

VITALITY Centrifugal Large Split

VCH-VIR 20 to 90 AB

A complete range from 16.8 kW up to 87.3 kW



YKN2open

Features

- New YKN2open board
- High efficiency EER and COP
- Economizer or motorized damper
- Indoor air quality
- Hot water coil and control
- Scroll compressor with crankcase heater
- Possibility to be installed outdoor
- Return fan
- Digital thermostat DPC-1 included

V C H 40 A B

Nomenclature*

B = Blue fin
C = Copper fin (ask JCI)

A = version

Capacity range:
40 = 40 kW

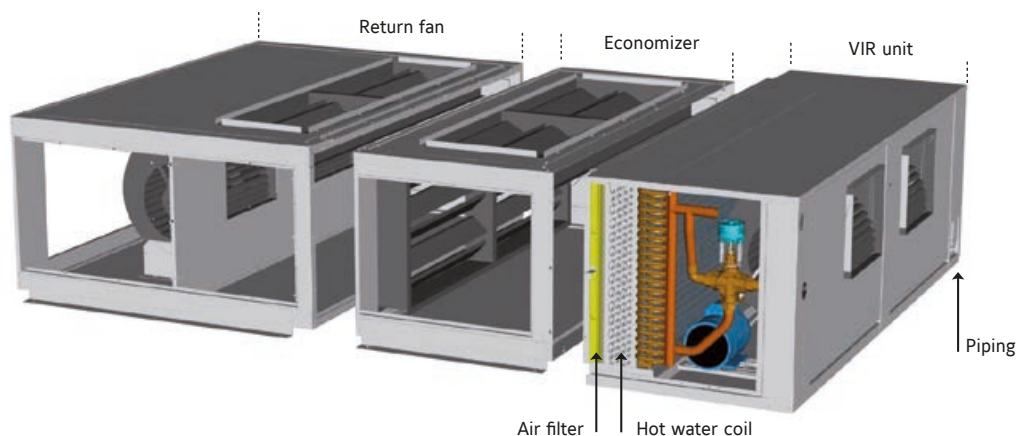
Product category:

H = Heat Pump
R = Reversible
C = Centrifugal
I = Indoor

V = Vitality

* Check codes in next page
for discharge configuration

VIR - Indoor unit details





VITALITY Centrifugal Large Split

VCH-VIR 20 to 90 AB

Technical features

VITALITY UNITS									
Heat pump models	VCH/VIR	20 AB	25 AB	30 AB	40 AB	45 AB	60 AB	75 AB	90 AB
Cooling capacities	kW	16.8	20.6	28.7	32.4	43.5	54.1	76.1	87.3
Power input in cooling	kW	5.9	7.48	10.25	12.81	14.81	20.86	29.21	34.92
EER		2.85	2.75	2.8	2.53	2.94	2.6	2.61	2.5
Heating capacities	kW	21.5	23.2	32.3	39.3	47.4	53	77.7	89.9
Power input in heating	kW	5.68	6.84	9.95	12.87	13.75	20	27.56	33.19
COP		3.79	3.39	3.25	3.05	3.45	2.8	2.82	2.71
Refrigerant charge on site for 7m piping length	kg	8.5	8.5	12	12	2 x 9.5	2 x 10.5	2 x 15	2 x 16
Power supply		400V/3 + N/ 50Hz							
Nominal / Starting current	A	13 /	16 /	22 /	27 /	33 /	43 /	59 /	72 /
Main switch (1)	A	20	25	32	40	50	63	80	100
Main cable to the condensing 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 (1) (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		7 500		9000	10500	13700
	Standard ESP	Pa	117		118		130	137	125
	ESP with HSD	Pa	-		217		188	246	260
	ESP with HSDM	Pa	222		-		188	246	260
Condenser fan at nominal airflow	Airflow	m ³ /h	6235	6235	11975	11975	17250	20340	25200
	Standard ESP	Pa	50	50	50	50	50	50	50
Nett dimensions VCH condensing units	Height	mm	1392	1392	1526	1526	1641	1641	1794
	Length	mm	1362	1362	1740	1740	2240	2240	2658
	Depth	mm	790	790	785	785	778	778	897
Nett dimensions VIR indoor units	Height	mm	592		665		764	764	838
	Length	mm	1360		1740		2240	2240	2653
	Depth	mm	785		785		772	772	892
Nett weight	VCH	kg	285	310	355	375	578	589	710
	VIR	kg	128		173		223	223	310

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

(2) Shield type cable will have a better insulation against electromagnetic interference. It is recommended for sensitive sites and for communications.

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

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								
Heat pump models	VCH 20 AB	VCH 25 AB	VCH 30 AB	VCH 40 AB	VCH 45 AB	VCH 60 AB	VCH 75 AB	VCH 90 AB
with horizontal discharge	S662512043	S662512653	S662513043	S662514044	S662514543	S662516153	S662517543	S662519043
with vertical discharge	-	-	-	-	S662514565	S662516174	S662517564	S662519064
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 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										
Heat pump models		VCH 20 AB	VCH 25 AB	VCH 30 AB	VCH 40 AB	VCH 45 AB	VCH 60 AB	VCH 75 AB	VCH 90 AB	
with horizontal discharge		S662512043	S662512653	S662513043	S662514044	S662514543	S662516153	S662517543	S662519043	
with vertical discharge		-	-	-	-	S662514565	S662516174	S662517564	S662519064	
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 condensing units										
VCH models		20 AB	25 AB	30 AB	40 AB	45 AB	60 AB	75 AB	90 AB	
Low ambient regulation *	S613112583	O	O							
	S613114084			O	O					
	S613116084					O	O			
	S613111084							O	O	
Vertical discharge kit	S612828305	O	O							
	S612828405			O	O					
	S612828505 **					O				
	S612828605 **						O			
Condensate tray heater	S612828205 **							O	O	
	S611080789	A	A	A	A					
	S611080790					A	A	A	A	
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	O	O	O	O	O	O	O	O	
Accessories or options for indoor units										
VIR models			25 AB		40 AB		45 AB	60 AB	75 AB	90 AB
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	O								
Hot water coil and control (cable 20 m included)	S611084010			O						
	S611084512					O	O			
	S611087510							O	O	
50 m communication cable (Economizer/HWC)	S611087520 ***	A		A		A	A	A	A	
Return fan	S613995450					A	A			
	S613995750							A	A	
Vertical discharge Kit	S669482502	O								
	S669484002			O						
	S669486002					O	O			
	S669487502							O	O	
Indoor fan smooth start up to 5,5 kW	S606744690	O		O		O	O	O	O	
	S611991087	O								
High speed drive	S611991089			O						
	S611991091					O		O		
	S611991092						O			
	S611991095									O
	S611991088	O								
High speed drive and motor	S611991090					O				
	S611991093						O			
	S611991094							O		
	S611991096									O

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

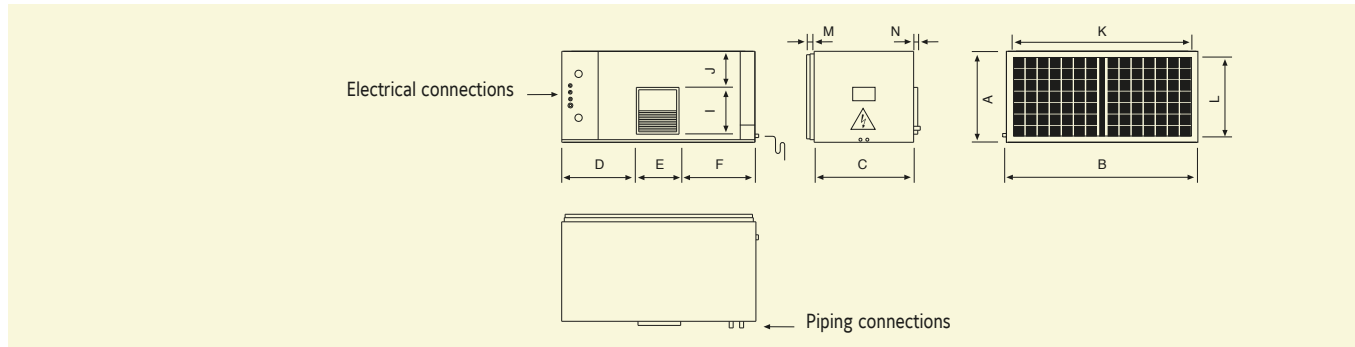
* Not protected against external condition. ** To be used only with horizontal discharge models

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

Indoor units dimensions



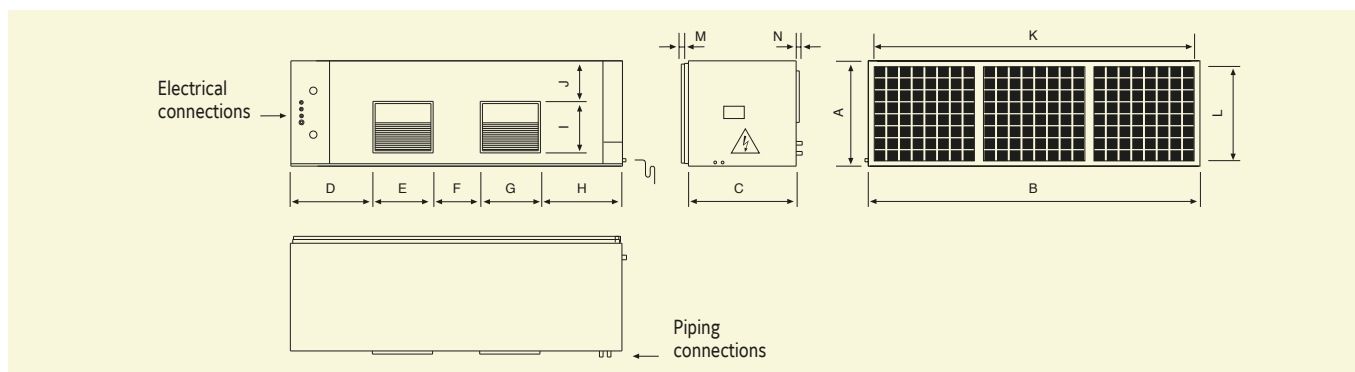
VIR 25 AB



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

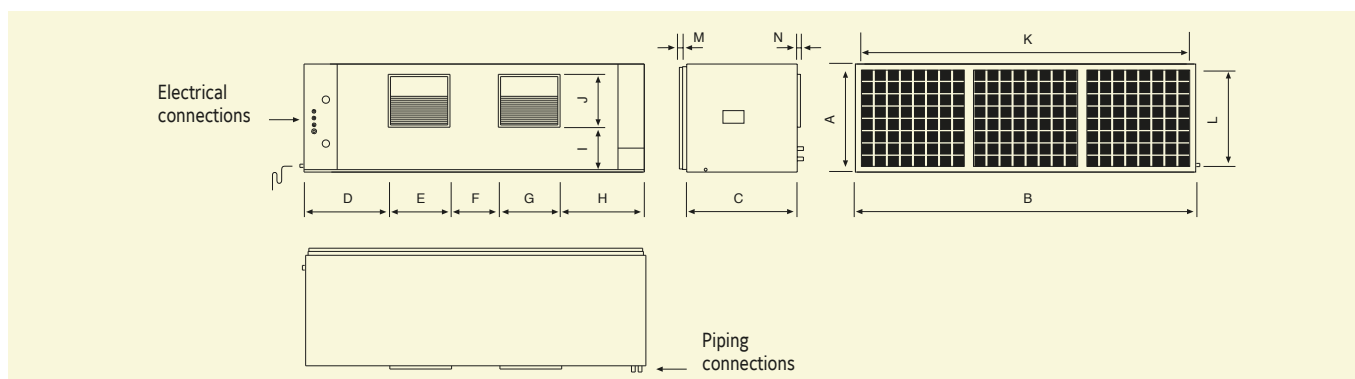
VIR 40-45-60 AB



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

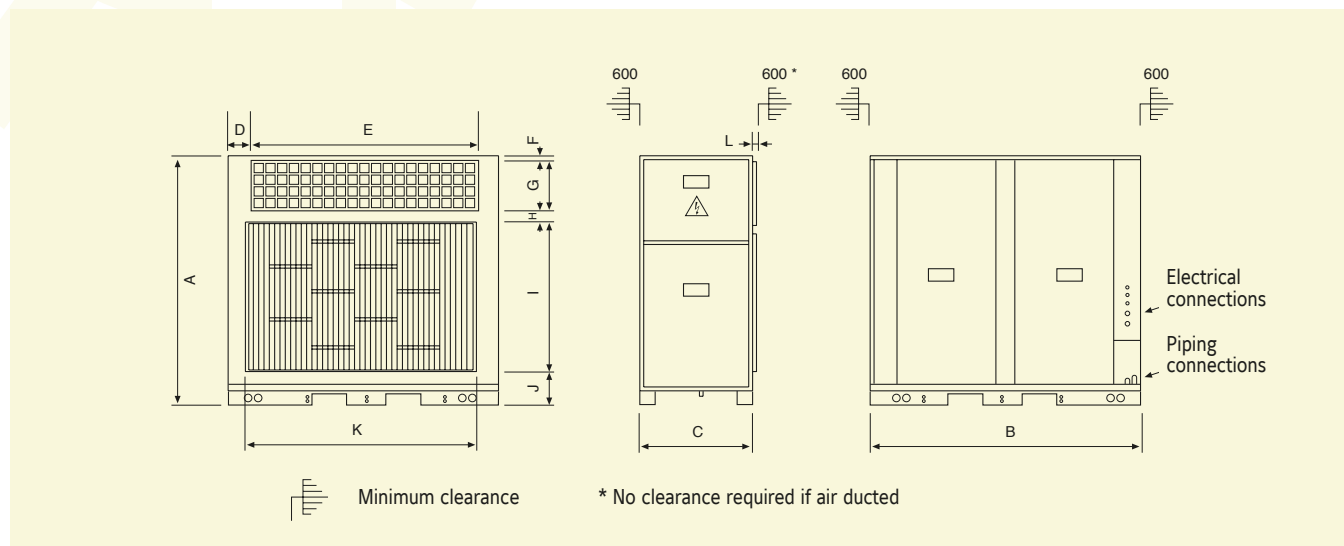


All dimensions in mm. Drawings not a scale.

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 condensing units

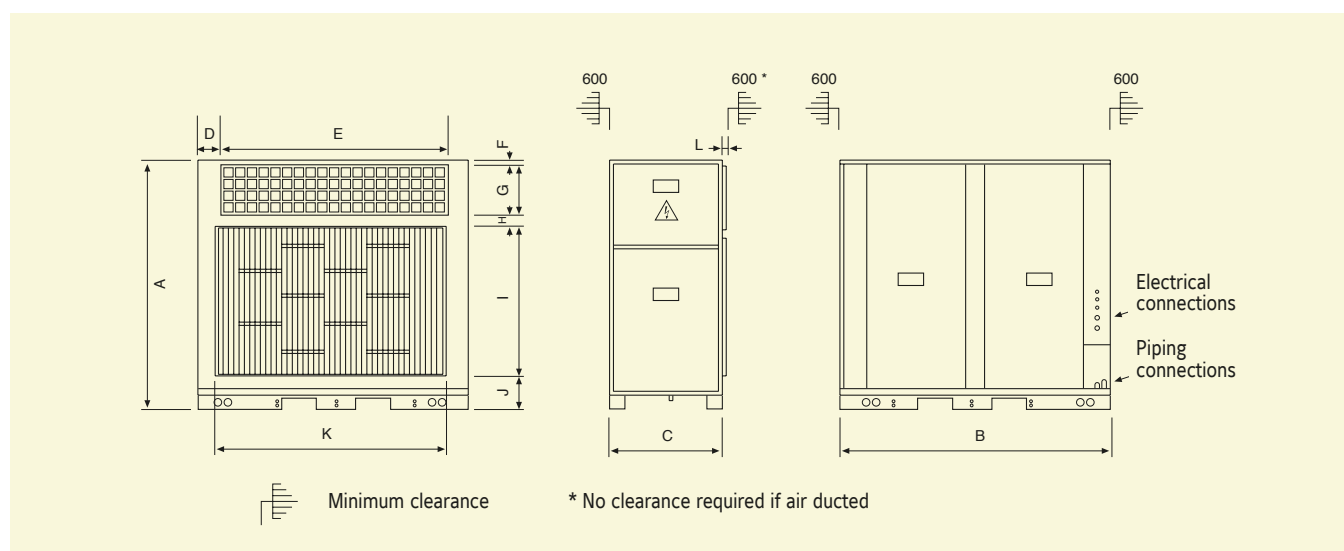
VCH 20-25 AB



All dimensions in mm. Drawings not a scale.

Unit	A	B	C	D	E	F	G	H	I	J	K	L
VCH 20 AB	1 392	1 362	790	147	1 069	30	268	37	919	138	1 100	24
VCH 25 AB	1 392	1 362	790	147	1 069	30	268	37	919	138	1 100	24

VCH 30-40 AB

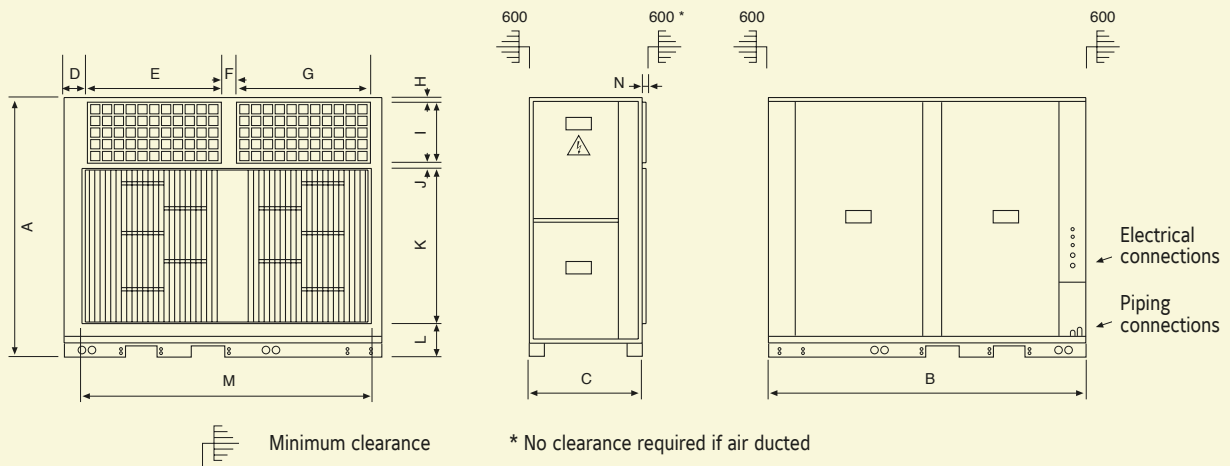


All dimensions in mm. Drawings not a scale.

Unit	A	B	C	D	E	F	G	H	I	J	K	L
VCH 30 AB	1 526	1 740	785	151	1 436	30	324	37	994	141	1 476	24
VCH 40 AB	1 526	1 740	785	151	1 436	30	324	37	994	141	1 476	24



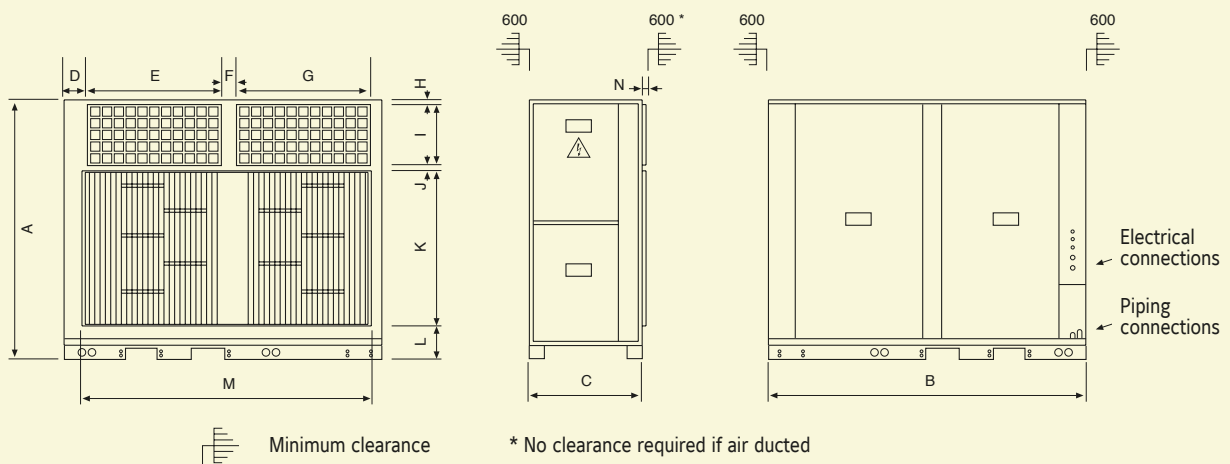
VCH 45-60 AB



All dimensions in mm. Drawings not a scale.

Unit	A	B	C	D	E	F	G	H	I	J	K	L	M	N
VCH 45 AB	1 641	2 240	778	148	945	95	945	38	389	38	1044	140	2 060	23
VCH 60 AB	1 641	2 240	778	148	945	95	945	38	389	38	1044	140	2 060	23

VCH 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
VCH 75 AB	1 794	2 658	897	148	1155	95	1155	30	389	37	1 200	138	2 479	23
VCH 90 AB	1 794	2 658	897	148	1155	95	1155	30	389	37	1 200	138	2 479	23