

OMEGA MODULAR VRF PRO

SUBMITTAL DATA

208~230V/3/60Hz

Job: PCU NEDCO Building

Location: Trinidad

Schedule No.: 220909

System Designation: VRF

Engineer:

Architect:

Location:

Date: 10/10/22

For Reference Approval Review Construction

FEATURES

- Auto-Refrigerant Charge
- Refrigerant Cooling PCB
- Auto Dust-Clean Function
- Real-Time Refrigerant Volume Monitoring
- Automatic Address Setting
- Automatic Fault Detection



Specifications

MODULAR VRF PRO

Outdoor unit (Models: VMEP008,009,010)

Model name		208-230V-3N-60Hz	VMEP008N4A-G14V252	VMEP009N4A-G16V280	VMEP010N4A-G19V335
Cooling	Capacity	HP	8HP	10HP	12HP
		kW	25.2	28	33.5
		Btu/h	86000	95500	114000
		RT	7.2	8	9.5
	Power input	kW	5.82	6.81	9.05
EER	W/W	4.33	4.11	3.7	
Max. input consumption		kW	13.50	14.10	14.20
Rated / Max. current		A	40.0	42 / 50	45.0
Capacity adjustment range			50%~130%	50%~130%	50%~130%
Compressor data					
DC Inverter compressor	Quantity		1	1	1
	Type		DC /Twin-rotary	DC /Twin-rotary	DC /Twin-rotary
	Brand		Mitsubishi	Mitsubishi	Mitsubishi
	frequency range	rps	10~120	10~120	10~120
Compressor oil	Model		FV50S	FV50S	FV50S
	Original oil volume	ml	2300	2300	2300
	Additional oil volume	ml	2500	2500	2500
Fan data					
Fan motor	Type		DC	DC	DC
	Model		DR-310-750-8-1 (ZDK750-8ZHm)	DR-310-750-8-1 (ZDK750-8ZHm)	DR-310-750-8-1 (ZDK750-8ZHm)
	Quantity		1	1	1
	Insulation class		B	B	B
	Protection class		IP44	IP44	IP44
	Power output	W	750	750	750
Fan blade	Material		ASG20	ASG20	ASG20
	Type		axial-flow	axial-flow	axial-flow
	Drive		Direct-driven	Direct-driven	Direct-driven
	Fan Quantity		1	1	1
	Air flow	m ³ /h	10500	10500	11000
Physical data					
Outdoor coil	Fin type		hydrophilic	hydrophilic	hydrophilic
	Tube outside diameter	mm	7.94	7.94	7.94
	Tube type		Inner-grooved	Inner-grooved	Inner-grooved
Refrigerant	Type		R410a	R410a	R410a
	Volume	kg	8	8	8
Dimension (D*H*W)	Net	mm	840*1740*990	840*1740*990	840*1740*990
	Packing	mm	910*1900*1060	910*1900*1060	910*1900*1060
Weight	Net	kg	208	208	208
	Gross	kg	218	218	218

Specifications

MODULAR VRF PRO

Outdoor unit (Models: VMEP008,009,010)

Outdoor sound level		dB(A)	58	58	60
Maximum operating pressure		MPa	4.5	4.5	4.5
Piping & wiring data					
Pipe size	Liquid pipe	mm	Ø12.7	Ø12.7	Ø12.7
	Gas pipe	mm	Ø25.4	Ø25.4	Ø25.4
Max. pipe length	Total pipe length	m	1000	1000	1000
	From OU to farthest IU(Actual length)	m	190	190	190
	From OU to farthest IU(Equivalent length)	m	220	220	220
	From 1st indoor distributor to farthest IU	m	90	90	90
Max. vertical length	Between OU & IU(OU above IU)	m	90	90	90
	Between OU & IU(OU below IU)	m	110	110	110
	Between IUs	m	30	30	30
	Between OUs	m	0	0	0
Connection wire	Power wire size	mm ²	6*4+6(L≤20m)	6*4+6(L≤20m)	6*4+10(L≤20m)
			10*4+6(20m<L≤50m)	10*4+6(20m<L≤50m)	10*4+10(20m<L≤50m)
	Signal wire type		2-core shielded cable	2-core shielded cable	2-core shielded cable
	Signal wire size	mm ²	0.75	0.75	0.75
Operation temperature range					
Cooling	Outdoor side	°C	-5~55	-5~55	-5~55
	Indoor side	°C	16~32	16~32	16~32

Notes:

The cooling conditions: indoor temp.: 27°C DB (80.6°F), 19°C WB (60°F) outdoor temp.: 35°C DB (95°F) equivalent pipe length: 5m drop length: 0m.

The heating conditions: indoor temp.: 20°C DB (68°F), 15°C WB (44.6°F) outdoor temp.: 7°C DB (42.8°F) equivalent pipe length: 5m drop length: 0m.

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

Maximum 85Pa outdoor ESP can be set on outdoor PCB.

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

Specifications

Outdoor unit (Models: VMEP012,014,016)

Model name		220V-3N-60Hz	VMEP012N4A-G23V400	VMEP014N4A-G26V450	VMEP016N4A-G29V500
Cooling	Capacity	HP	14HP	16HP	18HP
		kW	40	45	50
		Btu/h	136500	153500	170600
		RT	11.4	12.8	14.2
	Power input	kW	10.47	12.13	14.62
EER	W/W	3.82	3.71	3.42	
Max. input consumption		kW	16.90	17.30	24.00
Rated / Max. current		A	50.0	53.0	70.0
Capacity adjustment range			50%~130%	50%~130%	50%~130%
Compressor data					
DC Inverter compressor	Quantity		1	1	2
	Type		DC /Twin-rotary	DC /Twin-rotary	DC /Twin-rotary
	Brand		Mitsubishi	Mitsubishi	Mitsubishi
	frequency range	rps	10~120	10~120	10~120
Compressor oil	Model		FV50S	FV50S	FV50S
	Original oil volume	ml	2300	2300	2300
	Additional oil volume	ml	4500	4500	4000
Fan data					
Fan motor	Type		DC	DC	DC
	Model		DR-310-920-8 (ZDK920-8ZFm)	DR-310-920-8 (ZDK920-8ZFm)	DR-310-920-8 (ZDK920-8ZFm)
	Quantity		1	1	1
	Insulation class		B	B	B
	Protection class		IP44	IP44	IP44
	Power output	W	920	920	920
Fan blade	Material		ASG20	ASG20	ASG20
	Type		axial-flow	axial-flow	axial-flow
	Drive		Direct-driven	Direct-driven	Direct-driven
	Fan Quantity		1	1	1
	Air flow	m ³ /h	13500	13500	13500
Physical data					
Outdoor coil	Fin type		hydrophilic	hydrophilic	hydrophilic
	Tube outside diameter	mm	7.94	7.94	7.94
	Tube type		Inner-grooved	Inner-grooved	Inner-grooved
Refrigerant	Type		R410a	R410a	R410a
	Volume	kg	12	12	13
Dimension (D*H*W)	Net	mm	840*1740*1340	840*1740*1340	840*1740*1340
	Packing	mm	910*1900*1410	910*1900*1410	910*1900*1410
Weight	Net	kg	260	260	288
	Gross	kg	278	278	306
Outdoor sound level		dB(A)	60	61	62

Specifications

Outdoor unit (Models: VMEP012,014,016)

Maximum operating pressure		MPa	4.5	4.5	4.5
Piping & wiring data					
Pipe size	Liquid pipe	mm	Ø15.9	Ø15.9	Ø15.9
	Gas pipe	mm	Ø31.8	Ø31.8	Ø31.8
Max. pipe length	Total pipe length	m	1000	1000	1000
	From OU to farthest IU(Actual length)	m	190	190	190
	From OU to farthest IU(Equivalent length)	m	220	220	220
	From 1st indoor distributor to farthest IU	m	90	90	90
Max. vertical length	Between OU & IU(OU above IU)	m	90	90	90
	Between OU & IU(OU below IU)	m	110	110	110
	Between IUs	m	30	30	30
	Between OUs	m	0	0	0
Connection wire	Power wire size	mm ²	10*4+10(L≤20m)	10*4+10(L≤20m)	10*4+10(L≤20m)
			16*4+10(20m<L≤50m)	16*4+10(20m<L≤50m)	16*4+10(20m<L≤50m)
	Signal wire type		2-core shielded cable	2-core shielded cable	2-core shielded cable
	Signal wire size	mm ²	0.75	0.75	0.75
Operation temperature range					
Cooling	Outdoor side	°C	-5~55	-5~55	-5~55
	Indoor side	°C	16~32	16~32	16~32

Notes:

The cooling conditions: indoor temp.: 27°C DB (80.6°F), 19°C WB (60°F) outdoor temp.: 35°C DB (95°F) equivalent pipe length: 5m drop length: 0m.

The heating conditions: indoor temp.: 20°C DB (68°F), 15°C WB (44.6°F) outdoor temp.: 7°C DB (42.8°F) equivalent pipe length: 5m drop length: 0m.

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

Maximum 85Pa outdoor ESP can be set on outdoor PCB.

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

Specifications

Outdoor unit (Models: VMEP018,020,022)

Model name		208-230V-3N-60Hz	VMEP018N4A-G33V560	VMEP020N4A-G36V615	VMEP022N4A-G39V670
Cooling	Capacity	HP	20HP	22HP	24HP
		kW	56	61.5	67
		Btu/h	191000	209800	209800
		RT	16	17.5	17.5
	Power input	kW	17.13	19.84	22.11
EER	W/W	3.27	3.10	3.03	
Max. input consumption		kW	26.50	27.00	27.00
Rated / Max. current		A	78.0	80.0	80.0
Capacity adjustment range			50%~130%	50%~130%	50%~130%
Compressor data					
DC Inverter compressor	Quantity		2	2	2
	Type		DC /Twin-rotary	DC /Twin-rotary	DC /Twin-rotary
	Brand		Mitsubishi	Mitsubishi	Mitsubishi
	frequency range	rps	10~120	10~120	10~120
Compressor oil	Model		FV50S	FV50S	FV50S
	Original oil volume	ml	2300*2	2300*2	2300*2
	Additional oil volume	ml	4000	4000	4000
Fan data					
Fan motor	Type		DC	DC	DC
	Model		DR-310-560-8-1 (ZDK560-8ZFm)	DR-310-560-8-1 (ZDK560-8ZFm)	DR-310-560-8-1 (ZDK560-8ZFm)
	Quantity		2	2	2
	Insulation class		B	B	B
	Protection class		IP44	IP44	IP44
	Power output	W	560	560	560
Fan blade	Material		ASG20	ASG20	ASG20
	Type		axial-flow	axial-flow	axial-flow
	Drive		Direct-driven	Direct-driven	Direct-driven
	Fan Quantity		2	2	2
	Air flow	m ³ /h	16500	16500	16500
Physical data					
Outdoor coil	Fin type		hydrophilic	hydrophilic	hydrophilic
	Tube outside diameter	mm	7.94	7.94	7.94
	Tube type		Inner-grooved	Inner-grooved	Inner-grooved
Refrigerant	Type		R410a	R410a	R410a
	Volume	kg	14	14	15
Dimension (D*H*W)	Net	mm	840*1740*1340	840*1740*1340	840*1740*1340
	Packing	mm	910*1900*1410	910*1900*1410	910*1900*1410
Weight	Net	kg	296	296	306
	Gross	kg	314	314	324
Outdoor sound level		dB(A)	63	63	63

Specifications

Outdoor unit (Models: VMEP018,020,022)

Maximum operating pressure		MPa	4.5	4.5	4.5
Piping & wiring data					
Pipe size	Liquid pipe	mm	Ø15.9	Ø15.9	Ø15.9
	Gas pipe	mm	Ø31.8	Ø31.8	Ø31.8
Max. pipe length	Total pipe length	m	1000	1000	1000
	From OU to farthest IU(Actual length)	m	190	190	190
	From OU to farthest IU(Equivalent length)	m	220	220	220
	From 1st indoor distributor to farthest IU	m	90	90	90
Max. vertical length	Between OU & IU(OU above IU)	m	90	90	90
	Between OU & IU(OU below IU)	m	110	110	110
	Between IUs	m	30	30	30
	Between OUs	m	0	0	0
Connection wire	Power wire size	mm ²	16*4+16(L≤20m)	16*4+16(L≤20m)	16*4+16(L≤20m)
			25*4+16(20m<L≤50m)	25*4+16(20m<L≤50m)	25*4+16(20m<L≤50m)
	Signal wire type		2-core shielded cable	2-core shielded cable	2-core shielded cable
	Signal wire size	mm ²	0.75	0.75	0.75
Operation temperature range					
Cooling	Outdoor side	°C	-5~55	-5~55	-5~55
	Indoor side	°C	16~32	16~32	16~32

Notes:

The cooling conditions: indoor temp.: 27°C DB (80.6°F), 19°C WB (60°F) outdoor temp.: 35°C DB (95°F) equivalent pipe length: 5m drop length: 0m.

The heating conditions: indoor temp.: 20°C DB (68°F), 15°C WB (44.6°F) outdoor temp.: 7°C DB (42.8°F) equivalent pipe length: 5m drop length: 0m.

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

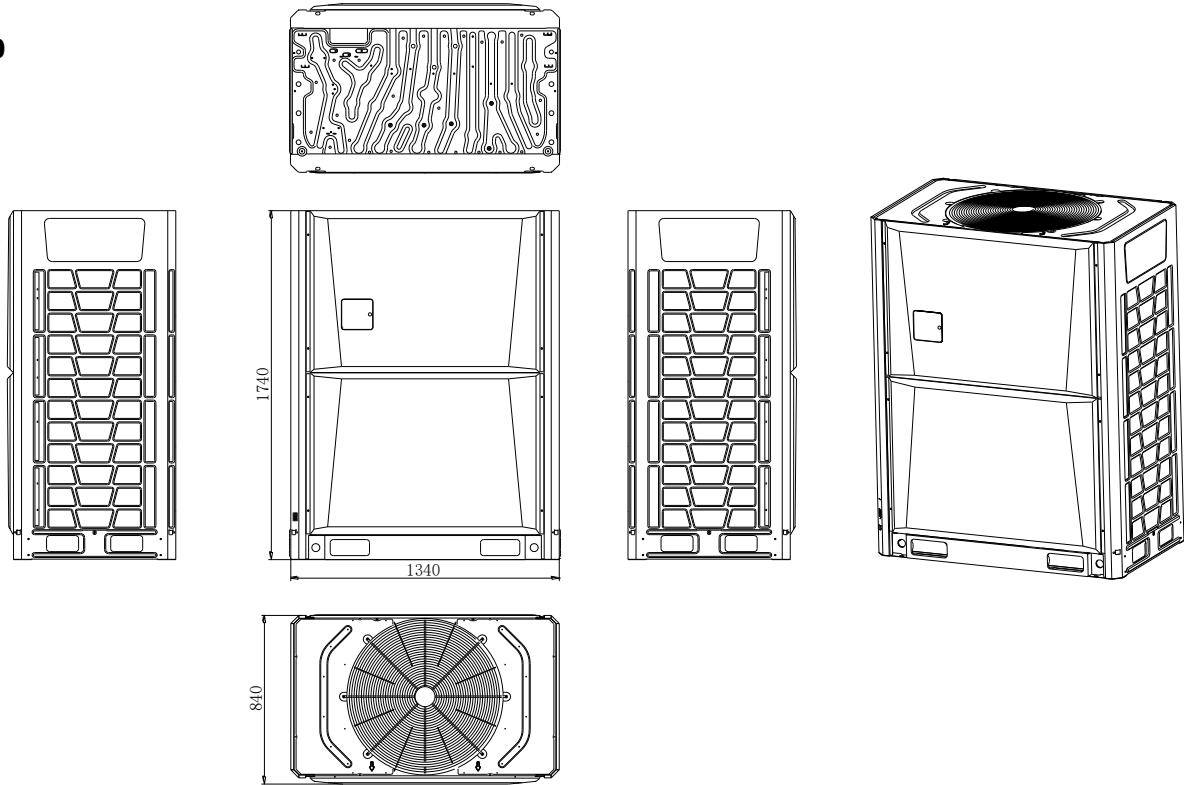
Maximum 85Pa outdoor ESP can be set on outdoor PCB.

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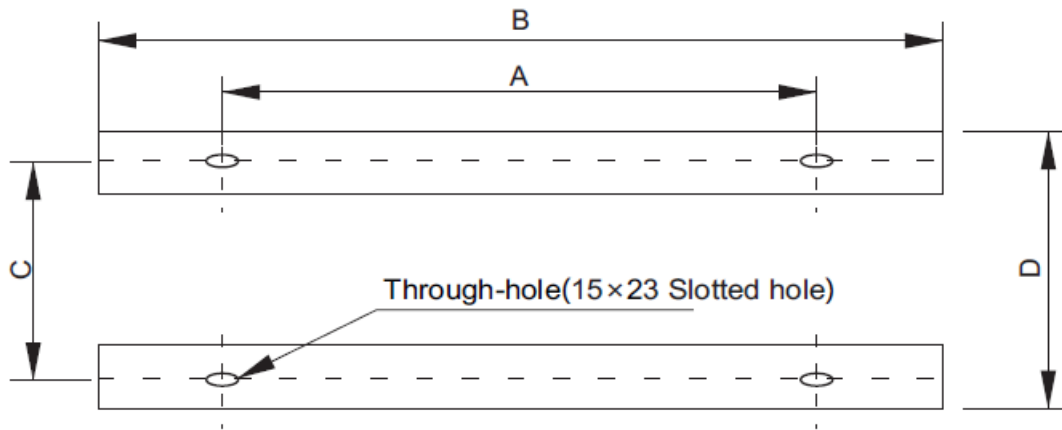
Dimensions

MODULAR VRF PRO

Models from:
VMEP008~010



Base dimension

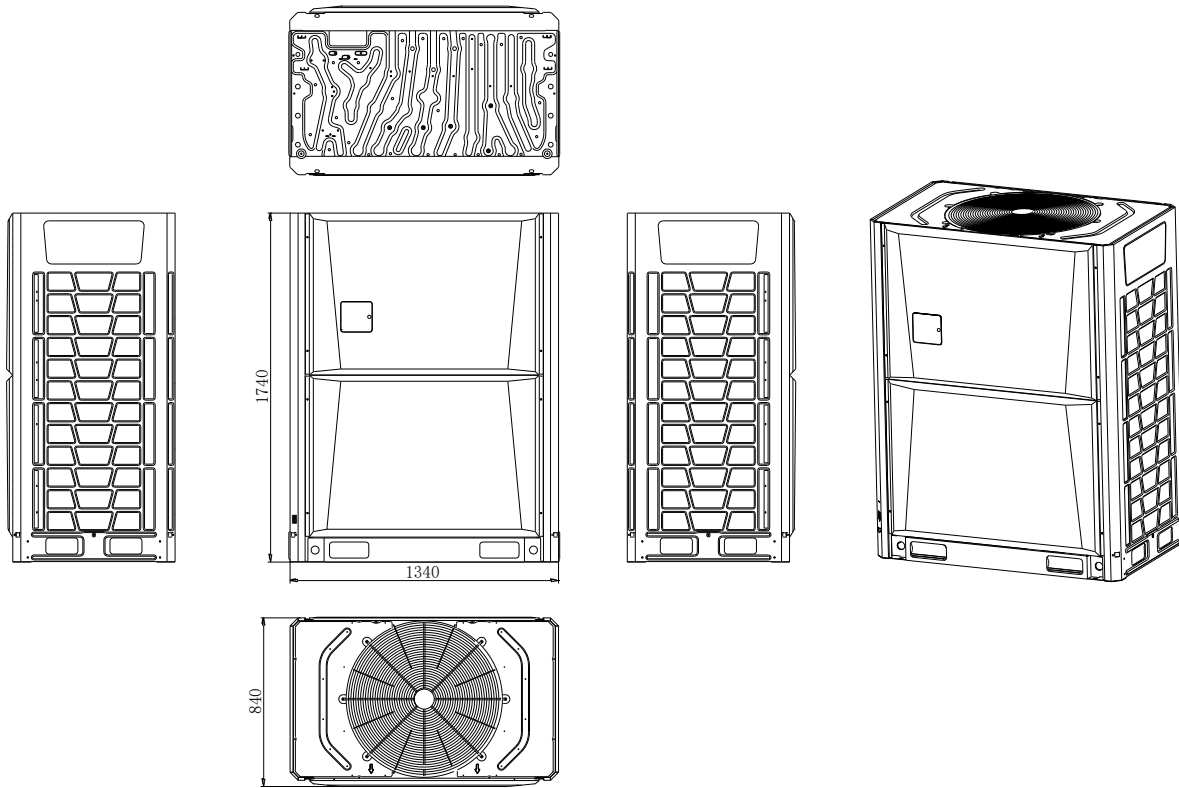


Size \ Type	8HP~12HP	14HP~22HP
A	720mm	1070mm
B	1040mm	1390mm
C	774mm	774mm
D	850mm	850mm

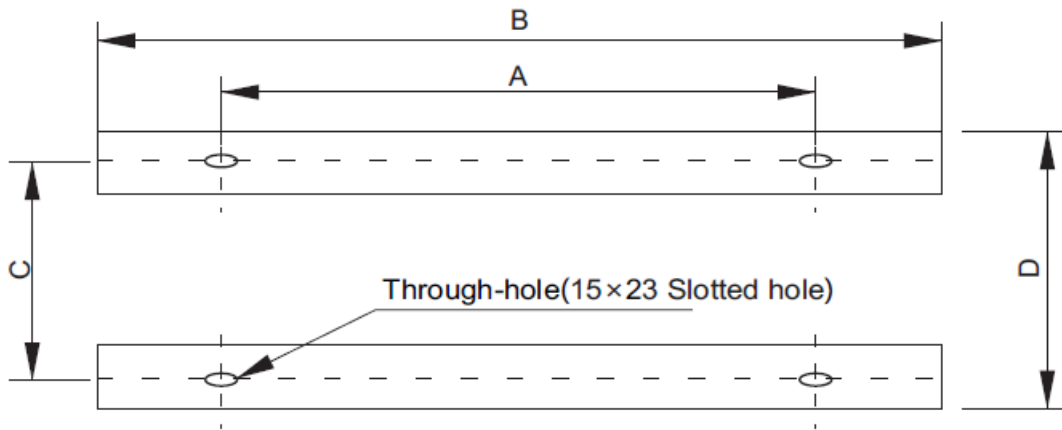
Dimensions

MODULAR VRF PRO

**Models from:
VMEP012~016**



Base dimension

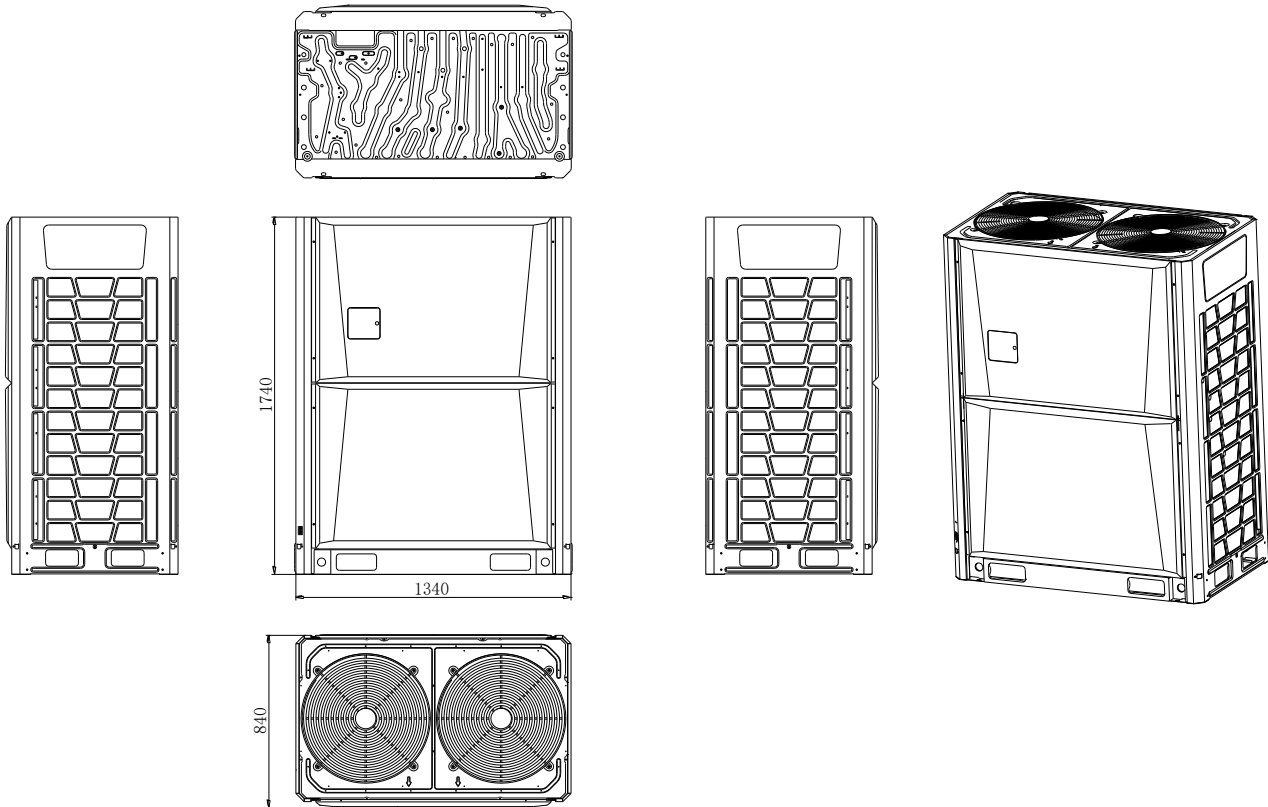


Size \ Type	8HP~12HP	14HP~22HP
A	720mm	1070mm
B	1040mm	1390mm
C	774mm	774mm
D	850mm	850mm

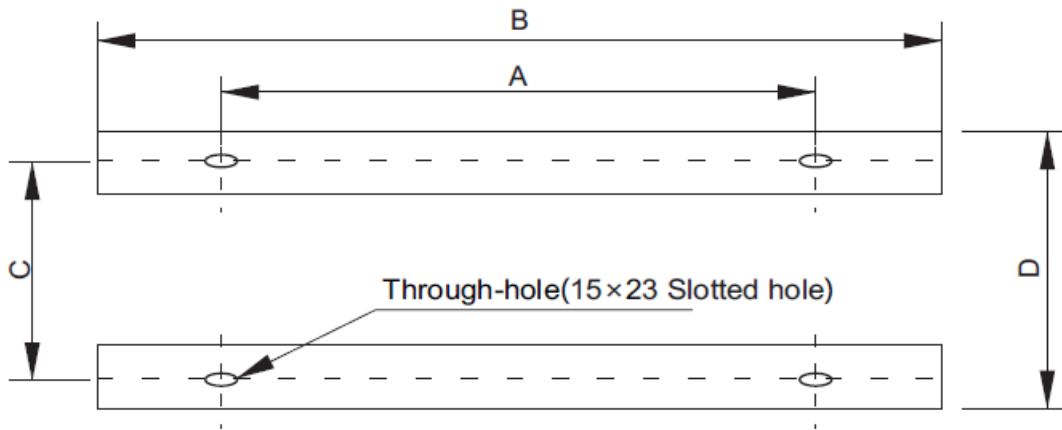
Dimensions

MODULAR VRF PRO

Models from:
VMEP018~022



Base dimension



Size \ Type	8HP~12HP	14HP~22HP
A	720mm	1070mm
B	1040mm	1390mm
C	774mm	774mm
D	850mm	850mm