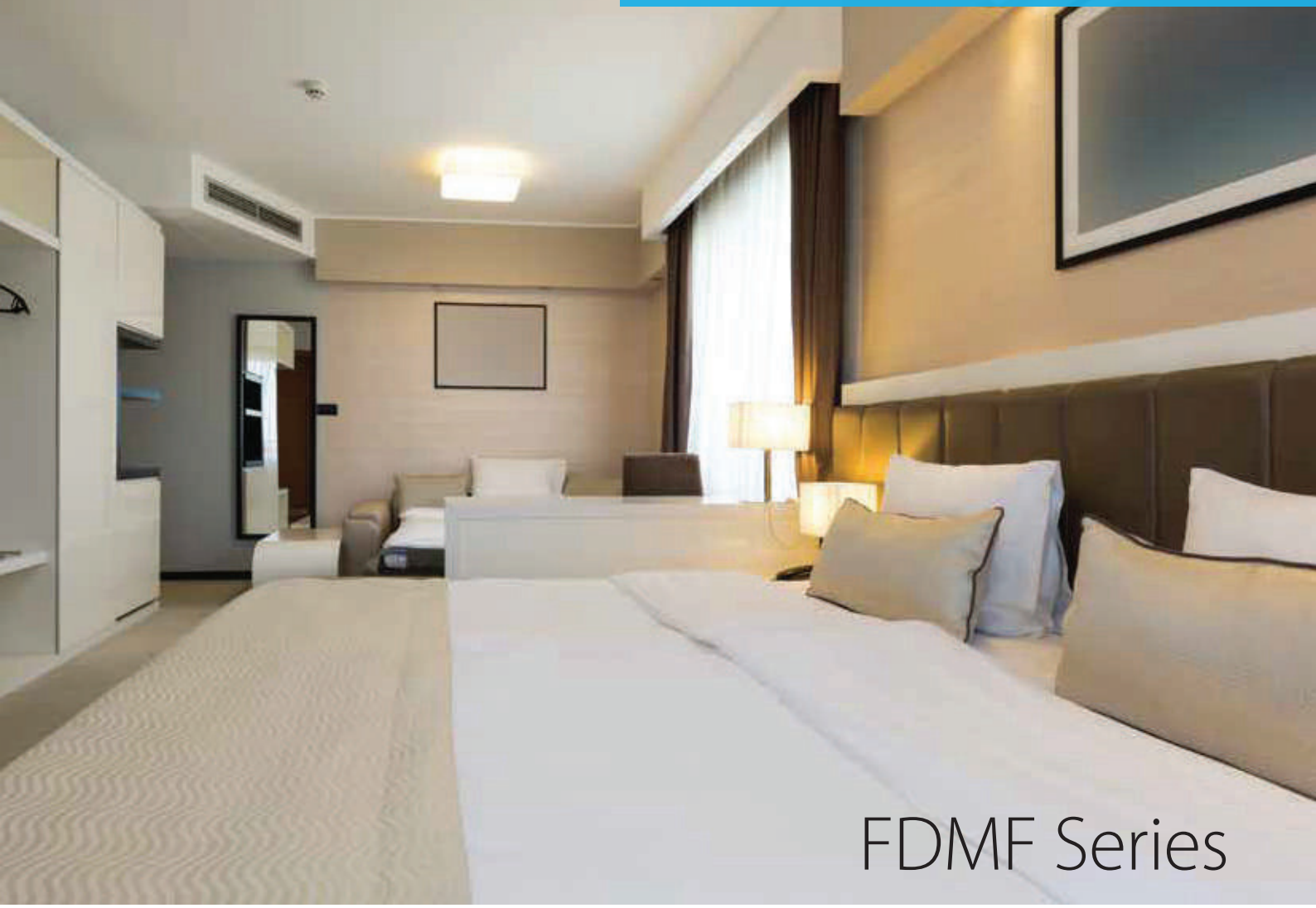
DAIKIN

Cutting-edge technology, inspired by local needs



FDMF Series

R-32 DRIVING OUR GREEN VISION

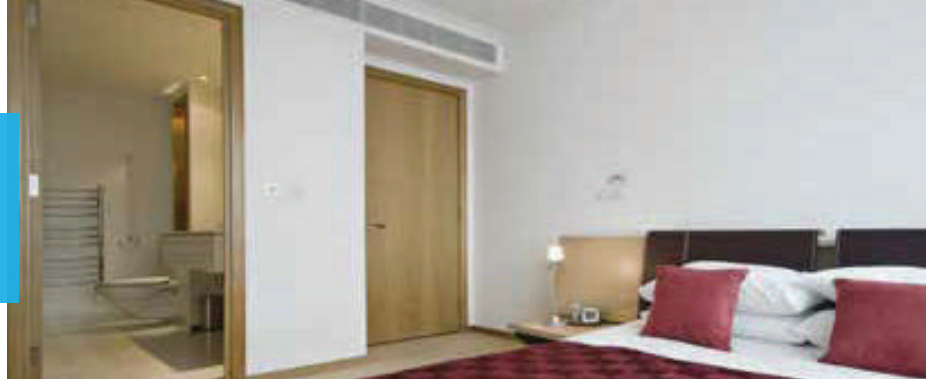
BEST AVAILABLE TECHNOLOGY

INVERTER

Independently Tested by Intertek

الهيئة العامة للصناعة PUBLIC AUTHORITY FOR INDUSTRY

Daikin INVERTER Concealed Ceiling Units



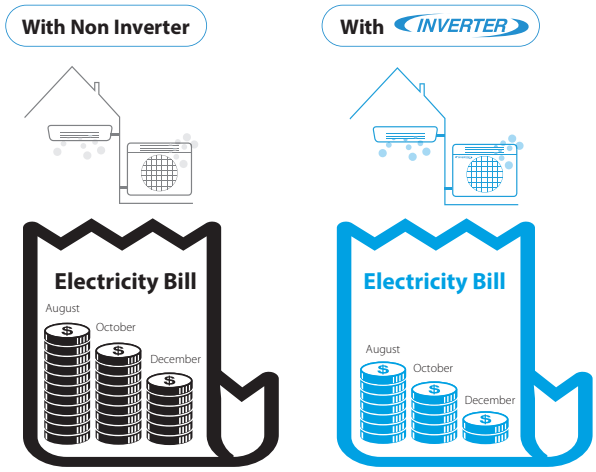
DAIKIN. Everything you ever wanted in air conditioning

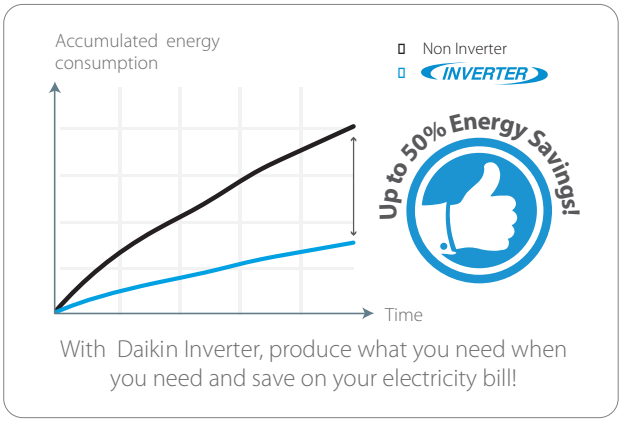
Daikin operates under the belief that customers are buying quality. With this in mind, Daikin strives to stay ahead of consumer needs by providing high-quality products with superior performance, energy efficiency, and comfort and by designing stylish solutions that conform to all interior spaces and 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.



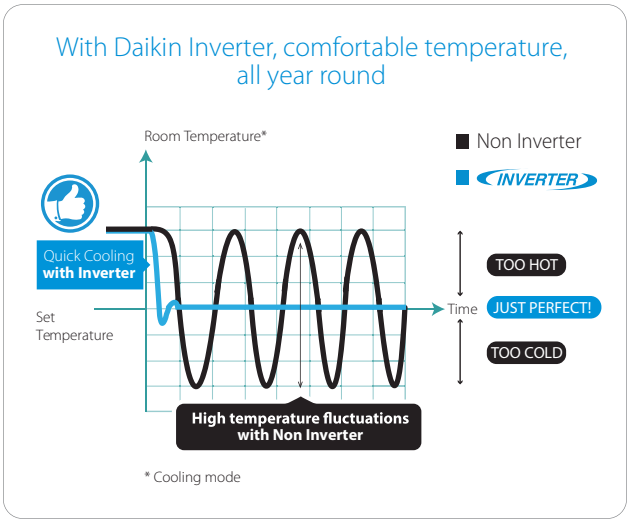


With Daikin Inverter, produce what you need when you need and save on your electricity bill!

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 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. CO_2 emissions 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 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.

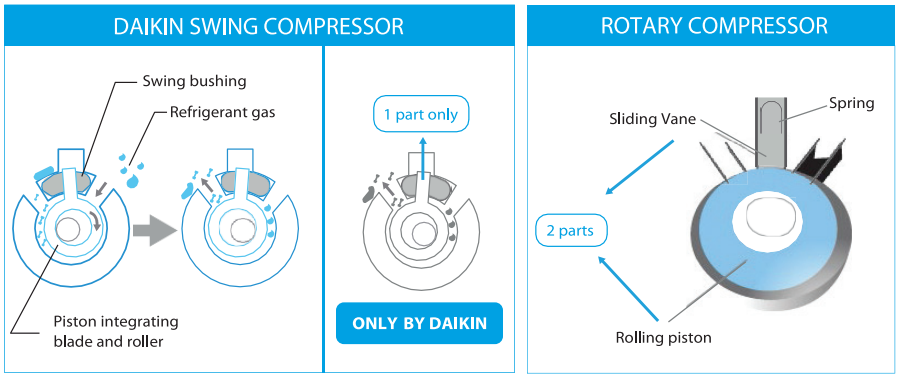
Inverter technology helps to substantially reduce energy bill, while maintaining the highest level of comfort, with a reduced start-up time, and the ability of maintaining a stable temperature at all times. It makes the comfort delivered which makes the comfort delivered by the inverter unrivaled.

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.

BEST AVAILABLE TECHNOLOGY



Main benefits at a glance

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

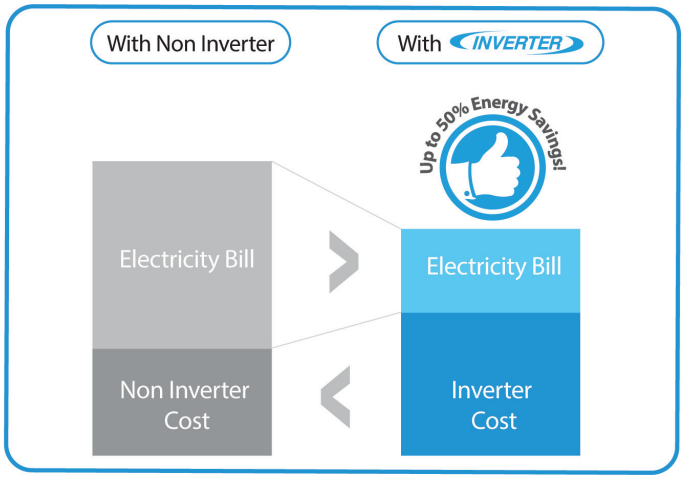
Main Features

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

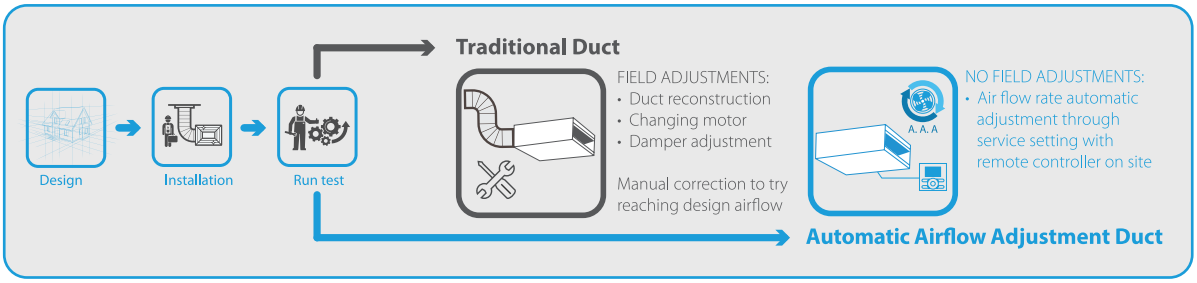
- Wide range of available static pressures, 30 to 100 Pa, in a compact design casing allows high flexibility in design, such as long ducting or multi-zone application.
- Extended piping lengths allow high flexibility in design by covering long piping run applications, up to 30 meters height difference!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

A. A. A

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.



BEST AVAILABLE TECHNOLOGY

Main Features

Greatest flexibility for control

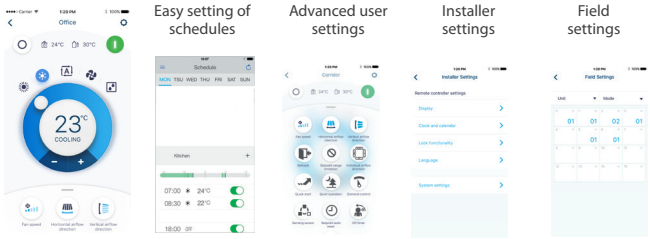
Individual or centralized control is possible on the new Daikin FDMF series using the latest advanced technologies.

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 2.5TR and above.

BEST AVAILABLE TECHNOLOGY

Main Features

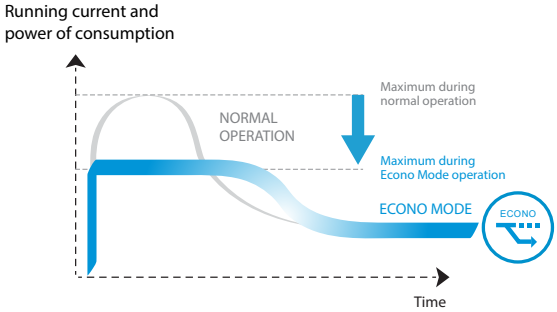
Auto-Restart

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.

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



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 26 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.

Anti-Bacterial Box

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

*For FDMF18AVMK unit only.

INDOOR				FDMF18AVMK	FDMF24AVMK	FDMF30AVMK	FDMF36AVMK	FDMF48AVMK	FDMF54AVMK
OUTDOOR				RZF18AVMK	RZF24AVMK	RZF30AVMK	RZF36AVMK	RZF48AYMK	RZF54AYMK
SET	Technology			Inverter					
	Refrigerant			R-32					
	Power Supply	V/p/Hz		220-240V/1ph/50-60Hz				380-415V/3ph/50-60Hz	
	Cooling T1[1] 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	13.00	12.40	12.40	12.14	12.0	12.0
		PI	kW	1.385	1.935	2.419	2.800	4.000	4.500
	Cooling T4[2] 48°C 50Hz	Capacity	Btu/h	13,200	13,600	20,600	20,600	41,000	43,000
		Capacity	kW	3.87	3.99	6.04	6.04	12.00	12.60
		EER	(Btu/h)/W	9.43	10.46	9.10	9.10	8.20	8.30
		PI	kW	1.400	1.300	2.264	2.264	5.000	5.200
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	635/530/441	812/689/565	1130/953/795	1412/1200/989	1589/1448/1306	
	Sound Pressure Level	H/M/L	dB(A)	33/29/26	38/36/34	38/34/32	44/39/35	45/41/37	
	Weight		kg	34	35	45		59	
	Rated ESP	H	Pa	30			50		
	Maximum ESP	H	Pa	50		80	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)	48	50	51		57	
	Weight		kg	40		60	61	60	61
	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: 48CDB - Indoor: 26.6CDB/19.4CWB

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.

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

DAIKIN

www.daikinmea.com

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