

## Making the World a Better Place to Live, Work and Play

Through our market-leading products and solutions, we are constantly striving to make people live a more comfortable and productive life.



## Ensuring Comfort and Peace of Mind, Everywhere Around the World

Across the globe and in virtually every facet of daily life, Carrier is there. We create comfortable environments, regardless of the climate. We ensure health and well-being by providing solutions that maintain exceptional indoor air quality.



## Advanced Inverter Technology

The sophisticated XPower DC Inverter technology combines two innovative control systems. The result is non-intuitive, world-class performance in energy-saving and comfort.



**PAM and PWM - a winning combination**

**PAM** (Pulse Amplitude Modulation) generates maximum power at start-up.  
**PWM** (Pulse Width Modulation) optimises efficiency once the ideal temperature has been reached.

## Nano Silver Ginseng Filter

A strong blend of technology (Nano Silver) plus natural ingredient (Ginseng extract) enhances the elimination of anti-bacterial, anti-fungal and deodorising properties.



With Nano Silver Ginseng Filter  
Without Nano Silver Ginseng Filter  
\*Test Method: Edwards COA/ICC/2022

## NANO SILVER

**50% Savings**

The advanced electronic management system reduces energy consumption by up to 50%\* when compared with traditional systems.

\*compare to A class fixed speed



## Nano Photo Copper Zinc Filter

Nano Photo-Copper Zinc is a powerful deodorising and de-VOC (Volatile Organic Compounds) filter. Using Nano-sized particles increases performance while Copper allows strong performance without a source of light. Nano Photo Copper Zinc also deactivates bacteria and mould.



## Carrier's advanced features



**Econo Mode/Eco Mode**  
Press button E on the remote if you want silent and mild operation at Cooling and Auto modes. Save up to 50% compared to standard fixed-speed air conditioners.



**Turbo Cooling**  
For more powerful airflow in Cooling or Heating mode, press on the Remote Control. It will provide up to 800 m<sup>3</sup>/hr\* of fresh air instantly.



**Advanced Airflow**  
The horizontal louver provides wider airflow, for more comfort throughout your home. The Carrier remote gives you 11 steps of control over your airflow. The unit includes an auto-swing mode, which sets the airflow to the best position for heating or cooling and distributes air evenly around the room.



**Daily Timer**  
The Carrier Remote Control allows you to set the exact time when you want your air conditioner to start and stop operating. This can be operated automatically on a daily basis.

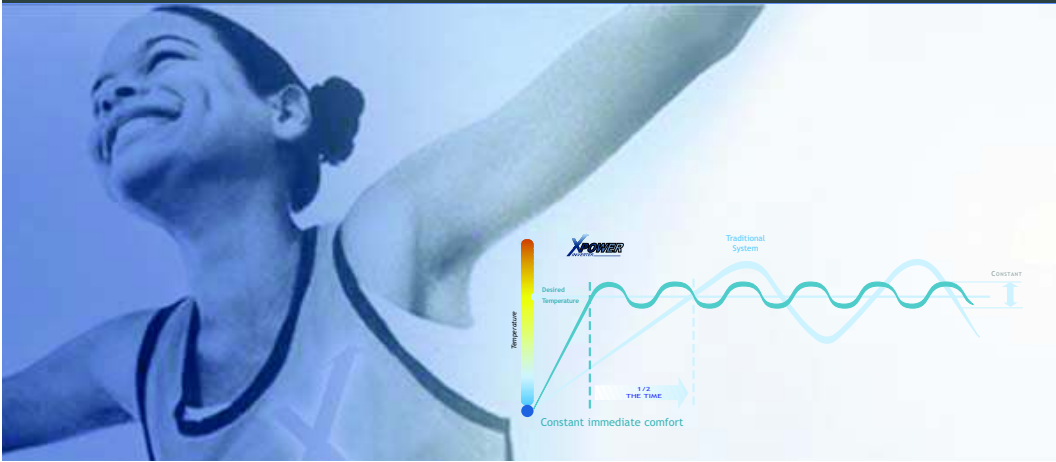


**Sleep Timer**  
The Carrier Remote Control provides a very convenient automatic stop operation, programmable for 1,3,5,9 hours.



**Auto Diagnosis**  
For your convenience, each unit is equipped with a smart auto-diagnosis system that will indicate any problem areas and enable fast, effective repair.

Dry (Dehumidifying) Function	Set Louver	Convenient Timer (hour)	Auto Restart	Automatic changeover (Cool/Dry)	Washable front panel
Automatic 3-Minute Delay Safety Control	Backspace saving outdoor	Automatic 3-stage Fan Control	Auto Diagnosis	Swing	Daily Timer



**The heart of XPower**

**The Converter**  
transforms mains AC power supply into direct current (DC) for high efficiency operations.

**The DC Inverter**  
generates direct pseudo 3-phase voltage wave format by appropriate switching of the DC current.

**The DC Rotary Compressor**  
modulates the rotation speed from extremely low levels to high levels, with virtually continuous operation.

**The Advanced Electronic Management**  
Two distinct electronic management logics to optimise individual well-being with minimum energy consumption:

- Pulse Amplitude Modulation (PAM) of direct current to generate maximum power for the compressor at start-up and in peak load conditions.
- Pulse Width Modulation (PWM) of direct current optimises compressor efficiency once the preset temperature has been reached, ensuring optimum comfort while saving energy.



**Year round saving**

Tests carried out in several applications around the world demonstrated that XPower systems perform at very high efficiency levels for 85% of the running time. In these conditions the XPower compressors absorb only a small quantity of energy, reducing the annual electricity bill by 40%.



**Minimum LIFE-CYCLE Cost**

Traditional air conditioners run at a constant speed; they stop and start continuously to maintain the desired temperature.

With Carrier XPower there is no waste. The compressor runs initially at full power reaching the preset temperature quickly. It then switches to minimum power without stopping.

Carrier XPower gives you up to 40% yearly energy saving for air conditioning (cooling and heating) as against a comparable fixed speed conventional system. It also ensures:

- superior environmentally sound air conditioner
- no more over or under capacity

The tests\* results show that Carrier XPower systems work for 85% of the time in a range of capacity below 70% of the maximum performance. In these conditions, Carrier XPower always has an extremely high EER ratio (above 3.20)

\*Tested in residential and commercial applications in Milan, Rome, Madrid, Lisbon, Auckland, Lyon, Nice, Amsterdam, Gstaad, Sydney, Berlin, London and Athens.

**Advanced electronic monitoring system**

The new XPower systems self-monitoring process ensures that the units always work in optimal conditions, for excellent comfort and maximum energy efficiency.

Several sensors placed in key positions on the refrigerant circuit electronically detect the operational state of the system.

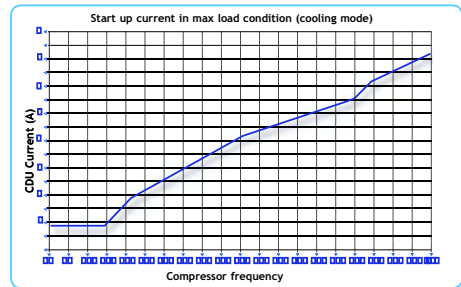
The Micro Controller Unit receives all the inputs from the sensors and elaborates them using advanced algorithms to optimize the control of core components: compressor, fan motors and the Pulse Modulation Valve.

**Current input management**

The condensing unit current input is continuously monitored in order to make sure long lasting functioning of compressor and key electronic components.

In XPower systems the maximum compressor frequency is reached step by step. This guarantees:

- no peaks of current absorption during the start-up: the absorption is always lower than the maximum operating value
- safe connection to single phase power supply even in large capacity systems.



**Puron: the safest and most efficient refrigerant**

Quality of the environment and quality of life are closely linked. XPower systems are specifically designed for R-410A, the best ecologically sound technology.

R-410A complies with the most demanding standards established at the Montreal and Kyoto world conventions on the environment preservation.

It is chlorine-free and its ODP (Ozone Depleting Potential) is zero. It is non-toxic, non-flammable and provides up to 15% efficiency increase compared to alternative HFC or HCFC refrigerants.

**Xpower ensures silent operation**

XPower air conditioning systems with their "continuous" operation are quieter compared to the traditional fixed speed systems.

In addition, XPower outdoor units feature a series of technological innovations designed to drastically reduce the remaining operation noise.

- Among these innovation:
- fully insulated compressor
  - twin rotary cilinder shaft
  - component vibration suppression
  - brushless DC compressor motor