



HIGH QUALITY **Hygienic** **Easy to Clean** **Long Reliability**



**STAINLESS CLEAN**

# HITACHI

Inspire the Next



## SPLIT SYSTEM

WALL MOUNTED INVERTER AIR CONDITIONERS





The DC Inverter Wall Mounted Split System air conditioners, have been developed to provide exceptional comfort, easy operation, substantial power savings and full automatic control for homes, apartments, shops, offices and small buildings.

The latest range of DC Inverter driven reverse cycle air conditioners exemplify Hitachi's technological leadership, with low noise, high efficiency, simple self-diagnostic controls and all wrapped up in smart, compact units.



**Hitachi's 'triple change' advantage.** This means your air conditioner has met the exacting requirements of cleanliness and comfort as supported by Hitachi's own core technologies.

It's this advanced technology, that sets Hitachi apart as a cutting edge brand, that leads future development and is a global brand of choice.



**Technology.** With over 5% of revenue invested in research and development programs, Hitachi has developed world-leading technologies including some of the most advanced air conditioning systems currently available.

**Reliability.** For 25 years Hitachi has been providing Australians with reliable, efficient air conditioning products for both residential and commercial applications.

**Easy Installation.** Compact, lightweight and with flexible piping and wiring, Hitachi's DC Inverter units allow easy installation in any environment.



**R410A.** Be confident in knowing that your Hitachi DC Inverter system uses a refrigerant that is non-toxic, non-flammable with zero ozone depletion.

# There's a model to suit your needs

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

The Hitachi DC Inverter Wall Mounted Split System air conditioners have been designed to offer the best possible efficient and effective comfort at the touch of a button, even under extreme outside temperatures. Selecting the most suitable system is key to maximising performance, optimising comfort and minimising energy consumption. Our range of air conditioners offer superior filtration and effective distribution of clean air – quietly delivering extra airflow and greater capacity to ensure even the largest room is catered for.



## Inverter Split Systems

### Outdoor Units - NEW MODELS



RAC-25YHA1  
RAC-35YHA1



RAC-50YHA2  
RAC-60YHA2



RAC-70YHA2  
RAC-80YHA2

### Indoor Units



RAS-25YHA1 RAS-35YHA1



RAS-50YHA2 RAS-60YHA2

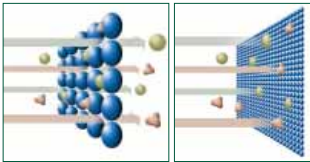


RAS-70YHA2 RAS-80YHA2



# Nano Titanium super air purification

## WHAT IS NANO TITANIUM?



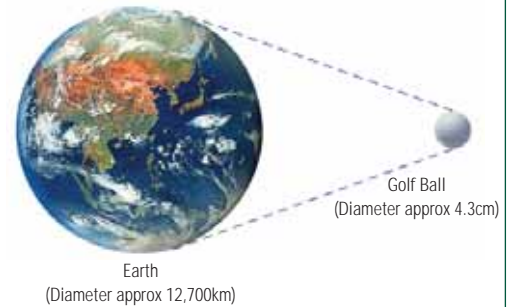
Conventional anti-bacterial agents

Nano Titanium agents

Bacteria Odours

High density Nano Titanium particles prevent microbes from getting through and eliminate them efficiently.

Nano Titanium is a cutting-edge technology that uses a  $\text{TiO}_2$  catalyst to provide a powerful anti-bacterial and deodorising effect. Nano Titanium particles are incredibly small (about 5 nano metres). If you imagined the Earth's diameter is 1 metre, then 5nm would be the size of a golf ball compared to the Earth. The filter is packed with these minute particles to firmly catch and neutralise bacteria, mould and odours which are approximately 1,000 times larger.

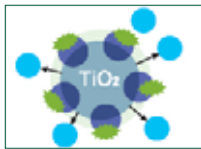


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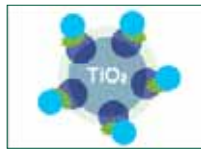
## PRINCIPLE OF NANO TITANIUM'S ACTION $\cdots\text{Zn}\cdots\text{O}_2\cdots\text{O}_2\text{ radical}\cdots\text{Odour}$



Zinc catches odour molecules



Titanium Oxide ( $\text{TiO}_2$ ) generates  $\text{O}_2$  radicals from oxygen in the air



The  $\text{O}_2$  radicals neutralise odour molecules caught by the zinc



The odour is neutralised and the zinc is then ready to catch odour molecules again

## DEACTIVATION EFFECT

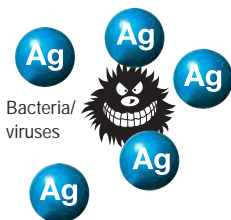


Before

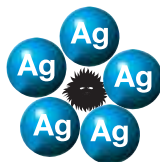
After 24 Hours

Sample: Esherichia coli.  
Bacteria (sample Esherichia coli) is deactivated by 99% in 24 hours. Tested by SIRIM QAS International Sdn, Bhd. Report No: 2004KLO100.

## SILVER ACTION



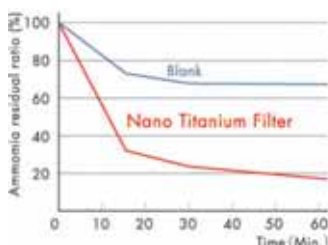
Bacteria/viruses



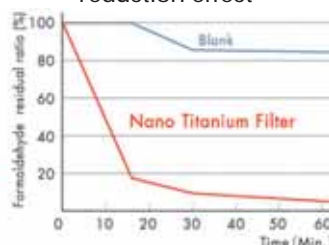
Silver Agents.  
Silver agents are also included in the air purifying filter to efficiently catch and deactivate bacteria.

**99% DECREASE**

### Ammonia deodorising effect



### Formaldehyde reduction effect



Using the action of the nano titanium catalyst 1/200 the size of regular anti-bacterial and silver agents, the Nano Titanium Air Purifying Filter effectively captures and neutralises microbes to provide a powerful room deodorising effect. At the same time, it neutralises harmful substances such as formaldehyde while providing an exceptional anti-allergen effect.



## NANO TITANIUM STAINLESS FILTER\*

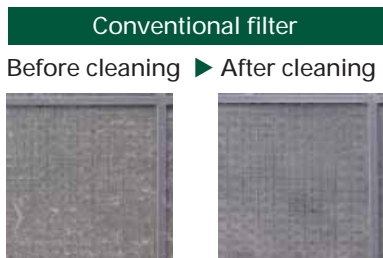
### Shuts out germs and bacteria.

Hitachi's original stainless pre-filter covers the entire air inlet to prevent dust and other particles from entering. A nano titanium coating on the surface of the filter also captures and neutralises odours and bacteria. And because it's stainless, even oily particles are removed with a wipe without using water for easy cleaning.

\* Optional feature on models RAS25-YHA1 and RAS35-YHA1.  
Standard feature on all YHA2 series models.



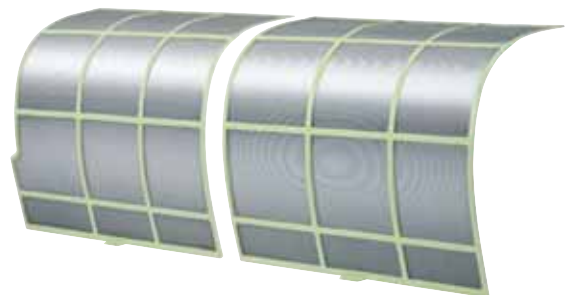
Any microbes that manage to pass through the stainless pre-filter are captured by the Nano Titanium Air Purifying Filter and are effectively neutralised. The two-stage action of nano titanium in the pre-filter and the air purifying filter assures the effective elimination of both bacteria and odours.



Dust remains trapped in the mesh



A single wipe removes dust





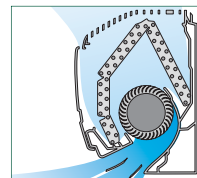
# Custom comfort everyday

## HIGH COOLING CAPACITY

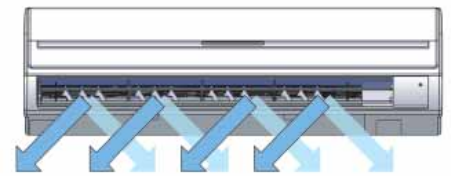
Hitachi air conditioners have the highest cooling capacity in their class. Maximum cooling capacity is delivered in the shortest time to rapidly cool the room. Even in living rooms and other large spaces, air flow reaches every corner for comfortable cooling throughout the room.

## HIGH ENERGY EFFICIENCY

The advanced design of the multi-dimensional Lambda Heat Exchanger allows for a wider air inlet path across the heat exchanger dramatically increasing the heat exchange ratio. This clever control feature automatically provides optimal cooling or heating operation by using a combination of indoor/outdoor sensors and room temperature settings, to adjust the room temperature quickly and efficiently.



RAS 70/80 YHA2 TYPE



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## MULTI-DIRECTIONAL AUTO SWING\*

Selected Hitachi models also incorporate a two-way air flow system for more efficient air distribution. The louvres not only move up and down automatically but also left and right. This action and the improved design of the directional air flow flap minimises air resistance to disperse a greater volume of cool air into the room, to quickly, evenly and efficiently adjust the room temperature.



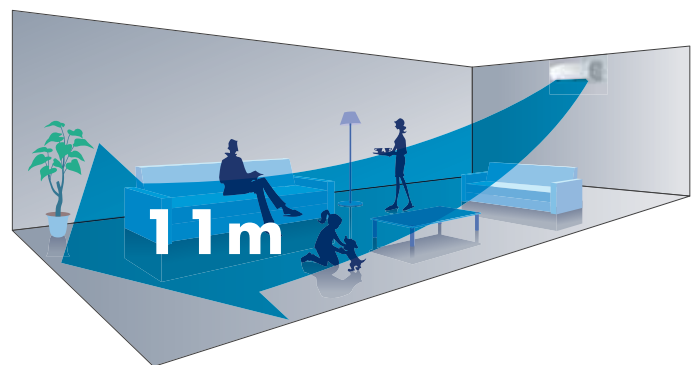
Parallel Swing



Symmetry Swing

## LONG AIR FLOW REACH\*

The Twin Parallel and Symmetry Auto Swing maximises air flow. This means cool air can reach up to 11 metres further for faster more comfortable cooling.



## FUZZY LOGIC CONTROL

The built in microcomputer measures and records the room size, together with the previous and current conditions and sets the advanced activation timer to provide the optimum temperature every time you enter the room.

## EASY TO CLEAN

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

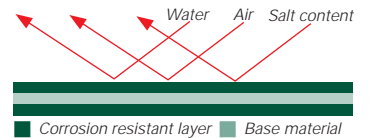


\* Applicable to RAS70-YHA2 and RAS80-YHA2 models.



### GREEN FIN CONDENSER

With its special anti-corrosion "green" coating, the Green Fin Condenser lasts up to three times as long as standard types. This coating on the outdoor heat exchanger assures better performance and improves durability even in tough conditions such as those in coastal areas.



\* Models RAS25-YHA1 and RAS35-YHA1 have a transparent anti-corrosion treatment applied.

### LOW STARTING CURRENT AND AUTO RESTART

Hitachi DC Inverter technology uses a low starting current, which minimises the 'flickering' of your house lights when the air conditioning unit starts up. For even greater convenience, 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.

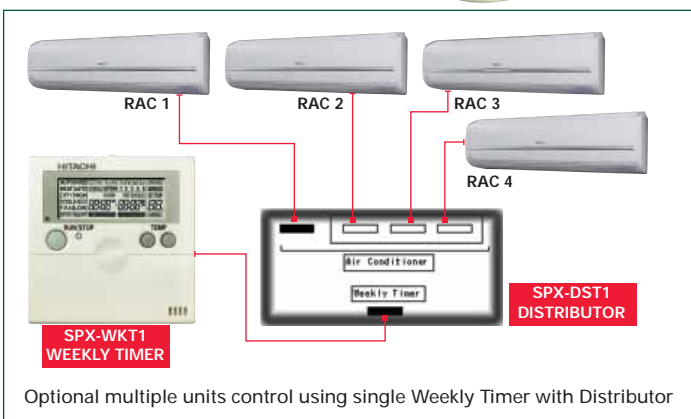
### LCD REMOTE SYSTEM CONTROLLERS

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. A smart system of one touch buttons can create the perfect environment with ease.

The new SPX-WKT1 Weekly Timer is available as an optional extra for all YHA2 models. Offering 5 different programs for each calendar day with start and end times and temperature control. Customise settings for "Weekly Program" or use the "Temporary Operation Mode". Choice of 5 fan speeds: Auto/High/Medium/Low/Silent.



SPX-WKT1 Weekly Timer - featuring remote functions





# Core Technology

## ALL DC INVERTER

### Energy efficiency.

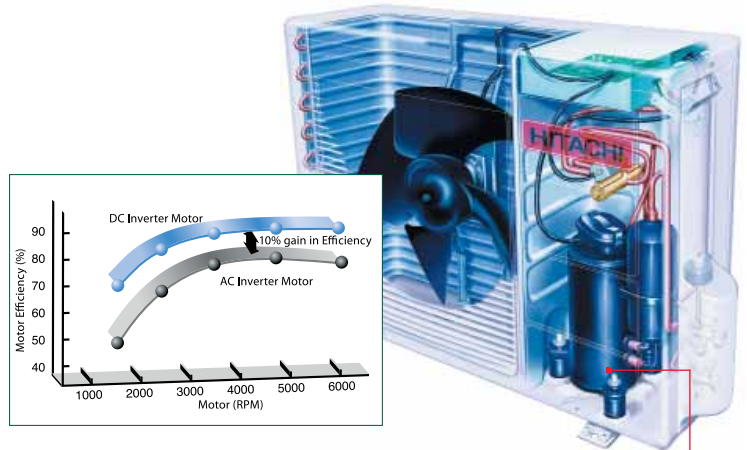
The "permanent magnet" motor featured in the DC compressor maintains magnetic current without the need for a constant source of electricity. This ensures the motor suffers less ambient energy loss, delivering 10% greater efficiency than equivalent AC inverters.

### Compact design.

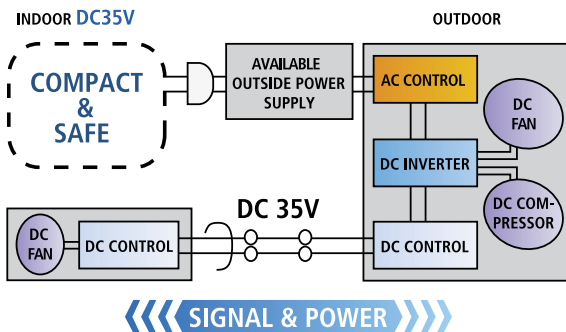
The DC system is designed so all transformers and relays are located in the outdoor unit which performs the AC-DC conversion. The result is a compact, stylish and quiet indoor unit.

### Installation safety.

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



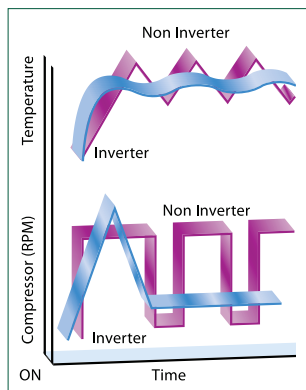
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\* Specific Models apply.

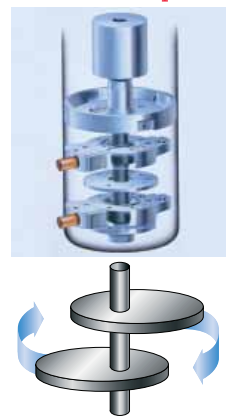
## POWER SAVING

Inverter technology allows a room to reach the required temperature more rapidly, offering up to 30% more efficiency and also eliminates the stop-start operation used by constant speed systems. Hitachi Inverters adjust (increase/decrease) the speed of the compressor to an energy saving mode in order to maintain the desired temperature.



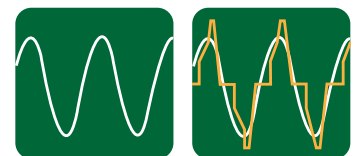
## DC INVERTER TWIN ROTARY COMPRESSOR

Hitachi Inverter Air Conditioners feature a twin rotary compressor that operates with less vibration and delivers even higher performance efficiency than conventional rotary compressors. The two independent, rotating cylinders ensures a well balanced, smoother rotation which minimises noise and improves efficiency.



## PAM SYSTEM

The Hitachi Power Active Model (PAM) Inverter System suppresses electrical distortion to minimise power losses to less than 1%.



These performances are based on RAS/RAC-X18CX

Heating performance is particularly improved to ensure efficient performance even when the ambient temperature is -15°C.



### FULL FLAT PANEL

The elegant, compact "Full Flat" facia panel draws air through the top of the unit and diagonally across the heat exchanger, this combined with the simple yet highly efficient conical shape fan, using tangential blade design, means that air is carried through the panel more efficiently, covering a wider area and in near silence.



Anti-bacterial treated tangential fan

### AUSTRALIAN STANDARDS FOR ENERGY PERFORMANCE

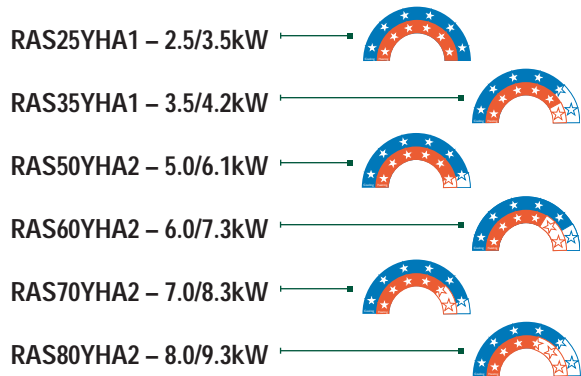
Hitachi DC Inverter systems are designed for efficiency and are compliant to all applicable Australian Standards.

### INVERTER SPLIT SYSTEMS 5 YEAR WARRANTY



The five year warranty on parts and labour is your guarantee of the finest quality and customer support.<sup>†</sup>

### HITACHI DC INVERTER MODELS - STAR RATINGS



The more stars, the more energy efficient.

<sup>†</sup> Five (5) years domestic applications. One (1) year commercial applications unless otherwise noted by Hitachi Australia Pty Ltd. Terms and conditions apply to all warranties.

<sup>\*</sup> Features may vary by model. Please check specifications table. Specifications are subject to change with product improvement and without notification. It remains the contractor's responsibility to determine that the power supply is in accordance with the above specifications and all local electrical codes and authorities.

# INVERTER SPLIT SYSTEM REVERSE CYCLE

Note: Features and technical specifications indicative only

Model: Indoor Unit Model: Outdoor Unit	RAS-25YHA1 RAC-25YHA1	RAS-35YHA1 RAC-35YHA1	RAS-50YHA2 RAC-50YHA2	RAS-60YHA2 RAC-60YHA2	RAS-70YHA2 RAC-70YHA2	RAS-80YHA2 RAC-80YHA2
<b>CAPACITY</b>						
Cooling Capacity (kW)	2.5	3.5	5.0	6.0	7.0	8.0
Range ( kW )	0.9 - 3.1	0.9 - 4.0	0.9 - 5.8	0.9 - 6.8	0.9 - 8.3	1.5 - 8.5
Heating Capacity (kW)	3.5	4.2	6.1	7.0	8.3	9.3
Range (kW)	0.9 - 4.4	0.9 - 5.0	0.9 - 6.8	0.9 - 7.5	1.5 - 9.7	1.5 - 9.7
<b>ELECTRICAL</b>						
Power Supply	240 / 1	240/1	240/1	240/1	240/1	240/1
Phase / Hz	50	50	50	50	50	50
Power Attachment	OU	OU	OU	OU	OU	OU
Interconnecting Wires	2 + E, 2.0mm	2 + E, 2.0mm	2 + E, 2.0mm	4 + E, 2.0mm	4 + E, 2.0mm	4 + E, 2.0mm
Running Current (Cooling) RUN / MAX	3.3	4.8	6.2	7.7	8.6	11.2
Running Current (Heating) RUN / MAX	4.1	4.9	7.0	8.6	10.1	12.6
Recommended Fuse Size	15	15	25	25	25	30
<b>EFFICIENCY</b>						
Input kW (Cooling)	0.7	1.09	1.48	1.84	2.05	2.65
Input kW (Heating)	0.88	1.11	1.66	2.05	2.40	3
Moisture Removal (L/hr)	1.4	1.6	2.8	2.8	4.8	5.2
EER Cooling / COP Heating	3.57 / 3.86	3.21 / 3.78	3.38 / 3.67	3.26 / 3.41	3.41 / 3.46	3.02 / 3.10
Star Rating Cool / Heat	6.0 / 6.0	4.5 / 5.0	5.5 / 5.5	5.0 / 4.0	5.5 / 4.5	4.5 / 3.5
<b>AIRFLOW</b>						
Fan Speeds	3	3	4	4	4	4
Air Flow (L/s) Hi / Med / Low	142 / 117 / 100	167 / 133 / 108	242 / 183 / 125	263 / 192 / 142	292 / 258 / 200	317 / 275 / 225
Compressor Type	Rotary	Rotary	Twin Rotary	Twin Rotary	Twin Rotary	Twin Rotary
<b>DIMENSIONS &amp; WEIGHTS</b>						
Dimensions IU (H x W x D mm)	280 / 780 / 220	280 / 780 / 220	295 / 1030 / 207	295 / 1030 / 207	333 / 1150 / 245	333 / 1150 / 245
Weight IU (Kg)	9.5	9.5	11	12	15	15
Dimensions OU (H x W x D mm)	505 / 700 / 258	505 / 700 / 258	650 / 850 / 298	650 / 850 / 298	800 / 850 / 298	800 / 850 / 298
Weight OU (Kg)	27	35	45	45	52	52
<b>NOISE LEVELS</b>						
Sound Pressure Level IU (dB)a Cool (Night) Heat	38 / 32 / 26 / 20	42 / 35 / 29 / 25	47 / 39 / 28 / 24	49 / 41 / 32 / 29	47 / 42 / 33 / 30	48 / 43 / 40 / 36
Sound Pressure Level OU (dB) Hi / Med / Low	(C) 46 / (H) 48	(C) 46 / (H) 49	(C) 50 / (H) 52	(C) 50 / (H) 51	(C) 51 / (H) 52	(C) 55 / (H) 55
<b>INSTALLATION</b>						
Refrigerant Type	R410A	R410A	R410A	R410A	R410A	R410A
Pipe Connection Sizes: Gas (mm) (in)	9.5 / (3/8)	9.5 / (3/8)	12.7 / (1/2)	12.7 / (1/2)	15.9 / (5/8)	15.9 / (5/8)
Pipe Connection Sizes: Liquid (mm) (in)	6.35 / (1/4)	6.35 / (1/4)	6.35 / (1/4)	6.35 / (1/4)	6.35 / (1/4)	6.35 / (1/4)
Refrigerant Pipe Charge Length (Mtrs)	20	20	20	20	20	20
Max Pipe Length (Mtrs)	20	20	20	30	30	30
Max Pipe Lift (Mtrs) OU Higher / OU Lower	10	10	10	20	20	20
Pipe Connection Method OU Higher / OU Lower	Flare	Flare	Flare	Flare	Flare	Flare
<b>WORKING RANGE</b>						
Outdoor Operating Temp (Cooling) OC dB	43 -10	43 -10	43 -10	43 -10	43 -10	43 -10
Outdoor Operating Temp (Heating) OC WB	21 -15	21 -15	21 -15	21 -15	21 -15	21 -15

## FEATURES - Note: Features and technical specifications indicative only

Nano Titanium Filter	YES	YES	YES	YES	YES	YES
Anti Corrosion Fin (O/U Coil)	TRANSPARENT	TRANSPARENT	GREEN	GREEN	GREEN	GREEN
Indoor Fan – Anti-Bacterial Coating	YES	YES	YES	YES	YES	YES
Multi-Directional Air Flow	–	–	–	–	YES	YES
PAM Control	–	–	YES	YES	YES	YES
All DC Inverter Control Indoor/Outdoor	YES	YES	YES	YES	YES	YES
Optional Weekly Timer SPX-WKTI	–	–	YES	YES	YES	YES
Optional Weekly Timer Distributor SPX-DSTI	–	–	YES	YES	YES	YES

NOTES: COOLING. Indoor: Rated at 27°C DB/19.0°C WB entering air. Ambient: Rated at 35°C DB. HEATING. Indoor: Rated at 20°C DB entering air. Ambient: Rated at 7°C DB/ 6°C WB. Mains power source AC240V 50Hz.



## **It's more than just air conditioning to a Hitachi Dealer... It's a way of life.**

Premium Dealers specialising in Hitachi air conditioning systems, offer expert advice and installation, backed by Hitachi's more than 35 years global experience and their reputation for quality, reliability and industry-leading technology. Hitachi deals with suppliers who have ISO9000 Certification. Components are stringently tested to match Hitachi's quality policy, ensuring flawless operation, year after year.



### **25 years in Australia**

Hitachi Australia is commemorating 25 years of supplying exceptional service to the Australian air conditioning market.



# HITACHI

Inspire the Next



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