



Innovative and Efficient Solutions for You

# Cutting-edge technology, inspired by local needs



# **FTKM** Series Cooling Only



















# Your local needs, our leading design inspiration

## Leading Technologies

Daikin is renowned for its pioneering approach to product development and the unrivalled 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 means that every Daikin system delivers maximum performance and the ultimate in comfort. Since the invention of Variable Refrigerant Volume (VRV) in 1982, 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 application of advanced technology. A comprehensive range of air-conditioners with inverter technology that provide 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. Use of R-32, the Daikin preferred next generation refrigerant, in our product line-up is one such effort.

By launching the first high ambient inverter split using the low GWP\* and Zero ODP\*\* refrigerant R-32, 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 redesigned for optimum nominal and seasonal energy efficiency, in line with Middle East real life operation conditions and ahead of the latest most stringent legislations of the region, shows the serious Daikin commitment to the environment.

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

# Breakthrough innovations in Middle East

# Why do you need Inverter in the Middle East?

The amount of cooling (heating) required by an air conditioner depends on the outside temperature and the heat inside the room to be treated. Cooling (heating) requirements vary because outside temperatures can vary all the year long but also during the course of one day. You need a smart system which is able to constantly adjust delivered capacity to meet your specific requirements. Only an inverter can do that.





## Did you know?

In most GCC countries, 75% of the time, temperatures are below 40°C. At these temperatures, your A/C system needs to operate at partial load. Inverter is optimized at partial operation while Non Inverter at full operation. Benefit of Inverter technology can be fully used to optimize seasonal efficiency, in line with real life operation conditions.

# Why R-32?

The international community signed the Montreal Protocol to phase out ozone depleting substances to nearly zero in 2030, including the R-22 refrigerant used for A/C equipment. 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 GCC countries already started to implement bans on new R-22 A/C equipment, and it is expected that other countries will follow soon.

## When will R-22 be banned in the Middle East?



## Which refrigerant to use?

Refrigerant choice is a key factor in the drive to maximize energy efficiency and to minimize the global warming impact. When choosing the refrigerant to be used, the entire Climate Impact of the unit must be considered. This is based on:

- > the direct impact of refrigerant emissions on global warming: R-32 has 3 times lower Global Warming Potential (GWP) compared to R-410A
- > the indirect impact of the energy consumption over the lifetime of the product: R-32 can achieve higher efficiency levels in part load and full load conditions
- > the natural resource efficiency: R-32 is a single component refrigerant, which makes it easy to recycle



As part of its commitment to the environment, Daikin aims to develop systems that have a lower environmental impact. For all these reasons, Daikin has decided that R-32 is its preferred next generation refrigerant for small capacity air conditioners and has started to phase-in this refrigerant.

### Did you know?

In Japan, Daikin introduced residential A/C using R-32 at the end of 2012. Since then over 3.4 million units have been sold.



# Daikin Best Available Technologies



Daikin offers you the Best Available Technologies for the Ultimate Cooling Comfort

### **(INVERTER)**

### Benefits of Inverter Technology:

- Powerful cooling performance, capacity and efficiency, regardless the outside temperature



unique in the newly developed Daikin wall is the only split in the market that can provide as much cooling capacity at 46°C than at 35°C

- Superior and efficient cooling comfort all the year round
- Quick cooling: up to 1.5 times faster than a traditional system, even under high ambient conditions
- Super quiet operation

### **UP TO 50% ENERGY SAVING**



Daikin Inverter makes your environment more comfortable with less energy consumption than a Non Inverter system.

# **R-32 Refrigerant**

Daikin has decided that, for small split A/C system, R-32 is its preferred next generation refrigerant for A/C, as it is the most balanced solution.

EER [Btu/W]\*



Daikin R-32 inverter has excellent EER at 35°C and 46°C.

### COOLING CAPACITY [kBtu/hr]\*



- Daikin R-32 Inverter has exceptional cooling performance. - 46°C capacity is the same as 35°C capacity of standard split in the market.

### GWP EFFECT \*/\*\* [CO<sub>2</sub> equivalent kg, expressed in %]



By using R-32 refrigerant on split A/C, GWP effect can be reduced with 70% vs. R-22\*\*

Refrigerant	R-22	R-410A	R-32
ODP	0.05	0	0
GWP [CO <sub>2</sub> equivalent]	1,810	2,088	675
Refrigerant charge* [kg]	1.35	1.29	1.12

# **Intelligent Eye:**

Daikin further enhances energy efficiency while keeping comfort optimal by offering smart technology like intelligent eye. The Daikin eye is able to adjust the room temperature based on the occupancy.

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### Did you know?

Adjusting temperature with only one degree can save up to 27% energy.

Notes \* Inverter R-32 is compared with Daikin High Ambient 50 Hz Non Inverter ranges. FTD and FTS, for equivalent capacity models (18 kBtu/hr).



35°C 46°C

<sup>\*\*</sup> GWP effect has been calculated by multiplying GWP [CO2 eq.] and charge ratio [% kg] of Daikin High Ambient 50Hz cooling only ranges, for equivalent capacity models (18 kBtu/hr).

# Powerful and Efficient with a Green Heart

# EXCELLENT COOLING PERFORMANCE, EVEN UNDER HIGH AMBIENT CONDITIONS

### **Indoor Features:**



- Excellent cooling comfort thanks to:
  - > optimal wide and long airflow distribution, enhanced by the 3-D autoswing (vertical and horizontal)
  - > turbo mode for quick cooling
- Outperforming system efficiency enhanced with smart indoor functionalities like:
  - > the intelligent eye that adjusts the set point based on the room occupancy
  - ► the special Econo Mode
- Whisper quiet operation
- High indoor air quality thanks to Titanium Apatite filter, that absorbs and decomposes efficiently viruses and bacteria while breaking down mould and odours
- Elegant and user-friendly wireless remote controller
- Integration to high level Daikin control management, like i-Touch Manager (via option)

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

### **Outdoor Features:**

- Available in Cooling Only

- Exceptional cooling performance, regardless ambient temperature, thanks to the unique combination of the most advanced technologies like R-32 gas, inverter compressor and optimal heat exchanger design



- ► The Daikin R-32 Inverter wall is the only split in the market able to deliver as much capacity at 46°C than at 35°C, with low energy consumption:
  - guarantees optimal cooling comfort regardless the outside temperature
  - possibility to downsize A/C equipment at design stage
  - exceptional Nominal, Actual and Seasonal Efficiency, exceeding the most stringent hi-EER regulations
- > Up to 50% less energy consumption throughout the entire year than traditional systems
- Quick Cooling: up to 1.5 times faster than traditional systems, even under high ambient conditions
- Standard anti-corrosion protection



Cooling Only: RKM-PVMK 18/24/28

### **Technical Specifications**

	Indoor Model			FTKM18PVMK	FTKM24PVMK	FTKM28PVMK
	Outdoor Model			RKM18PVMK	RKM24PVMK	RKM28PVMK
Indoor Unit	Nominal /Maximum Cooing Capacity (*1)		Btu/h	18,000 / 20,500	24,000/29,500	28,000 / 32,000
	Actual Maximum Cooling Capacity (*2)		Btu/h	18,000	24,000	27,400
	Nominal Heating Capacity (*3)		Btu/h	-	-	-
	Nominal Cooling Input Power		W	1,350	1,890	2,310
	EER T1(*1)		W/W	3.91	3.72	3.55
			Btu/h/W	13.33	12.70	12.12
	EER T3 (*2) W/W Btu/h,		W/W	2.49	2.49	2.51
			Btu/h/W	8.49	8.51	8.56
	COP (*3)		W/W	-	-	-
	Star Rating		ESMA(*4)	4	4	4
			QSASO(*5)	6	6	6
			EWA(*6)	6	6	6
	Air Flow	High	l/s	342	367	429
		High	CFM	723	777	890
	Sound Pressure Level	High/Medium/Low/Quiet	dBA	48/42/35/32	51/45/37/34	54/49/42/39
	Dimensions	HeightxWidthxDepth	mm	340 x 1,050 x 259		340x1,200x259
	Weight		Kg	15		18
	Sound Pressure Level		dBA	51	56	57
	Dimensions	HeightxWidthxDepth	mm	695 x 930 x 350		
	Weight		Kg	46	49	49
Outdoor Unit	Pipe Connection	Liquid (Flare)	mm	6.35	6.35	6.35
			in	1/4	1/4	1/4
		Gas (Flare)	mm	12.7	12.7	15.88
			in	1/2	1/2	5/8
	Compressor	Туре		Swing		
	Piping Length	Total	m	30		
		Height Difference	m	20		
	Operating Range	Max (Cooling)	°C DB	52		
	Power Supply	Phase/Frequency/Voltage	Ph/Hz/V	1/60/220-230 - 1/50/220-240		

(\*1) : Cooling capacity : Indoor 27°C DB / 19°C WB - Outdoor 35°C DB (\*2) : Cooling capacity : Indoor 29°C DB / 19°C WB - Outdoor 46°C DB (\*3) : Heating capacity : Indoor 20°C DB - Outdoor 7°C DB / 6°C WB.

(\*4) : According to UAE - S 5010 -1:2014 (\*5): According to QSASO 2663:2015

(\*6): According to EWA, based on SASO 2663:2012, SASO 2663:2014



#### R-32 Zero ODP and lower GWP than R-22 and R-410A



#### **Powerful Cooling**

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



#### **Energy Saving**

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



#### **Tropical Compressor**

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



#### Intelligent Eye

The Daikin intelligent eye is a smart technology that enhances the energy while keeping comfort optimal: it adjusts the room temperature based on the occupancy.



#### 3-D Airflow

Vertical and horizontal auto-swing for a long and strong airflow to cool down quickly and uniformely even large spaces.

#### Silence



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

#### User Friendly



Easy installation, easy operating procedures and friendly shape buttons.



# www.daikinmea.com

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