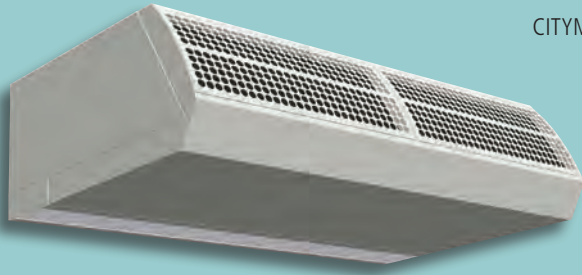


Biddle air curtains

For connection to Daikin Sky Air Systems



CITYM-DK-F



Air curtains for Sky Air



Biddle CITY air curtains are the ideal solution for retailers and consultants to combat the issue of climate separation across their outlet or office doorway. Using a combination of rectifier technology, optimised air velocity and temperature control they deliver greater comfort to staff and customers alike, all year round, in all weathers.

In conjunction with Biddle, Daikin now introduce the Sky Air, air curtain to the market, coupling the benefits of the Biddle CITY air curtain technology with the benefits of the Daikin Sky Air Seasonal and Comfort inverter.

ENERGY
SAVINGS UP TO
67%

PAYBACK TIME
LESS THAN
2.5
YEARS

CO₂
EMISSIONS
LESS THAN
6 TONNES
PER YEAR

Daikin – Biddle technology



The CITYM air curtain

automatically operates as a heating or ambient air curtain to maintain year round store entrance temperature and minimise heat loss and heat gains through the doorway.

- **The CITYM air curtain offers energy consumption savings of up to 67% compared to a typical electrically heated air curtain, providing payback times of less than 2 1/2 years**
- Biddle CITYM air curtains connect to selected Daikin inverter models
- Inverter compressor control ensures automatic and efficient operation of heating output as required, maintaining temperature
- Air curtain rectifier technology offers a deeply penetrating airstream. The rectifier technology has a European Patent
- 90% air curtain separation efficiency at optimum height, reducing heat loss
- Constant fan operation, even after heating set point temperature is achieved

Daikin's Seasonal & Comfort Inverter

Inverter control enables Daikin to bring air conditioning technology of the future to the market today. It cuts start up time and reduces energy consumption by up to 67% compared to electrically heated air curtains.

- The Biddle CITY air curtain connects to Daikin's Sky Air
 - Seasonal inverter: RZQ100, RZQ140 (1 phase and 3 phase models)
 - Comfort inverter: RZQS100, RZQS140 (1 phase models)
- The CITYM 150 DK models connect to the Sky Air RZQ100 and RZQS100
- The CITYM 200 DK models connect to the Sky Air RZQ140 and RZQS140

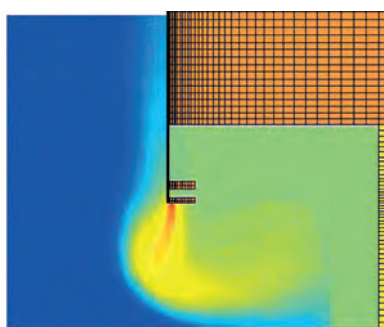


Biddle's rectifier technology (European Patent)

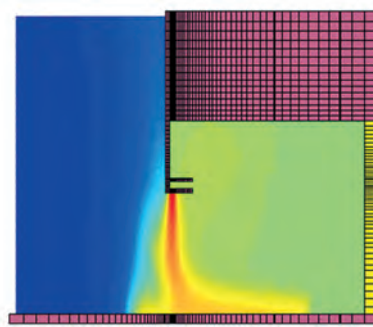
By reducing the air turbulence at the discharge of the air curtain, the induction of the surrounding air is also reduced, providing a deeply penetrating airstream.

In addition the design of the rectifier provides a laminar air flow right down to floor level, reducing energy consumption and increasing comfort levels all year round.

- Laminar air flow stream – Minimizes air turbulence
- Reduced energy loss
- Improved penetration – greater comfort levels



Standard air curtain, with turbulent air stream and loss of airflow – low separation efficiency

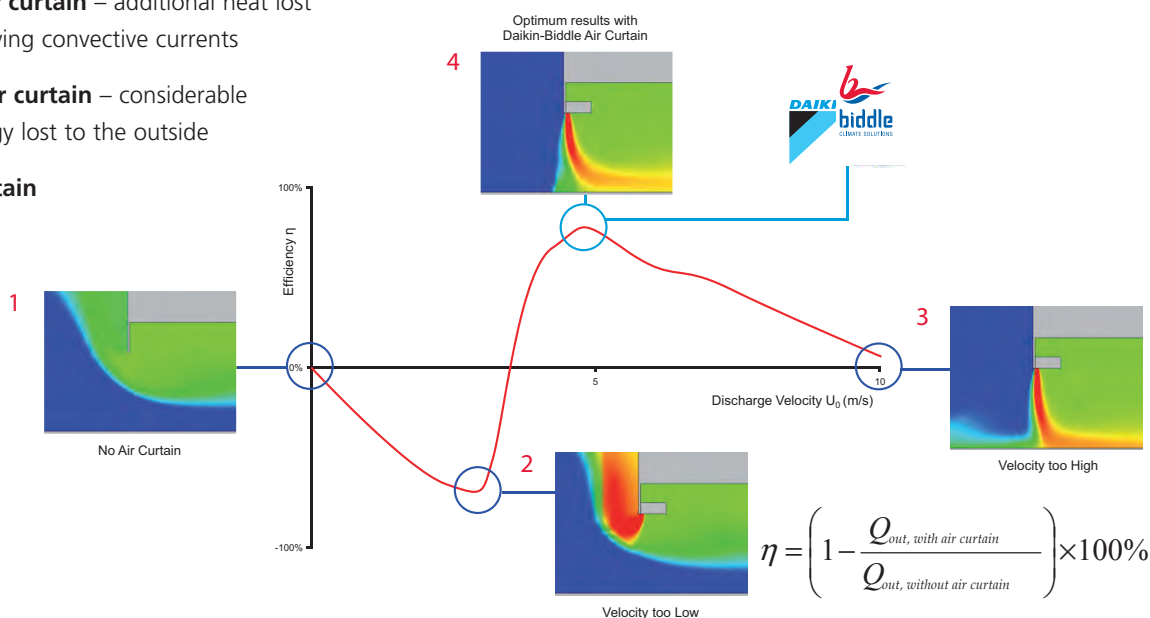


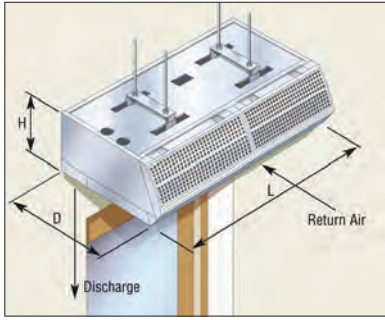
Daikin-Biddle air curtain with patented rectifier grille – separation efficiency up to 90%

Biddle's optimised air flow velocity

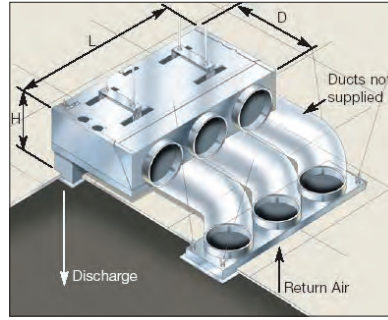
The correct air flow velocity greatly improves the air curtain efficiency and when combined with the rectifier technology, results in high separation efficiencies.

1. **Energy losses** – no air curtain fitted
2. **Low velocity air curtain** – additional heat lost with the out-flowing convective currents
3. **High velocity air curtain** – considerable turbulence, energy lost to the outside
4. **Efficient air curtain**

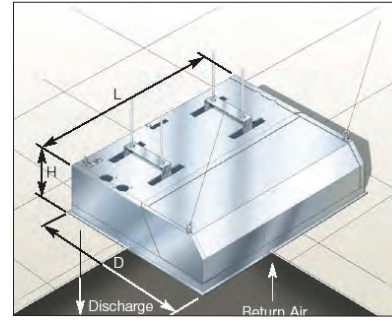




Exposed Model (F)



Ceiling Recessed Model (R)



Cassette Model (C)

Indoor Unit: Biddle Air Curtain

CITYM-DK-F (Exposed Model)

Air curtain			CITYM150DK-F	CITYM200DK-F
Capacity	Heating (speed 1/2)	kW	7.41 / 11.20	9.03 / 14.00
Dimensions	(Height x Width x Depth)	mm	297 x 1500 x 590	297 x 2000 x 590
Weight		kg	65	84
Air Flow Rate	(speed 1/2)	m³/h	1836 / 2408	2444 / 3211
Sound Pressure (at 3m)	(speed 1/2)	dB(A)	46 / 51	47 / 53
Refrigerant	Type		R-410A	R-410A
Power Supply			1~/230V/50Hz	1~/230V/50Hz
Max door width	m		1.5	2.0
Max mounting height	m		3.2	3.2

CITYM-DK-R (Ceiling Recessed Model)

Air curtain			CITYM150DK-R	CITYM200DK-R
Capacity	Heating (speed 1/2)	kW	7.41 / 11.20	9.03 / 14.00
Dimensions	(Height x Width x Depth)	mm	*297 x 1500	*297 x 2000 x 565
Weight		kg	85	113
Air Flow Rate	(speed 1/2)	m³/h	1836 / 2408	2444 / 3211
Sound Pressure (at 3m)	(speed 1/2)	dB(A)	46 / 51	47 / 53
Refrigerant	Type		R-410A	R-410A
Power Supply			1~/230V/50Hz	1~/230V/50Hz
Max door width	m		1.5	2.0
Max mounting height	m		3.2	3.2

*Plus Telescopic Discharge Section adding 80-125mm

CITYM-DK-C (Cassette Model)

Air curtain			CITYM150DK-C	CITYM200DK-C
Capacity	Heating (speed 1/2)	kW	7.41 / 11.20	9.03 / 14.00
Dimensions	(Height x Width x Depth)	mm	297 x 1500 x 821	297 x 2000 x 821
Weight		kg	82	107
Air Flow Rate	(speed 1/2)	m³/h	1836 / 2408	2444 / 3211
Sound Pressure (at 3m)	(speed 1/2)	dB(A)	46 / 51	47 / 53
Refrigerant	Type		R-410A	R-410A
Power Supply			1~/230V/50Hz	1~/230V/50Hz
Max door width	m		1.5	2.0
Max mounting height	m		3.2	3.2

Outdoor Unit: Daikin Seasonal and Comfort Inverter

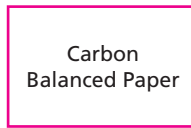
Outdoor unit			Seasonal inverter				Comfort inverter	
			RZQ100D9V1	RZQ100B9W1	RZQ140D9V1	RZQ140B9W1	RZQS100DV1	RZQS140DV1
Dimensions	(Height x Width x Depth)	mm	1345x900x320				1170x900x320	
Weight		kg	108	106	108	106	103	
Operation range	Cooling	Min-Max °CDB	-15~50				-5~46	
	Heating	Min-Max °CWB	-20~15.5				-15~15.5	
Sound power	Cooling	dB(A)	65		68	66	67	68
Sound pressure (standard)	Cooling	dB(A)	50		51	50	51	52
	Heating	dB(A)	52		53	52	55	54
Sound level (night quiet)	Sound pressure	dB(A)	45		46	45	49	50
Refrigerant	Type		R-410A					
Power supply			1~/220-240V/50Hz	3N~/400V/50Hz	1~/220-240V/50Hz	3N~/400V/50Hz	1~/220-240V/50Hz	
Piping connections	Liquid (OD)/gas/drain	mm	9.52 / 15.9 / 26					
Piping length (maximum)		m	75				50	
Max. internunit level difference		m	0.5					
Max installation height difference		m	30					



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Visit www.eca.gov.uk/etl and type 'Daikin' in the quick search box for details of the latest ECA qualifying Daikin units



Daikin UK is approved by LRQA for its Quality Management System in accordance with the ISO9001 standard.



ISO14001 assures an effective environmental management system in order to help protect human health and the environment from the potential impact of our activities, products and services and to assist in maintaining and improving the quality of the environment.



Daikin Europe N.V. participates in the Eurovent Certification Programme for Air Conditioners (AC), Liquid Chilling Packages (LCP) and Fan Coil Units (FC); the certified data of certified models are listed in the Eurovent Directory.



Daikin units comply with the European regulations that guarantee the safety of the product.

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