



TRANE®

GENmini

DC INVERTER

VRF MINI FULL DC INVERTER
8.0kW-33.5kW

GENmini

DC INVERTER

With its performance, innovation, commitment and knowledge, Trane has been leading the industrial trend in the last century. TRANE GEN MINI is committed to improving the environments in our customers' buildings, thinking and doing more than they have expected. From the very beginning, what we have been trying to do is to bring the highest efficiency, lowest emission, mature technologies and perfect reliability to our customers.

Apartment



Mini office



Villa



Store



Higher efficiency

COP 3.95

More comfortable

Inverter Compressor

More flexible

8 Types of Indoor Units & 55 Different Specifications Available

Small Capacity Full DC Inverter VRF Unit

10 Models



8/10kW



12.5/14/16/18kW

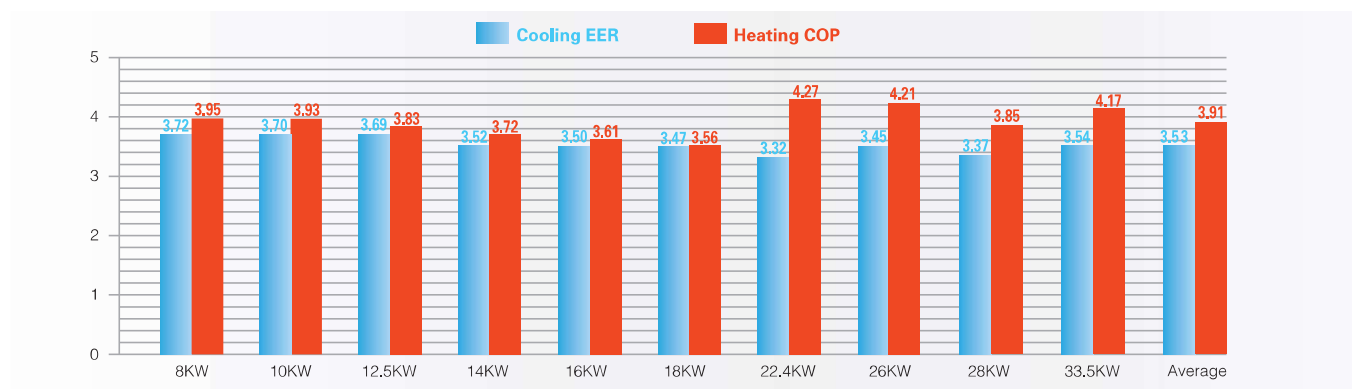


22.4/26/28/33.5kW

Capacity	8kW	10kW	12.5kW	14kW	16kW	18kW	22.4kW	26kW	28kW	33.5kW
Compressor	DC	DC	DC	DC	DC	DC	DC	DC	DC	DC
Fan motor	DC	DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC

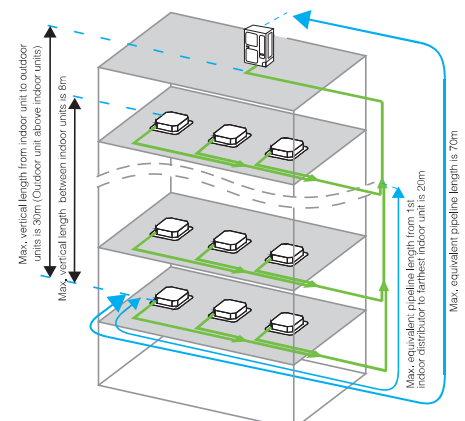
Power type		220-240	380-415
50HZ	1 phase	8/10/12.5/14/16kW	
	3 phase		12.5/14/16/18/22.4/26/28/33.5kW
60HZ	1 phase	8/10/12.5/14/16kW	
	3 phase		12.5/14/16/18/22.4/26/28/33.5kW

EER & COP



Long piping & Height difference

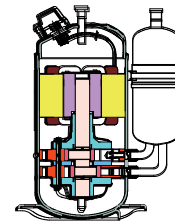
- The total pipe length: 100m (8-18kW), 120m (22.4-33.5kW)
- The longest pipe:
 - Actual length 60m
 - Equivalent length 70m
- Equivalent length from first indoor distributor to last indoor unit: 20m
- Height Difference between indoor and outdoor unit:
 - Outdoor unit above <30m
 - Outdoor unit below <20m
- Height difference between indoor units: 8m



Superior Efficiency

High Efficiency DC Inverter Compressor

- Twin-rotary DC inverter compressor/
Hermetic scroll inverter compressor
Use high efficiency and reliability compressor
Has very good efficiency in part load condition
- High Efficiency, Low Noise
Optimized the efficiency and noise during operation with the latest technology.
- Environmental Protection
Developed the compressor with alternative refrigerant which can protect environment.
- Low Vibration
Reduced the vibration during compressor start and operation by using 2CYL structure, simplified the match of air-conditioning.



- High efficiency
- High reliability
- Low vibration
- Low noise
- Long life



Scroll inverter compressor



Twin-rotary inverter compressor

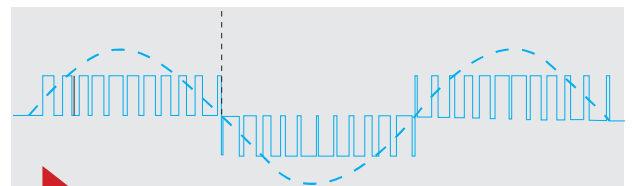
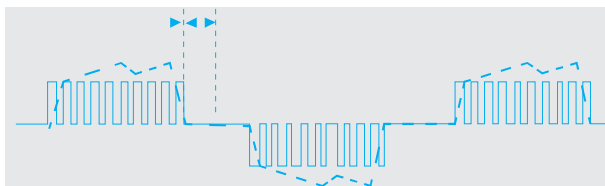
High Efficiency DC Motor & Reversal Protection

- High efficiency DC fan motor
Low noise and high efficiency because of high-density wire winding engineering
Brushless with built-in sensor
- Reversal Protection
In standby, if the outdoor fan motor is rotating in opposite direction at a high speed by the wind or other natural factors, the unit can't start so as to keep the fan motor from broken down. It will start when the fan motor speed slow down.



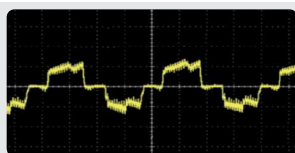
180° Sine Wave Control

The perfect combination of 180° Sine wave rotor frequency drive control technology and excellent IPM inverters, reduces the reactive loss of motor-driven, increases motor efficiency by 12%.

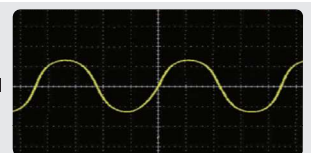


Increase efficiency by 12%

Conventional control waveform



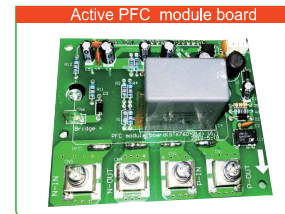
180° Sine Waveform vector Control



High Reliability

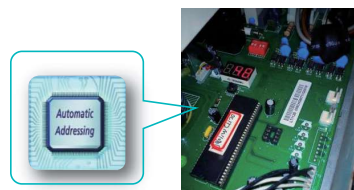
Active PFC Module

- PFC: Power Factor Corrector
- There will be a power loss because of the different phases between the voltage and current.
- With the PFC module, the power utilization rate is higher, power factor can be up to 98%. System will be more efficiency.
- Power factor refers to the relationship between effective power and total power consumption, power factor is effective power divided by total power consumption.
- Power factor can measure power utilization rate, the power factor bigger, the higher power utilization rate.



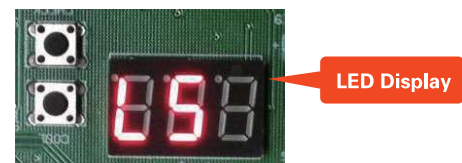
Automatically Addressing

- Automatically addressing: system will distribute address to indoor unit automatically.
- Automatically addressing will reduce artificial faults and manual works.

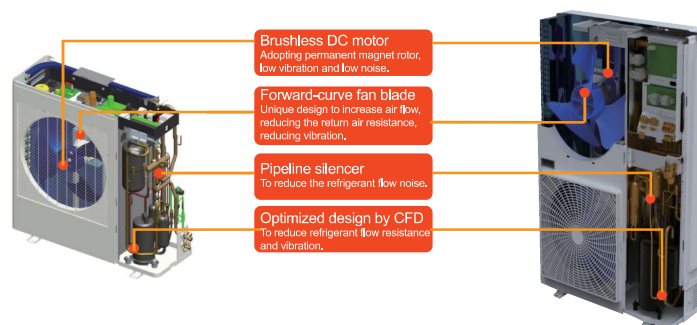


LED Display on PCB

- LED display on the PCB, it can show system operation status and error code.

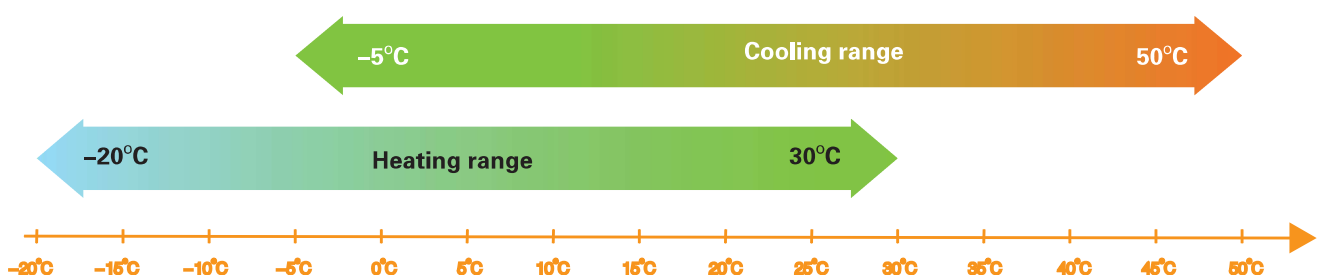


Silent Technology



Wide Outdoor Operation Range

- Because global warming is getting worse, Max.cooling operating temperature is increased to 50°C.
- Heating operating temperature is down to -20°C. In the cold winter, system can heat the room continuously.



- Outdoor unit running at temperature above 50°C need customized in factory, please consult to sales engineer.

Solution Controllers

Wireless Remote Controllers

- Indoor unit address inquiry
- Indoor unit address setting
- Temperature setting
- Operation mode setting
- Fan speed setting
- Timer function



Wired Controllers

- Bidirectional communication. Indoor unit's operating parameters (error code, temperature, address) can be inquired and displayed on the controller.
- Compact design
- Timer function



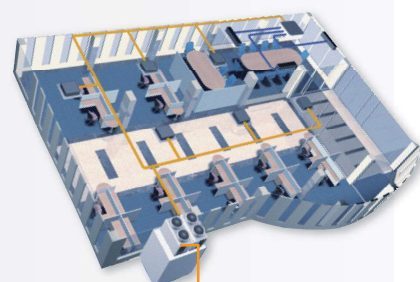
Simple Centralized Controllers

- Easy to install. Controller connects to outdoor units only.
- Able to install this controller after building decoration.
- 1 Controller can control max 64 indoor units.
- Mode lock function, user can lock the running mode of indoor unit.



Indoor unit operation state

Indoor unit control order



Touch screen centralized controller

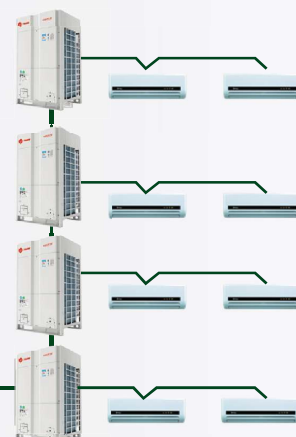
- Build in WIFI modular
- Build in Modbus protocol
- Weekly schedule management
- Operation parameter enquiry
- User friendly UI design



Modbus



RS485



Outdoor Unit Line-Up



Compact & Lightweight Design

The new design of GENMINI system has been optimised. This design gives the house, building a sleek look from the outside view and the clear view of the scenery without any blockage from the inside of the building. The GENMINI system is now slim and compact.

The highly space saving outdoor units are able to maximise utilisation space. It is an ideal air conditioning system for villa, apartment, residential, small offices.

Model Name	Power Type	Cooling					Heating				
		Capacity		P. Input	Current	EER	Capacity		P. Input	Current	COP
		kW	Btu/h	kW	A		kW	Btu/h	kW	A	
TMR030SMA	220-240V/ 1Ph/50Hz	8.0	27300	2.15	5.70	3.72	9.0	30700	2.28	6.04	3.95
TMR035SMA		10.0	34000	2.68	7.10	3.70	11.5	39000	2.90	7.69	3.93
TMR040SMA		12.5	42000	3.38	8.96	3.69	14.0	47000	3.65	9.68	3.83
TMR050SMA		14.0	47000	3.96	10.50	3.52	16.0	54000	4.30	11.40	3.72
TMR060SMA		16.0	54000	4.57	12.11	3.50	18.0	61000	5.13	13.60	3.61
TMR040SDA	380-415V/ 3Ph/50Hz	12.5	42000	3.38	5.24	3.69	14.0	47000	3.66	5.67	3.83
TMR050SDA		14.0	47000	3.98	6.17	3.52	16.0	54000	4.30	6.67	3.72
TMR060SDA		16.0	54000	4.58	7.10	3.50	18.0	61000	5.13	7.95	3.61
TMR070SDA		18.0	61000	5.19	8.05	3.47	20.0	68000	5.62	8.71	3.56
TMR080SDA		22.4	76500	6.74	10.50	3.32	25.0	85300	5.85	9.90	4.27
TMR090SDA		26.0	88700	7.54	12.10	3.45	28.5	97300	6.77	11.10	4.21
TMR100SDA		28.0	95500	8.32	13.60	3.37	30.5	104000	7.93	12.90	3.85
TMR120SDA		33.5	114200	9.45	14.90	3.54	37.5	127900	9.00	14.20	4.17





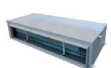


Model Name	Power Type	Compressor		Fan Motor		Refrigerant		Sound Pressure Level dB(A)	Dimension(WxHxD)		Weight		Connecting		Max. Connected Indoor Units Quantity
		Type	Q.Ty	Type	Q.Ty	Type	Volume kg		Packing mm	Body mm	Net kg	Gross kg	Gas mm	Liquid mm	
TMR030SMA	220-240V/ 1Ph/50Hz	DC, Twin rotary	1	DC, Fan motor	1	R410a	3.0	45-56	1145x1120x475	1054x994x399	80	92	15.9	9.5	4
TMR035SMA							3.0				80	92			5
TMR040SMA							3.1	45-58	964x1445x402	900x1328x400	89	100			6
TMR050SMA							3.5				89	100			7
TMR060SMA							4.2				96	107			8
TMR040SDA	380-415V/ 3Ph/50Hz	DC, Twin rotary	1	DC, Fan motor	2	R410a	3.1	45-58	964x1445x402	900x1328x400	93	93	15.9	9.5	6
TMR050SDA							3.5				93	93			7
TMR060SDA							4.2				100	111			8
TMR070SDA							4.2	45-58	1278x1703x560	1120x1549x528	100	111	19.1	9.5	9
TMR080SDA							6.1				145	165			10
TMR090SDA							6.1				145	165	22.2	9.5	12
TMR100SDA		DC, Scroll					8.0				176	196			15
TMR120SDA							8.0				176	196	25.4	12.7	18

Indoor Unit Line-Up



8 Series, Total Of 55 Specifications

The GEN MINI series provides a wide range of indoor units, including the cassette unit, built-in duct unit, high wall unit, floor/ceiling unit, etc., totally 8 series and 55 specifications, perfectly meeting various inside mounting applications.

Name	Cooling capacity (kW)	2.2	2.5	2.8	3.2	3.6	4.0	4.5	5.0	5.1	5.6	6.3	7.1	8.0	9.0	10.0	11.2	12.0	12.5	14.0	15.0	20.0	25.0	28.0
MWA-AMN 1-way cassette	 NEW	•		•		•		•																
MWB-AMN 2-way cassette	 NEW							•			•		•											
MWC-A/BMN 4-way cassette				•		•		•			•		•	•	•	•	•		•	•				
MWD-A/BML	 NEW	•	•	•	•	•	•	•	•		•	•	•											
MWD-AMM Medium duct unit	 NEW	•	•	•	•	•	•	•	•		•	•	•	•	•	•		•			•			
MWD-AMS Standard static pressure duct unit														•	•	•	•	•			•			
MWD-AMH High static pressure duct unit														•	•	•	•	•			•	•	•	•
MWW-AMN High wall unit		•		•		•		•		•				•										
MWX-AMN Floor/ceiling unit								•			•		•	•			•							

Indoor Unit Parameters Table

SERIES			MWA-AMN (4-Way Cassette Unit)				MWB-AMN (2-Way Cassette Unit)		
Unit Model			022	028	036	045	045	056	071
Cooling capacity		kW	2.2	2.8	3.6	4.5	4.5	5.6	7.1
Heating capacity		kW	2.8	3.2	4.0	5.0	5.0	6.3	8.0
Rated input power	Cooling	W	40			50	70		100
	Heating	W	40			50	70		100
Power Supply			220V/1Ph/50Hz				220V/1Ph/50Hz		
Air Flow	High	CMH	500			610	800		1120
	Medium	CMH	470			550	670		950
	Low	CMH	400			500	600		850
Refrigerant			R410A				R410A		
Unit dimensions	LxWxH	mm	870x460x250			870x460x290	960x520x306		1200x520x306
Weight (including panel)		kg	27.6			29.6	39.5		47.5
Panel dimensions	LxWxH	mm	1070x520x50				1203x630x50		1443x630x50
Noise value	H/M i/L	dB(A)	36/34/32			41/38/36	42/39/36		46/43/40
Connecting pipe	Liquid	mm	Ø6.35			Ø6.35	Ø6.35		Ø6.35
	Gas	mm	Ø9.52			Ø12.7	Ø12.7		Ø15.88
	Drain	mm	DN25				DN25		
Controller			Wireless (standard)/Wired (optional)				Wireless (standard)/Wired (optional)		

SERIES			MWC-AMN (4-Way Cassette Unit-Type A)												
Unit Model			028	036	045	056	071	080	090	100	112	125	140		
Cooling capacity		kW	2.8	3.6	4.5	5.6	7.1	8.0	9.0	10.0	11.2	12.5	14.0		
Heating capacity		kW	3.2	4.0	5.0	6.3	8.0	9.0	10.0	11.0	12.5	14.0	16.0		
Rated input power	Cooling	W	43	54			93		160						
	Heating	W	43	54			93		160						
Power Supply			220V/1Ph/50Hz												
Air Flow	High	CMH	650	810			1050	1200	1550		1600				
	Medium	CMH	550	700			950	1100	1450		1450				
	Low	CMH	450	550			800	900	1050		1300				
Refrigerant			R410A												
Unit dimensions		LxWxH	900x833x232						900x833x286						
Weight (including panel)		kg	22	24				28.5							
Panel dimensions		LxWxH	mm						950x950x50						
Noise value		H/M i/L	dB(A)	36/34/32			39/37/35		43/41/39	48/45/43		46/43/41		49/46/43	
Connecting pipe	Liquid	mm	Ø6.35	Ø6.35						Ø9.52					
	Gas	mm	Ø9.52	Ø12.7						Ø15.88					
	Drain	mm	DN25												
Controller			Wireless (standard)/Wired (optional)												

SERIES			MWW-AMN (High Wall Unit)						MWX-AMN (Floor/Ceiling Unit)					
Unit Model			022	028	036	045	051	071	045	056	071	080	112	
Cooling capacity		kW	2.2	2.8	3.6	4.5	5.1	7.1	4.5	5.6	7.1	8.0	11.2	
Heating capacity		kW	2.5	3.2	4.0	5.0	7.1	8.0	5.0	6.3	8.0	8.8	12.5	
Rated input power	Cooling	W	55		58	60			60		150		260	
	Heating	W	55		58	60			60		150		260	
Power Supply			220V/1Ph/50Hz											
Air Flow	High	CMH	540		600	780	1000		950		1300		2300	
	Medium	CMH	440		500	650	800		850		1150		2100	
	Low	CMH	340		400	550	600		750		1100		1900	
Refrigerant			R410A											
Unit dimensions	LxWxH	mm	850x400x235				1080x304x221			1245x680x240				1670x680x240
Weight		kg	12				16			36				51
Noise value	H/M i/L	dB(A)	36/34/32			42/39/37		48/46/44		46/42/37		48/44/39		52/49/45
Connecting pipe	Liquid	mm	Ø6.35		Ø6.35		Ø9.52		Ø6.35		Ø9.52			
	Gas	mm	Ø9.52		Ø12.7		Ø15.88		Ø12.7		Ø15.88			
	Drain	mm	DN20											
Controller			Wireless (standard)/Wired (optional)											

SERIES			MWD-AM L (Slim Duct Unit-Type A)										
Unit Model			022	025	028	032	036	040	045	050	056	063	071
Cooling capacity		kW	2.2	2.5	2.8	3.2	3.6	4.0	4.5	5.0	5.6	6.3	7.1
Heating capacity		kW	2.5	2.8	3.2	3.5	4.0	4.5	5.0	5.6	6.3	7.1	8.0
Rated input power	Cooling	W	50				70			100		110	
	Heating	W	50				70			100		110	
Power Supply			220V/1Ph/50Hz										
Air Flow	High	CMH	450			550		620		800		1000	
	Medium	CMH	300			400		480		600		800	
	Low	CMH	200			300		350		450		600	
Refrigerant			R410A										
Unit dimensions		LxWxH	814x476x210										
Weight (including panel)		kg	16							215		26	
Panel dimensions		LxWxH	6										
Noise value	H/M i/L	dB(A)	29/27/24			32/29/25		36/33/30	37/35/32	38/33/28		39/34/30	
Connecting pipe	Liquid	mm	Ø6.35			Ø6.35			Ø6.35				
	Gas	mm	Ø9.52			Ø12.7			Ø12.7				
	Drain	mm	DN25										
Controller			Wired (standard)/Wireless (optional)										

- Design of the units conforms to GB/T
- The above indoor units' capacity test conditions: cooling 35°C DB/24°C WB (outdoor), 27°C DB/19°C WB (indoor); heating 7°C DB/6°C WB (outdoor), 20°C DB/15°C WB (indoor); equivalent length of refrigerant pipe: 5m; height difference between indoor and outdoor units: 0m.
- Should there be any inconsistency involving parameters, those on the nameplate coming with the unit shall prevail. For reasons like system optimization, upgrades, etc., the data herein is subject to change without prior notice.

Indoor Unit Parameters Table

SERIES			MWD-AMS (Standard Static Pressure Duct Unit)						
Unit Model			071	080	090	100	120	160	
Cooling capacity			kW	7.1	8.0	9.0	10.0	12.0	16.0
Heating capacity			kW	8.0	9.0	10.0	11.0	13.0	17.0
Rated input power	Cooling	W	180			340			
	Heating	W	180			340			
Power Supply			220V/1Ph/50Hz						
Air Flow	High	CM H	1220		1850		2000		
	Medium	CM H	1050		1600		1750		
	Low	CM H	900		1400		1600		
Refrigerant			R410A						
Unit dimensions			LxWxH	mm					
Weight (including panel)			kg	1209x680x260		1445x680x260			
Panel dimensions			LxWxH	mm		mm			
Noise value			H/M/L	dB(A)		dB(A)			
Connecting pipe	Liquid	mm	Ø9.52						
	Gas	mm	Ø6.88						
	Drain	mm	DN25						
Controller			Wired (standard)/Wireless (optional)						

SERIES			M WD-AMM											
Unit Model			022	025	028	032	036	040	045	050	056	063	071	
Cooling capacity			kW	2.2	2.5	2.8	3.2	3.6	4.0	4.5	5.0	5.6	6.3	7.1
Heating capacity			kW	2.5	2.8	3.2	3.5	4.0	4.5	5.0	5.6	6.3	7.1	8.0
Rated input	Cooling	W	75					90			100			110
	Heating	W	75					90			100			110
Power Supply			220V-50Hz-Ph											
Indoor airflow	High	m³/h	500					600			800			1000
	Medium	m³/h	350					500			650			800
	Low	m³/h	250					300			550			600
Static pressure		Pa	50											
Refrigerant type			R410A											
Unit Dimensions	LxWxH	mm	814x476x210							1010x476x210			1214x476x210	
Weight		kg	16/16.5					16.5/17			21/21.5			25.5/26
Noise value	H/M/L	dB(A)	40/38/36					40/38/36			42/40/37			
Connecting	Liquid	mm						Ø6.35			Ø12.70			Ø9.52
	Gas	mm	Ø9.52											Ø6.88
	Drain	mm	DN25											

SERIES			MWD-AMM					
Unit Model			071	080	090	100	120	160
Cooling capacity		kW	7.1	8.0	9.0	10.0	12.0	16.0
Heating capacity		kW	8.0	9.0	10.0	11.0	13.0	17.0
Rated input	Cooling	W	160			300		
	Heating	W	160			300		
Power Supply			220V-50Hz-Ph					
Indoor airflow	High	m³/h						
	Medium	m³/h						
	Low	m³/h						
Static pressure		Pa	50					
Refrigerant type			R410A					
Unit Dimensions	LxWxH	mm	160x643x260			1425x643x260		
Weight		kg	35/36			45/46		
Noise value	H/M/L	dB(A)	43/40/36			47/45/43		
Connecting	Liquid	mm	Ø9.52					
	Gas	mm	Ø6.88					
	Drain	mm	DN25					

SERIES			M WD-AM H (High Static Pressure Duct Unit)									
Unit Model			071	080	090	100	120	150	200	250	280	
Cooling capacity		kW	7.1	8.0	9.0	10.0	12.0	15.0	20.0	25.0	28.0	
Heating capacity		kW	7.8	8.8	10.0	11.0	13.0	17.0	22.0	27.5	30.8	
Rated input power	Cooling	W	340				450			200		
	Heating	W	340				450			200		
Power Supply			220V/ 1Ph/50Hz									
Air Flow	High	CM H	1600				2300			4400		
	Medium	CM H	1300				2100			4000		
	Low	CM H	1100				1900			3600		
Static Pressure		Pa	120									
Refrigerant			R410A									
Unit dimensions	LxWxH	mm	1445x680x260				1190x620x370			1465x614x448		
Weight		kg	46				47			102		
Noise value	H/M i/L	dB(A)	43/42/40				52/48/44			53/49/45	54/50/45	55/50/45
Connecting pipe	Liquid	mm	Ø9.52							Ø12.7		
	Gas	mm	Ø6.88							Ø22.2		
	Drain	mm	DN25							DN30		
Controller			Wired (standard)/Wireless (optional)									

1. Design of the units conforms to GB/T

2. The above indoor units' capacity test conditions: cooling 35°C DB/24°C WB (outdoor), 27°C DB/19°C WB (indoor); heating 7°C DB/6°C WB (outdoor), 20°C DB/15°C WB (indoor); equivalent length of refrigerant pipe: 5m; height difference between indoor and outdoor units: 0m.

3. Should there be any inconsistency involving parameters, those on the nameplate coming with the unit shall prevail. For reasons like system optimization, upgrades, etc., the data herein is subject to change without prior notice.

Complete Sales And Service System

Pre-Sales

Trane design professionals are at hand to provide detailed air conditioning solutions



Before installation, Trane design professionals will fully evaluate design parameters including the outdoor climate, indoor load, fresh air requirement, etc., as well as system pipe length, outdoor unit heat dissipation and other comprehensive conditions, to come up with solution which not only is more suitable, but also can drive the unit's performance to the uttermost.

In-Sales

Trane professional technicians are assigned to startup commissioning, bringing a reliable start



During installation, in order to ensure the unit's reliability in the future, Trane will designate dedicated personnel or authorized personnel from a special primary service center to conduct startup commissioning.

After-Sales

Toll-free service hot-line is available all year long (365 days) to customers all across the country



In the customer service center, dedicated technicians are available 365 days a year for receiving customers' repair requirements, consultancy and complaints, ensuring fast and effective responses to customer needs.



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