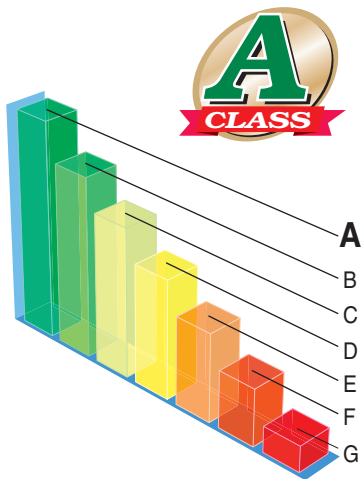


# High Efficiency

## Consideration for the Environment

Several radical changes of the design and engineering developments have brought about a vast improvement in energy efficiency and environmental protection.

### ENERGY LABEL "Class A"



Energy		Air-conditioner	
Manufacturer Outside unit Inside unit			
More efficient			
A			
B			
C			
D			
E			
F			
G			
Less efficient			
Annual energy consumption, kWh in cooling mode <small>(Annual consumption will depend on how the appliance is used and climate)</small>			
Cooling output		kW	
Energy efficiency ratio		Full load (the higher the better)	
Type	Cooling only	—	
	Cooling + Heating	—	
	Air cooled	—	
	Water cooled	—	
Heat output		kW	
Heating performance		A: higher G: lower	
Noise (dB(A) re 1 pW)			
Further information is contained in product brochures.			
Air-conditioner Energy Label Directive 2002/31/EC			

### Employment of lead-free solder

#### Adapted to RoHS directive

RoHS: Restriction of Hazardous substances

In order to avoid the release of hazardous substances to the global environment, all models have realized applications of lead-free solder.

It has been considered to be difficult to use lead-free solder for practical applications because it requires higher solder temperatures at assembly, which could jeopardize reliability. PbF soldering method developed by us, however, has enabled to realize a higher reliability of quality for lead-free printed circuit boards.

### Employment of R410A

All models use refrigerant R410A characterized by the ozone depletion coefficient being 0.

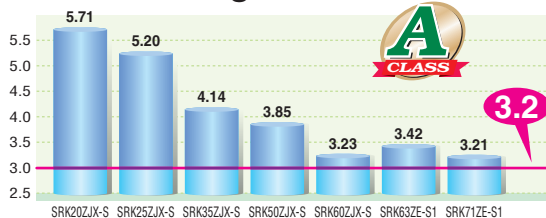
### Excellent Energy Saving

A High Performance and Excellent Energy Saving are achieved at the same time by an increased capacity of heat exchanger and employment of high efficiency DC motor etc.

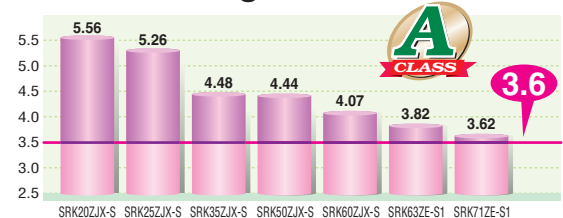
## The industry's highest COP levels

All the ZJX and ZE series have cleared the Class A standard, the highest energy saving level, with our high COP.

### EER in Cooling



### COP in Heating



Applied models  
All inverter models

### QUICK & HIGH EFFICIENCY Control

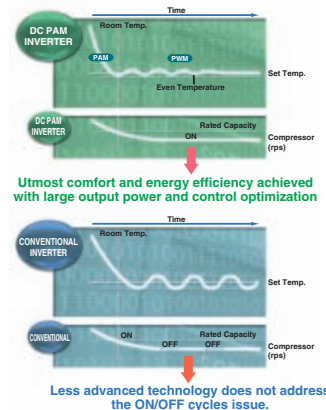
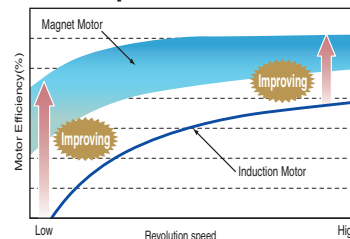
## DC PAM inverter

An inverter driven system has a number of performance advantages over a constant speed system. For example, its variable compressor outputs can ensure quick heating after a startup and attain a set temperature more quickly.

Then, the air conditioner can slow down its compressor speed to save energy, keeping comfortable conditions. Moreover, the compressor is DC driven, so it provides higher performance.



### DC compressor motor



Applied models  
All inverter models  
(except SRK-ZE)

## New Inverter Control (Vector control)

New Inverter Control has applied new advanced technology of Vector control and has realized high efficiency.

- Smooth operation from low speed to high speed
- Smooth Sine Voltage Wave form are attained
- Energy efficiency is further improved in low speed range

## Our latest technologies

● Applied models  
● All inverter models

### New propeller fan

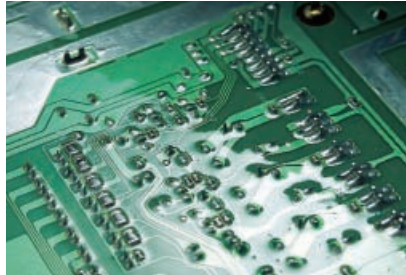
Matching a new propeller fan with a fan motor has been optimized in order to keep the same capacity as that of previous models with less electrical consumption. Synergy effect with leaf shape grill has realized improvement of energy efficiency by 5% and decrease of sound level. (SRC40/50/60ZIX-S)



Serration fan

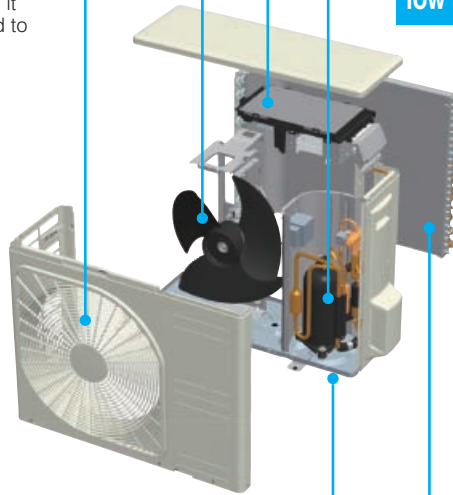
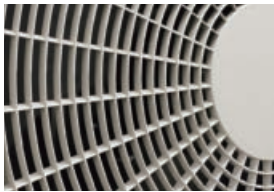
### Silicon-coated PCB

The printed wiring board of the outdoor unit is coated by silicon. It lasts long having a tolerance for humidity.



### Energy saving leaf shape grill

Radial shape grill has been developed in order to realize natural air flow sent by propeller fan along with it. Airflow is very smooth with minimum air resistance and it can make decrease motor load and lead to improvement of energy efficiency.



### High efficiency scroll compressor Realizing low vibration and low sound level

Thanks to applying scroll compressor, improvement of energy efficiency has been realized with lower vibration and lower sound level. Furthermore high efficiency and high output has realized by use of neodymium magnet applied in the motor. The magnet produces huge neodymium energy, reducing loss occurred during compression of refrigeration. (SRC40/50/60ZIX-S)



photo is composite image

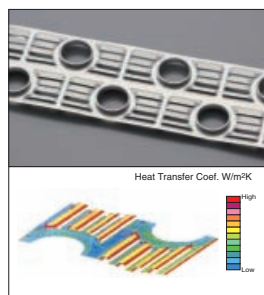
### Superior corrosion resistance hot dipping steel sheet

Superior corrosion resistance hot dipping steel sheet is applied at base of outdoor units. It has superior corrosion resistance and scratch resistance properties compared to conventional materials.



### Indoor unit

Optimization of combination of fin configuration and copper tube has achieved maximum air flow keeping size in width of indoor unit. Efficiency rate of heat exchanger has been drastically improved by 33% compared with previous models. New fin can realize maximum air flow and saving energy simultaneously. (except SRK-ZJP)



### Outdoor unit

Thanks to changing fin configuration from flat sheet to new M shape fin, efficiency has been improved by 10%. Optimum balance of heat transfer and air flow has been achieved in a high-dimensional structure.

