

# OMEGA MODULAR VRF PRO

## SUBMITTAL DATA

**208~230V/3/60Hz**

Job: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Schedule No.: \_\_\_\_\_  
 System Designation: VRF \_\_\_\_\_

Engineer: \_\_\_\_\_  
 Architect: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 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%
<b>Compressor data</b>					
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
<b>Fan data</b>					
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 <sup>3</sup> /h	10500	10500	11000
<b>Physical data</b>					
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
<b>Piping &amp; wiring data</b>					
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 <sup>2</sup>	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 <sup>2</sup>	0.75	0.75	0.75
<b>Operation temperature range</b>					
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%
<b>Compressor data</b>					
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
<b>Fan data</b>					
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 <sup>3</sup> /h	13500	13500	13500
<b>Physical data</b>					
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
<b>Piping &amp; wiring data</b>					
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 <sup>2</sup>	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 <sup>2</sup>	0.75	0.75	0.75
<b>Operation temperature range</b>					
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%
<b>Compressor data</b>					
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
<b>Fan data</b>					
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 <sup>3</sup> /h	16500	16500	16500
<b>Physical data</b>					
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
<b>Piping &amp; wiring data</b>					
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 <sup>2</sup>	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 <sup>2</sup>	0.75	0.75	0.75
<b>Operation temperature range</b>					
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.

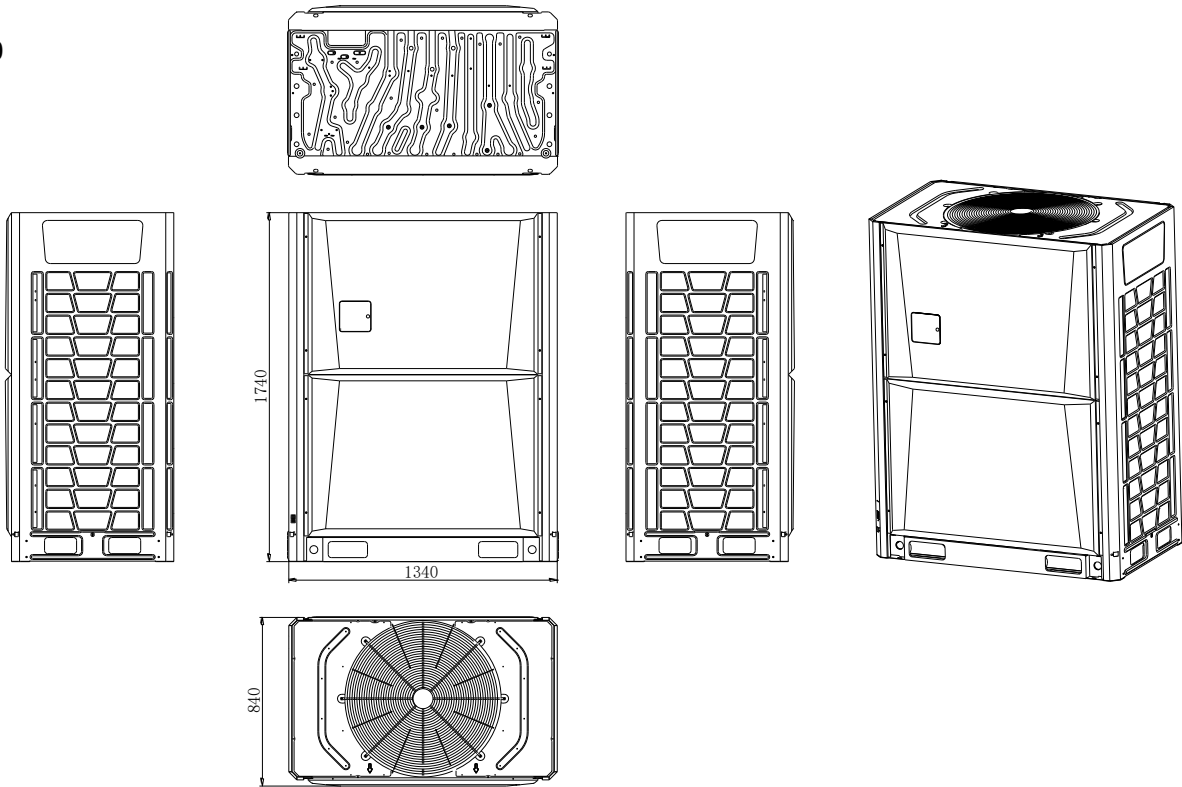
Maximum 85Pa outdoor ESP can be set on outdoor PCB.

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

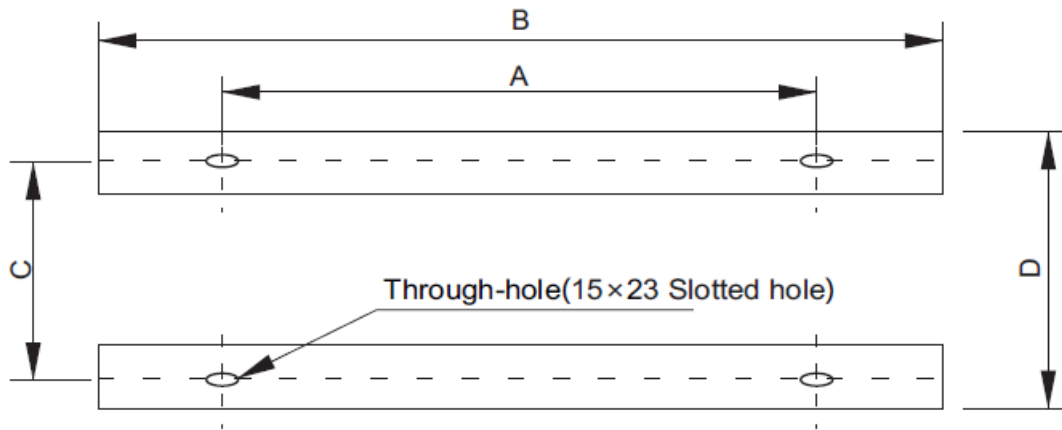
**Dimensions**

MODULAR VRF PRO

Models from:  
VMEP008~010



Base dimension



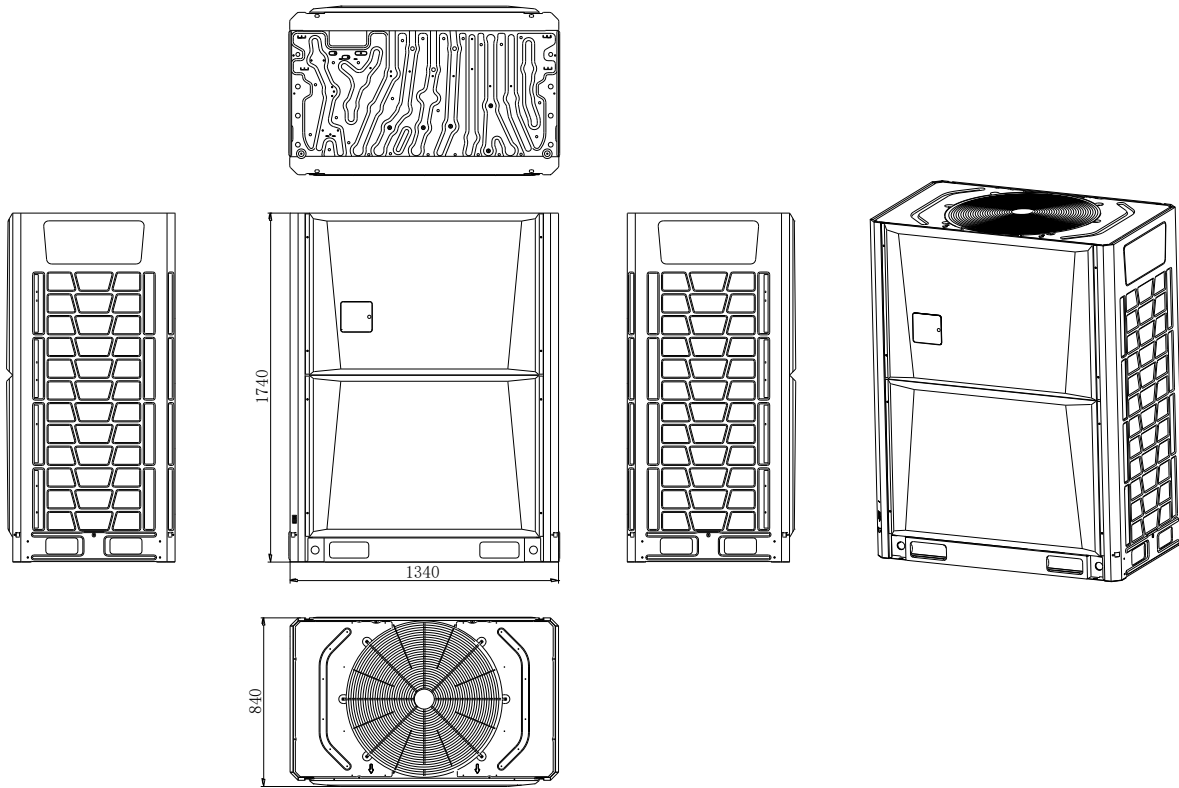
Size \ Type	8HP~12HP	14HP~22HP
A	720mm	1070mm
B	1040mm	1390mm
C	774mm	774mm
D	850mm	850mm



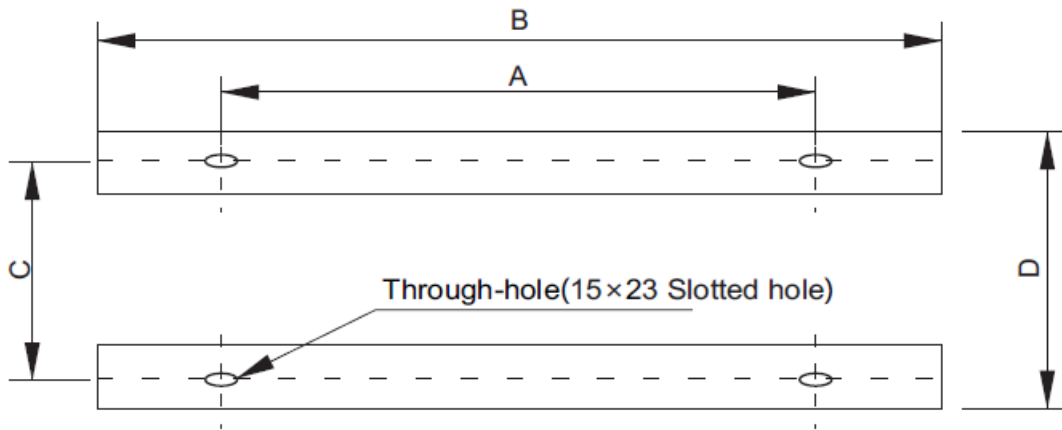
**Dimensions**

MODULAR VRF PRO

**Models from:  
VMEP012~016**



**Base dimension**

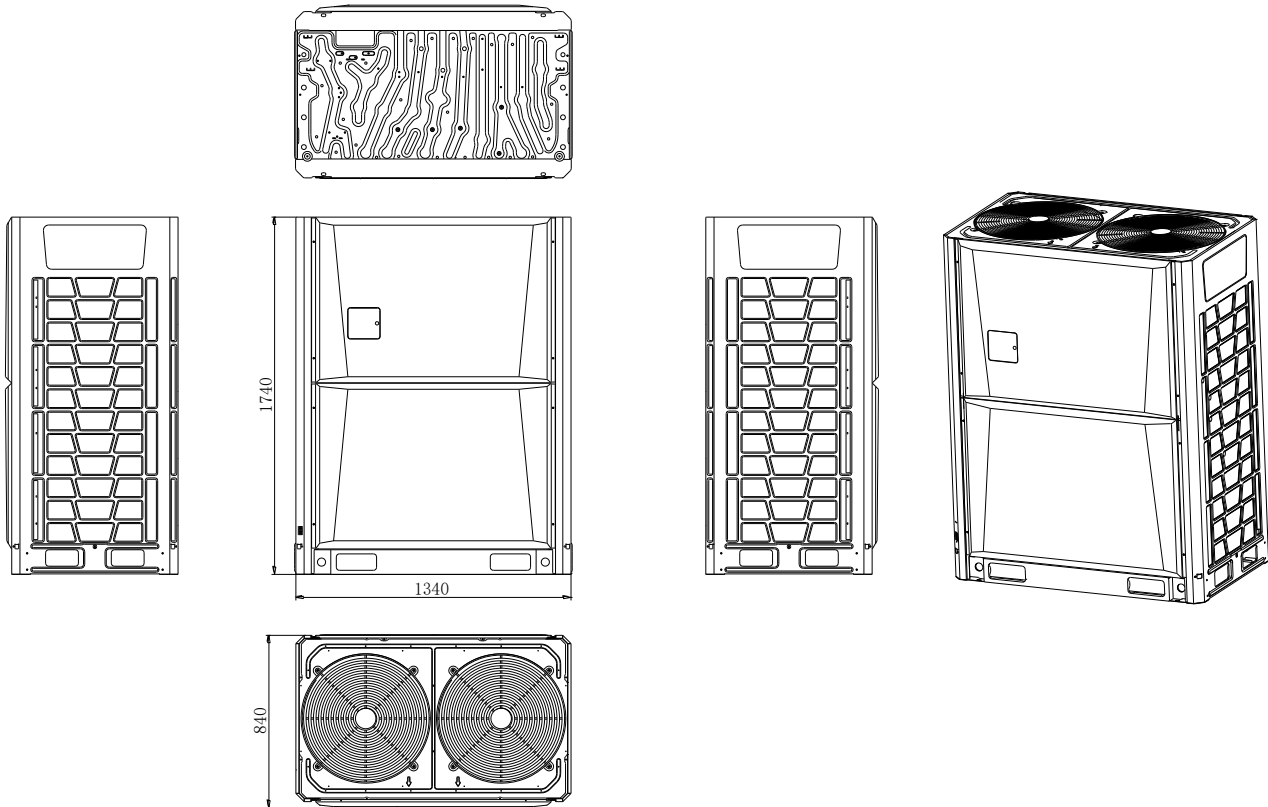


Size \ Type	8HP~12HP	14HP~22HP
A	720mm	1070mm
B	1040mm	1390mm
C	774mm	774mm
D	850mm	850mm

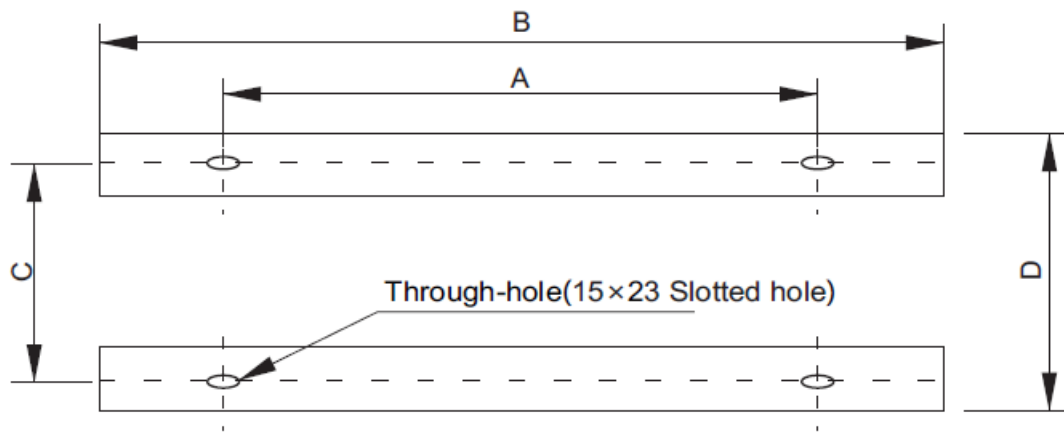
**Dimensions**

**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