

# **R32**

The Next-Generation Refrigerant

# Inverter SkyAir Series







# **R32**

# Pentagon of Benefits



- 1. R32 does not deplete the ozone layer unlike R22.
- 2. It is 1/3 lower in global warming potential comparing with R410A.

# Economic feasibility

- 1. R32 refrigerant is now available in high volume globally since it is 50% of R410A composition.
- R32 has 9 % lower liquid density compared to R410A. In a same system, R32 charge is lesser than R410A.





This game changing refrigerant strikes the perfect balance between energy efficiency, ease of use and environmental sustainability; offering distinct advantages across the board, bringing you comfort and a peace of mind.

# Safety

R32 refrigerant is a stable refrigerant. The amount of refrigerant charge deposited into the unit is insufficient to cause ignition.



- Life Cycle Climate Performance (LCCP) is an indicator to evaluate the total global warming impact of refrigerants.
- 2. Factors included in LCCP are emission during:
  - refrigerant manufacturing.
  - air conditioner manufacturing.
  - air conditioner operating, servicing, and disposal.
- 3. LCCP of R32 refrigerant is the lowest, which promotes itself as a better substitution for future refrigerant.



- 1. Several factors that contribute to better efficiency of R32 system are:
  - R32 refrigerant has lower vapour density and lower system mass flow rate. Thus, about 50% lower pressure drop can be expected.
  - R32 refrigerant has 43-50% higher latent heat compared to R410A.
  - R32 refrigerant has 41% higher liquid thermal conductivity compared to R410A, which permits better heat transfer at the same mass flux.

# **Product Line-up**

 Class
 71
 85

 Floor Standing
 Indoor Unit (Wireless Handset)
 PVFC71AV14
 PVFC85AV14

 Condensing Unit
 Outdoor Unit (Gold Fin / MOHE) Power supply
 RZFC71AGV14 Gold Fin MCHE (Gold Fin MCHE) Power supply
 RZFC71AGV14 Gold Fin MCHE (220-240/1/50 (POD))

Remark:

POD: Power from Outdoor





RZFC100AV14 MCHE 220-240/1/50 (POD)



RZFC125AY14 MCHE 380-415/3/50 (POD)



RZFC140AY14 MCHE 380-415/3/50 (POD)

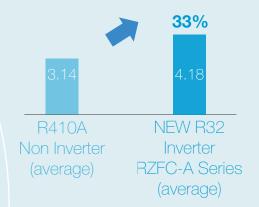


# The Daikin RS2 Next-Generation Refrigerant

# Floor Standing

# **Energy Saving**

R32 refrigerant properties provide better heat transfer compared to R410A refrigerant. Combining with higher efficiency of an Inverter Technology, the efficiency is tremendously improved by 33% from previous R410A Non Inverter models for better energy saving. Average CSPF increases as shown.



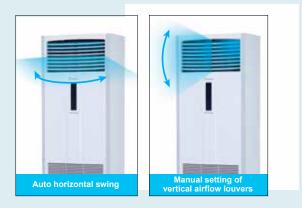


# **High Air Flow**

High air flow ensures the spaces of the room to be cooled down rapidly to the set temperature.

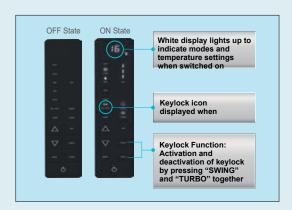
## **Auto-Swing Mode**

This unit uses its automatic horizontal swing louver to spread comfortable air flow to cool every corner of the room. Its vertical louvers are adjusted manually to match different interior spaces and partition as well as to avoid direct airflow.



# **User-Friendly Controls**

The unit comes with a stylish black control panel with white LED light for clear display. It comes with a keylock function to prevent setting change from unauthorised personnel.



Additionally, this unit is incorporated with infrared sensor for usage with wireless controller (BRC52A62) which comes with the unit as the standard package. Thus, it can also be controlled using wireless controller for the flexibility in controls.



# Two Selectable Temperature Sensors

Both indoor unit and wired remote controller (option) contain temperature-sensors. Temperature sensing can be set at the unit or, to further improve comfort level, closer to the target area at the wired remote control. This feature must be set during commissioning by the technicians.

- \*Temperature-sensor on indoor unit must be used when the air conditioner is controlled from another room.
- \*\*Wireless remote controller does not have a temperature-sensor

# **Switchable Fan Speed**

High → Medium → Low

High setting provides maximum reach while low setting minimizes drafts.

#### **Timer Selector**

Operation starts when the preset time of the ON timer elapses and stops when the preset time of the OFF timer elapses.

# **Powerful/Turbo Operation**

New powerful/turbo operation boosts airflow to maximum volume for a 20-minute period with highest fan speed. After this, the unit automatically returns to its previous settings.

#### Indoor Unit ON/OFF Switch

The unit can be conveniently started manually in the event the wireless remote controller is misplaced or the wireless remote controller batteries are not charged.

# **Easy Maintenance**

# Safety Clip

The safety clip feature allows the users to remove the washable saranet filter with ease during maintenance. At the same time, it also acts as a safety feature to prevent the users from reaching into the electrical and mechanical components.





# **Space for Water Drain Pump**

There is a space in the unit below the fan that allows users to install an external condensate water pump.

\* The condensate water drain pump is separately purchased and field installed.



# **Outdoor**







RZFC71A

RZFC85/100A

RZFC125/140A

# High Performance Inverter R32 Compressor

Swing compressor providing high efficiency during partial load operation.

# **Anti-Corrosion Outdoor Heat Exchanger**

The outdoor units come with anti-corrosion properties with it's gold fin heat exchanger and new corrosion resistant aluminium alloy microchannel heat exchanger.

Remark: Gold fins heat exchanger for RZFC71A and microchannel heat exchanger for RZFC85-140A.

# **High Durability**

Outdoor Casing: Adopted zinc coated heavy gauge galvanized steel, with exterior surfaces finished with a weather resistant polyester powder casing, painted with ivory white colour to increase durability.

# **Refrigerant Cooling**

Daikin's unique refrigerant cooling system helps to protect the printed circuit board and maintains high cooling capacity even during high outdoor temperatures.

Remark: For RZFC125/140A only.

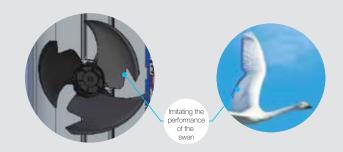
# **Coated Printed Circuit Boards (PCB)**

Coated PCB prevent problems caused by humidity and airborne dust. It also protects against salt contained in sea breezes. Both side of the PCB in outdoor units are coated.

# **Long Piping Length**

Improved piping length to provide installation flexibility.

Size	71	85	100	125	140
Max Piping Length (m)	30	50	50	50	50
Max Piping Elevation (m)	15	30	30	30	30



# **V-Cut Propeller Fan**

Through the use of a V-cut propeller fan that imitates the efficiency of the swan, a migratory bird, airflow becomes smooth as friction loss is reduced. Therefore, performance increases tremendously. Furthermore, it reduces the sound pressure level as shown below.

# **Quiet Operation**

Sound Pressure Level (dBA)	71	85	100	125	140
R32 Inverter	52	53	54	54	56
R410A Non Inverter	58	N/A	58	60	65

# **Controllers**

#### **Wireless Controller**



#### **BRC52A62**

- 1 "Glow-in-the-dark" ON/OFF switch
- 2 Fan speed selection: Low, Medium, High, Auto 8 Turbo function
- 3 Temperature setting: Up & down
- 4 Sleep mode function
- Off timer setting

- 6 Auto-swing
- 7 Selectable mode: Cool, Dry, Fan
- Quiet function
- 10 On timer setting
- 11 Real time clock

## **Wired Controller (Optional Accessory)**



#### **BRC51D61**

- 1 Temperature Setting
- 2 ON/OFF Button
- 3 Mode: Press to select operating mode: COOL, DRY or FAN
- 4 Quiet Operation
- 5 Timer

- 6 Features Selection (Sleep, Quiet and Powerful)
- 7 Fan Operation
- 8 Powerful Operation
- 9 Swing

Remark: Refer Function Overview for applicable model

# **Built-in Temperature Sensor in Wired Controllers**

All wired controllers has a built-in temperature sensor that enables temperature sensing closer to target area for improved comfort. It can be connected directly to the unit's main board to start operating without extra settings or modifications. This feature can be set by installers during the commissioning.

# **Product Features**

# **Cooling Comfort**



## Powerful/Turbo Mode

Once activated, this feature will engage the indoor fan motor to run at maximum speed for 20 minutes. The powerful/turbo airflow enables the desired temperature to be achieved faster, especially in larger spaces.

# Reliability



### Flexible Piping

Designed for your convenience, this series come with piping lengths up to 30m & 50m, for high flexibility in system design and installation.



#### **Auto-Restart with Surge Protection**

If there is a sudden power failure, the unit will automatically restart with 64 different recovery patterns according to its last settings. This also prevents a sudden surge of electricity to your power source.

# **Lifestyle Convenience**



#### Sleep Mode

Unwind at the end of the day with Sleep Mode, which gradually increases set temperature according to regular sleeping temperature patterns for an effortlessly personalised sleeping environment.



#### **Timer**

This timer can start or stop the air conditioner within a 24-hour period and can be preset in 30 minute steps using the wireless remote controller. The On Timer and Off Timer can be used in combination.

## **Cleaner Environment**



#### Clean Air

The Saranet Air Filter fiber traps airborne dust particles in the air. The filters can be easily accessed or replaced via the detachable front panel.

# **Serviceability Friendly**



#### **Self-Diagnosis Function**

This intelligent feature helps to detect faults of malfunctioning in the system.

Warning can be found through display error code in wired LCD remote controller. This information can be found in Installation Manual.

## **Centralized Control**



Intelligent Touch Manager (iTM)
Connectivity (option)

Connectivity to a centralized control system is

# **Functions Overview**

Category	Functions	FVFC71A RZFC71A	FVFC85/100/125/140A RZFC85/100/125/140A
	Inverter	•	•
Basic Function	Operation Limit for Cooling (°CDB)(O/D)	21~46	21~46
	Operation Limit for Cooling (°FDB)(O/D)	69.8~114.8	69.8~114.8
	Scroll Compressor	-	-
Compressor	Rotary Compressor	-	-
	Swing Compressor	•	•
	4-Way Airflow Operation	-	-
Comfortable Airflow	8-Way Airflow Operation	-	-
	Surround Airflow Operation	-	-
	Auto Fan Speed	•	•
On and out On anticol	Switchable Fan Speed	•	•
Comfort Control	Auto Swing (Left-right)	•	•
	Indoor Unit Quiet Operation	-	-
	Programme Dry Function	•	•
	ECO+	-	-
Operation	Powerful/Turbo Mode	•	•
	Sleep	•	•
	Fan Only	•	•
	Indoor Unit ON/OFF Button	•	•
	Signal Receiving Sign*1	•	•
1 15 1 0	R/C with Backlight * <sup>2</sup>	•*	•*
Lifestyle Convenience	LED Display ON/OFF Button	-	-
	Room Temperature Display *2	•*	•*
	Streamer ON/OFF Button *1	-	-
	Saranet Filter	•	•
Llashia 9 Class	Ionizer	-	-
Health & Clean	Fresh Air Intake Kit	-	-
	Washable Grille	•	•
	Weekly Timer Operation *2	•*	•*
Timer	24-hour ON/OFF Timer (R/C) *1	•	•
	24-Hour RTC	-	-
	Auto Restart (After Power Failure)	•	•
	Self-diagnosis	•	•
Worry Free	Wiring Error Check Function	•	•
(Reliability & Durability)	Anti-corrosion Treatment of Outdoor Heat Exchanger	Gold Fin	MCHE
	Low/High Voltage Shield (PCB Level)	•	•
	R32 Refrigerant Gas Sensor	•	•
	ESP Selection	-	-
Floribilit	Water Pump (Water Drainage Pipe Flexibilty)	•*	•*
Flexibility	°F/°C Changeover R/C Temperature Display (Factory setting: °C)	•	•
	Pre-charged Piping Length	10m	15m
	Wireless LAN Connectivity	-	-
Remote Control	BAG Connectivity	-	-
	iTM Connectivity *3	•*	•*
D	Wireless	BRC52A62	BRC52A62
Remote Controller	Wired (Optional)	BRC51D61	BRC51D61

### Notes:-

- Notes:
   : Available
   : Not Available

   \* : Optional (Refer to DAMA Spare Part team for more details on optional items.)

  \*1: Applicable when wireless (BRC52A62) remote controller is used for selected models.

  \*2: Applicable when wired (BRC51D61) (SHIRO) is used.

  \*3: Additional adaptor KRP928BB2S is required to establish connectivity.

# **Specifications**

#### **R32 Inverter Floor Standing Specifications**

Model		Indoor unit		FVFC71A	FVFC85A	FVFC100A	FVFC125A	FVFC140A
		Outdoor uni	t	RZFC71A	RZFC85A	RZFC100A	RZFC125A	RZFC140A
Operating Limit C		21~ 46	21 ~ 46	21 ~ 46	21 ~ 46	21 ~ 46		
_			Btu/h	24200 (10900-27300)	29000 (14300-31000)	34100 (17100-38200)	42700 (18200-46500)	46500 (18200-49000)
Cooling Capacity (Min-Max)		kW	7.10 (3.20-8.00)	8.50 (4.20-9.10)	10.00 (5.00-11.20)	12.50 (5.30-13.60)	13.60 (5.30-14.40)	
EER			W/W	3.05	3.01	3.01	2.77	2.70
CSF	F		Wh/Wh	4.27	4.20	4.10	4.25	4.10
Tota	Power Input		W	2330	2820	3320	4520	5045
Tota	Current		А	10.20	12.60	14.60	7.00	7.77
_	0 1		1/101 111	220-240/1/50	220-240/1/50	220-240/1/50	380-415/3/50	380-415/3/50
Power Supply			V/Ph/Hz	Power from OUTDOOR	Power from OUTDOOR	Power from OUTDOOR	Power from OUTDOOR	Power from OUTDOOR
	Airflow (H/M/L) cfm		cfm	675/625/530	1000/835/650	1090/975/860	1240/1144/1040	1240/1144/1040
	Sound Pressure Level (H/M/L)		dB(A)	44/42/39	47/44/41	49/47/44	53/51/49	53/51/49
Indoor	Unit Dimensions (HxWxD)	Unit	mm	1850 X 600 X 270	1850 X 600 X 350			
		Packaging	mm	760 X 1998 X 418	760 x 1998 x 498			
	Machine Weight	Unit	kg	42	45	45	45	48
		Gross	kg	54	58	58	58	61
	Sound Pressure Level dB(A)		dB(A)	52	53	54	54	56
_	Dimension (H x W x D)	Unit	mm	615 X 845 x 300	695 X 930 X 350	695 X 930 X 350	990 x 940 x 320	990 x 940 x 320
Outdoor		Packaging	mm	679 X 992 X 414	760 X 1084 X 473	760 X 1084 X 473	1126 X 1003 X 396	1126 X 1003 X 396
0	Machine Weight	Unit	kg	37	40	40	62	62
		Gross	kg	41	45	45	68	68
Pipe Connection		Liquid	mm	9.5	9.5	9.5	9.5	9.5
		Gas	mm	15.9	15.9	15.9	15.9	15.9
Maximum Piping Length m		30	50	50	50	50		
Max	imum Piping Elevation		m	15	30	30	30	30
Hea	t Insulation		,	Both Liquid and Gas Piping				

- Remarks:

  1. Due to product innovation, all specifications are subjected to change by the manufacturer without prior notice.

  2. All units are being tested and comply to ISO5151.

  3. Nominal cooling capacity are based on the conditions: 27°C DB / 19°C WB indoor and 35°C DB outdoor.

  4. Sound pressure levels are measured in anechoic chamber. During actual operation, sound pressure level will be higher as a result of room specification condition.

# **Optional Accessories**

Optional Accessories	Model Name / Part Number
Wired (SHIRO) Controller	BRC51D61
Intelligent Touch Manager (iTM) Controller	DCM601A51
Interface Adaptor for Intelligent Touch Manager (iTM)	KRP928BB2S

**NOTES** 

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