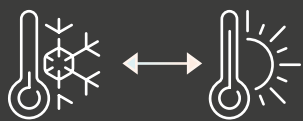# HITACHI

Ducted split air conditioning

Cooling & Heating

Creating truly comfortable living spaces

We want to help you find the air conditioner that best suits your lifestyle. Our partnership with **temperzone** combines innovative global products with local knowledge and support to meet your needs faster, smarter and more responsibly than ever before.

WIDE AMBIENT OPERATING RANGE
-15˚C IN WINTER*
46˚C IN SUMMER

A++
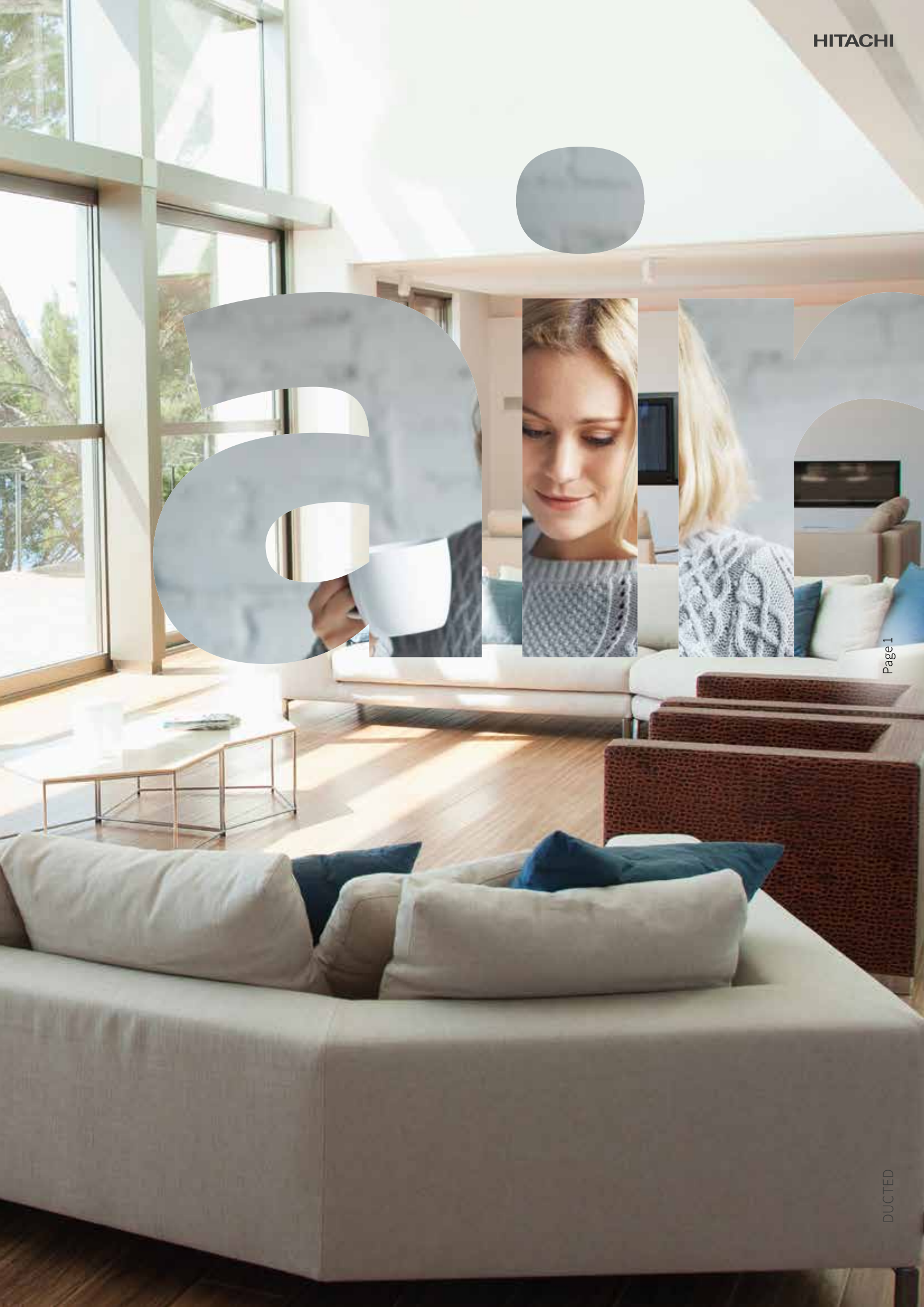COOLING & HEATING
EFFICIENCY

5 YEAR
WARRANTY

QUIET
CONTROL

* RAD models -15˚C in winter / RPI models -20˚C in winter.

air

The best option for your home

Featuring a lightweight, compact design, our ducted one-to-one systems are the ideal option when installation spaces are tight and challenging.

FLEXIBILITY

Incorporating the power of DC technology, Hitachi's ducted range offers stepless inverter control and the ability to achieve superior operating efficiency.

Ranging in capacity from 5kW to 16kW, we deliver the level of comfort, convenience, and reliability that you've come to expect from Hitachi.

COMPACT DESIGN

Offering great flexibility when negotiating constrained or limited ceiling cavities, it offers a simple yet highly effective air conditioning solution.

Thanks to a unique condenser fan design, outdoor noise levels are also extremely low, making them an ideal choice for use in highly built-up areas. They also feature a unique heat exchanger fan design that increases the unit's heating capacity in cold conditions.
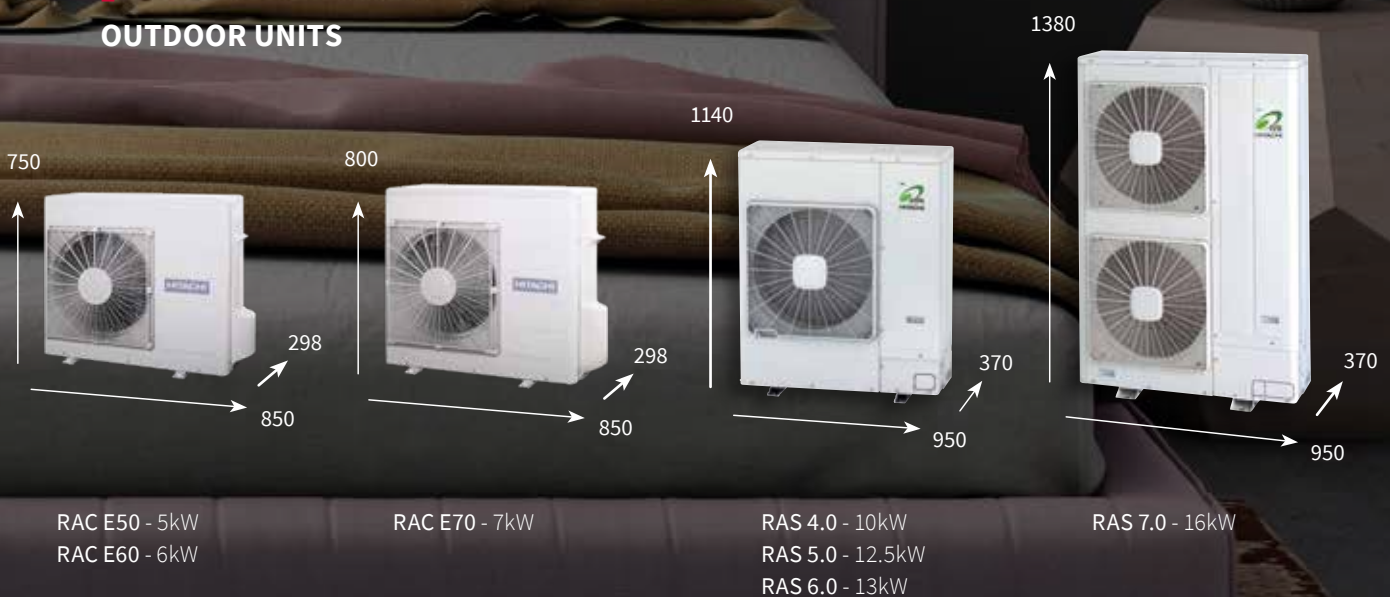
Advancements in technology
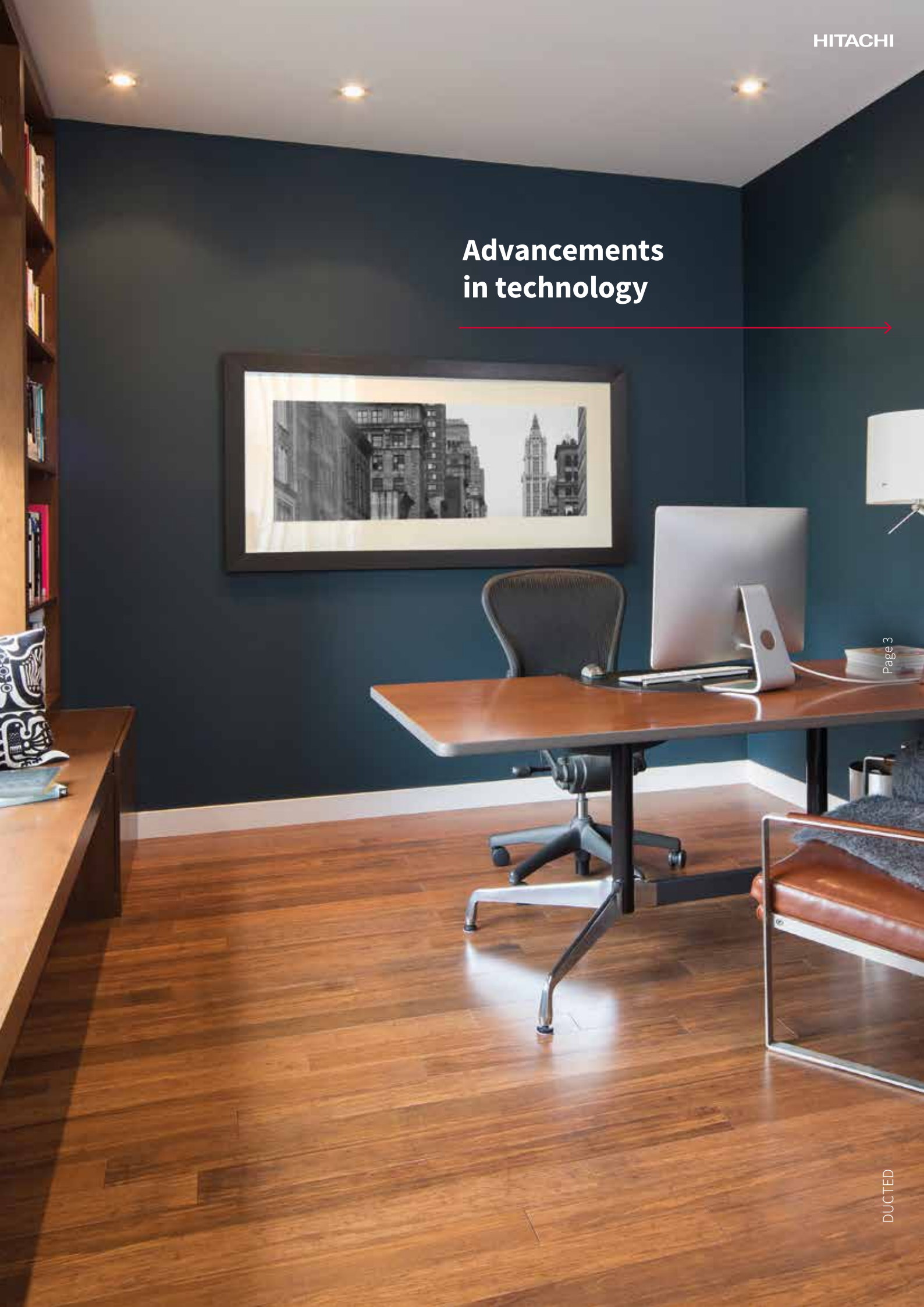
Key areas we have developed

COMPACT AND LIGHT

Downsizing has led to a dramatic reduction in the footprint of the range compared with previous models. This has made installation easier and improved maintenance access.

OUTDOOR UNITS

750	800	1140	1380
298	298	370	370
850	850	950	950

RAC E50 - 5kW
RAC E60 - 6kW

RAC E70 - 7kW

RAS 4.0 - 10kW
RAS 5.0 - 12.5kW
RAS 6.0 - 13kW

RAS 7.0 - 16kW

Hitachi precise Inverter-driven

Conventional Inverter-driven

Optimised Distribution at Air Outlet Angle

Optimised Distribution at Air Inlet Angle
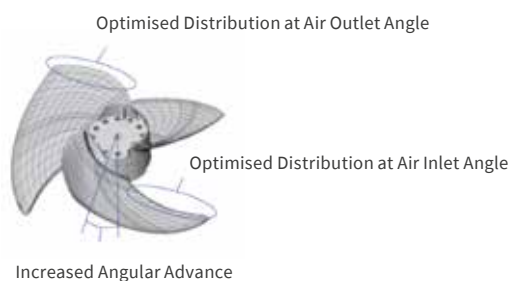
Increased Angular Advance
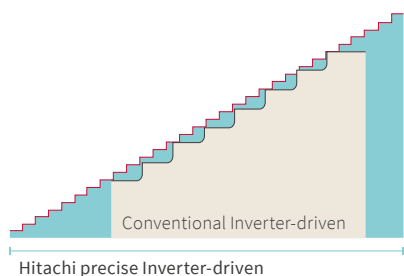
PRECISE INVERTER CONTROL

The operating speed of the compressor's DC motor can be adjusted continuously in 1Hz increments and in free relation to the variability of system capacity.

QUIET OPERATION -
SUPER HIGH-STREAM FAN

Advancements in the blade design and optimisation of the inlet and outlet angles have led to an increase in efficiency while still maintaining low operating noise levels.

DC INVERTER TECHNOLOGY

A DC compressor offers improved performance during periods of extended operation. It also features a split rotor with displaced electrical poles, enabling the suppression of electromagnetic noise. Low-speed performance characteristics have also been improved, leading to significant reductions in annual running costs.

STYLISH REMOTE CONTROLLERS

A fully-programmable 7-day timer offers the ability to switch all units on and off automatically to conserve power when rooms are unoccupied.

Units are able to accept external control inputs such as remote stop/start and fire alarm. System outputs including fault conditions, mode (heat/cool), and thermostat on are also available.

WALL CONTROLLERS

PC-ARF
Applicable to indoor models
RPI-4.0, 5.0, 6.0 & 7.0

- 24/7 time schedule
- Eco mode
- Room temperature indication
- Sleep timer
- Power consumption display
- Backlight display

SPX-WKT
Applicable to indoor models
RAD-E50, 60 ,70

- 24/7 time schedule
- Eco mode
- Room temperature indication
- Sleep timer
- Power consumption display
- Backlight display

Already highly efficient, Hitachi Premium Inverter models offer **two additional ways** to configure systems to achieve even greater energy savings.

SELF-DEMAND CONTROL
—

Power consumption levels (as a percentage of the maximum) can be selected in advance. Following an external command during operation, the system will automatically detect the amount of power being used and limit itself to the predetermined amount during peak power usage periods.

WAVE MODE
—

When activated by an external command, this function cycles the system between full-power and a pre-selected reduced power setting every 10 to 20-minutes until the command is cancelled. Wave Mode results in lower average power usage and cost savings.

Applicable to RPI models

INTERNAL DRAIN PUMP
—

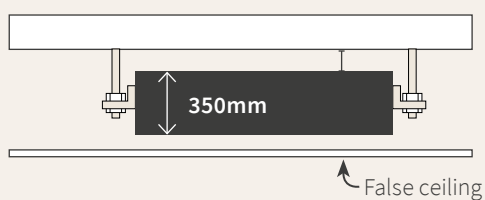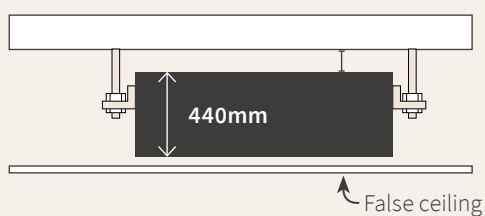31cm Drain pump pressure lift. RAD-E50, 60 and 70 only.

MODEL DIMENSIONS
—

RAD-E50 - 5kW
RAD-E60 - 6kW
RAD-E70 - 7kW

270mm

False ceiling

RPI 4.0 - 10kW
RPI 5.0 - 12.5kW
RPI 6.0 - 13kW

350mm

False ceiling

RPI 7.0 - 16kW

440mm

False ceiling

DUCTED SYSTEM
—

Can be combined with ducting grilles and accessories to provide superior filtration and effective clean air distribution.

KEY FEATURES

1. Space Saving Design

With a height of 270mm the RAD-E50, 60 and 70 can be installed in almost any application including homes, apartments or commercial buildings.

2. Easy Installation & Maintenance

Separable design unit for easier installation in limited roof space (RPI-4.0-6.0FSN2SQ).

Roof Truss

Separable
RPI-4.0 – RPI-6.0
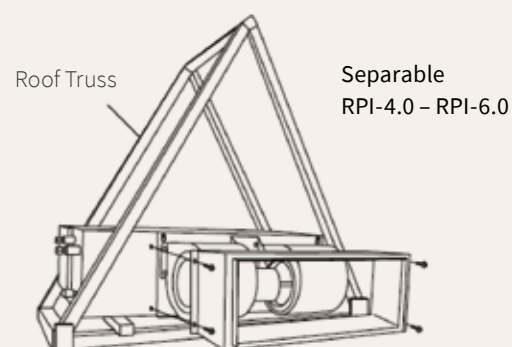
3. Quiet Operation

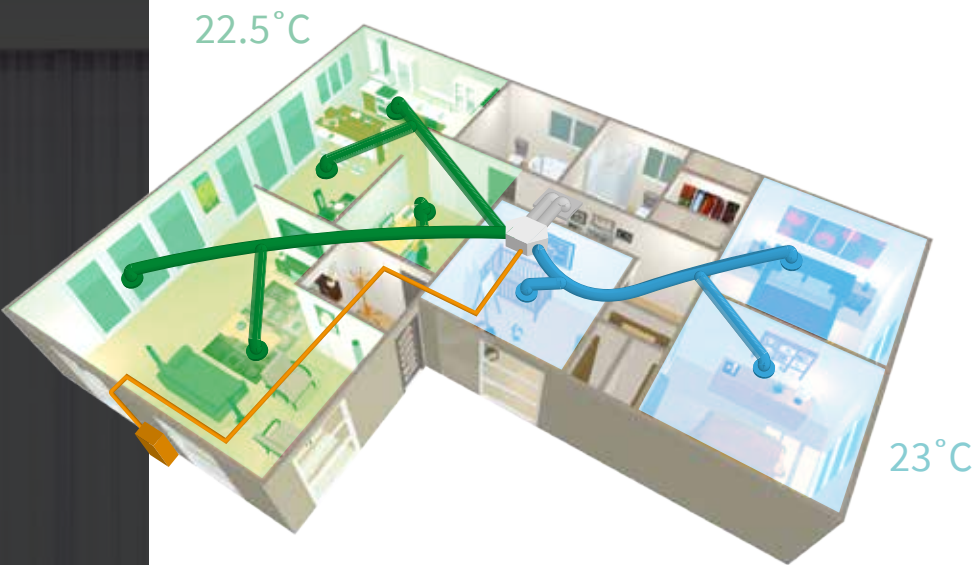The well-balanced centrifugal fan provides quiet and efficient operation.

Zoning your spaces

PREMIUM ZONE CONTROL FEATURES

- Colour Touch Screen Controller
    - Can add additional touch pads
- Standard WiFi / 4G Access and Control suits:
    - IOS
    - Android
    - Windows
    - Smartphones and
    - Tablets
- Max 14 Zones available using WiFi Zone sensor
- Optional Wired iSense Zone Sensor Available
    - Has built in Motion Detector
    - Can close a zone off if motion is not detected
    - Can adjust zone temperature setting from the zone controller
- Individual temperature control for each Zone
    - Set airflow for each zone
- Personalise Zone names
- Set up Favourite Zones to suit your lifestyle
- Set up an Operating Schedule for Individual Zones to suit your lifestyle
- Maintains your personal settings in the event of a power failure
    - Memory via battery back up
- Auto Restart on resumption of power after a power failure.

Not applicable on RAD-E50, 60 & 70 models.

From single storey…

22.5˚C

23˚C
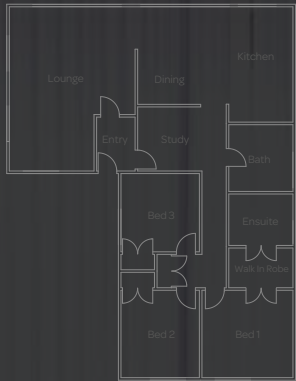
to multi storey homes,
we've got your solution.

26˚C

21.5˚C

24˚C

22.5˚C

Rumpus

Kitchen   Family

Dining   Stairs   Study

Entry

Living   Garage

Ground Floor

Bed 4   Bed 3

Bath

Ensuite   Bed 2

Walk In Robe   Stairs

Bed 1   Lounge

First Floor

Lounge   Kitchen

Dining

Entry   Study

Bath

Bed 3   Ensuite

Walk In Robe

Bed 2   Bed 1
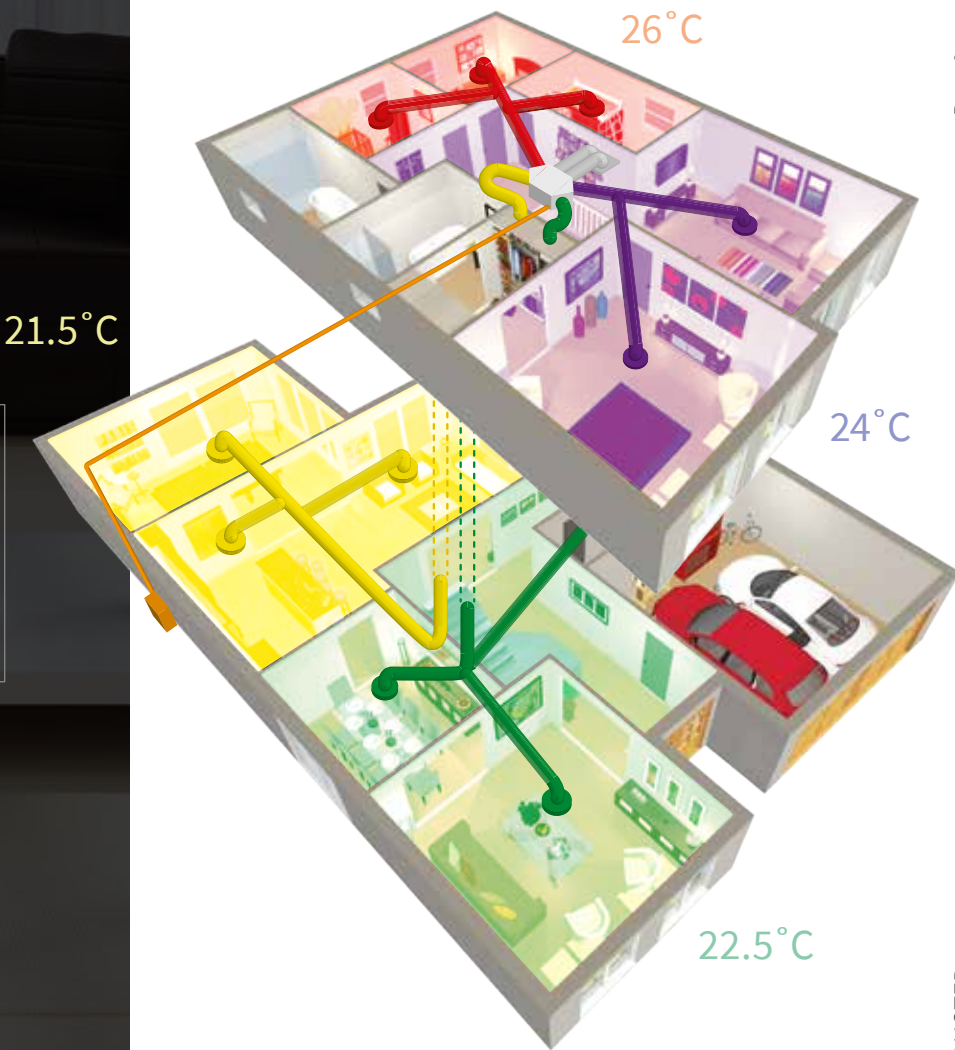
Premium zone control at the touch of a button

Intelligent design inside and beautiful design outside, Premium zone control offers you total temperature and airflow control of your ducted system at the touch of a button.

Premium Control Option

* Entire zone system not applicable on RAD-E50, 60, 70 models.

Optional WiFi app

Local room controller options*

The optional touch screen technology gives you total temperature control of your Hitachi ducted system. Easily adjust the air distribution, temperature or airflow to optimise your comfort.

You can design your control system just the way you like. From a layout consisting of WiFi sensors or wired controllers in each room linked to a centralised touch screen controller to touch screen controllers in each individual room - the choice is yours.

WIFI CONTROL APP
–

The WiFi and 4G enabled iZone App enables you to control your air conditioning system via your smart phone or tablet from anywhere. Now the whole family can come home to the perfect temperature.

WIRELESS SENSORS
–

Sleek temperature (zone) sensors that can operate the on/off feature for the zone.

SET AND FORGET - FAVOURITES
–

Create up to 9 'favourite' zone scenarios to suit your lifestyle, then schedule these 'favourites' to match everyday living. But for a quick set and forget 'system off' timer, just press the seven-setting sleep timer button and the Premium Zone Control takes care of the rest.

ISENSE HUMAN SENSOR
–

This clever optional zone controller detects if a room is unoccupied. iSense will then automatically adjust the room temperature or switch off the air conditioning to that room. iSense significantly improves energy efficiency and reduces the running cost of ducted air conditioning system's in homes and offices, directing the airflow only to the rooms you are using.

Optional Accessories

CARD KEY 'ON' AND 'OFF' FUNCTION

Switches the unit on or off via a remote device such as a hotel room card key. Save energy by switching the unit off when the room is unoccupied.

RUN AND ALARM SIGNAL

Signal indicates when a unit is running, or if the unit has stopped due to an internal fault. This is beneficial for projects where multiple units have been installed.

DEMAND RESPONSE MODULE (DRED)

Optional DRM module for instances where local requirements specify DRED compatibility.

Features and options comparison table

	RAD-E50 – 70 RAC-E50 – 70 5, 6, 7kW	RPI 4.0 – 7.0 RAS-HVNC 4.0 – 7.0 10, 12.5, 13, 16kW
Eco mode function	●	●
Sleep mode	●	●
Room temperature display	●	●
Ultra low standby power	●	●
Auto restart function if set on outdoor unit	●	●
Anti corrosion paint - outdoor unit	●	●
12hr timer control	●	●
24/7 time clock function	●	●
Power consumption display	●	●
PC-ARF wired controller	–	●
4 speed indoor fan	●	–
SPX-WKT wired controller	●	■
Remote key card input	■	■
DRED Demand response module	■	■
Run and Alarm signal	■	■
Premium Zone control (with WiFi)	–	■

● STANDARD
■ OPTIONAL
– NOT AVAILABLE

—

Technical specifications

Ducted - Technical Data

MODEL			
Indoor	RAD-E50YHA	RAD-E60YHA	RAD-E70YHA
Outdoor	RAC-E50YHA	RAC-E60YHA	RAC-E70YHA
Capacity (kW)			
Cooling Capacity	5.0	6.0	7.0
Cooling Capacity Range	1.2 - 5.8	1.2 - 6.5	1.5 - 8.0
Heating Capacity	6.0	7.0	8.0
Heating Capacity Range	1.2 - 6.8	1.2 - 8.0	1.5 - 8.5
Energy Efficiency			
EER / AEER	3.82 / 3.80	3.54 / 3.52	3.34 / 3.32
COP / ACOP	3.90 / 3.87	3.71 / 3.69	3.40 / 3.39
Air Flow			
Air Flow l/s (Hi / Med / Low / S low)	300 / 250 / 200 / 170	300 / 250 / 200 / 170	415 / 325 / 200 / 170
External Static Pa	50 ~ 160	50 ~ 160	50 ~ 160
Dimensions			
Indoor Unit: (H x W x D mm)	270 x 900 x 720	270 x 900 x 720	270 x 900 x 720
Outdoor: (H x W x D mm)	750 x 850 x 298	750 x 850 x 298	800 x 850 x 298
Indoor Unit Separable	No	No	No
Weights: Indoor kg / Outdoor kg	35 / 50	35 / 50	35 / 52
Sound Pressure Level (dB(a))			
Indoor Unit (Hi / Med / Low / S low) cooling	39 / 35 / 32 / 29	39 / 35 / 32 / 29	39 / 35 / 32 / 29
Outdoor Unit (Cool / Heat / Night)	50 / 53	50 / 53	50 / 53
Working Range (°C db)			
Cooling		-15° / 46°C	
Heating		-15° / 24°C	
Piping			
Pipe Connection Sizes Liquid Ømm / Gas Ømm	6.35 / 12.70 (1/4" / 1/2")	6.35 / 12.70 (1/4" / 1/2")	6.35 / 15.88 (1/4" / 5/8")
Max Pipe Length (m)	30	30	30
Max Pre Charged Length (m)	30	30	30
Max Pipe Lift (m) (Outdoor Above / Outdoor Below)		20	
Refrigeration Connections (Indoor / Outdoor		Flare Nut / Flare Nut	
Air Spigot / Drain Dimensions			
Supply Air Spigot (W x H mm)	805 x 222	805 x 222	805 x 222
Return Air Spigot (W x H mm)	815 x 221	815 x 221	815 x 221
Drain dimensions	Ø32	Ø32	Ø32
Electrical			
Power Supply		AC 1 Ph 220 - 240V 50Hz	
Outdoor Unit Max Current	12	14	16
Recommend fuse size	20A	20A	20A
Interconnection Wires mains		3pcs + Earth 1.5mm^2	
Interconnection Wires comms		Refer installation manual	
Refrigerant		R32	

NOTES:

The nominal cooling and heating capacity is the combined capacity of the Hitachi standard split system, and is based on the JIS standard B8616. Cooling Operation Conditions: Indoor Air Inlet Temperature: 27˚C DB, 19.0˚C WB; Outdoor Air Inlet Temperature: 35˚C DB. Heating Operation Conditions: Indoor Air Inlet Temperature: 20˚C DB; Outdoor Air Inlet Temperature:

RPI-4.0FSN2SQ	RPI-5.0FSN2SQ	RPI-6.0FSN2SQ	RPI-7.0FSN2SQ
RAS-4HVNC1	RAS-5HVNC1	RAS-6HVNC1	RAS-7HVRNM2
10.0	12.5	13.0	16.0
4.5 - 11.2	5.7 - 14.0	6.0 - 16.0	6.0 - 18.0
11.2	14.0	16.0	18.0
5.0 - 14.0	5.0 - 18.0	5.0 - 20.0	5.0 - 20.0
3.63 / 3.46	3.18 / 3.01	3.11 / 2.96	3.52 / 3.35
4.26 / 4.02	4.05 / 3.78	3.90 / 3.68	3.91 / 3.71
600 / 550 / 416 / -	783 / 716 / 566 / -	933 / 833 / 666 / -	1083 / 950 / 766 / -
150 (max)	150 (max)	135 (max)	150 (max)
350 x 1076 x 800	350 x 1300 x 800	350 x 1300 x 800	440 x 1430 x 550
1140 x 950 x 370	1140 x 950 x 370	1140 x 950 x 370	1380 x 950 x 370
Yes	Yes	Yes	No
57 / 79	61 / 89	63 / 89	75 / 104
48 / 45 / 41 / -	49 / 46 / 43 / -	53 / 49 / 45 / -	51 / 47 / 42 / -
52 / 54 / 50	52 / 54 / 50	55 / 57 / 53	49 / 53 / 46
-5° / 46°C			
-20° / 24°C			
9.52 / 15.88 (3/8" / 5/8")	9.52 / 15.88 (3/8" / 5/8")	9.52 / 15.88 (3/8" / 5/8")	9.52 / 15.88 (3/8" / 5/8")
70	75	75	75
30	30	30	30
30 / 20			
Flare Nut / Flare Nut			
980 x 220	1205 x 220	1205 x 220	830 x 300
813 x 306	813 x 306	935 x 306	1288 x 402
Ø25	Ø25	Ø25	Ø25
AC 1 Ph 220 - 240V 50Hz			
26	26	26	32
-	-	-	-
0.75mm² 2C + E (min)			
Twisted Pair Cable with Shield - 0.75mm² min			
R410A			

7˚C DB, 6˚C WB. Published capacities based on Piping Length: 7.5 metres. The sound pressure level is based on following conditions: 1.5 metres beneath the unit with discharge duct (2.0m) and return duct (1.0m). Outdoor Units: 1 metre from the unit service cover surface, and 1.5 metres from floor level. Voltage of the power source for the indoor fan motor is 220V. In case of the power source of 240V, the sound pressure level increases by about 1 or 2dB. The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

Johnson Controls

HITACHI
Air conditioning solutions

air

–
temperzone Australia Pty Ltd

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Launceston:	(03) 6331 4209

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Wellington:	(04) 569 3262
Christchurch:	(03) 379 3216

5 YEARS
WARRANTY
Must be maintained in accordance with maintenance recommendations.

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