

# INVERTER HI-WALL SYSTEMS

What you'll find inside:

- DC Twin-Rotary Compressor
- Product range
- Controllers
- Product specifications

+  
Energy  
Efficient

+  
Powerful  
Operation

+  
Heating &  
Cooling

# TOSHIBA

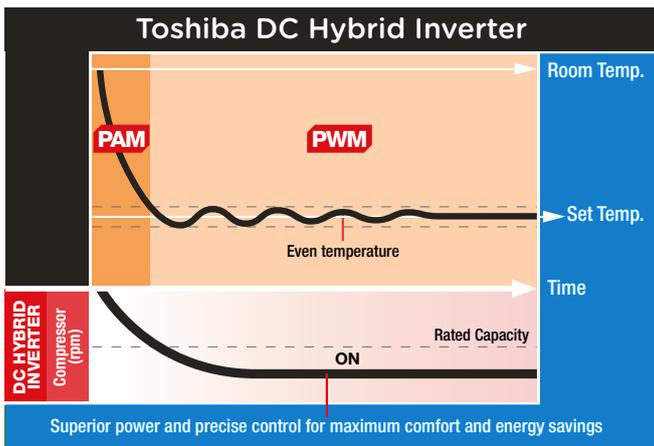
## AIR CONDITIONING



# 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.

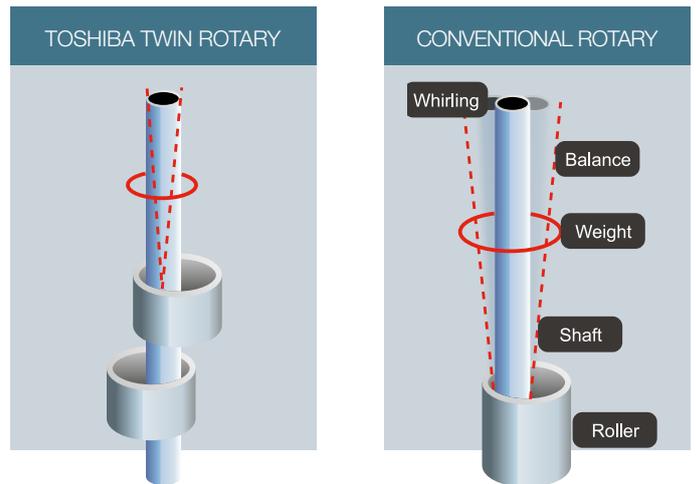
## The Toshiba Air Conditioning DC Twin-Rotary Compressor

### 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

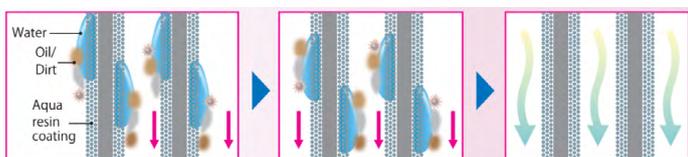
The enhanced DC Twin-Rotary Compressor delivers stable performance with minimum friction. It's ideal for noise-sensitive applications as the sound of the outdoor unit is almost imperceptible.



# Advantages of the Hi-Wall Systems

## Features and Benefits of Hi-Wall Systems

- Designed for durability - The clever PCB housing of the outdoor unit with its smart perforated design, allows the PCB to breathe and do its job controlling the air conditioner. It also keeps out many of those pesky insects, reptiles and rodents common in many parts of Australia that seek refuge, particularly during cold nights.
- DC inverter system designed to use electricity efficiency and effectively.
- Reverse cycle heating & cooling.
- Aqua resin coated coil – helps to reduce the formation of water and oil on the coil as well as minimising mould and dust accumulation.



Oil & dirt cannot stick because of special layer

Condensed water washes away oil & dirt

Always clean as new !!!!

- 13% bigger fan coil unit\* combined with 10% increase in heat transfer surface resulting in airflow that cools the room quickly.
- Self-cleaning operates in dry and cool modes.
- R410A refrigerant non ozone depleting refrigerant.



- 6 x Left and Right swing options – Wide, Centre/Left, Centre Right, Left, Centre, Right, great for large rooms.\*^
- 8° degree indoor operation ambient for cold nights. Additionally can be a cost effective solution to reduce defrost and faster minimum ambient temperature of 18° degrees.
- Auto restart the unit will restart automatically in the same operating mode, when power is restored after a power failure.
- 5 year warranty for consumer confidence.
- Easy maintenance – all the components are designed for easy maintenance both in removal and reassembly.



### Filter

Simply use a vacuum cleaner to remove dust or wash in warm water monthly.



### Front Panel

Curved & stylish, dust is easily sponged or wipe off. ^\*

\*compared to the Toshiba N3KV-A series

^^only available on units RAS-18BKV-A1, RAS-22BKV-A1 & RAS-24BKV-A1

^^use only warm water for cleaning, no detergents

# Controller Features and Benefits

## Features and Benefits of Controller

- Backlit wireless controller.
- Weekly timer allows you to set 'on' and 'off' times and customise temperature settings. The unit allows for 4 different settings per day.
- Customised air distribution with 4 fan settings (cooling/heating/dry/fan only).
- Eco-logic -the set temperature will be automatically adjusted without sacrificing comfort.
- Silent mode - this will operate the outside unit at a quieter decibel, helpful for night times.
- Preset - saves favourite temperature and fan settings.
- Hi-Power mode - rapidly delivers extra cooling or heating throughout the room.



## Optional WiFi adapter\*

### Features include:

- One air conditioning unit can be controlled by 5 users and users can control up to 10 units.
- Weekly timer set up.
- Power on/off.
- Mode selection – auto, cool, heat dry and fan only.
- Temperature selection.
- Air flow control.



\*Not available on RAS-07BKV-A1



Cooling Indicator



Heating Indicator

INDOOR			RAS-07BKV-A1	RAS-10BKV-A1
OUTDOOR			RAS-07BAV-A1	RAS-10BAV-A1
COOLING	Cooling capacity - rated	kW	2.00	2.50
	Cooling capacity - maximum- minimum	kW	0.80-2.80	1.50-3.10
	Power input - cooling (min ~ rated ~ max)	kW	0.19~0.49~0.83	0.29~0.56~0.71
	Operating current (min ~ rated ~ max)	A	1.05~2.50~4.20	1.53~2.92~3.58
	EER - cooling (min ~ rated ~ max)	-	4.21~4.08~3.37	5.17~4.46~4.37
	AEER - cooling	-	4.05	4.46
HEATING	Heating capacity - rated	kW	2.50	3.20
	Heating capacity - minimum - maximum	kW	0.70-4.00	1.20-4.80
	Power input - heating (min ~ rated ~ max)	kW	0.15~0.55~1.16	0.23~0.71~1.30
	Operating current - heating (min ~ rated ~ max)	A	0.78~2.80~5.60	1.21~3.62~6.14
	COP - heating (min ~ rated ~ max)	-	4.67~4.55~3.45	5.22~4.51~3.69
	ACOP - heating	-	4.51	4.50
INDOOR UNIT	Airflow volume - cooling (h-l)	l/s	166.6-73.3	198-78.3
	Moisture removal	l/hr	1.00	1.50
	Sound pressure - cooling (h-l)	dB(A)	41-24	42-26
	Dimension (HxWxD)	mm	293x798x230	293x798x230
	Net weight	kg	9	10
	Sound power - cooling (h)	dB(A)	56	57
	Fan motor output	W	20	35
OUTDOOR UNIT	Dimension (HxWxD)	mm	530x660x240	550x780x290
	Net weight	kg	23	31
	Sound pressure - cooling (h)	dB(A)	48	48
	Sound power - cooling (h)	dB(A)	63	63
	Operating range - cooling	°C	-10~46	-10~46
	Sound pressure - heating (h)	dB(A)	50	49
	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	12
	Chargeless length	(m)	15	15
	Compressor type	-	Single rotary	Single rotary
	Power supply	V/ph/Hz	220-240V-50Hz	220-240V-50Hz



RAS-13BKV-A1	RAS-16BKV-A1	RAS-18BKV-A1	RAS-22BKV-A1	RAS-24BKV-A1
RAS-13BAV-A1	RAS-16BAV-A1	RAS-18BAV-A1	RAS-22BAV-A1	RAS-24BAV-A1
3.50	4.20	5.00	6.00	7.10
1.50-4.10	1.80-5.00	2.20-6.30	1.80-6.70	2.50-7.70
0.32~0.82~1.04	0.31~1.14~1.80	0.36~1.18~1.95	0.42~1.70~2.20	0.40~2.10~2.70
1.92~4.10~5.38	1.83~5.25~8.35	2.27~5.75~9.60	2.41~8.00~10.20	2.50~9.84~12.45
4.69~4.27~3.94	5.81~3.68~2.78	6.11~4.24~3.23	4.29~3.53~3.05	5.68~3.38~2.85
4.20	3.50	4.25	3.54	3.33
4.20	5.20	5.70	7.00	8.00
1.30-5.60	1.30-6.30	1.65-6.50	2.10-7.50	1.65-8.50
0.34~1.00~1.68	0.23~1.46~1.85	0.27~1.32~1.56	0.33~1.85~2.10	0.31~2.30~2.50
2.05~5.03~8.46	1.38~6.90~8.65	1.63~6.25~7.22	1.92~8.68~9.74	1.83~10.70~11.60
3.82~4.20~3.33	5.65~3.56~3.41	6.11~4.32~4.17	6.36~3.78~3.57	5.32~3.48~3.40
4.25	3.50	3.50	3.78	3.47
210-91.6	221.6-91.6	346.6-186.6	361.6-186.6	380-176.6
2.00	2.50	2.80	3.50	3.80
45-26	47-26	50-35	51-35	52-35
293x798x230	293x798x230	320x1050x250	320x1050x250	320x1050x250
10	9	14	14	16
60	62	65	66	67
35	30	59	59	59
550x780x290	550x780x290	630x800x300	630x800x300	630x800x300
35	35	41	42	44
50	51	51	53	53
65	66	66	68	68
-10~46	-10~46	-10~46	-10~46	-10~46
51	52	51	53	54
-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")	6.35(1/4")
9.52(3/8")	12.70(1/2")	12.70(1/2")	12.70(1/2")	12.70(1/2")
20	20	25	25	25
12	12	15	15	15
15	15	15	15	15
Twin rotary	Twin rotary	Twin rotary	Twin rotary	Twin rotary
220-240V-50Hz	220-240V-50Hz	220-240V-50Hz	220-240V-50Hz	220-240V-50Hz

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.

Equipment rates in accordance with  
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