

CURRENT CLIENTS AND RESULTS.

Spar group Average : 10.74%

Pick N Pay Group Average : 9.9%

Woolworths Group Average : 9%

OK Stores Average : 11.3%

Food Lovers Market Average: 11%

Grand West Casino : 11.1%

Boardwalk Hotel: 10.7%

Borbet Plant Port Elizabeth : 9.9%

Netcare : 10.1%

Investec : 10.06%

Manhattan Hotel : 20.7%

WHAT IS VOLTAGE OPTIMISATION?

Voltage optimisation is an energy saving technology that is used to regulate, clean and condition the incoming power supply in order to reduce the voltage supplied to the optimum level for the on-site electrical equipment and appliances.

The concept behind voltage optimisation is simple. In general, power from the National Grid is supplied at a higher voltage than necessary due to old electrical distribution networks in place which were designed to operate at higher voltage levels, as well as electricity suppliers being required to ensure all buildings are supplied voltage within set parameters.

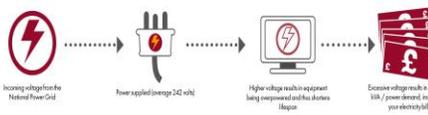
If a building is being supplied at a higher voltage than necessary it will likely result in a mass of wasted energy, excessive levels of carbon emissions, and higher than necessary electricity bills in addition to power quality issues, including increased wear and reduced lifespan of electrical equipment.

In addition to reducing energy consumption, cutting carbon emissions and providing savings on electricity bills, voltage optimisation can also improve power quality by balancing phase voltages and filtering harmonics and transients from the network operator's supply.

What Can Voltage Optimisation Do for you?

The Powerstar range of voltage optimisation solutions holds a global patent on its design and specification. The patent ensures that no other voltage optimisation solution, although similar in principle and application is able to replicate the exact design specification of a Powerstar system.

NORMAL ELECTRICITY CONSUMPTION



powerstar CONTROLLED ELECTRICITY CONSUMPTION



It is through this patented design that Powerstar is able to generate negative power feedback (back EMF). Because this reverse current is real energy, which is distinct from apparent or reactive energy, there is a direct effect on the consumption of the load. This effect is a reduction of power consumed by a load, seen by actual kWh savings



In simple terms, any excess voltage above the Powerstar set-point is subtracted from the input voltage, this results in the generation of negative power (back emf), which flows towards the supply and is subtracted from the incoming power. It is this principal that allows us to generate superior savings to any other related product.

A STABLE VOLTAGE SUPPLY THROUGH POWERSTAR

Powerstar MAX systems clean, condition and stabilise the incoming power supply, setting the voltage to a level which closely meets the requirements of the on site electrical equipment and maintains it at this level irrespective of fluctuations in the incoming voltage profile. The benefits of voltage optimisation through Powerstar MAX are:

- Decreased energy consumption
- Reduced wear on electrical equipment
- Lower carbon emissions
- Significant savings on electricity bills (+- 10%)
- Added security and stability
- Additional savings through induced negative power (back EMF)



Powerstar deliver a concept to completion 'turnkey' solution, offering clients an engineered solution to their sustainability challenge. All Powerstar system are fully designed and manufactured in the UK to meet the requirements of each site and are not off the shelf units. Through this approach to voltage optimisation, we are able to produce the correct application for each building, therefore delivering maximum efficiency and savings for clients.

All systems are backed by a 100% savings guarantee. In addition, through an optimised and stable voltage supply clients will also benefit from:

- Average 10% savings on annual electricity consumption
- Additional savings opportunities due to drastic reduction in Electrical maintenance
- Typical return on investment of 2-3 years
- Reduced harmonic distortions
- Improved power factor
- Improved phase balancing
- Intelligent real-time interface
- An innovative system with a patented design
- No maintenance solution
- Up to 10 years warranty and estimated 50-year lifespan

Contact Us

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