



Cutting-edge technology
inspired by local needs



FDMF Series

R-32

DRIVING OUR
GREEN VISION



INVERTER

Preliminary



المركز السعودي للمواصفات والمقاييس والقياسات
Saudi Standards, Metrology and Quality Org.

Daikin **INVERTER** Concealed Ceiling Units



An invisible improvement for any space to reduce energy use

DAIKIN. Everything you ever wanted in Air Conditioning

Daikin operates under 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.

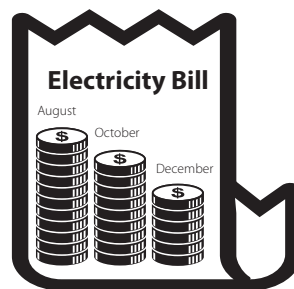
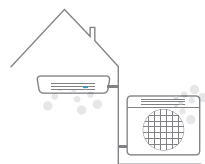
Think Smart; Think Green; Think Daikin Inverter

Benefits of INVERTER at a glance

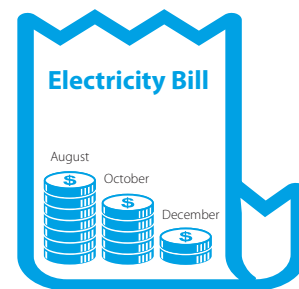
- Energy saving all the year round, for a lower electricity bill and
- Lower carbon footprint
- Lower starting current
- Powerful cooling
- Quieter operation
- Longer lifetime

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

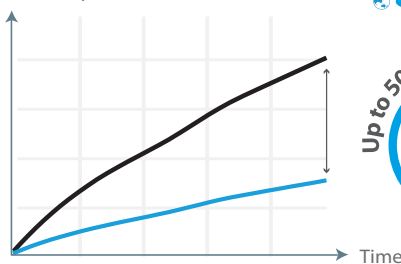
With Non Inverter



With **INVERTER**

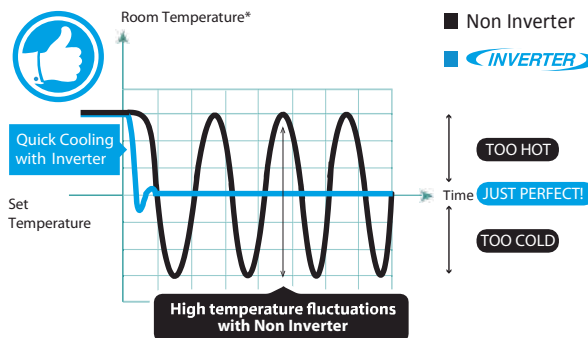


Accumulated energy consumption



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

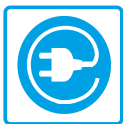
Daikin's FDMF series by combining the best available technologies runs quieter, cools faster and saves more than conventional air conditioner. It is designed to deliver a comfortable living environment for longer periods of time. This new series incorporates a lot of exceptional features for an unrivaled,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

Powerful and Efficient Cooling



R-32 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 CO₂ eq., which is about one third of R-410A. It can contribute to reduce eq. CO₂ emissions of up to 72% against R-410A.



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 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

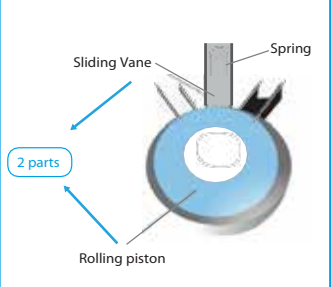
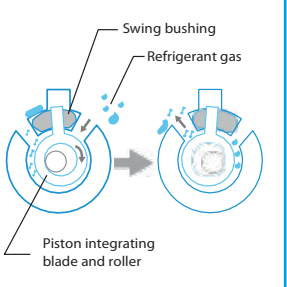
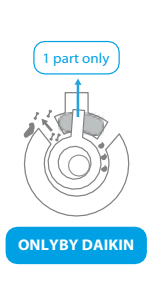
Daikin units offer excellent nominal and peak efficiency, exceeding the most stringent regulations. Daikin performances are certified for capacity and efficiency at 35/46/48 CDB!

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	
 <p>Sliding Vane</p> <p>Spring</p> <p>Rolling piston</p> <p>2 parts</p>	 <p>Swing bushing</p> <p>Refrigerant gas</p> <p>Piston integrating blade and roller</p>	 <p>1 part only</p> <p>ONLY BY DAIKIN</p>

Main benefits at a glance

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

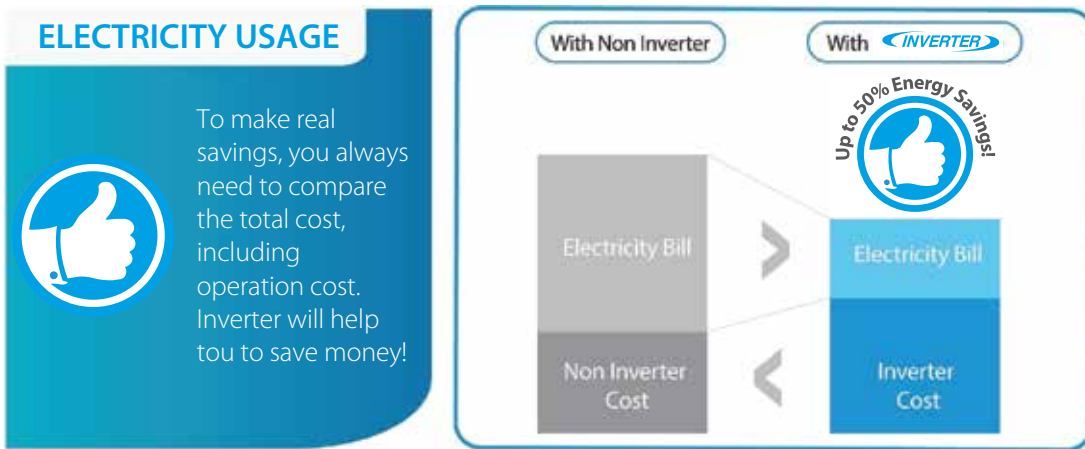
BEST AVAILABLE TECHNOLOGY

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 electricity bills, so you pay less money for your energy 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!
 - Rear suction application.
 - Compact yet powerful casing: unit height is only 300mm and can be installed in any location.

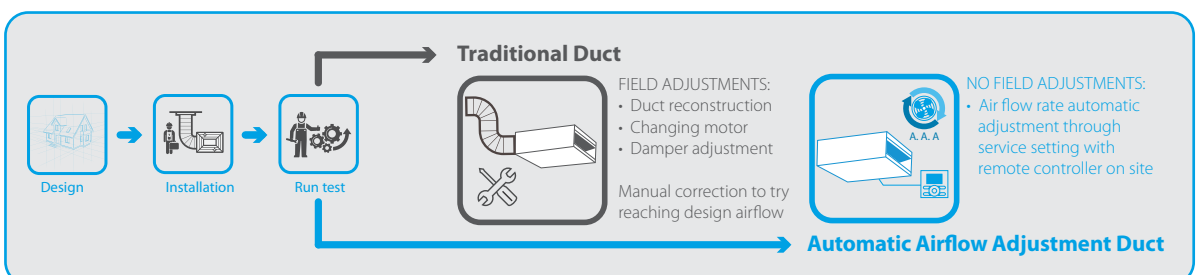


Unique Auto Airflow Adjustment

This unique Daikin feature simplifies the commissioning as the fan curve will adjust automatically to suit the duct design; balancing of dampers is no more required!*

This function will compare the actual duct resistance to the calculated resistance at time of design, 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.

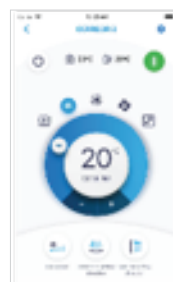
- Perfect control over your individual climate with the award-winning Daikin Madoka controller, and this with elegance. A minimalistic touch button controller with Bluetooth Low Energy (BLE) connectivity, Madoka features three navigational buttons and a clutter-free display. Comfort is guaranteed in the most intuitive way imaginable. Advanced functions are available through the Madoka Assistant application.

- Integration to Daikin centralized control systems

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



Madoka Assistant



Easy setting of schedules

Advanced user settings

Installer settings

Field settings



Reliable Cooling



Standard Built-in Drain Pump

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

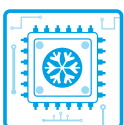


Reinforced Anti-Corrosion Protection

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

- The condenser coil has a hydrophilic blue fin coating.
- The electronic board (PCB) for both outdoor and indoor 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.



BEST AVAILABLE TECHNOLOGY

Main Features



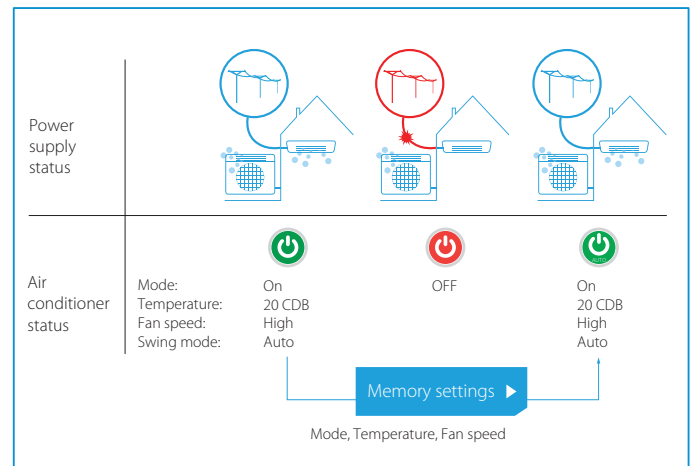
Auto Restart

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

Daikin FDMF series offers you a new era of smart, efficient and reliable comfort. It incorporates a lot of nice 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 preventing growth of micro-organisms that cause smells and clogging.

Technical Specifications

		INDOOR	FDMF18AVMK	FDMF24AVMK	FDMF30AVMK	FDMF36AVMK	
		OUTDOOR	RZF18AVMK	RZF24AVMK	RZF30AVMK	RZF36AVMK	
SET	Technology	Inverter					
	Refrigerant	R32					
	Power supply Cooling Capacity	V/ph/Hz	220-240V/1ph/50-60Hz				
		T1	Btu/h	18,000	24,000	30,000	34,000
			kW	5.28	7.03	8.79	9.96
		T3	Btu/h	15,300	17,500	25,500	29,000
kW	4.48		5.13	7.47	8.50		
Efficiency (EER)	T1	Btu/h	13.0	12.4	12.4	12.14	
	T3	Btu/h	9.0	10.6	8.4	9.1	
INDOOR UNIT	Control Air Discharge	Ducted					
	Control Operation	Wired Controller					
	Dimensions	HxWxD	mm	300 x 1,000 x 700	300 x 1,400 x 700		
	Airflow	H/M/L	cfm	635/TBC/TBC	812/TBC/TBC3	1130/TBC/TBC	1400/TBC/TBC
	Sound pressure level	H/M/L	dB[A]	33/TBC/TBC	38/TBC/TBC	38/TBC/TBC	44/TBC/TBC
	Rated ESP	H/M/L	Pa	30		50	
	Maximum ESP	H	Pa	50	75	100	
OUTDOOR UNIT	Dimensions	HxWxD	mm	595 x 845 x 300		990 x 940 x 320	
	Sound pressure	H	dB[A]	48	50	55	55
	Compressor Type	Hermetically Sealed Swing Inverter Type					
	Piping lengths	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

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

(**) 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.



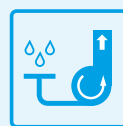
Silence

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 preventing 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, outdoor bottom frame or stop valve are protected against corrosion for a longer life span, even under corrosive environment, with cooling performance maintained optimal.



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