

Air Conditioners

# Heating & Cooling

**SkyAir<sup>®</sup>**

- » **Energy label:  
Up to class A**
- » **Heat pump system**
- » **Seasonal inverter  
technology**
- » **Reduced power  
consumption thanks to  
DC inverter fan**
- » **Comfortable air flow**
- » **Neatly concealed in  
the ceiling**

Concealed ceiling unit with inverter driven fan



[www.daikin.eu](http://www.daikin.eu)

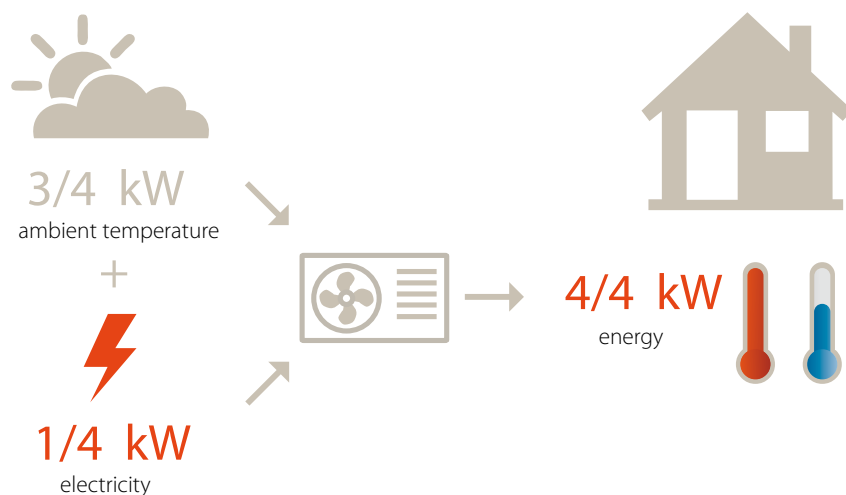


FBQ-C

## Cosy in winter, cooling in summer and always fresh air

With Daikin heat pumps, you provide a climate in which your employees and customers feel good, every day of the year. You can rest assured that everyone will have a sigh of relief when you have a heat pump installed. A Daikin concealed system that heats, cools, dehumidifies, circulates, ventilates and filters dust, a system which excels in ease of operation and reliability. It was developed with a flair for design and an eye for detail. Whisper quiet, state-of-the-art technology in which Daikin is the leader both on the retail market and in the business world.

### Combining highest efficiency and year-round comfort with a heat pump system



#### Did you know that ...

Air conditioners, also known as heat pumps, obtain 75% of their output energy from renewable sources: the ambient air, which is both renewable and inexhaustible\*. Of course, heat pumps also require electricity to run the system, but increasingly this electricity can also be generated from renewable energy sources (solar energy, wind energy, hydropower, biomass). A heat pump's efficiency is measured in COP (Coefficient Of Performance) for heating and EER (Energy Efficiency Ratio) for cooling.

\* EU objective COM (2008)/30



## Seasonal efficiency, optimised for all seasons

Taking into account technological advances and stricter environmental legislation, Daikin Europe N.V. is the market leader in energy-efficient residential and commercial cooling solutions. A good example of this is Daikin's Sky Air® Seasonal Inverter which was developed for light commercial applications in which seasonal efficiency is very important. The Sky Air® Seasonal Inverter is first on the market to anticipate Europe's new stricter environmental requirements.

Europe has set challenging environmental targets for 2020 and this requires greater accuracy in measuring the 'real life' energy efficiency rating of heating and cooling systems. This new measurement regime, called the 'seasonal efficiency' or SEER (Seasonal Energy Efficiency Ratio), becomes mandatory from 2013 and it measures performance across the entire heating and cooling season, rather than selecting a fixed point (EER - Energy Efficiency Ratio), and takes into account different outdoor temperatures and the resulting energy usage required.

Because of our new optimized inverter control technology, the Sky Air® Seasonal Inverter performs better across the entire range of outdoor temperatures. In addition, the auxiliary modes have been redesigned in order to reduce energy consumption when the unit is in standby mode. The result is up to 20% better 'seasonal efficiency' than the current Sky Air® Super and Comfort Inverter, also even more than 50% better compared to non inverter systems.

As the market leaders in integrating tomorrow's Eco-Design principles today, Daikin is the first manufacturer to publish the SEERs for its residential and light commercial installations.

## Energy Efficient

Because an inverter monitors and adjusts ambient temperature whenever needed, energy consumption drops by 30% compared to a traditional on/off system! Moreover, as the FBQ-C indoor unit is equipped with DC inverter fans, an additional decrease in energy consumption of 7% for heating and 11% for cooling\* is realised.

\* Average EER/COP of FBQ-C – RXS-G/F, RZQ(S)-D(9) compared with average EER/COP of FBQ-B - RXS-G/F, RZQ(S)-C



Seasonal Inverter





## Invisible and Functional

- > The concealed ceiling units belong to the **most aesthetically-pleasing and quietest systems for your climate comfort**. The slim FBQ model is **installed in the ceiling**, leaving only the suction and discharge grilles visible.
- > These grilles provide optimum circulation of the conditioned air - **without creating a draught** - and even temperature distribution in large or subdivided areas.
- > The limited dimensions enable our concealed ceiling units to blend in beautifully with any interior décor. They are ideal solutions for locations where there is a need for unobtrusive heating or cooling, such as in restaurants, shops, showrooms, museums, offices, sports centres, educational facilities...
- > The indoor unit is suited to **single-split applications** (one indoor unit to one outdoor unit), **twin, triple or double twin-split applications** (a maximum of four indoor units in the same room to one outdoor unit) and **multi-split application** (a maximum of nine indoor units in different rooms to one outdoor unit).
- > Depending on your air conditioning need, you can choose between **heating and cooling (heat pump)**.

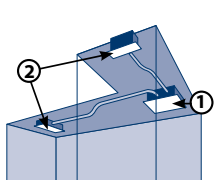
## Comfortable air flow: Quiet and reliable

- > The FBQ concealed ceiling unit provides pleasant and comfortable air flow, thanks to **3 steps air flow control**.
- > Moreover, a built-in **filter** permanently clears the air of microscopically small dust particles.
- > To enjoy greater comfort, there are various settings from which you can choose that can be simply selected with the **remote control**. You can, for example, choose between **two fan speeds**: high or low. The high fan speed makes it possible to cover a very wide angle and the low fan speed keeps air movement down to a minimum.
- > Another unique benefit is that the indoor unit works almost **silently**: only 29 dBA, which corresponds to rustling leaves.

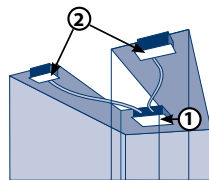


## Straightforward installation means Low Costs

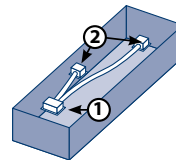
- > The FBQ concealed ceiling unit can easily be installed flush into shallow, **lowered ceilings**. If a suction panel is fitted, you will only require a concealing space of 350 mm.
- > The air discharge grilles can be installed separately from the indoor unit for use in long and "L" or "U" shaped rooms. A flexible duct system connects the grilles to the indoor unit and guarantees a pleasant climate, even in **irregularly shaped areas**.



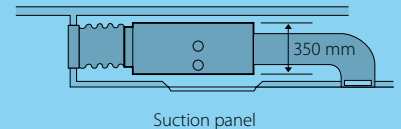
L-shaped room



U-shaped room



Long room



Suction panel

- ① Suction grille
- ② Discharge grille (field supply) of the flexible ducts

- > The **outdoor unit** can be installed on the roof, terrace or against an outside wall.
- > The **wired remote control BRC1E51A** (optional) has a modern design in pure white (RAL 9010). Large buttons and arrow keys as well as the given explanation for each setting on the display, makes the remote control easy to operate. A holiday setting, home leave operation, and an improved weekly timer are included. The wired remote control is available in following languages: English, German, French, Spanish, Italian, Portuguese, Greek, Dutch, Russian and Turkish.



Wired remote control BRC1E51A (optional)

### > Home leave operation

In case of extended absence, this function helps to **save energy**. If there is no one in the area for an extended period, e.g. during holidays or closing days, this function automatically sets the room temperature to a minimum of 10°C. At this point, all connected indoor units will switch over to heating mode. The function will be deactivated as soon as the room temperature reaches 15°C.

- > With the optional **ON/OFF function**, the air conditioner can be switched on and off remotely with a mobile phone. With this function you can also make the unit switch off automatically, e.g. when someone opens a window.



# Heating & Cooling

INDOOR UNIT				FBQ35C	FBQ50C	FBQ60C
Cooling capacity	min./nom./max.		kW	1.4/3.4 <sup>3</sup> /3.7	0.9/5.0 <sup>3</sup> /5.6	-/5.70 <sup>3</sup> /-
Heating capacity	min./nom./max.		kW	1.2/4.0 <sup>4</sup> /5.0	0.9/6.0 <sup>4</sup> /7.0	-/7.00 <sup>4</sup> /-
Power input	cooling	min./nom./max.		kW	4.50/1.83/2.02	-/1.75/-
	heating	min./nom./max.		kW	0.36/2.05/2.45	-/2.05/-
EER				3.24	2.73	3.26
COP				3.60	2.93	3.41
Annual energy consumption				530	825	875
Energy label	cooling/heating			A/B	B/B	A/B
Casing	colour			Unpainted		
Dimensions	unit	heightxwidthxdepth		mm	300x700x700	300x1,000x700
Required ceiling void >				mm	350	
Weight	unit		kg	25		34
Decoration panel	model			BYB545DJW1		BYB571DJW1
	colour			White (10Y9/0.5)		
	dimensions	heightxwidthxdepth		mm	55x800x500	55x1,100x500
	weight		kg	3.5		4.5
Fan-External static pressure	high/nom.		Pa	100/30		100/30
Sound power level	cooling	high		dBA	63	57
	Sound pressure level	cooling	high/low	dBA	37/29	
		heating	high/low	dBA	37/29	
Refrigerant	type			R-410A		
Piping connections	liquid	OD	mm	6.35		
	gas	OD	mm	9.5		12.7
	drain	OD	mm	26		32
Power supply	phase / frequency / voltage		Hz / V	1~ / 50/60 / 220-240/220		

(1) Energy label: scale from A (most efficient) to G (less efficient) (2) Annual energy consumption: based on average use of 500 running hours per year at full load (nominal conditions) (3) Cooling: indoor temp. 27°CDB, 19.0°CWB; outdoor temp. 35°CDB; equivalent piping length: 5m; level difference: 0m (4) Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 5m; level difference: 0m

OUTDOOR UNIT				RXS35J	RXS50J	RXS60F
Dimensions	unit	heightxwidthxdepth		mm	550x765x285	735x825x300
Weight	unit		kg	34		48
Fan - Air flow rate	cooling	high/low/super low		m <sup>3</sup> /min	36.0/-/30.1	50.9/-/48.9
	heating	high/low/super low		m <sup>3</sup> /min	28.3/-/25.6	45.0/-/43.1
Sound power level	cooling	nom.		dBA	63	
Sound pressure level	cooling	high/low		dBA	48/44	49/46
	heating	high/low		dBA	48/45	49/46
Operation range	cooling	ambient	min.~max.	°CDB	-10~46	-10~46
	heating	ambient	min.~max.	°CWB	-15~18	-15~18
Refrigerant	type			R-410A		
Piping connections	piping length		max.	OU - IU	m	30
	level difference		IU - OU	max.	m	15
	heat insulation					Both liquid and gas pipes
Power supply	phase / frequency / voltage		Hz / V	1~ / 50 / 220-240		





# Heating & Cooling

Seasonal Inverter

INDOOR UNIT				FBQ71C	FBQ100C	FBQ125C	FBQ140C	FBQ100C	FBQ125C	FBQ140C
Cooling capacity	nom.		kW	7.1 <sup>3</sup>	10.0 <sup>3</sup>	12.5 <sup>3</sup>	13.4 <sup>3</sup>	10.00 <sup>3</sup>	12.50 <sup>3</sup>	14.00 <sup>3</sup>
Heating capacity	nom.		kW	8.0 <sup>4</sup>	11.2 <sup>4</sup>	14.0 <sup>4</sup>	15.0 <sup>4</sup>	11.20 <sup>4</sup>	14.00 <sup>4</sup>	16.00 <sup>4</sup>
Power input	cooling	nom.	kW	2.09	2.70	3.59	4.45	2.78	3.91	4.70
	heating	nom.	kW	2.08	2.69	3.87	4.40	2.79	3.69	4.40
EER				3.39	3.70	3.48	3.01	3.60	3.20	2.98
COP				3.85	4.16	3.62	3.41	4.01	3.79	3.64
SEER				3.73	3.48	3.82	3.25	3.42	3.56	3.22
Annual energy consumption	kWh			1,047	1,351	1,796	2,226	1,390	1,955	2,350
Energy label	cooling/heating			A/A			B/B	A/A	B/A	C/A
Casing	colour			Unpainted			Unpainted			
Dimensions	unit	heightxwidthxdepth	mm	300x1,000x700	300x1,400x700		300x1,400x700			
Required ceiling void >	mm			350			350			
Weight	unit	kg		34	45		45			
Decoration panel	model	BYBS71DJW1			BYBS125DJW1		BYBS125DJW1			
	colour				White (10Y9/0.5)		White (10Y9/0.5)			
	dimensions	heightxwidthxdepth	mm	55x1,100x500	55x1,500x500		55x1,500x500			
	weight	kg		4.5	6.5		6.5			
Fan-External static pressure	high/nom.		Pa	100/30	120/40	120/50		120/40	120/50	
Sound power level	cooling	high	dBA	57	61	66		61	66	
Sound pressure level	cooling	high/low	dBA	37/29	38/32	40/33		38/32	40/33	
	heating	high/low	dBA	37/29	38/32	40/33	41/34	38/32	40/33	41/34
Refrigerant	type			R-410A			R-410A			
Piping connections	liquid	OD	mm	9.52			9.52			
	gas	OD	mm	15.9			15.9			
	drain	OD	mm	26			26			
Power supply	phase / frequency / voltage			1~ / 50/60 / 220-240/220			1~ / 50/60 / 220-240/220			

(1) Energy label: scale from A (most efficient) to G (less efficient) (2) Annual energy consumption: based on average use of 500 running hours per year at full load (nominal conditions) (3) Cooling: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB; equivalent piping length: 5m; level difference: 0m (4) Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 5m; level difference: 0m (5) The sound pressure values are mentioned for a unit installed with rear suction.

OUTDOOR UNIT				RZQ71D3V1	RZQ100D9V1	RZQ125D9V1	RZQ140D9V1	RZQ100B9W1	RZQ125B9W1	RZQ140B9W1
Dimensions	unit	heightxwidthxdepth	mm	770x900x320	1,345x900x320			1,345x900x320		
Weight	unit	kg		67	109		106			
Fan - Air flow rate	cooling	nom.	m <sup>3</sup> /min	52	96	100	97	103	99	
	heating	nom.	m <sup>3</sup> /min	48	90		101			100
Sound power level	cooling	nom.		dBA	64	65	67	68	65	66
Sound pressure level	cooling	nom.		dBA	48	50	51		49.0	50
	heating	nom.		dBA	50	52	53		51	52
	night quiet mode	level 1	dBA	43	45		46	45		
Operation range	cooling	ambient	min.~max.	°CDB	-15.0~50.0			-15.0~50.0		
	heating	ambient	min.~max.	°CWB	-20.0~15.5			-20.0~15.5		
Refrigerant	type			R-410A			R-410A			
Piping connections	piping length	max.	OU - IU	m	50	75		75		
	level difference	IU - OU	max.	m	30.0			30.0		
		IU - IU	max.	m	0.5			0.5		
	heat insulation				Both liquid and gas pipes			Both liquid and gas pipes		
	total piping length	system	actual	m	-			-		
Power supply	phase / frequency / voltage			Hz / V	1~ / 50 / 220-240			3N~ / 50 / 400		



# Heating & Cooling



INDOOR UNIT				FBQ71C	FBQ100C	FBQ125C	FBQ140C
Cooling capacity	nom.	kW		7.1 <sup>3</sup>	10.0 <sup>3</sup>	12.5 <sup>3</sup>	13.4 <sup>3</sup>
Heating capacity	nom.	kW		8.0 <sup>4</sup>	11.2 <sup>4</sup>	14.0 <sup>4</sup>	15.0 <sup>4</sup>
Power input	cooling	nom.	kW	2.18	3.03	3.98	4.77
	heating	nom.	kW	2.25	3.07	4.11	4.67
EER				3.26	3.30	3.14	2.81
COP				3.55	3.65	3.41	3.21
Annual energy consumption	kWh			1,090	1,515	1,990	2,384
Energy label	cooling/heating			A/B	A/A	B/B	C/C
Casing	colour			Unpainted			
Dimensions	unit	heightxwidthxdepth		300x1,000x700		300x1,400x700	
Required ceiling void >				350			
Weight	unit			34		45	
Decoration panel	model			BYBS71DJW1		BYBS125DJW1	
	colour			White (10Y9/0.5)			
	dimensions	heightxwidthxdepth		55x1,100x500		55x1,500x500	
	weight			4.5		6.5	
Fan-External static pressure	high/nom.			100/30	120/40	120/50	
Sound power level	cooling	high		57	61	66	
Sound pressure level	cooling	high/low		37/29	38/32	40/33	
	heating	high/low		37/29	38/32	40/33	41/34
Refrigerant	type			R-410A			
Piping connections	drain	OD		mm			
Power supply	phase / frequency / voltage			Hz / V			
				1~ / 50/60 / 220-240/220			

(1) Energy label: scale from A (most efficient) to G (less efficient) (2) Annual energy consumption: based on average use of 500 running hours per year at full load (nominal conditions) (3) Cooling: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB; equivalent piping length: 5m; level difference: 0m (4) Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 5m; level difference: 0m (5) The sound pressure values are mentioned for a unit installed with rear suction.

OUTDOOR UNIT				RZQS71D	RZQS100D	RZQS125D	RZQS140D	
Dimensions	unit	heightxwidthxdepth		770x900x320		1,170x900x320		
Weight	unit			68		103		
Fan - Air flow rate	cooling	nom.		52	96	100	97	
	heating	nom.		48		90		
Sound power level	cooling	nom.		65		67	68	
Sound pressure level	cooling	nom.		49		51	52	
	heating	nom.		51	55	53	54	
	night quiet mode	level 1		47		49	50	
Operation range	cooling	ambient	min.~max.	°CDB				
	heating	ambient	min.~max.	°CWB				
Refrigerant	type			R-410A				
Piping connections	liquid	OD		mm				
	gas	OD		mm				
	drain	OD		mm				
	piping length	max.	OU - IU	30		50		
	level difference	IU - OU	max.	m	15		30	
		IU - IU	max.	m				
	heat insulation				0.5			
	total piping length system actual			m				
Power supply	phase / frequency / voltage			Hz / V				
				1~ / 50 / 220-240				



Indoor unit  
FBQ100C



Wired remote control  
BRC1E51A



Outdoor unit  
RZQ100-140D9V1/B9W1



Daikin's unique position as a manufacturer of air conditioning equipment, compressors and refrigerants has led to its close involvement in environmental issues. For several years Daikin has had the intention to become a leader in the provision of products that have limited impact on the environment. This challenge demands the eco design and development of a wide range of products and an energy management system, resulting in energy conservation and a reduction of waste.



Daikin Europe N.V. participates in the Eurovent Certification programme for Air conditioners (AC), Liquid Chilling Packages (LCP) and Fan coil units (FCU). Check ongoing validity of certificate online: [www.eurovent-certification.com](http://www.eurovent-certification.com) or using: [www.certiflash.com](http://www.certiflash.com)

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