



specialist in Automatic Voltage Regulators and Stabilisers

# Claude Lyons

## EST-3 Energy Saving Transformer

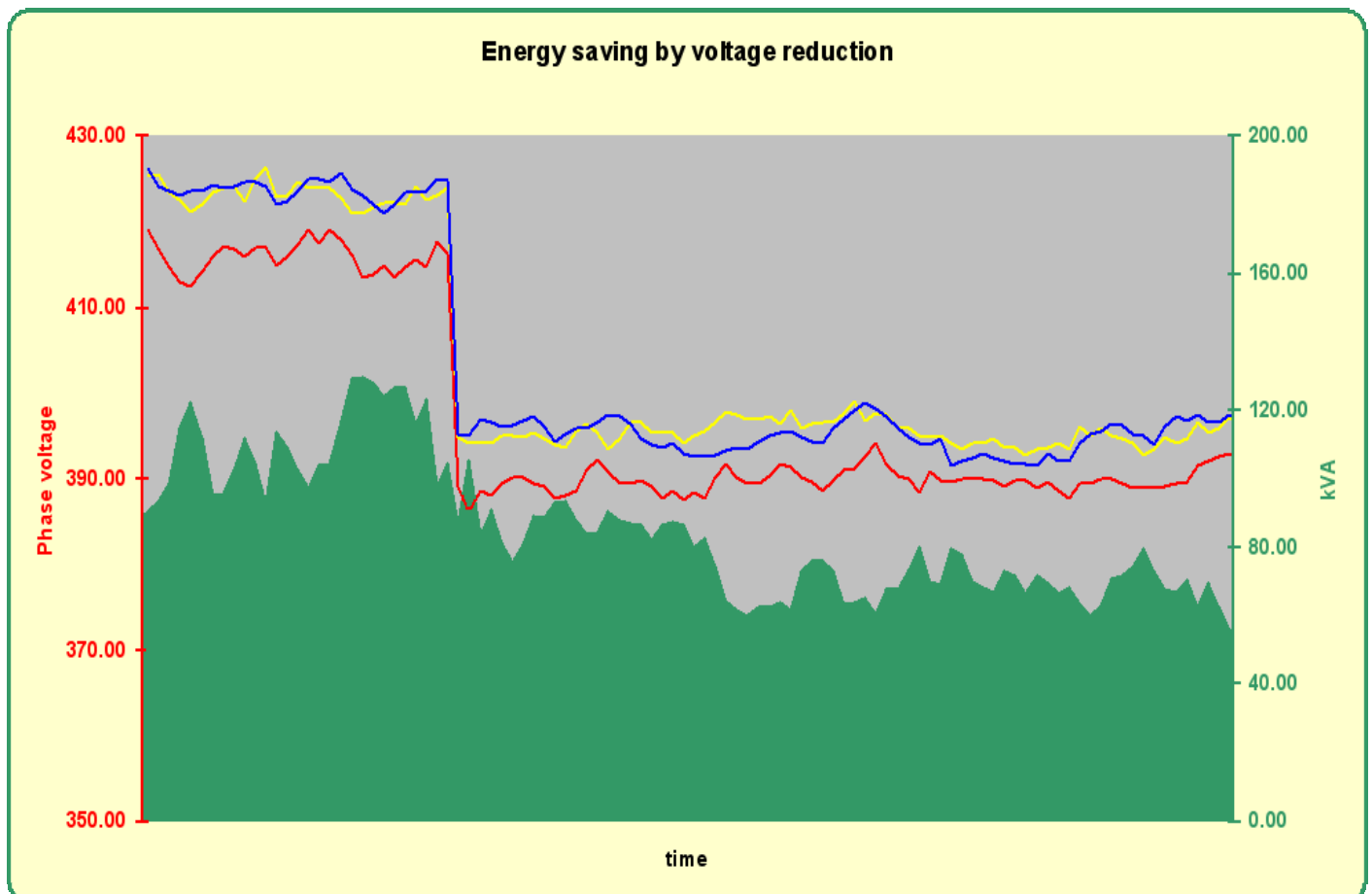


An energy saving transformer is essentially a tapped auto-transformer, providing a voltage reduction.

Many types of electrical equipment can operate perfectly well on a lower voltage with a consequent reduction in power consumption and in some cases an increase in operating life. This is especially so with equipment designed to operate on 380V or 400V three phase supplies and where the supply voltage has remained at 415V, and similarly for single phase equipment designed for 230V or 220V on 240V

Single and three-phase Energy Saving Transformers in power ratings to approximately 3000 Amps per phase depending on the voltage reduction required - typically from 3% to 10% according to customer requirements.

The standard range of transformers listed below provide preset taps of 3%, 5% or 7% reduction, which are optimal for a large number of applications. In other cases, **PowerSave™** Energy Saving Transformers can be supplied for other fixed voltage ratios. In each case the result is energy saving and reduced carbon emissions (each kWh of electrical energy saved is equivalent to 0.43 kg CO<sub>2</sub>).



# EST-3 Energy Saving Transformer



## Specification for three phase EST- 3

Output Voltage	Maximum nominal reduction of 12%			
Output Adjustment	Three fixed taps of 3%, 5% & 7% (others upon request)			
Output Regulation	±1% zero to full load			
Input Voltage	Maximum 440V three phase			
Output Rating	See below. *Ratings are given at 415V (before energy saving)			
Supply Frequency	50/60 Hz			
Waveform Distortion	None			
Efficiency	99.5% at full load			
Effect on PF	Reducing the voltage levels can in some cases improve PF			
Surge Rating	1000% for 2 Seconds, 300% for 2 Minutes			
Insulation Class	"F"			
Temperature Class	"B"			
Operational Temperature	0 to 40 deg C			
Operational Humidity	95% non-condensing			
Enclosure	IP21 Floor standing (Optional without housing)			
Transient suppression	Optional			
Warranty	5 Years			
<b>PowerSave™ Models</b>	<b>Maximum Output Current per phase</b>	<b>*kVA</b>	<b>Approximate Weights</b>	<b>Dimensions H x W x D (mm)</b>
EST-3-100t	100 Amps	72kVA	85kg	750 x 550 x 450
EST-3-200t	200 Amps	144kVA	100kg	750 x 550 x 500
EST-3-400t	400 Amps	288kVA	125kg	850 x 650 x 560
EST-3-500t	500 Amps	360kVA	155kg	850 x 650 x 600
EST-3-600t	600 Amps	431kVA	200kg	850 x 650 x 650
EST-3-800t	800 Amps	576kVA	350kg	1050 x 800 x 800
EST-3-1000t	1000 Amps	720kVA	400kg	1050 x 800 x 800
EST-3-1200t	1200 Amps	863kVA	430kg	1050 x 800 x 850
EST-3-1400t	1400 Amps	1006kVA	460kg	1050 x 800 x 850
EST-3-1600t	1600 Amps	1152kVA	500kg	1100 x 800 x 850
EST-3-1800t	1800 Amps	1296kVA	560kg	1100 x 850 x 900
EST-3-2000t	2000 Amps	1440kVA	570kg	1100 x 850 x 900
EST-3-3000t	3000 Amps	2160kVA	900kg	1250 x 1000 x 750

### Additional Energy Saving Products :

**PowerSave™** : Single and three phase ESS regulators with ratings up to 2000 Amps per phase.

**Harmonic reduction transformers (HRT)** : Removal of harmful 3<sup>rd</sup> harmonics from the neutral cable resulting in an overall energy saving.

E&OE issue EST-3/2007a Due to continuous improvements Claude Lyons reserve the right to change specifications without notice

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