



HANTECH



Mini VRF

Mini VRF / Mini VRF ECO



High
Efficiency



Quiet and
Comfortable



Constant
Temperature



Stable and
Reliable



Smart
Control



TECHNICAL SPECIFICATIONS

High-Efficiency DC Inverter Compressor

The high-efficiency DC inverter compressor, which minimizes energy loss and significantly boosts efficiency through its constant output capacity, offers the advantages of low noise, stable and reliable operation, powerful cooling and heating, and a long service life, thereby maximizing energy savings.

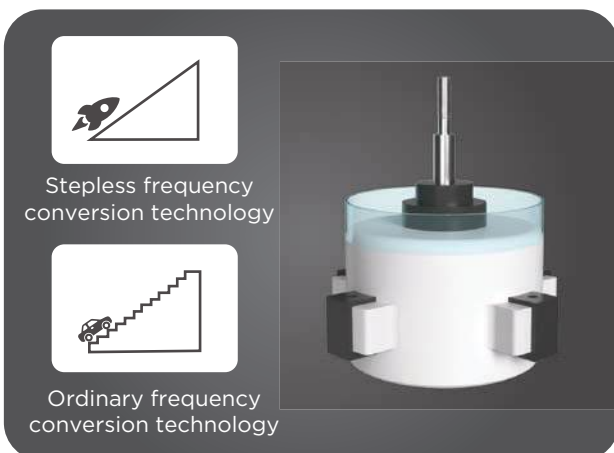
Mini VRF  Mini VRF ECO 



High-Efficiency DC Motor Design

With the new high-efficiency DC fan motor, stepless speed adjustment is achieved, and compared with AC motors and conventional DC motors, efficiency is greatly improved, especially in the low-speed range, and the motor's efficiency has been increased by 45%.

Mini VRF  Mini VRF ECO 

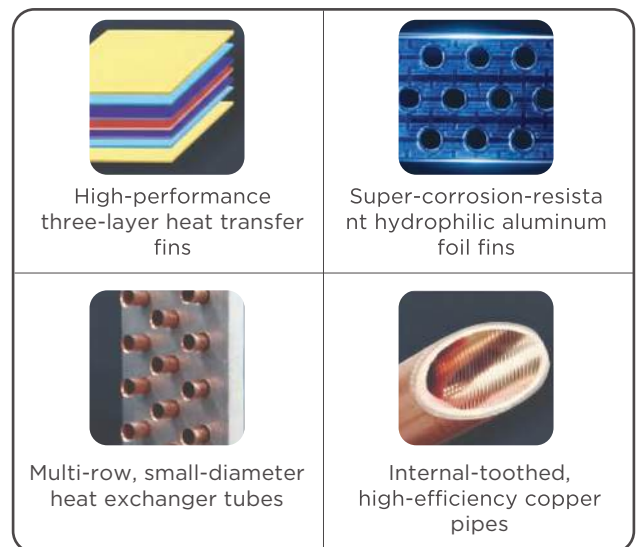


New Hydrophilic Fins for Rapid Heat Dissipation

The outdoor unit's heat exchanger features new hydrophilic aluminum fins and copper tubes in the high-efficiency internal gear-type heat exchanger; this significantly improves heat exchange efficiency and reduces corrosion and oxidation.

The fins are more hydrophilic; condensation on the hydrophilic aluminum foil spreads quickly, does not form water droplets, prevents the heat transfer area from shrinking, and improves heat transfer efficiency; the heat exchanger has better corrosion and wear resistance, and its service life is extended.

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Precision Refrigerant Control Technology

The use of a reputable brand electronic expansion valve ensures precise control of the refrigerant flow, achieving over 80% more efficient distribution for optimal operating conditions.

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STABLE AND RELIABLE

Enjoy a good life without being disturbed

The **HANTECH** Mini VRF series, which aims for a stable life and a continuously operating air conditioning system, creates a better living space and commits to providing users with more durable, stable, and reliable air conditioning products.



✓ Unfazed by Harsh Environments, Reliable Operation Without Interruptions

It can adapt to harsh climatic conditions, is not afraid of high temperatures in summer, even at temperatures as high as 55°C, cooling is still powerful, enjoy comfort all summer long, provides heating in low temperatures down to -20°C, and ensures stable operation even in cold winters.

Mini VRF ✓ Mini VRF ECO ✓

1

↳ The refrigerant-based module cooling design allows for continuous operation at high temperatures of 55°C.

The inverter module uses refrigerant cooling to keep the compressor module temperature below 65°C. This improves the compressor frequency in high-temperature cooling mode, increases the reliability of the electronic controllers, and extends the lifespan of the outdoor unit.

Mini VRF ✓ Mini VRF ECO ✓



☁ It is Robust And Durable in Harsh Weather Conditions

Manufactured using thick, high-strength alloy plates, it forms a robust body unaffected by sun and rain. The parts are processed using high-pressure electrostatic spraying.

Mini VRF ✓ Mini VRF ECO ✓



2

↳ Smart Defrost Technology for Improved Heating Performance

The outdoor unit is designed with a high-precision temperature sensor to accurately determine the defrosting time when performing automatic defrosting, thus effectively increasing heating capacity during defrosting.

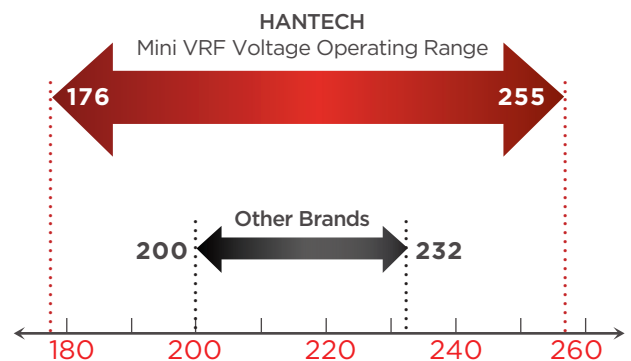
Mini VRF ✓ Mini VRF ECO ✓



⚡ Ultra Wide Voltage Range

The HANTECH Mini VRF series can operate normally within a voltage range of 176-255V, making it suitable for use in areas with significant voltage fluctuations.

Mini VRF ✓ Mini VRF ECO ✓



Note: This voltage range is for single-phase electricity.



COMFORTABLE AND QUIET

Eliminate Temperature Differences, Quiet Operation

After a stressful day at work, when you're physically and mentally exhausted, HANTECH Mini VRF series air conditioners create a comfortable air environment in 6 dimensions, allowing you to relax and spend quality time with your family.



Relaxing
Breeze



Comfortable
Temperature



Clean Air



Quiet
Operation



Comfortable
Humidity



Fresh Air



Multi-faceted Noise Reduction. 20dB(A) Creates a Peaceful and Comfortable Living Environment.

The indoor unit is equipped with a full DC motor and a high-pressure full DC water pump, providing stepless speed adjustment and a minimum operating noise of 20dB(A), creating a comfortable home environment for your family.

Mini VRF  Mini VRF ECO 

20dB Indoor Unit	30dB Countryside	40dB Library Whispers	45dB Silent Mode	50dB Quiet Office	60dB Full Load Operation
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1 Mini VRF

➤ Noise optimization for outdoor units, low noise levels without disturbing others.



DOE simulation design: lower noise level in the same air volume.

New Large Diameter Outdoor Unit Fan



A simulation was used to calculate drag losses along the manifold, local losses, and fluid states.

New Simulation



New Body Type Housing Structure Suitable

The ANSYS static analysis method has been adopted. The housing has been reasonably designed to ensure stable operation of the unit.



Low-Noise DC Inverter Compressor

Thanks to its state-of-the-art, high-efficiency DC inverter compressor, it provides quiet, stable, and reliable cooling and heating

2 Mini VRF

➤ Indoor unit with DC components for maximum noise reduction.



Centrifugal Fan

The simulation-optimized air duct design reduces noise by 5% by minimizing internal turbulence in the airflow, ensuring a comfortable living environment.



DC Silent Fan Motor

As an industry leader, we have adopted seamless sine wave inverter technology to ensure quick startup and smooth operation



Custom Sound-proofing Design

The independent electronic expansion valve integrated into the indoor unit, combined with the unit's sound insulation and noise-reduction design, effectively minimizes operating noise.



Silent Electronic Expansion Valve

Silent electronic expansion valve, compact size, light-weight, optimized flow path, lower noise



120 Extra-Long Pipe Design, Flexibility to Adapt to Various Buildings

The extra-long duct design frees the indoor unit from fixed installation constraints, allowing you to choose the most suitable installation location based on the layout of the interior space and ensure optimal indoor air circulation.

Mini VRF Mini VRF ECO



Maximum system pipe length is 120 m.

The height difference between IDU and ODU is 30 m.

The height difference between the IDUs is 8 m

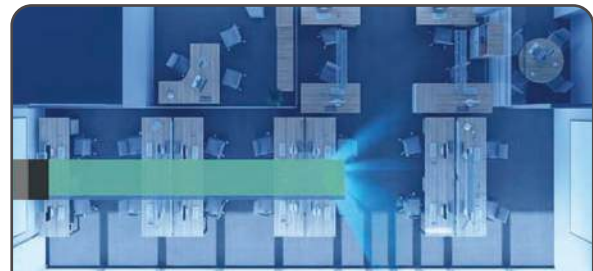
Pa High Static Pressure, Ultra-Long-Range Air Supply

Static pressure can reach up to 80 Pa and is automatically adjustable; the maximum duct length is 12 meters. The airflow is more powerful, with a maximum air volume of 1,100 m³/h, which accelerates indoor air circulation and ensures there are no blind spots in any direction.

Mini VRF Mini VRF ECO



The static pressure is automatically adjusted up to 80Pa.



The longest connecting channel reaches 12 m.

Optional Connecting Pipes On Three Sides

There are holes on the front, sides, and back of the unit, so you can freely choose the direction of the pipe after removing the sheet metal from the holes.

Mini VRF Mini VRF ECO



Three-sided outlet pipe design on the outdoor unit to meet the needs of different installation areas.

Rapid Cooling and Heating

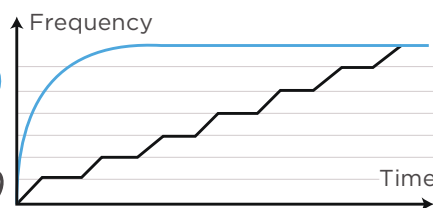
The compressor, equipped with low-frequency and high-frequency operation technology, significantly reduces the compressor's runtime, rapidly increases the air conditioner's operating frequency, and enables the air conditioner to cool and heat quickly without delay.

Mini VRF

High-Frequency Rapid Cooling & Improvement



Traditional Startup, Longer Waiting Time



60s

Rapid Cooling

75s

Rapid Heating

ELEGANT APPEARANCE

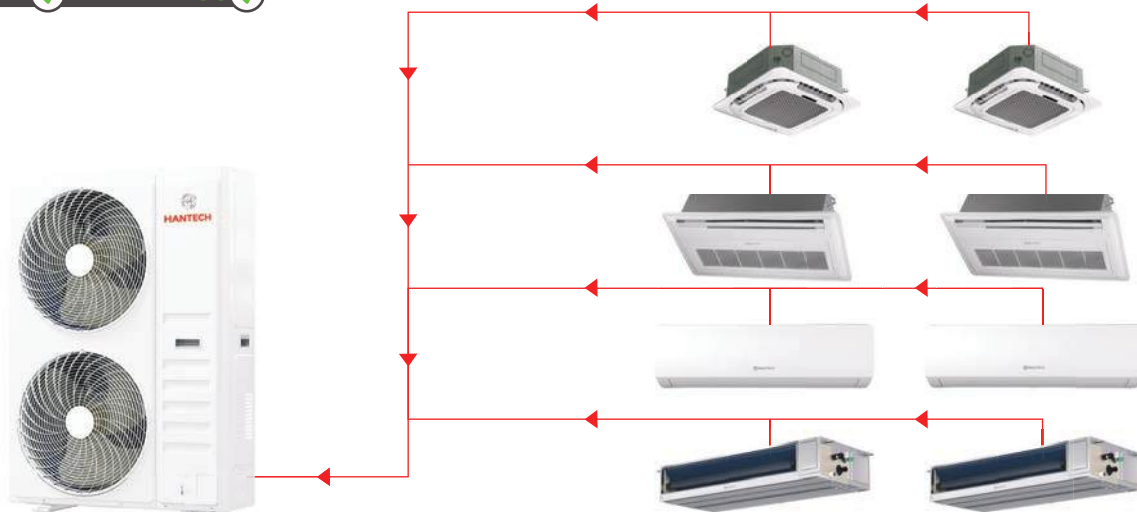
Home air conditioners should also be aesthetically pleasing. With their high quality, performance and flexible installation, HANTECH Mini VRF series air conditioners integrate perfectly into home decor, creating an ideal living space with a special air aesthetic, clean and fresh atmosphere.



The freedom to connect multiple indoor units easily solves the problem of outdoor unit placement.

HANTECH Mini VRF series air conditioners are suitable for a wide range of applications including suites, houses, and villas. You can find the right configuration to meet your personalized needs and enhance the experience and comfort of your living space. Multiple indoor units can be connected to a single outdoor unit, thus saving you more space.

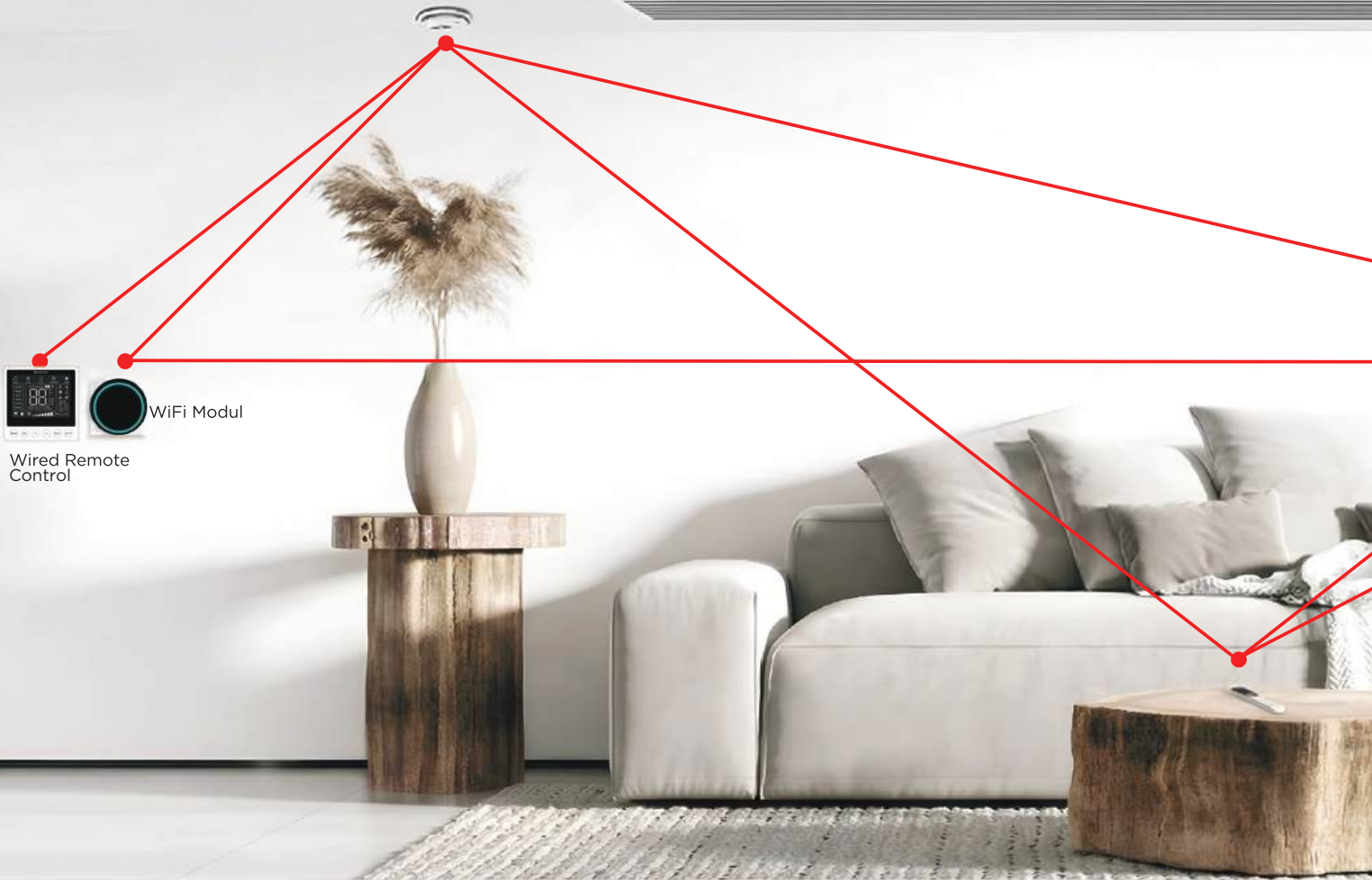
Mini VRF  Mini VRF ECO 





HANTECH

Convenient and Smart Control



Central Air Conditioning Management System

It is easy to control the entire system by connecting the indoor unit to a computer via an adapter, and up to 1280 indoor units can be connected to a single PC control system.

Mini VRF Mini VRF ECO

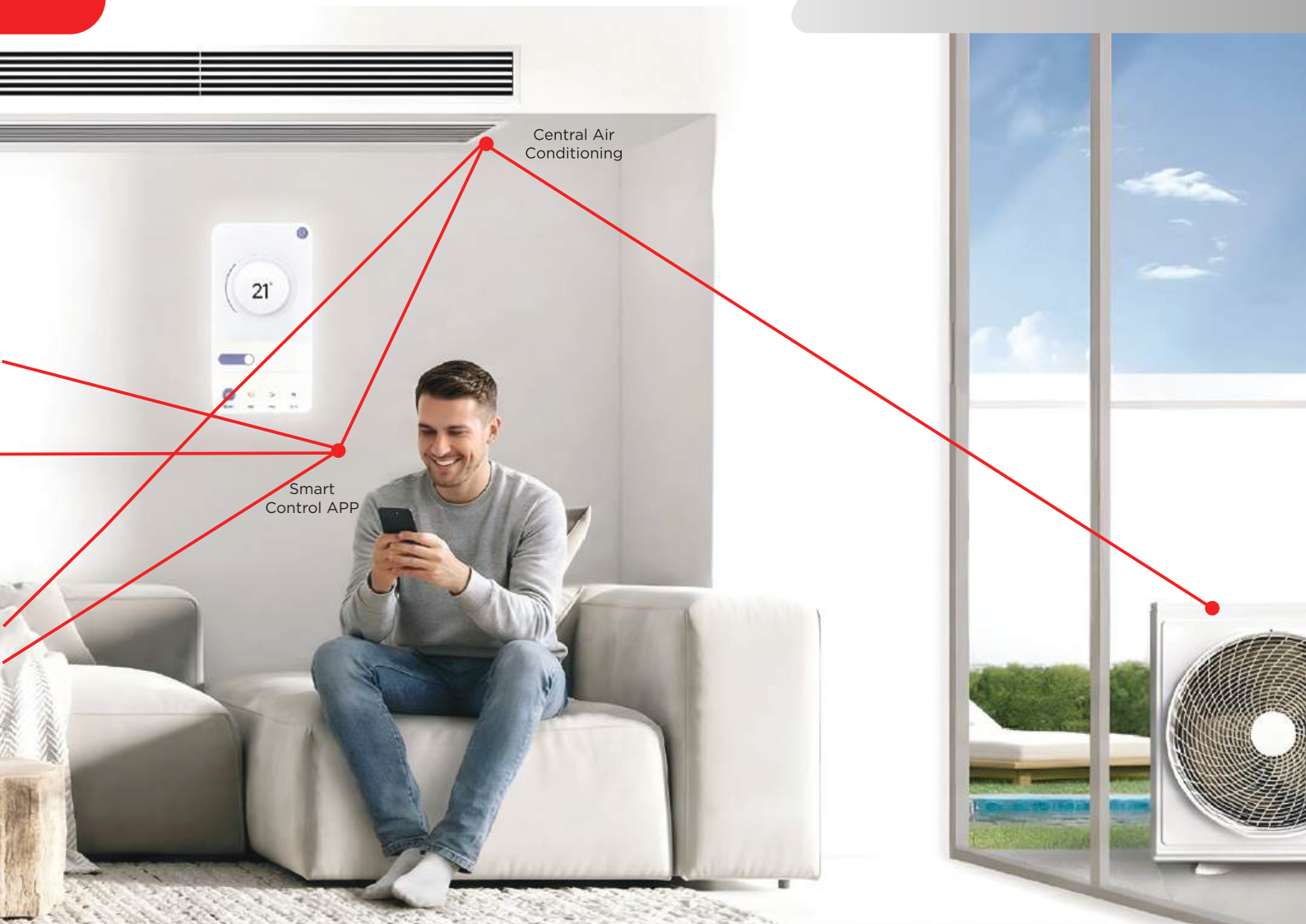


Multiple Intelligent Control Methods

In addition to the standard remote control, flexible and diversified control methods offer greater control support for mobile phones, tablets, and other mobile terminals. Simultaneously monitor the unit's operating status, adjust temperature and mode; it's easy to use and control.

Mini VRF Mini VRF ECO





WiFi Central Control and Remote Control

WiFi central control does not require a network card; it can automatically integrate traditional central air conditioning into a smart system with a single network sharing operation.

Mini VRF  Mini VRF ECO 



Wired Controller with HD Display

3.29-inch LCD HD Screen, Clear and Bright. Multifunctional Design.

Remote Control

Cooling, Heating, Dehumidification, Fan Mode and other operating modes
Temperature, Flap Settings
Sleep Mode, Timer, Cleaning, Turbo and other function settings.

Mini VRF  Mini VRF ECO 

Product Operating Range

➤ To ensure optimal performance, please operate the air conditioner under the following

MINI VRF SERIES			MINI VRF ECO SERIES		
OPERATING MODE	COOLING	HEATING	OPERATING MODE	COOLING	HEATING
Outside Temperature	-5°C~55°C	-20°C~24°C	Outside Temperature	-20°C~55°C	-20°C~24°C
Indoor Temperature	16°C~32°C	15°C~31°C	Indoor Temperature	-16°C~32°C	15°C~31°C
Indoor Humidity	≤%80		Indoor Humidity	≤%80	

If the air conditioner is operated for an extended period under conditions where relative humidity exceeds 80%, condensation may form on the surface of the indoor unit, or cold, mist-like air may be emitted from the air vents.

➤ When the device is connected to the clean air indoor unit, the operating range is as follows.

MINI VRF+ & MINI VRF ECO	
Cooling Operating Range	Outdoor temperature 16°C~45°C
Heating Operating Range	Outdoor temperature -7°C~16°C

Note: If the air conditioner is used in any situation other than those specified above, its safety protection functions may be triggered, which could cause the unit to malfunction.

Outdoor Unit Combination Modes

Total Dental Unit Capacity (kW)	Maximum Number of Indoor Units (Mini VRF)	Maximum Number of Indoor Units (Mini VRF ECO)	Total Indoor Unit Capacity (kW)
8	5	5	4.0-10.4
10	6	6	5.0-13.0
12	7	7	6.0-15.6
14	8	8	7.0-17.2
16	9	9	8.0-20.8
18	10	-	9.0-23.4
20	11	-	10.0-26.0
22.4	13	-	11.2-29.1
25.2	14	-	12.6-32.8
28.0	16	-	14.0-36.4

Copper Pipe and Insulation Sizes

Pipe Diameter (inches)	Pipe Diameter (mm)	Copper Pipe Wall Thickness (Least) (mm)	Insulation Thickness (Least) (mm)
1/4	6,44	0,80	13-15
3/8	9,58	0,80	13-15
1/2	12,71	0,80	13-15
5/8	15,88	1,00	15-18
3/4	19,14	1,00	15-18
7/8	22,21	1,0-1,1	15-19
1,0	25,41	1,20	19-22
1.1/8	28,59	1,30	19-25
1.3/8	34,92	1,50	19-29
1.5/8	41,30	1,5-1,7	19-29



PRODUCT PARAMETERS

MINI VRF Outdoor Unit Model



8kW-10kW



12kW-16kW



18kW-28kW

Model			HNT-V1M080V MTC-O	HNT-V1M100VM TC-O	HNT-V1M120VM TC-O	HNT-V1M140VM TC-O	HNT-V1M160VM TC-O	HNT-V1M180VT TC-O	HNT-V1M224VT TC-O	HNT-V1M252VT TC-O	HNT-V1M280VT TC-O
Cooling Capacity	Capacity	HP	3	3.2	4	5	5.5	6.5	8	9	10
		kW	8	9	12,1	14	15,5	18	22,4	25,2	28
		W	8,000	9,000	12,100	14,000	15,500	18,000	22,400	25,200	28,000
	Input	W	2700	2900	3900	5250	5930	6900	9220	8600	11280
	Current	A	12.1	13	17.31	23.34	26.06	10.75	14.2	13.23	16.62
Heating Capacity	Capacity	HP	3	3.2	4	5	5.5	6.5	8	9	10
		kW	8	9	12,1	14	16	18	22,4	25,2	28
		W	8,000	9,000	12,100	14,000	16,000	18,000	22,400	25,200	28,000
	Input	W	2100	2900	3100	3800	4520	4900	6220	7030	8070
	Current	A	9.41	13	13.9	16.6	19.86	7.63	9.34	10.9	12.46
SEER	Duct		5.4	5.4	7	6.9	6.8	7	6.8	6.6	6.4
	Cassette		5.4	5.4	6.95	6.85	6.75	6.95	6.75	6.55	6.35
SCOP	Duct		3.8	3.8	4.3	4.2	4.2	4.4	4.2	4.3	4.3
	Cassette		3.8	3.8	4.25	4.15	4.15	4.35	4.15	4.25	4.25
Power Supply			220-240V~/50Hz			220-240V~/50Hz			380-415V 3P - 50Hz		
Outdoor Noise Level (sound power level)		dB(A)	69/71	69/72	70/72	70/73	71/74	78/79	78/79	80/82	80/82
Max. Power		kW	6.2	6.2	7.26	7.26	7.26	11.00	11.0	12.0	12.0
Max. Current		A	28.2	28.2	33.0	33.0	33.0	17.6	17.6	19.2	19.2
Air Volume		m³/h	4300	4300	5700	5700	5700	10500	10500	10500	10500
Connection Pipe	Liquid	inç-(mm)	3/8"-(Ø9.52)	3/8"-(Ø9.52)	3/8"-(Ø9.52)	3/8"-(Ø9.52)	3/8"-(Ø9.52)	3/8"-(Ø9.52)	3/8"-(Ø9.52)	3/8"-(Ø9.52)	3/8"-(Ø9.52)
	Gas	inç-(mm)	5/8"-(Ø15.88)	5/8"-(Ø15.88)	5/8"-(Ø15.88)	5/8"-(Ø15.88)	5/8"-(Ø15.88)	7/8"-(Ø22.22)	7/8"-(Ø22.22)	7/8"-(Ø22.22)	7/8"-(Ø22.22)
Net Dimensions (WxDxH)		mm	910×359×803			1010×410×850			1120×400×1560		
Packaging Dimensions (WxDxH)		mm	1022×480×835			1145×535×970			1250×560×1721		
Weight	Net	kg	52	52	75	75	78	130	130	140	140
	Gross	kg	55	55	87	87	90	145	145	163	163
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
	Amount	kg	2.3	2.3	3.7	3.7	4.2	6.5	6.5	8.5	8.5
Cooling Operating Range	Outdoors	°C	-5-55			-5-55			-5-55		
	Indoors	°C	16-32			16-32			16-32		
Heating Operating Range	Outdoors	°C	-20-24			-20-24			-20-24		
	Indoors	°C	15-31			15-31			15-31		

Note:

- Technical specifications are based on the following conditions:
- Cooling: Indoor ambient temperature 27°C D/19°C W/ and outdoor ambient temperature 35°C D/24°C W/.
- Heating: Indoor ambient temperature 20°C D/15°C W/ and outdoor ambient temperature 7°C D/6°C W/.
- Equivalent pipe length: 5m; Height difference: 0m; Voltage: 230V.

- Sound Level: The indoor unit sound pressure level was measured 1.5m below the center of the unit.
- The outdoor unit sound pressure level was measured 1.0m in front of the unit.
- Optional simple wired remote control; Universal remote control; Automatic restart (optional); Timer: Single cycle only.
- Due to ongoing product development, specifications are subject to change without prior notice.

**HANTECH****PRODUCT PARAMETERS****MINI VRF ECO Outdoor Unit Model****8kW-12kW****14kW-16kW**

Model			HNT-V1EM 080VMTC 260-O	HNT-V1EM 100VMTC2 60-O	HNT-V1EM 120VMTC2 60-O	HNT-V1EM 140VMTC2 60-O	HNT-V1EM 160VMTC2 60-O
Cooling Capacity	Capacity	HP	3	3.5	4	5	6
		kW	8	10	12	14	16
	Input	W	8,000	10,000	12,000	14,500	16,000
		A	2700	2900	3900	5250	5930
	Heating Capacity	Capacity	HP	3	3.2	4	5
kW			8	9	12,1	14	16
Input		W	10,000	12,000	14,000	16,000	18,000
		A	2,850	3,050	3,350	3,800	4,700
EER		Cooling	W	13	13.9	15.3	17.3
	COP		Heating	3.14	3.64	3.93	3.54
			3.51	3.93	4.18	4.21	3.83
Power Supply			220-240V, 50/60Hz, 1N			220-240V, 50/60Hz, 1N	
Outdoor Noise Level (sound power level)		dB(A)	54	55	56	56	56
Max. Power		kW	6.2	6.2	6.2	7.26	7.26
Max. Current		A	28.2	28.2	28.2	33.0	33.0
Air Volume		m³/h	4300	4300	4300	5300	5300
Connection Pipe	Liquid	inç-(mm)	3/8"-(Ø9.52)	3/8"-(Ø9.52)	3/8"-(Ø9.52)	3/8"-(Ø9.52)	3/8"-(Ø9.52)
	Gas	inç-(mm)	5/8"-(Ø15.88)	5/8"-(Ø15.88)	5/8"-(Ø15.88)	5/8"-(Ø15.88)	5/8"-(Ø15.88)
Net Dimensions (WxDxH)		mm	910×359×803			1010x410x850	
Packaging Dimensions (WxDxH)		mm	1022×480×835			1145x535x970	
Weight	Net	kg	52	52	52	75	75
	Gross	kg	55	55	55	87	87
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A
	Amount	kg	2.3	2.3	2.3	3.7	3.7
Cooling Operating Range	Outdoors	°C	-20-55			-20-55	
	Indoors	°C	16-32			16-32	
Heating Operating Range	Outdoors	°C	-20-24			-20-24	
	Indoors	°C	15-31			15-31	

Note:

- Technical specifications are based on the following conditions:
- Cooling: Indoor air temperature 27°C DB/19°C WB and outdoor air temperature 35°C DB/24°C WB.
- Heating: Indoor air temperature 20°C DB/15°C WB and outdoor air temperature 7°C DB/6°C WB.
- Equivalent pipe length: 5 m; Height difference: 0 m; Voltage: 230 V.
- Sound Level: The indoor unit sound pressure level was measured at a point 1.5 m below the center of the unit.
- The outdoor unit's sound pressure level was measured at a point 1.0 m in front of the unit.
- Optional simple wired control unit; universal remote control; automatic restart (optional); timer: single cycle only.
- Due to ongoing product development, specifications are subject to change without notice.



HANTECH



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Not: Teknolojik gelişmeler nedeniyle değişiklik hakkı saklıdır.

YETKİLİ SATICI



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