

# PLASMA GUARD™

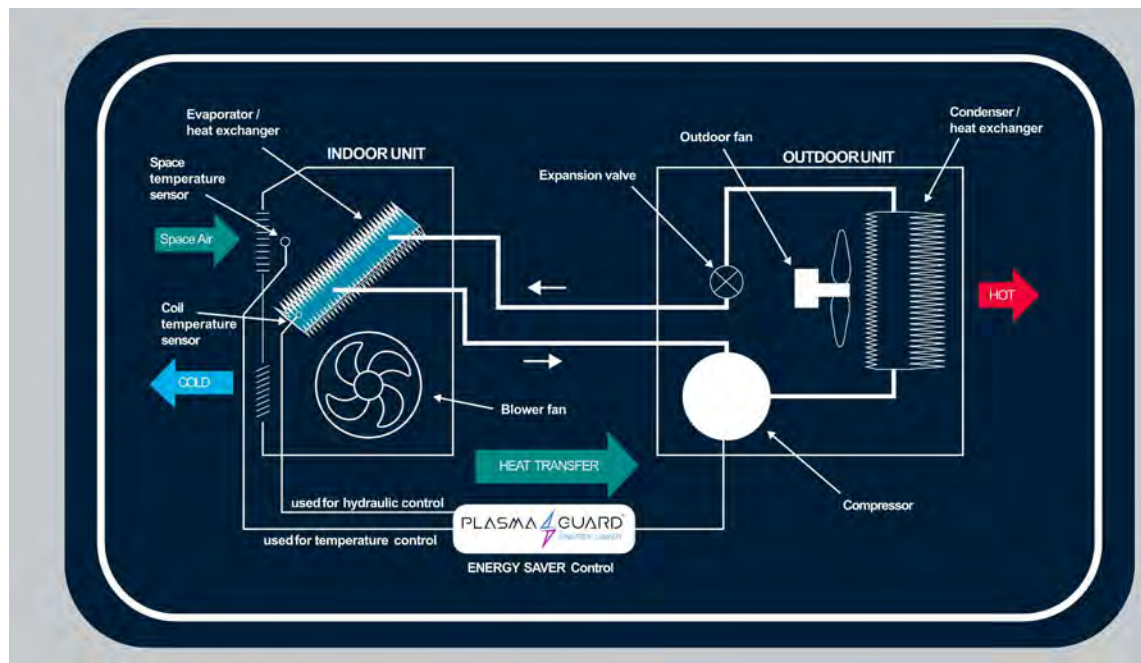
ENERGY SAVER



## World beating energy and carbon savings!

We help businesses to make big energy and carbon savings without changing cooling needs. PlasmaGuard Energy-Saver technology is maintenance free and can be easily installed by our qualified engineers with no disruption to your operation. You can expect up to 40% energy saving on your air-conditioning and up to 30% on your refrigeration without your cooling output being affected.

- Airports/Transport Hubs
- Cold Stores
- Data Centers
- Hotels
- Hospitals/Health Centers
- Supermarkets/ Retail
- Manufacturing
- Offices/Commerical
- Universities/ Education
- Venues/Museums



## TECHNICAL

In most air-conditioning applications, a lot of energy is wasted because the unit's compressor (the main running cost component) runs much longer than is needed. Using our patented process called Optimized Refrigerant Supply® the advanced Energy-Saver control device reduces the run-time of the cooling system compressor, therefore, reducing electricity consumption even in the most demanding high and humid environments.

The Energy-Saver technology uses two temperature sensors in an algorithmic energy trading control arrangement to monitor the thermodynamic (room or space temperature) and the hydraulic (refrigerant supply

performance of the connected air-conditioning or refrigeration system.

In operation, this algorithmic energy trading approach first uses the room or space temperature sensor to ensure that a required setpoint has been achieved. Subsequently, this temperature sensor ensures that the space is maintained within  $\pm 0.5^{\circ}\text{C}$  ( $\pm 0.9^{\circ}\text{F}$ ) of the required setpoint. Meanwhile, a second temperature sensor connected to the indoor evaporator coil is used to identify when the compressor has done its useful hydraulic work in producing a supply of high-pressure liquid refrigerant. Using the built-in algorithmic energy trading control, the COOLNOMIX® ORS® advanced system then starts and stops the compressor at appropriate times to optimise running costs.

Combine this with PlasmaGuard PRO and save money and reduce your business' pathogen problems plus carbon emissions. We can deliver up to 40% electricity savings without getting hot!

# SAVE

UP TO

# 40%

REDUCTION IN  
ELECTRICITY  
USE

## MAIN FEATURES

- Non-evasive Intelligent thermostat with dual temperature sensors
- Auto-detection of cooling and reserve cycle operation
- Sixteen user selectable operating temperatures
- Built-in audible alarm in the event of a cooling failure
- PlasmaGuard App for monitoring and remote control
- Retrofit solution installed by qualified installer without disruption
- Local isolation bypass on/off switch

## MAIN BENEFITS

- Unrivalled energy-saving performance
- Up to 40% reduction in electricity use
- Reduced carbon emissions
- Fast return on Investment
- App displays kWh/CO2e data and remote switch
- Improved temperature stability
- Improved air quality and comfort assurance
- Zero dripping or icing up
- Reliable high-impact technology
- 3 year warranty and 24-hour support

## Air-Conditioning - Refrigeration - Cooling Units

Reduce the energy consumption of your air-conditioning , refrigeration or coolings units without affecting the output you need.

- Does not affect the air-conditioning unit as it is installed inline with the thermostat and provides more accurate temperature control.
- Responds dynamically to any change in heat load optimisation of the running time of the compressor to minimise energy consumption
- Outstanding energy savings, even on the largest and most modern inverter-based cooling technologies.
- A rapid return on investment, paybacks are typically within 12 months
- Reduced carbon emissions