

Biddle air curtains

Biddle air curtains provide highly efficient solutions for retailers and consultants to combat the issue of climate separation across their outlet or office doorway.

Biddle air curtains

connected to Daikin Heat Pumps

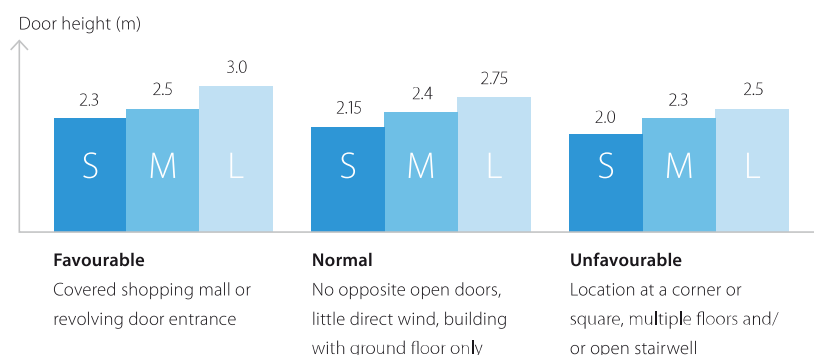
'Open Door' Trading

Although the customer friendly aspects of open door trading are widely appreciated by retail and commercial outlet managers, open doors can also give rise to massive losses in conditioned warm or cold air and hence, energy. Biddle air curtains however, not only preserve indoor temperatures and generate significant economies, they also represent an invitation for customers, to enter a pleasant trading and working environment.

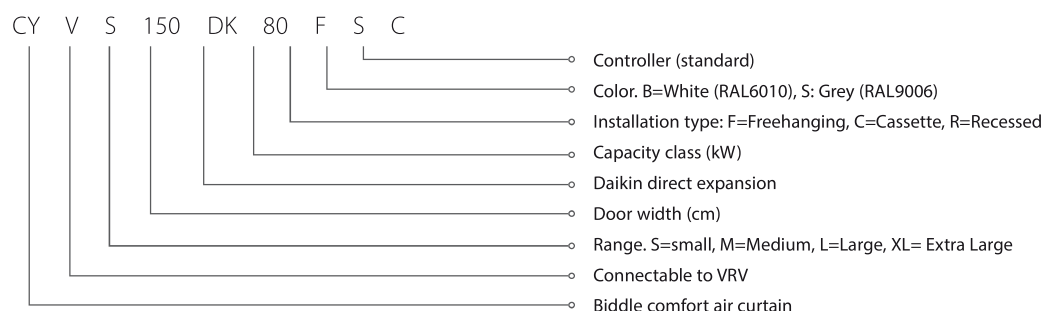
High efficiency and low CO₂ emission

An efficient outdoor/indoor climate separation limits heat loss through the door opening and enhances the efficiency of the air conditioning system. Combining Biddle air curtains with Daikin heat pumps can lead to savings up to 72% compared to electric air curtains and a payback period of less than 1.5 years!

Air curtain size selector



Biddle comfort air curtain nomenclature



Portfolio

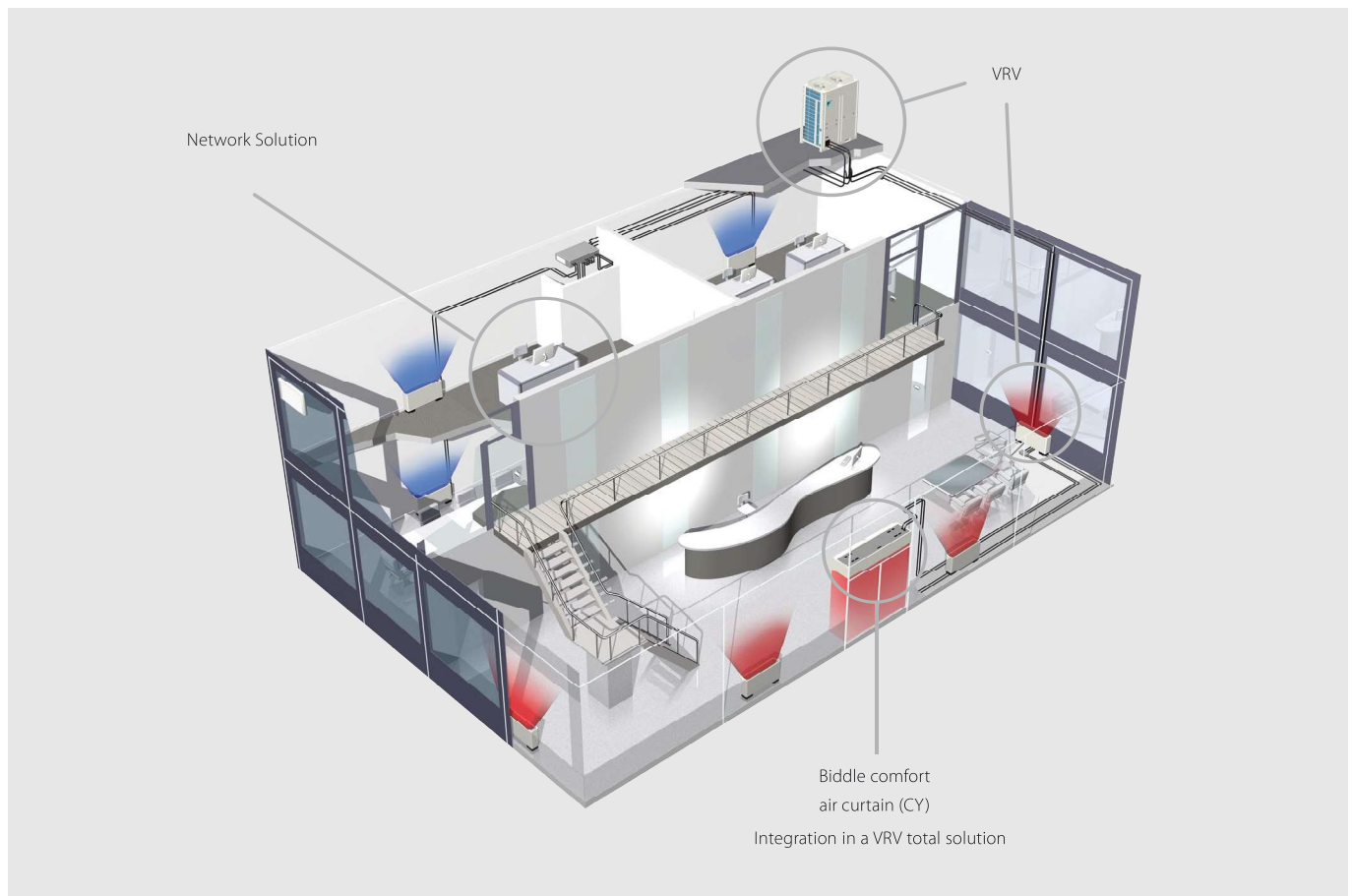
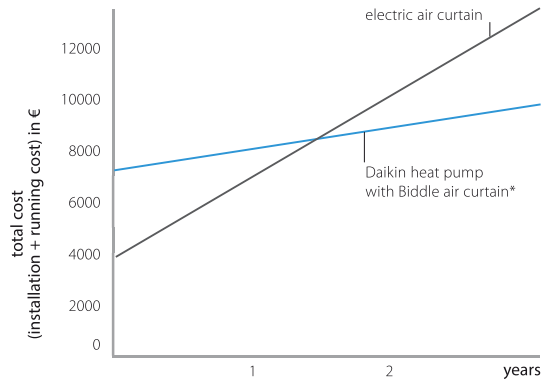
Type	Product name	
Biddle air curtain free hanging	CYV S/M/L-DK-F	
Biddle air curtain cassette	CYV S/M/L-DK-C	
Biddle air curtain recessed	CYV S/M/L-DK-R	

- › A payback time of less than 1.5 years compared to electrical air curtains
- › Easy and quick installation
- › Maximum energy efficiency thanks to rectifier technology
- › 85% air separation efficiency
- › Cassette model (C): mounted into a false ceiling enhancing aesthetics
- › Free-hanging model (F): easy wall mounted installation
- › Recessed model (R) : neatly concealed in the ceiling

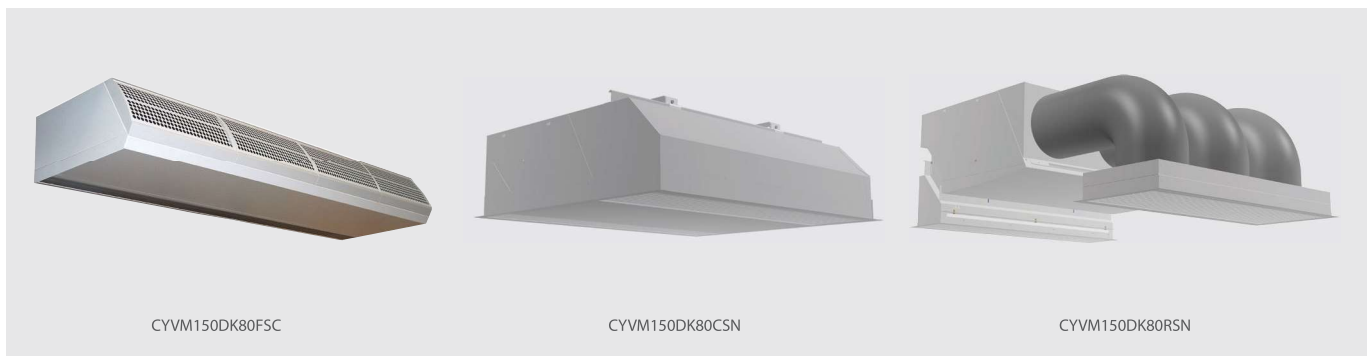
Biddle air curtain for VRV

- › Connectable to VRV heat recovery and heat pump
- › VRV is among the first DX systems suitable for connection to air curtains
- › Free-hanging model (F): easy wall mounted installation
- › Cassette model (C): mounted into a false ceiling leaving only the decoration panel visible
- › Recessed model (R): neatly concealed in the ceiling
- › Provides virtually free air curtain heating via recovered heat from indoor units in cooling mode (in case of VRV heat recovery)
- › Easy and quick to install at reduced costs since no additional water systems, boilers and gas connections are required
- › **PATENTED TECHNOLOGY:** Maximum energy efficiency stemming from almost zero down flow turbulence, optimised air flow and the application of advanced discharge rectifier technology
- › Around 85% air separation efficiency, greatly reducing both heat loss and required indoor unit heating capacity

Packtime of less than 1.5 years



* Payback period and gains calculated based upon the following: Air curtain is 9hrs/day – 156 days year (1,404 hrs/year) in use. Annual energy consumption for an electric air curtain: 3,137EUR (COP = 0.95). Typical installation cost: 1,000EUR; Typical equipment cost: 2,793EUR. Annual energy consumption for CYQS200DK100FBN and ERQ100AV: 748EUR (COP 4.00). Typical installation cost: 2,000EUR; Typical equipment cost: 5,150EUR. Calculation based upon electricity cost: 0,1705EUR /kWh



				Small				Medium			
				CYVS100DK80 *BN/*SN	CYVS150DK80 *BN/*SN	CYVS200DK100 *BN/*SN	CYVS250DK140 *BN/*SN	CYVM100DK80 *BN/*SN	CYVM150DK80 *BN/*SN	CYVM200DK100 *BN/*SN	CYVM250DK140 *BN/*SN
Heating capacity	Speed 3		kW	7.40	9.0	11.6	16.2	9.2	11.0	13.4	19.9
Power input	Fan only	Nom.	kW	0.23	0.35	0.46	0.58	0.37	0.56	0.75	0.94
	Heating	Nom.	kW	0.23	0.35	0.46	0.58	0.37	0.56	0.75	0.94
Delta T	Speed 3		K	19	15		16	17	14	13	15
Casing	Colour			BN: RAL9010 / SN: RAL9006							
Dimensions	Unit	Height F/C/R	mm	270/270/270							
		Width F/C/R	mm	1,000/1,000/1,048	1,500/1,500/1,548	2,000/2,000/2,048	2,500/2,500/2,548	1,000/1,000/1,048	1,500/1,500/1,548	2,000/2,000/2,048	2,500/2,500/2,548
		Depth F/C/R	mm	590/821/561							
Required ceiling void >			mm	420							
Door height	Max.		m	23 (1) / 215 (2) / 20 (3)	23 (1) / 215 (2) / 20 (3)	23 (1) / 215 (2) / 20 (3)	23 (1) / 215 (2) / 20 (3)	25 (1) / 24 (2) / 23 (3)	25 (1) / 24 (2) / 23 (3)	25 (1) / 24 (2) / 23 (3)	25 (1) / 24 (2) / 23 (3)
Door width	Max.		m	1.0	1.5	2.0	2.5	1.0	1.5	2.0	2.5
Weight	Unit		kg	56	66	83	107	57	73	94	108
Fan-Air flow rate	Heating	Speed 3	m³/h	1,164	1,746	2,328	2,910	1,605	2,408	3,210	4,013
Sound pressure level	Heating	Speed 3	dBA	47	49	50	51	50	51	53	54
Refrigerant	Type / GWP			R-410A / 2,087.5							
Piping connections	Liquid/OD/Gas/OD		mm	9.52/16.0			9.52/19.0		9.52/16.0		9.52/19.0
Required accessories (should be ordered separately)				Daikin wired remote control (BRC1E53A / BRC1E53B / BRC1E53C or BRC1D52)							
Power supply	Voltage		V	230							

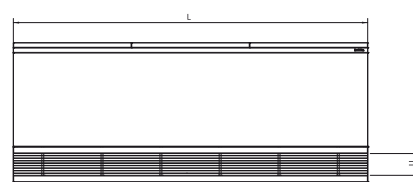
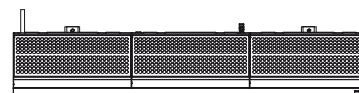
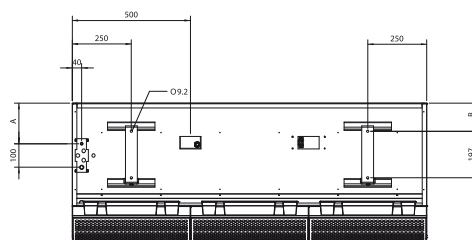
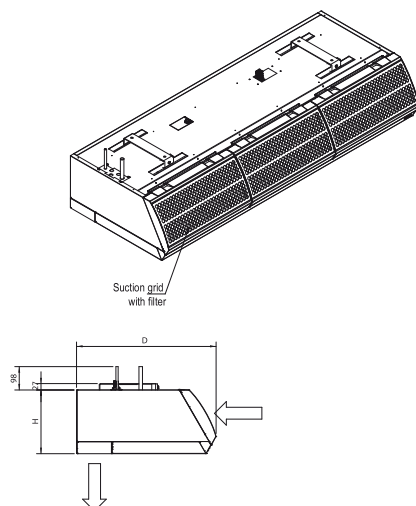
				Large			
				CYVL100DK125*BN/*SN	CYVL150DK200*BN/*SN	CYVL200DK250*BN/*SN	CYVL250DK250*BN/*SN
Heating capacity	Speed 3		kW	15.6	23.3	29.4	31.1
Power input	Fan only	Nom.	kW	0.75	1.13	1.50	1.88
	Heating	Nom.	kW	0.75	1.13	1.50	1.88
Delta T	Speed 3		K	15		14	12
Casing	Colour			BN: RAL9010 / SN: RAL9006			
Dimensions	Unit	Height F/C/R	mm	370/370/370			
		Width F/C/R	mm	1,000/1,000/1,048	1,500/1,500/1,548	2,000/2,000/2,048	2,500/2,500/2,548
		Depth F/C/R	mm	774/1,105/745			
Required ceiling void >			mm	520			
Door height	Max.		m	3.0 (1) / 2.75 (2) / 2.5 (3)	3.0 (1) / 2.75 (2) / 2.5 (3)	3.0 (1) / 2.75 (2) / 2.5 (3)	3.0 (1) / 2.75 (2) / 2.5 (3)
Door width	Max.		m	1.0	1.5	2.0	2.5
Weight	Unit		kg	76	100	126	157
Fan-Air flow rate	Heating	Speed 3	m³/h	3,100	4,650	6,200	7,750
Sound pressure level	Heating	Speed 3	dBA	53	54	56	57
Refrigerant	Type / GWP			R-410A / 2,087.5			
Piping connections	Liquid/OD/Gas/OD		mm	9.52/16.0	9.52/19.0	9.52/22.0	
Required accessories (should be ordered separately)				Daikin wired remote control (BRC1E53A / BRC1E53B / BRC1E53C or BRC1D52)			
Power supply	Voltage		V	230			

(1) Favorable conditions: covered shopping mall or revolving door entrance (2) Normal conditions: little direct wind, no opposite open doors, building with ground floor only

(3) Unfavorable conditions: location at a corner or square, multiple floors and/or open stairway



CYVS_DK_FBN/FSN / CYVM_DK_FBN/FSN / CYVL_DK_FBN/FSN



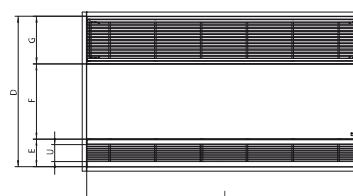
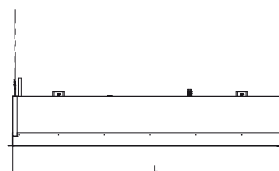
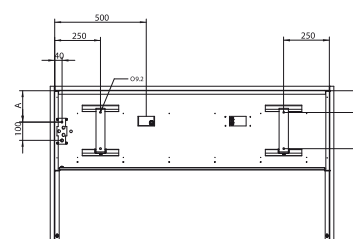
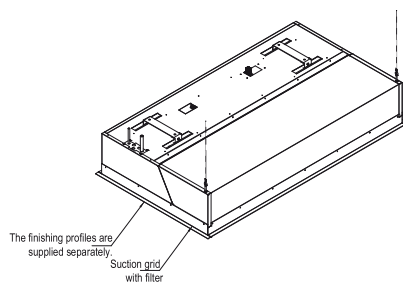
Type	L	H	D	U	A	B
CYVS-DK-FBN/FSN	1,000 - 1,500	270	590	93	171	119
CYVM-DK-FBN/FSN	2,000 - 2,500					
CYVL-DK-FBN/FSN	1,000 - 1,500	370	774	124.5	245.5	200
	2,000 - 2,500					

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REMARKS

- The 2,500mm large devices have 3 suspension brackets, where the third bracket is mounted at half the length of the device.

CYVS_DK_CBN/CSN / CYVM_DK_CBN/CSN / CYVL_DK_CBN/CSN



Number of suction grids per device

Device length	Number	Suction grid length
1000 / 1500	1	1,000 / 1,500
2000 / 2500	2	1,000 / 1,250

*1 drain grid per device

Type	L	H	D	U	A	B	E	F	G
CYVS-DK-CBN/CSN	1,000 - 1,500	270	821	93	171	119	250	411	260
CYVM-DK-CBN/CSN	2,000 - 2,500								
CYVL-DK-CBN/CSN	1,000 - 1,500	370	1,105	124.5	245.5	200	181.5	563.5	360
	2,000 - 2,500								

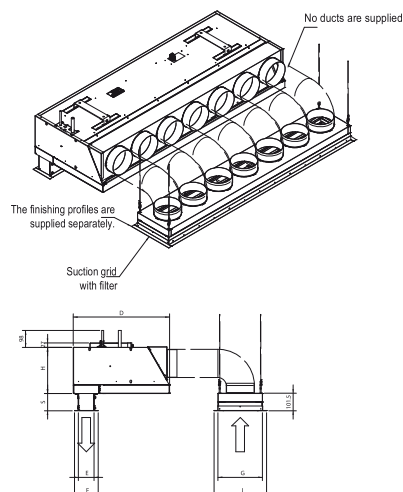
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REMARKS

- The 2,500mm large devices have 3 suspension brackets, where the third bracket is mounted at half the length of the device.
- The mounting holes for finishing profiles in a lowered ceiling (L+8) x (D+8) mm



CYVS_DK_RBN/RSN / CYVM_DK_RBN/RSN / CYVL_DK_RBN/RSN



Number of ducts per device

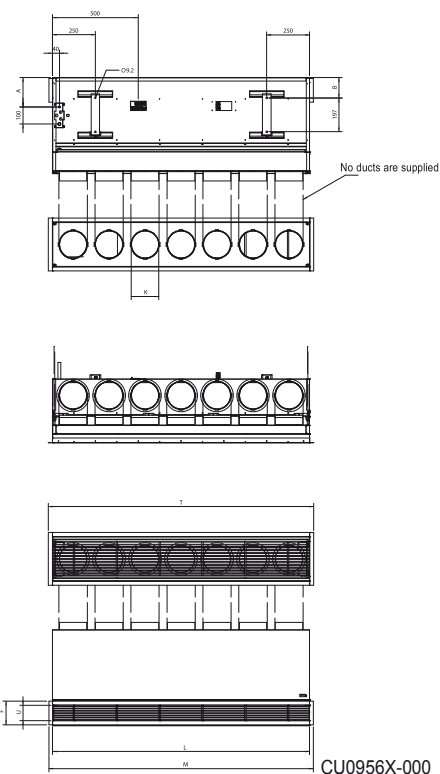
Type	1000	1500	2000	2500
CYVS-DK-RBN/RSN	5	7	10	12
CYVM-DK-RBN/RSN	5	7	10	12
CYVL-DK-RBN/RSN	3	5	6	8

Number of suction grids per device

Device length	Number	Suction grid length
1000 / 1500	1	1,000 / 1,500
2000 / 2500	2	1,000 / 1,250

*1 drain grid per device

Type	L	H	D	S	U	A	B	E	F	G	J	K	M	T
CYVS-DK-RBN/RSN	1,000 - 1,500	270	561	80-125	90	171	119	92	139	260	308	Ø160	1044-1544 2044-2544	1048-1548 2048-2548
CYVM-DK-RBN/RSN	1,000 - 1,500 2,000 - 2,500	270	561	80-125	90	171	119	92	139	260	308	Ø160	1044-1544 2044-2544	1048-1548 2048-2548
CYVL-DK-RBN/RSN	1,000 - 1,500 2,000 - 2,500	370	745	80-125	121.5	245.5	200	123.5	170	360	408	Ø250	1044-1544 2044-2544	1048-1548 2048-2548



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REMARKS

- The 2,500mm large devices have 3 suspension brackets, where the third bracket is mounted at half the length of the device.
- Holes (for finishing profiles) - drain (L+8) x (E+8) mm - suction (L+8) x (G+8) mm.