

## Air Conditioners

# **Heating & Cooling**

FULL RANGE A CLASS ENERGY LABEL

- » Heat pump system
- » Humidification & dehumidification in one system
- » Brings fresh,conditioned air intothe room
- » Improved indoor air quality
- » Inverter technology incorporated









Daikin's Ururu Sarara split heat pump unit, with its unique system, can heat and cool, humidify and dehumidify, ventilate and purify the indoor air all at the same time.

Daikin's heat pumps are all-in-one heating and cooling solutions, meaning comfortably warm in winter and cool in summer. The indoor unit can be used for a pair application - one indoor unit connected to one outdoor unit.

The ideal solution for living comfort in all seasons. Perfect, just the way you like it.

# Combining highest efficiency and year-round comfort with a heat pump system



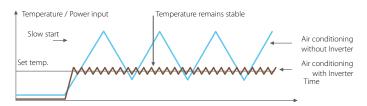
#### Did you know that ...

Air-to-air heat pumps obtain 75% of their output energy from renewable sources: the ambient air, which is both renewable and inexhaustible\*. Of course, heat pumps also require electricity to run the system, but increasingly this electricity can also be generated from renewable energy sources (solar energy, wind energy, hydropower, biomass). A heat pump's efficiency is measured in COP (Coefficient Of Performance) for heating and EER (Energy Efficiency Ratio) for cooling. Our heat pumps achieve COPs of up to 5.14 (for FTXR28E)!

# Inverter technology

Daikin's inverter technology is a true innovation in the field of climate control. The principle is simple: inverters adjust the power used to suit the actual requirement - no more, no less! This technology provides you with two concrete benefits:

- by improving comfort. An air conditioning system with an inverter continuously adjusts its cooling and heating output to suit the temperature in the room thus improving comfort levels. The inverter reduces system start-up time enabling the required room temperature to be reached more quickly. As soon as the correct temperature is reached, the inverter ensures that it is constantly maintained.
- ▶ **Energy efficient:** Because an inverter monitors and adjusts ambient temperature whenever needed, energy consumption drops by 30% compared to a traditional on/off system! (non-inverter). **Heating operation:**



## Seasonal efficiency: even more energy efficient!

Europe has set challenging environmental targets for 2020. In line with these goals, more accurate measurement of the real-life energy efficiency of systems will be required from 2013. This 'Eco-Design' directive defines the concept of 'Seasonal Efficiency' which measures the performance across an entire heating and cooling season rather than selecting a fixed point (EER). From 2013, the SEER of a system must be published. Daikin is leading the way towards more energy efficient climate solutions and is actively contributing to the development of the Eco-Design methodology by sharing experience and technical knowledge. Daikin is the first manufacturer to publish the SEERs for domestic and commercial installations and first to integrate the Eco-Design principles in the light commercial segment by launching the Sky Air® ranges optimised for seasonal efficiency.



# 5 air treatment techniques in 1 system

#### 1. Humidification, even during heating

For the humidification, called 'Ururu' in Japanese, moisture is absorbed from the outdoor unit and streams into the indoor unit where it is evenly distributed troughout the room. The advantages of humidity are preventing sore throats, dry skin and making the human body feel warmer, even at lower temperatures, thus reducing heating demand and energy consumption.



#### 2. Dehumidification,

#### without a drop in temperature

Dehumidification, or 'Sarara' in Japanese, reduces indoor humidity, without effecting the room temperature, by mixing cool, dry air with warm air. So no hot and stuffy rooms any more!



# 3. Improved indoor air quality thanks to Daikin's flash streamer technology



Exhaust gases and unpleasant odours are removed via the outdoor unit. Afterwards

the indoor unit purifies the air on dust, pollen, cigarette smoke and cooking odours. It also breaks down viruses and moulds.

#### 4. Ventilation,

#### fresh air even with closed windows

Fresh, conditioned air is brought into the room, without cold or heat loss. The temperature of the incoming air is brought at the desired level.

#### 5. Heat pump system

The Ururu Sarara not only offers the possibility of cooling in summer, it can also provide warmth in cold winters.

### Design & technological quality

The Ururu Sarara received the distinguished 'Good Design Award', the unique evaluation criterion for industrial design in Japan.





### For your personal comfort

Following features have been incorporated



**1. Night set mode:** saves energy, by preventing overcooling or -heating during night time



**2. Comfort mode:** prevents cold or warm air blowing directly on the body



**3. 3D air distribution:** combination of vertical and horizontal auto-swing to circulate the air evenly in large rooms or corners



**4. Whisper quiet operation:** the sound of the indoor units is that low that it can be compared to rustling leaves (down to 23 dBA for FTXR28E)

# **Heating & Cooling**

INDOOR UNIT				FTXR28E	FTXR42E	FTXR50E		
Cooling capacity	Min./Nom./Max.		kW	1.55/2.8 <sup>3</sup> /3.6	1.55/4.2 <sup>3</sup> /4.60	1.55/5.0 <sup>3</sup> /5.50		
Heating capacity	Min./Nom./Max.		kW	1.30/3.6 4/5.00	1.30/5.1 4/5.6	1.30/6.0 4/6.20		
Power input	Cooling	g Min./Nom./Max.		0.250/0.560/0.800	0.260/1.050/1.320	0.26/1.46/1.8		
	Heating	Min./Nom./Max.	kW	0.220/0.700/1.410	0.220/1.180/1.600	0.23/1.51/1.77		
EER				5.00	4.00	3.42		
COP				5.14	4.32	3.97		
SEER				6.48	6.52	6.35		
Annual energy consumption kWh				280	525	730		
Energy label	Cooling/Heating			A/A				
Casing	Colour			White				
Dimensions	Unit	HeightxWidthxDepth	mm	209x890x305				
Weight	Unit kg			14				
Fan - Air flow rate	Cooling	High/Nom./Low/Silent operation	m³/min	11.1/8.8/6.5/5.7	12.4/9.6/6.8/6.0	13.3/10.3/7.3/6.5		
	Heating	High/Nom./Low/Silent operation	m³/min	12.4/9.8/7.3/6.5	12.9/10.2/7.7/6.8	14.0/11.1/8.3/7.3		
Sound power level	Cooling	Nom.	dBA	55	58	60		
	Heating	Nom.	dBA	57	58	60		
Sound pressure level	Cooling	High/Nom./Low/Silent operation	dBA	39/33/26/23	42/35/27/24	44/37/29/26		
	Heating	High/Nom./Low/Silent operation	dBA	41/35/28/25	42/36/29/26	44/38/31/28		
Piping connections	Liquid OD		mm	6.35				
	Gas	OD	mm	9.52				
	Drain	OD	mm	18				
Power supply	Phase / Frequency / Voltage Hz / V			1~/50/220-240				

(1) Energy label: scale from A (most efficient) to G (less efficient) (2) Annual energy consumption: based on average use of 500 running hours per year at full load (nominal conditions) (3) Cooling: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB, 24°CWB; equivalent piping length: 7.5 m (4) Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 7.5 m (5) The sound pressure level is measured via a microphone at a certain distance from the unit. It is a relative value, depending on the distance and acoustic environment. (6) The sound power level is an absolute value indicating the power which a sound source generates. (7) SEER: Pr-EN14825 - inquiry version 2010

OUTDOOR UNIT					RXR28E	RXR42E	RXR50E	
Dimensions	Unit	HeightxWid	lthxDepth	mm	693x795x285			
Weight	Unit kg			kg	48			
Sound power level	Cooling	Nom.		dBA	60	62		
Sound pressure level	Cooling	Nom.		dBA	46	48		
	Heating	Nom.		dBA	46	48	50	
Compressor	Type				Hermetically sealed swing compressor			
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-10~43			
	Heating	Ambient	Min.~Max.	°CWB	-20~18			
Refrigerant	Туре				R-410A			
Piping connections	Piping length	Max.	OU - IU	m	10			
	Additional refrigerant charge kg			kg/m	Chargeless			
	Level difference	IU - OU	Max.	m	8			
Power supply	Phase / Frequency / Voltage Hz / V			Hz/V	1~/50/220-240			







Infrared remote control ARC447A1



Outdoor unit RXR28,42,50E



Daikin's unique position as a manufacturer of air conditioning equipment, compressors and refrigerants has led to its close involvement in environmental issues. For several years Daikin has had the intention to become a leader in the provision of products that have limited impact on the environment. This challenge demands the eco design and development of a wide range of products and an energy management system, resulting in energy conservation and a reduction of waste.







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