



Atom X



DIVERSIFIED AIR CONDITIONING SOLUTIONS

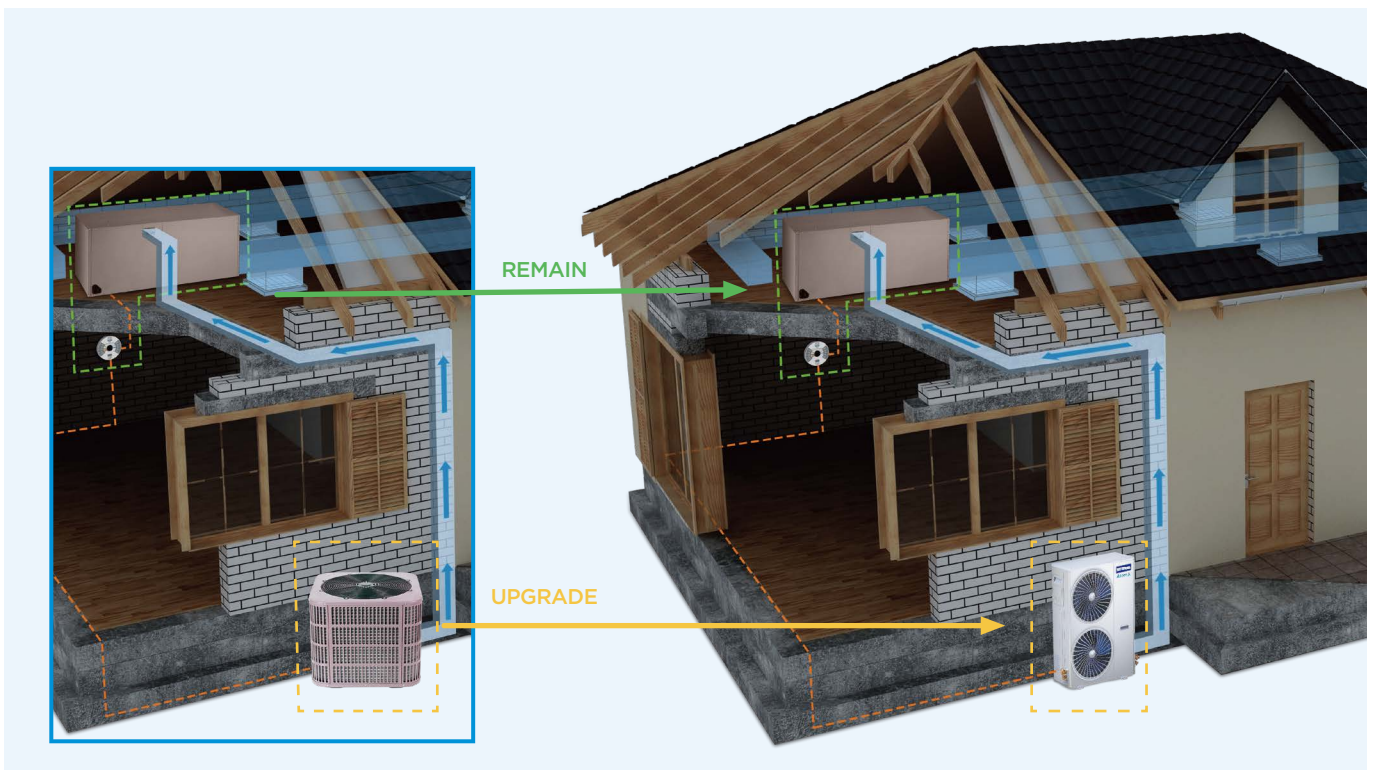
1. ODU + AHU (24V protocol) x2

A single outdoor unit can be connected to two AHU (24V protocol) to minimize installation space



2. ODU + AHU (24V protocol) x1

The AHU (24V protocol) and THERMOSTAT of the old system can continue to be used. Only the external unit needs to be replaced, which is easy to upgrade the system



3. ODU + Multiple VRF IDUs

Various VRF indoor unit can be controlled separately or centrally to meet different requirements



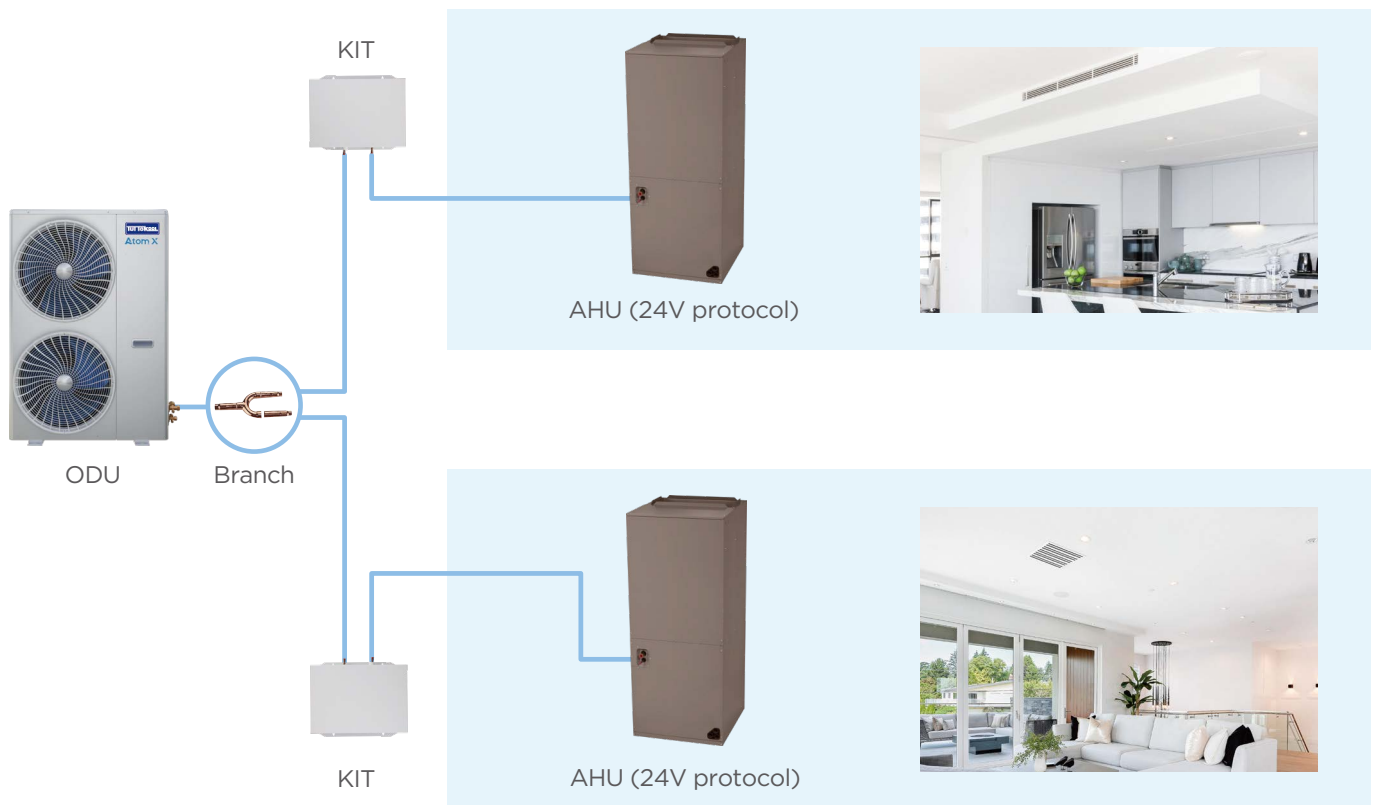
4. ODU + VRF IDU + AHU (24V protocol)

Large space air conditioning and independent space temperature control can be achieved through one system



SYSTEM DIAGRAM

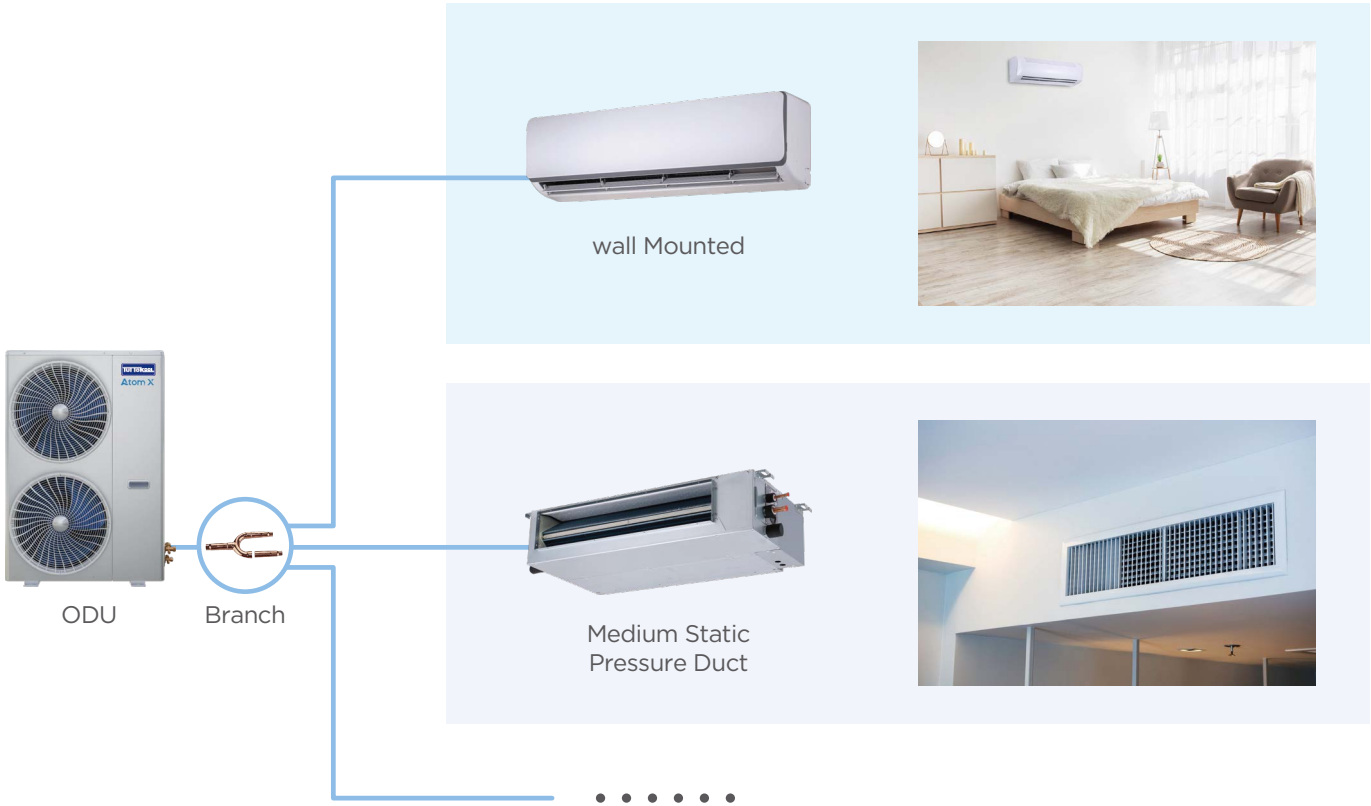
1. ODU + AHU (24V protocol) x2



2. ODU + AHU (24V protocol) x1



3. ODU + Multiple VRF IDUs

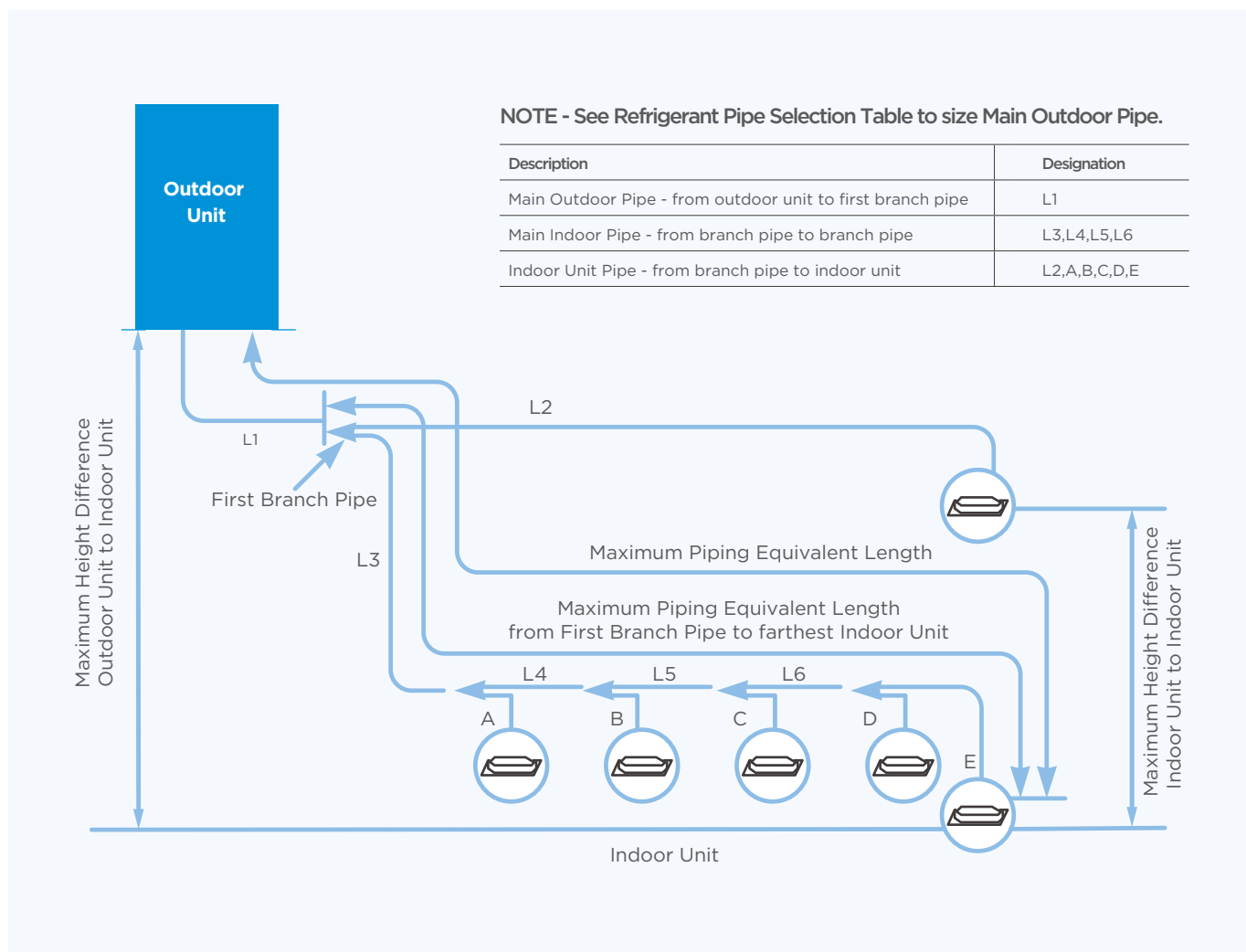


4. ODU + VRF IDU + AHU (24V protocol)



MAXIMUM PERMITTED REFRIGERANT PIPE LENGTH AND MAXIMUM HEIGHT DIFFERENCE

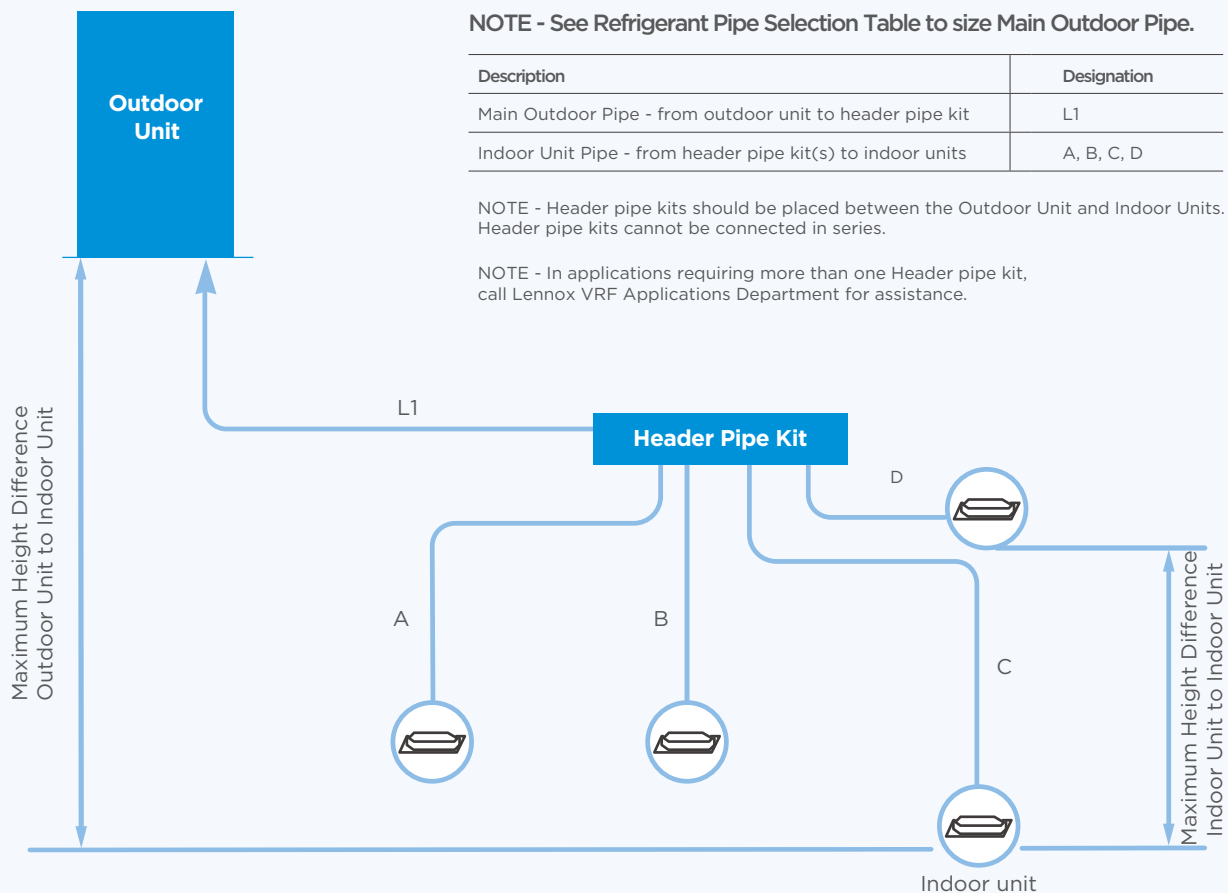
1. With Branch Pipe



Length and Maximum Height Difference			Maximum Permitted Length	Piping
Pipe Length	Total Piping Length (Actual)		≤ 492 ft. (150 m)	L1+L2+L3+L4+L5+L6 +A+B+C+D+E
	Maximum Piping Length	Actual Length	≤ 296 ft. (90 m)	L1+L3+L4+L5+L6+E
		Equivalent Length	≤ 328 ft. (100 m)	
	Pipe length (from the first line branch pipe to farthest indoor unit)		≤ 131 ft. (40 m)	L3+L4+L5+L6+E
Maximum Height Difference	Indoor Unit to Outdoor Unit Maximum Height Difference	Outdoor Unit Up	≤ 164 ft. (50 m)	---
		Outdoor Unit Down	≤ 131 ft. (40 m)	---
	Indoor Unit to Indoor Unit Maximum Height Difference		≤ 49 ft. (15 m)	---

NOTE - Each branch pipe equals 20 in. (508 mm) equivalent straight pipe length.

2. With One Header Pipe Kit



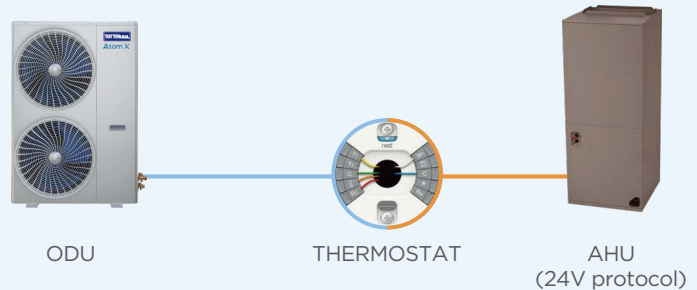
Length and Maximum Height Difference			Maximum Permitted Length	Piping
Pipe Length	Total Piping Length (Actual)		≤ 492 ft. (150 m)	L1+A+B+C+D
	Maximum Piping Length	Actual Length	≤ 296 ft. (90 m)	L1+A, L1+B, L1+C, L1+D
		Equivalent Length	≤ 328 ft. (100 m)	
	Pipe length (from the header pipe kit to each indoor unit)		65.6 ft. (20 m)	A, B, C, D ≤ 65.6 ft. (20 m) each
Maximum Height Difference	Indoor Unit to Outdoor Unit Maximum Height Difference	Outdoor Unit Up	≤ 164 ft. (50 m)	---
		Outdoor Unit Down	≤ 131 ft. (40 m)	---
	Indoor Unit to Indoor Unit Maximum Height Difference		≤ 49 ft. (15 m)	---

MAIN FEATURES

Easy to upgrade

ATOM X can directly connect the third party AHU (24V protocol) and THERMOSTAT without using KIT, so it can be widely used in old system upgrade.*

*Only applicable to ODU+AHU (24V protocol) x1 system



Space saving

The compact, slim designed outdoor unit can easily be installed on a balcony, realizing complete system installation within each floor. Which release more useful utilization of the space on the building rooftop.

A single outdoor unit supports 2 AHU (24V protocol), freeing up considerable space outside. Use your backyard more wisely with much more space available created by less number of outdoor units.

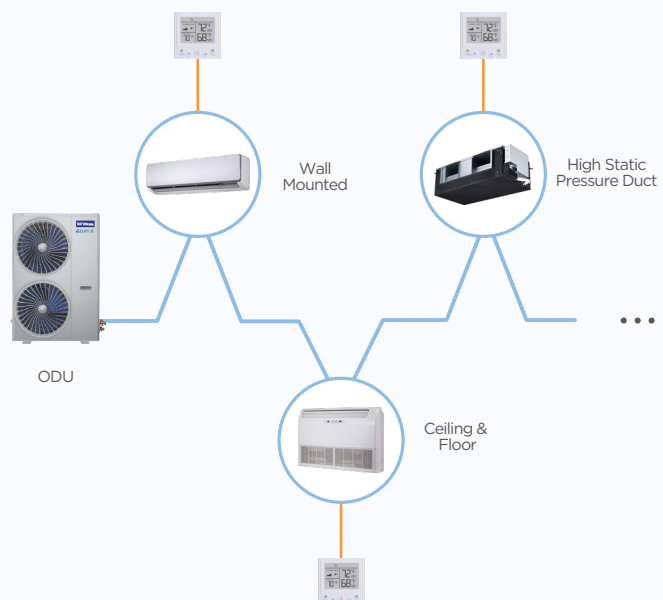


footprint approx.
Reduction
47%



Multiple VRF solutions

ATOM X can be connected to a variety of VRF indoor units, which can be independently controlled through the wire controller to meet different demands.



Easy Installation

ATOM X VRF is an option to use flare connections, or welding, which makes VRF IDUs easier to install.



High energy efficiency

SEER 2 can reach 18, making it more energy-saving, environment-friendly and low-carbon

ENERGY STAR® QUALIFIED

LINEUP

ODU Model							
		TDV-V18 WMNIT	TDV-V24 WMNIT	TDV-V36 WMNIT	TDV-V36 WMNITE	TDV-V48 WMNIT	TDV-V60 WMNI
Power supply	V/N/Hz	230/208V-1 Ph-60Hz					
Cooling Capacity	kBtu/h	18	24	36	36	48	58
Heating Capacity	kBtu/h	20	26	40	40	50	60
SEER 2	/	18	17.8	17.4	17.7	17.3	16.6
Airflow rate	m³/h	5000	5200	5700	7000	7000	7000
	CFM	2943	3061	3355	4120	4120	4120
Connected indoor unit of ODU capacity	/	65-130%	50-130%	50-130%	50-130%	50-130%	50-130%
Maximum IDU quantity	/	3	4	5	5	7	9
Refrigerant	Type	R410A					
	Factory charge	kg	3.4			3.9	
		lbs	7.5			8.6	
Sound press level(cooling/heating)	dB(A)	58	59	61	61	62	62
Net dimensions (W×H×D)	mm	1040 x 865 x 410			902 x 1327 x 320		
	in.	40-15/16x34-1/16x16-9/64			35-33/64x52-1/4x12-10/16		
Packed dimensions (W×H×D)	mm	1120 x 980 x 560			1082 x 1435 x 435		
	in.	44-3/32x38-37/64x22-3/64			42-19/32x56-8/16x17-1/8		
Net/Gross weight	kg	79/87			212/234		
	lbs	174/192			96/106		
Ambient temp. operation range	°F	Cooling: 5 - 122 DB ; Heating: -13 - 70 WB					

Model											
	Compact Four Way Cassette	Four Way Cassette	Wall Mounted	Ceiling & Floor	Floor Standing - exposed	Floor Standing - concealed	High Static Pressure Duct	Medium Static Pressure Duct	Fresh air processing unit	One Way Cassette	Vertical Air Handler
Communication Protocol kbtu/h	RS485	RS485	RS485	RS485	RS485	RS485	RS485	RS485	RS485	RS485	RS485
7					•	•					
8	•		•					•		•	
9					•	•					
10	•	•	•					•		•	
12	•	•	•	•	•	•	•	•		•	•
15	•	•	•	•	•	•		•		•	
18					•	•					•
19		•	•	•	•	•		•		•	
24		•	•	•			•	•		•	•
31		•	•	•			•	•			•
36											•
38		•		•			•	•	•		
48		•		•			•	•	•		•
55							•		•		•
61											•
75							•		•		

Model					
	Vertical Air Handler	Wall Hung	Cased Pancake Fan Coil	Uncased Pancake Fan Coil	Gas Furnace
Communication Protocol kbtu/h	24V protocol	24V protocol	24V protocol	24V protocol	24V protocol
12	•				
18	•	•	•	•	
24	•	•	•	•	
30	•	•	•	•	•
36	•	•	•	•	•
48	•				
54	•				

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TUTTOKOOL Air Conditioning

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