

Reduce Carbon Emissions
Reduce Energy Consumption
Save Money
Protect The Planet



Voltage Optimisation for the home



A product that makes a real difference to the home and the environment...

Product Features

- The Apex Domestic VO unit has at its heart a dedicated electronic control Unit " ECU" which intelligently and constantly monitors all the parameters such as incoming and outgoing supply voltage, load current, temperature even its own performance ensuring the unit always delivers the optimum performance to your dwelling.
- Incorporating the latest sine wave sampling (SWS)* and active sine wave mapping (ASWM)* technology enables the unit to monitor and control three critical performance and safety functions.
- Low voltage threshold (LVT) eliminates the risk of the optimised voltage falling below a minimum target voltage. When the unit detects the voltage has recovered and stabilised it automatically switches back from "bypass" mode to "save" mode.
- High current threshold (HCT) protects against over current. The unit will automatically detect this and sits in a temporary bypass mode until the over current reduces.
- Optimum switching threshold (OST) by constantly mapping the sine wave, the Apex VO unit will only switch at the optimum point on the sine wave which eliminates any interruption to the supply voltage. It also mitigates spikes and transients.

Product Benefits

- Reduces energy consumption on voltage dependent loads.
- Reduces carbon footprint.
- Contributes to Government funded targets.
- Customer savings start immediately.
- Simple to install, typically in 1 hour.
- Self monitoring. Interactive Display. Optional Smart Meter.
- Substantially extends the life of appliances and lighting.
- Protects sensitive electrical devices from damage.
- Improves power quality.
- ROI, typically, of 3 to 5 years.

Technical Characteristics

Input voltage : 216V-270V
Output voltage : 222V
Frequency : 50Hz +/- 3 Hz.
Current Rating : 60A with up to 40A continuous load.
Insulation Class : BS2757E (120°C)
Max Operating Altitude : 1000m
Humidity : 75%
Ambient Temp : -10°C to +40°C
Low Voltage Directive (72/23/EEC),
EMC Directive (89/336/EEC)
Machinery Directive (89/392/EEC)
Efficiency : >99%
Dimensions(mm) : 210h x 410w x 140d

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Designed, developed and manufactured in the UK.
*Patent applied for.



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Improve power quality and save on kWh

Electricity demand and cost is growing on a year by year basis and is likely to continue, Apex Energy UK have a range of Domestic and Commercial Voltage Optimisation units designed and manufactured in the UK, specifically to **reduce** your **energy consumption** and **costs**, along with your **carbon emissions**.

Simple to install and maintenance free the Apex range of Voltage Optimisation products are the most competitive and the most simple way to minimise wasted electricity, contribute to reducing your carbon footprint while protecting and increasing the life of your electrical appliances.

"Assuming the average domestic electricity bill increases by 5% annually over the next 25 years the Apex VO unit will achieve a total saving of up to £6000 over this period, and pay for itself in little over 2 years"

save between £90 & £150 per year*

Saving 1 kWh in the home equates to 3kWh at the power station.

A typical household will save over a tonne of carbon each and every year.

You can make a difference!



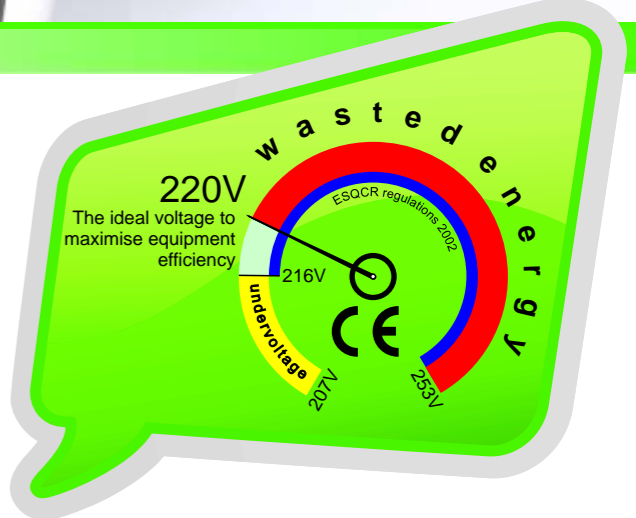
What is Voltage Optimisation?

Typically the incoming voltage to your property will vary between 216v and 253v as agreed with the current European Legislation.

The average voltage in the UK is around 243V

Most domestic electrical equipment is designed to work within a range of 207V and 253V. But critically the optimum and most efficient supply voltage for these appliances is 220V.

When the supply voltage exceeds 220V waste is generated, in both heat and vibration significantly reducing the life span of the equipment...

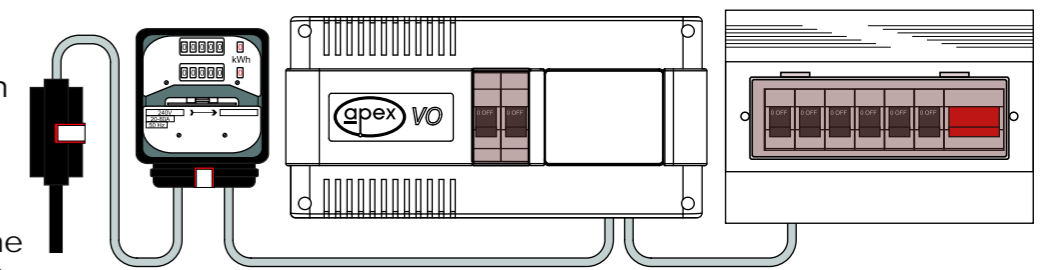


How does Voltage Optimisation Work?

The Apex VO unit is simply connected between your Meter and your Distribution Board, It will then intelligently optimise the voltage supply to all the electrical appliances in your property.

Easy to install

Taking a qualified electrician between 30 minutes and 1 hour, with no modifications or replacement to your existing distribution board, the Apex VO units can be quickly installed with minimal disruption and no added costs.



Savings

When you optimise the voltage to your property you immediately benefit from energy saving because you are reducing WASTE in the form of heat and vibration. Domestic savings for a typical house will be from 5% up to 13%

Carbon Emissions - Environment

By using less energy you will directly reduce the amount of carbon emissions you produce - your carbon footprint.

