

VITALITY Axial Fan Large Split

VAC/VAH - VIR 20 to 90 AB

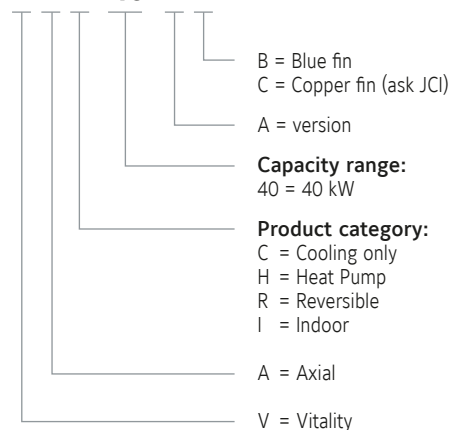
A complete range from 19.1 kW up to 86.1 kW



Features

- New YKN2open board
- High technology fan blades increases efficiency and reduces noise level
- Service valves
- Economizer or motorized damper
- Return fan
- Indoor air quality
- Hot water coil and control
- Scroll compressor with crankcase heater
- Digital thermostat DPC-1 included

V A H 40 A B Nomenclature





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Technical features

INDOOR UNITS										
Cooling only and Heat pump	VIR	25AB	40AB	45AB	60AB	75AB	90AB			
OUTDOOR UNITS										
Cooling only models	VAC	20AB	25AB	30AB	40AB	45AB	60AB	75AB	90AB	
Cooling capacities	kW	19.10	23.00	28.80	35.10	42.90	54.00	72.30	86.10	
Power input in cooling	kW	5.60	6.99	9.60	11.62	13.53	18.60	23.09	28.60	
EER (4)		3.41	3.29	3.00	3.02	3.17	2.90	3.13	3.01	
Refrigerant charge on site for 7 m piping length	kg	12	12	12.5	13.5	2 x 11	2 x 11.5	2 x 15.5	2 x 15	
Heat pump models	VAH	20AB	25AB	30AB	40AB	45AB	60AB	75AB	90AB	
Cooling capacities	kW	19.10	23.00	28.80	35.10	42.90	52.10	72.30	86.10	
Power input in cooling	kW	5.60	6.99	9.60	11.62	13.53	18.60	23.09	28.60	
EER (4)		3.41	3.29	3.00	3.02	3.17	2.80	3.13	3.01	
Heating capacities	kW	21.20	25.20	31.90	41.00	44.80	59.40	81.00	93.10	
Power input in heating	kW	4.94	6.73	8.41	12.09	12.69	17.06	22.13	28.82	
COP (4)		4.29	3.74	3.79	3.39	3.53	3.48	3.66	3.23	
Refrigerant charge on site for 7 m piping length	kg	12	12	12.5	13.5	2 x 11	2 x 11.5	2 x 15.5	2 x 15	
Power supply	400V/3 + N/ 50Hz									
Nominal / Starting current	A	8.5 / 74	11.8 / 95	15 / 118	19.3 / 140	2 x 12 / 95	2 x 15 / 118	2 x 19 / 140	2 x 25 / 198	
Main switch (1)	A	20	25	32	40	50	63	80	100	
Main cable to the outdoor unit (1)	Nbr x mm ²	5 x 4	5 x 4	5 x 6	5 x 10	5 x 10	5 x 16	5 x 25	5 x 35	
Interconnecting cable (1)	Nbr x mm ²	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5	4 x 2.5	
Cable to standard thermostat (2)	Nbr x mm ²	10 x 0.22								
Insulated refrigerant piping	Suction	1-1/8"	1-1/8"	1-1/8"	1-1/8"	2 x 1-1/8"	2 x 1-1/8"	2 x 1-3/8"	2 x 1-3/8"	
	Liquid	1/2"	1/2"	5/8"	5/8"	2 x 1/2"	2 x 5/8"	2 x 7/8"	2 x 7/8"	
Evaporator fan VIR at nominal airflow (3)	Airflow	m ³ /h	4 590	4 590	7 500	7 500	9 000	10 500	13 000	16 000
	Standard ESP	Pa	172		153		150	178	170	240
	ESP with HSD	Pa	267		242		203	277	289	399
	ESP with HSDM	Pa	267		242		203	277	289	399
Nett dimensions outdoor VAC / VAH	Height	mm	1 230	1 230	1 382	1 378	1 378 / 1 429	1 378 / 1 429	1 534	1 534
	Length	mm	882	882	882	1 627	1 627	1 627	1 627	1 627
	Depth	mm	1 354	1 354	1 354	1 453	1 453	1 453	2 099	2 099
Nett dimensions indoor VIR	Height	mm	592		665		764	764	838	838
	Length	mm	1360		1740		2240	2240	2653	2653
	Depth	mm	785		785		772	772	892	892
Nett weight	VAC / VAH	kg	227	228	250	355	470	483	610	610
	VIR	kg	128		173		223	223	310	312

(1) For information only. These should be checked for compliance with local regulations depending also on installation and conductor type.

(2) Shield type cable only.

(3) ESP = External static pressure HSD = High speed drive HSDM = High speed drive and motor

(4) All the data are at EUROVENT conditions with 400V/3+N/50Hz.

Cooling : Entering indoor coil temp. 27°C / 19°C WB and outdoor temperature 35°C

Heating : Entering indoor coil temp. 20°C and outdoor temperature 7°C / 6°C WB

Codes

INDOOR UNITS								
Cooling only & heat pump models	VIR 25 AB		VIR 40 AB		VIR 45 AB	VIR 60 AB	VIR 75 AB	VIR 90 AB
	S662562575		S662564075		S662564575	S662566075	S662567575	S662569075
OUTDOOR UNITS								
Cooling only models	VAC 20 AB	VAC 25 AB	VAC 30 AB	VAC 40 AB	VAC 45 AB	VAC 60 AB	VAC 75 AB	VAC 90 AB
	S661502073	S661502573	S661503073	S661504173	S661504673	S661506173	S661507673	S661509173
Heat pump models	VAH 20 AB	VAH 25 AB	VAH 30 AB	VAH 40 AB	VAH 45 AB	VAH 60 AB	VAH 75 AB	VAH 90 AB
	S662512073	S662512573	S662513073	S662514173	S662514673	S662516273	S662517673	S662519173
Thermostat								
Delivered with the unit	DPC-1							



Manufacturer reserves the rights to change specifications without prior notice.

Accessories or options

Compatibility table / Codes

INDOOR UNITS									
Cooling only & heat pump		VIR 25 AB	VIR 40 AB	VIR 45 AB	VIR 60 AB	VIR 75 AB	VIR 90 AB		
		S662562575	S662564075	S662564575	S662566075	S662567575	S662569075		
OUTDOOR UNITS									
Cooling only models		VAC 20 AB	VAC 25 AB	VAC 30 AB	VAC 40 AB	VAC 45 AB	VAC 60 AB	VAC 75 AB	VAC 90 AB
		S661502073	S661502573	S661503073	S661504173	S661504673	S661506173	S661507673	S661509173
Heat pump models		VAH 20 AB	VAH 25 AB	VAH 30 AB	VAH 40 AB	VAH 45 AB	VAH 60 AB	VAH 75 AB	VAH 90 AB
		S662512073	S662512573	S662513073	S662514173	S662514673	S662516273	S662517673	S662519173
Thermostat									
Delivered with the unit		DPC-1							
YNK2Open Gateway BACnet / IP - JCI Metasys N2	S606791244	A	A	A	A	A	A	A	A
YNK2Open Gateway Modbus TCP / IP - JCI Metasys N2	S606791245	A	A	A	A	A	A	A	A
Accessories or options for outdoor units									
		20AB	25AB	30AB	40AB	45AB	60AB	75AB	90AB
Low Ambient Kit	S606819974	0	0	0	0				
	S606819975					0	0	0	0
Soft start compressor	S606744692	0	0	0	0				
	S606744693					0	0	0	0
Alarm relay board	S606791243	O/A	O/A	O/A	O/A	O/A	O/A	O/A	O/A
Copper-copper coil	Contact us	0	0	0	0	0	0	0	0
Accessories or options for indoor units									
VIR models		25A	40AB	45AB	60AB	75AB	90AB		
Electrical Heaters (Inside the unit) (cable 20 m included)	10 kW (1 stage)	S611763704	O/A						
	15 kW (1 stage)	S611763714	O/A						
	10 kW (1 stage)	S611763724		O/A					
	20 kW (2 stages)	S611763734		O/A					
	15 kW (1 stage)	S611763744			O/A	O/A			
	30 kW (2 stages)	S611763754			O/A	O/A			
	30 kW (2 stages)	S611763764					O/A	O/A	
	40 kW (2 stages)	S611763774					O/A	O/A	
50 m connecting cable	1 stage	S611763780	A	A	A	A			
	2 stages	S611763781		A	A	A	A	A	
Economizer or Motorised damper (dry bulb sensors included) (cable 20 m included)		S613994250	A						
		S613994400		A					
		S613994450			A	A			
		S613994750					A	A	
Indoor air quality		S606819964	A	A	A	A	A	A	
		S611082513	0						
Hot water coil and control (cable 20 m included)		S611084010		0					
		S611084512			0	0			
		S611087510					0	0	
		S611087520 *	A	A	A	A	A	A	
Return fan		S613995450			A	A			
		S613995750					A	A	
Vertical discharge Kit		S669482502	0						
		S669484002		0					
		S669486002			0	0			
Indoor fan smooth start up to 5,5 kW		S669487502					0	0	
		S606744690	0	0	0	0	0	0	
		S611991087	0						
High speed drive		S611991089		0					
		S611991091			0		0		
		S611991092				0			
		S611991095						0	
High speed drive and motor		S611991088	0						
		S611991090			0				
		S611991093				0			
		S611991094					0		
		S611991096							0

O = Option (factory fitted) A = Accessory (supplied loose) O/A = If you want this item factory fitted, precise it in the order form

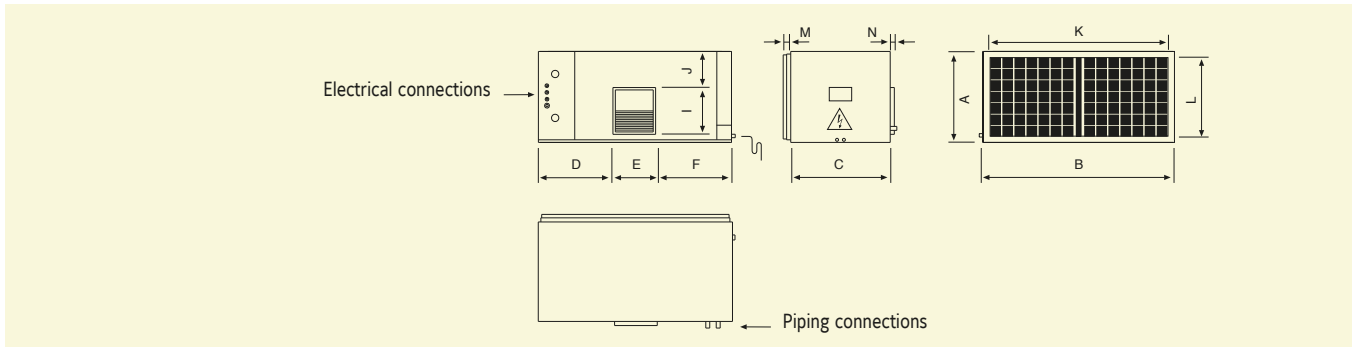
(1) Factory fitted, for horizontal airflow only.

* If the unit is equipped with economizer and hot water coil, only 1 communication cable is necessary.

Indoor units dimensions



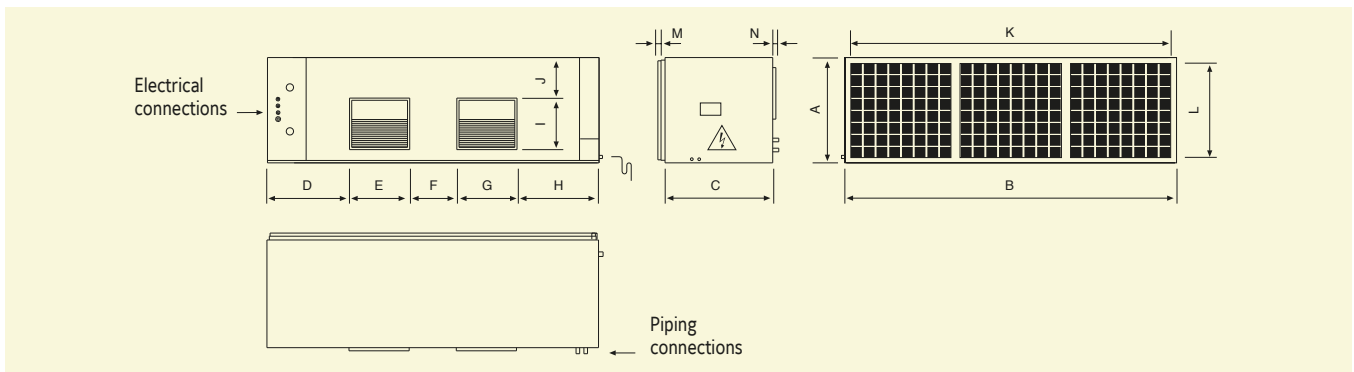
VIR 25 AB



All dimensions in mm. Drawings not a scale.

Unit	A	B	C	D	E	F	G	H	I	J	K	L	M	N
VIR 25 AB	592	1360	785	480	403	480	-	-	347	40	1094	520	21	25

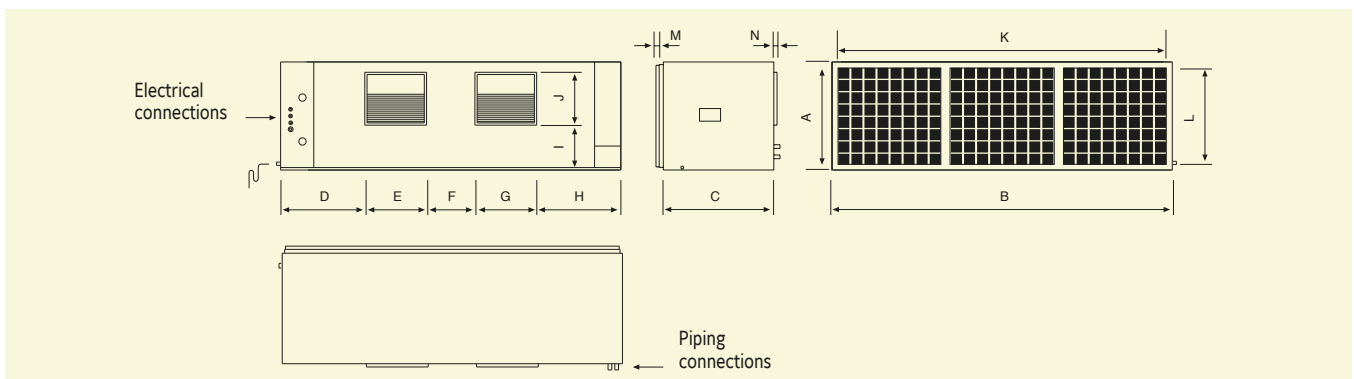
VIR 40-45-60 AB



All dimensions in mm. Drawings not a scale.

Unit	A	B	C	D	E	F	G	H	I	J	K	L	M	N
VIR 40 AB	665	1740	785	442	316	229	316	442	347	79	1337	593	21	25
VIR 45 AB	764	2240	772	567	401	309	401	567	347	79	1920	692	21	25
VIR 60 AB	764	2240	772	567	401	309	401	567	347	79	1920	692	21	25

VIR 75-90 AB

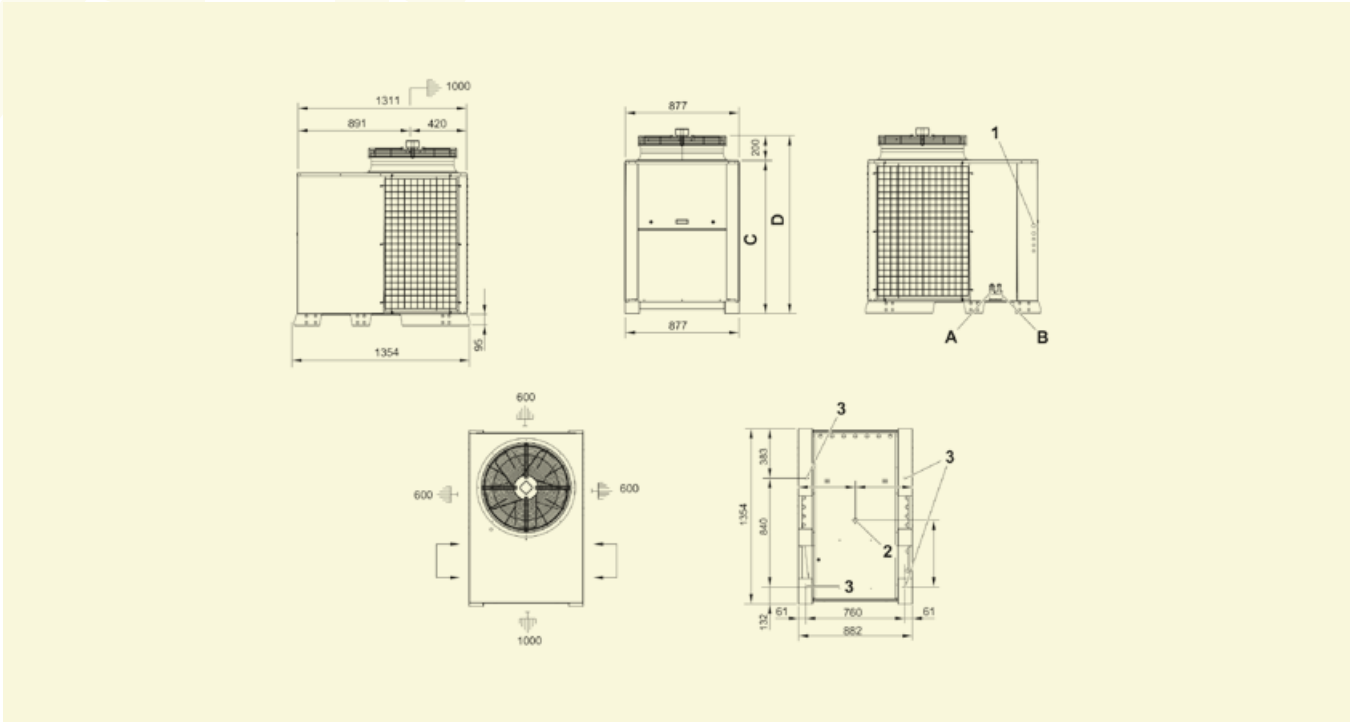


All dimensions in mm. Drawings not a scale.

Unit	A	B	C	D	E	F	G	H	I	J	K	L	M	N
VIR 75 AB	838	2653	892	663	478	376	478	663	409	79	2196	766	21	25
VIR 90 AB	838	2653	892	663	478	376	478	663	409	79	2196	766	21	25

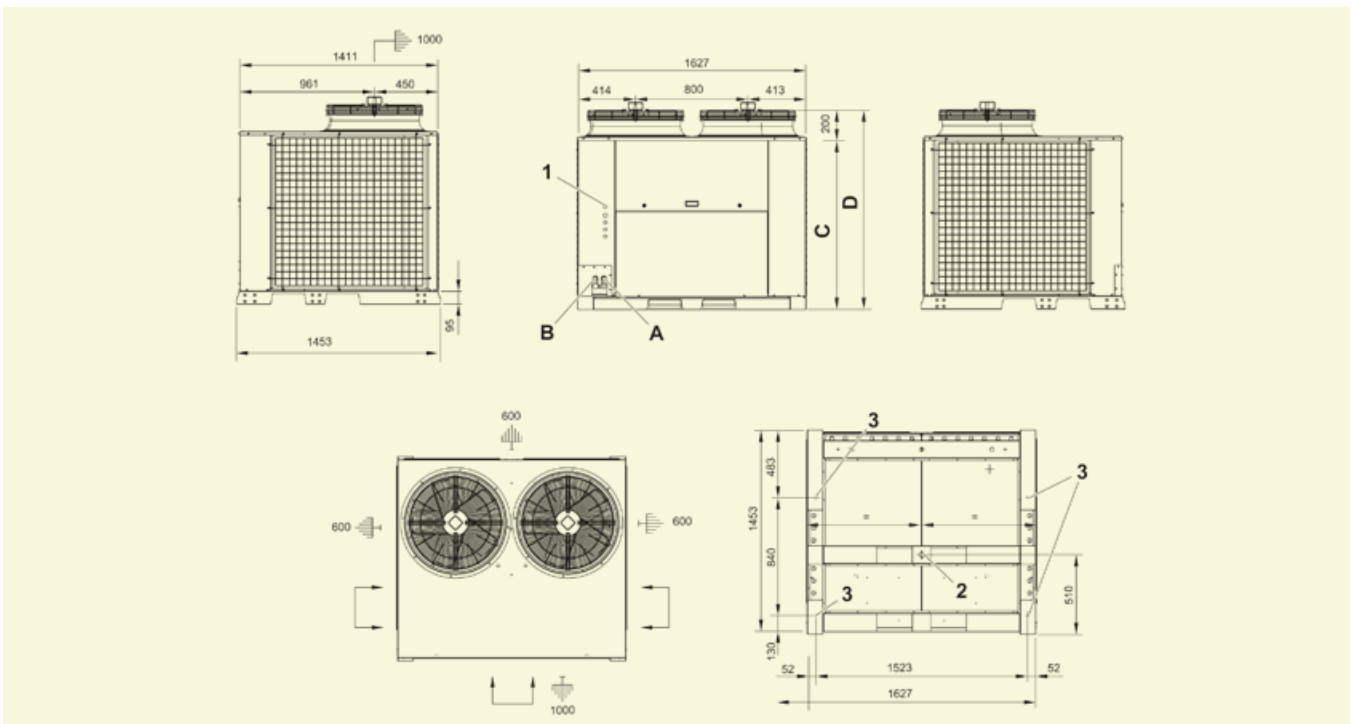
Dimensions and space requirements for outdoor units

VAC-VAH 20-25-30 AB



All dimensions in mm. Drawings not a scale.

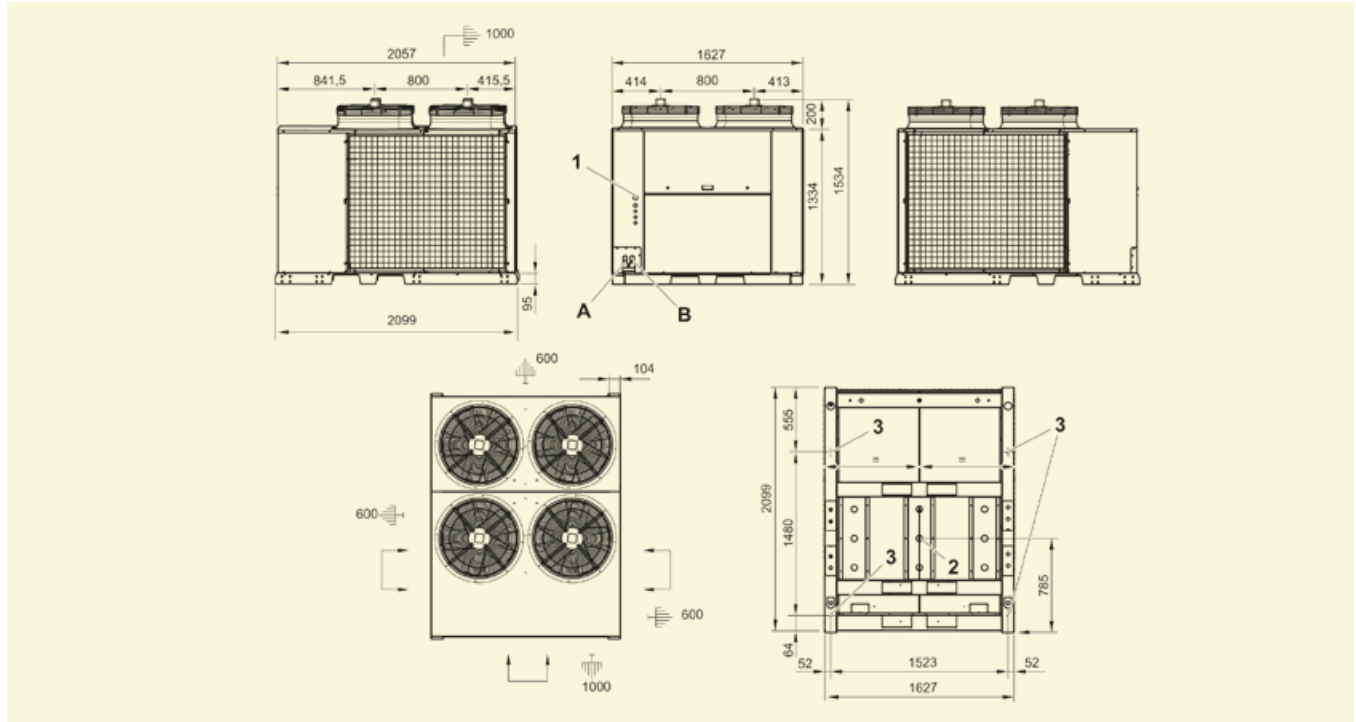
VAC-VAH 40-45-60 AB



All dimensions in mm. Drawings not a scale.



VAC-VAH 75-90 AB



All dimensions in mm. Drawings not a scale.

VAC-VAH 20-25-30 AB

	A	B	C	D
Unit	Gas piping diameter	Liquid piping diameter	mm	mm
VAC 20 AB	1-1/8"	1/2"	1030	1230
VAH 20 AB	1-1/8"	1/2"	1030	1230
VAC 25 AB	1-1/8"	1/2"	1030	1230
VAH 25 AB	1-1/8"	1/2"	1030	1230
VAC 30 AB	1-1/8"	5/8"	1182	1382
VAH 30 AB	1-1/8"	5/8"	1182	1382

VAC-VAH 40-25-60 AB

	A	B	C	D
Unit	Gas piping diameter	Liquid piping diameter	mm	mm
VAC 40 AB	1-1/8"	5/8"	1178	1378
VAH 40 AB	1-1/8"	5/8"	1178	1378
VAC 45 AB	2 x 1-1/8"	2 x 1/2"	1178	1378
VAH 45 AB	2 x 1-1/8"	2 x 1/2"	1129	1429
VAC 60 AB	2 x 1-1/8"	2 x 5/8"	1178	1378
VAH 60 AB	2 x 1-1/8"	2 x 5/8"	1129	1429

VAC-VAH 40-25-60 AB

	A	B	C	D
Unit	Gas piping diameter	Liquid piping diameter	mm	mm
VAC 75 AB	2 x 1-3/8"	2 x 7/8"	-	-
VAH 75 AB	2 x 1-3/8"	2 x 7/8"	-	-
VAC 90 AB	2 x 1-3/8"	2 x 7/8"	-	-
VAH 90 AB	2 x 1-3/8"	2 x 7/8"	-	-