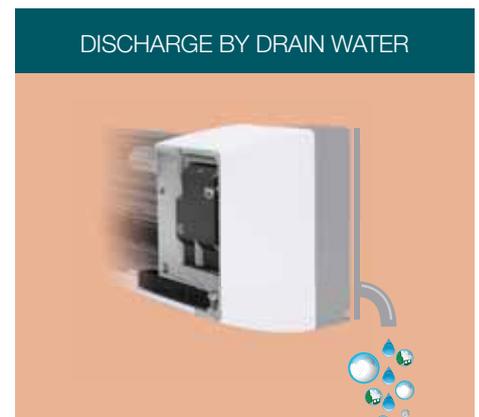
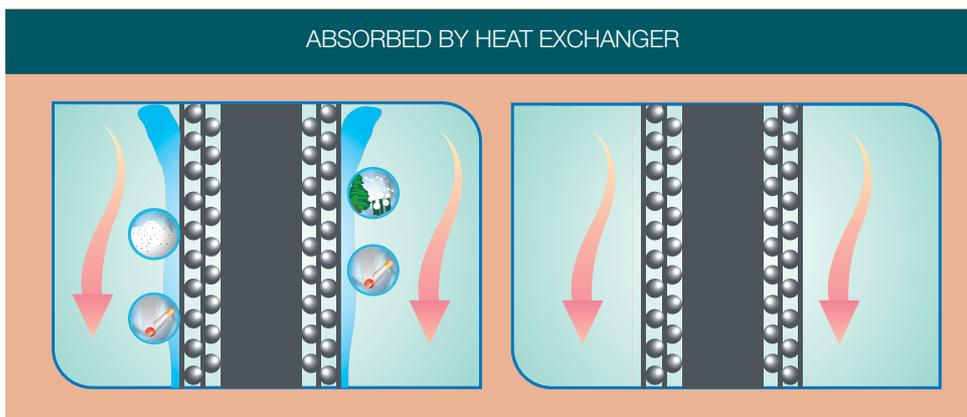


## Plasma Ion Charger

Plasma Ion charger operates in the 3 following steps:



Impurities are ionized by ion charger and absorbed by the heat exchanger with aqua resin coating which removes small contaminants that are unable to be caught by filters, then discharged by drain water. Drain water will occur during cooling and defrosting.



# Ultimate relaxation through 3D airflow

## 3D Airflow

With 3D airflow features, the indoor unit provides further airflow and stable air volume in 6 unique patterns to ensure that every comfort is reachable. Horizontal and vertical louver improves comfort with a selection of powerful airflow shower settings to evenly distribute mild airflow for comfortable and consistent temperature.

Wide or spot airflow is made possible by unifying the horizontal and vertical louvers. You are able to install the unit more conveniently as the airflow is horizontally & vertically controlled in the area you are staying. Simply control airflow pattern as you wish through the remote controller by pushing the “Air Flow” button.

<p><b>ULTIMATE RELAXATION THROUGH 3D AIR FLOW</b></p>	<p><b>ENHANCE INSTALLATION FLEXIBILITY</b></p>	<p><b>6 UNIQUE AIR FLOW PATTERNS</b></p>
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## Improved comforts by distributing powerful and stable air volume in 6 unique airflow patterns



## 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.



## Controls

### Weekly timer remote controller

Programmable with up to four different settings in a day (24 hours) and 7 different programs in a week. 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

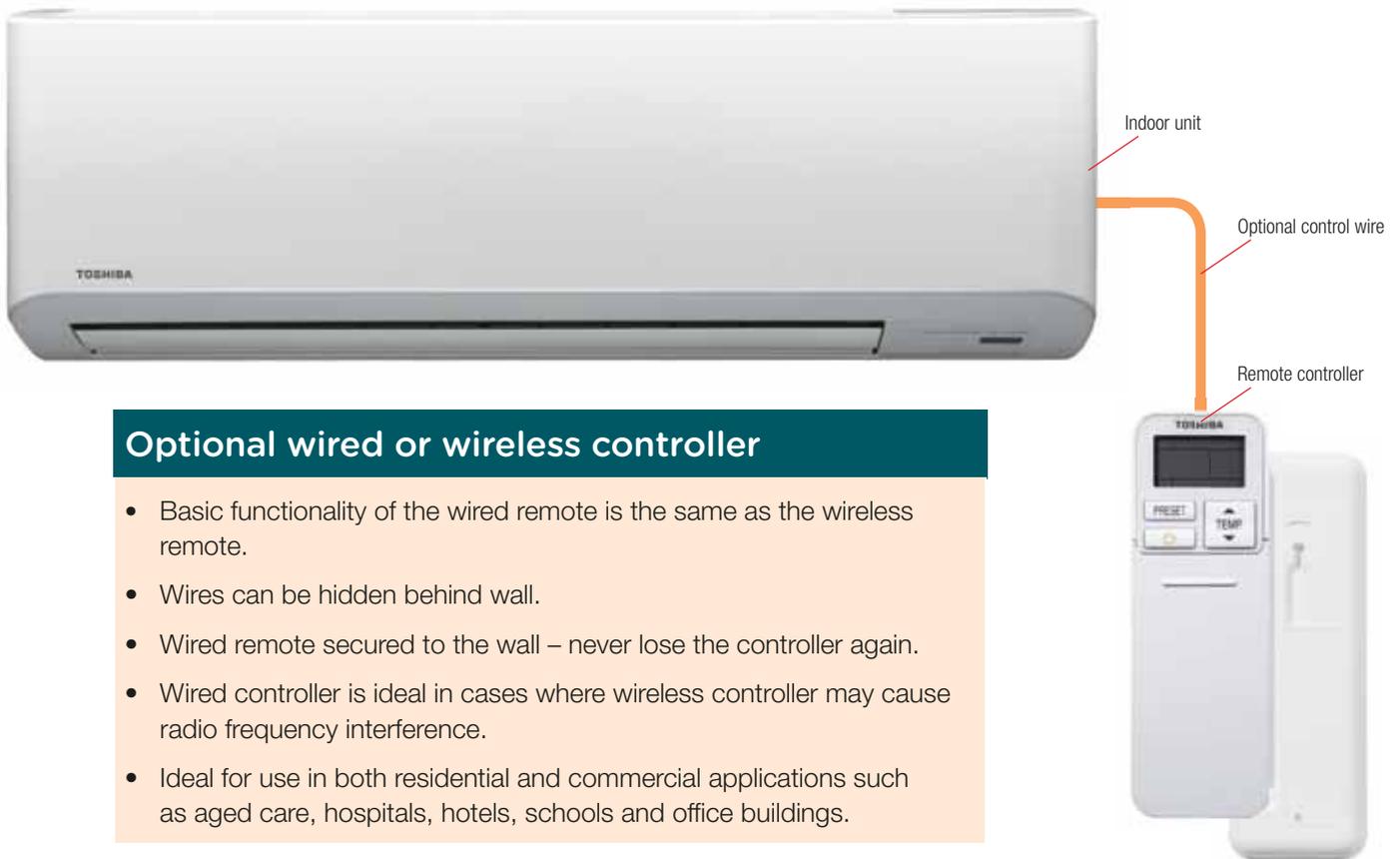
Toshiba air conditioner is efficiently designed with 12\* louver positions to give you more flexibility with smooth, seamless airflow. Toshiba air conditioners allow you to adjust the airflow precisely to the position that gives you the greatest comfort. Alternatively, use the swing feature to distribute 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	(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 - Maximum ~ minimum	kW	*3.1-1.1	*4.1-2.0	*5.0-0.8	
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 - Maximum ~ minimum	kW	*4.8-0.9	*5.6-1.8	*6.3-0.9	
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		424xxxx	424xxxx	424xxxx	
INDOOR UNIT	Airflow Volume - Cooling (h-l)	l/s	143-83	158-82	190-103
	Moisture 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

\* Rated capacity refers to the capacity as tested for the MEPS Standards mandated to the Australian Standard AS 3823.1.2. Whilst meeting or exceeding this standard, all Toshiba units will and selection should be based on the rated capacity and remains at the discretion of the dealer.



INVERTER MODELS			(R-410A) G2KVP SERIES INVERTER MODELS		
RAS-18N3KV2-A	RAS-22N3KV2-A	RAS-24N3KV2-A	RAS-10G2KVP-A	RAS-13G2KVP-A	RAS-16G2KVP-A
RAS-18N3AV2-A	RAS-22N3AV2-A	RAS-24N3AV2-A	RAS-10G2AVP-A	RAS-13G2AVP-A	RAS-16G2AVP-A
5.0	6.0	7.1	2.5	3.5	4.5
*6.0-1.1	*6.7-1.2	*7.7-1.5	*3.50-0.55	*4.10-0.63	*5.00-0.63
0.18-1.42-2.0	0.20-1.83-2.65	0.30-2.25-2.90	0.11-0.485-0.90	17-0.82-1.20	0.17-1.30-1.75
1.06-6.41-8.90	1.16-8.19-11.78	1.78-10.30-12.85	0.64-2.70-4.25	1.04-4.09-5.54	1.03-6.20-8.16
3.00-3.52-6.11	2.53-3.28-6.00	2.66-3.16-5.00	3.89-5.15-5.00	3.42-4.27-3.71	2.86-3.46-3.71
3.48	3.23	3.12	5.08	4.23	3.44
5.8	7.0	8.1	3.20	4.00	5.50
*6.3-0.8	*7.5-1.0	*9.0-1.6	*5.80-0.45	*6.30-0.65	*6.80-0.65
0.14-1.56-1.70	0.18-1.98-2.21	0.30-2.45-3.30	0.09-0.58-1.65	0.14-0.80-1.77	0.14-1.37-2.05
0.84-6.97-7.58	1.06-8.87-9.79	1.81-11.20-14.62	0.57-3.23-7.37	0.85-3.94-8.18	0.84-6.40-9.47
3.71-3.72-5.71	3.39-3.54-5.56	2.73-3.31-5.33	3.52-5.52-5.00	3.56-5.00-4.64	3.32-4.01-4.64
3.67	3.49	3.28	5.45	4.96	3.99
424xxxx	424xxxx	424xxxx	-	-	-
265-163	305-183	280-183	648-180	672-187	696-193
2.8	3.5	3.8	1.5	2.0	2.5
44-32	47-35	45-36	42/38/33/28/24/20	43/39/34/29/25/21	44/40/35/30/26/23
320x1050x243	320x1050x243	320x1050x243	293x831x270	293x831x270	293x831x270
13	13	13	14	14	14
59	62	58	57	58	59
30	30	30	30	30	30
550x780x290	630x800x300	890x900x320	630x800x300	630x800x300	630x800x300
41	43	65	42	42	42
49	53	52	61	63	64
64	68	65	61	63	64
-10~46	-10~46	-10~46	-15~24	-15~24	-15~24
50	52	52	47	49	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 (extra charge 20g/m)	25 (extra charge 20g/m)	25 (extra charge 20g/m)
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
			220-230/1/60	220-230/1/60	220-230/1/60

run indefinitely at maximum capacity above the rated conditions as shown. whilst the external ambient conditions allow. Nonetheless, equipment application, performance, suitability



AHI Carrier 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.

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: 1014-092015

Date: September 2015

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

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**AIR CONDITIONING**