

## DIRECTORY

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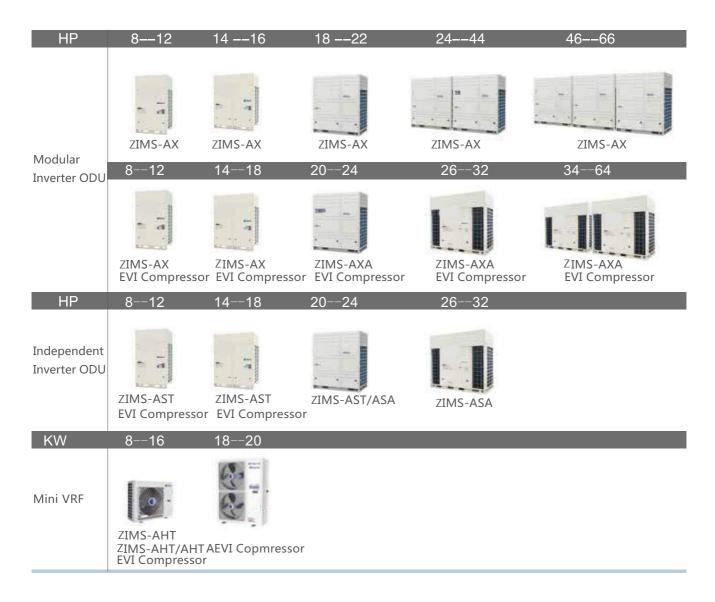


No oil balance pipe Black box Single Compressor up to 22P Full Dc EVI compressor Refrigerant+Air Cooling IPM Non-stop Defrosting





## **Product Lineup-Outdoor**



## AHU KIT

Model	Cooling capacity (HP)	Indoor unit capacity (kW)	Reference air volume (m <sup>3</sup> /h)	Picture
ZMDK280	8	20~25	3000	
	10	25~30	3700	
	12	30~36	4500	
ZMDK450	14	36~40	5400	
	16	40~45	6000	
	18	45~61	9000	
ZMDK900	26	61~73	10000	
	32	73~90	13000	

## **Basic Modules**

С	<b>ZIMS</b> ombin modu	ation			1.4	100		the state	11				Internet				
Мо	del	ZIMS-A	X ZIM	S080AX	ZIMS100	X ZIMS	120AX	ZIMS140A	X ZIMS	160AX	ZIMS180AX	ZIMS2	DOAX Z	IMS220AX			
Can	a aitu	HP		8	10		12	14	1	6	18	20		22	Power type	208-230V	380-415V
Cap	acity	KW		25.0	28.0	3	3.5	40.0	45	5.0	50.0	56.	0	61.5	50Hz/3N	1	Available
	Compr	essor		DC	DC	0	DC	DC	D	с	DC+DC	DC+	DC	DC+DC			
	Fan n	notor		DC	DC	0	C	DC	D	с	DC+DC	DC+	DC	DC+DC	60Hz/3N	1	Available
ZIMS Combi mod	nation ules zims-axa										A ZIMS260AXA				Power type	208-230V	380-415V
Capacity	HP	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00	24.00	26.00	28.00	30.00	32.00	501 I= (2N	,	Augilahla
Comp	ressor	25.00 DC	28.00 DC	33.50 DC	40.00 DC	45.00 DC	50.00 DC	56.00 DC	61.50 DC+DC	DC+DC	73.00 DC+DC	78.50 DC+DC	DC+DC	DC+DC	50Hz/3N	1	Available
Fan		DC	DC	DC	DC	DC	DC	DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	60Hz/3N	1	Available
ZIMS- Indepe modu	ndent		. a .			1	NAVARATE EVEN		-								
Model	ZIMS-AS	ZIMS080AST	ZIMS100AST	ZIMS120AST	ZIMS140AST	ZIMS160AST	ZIMS180AST	ZIMS200ASA	ZIMS220ASA	ZIMS240ASA	ZIMS260ASA	ZIMS280ASA	ZIMS300AS	A ZIMS320ASA	Power type	208-230V	380-415V
Capacity	HP	8	10	12	14	16	18	20	22	24	26	28	30	32	50Hz/3N	1	Available
	KW	25	28	33.5	40	45	53	56	61.5	67	73	78.5	85	90			

# Product Lineup-Indoor

DC

DC

DC

DC

DC

DC

DC+DC

60Hz/3N

Compressor

Fan motor

DC

DC

DC

DC

DC

DC

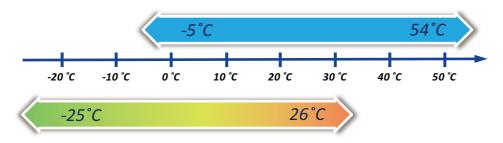
	-										Capac	ity(KW)								
Model	Туре	Photo	2.2	2.5	2.8	3.2	3.6	4	4.5	5	5.6	6.3	7.1	8	9	10	11.2	12.5	14	16
ZMCF	Round Flow cassette				•		•		•	•	•	•	•	•	•	•	•	•	•	•
ZMCS	One way cassette				•		•		•		•		•							
ZMCD	Two way cassette				•		•		•		•		•	•	•	•	•	•	•	
ZMDN-AC	Slim duct	4.00	•	•	•	•	•	•	•	•	•	•	•							
ZMDN-AB	Standard duct		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
ZMDH-AB	High ESP duct	6														•	•	•	•	
ZMVX	Ceiling&Floor				•		•				•		•		•		•	•	•	
ZMVW	Wall mounted	-			•			•	•		•	•	•							
Model	Туре	Photo									Capac	ity(KW)								
mouor	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1 11010	19.5	25	25.5	28	41	45	52	56	62									
ZMDH-AI	Big capacity duct		•		•		•		•		•									
ZMDF	Fresh air processor	6		•		•		•		•										

Available

7

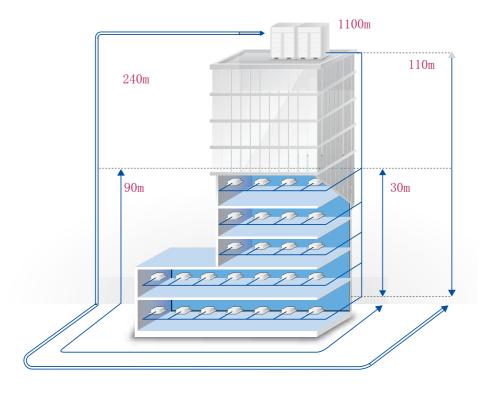
# Widely Operating Range of Cooling and Heating

Through the strict system matching and test, the system has very powerful cooling and heating performance, even operates under -25°C during cold winter or 54°C in summer.



## **Overlong Pipe & High Drop Design**

Maximum actual length of single pipe 200 m Maximum equivalent length of single pipe 240 m Maximum total equivalent pipe length 1100 m Maximum drop of indoor/outdoor unit 110 m Maximum drop of indoor unit 30 m Maximum permitted length after first branch 90 m



\* PIs consult the detailed technical documentation or other matters with the relative technicists.



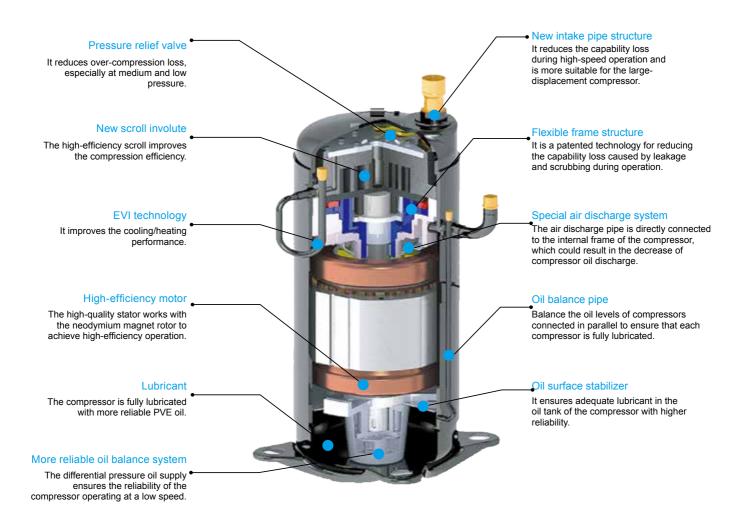


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# High Efficiency

## All DC Inverter Compressors

The ZIMS adopts the high-efficiency DC inverter scroll compressor with high-pressure chamber, which adopts asymmetric scroll design and high-efficiency internal oil separator. By integrating with the enhanced vapor injection technique, the ZIMS can realize the heating under low ambient temperature in winter, and save more energy. The kind of system can run more stably and reliably.



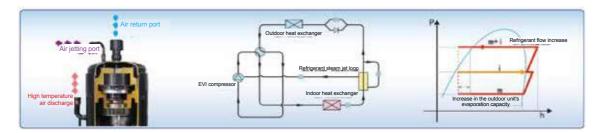
## Stereo Air Inlet Technology of Four Directions

In comparison to air inlet through three sides, the stereo air inlet technology of four directions can maximize utilization of the heat exchange area of heat exchanger, increase the air speed range, make heat exchange more sufficient, and improve the operation efficiency.



## EVI technology

When the ambient temperature reaches the limit condition, the heat exchange capacity of the outdoor unit declines, and the air return volume of the compressor is reduced, accompanied by problems in compressor suction and discharge protection. The ZIOMAT ZIMS VRF unit adopts the high efficiency EVI system and cooperates with ZIOMAT's new inverter control and refrigerant system. In the unit, refrigerant is added through the air jetting port to increase the displacement, so as to broaden the cooling and heating ranges of the unit, enhance the overall capacity by 20%, and achieve the cooling capability without attenuation at  $40^{\circ}$ C and the heating capacity without attenuation at  $-15^{\circ}$ C. In addition, the added refrigerant is injected into the pressure chamber of compressor to reduce the compression ratio and power consumption of the compressor, and improve the COP value by 10%. The low-temperature gaseous refrigerant inhaled by the air jetting port effectively reduces the temperature for the compressor and ensures high efficiency as well as more stable and reliable operation of the compressor.



## Refrigerant cooling technology

The inverter will produce a lot of heat. A high temperature may reduce the operating speed of the unit and affect system stability. In addition to the conventional air cooling technology, the ZIMS also adopts the most advanced refrigerant cooling technology to use the condensed refrigerant (typically 30–55°C) to perform heat exchange with the drive (with a maximum temperature of 90°C). In this way, the drive temperature is greatly reduced, and the system runs more stably and reliably.



Connected to the heat exchanger of the outdoor unit

Connected to the subcooler

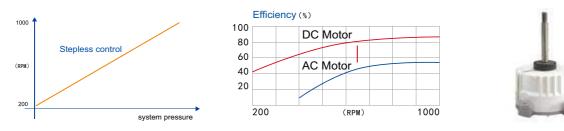
## 180° Sine Wave Control Technology

Non sensor control technology of permanent magnet synchronous motor makes output current of DC converter sine wave, which guarantee stability, reduce vibration prevent from electromagnetic interference to improve running efficiency



## All DC Fan Motors

The new DC inverter fan motor allows to make the five-stage speed regulation and adjust the speed according to the change in the system operation, and finally guarantees the system runs under the best condition. By matching the air flow changes and variable refrigerant flow also the heat exchanging demand, the system operates in high efficiency and low operating noise.



## High Efficiency Heat Exchanger

The outdoor heat exchanger adopts the high-efficiency internal thread copper pipe with the diameter of 7.0 and the new aluminium fin; its integal molding technology guarantees the larger heat exchange area, improves the air flow distribution, reduces the airflow resistance, exchanges the heat more efficiently, and reduces the impact of the frosting on the heating capacity of the system.

### • Refrigerant circuit of TOD

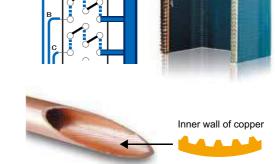
The specially designed TOD circuition increase the liquid refrigerant volume, improves and optimizes the heat exchange efficiency of the refrigerant.

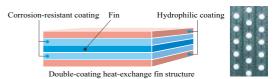
### Inner-grooved copper pipe

Hydrophilic aluminum fin

efficiency and enhance the heat exchange efficiency.

The groove of the premium & efficient inner-grooved copper is designed on its inner surface, which increase the contact area of the refrigerant and improves the heat transfer efficiency.

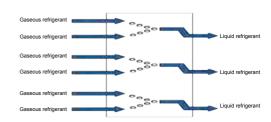






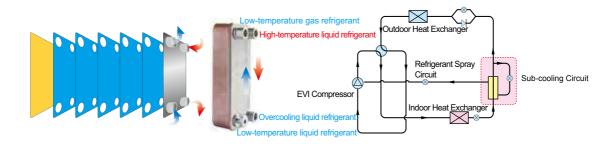
The specially designed 2-in-1 refrigerant loop can increase the liquid refrigerant volume and comprehensive heat exchange coefficient, making refrigerant heat exchange more sufficient and system more optimized.

The outdoor unit adopts the louver-type aluminum foil with the hydrophilic coating, which can efficiently prevent dirt accumulation, improve defrosting



## Sub-cooling Design

The unique sub-cooling design enhances the cooling capacity, heating capacity, cooling efficiency ratio (EER) and heating efficiency ratio (COP).



## Large Capacity Compressor Design

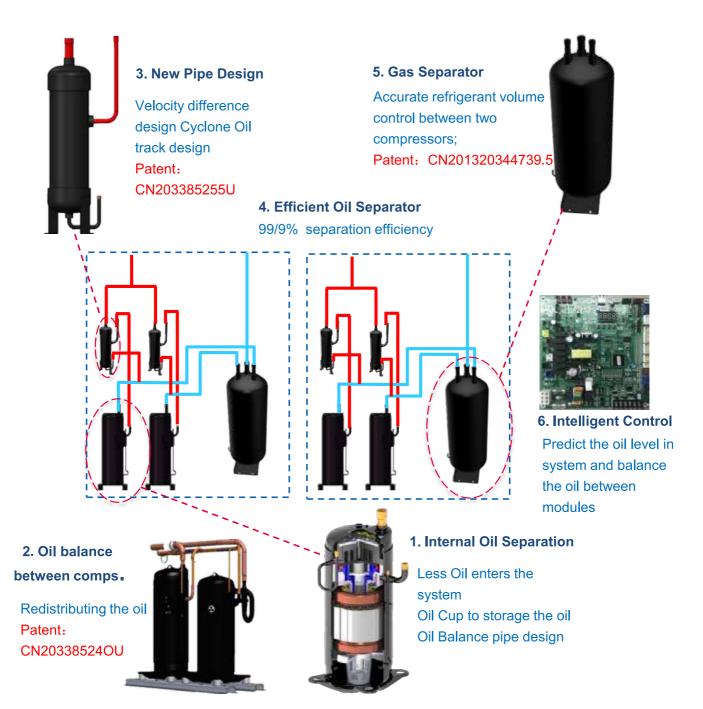
Less compressor configuration improves the system stability. The heating capacity is more powerful under low temperature, the exhaust volume and heating capacity are further improved for the large capacity compressor configuration under the equivalent frequency.



# High Reliability

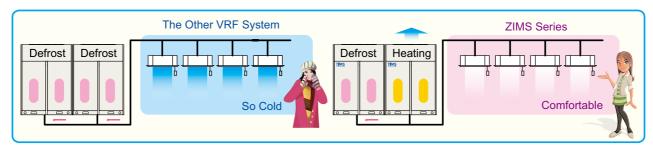
## Six type oil return control Tech

By virtue of the solid R&D strength,ZIOMAT central air conditioning system integrates the advanced VRF technology process of Japanese expert team, and the full series of VRF units adopt the six-level oil control technology to make operation more stable and reliable.



### • TCC (ZIOMAT Comfortable Control) defrosting technology (patent No.: CN201320402500.9/ CN201320344961.5)

The unique TCC defrosting technology of ZIOMAT adopts the non-stop method. It is unnecessary to switch to the cooling mode when defrosting in winter, and less exhaust temperature fluctucation of IDU. There is no need to worry about the indoor instantaneous temperature reduction. The technology makes the system performance more stable and noise lower.

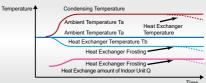


### Smart defrosting technology

The smart defrosting technology allows to detect when to defrost according to every heating parameter, which can guarantee high heating capacity and energy efficiency ratio.

With the full load, the ZIMS system will detect the defrosting time according to the heat transfer temperature difference of the outdoor unit. With the partial load, the ZIMS system will detect the defrosting time according to the heat exchange efficiency of the outdoor unit.





### Bottom Frosting Prevention Design during Heating

The system employs the unique bottom frosting prevention design during heating to ensure that the ice water mixture is completely exhausted from the unit bottom during heating defrosting in winter, and avoid decrease of the heating capacity caused by frosting at the unit bottom.

### Anti snow capacity

When it snows heavily in winter, the ZIMS unit will give priority to start the outdoor fan motor before user starts the outdoor unit; such design prevents the unit from being covered by the snow. Once the unit works normally, the fan will run normally.



## Automatic Detection and Regulation Technologies

### Control Technology of Multiple Electronic Expansion Valves

A single ODU module is provided with multiple electronic expansion valves. Every electronic expansion valve can implement 480-step refrigerant flow regulation, control the refrigerant circulation quantity and meet the actual IDU requirement accurately, thus creating a more comfortable indoor environment.



### Small Room Temperature Fluctuation and High Precision

The DC inverter control technology is adopted to reach the set temperature rapidly when the unit starts, fine regulation is performed according to the load in the room, and the room temperature is controlled within  $\pm 0.3^{\circ}$ C of the set temperature, fully meeting the customer's temperature requirement.

### Accurate Detection Technology of Refrigerant Pressure

The high/low pressure sensor is used to conduct real-time monitoring on the system refrigerant pressure, match the DC inverter module perfectly, and regulate the system refrigerant pressure to the optimal state, ensuring more stable operation of the unit.

### Automatic Addressing

The ODU main board automatically checks the IDU quantity and allocates addresses to IDUs without requiring manual code dialing, and installation is very convenient.

### SMT Surface Sealing Technology of Control Board

All the control boards adopt the SMT surface sealing technology, and sealing material is added to the control board surface to improve the anti-clutter interference performance of control board, prevent the control board from being affected by wind, sand and humid environment, and prolong the service life.

## **Stable Operation Functions**

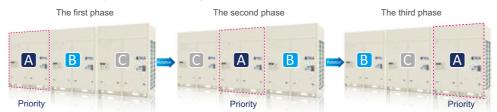
### Automatic Startup after Power Restoration

In case of an unexpected power failure, the system automatically stores the set memory. When power is restored, the system can restart automatically (manual startup can also be set), and the setting before the power failure will not be canceled but will continue to take effect. The program does not need to be reset, so service becomes more intelligent and considerate.



### Dual-rotation Operation Function

To ensure operation time balance between compressors and modules,ZIMS can implement cyclic operation of all the compressors and modules to average the operation time of each compressor and each module effectively, enhance durability of the entire unit or system, and prolong the service life.





### Three-backup Operation Function

For single-module ODU, If one compressor or motor malfunctions or is being maintained, other compressors and motors can be urgently put to use. For multi-module ODU, if one module is being maintained, the other modules can also be urgently put to use, without affecting usability.





Backup operation function of compressor/motor



## **Multiple Protection Technologies**

### Pipeline Exception Protection

When detecting a pipeline exception (too much or too little refrigerant, etc.) through real-time monitoring, the system can start pipeline exception protection immediately to avoid further losses.

### Anti-Reverse-Rotation Protection

In case of reverse rotation of ODU fan, the system will stop the fan first upon air conditioner startup, and then make it rotate in the correct direction of rotation as programmed, preventing the fan blade from being damaged.

### Thunder Stroke Protection

The ODU is designed with a thunder stroke protection module, greatly reinforcing the anti-interference and thunder stroke protection functions of the unit and making the system operation safer.

### IDU Maintenance Power-down Function

When an IDU needs to be stopped for maintenance, it can be powered down separately, without affecting operation of the entire system.

### Emergency Shutdown Function

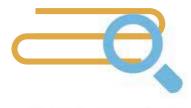
In case of an emergency, the ODU can be shut down immediately and forcedly, to avoid causing harms and losses.

### Power Phase Sequence Protection and Grounding Protection Function

The unit is equipped with a power supply protector. In case of any exception such as phase sequence error or phase loss, the controller will record the power supply failure and report an alarm for shutdown.

### Power High/Low Voltage and Current Protection Function

The ODU can identify the power supply signal directly. In case of inadequate power supply (insufficient or too much), the ODU will send an instruction to the IDU to prohibit startup, thus effectively protecting the system safety.







### Compressor and Motor Overheat Protection

Multiple temperature sensors are installed to efficiently prevent scroll plate wear, carbonization metamorphism of oil, and motor damage due to reasons such as overheat of the compressor or motor.

### Compressor Error Protection

The function includes compressor suction and exhaust temperature protection, compressor high/low pressure protection, compressor oil return protection, compression ratio protection, compressor oil temperature protection, pressure difference protection, compressor overload and over-current protection, compressor anti-liquid hammer protection, etc.

### Inverter EMI Protection and Temperature Protection

The system adopts the inverter of upgraded control accuracy, which can suppress harmonic current well and features high degree of EMI protection. When the system detects overheat of the inverter, it can start the inverter temperature protection function to prevent damage to the inverter.

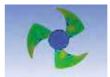
## All-dimensional ultra-silent technologies

The ZIMS series adopt the omni-directional noise reduction technology and spiral flow fan blade to ensure a smooth suction structure and reduce the air flow noise. Supplemented with the sound insulation design of compressor, the unit can realize ultra quiet operation and create a comfortable environment of high quality.

The professional streamlined duct based on the fluid mechanics design helps to reduce the duct tremor generated due to the air flow resistance and has been awarded the title of patent technology.



The fan blades with a larger diameter are adopted to yield a larger air volume at a lower speed and make noises lower.



The fan motor support employs a non-resonant hanger structure to ensure stable operation performance of the motor and reduce the vibration noise.



The air streamlined fan grille promotes more smooth discharge of vortex air flow and reduces the pressure loss.





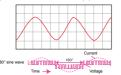
Vortex fan blade: The CAE auxiliary design and CFD air flow analysis technology are used to optimize the fan design, not only lowering the vibration, but also greatly reducing the pressure loss.



The brushless DC motor is adopted to implement stepless speed regulation and more stable operation, reducing noises as ensuring energy conservation and high efficiency.



The compressor employs the 180° sine wave control technology to ensure smooth and stable operation, and abnormal noise during operation of the compressor can be suppressed effectively.



the compressor avoids diffusion of compressor noises effectively.



### Night Silent Mode

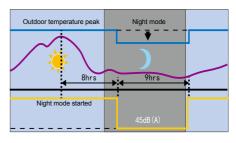
The system adopts the delay judgment mode based on the outdoor ambient temperature peak. Meanwhile, it will automatically judge whether to start the night silent operation mode according to the ODU ambient temperature and the current load size.

### Forced Silent Mode

For the site with a higher silent requirement, the user can select the forced silent operation mode as actually needed to reduce the operation noise of the unit and create a more quiet and comfortable environment.

### Smart silent mode

After smart silent mode is selected, the unit may monitor duty ratio real time and system running state, and automatically enter silent mode to minimize unit running noise, ensuring passenger comfort.



# **Convenient Application**

### Compact, Easy to Transport and Handle

The modular combination requires less floor space, even the largest module occupies only an area of 1.07 m2, and seamless assembling between modules promotes further space savings.

### • 360° Outlet Pipe Connection

During construction, the refrigerant pipe can be connected to the unit front, left or right freely, reducing the construction cost and construction difficulty and facilitating engineering design and installation.



### Stable and Worry-free Operation

The system can control the air conditioner of each room respectively. Once an IDU fails, the other IDUs of the system are not affected and can keep operating properly.



### • Easy and Convenient Maintenance

ZIMS adopts intelligent control and requires no equipment room. Maintenance by designated person is not needed even during system operation, and control is more flexible.



While for traditional central air conditioning systems, maintenance by designated person is a must.

ZIMS intelligent control

### Automated Diagnosis and Self Repair of Faults

The unique automatic fault diagnosis function can be used to get the fault information easily and realize self repair of some faults, enhancing the operation stability and reliability.



### Auto refrigerant judgment and smart charging and recycling

The system may monitor the refrigerant operation in the pipeline real time, automatically decide on the refrigerant quantity necessary for the system and make real-time adjustment based on pressure change and actual operation. In case of insufficient refrigerant in the system or during maintenance, the refrigerant can be conveniently and automatically charged or recycled to the ODU.



### Non-polarized communication

Non-polarized communication connection is realized between the IDU and the ODU to avoid wrong or opposite connection of wires, greatly simplifying installation process and expediting construction period.

### Ultra-high External Static Pressure

The system selects the blade with a higher air flow and the DC fan motor to realize a higher external statistic pressure on the precondition of avoiding noise change. The maximum external statistic pressure is 80 Pa.



### • Easy Refrigerant Pipe Design and Selection

The installation of the ODU modules does not distinguish between main module and sub-module, realizing smart installation.



### Smart and accurate system capability distribution

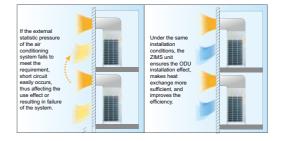
The capability output of different units is distributed as per different horse power and weight between modules to ensure that the compressor of each unit is adjusted with the unit within energy saving, efficient and stable frequency output scope



### Trial Operation Technology of ODU

During commissioning, the button on the ODU main board can be pressed to implement the forced trial operation function of the unit, making commissioning easier.

Exhaust ducts can be installed by layer or in a centralized manner. The higher external statistic pressure realizes long distance air supply, prevents short circuit of the loop effectively, and ensures good ventilation effect.



ZIMS uses branch pipe in installation to simplify system installation. One system only has one set of refrigerant pipelines, unlike a conventional central air conditioning unit, which needs various accessories. The copper pipes are much smaller than that of water pipes to save installation space.



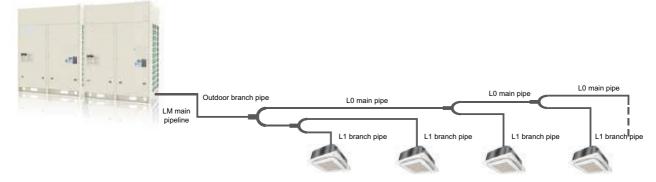
### Energy saving mode

When the unit works with partial load, the user may enable energy saving mode based on actual use demand to adjust the operation frequency of the compressor and the fan motor to improve the system's energy efficiency and save operation costs for users.



### • Easy Refrigerant Pipe Design and Selection

The models of ODU main pipes and IDU branch pipes should be selected according to the parameter table. For the ultra-long pipeline, refer to the installation manual.



### • Design of ZIMS Independent Main Pipe

Total capacity (kW) of downstream IDUs	Liquid pipe size (mm)	Gas pipe size (mm)	Branch joint
X<16.8	Ф9.52	Ф15.88	TBP4022TA
16.8≤X<22.5	Ф9.52	Ф19.05	TBP4022TA
22.5≤X<33.0	Ф9.52	Ф22.23	TBP4033TA
33.0≤X<46.0	Φ12.70	Φ25.40	TBP4072TA
46.0≤X<67.0	Ф15.88	Φ28.58	TBP4072TA
67.0≤X<86.0	Ф19.05	Ф31.75	TBP4073TA
X≥86.0	Ф19.05	Ф34.92	TBP4073TA

### • Design for Main Pipes of ZIMS Modular unit Series

Total capacity (kW) of downstream IDUs	Liquid pipe size (mm)	Gas pipe size (mm)	Branch joint
X<16.8	Ф9.52	Ф15.88	TBP4022TA
16.8≤X<22.5	Ф9.52	Ф19.05	TBP4022TA
22.5≤X<33.0	Ф9.52	Φ22.23	TBP4033TA
33.0≤X<46.0	Φ12.70	Φ25.40	TBP4072TA
46.0≤X<67.0	Ф15.88	Ф28.58	TBP4072TA
67.0≤X<86.0	Ф19.05	Ф31.75	TBP4073TA
86.0≤X<114.0	Ф19.05	Ф34.92	TBP4073TA
114.0≤X<140.0	Ф19.05	Ф38.10	TBP4073TA
X≥140.0	Ф19.05	Ф41.30	TBP4073TA

### Number of single-system IDUs connected

ODU capacity (HP)	Number of IDUs connected	ODU capacity (HP)	Number of IDUs connected	ODU capacity (HP)	Number of IDUs connected
8HP	14	28HP	36	48HP	56
10HP	16	30HP	38	50HP	58
12HP	19	32HP	40	52HP	60
14HP	22	34HP	42	54HP	62
16HP	23	36HP	44	56HP	64
18HP	31	38HP	46	58HP	64
20HP	33	40HP	48	60HP	64
22HP	34	42HP	50	62HP	64
24HP	35	44HP	52	64HP	64
26HP	35	46HP	54	66HP	64

# **ODU** Specifications

## **ZIMS-AX**

- Single Module: 8/10/12/14/16/18/20/22HP
- Combination Module: 24HP-66HP, 2-3 modules
- Full DC Inverter Technology
- Max. 1000m pipe length, Max. 110m height drop



	Model		ZIMS080AX	ZIMS100AX	ZIMS120AX	ZIMS140AX	ZIMS160AX	ZIMS180AX	ZIMS200AX	ZIMS220AX	
	Combination model		-	-	-	-	-	-	-	-	
	Capacity range	HP	8	10	12	14	16	18	20	22	
Capacity	Cooling	kW	25.0	28.0	33.5	40.0	45.0	50.0	56.0	61.5	
	Heating	kW	27.0	31.5	37.5	45.0	50.0	56.0	63.0	69.0	
Po	wer supply	V/N/Hz		I	I	380V/3	N/50Hz/60Hz	I	1	1	
	EER	kW/kW	4.08	3.95	3.88	3.75	3.56	3.53	3.60	3.68	
	COP	kW/kW	4.45	4.49	4.36	4.25	3.99	3.96	4.06	4.14	
Dated input	Cooling	kW	6.12	7.09	8.63	10.67	12.64	14.16	15.56	16.71	
Rated input	Heating	kW	6.07	7.02	8.60	10.58	12.60	14.12	15.52	16.65	
Rated	Cooling	А	12.5	13.4	16.4	19.6	24.1	30.5	35.2	40.0	
current	Heating	А	13.6	13.9	16.7	20.0	24.0	30.1	34.9	35.0	
Definerent	Туре					R410A					
Refrigerant	Charge volume	kg	ł	В	10		12		16		
	Brand	-					Hitachi				
~	Туре	-				S	croll type				
Compressor	Quantity	-			1				1+1		
	Refrigerant oil charge volume	L		0.50		1	.10	0.	50	0.50	
Fan	Туре					A	xial flow				
Fall	Quantity				1				1+1		
Fan motor	Insulation class	-	- IP24								
Fairmoloi	Drive Type	-		DC							
Air	flow rate	m³/h		12000		13	980	18780	20820	22020	
	Liquid pipe	mm	φ1	2.7	φ12.7	φ	12.7		φ15.88		
Connecting pipe	Gas pipe	mm	φ22	2.23	φ25.4	φ2		φ28.58			
	Connection met	hod	Welding								
	ESP	Pa					0-80				
Sound	pressure level	dB(A)		45-57		45	-59	45	-62	45-63	
Outli	ne dimension	mm		930*860*1710		1240*8	60*1710	1500*8	60*1710	1500*860*1710	
Packa	age dimension	mm		1020*950*1950		1300*9	50*1950		1585*950*1950	)	
Ν	let weight	kg	225	225	225	290	290	430	430	430	
Gr	ross weight	kg	245	245	245	310	310	450	450	450	
	m drive IDU NO.	unit	14	16	19	22	23	31	33	34	
	ivalent connection ipe length	m	240	240	240	240	240	240	240	240	
Working	Cooling	°C				-	5-50°C				
temp.	Heating	°C				-3	20-24°C				

#### Notes:

1. Cooling operating temperature range is from -5°C to 50°C, Heating operating temperature range is from -20°C to 24°C.

2. The cooling condition:indoor side 27°C (80.6°F) DB,19°C (60°F) WB outdoor side 35°C (95°F) DB

3. The heating condition:indoor side 20°C (68°F) DB,15°C (44.6°F) WB outdoor side 7°C (42.8°F) DB

- 4. Sound level:measured at point 1m in front of the unit at a height of 1.3m. During actural operation, these values are normally somewhat higher as a result of ambient conditions.and lower as a result of ambient conditions when under ultra-silent operation
- 5. Choosing fuse or breaker according to MFA and electrical wiring according to MCA.
- 6. The above data may be changed without notice for future improvement on quality and performance.



- Single Module: 8/10/12/14/16/18/20/22HP
- Full DC Inverter Technology
- Max. 1000m pipe length, Max. 110m height drop

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	Model		ZIMS240AX	ZIMS260AX	ZIMS280AX	Z1MS300AX	ZIMS320AX	ZIMS340AX	ZIMS360AX	ZIMS380AX	ZIMS400AX	ZIMS420AX	ZIMS440AX
Co	mbination model		10+14	10+16	14+14	14+16	16+16	14+20	14+22	16+22	20+20	20+22	22+22
	Capacity range	HP	24	26	28	30	32	34	36	38	40	42	44
Capacity	Cooling	kW	68.0	73.0	80.0	85.0	90.0	96.0	101.5	106.5	112.0	117.5	123.0
	Heating	kW	76.5	81.5	90.0	95.0	100.0	108.0	114.0	119.0	126.0	132.0	138.0
Powe	er supply	V/N/Hz		1			38	0V/3N/50Hz/60	Ηz		1	1	
E	ER	kW/kW	3.83	3.70	3.75	3.65	3.56	3.66	3.71	3.63	3.60	3.64	3.68
C	COP	kW/kW	4.35	4.15	4.25	4.10	3.97	4.14	4.19	4.07	4.06	4.10	4.14
	Cooling	kW	17.76	19.73	21.34	23.31	25.28	26.23	27.38	29.35	31.12	32.27	33.42
Rated input	Heating	kW	17.60	19.62	21.16	23.18	25.20	26.10	27.23	29.25	31.04	32.17	33.30
Rated	Cooling	A	33.00	37.50	39.20	43.70	48.20	54.80	59.60	31.04	70.40	75.20	80.00
current	Heating	А	3350	37.90	40.00	44.00	48.00	54.90	55.00	59.00	69.80	69.90	70.00
Refrigerant	Туре							R410A					
Reingerani	Charge volume	kg	8+	12		12+12			12+16			16+16	
	Brand	-						Hitachi					
Comproseer	Туре	-						Scroll type					
Compressor	Quantity	-			1+1				1+2			2+2	
	Refrigerant oil charge volume	L	0.5+	1.10		1.10+1.10			1.10+0.50			0.50+0.50	
Fan	Туре							Axial flow					
Fdii	Quantity				1+1				1+2			2+2	
For motor	Insulation class	-						IP24					
Fan motor	Drive type	-						DC					
Airfle	ow rate	m³/h	12030+	-13980		13990+13980		13930-	+20320	20820-	+20820	22020	+22020
	Liquid pipe	mm			φ19.05				φ19.05			φ19.05	
Connecting	Gas pipe	mm			φ31.75				φ34.92			φ38.10	
pipe	Connection m	ethod						Welding					
E	ESP	Ра						0-80					
Sound pr	essure level	dB(A)	48-59		48	3-60			48-66			50-67	
Outline	dimension	mm	(930+1240)	*860'*1710	(12	40+1240)*850*1	710	(124	40+1500)*860*1	710	(150	00+1500)*860*/	1710
Package	dimension	mm	-	_		-			_			-	
	weight	kg	225+290	225+290	290+290	290+290	290+290		290+430			430+430	
	s weight	kg	245+310	245+310	310+310	310+310	310+310		310+450			450+450	
	drive IDU NO. lent connection	unit	35	35	36	38	40	42	44	46	48	50	52
	length	m	240	240	240	240	240	240	240	240	240	240	240
Working temp.	Coding	°C						-5~50°C					
temp.	Heating	°C						-20~24°C					

Notes:

1. Cooling operating temperature range is from -5°C to 50°C, Heating operating temperature range is from -20°C to 24°C.

2. The cooling condition:indoor side 27°C (80.6°F) DB,19°C (60°F) WB outdoor side 35°C (95°F) DB

3. The heating condition:indoor side 20°C (68°F) DB,15°C (44.6°F) WB outdoor side 7°C (42.8°F) DB

4. Sound level:measured at point 1m in front of the unit at a height of 1.3m. During actural operation, these values are normally somewhat higher as a result of ambient conditions.and lower as a result of ambient conditions when under ultra-silent operation

Choosing fuse or breaker according to MFA and electrical wiring according to MCA.



- Single Module: 8/10/12/14/16/18/20/22HP
- Full DC Inverter Technology
- Max. 1000m pipe length, Max. 110m height drop

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	Model		ZIMS460AX	ZIMS480AX	ZIMS500AX	ZIMS520AX	ZIMS540AX	ZIMS560AX	ZIMS583AX	ZIMS600AX	ZIMS620AX	Z1MS640AX	ZIMS660AX	
C	Combination model		14+16+16	16+16+16	14+16+20	14+16+22	16+16+22	14+20+22	14+22+22	16+22+22	20+20+22	20+22+22	22+22+22	
	Capacity range	HP	46	48	50	52	54	56	58	60	62	64	66	
Capacity	Cooling	kW	130.0	135.0	141.0	146.5	151.5	157.5	163.0	168.0	173.5	179.0	184.5	
	Heating	kW	145.0	150.0	158.0	164.0	169.0	177.0	183.0	183.0	195.0	201.0	207.0	
Pov	ver supply	V/NHz			1			380V/3N/50	Hz/60Hz	1	I			
	EER	kW/kW	3.62	3.56	3.63	3.66	3.61	3.67	3.70	3.65	3.63	3.65	3.68	
	COP	kW/kW	4.05	3.96	4.08	4.12	4.04	4.14	4.17	3.99	4.09	4.12	4.14	
Datadiant	Cooling	kW	35.95	37.92	38.87	40.02	41.99	42.94	44.09	46.06	47.83	48.98	50.13	
Rated input	Heating	kW	35.78	37.80	38.70	39.83	41.85	42.75	43.88	45.90	47.69	48.82	49.95	
Rated	Cooling	A	67.80	72.30	78.90	83.70	88.20	94.83	99.60	104.10	110.40	115.20	120.03	
current	Heating	A	68.00	72.00	78.90	79.00	83.00	89.90	90.00	94.03	104.80	104.90	105.03	
Define	Туре							R410	A					
Refrigerant	Charge volume	kg	12+12	2+12		12+12+16			12+16+16			16+16+16		
	Brand	-		Hitachi										
	Туре	-						Scroll ty	/pe					
Compressor	Quantity	-	1+1	1+1+1 1+1+2			1+2+2			2+2+2				
	Refrigerant oil charge volume	L	1.10+1.1	0+1.10		1.10+1.10+0.50			1.10+0.50+0.50			0.50+0.50+0 50		
Ex	Туре		Axial flow											
Fan	Quantity		1+1	+1		1+1+2 1+2+2				2+2+2				
	Insulation class	-						IP24						
Fan motor	Drive type	-						DC						
A	flow rate	m³/h	13980+139	80+13980	13980+13980+20820 13			13993+22020+22020 13993+22020+22020			0 20820+20820+22020 20820+22020+22020 22020+22020+22020			
	Liquid pipe	mm	φ19	.05					φ19	.05				
Connecting pipe	Gas pipe	mm	φ38	.10					φ41	.30				
	Connection meth	od						Weldir	ng					
	ESP	Pa						0-80						
Sound	pressure level	dB(A)	50-	63	50-66	50	)-67		50-68			50-69		
Outlin	e dimension	mm	(1240+1240+12	240)*860*1710	(1240+	1240+1500)*8	60*1710	(1240+1	500+1500)*86	0*1710	(1500	+1500+1500)*860*	1710	
Packa	ge dimenson	mm	-			-			-			-		
N	et weight	kg	290+29	0+290		290+290+430	)		290+430+430			430+430+430		
Gro	oss weight	kg	310+31	0+310		310+310+450	)		310+450+450			450+450+450		
Maximun	n drive IDU NO.	unit	54	56	58	60	62	64	64	64	64	64	64	
Max. equivalent	Max. equivalent connection pipe length m		240	240	240	240	240	240	240	240	240	240	240	
Working	Cooling	°C						-5~50°	С					
temp.	Heating °C -20~24°C													

Notes:

- 1. Cooling operating temperature range is from -5°C to 50°C, Heating operating temperature range is from -20°C to 24°C.
- 2. The cooling condition:indoor side 27°C (80.6°F) DB,19°C (60°F) WB outdoor side 35°C (95°F) DB
- 3. The heating condition:indoor side 20°C (68°F) DB,15°C (44.6°F) WB outdoor side 7°C (42.8°F) DB
- 4. Sound level:measured at point 1m in front of the unit at a height of 1.3m. During actural operation, these values are normally somewhat higher as a result of ambient conditions.and lower as a result of ambient conditions when under ultra-silent operation
- 5. Choosing fuse or breaker according to MFA and electrical wiring according to MCA.
- 6. The above data may be changed without notice for future improvement on quality and performance.



## **ZIMS-AST**

- Full DC Inverter Technology
- Max. 1000m pipe length, Max. 110m height drop



### Strong-heating independent outdoor unit

	Model		ZIMS080AST	ZIMS100AST	ZIMS120AST	ZIMS140AST	ZIMS160AST	ZIMS180AST	
	Capacity Range	HP	8	10	12	14	16	18	
Capacity	Cooling	kW	25	28	33.5	40	45	50	
	Heating	kW	27	31.5	37.5	45	50	56	
Powe	r supply	V/N/Hz			380~415\	/ 3N~50Hz		1	
E	ER	kW/kW	4.33	4.03	3.85	3.67	3.52	3.47	
C	OP	kW/kW	4.99	4.77	4.52	4.34	4.10	4	
Rated input	Cooling	kW	5.78	6.94	8.7	10.9	12.8	14.4	
Rated Input	Heating	kW	5.41	6.6	8.3	10.38	12.2	14	
Cooling Cooling		А	12.5	13.4	16.4	19.6	24.1	33.5	
Nateu current	Heating	А	13.6	13.9	16.7	20	24	31	
Defrigerent	Туре				R4	10A			
Refrigerant	Charge volume	kg	8	8	10	12	12	12	
	Brand	-	Samsung	Samsung	Samsung	Mitsubishi	Mitsubishi	Mitsubishi	
Compressor	Туре	-	Inverter scroll						
	Quantity	-	1	1	1	1	1	1	
	Refrigerant oil charge Volume	L	1.1	1.1	1.1	2.3	2.3	2.3	
_	Туре	_	Axial flow fan						
Fan	Quantity	-	1	1	1	1	1	1	
	Insulation class	_	IP14	IP14	IP14	IP14	IP14	IP14	
Fan Motor	Drive Type	-	DC	DC	DC	DC	DC	DC	
Airfle	ow rate	m³/h		12000	1				
	Liquid Pipe	mm	φ9	.52	φ12.70	φ12.70			
Connecting pipe	Gas Pipe	mm	φ22	2.23	φ25.40	φ28.58			
	Connection m	nethod	Brazing	Brazing	Brazing	Brazing	Brazing	Brazing	
E	SP	Ра			0 Pa (maxir	num: 80 Pa)			
Sound pr	essure level	dB(A)	57	57	57	64	64	64	
Outline	dimension	mm		930x860x1710			1240x860x1710		
Package	dimension	mm		1020*950*1950			1330*950*1950		
Net	weight	kg	225	225	225	290	290	290	
Gross	s weight	kg	235	235	235	300	300	300	
Maximum	Maximum drive IDU NO. unit		14	16	19	22	23	24	
Max. equivalent co	onnection pipe length	m	1000	1000	1000	1000	1000	1000	
	Cooling	°C	- 5~50°C						
Working temp.	Heating	°C			- 20	~24°C			

Notes:

1. Cooling operating temperature range is from -5°C to 50°C, Heating operating temperature range is from -20°C to 24°C.

2. The cooling condition:indoor side 27°C (80.6°F) DB,19°C (60°F) WB outdoor side 35°C (95°F) DB

3. The heating condition:indoor side 20°C (68°F) DB,15°C (44.6°F) WB outdoor side 7°C (42.8°F) DB

4. Sound level:measured at point 1m in front of the unit at a height of 1.3m. During actural operation, these values are normally somewhat higher as a result of ambient conditions.and lower as a result of ambient conditions when under ultra-silent operation

5. Choosing fuse or breaker according to MFA and electrical wiring according to MCA.



## **ZIMS-ASA**

- Full DC Inverter Technology
- Max. 1000m pipe length, Max. 110m height drop



### Independent outdoor unit

	Model		ZIMS200ASA	ZIMS220ASA	ZIMS240ASA	ZIMS260ASA	ZIMS280ASA	ZIMS300ASA	ZIMS320ASA	
	Capacity Range	HP	20	22	24	26	28	30	32	
Capacity	Cooling	kW	56	61.5	67	73	78.5	85	90	
	Heating	kW	63	69	75	81.5	87.5	95	100	
Powe	er supply	V/N/Hz				380~415V 3N~	50Hz			
E	ER	kW/kW	3.29	3.31	3.19	3.33	3.30	3.26	3.25	
C	OP	kW/kW	3.99	3.88	3.75	4.03	3.98	3.86	3.83	
Rated input	Cooling	kW	17	18.6	21	21.9	23.8	26.1	27.7	
Rated input	Heating	kW	15.8	17.8	20	20.2	22	24.6	26.1	
Rated current	Cooling	А	35.20	40.00	41.50	44.56	48.33	52.23	55.26	
	Heating	А	34.90	35.00	36.20	40.15	46.24	49.24	53.44	
Refrigerant	Туре					R410A				
	Charge volume	kg	16	16	16	20	22	22	22	
	Brand	_	Mitsubishi							
0	Туре	—	Inverter scroll							
Compressor	Quantity	—	2	2	2	2	2	2	2	
	Refrigerant oil charge Volume	L	2.30	2.30	2.30	2.30	2.30	2.30	2.30	
Fan	Туре		Axial flow fan							
FdII	Quantity		2	2	2	2	2	2	2	
Fan Motor	Insulation class	_	IP14							
1 un motor	Drive Type	-	DC							
Airfl	ow rate	m³/h		25800		27000				
	Liquid Pipe	mm		φ15.88		φ19.05 φ19.05				
Connecting pipe	Gas Pipe	mm		φ28.58		φ28.58	φ31.75			
	Connection r	nethod	Brazing							
E	ESP	Ра				0 Pa (maximum:	80 Pa)			
Sound pr	essure level	dB(A)	64	64	64	65	65	65	65	
Outline	dimension	mm		1500x860x1710	)		1500x860	x1710		
Package	dimension	mm		1585*950*1950	)		1585*950	*1950		
Net	weight	kg	430	430	430	460	488	488	488	
Gros	s weight	kg	445	445	445	475	503	503	503	
Maximum	Maximum drive IDU NO. unit		33	34	35	35	36	38	40	
	Max. equivalent connection m		1000	1000	1000	1000	1000	1000	1000	
Marking toma	Cooling	°C				-5~50°C				
Working temp.	Heating	°C								

Notes:

1. Cooling operating temperature range is from -5°C to 50°C, Heating operating temperature range is from -20°C to 24°C.

2. The cooling condition:indoor side 27°C (80.6°F) DB,19°C (60°F) WB outdoor side 35°C (95°F) DB

3. The heating condition:indoor side 20°C (68°F) DB,15°C (44.6°F) WB outdoor side 7°C (42.8°F) DB

4. Sound level:measured at point 1m in front of the unit at a height of 1.3m. During actural operation, these values are normally somewhat higher as a result of ambient conditions.and lower as a result of ambient conditions when under ultra-silent operation

5. Choosing fuse or breaker according to MFA and electrical wiring according to MCA.



- Single Module: 8/10/12/14/16/18/20/22/24/26/28//30/32HP
- Combination Module: 34HP-64HP, 2 modules
- Full DC Inverter Technology
- Max. 1100m pipe length, Max. 110m height drop



	Model		ZIMS080AXA	ZIMS100AXA	ZIMS120AXA	ZIMS140AXA	ZIMS160AXA	ZIMS180AXA		
C	ombination Model		-	-	-	-	-	-		
	Capacity Range	HP	8	10	12	14	16	18		
Capacity	Cooling	kW	25	28	33.5	40	45	50		
	Cooling	kW	27	31.5	37.5	45	50	56		
Power	supply	V/N/Hz	380V 3N $\sim$ 50Hz							
E	R	kW/kW	4.33	4.03	3.85	3.67	3.52	3.47		
CC	)P	kW/kW	4.99	4.77	4.52	4.34	4.10	4.00		
Rated input		kW	5.78	6.94	8.70	10.90	12.80	14.40		
Heating		kW	5.41	6.60	8.30	10.38	12.20	14.00		
Cooling Rated current		А	12.50	13.40	16.40	23.90	28.30	30.50		
Rated current Heating		А	13.60	13.90	16.70	20.90	24.90	26.50		
Refrigerant	Тур	e	R410A							
Reingerant	Charge volume	kg	8	8	10	12	12	12		
Compressor	Туре	-			Inverter	scroll				
Compressor	Quantity	-	1	1	1	1	1	1		
Fan Motor	Quantity		1	1	1	1	1	1		
Fan Wolor	Drive Type	-	DC inverter							
Airflov	v rate	m³/h		12000		13980				
Connecting pipe	Liquid Pipe	mm	φ9.	.52	φ12.70	φ12.70				
connecting pipe	Gas Pipe	mm	φ22	2.23	φ25.40		φ28.58			
Sound pre	ssure level	dB(A)		45-57			45-64			
Outline d	imension	mm		930x860x1710			1240x860x1710			
Package	dimension	mm		1020x950x1950			1300x950x1950			
Net w	veight	kg	225	225	225	290	290	290		
Gross	weight	kg	235	235	235	300	300	300		
Maximum dr	ive IDU NO.	unit	14	16	19	22	23	31		
Working temp	Cooling	°C	- 5 ~ 54'C							
Working temp.	Heating	°C			- 25~	26°C				

Notes:

1. 1. Cooling operating temperature range is from -5°C to 54°C, Heating operating temperature range is from -25°C to 26°C.

2. The cooling condition:indoor side 27°C (80.6°F) DB,19°C (60°F) WB outdoor side 35°C (95°F) DB

3. The heating condition:indoor side 20°C (68°F) DB,15°C (44.6°F) WB outdoor side 7°C (42.8°F) DB

4. Sound level:measured at point 1m in front of the unit at a height of 1.3m. During actural operation, these values are normally somewhat higher as a result of ambient conditions.and lower as a result of ambient conditions when under ultra-silent operation

5. Choosing fuse or breaker according to MFA and electrical wiring according to MCA.



- Single Module: 8/10/12/14/16/18/20/22/24/26/28//30/32HP
- Combination Module: 34HP-64HP, 2 modules
- Full DC Inverter Technology
- Max. 1100m pipe length, Max. 110m height drop



	Model		ZIMS200AXA	ZIMS220AXA	ZIMS240AXA	ZIMS260AXA	ZIMS280AXA	ZIMS300AXA	ZIMS320AXA	
C	ombination Model		-	-	-	-	-	-	-	
	Capacity Range	HP	20	22	24	26	28	30	32	
Capacity	Cooling	kW	56	61.5	67	73	78.5	85	90	
	Cooling	kW	63	69	75	81.5	87.5	95	100	
Power	supply	V/N/Hz	380V 3N $\sim$ 50Hz							
EE	ER	kW/kW	3.29	3.31	3.19	3.34	3.30	3.26	3.25	
CC	OP	kW/kW	3.99	3.88	3.75	4.04	3.99	3.87	3.83	
Cooling kW			17.00	18.60	21.00	21.85	23.78	26.05	27.65	
Rated input Heating kW		kW	15.80	17.80	20.00	20.15	21.92	24.55	26.08	
Cooling A		А	35.20	40.00	41.50	45.00	48.33	52.23	55.26	
Rated current Heating A		А	34.90	35.00	36.20	41.50	46.24	49.24	53.44	
Dofrigoropt	Тур	e			R41	0A				
Refrigerant	Charge volume	kg	16	16	16	18	22	22	22	
Compressor	Туре	-	Inverter scroll							
Compressor	Quantity	-	2	2	2	2	2	2	2	
Fan Motor	Quantity		2	2	2	2	2	2	2	
Fan Wolor	Drive Type	-			DC inv	verter				
Airflov	w rate	m³/h		25800			270	000		
Connecting pipe	Liquid Pipe	mm		φ15.88			φ19	9.05		
Connecting pipe	Gas Pipe	mm		φ28.58			φ31	.75		
Sound pre	ssure level	dB(A)		48-64			49-	-56		
Outline d	imension	mm		1500x860x1710			1900x86	60x1710		
Package	dimension	mm		1585x950x1950			1985x95	50x1950		
Net w	veight	kg	430	430	430	450	488	488	488	
Gross	weight	kg	440	440	440	460	498	498	498	
Maximum dr	Maximum drive IDU NO. unit		33	34	35	35	36	38	40	

- 5  $\sim 54^\circ C$ 

-  $25 \sim 26^{\circ}C$ 

Notes:

Working temp

1. Cooling operating temperature range is from -5°C to 54°C, Heating operating temperature range is from -25°C to 26°C.

2. The cooling condition:indoor side 27  $^\circ C$  (80.6  $^\circ F)$  DB,19  $^\circ C$  (60  $^\circ F)$  WB outdoor side 35  $^\circ C$  (95  $^\circ F)$  DB

3. The heating condition:indoor side 20°C (68°F) DB,15°C (44.6°F) WB outdoor side 7°C (42.8°F) DB

4. Sound level:measured at point 1m in front of the unit at a height of 1.3m. During actural operation, these values are normally somewhat higher as a result of ambient conditions.and lower as a result of ambient conditions when under ultra-silent operation

5. Choosing fuse or breaker according to MFA and electrical wiring according to MCA.

°C

°C

Cooling

Heating



- Single Module: 8/10/12/14/16/18/20/22/24/26/28//30/32HP
- Combination Module: 34HP-64HP, 2 modules
- Full DC Inverter Technology
- Max. 1100m pipe length, Max. 110m height drop



	Model		ZIMS340AXA	ZIMS360AXA	ZIMS380AXA	ZIMS400AXA	ZIMS420AXA	ZIMS440AXA	ZIMS460AXA	ZIMS480AXA	
Com	bination Model		18+16	18+18	20+18	20+20	22+20	24+20	24+22	24+24	
	Capacity Range	HP	34	36	38	40	42	44	46	48	
Capacity	Cooling	kW	95	100	106	112	117.5	123	128.5	134	
	Cooling	kW	106	112	119	126	132	138	144	150	
Power	supply	V/N/Hz				380V 3N $\sim$	50Hz				
EE	R	kW/kW	3.49	3.47	3.38	3.29	3.30	3.24	3.24	3.19	
СС	)P	kW/kW	4.05	4.00	3.99	3.99	3.93	3.85	3.81	3.75	
Rated input	Cooling	kW	27.20	28.80	31.40	34.00	35.60	38.00	39.60	42.00	
Rated input	Heating	kW	26.20	28.00	29.80	31.60	33.60	35.80	37.80	40.00	
Potod ourront	Cooling	А	58.80	61.00	65.70	70.40	75.20	76.70	81.50	83.00	
Rated current Heating A		А	51.40	53.00	61.40	69.80	69.90	71.10	72.40	72.40	
Type						R410A					
Reingerant	Charge volume	kg	12+12	12+12	12+16	16+16	16+16	16+16	16+16	16+16	
Compressor	Туре	-				Inverter s	croll				
Compressor	Quantity	-	1+1	1+1	2+1	2+2	2+2	2+2	2+2	2+2	
Fan Motor	Quantity		1+1	1+1	2+1	2+2	2+2	2+2	2+2	2+2	
	Drive Type	-	DC inverter								
Airflov	v rate	m³/h	13980-	+13980	13980+25800	25800+25800					
Connecting pipe	Liquid Pipe	mm		φ19.0	5			φ19.05			
connecting pipe	Gas Pipe	mm		φ34.92	2	φ38.10					
Sound pres	ssure level	dB(A)		48-66		50-67					
Outline di	mension	mm	(1240+1240	)) x860x1710	(1240+1500x860x1710		(15	500+1500)x860	x1710		
Package of	limension	mm	(1300+1300	))x950x1950	(1585+1300)x950x1950		(15	585+1585)x950x	1950		
Net w	eight	kg	290+290	290+290	430+290	430+430	430+430	430+430	430+430	430+430	
Gross	weight	kg	300+300	300+300	440+300	440+440	440+440	440+440	440+440	440+440	
Maximum dr	ive IDU NO.	unit	42	44	46	48	50	52	54	56	
Morting to pro-	Cooling	°C	- 5~54°C								
Working temp.	Heating	°C					- 25 ~ 26°C				

Notes:

1. 1. Cooling operating temperature range is from -5°C to 54°C, Heating operating temperature range is from -25°C to 26°C.

2. The cooling condition:indoor side 27°C (80.6°F) DB,19°C (60°F) WB outdoor side 35°C (95°F) DB

3. The heating condition:indoor side 20°C (68°F) DB,15°C (44.6°F) WB outdoor side 7°C (42.8°F) DB

4. Sound level:measured at point 1m in front of the unit at a height of 1.3m. During actural operation, these values are normally somewhat higher as a result of ambient conditions.and lower as a result of ambient conditions when under ultra-silent operation

5. Choosing fuse or breaker according to MFA and electrical wiring according to MCA.



- Single Module: 8/10/12/14/16/18/20/22/24/26/28//30/32HP
- Combination Module: 34HP-64HP, 2 modules
- Full DC Inverter Technology
- Max. 1100m pipe length, Max. 110m height drop



	Model		ZIMS500AXA	ZIMS520AXA	ZIMS540AXA	ZIMS560AXA	ZIMS580AXA	ZIMS600AXA	ZIMS620AXA	ZIMS640AXA	
Cor	nbination Model		28+22	30+22	32+22	28+28	30+28	30+30	32+30	32+32	
	Capacity Range	HP	50	52	54	56	58	60	62	64	
Capacity	Cooling	kW	140	146.5	151.5	157	163.5	170	175	180	
	Cooling	kW	156.5	164	169	175	182.5	190	195	200	
Power	supply	V/N/Hz	380V 3N $\sim$ 50Hz								
EER kW/kW			3.30	3.28	3.27	3.30	3.28	3.26	3.26	3.25	
C	COP kW/kW		3.94	3.87	3.85	4.00	3.92	3.87	3.85	3.83	
<b>B</b> 4 4 5 4	Cooling	kW	42.40	44.70	46.30	47.60	49.80	52.10	53.70	55.30	
Rated input	Heating	kW	39.70	42.40	43.90	43.80	46.50	49.10	50.60	52.20	
	Cooling	А	88.33	88.33 92.23 95.26			100.56	104.46	107.49	110.52	
Rated current	Heating	А	81.24	84.24	88.44	92.48	95.48	98.48	102.68	106.88	
<b>B</b> (1)	Туре			R410A							
Refrigerant	Charge volume	kg	16+22	16+22	16+22	22+22	22+22	22+22	22+22	22+22	
2	Туре	-		Inverter scroll							
Compressor	Quantity	-	2+2	2+2	2+2	2+2	2+2	2+2	2+2	2+2	
Eas Matas	Quantity		2+2	2+2	2+2	2+2	2+2	2+2	2+2	2+2	
Fan Motor	Drive Type	-				DC in	verter				
Airflo	w rate	m³/h		25800+27000		27000+27000					
Connecting size	Liquid Pipe	mm				φ19	.05				
Connecting pipe	Gas Pipe	mm				φ41	.30				
Sound pre	ssure level	dB(A)		50-67				50-68			
Outline d	imension	mm	(15	00+1900) x860x	:1710		(19	00+1900) x860x	1710		
Package	dimension	mm	(15	85+1985)x950x1	950		(19	85+1985)x950x1	950		
Net v	veight	kg	488+430	488+430	488+430	488+488	488+488	488+488	488+488	488+488	
Gross	Gross weight kg		498+440	498+440	498+440	498+498	498+498	498+498	498+498	498+498	
Maximum di	ive IDU NO.	unit	58	60	62	64	64	64	64	64	
	Cooling	°C	$-5 \sim 54^{\circ}$ C								
Working temp.	Heating	°C		– 25 ~ 26°C							

Notes:

1. Cooling operating temperature range is from -5°C to 54°C, Heating operating temperature range is from -25°C to 26°C.

2. The cooling condition:indoor side 27°C (80.6°F) DB,19°C (60°F) WB outdoor side 35°C (95°F) DB

3. The heating condition:indoor side 20°C (68°F) DB,15°C (44.6°F) WB outdoor side 7°C (42.8°F) DB

4. Sound level:measured at point 1m in front of the unit at a height of 1.3m. During actural operation, these values are normally somewhat higher as a result of ambient conditions.and lower as a result of ambient conditions when under ultra-silent operation

5. Choosing fuse or breaker according to MFA and electrical wiring according to MCA.



# **MINI VRF**

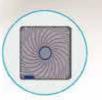
	Ultra Quiet Operation	28
Ð	Superior Technologies	29
Ð	Mini VRF specification	32

# **Ultra Quiet Operation**

### **Ten Major Ultra-silent Technologies**

The scroll heating series adopt the all-round noise-reducing technology and newly-designed fan blade to reduce the airflow noise through the smooth suction structure, and the compressor noise isolation technology to implement ultra-silent operation, creating a high-quality and comfortable environment.

Newly-designed fan air duct with the streamlined distribution of the air discharge grilles can reduce the wind resistance and noise.



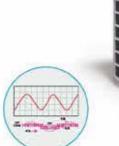


The PET (macromolecule acupuncture cotton), which is the kind of cotton specially used by high-speed railway to isolate noise, perfectly absorbs noises of all frequency bands.

CFD analogue simulation, together with the new fan blade, and the 4-blade axial flow design guarantee a better heat-exchanging performance and lower noise.



The 180° sine wave control technology applied to the compressor ensures the smooth and stable operation of compressor and effectively inhibits the abnormal noise during operation.



Advanced reactor can completely eliminate electromagnetic noise.





The DC brushless motor features stepless speed adjustment and more stable operation, achieving higher energy efficiency and reducing noises.



The compressor noise enclosure effectively avoids the proliferation of compressor noise.

### **Smart Night Silent Mode**

The system adopts the delay judgment mode based on the outdoor ambient temperature peak. Meanwhile, it will automatically determine whether to enter the night silent mode according to the current ambient temperature and load size. The minimum noise of silent operation can be as lower as 45 dB (A).

### **Forced Silent Mode**

For supporting projects of high-rise buildings or sites with a stricter silent requirement, users can select the forced silent operation mode as required to reduce the operation noise of the unit and create a more quiet and comfortable environment.

### **Night Forced Silent Mode**

For a higher requirements of quietness and higher requirements for silent mode at night, the night forced silent mode provides a more quiet environment under a variety of conditions.



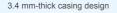
## **Superior Technologies**

Are you looking for a cozy room with less electricity used? All DC Compliant Enhanced Vapor Injection Scroll Compressor Three Core Technologies for Excellent Performance

> Floating sealing ring technology improves compressor's starting performance

Patented enhanced vapor injection (EVI) technology

High-efficiency centralized stator winding improves motor rated efficiency to > 95%





Variable volume ratio scroll technology substantially improves energy efficiency of compressor with low pressure ratio

6-pole permanent magnet motor Stable operation with 900–7200 RPM

Oil duct reduces oil circulation rate when compressor is working at high speed

Volumetric oil pump Oil pumped does not vary with oil level.

### C — All DC Inverter Technology

### The secret of high energy efficiency

All DC inverter compressor, the core source of power, is equipped with a 6-pole high-efficiency motor, and the enhancement of part load efficiency is tailored to better suit the operations of low ambient temperature heating units.

## More applicable to regions with voltage fluctuation in power supply

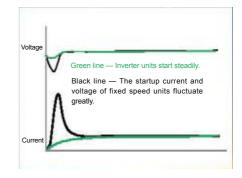
VS

The all DC inverter system starts flexibly, with the rotating speed of the compressor increasing steadily, the current rising slowly, and small impact on the power grid. Even under the condition of 160 V ultralow voltage or 260 V ultra-high voltage, the system can still start and operate normally, and provide comfortable heating service. The fixed speed system starts the compressor instantly. The startup current of up to 6–7 times of the operating current may result in a sharp drop in power supply voltage, and lead to a failure of unit startup and the even more serious problems during peak periods.

### 6-pole reluctance-type DC motor



50% increase in magnetic force Higher shaft rotating efficiency



### No heating capability attenuation at -20°C No cooling capability attenuation at 43°C

Enhanced Vapor Injection Technology — Strong Heating Capability Without Electric Auxiliary Just like the difference between turbo supercharging and normal aspiration (2.0 T = 3.0 L) The world's most advanced technology for heat pump system dealing with low-temperature heating The whole series adopt the high-efficiency EVI system and the new variable-frequency control and refrigerant system of ZIOMAT, achieving excellent heating performance even at the ultra-low temperature of  $-30^{\circ}$ C. The heating capability is increased by over 45% and won't subside at  $-20^{\circ}$ C. In hot summer, the cooling capability won't decrease even at 43°C, assuring you a cool summer indoors.





### Compact design

ZIOMAT scroll heating series of household central air conditioner feature a compact design with a single fan and three-layer highefficiency and high-quality heat exchanger.

With a mini body, they can be easily installed in a small space such as a bay window, optimizing the spatial pattern and making your home more beautiful and fashionable.



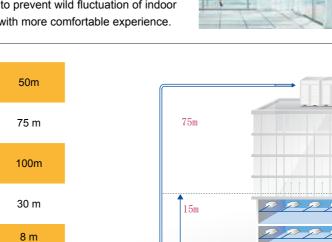
### Smart and Quick Defrosting

The patented smart vapor injection defrosting technology of ZIOMAT can increase the refrigerant circulation flow during defrosting, which will shorten the defrosting time, reduce the cold air felt by customers during defrosting, improve the defrosting efficiency, and cut down the power consumption.

### Heating Scroll heating Heating Defrosting Defrosting Common products

### Oil Return When Heating Without Stopping the Unit

Traditional units have to be turned off to achieve oil return, while ZIOMAT scroll heating series of household VRF units can implement heating without switching the direction of the refrigerant flow. This series adopt the modes of on-demand oil return and high/low frequency switchover oil return to prevent wild fluctuation of indoor temperature, and provide user with more comfortable experience.



Maximum permitted length after first branch 15 m

Maximum actual length of

Maximum total equivalent

Maximum drop of indoor/

Maximum drop of indoor unit

Maximum equivalent length of

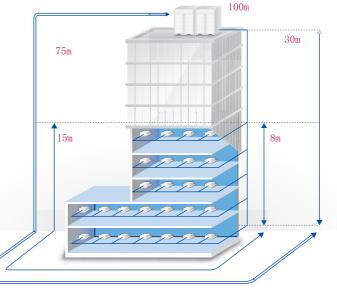
single pipe

single pipe

pipe length

outdoor unit

\* Pls consult the detailed technical documentation or other matters with the relative technicists.





## **Smart Home**

Technology-driven intelligence for smarter life, be a real air conditioning messenger.







## Mini VRF specification

	Model		ZIMS100AHT	ZIMS125AHT	ZIMS140AHT	ZIMS160AHT	ZIMS180AHT	ZIMS180AHTA	
	Power Supply				220V~50H	Z	·	380V~50Hz	
Capacity	Cooling/Heating	kW	10.0/12.5	12.5/14.0	14.0/16.0	16.0/18.0	18.0/20.0	18.0/20.0	
power consumption	Cooling/Heating	kW	2.9/3.0	3.1/3.2	3.8/4.1	4.7/4.5	5.4/5.3	5.4/5.3	
	EER	kW/kW	3.45	4.03	3.68	3.40	3.33	3.33	
	COP	kW/kW	4.17	4.38	3.90	4	3.77	3.77	
Rated input	Cooling	kW	2.9	3.1	3.8	4.7	5.4	5.4	
Rateu input	Heating	kW	3.0	3.2	4.1	4.5	5.3	5.3	
Rated current	Cooling	А	18	20	26	32	32	12	
Rated current	Heating	А	16	18	24	28	28	11	
Type						R410A			
Reingerant	Charge volume	kg	2.5	2.5	3.0	3.0	40	4.0	
	Brand	-	EMERSON	EMERSON	EMERSON	EMERSON	EMERSON	EMERSON	
	Туре	-				Scroll		·	
Compressor	Quantity	-	1	1	1	1	1	1	
	Refrigerant oil charge volume	L	1.183	1.183	1.183	1.183	1.183	1.183	
_	Туре	-				Axial	1		
Fan	Quantity	-			1		2	2	
Air	flow rate	m³/h	6000 6600					6600	
Connecting pipe	Liquid/Gas	mm		9.9	9.52/19.05	9.52/19.05			
Sound p	pressure level	dB(A)	50-54	50-55	52-55	53-56	57-59	57-59	
Outline	e dimension	mm		W980 <sup>3</sup>	*D390*H840	1	W980*D3	D390*H1260	
Packag	ge dimension	mm		W1036	5*D482*H865		W1036*D4	482*H1285	
	Net weight	kg			95		115	115	
Weight	Gross weight	kg			98		120	120	
Indoor unit	Capacity ratio	%				50-130			
connecting	Maximum drive IDU.No.	unit	6	6	7	8	9	9	
	Max.total equivalent pipe length	m				100			
Equivalent connection pipe	Max.equivalent connection pipe length	m				75			
connection pipe length	Max.drop of indoor/outdoor unit	m			30 (in	door above 20m)			
	Max.drop of indoor unit	m	10						
Working temp.	Cooling	°C	-5-50						
(°C)	Heating	°C				-30-24			

# DU UNITS

•	Round Flow Cassette	34	Standard I	Duct	40
•	One-way Cassette	36	• Slim Duct		42
•	One-way Cassette	37	High ESP I	Duct	44
•	Ceiling & Floor	38	Big Capac	ity Duct	45
•	Wall Mounted	39	• Fresh air F	Processor	46

# **Round Flow cassette**



### Accessories

Plenum box	Air filter	EXV	Drain pump	AC motor	DC Motor
/	Standard	Standard (built-in)	Standard	Standard	/

### • 360° air outlet,no blind spot

### Compact design, only 230mm height

Has slim body with 230mm height, it is specially suitable for low suspended ceiling rooms.

 Built-in drain pump, drain height can be 1200mm
 Built-in with long life drainage pump, Pumping head is 1200mm, flexible for drainage pipe design.

### Streamlined panels in uniform size, elegant and generous

Newly designed streamlined panel, stylish and elegant.

### • Air flow from ceiling to ground

The air supply is not limited by the floor height. The cold air can reach the ground in a room of up to 3.5 m high to achieve optimum air conditioning performance.

### Ultra Quiet Operation

The use of aerospace technology on 3D spiral fan blades with optimized air duct design reduces internal resistance of the unit and achieves ultra-quiet operation, creating a comfortable and pleasant environment.

### • Unique PM2.5 and formaldehyde purification solution

PM2.5 and formaldehyde filters are optional to provide super-clean indoor environment.















	Model		ZMCF028AB	ZMCF036AB	ZMCF045AB	ZMCF050AB	ZMCF056AB	ZMCF063AB	ZMCF071AB
0	Cooling	kW	2.8	3.6	4.5	5.0	5.6	6.3	7.1
Capacity	Heating	kW	3.2	4.0	5.0	5.6	6.3	7.1	8.0
Po	ower supply	V/Ph/Hz	220V/1Ph/50Hz						
P	ower input	w	55	55	70	70	75	75	90
	flow volume (H/M/L)	m³/h	750/660/540	810/690/540	900/720/600	900/720/600	960/780/660	960/780/660	1020/900/690
	l pressure level (H/M/L)	dB(A)	32/30/25	32/30/25	36/33/31	36/33/31	36/33/31	36/33/31	39/36/33
Fan	Туре	-	Axial						
Fan motor	Power output	W	26	26	30	30	30	30	37
	Insulation class	_	В	В	В	В	В	В	В
	Liquid pipe	mm	φ6.35	φ6.35	φ6.35	φ6.35	φ6.35	φ6.35	φ9.52
Connecting pipe	Gas pipe	mm	φ12.7	φ12.7	φ12.7	φ12.7	φ12.7	φ12.7	φ15.88
	Connecti	on method	Flared						
Drain pipe	External diameter	mm	DN25						
Outline	dimension (body)	mm	840*840*230	840*840*230	840*840*230	840*840*230	840*840*230	840*840*230	840*840*230
Outline of	dimension (panel)	mm	950*950*50	950*950*50	950*950*50	950*950*50	950*950*50	950*950*50	950*950*50
Package	dimension (body)	mm	930*930*300	930*930*300	930*930*300	930*930*300	930*930*300	930*930*300	930*930*300
Package	dimension (panel)	mm	1020*1020*90	1020*1020*90	1020*1020*90	1020*1020*90	1020*1020*90	1020*1020*90	1020*1020*90
Net weight	Body	kg	22.5	22.5	24.5	24.5	24.5	24.5	24.5
ivet weight	Panel	kg	6	6	6	6	6	6	6
Gross weight	Body	kg	24.5	24.5	26.5	26.5	26.5	26.5	26.5
Gross weight	Panel	kg	7.5	7.5	7.5	7.5	7.5	7.5	7.5

	Model		ZMCF080AB	ZMCF090AB	ZMCF100AB	ZMCF112AB	ZMCF125AB	ZMCF140AB	ZMCF160AB
Capacity	Cooling	kW	8.0	9.0	10.0	11.2	12.5	14.0	16.0
Capacity	Heating	kW	9.0	10.0	11.2	12.5	14.0	16.0	18.0
Pow	er supply	V/Ph/Hz	220V/1Ph/50Hz	220V/1Ph/50Hz	220V/1Ph/50Hz	220V/1Ph/50Hz	220V/1Ph/50Hz	220V/1Ph/50Hz	220V/1Ph/50Hz
Pow	ver input	w	90	150	150	150	190	190	210
	Air flow volume (H/M/L)		1200/1080/870	1500/1200/900	1620/1260/1020	1700/1360/1080	1800/1500/1200	1800/1500/1200	2100/1800/1500
	ressure level H/M/L)	dB(A)	39/36/33	42/39/35	42/39/35	42/39/35	44/40/35	44/40/35	44/40/36
Fan	Туре	-	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Fan motor	Power output	w	37	50	50	65	65	65	65
	Insulation class	_	В	В	В	В	В	В	В
	Liquid pipe	mm	φ9.52	φ9.52	φ9.52	φ9.52	φ9.52	φ9.52	φ9.52
Connecting pipe	Gas pipe	mm	φ15.88	φ15.88	φ15.88	φ15.88	φ15.88	φ15.88	φ15.88
	Connect	ion method	Flared	Flared	Flared	Flared	Flared	Flared	Flared
Drain pipe	External diameter	mm	DN25	DN25	DN25	DN25	DN25	DN25	DN25
Outline din	nension (body)	mm	840*840*230	840*840*300	840*840*300	840*840*300	840*840*300	840*840*300	840*840*300
Outline din	nension (panel)	mm	950*950*50	950*950*50	950*950*50	950*950*50	950*950*50	950*950*50	950*950*50
Package di	mension (body)	mm	930*930*300	930*930*370	930*930*370	930*930*370	930*930*370	930*930*370	930*930*370
Package di	mension (panel)	mm	1020*1020*90	1020*1020*90	1020*1020*90	1020*1020*90	1020*1020*90	1020*1020*90	1020*1020*90
Notwoight	Body	kg	24.5	29.5	29.5	29.5	29.5	32	32
Net weight	Panel	kg	6	6	6	6	6	6	6
Gross weight	Body	kg	26.5	31.5	31.5	31.5	31.5	34	34
Gross weight	Panel	kg	7.5	7.5	7.5	7.5	7.5	7.5	7.5

Notes:

 1. Power supply: 220V/1PH for 50Hz

 2. The cooling condition: indoor side 27°C (80.6°F) DB, 19°C (60°F) WB outdoor side 35°C (95°F) DB

 3. The heating condition: indoor side 20°C (68°F) DB, 15°C (44.6°F) WB outdoor side 7°C (42.8°F) DB

 4. Sound level: measured at point 1m in front of the unit at a height of 1.3m. During actural operation, these values are normally somewhat higher as a result of ambient conditions.

 5. The above data may be changed without notice for future improvement on quality and performance.

## Two-way cassette



### Accessories

Plenum box	Air filter	EXV	Drain pump	AC motor	DC Motor	
/	Standard	Standard (External)	Standard	Standard	1	

• Special design for corridor or nallow and long room

• Available for room with 3.5m floor height



### Built-in drain pump,drain height can be 1200mm Built-in with long life drainage pump, Pumping

head is 1200mm,flexible for drainage pipe design.

	Model		ZMCD028A	ZMCD036A	ZMCD045A	ZMCD056A	ZMCD071A	ZMCD080A	ZMCD090A	ZMCD100A	ZMCD112A	ZMCD125A	ZMCD140A
	Cooling	kW	2.8	3.6	4.5	5.6	7.1	8.0	9.0	10.0	11.2	12.5	14.0
Capacity	Heating	kW	3.2	4.0	5.0	6.3	8.0	9.0	10.0	11.2	12.5	14.0	16.0
Power s	supply	V/Ph/Hz	220V/1Ph/50Hz	220V/1Ph/50Hz	220V/1Ph/50Hz	220V/1Ph/50Hz	220V/1Ph/50Hz						
Power	input	w	60	62	68	85	94	98	129	135	175	185	268
Air flow volur	me (H/M/L)	m³/h	500/426/376	616/523/462	773/657/580	900/765/657	1165/990/873	1300/1120/980	1450/1310/1160	1600/1450/1280	1725/1550/1280	1980/1680/1500	1980/1680/1500
Sound pressure	e level (H/M/L)	dB(A)	37/31/25	39/36/32	43/37/31	45/41/39	47/43/40	49/45/42	45/42/38	46/43/40	50/48/43	53/50/46	53/50/46
Fan	Туре	_	Centrifugal	Centrifugalw	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal
	Power output	w	10	12	16	25	30	30	20*2	25*2	30*2	45*2	45*2
Fan motor	Insulation class	-	в	В	В	В	В	В	В	В	В	В	В
	Liquid pipe	mm	φ6.35	φ6.35	φ6.35	φ6.35	φ9.52	φ9.52	φ9.52	φ9.52	φ9.52	φ9.52	φ9.52
Connecting pipe	Gas pipe	mm	φ12.70	φ12.70	φ12.70	φ12.70	φ15.88	φ15.88	φ15.88	φ15.88	φ15.88	φ15.88	φ15.88
	Connection	method	Flared	Flared	Flared	Flared	Flared						
Drain pipe	External diameter	mm	DN20	DN20	DN20	DN20	DN20						
Outline dimer	nsion (body)	mm	840*520*315	840*520*315	960*520*315	960*520*315	1200*520*315	1200*520*315	1680*520*315	1680*520*315	1680*520*315	1680*520*315	1680*520*315
Outline dimen	ision (panel)	mm	1083*630*33	1083*630*33	1203*630*33	1203*630*33	1443*630*33	1443*630*33	1923*630*33	1923*630*33	1923*630*33	1923*630*33	1923*630*33
Package dim	ension (set)	mm	1145*685*395	1145*685*395	1265*685*395	1265*685*395	1505*685*395	1505*685*395	1983*685*395	1983*685*395	1983*685*395	1983*685*395	1983*685*395
Net we	eight	kg	32	32	37	37	40	40	45	45	47	47	47
Gross v	veight	kg	35	35	40	40	43	43	48	48	50	50	50

#### Notes

- 1
- Power supply: 220V/1PH for 50Hz The cooling condition: indoor side 27°C (80.6°F) DB, 19°C (60°F) WB outdoor side 35°C (95°F) DB 2
- The heating condition: index side 2°C (68°F) DB, 15°C (44.6°F) NB outdoor side 3°C (42.8°F) DB The heating outdition: index side 2°C (68°F) DB, 15°C (44.6°F) NB outdoor side 3°C (42.8°F) DB Sound level: measured at point 1m in front of the unit at a height of 1.3m. During actural operation, these values are normally somewhat higher as a result of ambient conditions. 3.

<sup>4.</sup> 5. The above data may be changed without notice for future improvement on quality and performance.

## One-way cassette



### Accessories

Plenum box	Air filter	EXV	Drain pump	AC motor	DC Motor
/	Standard	Standard (External)	Standard	Standard	1

### • Special design for corridor or nallow and long room

• Available for room with 3.5m floor height



### Built-in drain pump,drain height can be 1200mm Built-in with long life drainage pump, Pumping head is 1200mm,flexible for drainage pipe design.

	Model		ZMCD028A	ZMCD036A	ZMCD045A	ZMCD056A	ZMCD071A	ZMCD080A	ZMCD090A	ZMCD100A	ZMCD112A	ZMCD125A	ZMCD140A
Canaaita	Cooling	kW	2.8	3.6	4.5	5.6	7.1	8.0	9.0	10.0	11.2	12.5	14.0
Capacity	Heating	kW	3.2	4.0	5.0	6.3	8.0	9.0	10.0	11.2	12.5	14.0	16.0
Power	supply	V/Ph/Hz	220V/1Ph/50Hz	220V/1Ph/50Hz	220V/1Ph/50Hz	220V/1Ph/50Hz	220V/1Ph/50H						
Power	r input	W	60	62	68	85	94	98	129	135	175	185	268
Air flow volu	Air flow volume (H/M/L)		500/426/376	616/523/462	773/657/580	900/765/657	1165/990/873	1300/1120/980	1450/1310/1160	1600/1450/1280	1725/1550/1280	1980/1680/1500	1980/1680/1500
Sound pressur	re level (H/M/L)	dB(A)	37/31/25	39/36/32	43/37/31	45/41/39	47/43/40	49/45/42	45/42/38	46/43/40	50/48/43	53/50/46	53/50/46
Fan	Туре	-	Centrifugal	Centrifugalw	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal
Ean motor	Power output	W	10	12	16	25	30	30	20*2	25*2	30*2	45*2	45*2
Fan motor	Insulation class	-	В	В	В	В	В	В	В	В	В	В	В
	Liquid pipe	mm	φ6.35	φ6.35	φ6.35	φ6.35	φ9.52	φ9.52	φ9.52	φ9.52	φ9.52	φ9.52	φ9.52
Connecting pipe	Gas pipe	mm	φ12.70	φ12.70	φ12.70	φ12.70	φ15.88	φ15.88	φ15.88	φ15.88	φ15.88	φ15.88	φ15.88
	Connection	method	Flared	Flared	Flared	Flared	Flared						
Drain pipe	External diameter	mm	DN20	DN20	DN20	DN20	DN20						
Outline dime	ension (body)	mm	840*520*315	840*520*315	960*520*315	960*520*315	1200*520*315	1200*520*315	1680*520*315	1680*520*315	1680*520*315	1680*520*315	1680*520*315
Outline dime	nsion (panel)	mm	1083*630*33	1083*630*33	1203*630*33	1203*630*33	1443*630*33	1443*630*33	1923*630*33	1923*630*33	1923*630*33	1923*630*33	1923*630*33
Package din	nension (set)	mm	1145*685*395	1145*685*395	1265*685*395	1265*685*395	1505*685*395	1505*685*395	1983*685*395	1983*685*395	1983*685*395	1983*685*395	1983*685*395
Net w	veight	kg	32	32	37	37	40	40	45	45	47	47	47
Gross	weight	kg	35	35	40	40	43	43	48	48	50	50	50

Notes

1. 2.

. Power supply: 220V/1PH for 50Hz The cooling condition: indoor side 27°C (80.6°F) DB, 19°C (60°F) WB outdoor side 35°C (95°F) DB

3. The heating condition: indoor side 20°C (68°F) DB, 15°C (44.6°F) WB outdoor side 7°C (42.8°F) DB

Sound level: measured at point 1m in front of the unit at a height of 1.3m. During actural operation, these values are normally somewhat higher as a result of ambient conditions. The above data may be changed without notice for future improvement on quality and performance. 4. 5.



# Ceiling & Floor



### Accessories

Plenum box	Air filter	EXV	Drain pump	AC motor	DC Motor	
1	/	Standard External	1	Standard	/	

### Flexible installation, on the floor or on the ceiling

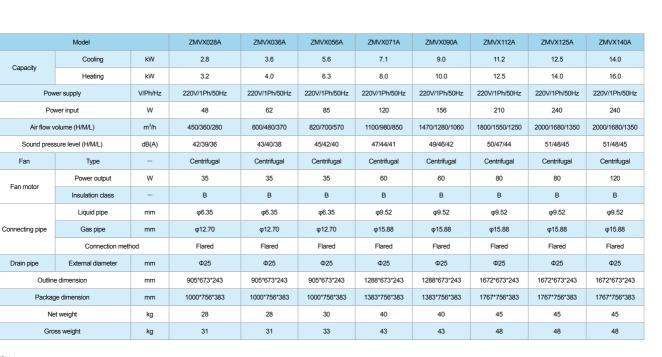
Automatic horizontal and vertical air flow



### • Low noise and low energy consumptionv

Unequally spaced oblique angle large diameter through-flow fan is used to ensure strong air supply, lower fan speed and lower energy consumption





Notes

1. Power supply: 220V/1PH for 50Hz

<sup>2.</sup> The cooling condition: indoor side 27°C (80.6°F) DB, 19°C (60°F) WB outdoor side 35°C (95°F) DB

The heating condition: indoor side 20°C (68°F) DB, 15°C (44.6°F) WB outdoor side 7°C (42.8°F) DB
 Sound level: measured at point 1m in front of the unit at a height of 1.3m. During actural operation, these values are normally somewhat higher as a result of ambient conditions.

The above data may be changed without notice for future improvement on quality and performance.



# Wall mounted



### Accessories

Plenum box	Air filter	EXV	Drain pump	AC motor	DC Motor
/	Standard	Standard built-in	/	Standard	/

### Low noise design

### Streamlined design with elegant appearance

The unit has elegant profile and various interiors. The newly designed louver can help with better air-flow diffusion of the conditioner, uniformly distributing air into the whole space in a comfortable way.

### • Air supply with wide air flow achieving more significant effect

The unique two-layered auto swing providing wider air supply range to optimize air flow compared to conventional units.

### Fast heating providing a warm and comfortable environment

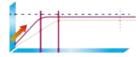
Optimized interior structure greatly increasing the temperature at air outlet to reach set temperature ASAP and realize fast heating.

### Ultra-silent operation leading a quiet life

Brand-new highly efficient noise reduction motor built with the latest technology minimizing the noise of IDU; air duct designed with good sound insulation ensuring silent and smooth air supply.









	Model		ZMVW028AB	ZMVW036AB	ZMVW040AB	ZMVW056AB	ZMVW063AB	ZMVW071AB
Capacity	Cooling	kW	2.8	3.6	4.0	5.6	6.3	7.1
Сараску	Heating	kW	3.0	4.3	4.5	6.0	7.1	8.0
Powe	er supply	V/Ph/Hz	220V/1Ph/50Hz	220V/1Ph/50Hz	220V/1Ph/50Hz	220V/1Ph/50Hz	220V/1Ph/50Hz	220V/1Ph/50Hz
Pow	er Input	w	65	65	70	70	82	82
Air flow vo	olume(H/M/L)	m³/h	800/700/600	800/700/600	850/750/650	850/750/650	1200/950/860	1200/950/860
Sound press	ure level(H/M/L)	dB(A)	40/36/32	40/36/32	45/41/35	45/41/35	48/45/38	48/45/38
	Туре	-	Cross-flow fan					
Fan	Quantity	-	1	1	1	1	1	1
	Speed (H/M/L)	rpm	1100/1000/900	1100/1000/900	1100/1000/900	1100/1000/900	1100/1000/900	1100/1000/900
Fan motor	Power Input	w	30	30	30	30	50	50
	Insulation class	-	В	В	В	В	В	В
	Liquid Pipe	mm	φ6.35	φ6.35	φ6.35	φ6.35	φ6.35	φ6.35
Connecting pipe	Gas Pipe	mm	φ12.70	φ12.70	φ12.70	φ12.70	φ15.88	φ15.88
	Connection meth	od	Flared	Flared	Flared	Flared	Flared	Flared
Drain pipe	External dia.	mm	DN20	DN20	DN20	DN20	DN20	DN20
Outline	dimension	mm	970x315x235	970x315x235	970x315x235	970x315x235	1100x330x235	1100x330x235
Package	e dimension	mm	1010x370x300	1010x370x300	1010x370x300	1010x370x300	1140x385x300	1140x385x300
Net	Weight	kg	13.5	13.5	14.5	14.5	16	16
Gros	s weight	kg	17.5	17.5	18.5	18.5	20	20

Notes

Power supply: 220V/1PH for 50Hz

The cooling condition: indoor side 27°C (80.6°F) DB, 19°C (60°F) WB outdoor side 35°C (95°F) DB 2

3 The heating condition: indoor side 20°C (68°F) DB, 15°C (44.6°F) WB outdoor side 7°C (42.8°F) DB 4

Sound level: measured at point 1m in front of the unit at a height of 1.3m. During actural operation, these values are normally somewhat higher as a result of ambient conditions 5.

# Standard duct



### Accessories

Plenum box	Plenum box Air filter		Drain pump	AC motor	DC Motor
Standard	Ι	Standard (built-in)	Standard (built-in)	Standard	/

### • Simple design, short body, easy to install

### Built-in drain pump,drain height can be 1200mm

Built-in with long life drainage pump, Pumping head is 1200mm, flexible for drainage pipe design.

### • Simple design, short body, easy to install

Ultra-thin body with the thickness of only 250 mm installed in a concealed way to lift the height of the suspended ceiling, especially suitable for ceilings with narrow height of suspended ceilings

### • Flexible air return ways

Flexible and diversified insulation designs providing options for back air return or lower air return based on the suspended ceilings at the site to perfectly coordinate with the interior decorations

### • Ultra quiet operation

The fan motor of delicate and compact design equipped with brand-new propeller housing with vibration absorption function delivering operating noise as low as 24dB(A) to satisfy rigorous noise requirements at different sites

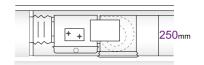
### Wider range of static pressure and stronger air supply

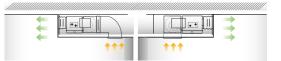
The static pressure has three steps with the highest up to 70 Pa capable of direct delivery or connection with air duct. The flexible selection can create comfortable space

### Ultra Quiet Operation

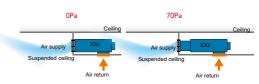
The use of aerospace technology on 3D spiral fan blades with optimized air duct design reduces internal resistance of the unit and achieves ultra-quiet operation, creating a comfortable and pleasant environment.













	Model		ZMDN022AB	ZMDN025AB	ZMDN028AB	ZMDN032AB	ZMDN036AB	ZMDN040AB	ZMDN045AB	ZMDN050AB	ZMDN056AB	
Canacity	Cooling	kW	2.2	2.5	2.8	3.2	3.6	4.0	4.5	5.0	5.6	
Capacity	Heating	kW	2.5	2.8	3.2	3.6	4.0	4.5	5.0	5.6	6.3	
Power su	pply	V/Ph/Hz					220V/1Ph/	50Hz				
Power In	put	W		60			80			95		
Air flow volum	e(H/M/L)	m3/h		540/450/350			700/600/500		900/800/700			
ESP		Pa					15(0/30/5	50)				
Sound pressure I	evel(H/M/L)	dB(A)		32/28/24			34/31/28		36/33/30 37/34/31			
Fan	Туре	-					Centrifuç	gal				
Fan motor	Power Output	W	25	25	25	40	40	40	50	50	55	
Fairmotor	Insulation class	_	В	В	В	В	В	В	В	В	В	
	Gas Pipe	mm	φ12.70	φ12.70	φ12.70	φ12.70	φ12.70	φ12.70	φ12.70	φ12.70	φ12.70	
Connecting pipe	Liquid Pipe	mm	φ6.35	φ6.35	φ6.35	φ6.35	φ6.35	φ6.35	φ6.35	φ6.35	φ6.35	
	Connection	n method	Flared	Flared	Flared	Flared	Flared	Flared	Flared	Flared	Flared	
Drain pipe	External diameter	mm	DN25	DN25	DN25	DN25	DN25	DN25	DN25	DN25	DN25	
Outline dime	ension	mm		880*515*250						1050*515*250		
Package dim	nension	mm		1080*600*280					1250*600*280			
Net Wei	ght	kg	28					31 33				
Gross we	ight	kg			3	4			37 39			

	Model		ZMDN063AB	ZMDN071AB	ZMDN080AB	ZMDN090AB	ZMDN100AB	ZMDN112AB	ZMDN125AB	ZMDN140AB	ZMDN160AB
Capacity	Cooling	kW	6.3	7.1	8.0	9.0	10.0	11.2	12.5	14.0	16.0
Capacity	Heating	kW	7.1	8.0	9.0	10.0	11.2	12.5	14.0	16.0	18.0
Power su	ipply	V/Ph/Hz				220	V/1Ph/50Hz				
Power In	nput	W	95	144	170	230	303				
Air flow volum	e(H/M/L)	m3/h	900/800/700	1100/1000/900	1300/1150/950	1600/1400/1200			2000/1700/140	00	
ESP		Ра	15(0/30/50)		30(15/50/70)				50(15/30/70)		
Sound pressure L)	level(H/M/	dB(A)	37/34/31	40/3	7/33	42/39/35	44/41/39				
Fan	Туре	-				C	Centrifugal				
Fan motor	Power Output	W	55	80	35+55	35+80	60+125				
Fan motor	Insulation class	-	В	В	В	В	В	В	В	В	В
	Gas Pipe	mm	φ12.70				φ15.8	8			
Connecting pipe	Liquid Pipe	mm	φ6.53				φ9.5	2			
	Connection	n method					Flared				
Drain pipe	External diameter	mm					DN25				
Outline dim	ension	mm	1050*515*250		1350*515*250				1350*557*292	2	
Package dir	nension	mm	1250*600/280		1550*600*280		1550*640*320				
Net We	ght	kg	33	38	43	43	48	48	48	48	48
Gross we	eight	kg	39	45	50	50	56	56	56	56	56

- Notes:

   1.
   Power supply: 220V/1PH for 50Hz

   2.
   The cooling condition: indoor side 27°C (80.6°F) DB, 19°C (60°F) WB outdoor side 35°C (95°F) DB

   3.
   The heating condition: indoor side 20°C (68°F) DB, 15°C (44.6°F) WB outdoor side 7°C (42.8°F) DB

   4.
   Sound level: measured at point 1 m in front of the unit at a height of 1.3m. During actural operation, these values are normally somewhat higher as a result of ambient conditions.

   5.
   The above data may be changed without notice for future improvement on quality and performance.



# Slim duct



### Accessories

Plenum box	Air filter	EXV	Drain pump	AC motor	DC Motor
Standard	1	Standard (built-in)	Standard (built-in)	Standard	/

### Built-in drain pump, drain height can be 1200mm

Built-in with long life drainage pump,Pumping head is 1200mm, flexible for drainage pipe design.

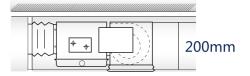
### Delicate design and compact body

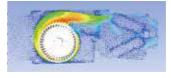
Designed with 200 mm thickness, the body is lighter and the installation space required is smaller, making it suitable for more small space



Use the brand-new CFD optimized duct and simulated fan blades to ensure softer air supply, and the auxiliary streamlined embedded foam drain pan lowers noise of eddy current to 23 dB, equal to the normal human breathing sound, bringing you a naturally quiet home.







### • Flexible air return

The air return plenum as standard configuration may change air return mode based on the actual circumstances at the site to enable more flexible air return.

### • Unique PM2.5 and formaldehyde purification solution

PM2.5 and formaldehyde filters are optional to provide superclean indoor environment.



		ZMDN022AC	ZMDN025AC	ZMDN028AC	ZMDN032AC	ZMDN036AC	ZMDN040AC		
Capacity	Cooling	kW	2.2	2.5	2.8	3.2	3.6	4.0	
Capacity	Heating	kW	2.5	2.8	3.2	3.6	4.0	4.5	
Power supply		V/Ph/Hz	220V/1Ph/50Hz						
I	Power Input	W	54 55						
Air flo	w volume(H/M/L)	m3/h	500/370/310 560/430/360						
	ESP	Pa	10(30)						
Sound pr	ressure level(H/M/L)	dB(A)	33/28/23			33/28/24			
Fan	Туре	_			Centr	ifugal			
Fan motor	Power Output	W	26	26	26	26	26	26	
Fan motor	Insulation class	-	В	В	В	В	В	В	
	Gas Pipe	mm	φ6.35						
Connecting pipe	Liquid Pipe	mm	φ9.52			φ12.7			
	Connection method		Flared						
Drain pipe	External diameter	mm	φ25						
Out	Outline dimension		700*450*200						
Package dimension		mm	931*543*255						
Net Weight		kg	17.5						
Gross weight		kg	20.5						

	Model		ZMDN045AC	ZMDN050AC	ZMDN056AC	ZMDN063AC	ZMDN071AC	
Capacity	Cooling	kW	4.5	5.0	5.6	6.3	7.1	
Capacity	Heating	kW	5.0	5.6	6.3	7.1	8.0	
Р	Power supply		220V/1Ph/50Hz					
F	Power Input	W	77 100			100	105	
Air flo	w volume(H/M/L)	m3/h	750/620/550 920/710/590 10					
	ESP	Ра			10(30)			
Sound pr	Sound pressure level(H/M/L)		35/30/28			36/32/28	37/32/29	
Fan	Туре	_	Centrifugal					
Fan motor	Power Output	W	40			e	60	
Fair motor	Insulation class	_	В	В	В	В	В	
	Gas Pipe	mm	φ6.35			φ9.52		
Connecting pipe	Liquid Pipe	mm	φ12.7			φ15.88		
	Connection meth	nod	Flared					
Drain pipe	External diameter	mm	φ25					
Out	Outline dimension		920*450*200					
Package dimension		mm	1151*543*255					
	Net Weight		20.5					
Gross weight		kg	21					

Notes:

- 1. 2. 3. 4. 5.
- s: Power supply: 220V/1PH for 50Hz The cooling condition: indoor side 27°C (80.6°F) DB, 19°C (60°F) WB outdoor side 35°C (95°F) DB The heating condition: indoor side 20°C (68°F) DB, 15°C (44.6°F) WB outdoor side 7°C (42.8°F) DB Sound level: measured at point 1m in front of the unit at a height of 1.3m. During actural operation, these values are normally somewhat higher as a result of ambient conditions. The above data may be changed without notice for future improvement on quality and performance.



# High ESP duct



### Accessories

Plenum box	Air filter	EXV	Drain pump	AC motor	DC Motor	
Standard	Standard	Standard (Built-in)	1	Standard	1	

### High static pressure enabling far air supply

The external static pressure reaches 100 pa, making it possible to connect long air duct to realize long distance air supply, especially suitable for scenarios needing air supply by long air ducts.

### Various air supply modes suitable for different room types

Choosing different air supply modes as per room structure, one IDU of air conditioner can meet the diversified space requirements.

### Intake fresh air to improve air quality

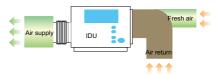
Small amount of outdoor fresh air can be introduced through the air duct to ensure the quality of room air.

### Industry-leading with low noise operation

Brand-new noise reduction technology effectively reducing noises of the unit to provide quiet and pleasant environment.







Model			ZMDH100AB	ZMDH112AB	ZMDH125AB	ZMDH140AB
Capacity	Cooling	kW	10.0	11.2	12.5	14.0
Сараску	Heating	kW	kW 11.2 12.5		14.0	16.0
Power supp	bly	V/Ph/Hz	220V/1Ph/50Hz	220V/1Ph/50Hz	220V/1Ph/50Hz	220V/1Ph/50Hz
Power inpu	ut	W	400	420	500	550
Air flow volume	(H/M/L)	m³/h	1800/1450/1050	2000/1600/1300	2250/1800/1450	2700/2150/1750
ESP		Pa	50(100)	50(100)	50(100)	50(100)
Sound pressure lev	rel (H/M/L)	dB(A)	49/46/42	49/46/42	51/47/43	51/47/43
Fan	Туре	-	Centrifugal	Centrifugal Centrifugal		Centrifugal
Fdii	Quantity	-	2	2	2	2
Fan motor	Power output	W	200	200	250	250
Fan motor	Insulation class	-	В	В	В	В
	Liquid pipe	mm	φ9.52	φ9.52	φ9.52	φ9.52
Connecting pipe	Gas pipe	mm	φ15.88	φ15.88	φ15.88	φ15.88
	Connection method		Flared	Flared	Flared	Flared
Drain pipe	Drain pipe External diameter		Φ25	Φ25	Φ25	Φ25
Outline dimension		mm	1200*750*390	1200*750*390	1200*750*390	1200*750*390
Package dimension		mm	1270*820*430	1270*820*430	1270*820*430	1270*820*430
Net weigh	t	kg	62	62	62	62
Gross weight		kg	65	65 65		65

Notes

- Power supply: 220V/1PH for 50Hz
- 2
- The cooling condition: indoor side 27°C (80.6°F) DB, 19°C (60°F) WB outdoor side 35°C (95°F) DB The heating condition: indoor side 20°C (68°F) DB, 15°C (44.6°F) WB outdoor side 7°C (42.8°F) DB 3.
- Sound level: measured at point 1m in front of the unit at a height of 1.3m. During actural operation, these values are normally somewhat higher as a result of ambient conditions. The above data may be changed without notice for future improvement on quality and performance. 4. 5.

# INTELLIGENT CONTROL

C	Independence control	49
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	Smart control - powerful extension function	54

			Controller						
			Wireless Controller	Signal Receiver	Wired Controller		Zone Controller	Centralized Controller	
IDU	Model	Picture	ZMC311B	ZSA-R01	ZMC315D	ZMC312E	ZMC309B	ZMC308B	
							0	0 1 0TCA	
Round Flow cassette	ZMCF		•	/				•	
Two-way cassette	ZMCD			/					
One-way cassette	ZMCS			/		•		•	
Ceiling Floor	ZMVX		•	/	•	•		•	
Wall mounted	ZMVW		•	/	/	/	/	•	
Slim duct	ZMDN-AC		•	•	•	•	•	•	
Standard duct	ZMDN-AB		•	•	•	•	•	•	
High ESP duct	ZMDH-AB		•		•	•		•	
Big capacity duct	ZMDH-AI		•		•	•		•	
Fresh air Processor	ZMDF					•		•	

Note: 🔿 Means Standard, 🌑 Means Optional