



Cutting-edge technology,  
inspired by local needs



FDMF Series



# Daikin **INVERTER** Concealed Ceiling Units



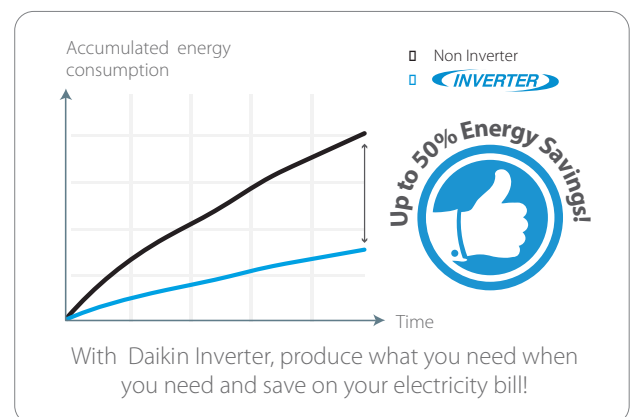
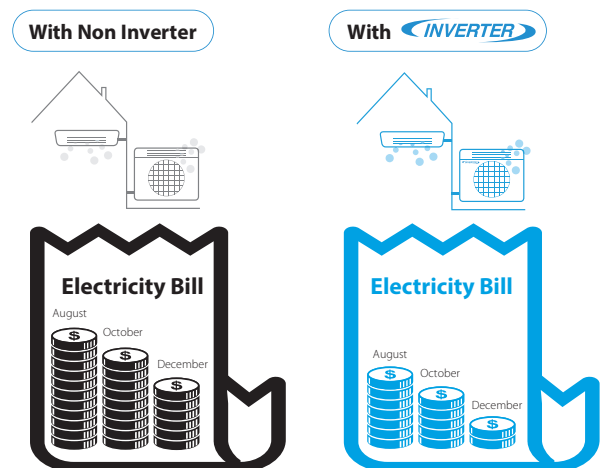
## DAIKIN. Everything you ever wanted in air conditioning

Daikin operates under the belief that customers are buying quality. With this in mind, Daikin strives to stay ahead of consumer needs by providing high-quality products with superior performance, energy efficiency, and comfort and by designing stylish solutions that conform 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 allows owners to reduce their energy bill all year round. This new series combines the most advanced technologies. It has been specially developed to withstand the harsh conditions of the African market, such as unstable power supply, corrosive environment and severe transportation and handling conditions.

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

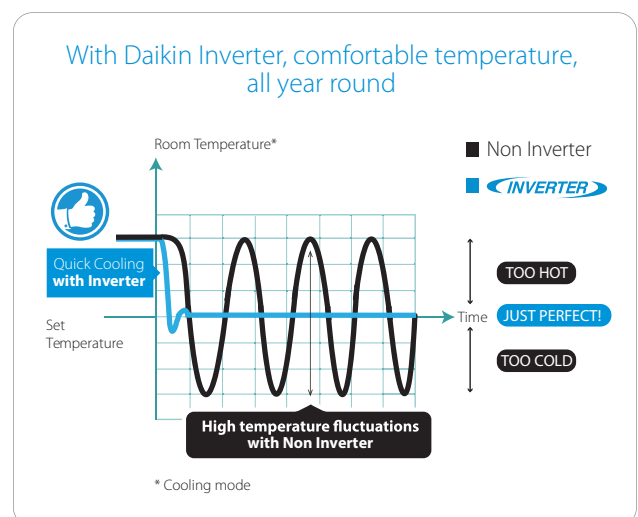
Using efficient systems will result in lower electricity bills, but also in lesser load to be applied on the generator as power input is being minimized.



## 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 and less load to be applied on the generator
- » Powerful cooling
- » Quieter operation
- » Longer lifetime



# 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 1.5 times higher than R-410A and a GWP\* 675 CO<sub>2</sub> eq., which is about one third of R-410A. It can contribute to reduce eq. CO<sub>2</sub> emissions 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 EER reaching up to 3.15 W/W, and seasonal energy efficiency, in line with real life operating conditions in Africa. Using efficient systems will result in lower electricity bills, but also in lesser load to be applied on generator as power input is minimized.



### 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!

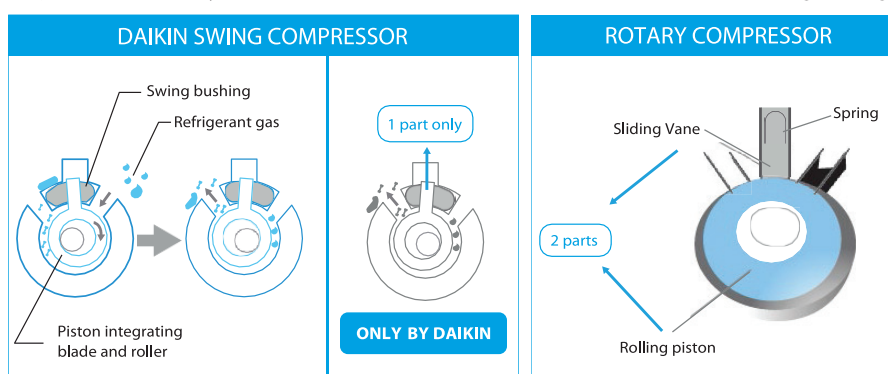
The excellent cooling performance is the outcome of the combination of the extremely efficient Daikin-patented inverter swing compressor with the optimal heat transfer from the heat exchanger using R-32 refrigerant.

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. It makes the comfort delivered which makes the comfort delivered by the inverter 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 system operates. The unique Daikin swing compressor prevents the leakage of gas refrigerant from the high pressure to the low pressure side, and effectively improves the compression efficiency. It will ensure less noise, less wear and tear, and above all, high energy efficiency.



### Main benefits at a glance

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



# Main Features



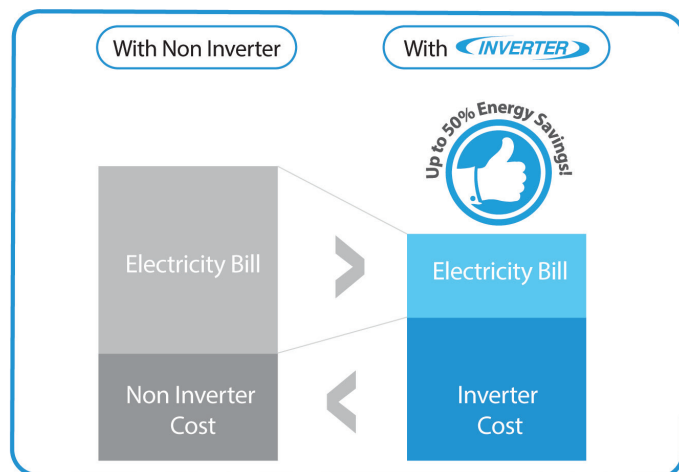
## A real economical and sustainable solution

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

### ELECTRICITY USAGE



To make real savings, you always need to compare the total cost, including operation cost. Inverter will help you to save money!



## Powerful and Flexible Cooling



### Greatest flexibility for installation

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

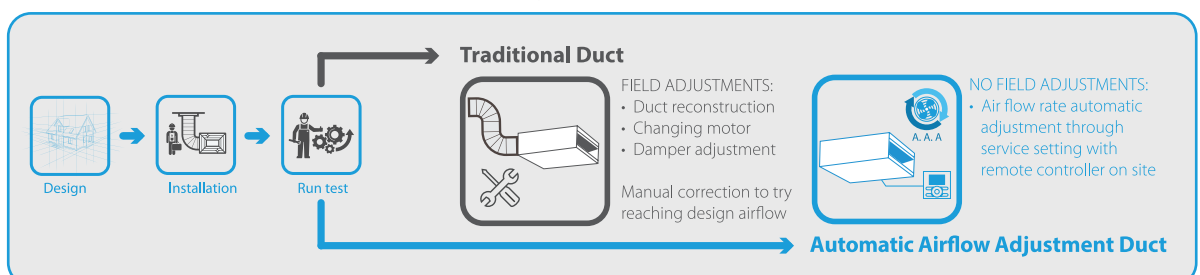
- Wide range of available static pressures, 30 to 100 Pa, in a compact design casing allows high flexibility in design, such as long ducting or multi-zone application.
- Extended piping lengths allow high flexibility in design by covering long piping run applications, up to 30 meters height difference!
- Bottom and 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.

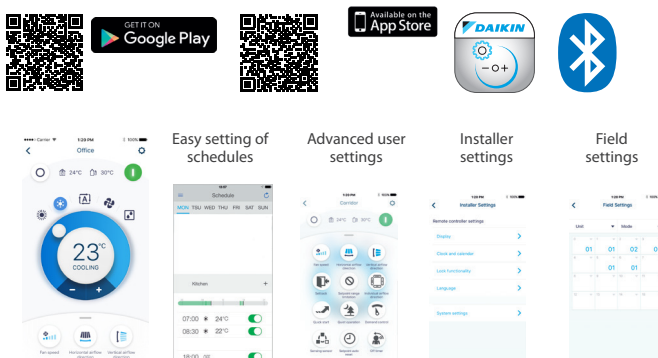
Perfect control over your individual climate with the elegant and award-winning Madoka controller.

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.

### Three Color Options



## 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.

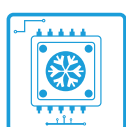


### Reinforced Anti-Corrosion Protection

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

- The condenser 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 2.0TR and above.



# 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.

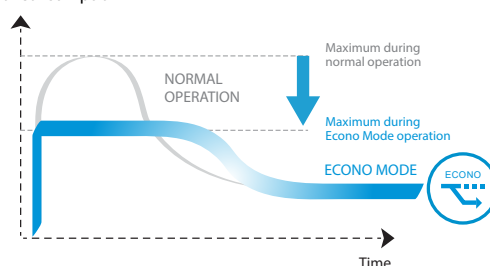


## Self-Diagnosis Function

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.

The Econo Mode allows a control of the peak consumption and current for a more reliable and efficient use.

Running current and power of consumption



## Other Features

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!

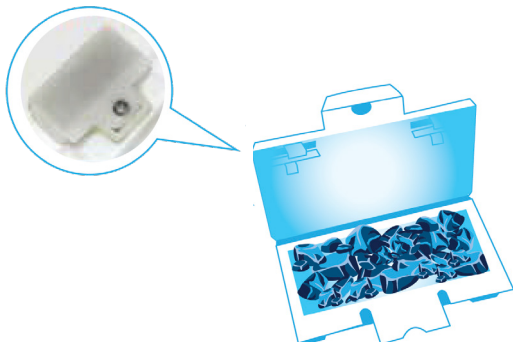
### Whisper Quiet Operation

The Daikin indoor unit is whisper quiet. The sound level can reach a quiet level down to 32 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 the drain pan to maintain high indoor air quality wherein silver ions are used to prevent the growth of microorganisms.
- Optional filters are also available if there is a requirement for higher indoor air quality.



### Anti-Bacterial Box

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

\*For FDMF24AVMK9 unit only.

INDOOR				FDMF18AVMK9	FDMF24AVMK9	FDMF30AVMK9	FDMF36AVMK	FDMF48AVMK	FDMF54AVMK
OUTDOOR				RZF18AVMK9	RZF24AVMK9	RZF30AVMK9	RZF36AVMK	RZF48AYMK	RZF54AYMK
SET	Technology			Inverter					
	Refrigerant			R-32					
	Power Supply	V/p/Hz		220-240V/1 ph/50-60Hz				380-415V/3ph/50-60Hz	
	Cooling T1 <sup>(1)</sup> 35°C (Nominal) 50Hz	Capacity	Btu/h	18,000	24,000	30,000	34,000	48,000	54,000
		Capacity	kW	5.28	7.03	8.79	9.96	14.07	15.83
		EER	(Btu/h)/W	13.14	14.20	12.40	12.14	12.0	12.0
		PI	kW	1.370	1.690	2.419	2.800	4.000	4.500
	Cooling T1 <sup>(1)</sup> 35°C (Nominal) 60Hz	Capacity	Btu/h	18,000	24,000	30,000	34,000	48,000	54,000
		Capacity	kW	5.28	7.02	8.80	9.95	14.07	15.83
		EER	(Btu/h)/W	13.15	14.20	12.40	12.15	12.0	12.0
		PI	kW	1.370	1.690	2.419	2.800	4.000	4.500
	Cooling T3 <sup>(2)</sup> 46°C 50Hz	Capacity	Btu/h	17,100	24,000	29,000	29,000	42,000	47,000
		Capacity	kW	5.01	7.03	8.50	8.5	12.3	13.78
		EER	(Btu/h)/W	10.56	9.60	9.10	9.06	8.75	8.70
		PI	kW	1.600	2.500	3.200	3.200	4.800	5.400
	Cooling T3 <sup>(2)</sup> 46°C 60Hz	Capacity	Btu/h	17,100	24,000	29,000	29,000	42,000	47,000
		Capacity	kW	5.01	7.02	8.50	8.50	12.30	13.78
		EER	(Btu/h)/W	10.55	9.60	9.10	9.05	8.75	8.70
		PI	kW	1.600	2.500	3.200	3.200	4.800	5.400
INDOOR	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			400 x 1500 x 800	
	Airflow	H/M/L	cfm	812/688/565	1130/954/795	1400/1200/989	1412/1200/989	1710/1440/1306	
	Sound Pressure Level	H/M/L	dB(A)	38/36/34	38/34/32	44/39/35	44/39/35	49/41/37	
	Weight		kg	35	45			59	
	Rated ESP	H	Pa	30			50		
	Maximum ESP	H	Pa	130			100		
OUTDOOR	Dimensions	HxWxD	mm	595 x 845 x 300	990 x 940 x 320			870 x 1100 x 520	
	Sound Pressure	H	dB(A)	50	51			57	
	Weight		kg	40	60	61		95	
	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		15
Operating Range	Max (Cooling)	CDB				52			

Temperature conditions:

- (1) Outdoor: 35CDB - Indoor: 27CDB/19CWB  
(2) Outdoor: 46CDB - Indoor: 29CDB/19CWB



## R-32

Zero ODP for a reduced impact to the environment.



## 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.



## Auto-Restart

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



## Tropical Compressor

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



## Powerful Cooling

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



## Drain Pump Kit

Facilitates condensation draining from the indoor unit.



## 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.



## Silence

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



## 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.



[www.daikinmea.com](http://www.daikinmea.com)

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

**DAIKIN MIDDLE EAST AND AFRICA FZE**

P.O. Box 18674, Plot MO0426, JAFZA North, Jebel Ali Free Zone, Dubai, UAE | Tel: +971 (0) 4 815 9300 | Fax: +971 (0) 4 815 9311

E-mail: [info@daikinmea.com](mailto:info@daikinmea.com) Web: [www.daikinmea.com](http://www.daikinmea.com) Toll Free: 800-DAIKIN (324546)



DMEA22-170GCC