



A I R C O N D I T I O N I N G

Daikin air conditioners
for shops, restaurant and offices

ROUNDFLOW CEILING MOUNTED CASSETTE

R-410A



www.daikin.eu

FCQH-C



The new Daikin Sky Air Roundflow Cassette:

Daikin has renewed its Sky Air ceiling mounted cassette range with a new stylish, compact and unique Roundflow cassette series. The introduction of this new range marks a major step forward by Daikin in offering the market cassette solutions with improved performance over a wider range of applications.

The Roundflow cassette offers several improvements in various areas such as customer comfort, ease of installation and energy efficiency. Its 360° radial airflow pattern creates improved and uniform air distribution and reduces room temperature differentials, whilst its greater horizontal airflow ensures less draughts and keeps energy consumption to a minimum.

The unit is available in two series and an extensive range of sizes:

The Thin Body FCQ-C series represents a very low installation height solution for customers requiring a compact unit for use in false ceilings, whereas the High COP FCQH-C series offers extremely high energy savings for customers requiring top class energy levels. Both models incorporate a new and visually attractive decorative front panel in 'fresh white' (RAL 9010).



MAIN FEATURES

COMFORT

- Year round comfort results from 360° radial air discharge with:
 - uniform air flow distribution
 - uniform temperature distribution
- Less draughts and lower air velocities as a result of increased horizontal airflow
- A wide range of airflow patterns
- Fresh air intake increased to 20% (with the optional fresh air intake kit)
- Improved dehumidification
- Quiet in operation

ENERGY EFFICIENT

- Highest COP values (energy saving)
- Inverter technology

EASY INSTALLATION AND USAGE

- Low minimum installation height of 246 mm
- Light weight
- Standard connection to D3-net without the need of an adapter PCB
- Easy condensate drain check
- Available in an extensive range of sizes

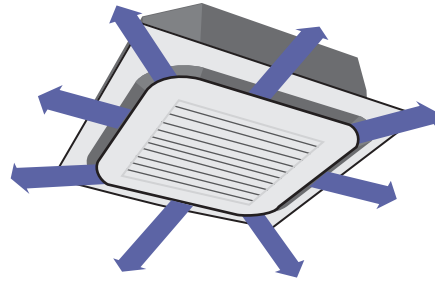
DESIGN

- New attractively finished decoration panel in 'fresh white' RAL9010 color
- New grille fixture that is less visible and has a better outlook

COMFORT

The Roundflow cassette creates a high level of comfort as a result of:

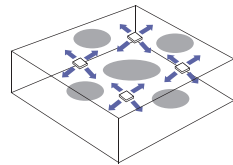
- *UNIFORM AIRFLOW*



- **360°** radial air distribution
- Greater **horizontal airflow** reducing draughts
- **Lower air velocities** result in less direct exposure to cool air draughts in occupied areas.

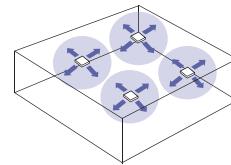
- *UNIFORM TEMPERATURE*

- **Air discharge from the corners avoids dead zones** that could be subject to temperature variations:



Standard 4-way blow cassette

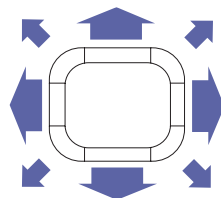
○ : 4-way blow has some dead spots in the operation



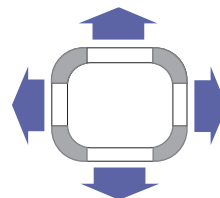
Roundflow cassette

360° radial round flow enables uniform air flow distribution

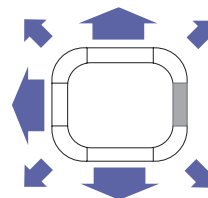
- Reduced temperature differentials create a more **uniform temperature** in all areas of the room
- Wide selection of **23 different airflow patterns** enables unit installation in corners or small rooms, whilst air discharge outlets can be closed off without detriment to comfort levels:
 - in 4-way flow the air volume is slightly decreased when the corners are closed off
 - in 3-way and 2-way flow the air is deflected slightly downwards



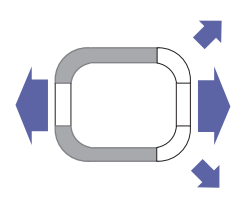
360° Round Flow



4-Way Flow



3-Way Flow



2-Way Flow

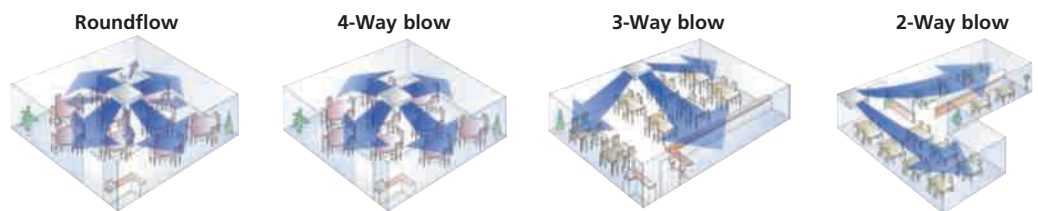
- Comfortable horizontal air discharge **reduces draughts and ceiling soiling**
- Special Daikin **dry program** reduces room humidity without variations in room temperature
- The Roundflow cassette is very **quiet in operation** with noise levels as low as 27dB (A), comparable to rustling leaves.
- Maximum **fresh air intake up to 20%** with use of fresh air intake kit (only 50mm thick)
- The indoor unit contains an **air filter**, which removes microscopic particles and dust

FLEXIBLE INSTALLATION AND EASY TO USE

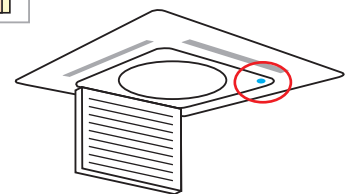
- Since the unit has a **low height** it fits flush into false ceilings.



- Easy Installation and maintenance because of the **overall light weight** of the unit. Minimum weight of 23kg.
- **Flaps can be shut off** with closure kits enabling the unit to be installed in the middle or corner of the room or in a small room.



- The **outdoor unit** can be installed on a roof or terrace or placed against an outside wall.
- Special **anti-corrosion treatment** of outdoor unit heat exchanger fins, gives increased resistance against acid rain and salt corrosion. Additional resistance is afforded by a rust proof steel sheet on the underside of the unit.



- Easy visible condensate drain check via the **clear drain socket** and **easily accessible drain plug position**. Checks can be carried out without removing the panel.
- **Standard connection to D3-net** without the need of an adapter PCB.
- Daikin **remote controls** provide easy finger tip control.
- The **wired remote control** is fitted with a schedule timer, enabling air conditioning to be programmed on a daily or weekly basis.
- The optional **remote ON/OFF** enables the air conditioning to be started/stopped from a mobile phone via a telephone remote control (field supply). The optional **forced OFF** enables the unit to be switched off automatically – when a window is opened for example, the unit switches off.

STYLISH DESIGN

The cassette's smooth and graceful modern lines, new and visually attractive **front decorative panel finished as standard in 'fresh white' (RAL9010) and less visible grille** add an air of studied elegance to its installations and enable it to blend with both traditional and contemporary white ceilings as well as virtually any form of room décor and furnishings.

ENERGY EFFICIENT

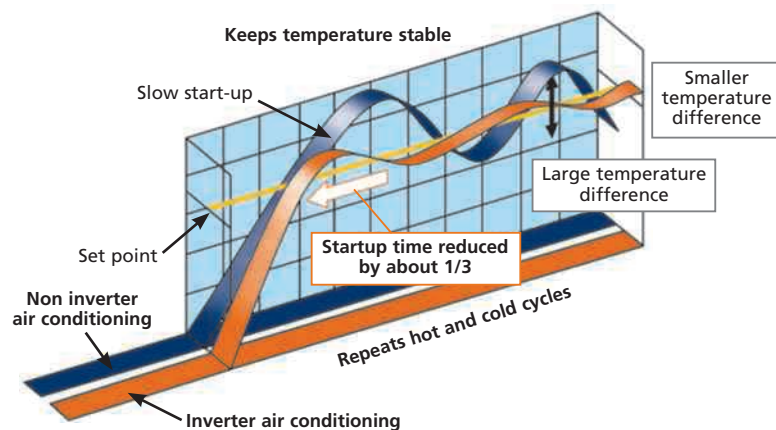
The High COP FCQH-C series offers **extremely high energy savings** for customers requiring top class energy levels. The unit has a very high output and one of the highest COP levels available. Its high energy efficiency results in a combination of extremely high performance and low energy consumption. Also, 360° air discharge reduces airflow and temperature differentials and contributes to energy saving by reducing excessive unit operating cycles.

- **Class A Energy Efficiency rating**

- **Inverter technology :**

1. Improved energy efficiency:

The use of integrated inverter control ensures maximum **energy efficiency** by matching heating or cooling load to demand, whereas a standard non inverter unit supplies maximum load purely on an on/off basis.



2. Improved comfort:

The rapid start up time provided by the inverter increases **comfort** by reducing the lead time in obtaining the required indoor temperature. Once the required temperature is reached, the inverter unit continuously scans the room for small changes and adjusts the room temperature in seconds in order to maintain room comfort.

- The **'home leave'** function button should be set when the occupant leaves the room for a lengthy period of time, such as a holiday. When the function is activated, the room temperature is automatically set to a minimum of 10°C, at which point all connected indoor units will switch to heating mode. The function ceases to operate when the room temperature reaches 15°C and should also be switched off when the occupant returns home.

APPLICATION OPTIONS

- This model can be used both in **cooling only or heating**.
- It is possible to use the indoor unit in **pair** (connecting one indoor to one outdoor) and **twin**.

Capacity and power input

HEAT PUMP - INVERTER CONTROLLED (air cooled)				FCQH71C	FCQH100C	FCQH125C	FCQH140C
				RZQ571BV3	RZQ5100BV3	RZQ5125CV1	RZQ5140CV1
Cooling capacity	nominal	kW	7.1	10.0	12.5	14.0	
Heating capacity	nominal	kW	8.0	11.2	14.0	16.0	
Nominal input	cooling	nominal	kW	2.36	3.56	3.88	4.98
	heating	nominal	kW	2.34	3.28	4.11	4.98
EER			3.01	2.81	3.22	2.81	
COP			3.42	3.41	3.41	3.21	
Energy label	cooling		B	C	A	C	
	heating		B	B	B	C	
Annual energy consumption	cooling	kWh	1180	1780	1940	2490	

HEAT PUMP - INVERTER CONTROLLED (air cooled)				FCQH71C	FCQH100C	FCQH100C	FCQH125C	FCQH140C	FCQH140C
				RZQ71BV3	RZQ100CV1	RZQ100BW1	RZQ125CV1	RZQ125BW1	RZQ140CV1
Cooling capacity	min ~ nom ~ max	kW	7.1 (nom)	10.0 (nom)	10.0 (nom)	12.5 (nom)	12.5 (nom)	14.0 (nom)	14.0 (nom)
Heating capacity	min ~ nom ~ max	kW	8.0 (nom)	11.2 (nom)	11.2 (nom)	14.0 (nom)	14.0 (nom)	16.0 (nom)	16.0 (nom)
Nominal input	cooling	nominal	kW	1.98	2.66	2.44	3.70	3.54	4.64
	heating	nominal	kW	1.97	2.55	2.56	3.57	3.59	4.43
EER			3.58	3.76	4.10	3.38	3.53	3.02	3.01
COP			4.06	4.39	4.38	3.92	3.90	3.61	3.54
Energy label	cooling		A	A	A	A	A	B	B
	heating		A	A	A	A	A	A	B
Annual energy consumption	cooling	kWh	990	1329	1220	1849	1770	2319	2325

Notes:

- 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)

TWIN/TRIPLE/DOUBLE TWIN APPLICATION	FCQH71C	FCQH100C	FCQH125C	FCQH140C
RZQ(S)71				
RZQ(S)100				
RZQ(S)125				
RZQ(S)140	2			

SPECIFICATIONS INDOOR UNITS

COOLING ONLY / HEAT PUMP				FCQH71C	FCQH100C	FCQH125C	FCQH140C	
Dimensions	HxWxD	unit	mm	246x840x840		288x840x840		
		decoration panel	mm			50x950x950		
Weight		unit	kg	23		25		
		decoration panel	kg			5.5		
Colour		decoration panel				Pure White (RAL 9010)		
Air flow rate	cooling	H/L	m ³ /min	20.0/12.0	32.5/18.0	32.5/21.5	32.5/21.5	
		H/L	m ³ /min	20.0/12.0	32.5/18.0	32.5/21.5	32.5/21.5	
Fresh Air	Max. fresh air intake		%	20.0	13.0	12.7	12.7	
			m ³ /min	4.3	4.3	4.3	4.3	
Fan speed			steps			2		
Sound pressure level	cooling	H/L	dB(A)	34/28	43/32	43/36	43/38	
		H/L	dB(A)	34/28	43/32	43/36	43/38	
Sound power level	cooling	H	dB(A)	52.0		60.0		
Piping connections		liquid	mm			9.52 (flare connection)		
		gas	mm			15.9 (flare connection)		
		drain (VP25)	ID mm				25	
			OD mm				32	
Heat insulation						Foamed Polystyrene / Foamed Polyethylene		

SPECIFICATIONS OUTDOOR UNITS

HEAT PUMP - INVERTER CONTROLLED				RZQS71BV3	RZQS100BV3	RZQS125CV1	RZQS140CV1
Dimensions	HxWxD	mm		770x900x320	770x900x320	1,170x900x320	1,170x900x320
Weight		kg		68	68	103	103
Casing colour				Ivory White	Ivory White	Ivory White	Ivory White
Sound pressure level (night quiet mode)	cooling	H/L	dB(A)	49 (43)	51 (45)	51 (49)	52 (50)
	heating	H/L	dB(A)	51	55	53.0	54.0
Sound power level	cooling	H	dB(A)	65	67	67	68
Compressor		type		Hermetically sealed swing type		Hermetically sealed scroll type	
Refrigerant type				R-410A	R-410A	R-410A	R-410A
Refrigerant charge		kg/m		2.80	2.80	3.70	3.70
Maximum piping length		m		30 (equiv. length 40)	50 (equiv. length 70)	50 (equiv. length 95)	50 (equiv. length 95)
Maximum level difference		m		15	30	30	30
Operation range	cooling	from ~ to	°CDB	-5 ~ 46	-5 ~ 46	-5 ~ 46	-5 ~ 46
	heating	from ~ to	°CWB	-15 ~ 15.5	-15 ~ 15.5	-15 ~ 15.5	-15 ~ 15.5

HEAT PUMP - INVERTER CONTROLLED				RZQ71B8V3	RZQ100CV1	RZQ100BW1	RZQ125CV1	RZQ125BW1	RZQ140CV1	RZQ140BW1
Dimensions	HxWxD	mm		770x900x320	1,170x900x320	1,345x900x320	1,170x900x320	1,345x900x320	1,170x900x320	1,345x900x320
Weight		kg		68	103	106	103	106	103	106
Casing colour				Ivory White	Ivory White	Ivory White	Ivory White	Ivory White	Ivory White	Ivory White
Sound pressure level (night quiet mode)	cooling	H/L	dB(A)	47 (43)	49 (45)	49 (45)	50 (45)	50 (45)	50 (46)	50 (45)
	heating	H/L	dB(A)	49	51	51	52	52	52	52
Sound power level	cooling	H	dB(A)	63	65	65	66	66	67	66
Compressor		type		Hermetically sealed swing type	Hermetically sealed scroll type	Hermetically sealed scroll type	Hermetically sealed scroll type	Hermetically sealed scroll type	Hermetically sealed scroll type	Hermetically sealed scroll type
Refrigerant type				R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Refrigerant charge		kg/m		2.8	3.7	4.3	3.7	4.3	3.7	4.3
Maximum piping length		m		50 (equiv. length 70)	75 (equiv. length 70)	75 (equiv. length 95)	75 (equiv. length 95)	75 (equiv. length 95)	75 (equiv. length 95)	75 (equiv. length 95)
Maximum level difference		m		30	30	30	30	30	30	30
Operation range	cooling	from ~ to	°CDB	-15 ~ 50	-15 ~ 50	-15 ~ 50	-15 ~ 50	-15 ~ 50	-15 ~ 50	-15 ~ 50
	heating	from ~ to	°CWB	-20 ~ 15.5	-20 ~ 15.5	-20 ~ 15.5	-20 ~ 15.5	-20 ~ 15.5	-20 ~ 15.5	-20 ~ 15.5

ACCESSORIES: CONTROL SYSTEMS

INDOOR UNITS	FCQH71C	FCQH100C	FCQH125C	FCQH140C
Wired remote control			BRC1D52	
Infrared remote control	cooling only		BRC7F533F	
	heat pump		BRC7F532F	
Centralised remote control			DCS302C51	
Unified ON/OFF control			DCS301B51	
Schedule timer			DST301B51	
Wiring adapter for electrical appendices			KRP1B57 / KRP4A53	
Wiring adapter (hour meter)			EKR1C11	
Installation box for adapter PCB			KRP1H98	
Remote ON/OFF			EKROR02	
Remote sensor			KRCS01-4	
Fixing box			KJB212A	

ACCESSORIES: INDOOR UNITS

INDOOR UNITS	FCQH71C	FCQH100C	FCQH125C	FCQH140C
Decoration panel			BYCQ140C	
Replacement long-life filter			KAFP551K160	
Fresh air intake kit (min. 20% fresh air)			KDDQ55C140	
Sealing member of air discharge outlet			KDBHQ55C140	



ACCESSORIES: OUTDOOR UNITS

OUTDOOR UNITS	RZQ(S)71B	RZQ(S)100B/C	RZQ(S)125B/C	RZQ(S)140B/C	RZQ200C	RZQ250C
Central drain plug		KKP5F180			KWC26B280	
Refrigerant branch piping	for twin	KHRQ22M20TA (KHRQ58T) (1)			KHRQ22M20TA	
Demand adapter kit		KRP58M51			KRP58M51	

Notes:

1) For RZQ100-140BW1 in combination with FCQH71C, use the refrigerant branch piping mentioned between brackets.

Note:

- 1) V1 = 1~, 230V, 50Hz; VM = 1~, 220-240V/220-230V, 50Hz/60Hz; V3 = 1~, 230V, 50Hz
- 2) Nominal cooling capacities are based on: indoor temperature 27°CDB/19°CWB • outdoor temperature 35°CDB • refrigerant piping length 7.5m • level difference 0m.
- 3) Nominal heating capacities are based on: indoor temperature 20°CDB • outdoor temperature 7°CDB/6°CWB • refrigerant piping length 7.5m • level difference 0m.
- 4) Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.
- 5) Units should be selected on nominal capacity. Max. capacity is limited to peak periods.
- 6) The sound pressure level is measured via a microphone at a certain distance from the unit (for measuring conditions: please refer to the technical databooks).
- 7) The sound power is an absolute value indicating the "power" which a sound source generates.



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. is approved by LRQA for its Quality Management System in accordance with the ISO9001 standard. ISO9001 pertains to quality assurance regarding design, development, manufacturing as well as to services related to the product.



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



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. Multi units are Eurovent certified for combinations up to 2 indoor units.

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