



CO₂ VRV The low GWP solution



Daikin, your partner in decarbonising your building

We're there for you!

Let's act now to decarbonise buildings, creating a healthy environment for generations to come.



Every building requires a different solution to match its unique properties. That's why it is important to have an HVAC-R partner with expert knowledge and a product portfolio designed to achieve your objectives while staying within budget.

How will Daikin enable you to lower your carbon footprint?

- We continuously develop products with lower CO₂ footprints by using **lower GWP refrigerants** such as R-32, CO₂ etc.
- We reuse materials where possible, even refrigerants through the **LOOP by Daikin programme** aimed at reusing available resources and fully supporting the EU circular economy
- We maximise **real life seasonal efficiencies**, delivered in a transparent and trustworthy way
- Our **team of experts goes beyond product support** to reach your green objectives by providing in-depth knowledge in the use of EPDs, EPDB legislation and green building schemes such as BREEAM, LEED, WELL, etc.
- Via our **Daikin Cloud Plus**, we continuously monitor **our systems**, ensuring they operate as intended, keeping running costs low and maximising uptime.
- We **help customers make the right choice** by offering easy to use tools to select the best solutions for their residential, commercial or industrial building

Contact us here: https://www.daikin.eu/en_us/about/environmental-responsibility/epd.html

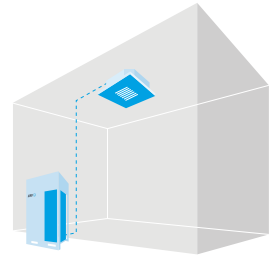


Benefits of CO₂

- Using so-called natural refrigerant CO₂
- Low GWP value of 1, making it one of the most sustainable refrigerants
- Classified as non-flammable (A1), simplifying system design

Benefits of CO₂ VRV

- Enabling you to tackle projects requesting so-called “natural” refrigerants
- Maximise your BREEAM / LEED refrigerant score, thanks to the low GWP of 1
 - BREEAM V7: 3 of 3 credits in Pollution 01
 - LEED V5: 2 of 2 points in Enhanced Refrigerant Management
- Incorporates all typical VRV benefits
 - Quick and easy to design and install
 - Precise zone control with quick response to changing load
 - Connectable to Daikin’s latest controllers such as Daikin Cloud Plus



CO₂ VRV installation example for supermarket




CO₂ VRV outdoor unit overview

Capacity class (HP)

Model		10
Cooling Capacity		28.0
Heating Capacity		31.5
<p>Air-cooled heat pump</p> <p>NEW CO₂ VRV</p> <ul style="list-style-type: none"> The low GWP solution Using so-called natural refrigerant CO₂ Low GWP of 1 Non-flammable (A1) refrigerant 	 <p>RXYN-B</p>	•

CO₂ VRV indoor unit overview

Capacity class

Type	Model	Product name	40	50	63	80
Ceiling mounted cassette	<p>NEW Round flow cassette</p> <ul style="list-style-type: none"> 360° air discharge for optimum efficiency and comfort Auto cleaning function ensures high efficiency Intelligent sensors save energy and maximise comfort Flexibility to suit every room layout Widest choice ever in decoration panel designs and colors 	 <p>FXFN-B</p> 	•	•	•	•
Concealed ceiling	<p>NEW Concealed ceiling unit with medium ESP</p> <ul style="list-style-type: none"> Slimmest yet most powerful medium static pressure unit on the market! Slimmest unit in class, only 245mm Low operating sound level Medium external static pressure up to 120Pa facilitates using flexible ducts of varying lengths Automatic air flow adjustment function measures the air volume and static pressure and adjusts it towards the nominal air flow, guaranteeing comfort 	<p>FXSN-B</p> 	•	•	•	•
Cooling capacity (kW) ¹			4.5	5.6	7.1	9.0
Heating capacity (kW) ²			5.0	6.3	8.0	10.0

(1) Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 35°CDB, equivalent refrigerant piping: 5m, level difference: 0m
 (2) Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m



CO₂ VRV

The low GWP solution

- Using the so-called natural refrigerant CO₂ (R-744)
- With a low GWP of 1, CO₂ is one of the most sustainable refrigerants
- Non-flammable (A1) refrigerant, simplifying system design
- Incorporates all typical VRV benefits: quick and easy to design and install, precise zone control with quick response to changing load



RXYN10B

Access all technical data here:



RXYN-B

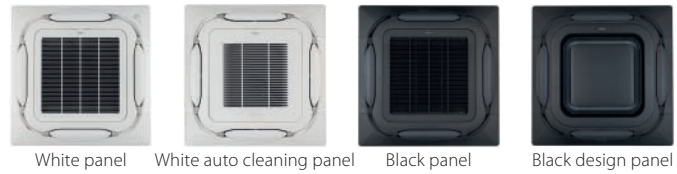
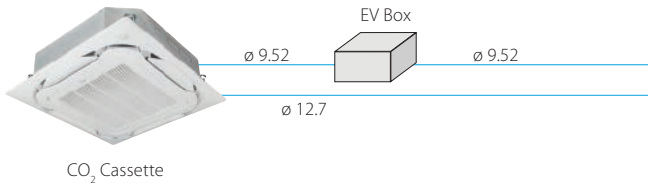


Outdoor unit		RXYN-B	10B
Capacity range		HP	10
Cooling capacity	Prated,c	kW	28.0
Heating capacity	Prated, h	kW	28.0
	Max.	kW	31.5
Recommended combination			4x FXFN63B
ηs,c		%	189.2
ηs,h		%	137.1
SEER			4.8
SCOP			3.5
Maximum number of connectable indoor units			8
Indoor index connection	Min.		125
	Max.		325
Dimensions	HxWxD	mm	1,680x1,930x765
Weight		kg	564
Sound power level	Cooling	dB(A)	83.5
	Heating	dB(A)	83.5
Sound pressure level	Cooling	dB(A)	61
Operation range	Cooling	Min °C °CDB	-5~43
	Heating	Max °C °CWB	-20~15.5
Refrigerant	Type/GWP		R744/1
	Charge	tCO ₂ eq/ kg	kg
Piping connections	Liquid OD	mm	9.52
	Gas OD	mm	15.9
	Tot. pip. length	Sys. actual	m
Power supply	Phase/Freq./ Voltage	Hz/V	3N~/50/380~415
Current - 50Hz	Max. fuse amps (MFA)	A	40

Round flow cassette

360° air discharge for optimum efficiency and comfort

- Optimised design for CO₂ refrigerant (R-744)
- Optional automatic filter cleaning panel results in higher efficiency & comfort and lower maintenance costs
- Two optional intelligent sensors improve energy efficiency and comfort
- Widest choice ever in decoration panels: designer panels in white (RAL9010) and black (RAL9005) and standard panels in white (RAL9010) with grey louvers or full white
- Bigger flaps and unique swing pattern improve equal air distribution
- Individual flap control: flexibility to suit every room layout without changing the location of the unit!
- Optional fresh air intake
- Standard drain pump with 675mm lift increases flexibility and installation speed



Access all technical data here:



FXFN-B

Indoor Unit		FXFN	40B	50B	63B	80B
Cooling capacity	Total capacity		4.5	5.6	7.1	9
	At high fan speed					
Heating capacity	Total capacity		5	6.3	8	10
	At high fan speed					
Power input - 50Hz	Cooling		0.019	0.036	0.067	0.118
	At high fan speed					
Heating	At high fan speed		0.019	0.036	0.067	0.118
Dimensions	Unit		246x840x840			288x840x840
Weight	Unit		26			29
Casing	Material		Galvanised steel plate			
Decoration panel	Model		Standard panels: BYCQ140E2W1 - white with grey louvers / BYCQ140E2W1W - full white / BYCQ140E2W1B - black Auto cleaning panels: BYCQ140E2GFW1 - white / BYCQ140E2GFW1B - black Designer panels: BYCQ140E2P - white / BYCQ140E2PB - black			
	Dimensions	HeightxWidthxDepth		Standard panels: 65x950x950 / Auto cleaning panels: 148x950x950 / Designer panels: 106x950x950		
Fan	Weight		Standard panels: 5.5 / Auto cleaning panels: 10.3 / Designer panels: 6.5			
	Air flow	Cooling - at high fan speed	15.5	21	26.8	35.5
Air filter	Type		Resinnet			
	Sound power level	Cooling At high fan speed	53	57	62	66
Sound pressure level	Cooling	At high fan speed	35	39	44	48
	Heating	At high fan speed	36	40	45	49
Refrigerant	Type/GWP		R-744 / 1			
Piping connections	Liquid	OD	9.52			
	Gas	OD	12.7			
	Drain		VP20 (I.D. 20/O.D. 26), drain height 675 mm			
Power supply	Phase/Frequency/Voltage		1~/50/60/220-240/220			
Current - 50Hz	Maximum fuse amps (MFA)		6			
Control systems	Infrared remote control		BRC7FA532F / BRC7FB532F / BRC7FA532FB / BRC7FB532FB			
	Wired remote control		BRC1H52W7/S7/K7			
Specifications		BEV2N-A	BEV2N112A7V1B			
Power supply			1~, 50/60Hz, 220~240/220V			
Dimension	Height	mm	207			
	Wide	mm	388			
	Depth	mm	326			
Mass	Unit	kg	12 (Tentative)			
Refrigerant Type			R744 (CO ₂)			
Piping connections	Liquid	Type	Brazing			
		OD	ø 9.52			

Concealed ceiling unit with medium ESP

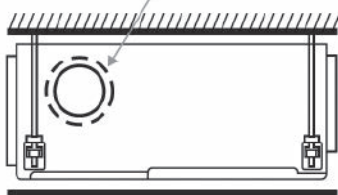
Slimmest yet most powerful medium static pressure unit on the market

- Optimised design for CO₂ refrigerant (R-744)
- Slimmest unit in class, only 245mm (300mm built-in height) and therefore narrow ceiling voids are no longer a challenge



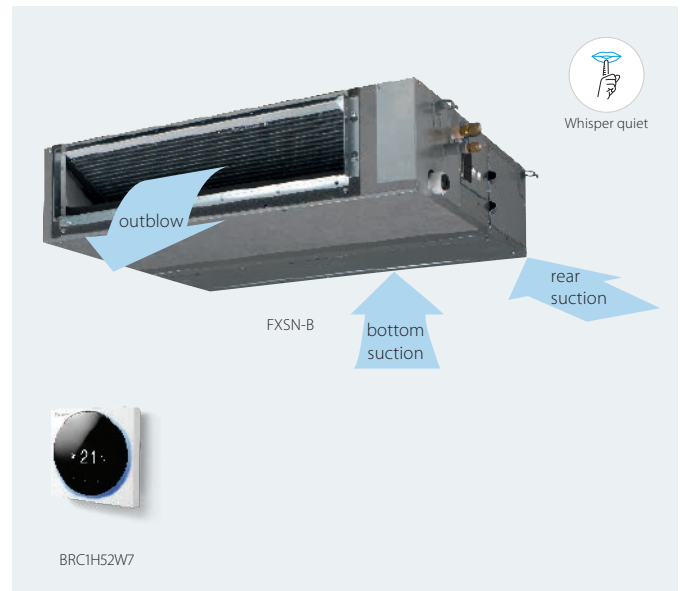
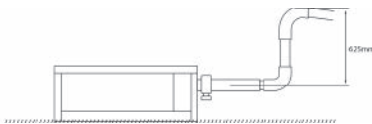
- Medium external static pressure up to 120Pa facilitates using flexible ducts of varying lengths
- Possibility to change ESP via wired remote control allows optimisation of the supply air volume
- Discretely concealed in the wall: only the suction and discharge grilles are visible
- Optional fresh air intake
- Fresh air intake integrated in the same system thus reducing installation cost as no additional ventilation device is required
- Standard built-in drain pump with 625mm lift increases flexibility and installation speed

Fresh air intake opening in casing
Fresh air intake position



* Brings in up to 10% of fresh air into the room

- Standard built-in drain pump with 625mm lift increases flexibility and installation speed

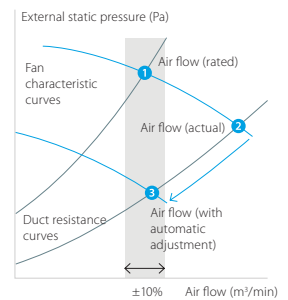


Automatic Airflow Adjustment function

Automatically selects the most appropriate fan curve to achieve the units' nominal air flow within ±10%

Why?

After installation the real ducting will frequently differ from the initially calculated air flow resistance * the real air flow may be much lower or higher than nominal, leading to a lack of capacity or uncomfortable air temperature Automatic Airflow Adjustment function will adapt the unit's fan speed to any ducting automatically (10 or more fan curves are available on every model), making installation much faster



Access all technical data here:



FXSN-B



Indoor Unit		FXSN	40B	50B	63B	80B	
Cooling capacity	Total capacity		4.5	5.6	7.1	9	
	At high fan speed	kW	5	6.3	8	10	
Heating capacity	Total capacity		0.128	0.165	0.148	0.279	
	At high fan speed	kW	0.128	0.179	0.16	0.313	
Power input - 50Hz	Cooling						
	Heating						
Dimensions	Unit	HeightxWidthxDpeth	245x1,000x800		245x1,400x800		
	Weight	Unit	40		50		
Casing	Material		Galvanised steel plate				
	Fan						
Air flow	Cooling - at high fan speed	m ³ /min	23	25	29.4	37.6	
	rate - 50Hz Heating - at high fan speed	m ³ /min	23	27	31.9	41.8	
External static pressure - 50Hz	Factory set / High	Pa	30/120		40/120		
	Air filter	Type	Resin net				
Sound power level	Cooling	At high fan speed	dBA	61	63	61	66
	Sound pressure level	Cooling	At high fan speed	dBA	39	41	39
Heating		At high fan speed	dBA	41	44	44	48
Refrigerant	Type/GWP		R-744 / 1				
Piping connections	Liquid	OD	mm				
	Gas	OD	mm				
	Drain		VP20 (I.D. 20/O.D. 26), drain height 625 mm				
Power supply	Phase/Frequency/Voltage	Hz/V	1~/50/60/220-240/220				
Current - 50Hz	Maximum fuse amps (MFA)	A	16				
Control systems	Infrared remote control		BRC4C65				
	Wired remote control		BRC1H52W7/S7/K7				



VRV

Remain at the forefront of the HVAC market with Daikin VRV

Offering flexible, easy to install heat pumps, supporting decarbonisation

R-744

CO₂ VRV

Our CO₂ VRV

- Using HFC free refrigerant CO₂ (R-744)
- With a low GWP of 1, making it one of the most sustainable refrigerants
- Enabling you to tackle projects requesting so called “natural” refrigerants

R-32

VRV 5

Our leading VRV 5 portfolio

- Unparalleled range, offering an R-32 system for every VRV application
- Top sustainability over the entire lifecycle
- Enabling you to decarbonise any building in an easy way, already today

R-410A

VRV IV⁺

Daikin Europe N.V. Naamloze Vennootschap Zandvoordestraat 300 · 8400 Oostende · Belgium · www.daikin.eu · BE 0412 120 336 · RPR Oostende (Responsible Editor)

The present publication is drawn up by way of information only and does not constitute an offer binding upon Daikin Europe N.V. Daikin Europe N.V. has compiled the content of this publication to the best of its knowledge. No express or implied warranty is given for the completeness, accuracy, reliability or fitness for particular purpose of its content and the products and services presented therein. Specifications are subject to change without prior notice. Daikin Europe N.V. explicitly rejects any liability for any direct or indirect damage, in the broadest sense, arising from or related to the use and/or interpretation of this publication. All content is copyrighted by Daikin Europe N.V.

ECPEN25-201

02/25

