

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
Benefit 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.

Modular combination & superior efficiency.

	1 Economy combination 20-72 HP	2 Standard combination 20-72 HP	3 Premium combination 16-48 HP
Energy efficiency* ¹	☆☆☆ EER 3.79 / COP 4.19	☆☆☆ EER 3.93 / COP 4.42	☆☆☆ EER 4.32 / COP 4.70
Footprint	☆☆☆	☆☆☆	☆☆☆
Initial cost	☆☆☆	☆☆☆	☆☆☆

For more information and specifications, please go to page xx. Please refer to the Technical Catalog for more details.

*1 EER/COP: average ratio



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	380-415V	kg	185	197	203	219	225
	220V	kg	188	200	205	223	231
Cooling Capacity		kW	22.4	28.0	33.5	40.0	50.0
Heating Capacity		kW	25.0	31.5	37.5	45.0	54.0
Performance	EER (Cooling)		4.51	4.26	4.27	3.85	3.79
	COP (Heating)		4.92	4.44	4.68	4.40	4.41
Air Flow Volume		(m ³ /min)	160	185	200	250	258
Noise level dB(A)	SPL ¹ (Cooling/Heating)	dB(A)	55/56	59/60	60/62	60/61	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.

From 1 to 4 modules

Combine and connect up to 4 modules together!

-13% refrigerant charge

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

Up to 500m 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.

20 types of indoor units

SideSmart™ is compatible with as many as 20 types of Hitachi indoor units, featuring the most advanced indoor comfort innovations.

Extra savings at <40% part-load

Hitachi exclusive SmoothDrive™ micro-precision technology boosts energy efficiency during part-load operation, to meet real life conditions.

20HP to 72HP

With our various modules, SideSmart™ offers a vast array of capacities.

42cm slim

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

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.

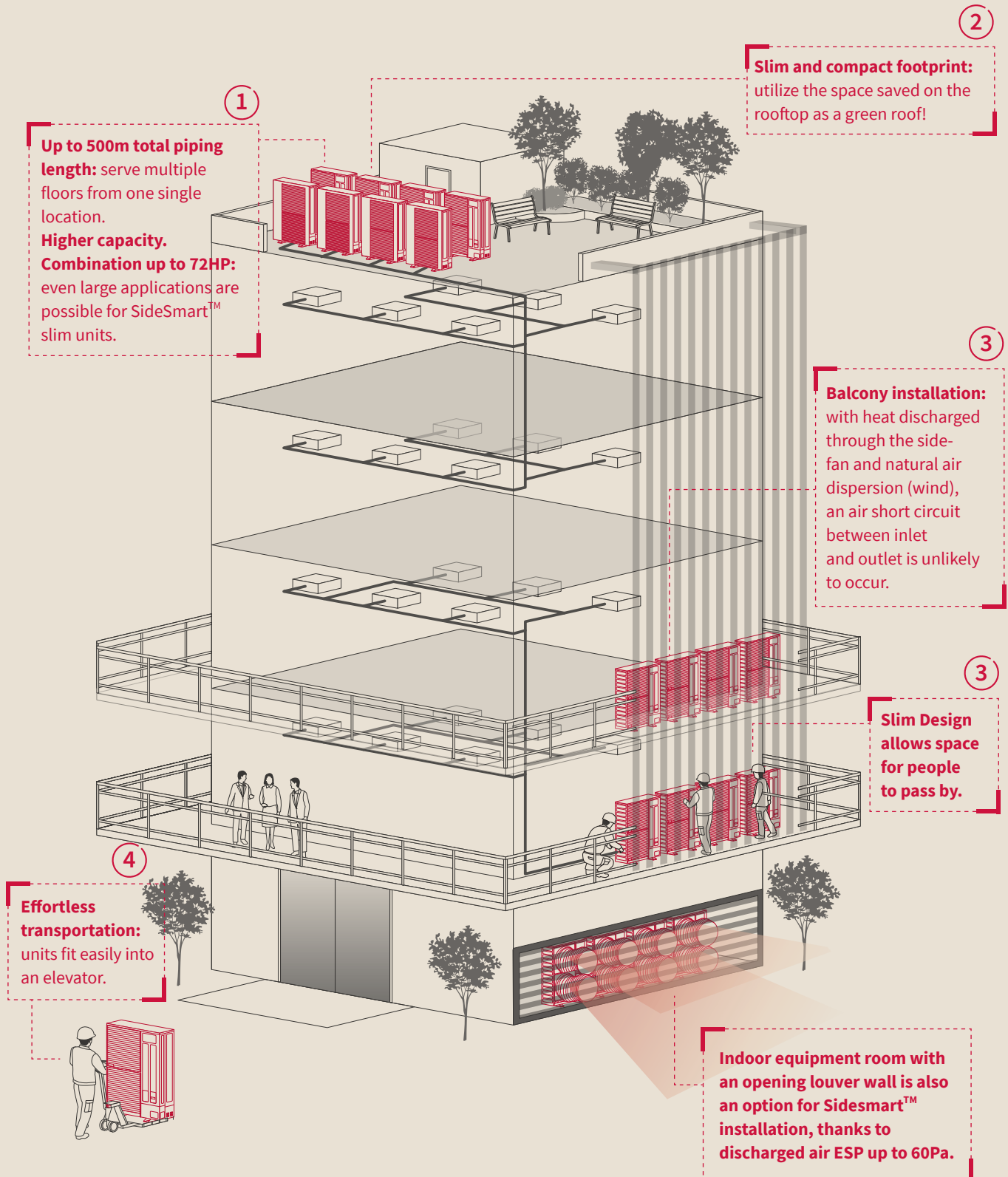
100% preserved rooftop

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

SideSmart™ : the power of ubiquity

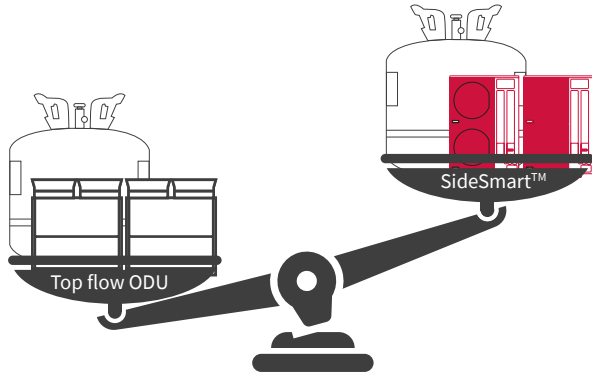
Anywhere & everywhere!

Thanks to its slim modular design, SideSmart™ offers unrivaled flexibility of installation location. Save your building's most valuable area, and place SideSmart™ in the small narrow spaces of your building. On the rooftop, balcony, or indoors; you choose!



LESS REFRIGERANT, LESS CO2-EQ EMISSIONS

Enjoy Hitachi's VRF performance with smaller amounts of refrigerant, thanks to the new tandem subcooling system leading to improved heat exchange.



• Total refrigerant quantity SideSmart™ vs other VRF.

System	Current top flow VRF (RAS-FSNS)	SideSmart™
Initial charge	9.9kg	9.6kg
Additional charge	19.8kg	16.3kg
Total	29.7kg	25.9kg

-13% refrigerant used!

System assumption

System	16HP system
Maximum piping length (from [Piping Connection Kit 1] to furthest indoor unit)	90m
Total piping length	165m
Number of indoor units	3HP Indoor Units * 6 pcs
IDU connection ratio	113%

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						••••

