

Feel Quality. **Feel Toshiba.**



TOTALINE



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CIN: U74999HR1992FLC036104/ Website: www.toshiba-aircon.co.in/ E-mail: info@toshiba-aircon.co.in

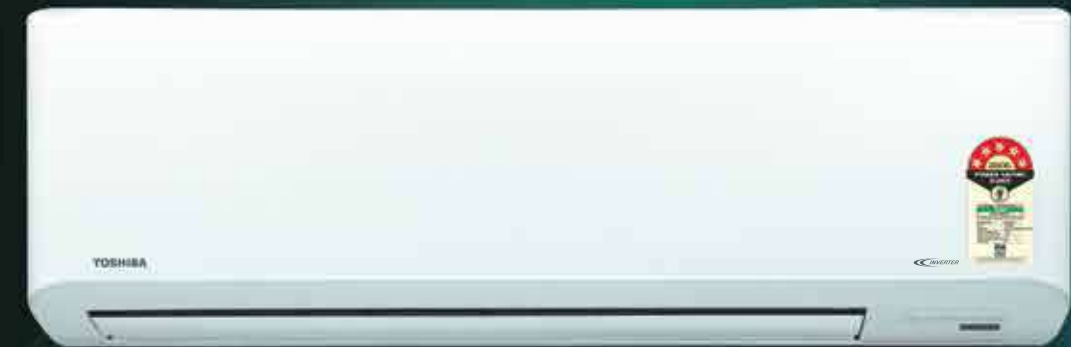


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March 2016

TOSHIBA
Leading Innovation >>>

INVERTER



Delivering amazing high efficiency
from path breaking
“Inverter Technology”

Better air

Leading the new era in air conditioning

Clearing the air for generations to come.

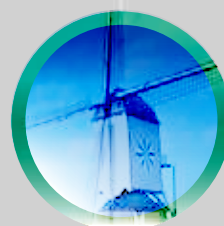
As human activities accelerate climatic change; scientists foresee limits to how much damage the ecology can take. Sustainable solutions require stronger commitment to global priorities. How far and fast are people willing to have less environment impact? Toshiba is making a positive difference to the ecology in a big way. We lead initiatives with innovators in academia, industry and government to think bigger, act bolder and move faster towards more environmentally sustainable solutions.



Our products comply with RoHS Regulations, ensuring prohibition of restricted substances in every material of components.



With the fast increasing waste stream, we aim to minimize the impact of electronic goods on the environment. Such inspiration leads us to limit the quantity of waste going to final disposal by applying plastic that can be recycled.



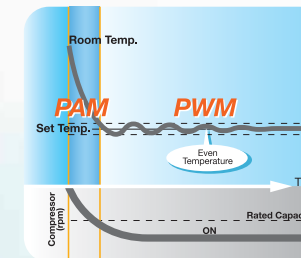
Our commitment is to save the earth and increase your savings with digital technology that provides superior control and cost efficiency with the DC Inverter compressor. Super-accurate rotation of an environmentally sustainable compressor results in power savings of up to 40%* (compared to AC Fixed Speed compressors) and quieter operation.

Toshiba Airconditioning, we care about better air...



Single Split Type

Single Inverter Toshiba DC Hybrid Inverter



Superior power and precise control for maximum comfort and energy savings.

Toshiba DC (Direct Current) Hybrid Inverter, the advanced digital technology in air conditioning system, is easily implied as a perfect control of power. It operates to reach maximum power rapidly and also maintains the desired temperature constantly by intelligently varying the electrical current frequency to modulate the rotation of the compressor. As a result, it is the solution that eliminates highly fluctuated temperature that people are generally uncomfortable with.

Energy saving • Powerful & Precise • Environmentally Sustainable

TOSHIBA
Leading Innovation >>

Inverter Technology & Energy Saving

Experience the pleasure of Toshiba Inverter Technology.

“Toshiba DC Hybrid Inverter Technology”

A new Dimension in Efficient Performance



INVERTER

40% Saving

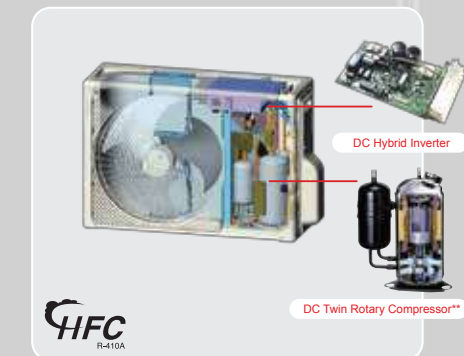
Digital technology provides superior control and cost efficiency with the DC Inverter compressor when compared to AC Fixed Speed compressors. Super-accurate rotation of an environmentally sustainable compressor results in power savings of up to 40%* and far quieter operation.



* 10k Inverter vs. Fixed-speed class A product
Daiseikai Series

Toshiba, Inventor of the Inverter air conditioners

In 1981, Toshiba invented the inverter, a technology now employed by many leading brands of air conditioning. Continuing its competitive edge through the development of the exclusive DC Hybrid Inverter system, it has reaffirmed its capability of a leading innovator. Toshiba DC Hybrid Inverter technology digitally controls the accuracy of the revolution speed of the compressor, which delivers incredible results in power savings of up to 40%* as compared to conventional units.



Important elements supporting the success of the Toshiba DC Hybrid Inverter:

1. Vector control for compressor motor and fan motor - Toshiba DC Hybrid Inverter does the job of high energy saving control.
2. Power factor control - Toshiba DC Hybrid Inverter improves harmonic current for the power supply.
3. Twin rotary compressor** - High efficiency is evident at low speed operation range. It can reduce energy consumption when operating in long stable conditions.

* 10 SKVR vs. Fixed-speed class A product. ** Applicable for 16-22SKVR/SKV Series

No Ozone
Depletion

Quiet

Comfort

Powerful

Energy
Saving

TOSHIBA
Leading Innovation >>>

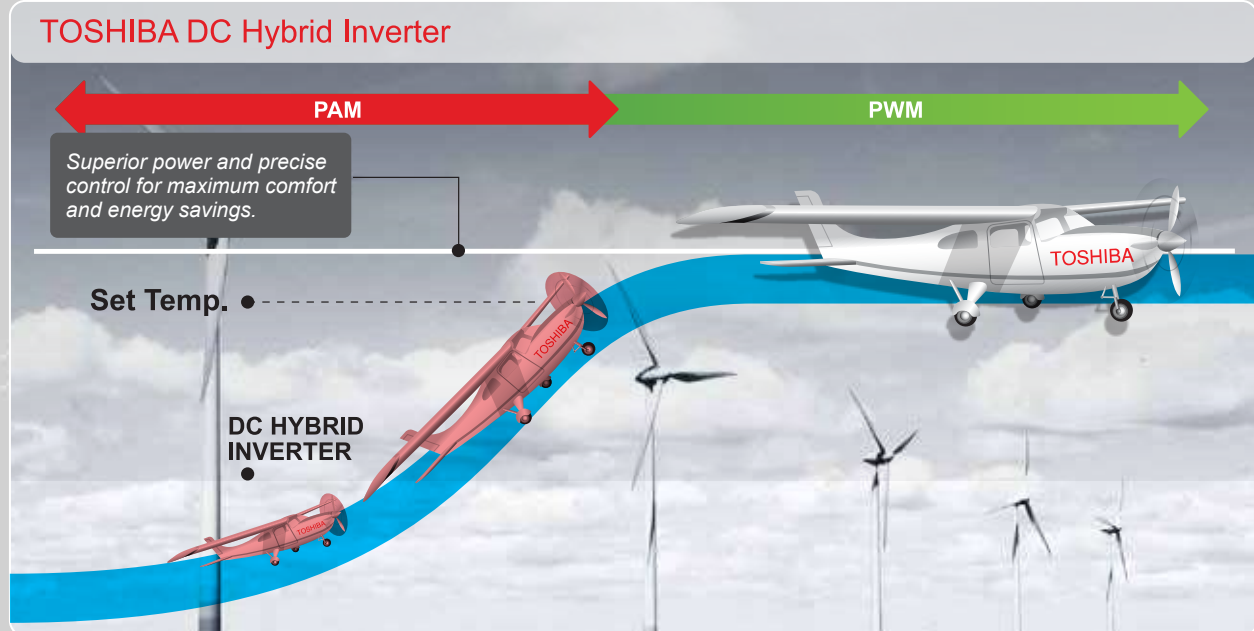
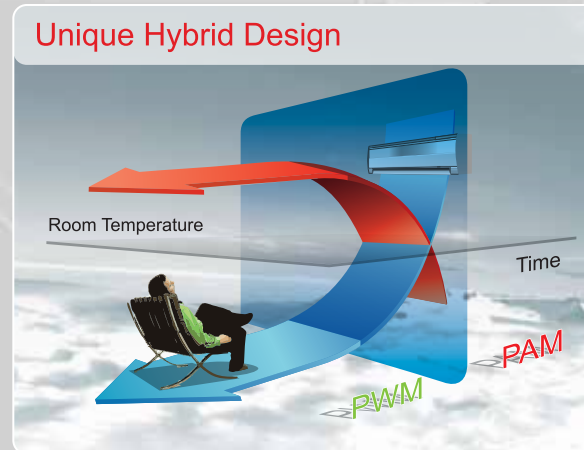


INVERTER

Toshiba DC Hybrid Inverter Technology A New Dimension in Efficient Performance

The Hybrid Inverter features PAM (Pulse Amplitude Modulation) and PWM (Pulse Width Modulation).

The former provides the highest levels of power while the latter ensures the desired room temperature and energy efficiency. As a hybrid, the Toshiba Inverter System features the best of both.



Benefits Of The Toshiba DC Hybrid Inverter System

- Energy saving**
 - The compressor modulates speed as per the load conditions.
 - Superior rotation control.
- comfort**
 - Less temperature fluctuation.
 - Stable & quiet.
- High power**
 - Fast cooling.
- No ozone Depletion**
 - Use R-410A Refrigerant.

Benefits of The Toshiba DC Hybrid Inverter System

Energy saving

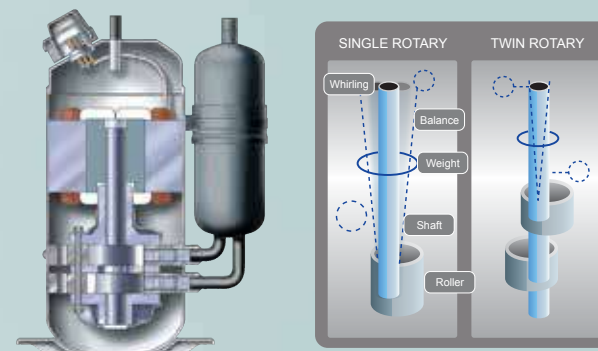
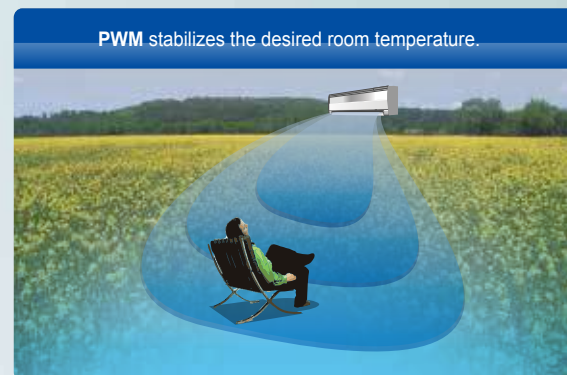
Digital technology provides superior control and cost efficiency with the DC Inverter compressor when compared to AC Fixed Speed compressors. Super-accurate rotation of an environmentally sustainable compressor results in power savings of up to 40% and quieter operation.



* 10k Inverter vs. Fixed-speed class A product

comfort

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



* Applicable for 16-22SKVR/SKV Series

Benefits of The Toshiba DC Hybrid Inverter System

High power

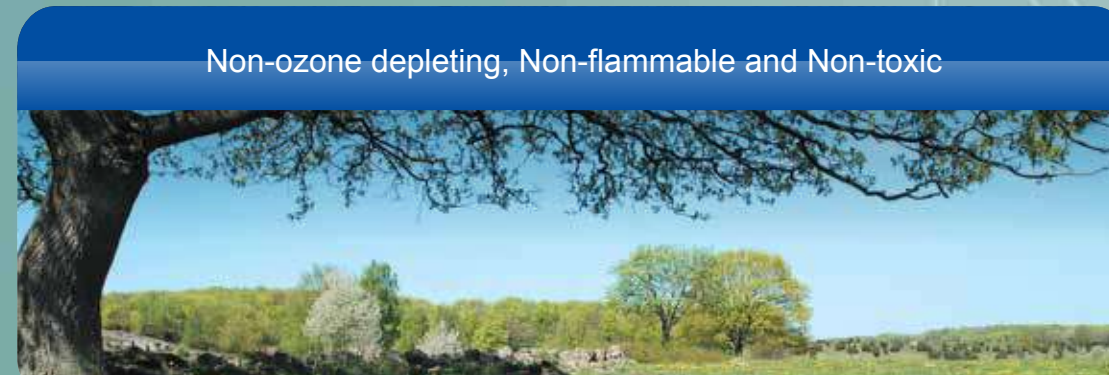
PAM drives high power to ensure the fastest achievement of the set temperature.



* Assumed number

No ozone Depletion

At Toshiba, our concerns for the environment have led us to use the R-410A refrigerant, which is confirmed to be non-ozone depleting, non-flammable and non-toxic.



* 10k Inverter vs. Fixed-speed class A product

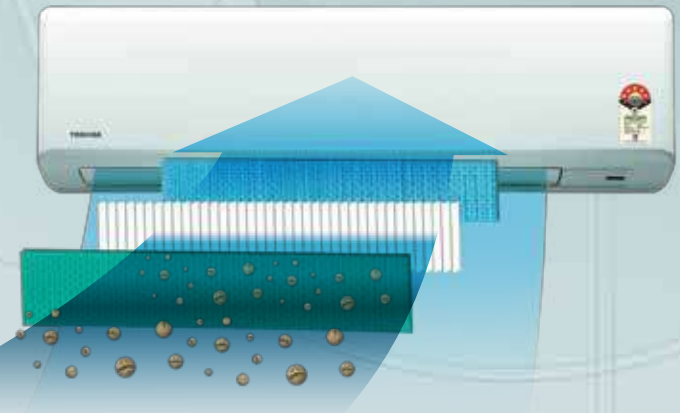
Technology for health through Toshiba New IAQ* filter

Toshiba's New IAQ technology is able to seriously inhibit the reproductive ability of harmful bacteria and viruses such as H5N1 avian influenza. With Toshiba's New IAQ, your family can breathe easy and your house will look like as if it has been spring cleaned.



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Leading Innovation >>>

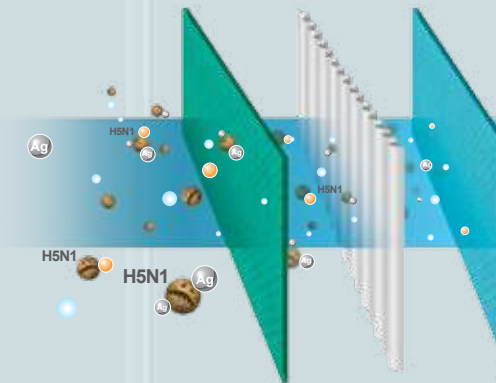
TOSHIBA
IAQ
Filter



**ACTIVE-CARBON
CATECHIN
FILTER**

Toshiba technology helps to protect your family from bad odour and eliminates bacteria while Catechin protects from dust.

Technology for health through >>>



Anti Bacteria and Anti Virus >>>

- Anti bacteria* : destroys up to 99.9% of bacteria
- Deodorizing power : Absorbs and decomposes smoke, ammonia, volatile organics, food smells and bad odors
- Prevent mould formation : Inhibits the formation of mould and fungi



Toshiba IAQ* filter >>>

Toshiba IAQ's technology inhibits the reproductive ability of **harmful bacteria and viruses such as H5N1 Avian Influenza**. With Toshiba IAQ, your family can breathe easy and your house will look like as if it has been spring cleaned.



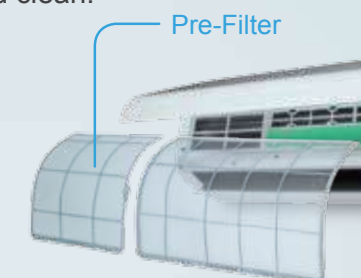
- Anti virus** : Avian Influenza virus (H5N1)

* Improves air hygiene by reducing the amount of bacteria and viruses. However, does not guarantee a sterilized room or protection against infection after using the filter.

* Korea Apparel Testing & Research Institute, BS05-00001771
**Betagro Science Center Co., Ltd., 900017366

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 out the dirt with running water to clean the filter. Always keep your air clean, fresh with simple and easy care of the filter.

Hi Power

Hi Power mode cools your room faster and is quiet while operating.

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



TOSHIBA
Leading Innovation >>>

Comfort and Health



Hi Power >>>

Hi Power mode makes your room cool faster quietly while operating.

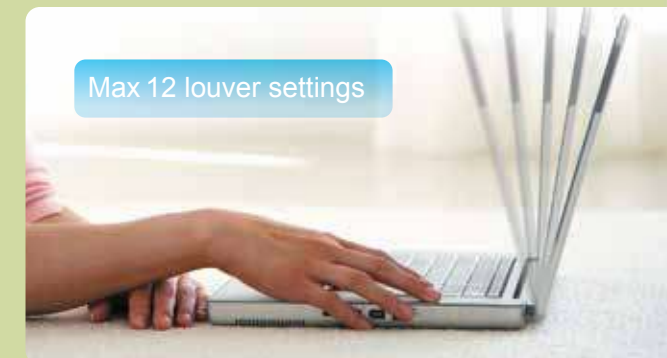


Powerful airflow

The louver turns downward to distribute the powerful airflow throughout the room.

Comfortable Airflow

Comfortable Airflow delivers soft dancing cool breeze that gently touches your skin and never make you feel too cold.



Max 12 louver settings

Efficient Airflow

With Max 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.

Powerful & Precise

Toshiba air conditioners have 7 fan-speed settings, including Auto Fan and Hi-Power modes. Choose from a gentle airflow right up to the full cooling of Hi-Power mode.

Toshiba Research Center understands your needs.

TOSHIBA
Leading Innovation >>>

Comfort and Health

— One Touch My Comfort - Toshiba has assessed user preferences to ensure that our needs can be fully catered to. The One Touch My Comfort features, customized temperature and airflow settings, which will deliver you ultimate comfort with one simple touch of the button.

— Comfort Sleep - Do you wake up in the middle of the night because you feel the room is too cold? With Toshiba's convenience feature, when you activate the Comfort Sleep button, your air-conditioning system will compensate for naturally lower night temperatures so that you can sleep in complete comfort.

— Real time on-off - We design Real time on-off feature, which sets a program to repeat every 24 hours.



Silence is Bliss.

Silence is Bliss... no other place on earth deserve's more serenity. Enjoy your favorite activities at home... reading favorite book or drinking a cup of warm tea...

Super Quiet - Just press the Quiet button on your Toshiba remote control and the indoor unit will operate at an extremely low.*

Toshiba Research Center understands your needs.

- Are you bored of adjusting to the temperature and airflow every time you switch on the air conditioner?
- How do I know which temperature and airflow setting is appropriate and provides comfort?
- I want my air conditioner to automatically switch on before entering into the room and switch off before I get out?

T O S H I B A
T E C H N O L O G Y

TOSHIBA

At Toshiba, we have an answer for you.

Your health is our main concern.

Today, we spend more time in the air conditioned room, either in the office or at home. "Clean airflow" means you can breathe with greater confidence.



TOSHIBA
Leading Innovation >>>

Self Cleaning Function.

It simply refreshes you in a natural way.

Power Select Mode

Easy steps to activate.

Only push "POWER SEL" button

The latest feature helps make today's lifestyle more comfortable as it offers the benefit of saving electricity. POWER SEL* button, gives you the freedom to control power consumption of the air conditioner from a remote control by preventing high power operation. It helps you during electricity black out, and even when you need electricity for other appliances etc.

Easy Maintenance from Stylish Front Grille

Regular cleaning of the air conditioner and filter can have a positive influence on healthy indoor environment. It makes for cleaner airflow, better capacity and more savings.



The smooth grille facilitates easy cleaning, just sponge, rinse and leave to dry in the shade.



Dust collects on the grille which is difficult to clean. It also increases the suction resistance, which results in capacity reduction and higher noise level. With the new design, dust collects on the pre-filter, which is easy to take off and can be washed in luke warm water.



The vertical louver can be taken off to wash and clean the inside cross flow fan.

Product Line Up

Cool, clean comfort can grace every room in your home, thanks to Toshiba technology. Breathtaking advances in air-conditioning features mean you can breathe with greater confidence. New stylish, compact and cost-efficient models are enhanced by Toshiba technology and advanced Total Quality System.

Single Inverter

COOL ONLY

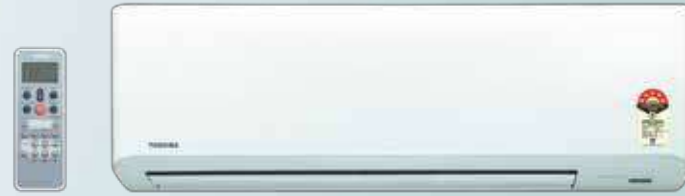
RAS-13N3KCV-IN
3.50 (1.10 - 4.00) kW
RAS-16N3KCV-IN
4.50 (0.80 - 5.00) kW



RAS-13N3ACV-IN
RAS-16N3ACV-IN
RAS-18N3ACV-IN
RAS-22N3ACV-IN

COOL ONLY

RAS-18N3KCV-IN
5.00 (1.10 - 6.00) kW
RAS-22N3KCV-IN
Value only in kW 5.80
(1.20 - 6.50) kW



Inverter Advanced Features

- One Touch Preset
- Quiet
- Swing & Fix Louver
- Comfort Sleep
- One Touch My Comfort
- Timer
- Fan Speed
- IR Selectable remote
- Toshiba New IAQ
- Repeat Timer
- Auto Diagnosis
- Eco-Logic
- Hi-Power
- Auto restart
- Add-Chargeless
- Automatic Changeover (Cool/Dry)
- Dry (Dehumidifying) Function
- Automatic 3 mins Delay Safety Control
- Washable front panel
- Self Cleaning
- Sleep Timer
- Power-SEL

*All specifications as per IS 1391 (Part 2) : 1992 Room air-conditioner. Rounded off as per IS 2: 1960 rules for rounding off numerical values.

Specifications

Inverter

Hiwall Single Split Type

INVERTER	COOLING ONLY	
	Indoor Unit	Outdoor Unit
	RAS-13N3KCV-IN	RAS-16N3KCV-IN
	RAS-13N3ACV-IN	RAS-16N3ACV-IN
Power Supply	1/50/230	1/50/230
Capacity	3565	4389
Power Consumption	1088	1509
ISEER	4.66	4.05
Star Rating		
	RAS-13N3KCV-IN	RAS-18N3KCV-IN
	RAS-13N3ACV-IN	RAS-18N3ACV-IN
Dimension	27.5x79x22.5	27.5x79x22.5
Net weight	9	9
Airflow Volume	0.16	0.19
Sound Pressure	39/26	45/30
Fan Motor Output	20	30
	RAS-13N3ACV-IN	RAS-16N3ACV-IN
Dimension	55x78x29	55x78x29
Net weight	33	36
Refrigerant type	R410a	R410a
Sound Pressure	48	50
Fan Motor Output	43	43
	RAS-13N3KCV-IN	RAS-18N3KCV-IN
	RAS-13N3ACV-IN	RAS-18N3ACV-IN
Dimension	32x105x24.3	32x105x24.3
Net weight	13	14
Airflow Volume	0.33	0.24
Sound Pressure	49/35	44/32
Fan Motor Output	30	30
	RAS-13N3KCV-IN	RAS-22N3KCV-IN
	RAS-13N3ACV-IN	RAS-22N3ACV-IN
Dimension	32x105x24.3	32x105x24.3
Net weight	13	13
Airflow Volume	0.33	0.33
Sound Pressure	49/35	49/35
Fan Motor Output	30	30
	RAS-16N3KCV-IN	RAS-22N3KCV-IN
	RAS-16N3ACV-IN	RAS-22N3ACV-IN
Dimension	55x78x29	55x78x29
Net weight	36	36
Refrigerant type	R410a	R410a
Sound Pressure	49	52
Fan Motor Output	43	43
Pipe Size		
Liquide side	0.64(1/4")	0.64(1/4")
Gas side	0.95(3/8")	1.27(1/2")
Coupler Style	Flare	Flare
Drain tube outside diameter	1.6	1.6
Maximum Piping Length	20	20
Maximum Piping Height	10	10
Chargeless Length	15	15
Additional refrigerant charge	20	20
Air filter (Accessory)	Toshiba IAQ (L) x 1	Toshiba IAQ (L) x 2
	Toshiba IAQ (L) x 1	Toshiba IAQ (L) x 2

Single Inverter

Single Inverter



HEAT COOL

HEAT COOL

RAS-13SKV2-E
Cooling 3.5 (0.8-4.10) Kw
Heating 4.2 (0.9-5.60) Kw



RAS-13SKV2-E

HEAT COOL

RAS-18SKV-E
Cooling 5.0(1.1-6.0) Kw
Heating 5.8 (0.8-6.3) Kw



RAS-18SAV-E2
RAS-22SAV-E2

RAS-22SKV-E
Cooling 6.0(1.2-6.7) Kw
Heating 7.0(1.0-7.5) Kw

Inverter Advanced Features

- One Touch Preset
- Quiet
- Swing & Fix Louver
- Comfort Sleep
- One Touch My Comfort
- Timer
- Fan Speed
- IR Selectable remotecon
- Toshiba New IAQ
- Repeat Timer
- Auto Diagnosis
- Eco-Logic
- Hi-Power
- Auto restart
- Add-Chargeless
- Automatic Changeover (Cool/Dry)
- Dry (Dehumidifying) Function
- Automatic 3 mins Delay Safety Control
- Washable front panel
- Self Cleaning
- Sleep Timer
- Power-SEL

*All specifications as per IS 1391 (Part 2) : 1992 Room air-conditioner. Rounded off as per IS 2: 1960 rules for rounding off numerical values.

Single Inverter

Specifications

Inverter
Hiwall Single Split Type

Condition (Cool) : Indoor Air Temperature 27°C DB, 19°C WB
Outdoor Air Temperature 35°C DB, 24°C WB

System		Heat Pump		
Model	(Indoor Unit)	RAS-13SKV2-E	RAS-18SKV-E	RAS-22SKV-E
	(Outdoor Unit)	RAS-13SAV2-E	RAS-18SAV-E2	RAS-22SAV-E2
Power Supply	(Ph/Hz/V)	1/50/220-240	1/50/220-240	1/50/220-240
Capacity	(Cooling) (kW)	3.50(0.80-4.10)	5.00(1.10-6.00)	6.00(1.20-6.70)
Power Consumption	(Cooling) (kW)	1.00(0.15-1.25)	1.42(0.18-2.00)	1.995(0.20-2.65)
EER	(Cooling) (W/W)	3.50(5.33-3.28)	3.52(6.11-3.00)	3.01(6.00-2.53)
Operating Current	(Cooling) (A)	4.58(0.93-5.66)	6.41(1.06-8.90)	8.90(1.19-11.78)
Capacity	(Heating) (kW)	4.20(0.90-5.60)	5.80(0.80-6.30)	7.00(1.00-7.50)
Power Consumption	(Heating) (kW)	1.08(0.15-1.58)	1.56(0.14-1.70)	2.05(0.18-2.21)
COP	(Heating) (W/W)	3.89(6.00-3.54)	3.72(5.71-3.71)	3.41(5.56-3.39)
Operating Current	(Heating) (A)	4.94(0.93-7.00)	6.97(0.84-7.58)	9.15(1.08-9.85)
Indoor Unit		RAS-13SKV2-E	RAS-18SKV-E	RAS-22SKV-E
Dimension (HxWxD)	(cm)	27.5x79x20.5	32x105x22.8	32x105x22.8
	(m)	0.28 x0.79x0.21	0.32x1.05x0.23	0.32x1.05x0.23
Net Weight	(kg)	9	14	13
Airflow Volume	(Cooling) (m³/s)	0.16	0.27	0.30
	(Heating) (m³/s)	0.17	0.28	0.30
Operating Noise	(Hi / Lo) (dB(A))	39/26	44/32	47/35
Outdoor Unit		RAS-13SAV2-E	RAS-18SAV-E2	RAS-22SAV-E2
Dimension (HxWxD)	(cm)	55x78x29	55x78x29	55x78x29
Net Weight	(kg)	33	36	36
Refrigerant Type		R410A	R410A	R410A
Operating Noise	(Cooling) (dB(A))	48	49	53
	(Heating) (dB(A))	50	50	52
Pipe Diameter (Liquide side)	cm(inch)	0.64(1/4")	0.64(1/4")	0.64(1/4")
Pipe Diameter (Gas side)	cm(inch)	0.95(3/8")	1.27(1/2")	1.27(1/2")
Connection Type		Flare	Flare	Flare
Drain Tube Outside Diameter	(cm)	1.6	1.6	1.6
Chargeless Length	(m)	15	15	15
Max. Piping Length	(m)	20	20	20
Max. Piping Height	(m)	10	10	10

- Hi-Power
- Auto restart
- Add-Chargeless
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