



Cutting-edge technology
inspired by local needs



FDMF Series

R-32

DRIVING OUR
GREEN VISION



INVERTER

Independently Tested by
Intertek



Daikin **INVERTER** Concealed Ceiling Units



An invisible improvement for any space to reduce energy use

DAIKIN. Everything you ever wanted in Air Conditioning

Driven by the belief that customers are buying quality, Daikin strives to stay ahead of consumer needs by providing high-quality products with superior performances, energy efficiency, and comfort in stylish solutions conforming to all interior spaces and lifestyles.

At the forefront of energy efficiency, Daikin has designed a new inverter concealed ceiling unit, using the low GWP* and Zero ODP** refrigerant R-32, which will allow owners to reduce their energy bill all year round. This new series combines the most advanced technologies.

Inverter technology helps substantially to reduce energy bill, while maintaining the highest level of comfort. Start-up time is reduced, and temperature is always maintained stable, unlike other non inverter air conditioners.

Using efficient systems will result in lower electricity bills but also in lesser load to be applied on the generator as power input is being minimized.

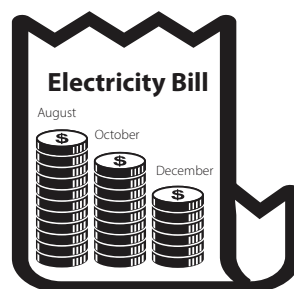
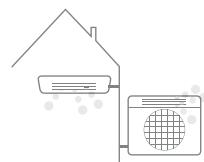
Think Smart; Think Green; Think Daikin Inverter

Benefits of INVERTER at a glance

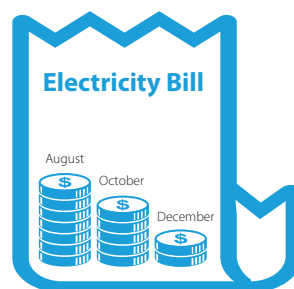
- Energy saving all the year round, for a lower electricity bill and
- Lower carbon footprint
- Lower starting current
- Powerful cooling
- Quieter operation
- Longer lifetime

Notes:
*GWP: Global Warming Potential
**ODP: Ozone Depletion Potential

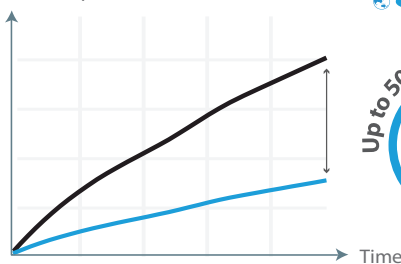
With Non Inverter



With **INVERTER**



Accumulated energy consumption

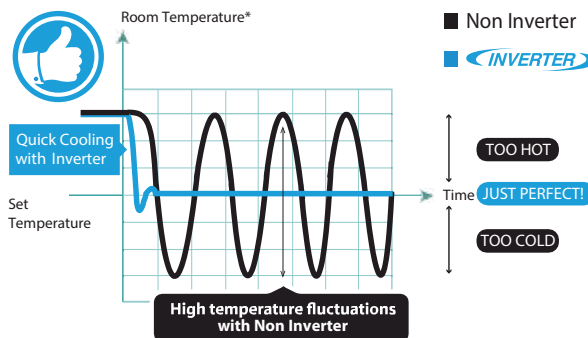


Non Inverter
INVERTER



With Daikin Inverter, produce what you need when you need and save on your electricity bill!

With Daikin Inverter, comfortable temperature, all year round



* Cooling mode



Main Features

Daikin's FDMF series, by combining the best available technologies, runs quieter, cools faster and saves more than conventional air conditioner. It is designed to deliver a comfortable living environment for longer periods of time. This new series incorporates a lot of exceptional features for an unrivaled, efficient and reliable comfort.

Powerful and Efficient Cooling

R-32

R-32 Refrigerant

Unlike R-22, R-32 has no ozone depletion potential for a reduced impact on the environment. This next-generation refrigerant has a heat transfer rate that is 1.5 times higher than R-410A and a GWP of 675, which is about one third of R-410A. It can contribute to reduce eq. CO₂ emissions of up to 72% against R-410A.



INVERTER

Inverter Technology

Daikin units are conceived to offer powerful cooling to quickly cool down the room. The system has been designed for optimum nominal efficiency, with an EER reaching up to 13.00 Btu/W, and an exceptional seasonal energy efficiency, in line with real life operating conditions in the Middle East. Using efficient systems will simply result in lower electricity bills.



Certified Performance

Daikin units offer excellent nominal and peak efficiency, exceeding the most stringent regulations. Its performances are certified for capacity and efficiency at 35/46/48 CDB!

The excellent cooling performance is the outcome of the combination of the extremely efficient Daikin-patented inverter swing compressor with the optimal heat transfer from the heat exchanger using R-32 refrigerant. Inverter technology helps to substantially reduce energy bill, while maintaining the highest level of comfort with a reduced start-up time, and the ability of maintaining a stable temperature at all times, making the inverter comfort unrivaled.

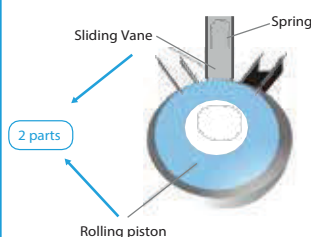
With Daikin inverter, you will experience **a new era of smart comfort.**

Exclusive Daikin Inverter Swing Compressor

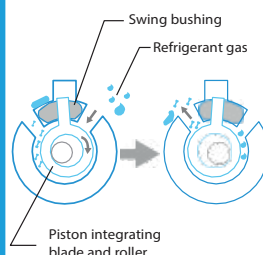
On small capacity units, most manufacturers use a standard rotary compressor but Daikin improved this technology with its exclusive swing inverter compressor. This change makes a huge difference in how quiet and efficient the system operates. The unique Daikin swing compressor prevents the leakage of gas refrigerant from the high pressure to low pressure side and effectively improves the compression efficiency. It will ensure less noise, less wear and tear and above all high energy efficiency.



ROTARY COMPRESSOR



DAIKIN SWING COMPRESSOR



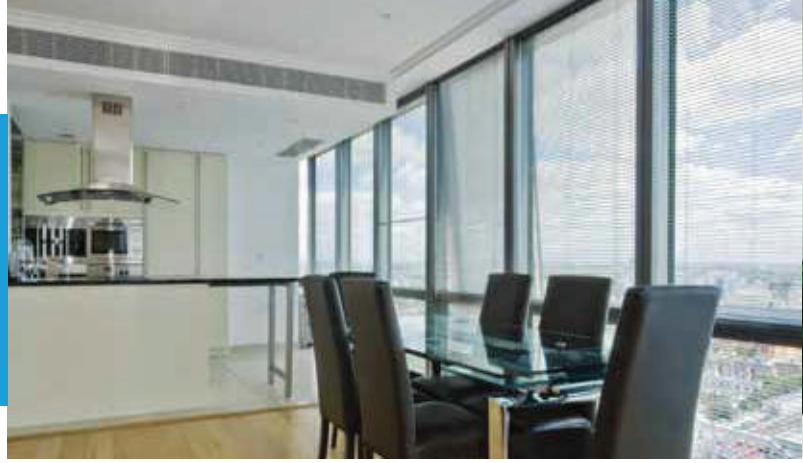
1 part only

ONLY BY DAIKIN

Main benefits at a glance

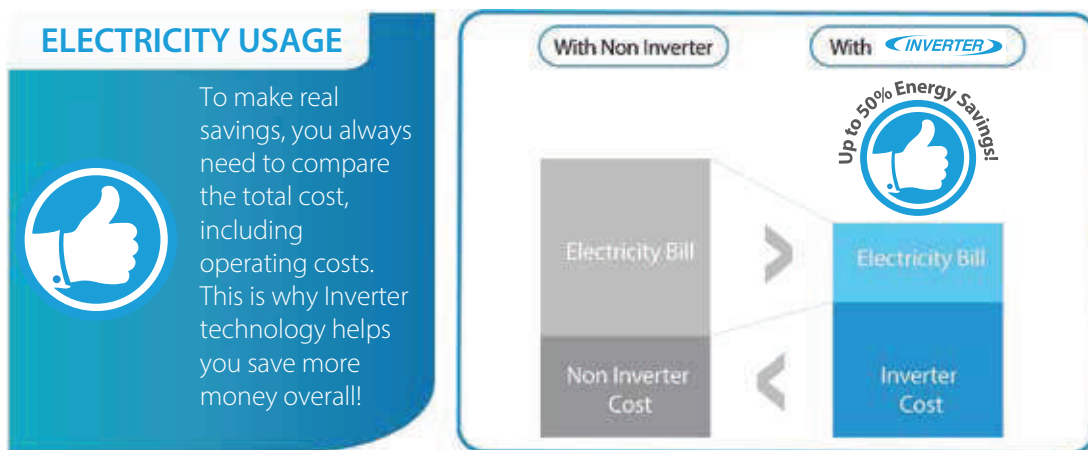
- Less refrigerant leakage
- Less noise
- Less wear and tear for longer lifetime
- Higher efficiency

Main Features



A Real Economical and Sustainable Solution

The inverter technology will lower the energy consumption of the air conditioner down to 50% compared to traditional systems. Using efficient systems will result in lower consumption; therefore, lower electricity bills!



Powerful and Flexible Cooling



Greatest flexibility for installation

Daikin units are designed to offer the greatest flexibility for installation with guaranteed performances.

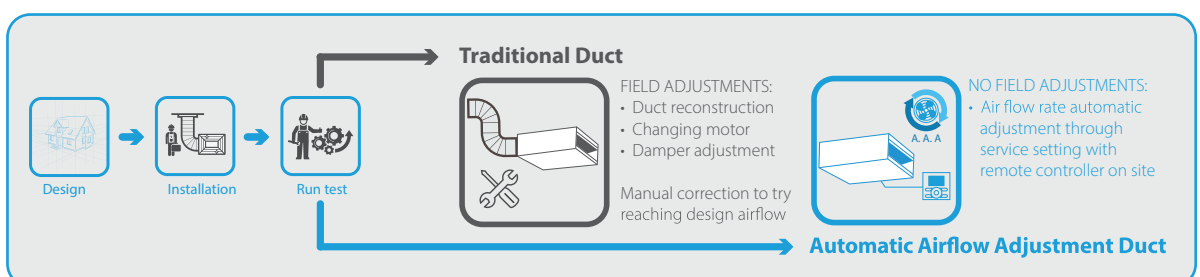
- Wide range of available static pressures, 30 to 100 Pa, in a compact design casing allows high flexibility in design, such as long ducting or multi-zone applications.
- Extended piping lengths allow high flexibility in design by covering long piping run applications; up to 30 meters height difference!
- Bottom & rear suction allow installation both at low depth and low height ceiling voids
- Compact yet powerful casing: unit height is only 300mm and can be installed in any location



Unique Auto Airflow Adjustment

This unique Daikin feature simplifies the commissioning as the fan curve will adjust automatically to suit the duct design; balancing of dampers is no longer required!* This function will compare the actual duct resistance to the calculated resistance at time of design, and check the actual airflow and then set a point close to the rated airflow (+/- 10%).

* Please follow the instructions in the installation and operation manual.





Main Features



Greatest flexibility for control

Individual or centralized control is possible on the new Daikin FDMF series using the latest advanced technologies.

- Perfect control over your individual climate with the elegant and award-winning Madoka controller. A minimalistic touch button controller with Bluetooth Low Energy (BLE) connectivity, Madoka features three navigational buttons and a clutter-free display. Comfort is guaranteed in the most intuitive way imaginable. Advanced functions are available through the Madoka Assistant application. **The controller comes with two color options designed to match any interior design.**

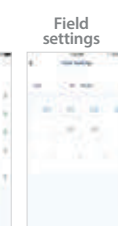


BRC1H81S(7) (Silver)

BRC1H81W(7) (White)



Madoka Assistant



- Integration to Daikin centralized control systems

The new inverter range can be controlled with Daikin's centralized control system such as the i-Touch Manager, via option, allowing high flexibility in control.

Reliable Cooling



Standard Built-in Drain Pump

The ducted unit has reinforced drainage protection thanks to the standard built-in drain pump wherein up to 1,125 mm of condensate water can be pumped



Reinforced Anti-Corrosion Protection

All the sensitive parts exposed to the environment are protected against corrosion:

- The condenser coil has a hydrophilic blue fin coating.
- The sensors of the electronic board (PCB) for both outdoor and indoor units have a special anti-corrosion coating.
- The outdoor bottom frame and stop valve mounting plate are powder-coated.

This will ensure a longer life span, even under corrosive environment, with cooling performance maintained optimal.



Refrigerant Cooled PCB

Refrigerant cooled PCB guarantees reliable cooling, as it is not influenced by ambient temperature. This feature is available from 2.5TR and above.



BEST AVAILABLE TECHNOLOGY

Main Features



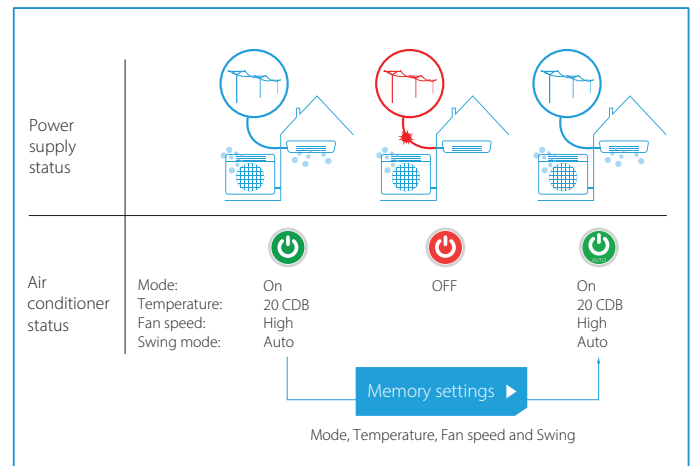
Auto Restart

In case of sudden power failure during operation, this feature ensures that air conditioners installed in the same building will resume operation automatically. The operation will be based on the previous settings.



Self-Diagnosis Function

The machine auto-detects the errors and shows the related code on the remote controller screen. If an error occurs, you can easily self-diagnose it and report it to your Daikin authorized service provider for a quick resolution.



Other Features

The Daikin FDMF series offers you a new era of smart, efficient and reliable comfort. It incorporates a myriad of outstanding features that will enhance your end-user experience!

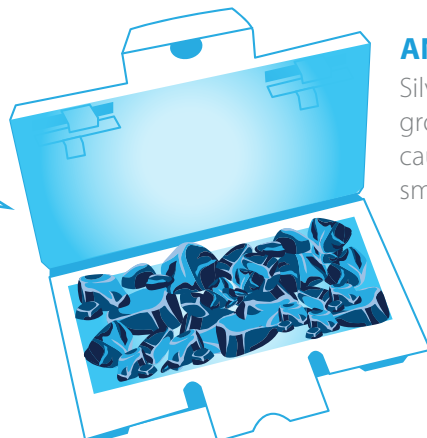
Whisper Quiet Operation

The Daikin indoor unit is whisper quiet. The sound level can reach quiet level down to 33 dB(A).

High Indoor Air Quality

The FDMF series offers, as standard a high level of indoor air quality.

- The washable antimicrobial filter eliminates various airborne dusts, for a cleaner and purified living environment.
- An anti-bacterial agent box is attached to drain pan to maintain high indoor air quality wherein silver ions are used to prevent growth of microorganisms.
- Optional filters are also available if there is a requirement for higher indoor air quality.



ANTI-BACTERIAL AGENT BOX

Silver ions to help prevent the growth of micro-organisms that cause clogging and unpleasant smells.

Technical Specifications

INDOOR				FDMF18AVMK	FDMF24AVMK	FDMF30AVMK	FDMF36AVMK
OUTDOOR				RZF18AVMK	RZF24AVMK	RZF30AVMK	RZF36AVMK
SET	Technology			Inverter			
	Refrigerant			R-32			
	Power Supply		V/p/Hz	220-240V/1ph/50-60Hz			
	Cooling T1 ⁽¹⁾ 35°C (Nominal) 50 Hz	Capacity	Btu/h	18,000	24,000	30,000	34,000
		Capacity	kW	5.28	7.03	8.79	9.96
		EER	(Btu/h) / W	13.00	12.40	12.40	12.14
		PI	kW	1.385	1.935	2.419	2.800
	Cooling T1 ⁽¹⁾ 35°C (Nominal) 60 Hz	Capacity	Btu/h	18,000	24,000	30,000	34,000
		Capacity	kW	5.28	7.02	8.80	9.95
		EER	(Btu/h) / W	13.00	12.40	12.40	12.15
		PI	kW	1.385	1.935	2.419	2.800
	Cooling T3 ⁽²⁾ 46°C 50 Hz	Capacity	Btu/h	15,300	17,500	25,500	29,000
		Capacity	kW	4.48	5.13	7.47	8.50
		EER	Btu/h	9.00	10.61	8.36	9.06
		PI	kW	1.700	1.650	3.050	3.200
	Cooling T3 ⁽²⁾ 46°C 60 Hz	Capacity	Btu/h	15,300	17,500	25,600	29,000
		Capacity	kW	4.47	5.13	7.50	8.50
		EER	Btu/h	9.00	10.60	8.40	9.05
		PI	kW	1.700	1.650	3.050	3.200
INDOOR UNIT	Remote Controller			Optional Wired R/C			
	Control Air Discharge			Ducted with Auto ESP			
	Dimensions	HxWxD	mm	300 x 1000 x 700		300 x 1400 x 700	
	Airflow	H/M/L	CFM	635/530/440	812/690/565	1130/955/795	1400/1200/990
	Sound Pressure Level	H/M/L	dB[A]	33/29/26	38/36/34	38/34/32	44/39/35
	Rated ESP	H	Pa	30		50	
	Maximum ESP	H	Pa	50		80	100
OUTDOOR UNIT	Dimensions	HxWxD	mm	595 x 845 x 300		990 x 940 x 320	
	Sound Pressure	H	dB[A]	48	50	51	51
	Compressor Type			Hermetically Sealed Swing Inverter Type			
	Pipe Connections	Liquid	mm	9.5			
			inch	3/8			
		Gas	mm	15.9			
			inch	5/8			
	Piping Lengths	Total	m	50			
		Elevation	m	30			
Chargeless		m	15		30		
Operating Range	CDB		52				

Notes: Temperatures Conditions

(1) Outdoor: 35CDB – Indoor: 27CDB / 19CWB

(2) Outdoor: 46CDB – Indoor: 29CDB / 19CWB



Inverter Technology

Inverter AC continuously adjusts the compressor speed thus power input, to constantly meet the temperature, requirements. So, energy is no longer wasted and considerable amount of money can be saved.



Automatic Airflow Adjustment

This unique Daikin function selects the most appropriate fan curve to achieve the best comfort. Compared to traditional duct, it will make the installation shorter and easier as balancing of dampers is not required.



R-32

Zero ODP for a reduced impact to the environment.



Silence

Daikin indoor units are whisper quiet. Outdoor units are also guaranteed not to disturb the quietness of the neighbourhood.



Powerful Cooling

Rapid cooling and powerful, even if outside temperature is very high.



Drain Pump Kit

Facilitates condensation draining from the indoor unit.



Auto-Restart

In case of sudden power failure, the unit will restart randomly with previous settings. This will help prevent a power surge after blackout.



Tropical Compressor

The tropical compressor is able to handle and operate fully under extreme weather conditions.



Reinforced Anti-Corrosion

All the sensitive parts such as condenser coil, PCB sensors, outdoor bottom frame or stop valve are protected against corrosion for a longer life span, even under corrosive environment, with cooling performance maintained optimal.



www.daikinmea.com

The present publication is drawn up by way of information only and does not constitute an offer binding upon Daikin Middle East and Africa FZE 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 Middle East and Africa FZE 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 Middle East and Africa FZE.

Daikin Middle East & Africa FZE

P.O.Box 18674, Jebel Ali Free Zone, Dubai United Arab Emirates. Tel: +971 (0) 4 815 9300, Fax: +971 (0) 4 815 9311

E-mail: emdaikin@eim.ae | Website: www.daikinmea.com



Daikin Middle East and Africa



DMEA20-170 GCC