

**WORLD WIDE
PATENTED
TECHNOLOGY**

PIONEER
INTERNATIONAL

GWP3
REFRIGERANT GLOBAL WARMING POTENTIAL

MINI VRF SYSTEM

Energy Efficient | Environmentally Preferable | Non Toxic



For more information please visit our website at www.pioneerair.com.au or contact 02 9603 6033



The Pioneer Mini VRF (Variable Refrigerant Flow) is as flexible as your unique building and can be fully customised to your required needs. One complete system contains one outdoor unit and up to 10 indoor units of different designs plus the control to manage the whole system individually. The beauty of this system is the ease of installation which makes this system ideal as well for the installations, replacement or a combination of both.

The indoor units are available in different variations such as Floor/Ceiling, cassette and ducted, which provides a maximum of flexibility to equip each room individually according to capacity and location. By communicating with the indoor units, the outdoor unit controls the flow of refrigerant to each one of them to match their cooling or heating loads. This enables independent operation of each of the indoor units, with inverter control providing optimum energy-saving operation. Air conditioning in multiple rooms by a single outdoor unit also means much less construction and a big improvement in the appearance of buildings. And a wide range of indoor models is available to satisfy the needs of different kinds of buildings.

Taking advantage of its extensive experience with models for both the home and commercial facilities, Pioneer International is ready to provide the ideal air conditioning solution.

MINI VRF OUTDOOR UNIT

Model	--	TVN-090A1	TVN-100A1	TVN-120A1
Compressor Type	--	Swing	Swing	Swing
Throttling Method	--	EEV	EEV	EEV
Cooling Operation Ambient Temperature Range	--	10~52	10~52	10~52
Heating Operation Ambient Temperature Range	--	-20~27	-20~27	-20~27
Power Supply	Rated Voltage	V	220-240	220-240
	Rated Frequency	Hz	50	50
	Phases	--	1	1
Cooling Capacity	W	9000	10000	12500
Heating Capacity	W	11000	12000	14000
Cooling Power Input	W	1900	2200	2550
Heating Power Input	W	2200	2500	2900
EER	W/W	4.74	4.55	4.90
COP	W/W	5.00	4.80	4.83
Outdoor Unit Air Flow Volume	m ³ /h	5200	5200	5200
Fan Type	--	Axial-flow	Axial-flow	Axial-flow
Moisture Protection	--	IPX4	IPX4	IPX4
Sound Pressure Level	dB (A)	56	56	56
Dimension (W×H×D)	mm	990x790x426	990x790x426	990x790x426
Dimension of Package(W×H×D)	mm	1054x832x479	1054x832x479	1054x832x479
Net Weight	kg	64	64	68
Gross Weight	kg	69	69	73
Refrigerant	--	M60	M60	M60
Connection Pipe	Liquid Pipe	mm	9.52	9.52
	Gas Pipe	mm	15.9	15.9
	Connection type	--	Brazed/Soldered	Brazed/Soldered

MINI VRF BULKHEAD DUCTED INDOOR UNIT

Model		--	TPE-28A1	TPE-36A1	TPE-56A1	TPE-63A1	TPE-71A1
Product Code		--	/	/	/	/	/
Power Supply	Rated Voltage	V	220-240	220-240	220-240	220-240	220-240
	Rated Frequency	Hz	50	50	50	50	50
	Phases	--	1	1	1	1	1
Power Supply Mode		--	Separate power supply	Separate power supply	Separate power supply	Separate power supply	Separate power supply
Cooling Capacity		W	2800	3600	5600	6300	7100
Heating Capacity		W	3200	4000	6300	7000	7900
Power Input		W	70	80	85	110	110
Current		A	0.32	0.37	0.39	0.5	0.5
ESP Range		Pa	50/70	50/70	50/70	50/70	50/70
Air Flow Volume		m ³ /h	500	500	800	1000	1000
Sound Pressure Level		dB (A)	30	31	33	35	35
Dimension (W×H×D)		mm	700x200x450	700x200x450	1000x200x450	1300x200x450	1300x200x450
Dimension of Package(W×H×D)		mm	887x263x539	887x263x539	1188x263x539	1489x263x539	1489x263x539
Net Weight		kg	17	18	21	25	26
Gross Weight		kg	19.5	20.5	24	29	30
Connection Pipe	Liquid Pipe	mm	6.35	6.35	6.35	6.35	9.52
	Gas Pipe	mm	9.52	9.52	12.7	12.7	12.7
	Connection type	--	Brazed/Soldered	Brazed/Soldered	Brazed/Soldered	Brazed/Soldered	Brazed/Soldered

MINI VRF WALL MOUNTED INDOOR UNIT

Model		--	TWE-26A1	TWE-36A1	TWE-50A1	TWE-71A1
Product Code		--	/	/	/	/
Power Supply	Rated Voltage	V~	220-240	220-240	220-240	220-240
	Rated Frequency	Hz	50	50	50	50
	Phases	--	1	1	1	1
Power Supply Mode		--	Separate power supply	Separate power supply	Separate power supply	Separate power supply
Cooling Capacity		W	2600	3600	5000	7100
Heating Capacity		W	2800	4000	5800	7900
Air Flow Volume		m ³ /h	520/440/230/150	580/500/300/230	850/760/570/480	1090/930/670/560
Application Area		m ²	10-18	16-24	23-34	27-42
Cooling Speed		r/min	1300/1150/750/600	1400/1200/1050/800	1400/1200/1050/800	1400/1250/900/850
Heating Speed		r/min	1300/1150/850/800	1400/1200/1000/900	1400/1200/1100/900	1400/1250/1000/900
Fan Motor model		--	SGN20J-PG	SGN20V-PG	SGN25W-PG	SGN60A-PG
Fan Motor Power Output		W	18	20	40	55
Fan Motor RLA		A	0.2	0.24	0.36	0.47
Evaporator Form		--	Aluminum Fin-copper Tube	Aluminum Fin-copper Tube	Aluminum Fin-copper Tube	Aluminum Fin-copper Tube
Set Temperature Range		°C	16~30	16~30	16~30	16~30
Sound Pressure Level		dB (A)	38/34/21/19	44/36/30/28	48/44/40/35	52/48/42/38
Dimension (W×H×D)		mm	792x279x195	884x298x205	1003x310x222	1109x331x250
Dimension of Carton Box (L×W×H)		mm	868x280x349	948x288x366	1077x304x380	1178x344x414
Dimension of Package(L×W×H)		mm	871x290x352	951x298x369	1080x314x383	1181x354x417
Net Weight		kg	9	10.5	14	16.5
Gross Weight		kg	11	13	17	20
	Outer Diameter of Liquid Pipe	mm	6.35	6.35	6.35	6.35
	Outer Diameter of Gas Pipe	mm	φ9.52	φ9.52	12.7	12.7

Installation of the Unit

Installation of the Outdoor Unit

WARNING

- Install the unit where it will not be tilted by more than 5°.
- During installation, if the outdoor unit has to be exposed to strong wind, it must be fixed securely.

1. Outdoor unit dimension

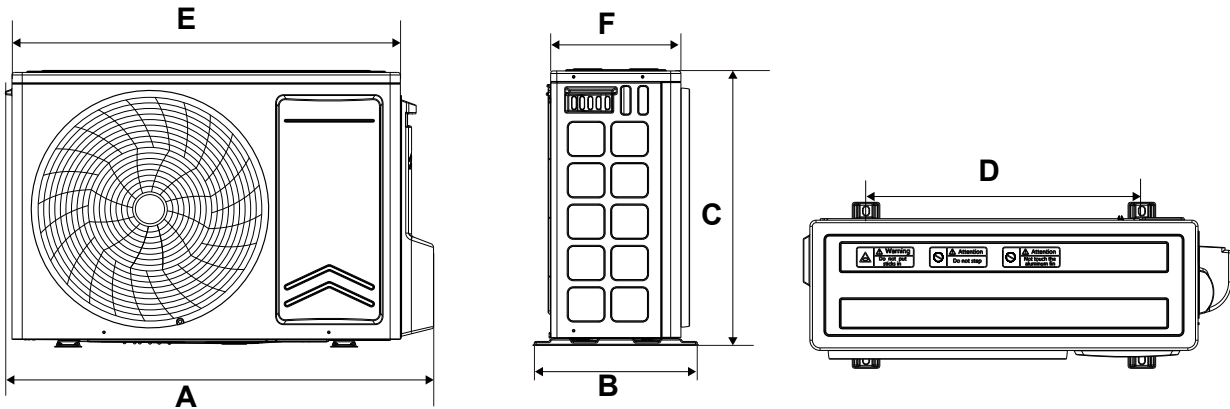


Table 1

Units: mm

Model \ Item	A	B	C	D	E	F
9.0kw/10.kw	990	426	790	610	920	370
12kw	1020	396	1000	590	950	340

2. Provide the space shown in Fig.1, so that the air flow is not blocked. Also for efficient operation, leave three of four directions of peripheral constructions open.

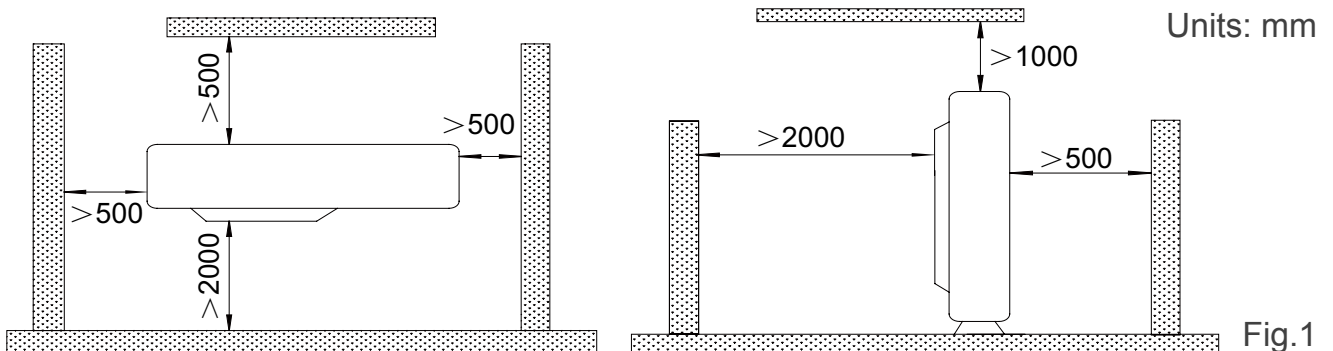


Fig.1

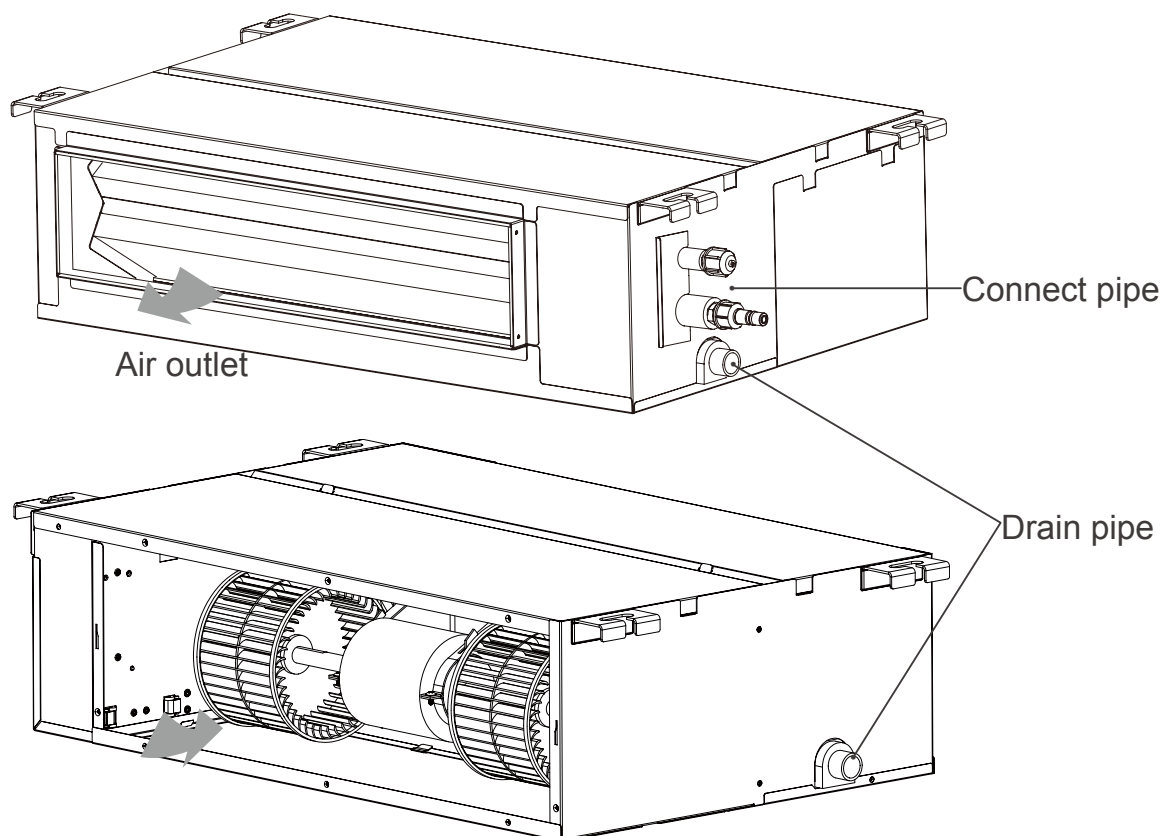
Installation Location and Matters Needing Attention

Earthing Requirements

1. The air conditioner is classified into the class I appliances, so its earthing must be reliable.
2. The yellow-green line of the air conditioner is the earth line and can not be used for other purpose, cut off or fixed by the tapping screw, otherwise it would cause the hazard of the electric shock.
3. The reliable earth terminal should be provided and the earth wire cannot be connected to any of the following places.
 - (1) Running water pipe
 - (2) Coal gas pipe
 - (3) sewage pipe
 - (4) other places where the professional personnel think unreliable

Outline of the Unit and Main Parts

● Indoor



NOTE:

- The connection pipe and duct for this unit should be prepared by the user.
- The unit is standard equipped with rectangular duct.

Installation Instructions

Outline Dimension Drawings of the Indoor Unit

Note: the unit in the followings is mm, unless otherwise specified.

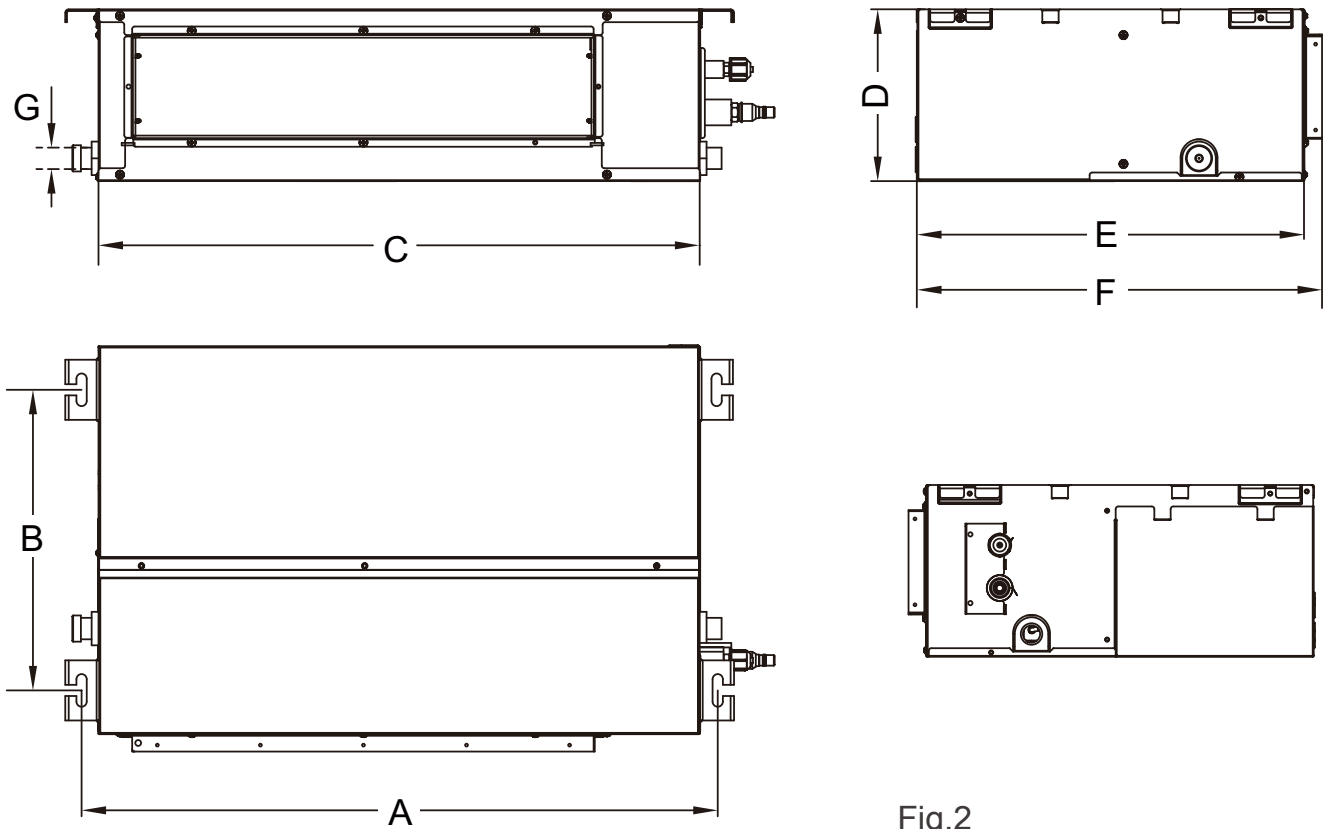


Fig.2

Table 2 : Outline Dimensions

Model \ Item	A	B	C	D	E	F	G
2.5KW	740	350	700	200	450	472	26
3.5KW	740	350	700	200	450	472	26
5.0KW	1040	350	1000	200	450	472	26

Installation Instructions

Installation of the Duct

a. Dimensions of the Supply Air Outlet/Return Air Inlet

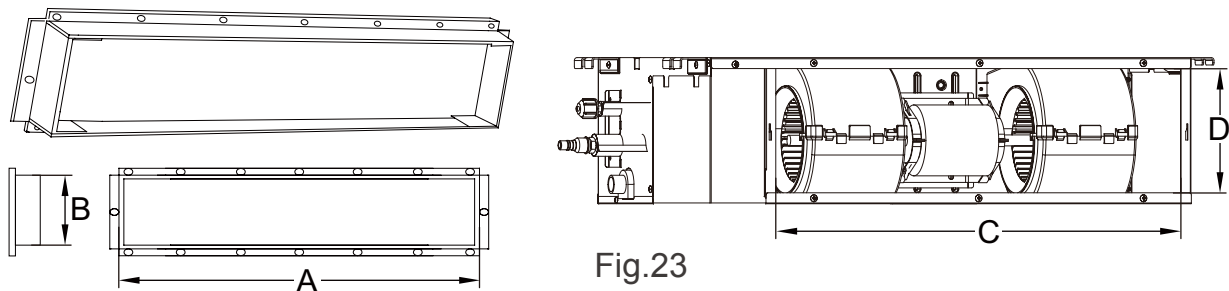


Fig.23

Table 4

Units: mm

Model	Item	Air Supply Outlet		Return Air Inlet	
		A	B	C	D
2.5KW		538	122	590	170
3.5KW		538	122	590	170
5.0KW		808	122	890	170

b. Installation of the Air Supply Duct

1. Installation of the rectangular air supply duct

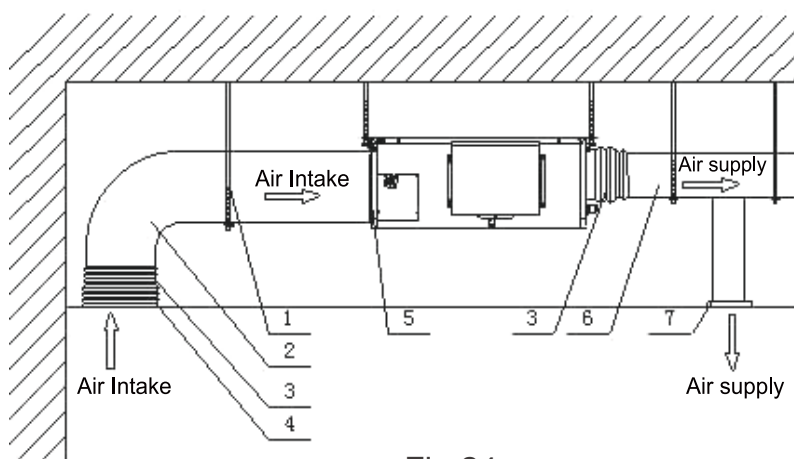


Fig.24

Table 5

No.	Name	No.	Name
1	Hanger	5	Filter
2	Air Intake Pipe	6	Main Air Supply Pipe
3	Canvas Air Pipe	7	Air Supply Outlet
4	Air Intake		

CAUTION!

- The maximum length of the duct means the maximum length of the supply air duct plus the maximum length of the return air duct.
- The duct is rectangular and connected with the air inlet/outlet of the indoor unit. Among all supply air outlets, at least one should be kept open.