HITACHI

SideSmart™

Variable Refrigerant Flow System
Slim Modular Outdoor Units
Air Source Heat Pump Type

The world's first slim modular VRF!

SideSmart™ is an exclusive solution, offering until now an unseen combination of benefits: performance equaling large top-flow units, with slim modular units which can fit anywhere.

5 SMART

CONCEPT
Modularity with great performance
Benefits from the highest level of Hitachi VRF efficiency

DESIGN
Connectable slim side-flow modules
For the first time, side-flow slim units can be connected to combine their capacities

CONFIGURATION
Can be installed on different floors
Thanks to flexible capacities and options for indoor locations

SPACE LAYOUT
Save building space
Reserve your rooftop for other purposes and optimize your indoor layout

INVESTMENT
Save cost at every stage
Fewer piping runs, a simplified installation and energy-saving operation

Single Cabinet		HP	8	10	12	14	16	18
Dimensions (H x W x D)		mm	1,650 x 1,050 x 420			1,650 x 1,190 x 420		
Net Weight	380	kg	185	197	203	219	225	225
	220V	kg	188	200	205	223	231	231
Cooling Capacity		kW	22.4	28.0	33.5	40.0	45.0	50.0
Heating Capacity		kW	25.0	31.5	37.5	45.0	50.0	54.0
Performance	EER (Cooling)		4.51	4.26	4.27	3.85	3.79	3.54
	COP (Heating)		4.92	4.44	4.68	4.40	4.41	3.90
Air Flow Volume		(m^3/min)	160	185	200	250	258	258
Noise levelB(A)	SPL*1 (Cooling/Heating)	dB(A)	55/56	59/60	60/62	60/61	62/64	62/64

*1 SPL is measured by an anechoic room, so that reflected sound should be taken into consideration in the field.

SideSmart™ key figures.

3 patents
A true innovation! Only SideSmart™ can achieve this level of flexibility & efficiency:
- Round-shaft motor clamp.
- Tandem sub-cooling system.
- Heating rapid-start technology.

Extra savings at <40 % part-load
Hitachi exclusive SmoothDrive™ micro-precision technology boosts energy efficiency during part-load operation, to meet real life conditions.

From 1 to 4 modules
Combine and connect up to 4 modules together!

42 cm slim
SideSmart™ modules are only 42cm deep, so they can fit even in narrow spaces.

-13% refrigerant charge
A lower amount of refrigerant is required compared to our VRF systems with top-flow outdoor units.

100% preserved rooftop
By choosing to install SideSmart in the building's floors, your rooftop will™ be free of air conditioning equipment.

Up to 500 m of piping
It adapts to your building's layout, with up to 500m of total piping runs and up to 120m between outdoor units and indoor units.
Up to 150m equivalent distance between outdoor unit and indoor unit.

EER average of 4.32
SideSmart™ delivers the same astonishing level of energy savings as the largest VRF systems:
- Single cabinet 8HP EER up to 4.51.
- EER 4.32 / COP4.70 average for premium combination.

8 HP to 72 HP
With our various modules, SideSmart™ offers a vast array of capacities.

Features & benefits

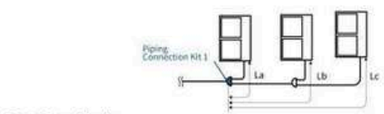
Flexibility: meet your project requirements.

GREAT PIPING FLEXIBILITY

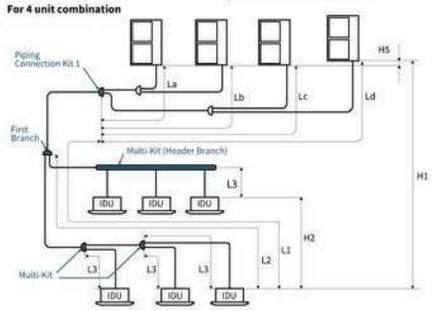
- Suitable for a medium-size buildings or complex facilities.
- Leads to cost & time saving for designers, with improved system design efficiency.

				MARK
Maximum Piping Length	Total	m	500	-
	From (Piping Connection Kit 1) to the furthest IDU	m	120 (Actual)	L1
		m	150 (Equivalent)	
	Between (Piping Connection Kit 1) and each ODU	m	10	La, b, c, d
	Between (First Branch) and the furthest IDU	m	90	L2
	Between each (Multi-Kit) and each IDU	m	40	L3
Maximum Height Difference	Between ODUs	m	0.1	H5
	Between ODU and IDU (ODU above IDU)	m	50	H1
	Between ODU and IDU (IDU above ODU)	m	40	
	Between IDUs	m	30	H2

For single unit, and 2 and 3 unit combinations



For 4 unit combination

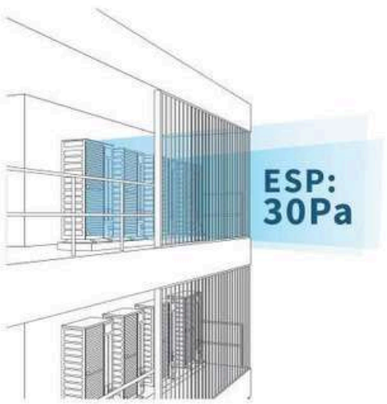


ESP: FLEXIBLE INDOOR INSTALLATION

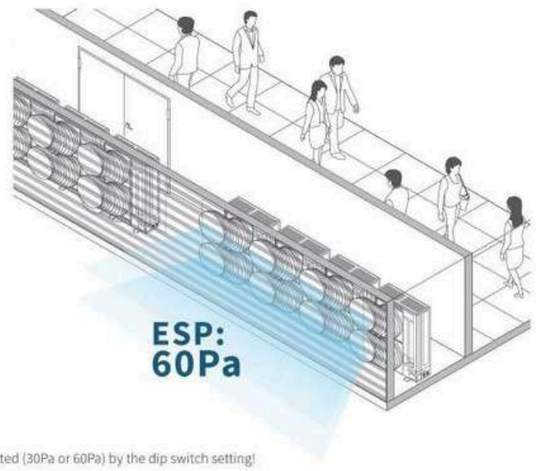
SideSmart™ can also be accommodated indoors, thanks to its external static pressure options up to 60Pa.

- Effective heat discharge to the outside is ensured.
- SideSmart™ units are completely invisible from the building facade.

Equipment balcony.



Installation room.



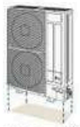
Note: factory default is 0Pa, 2-step additional static pressure can be selected (30Pa or 60Pa) by the dip switch setting!

SLIM FOOTPRINT

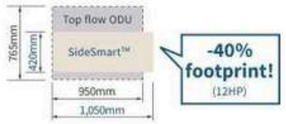
0.73m² footprint

Top flow ODU

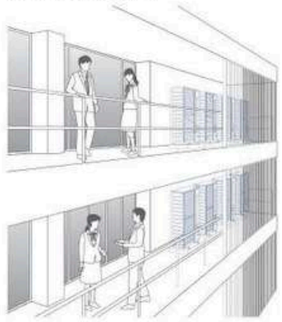
0.44m² footprint



SideSmart™



Installation examples:



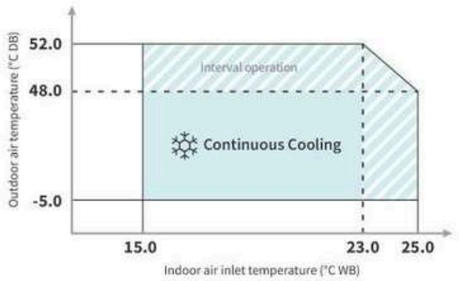
On balconies.

Along building facades
(with support structure).

FOR ALL CLIMATES

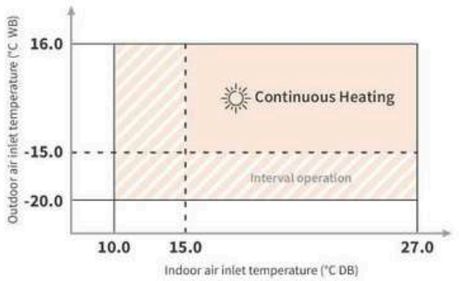
Cooling operation from up to 52°C ambient temperature.

- Stable running up to 48°C.
- Interval running up to 52°C.



Heating operation from as low as -20°C ambient temperature.

- Stable running from as low as -15°C.
- Interval running from as low as -20°C.



airCloud Select

Building solutions.

airCloud Select* is the new software created by Hitachi to help you, with your VRF design project.

Using this helpful tool on a daily basis will help you:

- Enjoy a super intuitive and modern interface.
- Select the suitable VRF equipment for each project.
- Generate automatic report for your customers.

airCloud Select is available upon request. Availability varies per country. For more information, please contact your Hitachi Cooling & Heating representative.

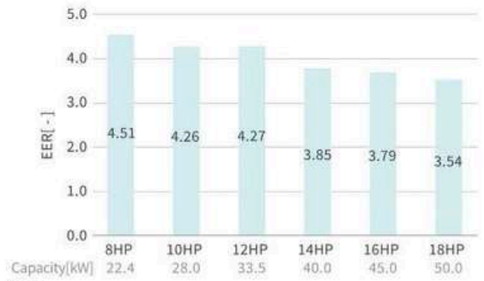
Note: for PC/laptop usage.

Features & benefits

Small size, yet maximal efficiency.

SIDESMART™ OFFERS SUPERIOR EFFICIENCY

Cooling EER up to 4.51



Heating COP up to 4.92

Notes:
1. EER and COP does not include Indoor unit power consumption.
2. This performance is achieved by 4 way cassette combination. For more details about IDU specifications, please refer to the Technical Catalog.
3. Above ratio is on single cabinet (standard combination & economy combination).

Features & benefits

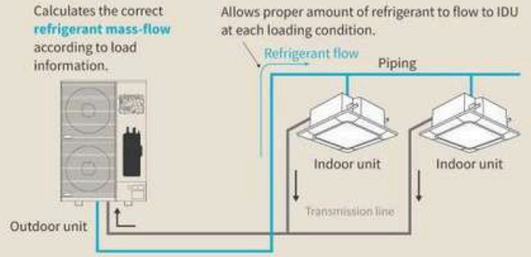
Improved operation.

SMOOTHDRIVE™: SUPERIOR COMPRESSOR CONTROL

You can realize that we want to bring true value to your customers. Meeting high energy efficiency standards is one thing, but on top of that, SmoothDrive™ supports energy savings in real-life conditions, since real life changes constantly.

How does SmoothDrive™ work?

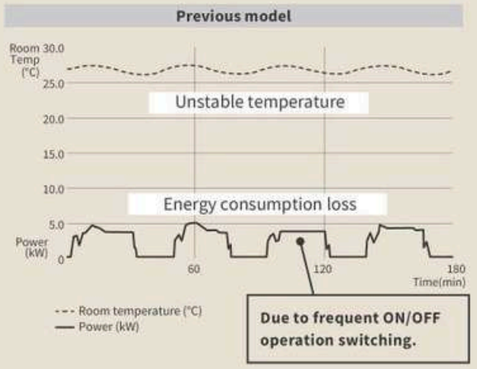
Brushing up existing variable evaporating/condensing temperature control, SmoothDrive™ directly regulates refrigerant amount mass-flow, thanks to Hitachi's original load-speculation technology.



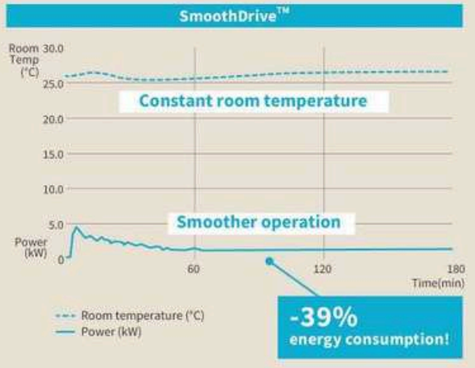
- SmoothDrive™ helps the scroll compressor to run continuously and smoothly even at part-load condition.
- Our original load-speculation technology helps reduce energy loss caused by scroll compressor switching on/off.
- Consequently, constant room temperature & energy savings can be achieved.

Actual new compressor control example (at 33% part load in cooling operation).

Previous model

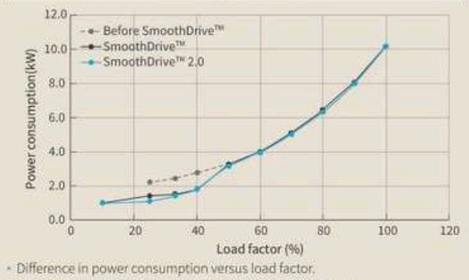


SmoothDrive™



Simulation result for all load conditions.

Cooling operation



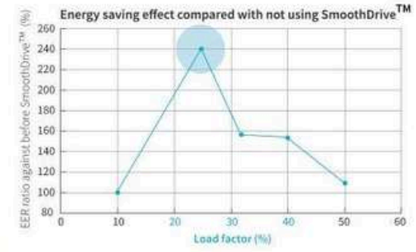
- Difference in power consumption versus load factor.
- Power consumption is reduced when the load factor is 40% or less (note: 40% break point could be changed for different indoor space/ thermal inertia).
- The effect of SmoothDrive™ 2.0 Control is only seen at load levels greater than 10% of loading factor.

NEW

SmoothDrive™ 2.0 control.

Simulation result for efficiency improvement.

- Most improved EER is at the loading factor around 25%.



Note: all the graphs above are sourced from Hitachi top flow VRF. Same technology SmoothDrive™ is equipped with SideSmart™.

Specifications

SINGLE CABINET

HP			8HP	10HP	12HP	14HP	16HP	18HP
Model Name			RAS-080HNCEL(/R)W	RAS-100HNCEL(/R)W	RAS-120HNCEL(/R)W	RAS-140HNCEL(/R)W	RAS-160HNCEL(/R)W	RAS-180HNCEL(/R)W
Modules for Series		Unit-1	-	-	-	-	-	-
		Unit-2	-	-	-	-	-	-
		Unit-3	-	-	-	-	-	-
		Unit-4	-	-	-	-	-	-
Power Supply		V/Ph/Hz	380V/3Ph/60Hz (R: 220V/3Ph/60Hz)					
Capacity	Cooling	kW	22.4	28.0	33.5	40.0	45.0	50.0
	Heating	kW	25.0	31.5	37.5	45.0	50.0	54.0
Power Input	Cooling	kW	4.97	6.58	7.84	10.40	11.88	14.14
	Heating	kW	5.08	7.10	8.02	10.23	11.35	13.86
Efficiency	EER	kW/kW	4.51	4.26	4.27	3.85	3.79	3.54
	COP	kW/kW	4.92	4.44	4.68	4.40	4.41	3.90
Air Flow Rate	Standard	m^3/min	160	185	200	250	258	258
Max. Current	380V/3Ph/60Hz	A	18	21	27	32	36	40
	220V/3Ph/60Hz	A	31	39	49	53	60	66
Dimensions	H×W×D	mm	1,650×1,050×420	1,650×1,050×420	1,650×1,050×420	1,650×1,190×420	1,650×1,190×420	1,650×1,190×420
Net Weight	380V/3Ph/60Hz	kg	185	197	203	219	225	225
	220V/3Ph/60Hz	kg	188	200	205	223	231	231
Outdoor Unit Color		—	Natural Gray (1.0Y 85/0.5)	Natural Gray (1.0Y 85/0.5)	Natural Gray (1.0Y 85/0.5)	Natural Gray (1.0Y 85/0.5)	Natural Gray (1.0Y 85/0.5)	Natural Gray (1.0Y 85/0.5)
Footprint Area		m^2	0.44	0.44	0.44	0.50	0.50	0.50
Compressor type		—	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Refrigerant	Type	—	R410A	R410A	R410A	R410A	R410A	R410A
	Initial Charge Amount	kg	6.0	7.7	7.7	8.3	9.6	9.6
Number of Fan Motors		—	2	2	2	2	2	2
External Static Pressure of Fan		Pa	0/30/60	0/30/60	0/30/60	0/30/60	0/30/60	0/30/60
Capacity Ratio of IDU/ODU		—	50% - 130%	50% - 130%	50% - 130%	50% - 130%	50% - 130%	50% - 130%
Noise Level	SPL., GB, Anechoic, Cooling	dB(A)	55	59	60	60	62	62
	SPL, GB, Anechoic, Heating	dB(A)	56	60	62	61	64	64
Main Piping Size	Liquid	(φ)mm	9.52	9.52	12.70	12.70	12.70	12.70
	Gas	(φ)mm	19.05	22.20	25.40	25.40	28.58	28.58
Connectable IDU Number	Recommended	-	8	10	10	16	16	16
	Maximum	-	13	16	19	23	26	26
Working Temp. Range (*7)	Cooling	°C DB	-5 ~ 48 (/52)	-5 ~ 48 (/52)	-5 ~ 48 (/52)	-5 ~ 48 (/52)	-5 ~ 48 (/52)	-5 ~ 48 (/52)
	Heating	°C WB	(-20/) -15 ~ 16	(-20/) -15 ~ 16	(-20/) -15 ~ 16	(-20/) -15 ~ 16	(-20/) -15 ~ 16	(-20/) -15 ~ 16
Maximum Piping Length (*8)	Total	m	500 (300)	500 (300)	500 (300)	500 (300)	500 (300)	500 (300)
	From Piping connection kit 1 to Furthest IDU	m	120/150 (Actual/Equivalent)	120/150 (Actual/Equivalent)	120/150 (Actual/Equivalent)	120/150 (Actual/Equivalent)	120/150 (Actual/Equivalent)	120/150 (Actual/Equivalent)
	Between Piping Connection Kit and Each ODU	m	10	10	10	10	10	10
	Between 1st branch and the furthest IDU	m	90 (40)	90 (40)	90 (40)	90 (40)	90 (40)	90 (40)
	Between each branch and each IDU	m	40 (30)	40 (30)	40 (30)	40 (30)	40 (30)	40 (30)
Maximum Height Difference (*9)	Between ODUs	m	0.1	0.1	0.1	0.1	0.1	0.1
	Between ODU and IDU (ODU above IDU)	m	50	50	50	50	50	50
	Between ODU and IDU (IDU above ODU)	m	40	40	40	40	40	40
	Between IDUs	m	30	30	30	30	30	30

AC3Φ/380V/60Hz/4 wire R: AC3Φ/220V/60Hz/3 wire

Notes:
1. The cooling and heating performance are the values when combined with our specificities indoor units.

1-1. Cooling operation conditions:

Indoor air inlet temperature: 27.0°C DB (80°F DB) / 19.0°C WB (66°F WB).

Outdoor air inlet temperature: 35.0°C DB (95°F DB).

1-2. Heating operation conditions:

Indoor air inlet temperature: 20.0°C DB (68°F DB).

Outdoor air inlet temperature: 7.0°C DB (45°F DB) / 6.0°C WB (43°F WB).

1-3. Piping length: 8-18HP is 7.5 meter / Piping lift: 0 meter.

2. The sound pressure is based on the following conditions.

The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.

3. Sound pressure level data was measured at rated cooling and heating condition which same as performance measurement condition. If working condition is different against rated condition, sound may increase.

4. If set to the high static mode, since the fan rotation speed will be increased, sound may increase 5 to 7 dBA.

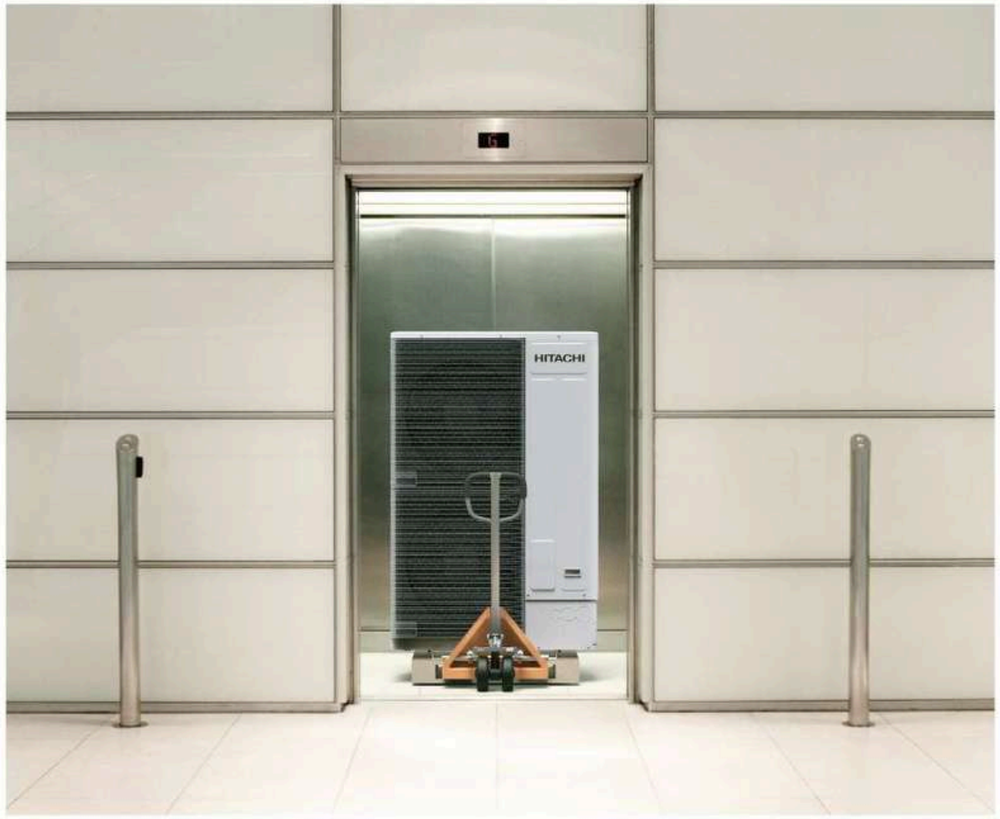
5. Regarding performance values, EER and COP is not including Indoor unit power consumption.

6. For width of outer dimension, it shows 'module+module' unit dimension only, but actually the distance between each modules should be at least 100mm for installation, please check Technical Manual for details.

(*7) The (XX˚) limit temperature applies to interval air conditioning operation.

(*8) In case of connecting number of indoor unit is less than recommended connectable IDU & (when connecting more than recommended number of indoor units).

(*9) In case of connecting number of indoor unit is less than recommended connectable IDU.



From 8HP to 72HP: large choice of combinations

Standard combination

HP	RAS-080	RAS-100	RAS-120	RAS-140	RAS-160	RAS-180
20		●●				
22		●	●			
24			●●			
26			●	●		
28				●●		
30				●	●	
32					●●	
34		●●		●		
36		●	●	●		
38			●●	●		
40			●	●●		
42				●●●		
44				●●	●	
46				●	●●	
48					●●●	
50		●	●	●●		
52			●●	●●		
54			●●	●	●	
56			●●		●●	
58			●	●	●●	
60				●●	●●	
62				●	●●●	
64					●●●●	
66					●●●	●
68					●●	●●
70					●	●●●
72						●●●●

Premium combination

HP	RAS-080	RAS-100	RAS-120	RAS-140	RAS-160	RAS-180
16	●●					
18	●	●				
20		●●				
22		●	●			
24	●●●					
26	●●	●				
28	●●		●			
30	●	●	●			
32	●		●●			
34		●	●●			
36			●●●			
38	●●	●	●			
40	●●		●●			
42	●	●	●●			
44	●		●●●			
46		●	●●●			
48			●●●●			

Economy combination

HP	RAS-080	RAS-100	RAS-120	RAS-140	RAS-160	RAS-180
20		●●				
22	●			●		
24		●		●		
26		●			●	
28		●				●
30			●			●
32				●		●
34					●	●
36						●●
38		●●				●
40	●			●		●
42		●		●		●
44		●			●	●
46		●				●●
48			●			●●
50				●		●●
52					●	●●
54						●●●
56		●●				●●
58	●			●		●●
60		●		●		●●
62		●			●	●●
64		●				●●●
66			●			●●●
68				●	●	●●●
70						●●●
72						●●●●

Specifications

STANDARD COMBINATION

HP			20HP	22HP	24HP	26HP	28HP	30HP
Model Name			RAS-200HNCEL(R)WS	RAS-220HNCEL(R)WS	RAS-240HNCEL(R)WS	RAS-260HNCEL(R)WS	RAS-280HNCEL(R)WS	RAS-300HNCEL(R)WS
Modules for Series	Unit-1		RAS-100HNCEL(R)W	RAS-100HNCEL(R)W	RAS-120HNCEL(R)W	RAS-140HNCEL(R)W	RAS-140HNCEL(R)W	RAS-160HNCEL(R)W
	Unit-2		RAS-100HNCEL(R)W	RAS-120HNCEL(R)W	RAS-120HNCEL(R)W	RAS-120HNCEL(R)W	RAS-140HNCEL(R)W	RAS-140HNCEL(R)W
	Unit-3		-	-	-	-	-	-
	Unit-4		-	-	-	-	-	-
Power Supply	V/Ph/Hz		380V/3Ph/60Hz (R: 220V/3Ph/60Hz)					
Dimensions	Height	mm	1,650	1,650	1,650	1,650	1,650	1,650
	Depth	mm	2,200	2,200	2,200	2,340	2,480	2,480
	Width	mm	420	420	420	420	420	420
Capacity	Cooling	kW	56.0	61.5	67.0	73.5	80.0	85.0
	Heating	kW	63.0	69.0	75.0	82.5	90.0	95.0
Performance	EER	-	4.26	4.26	4.27	4.03	3.85	3.82
	COP	-	4.44	4.56	4.68	4.52	4.40	4.40
Main Pipe Size	Gas	mm	28.58	28.58	28.58	31.75	31.75	31.75
	Liquid	mm	15.88	15.88	15.88	19.05	19.05	19.05
Connectable IDU	Recommended	Qty	18	20	26	26	32	32
	Maximum	Qty	33	36	40	43	47	50
Connectable IDU Ratio		%	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130

HP			32HP	34HP	36HP	38HP	40HP	42HP
Model Name			RAS-320HNCEL(R)WS	RAS-340HNCEL(R)WS	RAS-360HNCEL(R)WS	RAS-380HNCEL(R)WS	RAS-400HNCEL(R)WS	RAS-420HNCEL(R)WS
Modules for Series	Unit-1		RAS-160HNCEL(R)W	RAS-140HNCEL(R)W	RAS-140HNCEL(R)W	RAS-140HNCEL(R)W	RAS-140HNCEL(R)W	RAS-140HNCEL(R)W
	Unit-2		RAS-160HNCEL(R)W	RAS-100HNCEL(R)W	RAS-120HNCEL(R)W	RAS-120HNCEL(R)W	RAS-140HNCEL(R)W	RAS-140HNCEL(R)W
	Unit-3		-	RAS-100HNCEL(R)W	RAS-100HNCEL(R)W	RAS-120HNCEL(R)W	RAS-120HNCEL(R)W	RAS-140HNCEL(R)W
	Unit-4		-	-	-	-	-	-
Power Supply	V/Ph/Hz		380V/3Ph/60Hz (R: 220V/3Ph/60Hz)					
Dimensions	Height	mm	1,650	1,650	1,650	1,650	1,650	1,650
	Depth	mm	2,480	3,490	3,490	3,490	3,630	3,770
	Width	mm	420	420	420	420	420	420
Capacity	Cooling	kW	90.0	96.0	101.5	107.0	113.5	120.0
	Heating	kW	100.0	108.0	114.0	120.0	127.5	135.0
Performance	EER	-	3.79	4.07	4.09	4.10	3.96	3.85
	COP	-	4.41	4.42	4.50	4.57	4.48	4.40
Main Pipe Size	Gas	mm	31.75	31.75	38.10	38.10	38.10	38.10
	Liquid	mm	19.05	19.05	19.05	19.05	19.05	19.05
Connectable IDU	Recommended	Qty	32	32	32	38	38	38
	Maximum	Qty	53	56	59	64	64	64
Connectable IDU Ratio		%	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130

HP			44HP	46HP	48HP	50HP	52HP	54HP
Model Name		-	RAS-440HNCEL(R)WS	RAS-460HNCEL(R)WS	RAS-480HNCEL(R)WS	RAS-500HNCEL(R)WS	RAS-520HNCEL(R)WS	RAS-540HNCEL(R)WS
Modules for Series	Unit-1		RAS-160HNCEL(R)W	RAS-160HNCEL(R)W	RAS-160HNCEL(R)W	RAS-140HNCEL(R)W	RAS-140HNCEL(R)W	RAS-160HNCEL(R)W
	Unit-2		RAS-140HNCEL(R)W	RAS-160HNCEL(R)W	RAS-160HNCEL(R)W	RAS-140HNCEL(R)W	RAS-140HNCEL(R)W	RAS-140HNCEL(R)W
	Unit-3		RAS-140HNCEL(R)W	RAS-140HNCEL(R)W	RAS-160HNCEL(R)W	RAS-120HNCEL(R)W	RAS-120HNCEL(R)W	RAS-120HNCEL(R)W
	Unit-4		-	-	-	RAS-100HNCEL(R)W	RAS-120HNCEL(R)W	RAS-120HNCEL(R)W
Power Supply	V/Ph/Hz		380V/3Ph/60Hz (R: 220V/3Ph/60Hz)					
Dimensions	Height	mm	1,650	1,650	1,650	1,650	1,650	1,650
	Depth	mm	3,770	3,770	3,770	4,780	4,780	4,780
	Width	mm	420	420	420	420	420	420
Capacity	Cooling	kW	125.0	130.0	135.0	141.5	147.0	152.0
	Heating	kW	140.0	145.0	150.0	159.0	165.0	170.0
Performance	EER	-	3.82	3.81	3.79	4.02	4.03	4.00
	COP	-	4.40	4.40	4.41	4.47	4.52	4.52
Main Pipe Size	Gas	mm	38.10	38.10	38.10	38.10	38.10	38.10
	Liquid	mm	19.05	19.05	19.05	19.05	19.05	19.05
Connectable IDU	Recommended	Qty	38	38	38	38	38	38
	Maximum	Qty	64	64	64	64	64	64
Connectable IDU Ratio		%	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130

HP			56HP	58HP	60HP	62HP	64HP	66HP
Model Name		-	RAS-560HNCEL(R)WS	RAS-580HNCEL(R)WS	RAS-600HNCEL(R)WS	RAS-620HNCEL(R)WS	RAS-640HNCEL(R)WS	RAS-660HNCEL(R)WS
Modules for Series	Unit-1		RAS-160HNCEL(R)W	RAS-160HNCEL(R)W	RAS-160HNCEL(R)W	RAS-160HNCEL(R)W	RAS-160HNCEL(R)W	RAS-180HNCEL(R)W
	Unit-2		RAS-160HNCEL(R)W	RAS-160HNCEL(R)W	RAS-160HNCEL(R)W	RAS-160HNCEL(R)W	RAS-160HNCEL(R)W	RAS-160HNCEL(R)W
	Unit-3		RAS-120HNCEL(R)W	RAS-140HNCEL(R)W	RAS-140HNCEL(R)W	RAS-160HNCEL(R)W	RAS-160HNCEL(R)W	RAS-160HNCEL(R)W
	Unit-4		RAS-120HNCEL(R)W	RAS-120HNCEL(R)W	RAS-140HNCEL(R)W	RAS-140HNCEL(R)W	RAS-160HNCEL(R)W	RAS-160HNCEL(R)W
Power Supply	V/Ph/Hz		380V/3Ph/60Hz (R: 220V/3Ph/60Hz)					
Dimensions	Height	mm	1,650	1,650	1,650	1,650	1,650	1,650
	Depth	mm	4,780	4,920	5,060	5,060	5,060	5,060
	Width	mm	420	420	420	420	420	420
Capacity	Cooling	kW	157.0	163.5	170.0	175.0	180.0	185.0
	Heating	kW	175.0	182.5	190.0	195.0	200.0	204.0
Performance	EER	-	3.98	3.89	3.82	3.80	3.79	3.72
	COP	-	4.52	4.46	4.40	4.40	4.41	4.26
Main Pipe Size	Gas	mm	44.45	44.45	44.45	44.45	44.45	44.45
	Liquid	mm	19.05	19.05	19.05	19.05	19.05	19.05
Connectable IDU	Recommended	Qty	38	38	38	38	38	38
	Maximum	Qty	64	64	64	64	64	64
Connectable IDU Ratio		%	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130

HP			68HP	70HP	72HP
Model Name		-	RAS-680HNCEL(R)WS	RAS-700HNCEL(R)WS	RAS-720HNCEL(R)WS
Modules for Series	Unit-1		RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W
	Unit-2		RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W
	Unit-3		RAS-160HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W
	Unit-4		RAS-160HNCEL(R)W	RAS-160HNCEL(R)W	RAS-180HNCEL(R)W
Power Supply	V/Ph/Hz		380V/3Ph/60Hz (R: 220V/3Ph/60Hz)		
Dimensions	Height	mm	1,650	1,650	1,650
	Depth	mm	5,060	5,060	5,060
	Width	mm	420	420	420
Capacity	Cooling	kW	190.0	195.0	200.0
	Heating	kW	208.0	212.0	216.0
Performance	EER	-	3.65	3.59	3.54
	COP	-	4.13	4.01	3.90
Main Pipe Size	Gas	mm	44.45	44.45	44.45
	Liquid	mm	22.20	22.20	22.20
Connectable IDU	Recommended	Qty	38	38	38
	Maximum	Qty	64	64	64
Connectable IDU Ratio		%	50 - 130	50 - 130	50 - 130

Notes:
1. The cooling and heating performance are the values when combined with indoor units.

	Cooling operation condition	Heating operation condition
Modules for Series	27 °C DB 19 °C WB	20 °C DB
Outdoor Air Inlet Temperature	35 °C DB	7 °C DB 6 °C WB
Piping Length	7.5 m	
Piping Lift	0 m	

2. Sound pressure data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.
3. Sound pressure and sound power data was measured at rated cooling and heating condition which same as performance measurement condition. If working condition is different against rated condition, sound may increase.
4. If set to the high static mode, since the fan rotation speed will be increased, sound may increase 5 to 7 dBA.

PREMIUM COMBINATION

HP			16HP	18HP	20HP	22HP	24HP	26HP
Model Name			RAS-160HNCEL(R)WP	RAS-180HNCEL(R)WP	RAS-180HNCEL(R)WP	RAS-220HNCEL(R)WS	RAS-240HNCEL(R)WP	RAS-260HNCEL(R)WP
Modules for Series	Unit-1		RAS-080HNCEL(R)W	RAS-100HNCEL(R)W	RAS-120HNCEL(R)W	RAS-120HNCEL(R)W	RAS-080HNCEL(R)W	RAS-100HNCEL(R)W
	Unit-2		RAS-080HNCEL(R)W	RAS-080HNCEL(R)W	RAS-080HNCEL(R)W	RAS-100HNCEL(R)W	RAS-080HNCEL(R)W	RAS-080HNCEL(R)W
	Unit-3		-	-	-	-	RAS-080HNCEL(R)W	RAS-080HNCEL(R)W
	Unit-4		-	-	-	-	-	-
Power Supply	V/Ph/Hz		380V/3Ph/60Hz (R: 220V/3Ph/60Hz)					
Dimensions	Height	mm	1,650	1,650	1,650	1,650	1,650	1,650
	Depth	mm	2,200	2,200	2,200	2,200	3,350	3,350
	Width	mm	420	420	420	420	420	420
Capacity	Cooling	kW	44.8	50.4	55.9	61.5	67.2	72.8
	Heating	kW	50.0	56.5	62.5	69.0	75.0	81.5
Performance	EER	-	4.51	4.36	4.36	4.26	4.51	4.41
	COP	-	4.92	4.64	4.77	4.56	4.92	4.72
Main Pipe Size	Gas	mm	28.58	28.58	28.58	28.58	28.58	31.75
	Liquid	mm	12.70	12.70	15.88	15.88	15.88	19.05
Connectable IDU	Recommended	Qty	16.0	16.0	18.0	20.0	26.0	26.0
	Maximum	Qty	26.0	26.0	33.0	36.0	40.0	43.0
Connectable IDU Ratio		%	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130

HP			28HP	30HP	32HP	34HP	36HP	38HP
Model Name			RAS-280HNCEL(R)WP	RAS-300HNCEL(R)WP	RAS-320HNCEL(R)WP	RAS-340HNCEL(R)WP	RAS-360HNCEL(R)WP	RAS-380HNCEL(R)WP
Modules for Series	Unit-1		RAS-120HNCEL(R)W	RAS-120HNCEL(R)W	RAS-120HNCEL(R)W	RAS-120HNCEL(R)W	RAS-120HNCEL(R)W	RAS-120HNCEL(R)W
	Unit-2		RAS-080HNCEL(R)W	RAS-100HNCEL(R)W	RAS-120HNCEL(R)W	RAS-120HNCEL(R)W	RAS-120HNCEL(R)W	RAS-100HNCEL(R)W
	Unit-3		RAS-080HNCEL(R)W	RAS-080HNCEL(R)W	RAS-080HNCEL(R)W	RAS-100HNCEL(R)W	RAS-120HNCEL(R)W	RAS-080HNCEL(R)W
	Unit-4		-	-	-	-	-	RAS-080HNCEL(R)W
Power Supply	V/Ph/Hz		380V/3Ph/60Hz (R: 220V/3Ph/60Hz)					
Dimensions	Height	mm	1,650	1,650	1,650	1,650	1,650	1,650
	Depth	mm	3,350	3,350	3,350	3,350	3,350	4,500
	Width	mm	420	420	420	420	420	420
Capacity	Cooling	kW	78.3	83.9	89.4	95.0	100.5	106.3
	Heating	kW	87.5	94.0	100.0	106.5	112.5	119.0
Performance	EER	-	4.40	4.33	4.33	4.27	4.27	4.36
	COP	-	4.81	4.65	4.74	4.60	4.68	4.71
Main Pipe Size	Gas	mm	31.75	31.75	31.75	31.75	31.75	38.10
	Liquid	mm	19.05	19.05	19.05	19.05	19.05	19.05
Connectable IDU	Recommended	Qty	32.0	32.0	32.0	32	32	38
	Maximum	Qty	47.0	50.0	53.0	56	59	64
Connectable IDU Ratio		%	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130

HP		-	40HP	42HP	44HP	46HP	48HP
Model Name		-	RAS-400HNCEL(R)WP	RAS-420HNCEL(R)WP	RAS-440HNCEL(R)WP	RAS-460HNCEL(R)WP	RAS-480HNCEL(R)WP
Modules for Series	Unit-1		RAS-120HNCEL(R)W	RAS-120HNCEL(R)W	RAS-120HNCEL(R)W	RAS-120HNCEL(R)W	RAS-120HNCEL(R)W
	Unit-2		RAS-120HNCEL(R)W	RAS-120HNCEL(R)W	RAS-120HNCEL(R)W	RAS-120HNCEL(R)W	RAS-120HNCEL(R)W
	Unit-3		RAS-080HNCEL(R)W	RAS-100HNCEL(R)W	RAS-120HNCEL(R)W	RAS-120HNCEL(R)W	RAS-120HNCEL(R)W
	Unit-4		RAS-080HNCEL(R)W	RAS-080HNCEL(R)W	RAS-080HNCEL(R)W	RAS-100HNCEL(R)W	RAS-120HNCEL(R)W
Power Supply	V/Ph/Hz		380V/3Ph/60Hz (R: 220V/3Ph/60Hz)				
Dimensions	Height	mm	1,650	1,650	1,650	1,650	1,650
	Depth	mm	4,500	4,500	4,500	4,500	4,500
	Width	mm	420	420	420	420	420
Capacity	Cooling	kW	111.8	117.4	122.9	128.5	134.0
	Heating	kW	125.0	131.5	137.5	144.0	150.0
Performance	EER	-	4.36	4.31	4.31	4.27	4.27
	COP	-	4.77	4.66	4.72	4.62	4.68
Main Pipe Size	Gas	mm	38.10	38.10	38.10	38.10	38.10
	Liquid	mm	19.05	19.05	19.05	19.05	19.05
Connectable IDU	Recommended	Qty	38	38	38	38	38
	Maximum	Qty	64	64	64	64	64
Connectable IDU Ratio		%	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130

Note: please refer to the same notes in standard/economic combination

Specifications

ECONOMY COMBINATION

HP			20HP	22HP	24HP	26HP	28HP	30HP
Model Name			RAS-200HNCEL(R)WS	RAS-220HNCEL(R)WE	RAS-240HNCEL(R)WE	RAS-260HNCEL(R)WE	RAS-280HNCEL(R)WE	RAS-300HNCEL(R)WE
Modules for Series	Unit-1		RAS-100HNCEL(R)W	RAS-140HNCEL(R)W	RAS-140HNCEL(R)W	RAS-160HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W
	Unit-2		RAS-100HNCEL(R)W	RAS-080HNCEL(R)W	RAS-100HNCEL(R)W	RAS-100HNCEL(R)W	RAS-100HNCEL(R)W	RAS-120HNCEL(R)W
	Unit-3		-	-	-	-	-	-
	Unit-4		-	-	-	-	-	-
Power Supply	V/Ph/Hz		380V/3Ph/60Hz (R: 220V/3Ph/60Hz)					
Dimensions	Height	mm	1,650	1,650	1,650	1,650	1,650	1,650
	Depth	mm	2,200	2,340	2,340	2,340	2,340	2,340
	Width	mm	420	420	420	420	420	420
Capacity	Cooling	kW	56.0	62.4	68.0	73.0	78.0	83.5
	Heating	kW	63.0	70.0	76.5	81.5	85.5	91.5
Performance	EER	-	4.26	4.06	4.00	3.95	3.76	3.80
	COP	-	4.44	4.57	4.41	4.42	4.08	4.18
Main Pipe Size	Gas	mm	28.58	28.58	28.58	31.75	31.75	31.75
	Liquid	mm	15.88	15.88	15.88	19.05	19.05	19.05
Connectable IDU	Recommended	Qty	18	20	26	26	32	32
	Maximum	Qty	33	36	40	43	47	50
Connectable IDU Ratio		%	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130

HP			32HP	34HP	36HP	38HP	40HP	42HP
Model Name			RAS-320HNCEL(R)WE	RAS-340HNCEL(R)WE	RAS-360HNCEL(R)WE	RAS-380HNCEL(R)WE	RAS-400HNCEL(R)WE	RAS-420HNCEL(R)WE
Modules for Series	Unit-1		RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W
	Unit-2		RAS-140HNCEL(R)W	RAS-160HNCEL(R)W	RAS-180HNCEL(R)W	RAS-100HNCEL(R)W	RAS-140HNCEL(R)W	RAS-140HNCEL(R)W
	Unit-3		-	-	-	RAS-100HNCEL(R)W	RAS-080HNCEL(R)W	RAS-100HNCEL(R)W
	Unit-4		-	-	-	-	-	-
Power Supply	V/Ph/Hz		380V/3Ph/60Hz (R: 220V/3Ph/60Hz)					
Dimensions	Height	mm	1,650	1,650	1,650	1,650	1,650	1,650
	Depth	mm	2,480	2,480	2,480	3,490	3,630	3,630
	Width	mm	420	420	420	420	420	420
Capacity	Cooling	kW	90.0	95.0	100.0	106.0	112.4	118.0
	Heating	kW	99.0	104.0	108.0	117.0	124.0	130.5
Performance	EER	-	3.67	3.65	3.54	3.88	3.81	3.79
	COP	-	4.11	4.13	3.90	4.17	4.25	4.18
Main Pipe Size	Gas	mm	31.75	31.75	38.10	38.1	38.10	38.10
	Liquid	mm	19.05	19.05	19.05	19.05	19.05	19.05
Connectable IDU	Recommended	Qty	32	32	32	38	38	38
	Maximum	Qty	53	56	59	64	64	64
Connectable IDU Ratio		%	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130

HP			44HP	46HP	48HP	50HP	52HP	54HP
Model Name		-	RAS-440HNCEL(R)WE	RAS-460HNCEL(R)WE	RAS-480HNCEL(R)WE	RAS-500HNCEL(R)WE	RAS-520HNCEL(R)WE	RAS-540HNCEL(R)WE
Modules for Series	Unit-1		RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W
	Unit-2		RAS-160HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W
	Unit-3		RAS-100HNCEL(R)W	RAS-100HNCEL(R)W	RAS-120HNCEL(R)W	RAS-140HNCEL(R)W	RAS-160HNCEL(R)W	RAS-180HNCEL(R)W
	Unit-4		-	-	-	-	-	-
Power Supply	V/Ph/Hz		380V/3Ph/60Hz (R: 220V/3Ph/60Hz)					
Dimensions	Height	mm	1,650	1,650	1,650	1,650	1,650	1,650
	Depth	mm	3,630	3,630	3,630	3,770	3,770	3,770
	Width	mm	420	420	420	420	420	420
Capacity	Cooling	kW	123.0	128.0	133.5	140.0	145.0	150.0
	Heating	kW	135.5	139.5	145.5	153.0	158.0	162.0
Performance	EER	-	3.77	3.69	3.70	3.62	3.61	3.54
	COP	-	4.19	4.01	4.07	4.03	4.04	3.90
Main Pipe Size	Gas	mm	38.10	38.10	38.10	38.10	38.10	38.10
	Liquid	mm	19.05	19.05	19.05	19.05	19.05	19.05
Connectable IDU	Recommended	Qty	38	38	38	38	38	38
	Maximum	Qty	64	64	64	64	64	64
Connectable IDU Ratio		%	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130

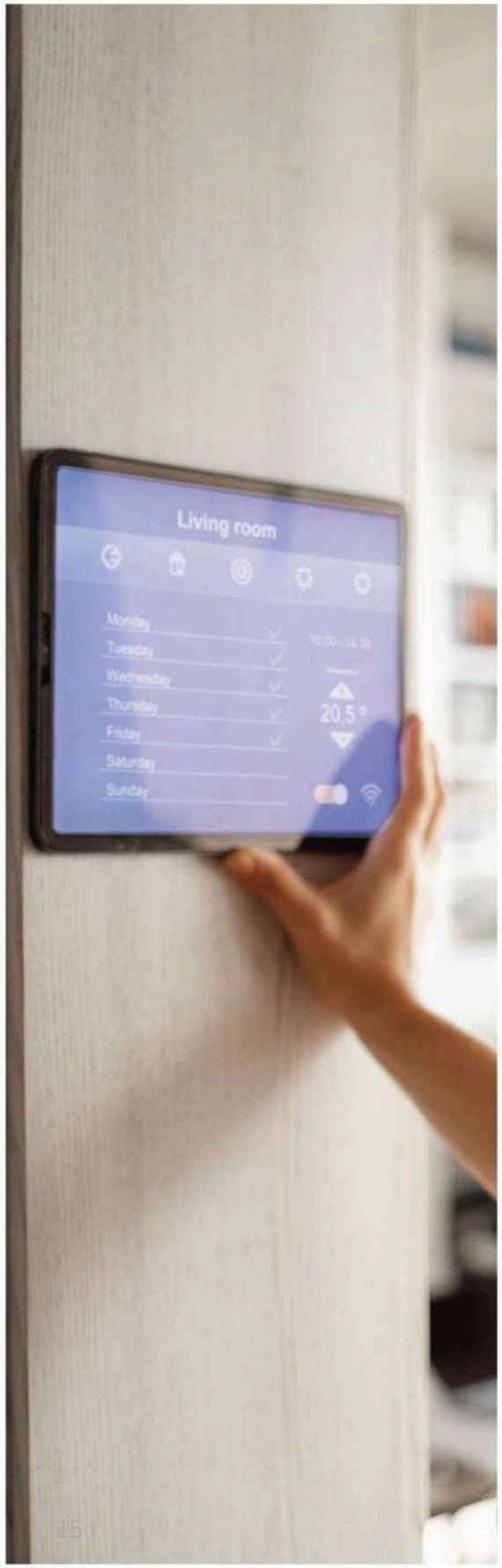
HP			56HP	58HP	60HP	62HP	64HP	66HP
Model Name			RAS-560HNCEL(R)WE	RAS-580HNCEL(R)WE	RAS-600HNCEL(R)WE	RAS-620HNCEL(R)WE	RAS-640HNCEL(R)WE	RAS-660HNCEL(R)WE
Modules for Series	Unit-1		RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W
	Unit-2		RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W
	Unit-3		RAS-100HNCEL(R)W	RAS-140HNCEL(R)W	RAS-140HNCEL(R)W	RAS-160HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W
	Unit-4		RAS-100HNCEL(R)W	RAS-080HNCEL(R)W	RAS-100HNCEL(R)W	RAS-100HNCEL(R)W	RAS-100HNCEL(R)W	RAS-120HNCEL(R)W
Power Supply	V/Ph/Hz		380V/3Ph/60Hz (R: 220V/3Ph/60Hz)					
Dimensions	Height	mm	1,650	1,650	1,650	1,650	1,650	1,650
	Depth	mm	4,780	4,920	4,920	4,920	4,920	4,920
	Width	mm	420	420	420	420	420	420
Capacity	Cooling	kW	156.0	162.4	168.0	173.0	178.0	183.5
	Heating	kW	171.0	178.0	184.5	189.5	193.5	199.5
Performance	EER	-	3.76	3.72	3.71	3.70	3.63	3.65
	COP	-	4.08	4.14	4.10	4.10	3.97	4.02
Main Pipe Size	Gas	mm	44.45	44.45	44.45	44.45	44.45	44.45
	Liquid	mm	19.05	19.05	19.05	19.05	19.05	19.05
Connectable IDU	Recommended	Qty	38	38	38	38	38	38
	Maximum	Qty	64	64	64	64	64	64
Connectable IDU Ratio		%	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130

HP			68HP	70HP	72HP
Model Name			RAS-680HNCEL(R)WE	RAS-700HNCEL(R)WS	RAS-720HNCEL(R)WS
Modules for Series	Unit-1		RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W
	Unit-2		RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W
	Unit-3		RAS-180HNCEL(R)W	RAS-180HNCEL(R)W	RAS-180HNCEL(R)W
	Unit-4		RAS-140HNCEL(R)W	RAS-160HNCEL(R)W	RAS-180HNCEL(R)W
Power Supply	V/Ph/Hz		380V/3Ph/60Hz (R: 220V/3Ph/60Hz)		
Dimensions	Height	mm	1,650	1,650	1,650
	Depth	mm	5,060	5,060	5,060
	Width	mm	420	420	420
Capacity	Cooling	kW	190.0	195.0	200.0
	Heating	kW	207.0	212.0	216.0
Performance	EER	-	3.60	3.59	3.54
	COP	-	4.00	4.01	3.90
Main Pipe Size	Gas	mm	44.45	44.45	44.45
	Liquid	mm	22.20	22.20	22.20
Connectable IDU	Recommended	Qty	38	38	38
	Maximum	Qty	64	64	64
Connectable IDU Ratio		%	50 - 130	50 - 130	50 - 130

Notes:
1. The cooling and heating performance are the values when combined with indoor units.

	Cooling operation condition	Heating operation condition
Modules for Series	27 °C DB 19 °C WB	20 °C DB
Outdoor Air Inlet Temperature	35 °C DB	7 °C DB 6 °C WB
Piping Length	7.5 m	
Piping Lift	0 m	

2. Sound pressure data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.
3. Sound pressure and sound power data was measured at rated cooling and heating condition which same as performance measurement condition. If working condition is different against rated condition, sound may increase.
4. If set to the high static mode, since the fan rotation speed will be increased, sound may increase 5 to 7 dBA.



Centralized controllers

Control each indoor unit, one specific zone or even multiple systems from one place!

airCLOUD PRO* (HC-IoTGW)

- Remote access via smartphone app or web.
- Unlimited number of systems, zones and users.
- Intuitive scheduling function.
- Troubleshooting with access to error history and alerts.
- Filter sign display to quickly overview daily maintenance needs.
- Ideal for all types of applications.

CENTRAL STATION EX (PSC-A128EX1)

- Control capacity: max 2,560 indoor units (+15x Extension Adapter PSC-AD128EX1).
- With energy calculation software (PSC-AS01EXC), determine each tenant's energy usage.
- Easy monitoring with simplified interface.
- Best option for middle-large size buildings.
- Remote access! Operate Central Station EX from your laptop PC or touch-panel PC.

CENTRAL STATION EZ (PSC-A64GT)

- Control capacity: max 64 remote control group of indoor units.
- Compact and optimized 170x250mm body screens fitting in even small walls.
- Easy monitoring with simplified interface.
- Best option for middle size buildings.

CENTRAL STATION MINI (PSC-A32MN)

- Control capacity: max 32 remote control group of indoor units.
- Compact and optimized 120x140mm body screens fitting in even small walls.
- Easy monitoring with simplified interface.
- Best option for small size buildings.

SMALL TO LARGE SYSTEMS & FIXED OR CLOUD-BASED

			airCLOUD PRO*	CENTRAL STATION MINI	CENTRAL STATION EZ	CENTRAL STATION EX
						
			HC-IoTGW	PSC-A32MN	PSC-A64GT	PSC-A128EX1
Capacity comparison	Total Connection capacity	RC group	64 (*6)	32	64	2,560 (*1)
		Group	64 (*6)	32	64	2,048 (*1)
		Block	Unlimited (*7)	2/4/8/16	4	512 (*2)
		Area	Unlimited (*7)	-	-	512 (*2)
		Indoor unit	80 (*6)	160	160	2,560 (*1)
		Outdoor unit	16 (*6)	64	64	1,024 (*1)
	Building scale		Small to Large	Small	Medium	Large
	Operation		Web + Mobile Phone	Touch screen	Touch screen	Touch screen + Web (New!)
Display	Operation panel size options		Adaptive	3	2	7
	Layout		-	-	-	
	List options		-	-	-	3
Operation unit	All together					
	By layout		-	-	-	
	By area			-	-	
	By block					
	By group			-	-	
	By RC group		-			-
	By indoor unit			-	-	
Control Function	Main 5 functions (*5)					
	Individual controller lock				△ (*3)	
	Filter sign reset					
	Outdoor unit capacity control		-	△ (*4)	-	
	Outdoor unit noise control		-	-	-	
Monitor Function	Main 5 functions (*5)					
	Individual controller lock					
	Alarm status & code					
	Filter sign					
	Air inlet temperature of indoor unit		-		-	
	Air inlet temperature of outdoor unit		-		-	
Schedule Function	Weekly					
	Setting times per day		16	10	10	16
	Special day setting		5	-	-	5
	Holiday setting		-	-	-	
	Annual/Summer/Winter schedule		Future Version	-	-	
Other function	Alarm history (records number)		Unlimited	100	100	10,000
	External in/output history		-	-	-	1,000
	Management report visualization(*11)		Energy Estimation (*8) - Future			
	Data output by external media		Download from Web - Future	-	-	SD card, USB flash device
IoT Functions	Connectivity		Ethernet + 4G (*9)	-	-	-
	Future Extendability		Firmware OTA (*10) Web + Mobile Update	-	-	-

*** airCloud Pro available with SideSmart™ from May 2021.**

(*1) One Extension Adapter (PSC-AD128EX1) enable CENTRAL STATION EX to control additional 160 RC groups /128 groups / 160 IDUs / 64 ODUs, and up to 15 adapters can connect to one Central Station EX.
(*2) No restriction on the number of H-LINK.
(*3) Individual Feature Control in Each Remote Controller is not available.
(*4) Applicable only with Schedule function or external signal input. You cannot set it up directly from monitoring panel.
(*5) Main 5 functions meaning: 1) Run/Stop 2) Operation mode 3) Temperature setting 4) Fan speed 5) Louver control.
(*6) Ability to connect unlimited number of "HC-IoTGW" in one project and control all AC units via one single screen on Web or Mobile Phone.
(*7) Unlimited creation of zones, across multiple "HC-IoTGW" units within the same project.
(*8) Visualization of outdoor unit energy consumption.
(*9) 4G available through optional 4G module; 4G module package comes with global SIM and pre-paid global data plan.
(*10) OTA: Over-the-air firmware update, provides always up-to-date firmware and latest functionalities.
(*11) Mini , EZ : Accumulated operation time (min) , Accumulated thermo - ON (min).
EX : Accumulated operation time (min) , Accumulated thermo - ON time (min) , Average air intake temperature of indoor unit , Average air intake temperature of outdoor unit , Average setting temperature , Average RC sensor temperature.

Individual controllers

NEW

ADVANCED COLOR WIRED REMOTE CONTROLLER (PC-ARFG1)

Simplicity with style

Combining the best of form and function, enjoy climate control made easy with Hitachi's most advanced wall controller yet.

- Super user-friendly interface
- Easy-to-navigate menus
- Available in 7 languages
- Pictograms and colors for an optimal user experience

Award-winning design

- Minimalist design aesthetic
- Distinctive curves for ergonomics
- Modern and subtle colors

With **Near-field communication (NFC) contactless-enabled system** commissioning via the airCloud Tap smartphone app, you can now save, copy, and paste settings to the Advanced Color Controller with a simple tap.

1 Room name
2 Set temperature
3 Operation mode
4 Indoor unit ON/OFF light
5 Indoor unit ON/OFF
6 Navigation buttons
7 Back button
8 OK button
9 Fan speed
10 Louver direction
11 Access to menu
12 Filter cleaning reminder

Outer dimensions (H×W×D)

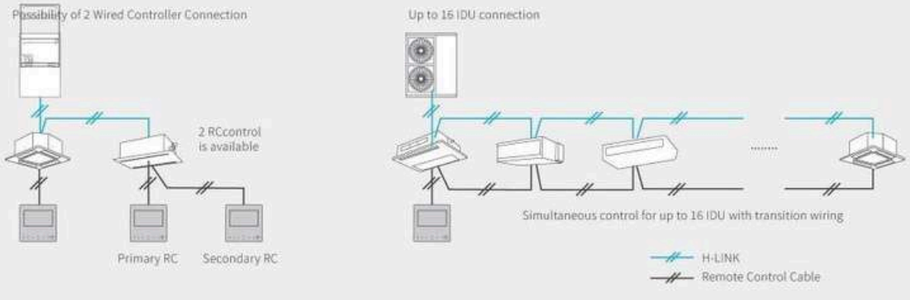
120×120×16.5mm (thinnest part)
120×120×21.5mm (thickest part)

Capacity

Power Supply	Powered by indoor unit, 15VDC±10%
	180g (approx.)
Installation	Indoor, on the wall or switch box
Connection capacity	Up to 16 indoor units (with the same wired remote controller)
▲ Display	When two wired Advanced Controller units are connected to the same indoor unit, the maximum brightness of each controller will be halved

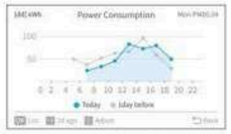
* H is the height of the unit from the front, without the protrusion at the bottom.

System configuration example

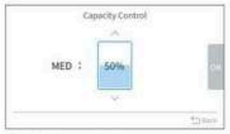


Energy optimization

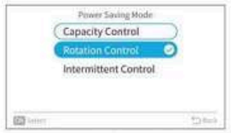
Power-saving features enable VRF system operators to optimize energy usage



Energy consumption visualization



Capacity – peak cut control



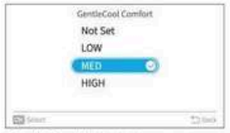
Choice of power-saving method

Power saving setting

Set specific schedules for features like peak capacity cuts and the thermal operation rotation of indoor units, enabling you to match energy-saving operation hours with your utility tariffs plan. Building managers can also set the minimum and maximum temperature range for occupants and visualize energy consumption with daily, weekly or monthly comparison options.

From basic to advanced functions

Users can control the main temperature settings from Advanced-Color controller's main screen. In addition, more advanced comfort settings help customizing the air to their occupants' specific needs.



GentleCool limits the temperature of conditioned air, preventing cold drafts for optimal comfort.

AutoBoost automatically activates for 30 minutes every time the AC is turned on, helping the room reach the desired temperature faster.

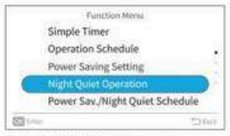
AC Scheduling is easier than ever, thanks to flexible features such as the holiday calendar.

The latest VRF features

NEW **Fan speed at thermo-off** reduces air circulation when cooling or heating is not effective.

NEW Activate, schedule and check the history of indoor units' **FrostWash™** function.

Individual **4-way cassette louvers** optimizes air flow direction to each corner layout.

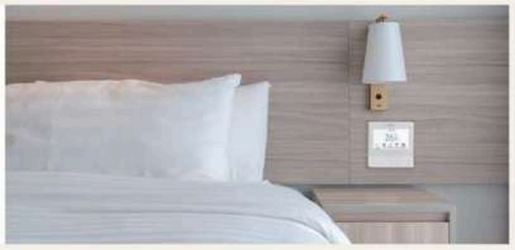


Schedule **Night Quiet** mode to minimize the outdoor unit's operation noise so you and your neighbors get a better night's sleep.

Special features for hotels

NEW **Hotel mode** enables instant access to the functions demanded most by hotel guests. After guests check out, housekeeping can reset the controller in one touch.

Hotel setback allows interlocking with hotel key cards. When the room is vacant, the indoor unit switches to a selected energy-saving setback temperature, ensuring the room remains at a comfortable temperature when unoccupied.



Ideal for indoor units with motion sensor features

NEW Active intelligent comfort features connected to your indoor unit's motion sensor and/or radiant sensor*: choice of direct/indirect air flow, **FeetWarm NEW**, **FloorSense Cool NEW** and the exclusive **Crowd-Sense NEW** to prevent heat peak from rapid crowd arrival.