DAIKIN

Cutting-edge technology, inspired by local needs

GTKL Series

INVERTER

R-32 | DRIVING OUR GREEN VISION

BUILT-IN STABILIZER

REINFORCED CASING

BLUE FIN

JOIN THE MISSION

THE DAIKIN INVERTER DIFFERENCE

Think Smart, think Green, **think Daikin Inverter!**

Your local needs, our leading design inspiration

Leading Technologies

Daikin is renowned for its pioneering approach to product development and the unrivaled quality and versatility of its integrated solutions. From the efficiency of our compressors and inverter technology, to our latest advances in refrigerants and product design for seasonal efficiency, Daikin is at the very forefront of energy efficiency and innovation.

The Daikin Difference

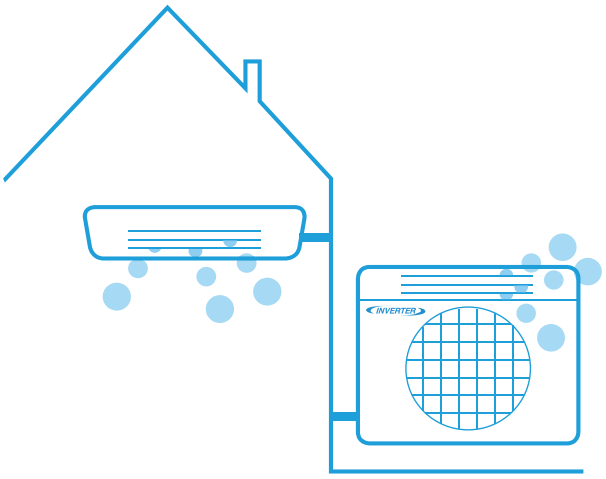
Daikin is manufacturing both air conditioning systems and refrigerants. By creating some of the most technologically advanced systems ever introduced, Daikin is redefining the experience of comfort. This passion for precision results in the Daikin system supplied to our customers that delivers the maximum performance and the ultimate in comfort.

Since the invention of Variable Refrigerant Volume (VRV) in1982, Daikin has constantly demonstrated its technological leadership with outstanding production capabilities, top-of-the-line product features, and superior product support.

The Daikin Innovation at Your Service

Daikin is committed to delivering air-conditioning solutions that enhance the quality of life all around the world through the application of advanced technology. A comprehensive range of air-conditioners featuring the inverter technology, that provides comfort throughout the year, is a testament to that. Our technology is not only shaped by the vision of an unheralded future, but our designs are also carved to optimize form and function. In all this, the ability to think and act for the environment continuously sets us apart.

By launching the first inverter split using the low GWP* and Zero ODP** refrigerant R-32 specially developed for African market conditions and combining all the most advanced technologies, Daikin offers an ultimate cooling comfort experience while saving energy and reducing considerably the carbon footprint. This new unit, which has been designed for optimum nominal and seasonal energy efficiency, in line with Africa's real-life operation conditions, shows Daikin's serious commitment to the environment.



R-32

DRIVING OUR GREEN VISION

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

Breakthrough Innovations in Africa

INVERTER + R-32 DRIVING OUR GREEN VISION = JOIN THE MISSION

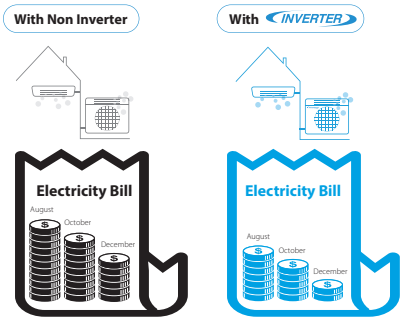
Why Inverter?

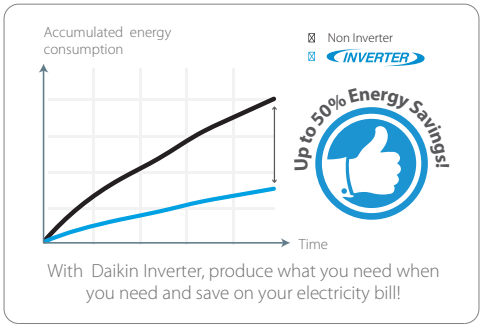
There are two technologies to be considered when purchasing a split air conditioner:

» ON/OFF systems, so called Non Inverter, used in conventional air conditioners.
» Inverter systems, using the latest technology.

At first look, both systems offer similar functionality: cooling the air. But in reality, they are different in terms of compressor drive: old technology systems use fixed-speed (Non Inverter), while advanced systems use variable speed (Inverter).

Conventional Non Inverter splits use a compressor running at high (maximum) fixed speed all the time. This, combined with the repeated restart of the compressor, will lead the air conditioner to consume a lot of energy. In reality, an ON/OFF system is very inefficient and costly to use.





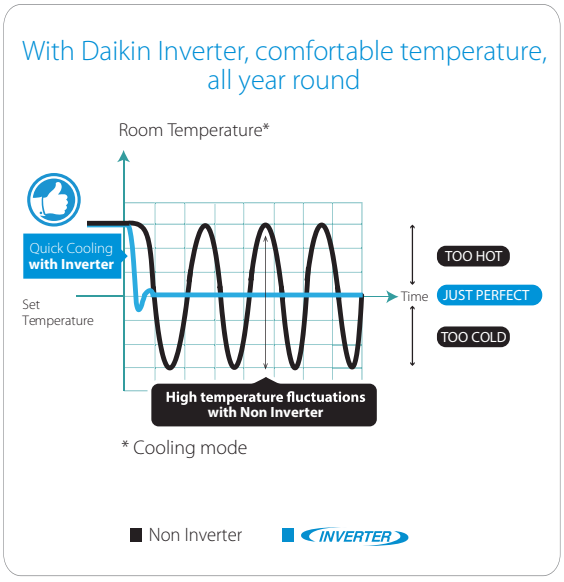
The variable speed compressor of the Inverter split continuously adjusts the power to meet the set temperature in the room; **in simple words, the unit will run at higher speed when you need more cooling and at lower speed when you need less.** The electricity you will use then depends on your actual needs, not more! Inverter technology will lower the consumption of the air conditioner up to 50%, so you pay less money for your electricity bills!

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. This will result in lower consumption of fuel!

Inverter technology speeds up at start-up time, so the room is cooled down quicker. With Daikin Inverter, the cooling is quick and powerful, even under extreme temperatures. Because Daikin Inverter is a smart technology capable of adjusting the cooling power to your actual needs, you will have a comfortable temperature all year round and you will never feel too warm or too cold.

Benefits of Inverter at a Glance

» Energy saving all the year round, for a lower bill and lower carbon foot-print
» Lower starting current
» Powerful cooling
» Quieter operation



Think Smart; Think Green; **Think Daikin Inverter**

Why R32?

The international community agreed under the Montreal Protocol to phase out ozone depleting substances to nearly zero by 2030. As a consequence, the A/C market started to move away from ozone depleting HCFCs refrigerants, such as R-22, towards HFCs.

Although a limited amount (2.5%) of ozone depleting refrigerants will remain available between 2030 and 2040 for servicing existing A/C and refrigeration equipment, it will not be sufficient to serve the existing market, unless conversion to alternative refrigerants in new equipment is implemented soon. The Montreal Protocol also includes drastic reduction steps between 2015 and 2030 for all HCFCs. For these reasons, some Middle East and Africa countries already started to implement bans on new R-22 equipment, and it is expected that other countries will follow soon.

Taking into account the lifetime of equipment, Daikin believes that it is crucial to start using non ozone depleting refrigerant on new A/C as soon as possible.

As a market leader, Daikin aims to develop systems that improve indoor comfort levels while having low environmental impact, with energy efficiency and refrigerant choice as key factors. With this vision in mind, Daikin launched the first worldwide air conditioners with R-32 refrigerant in Japan end of 2012 where several millions of units have been installed since.

Meanwhile, R-32 models have also been introduced in other regions such as Europe, Australia, New Zealand, India, Thailand, Vietnam, Philippines, Malaysia, Indonesia and Middle East.

Daikin has decided to launch a dedicated sustainable solution for Africa, running with R-32, contributing to the efforts of the African region to achieve the targets ambitioned by the Montreal Protocol.

2030
Ban of ozone depleting substances use on new A/C equipment in Middle East and Africa. A limited amount will be allowed until 20140 for servicing existing A/C and refrigeration equipment.

2025
HCFC consumption must be reduced with 67.5% vs 2009-2010 levels in all Middle East and Africa countries.

2020
HCFC consumption must be reduced with 35% vs 2009-2010 average level in all Middle East and Africa countries.

2015
Ban of the sales of R-22 A/C equipment in South Africa and Saudi Arabia

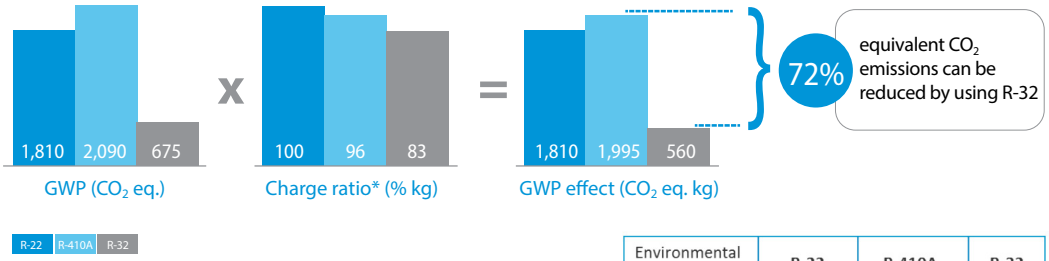
2004
Ban of the sales of R-22 A/C equipment in Europe

Key Characteristics

R-32 is a next generation refrigerant that addresses a range of environmental considerations in a balanced manner.

- R-32 does not deplete the ozone layer, unlike R-22. Its ODP* is zero.
- R-32 has a low GWP** of 675 CO2 eq., which is about one third of GWP of R-410A.
- Cooling performance (capacity and efficiency) of R-32 is higher than R-410A or can be kept the same level but with a more compact design.
- Unlike R-410A, R-32 is a single refrigerant component, which makes it easy to reuse and recycle.

GWP EFFECT



Environmental Parameters	R-22	R-410A	R-32
GWP (CO2 eq.)	1,810	2,087.5	675
ODP	0.05	0	0

* Based on IPCC 4th report
** Based on charge ratio on 18 class for FTD, FTS and FTKM 50 Hz series.
* ODP: Ozone Depleting Potential
** GWP: Global Warming Potential

Main Features

BLUEVOLUTION

All the year round, super efficient and reliable cooling

Swing Inverter + R-32 + Built-in Stabilizer for a New Era of Smart Comfort

Daikin's new inverter R-32 wall mounted split has been designed to meet the most constraining requirements of the African market, such as an unstable power supply, while exceeding the end-user expectations with its powerful, reliable and efficient cooling all year round.

Daikin will change the way you feel about air conditioning and all of this, with a reduced carbon footprint.

GTKL-TV1

RKL-TV1

INVERTER

R-32

DRIVING OUR GREEN VISION

Main Features

Daikin's GTKL Series runs quieter, cools faster and saves more. It is designed to deliver a comfortable living environment for longer periods of time. This new series incorporates a lot of nice and unique features for an unrivaled, efficient and reliable comfort.

Powerful and Efficient Cooling

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 the generator as power input is minimized.

The excellent cooling performances are 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.

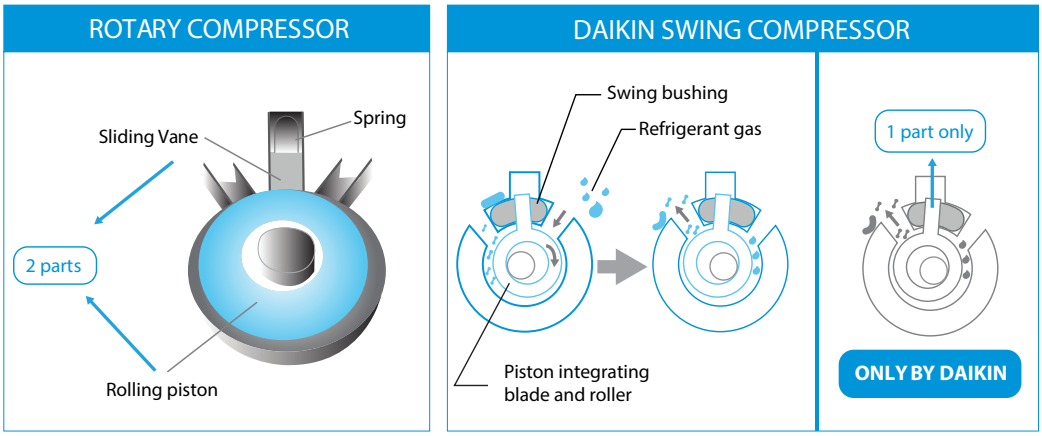
Inverter technology helps to substantially reduce energy bill, while maintaining the highest level of comfort, reduced start-up time, and the ability of maintaining a stable temperature at all times which makes the comfort delivered by the inverter unrivaled.

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

Exclusive Daikin Inverter Swing Compressor

Most manufacturers use a standard rotary compressor, but Daikin, being at the very forefront of energy efficiency and innovation, has improved the technology by developing an inverter compressor. This change makes a huge difference in how quiet and efficient the system operates.

ROTARY vs DAIKIN PATENTED INVERTER SWING COMPRESSOR



In the rotary compressor, used in traditional split air conditioner, the blade serves as a partition between the high and low pressure sides, and the gas refrigerant is compressed as the rotor rotates. The blade moves up and down along with the rotation of the rotor.

The unique Daikin swing compressor features an integrated part consisting of a rotor and blade. It prevents the leakage of the 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.

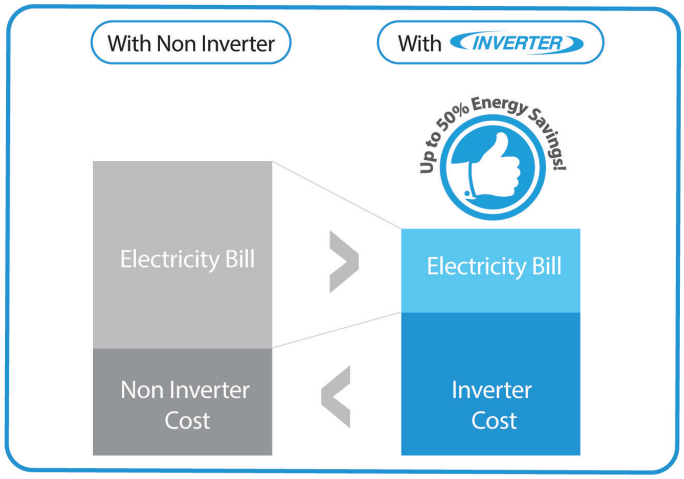
Main Features

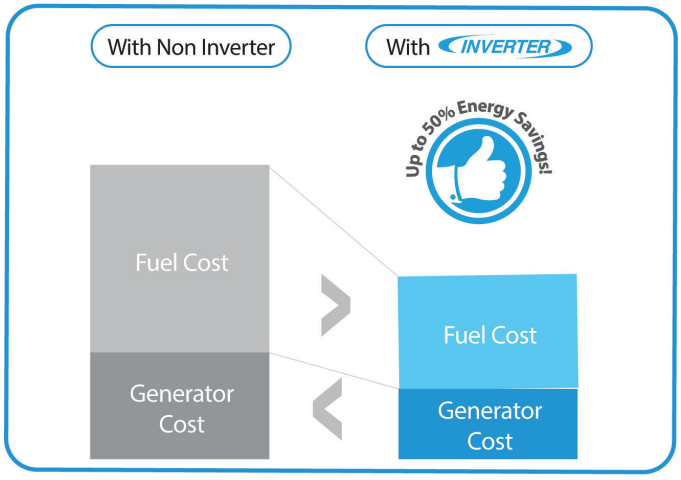
A real economical solution

The inverter technology will lower the energy consumption of the air conditioner down to 50%. Using efficient systems will not only result in lower electricity bills, but also in lesser load to be applied on the generator as power input is minimized. This means you pay less money for your energy bills!

ELECTRICITY USAGE

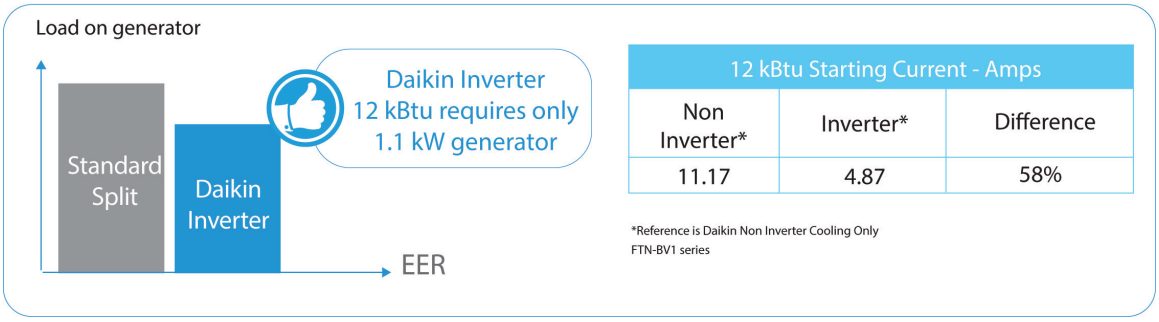
To make real savings, you always need to compare the total cost, including operation cost. Inverter will help you to save money!





GENERATOR USAGE

An efficient air conditioner will use less power input and consume then less load on the generator. It will contribute to reduce the total energy cost.



12 kBtu Starting Current - Amps		
Non Inverter*	Inverter*	Difference
11.17	4.87	58%

*Reference is Daikin Non Inverter Cooling Only FTN-BV1 series

Inverter can reduce starting current by half!

Main Features

Built-in Stabilizer

The new Daikin unit has been specially designed to withstand the harsh conditions of the African market, such as unstable power supply and corrosive environment.

The unit is equipped as standard with a built-in stabilizer. Daikin inverter ACs do not require any additional AVS (automatic voltage switch) to be installed, and are protected as standard against voltage fluctuation over current and power blackout. Daikin units are designed to have a longer lifetime with optimal performance compared to other non-protected equipment.

Unrivaled Voltage Range of 160-265V

The Daikin GTKL series is equipped with a built-in stabilizer allowing the unit to operate within an increased operating voltage range of 160 to 265V. No additional AVS is required.

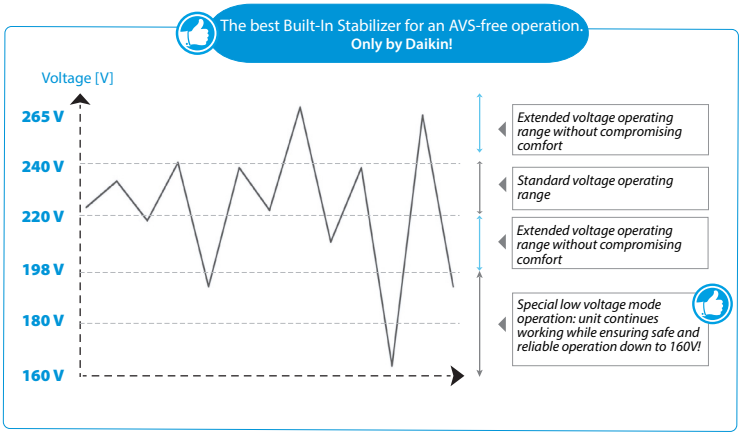
The DC bus voltage, compressor and PCB have been designed with the components all carefully selected for their voltage tolerance to allow the widest operation range during unstable power supply.

To protect the unit during low voltage operation, a special algorithm has been implemented on the compressor software to control its rotation and current.

No additional AVS required

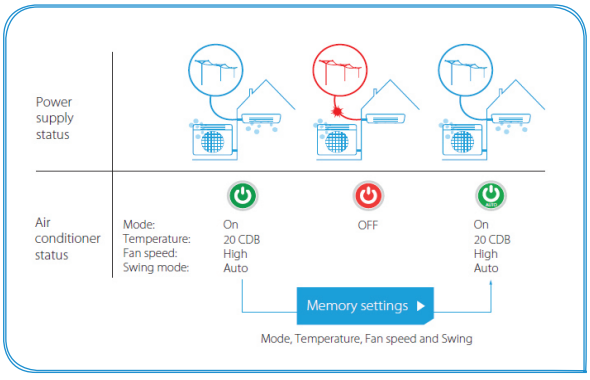
Daikin's GTKL series has a built-in stabilizer allowing you to operate your equipment without any additional stabilizer and to maintain its lifetime optimal.

Daikin Splits are equipped with special protection against irregular power supply. If the power supply is irregular, it becomes crucial that your air conditioner is guarded against under and over voltage.



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.

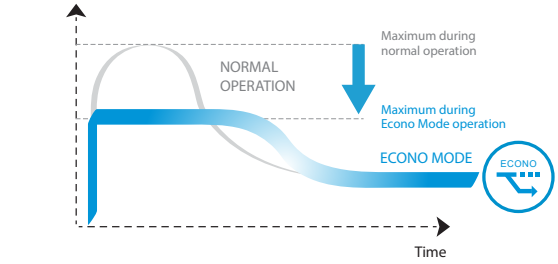


Main Features

Econo Mode

This function limits both maximum running current and maximum power consumption. It is useful for preventing circuit breakers from being overloaded during temporary peaks in the running current. This function can be easily set from the remote controller.

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



Anti-Corrosion Protection

The condenser coil is protected against corrosion, thanks to the hydrophilic blue fin coating. This will ensure a longer life span, even under corrosive environment, with cooling performance maintained optimal.

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.

Robustness designed for Africa

The design of the units and packing of the new Daikin's GTKL series have been reinforced to withstand the severe road, storage and handling conditions of Africa. Daikin invested in product structure improvements to deliver an unrivaled quality to the end-customer.

Special transportation and drop tests, reflecting the African market conditions are conducted at the factory to ensure the best product quality. On top of the strong packaging, the following enhancements have been implemented on the GTKL series:

- Redesign of the U-bend profile to minimize the risks of condenser leakage.
- Redesign of the bottom frame to increase the impact strength, minimize any risk of crack during harsh transportation and increase the strength against external impact.
- Packaging design improvement, including the redesign of the indoor packaging's EPS profile to ensure better protection against severe transportation conditions.

Main Features

Daikin's GTKL series offers you a new era of smart and reliable comfort. It incorporates a lot of nice features that will enhance your end-user experience!

Optimal Cooling Comfort

The cooling comfort experience can be maximized by using one of the functionalities like:

- **Coanda airflow operation** that will give you the best A/C experience. The powerful air draft does not fall on your head directly, but it is steered upward letting air circulate into the corners of the room, creating a comfortable ambience.
- **Power Chill Mode** that will cool down the space even quicker.
- **Sleep Mode** that will ensure a comfortable environment for a restful sleep, by avoiding overcooling at night.
- **Dry Mode** that will reduce the humidity level of the room to guarantee an optimal comfort.

Whisper Quiet Operation

The Daikin indoor unit is whisper quiet. The sound level can be further reduced, down to 26 dB(A), by activating the Quiet Mode.

Pure Air

The washable antimicrobial filter eliminates various airborne dusts, for a cleaner and purified living environment.

The Smell Proof Operation function is designed to eliminate odor caused by mold and germs after a certain period of operation.

Down to 26dBa

Technical Specifications

Cooling Only

	Indoor Model Name			GTKL35TV16XZ	GTKL50TV16UZ	GTKL60TV16UZ
	Outdoor Model			RKLG35TV16XZ	RKLG50TV16UZ	RKLG60TV16UZ
	Nominal Cooing Capacity		Btu/h	11,900	17,100	20,500
			kW	3.5	5	6
	Power Input		kW	1.11	1.75	1.97
	EER		W/W	3.15	2.85	3.05
Indoor Unit	Air Flow	H/M/L/SL	cfm	300/251/201/173	505/459/402/335	522/438/353/286
Indoor Unit	Sound Pressure Level	H/M/L/SL	dBA	40/36/29/26	45/42/38/35	47/45/40/38
Indoor Unit	Height		mm	283	298	298
Indoor Unit	Weight		mm	800	885	885
Indoor Unit	Depth		mm	198	229	229
Indoor Unit	Net Weight		kg	8	11	11
Outdoor Unit	Sound Pressure Level (High)		dBA	51	54	56
Outdoor Unit	Height		mm	550	595	595
Outdoor Unit	Width		mm	765	845	845
Outdoor Unit	Depth		mm	285	300	300
Outdoor Unit	Net Weight		kg	26	34	35
Outdoor Unit	Pipe Connection	Liquid	mm	6.35	6.35	6.35
Outdoor Unit		Gas	mm	9.5	12.70	15.88
Outdoor Unit	Compressor Type			Hermetically Sealed Swing Inverter Type		
Outdoor Unit	Operating Range		C	19.4-50		
Outdoor Unit	Maximum Piping Length	Total	m	20	20	30
Outdoor Unit		Elevation	m	15	10	20
Outdoor Unit		Chargeless	m	10	10	10
	Standard Power Supply		V/Ph/Hz	220-240/1/50 (Indoor)		
	Extended Operating Voltage Range		V	160-265		
	Power Source			Indoor		
	Refrigerant			R-32		

Temperature conditions:
*Indoor: 27CDB/19CWB
*Outdoor: 35CDB/24CWB

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.

Energy Saving
Daikin offers efficient operation on its equipment for lower electricity consumption. This also contributes to reduced CO2 emissions.

Built-in AVS
Daikin offers the widest voltage range, 160 to 265V, for an AVS free operation.

Econo Mode
Limits both maximum running current and maximum power consumption.

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

Robustness designed for Africa
Reinforced casing and packaging to withstand severe road, storage and handling conditions.

Anti Corrosion
The hydrophilic blue fin coating will protect the condenser coil against corrosion, for a longer life span, even under corrosive environment, with cooling performance maintained optimal.

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

Long Airflow
The airflow can reach long distances, for optimal cooling comfort even for large spaces.

Sleep Mode
Setting sleep mode will gradually adjust the set temperature to provide a comfortable environment for sleeping.

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

DAIKIN

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, UAE Tel: +971 (0) 4 815 9300, Fax: +971 (0) 4 815 9311

Email: info@daikinmea.com Web: www.daikinmea.com

Daikin Middle East and Africa