

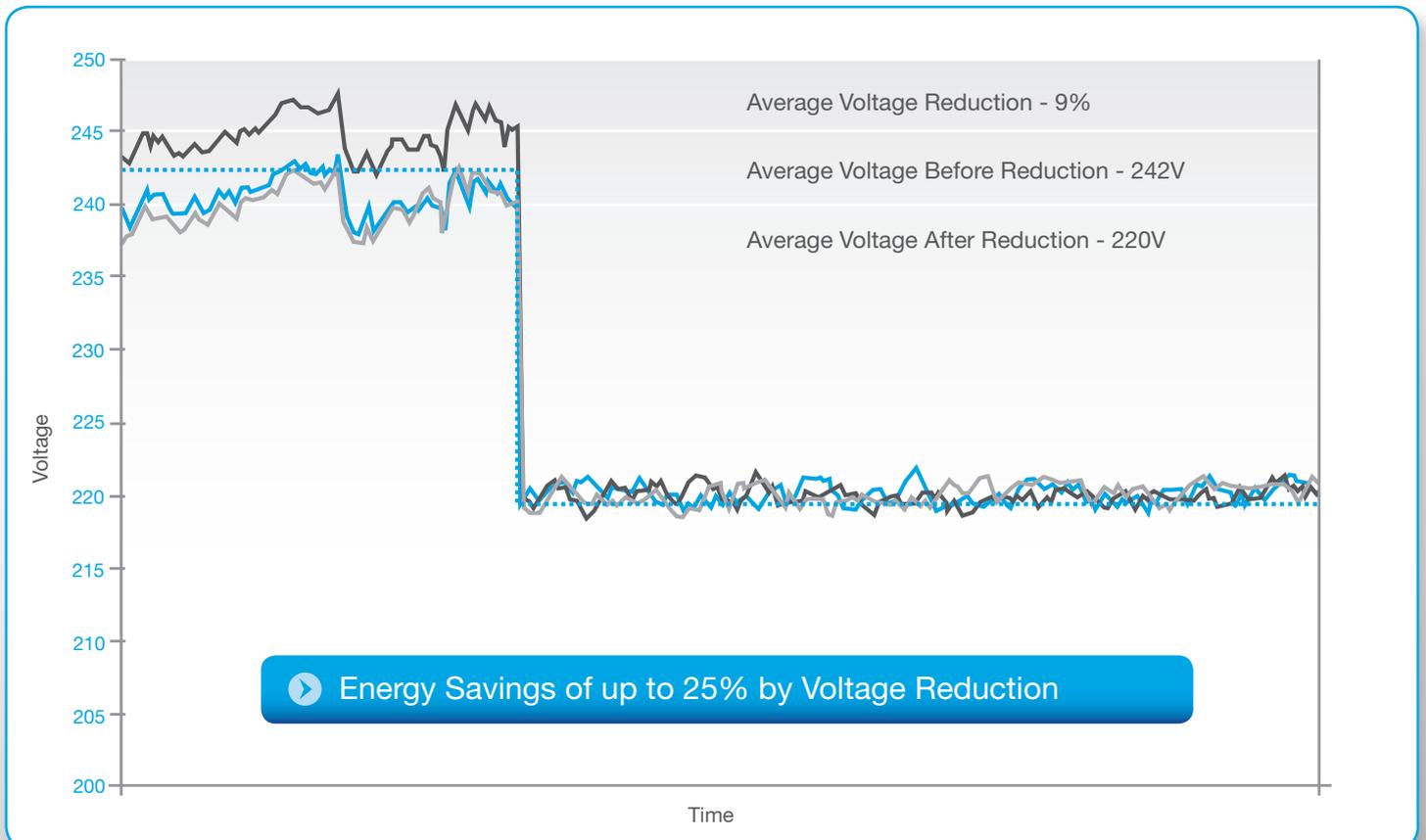


## ESS Energy Saving Regulator

PowerSave™ is an innovative dynamic voltage optimisation technology that helps organisations make some of the biggest financial savings possible on their energy bills by reducing and regulating the mains voltage used to power electrical equipment. The PowerSave™ Energy Saving Regulator (ESS) provides a solution where mains supply fluctuates, by maintaining a regulated output even during power dips, and delivering energy savings of up to 25%.

By reducing supply voltages to a controlled, site-adjustable level, the ESS allows equipment to operate at optimum efficiency. The result is lower overall running and ownership costs and reduced carbon footprint – each kWh of electrical energy saved is equivalent to 0.537kg of CO<sub>2</sub>.

With deteriorating utilities infrastructure and increasing electricity prices, the PowerSave™ ESS ensures a safe and stable supply voltage while helping organisations reduce costs and contribute towards their Carbon Reduction Commitments.



# ESS Energy Saving Regulator



## ▶ Specification for Three Phase ESS

Voltage Range	Up to 12.5% reduction
Output Voltage	Site-adjustable 346V to 415V (factory set at 380V unless specified)
Output Accuracy	±1%
Output Setting	Linear with independent phase control
Maximum Input Voltage	440V (others upon request)
Power Rating	32A to 2,400A
Supply Frequency	47Hz to 65Hz
Waveform Distribution	None
Efficiency	>99% at full load
Transient Suppression	Standard 800V peak
Operational Temperature	-5°C to +40°C
Operational Humidity	95% non-condensing
Enclosure	IP21 floor standing (others upon request)
Warranty	Up to 3 years

Electrical equipment is designed to accept a wide range of input voltages, but if the actual supply voltage is higher than the optimum requirement, the equipment will often consume excess power.

For example, a 230V linear appliance operating at 240V will consume approximately 9% more energy than necessary.

PowerSave™ ESS technology provides energy savings over and above fixed ratio transformers through greater voltage reduction and, more importantly, phase voltage balance and regulated output voltages.

## ▶ Benefits

The PowerSave™ ESS is proven, highly efficient and deliver a return on investment with minimal ongoing maintenance requirements.

- Energy savings of up to 25%
- Stable and regulated output even during power dips
- Prolonged equipment life span
- 99% at full load
- Adjustable configurations based on site requirements
- Single and three phase options with ratings of up to 2,400 amps per phase
- Contributes towards CRC
- Carbon Trust and Salix funds available

### Additional Options

Metering  
Remote Monitoring  
Internal Bypass System  
External Bypass Switch

### Additional Energy Saving Products

**PowerSave™ Energy Saving Transformer (EST):** Reduces voltage by between 3% and 12% and is ideal for sites with a reasonably stable voltage supply.

**Harmonic Reduction Transformers (HRT):** Removes harmful third harmonics from the neutral cable, resulting in overall energy savings.

E&OE issue 1 SD-001: Claude Lyons reserves the right to change specifications without notice due to continual improvements.