

DESIGN

Improved software algorithms for higher savings

New housing made of non-flammable shock proof poly carbonate (UL94-VO)
Compliant to UL and CE regulations
Developed in Germany to highest quality standards

Energy savings of 15 - 30%, short ROI

Independent tests and reference installations have demonstrated average energy savings between 20% & 30%. Some clients have reported even higher savings. ROI time for most applications is well below two years.

For which system is the Aircosaver suitable?

The standard Aircosaver version is suitable for most residential and light commercial DX (direct expansion) AC systems, e.g. wall-mounted and window units, single split systems and PTAC units. The standard Aircosaver should not be used with chilled water systems, evaporative cooling systems or multi split systems.

Retrofit system - easy and quick to install

The Aircosaver is designed to be installed into existing systems as an aftermarket fit. Installation is simple and takes approximately 15 minutes (depending on local situations). A detailed step-by-step installation manual is provided with each Aircosaver.

Air Conditioning has a huge potential for efficiency improvements

Air conditioning is one of the largest consumers in the residential and industrial sector. Thousands of air conditioners put high demands on the electricity networks.

On a smaller scale, air conditioning probably accounts for a significant part of your energy bill.

Many existing air conditioners use old and quite inefficient technology. Although improved technology has become available in more expensive systems (e.g. inverter technology), the payback time of these systems is still very long.

Instead of investing a lot of money into an expensive new system, there is an easy and affordable way to improve the energy efficiency of your unit.

UPGRADE WITH AN AIRCOSAVER

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THE SMARTEST WAY TO SAVE MONEY WITHOUT SACRIFICING COMFORT or CAPITAL



Save up to 30% on your AIR CONDITIONING RUNNING COST

Shortcomings of typical A/C systems

When switched on, typical air conditioning systems operate continuously until the room thermostat senses the desired temperature and turns the system off. As the room warms up, the thermostat switches the air conditioner back on and the cycle repeats.

Air conditioning systems are usually designed to cope with the extreme cooling demands of the few hottest days of the year (plus a safety margin). However, in most operational conditions, this maximum output is not required and the system is oversized. So running the system continuously until the room thermostat switches it off means that the system operates with excess capacity most of the time.

A typical cooling cycle with excess capacity looks like this:

When the cycle starts, the compressor pushes cooling energy into the heat exchanger, which acts as an energy storage. At this stage, the system works with high efficiency because compressors operate most efficiently when fully loaded.

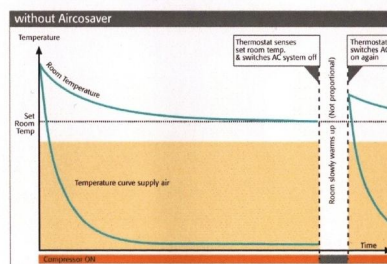
In normal weather conditions, the energy storage is soon fully charged. From this point onward, the compressor provides more cooling energy that the heat exchanger can take up (thermodynamic saturation).

Running the compressor beyond this stage does not increase the cooling effect any more.

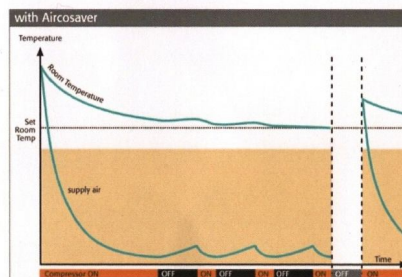
IT'S JUST A WASTE OF ENERGY

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Example without Aircosaver



Example with Aircosaver



The Aircosaver compensates these shortcomings and adds intelligence to your A/C system

This is where the Aircosaver comes in. Its sensor-driven software algorithms are designed to detect thermodynamic saturation and to optimize the compressor accordingly. When overcapacity is detected, the Aircosaver switches the compressor off and avoids inefficient over cooling.

This switches your unit into "saver mode". The fan keeps running and your system makes maximum use of the stored cooling energy in the heat exchanger. Once the stored energy is used up, the compressor can work efficiently again and is switched back on.

The set room temperature is reached without the inefficient parts of the cooling cycle. This results in significant energy savings without compromising cooling comfort.

Since the correct point to switch the compressor varies from unit to unit and changes with different weather conditions, the Aircosaver is constantly adapting its settings to ensure efficient operation of your air conditioning system at all times.