## CO, Conveni-Pack refrigeration system with heat recovery

#### Refrigeration solution for food retailers featuring award winning technology for heat recovery

- > Integrates high and low temperature refrigeration and air conditioning (including heating) into one system
- > By using heat recovery, optimised controls and state of the art compressor technology, Conveni-pack can reduce annual energy consumption up to 50% or more, compared to conventional systems
- > Lower associated CO<sub>2</sub> emissions thanks to the heat pump technology
- > Conveni-pack's modular design allows it to be used for smaller as well as larger shops
- > The modularity of the Conveni-pack system maximises installation flexibility. Outdoor units can be grouped into blocks or rows, or distributed around the building, to meet individual installation constraints
- > The heat extracted from the refrigeration showcases or evaporators can be re-used for comfort heating of the shop at no extra cost
- > Low sound level including "night mode" operation

I RYEN-AY1



More details and final information can be found by scanning or clicking the QR codes.

Medium Temper Cooling Only, He		geration,	LRYEN	10AY1
Parameters at par	t load and a	mbient temp. 25°C (Point B)		
Parameters at par	t load and a	mbient temp. 25°C (Point B)		
Dimensions	Unit	HeightxWidthxDepth	mm	1,680x1,930x765
Weight	Unit		kg	563
Heat exchanger	Type			Cross fin coil
Compressor	Туре			Hermetically sealed swing compressor
	Output		W	4,600.0
	Piston dis	placement	m³/h	6.16
	Starting method			Direct on line (inverter driven)
Fan	Туре			Propeller fan
	Quantity			3
	Air flow rate	Cooling Nom.	m³/min	300
Fan motor	Output		W	750
Sound pressure level	Nom.		dBA	64.0
Refrigerant	GWP			1.0
	Type 2			R-744
	Charge		kg	6.30
	Control			Electronic expansion valve
Power supply	Phase/Fre	quency/Voltage	Hz/V	3N~/50/380-415





### **(INVERTER)**



#### LRNUN-AY1

#### (INVERTER)



# Capacity-up module for CO<sub>2</sub> Conveni-Pack

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More details and final information







EXISTING SHOP AREA
3 kW 3 kW
4,0 kW 4,5 kW 8,5 kW of New Refrigeration added, Q-up installed to existing CO <sub>2</sub> CVP for additional capacity

Model	Refrigeration Capacity*	HR Capacity		Model	Refrigeration Capacity*	HR Capacity
DAIKIN CO <sub>2</sub> CVP AC10 <sup>2</sup>	3 - 14.5 kW	22 kW	Q-up can also easily be added later, as part of a system upgrade	DAIKIN CO <sub>2</sub> CVP AC10 + Q-up	3- 21 kW	22 kW

\* Refrigeration capacity given under following conditions: Te = -10°C, 10 K SH and ambient = 32°C

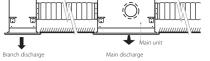
<b>Medium Temper</b>	ature Refrigerat	ion	LRNUN	5AY1
Parameters at par	t load and ambie	nt temp. 25°C (Point B)		
Parameters at par	t load and ambie	nt temp. 25°C (Point B)		
Dimensions	Unit Hei	ghtxWidthxDepth	mm	1,680x635x765
Weight	Unit		kg	173
Heat exchanger	Туре			Cross fin coil
Compressor	Туре			Hermetically sealed swing compressor
	Output		W	4,600.0
	Piston displace	ement	m³/h	6.16
	Starting metho	bd		Direct on line (inverter driven)
Fan	Туре			Propeller fan
	Quantity			1
	Air flow Coo rate	oling Nom.	m³/min	102
Fan motor	Output		W	350
Sound pressure level	Nom.		dBA	65.0 (1)
Refrigerant	GWP			1.0
-	Type 2			R-744
	Charge		kg	3.20
	Control			Electronic expansion valve
Power supply	Phase/Frequer	ncy/Voltage	Hz/V	3N~/50/380-415

(1)LRYENIOA771+LRNUN5A771 | Compressor 1 | Compressor 2 | Compressor 3 | Factory charge of unit | Only K65 with D.P. 120 bar is allowed to use for AC piping connections. | The safety valve pressure is indicated as gauge pressure. | Only K65 with D.P. 90 bar is allowed to use for refrigeration piping.

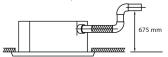
## CO<sub>2</sub> Round Flow Cassette

#### 360° air discharge for optimum efficiency and comfort

- > Automatic filter cleaning 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!
- > Lowest installation height in the market: 214mm for class 20-63
- > Optional fresh air intake
- > Branch duct discharge allows to optimize air distribution in
- irregular shaped rooms or to supply air to small adjacent rooms



 Standard drain pump with 675mm lift increases flexibility and installation speed





Round flow cassette panel (7 types) Daikinflow cassette with 360° Airflow, wide flaps and optional intelligent sensors

#### 1) Standard Panel (White & Black)



#### 2) Auto-cleaning Panel (White & Black)



#### 3) Designer Panel (White & Black)





More details and final information can be found by scanning or clicking the QR codes.

			F	XFN-A	50	71	112
Capacity (H tap)	Cooling	Nom.		kW	5.6	8.0	12.5
	Heating	Nom.		kW	6.3	9.0	14.0
Dimensions	Unit	HeightxWid	thxDepth	mm	246x84	ł0x840	288x840x840
Weight	Unit	gross		kg	2	9	32
		net		kg	2	6	29
Fan	Туре					Turbo fan	
	Quantity				1		
Air flow rate	Cooling/h	eating h	igh/medium/low	m³/h	15.5/12.8/10.7	23.2/19.4/13.8	32.7/27.6/20.6
Fan motor	Output			W			
Sound power level	Cooling			dBA	53	58	63
Sound pressure	Cooling	high/mediu	m/low	dBA	35/33/31 (4)	40/36/33 (4)	46/43/38 (4)
level	Heating	high/mediu	m/low	dBA	36/34/31 (1)(4)	41/37/33 (1)(4)	47/44/39 (1)(4)
Piping connection	Brazing type Liquid mm		9.52				
			Gas	mm		12.7	
Operation range	Indoor Cooling			°C(WB)	14~24 (2)		
		Heating		°C(WB)		15~27	
Refrigerant	Туре					R744	
Power supply	Phase/Frequency/Voltage Hz/V			Hz/V	1~50/60Hz 220~240/220V		

 Power supply
 Phase/Frequency/Voltage
 Hz/V
 1~50/60Hz 220~240/220V

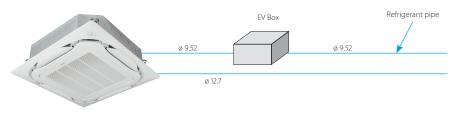
 (1) Update of sound pressure level in heating on 2.32020 bases on test results (for 71 and 112 class) | (2) update of Cooling max (25 -> 24°C) operation range on 2.32020 based on test result | (3) The panel lineup is the same as the existing machine lineup | (4) Sound of designer panel: +3dB

## Expansion valve box

#### EV Box

- > EV Box is the unit which include EV & Control
- $^{\rm >}$  1 unit of EV box must be used toghether with 1 unit of  $\rm CO_{_2}$  Cassette.





CO<sub>2</sub> Cassette

#### Combination with Cassette Indoor unit

Cassette indoor unit EV Box	FXFN50A2VEB	FXFN71A2VEB	FXFN112A2VEB
BEV2N112A7V1B	$\checkmark$	✓	✓

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 <sub>2</sub> )
Piping connections Liquid	Туре		Brazing
	OD	mm	ø 9.52

# Concealed ceiling unit with medium ESP for CO<sub>2</sub> Conveni-pack

To respond to all shop requirements for comfort cooling and heating, a wide range of air conditioning indoor units are available

 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 150Pa 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
- Multi zoning kit allows multiple individually-controlled climate zones to be served by one indoor unit
- Reduced energy consumption thanks to specially developed DC fan motor and drain pump
- > Optional fresh air intake

Fresh air intake opening in casing





Optional fresh air intake kit

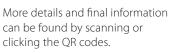
- \* Brings in up to 10% of fresh air into \* Allow larger qui the room be brought in
- Flexible installation: air suction direction can be altered from rear to bottom suction and choice between free use or connection to optional suction grilles



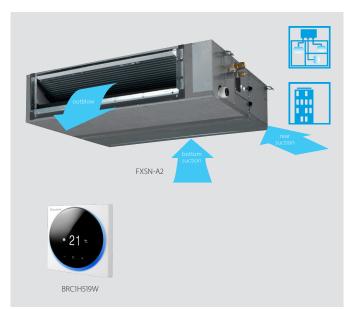
or free use into a falseceiling



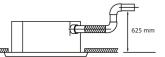
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Indoor unit				FXSN	50A2	71A2	112A2
Cooling capacity	Total capacity	Nom.		kW	5.60	8.00	12.50
Heating capacity	Total capacity	Nom.		kW	6.30	9.00	14.0
Power input - 50Hz	Cooling	Nom.		kW	0.186	0.258	0.388
	Heating	Nom.		kW	0.181	0.253	0.383
Dimensions	Unit	HeightxW	/idthxDepth	mm	245x700x800	245x1,000x800	245x1,400x800
Weight	Unit			kg	31.0	40.0	50.0
Casing	Material					Galvanised steel plate	
Fan	Air flow rate	Cooling	High / Medium / Lo	ow m³/min	15.2 / 13.0 / 11.0	23.0 / 19.5 / 16.0	36.0 / 31.5 / 26.0
	- 50Hz	Heating	High / Medium / Lo	ow m³/min	15.2 / 13.0 / 11.0	23.0 / 19.5 / 16.0	36.0 / 31.5 / 26.0
	External static pressure - 50Hz		et / High	Pa	30 / 150	40 / 150	50 / 150
Air filter	Туре					Resin net	
Sound power level	Cooling	At high fa	n speed	dBA	61	63	66
Sound pressure	Cooling	High / Me	dium / Low	dBA	36.0 / 33.0 / 31.0	37.0 / 34.0 / 32.0	40.0 / 38.0 / 34.0
level	Heating	High / Me	dium / Low	dBA	38.0 / 35.0 / 32.0	39.0 / 36.0 / 33.0	42.0 / 40.0 / 38.0
Refrigerant	Type/GWP				R-744/1.0		
Piping connections	Liquid OD mm			mm	9.52		
	Gas	OD		mm		12.7	
	Drain				VP20 (I.D. 20/O.D. 26), drain height 625 mm		
Power supply	Phase/Frequency/Voltage Hz/V			Hz/V	1~/50/60/220-240/220		
Current - 50Hz	Maximum	fuse amps	(MFA)	A	16		
Control systems	Infrared re	mote cont	rol		BRC4C65 / BRC4C66		
	Wired remote control				BRC1H52W/S/K		



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

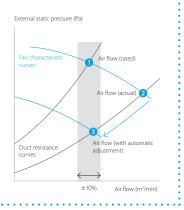


#### Automatic Airflow

 $\begin{array}{l} \mbox{Adjustment function} \\ \mbox{Automatically selects the most} \\ \mbox{appropriate fan curve to achieve the} \\ \mbox{unts' nominal air flow within $\pm 10\%$} \end{array}$ 

#### 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





### Modbus communication kit

The Daikin Modbus Communication Interface lets you fully integrate Daikin ZEAS and Daikin CO<sub>2</sub> Conveni-Pack systems with building control automation networks and other monitoring systems.

The interface allows you to read all the operational parameters and control important values using the Modbus protocol on refrigeration and comfort side. This unifying component transforms CO<sub>2</sub> Conveni-Pack into a transparent, customisable refrigeration unit and means that you can create object-specific and energyoptimised shop concepts, including remote monitoring application.

Pro interfaces can be used to connect up to 7  $\rm CO_{_2}$  Conveni-Pack units.

More details and final information can be found by scanning or clicking the QR codes.



BRR9B1V1



