SPLIT SYSTEM AIR CONDITIONERS

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HITACHI AUSTRALIA LIMITED (ABN 34 075 381 332)
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HITA2952 RAC Broch Fa11.indd 1-2 28/10/05 2:29:32 pm

Home and Life Solutions

People have always thought of consumer products as being for a single purpose. Hitachi Home and Life Solutions are engineering a new phase of product development – one where consumer products are interactive and serve multiple purposes.

We are changing the shape and quality of people's lifestyles while positioning Hitachi as a cutting edge brand that leads future development and is the global brand of choice.

Hitachi's 3-Change ethos means your air conditioner has been developed with cleanliness and comfort in mind, supported by Hitachi's own core technologies.

In a climate as diverse as ours you need a reliable temperature control system that responds to and alters the environment quickly and efficiently.

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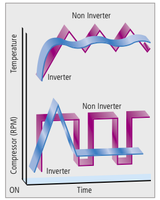
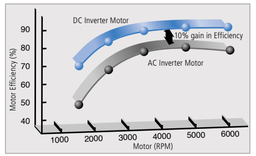
Core Technology

INVERTER



POWER SAVING

Inverter technology allows a room to reach the required temperature more rapidly and up to 30% more efficiently than Constant Speed Systems. Inverter technology also eliminates the incessant use of the stop-start mechanism often required to maintain consistent levels of temperature. Rather than starting the motor up and stopping it when the room temperature is reached Hitachi Inverters adjust (increase/decrease) the speed of the compressor to an energy saving mode in order to maintain the desired temperature.

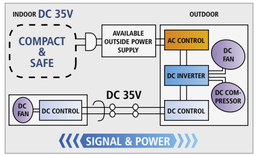


ALL DC INVERTER

Energy efficiency.
The "permanent magnet" motor featured in the DC compressor maintains magnetic current without the need for a constant source of electricity. This ensures the motor suffers less ambient energy loss, delivering 10% greater efficiency than equivalent AC Inverters.

Compact design. The DC system is designed so all transformers and relays are located in the outdoor unit which performs the AC-DC conversion. The result is a compact, stylish and quiet indoor unit.

Installation safety. Utilising a low DC current of only 35V ensures absolute safety during the installation process.

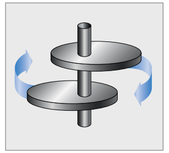


Hitachi All DC Inverter

PAM SYSTEM

The Hitachi Power Active Model (PAM) Inverter System suppresses electrical distortion to minimise power losses to less than 1%, thereby maximising system efficiency. Heating performance is particularly improved to ensure efficient performance even when the ambient temperature is -15˚C.

INVERTER TWIN ROTARY COMPRESSOR



Hitachi Inverter Air Conditioners feature twin rotary compressors. This ensures well balanced, smoother rotation which minimises noise and improves efficiency.

Inverter technology only applies to Hitachi inverter models.

FULL FLAT PANEL

The innovative new "Full Flat" design creates one of the most efficient yet ultra-quiet air conditioning ranges available. The intelligent, compact panel draws air through the top of the unit and diagonally across the heat exchanger, ensuring less friction during operation. This, combined with the simple, yet highly efficient tangential blade design means that air is carried through the panel faster, covering a wider area and in near silence.

ANTI-BACTERIAL FAN

The conical blade fan, with less air resistance and bigger tangential fan draws a larger volume of air flow to deliver the cool air evenly and quietly. It features an anti-bacterial treatment to prevent bacteria and mould growth helping to keep your air clean.

AUTO RESTART

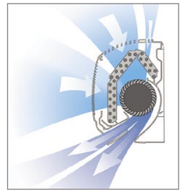
Hitachi air conditioners are able to memorise the precise operation mode, air flow, temperature and timing settings. In the event of a power failure, settings will automatically reset to the original operating mode once power is restored.

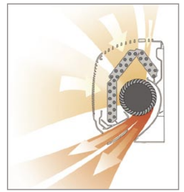
AUTO CHANGEOVER

This additional feature of our Inverter models allows sensors to periodically measure the room and outside temperatures. After factoring in the temperature set by the user, the optimal cooling or heating operation is determined.

LAMBDA HEAT EXCHANGER

The advanced design allows for wider suction which creates greater heat exchange to adjust the room temperature quickly and efficiently.





*Features may vary by model.
Please check specifications table.

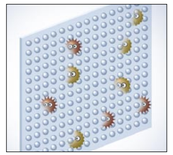
HITA2952 RAC Broch Fa11.indd 5-6 28/10/05 2:29:48 pm

Clean Air Focus

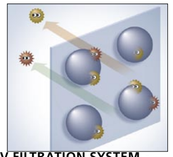
AIR PURIFYING
NANO-TITANIUM FILTER

The Nano-Titanium Filter featured in Hitachi air conditioners means that the air you breathe can be even cleaner, with reduced odour. The filter is designed to be more dense than the conventional anti-bacterial filter, trapping and substantially reducing bacteria plus deodorising air distributed by your air conditioner.

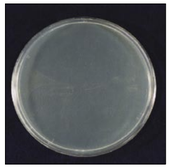
The Nano-Titanium agent, being smaller in size and denser than conventional anti-bacterial agents, attaches to more bacteria, trapping and preventing up to 99.9% of the particles from traveling through the Filter.



Nano-Titanium Filter



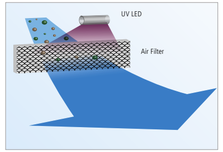
Conventional Filter



UV FILTRATION SYSTEM

Homes are often contaminated with invisible airborne microbes such as bacteria, viruses, fungi and dust mites. Ultraviolet light, as found in sunlight, is one of nature's most effective sanitising agents and has been used in hospitals, supermarkets and restaurants for many years.

Hitachi air conditioners now feature the same clever technology. UV light is cast in and around the air conditioning filter as the air is passed through the filter, it is safely sanitised killing up to 99.99%[1] of all airborne bacteria. The durable LED used ensures you have up to 10 years of cleaner, healthier living.



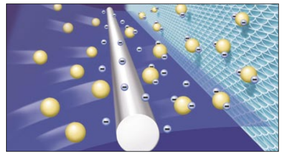
NEGATIVE ION STICK
ANTIBACTERIAL FAN

The Negative Ion Stick works in conjunction with static charged filters to trap particles and provide you with cleaner air.

Positioned in front of the static charged filter, Hitachi's Negative Ion Stick powerfully attracts airborne particles, drawing more particles directly into the filter.

EFFICIENT AIR DISTRIBUTION

The improved design of the directional air flow flap minimises air resistance to distribute a greater volume of air into the room to quickly and effectively adjust the room temperature.

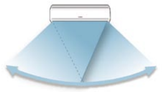


REFRIGERANT – R410A

The new range of Hitachi inverters feature the refrigerant R410A. While achieving the same energy efficiency of previous refrigerant gases, R410A is non-toxic, non-flammable with zero ozone depletion.

MULTI-DIRECTIONAL AIRFLOW

Selected Hitachi models also incorporate a two-way air flow system for more efficient air distribution.



Parallel swing

Symmetry swing

[1]Source: Japan Food Research Laboratories.
Features may vary by model.

HITA2952 RAC Broch Fa11.indd 7-8 28/10/05 2:30:07 pm

Comfort

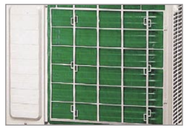
EASY TO CLEAN

The front panel on all Hitachi air conditioning units can be detached for a complete wash or simply cleaned with a single swipe.

LOW STARTING CURRENT

With a starting current of less than 45 amps, the need for a soft starter is eliminated. This minimises the 'flickering' of your house lights when the air conditioning unit starts up.

ANTI-CORROSION COATING



The special anti-corrosion coating on the outdoor heat exchanger improves durability.

Green anti-corrosion coating pictured.

5 YEAR WARRANTY

The 5 year warranty on parts and labour is your guarantee of the finest quality and customer support.[1]

LCD REMOTE CONTROL

The handy infrared remote control allows you to accurately select the desired room temperature from the comfort of your armchair. All commands are shown clearly on the liquid crystal display while the simple, one touch buttons can create the perfect environment with just a single touch.

Inverter and Standard Split System

INVERTER MODELS	COOLING AND HEATING MODELS	COOLING ONLY MODELS
RAS25YHA – 2.5/3.4kW	**RAS260GHA** – 2.9/3.0kW	**RAS260GA** – 2.9kW
RAS35YHA – 3.5/4.2kW	**RAS350GHA** – 3.5/3.85kW	**RAS350GA** – 3.5kW
RAS50YHA – 5.0/6.5kW	**RAS51CHA3** – 5.1/5.6kW	**RAS51CA3** – 5.1kW
RAS60YHA – 6.25/7.3kW	**RAS63CHA3F** – 6.3/7.05kW	
RAS70YHA – 7.1/8.3kW	**RAS72CHA3** – 7.0/7.3kW	
RAS80YHA – 8.0/9.3kW	**RAS81CHA3** – 8.1/8.8kW	

Models subject to availability.

[1]5 year warranty not applicable for industrial application and process cooling. Conditions apply, see your Hitachi stockist for details. Features may vary by model.

HITA2952 RAC Broch Fa11.indd 9-10 28/10/05 2:30:31 pm

Specifications and Features

SPECIFICATIONS

CURRENT MODEL		CONSTANT SPEED				
		COOLING ONLY			REVERSE CYCLE	
		RAS260GA	RAS350GA	RAS51CA3	RAS260GHA	RAS350GHA
CAPACITY (KW)	COOL	2.9	3.5	5.1	2.9	3.5
	HEAT	NA	NA	NA	3.0	3.85
POWER INPUT (W)	COOL	950	1,120	1,890	950	1,120
	HEAT	NA	NA	NA	810	1,050
EER/COP	COOL/HEAT	3.05	3.13	2.70	3.05/3.70	3.13/3.67
STAR	COOL/HEAT	3.5	4.0	2.5	3.5/4.5	4.0/4.5
TOTAL AMPS (A)	COOL/HEAT	4.1	4.9	8.2	4.1/3.5	4.9/4.6
INDOOR AIR FLOW AT HIGH FAN SPEED	(L/s)	150	167	225	150	167
DEHUMIDIFICATION (L/H)		1.4	1.8	2.8	1.4	1.8
SOUND PRESSURE dB (A)	INDOOR (COOL/HEAT) SLEEP. LOW. MEDIUM. HIGH	24.28.35.38	27.31.36.41	32.34.39.42	24.28.35.38/ 31.31.34.39	27.31.36.41 34.34.37.42
	OUTDOOR (COOL/HEAT)	48	49	51	48/49	49/50
WEIGHT (KGs)	INDOOR/OUTDOOR	9/32	9/38	12/60	9/32	9/38
DIMENSIONS - H/W/D (mm)	INDOOR	280/780/210	280/780/210	295/1030/183	280/780/210	280/780/210
	OUTDOOR	570/700/210	570/750/280	650/850/298	570/700/210	570/750/280
REFRIGERANT		R410A	R410A	R22	R410A	R410A
MAX. PIPE RUN	LENGTH/HEIGHT	10/5m	15/5m	15/5m	10/5m	15/5m
COMPRESSOR TYPE		ROTARY	ROTARY	ROTARY	ROTARY	ROTARY
OPERATING TEMP. °C	COOL/HEAT	21-43	21-43	21-43	21-43/-10-21	21-43/-10-21
CONNECTION TYPE		FLARED CONNECTION STANDARD				
LIQUID O.D. SIZE	mm	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)
GAS O.D. SIZE	mm	9.52 (3/8)	9.52 (3/8)	12.7 (1/2)	9.52 (3/8)	9.52 (3/8)

CURRENT MODEL		CONSTANT SPEED				INVERTER					
		REVERSE CYCLE				REVERSE CYCLE					
		RAS51CHA3	RAS63CHA3F	RAS72CHA3	RAS81CHA3	RAS25YHA	RAS35YHA	RAS50YHA	RAS60YHA	RAS70YHA	RAS80YHA
CAPACITY (KW)	COOL	5.1	6.3	7.0	8.1	2.5 (0.9-3.1)[1]	3.5 (0.9-4.0)[1]	5.0 (0.9-5.2)[1]	6.25 (0.9-6.5)[1]	7.1 (0.9-8.0)[1]	8.0 (1.5-8.5)[1]
	HEAT	5.6	7.05	7.3	8.8	3.4 (0.9-4.4)[1]	4.2 (0.9-5.0)[1]	6.5 (0.9-8.1)[1]	7.3 (0.9-9.0)[1]	8.3 (0.9-9.5)[1]	9.3 (1.5-9.7)[1]
POWER INPUT (W)	COOL	1,890	2,400	2,580	2,900	680 (155-1,290)	1,090 (155-1,460)	1,780 (155-2,200)	2,325 (155-2,500)	2,670 (200-2,920)	2,880 (200-3,850)
	HEAT	1,950	2,540	2,200	2,900	880 (155-1,250)	1110 (155-1,440)	1,970 (155-2,200)	2,450 (155-2,700)	2,800 (200-3,250)	3,080 (200-3,850)
EER/COP	COOL/HEAT	2.70/2.87	2.63/2.78	2.71/3.32	2.79/3.03	3.67/3.86	3.21/3.78	2.81/3.30	2.69/2.98	2.66/2.96	2.78/3.02
STAR	COOL/HEAT	2.5/2.5	2.5/2.0	2.5/3.5	3.0/3.0	6.0/6.0	4.0/5.0	3.0/3.5	2.5/2.5	2.5/2.5	2.5/2.5
TOTAL AMPS (A)	COOL/HEAT	8.2/8.3	10.5/11.0	11.1/9.4	12.2/12.2	3.34/4.08	4.79/4.87	7.8/8.65	9.8/10.3	11.2/11.8	12.1/12.9
INDOOR AIR FLOW AT HIGH FAN SPEED	(L/s)	225	225	300	300	142	167	225	225	233	317
DEHUMIDIFICATION (L/H)		2.8	3.5	4.5	5.2	1.4	1.6	2.8	2.8	4.5	5.2
SOUND PRESSURE dB (A)	INDOOR (COOL/HEAT) SLEEP. LOW. MEDIUM. HIGH	32.34.39.42/ 32.34.39.42	38.40.42.45/ 38.40.42.45	36.41.43.46/ 33.41.43.45	39.41.43.46/ 37.41.43.45	20.26.32.38/ 23.27.33.39	25.29.35.42/ 26.30.35.42	24.28.39.47/ 27.31.39.47	28.33.42.48/ 33.33.42.48	30.33.42.48/ 30.33.42.49	36.40.43.46/ 38.41.44.47
	OUTDOOR (COOL/HEAT)	51/53	52/54	52/54	55/55	45/47	46/49	50/52	50/52	52/54	55/55
WEIGHT (KGs)	INDOOR/OUTDOOR	12/60	12/60	15/60	15/75	9.5/35	9.5/35	9.5/45	12/45	12/52	15/75
DIMENSIONS - H/W/D (mm)	INDOOR	295/1030/183	295/1030/191	333/1150/245	333/1150/245	280/780/215	280/780/215	280/780/215	295/1030/191	295/1030/191	333/1150/245
	OUTDOOR	650/850/298	650/850/298	650/850/298	875/925/315	548/750/288	548/750/288	650/850/298	650/850/298	800/850/298	875/925/315
REFRIGERANT		R22	R22	R22	R22	R410A	R410A	R410A	R410A	R410A	R410A
MAX. PIPE RUN	LENGTH/HEIGHT	15/5m	15/5m	20/10m	30/10m	20/10m	20/10m	20/10m	30/10m	30/10m	30/10m
COMPRESSOR TYPE		ROTARY	ROTARY	ROTARY	TWIN ROTARY	ROTARY	ROTARY	TWIN ROTARY	TWIN ROTARY	TWIN ROTARY	TWIN ROTARY
OPERATING TEMP. °C	COOL/HEAT	21-43/-10-21	21-43/-10-21	21-43/-10-21	21-43/-10-21	10-43/-15-21	10-43/-15-21	21-43/-15-21	21-43/-15-21	21-43/-15-21	21-43/-15-21
CONNECTION TYPE		FLARED CONNECTION STANDARD									
LIQUID O.D. SIZE	mm	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)
GAS O.D. SIZE	mm	12.7 (1/2)	15.88 (5/8)	15.88 (1/2)	15.88 (5/8)	9.52 (3/8)	9.52 (3/8)	12.7 (1/2)	12.7 (1/2)	15.88 (5/8)	15.88 (5/8)

FEATURES

NANO TITANIUM FILTER	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
UV FILTER	–	–	YES	–	–	YES	YES	YES	YES	–	–	–	YES	YES	YES
NEGATIVE ION STICK	–	–	–	–	–	–	–	YES	YES	YES	YES	YES	–	–	YES
ANTI-CORROSION	GREEN FIN	GREEN FIN	GREEN FIN	GREEN FIN	GREEN FIN	GREEN FIN	GREEN FIN	GREEN FIN	GREEN FIN	BLACK FIN	BLACK FIN	GREEN FIN	GREEN FIN	GREEN FIN	GREEN FIN
INDOOR T-FAN	ANTI-BACT. T-FAN	ANTI-BACT. T-FAN	ANTI-BACT. T-FAN	ANTI-BACT. T-FAN	ANTI-BACT. T-FAN	ANTI-BACT. T-FAN	ANTI-BACT. T-FAN	ANTI-BACT. T-FAN	ANTI-BACT. T-FAN	ANTI-BACT. T-FAN	ANTI-BACT. T-FAN	ANTI-BACT. T-FAN	ANTI-BACT. T-FAN	ANTI-BACT. T-FAN	ANTI-BACT. T-FAN
MULTI-DIRECTIONAL AIRFLOW	–	–	–	–	–	–	–	YES	YES	–	–	–	–	–	YES
PAM CONTROLLED	–	–	–	–	–	–	–	–	–	–	–	YES	YES	YES	YES
ALL DC CONTROLLED	–	–	–	–	–	–	–	–	–	YES	YES	YES	YES	YES	YES
DC CONTROLLED INDOOR UNIT	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
AUTO RESTART/CHANGEOVER	YES / –	YES / –	YES / –	YES / –	YES / –	YES / –	YES / –	YES / –	YES / –	YES / YES	YES / YES	YES / YES	YES / YES	YES / YES	YES / YES

Units tested under ISO 5151 (for capacity) and EEC 60335-2-40 (for safety). *Rated at 27°C Db/19°C Wb Entering Air indoor, 35°C Db/24°C Wb Ambient. #Rated at 20°C Db/15°C Wb Entering Air indoor, 7°C Db/6°C Wb Ambient. Power consumption values are measured at the power source and are shown as a range with the above specifications and all local electrical codes and authorities. Design and specifications subject to change with product improvement. [1]Nominal inverter operation range denoted in brackets.

amba2952

SPLIT SYSTEM AIR CONDITIONERS

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