

ODU Parameters



HP			14HP	16HP	18HP	20HP	22HP	24HP	26HP
Model: TMV-VEd+(**)W/AS-D(E)			400	450	504	560	615	685	735
Power Supply		V-,Hz,Ph	380-415V 3N-50/60Hz						
Cooling	Capacity	kW	40.00	45.00	50.40	56.00	61.50	68.50	73.50
	Input	kW	11.10	11.53	12.70	15.60	18.00	19.60	22.50
	Current	A	18.69	19.41	21.38	26.26	30.30	33.00	37.88
	EER	W/W	3.60	3.90	3.97	3.59	3.42	3.49	3.27
Heating	Capacity	kW	45.00	50.00	56.50	63.00	69.00	75.00	81.50
	Input	kW	10.40	11.90	13.40	14.10	16.80	17.40	22.00
	Current	A	17.51	20.03	22.56	23.80	28.30	29.30	37.10
	COP	W/W	4.33	4.20	4.22	4.47	4.11	4.31	3.70
Max. Input Consumption		kW	17.00	18.80	20.50	23.80	26.10	28.40	30.70
Max. Current		A	29.10	31.90	35.10	40.20	44.10	48.00	51.90
Compressor	Quantity	/	1	1	1	1	1	1	1
	Type	/	Scroll compressor						
Outdoor fan	Fan Quantity	/	2	2	2	2	2	2	2
Air Flow Volume		m³/h	18500	19500	20000	20000	20500	21000	21500
Noise Level		dB(A)	58	59	59	60	61	62	64
Dimension (W×D×H)	Net	mm	1320×460×1800						
	Packing	mm	1400×640×1980						
Weight	Net	kg	210	212	212	235	235	237	237
	Gross	kg	226	228	228	251	251	253	253
Refrigerant type/Quantity	Type	/	R410A						
	Charged Volume	kg	7.5	8	8	8.5	8.5	9	9
Refrigerant Piping	Liquid Side	mm	Φ12.7	Φ12.7	Φ15.88	Φ15.88	Φ15.88	Φ15.88	Φ19.05
	Gas Side	mm	Φ25.4	Φ28.6	Φ28.6	Φ28.6	Φ28.6	Φ28.6	Φ31.8
	Max. Length	m	560	560	560	560	560	560	560
	Max. Height Outdoor unit at the bottom (Outdoor unit on top)	m	50(40)	50(40)	50(40)	50(40)	50(40)	50(40)	50(40)
Ambient Temp	Cooling	°C	-15-56						
	Heating	°C	-30-28						



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TMV7 Smart Series
Side Discharge Modular VRF

Enhanced Vapor Injection DC Inverter Air Conditioning System



Large capacity



Strong cooling and heating



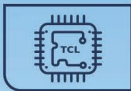
High efficiency energy saving



Stable reliable performance



Comfortable healthy environment



Intelligent operation control



Convenient installation Maintenance



ODU Units

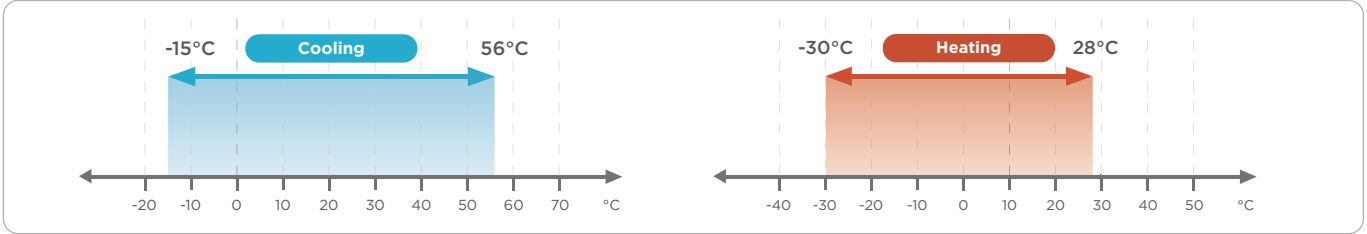
Single unit max. 26HP
One system up to 104HP



High Reliability

Wide Operation Range

Featuring an ultra-broad operating range (-15°C to 56°C for cooling, -30°C to 28°C for heating), the unit ensures reliable operation in harsh conditions, greatly boosting stability and applicability.

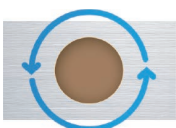


Heat Dissipation Technology of Refrigerant

The 360° dual-tube circulating refrigerant cooling technology offers high thermal conductivity and superior heat dissipation, effectively removing heat from the main control board, inverter module. Tests show a 20°C reduction in the inverter module temperature, extending equipment service.

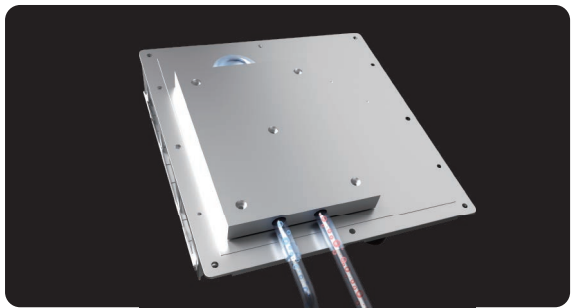
Refrigerant pipe

The heat sink is in full 360° contact with the refrigerant tubes, which minimizes contact thermal resistance and delivers superior heat dissipation performance.



Heat sink

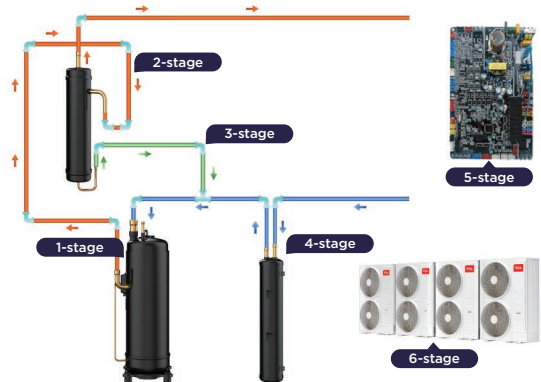
It effectively and reliably removes heat from the outdoor unit's inverter module, enhancing electrical reliability in high-temperature conditions and ensuring stable, safe operation.



6-stage Oil Control Technology

Our innovation leads in three key areas: oil separation, return, and storage. The entire oil circuit is managed through a precise six-stage system, assuring secure, stable, and reliable compressor performance.

- 1-stage: Compressor internal oil separate
- 2-stage: High-efficiency centrifugal oil separator
- 3-stage: Oil return of compressor suction line
- 4-stage: Oil return control of oil return hole of gas-liquid separator
- 5-stage: Smart oil return program
- 6-stage: Modular intelligent oil control



Multiple Back up Operation

Module back up

For multi-module combination, when one outdoor unit fails, the outdoor unit can be disconnected from the system communication, and the rest modules continue to operate.



Fan back up

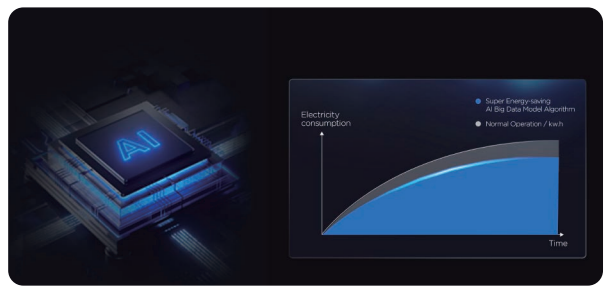
For the dual-fan system, when one fan fails, the other fan can immediately enter the backup operation to ensure the user's use needs.



Energy-saving

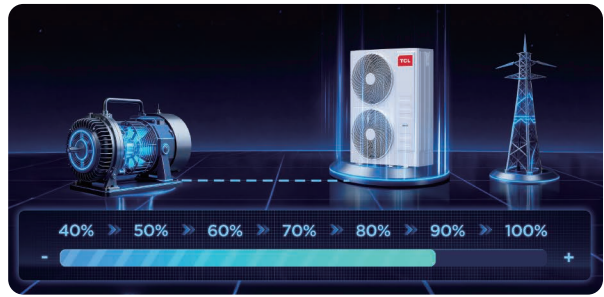
AI Energy Saving (20% Lower Costs)

By integrating AI and intelligent control algorithms, our system creates a self-optimizing loop that dynamically senses multiple parameters. It precisely matches cooling output to real-time load demands by intelligently adjusting frequency and airflow. This ensures continuous 20% annual energy savings and superior operational efficiency.



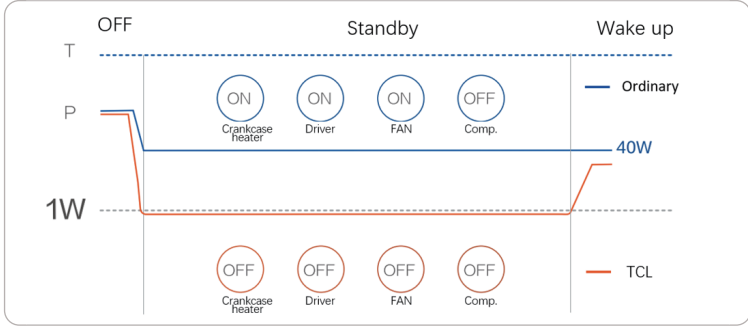
6 Steps Generator Mode

Using the remote/wired controller to achieve generator mode from 40%-100%, 6 steps of generator mode to assure unit can run at extreme low power consumption mode.



1W Standby Mode

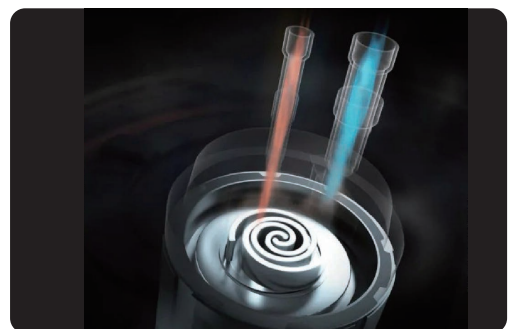
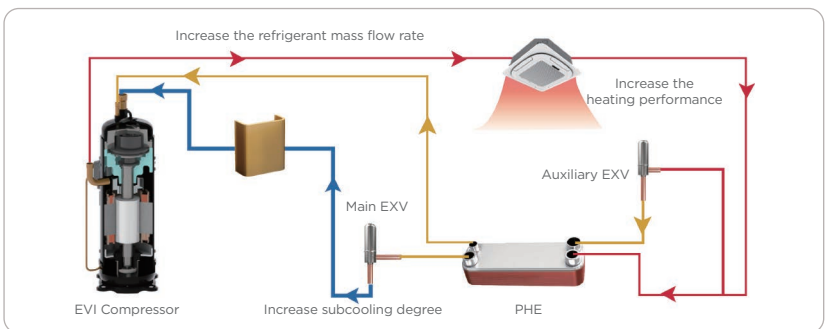
According to big data research, 76.5% of commercial VRF units are in standby state, and standby power consumption is up to 40 W. The intelligent diagnosis system tracks 21 power consumption parameters in real time through the outdoor unit operation status monitoring chip, and the AI decision program automatically identifies the indoor unit requirements, quickly cuts off the power supply of unnecessary modules (electric heating/some electric control modules), and the standby power of the outdoor unit is as low as 1 W.



High Performance

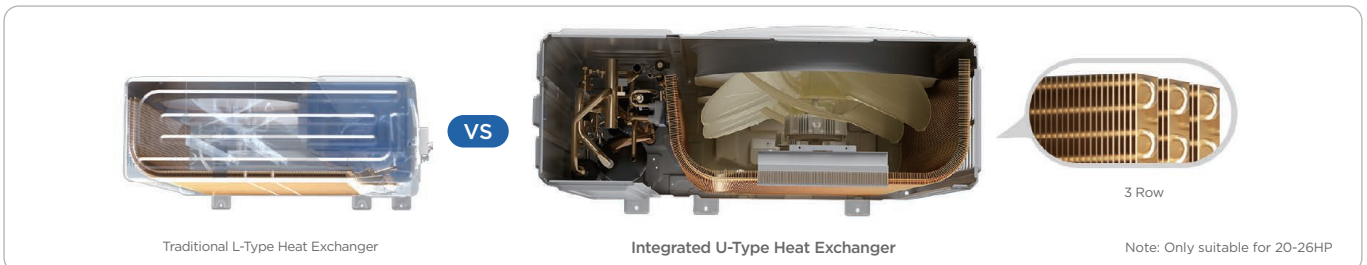
Enhanced Vapor Injection Compressor

This system ensures exceptional performance in extreme conditions through vapor injection technology. In low-temperature environments, it boosts the refrigerant cycle to increase heating capacity by 30% at -15°C and maintain stable operation at -30°C. Conversely, in high-temperature conditions, it enhances the refrigerant cycle and subcooling to deliver powerful, efficient cooling even at 55°C ambient temperature.



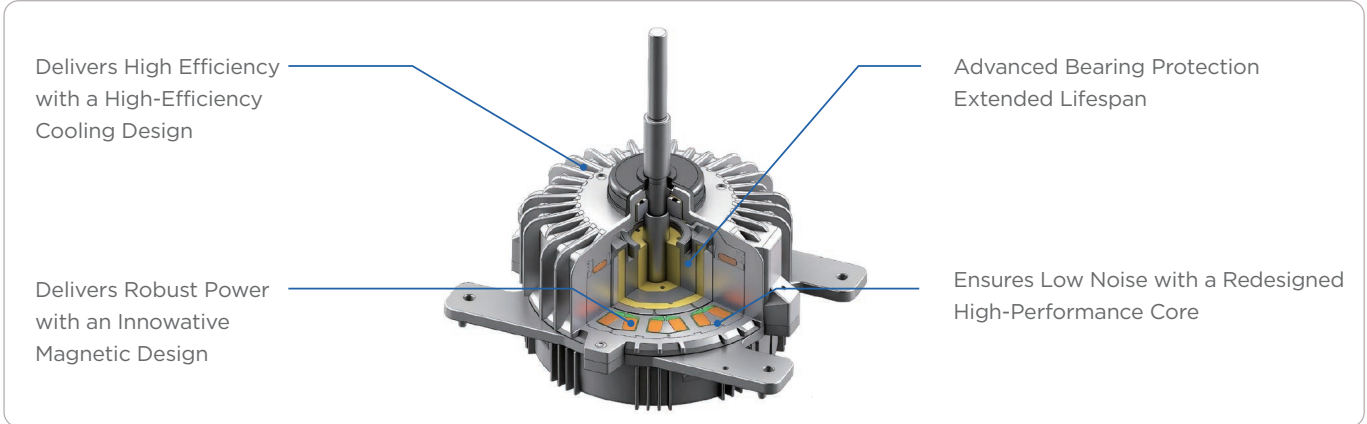
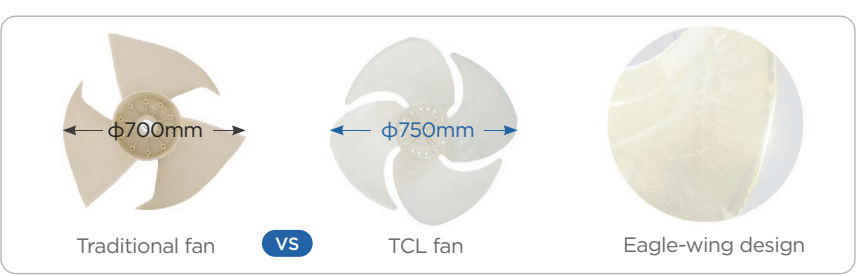
High Efficiency Heat Exchanger

Its U-shaped design features three-sided air exposure, this innovative structure increases the effective heat exchange area by 40% compared to a conventional single-row design, significantly enhancing thermal efficiency. Three-Row Fin Structure: This configuration increases the contact area with the air while effectively reducing airflow resistance. The result is a 10% improvement in heat exchange efficiency.



Ultra-high Power DC Inverter Fan Motor

A high-capacity DC motor pairs with a large biomimetic fan to redefine climate mastery, delivering powerful, efficient, quiet, and durable comfort.



Flexible Installation

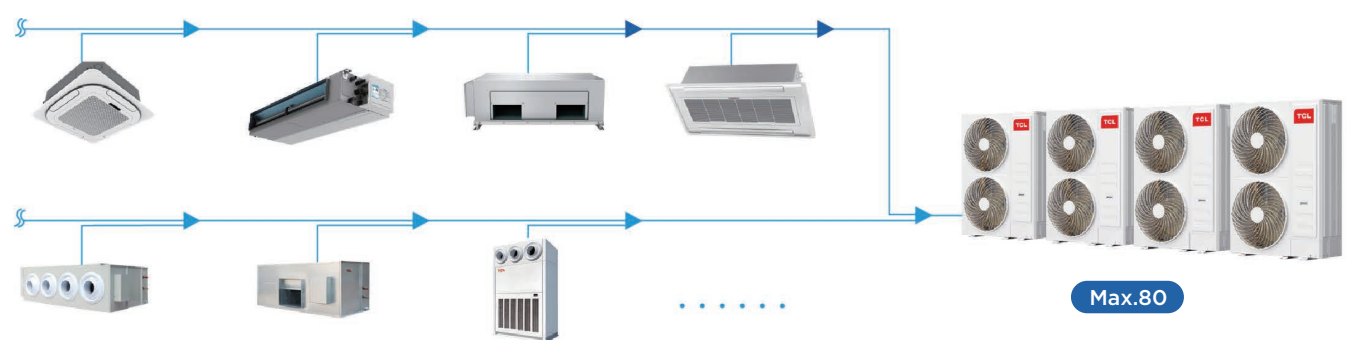
High ESP

With a standard 50Pa static pressure (customizable up to 80Pa), our outdoor unit enables long-distance airflow, prevents cross-interference, and ensures efficient heat dissipation. It operates reliably even in confined spaces.



Support Maximum 80 IDUs

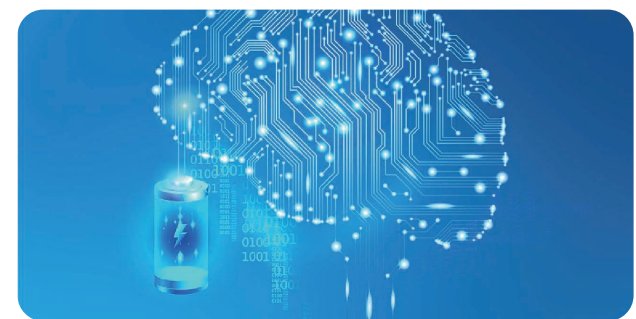
A single system supports up to 80 indoor units, providing the flexibility to meet the demands of diverse building layouts.



Easy maintenance and Commissioning

Automatic Restart Function

In the event of a sudden power outage, the system automatically saves the unit's status prior to the shutdown. Once power is restored, it resumes operation to the pre-shutdown state (including operating mode, set temperature, fan speed, etc.) without requiring manual reconfiguration, delivering smarter service.



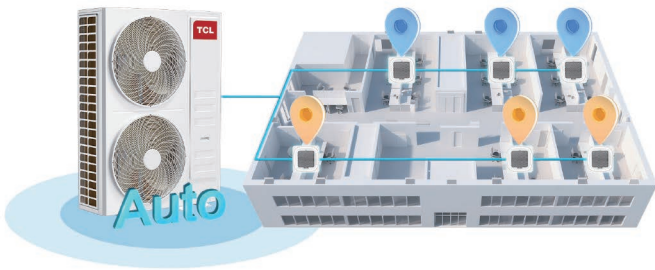
Emergency IDU Maintenance Mode

If an indoor unit requires power outage for maintenance due to a malfunction, it can be independently powered off for repair without affecting the operation of the entire system. Other indoor units within the system can continue to operate normally.



● Automatic Address Assignment

The system automatically assigns addresses to indoor units, eliminating the need for manual DIP switch setting. one-touch address query and configuration via the controller, making operation smarter and more convenient.



● Commissioning by One Button

One-touch test operation on the outdoor unit enables cooling/heating trial runs of the system, streamlining on-site debugging and improving installation quality.

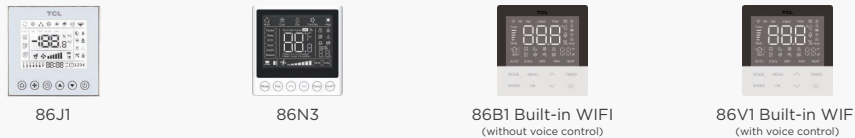


● Intelligent Control Solution

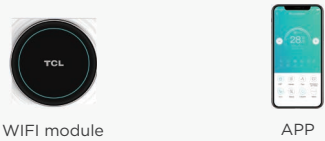
IDU Wireless Controller



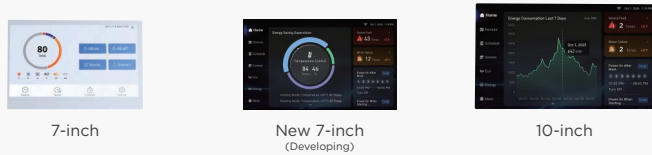
IDU Wired Controller



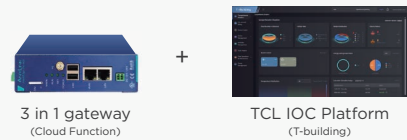
WIFI APP Control



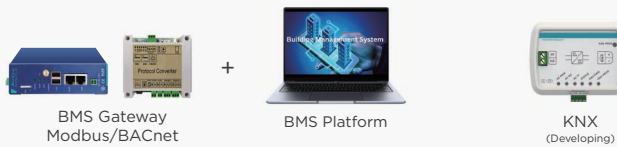
System Centralized Controller



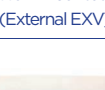
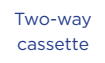
System Cloud Control and Management



System BMS Control



IDU lineup

Series	Type	Fan motor	Model	Capacity range(x100w)																									
				18	22	25	28	32	36	40	45	50	56	63	71	80	90	100	112	125	140	160	220	224	280	335	450	560	
 360° Q8 cassette	Cooling & Heating	DC	TMV-V(**) Q8/NIDY (E)				●		●		●	●	●	●	●	●	●	●	●	●									
 compact cassette	Cooling & Heating	DC	TMV-V(**) Q4R/NIDY (E)	●	●	●	●	●	●	●	●	●																	
 Low ESP Slim Duct	Cooling & Heating	DC	TMV-V(**) F5/NIDY(E)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●									
 Free ESP Duct	Cooling & Heating	DC	TMV-V(**) F2/NIDY(E)								●	●	●	●	●	●	●	●	●	●									
 Wall-mounted (External EXV)	Cooling & Heating	DC	TMV-V(**) G/NIDY-B(E)		●		●		●		●	●	●		●	●	●	●											
 Wall-mounted (Built-in EXV)	Cooling & Heating	AC	TMV-V(**) G/NIY-B(E)		●		●		●		●	●	●		●	●													
 Wall-mounted (Built-in EXV)	Cooling & Heating	AC (60Hz)	TMV-V(**) G/NIY-B(E) (60Hz)		●		●		●		●	●	●	●	●	●													
 High static pressure duct	Cooling & Heating	AC	TMV-V(**) F1/NIY(E)																		●			●		●	●		
 Fresh air duct	Cooling & Heating	AC	TMV-V(**) F1/ XFNIY(E)																	●				●		●	●		
 Celilling & Floor	Cooling & Heating	AC	TMV-V(**) ZD/NIY(E)									●	●	●	●	●	●	●	●	●									
 One-way cassette (Developing)	Cooling & Heating	DC	TMV-V(**) Q1/NIDY(E)		●		●		●		●	●	●	●	●														
 Two-way cassette	Cooling & Heating	AC	TMV-V(**) Q2/NIY€		●		●		●		●	●	●	●	●														

360° Air Outlet Cassette

● Soft Wind Panel

The optional Soft Wind Panel creates a 360° airflow for superior comfort. Air is dispersed through 2,565 micro-holes, which break up the direct airflow into a gentle, body-friendly breeze.

*This is optional



● 360° Airflow

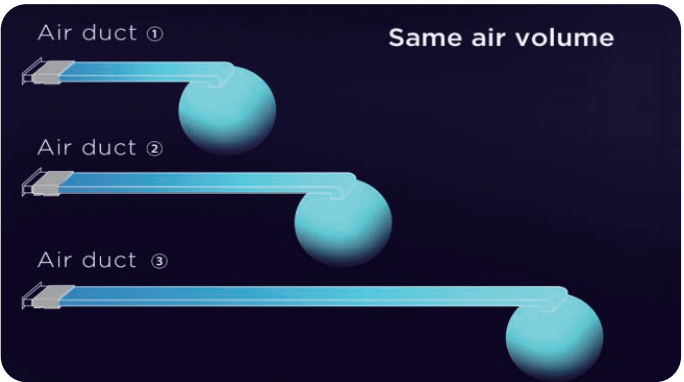
Experience a gentle breeze in every corner. Our system ensures uniform air distribution to eliminate hot and cold spots, maintaining a consistently comfortable temperature throughout your space.



Free ESP Duct Unit

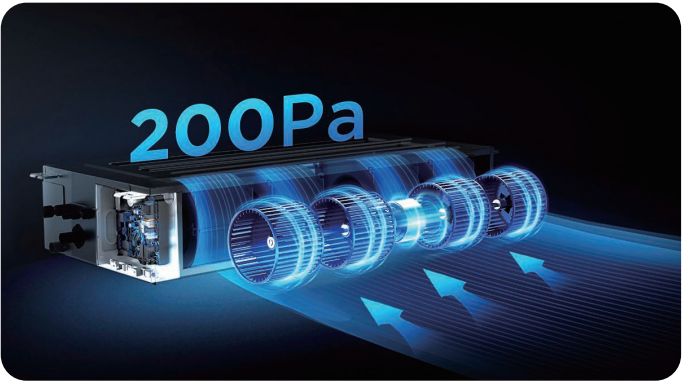
● Constant Air Volume

Fan motor automatically adjusts speed according to real-time wind resistance. To provide stable air volume to rooms.



● High ESP

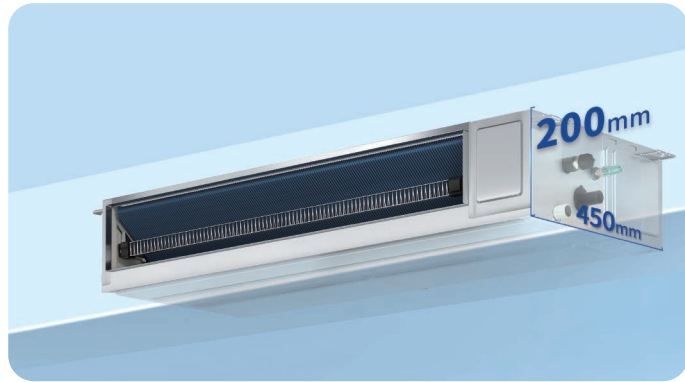
An ESP of up to 200 Pa supports longer air ducts and enables adaptation to a wider range of installation scenarios.



Low ESP Slim Duct Unit

● Ultra-Thin Body Design

With a minimum height of only 200 mm, the unit saves significant space. Its drain pump can raise condensate up to 1200 mm.



● Seven Gear Wind Speed

Precise fan speed control provides a more comfortable experience for wind-sensitive users.



One-way Cassette

● Slim Design

130mm Slim Design
Perfect for Various Installation Need:
• 150mm limited ceiling spaces
• Wall space saving
• Integrated home design



● Smart Comfort

Dual-side Airflow
120° Wide Airflow
Sky Airflow
10M Long-Distance Airflow



*New one-way cassette is under developing.